

Sociocultural Effects Evaluation Report

SR-9/I-95 from South of SW 10th Street (MP 22.00)
to North of Hillsboro Boulevard (MP 25.10)
Project Development & Environment Study
Broward County, Florida

Financial Management Number: 436964-1-22-01
Federal Aid Project Number: 0202-054-P
ETDM Number: 14244

Prepared For:
Florida Department of Transportation, District IV



September 2020

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016, and executed by FHWA and FDOT.

TABLE OF CONTENTS

1.0 INTRODUCTION 1

 1.1 Purpose and Need 3

 1.1.1 Capacity/Operational Deficiencies..... 3

 1.1.2 Safety..... 4

 1.1.3 Evacuation and Emergency Services 4

 1.1.4 Transportation Demand 5

 1.1.5 System Linkage..... 5

 1.1.6 Modal Interrelationships 5

 1.1.7 Social Demands and Economic Development 6

2.0 PROJECT STUDY AREA 7

 2.1 Environmental Setting 7

 2.2 Existing Land Use..... 7

 2.3 Future Land Use..... 8

 2.3.1 SW 10th Street Interchange..... 8

 2.3.2 Hillsboro Boulevard Interchange..... 8

3.0 EXISTING CONDITIONS 9

 3.1 Functional Classification 9

 3.1.1 I-95 9

 3.1.2 SW 10th Street 9

 3.1.3 Hillsboro Boulevard..... 9

 3.2 Access Management 10

 3.2.1 I-95 10

 3.2.2 SW 10th Street 10

 3.2.3 Hillsboro Boulevard..... 10

 3.3 Typical Sections 10

 3.3.1 I-95 11

 3.3.2 SW 10th Street 14

 3.3.3 Hillsboro Boulevard..... 17

 3.4 Right-of-Way..... 19

 3.4.1 I-95 19

 3.4.2 SW 10th Street 19

 3.4.3 Hillsboro Boulevard..... 19

 3.5 Pavement Type and Operational Conditions 19

 3.5.1 Pavement Condition 19

 3.5.1.1 I-95 Pavement Type and Condition 19

 3.5.1.2 SW 10th Street Pavement Type and Condition 20

 3.5.1.3 Hillsboro Pavement Type and Condition 20

4.0 PROJECT ALTERNATIVES 21

 4.1 No-Action Alternative..... 21

 4.2 Transportation Systems Management and Operations (TSM&O) 21

 4.3 Build Alternatives 22

 4.3.1 Interstate 95 22

 4.3.1.1 Alternative 1 22

 4.3.1.2 Alternative 2 23

 4.3.2 SW 10th Street 27

 4.3.3 Hillsboro Boulevard..... 31

4.3.3.1 Alternative 1 31
4.3.3.2 Alternative 2 31
4.3.4 Bridge Structure Improvements 34
5.0 COMMUNITY CHARACTERISTICS 37
5.1 Process Overview 37
5.2 SCE Evaluation Study Area 37
5.3 Demographics 39
5.4 Community Focal Points 47
5.5 Community Plans, Goals, and Engagement 52
5.5.1 Community Plans and Goals 52
5.5.2 Community Engagement 53
6.0 EVALUATION OF POTENTIAL EFFECTS 55
6.1 Efficient Transportation Decision Making (ETDM) Screening 55
6.2 Social 57
6.2.1 Community Cohesion 57
6.2.2 Safety and Emergency Response/Evacuation 57
6.2.3 Special Designations 58
6.3 Economic 59
6.3.1 Business Access and Activity 59
6.3.2 Tax Base 60
6.4 Land Use 60
6.4.1 Existing Land Use 60
6.5 Mobility 61
6.6 Aesthetics 62
6.6.1 Noise and Vibration 62
6.6.2 Viewshed 64
6.7 Relocations 65
7.0 ENVIRONMENTAL JUSTICE, CIVIL RIGHTS, AND RELATED ISSUES 67
7.1 Protected Populations in the Study Area 67
7.2 Summary of Effects 68
7.3 Disproportionate Adverse Effects 69
8.0 RECOMMENDATIONS AND COMMITMENTS 70
8.1 Summary of Project Effects 70
8.2 Conclusions 70
8.3 Recommendations for Resolving Issues 72
8.4 Project Commitments 73

LIST OF TABLES

Table 3 - 1: Existing Typical Section Characteristics	11
Table 5 - 1: Demographic Comparison, Total Population	40
Table 5 - 2: Demographic Comparison, Income.....	40
Table 5 - 3: Demographic Comparison, Education.....	41
Table 5 - 4: Demographic Comparison, Language	41
Table 5 - 5: Demographic Comparison, Households and Housing Units	41
Table 5 - 6: Demographic Comparison, Transportation	42
Table 5 - 7: Community Features Present in SCE Study Area	47
Table 6 - 1: Project Degree of Effect Classifications	55
Table 6 - 2: Summary Degree of Effect Assigned During the ETDM Screening	56
Table 6 - 3: SCE Study Area Jobs by NAICS Industry Sector	59
Table 6 - 4: SCE Study Area Zoning Classifications	61
Table 8 - 1: Summary of Sociocultural Effects with Degree of Effect.....	71

LIST OF FIGURES

Figure 1 - 1: Project Study Area	2
Figure 3 - 1: Existing Roadway Segment – I-95 Corridor	12
Figure 3 - 2: Existing Typical Section – I-95	13
Figure 3 - 3: Existing Roadway Segment – SW 10 th Street	15
Figure 3 - 4: Existing Typical Section – SW 10 th Street.....	16
Figure 3 - 5: Existing Roadway Segment – Hillsboro Boulevard.....	17
Figure 3 - 6: Existing Typical Section – Hillsboro Boulevard	18
Figure 4 - 1: I-95 Alternative 1 (SW 10th Street to Hillsboro Boulevard).....	23
Figure 4 - 2: I-95 – Preferred Alternative Concept Plan (South of SW 10 th St).....	25
Figure 4 - 3: I-95 – Preferred Alternative Concept Plan (North of SW 10 th St).....	26
Figure 4 - 4: SW 10th Street - Center Alignment Concept Plans.....	29
Figure 4 - 5: SW 10th Street - North Alignment Concept Plan.....	30
Figure 4 - 6: Hillsboro Boulevard Alternative 1.....	32
Figure 4 - 7: Hillsboro Boulevard Alternative 2.....	33
Figure 4 - 8: Proposed Bridge Locations (1 of 3).....	35
Figure 4 - 9: Proposed Bridge Locations (2 of 3).....	35
Figure 4 - 10: Proposed Bridge Locations (3 of 3).....	35
Figure 5 - 1: Sociocultural Effects Evaluation Study Area	38
Figure 5 - 2: Percent of the Population that is a Racial Minority (non-white)	43
Figure 5 - 3: Percent of the Population that is Hispanic (regardless of race)	44
Figure 5 - 4: Percent of the Population that is Below Poverty	45
Figure 5 - 5: Percent of the Population that is Age 65 or Older	46
Figure 5 - 6: Community Features, I-95 at Hillsboro Boulevard	49
Figure 5 - 7: Community Features, I-95 at SW 10th Street	50

LIST OF APPENDICES

Appendix A	ETDM Summary Report for Project #14244
Appendix B	Noise Barrier Summary and Recommendations

1.0 INTRODUCTION

The Florida Department of Transportation (FDOT) District Four conducted a Project Development and Environment (PD&E) Study, in accordance with the National Environmental Policy Act (NEPA), to assess potential operational and safety improvements along 3.1 miles of Interstate 95 (I-95), from south of NE 48th [Mile Post (MP) 22.0] to north of the Hillsboro Boulevard interchange (MP 25.10), in Broward County, Florida.

The project extends along I-95 from just south of NE 48th Street to just north of Hillsboro Boulevard and along both SW 10th Street from just west of Military Trail east to SW Natura Boulevard and along Hillsboro Boulevard from Goolsby Boulevard east to SW Natura Boulevard. The entire project lies within the City of Deerfield Beach. I-95 is part of the Strategic Intermodal System and the National Highway System which is Florida's high priority network of transportation facilities important to the state's economy, mobility and defense.

The study evaluated alternatives for improvements to the I-95 partial cloverleaf interchanges at SW 10th Street and Hillsboro Boulevard and along I-95 from just south of NE 48th Street to just north of the Hillsboro Boulevard interchange. SW 10th Street provides a direct connection between I-95 and the Sawgrass Expressway. The study also evaluated improvements along both SW 10th Street and Hillsboro Boulevard near I-95.

Alternatives were also evaluated to modify the existing merge and diverge ramp areas at the SW 10th Street and Hillsboro Boulevard interchanges. Replacement of the existing SW 10th Street bridge over I-95 and a grade separation at the existing at-grade railroad crossing at Hillsboro Boulevard were also evaluated. The project study area is shown in **Figure 1-1**.

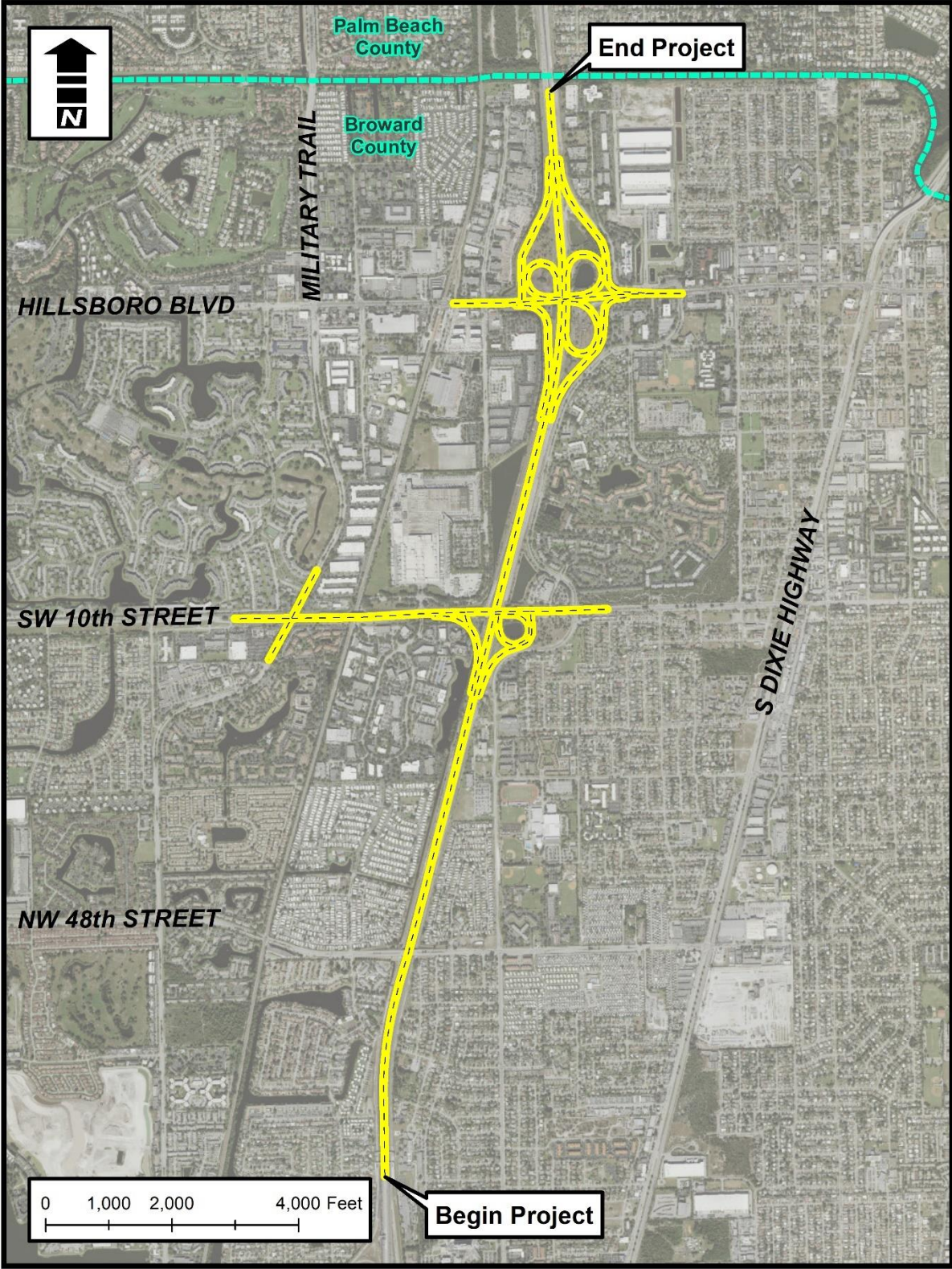


Figure 1 - 1: Project Study Area

1.1 Purpose and Need

The purpose of this project is to eliminate existing operational and safety deficiencies along I-95 from south of NE 48th Street to north of Hillsboro Boulevard including the interchanges at SW 10th Street and Hillsboro Boulevard, and on SW 10th Street and Hillsboro Boulevard in the vicinity of I-95. The primary need for the project is based on capacity/operational and safety issues, with secondary considerations for the needs of evacuation and emergency services, transportation demand, system linkage, modal interrelationships, and social demands and economic development.

1.1.1 Capacity/Operational Deficiencies

A need exists to improve traffic operations along I-95 in the vicinity of the SW 10th Street and Hillsboro Boulevard interchanges, especially at existing merge and diverge ramps that are the sources of traffic turbulence and collisions. The mainline directional volumes range from 4,400 to 5,850 vehicles per hour (vph) with ramp volumes from 800 to 1,250 vph at SW 10th Street and 400 to 1,000 vph at Hillsboro Boulevard.

Operational analyses along I-95 indicate that all freeway segments in the study area operate at Level of Service (LOS) D or better except for the following:

- The diverge segment at I-95 southbound (SB) off-ramp to SW 10th Street eastbound (EB) and westbound (WB) during the AM and PM peak periods;
- The I-95 mainline segment between I-95 SB on-ramp from SW 10th Street EB and WB and I-95 SB off-ramp to Sample Road EB and WB during the PM peak period;
- The I-95 mainline between I-95 SB On-Ramp from Palmetto Park Boulevard EB and I-95 SB Off-Ramp to Hillsboro Boulevard EB and WB during the AM peak period;
- The merge at I-95 SB on-ramp from Hillsboro Boulevard WB during AM and PM peak periods; and
- The diverge segment at I-95 northbound (NB) off-ramp to Hillsboro Boulevard EB during the AM peak period.

These conditions are existing concerns and are projected to worsen in the future if no action is taken. Year 2040 traffic projections show the mainline directional volumes ranging from 6,000 to 7,300 vph. Year 2040 peak hour directional volumes on I-95 Express are forecasted to range an additional 1,300 to 2,550 vph within the I-95 corridor. Operational analyses under the "No-Action" option in year 2040 reflects implementation of two major programmed improvements: 1) I-95 Express Phase 3 (and 2) I-95 Ramp Metering. All of the mainline freeway segments in the study area would operate at a deficient LOS (E or F) during one or both peak periods with the exception that the merge segment for I-95 SB On-Ramp from WB Hillsboro Boulevard would operate at LOS D during the PM peak hour.

1.1.2 Safety

A need exists to resolve safety issues within the project limits along I-95 as well as SW 10th Street and Hillsboro Boulevard. Crash analyses for the years 2008 through 2012 reveal that the I-95 segment within the Hillsboro Boulevard interchange area is classified as a high crash segment for four of the five study years. It should also be noted that the existing interchanges are closely located together and have short weave distances. Crash rates along SW 10th Street in the vicinity of I-95 exceed the statewide average for similar facilities for all five study years, but the segment along Hillsboro Boulevard in the vicinity of I-95 does not. Field observations indicate that the number of crashes along the Hillsboro Boulevard project segment may be influenced by queues extending from the railroad crossing into this area.

1.1.3 Evacuation and Emergency Services

The South Florida region has been identified by the National Oceanic and Atmospheric Administration (NOAA) as an area with a high degree of vulnerability to hurricanes and the Florida Division of Emergency Management has designated specific evacuation routes through the region. Both SW 10th Street and Hillsboro Boulevard are designated as emergency evacuation routes from I-95 to SR 5/US-1 and A1A. I-95 is designated as an emergency evacuation route throughout Broward County. A need exists to enhance capacity and traffic circulation along evacuation routes to improve evacuation and enhance emergency response.

1.1.4 Transportation Demand

A need exists to improve capacity and safety while meeting transportation demand and maintaining consistency with other transportation plans and projects, such as the Broward County Interchange Master Plan (IMP) and I-95 Express Lanes Phase III Project. The project is included in the FDOT Work Program with Preliminary Engineering (design phase) is scheduled for fiscal year 2022. The project is also included in the Broward County MPO Commitment 2045 Metropolitan Transportation Plan [previously known as the Long Range Transportation Plan (LRTP)] for fiscal years 2020-2024. Additionally, the project is included in the Broward County MPO Transportation Improvement Program (TIP) for fiscal year 2020-2024.

1.1.5 System Linkage

A need exists to ensure that I-95 continues to meet the minimum requirements of a component of the state's SIS and the National Highway System (NHS), as well as provides access connectivity to other major arterials such as I-595 and Florida's Turnpike SIS and the National Highway System (NHS), as well as provides access and connectivity to other major arterials such as I-595 and Florida's Turnpike.

1.1.6 Modal Interrelationships

There exists a need for capacity improvements along the I-95 project corridor to enhance the mobility of public transit and goods by alleviating current and future congestion along the corridor and on the surrounding freight and transit networks. Reduced congestion will serve to maintain and improve viable access to the major transportation facilities and businesses of the area.

Increased mobility to public transit operations are needed and will benefit as a result of this project. Although no designated Broward County Transit (BCT) Routes are provided within the SW 10th Street interchange area, Hillsboro Boulevard is serviced by BCT Route #48, which provides a connection from SR 7 to Deerfield Beach including a direct connection to the Deerfield Tri-Rail Station located just west of the Hillsboro interchange.

1.1.7 Social Demands and Economic Development

Social and economic demands on the I-95 corridor will continue to increase as population and employment increase. The Broward County MPO Commitment 2045 Metropolitan Transportation Plan predicted that the population would grow from 1.9 million in 2018 to 2.2 million by 2045, an increase of 16 percent. Jobs were predicted to increase by 25 percent during the same time period. A need exists for the proposed improvements to support the predicted social and economic travel.

DRAFT

2.0 PROJECT STUDY AREA

The project study area consists of the existing and proposed right-of-way (ROW) limits for the viable Build Alternatives and also includes the No-Action Alternative. The study area is of sufficient size to identify potential direct and indirect effects of the viable Build Alternatives on communities that may occur within or adjacent to the project corridor. For the purpose of this study, the viable Build Alternatives discussed for SW 10th Street are the Modified North alignment (herein after referred to as the North alignment) and Center alignment, which encompass all proposed roadway improvements along I-95, SW 10th Street, and Hillsboro Boulevard. The project footprint is the same for both Alternatives along I-95 and Hillsboro Boulevard. The project footprint varies slightly between the Build Alternatives along SW 10th Street.

2.1 Environmental Setting

The project is located within a densely developed urban region of northern Broward County. Along the existing I-95 corridor within the project study area, adjacent lands are characterized by residential subdivisions, individual residences, commercial developments, institutional, recreational, and business and industrial complexes.

2.2 Existing Land Use

The project is located in northern Broward County and traverses the northern region of Deerfield Beach. West of I-95 within the project limits, the dominant land uses are industrial and commercial, including a Publix distribution center and several hotels at the interchanges. Additional land uses west of I-95 include City of Deerfield government offices located west of the CSX railroad and south of Hillsboro Boulevard, and a residential development southwest of SW 10th Street and the railroad. East of I-95 and south of Hillsboro Boulevard, land use is mainly single and multi-family residential with a mixture of commercial development at the interchanges. North of Hillsboro Boulevard, land use is mainly commercial along I-95 and Hillsboro Boulevard. Set behind the commercial development is the former Deerfield Country Club Golf Course.

2.3 Future Land Use

The City of Deerfield Beach Future Land Use Map (adopted December 3, 2013) predicts that land uses within the project area will remain similar except for the conversion of the former Deerfield Country Club Golf Course into an employment center. The anticipated employment center has been branded as the Hillsboro Technology Center.

2.3.1 SW 10th Street Interchange

The City of Deerfield Beach Future Land Use Map shows the area west of the SW 10th Street Interchange as Industrial. The NE quadrant of the interchange is shown as Residential Moderate (10 DU/AC), Commercial and Conservation. The SE quadrant shows as Community Facility, Recreation Open Space, Residential- Medium (15 DU/AC), Residential Moderate (10 DU/AC) and Residential Low (5 DU/AC).

2.3.2 Hillsboro Boulevard Interchange

The City of Deerfield Beach Future Land Use Map shows the NW quadrant of the Hillsboro Boulevard Interchange as Industrial and Commercial while the NE quadrant is shown as Industrial, Commercial, Recreation Commercial, Recreation Open Space and Employment Center. The SE quadrant shows as Commercial, Residential Moderate (10 DU/AC) and Recreation Open Space. The SW quadrant shows as Commercial, Industrial and York Residential Transit Oriented Development.

3.0 EXISTING CONDITIONS

Due to the uniqueness of this project, the analysis and evaluation of the existing conditions were separated into three corridors; I-95 (SR 9), SW 10th Street (SR 869) and Hillsboro Boulevard (SR 810). Data gathering for each of these corridors focused on the areas of roadway, bridge and environmental characteristics. Assessment of the existing conditions began with the collection and review of all data pertaining to the existing facilities which included conducting on-site field inventories, review of existing documents, as well as, review of other pertinent data used for the evaluation of these transportation facilities.

3.1 Functional Classification

The roadway network within the project study area is comprised of interstate expressways, state roads, county roads and local roads that provide access and traffic circulation within residential, commercial and industrial areas.

3.1.1 I-95

Within the limits of the study for access management, I-95 is defined as Limited Access Class 1.2 Freeway in an Existing Urbanized Area with a functional classification as an Urban Principal Arterial Interstate. I-95 is an essential part of the SIS and NHS networks. Within the limits of the project, I-95 has six general purpose lanes (three in each direction) and two Express (EP) lanes (one in each direction).

3.1.2 SW 10th Street

SW 10th Street has a functional classification as an Urban Principal Arterial Other. SW 10th Street is classified as a six-lane divided State Principal Arterial west of I-95 and as a six-lane divided City Minor Arterial east of I-95. In addition, it is on the SHS and SIS systems being classified as a SIS corridor.

3.1.3 Hillsboro Boulevard

Hillsboro Boulevard has a functional classification as an Urban Principal Arterial Other. Hillsboro Boulevard is classified as a six-lane divided State Minor

Arterial west of I-95 and as a State Principal Arterial east of I-95. In addition, it is on the SHS and SIS systems being classified as a SIS corridor classification as an Urban Principal Arterial from the intersection at Goolsby Boulevard (MP 4.760) to I-95 (MP 5.365) Hillsboro Boulevard since it connects the I- 95 Expressway to South Florida Rail Corridor.

3.2 Access Management

3.2.1 I-95

The access management classification for the I-95 corridor is Class 1.2, Freeway in an existing urbanized area with limited access.

3.2.2 SW 10th Street

Southwest 10th Street is designated as Class 3 for access management.

3.2.3 Hillsboro Boulevard

Hillsboro Boulevard is designated as Class 5 for access management.

3.3 Typical Sections

The following **Table 3-1** depicts the existing typical section characteristics for each corridor.

Table 3 - 1: Existing Typical Section Characteristics

Typical Section Element	Roadway		
	I-95	SW 10 th Street	Hillsboro Boulevard
Number of Travel Lanes	8	6	6
Travel Lane Width	12 ft	11-12 ft	11 ft
Parking Lane Width	n/a	n/a	n/a
Curb and Gutter	n/a	Type F	Type F
Inside Shoulders Width	12 ft	n/a	n/a
Outside Shoulders Width (Bike Lane)	12 ft	Varies 4 - 8 ft	Varies 4-6 ft
Median Width	26.5 ft	14 to 17.5 ft	15.5 ft
Sidewalk Width	n/a	Varies 5-6 ft	Varies 6-7 ft
Right-of-Way Width	240 ft - 300 ft	106 ft (+)	106 - 136 ft

3.3.1 I-95

Within the limits of the study, I-95 is an eight-lane divided limited access facility consisting primarily of a two and a half-foot center barrier wall with two twelve-foot paved inside shoulders (one in each direction). The inside lane in each direction is a twelve-foot wide EP lane with a two-foot striped buffer area separating the EP lane from the three twelve-foot general purpose lanes. In each direction, along the outside of the general purpose lanes is a twelve-foot shoulder [ten-foot paved and two-foot unpaved]. In the NB direction, a twelve-foot auxiliary lane exists between the SW 10th Street on-ramp and Hillsboro Boulevard off-ramp. Additionally, in the SB direction a twelve-foot auxiliary lane exists between the Hillsboro Boulevard on-ramp and SW 10th Street off-ramp. The existing roadway segment is depicted in **Figure 3-1** and typical section for this corridor is shown in **Figure 3-2**.



Figure 3 - 1: Existing Roadway Segment – I-95 Corridor

DRAFT

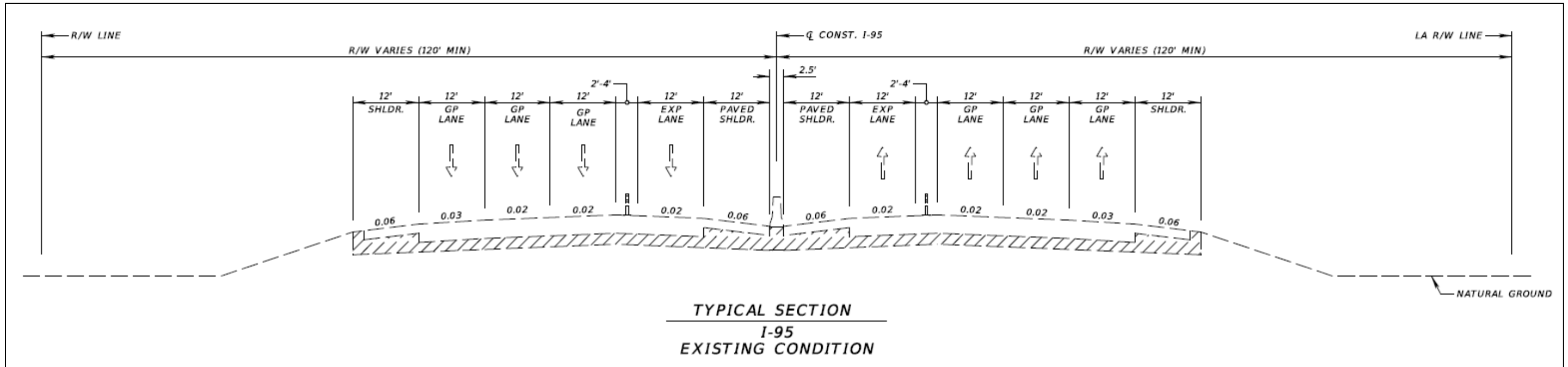


Figure 3 - 2: Existing Typical Section - I-95

DRAFT

3.3.2 SW 10th Street

EB along SW 10th Street from approximately 1000-feet west of the intersection at Military Trail to the intersection there are three twelve-foot lanes, a four to five-foot bike lane, and an eight-foot (four-foot paved and four-foot unpaved) outside shoulder. In the center, there is a raised curb and gutter median that varies in width from 14 to 17.5 feet.

WB along SW 10th Street from approximately 1000-feet west of the intersection at Military Trail to the intersection there are two twelve-foot lanes, a four-foot bike lane and four-foot unpaved shoulder.

In each direction, from the intersection at Military Trail to East Newport Center Drive there are three twelve-foot lanes, a four-foot bike lane, two-foot curb and gutter with a five-foot concrete sidewalk running along at the back of curb. In the center of the roadway there is a raised curb and gutter median that varies in width from 14.0 to 17.5 feet. In the WB direction, the outside lane is an auxiliary lane used for right turns and/or acceleration that terminates at the intersection with Military Trail. In the EB direction a fourth (outside) twelve to 14-foot wide lane exists as an auxiliary lane used for right turns and/or acceleration and terminates at the SB on-ramp to I-95.

From East Newport Center Drive to SW Natura Boulevard/FAU Research Park Boulevard there are three eleven-foot lanes in each direction, two-foot curb and gutter with a six-foot concrete sidewalk running along at the back of curb with no bicycle lane or shoulder. EB the third lane (outside) terminates at the NB entrance ramp to I-95 and then reemerges west of the NB I-95 off-ramp intersection continuing on to the FAU Research Park Boulevard intersection. WB are three eleven-foot lanes, two-foot curb and gutter with a six-foot concrete sidewalk running along at the back of curb with no bike lane or shoulder present. A fourth WB lane emerges at the SB I-95 off-ramp intersection and terminates at the East Newport Center Drive intersection. In the center of the roadway there is a raised curb and gutter median that varies in width from 14 to 17.5 feet.

The existing roadway segment is depicted in **Figure 3-3** and typical section for this corridor is shown in **Figure 3-4**.



Figure 3 - 3: Existing Roadway Segment – SW 10th Street

DRAFT

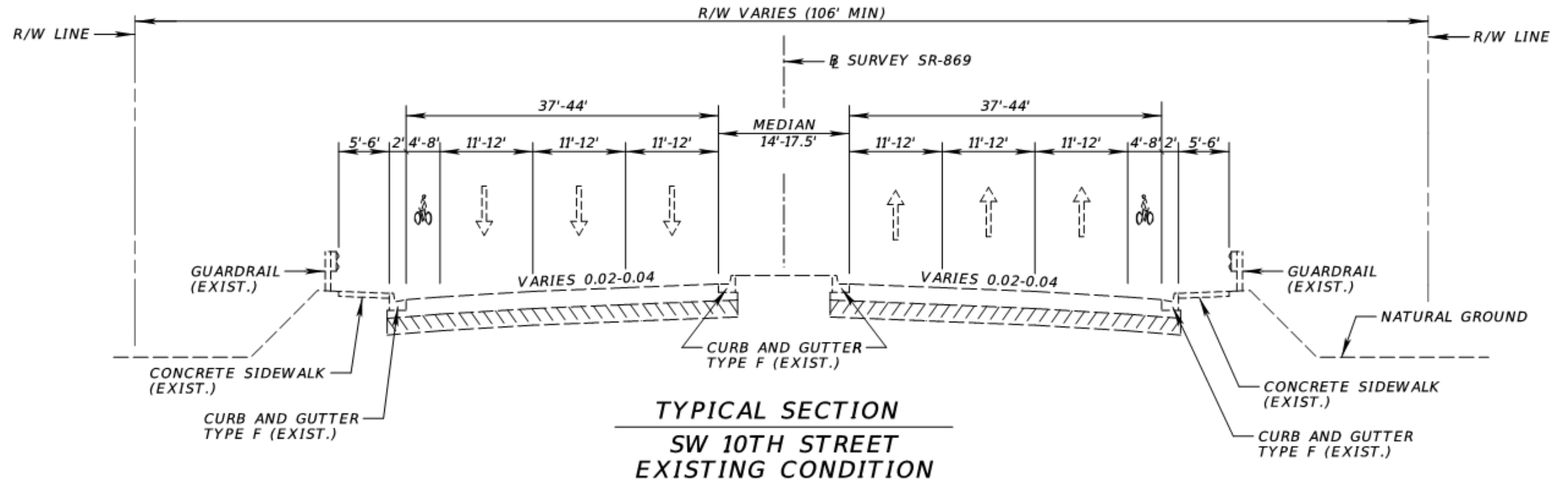


Figure 3 - 4: Existing Typical Section – SW 10th Street

DR

3.3.3 Hillsboro Boulevard

Along Hillsboro Boulevard from east of Military Trail intersection to the intersection with Natura Boulevard/Fairway Drive is an urban arterial typical section having a fifteen and a half-foot raised median, six eleven-foot thru lanes (3 lanes in each direction) and two four-foot bicycle lanes (one in each direction) with Type F curb and gutter on both sides of the roadway. In each direction outside the bicycle lanes is a two-foot curb and gutter with six-foot concrete sidewalk running along at the back of curb. Total right-of-way width varies.

The existing roadway segment is depicted in **Figure 3-5** and typical section for this corridor is shown in **Figure 3-6**.



Figure 3 - 5: Existing Roadway Segment – Hillsboro Boulevard

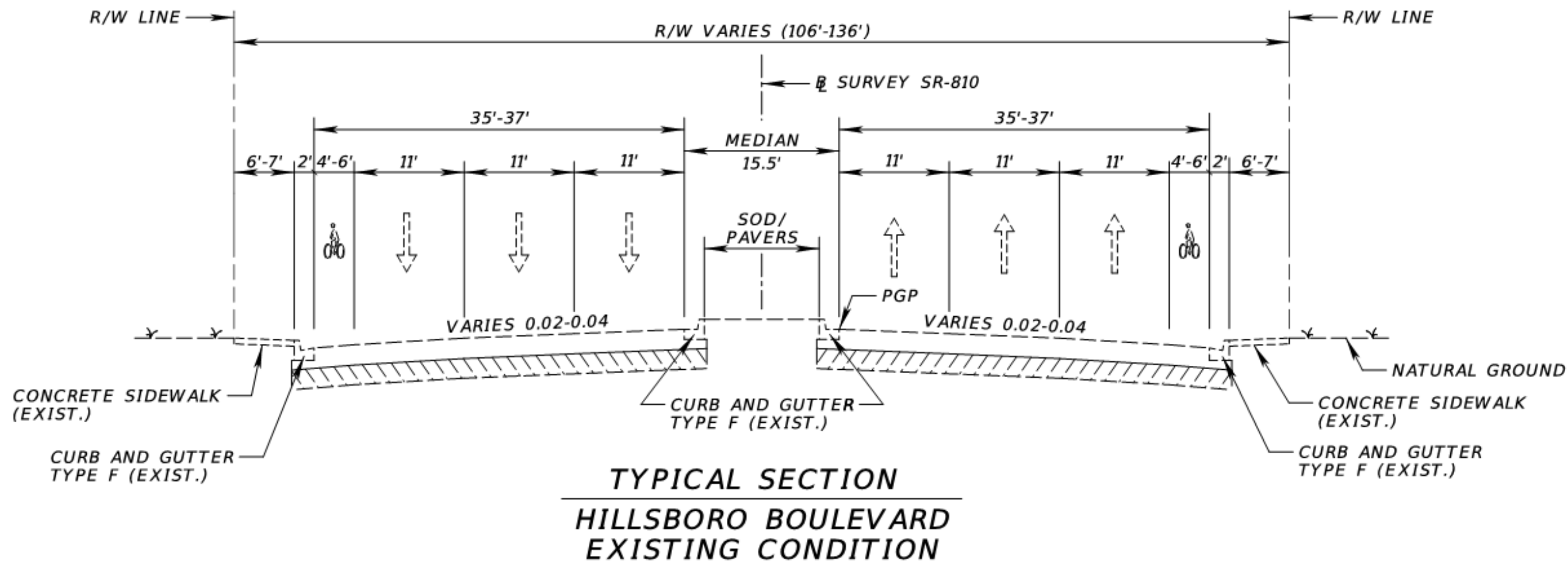


Figure 3 - 6: Existing Typical Section - Hillsboro Boulevard

3.4 Right-of-Way

3.4.1 I-95

The existing right-of-way along I-95 varies with a minimum of 240 feet and varies based on shoulder width and natural ground.

3.4.2 SW 10th Street

The existing right-of-way along SW 10th Street varies with a minimum of 125 feet and varies based on median width, shoulder width and natural ground with a typical width between 180 to 250 feet.

3.4.3 Hillsboro Boulevard

The existing right-of-way along Hillsboro Boulevard varies from 106 to 136 feet and varies based on median width.

Please refer to the Preliminary Engineering Report for additional details of existing roadway conditions and typical sections.

3.5 Pavement Type and Operational Conditions

3.5.1 Pavement Condition

FDOT performs annual surveys of the entire State highway system in support of the Department's Pavement Management Program. The data collected (in terms of crack, ride, and rut measurements) is used to assess the condition and performance of the State's roadway as well as to predict future rehabilitation needs.

3.5.1.1 I-95 Pavement Type and Condition

The existing pavement type along I-95 is asphalt pavement (FC-5). Based on data obtained from the Pavement Condition Survey, I-95 was last resurfaced in 2008. The NB lanes along I-95 have adequate pavement ratings. The SB lanes along I-95 has adequate pavement ratings for Rideability and Rutting. I-95 is currently under construction to add lanes for I-95 Express within the

limits of this study (FM 433108-6, Phase 3B-1) and will be completely resurfaced as part of that project.

3.5.1.2 SW 10th Street Pavement Type and Condition

The existing pavement type along SW 10th Street is asphalt pavement (FC-9.5). Based on data obtained from the Pavement Condition Survey, SW 10th Street was last resurfaced in 2014. Both the EB and WB lanes have adequate pavement ratings.

3.5.1.3 Hillsboro Pavement Type and Condition

The existing pavement type along Hillsboro Boulevard is asphalt pavement (FC-9.5). Within the limits of this study, Hillsboro Boulevard was last resurfaced in 2017 (FM 430602-1). Therefore, both the EB and WB lanes have adequate pavement ratings.

DRAFT

4.0 PROJECT ALTERNATIVES

Alternatives evaluated during the PD&E Study include the No-Action Alternative, the Transportation Systems Management and Operations (TSM&O) Alternative, and the Build Alternatives as described below. Alternatives were developed and evaluated based on the ability to meet the project purpose and needs.

4.1 No-Action Alternative

The No-Action Alternative assumes that no improvements would be implemented within the project corridor. It serves as a baseline for comparison against the Build Alternatives. It will, however, include on-going construction projects and all funded or programmed improvements scheduled to be opened to traffic in the analysis years being considered. These improvements must be part of the FDOT's adopted Five-Year Work Program, Broward County MPO, Cost Feasible Metropolitan Transportation Plan (previously known as LRTP), transportation elements of Local Government Comprehensive Plans (LGCP), or developer-funded transportation improvements specified in approved development orders.

The advantage of the No-Action Alternative is that it requires no expenditure of public funds for design, right-of-way acquisition, construction or utility relocation. In addition, there would be no disruptions due to construction, no direct or indirect impacts to the environment and/or the socio-economic characteristics from the project. However, the No-Action Alternative does not address the purpose and need of the project and operational and safety conditions within the project area will become progressively worse as traffic volumes continue to increase.

4.2 Transportation Systems Management and Operations (TSM&O)

Transportation Systems Management and Operations (TSM&O) aims to optimize the performance of existing multimodal infrastructure through implementation of systems and services to preserve capacity and improve the safety and reliability of our transportation system. TSM&O improvements include traffic management and operations solutions such as Information Technology System (ITS) devices, signal retiming, and adaptive signal control.

The TSM&O is not an alternative on its own, however, the TSM&O improvements are included in each viable Build Alternative.

TSM&O improvements alone will not significantly enhance the capacity issues through the corridor by the design year 2040. Long-term improvements are necessary to mitigate the existing traffic conditions and increase capacity to accommodate future travel demand.

4.3 Build Alternatives

Build Alternatives were developed along I-95, SW 10th Street and Hillsboro Boulevard to address the purpose and needs of the project.

4.3.1 Interstate 95

All Build Alternatives considered for I-95 include:

- Two 12-foot wide express lanes (one in each direction)* Design Variation for 11-foot lane width in some areas.
- Six 12-foot wide general purpose lanes (three in each direction)
- Four-foot to two-foot wide buffer with tubular markers separating the general purpose lanes from the express lanes
- A 12-foot wide paved inside shoulder with some areas with 10-foot inside shoulders
- A 12-foot wide outside shoulder (ten-feet paved and two-feet unpaved) with some areas with 10-foot outside shoulders
- A 2.5-foot wide center barrier wall
- Twelve-foot wide auxiliary lanes at selected locations

4.3.1.1 Alternative 1

Alternative 1 provides a 2-lane, physically separated northbound collector distributor (CD) road on the east side of I-95 between SW 10th Street and Hillsboro Boulevard that combines the eastbound to northbound and westbound to northbound on-ramps. A braided ramp is proposed for the northbound CD road to separate the traffic destined to I-95 mainline from the traffic exiting at Hillsboro Boulevard. A proposed auxiliary lane on the west side of I-95 combines the eastbound to southbound and westbound to southbound on-ramps. A braided ramp is proposed to separate the traffic

destined to I-95 mainline from traffic exiting at SW 10th Street. All the services interchange ingress and egress ramps remain configured similar to the existing except for the new westbound SW 10th Street to northbound ingress ramp which is provided as a free-flow right turn in the NE quadrant. Alternative 1 is shown in **Figure 4-1**.

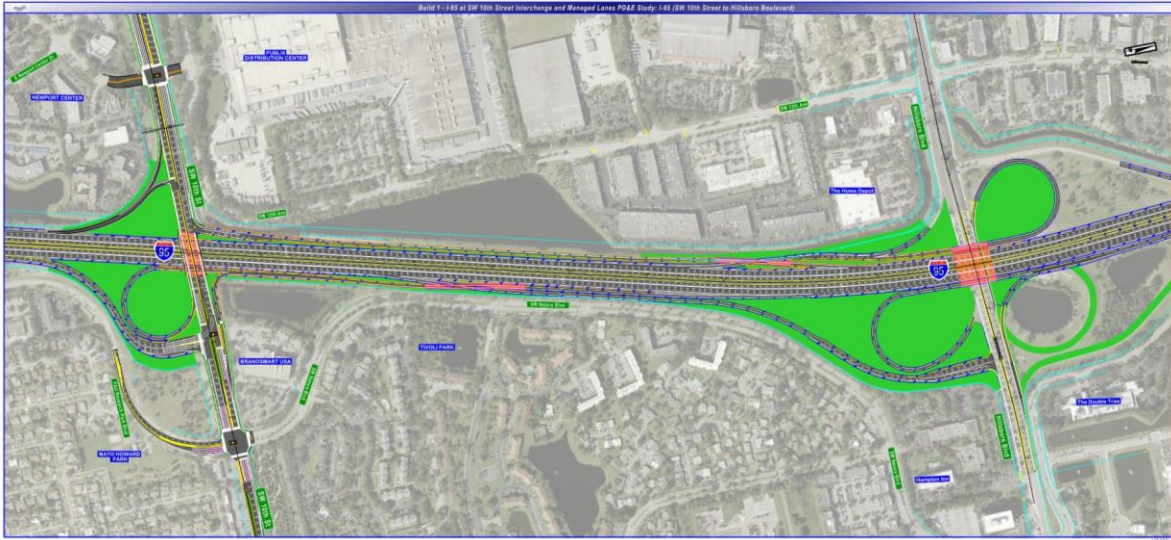


Figure 4 - 1: I-95 Alternative 1 (SW 10th Street to Hillsboro Boulevard)

4.3.1.2 Alternative 2

Alternative 2 provides the northbound CD road and southbound auxiliary lane as described for Alternative 1. Additionally, Alternative 2 also provides direct access from the SW 10th Street Connector to both the I-95 express lanes and general-purpose lanes compatible with the SW 10th Street North Alignment Alternative. Alternative 2 proposes to maintain the existing number of general-purpose lanes throughout the I-95 corridor. The express lanes will be separated from the general-purpose lanes with tubular markers and a 2-foot to 4-foot wide buffer.

In the northbound direction, an egress point is proposed for the northbound express lanes north of the Sample Road interchange for traffic destined to the northbound I-95 general-purpose lanes. A second egress point south of the SW 10th Street interchange is proposed for traffic destined to the westbound SW 10th Street Connector lanes which braids over the general-purpose lanes and merges with the northbound CD road on the east side of I-95.

Access from eastbound SW 10th Street Connector to I-95 northbound is also provided for both the I-95 general-purpose and express-lanes. Access to the general-purpose lanes is provided by an egress access point from the express lanes north of SW 10th Street interchange. A new I-95 northbound on-ramp is introduced for westbound SW 10th Street as a free-flow right turn on the northeast quadrant of the interchange relocating the existing left turn movement at the current intersection. The new I-95 northbound on-ramp merges with eastbound on-ramp and the eastbound SW 10th Street Connector traffic destined to the I-95 general-purpose lanes on the northbound CD road. The northbound CD road braids over the northbound Hillsboro Boulevard off-ramp to merge with the I-95 northbound as an auxiliary lane just south of the Hillsboro Boulevard overpass bridge. It continues north connecting with the auxiliary lane being built by the I-95 Express Phase 3B-1 project to the north of Hillsboro Boulevard.

In the southbound direction, an egress point is proposed from the express lanes south of Hillsboro Boulevard interchange for the traffic destined to the westbound SW 10th Street Connector. Access to the SW 10th Street Connector from the general-purpose lanes is also provided south of the Hillsboro Boulevard interchange. The proposed CD road on the west side of I-95 braids over the I-95 southbound traffic entering from eastbound/westbound Hillsboro Boulevard on-ramps. Traffic from the I-95 general-purpose lanes and express-lanes merge on the CD road to provide access to the SW 10th Street Connector.

Access from the eastbound SW 10th Street Connector to I-95 southbound is provided for both the I-95 general-purpose and express-lanes. Access to the general-purpose lanes is provided by an egress access point from the I-95 express-lanes north of SW 10th Street interchange which braids over the general-purpose lanes to merge with the I-95 mainline on the west side of I-95.

Figure 4-2 shows the proposed improvements south of the SW 10th Street interchange, and **Figure 4-3** shows the proposed improvements north of the SW 10th Street interchange.



Figure 4 - 2: I-95 – Preferred Alternative Concept Plan (South of SW 10th Street)

DRAFT

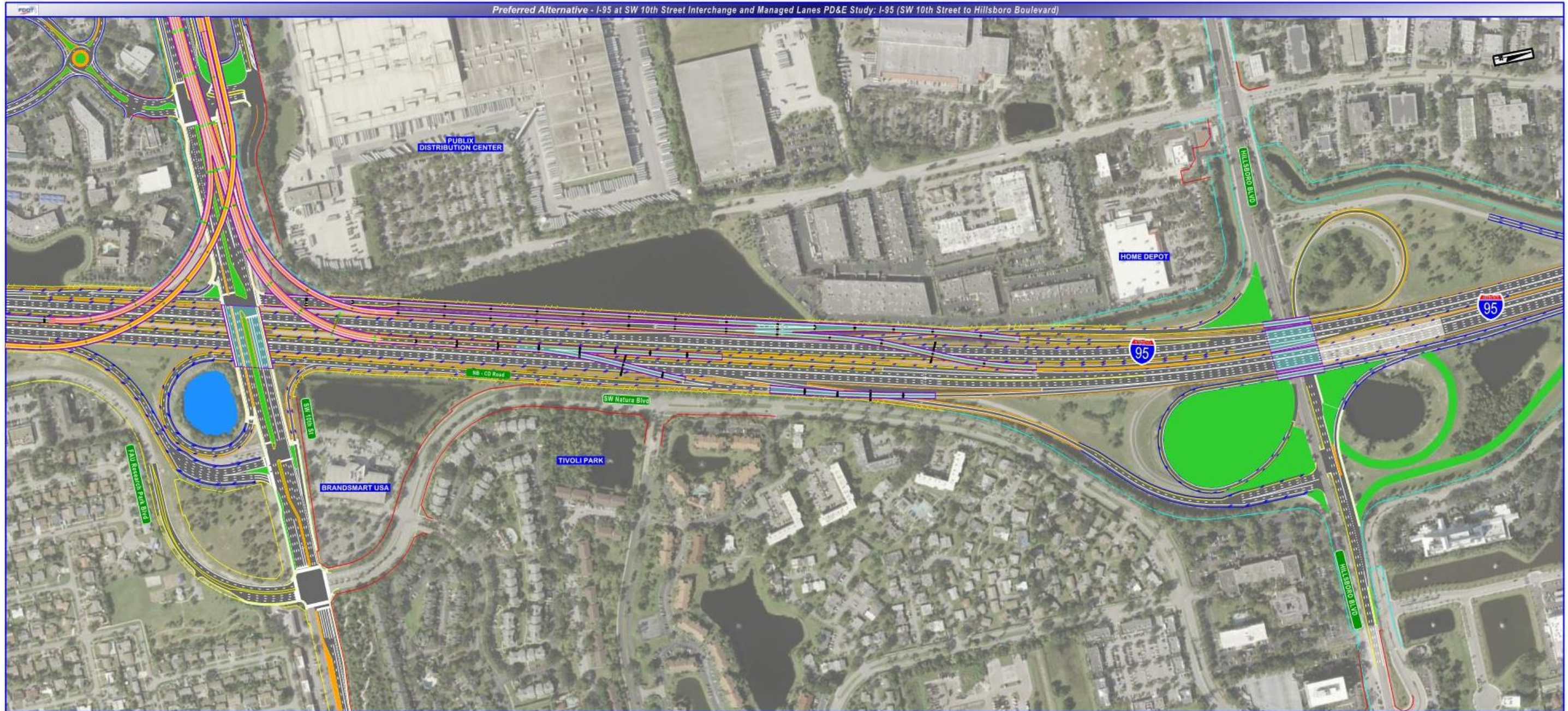


Figure 4 - 3: I-95 – Preferred Alternative Concept Plan (North of SW 10th Street)

4.3.2 SW 10th Street

The Build Alternatives considered along SW 10th Street provide two connector lanes in each direction along SW 10th Street with direct connect access ramps to/from the I-95 express lanes. A westbound on-ramp access to the connector lanes is provided just west of Newport center, and an eastbound off-ramp access to local SW 10th Street is provided west of the Military Trail intersection. Improvements at the northbound ramp terminal to accommodate triple lefts and triple rights, as well as, relocating the westbound to northbound entrance ramp access from the SE quadrant of the interchange to the NE quadrant remains the same for both Build Alternatives.

Two alignments were considered for the connector lanes: the Center Alignment, and the North Alignment. The Center Alignment includes three 11-foot lanes with a 7-foot buffered bike lane and 6-foot sidewalk in each direction along SW 10th Street. However, no sidewalk is provided along the north side from East Newport Center Drive/SW 12th Avenue intersection to Military Trail. A roundabout is provided at the intersection of W. and E. Newport Center Drive. Triple rights are provided at the northbound and southbound legs of the SW 12th Avenue/E. Newport Center Drive intersection with SW 10th Street.

The Center Alignment Alternative also requires minor right-of-way acquisition on the north side as well as on the south side including 15 privately owned and nine government owned parcels. No relocations are required.

Figure 4-4 shows the Center Alignment concept. The top figure illustrates the proposed SW 10th Street Connector to be constructed above local SW 10th Street. The lower figure illustrates the local SW 10th Street configuration and intersection design.

Both North and Center Alignment options have a similar configuration. The North Alignment provides three 11-foot lanes with a 7-foot buffered bike lane and 6-foot sidewalk in the westbound direction. A 12-foot shared use path is provided in the eastbound direction along SW 10th Street for local pedestrian and bike traffic. However, no sidewalk is provided along the north side from East Newport Center Drive/SW 12th Avenue intersection to Military Trail. Two 12-foot connector lanes are provided in each direction with direct connect ramps providing access to/from the I-95 express lanes and general-purpose

lanes allowing regional connectivity to the express lanes network. In the eastbound direction along the connector lanes an egress ramp departs from the connector lanes west of the Military Trail intersection braiding over the eastbound SW 10th Street local lanes connecting along the outside lane. The egress ramp allows access to the Newport Center and local SW 10th Street east of the I-95 Interchange.

On SW 10th Street at the northbound and southbound legs of the East Newport Center Drive intersection triple right turn lanes and no left turn or through lanes are provided. In addition, dual left turn lanes and exclusive right turn lanes are provided for the eastbound and westbound movements at this intersection. This configuration allows improved operations and mitigates congestion for the intersection, the interchange ramp intersections and along SW 10th Street.

A roundabout is provided at the intersection of West and East Newport Center Drive to improve left turn movements at the Newport Center. A loop ramp is provided along SW 12th Avenue that connects directly to the SW 10th Street Connector lanes to improve operations of the East Newport Center Drive intersection with SW 10th Street by allowing westbound traffic making a right turn to bypass the signal.

At I-95, the northbound exit ramp terminal was expanded to accommodate triple left and triple right turn lanes. The intersection at Natura Boulevard is expanded to accommodate double left and single right turn lanes on all intersection approaches. **Figure 4-5** shows the North Alignment concept. The top figure illustrates the proposed SW 10th Street Connector to be constructed above local SW 10th Street. The lower figure illustrates the local SW 10th configuration and intersection design.

Minor right-of-way acquisition is required on the north and south sides of SW 10th Street including six privately owned and three government owned parcels. No relocations are required.

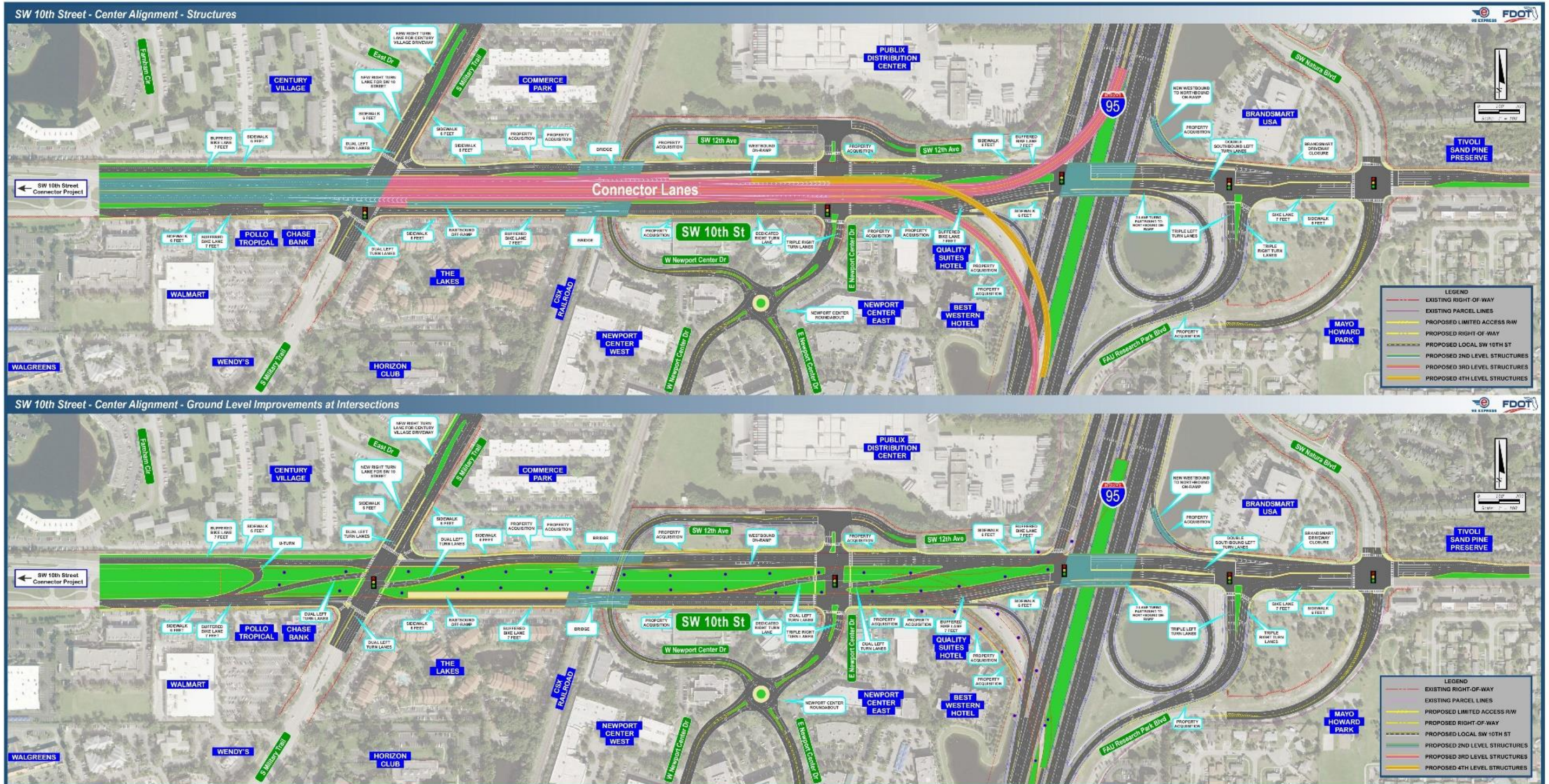


Figure 4 - 4: SW 10th Street - Center Alignment Concept Plans

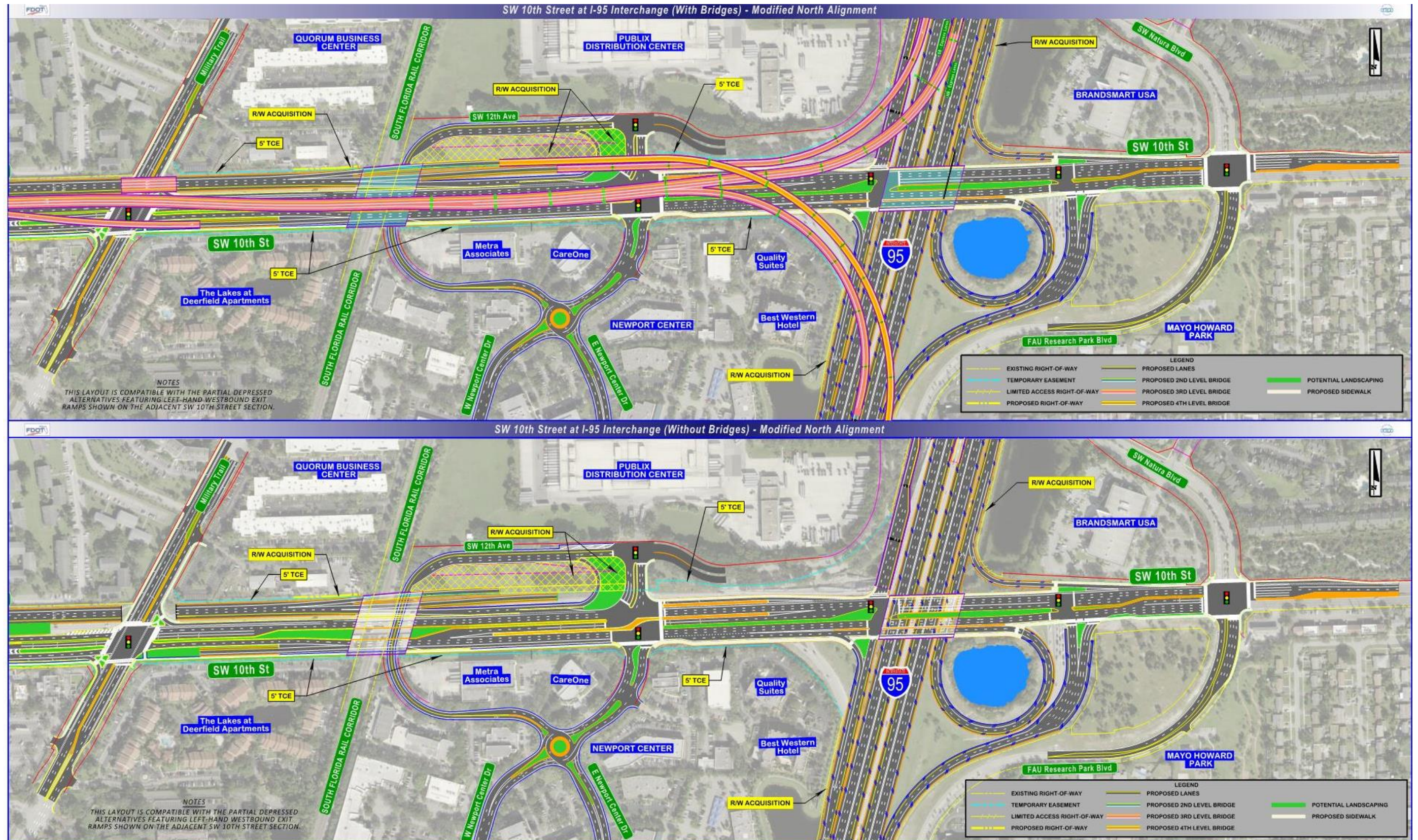


Figure 4 - 5: SW 10th Street - North Alignment Concept Plan

4.3.3 Hillsboro Boulevard

Two Build Alternatives were considered along Hillsboro Boulevard. Alternative 1 proposes a depressed section while Alternative 2 proposes an elevated section. Improvements at the I-95 ramp terminals remained the same for both Build Alternatives and include providing a 2-lane northbound exit ramp combining both exit ramps into a single ramp with a signal controlled. The northbound exit ramp terminal will provide expanded storage for a triple left and double right turn lanes. Additional improvements include expanding the north leg of Jim Moran Boulevard to allow for southbound double left and double right turn lanes, extending the northbound to westbound left turn lane storage and the eastbound to southbound right turn storage at Natura Boulevard.

4.3.3.1 Alternative 1

Alternative 1 proposes a depressed section from Goolsby Boulevard to SW 12th Avenue with two 11-foot lanes in each direction and a 7.5-foot inside shoulder. An access road is proposed on each side with one 11-foot lane, 7-foot buffered bike lane and 6-foot sidewalk (**Figure 4-6**). This Alternative was deemed not viable due to impacts to the SFRC line and access to adjacent properties.

4.3.3.2 Alternative 2

Alternative 2 proposes an elevated section from Goolsby Boulevard to SW 12th Avenue with two 11-foot lanes in each direction, a 7.5-foot inside shoulder, and 13-foot median. An access road is proposed on each side with one 11-foot lane, 7-foot buffered bike lane and 6-foot sidewalk (**Figure 4-7**). This Alternative was deemed not viable due to access impacts to adjacent properties and the steep profile grade required to meet existing grade before the I-95 interchange.

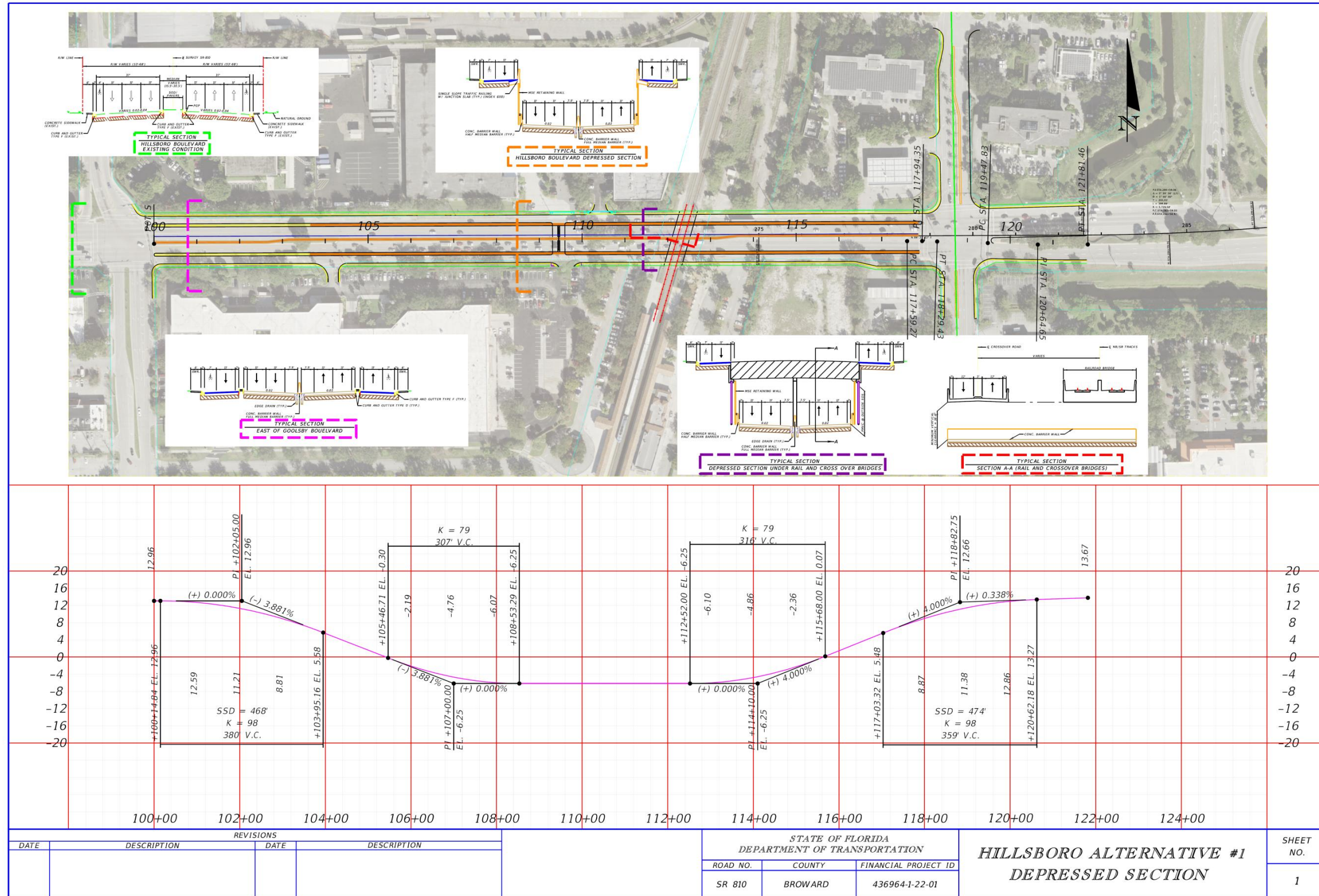


Figure 4 - 6: Hillsboro Boulevard Alternative 1

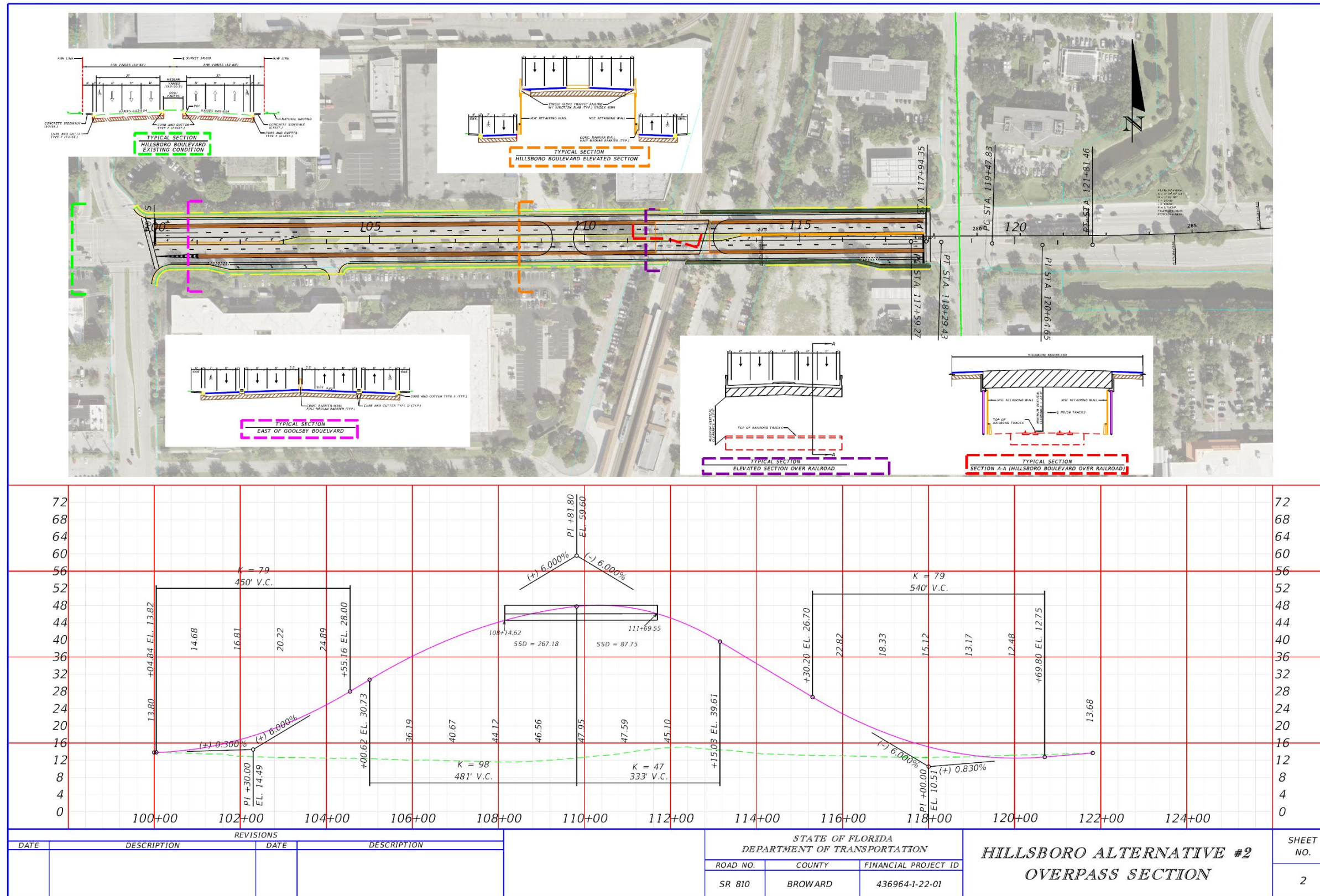


Figure 4 - 7: Hillsboro Boulevard Alternative 2

As discussed above, Alternatives 1 and 2 along Hillsboro Boulevard evaluated a depressed profile and an elevated section from Goolsby Boulevard to SW 12th Avenue but were considered non-viable due to significant impacts to property access, right of way, utilities, and major temporary traffic control impacts for both the railroad tracks and Hillsboro Boulevard. Therefore, the proposed improvements along Hillsboro Boulevard are limited to the ramp terminals.

The improvements include providing a two-lane northbound exit ramp with a signal controlled and expanded storage for a triple-left turn movement for the northbound to westbound egress ramp terminal while maintaining the dual right turn movement for the eastbound traffic. This improvement resulted in the elimination of the northbound off-ramp loop to westbound Hillsboro Boulevard combining both northbound egress ramps into one location. In addition, the northbound on-ramp from westbound Hillsboro Boulevard was realigned to be within the proximity of I-95. A new configuration is proposed for the eastbound to southbound and the westbound to southbound on-ramp to minimize the weaving maneuvers within the interchange area.

4.3.4 Bridge Structure Improvements

With either Alternative, the existing bridges were evaluated to determine if widening or replacement is required. Where feasible, the widening or retrofitting of existing bridges is recommended. All existing bridges except for I-95 northbound over Hillsboro Boulevard are determined to be replaced due to proposed roadway geometrics and alignments. The I-95 northbound overpass over Hillsboro Boulevard is to remain in place.

Within the limits of the PD&E study, twenty-seven (27) new bridges for the Preferred Alternative are proposed. The respective locations of the proposed bridges are depicted in **Figures 4-8** through **4-10**.

Sociocultural Effects
Evaluation Report

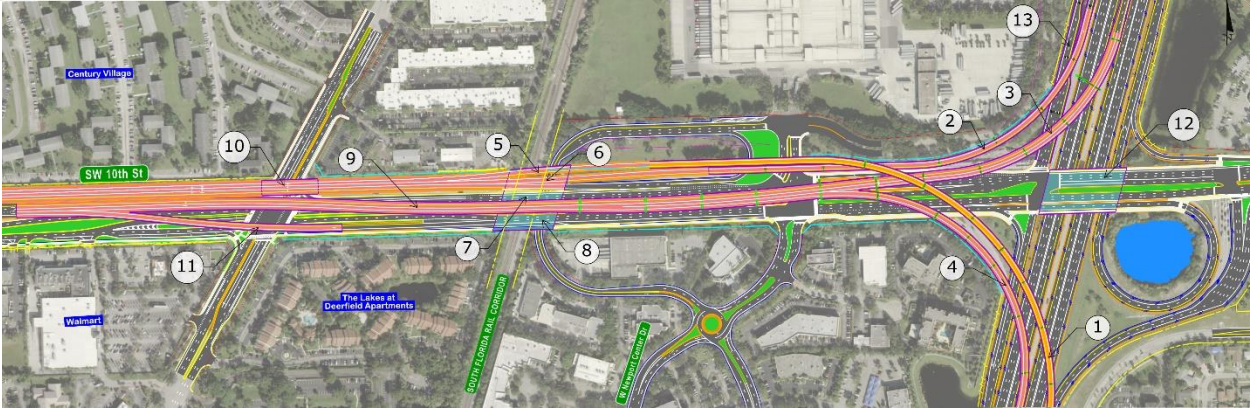


Figure 4 - 8: Proposed Bridge Locations (1 of 3)

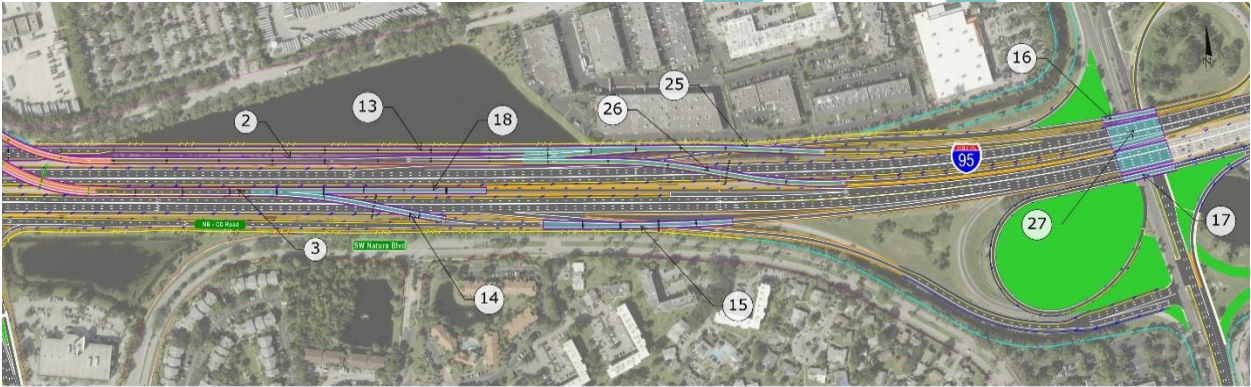


Figure 4 - 9: Proposed Bridge Locations (2 of 3)



Figure 4 - 10: Proposed Bridge Locations (3 of 3)

The proposed bridges are divided into the following categories:

- Flyovers of direct connect ramps between SW 10th Street and I-95 (4 new bridges)
- Elevated viaduct (1 new bridge)

**Sociocultural Effects
Evaluation Report**

- Interchanges/Grade separation (16 new bridges)
- Braided ramp (6 new bridges)

Please refer to the Preliminary Engineering Report for details of the engineering analysis performed for these bridges.

DRAFT

5.0 COMMUNITY CHARACTERISTICS

5.1 Process Overview

A SCE evaluation is a process used to evaluate and address the effects of a transportation action on a community and its quality of life.

The SCE evaluation process assesses social, economic, land use changes, mobility, aesthetics effects and relocations, including potential issues associated with Environmental Justice, Civil Rights, and other nondiscrimination laws. Project benefits and effects are assessed in the SCE evaluation with special consideration for minority, low-income, and other potentially underrepresented populations.

The SCE Evaluation process is supported by the development of a Community Characteristics Inventory (CCI). The CCI is a comprehensive summary of community attributes used to support a better understanding of the affected community by describing the sociocultural context of the project area including community facilities/services; presence of certain population groups; and indications of community values, concerns, and preferences.

The data used for the community characteristics inventory and sociocultural effects evaluation is downloaded from the Florida Geographic Data Library (FGDL) and other sources as listed in this document. This report was prepared in accordance with the FDOT PD&E Manual, Part 2, Chapter 4, *Sociocultural Effects Evaluation*, dated June 14, 2017.

5.2 SCE Evaluation Study Area

The project is located within the City of Deerfield Beach in northern Broward County, and extends along I-95 from south of NE 48th Street to north of Hillsboro Boulevard, a distance of approximately 3.1 miles. The SCE evaluation study area incorporates an area that extends a quarter of a mile from the centerline of I-95 and along portions of SW 10th Street and Hillsboro Boulevard. The SCE study area is urbanized supporting a wide range of land uses. **Figure 5-1** illustrates the location and extent of the SCE study area.

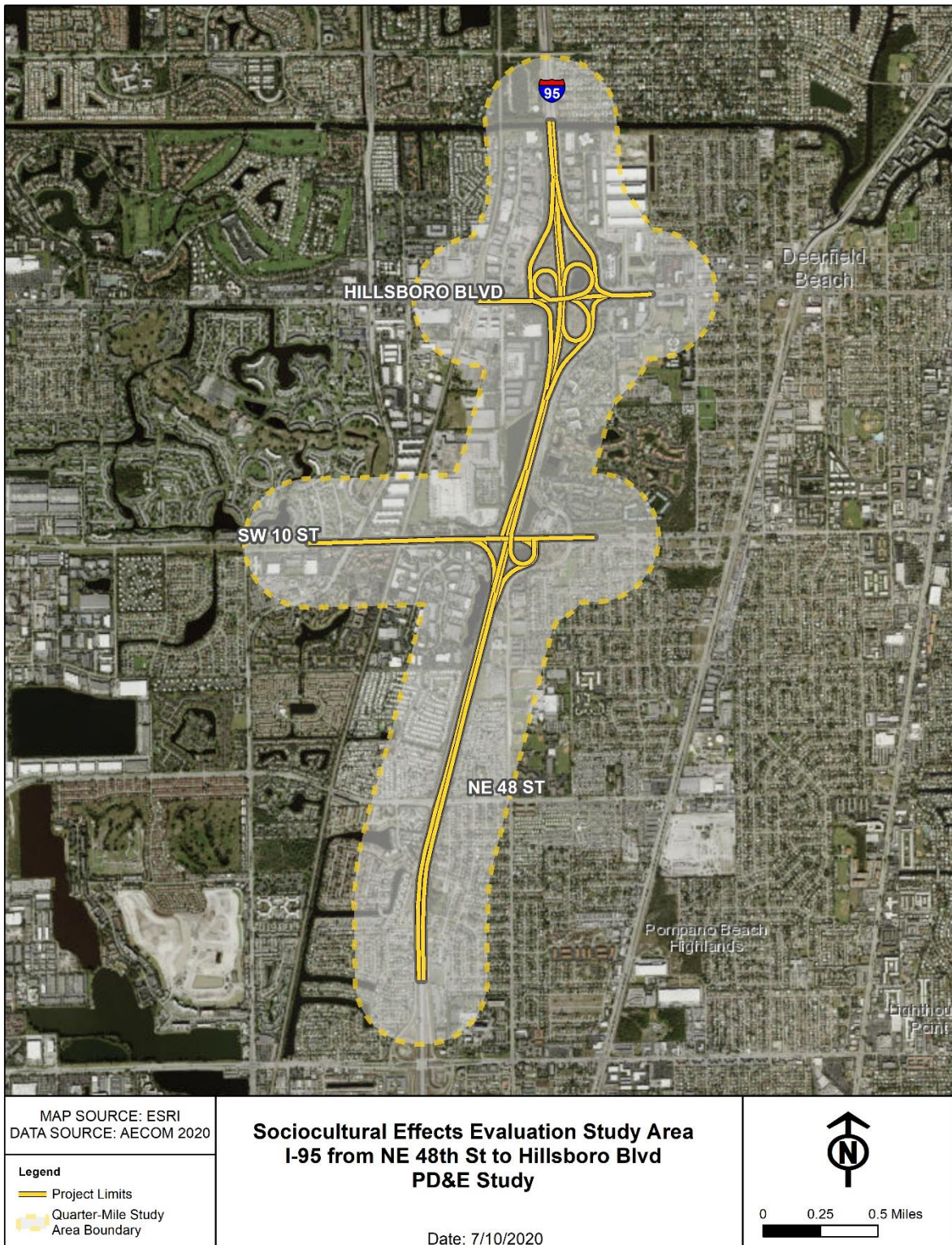


Figure 5- 1: Sociocultural Effects Evaluation Study Area

5.3 Demographics

Demographic data describes a population based on a range of characteristics. It is primarily collected by local, state, or federal agencies such as the Census Bureau. It covers various topics about people in communities including: count, age, race and ethnicity, income, education, daily behavior, and geographic distribution. This data assists in designing public participation, outreach, and education strategies that reflect the background of the community. Demographic data also aids in developing context sensitivity in the project and targeting potential effects avoidance, minimization and mitigation activities.

The 2014-2018 American Community Survey Five-Year Estimate developed by the US Census Bureau serves as the basis for the demographic data reported below. **Tables 5-1 to 5-6** summarize characteristics of the population within the SCE study area including portions of 17 different US Census Block Groups. The tables also provide city and county population estimates to support a regional comparison. **Figures 5-2 to 5-5** provide additional context by showing the distribution of low-income, minority, and elderly populations within the SCE study area.

Similar to Broward County and City of Deerfield Beach, the SCE study area supports a diverse community. Occupying a large portion of the City of Deerfield Beach, the SCE study area and city share similar population characteristics with greater contrast present between the SCE study area and County. Though similar in many characteristics, differences between the study and city/county populations were noted. The single most predominant difference between local and city/county populations is the size of the Hispanic community. Hispanic residents make up 16.6 percent of the population within the SCE study area while 29.1 percent of Broward County residents are Hispanic. Additionally, the study area supports a larger black community (39.8 percent) and larger proportion of the population age 65 and older (20.2 percent) when compared to Broward County proportionately (28.5 and 15.9 percent respectively).

Table 5-2 highlights a concentration of poverty within the SCE study area where 20.4 percent of the population lives below poverty. **Table 5-3** shows lower educational attainment in the SCE study area with reduced high school

(83.7 percent) and college (15.0 percent) graduation rates when compared to the city and county. The study area supports a larger portion of the population that is considered Limited English Proficient (23.0 percent LEP) when compared to the county (16.1 percent).

The study area supports higher housing vacancy rates and lower median home values when compared to the county. Within those households, a greater dependency on automobiles for work trips is present, but a reduced access to motor vehicles was also identified when compared to the county-wide population.

Table 5 - 1: Demographic Comparison, Total Population

Evaluation Criteria	Broward County	City of Deerfield Beach	SCE Study Area
Total Population	1,909,151	79,854	36,790
Percent White	61.2%	64.5%	54.7%
Percent Black	28.5%	27.5%	39.8%
Percent Asian	3.6%	2.2%	0.8%
Percent Other*	6.8%	5.8%	4.6%
Percent Hispanic (regardless of race)	29.1%	18.6%	16.6%
Percent Minority **	62.8%	51.0%	59.4%
Percent Under the Age of 18	21.4%	18.5%	21.2%
Percent Age 65 or Older	15.9%	21.5%	20.2%
Median Age	40	43	41

* Population includes persons identified as American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, Some Other Race, Two or More Races. ** Combines Race and Ethnicity to identify the total population that is a member of either a racial or ethnic minority.

Table 5 - 2: Demographic Comparison, Income

Evaluation Criteria	Broward County	City of Deerfield Beach	SCE Study Area
Median Household Income	\$57,333	\$45,581	\$42,924
Percent of the Population Below the Poverty Line	13.5%	17.0%	20.4%

Table 5 - 3: Demographic Comparison, Education

Evaluation Criteria	Broward County	City of Deerfield Beach	SCE Study Area
Percent of the Population 25 Years or Older with Less Than a High School Diploma or Equivalent	11.2%	14.3%	16.3%
Percent of the Population 25 Years or Older with a High School Diploma or Equivalent	88.8%	85.6%	83.7%
Percent of the Population with a Bachelor's, Master's, Doctorate, or Professional Degree	31.9%	24.8%	15.0%

Table 5 - 4: Demographic Comparison, Language

Evaluation Criteria	Broward County	City of Deerfield Beach	SCE Study Area
Percent of the Population that Speaks Only English	59.3%	57.0%	57.7%
Percent of the Population that Speaks a Language Other Than English, Also Speaks English "Very Well"	24.6%	21.0%	19.3%
Percent of the Population that Is Considered to be Limited English Proficient	16.1%	21.9%	23.0%

Table 5 - 5: Demographic Comparison, Households and Housing Units

Evaluation Criteria	Broward County	City of Deerfield Beach	SCE Study Area
Total Number of Households	682,088	31,863	13,838
Average Household Size	2.77	2.46	2.64
Total Number of Housing Units	821,088	41,609	17,677
Percent of Housing Units Occupied	83.1%	76.6%	72.3%
Percent of Occupied Housing Units, Owner-Occupied	62.1%	59.3%	56.2%
Median Owner Occupied Home Value	\$243,100	\$153,600	\$161,991

Table 5 - 6: Demographic Comparison, Transportation

Evaluation Criteria	Broward County	City of Deerfield Beach	SCE Study Area
Percent of the population that commute to/from work via a car, truck, or van	88.8%	88.4%	89.5%
Percent of the population that walks to/from work	1.2%	1.3%	1.7%
Percent of the Population that takes public transportation	2.6%	1.5%	2.1%
Percent of the population that travels to work/from via "other" means	2.2%	4.6%	3.9%
Percent of the population that Works from Home	5.0%	4.1%	2.4%
Percent of Households with No Auto Access	7.1%	9.8%	12.1%

DRAFT

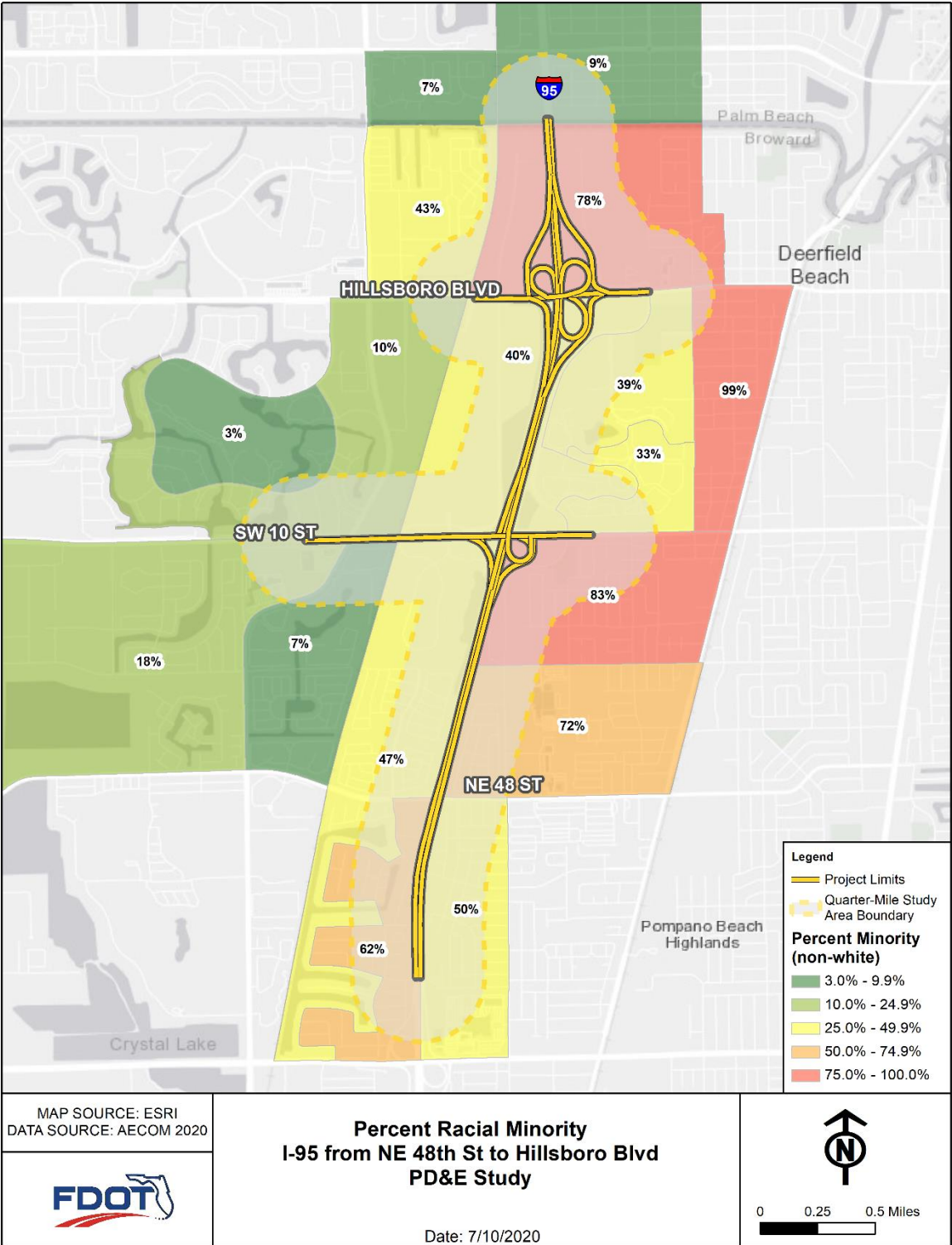


Figure 5- 2: Percent of the Population that is a Racial Minority (non-white)

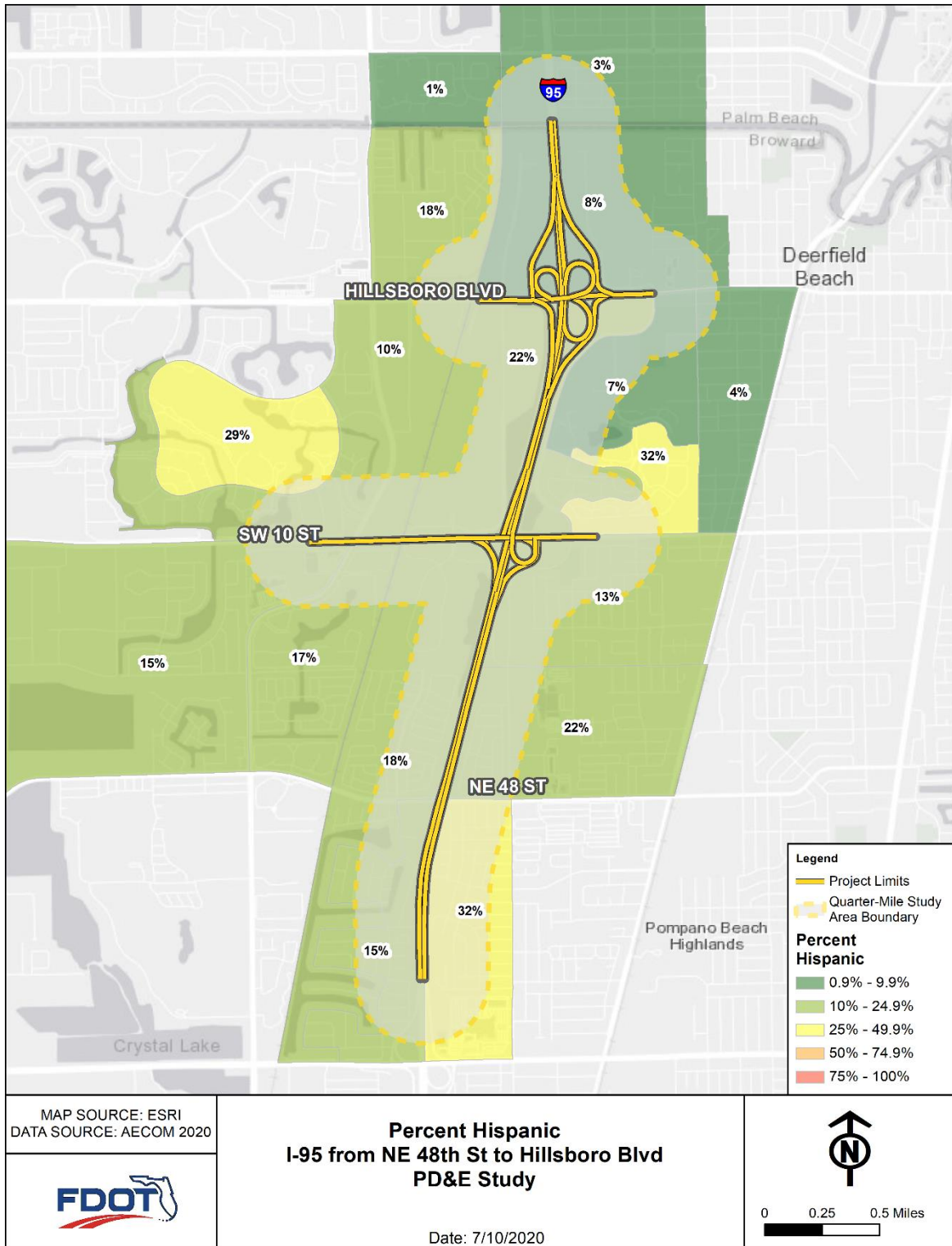


Figure 5- 3: Percent of the Population that is Hispanic (regardless of race)

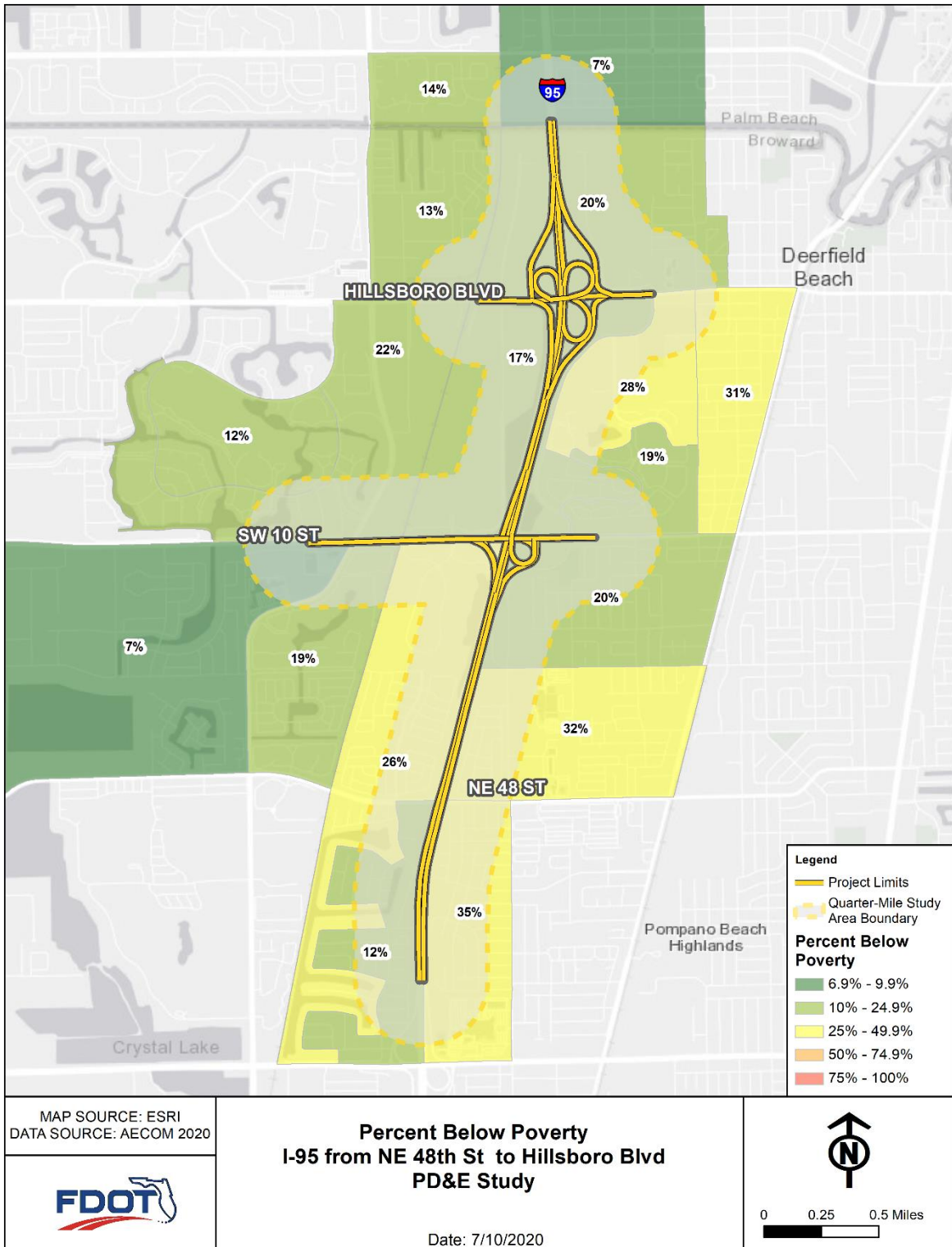


Figure 5- 4: Percent of the Population that is Below Poverty

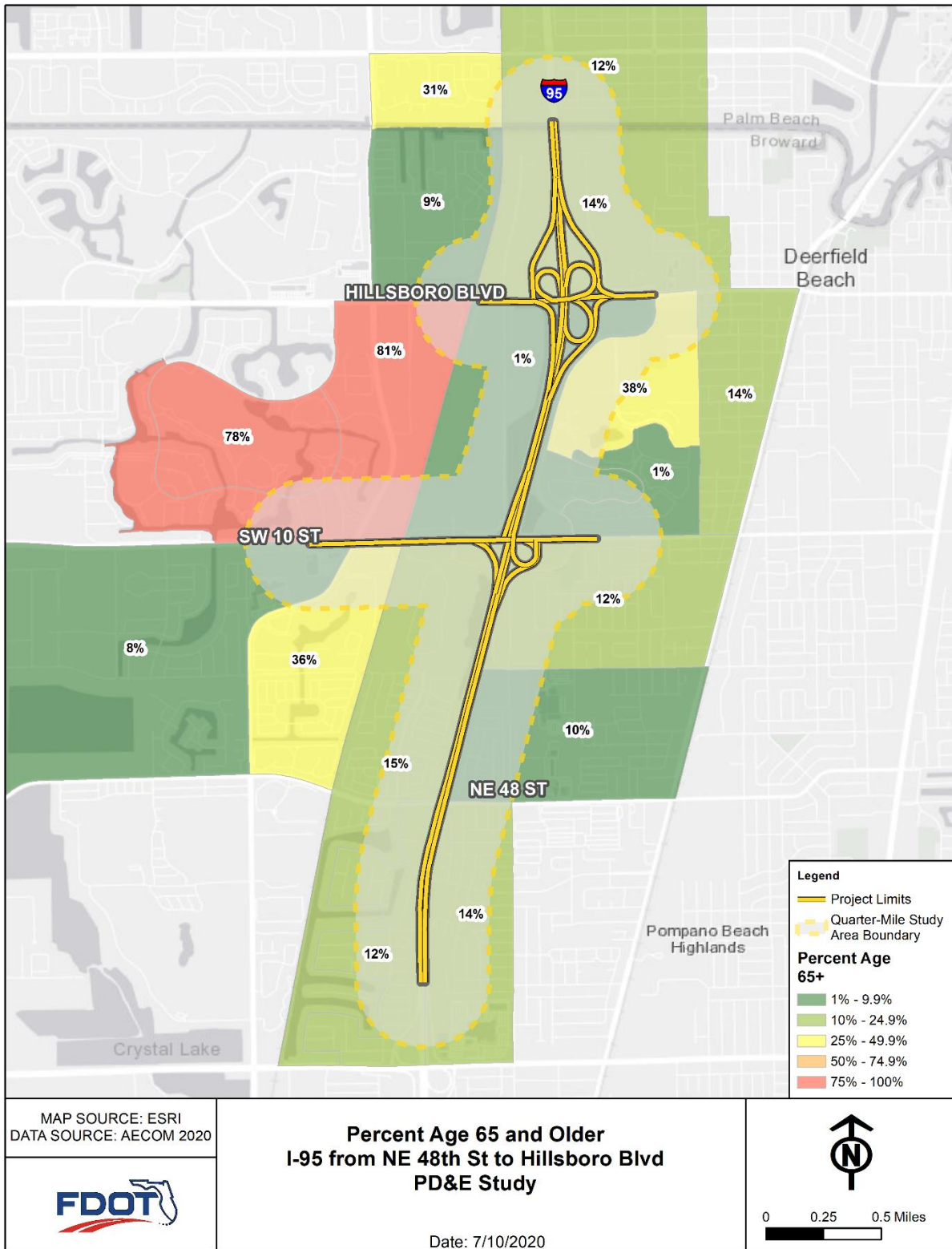


Figure 5- 5: Percent of the Population that is Age 65 or Older

5.4 Community Focal Points

Community focal points are public or private facilities, organizations, or locations that hold special importance to local residents. These types of facilities include: schools, religious centers, community centers, parks, cemeteries, fire stations, law enforcement facilities, government buildings, healthcare facilities, and social service centers. **Table 5-7** describes the community focal points present within the quarter-mile SCE study area. **Figures 5-6** and **5-7** depict facility location and correspond with listing in **Table 5-7**.

Table 5 - 7: Community Features Present in SCE Study Area

Map ID	NAME	ADDRESS	TYPE
1	WESTSIDE PARK RECREATION CENTER	445 SW 2ND ST	COMMUNITY CENTERS
2	WESTSIDE PARK - DEERFIELD	445 SW 2ND ST	NEIGHBORHOOD PARK
3	MAYO HOWARD PARK	1131 SW 11TH WAY	NEIGHBORHOOD PARK
4	COMMON HIGHLANDS PARK	500 SW 10 ST	NEIGHBORHOOD PARK
5	DEERFIELD COUNTRY CLUB	50 FAIRWAY DRIVE	CIVIC CENTER
6	HILTON DEERFIELD BEACH - BOCA RATON	100 FAIRWAY DRIVE	CIVIC CENTER
7	SOUTH FLORIDA RAILWAY MUSEUM	1300 W HILLSBORO BLVD	CULTURAL CENTER
8	ONE WORLD ADOPTION SERVICES	400 FAIRWAY DR	SOCIAL SERVICE CENTER
9	BROWARD COUNTY FIRE DEPARTMENT AND RESCUE STATION 102	1441 SW 11TH WAY	FIRE STATION
10	BROWARD COUNTY - NORTH REGIONAL COURTHOUSE	1600 W HILLSBORO BLVD	GOVERNMENT SERVICES
11	UM SYLVESTER COMPREHENSIVE CANCER CENTER @ DEERFIE	1192 E NEWPORT CENTER DRIVE	MEDICAL DOCTOR
12	SPINE & ORTHOPEDIC CENTER	280 NATURA AVENUE	MEDICAL DOCTOR
13	DEERFIELD BEACH OUTPATIENT SURGICAL CENTER	250 SW NATURA AVENUE	SURGICAL CENTER
14	JM FAMILY ENTERPRISES, INC.	111 JIM MORAN BLVD	MEDICAL DOCTOR

Sociocultural Effects
Evaluation Report

Map ID	NAME	ADDRESS	TYPE
15	HILLSBORO ALLERGY & FAMILY MEDICINE, INC.	220 SW NATURA AVENUE	MEDICAL DOCTOR
16	NEPHROLOGY CONSULTANTS OF SOUTH FLORIDA PA	220 SW NATURA AVENUE	MEDICAL DOCTOR
17	MEIRSON, DAN H MD PA	1166 W NEWPORT CENTER DRIVE	MEDICAL DOCTOR
18	LIGHTHOUSE POINT DIALYSIS	200 SW NATURA AVENUE	DIALYSIS CLINIC
19	ASSEMBLY OF GOD NEW LIFE	1015 W NEWPORT CENTER DRIVE # 105	RELIGIOUS CENTER
20	DEERFIELD BEACH HIGH SCHOOL	910 SW 15TH ST	SCHOOL
21	UNITED CHURCH OF GOD	4321 NE FIRST TER	RELIGIOUS CENTER
22	PARKWAY UNITED METHODIST CHURCH	100 NE 44 TH ST	RELIGIOUS CENTER
23	BRIGHT HORIZONS ELEMENTARY AND SECONDARY SCHOOL	3901 NE 1 ST TER	SCHOOL
24	TEDDER ELEMENTARY SCHOOL	4157 NE 1 ST TER	SCHOOL
25	POMPANO REHABILITATION & NURSING CENTER	51 W SAMPLE ROAD	MEDICAL REHAB

DRAFT

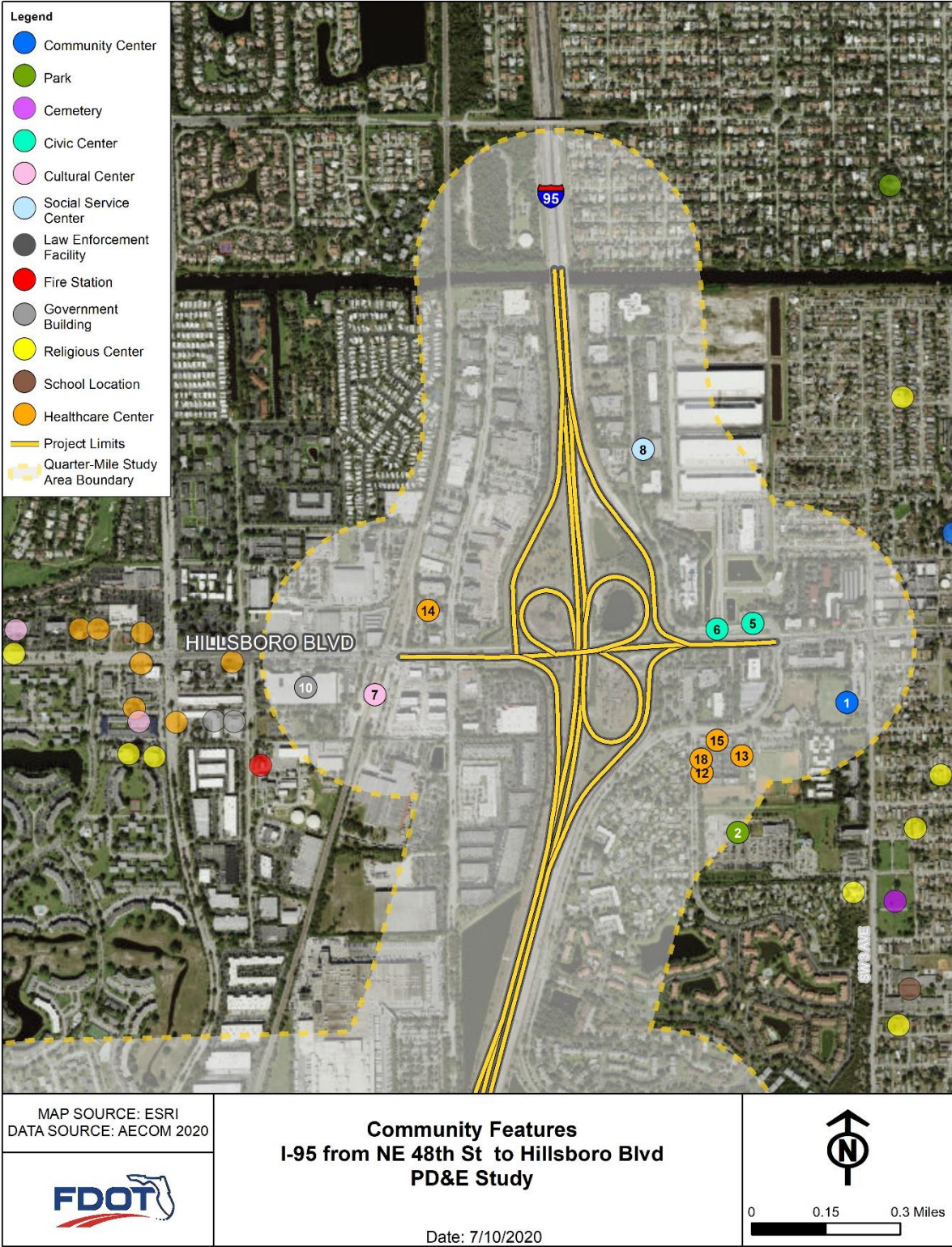


Figure 5- 6: Community Features, I-95 at Hillsboro Boulevard



Figure 5- 7: Community Features, I-95 at SW 10th Street

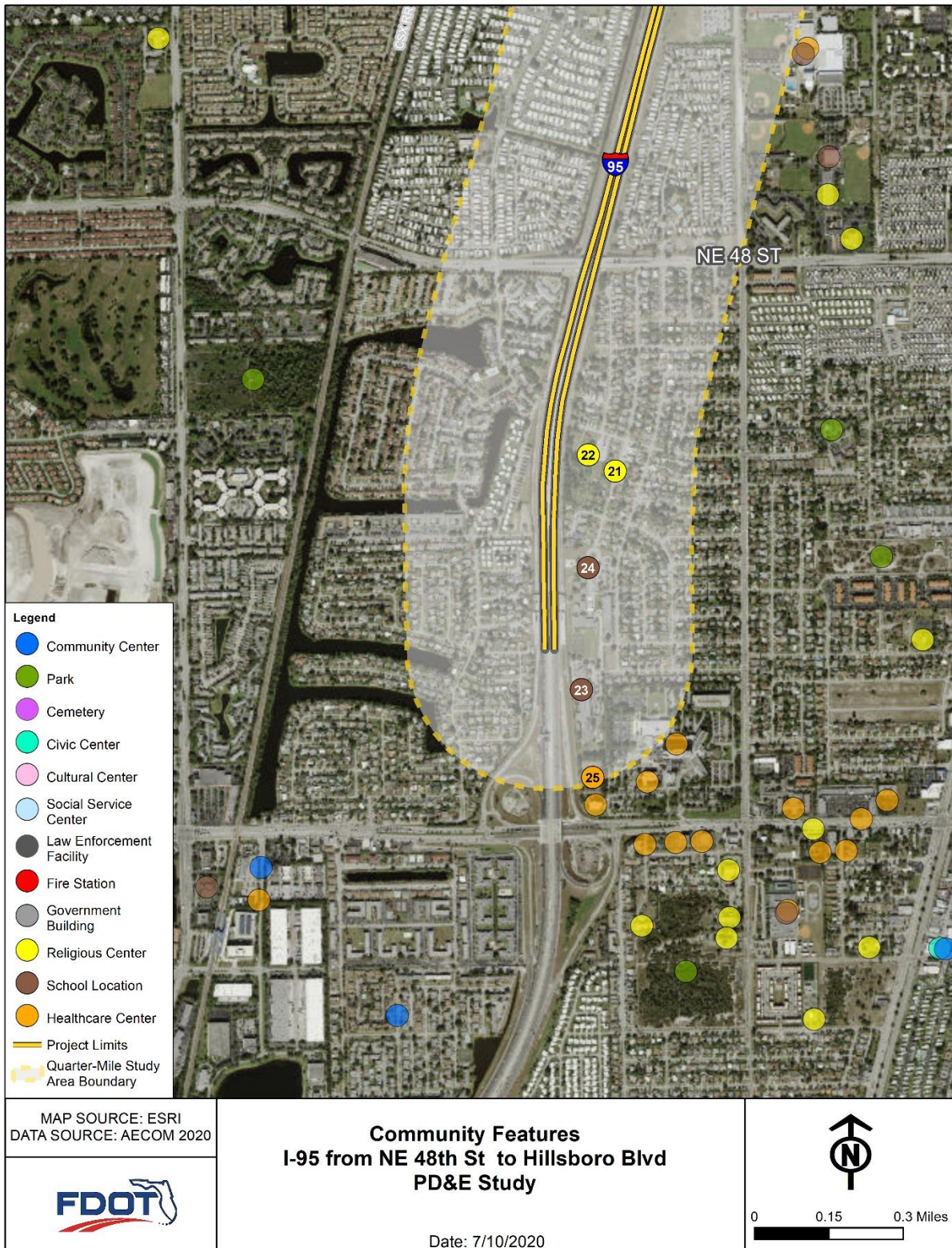


Figure 5- 8: Community Features, I-95 at SW 10th Street

5.5 Community Plans, Goals, and Engagement

5.5.1 Community Plans and Goals

Local planning documents including local Comprehensive Plans, Long Range Transportation Plans (LRTPs), and sub-area plans that help local governments establish priorities in investment and identify specific initiatives.

The Transportation Element (TE) of the Deerfield Beach Comprehensive Plan, adopted January 28, 2014, identifies several goals and objectives that are consistent with implementation of the proposed project. Policy TE 1.2.3 sets a target of LOS D for SIS facilities operating within the city. A policy consistent with the established project Purpose and Need Statement included in Section 1.2.1 of this report. Additionally, Policy TE 1.2.15: commits to cooperation between the City of Deerfield Beach, FDOT, Broward County, and the MPO in supporting the widening of I-95 north of Commercial Boulevard and interchange improvements on I-95 as appropriate.

In its review of the project during the ETDM Screening, the Florida Department of Economic Opportunity (FDOE) indicated that the project is compatible with the community's identified development goals and marginally compatible with the local comprehensive plan.

The Broward Metropolitan Planning Organization's (MPO) Commitment 2045 Metropolitan Transportation Plan [previously known as the Long Range Transportation Plan (LRTP)], adopted in December 2019, lists the improvement to I-95 from SW 10th Street to Hillsboro Boulevard as a funded roadway capacity project programmed in FY 2020-2024.

The improvement of I-95 from South of NE 48th Street to North of Hillsboro Boulevard is listed in the Broward MPO Transportation Improvement Program (TIP) FY 2020-2024 with funding programmed in 2020 for Preliminary Engineering and Right-of-Way acquisition. Additionally, the same project, Project 436964-1, is listed in FDOT's 2020-2024, Adopted Five Year Work Program.

5.5.2 Community Engagement

FDOT designed the Public Involvement Plan (PIP) for this PD&E Study to encourage active participation and solicit input from groups who may be affected by and/or benefit from the project including concerned citizens, agencies, private groups (residential/business), and governmental entities. The overall goal of the public involvement plan is to ensure that the study reflects the values and needs of the communities it is designed to benefit. Documentation of the process can be found in the PIP included as part of **Appendix A**.

Consistent with the PIP, several public meetings, workshops, and presentations were conducted within the project study area, as depicted in **Figure 1-1**, to inform the public of project activities and solicit public comment. Events held as part of the engagement program include the following:

Community and Stakeholder Meetings

- Newport Business Center – January 31, 2018
- Century Village – February 1 and November 29, 2018
- Lakes at Deerfield – August 21, 2018
- Publix Distribution Center – February 23, 2018
- The Lakes at Deerfield Apartments – September 19, 2019
- Newport Business Center Public Meeting – October 16, 2019
- Public Information Webinar – June 18, 2020
- Public Information Webinar – June 29, 2020
- Public Information Webinar – July 1, 2020

Public Workshops / Hearings

- Alternatives Public Workshop – April 24, 2018

Presentations

- Broward County Technical Advisory Committee (TAC) – April 24, 2018
- Broward Metropolitan Planning Organization (MPO) – May 10, 2018
- Freight Transportation Advisory Committee – August 15, 2018
- Broward County Technical Advisor Committee (TAC) – May 27, 2020
- Broward County Citizens Advisory Committee (CAC) – May 27, 2020
- Broward County MPO Board – July 9, 2020

**Sociocultural Effects
Evaluation Report**

Public outreach activities included multiple methods for obtaining information and providing feedback. Means of contact included direct mailings, newsletters, project website, and collateral materials distributed by mail. Additionally, arrangements were made for members of the public with special needs. Further, translation services were available for all communications, as necessary, to include accommodation in Spanish and Haitian Creole. Project newsletters and fact sheets were distributed through mailings, at meetings, to community groups, information centers, and through special outreach efforts. Outreach also included individual stakeholder meetings scheduled at the request of organizations, community members, or neighborhood associations.

Comments received during the small group meetings and public workshop outreach efforts focused on key issues including roadway congestion, intersection operations, truck traffic and parking, access to use along SW 10th Street, aesthetic impacts, and temporary construction impacts. Consideration of the environmental effects identified by the public are addressed in Section 5 of this document.

The public involvement effort is ongoing with continued engagement planned through the duration of the project. A public hearing remains to be scheduled. Public comment submitted at the hearing will receive response and be incorporated into the environmental document.

6.0 EVALUATION OF POTENTIAL EFFECTS

Transportation projects may result in various environmental effects both positive and negative. Guidance published in 40 CFR §§1500-1508 describes three general effect categories to include: direct, indirect and cumulative. Each effect category is differentiated based on causation and timing of the effect. See below for a description of each:

- **Direct effects** are caused by the action and occur at the same time and place;
- **Indirect effects** are caused by the action and are later in time or farther removed in distance but still reasonably foreseeable;
- **Cumulative effects** result from the incremental effects of an action when added to other past, present, and reasonably foreseeable actions regardless of which agency or person undertakes the action.

As part of its ETDM process, the FDOT characterizes project effects. **Table 6-1** below introduces the Degree of Effect (DOE) classifications used by FDOT. The DOE indicates the relative intensity of a potential project effect and serves to standardize the description of effects in impact assessments. The DOE classification system will be used in this report to support the evaluation of direct, indirect, and cumulative effects.

Table 6 - 1: Project Degree of Effect Classifications

N/A	Not applicable or no involvement
Enhanced (1)	Positive effect on resources
None (0)	No effect on resources
Minimal (2)	Little adverse effect on resources
Moderate (3)	Resources are affected; avoidance, minimization options available
Substantial (4)	Substantial interaction required; avoidance, minimization, mitigation
Dispute (5)	Does not conform to agency requirements

6.1 Efficient Transportation Decision Making (ETDM) Screening

The proposed project has been subjected to previous evaluation for sociocultural effects. The project was screened through the ETDM Process

**Sociocultural Effects
Evaluation Report**

(ETDM Project #14244) in 2015 (Screening Summary Report re-published on July 11, 2016). Results of the previous evaluation are recorded in a project Summary Report included in **Appendix A**. The ETDM Summary Report includes preliminary assessment of environmental effects and documentation of regulatory agency coordination. **Table 6-2** summarizes the degree effect assigned by the participating and coordinating agencies including comments made by: Federal Highway Administration, US Environmental Protection Agency, National Parks Service, Natural Resources Conservation Service, National Marine Fisheries Service, US Army Corps of Engineers, US Fish and Wildlife Service, South Florida Water Management District, FDOT District Four, Florida Department of Agriculture and Consumer Services, Florida Department of Environmental Protection, Florida Department of State and Florida Department of Economic Opportunity.

Table 6 - 2: Summary Degree of Effect Assigned During the ETDM Screening

Social and Economic							Cultural			Natural				Physical					Special Designations	
Land Use Changes	Social	Relocation Potential	Farmlands	Aesthetic Effects	Economic	Mobility	Section 4(f) Resources	Historic and Archaeological	Recreation Areas	Wetlands	Water Quality and Quantity	Floodplains	Wildlife and Habitat	Coastal and Marine	Noise	Air Quality	Contamination	Infrastructure		Navigation
2	3	0	0	2	1	1	2	3	2	3	3	3	2	0	2	2	3	2	N/A	3

Issues described in the ETDM screening relevant to the SCE evaluation highlight limited community effects. Results describe no effect related to relocation potential, enhanced economic and mobility effects, minimal land use and aesthetic effects, and moderate social effects.

Moderate concern was expressed by the Environmental Protection Agency related to potential effects to disadvantaged populations (low income, minority, and limited English proficient) action including the development of a Sociocultural Effects Evaluation during the PD&E Study was directed to

address the Environmental Protection Agency's environmental justice concerns. The Federal Highway Administration identified enhanced mobility and economic effects indicating the proposed improvements would improve overall mobility in the area. Overall, agency comments identified no substantial negative effect related to the project.

6.2 Social

6.2.1 Community Cohesion

The improvements to the I-95 mainline will occur within the existing right-of-way, and are not expected to have an effect on the surrounding community. Improvements at SW 10th Street include ramp and local roadway modifications and the incorporation of elevated express lanes. North-south connectivity across SW 10th Street will be maintained at existing signalized intersections. Bicycle lanes and sidewalks will also be maintained along the length of the SW 10th Street to support local use. The elevated express lanes are intended to divert regional traffic off of local surface streets and on to the elevated lanes. Reduced traffic on surface streets will allow for better local circulation and access. Improvements at Hillsboro Boulevard include ramp modifications and widening of the I-95 NB bridge overpass. These improvements would not result in long-term disruption of the surrounding community.

I-95, Hillsboro Boulevard, and SW 10th Street exist as major roadways in northern Broward County. The proposed improvements would require additional right-of-way, but would not displace existing residents, businesses, or affect community focal points. The proposed improvements would occur along existing road corridors and are not expected to result in major changes in land use or serve to divide or isolate a population. Overall, the proposed roadway improvements would not affect existing community networks; therefore, a degree of effect of minimal is assigned to this issue.

6.2.2 Safety and Emergency Response/Evacuation

Crash analyses conducted for the five year period from 2008 through 2012 showed that the I-95 segment within the Hillsboro Boulevard interchange area is classified as a high crash segment in four of the five study years. Crash rates along SW 10th Street in the vicinity of I-95 exceed the statewide average

for similar facilities for all five study years, but the segment along Hillsboro Boulevard in the vicinity of I-95 does not. Field observations indicate that the number of crashes along the Hillsboro Boulevard project segment may be influenced by queues extending from the railroad crossing. Additionally, crashes on I-95 may be influenced by the short weaving distance between the existing interchanges.

Both SW 10th Street and Hillsboro Boulevard are designated as emergency evacuation routes from I-95 to SR 5/US-1 and A1A. I-95 is designated as an emergency evacuation route throughout Broward County. A need exists to enhance capacity and traffic circulation along evacuation routes to improve evacuation and enhance emergency response.

The No-Action Alternative would leave the facility as it is currently and therefore not improve safety or capacity. This could impact the ability of local emergency service response (police, fire rescue and EMS) to reach those in need. The Build Alternatives are intended to address safety and operational deficiencies on I-95 and at the SW 10th Street and Hillsboro Boulevard interchanges, and increase roadway capacity to meet future demand. Therefore, conditions related to Safety and Emergency Response/Evacuation will be Enhanced by the proposed project.

6.2.3 Special Designations

The US Department of Treasury and the Internal Revenue Service (IRS) have designated the area that occupies the southeast quadrant of the I-95 interchange at SW 10th Street as a "Qualified Opportunity Zone".

Opportunity Zones are part of a federal tax incentives program to attract new capital investment and job opportunities to disadvantaged areas. Qualified Opportunity Zones retain their designation for 10 years. Within each zone, investors can defer taxes on financial gains, so long as the gain is reinvested in a Qualified Opportunity Fund. Opportunity Zones are expected to spur public-private partnerships in disadvantaged communities.

The proposed improvement of the SW 10th Street interchange would improve traffic conditions along SW 10th Street and access to I-95, part of Florida's SIS which is important to local, regional, and state economies.

Overall, implementation of the proposed project supports this special designation, and is expected to enhance access and mobility in an area targeted for economic investment by the US Department of Treasury.

6.3 Economic

6.3.1 Business Access and Activity

Based on figures produced by the US Census Bureau reported in the Longitudinal Employer-Household Dynamics database, the SCE study area currently supports 13,275 jobs (**Table 6-3**). The Professional, Scientific, and Technical Services; Administration & Support, Waste Management and Remediation; and Transportation and Warehousing sectors support the greatest share of the job market.

Table 6 - 3: SCE Study Area Jobs by NAICS Industry Sector

NAICS Industry Sector	Year 2015	
	Count	Share
Mining, Quarrying, and Oil and Gas Extraction	27	0.2%
Construction	596	4.5%
Manufacturing	1,186	8.9%
Wholesale Trade	1,263	9.5%
Retail Trade	1,100	8.3%
Transportation and Warehousing	1,410	10.6%
Information	233	1.8%
Finance and Insurance	715	5.4%
Real Estate and Rental and Leasing	300	2.3%
Professional, Scientific, and Technical Services	2,132	16.1%
Management of Companies and Enterprises	889	6.7%
Administration & Support, Waste Management and Remediation	1,478	11.1%
Educational Services	28	0.2%
Health Care and Social Assistance	849	6.4%
Arts, Entertainment, and Recreation	10	0.1%
Accommodation and Food Services	962	7.2%
Other Services (excluding Public Administration)	97	0.7%

Both Build Alternatives for SW 10th Street include a roundabout modification to New Port Center Drive which will reduce congestion thereby improving access to the adjacent commercial center and Publix Distribution Center. Intersection improvements on SW 10th Street at FAU Research Park Boulevard

would improve access to the newly designated “Opportunity Zone” economic investment area. Activity in the Transportation and Warehousing job sectors would receive direct benefit from the improved traffic operations in the area.

The proposed improvements on Hillsboro Boulevard will improve access to the Tri-Rail and Amtrak services provided at the Deerfield Beach Rail Station and the adjacent Transit Oriented Development (TOD), and improve access to governmental services provided at the Broward County North Regional Courthouse.

Bicycle and pedestrian access will be maintained along both SW 10th Street and Hillsboro Boulevard. No commercial businesses will be relocated. Overall, the project is expected to improve access to existing local businesses and support a more reliable regional transportation system.

6.3.2 Tax Base

The vast majority of the proposed improvements will occur within the existing right-of-way. The proposed Build Alternatives will not result in the displacement of any homes or businesses. Partial acquisition of a number of parcels relative to each alternative will occur with a negligible reduction to the tax base when compared to total revenue collected. No change in land use classification is expected to result from the proposed improvements.

This project will not have significant adverse effects on the tax base within the City of Deerfield Beach or Broward County. The enhanced mobility has the potential to attract new businesses and support the continued growth within the tax base resulting in a long-term net economic gain.

6.4 Land Use

6.4.1 Existing Land Use

Existing land use was assessed through review of current zoning map information. GIS shapefiles were downloaded from the City of Deerfield Beach and compared to the SCE study area. **Table 6-4** reports total area by zoning classification found within the study area.

The project is located in an urbanized area of the City of Deerfield Beach. The predominant land use present is residential (40 percent) followed by industrial (34 percent) and business/commercial (16 percent).

Table 6 - 4: SCE Study Area Zoning Classifications

Zoning Class	Zoning Description	Acres
B-1, B-2, B-2c, B-3	Business and Commercial	210.7
CF	Community Facility	62.9
I, PID	Industrial and Planned Industrial	434.9
PUD	Planned Unit Development	141.2
RM-10, RM-10(5), RM-13c, RM-15, RM-25	Residential, Multi-Family	178.4
RP-10(7), T-1c, T-1Cc	Residential, Mobile Home	118.6
RS-4c, RS-5, RS-7	Residential, Single Family	79.8
S	Open Space	61.6
TOD	Transit Oriented Development	8.7

6.5 Mobility

The elimination of existing operational and safety deficiencies along I-95 between and including the interchanges at SW 10th Street and Hillsboro Boulevard and on SW 10th Street and Hillsboro Boulevard in the vicinity of I-95 would improve existing capacity/operational and safety issues. Improved operations and reduced congestion on SW 10th Street and Hillsboro Boulevard as well as on I-95 would enhance the mobility of public transit and goods by alleviating current and future congestion along the corridor and on the surrounding freight and transit networks.

Additionally, the inclusion of managed lanes at SW 10th Street would connect workers, businesses, and residents within Deerfield Beach and the SCE study area to a more reliable regional transportation system that extends across Miami-Dade, Broward and into Palm Beach Counties.

With the implementation of the managed lanes, north-south connectivity across SW 10th Street will be maintained at existing signalized intersections, and local improvements, including a roundabout on Newport Center Drive, will enhance local circulation. Bicycle lanes and sidewalks will also be maintained along the length of the SW 10th Street to support local use. The elevated express lanes are intended to divert regional traffic off of local surface streets

and on to the elevated lanes. Reduced traffic on surface streets will allow for better local circulation and access. The proposed interchange improvements on Hillsboro Boulevard would improve safety, eliminate periodic traffic delays, and enhance access to/from the Deerfield Beach Train Station that supports regional (Tri-Rail) and intercity (Amtrak) passenger rail service.

Based on the foregoing, a degree of effect of Enhanced is assigned to the Mobility issue.

6.6 Aesthetics

6.6.1 Noise and Vibration

Traffic noise levels were predicted for noise sensitive locations along the project corridor for the existing conditions and the design year (2040) No-Action and recommended Build Alternatives. Influenced by several factors, such as vehicle speed and distribution of vehicle types model-predicted noise levels are also affected by the characteristics of what is in between the source and the receptor, including the effects of intervening barriers, obstructions (buildings, trees, etc.), the ground surface type (hard or soft), and topography.

Within the study area approximately 610 residences have the potential to be impacted by the proposed improvements. In addition, 22 non-residential/special-use noise sensitive locations were identified in the study area. These locations include parks, playgrounds, hotel and residential pools, tennis courts, sports fields, basketball courts, restaurant outdoor seating areas and medical office interiors. The following roadways were the primary sources contributing to noise: I-95, SW 10th Street, FAU Research Park Boulevard, Natura Boulevard, S Military Trail and Hillsboro Boulevard.

Build Alternative traffic noise levels at the residences are expected to range from approximately 49.8 to 75.9 dB(A) during the project's design year. Build Alternative traffic noise levels at the non-residential/special-use sites are expected to range from approximately 43.7 dB(A) inside the UM Health facility to 76.6 dB(A) at the basketball court located at the Deerfield Beach Teen Center. The worst-case design year traffic noise levels with the Build Alternative are predicted to be no more than 13.0 dB(A) greater than existing

**Sociocultural Effects
Evaluation Report**

levels and 11.6 dB(A) greater than the expected design year No Build noise levels.

Design year traffic noise levels with the planned improvements are predicted to approach or exceed the FHWA NAC for residential use [67 dB(A)] at 116 residences. The design year traffic noise level with the planned improvements is predicted to approach or exceed the NAC at a basketball court at the City of Deerfield Beach Teen Center, the walking trail at the Tivoli Sand Pine Preserve park and the playground at the JM Family Daycare Center [NAC = 67.0 dB(A)]. Therefore, based on the FHWA and FDOT methodologies used to evaluate traffic noise levels in this study, modifications proposed with this project were determined to generate noise impacts at noise sensitive sites within the project study area and consideration of noise abatement is required to mitigate these impacts. Although a number of sites approach or exceed the NAC, the proposed improvements do not result in any substantial noise increases (i.e., greater than 15 dB(A) over existing levels). The worst-case design year traffic noise levels with the Build Alternative are predicted to be no more than 13.0 dB(A) greater than existing levels and 11.6 dB(A) greater than the expected design year No-Build noise levels.

In accordance with traffic noise study requirements set forth by both the FHWA and FDOT, noise barriers were considered for all noise sensitive receptor sites where design year Build Alternative traffic noise levels were predicted to equal or exceed the NAC.

To be deemed reasonable, a noise barrier must, at a minimum, meet two important FDOT criteria:

- The estimated construction cost cannot exceed the FDOT's reasonable cost criteria of \$42,000 per benefited receptor site; and,
- According to the FDOT's noise reduction reasonableness criteria, the noise barrier must reduce noise levels by at least seven dB(A) at one or more impacted receptor sites.

Noise barriers were evaluated for their feasibility at eight locations to mitigate noise impacts (see **Appendix B**). At this time, noise barriers are recommended for further consideration and public input at three of these locations:

**Sociocultural Effects
Evaluation Report**

- I95HV – East side of I-95 north of NE 52nd Street. This noise barrier would supplement the remaining 630-foot long segment of the existing noise barrier and benefit 34 sites, including 23 impacted residences.
- I95CK_HM – West side of I-95 north of NW 48th Street. This noise barrier will replace an existing 16-foot tall noise barrier that will be removed to accommodate the project. Will benefit 84 sites, including 55 impacted residences.
- • I95SL_LI – West side of I-95 south of NW 48th Street. This noise barrier will replace-in-kind a segment of the existing noise barrier that is being removed to accommodate the project. This will benefit two impacted residences.

During construction of the project, there is the potential for noise impacts to be substantially greater than those resulting from normal traffic operations due to the heavy equipment typically used to build roadways. In addition, construction activities may result in vibration impacts. Therefore, early identification of potential noise/vibration sensitive sites along the project corridor is important in minimizing noise and vibration impacts. The project area does include residences, hotels, places of worship and medical offices that may be affected by noise and vibration associated with construction activities. Construction noise and vibration impacts to these sites will be minimized by adherence to the controls listed in the latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction*. According to Section 335.02 of the Florida Statutes, the FDOT is exempt from compliance with local ordinances. However, it is the FDOT's policy is to follow the requirements of local ordinances to the extent that is considered reasonable. Also, the contractor will be instructed to coordinate with the project engineer and the District Noise Specialist should unanticipated noise or vibration issues arise during project construction.

6.6.2 Viewshed

Improvements to I-95, SW 10th Street, and Hillsboro Boulevard would occur within an urbanized area of the City of Deerfield Beach. Proposed improvements to I-95 would occur within the existing right-of-way, and are not expected to have a detrimental visual effect on the surrounding community. Similarly, the proposed interchange ramp improvements and

bridge widening associated with Hillsboro Boulevard would have a limited visual impact.

Improvements at SW 10th Street would incorporate 4th level structures likely to exceed 100 feet in height, and 3rd level structures likely to exceed 75 feet in height above existing grade. The proposed structures would extend west from I-95 through an area of commercial and industrial development before crossing the CSX rail corridor. Once west of the rail corridor, the 3rd level structures would pass within close proximity of two residential developments, Century Village and The Lakes at Deerfield Apartments.

Transportation infrastructure including rail lines, bridges, and roadways all contribute to the existing visual character of the area. However, if constructed, the managed lanes structure would be the predominant visual feature present in the corridor. The project is likely to be perceived by many members of the public as incompatible with the community's aesthetic character.

Continued public coordination is recommended to identify context sensitive design solutions that lessen the visual impact of the viaducts. Based on the potential for contention related to project aesthetics, the degree of effect is deemed Moderate.

6.7 Relocations

The conceptual plans presented for each alternative shown previously in Section 3.0 of this document identify areas of expanded right-of-way, but also indicate that no relocations would occur as a result of the Build Alternatives.

Build Alternatives considered along I-95 will occur within the existing Right-of-Way and would result in no relocations. Build Alternatives considered along SW 10th Street provide direct connect access ramps to/from the I-95 express lanes. The north alignment provides direct access to the connector lanes from SW 12th Avenue. Minor right-of-way acquisition is required for the north alignment on the north and south sides of SW 10th Street including six privately-owned and three government-owned parcels. No relocations are required. The center alignment Alternative also requires minor right-of-way acquisition on the north side as well as on the south side including 15 privately-owned and nine-government owned parcels. No relocations are

required. Two Build Alternatives were considered along Hillsboro Boulevard. Alternative 1 proposed a depressed section while Alternative 2 proposed an elevated section. Both Build Alternatives were considered not viable based on access impacts to adjacent parcels and other design factors. The remaining improvements proposed at the I-95 interchange will occur within the existing Right-of-Way and result in no relocations.

The propose project, as presently conceived, will not displace any residences or business within the community. Should this change over the course of the project a Right of Way and Relocation Assistance Program will be carried out in accordance with Florida Statute 421.55, Relocation of displaced persons, and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

DRAFT

7.0 ENVIRONMENTAL JUSTICE, CIVIL RIGHTS, AND RELATED ISSUES

7.1 Protected Populations in the Study Area

The project has been developed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. This project is being conducted without regard to race, color, national origin, age, sex, religion, disability, or family status. Title VI of the Civil Rights Act provides that no person shall, on the grounds of race, color, religion, sex, national origin, marital status, disability, or family composition be excluded from participation in, or be denied the benefits of, or be otherwise subject to discrimination under any program of federal, state, or local government.

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," directs that Federal agencies identify and address, as appropriate, disproportionately high and adverse health or environmental effects of their programs, policies, and activities on minority populations and low-income populations.

The US Environmental Protection Agency's Council on Environmental Quality (CEQ) provides guidance in identifying the presence of protected populations at rates more likely to result disproportionate negative effect. Those thresholds are described below.

- A **50 percent** criterion population analysis to determine those area geographies where minority and/or low income individuals equal to or exceeded 50 percent of the population.
- A **meaningfully greater** criterion analysis in which minority and/or low-income population percentages within individual geographies (census block groups) were compared to the reference population (County) and found to exceed the reference area population.

The demographic analysis included in Section 4.3 shows that the minority population (race and Hispanic combined) exceeds 50 percent of the total population. Additionally, that the Black (39.8 percent) and low-income (20.4 percent) populations exceed rates for similar populations in Broward County

(28.5 and 13.5 percent, respectively). The presence of these populations individually and combined warrants additional analysis to assess the applicability of Environmental Justice in this circumstance.

7.2 Summary of Effects

As noted previously in Section 5.0, no relocation, displacement or isolation of any population will result from the proposed improvements. Partial acquisition of additional right-of-way will occur affecting a small number of non-residential parcels though no homes or businesses will be displaced. The project will ultimately improve access and egress to the surrounding area supporting redevelopment efforts targeted at low-income and minority populations. Improvements on Hillsboro Boulevard will improve access to the Deerfield Beach Rail Station supporting Tri-Rail and Amtrak access. Improvements along SW 10th Street will improve traffic operations improving access to local business support existing employment.

The proposed project will enhance local economic activity and mobility; it will have a minimal effect on land use and social issues; and no involvement for relocations. The worst-case design year traffic noise levels with the Build Alternative are predicted to be no more than 6.8 dB(A) greater than existing levels and 6.2 dB(A) greater than the expected design year No-Action noise levels. At this time, three noise barriers are recommended for further consideration and public input: 1) I95HV – East side of I-95 north of NE 52nd Street, 2) I95CK_HM – West side of I-95 north of NW 48th Street, and 3) I95SL_LI – West side of I-95 south of NW 48th Street. Furthermore, construction noise and vibration impacts along the project corridor will be minimized by adherence to the controls listed in the latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction*. Potential for public controversy exists related to visual aesthetics.

Overall, when combined project effects are evaluated in the context of the identified disadvantaged populations, community benefits are expected to outweigh any potential negative effects.

7.3 Disproportionate Adverse Effects

Two factors must coincide for a disproportionate adverse effect to occur, presence of an effect and presence of a protected population. CEQ again provides guidance on identifying a disproportionate adverse effect on minority and/or low income population. Stating this effect occurs when:

- The adverse effect occurs primarily to a minority and/or low income population or
- The adverse effect suffered by the minority and/or low-income population is more severe or greater in magnitude than the adverse effect suffered by the non-minority and/or low-income populations.

As noted above the disadvantaged population is present, but significant adverse effects are absent. Thus, no disproportionate negative effect is expected to occur as a result of the proposed project.

DRAFT

8.0 RECOMMENDATIONS AND COMMITMENTS

8.1 Summary of Project Effects

The SCE Evaluation is intended to be a planning tool that incorporates community values, quality of life, and socioeconomic interests into the transportation planning process. As documented in this evaluation, development of the proposed interchange, roadway, and managed lane improvements on I-95, SW 10th Street and Hillsboro Boulevard would result in a range of community effects. Upon completion, the project is expected to increase quality of life through improved access, increased public safety, and reduced congestion.

Project effects related to six key socioeconomic areas are documented in **Table 8-1**. In addition to the listing of effects, a degree of effect for each SCE area is included to convey the overall character of expected impacts. Reference can be made to **Table 6-1** to identify additional information degrees of effect assignment.

8.2 Conclusions

The purpose of this project is to eliminate various existing operational and safety deficiencies along I-95 between and including the interchanges at SW 10th Street and Hillsboro Boulevard, and on SW 10th Street and Hillsboro Boulevard in the vicinity of I-95. Also to incorporate managed lanes into I-95 and on SW 10th Street. The primary need for the project is based on capacity/operational and safety issues, with secondary considerations for evacuation and emergency service needs, transportation demand, system linkage, modal interrelationships, and social demands and economic development.

The proposed improvements will provide a wide range of benefits in the local community including improved roadway operations and safety, improved travel time reliability, improved evacuation and response, and increased economic activity resulting from reduced roadway congestion. However, potential negative effects to visual aesthetics were also identified.

Table 8 - 1: Summary of Sociocultural Effects with Degree of Effect

SCE Issue	Effect	Degree of Effect
Social	<ul style="list-style-type: none"> • Areas of limited right-of-way acquisition • Temporary construction impacts • Diverts regional traffic to managed lanes improving local circulation • Community focal points unaffected • No division or isolation of existing populations • Improvements targeted to reduce crash rate and improve safety • Improved emergency evacuation and emergency response • Supports investment in disadvantaged community 	Minimal
Economic	<ul style="list-style-type: none"> • Limited reduction in taxable land • Improved access to local business • Supports major employment sectors including Transportation and Warehousing • Supports development in specially designated "Opportunity Zone" • Improves access to Deerfield Beach Rail Station and supporting TOD • Provides access to reliable regional transportation system 	Enhanced
Land Use	<ul style="list-style-type: none"> • Project occurs in existing urban environment • Supportive of existing use • Future land use pattern unaffected 	Minimal

**Sociocultural Effects
Evaluation Report**

	<ul style="list-style-type: none"> • No direct impact to community focal points 	
Mobility	<ul style="list-style-type: none"> - Temporary disruptions to traffic - Reduced traffic congestion - Diverts regional traffic to managed lanes improving local circulation - Reduced crash rate and improve safety - Improved emergency evacuation and emergency response - Improved transit operations - Improved freight operations - Improved system reliability - Improved regional access - North-south connectivity maintained on SW 10th Street - Bicycle and pedestrian facilities maintained - Enhanced multi-modal access 	Enhanced
Aesthetics	<ul style="list-style-type: none"> • Potential visual compatibility issues • Potential for public concern • Minimal noise and vibration impacts • 3rd and 4th level structures introduced to SW 10th Street • Limited visual effect on Hillsboro Boulevard 	Moderate
Relocations	<ul style="list-style-type: none"> • No Residential Relocations • No Business Relocations 	No Involvement

8.3 Recommendations for Resolving Issues

In light of the analysis presented, few negative sociocultural effects are anticipated to result from development of the proposed alternatives. Continued public engagement efforts are suggested to identify the level of concern present within the community related to the visual impact of the

structures proposed to support the new managed lanes. Recommend context sensitive design solutions be evaluated to reduce potential visual intrusion and mitigate potential negative visual effects of the corridor.

Impacts will be managed and address as appropriate before, during and after the project in accordance with the FDOT and other agency policies, programs, and procedures.

8.4 Project Commitments

There are currently no commitments related to SCE issues.

DRAFT

APPENDIX A

(ETDM Summary Report Project # 14244)



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

ETDM Summary Report

Project #14244 - I-95 from SW 10th St to Hillsboro Blvd

Final Programming Screen - Published on 07/11/2016

Generated by Anson Sonnett (on behalf of FDOT District 4)

Printed on: 7/11/2016

Table of Contents

Chapter 1 Overview	2
Chapter 2 Project Details	3
2.1. Purpose and Need	3
Chapter 3 Alternative #1	8
3.1. Alternative Description	8
3.2. Segment Description(s)	8
Chapter 4 Eliminated Alternative Information	53
4.1. Eliminated Alternatives	53
Chapter 5 Project Scope	54
5.1. General Project Recommendations	54
5.2. Required Permits	54
5.3. Required Technical Studies	54
5.4. Class of Action	54
5.5. Dispute Resolution Activity Log	54
Appendices	55
6.1. Preliminary Environmental Discussion Comments	55
6.2. Advance Notification Comments	62
6.3. GIS Analyses	62
6.4. Project Attachments	62
6.5. Degree of Effect Legend	62

Introduction to Programming Screen Summary Report

The Programming Screen Summary Report shown below is a read-only version of information contained in the Programming Screen Summary Report generated by the ETDM Coordinator for the selected project after completion of the ETAT Programming Screen review. The purpose of the Programming Screen Summary Report is to summarize the results of the ETAT Programming Screen review of the project; provide details concerning agency comments about potential effects to natural, cultural, and community resources; and provide additional documentation of activities related to the Programming Phase for the project. Available information for a Programming Screen Summary Report includes:

- Screening Summary Report chart
- Project Description information (including a summary description of the project, a summary of public comments on the project, and community-desired features identified during public involvement activities)
- Purpose and Need information (including the Purpose and Need Statement and the results of agency reviews of the project Purpose and Need)
- Alternative-specific information, consisting of descriptions of each alternative and associated road segments; an overview of ETAT Programming Screen reviews for each alternative; and agency comments concerning potential effects and degree of effect, by issue, to natural, cultural, and community resources.
- Project Scope information, consisting of general project recommendations resulting from the ETAT Programming Screen review, permits, and technical studies required (if any)
- Class of Action determined for the project
- Dispute Resolution Activity Log (if any)

The legend for the Degree of Effect chart is provided in an appendix to the report.

For complete documentation of the project record, also see the GIS Analysis Results Report published on the same date as the Programming Screen Summary Report.

#14244 I-95 from SW 10th St to Hillsboro Blvd

District: District 4

County: Broward

Planning Organization: FDOT District 4

Plan ID: Not Available

Federal Involvement: FHWA Funding Other Federal Permit

Phase: Programming Screen

From:

To:

Financial Management No.: 436964-1-22-01

Contact Information: Shandra Davis-Sanders (954) 677-7896 shandra.davis@dot.state.fl.us

Snapshot Data From: Programming Screen Summary Report Re-published on 07/11/2016 by Anson Sonnett
Issues and Categories are reflective of what was in place at the time of the screening event.

	Social and Economic						Cultural			Natural				Physical							
	Land Use Changes	Social	Relocation Potential	Farmlands	Aesthetic Effects	Economic	Mobility	Section 4(f) Potential	Historic and Archaeological Sites	Recreation Areas	Wetlands	Water Quality and Quantity	Floodplains	Wildlife and Habitat	Coastal and Marine	Noise	Air Quality	Contamination	Infrastructure	Navigation	Special Designations
Alternative #1	2	3	0	0	2	1	1	2	3	2	3	3	3	2	0	2	2	3	2	N/A	3
<i>Re-Published: 07/11/2016 Reviewed from 09/09/2015 to 10/24/2015</i>																					

Purpose and Need

Purpose and Need

The purpose of this project is to eliminate various existing operational and safety deficiencies along I-95 between and including the interchanges at SW 10th Street and Hillsboro Boulevard, and also on SW 10th Street and Hillsboro Boulevard in the vicinity of I-95. The primary need for the project is based on capacity/operational and safety issues, with secondary considerations for the needs of evacuation and emergency services, transportation demand, system linkage, modal interrelationships, and social demands and economic development.

Capacity/Operational Deficiencies

A need exists to improve traffic operations along I-95 between the SW 10th Street and Hillsboro Boulevard interchanges, especially at existing merge and diverge ramps that are the sources of traffic turbulence and collisions. The mainline directional volumes range from 4,400 to 5,850 vehicles per hour (vph) with ramp volumes from 800 to 1,250 vph at SW 10th Street and 400 to 1,000 vph at Hillsboro Boulevard.

Operational analyses along I-95 indicate that all freeway segments in the study area operate at Level of Service (LOS) D or better except for the following:

- The diverge segment at I-95 southbound (SB) off-ramp to SW 10th Street EB and WB during the AM and PM peak periods;
- The I-95 mainline segment between I-95 SB on-ramp from SW 10th Street eastbound (EB) and westbound (WB) and I-95 SB off-ramp to Sample Road EB and WB during the PM peak period;
- The I-95 mainline between I-95 SB On-Ramp from Palmetto Park Boulevard EB and I-95 SB Off-Ramp to Hillsboro Boulevard EB and WB during the AM peak period;
- The merge at I-95 SB on-ramp from Hillsboro Boulevard WB during AM and PM peak periods; and
- The diverge segment at I-95 northbound (NB) off-ramp to Hillsboro Boulevard EB during the AM peak period.

These conditions are existing concerns and are projected to worsen in the future if no action is taken. Year 2040 traffic projections show the mainline directional volumes ranging from 6,000 to 7,300 vph. Year 2040 peak hour directional volumes on I-95 Express are forecasted to range an additional 1,300 to 2,550 vph within the I-95 corridor.

Operational analyses under the "No Build" option in year 2040 reflects implementation of two major programmed improvements: 1) I-95 Express Phase 3 (two express travel lanes in each direction), and 2) I-95 Ramp Metering. All of the mainline freeway segments in the study area would operate at a deficient LOS (E or F) during one or both peak periods with the exception that the merge segment for I-95 SB On-Ramp from WB Hillsboro Boulevard would operate at LOS D during the PM peak hour.

Safety

A need exists to resolve safety issues within the project limits along I-95 as well as SW 10th Street and Hillsboro Boulevard. Crash analyses for the years 2008 through 2012 reveal that the I-95 project segment within the SW 10th Street interchange area is not a high crash segment but the I-95 segment within the Hillsboro Boulevard interchange area is classified as a high crash segment for four of the five study years. It should also be noted that the existing interchanges are closely located together and have short weave distances. Crash rates along SW 10th Street in the vicinity of I-95 exceed the statewide average for similar facilities for all five study years, but the segment along Hillsboro Boulevard in the vicinity of I-95 does not. Field observations indicate that the number of crashes along the Hillsboro Boulevard project segment may be influenced by queues extending from the railroad crossing into this area.

Evacuation and Emergency Services

The South Florida region has been identified by the National Oceanic and Atmospheric Administration (NOAA) as an area with a high degree of vulnerability to hurricanes and the Florida Division of Emergency Management has designated specific evacuation routes through the region. Both SW 10th Street and Hillsboro Boulevard are designated as emergency

evacuation routes from I-95 to SR 5/US-1 and A1A. I-95 is designated as an emergency evacuation route throughout Broward County. A need exists to enhance capacity and traffic circulation along evacuation routes to improve evacuation and enhance emergency response.

Transportation Demand

A need exists to improve capacity and safety while meeting transportation demand and maintaining consistency with other transportation plans and projects, such as the Broward County Interchange Master Plan (IMP) and I-95 Express Lanes Phase III Project. The project is included in the FDOT Work Program for fiscal years 2016 to 2020, where PD&E is scheduled for fiscal years 2015 and 2016 and PE is scheduled for fiscal years 2017 and 2018. The Broward County MPO 2035 Long Range Transportation Plan (LRTP) included improvements to all I-95 interchanges in Broward County under Illustrative Roadway Projects. Illustrative projects are those that cannot be included in the cost feasible plan due to financial constraints but could be included in a future approved Transportation Improvement Program.

System Linkage

A need exists to ensure that I-95 continues to meet the minimum requirements of a component of the state's Strategic Intermodal System (SIS) and the National Highway System (NHS), as well as provides access connectivity to other major arterials such as I-595 and Florida's Turnpike.

Modal Interrelationships

There exists a need for capacity improvements along the I-95 project corridor to enhance the mobility of public transit and goods by alleviating current and future congestion along the corridor and on the surrounding freight and transit networks. Reduced congestion will serve to maintain and improve viable access to the major transportation facilities and businesses of the area.

Increased mobility to public transit operations are needed and will benefit as a result of this project. Although no designated Broward County Transit (BCT) Routes are provided within the SW 10th Street interchange area, Hillsboro Boulevard is serviced by BCT Route #48, which provides a connection from SR 7 to Deerfield Beach including a direct connection to the Deerfield Tri-Rail Station located just west of the Hillsboro interchange.

Social Demands and Economic Development

Social and economic demands on the I-95 corridor will continue to increase as population and employment increase. The Broward County MPO 2035 LRTP predicted that the population would grow from 1.7 million in 2005 to 2.3 million by 2035, an increase of 29 percent. Jobs were predicted to increase from 0.7 to 1 million during the same time period, an increase of 37 percent. A need exists for the proposed improvements to support the predicted social and economic travel demands.

Project Description

This project proposes improvements to the I-95 partial cloverleaf interchanges at SW 10th Street and Hillsboro Boulevard and along I-95 from just south of the SW 10th Street interchange to just north of the Hillsboro Boulevard interchange (a distance of approximately 1.8 miles not including the length of the ramps) in Broward County, Florida (see Location Map in the EST). The project also proposes improvements along both SW 10th Street and Hillsboro Boulevard in the vicinity of I-95. The logical termini along SW 10th Street extend from just west of Military Trail east to SW Natura Boulevard, a distance of approximately 0.95 miles. Along Hillsboro Boulevard the improvements extend for approximately 0.97 miles from Goolsby Boulevard east to SW Natura Boulevard.

I-95 within the project limits currently has six general purpose lanes (three in each direction) and two High Occupancy Vehicle (HOV) lanes (one in each direction). This segment of I-95 is functionally classified as a Divided Urban Principal Arterial Interstate and has a posted speed limit of 65 miles per hour. The access management classification for this

corridor is Class 1.2, Freeway in an existing urbanized area with limited access. SW 10th Street is classified as a six lane divided State Principal arterial west of I-95 and as a six lane divided City Minor Arterial east of I-95. Hillsboro Boulevard is classified as a six-lane divided State Minor Arterial west of I-95 and as a State Principal Arterial east of I-95. Year 2013 AADT for I-95 was approximately 102,000 vehicles per day (vpd) NB and 102,000 vpd SB. Forecasted Year 2040 AADT for I-95 NB is approximately 129,000 vpd and 132,000 vpd SB in the vicinity of Hillsboro Boulevard, with 147,000 vpd NB and 146,000 vpd SB in the vicinity of SW 10th Street.

This project will evaluate the potential modification of the existing merge and diverge ramp areas at the SW 10th Street and Hillsboro Boulevard interchanges, consider the replacement of the existing SW 10th Street bridge over I-95 and the provision of a grade separation at the existing at-grade CSX Railroad crossing at Hillsboro Boulevard, located 1900 feet west of the existing interchange.

Summary of Public Comments

Summary of Public Comments is not available at this time.

Planning Consistency Status

Federal Consistency Determination

Date: 10/14/2015

Determination: CONSISTENT with Coastal Zone Management Program.

Lead Agency

Federal Highway Administration

Participating and Cooperating Agencies

Participating and Cooperating agencies are not applicable for this class of action.

Exempted Agencies

Agency Name	Justification	Date
US Coast Guard	US Coast Guard has requested to be exempt from reviewing any projects that do not impact navigable waterways.	08/28/2015
Federal Transit Administration	FTA has requested to be exempt from reviewing any non-transit projects.	08/28/2015

Community Desired Features

No desired features have been entered into the database. This does not necessarily imply that none have been identified.

User Defined Communities Within 500 Feet

No user defined communities were found within a 500 ft. buffer distance for this project.

Census Places Within 500 Feet

- DeLand Southwest

Purpose and Need Reviews

FDOT District 4

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/22/2015	Gaspar Jorge Padron (gaspar.padron@dot.state.fl.us)	No Purpose and Need comments found.

FL Department of Agriculture and Consumer Services

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/09/2015	Steve Bohl (Steve.Bohl@freshfromflorida.com)	No Purpose and Need comments found.

FL Department of Economic Opportunity

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/12/2015	Adam Biblo (adam.biblo@deo.myflorida.com)	No Purpose and Need comments found.

FL Department of Environmental Protection

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/14/2015	Lauren Milligan (lauren.milligan@dep.state.fl.us)	No Purpose and Need comments found.

FL Department of State

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/01/2015	Ginny Jones (ginny.jones@dos.myflorida.com)	none

FL Fish and Wildlife Conservation Commission

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/20/2015	Jennifer Goff (jennifer.goff@MyFWC.com)	No Purpose and Need comments found.

Federal Highway Administration

Acknowledgment	Date Reviewed	Reviewer	Comments
Accepted	10/22/2015	Luis Lopez (luis.d.lopez@dot.gov)	Planning consistency will need to be met before FHWA can approve the environmental document. The public needs to be aware of the funding situation and timeframe of the project development and delivery. The study area identified in the map just included on of the 3 ramps of the partial cloverleaf interchange. If this is correct, the PD&E needs to explain why those ramps were left out the study.

National Marine Fisheries Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	09/15/2015	Brandon Howard (Brandon.Howard@noaa.gov)	None

National Park Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/19/2015	Anita Barnett (anita_barnett@nps.gov)	No Purpose and Need comments found.

Natural Resources Conservation Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/14/2015	Rick Robbins (rick.a.robbins@fl.usda.gov)	No Purpose and Need comments found.

South Florida Water Management District

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/16/2015	Mindy Parrott (mparrott@sfwmd.gov)	No Purpose and Need comments found.

US Army Corps of Engineers

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/09/2015	Randy Turner (Randy.L.Turner@usace.army.mil)	No Purpose and Need comments found.

US Environmental Protection Agency

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	10/23/2015	Kim Gates (gates.kim@epa.gov)	No comments at this time.

US Fish and Wildlife Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	09/11/2015	John Wrublik (john_wrublik@fws.gov)	No Purpose and Need comments found.

The following organizations were notified but did not submit a review of the Purpose and Need:

- Seminole Tribe of Florida

Alternative #1

Alternative Description

Name	From	To	Type	Status	Total Length	Cost	Modes	SIS
Alternative was not named.	?	?	Widening	ETAT Review Complete	5.92 mi.		None Selected	Y

Segment Description(s)

Location and Length

Segment Record	Segment Name	Facility Name	Beginning Location	Ending Location	Length (mi.)	Roadway Id	BMP	EMP
S-001	Unnamed Segment	Unnamed Segment			5.92			

Jurisdiction and Class

Segment Record	Segment Name	Jurisdiction	Urban Service Area	Functional Class
S-001	Unnamed Segment			

Base Conditions

Segment Record	Segment Name	Year	AADT	Lanes	Config
S-001	Unnamed Segment				

Interim Plan

Segment Record	Segment Name	Year	AADT	Lanes	Config
S-001	Unnamed Segment				

Needs Plan

Segment Record	Segment Name	Year	AADT	Lanes	Config
S-001	Unnamed Segment				

Cost Feasible Plan

Segment Record	Segment Name	Year	AADT	Lanes	Config
S-001	Unnamed Segment				

Funding Sources

No funding sources found.

Project Effects Overview for Alternative #1

Issue	Degree of Effect	Organization	Date Reviewed
Social and Economic			
Land Use Changes	0 None	FL Department of Economic Opportunity	10/23/2015
Land Use Changes	2 Minimal	Federal Highway Administration	10/22/2015
Land Use Changes	2 Minimal	FDOT District 4	10/22/2015
Social	3 Moderate	US Environmental Protection Agency	10/24/2015
Social	2 Minimal	Federal Highway Administration	10/22/2015
Social	2 Minimal	FDOT District 4	10/22/2015
Relocation Potential	0 None	FDOT District 4	10/23/2015
Relocation Potential	0 None	Federal Highway Administration	10/22/2015
Farmlands	0 None	Federal Highway Administration	10/22/2015
Farmlands	0 None	Natural Resources Conservation Service	10/14/2015
Aesthetic Effects	2 Minimal	Federal Highway Administration	10/22/2015

Aesthetic Effects	2	Minimal	FDOT District 4	10/22/2015
Economic	0	None	FL Department of Economic Opportunity	10/23/2015
Economic	1	Enhanced	Federal Highway Administration	10/22/2015
Economic	1	Enhanced	FDOT District 4	10/22/2015
Mobility	1	Enhanced	Federal Highway Administration	10/22/2015
Mobility	1	Enhanced	FDOT District 4	10/22/2015
Cultural				
Section 4(f) Potential	2	Minimal	Federal Highway Administration	10/22/2015
Historic and Archaeological Sites	2	Minimal	Federal Highway Administration	10/22/2015
Historic and Archaeological Sites	3	Moderate	FL Department of State	10/01/2015
Recreation Areas	2	Minimal	US Environmental Protection Agency	10/23/2015
Recreation Areas	2	Minimal	Federal Highway Administration	10/22/2015
Recreation Areas	N/A	N/A / No Involvement	National Park Service	10/19/2015
Recreation Areas	2	Minimal	South Florida Water Management District	10/16/2015
Recreation Areas	2	Minimal	FL Department of Environmental Protection	10/14/2015
Natural				
Wetlands	3	Moderate	US Environmental Protection Agency	10/24/2015
Wetlands	2	Minimal	Federal Highway Administration	10/22/2015
Wetlands	2	Minimal	South Florida Water Management District	10/16/2015
Wetlands	2	Minimal	FL Department of Environmental Protection	10/14/2015
Wetlands	2	Minimal	US Army Corps of Engineers	10/09/2015
Wetlands	0	None	National Marine Fisheries Service	09/15/2015
Wetlands	2	Minimal	US Fish and Wildlife Service	09/11/2015
Water Quality and Quantity	3	Moderate	US Environmental Protection Agency	10/24/2015
Water Quality and Quantity	2	Minimal	Federal Highway Administration	10/22/2015
Water Quality and Quantity	2	Minimal	South Florida Water Management District	10/16/2015
Water Quality and Quantity	2	Minimal	FL Department of Environmental Protection	10/14/2015
Floodplains	3	Moderate	US Environmental Protection Agency	10/23/2015
Floodplains	2	Minimal	Federal Highway Administration	10/22/2015
Floodplains	2	Minimal	South Florida Water Management District	10/16/2015
Wildlife and Habitat	2	Minimal	Federal Highway Administration	10/22/2015
Wildlife and Habitat	2	Minimal	FL Fish and Wildlife Conservation Commission	10/20/2015

Wildlife and Habitat	0 None	FL Department of Agriculture and Consumer Services	10/09/2015
Wildlife and Habitat	2 Minimal	US Fish and Wildlife Service	09/11/2015
Coastal and Marine	0 None	Federal Highway Administration	10/22/2015
Coastal and Marine	0 None	South Florida Water Management District	10/16/2015
Coastal and Marine	0 None	National Marine Fisheries Service	09/15/2015
Physical			
Noise	2 Minimal	Federal Highway Administration	10/22/2015
Air Quality	2 Minimal	US Environmental Protection Agency	10/23/2015
Air Quality	2 Minimal	Federal Highway Administration	10/22/2015
Contamination	3 Moderate	US Environmental Protection Agency	10/23/2015
Contamination	3 Moderate	Federal Highway Administration	10/22/2015
Contamination	3 Moderate	South Florida Water Management District	10/16/2015
Contamination	3 Moderate	FL Department of Environmental Protection	10/14/2015
Infrastructure	2 Minimal	Federal Highway Administration	10/22/2015
Navigation	N/A N/A / No Involvement	Federal Highway Administration	10/22/2015
Navigation	N/A N/A / No Involvement	US Army Corps of Engineers	10/09/2015
Special Designations			
Special Designations	3 Moderate	US Environmental Protection Agency	10/23/2015
Special Designations	0 None	Federal Highway Administration	10/22/2015
Special Designations	0 None	South Florida Water Management District	10/16/2015

ETAT Reviews and Coordinator Summary: Social and Economic

Land Use Changes

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 12/09/2015 by FDOT District 4

Comments:

This project will be completed within existing right-of-way. It is compatible with the existing and future land use patterns of the area and not anticipated to affect the land use patterns in the project area. FDEO indicated that the project is compatible with the community's development goals and marginally compatible with the local government comprehensive plan. FDEO assigned a degree of effect of None. FHWA assigned a degree of effect of Minimal and stated that minimal to no land use effects are expected. A Summary Degree of Effect of **Minimal** has been assigned to the Land Use Changes issue.

Public outreach will be conducted during the PD&E Stage in coordination with the Broward County MPO and the City of Deerfield to solicit feedback on potential adverse effects as a result of the project.

Degree of Effect: 0 *None* assigned 10/23/2015 by Matt Preston, FL Department of Economic Opportunity

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

The local government's comprehensive plan: City of Deerfield Beach Comprehensive Plan, January 28, 2014.

Comments on Effects to Resources:

Project compatibility with community development goals? Yes.

Project compatibility with the local government(s) comprehensive plan?

Marginally. Would temporarily mitigate Level of Service Standard deficiency for I-95. In contrast, Section 3.7.2 of the Transportation Element, Implementation of Future Expected Roadway Improvements specifies, that for I-95, alleviation of congestion will rely on transit enhancements planned for this corridor.

Is the project on the Future Transportation Map?

No.

Future Land Use Map categories that surround the project: Transportation; Commercial; Commercial 2; Residential Moderate; Residential Medium; Community Facility; Water; and, Industrial.

Local parks (City or County) within a quarter mile of the project: Mayo Howard Park (Deerfield Beach City Park).

Does the project encroach on a military base? Is the project within an Area of Critical State Concern, encroach on a military base, or located in the project in a Rural Area of Opportunity? No.

Is the project within the Coastal High Hazard Area?No.

Is the project within an Area of Critical State Concern? No.

Other planning items that would affect or be enhanced by the project:

The project will improve the traffic flow merging onto I-95 and merging off I-95.

Contact information for the affected local government: Amanda Martinez, Director, Planning & Development Services, City of Deerfield Beach, (954) 480-4208

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Land uses have been identified in the report.

Comments on Effects to Resources:

The project is expected to be constructed within the existing ROW and doesn't foresee any changes on travel patterns. Minimal to no effects on land uses are expected.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 Minimal assigned 10/22/2015 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

City of Deerfield Beach Future Land Use Plan

200-Foot Buffer:

2008 SFWMD FL Land Use and Land Cover / Acres / Percent

1210 FIXED SINGLE FAMILY UNITS / 4.7 / 14.22%
1330 MULTIPLE DWELLING UNITS LOW RISE / 3.3 / 1.35%
1340 MULTIPLE DWELLING UNITS HIGH RISE / 2.9 / 1.2%
1400 COMMERCIAL AND SERVICES / 42.1 / 17.26%
1411 SHOPPING CENTERS / 3.2 / 1.31%
1550 OTHER LIGHT INDUSTRY / 13 / 5.32%
1700 INSTITUTIONAL / 6.4 / 2.61%
1820 GOLF COURSE / 3.6 / 1.45%
4130 SAND PINE / 0.5 / 0.21%
4340 UPLAND MIXED CONIFEROUS HARDWOOD / 3.6 / 1.48%
5300 RESERVOIRS / 7.5 / 3.07%
8140 ROADS AND HIGHWAYS / 153.4 / 62.81%

2010 Census Designated Places (1)

Deerfield Beach

Developments of Regional Impact (1)

Newport Center [ADA NO: 1982-020]

500-Foot Buffer:

2008 SFWMD FL Land Use and Land Cover / Acres / Percent

1210 FIXED SINGLE FAMILY UNITS / 19.4 / 3.95%
1330 MULTIPLE DWELLING UNITS LOW RISE / 29 / 5.92%
1340 MULTIPLE DWELLING UNITS HIGH RISE / 10 / 2.04%
1400 COMMERCIAL AND SERVICES / 141.7 / 28.9%
1411 SHOPPING CENTERS / 10.6 / 2.15%
1550 OTHER LIGHT INDUSTRY / 45.3 / 9.25%
1700 INSTITUTIONAL / 21.1 / 4.3%
1820 GOLF COURSE / 12.4 / 2.52%
4130 SAND PINE / 1.9 / 0.38%
4340 UPLAND MIXED CONIFEROUS HARDWOOD / 7.6 / 1.54%
5300 RESERVOIRS / 22.6 / 4.61%
8140 ROADS AND HIGHWAYS / 164.8 / 33.61%
1850 PARKS AND ZOOS / 3.5 / 0.72%
1900 OPEN LAND / 0.5 / 0.1%

1320-Foot (Quarter Mile) Buffer:

2008 SFWMD FL Land Use and Land Cover / Acres / Percent

1210 FIXED SINGLE FAMILY UNITS / 103.7 / 8.65%
1330 MULTIPLE DWELLING UNITS LOW RISE / 122.6 / 10.22%
1340 MULTIPLE DWELLING UNITS HIGH RISE / 46.3 / 3.86%
1400 COMMERCIAL AND SERVICES / 364.5 / 30.4%
1411 SHOPPING CENTERS / 12.4 / 1.03%
1550 OTHER LIGHT INDUSTRY / 163.4 / 13.7%

1700 INSTITUTIONAL / 43.1 / 3.6%
1820 GOLF COURSE / 52.9 / 4.41%
4130 SAND PINE / 5.5 / 0.46%
4340 UPLAND MIXED CONIFEROUS HARDWOOD / 7.6 / 0.63%
5300 RESERVOIRS / 30.1 / 2.51%
8140 ROADS AND HIGHWAYS / 199.2 / 16.61%
1850 PARKS AND ZOOS / 24.9 / 2.07%
1900 OPEN LAND / 4.4 / 0.37%
1310 FIXED SINGLE FAMILY UNITS / 0.3 / 0.03%
1320 MOBILE HOME UNITS / 5 / 0.42%
5120 CHANNELIZED WATERWAYS CANALS / 1.2 / 0.1%

Comments on Effects to Resources:

The City of Deerfield Beach Future Land Use Map (adopted December 3, 2013) predicts that land uses within the project area will remain similar except for the conversion of the former Deerfield Country Club Golf Course into an employment center. The project will be constructed mostly within existing right of way with the potential only for minor impacts to commercial properties which would be unlikely to result in changes to existing land use. The project will support the future growth and accommodate transportation to the employment centers in the project area.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

During the Project Development phase, FDOT District Four, in coordination with the Broward Metropolitan Planning Organization and the City of Deerfield Beach, will solicit input from residents and local businesses that may be impacted by the interchange improvements.

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Social

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 12/09/2015 by FDOT District 4

Comments:

This project will support increasing social and economic demands expected due to continued population and employment growth in this area. The proposed project is anticipated to improve traffic flow and safety to the surrounding communities, social service facilities, recreational assets, and businesses. The project vicinity contains minority and low-income populations and Community Development Block Grant Targeted Areas. Due to these sensitive populations, the USEPA gave the Social issue a Moderate rating. FHWA anticipated Minimal effects. Thus, a Summary DOE of **Moderate** has been assigned for the Social category.

During the PD&E phase, a Community Awareness Memorandum as recommended by USEPA, and a Sociocultural Effects Evaluation in accordance with Part 2, Chapter 9 of the FDOT PD&E Manual will be performed. Public outreach will be conducted by FDOT District Four in coordination with the Broward County MPO and the City of Deerfield Beach to solicit input from the general public to ensure that both the social and transportation needs of the community are addressed through the project.

Degree of Effect: 3 *Moderate* assigned 10/24/2015 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

- Community Awareness Memorandum (PD&E Manual, Part 1, Chapter 11), and
- Sociocultural Effects (SCE) Evaluation Technical Memorandum (PD&E Manual, Part 2, Chapter 13).

Direct Effects

Identified Resources and Level of Importance:

Based on available information (primarily USEPA's EJSCREEN tool, <http://www2.epa.gov/ejscreen>), the project could have disproportionately high and adverse human health or environmental effects on minority and low-income populations.

According to EJSCREEN, the population within 1/2 mile of the I-95 & Hillsboro Blvd interchange is:

- 67% minority,
- 47% low income,
- 12% linguistically isolated, and
- 19% with less than a high school education.

Also according to EJSCREEN, the population within 1/2 mile of the I-95 & SW 10th Street interchange is:

- 62% minority,
- 52% low income,
- 18% linguistically isolated, and
- 16% with less than a high school education.

Furthermore, the areas in the project vicinity are Community Development Block Grant (CDBG) Targeted Areas by the City of Deerfield Beach, <http://www.deerfield-beach.com/DocumentCenter/View/5312>

The Preliminary Environmental Discussion Comments Report identified several social services and recreational assets in the vicinity of the project corridor, including:

- South Florida Railway Museum (1300 West Hillsboro Boulevard),
- Assembly of God New Life (1015 W Newport Center Drive #105),
- Grace Christian Church (W Hillsboro Boulevard),
- Westside Park Recreation Center (445 SW 2nd Street),
- Broward County Fire Department and Rescue Station 111 (232 Goolsby Boulevard),
- Broward County North Regional County Court (1600 W Hillsboro Boulevard),
- U.S. Post Office - Deerfield Beach Annex (155 Goolsby Boulevard),
- Mayo Howard Park located at 1131 FAU Research Park Boulevard,
- Westside Park located at 445 SW 2nd Street, and
- Tivoli Sand Pine Preserve located along SW 10th Street between SW Natura Boulevard and SW Martin Luther King Jr Ave.

Additionally, the Seaboard Air Line Railway Station, which was recorded in the National Register of Historic Places in 1990 (<http://www.broward.org/History/NationalRegister/Pages/SeaboardAirLineRailwayStation.aspx>), and the Oveta McKeithen Recreational Complex (<http://www.deerfield-beach.com/index.aspx?NID=1223>) are located in the project study area.

Comments on Effects to Resources:

According to FDOT's PD&E Manual, Part 1, Chapter 11 Public Involvement, "[p]rojects processed through the ETDM EST have undergone a Sociocultural Effects Evaluation (SCE) as part of the screening process prior to the PD&E phase." And, according to FDOT's Practical Application Guides for SCE Evaluations - ETDM Process (April 23, 2013), "The timing of the SCE evaluation process for Planning and Programming screens [is] generally within the 45-day review period during which the Environmental Technical Advisory Team (ETAT) reviews and comments on a project." However, based on available information, USEPA could not determine if a Sociocultural Effects Evaluation will be conducted for this project. The Preliminary Environmental Discussion Comments Report identified several social services and recreational assets in the vicinity of the project corridor, and the Project Description stated that "an extensive Public Involvement Plan (PIP) will be prepared and conducted during the PD&E phase of this project." But conducting outreach to establish community concerns and preferences and to ascertain which public involvement activities will be appropriate during PD&E was not addressed.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

USEPA recommends development of a Community Awareness Memorandum to describe how affected communities and sensitive community issues will be identified, documented (preferably in a Sociocultural Effects Evaluation Technical Memorandum), and dealt with during the public involvement process.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Resources have been identified in the report.

Comments on Effects to Resources:

Access to properties could be affected during the construction phase of the project.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

The public must be involved in the project development. The access to properties during and after project delivery should be maintained.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

200-Foot Buffer:

2010 Amtrak Intercity Railroad Terminals

Deerfield Beach

2010 Census Designated Places (1)

Deerfield Beach

Bus Transit Routes (3)

Route 92

Route 93

Route 48 (Fixed Route from most recent Broward County Transit Map)

Developments of Regional Impact (1)

Newport Center [ADA NO: 1982-020]

Facility Crossings (10)

I-95 Northbound

SR 810 Hillsboro Boulevard

I-95 Southbound

SW 10th Street/SR 869

I-95/SR 9

SCL RR

SCL RR

SW 12th Avenue

SW 12th Avenue

FDOT RCI Bridges (5)

860123

860557

860124

860564

860194

Geocoded Civic Centers (2)

Deerfield Beach Country Club

Hilton Deerfield Beach

Geocoded Cultural Centers (1)

South Florida Railway Museum

Geocoded Laser Facilities (1)

Dentist - 10 Fairway Drive

Geocoded Religious Centers (2)

Assembly of God New Life

Grace Christian Church

Geocoded Social Service Facilities (4)

Food for the Poor

Florida Counseling & Wellness

Allied Barton Security Services

Barton Protective Services

Railroads in the State of Florida (1)

CSX Mainline

Transportation Disadvantaged Service Provider Areas (2)

-BROWARD

-BREVARD, BROWARD, DUVAL, MANATEE, PINELLAS - TMS OF BREVARD, INC.

500-Foot Buffer:

Community and Fraternal Centers 2015 (1)

Westside Park Recreation Center

Fixed-Guideway Transit Network Stations

Deerfield Beach Station - Tri County Commuter

Geocoded Government Buildings (1)

Broward County - County Court - North Regional Courthouse

Geocoded Religious Centers (3) (2 within 200 feet)

Church of Latter Day Saints

Geocoded Social Service Facilities (7) (4 within 200 feet)

Food for the Poor

Kasky, PA

Pegasus Home Health Care Inc

Railroads in the State of Florida (2) (1 within 200 feet)

CSX Spur

1320-Foot (Quarter Mile) Buffer:

Bus Transit Routes (5) (3 within 500 feet)

Route 50

Route 97

Geocoded Assisted Housing (2)

Lakes at Deerfield

Praxis of Deerfield Beach III

Geocoded Cultural Centers (2) (1 within 500 feet)

Century Plaza Branch Library

Geocoded Government Buildings (3) (1 within 500 feet)

US Post Office - Village

US Post Office - Deerfield Beach Carrier Annex

Geocoded Laser Facilities (2) (1 within 500 feet)

Hillsboro Urgent Care - 1855 W Hillsboro Boulevard

Geocoded Religious Centers (3 within 500 feet)

More than Conquerors Ministries

Temple Beth Israel at Century Village East

Examsoft Worldwide

Geocoded Schools (1)

University of Miami

Geocoded Social Service Facilities (19) (7 within 500 feet)

Ali Florida Fire and Mold

Image

Deerfield Beach City of Public Works Environmental Services

Puffin Learning Academy

Jodi B Green PA

Israel Humanitarian Foundation

Jewish National Fund Broward & Palm Beach Counties

Adventures in Early Learning

Deerfield Beach CBOC

Baroum Nabil A MD PA 100 S Military

Tropical Palms Hand Therapy Incorporated

Van Pelt and Associates Physical Rehabilitation Services

Group Care Facilities (3)

06-51-01204

06-51-02247

06-51-04374

Comments on Effects to Resources:

This project will support increasing social and economic demands on the I-95 corridor due to continued population and employment growth in this area. The project is located entirely within the City of Deerfield Beach, Broward County, Florida in an urbanized area. The proposed improvements involve existing roads and thus would not create any physical barriers between neighborhoods. Right of way impacts, if any, would be limited to partial acquisition of commercial/industrial property. There are no residences adjacent to the project; therefore, relocations are not anticipated. The residences east of I-95 are behind Natura Boulevard. The project would not result in changes to population or demographics.

Community facilities in the project vicinity include two (2) civic centers, two (2) cultural centers, three (3) government buildings, six (6) religious centers, one (1) school, and nineteen (19) social service facilities. Direct impacts would not occur; however, temporary disruptions to access may occur during construction.

The 2013 American Community Survey showed that eight (8) of the ten (10) block groups within 500 feet of the project limits have a lower median income than Broward County. The block groups that intersect the project have median incomes that range from \$3,676 to \$63,640, while Broward County has a median income of \$51,251. The block groups within 500 feet of the project area have a lower percentage of minority residents than the Broward County with 47 percent minority population compared to 59 percent minority population in the County. The project would not involve displacement of any minority and/or low-income residences or businesses and does not include tolling. Effects of construction would be temporary and would occur throughout the corridor. The project is not expected to cause minority or low-income populations to experience disproportionately high or adverse impacts.

The purpose and needs notes that the I-95 segment within the Hillsboro Boulevard interchange area was considered a high crash segment during a 2008 to 2012 study. The proposed improvements to provide increase weaving distances and a grade separation of the CSX Railroad crossing at Hillsboro Boulevard would enhance safety.

The proposed improvements to the interchanges will improve vehicular traffic flow, and provide enhanced access to and from I-95,

including the future managed lanes.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

During the Project Development and Environment study, FDOT District Four will coordinate with the Broward County Metropolitan Planning Organization and the City of Deerfield Beach to conduct public outreach and obtain feedback to ensure that the social and transportation needs of the community are addressed during the interchange improvements. FDOT District Four will inform the community of its construction schedule and access disruptions through signage, websites, and/or other means, as appropriate.

There are households with limited ability to speak English; thus, it is recommended that FDOT District Four further refine the limited English speaking households and possible requirements during the PD&E study as part of any public involvement efforts.

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Relocation Potential

Project Effects

Coordinator Summary Degree of Effect: 0 None assigned 12/09/2015 by FDOT District 4

Comments:

Improvements proposed to SR-9/I-95 from SW 10th Street to Hillsboro Boulevard will occur primarily within the existing right-of-way. FHWA rated effects as None. No relocations are anticipated; therefore, a Summary DOE of **No Involvement** has been assigned to the relocation issue.

Degree of Effect: 0 None assigned 10/23/2015 by Richard Young, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

200-Foot Buffer:

2008 SFWMD Residential Areas / Acres / Percent

1210 FIXED SINGLE FAMILY UNITS / 4.7 / 14.22%
1330 MULTIPLE DWELLING UNITS LOW RISE / 3.3 / 1.35%
1340 MULTIPLE DWELLING UNITS HIGH RISE / 2.9 / 1.2%

2010 Amtrak Intercity Railroad Terminals

Deerfield Beach

Developments of Regional Impact (1)

Newport Center [ADA NO: 1982-020]

Geocoded Civic Centers (2)

Deerfield Beach Country Club
Hilton Deerfield Beach

Geocoded Cultural Centers (1)

South Florida Railway Museum

Geocoded Laser Facilities (1)

Dentist - 10 Fairway Drive

Geocoded Religious Centers (2)

Assembly of God New Life

Assembly of God New Life
Grace Christian Church

Geocoded Social Service Facilities (4)

Food for the Poor
Florida Counseling & Wellness
Allied Barton Security Services
Barton Protective Services

Comments on Effects to Resources:

The proposed improvements are anticipated to be mostly accommodated within existing right-of-way. Slight acquisitions may be proposed to accommodate improvements to turning movements. The potential right-of-way impacts may affect commercial or industrial properties but would not impact any structures or require relocations. Refinement of the proposed improvements should help to determine if impacts can be avoided or minimized.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

During the Project Development phase, FDOT District Four, in coordination with the Broward Metropolitan Planning Organization and the City of Deerfield Beach, will solicit input from residents and local businesses that may be impacted by the interchange improvements. FDOT District Four will determine which businesses, if any, may experience impacts during the PD&E Study.

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 0 None assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Farmlands

Project Effects

Coordinator Summary Degree of Effect: 0 None assigned 12/09/2015 by FDOT District 4

Comments:

NRCS has determined that there are no prime, unique, or locally important farmland soils within the project area. According to Part 2, Chapter 28, Section 28-2.1 of the FDOT PD&E Manual, transportation projects situated within urbanized areas with no adjacent present or future agricultural lands are excluded from Farmland Assessments. Because the project is located within a designated urban area anticipated to continue to support residential and industrial uses, a Summary DOE of **None** has been assigned to the Farmlands issue.

Degree of Effect: 0 *None* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 0 *None* assigned 10/14/2015 by Rick Allen Robbins, Natural Resources Conservation Service

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

The USDA-NRCS considers soil map units with important soil properties for agricultural uses to be Prime Farmland. In addition, the USDA-NRCS considers any soils with important soil properties and have significant acreages that are used in the production of commodity crops (such as, cotton, citrus, row crops, specialty crops, nuts, etc.) to be considered as Farmlands of Unique Importance or Farmlands of Local Importance. Nationally, there has been a reduction in the overall amount of Prime and Unique Farmlands through conversion to non-farm uses. This trend has the possibility of impacting the nation's food supply and exporting capabilities.

Comments on Effects to Resources:

There are no Important Farmland soils or agricultural lands within the 200 foot buffer width for this project.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Aesthetic Effects

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 12/09/2015 by FDOT District 4

Comments:

Due to the urbanized nature of the area and the improvements being located on existing highways, the improvements are unlikely to impact the aesthetic environment. The potential grade separation at Hillsboro Boulevard and CSX Railroad would be a new

structure; however, the area already has bridge structures at the interchange. FHWA rated aesthetic effects as Minimal due to the urbanized nature of the area. The Summary Degree of Effect (DOE) of **Minimal** has been assigned to the Aesthetic Effects issue.

Public outreach will be conducted during the Project Development and Environment (PD&E) phase by FDOT District Four in coordination with the Broward County Metropolitan Planning Organization (MPO) and the City of Deerfield Beach. This will include soliciting opinions on community preferences as they relate to improving the aesthetics of the area.

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Communities have been identified in the report.

Comments on Effects to Resources:

No permanent impacts are expected but any potential impacts should be minimized and mitigated.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

200-Foot Buffer:

2008 SFWMD Residential Areas / Acres / Percent

- 1210 FIXED SINGLE FAMILY UNITS / 4.7 / 14.22%
- 1330 MULTIPLE DWELLING UNITS LOW RISE / 3.3 / 1.35%
- 1340 MULTIPLE DWELLING UNITS HIGH RISE / 2.9 / 1.2%

National Register of Historic Places (1)

Seaboard Air Line Railway Station, Old

Noise Barriers (3)

- FDOT District 4 ID 499
- FDOT District 4 ID 527
- FDOT District 4 ID 574

OGT: Multi-Use Trails Opportunities (1)

Hillsboro Canal Corridor

Public Land (1)

Tivoli Sand Pine Preserve

500-Foot Buffer:

2008 SFWMD Residential Areas / Acres / Percent

- 1210 FIXED SINGLE FAMILY UNITS / 19.4 / 3.95%
- 1330 MULTIPLE DWELLING UNITS LOW RISE / 29 / 5.92%

1340 MULTIPLE DWELLING UNITS HIGH RISE / 10 / 2.04%

1320-Foot (Quarter Mile) Buffer:

2008 SFWMD Residential Areas / Acres / Percent

- 1210 FIXED SINGLE FAMILY UNITS / 103.7 / 8.65%
- 1330 MULTIPLE DWELLING UNITS LOW RISE / 122.6 / 10.22%
- 1340 MULTIPLE DWELLING UNITS HIGH RISE / 46.3 / 3.86%
- 1310 FIXED SINGLE FAMILY UNITS / 0.3 / 0.03%
- 1320 MOBILE HOME UNITS / 5 / 0.42%

Florida Site File Historic Standing Structures (1)

SCL Railroad Depot

Geocoded Parks (2)

- Westside Park
- Mayo Howard Park

Noise Barriers (4) (3 within 500 feet)

FDOT District 4 ID 700

Comments on Effects to Resources:

There is a residential area east of Natura Boulevard and south of Hillsboro Boulevard within 500 feet of the improvements. Other features associated with aesthetics include the Tivoli Sand Pine Preserve, two (2) parks, the Seaboard Airline Railway Station, the SCL Railroad Depot, and four (4) noise barriers. Facilities on the west side of I-95 are generally industrial; however, impacts of noise and vibration should be identified.

Due to the urbanized nature of the area and the improvements being located on existing highways, the improvements are unlikely to impact the aesthetic environment. The potential grade separation at Hillsboro Boulevard and CSX Railroad would be a new structure; however, the area already has bridge structures at the interchange. Construction would result in temporary noise, vibration and visual impacts.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

During the Project Development phase, FDOT District Four, in coordination with the Broward Metropolitan Planning Organization and the City of Deerfield Beach, will solicit input from residents and local businesses to obtain feedback regarding preferences for the project related to aesthetics.

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Economic

Project Effects

Coordinator Summary Degree of Effect: 1 *Enhanced* assigned 12/09/2015 by FDOT District 4

Comments:

Broward County is expected to see continuous population and employment growth through 2035. The project is expected to support future growth and accommodate transportation to the employment centers in the project area. The Florida Department of Economic Opportunity assigned a DOE of None to the Economic issue. FHWA noted that there could be temporary effects during construction; however, still assigned a DOE of Enhanced. A Summary DOE of **Enhanced** has been assigned to the Economic issue.

During the PD&E phase, public outreach will be conducted by FDOT District Four in coordination with the Broward County MPO and the City of Deerfield Beach to solicit input from local residents and businesses regarding potential economic enhancements/impacts as a result of the project. Access to businesses and government services will be maintained during construction.

Degree of Effect: 0 *None* assigned 10/23/2015 by Matt Preston, FL Department of Economic Opportunity

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

The local government's comprehensive plan: City of Deerfield Beach Comprehensive Plan, January 28, 2014.

Comments on Effects to Resources:

Does the project have potential to attract new development? No.

Does the project have potential to generate jobs? No.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 1 *Enhanced* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Resources have been identified in the report.

Comments on Effects to Resources:

Temporary effects could include impact on the access to these facilities during construction. Access to these facilities should be maintained during construction period.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 1 *Enhanced* assigned 10/22/2015 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

2008 SFWMD FL Land Use and Land Cover / Acres / Percent

1210 FIXED SINGLE FAMILY UNITS / 4.7 / 14.22%

1330 MULTIPLE DWELLING UNITS LOW RISE / 3.3 / 1.35%

1340 MULTIPLE DWELLING UNITS HIGH RISE / 2.9 / 1.2%
1400 COMMERCIAL AND SERVICES / 42.1 / 17.26%
1411 SHOPPING CENTERS / 3.2 / 1.31%
1550 OTHER LIGHT INDUSTRY / 13 / 5.32%
1700 INSTITUTIONAL / 6.4 / 2.61%
1820 GOLF COURSE / 3.6 / 1.45%
4130 SAND PINE / 0.5 / 0.21%
4340 UPLAND MIXED CONIFEROUS HARDWOOD / 3.6 / 1.48%
5300 RESERVOIRS / 7.5 / 3.07%
8140 ROADS AND HIGHWAYS / 153.4 / 62.81%

2010 Amtrak Intercity Railroad Terminals

Deerfield Beach

2010 Census Designated Places (1)

Deerfield Beach

Developments of Regional Impact (1)

Newport Center [ADA NO: 1982-020]

Railroads in the State of Florida (1)

CSX Mainline

500-Foot Buffer:

2008 SFWMD FL Land Use and Land Cover / Acres / Percent

1210 FIXED SINGLE FAMILY UNITS / 19.4 / 3.95%
1330 MULTIPLE DWELLING UNITS LOW RISE / 29 / 5.92%
1340 MULTIPLE DWELLING UNITS HIGH RISE / 10 / 2.04%
1400 COMMERCIAL AND SERVICES / 141.7 / 28.9%
1411 SHOPPING CENTERS / 10.6 / 2.15%
1550 OTHER LIGHT INDUSTRY / 45.3 / 9.25%
1700 INSTITUTIONAL / 21.1 / 4.3%
1820 GOLF COURSE / 12.4 / 2.52%
4130 SAND PINE / 1.9 / 0.38%
4340 UPLAND MIXED CONIFEROUS HARDWOOD / 7.6 / 1.54%
5300 RESERVOIRS / 22.6 / 4.61%
8140 ROADS AND HIGHWAYS / 164.8 / 33.61%
1850 PARKS AND ZOOS / 3.5 / 0.72%
1900 OPEN LAND / 0.5 / 0.1%

Railroads in the State of Florida (2) (1 within 200 feet)

CSX Spur

1320-Foot (Quarter Mile) Buffer:

2008 SFWMD FL Land Use and Land Cover / Acres / Percent

1210 FIXED SINGLE FAMILY UNITS / 103.7 / 8.65%
1330 MULTIPLE DWELLING UNITS LOW RISE / 122.6 / 10.22%
1340 MULTIPLE DWELLING UNITS HIGH RISE / 46.3 / 3.86%
1400 COMMERCIAL AND SERVICES / 364.5 / 30.4%
1411 SHOPPING CENTERS / 12.4 / 1.03%
1550 OTHER LIGHT INDUSTRY / 163.4 / 13.7%
1700 INSTITUTIONAL / 43.1 / 3.6%
1820 GOLF COURSE / 52.9 / 4.41%
4130 SAND PINE / 5.5 / 0.46%
4340 UPLAND MIXED CONIFEROUS HARDWOOD / 7.6 / 0.63%
5300 RESERVOIRS / 30.1 / 2.51%
8140 ROADS AND HIGHWAYS / 199.2 / 16.61%
1850 PARKS AND ZOOS / 24.9 / 2.07%
1900 OPEN LAND / 4.4 / 0.37%
1310 FIXED SINGLE FAMILY UNITS / 0.3 / 0.03%
1320 MOBILE HOME UNITS / 5 / 0.42%
5120 CHANNELIZED WATERWAYS CANALS / 1.2 / 0.1%

Comments on Effects to Resources:

As discussed in the purpose and need, Broward County is expected to see continuous population and employment growth through

2035. In the project vicinity, there are industrial and commercial developments west of I-95 and near the interchanges. Additionally, the former Deerfield Country Club Golf Course is planned to be converted into an employment center. The project is not anticipated to require any business relocations, although some businesses may experience temporary disruption during the construction phase. The project will support future growth and accommodate transportation to the employment centers in the project area. Thus, while construction may have temporary economic impacts, the overall impact of the project will support economic growth.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

During the Project Development phase, FDOT District Four, in coordination with the Broward Metropolitan Planning Organization and the City of Deerfield Beach, will solicit input from residents and local businesses regarding potential economic enhancements/impacts as a result of the project. Access to business should be maintained during construction.

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Mobility

Project Effects

Coordinator Summary Degree of Effect: 1 *Enhanced* assigned 12/09/2015 by FDOT District 4

Comments:

Construction may cause temporary effects on mobility in the area; however, the overall effect of the project would be to improve mobility. FHWA rated the Mobility issue as Enhanced. Therefore, a Summary Degree of Effect of **Enhanced** has been assigned to the Mobility issue.

To avoid potential effects, public outreach will be conducted by FDOT District Four in coordination with Broward County MPO and the City of Deerfield Beach during the Project Development and Environmental phase. Public outreach programs will be conducted to solicit community opinions and preferences, identify project-related effects and refine plans to minimize the effects on area mobility.

Degree of Effect: 1 *Enhanced* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Resources have been identified in the report.

Comments on Effects to Resources:

The project will improve mobility in the area. Also, access to bike/peds and to transit should be maintain during construction and should be improved with the project.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **1** *Enhanced* assigned 10/22/2015 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

200-Foot Buffer:

2010 Amtrak Intercity Railroad Terminals

Deerfield Beach

Bus Transit Routes (3)

Route 92

Route 93

Route 48 (Fixed Route from most recent Broward County Transit Map)

Facility Crossings (10)

I-95 Northbound

SR 810 Hillsboro Boulevard

I-95 Southbound

SW 10th Street/SR 869

I-95/SR 9

SCL RR

SCL RR

SW 12th Avenue

SW 12th Avenue

FDOT RCI Bridges (5)

860123

860557

860124

860564

860194

Railroads in the State of Florida (1)

CSX Mainline

Transportation Disadvantaged Service Provider Areas (2)

-BROWARD

-BREVARD, BROWARD, DUVAL, MANATEE, PINELLAS - TMS OF BREVARD, INC.

500-Foot Buffer:

Fixed-Guideway Transit Network Stations

Deerfield Beach Station - Tri County Commuter

Railroads in the State of Florida (2) (1 within 200 feet)

CSX Spur

1320-Foot (Quarter Mile) Buffer:

Bus Transit Routes (5) (3 within 200 feet)

Route 50

Route 97

Comments on Effects to Resources:

Capacity improvements at the I-95/Hillsboro Boulevard and I-95/SW 10th Street interchanges will enhance the mobility of people and goods by alleviating current and future congestion along the corridor and on the surrounding freight and transit networks. Reduced congestion will serve to maintain and improve viable access to the major transportation facilities and businesses of the area.

Mobility may be temporarily impacted during construction; however, the overall effect would be enhanced.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

During the Project Development phase, FDOT District Four, in coordination with the Broward Metropolitan Planning Organization and the City of Deerfield Beach, will solicit input from residents and local businesses to obtain feedback regarding preferences for the project related to mobility.

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

ETAT Reviews and Coordinator Summary: Cultural

Section 4(f) Potential

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 12/09/2015 by FDOT District 4

Comments:

There are three public parks owned and maintained by the City of Deerfield Beach in the project vicinity:

- Tivoli Sand Pine Park/Sand Pine Preserve located along SW 10th Street between SW 3rd Avenue and Natura Boulevard,
- Mayo Howard Park located at 1131 FAU Research Park Boulevard, and
- Westside Park located at 445 SW 2nd Street.

FHWA rated Section 4(f) issue as minimal because work is limited to the FDOT right-of-way. The Summary DOE assigned to the section 4(f) issue is *Minimal*. If during project development a potential for section 4(f) impacts develops, then FDOT would coordinate with the officials with jurisdiction and FHWA.

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Resources have been identified in the report.

Comments on Effects to Resources:

Project is expected to be constructed within existing ROW. Any potential impact to any Section 4(f) resources will require coordination with the officials with jurisdiction and FHWA.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Historic and Archaeological Sites

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 12/09/2015 by FDOT District 4

Comments:

There is one National Register of Historic Places listed site within the project study area, the Seaboard Air Line Railway Station (8BD128). A Cultural Resources Assessment Survey (CRAS) was prepared for the I-95 corridor from north of Oakland Park Boulevard (SR 816) to south of Glades Boulevard (SR 808) in August 2013 for the I-95 Express project, ETDM Number 3330, FM Numbers 409359-1-22-01 and 409355-1-22-01. The CRAS did not identify any additional resources eligible for listing in the National Register within the study area for this project.

FHWA assigned a Minimal DOE and Florida Department of State (FDOS) assigned a Moderate DOE. The Seminole Tribe of Florida did not provide review input. FDOS stated that direct impacts to the Seaboard Air Line Railway Station are unlikely but that the resource is vulnerable to indirect effects and should be considered during project development. FDOS also noted that if there is ground disturbance outside of the previous survey then there would be potential to impact unrecorded cultural resources, although it is unlikely that unrecorded resources occur in the project area. A Summary DOE of **Moderate** has been assigned to the historic and archaeological sites issue.

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

A CRAS was prepared in 2013. It identified the resources within the project's limit.

Comments on Effects to Resources:

The analysis must consider the existing resources and should avoid any impacts to it.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 3 *Moderate* assigned 10/01/2015 by Ginny Leigh Jones, FL Department of State

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

Once the Area of Potential Effect (APE) is determined for the proposed project, the extent of the 2013 survey should be compared to the current project APE. Those areas not covered in the 2013 survey should be subjected to a comprehensive survey. For those areas that need to be surveyed, all cultural resources, including potential historic districts, within the area of potential effect should be documented and assessed for NRHP eligibility. The resultant survey report shall conform to the specifications set forth in Chapter 1A-46 Florida Administrative Code, FDOT PD&E Manual Part 2, Chapter 12 and will need to be forwarded to this agency (or the appropriate Federal Agency) for review and comment.

Direct Effects

Identified Resources and Level of Importance:

As reported in the PED, there is one resource - the Seaboard Air Line Railway Station (8BD128) recorded near the project area. This resource is listed on the National Register of Historic Places and is near the Hillsboro Boulevard interchange.

It is unlikely there are unrecorded resources in the project area since I-95 was surveyed in 2013 (also noted in the PED). However, depending on the interchange improvements, portions of those areas may need to be surveyed if they fall outside of the 2013 survey boundaries.

Comments on Effects to Resources:

It is unlikely there will be direct impacts to the Seaboard Air Line Railway Station (8BD128). If there is ground disturbance planned for areas not previously surveyed in 2013, there is a potential to impact unrecorded cultural resources.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

This office will consult with the project sponsors to avoid, minimize, or mitigate any adverse effects to significant cultural resources.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

It is unlikely there are unrecorded cultural resources in the project area. Historic aerials demonstrate that historic development near the project area was centered around Dixie Highway - well east of the current project. One exception to this development was the presence of Hillsboro Boulevard and the Seaboard Air Line Railway and Station in the 1958 aerial. However, any historic development near the project area along Hillsboro Boulevard is likely gone, except for the Seaboard Air Line Station.

Comments on Effects to Resources:

The Seaboard Air Line Railway Station is vulnerable to indirect impacts from the interchange improvements. This resource should be considered during the development of the interchange improvement design.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

This office will consult with the project sponsors to avoid, minimize, or mitigate any adverse effects to significant cultural resources.

The following organization(s) were expected to but did not submit a review of the Historic and Archaeological Sites issue for this alternative: Seminole Tribe of Florida

Recreation Areas

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 12/09/2015 by FDOT District 4

Comments:

There are three public parks owned and maintained by the City of Deerfield Beach in the project vicinity:

- Tivoli Sand Pine Park/Sand Pine Preserve located along SW 10th Street between SW 3rd Avenue and Natura Boulevard,
- Mayo Howard Park located at 1131 FAU Research Park Boulevard, and
- Westside Park located at 445 SW 2nd Street, south of Hillsboro Boulevard.

The project will be limited to existing right-of-way and therefore minimal impacts are anticipated to these resources. FHWA, SFWMD, USEPA, and FDEP also rated effects to recreation as minimal. NPS identified No Involvement. Therefore, a Summary DOE of *Minimal* has been assigned to the Recreation Areas issue.

Degree of Effect: 2 *Minimal* assigned 10/23/2015 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

No follow-up on Section 4(f) resources needed. However, USEPA would like to review PD&E support documentation for other resources within its purview.

Direct Effects

Identified Resources and Level of Importance:

Section 4(f) of the U.S. Department of Transportation Act of 1966 requires consideration of park and recreational lands, wildlife and waterfowl refuges, and historic sites in transportation project development. USEPA notes that two public parks and one preserve owned and maintained by the City of Deerfield Beach are located in the project vicinity:

- Mayo Howard Park located at 1131 FAU Research Park Boulevard,
- Westside Park located at 445 SW 2nd Street, and
- Tivoli Sand Pine Preserve located along SW 10th Street between SW Natura Boulevard and SW Martin Luther King Jr Ave.

The Preliminary Environmental Discussion (PED) Comments Report identified the Seaboard Air Line Railway Station as a National Register-eligible resource within the project study area. This information is not correct. The station was added to the National Register in 1990 (<http://www.broward.org/History/NationalRegister/Pages/SeaboardAirLineRailwayStation.aspx>).

Comments on Effects to Resources:

The PED Comments Report indicates that, because work will be limited to within the FDOT right-of-way, impacts on Section 4(f) resources are anticipated to be minimal. If right-of-way impacts on Section 4(f) resources are identified during PD&E, USEPA notes that FDOT will submit the required Section 4(f) Evaluation for a formal Determination of Section 4(f) Applicability.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Resources have been identified in the report.

Comments on Effects to Resources:

The project needs to make sure that access to the resources are not affected during and after construction of the project. Coordination with appropriate officials would be required accordingly.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: N/A *N/A / No Involvement* assigned 10/19/2015 by Anita Barnett, National Park Service

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/16/2015 by Mindy Parrott, South Florida Water Management District

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

As described in the preliminary comments.

Comments on Effects to Resources:

As described in the preliminary comments.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/14/2015 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

The City of Deerfield Beach's Tivoli Sand Pine Preserve is located within the 500-ft. project buffer zone.

Comments on Effects to Resources:

The Department is interested in preserving the area's natural communities, wildlife corridor functions, natural flood control, stormwater runoff filtering capabilities, aquifer recharge potential and recreational trail opportunities. Therefore, future environmental documentation should include an evaluation of the primary, secondary and cumulative impacts of any interchange construction on the above public lands.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

ETAT Reviews and Coordinator Summary: Natural Wetlands

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 12/09/2015 by FDOT District 4

Comments:

The surrounding area is largely developed, paved, cleared and landscaped, with minimal wetland habitat. Some of the stormwater

swales located within and adjacent to the right-of-way may support hydrophytic vegetation, but are components of the highway drainage system and are constructed man-made features. Potential impacts to wetlands will be assessed during the PD&E study and avoidance and minimization strategies will be implemented during the design process. FHWA, FDEP, USFWS, SFWMD, and USACE assigned a Minimal DOE for the wetlands issue and emphasized the desire for avoidance and minimization strategies. NMFS rated wetlands impacts as None. USEPA rated wetlands as Moderate due to concern about contaminated stormwater runoff impacting the freshwater ponds in the project corridor. Therefore, the Summary DOE for the wetlands issue is **Moderate**.

A new ERP or modification of the existing permit 88-0040-S will be required from the SFWMD. Depending on the extent of impacts jurisdictional palustrine wetlands, the project may qualify for the USACE Regional General Permit-92 or may be verified with a Nationwide Permit.

During the PD&E phase, further coordination will occur with the agencies to determine what documentation will be required to address agency concerns over potential wetland impacts. Necessary measures will be taken to avoid and/or minimize impacts to wetlands to the greatest extent practicable during project design. Should avoidance and/or minimization not be practicable, a Mitigation Plan will be prepared. In addition, existing compensatory mitigation sites within the area of influence will be identified and reviewed. Further, best management practices will be utilized during project construction and all applicable permits (including an ERP) will be obtained in accordance with federal, state, and local laws and regulations.

Degree of Effect: 3 Moderate assigned 10/24/2015 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

- Wetlands Evaluation Report (PD&E Manual, Part 2, Chapter 18), and
- Water Quality Impact Evaluation (PD&E Manual, Part 2, Chapter 20).

Direct Effects

Identified Resources and Level of Importance:

According to the National Wetlands Inventory Map (<http://www.fws.gov/wetlands/Data/Mapper.html>), a number of freshwater ponds are located in the project corridor.

Comments on Effects to Resources:

Contaminated stormwater runoff could impact the freshwater ponds in the project corridor.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

To the extent practicable, USEPA encourages FDOT to avoid, minimize, and mitigate stormwater impacts on the freshwater ponds, especially the surface water bodies identified in the City of Deerfield Beach's Future Land Use Map (<http://www.deerfield-beach.com/DocumentCenter/View/555>).

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 Minimal assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Wetlands have been identified within 200' from project study area.

Comments on Effects to Resources:

Effects will be study during the PD&E.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/16/2015 by Mindy Parrott, South Florida Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

A new ERP or modification of permit 88-00040-S would be required.

Direct Effects

Identified Resources and Level of Importance:

As described in the preliminary comments.

Comments on Effects to Resources:

None expected based on the project description and the preliminary evaluation. At the time of application for an Environmental Resource Permit, wetland and surface water impacts will be evaluated. Impacts to wetlands and surface waters must meet the criteria in Section 10 of Applicant's Handbook Volume I, including Elimination and Reduction as well as mitigation.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/14/2015 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

The National Wetlands Inventory GIS report indicates that there are 30.7 acres of palustrine wetlands within the 500-ft. project corridor.

Comments on Effects to Resources:

If interchange ramp expansion is proposed, an environmental resource permit (ERP) will be required from the South Florida Water Management District. The ERP applicant will be required to eliminate or reduce the proposed wetland resource impacts of interchange construction to the greatest extent practicable:

- Minimization should emphasize avoidance-oriented corridor alignments, wetland fill reductions via pile bridging and steep/vertically retained side slopes, and median width reductions within safety limits.
- Wetlands should not be displaced by the installation of stormwater conveyance and treatment swales; compensatory treatment in adjacent uplands is the preferred alternative.
- After avoidance and minimization have been exhausted, mitigation must be proposed to offset the adverse impacts of the project to existing wetland functions and values. Significant attention is given to forested wetland systems, which are difficult to mitigate.
- The cumulative impacts of concurrent and future transportation improvement projects in the vicinity of the subject project should also be addressed.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **2** *Minimal* assigned 10/09/2015 by Randy Turner, US Army Corps of Engineers

Coordination Document: Permit Required

Coordination Document Comments:

The project as proposed, may qualify for the Department of the Army's Regional General Permit (RGP) - 92 for impacts to the palustrine wetlands. Depending on the amount of proposed impacts to waters of the U.S., the project maybe verified with a Nationwide Permit.

Direct Effects

Identified Resources and Level of Importance:

A review of the EST revealed the presence of approximately 30.7 acres of palustrine wetlands within a 500 foot buffer; 13.4 palustrine acres within a 200 foot buffer; and, 7.9 acres within a 100 foot buffer. The project area is adjacent to heavily used roadway systems and a surface water canal tributary to the Hillsboro Canal along the west side of the project area. The only jurisdictional waters of the U.S. within the project area appear to be the surface waters of the canal and any adjacent wetlands. The other surface waters appear to be stormwater pond systems. The level of importance would be minimal.

Comments on Effects to Resources:

Upon initial review it appears that any wetland or surface water impacts could be avoided by bridge/culverting the canal waters. The palustrine wetlands are along existing, high-usage roadways which would have already been secondarily impacted so a functional assessment should reveal a lower quality of wetlands along the corridor.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

The Corps recommends a continued emphasis on wetland avoidance and minimization opportunities throughout the planning process. A wetland survey should be conducted along the project corridor to identify any existing wetlands, and if any are found, a jurisdictional determination should be completed. A review of the Corps RIBITS indicates that all of the proposed project corridor would traverse the geographical service areas of the federally approved FP&L Everglades Phase II Mitigation Bank (MB), which has 462.57 WATER assessed palustrine credits available; Florida Wetlandsbank at Pembroke Pines MB, which has 67.99 Integrated Functional Index assessed palustrine credits available; and Loxahatchee MB, which has 51.99 palustrine forested and 133.13 Modified WRAP palustrine emergent credits available. Any unavoidable wetland impacts should be assessed using the same assessment methodology of the MB (s) that credits may be purchased from.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

A review of the EST revealed the presence of approximately 30.7 acres of palustrine wetlands within a 500 foot buffer; 13.4 palustrine acres within a 200 foot buffer; and, 7.9 acres within a 100 foot buffer. The project area is adjacent to heavily used roadway systems and a surface water canal tributary to the Hillsboro Canal along the west side of the project area. The only jurisdictional waters of the U.S. within the project area appear to be the surface waters of the canal and any adjacent wetlands. The other surface waters appear to be stormwater pond systems. The level of importance would be minimal.

Comments on Effects to Resources:

Given the current project's location amid high-usage roadway systems, there should not be any significant additional effects to the canal or adjacent wetlands.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

The Corps recommends a continued emphasis on wetland avoidance and minimization opportunities throughout the planning process. A wetland survey should be conducted along the project corridor to identify any existing wetlands, and if any are found, a jurisdictional determination should be completed. A review of the Corps RIBITS indicates that all of the proposed project corridor would traverse the geographical service areas of the federally approved FP&L Everglades Phase II Mitigation Bank (MB), which has 462.57 WATER assessed palustrine credits available; Florida Wetlandsbank at Pembroke Pines MB, which has 67.99 Integrated Functional Index assessed palustrine credits available; and Loxahatchee MB, which has 51.99 palustrine forested and 133.13 Modified WRAP palustrine emergent credits available. Any unavoidable wetland impacts should be assessed using the same assessment methodology of the MB (s) that credits may be purchased from.

Degree of Effect: 0 *None* assigned 09/15/2015 by Brandon Howard, National Marine Fisheries Service

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

None

Comments on Effects to Resources:

None

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Magnuson-Stevens Act: Based on a site inspection on September 9, 2015, the project location, information provided in the ETDM website, and GIS-based analysis of impacts, NOAA's National Marine Fisheries Service (NMFS) concludes the proposed work would not directly impact areas that support essential fish habitat (EFH) or NOAA trust fishery resources. NMFS has no comments or recommendations to provide pursuant to the EFH requirements of the Magnuson-Stevens Fishery Conservation and Management Act (P.L. 104-297); and this project will not require an EFH Assessment. Further consultation on this matter is not necessary unless future modifications are proposed and you believe that the proposed action may result in adverse impacts to EFH.

Endangered Species Act: We are not aware of any threatened or endangered species or critical habitat under the purview of NMFS that occur within the project area. However, it should be noted that a "no effect" determination must be made by the action agency and the reasoning underlying the determination should be documented in a project file. Please coordinate closely with the U.S. Fish and Wildlife Service for other species listed under the Endangered Species Act that may require consultation.

Fish and Wildlife Coordination Act: Based on the project location, information provided in the ETDM website, and GIS-based analysis of impacts, NOAA's National Marine Fisheries Service (NMFS) concludes the proposed work would not directly impact wetlands areas that support NOAA trust fishery resources. NMFS has no comments or recommendations to provide pursuant to the Fish and Wildlife Coordination Act.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 09/11/2015 by John Wrublik, US Fish and Wildlife Service

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Wetlands

Comments on Effects to Resources:

Wetlands provide important habitat for fish and wildlife, and are known to occur within the project area. We recommend that these valuable resources be avoided to the greatest extent practicable. If impacts to these wetlands are unavoidable, we recommend the

FDOT provide mitigation that fully compensates for the loss of important resources.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Water Quality and Quantity

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 12/09/2015 by FDOT District 4

Comments:

Presently, stormwater drainage and treatment is provided primarily by a series of dry swales and ponds. The project would increase the impervious area. A new ERP or modification of the existing permit 88-0040-S will be required from the SFWMD. FHWA, SFWMD, and FDEP concurred with a Minimal DOE to the issue of water quality and quantity provided that the project is designed to meet water quality and quantity criteria of the ERP Applicant's Handbook Volumes I and II, including Appendix E. USEPA assigned a Moderate rating due to the potential for contaminated stormwater runoff which could impact the Biscayne Sole Source Aquifer and Broward County's 2A Wellfield Protection Area. Therefore, the Summary DOE assigned to the Water Quality and Quantity issue is **Moderate**.

During the PD&E phase, FDOT District Four will conduct a Water Quality Impact Evaluation, in accordance with Part 2, Chapter 20 of the FDOT PD&E Manual. FDOT will coordinate with appropriate agencies for the design of the proposed stormwater system and the requirements for stormwater treatment, evaluating existing stormwater treatment adequacy and details on the future stormwater treatment facilities. All necessary permits will be obtained in accordance with federal, state, and local laws and regulations. The project will be designed to meet state water quality and quantity requirements, and best management practices will be utilized during construction.

Degree of Effect: 3 *Moderate* assigned 10/24/2015 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

Water Quality Impact Evaluation (PD&E Manual, Part 2, Chapter 20)

Direct Effects

Identified Resources and Level of Importance:

The Biscayne aquifer, which underlies Broward County, supplies virtually all of the potable water needs for residents in densely populated Dade, Broward, Palm Beach, and Monroe Counties. The Biscayne aquifer is highly susceptible to contamination due to its high permeability and proximity to the land surface

(http://my.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/2013_1ec_plan.pdf).

A number of freshwater ponds, which are hydraulically connected to the Biscayne Aquifer, are located in the project corridor. Broward County's 2A Wellfield Protection Area may also be located in the project corridor

(http://www.broward.org/PollutionPrevention/Wellfield/Documents/Official11_5_13WPZOrdMap.pdf).

Comments on Effects to Resources:

Contaminated stormwater runoff in the project corridor could impact the Biscayne Aquifer and Broward County's 2A Wellfield Protection Area.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

To the extent practicable, USEPA encourages FDOT to avoid, minimize, and mitigate impacts on surface waters and stormwater

To the extent practicable, USEPA encourages FDOT to avoid, minimize, and mitigate impacts on surface waters and stormwater management systems in the project vicinity. In addition, we recommend performing a Water Quality Impact Evaluation and coordinating with the South Florida Water Management District and Broward County.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Resources have been identified in the report.

Comments on Effects to Resources:

No additional comments.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/16/2015 by Mindy Parrott, South Florida Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

A new ERP or modification of 88-00040-S will be necessary.

Direct Effects

Identified Resources and Level of Importance:

As described in the preliminary evaluation.

Comments on Effects to Resources:

SFWMD concurs with the assignment of a minimal degree of effect, provided that the project is designed to meet the stormwater water quality and quantity criteria of the ERP Applicant's Handbook Vols. I & II., including appendix E.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/14/2015 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

Stormwater runoff from the road surface may alter adjacent wetlands and surface waters through increased pollutant loading. Additional runoff carrying oils, greases, metals, sediment, and other pollutants from the increased impervious surface will be of concern.

Comments on Effects to Resources:

Every effort should be made to maximize the treatment of stormwater runoff from the proposed interstate improvements project to prevent ground and surface water contamination. Stormwater treatment should be designed to maintain the natural predevelopment hydroperiod and water quality, as well as to protect the natural functions of adjacent wetlands. We recommend that the PD&E study include an evaluation of existing stormwater treatment adequacy and details on the future stormwater treatment facilities. Retrofitting of stormwater conveyance systems would help reduce impacts to water quality.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Floodplains

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 12/09/2015 by FDOT District 4

Comments:

A new Environmental Resource Permit (ERP) or modification of the existing permit 88-0040-S will be required from the SFWMD. SFWMD and FHWA rated the floodplains issue as Minimal. USEPA rated the floodplains issue as Moderate because the PED Comments Report indicates that the project will increase the impervious area, which will increase stormwater runoff and affect existing drainage patterns in the surrounding area. Therefore, a Summary DOE of **Moderate** has been assigned to the Floodplain issue.

A Location Hydraulic Report will be prepared during the PD&E phase in accordance with the PD&E Manual, Part 2, Chapter 24.

Degree of Effect: 3 *Moderate* assigned 10/23/2015 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

- Location Hydraulic Report (PD&E Manual, Part 2, Chapter 24), and
- Water Quality Impact Evaluation (PD&E Manual, Part 2, Chapter 20).

Direct Effects

Identified Resources and Level of Importance:

Protection of floodplains and floodways is required by Executive Order 11988, "Floodplain Management", USDOT Order 5650.2, "Floodplain Management and Protection", and Federal-Aid Policy Guide 23 CFR 650A. USEPA notes that portions of the project corridor are located within flood zones AE and AH. Moreover, numerous stormwater management ponds and NPDES stormwater

outfall sites are located in the project corridor (see Broward County Water Resources Fact Book, June 2015, http://www.awra.org/memberservices/brochures/Broward_County_Brochure.pdf).

Comments on Effects to Resources:

According to the Preliminary Environmental Discussion (PED) Comments Report, FDOT anticipates minimal effects on floodplains. However, the PED Comments Report also indicates that the project will increase the impervious area, which will increase stormwater runoff and affect existing drainage patterns in the surrounding area. Information should have been provided about the efficacy of the existing stormwater management infrastructure, whether work will be performed below the 100-year flood elevation, and if the project will involve modification and/or replacement of any existing drainage structures or construction of any new drainage structures. As stated in FDOT's PD&E Manual, Part 2, Chapter 24 Floodplains, "[p]rojects that affect flood heights and flood limits, even minimally, may require further evaluation to support statements that emphasize the insignificance of the modifications."

Recommended Avoidance, Minimization, and Mitigation Opportunities:

USEPA recommends hydraulic and risk evaluations to identify the least environmentally damaging alternative and assess measures to avoid, minimize, and mitigate impacts to the floodplains, to the extent practicable.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No additional resources.

Comments on Effects to Resources:

No additional comments at this stage of the process.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/16/2015 by Mindy Parrott, South Florida Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

A new ERP or modification of 88-00040-S will be necessary.

Direct Effects

Identified Resources and Level of Importance:

As described in the preliminary evaluation.

Comments on Effects to Resources:

SWFMD concurs with the assignment of a minimal degree of effect, provided that the project is designed to meet the stormwater water quality and quantity criteria of the ERP Applicant's Handbook Vols. I & II., including appendix E.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Wildlife and Habitat

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 12/09/2015 by FDOT District 4

Comments:

Core Foraging Areas (CFA) of two active wood stork nests and the USFWS designated consultation area for snail kites overlap the project area. No areas of designated Critical Habitat are present. FHWA rated the wildlife and habitat issue as **Minimal**. USFWS rated the wildlife and habitat issue as **Minimal** but recommended that FDOT prepare a **Biological Assessment** due to the potential occurrence of the wood stork. FFWCC stated that impacts could be minimal provided that construction avoids the Tivoli Sand Pines Preserve and that water quality best management practices are implemented. FFWCC recommended that FDOT perform plant mapping and wildlife surveys and develop a plan to address potential impacts, including avoidance measures for the Florida burrowing owl. Therefore, the Summary DOE assigned to the Wildlife and Habitat issue is **Minimal**.

During the PD&E phase further coordination will occur with USFWS and FFWCC to determine what documentation will be required to analyze potential wildlife issues. The final design of the project will avoid and/or minimize impacts to wetlands and wildlife and habitat to the greatest extent possible and best management practices will be utilized during project design and construction. Appropriate mitigation will also be provided for unavoidable impacts.

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Resources have been identified but it is not clear if a survey has been performed to identify any other species in the study area.

Comments on Effects to Resources:

Effects will be discussed in the PD&E study.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/20/2015 by Jennifer Goff, FL Fish and Wildlife Conservation Commission

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Florida Fish and Wildlife Conservation Commission (FWC) staff has reviewed ETDM #14244, Broward County, and provides the following comments related to potential effects to fish and wildlife resources of this Programming Phase project.

The Project Description Summary states that this project involves improvements to the I-95 partial cloverleaf interchanges at SW 10th Street and Hillsboro Boulevard and along I-95 between these interchanges, a distance of approximately 1.8 miles. The project also proposes improvements along both SW 10th Street and Hillsboro Boulevard in the vicinity of I-95. The Project Description did not address the possible need for new Drainage Retention Areas (DRAs) to handle the stormwater runoff from the expanded roadways.

An assessment of the project area was performed on lands within 500 feet of the proposed alignment to determine potential impacts to habitat which supports listed species and other fish and wildlife resources. Our inventory included a review of aerial and ground-level photography, various wildlife observation and landcover data bases, along with coordination with FWC biologists and other State and Federal agencies. A GIS analysis was performed using the Florida Department of Transportation's (FDOT) Environmental Screening Tool to determine the potential quality and extent of upland and wetland habitat, and other wildlife and fisheries resource information. We have reviewed the Preliminary Environmental Discussion Comments Report provided by the FDOT, and offer the following comments and recommendations.

Our assessment reveals that land use in the project area is almost entirely urban, with 93.99% of the assessment area classified as Transportation and High or Low Intensity Urban. Other landcover types include Open Water (borrow/stormwater lakes and their associated drainage canals at 4.37%, 253.0 acres), Sand Pine Scrub (within the Tivoli Sand Pine Preserve at 1.53%, 7.5 acres), and Rural Lands (0.11%, 0.6 acres). The Tivoli Sand Pine Preserve, a 22.52-acre area adjacent to the north side of SW 10th Street, and which is owned and managed by the City of Deerfield Beach, provides the most valuable wildlife habitat in the project vicinity.

Based on range and preferred habitat type, the following species listed by the Federal Endangered Species Act and the State of Florida as Federally Endangered (FE), Federally Threatened (FT), State-Threatened (ST), or State Species of Special Concern (SSC) have the potential to occur in the project area: American alligator (FT based on similarity of appearance to American crocodile), Eastern indigo snake (FT), wood stork (FT), gopher frog (SSC), gopher tortoise (ST), Florida burrowing owl (SSC), least tern (ST), limpkin (SSC), snowy egret (SSC), little blue heron (SSC), tricolored heron (SSC), roseate spoonbill (SSC), and white ibis (SSC). Special attention is warranted regarding burrowing owls, which have been documented in the I-95 interchange infields at nearby Glades Road, and may also utilize similar habitat at the subject interchanges.

The GIS analysis revealed several specific characteristics associated with lands along the project alignment that provide an indication of potential habitat quality or sensitivity that will require field studies to verify the presence or absence of listed wildlife species and the quality of wildlife habitat resources. In the FWC's Integrated Wildlife Habitat Ranking System, 2.9% of the assessment area is ranked Medium, and in the Florida Natural Areas Inventory Critical Lands and Waters Identification Project (CLIP), 1.58% is ranked Priority 2 (high) for Biodiversity Resources. The project is within the Core Foraging Area of four wood stork colonies, and is within the U.S. Fish and Wildlife Service Consultation Area for the Snail Kite.

Comments on Effects to Resources:

Primary wildlife issues associated with this project include: potential adverse impacts to the Tivoli Sand Pine Preserve; potential adverse effects to a moderate number of species listed by the Federal Endangered Species Act as Endangered or Threatened, or by the State of Florida as Threatened or Species of Special Concern; and potential for water quality impacts during construction.

Based on the project information provided, we believe that direct and indirect effects of this project could be minimal provided that construction, including any new DRAs, avoids impacting the Tivoli Sand Pine Preserve, and that water quality BMPs are included in the project design.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

We recommend that the Project Development and Environment Study address natural resources by including the following measures for conserving fish and wildlife and habitat resources that may occur within and adjacent to the project area.

1. Plant community mapping and wildlife surveys for the occurrence of wildlife species listed by the Federal Endangered Species Act as Endangered or Threatened, or by the State of Florida as Threatened or Species of Special Concern should be performed. Basic guidance for conducting wildlife surveys may be found in the FWC's Florida Wildlife Conservation Guide at:

<http://myfwc.com/conservation/value/fwcg/>.

2. Based on the survey results, a plan should be developed to address direct, indirect, and cumulative effects of the project on wildlife and habitat resources, including listed species. Avoidance, minimization, and mitigation measures should also be formulated and implemented. Equipment staging areas should be located in previously disturbed sites to avoid habitat destruction or degradation. The plan should address specific habitat needs which are biologically compatible with the recovery of the target species. For guidance in this effort, FWC's Draft Species Action Plans should be consulted at: <http://myfwc.com/wildlifehabitats/imperiled/species-action-plans/>.

3. Florida burrowing owls may be present in the project area. Avoidance and minimization measures for burrowing owls include: Avoid construction activities that would impact active burrowing owl nests. Burrowing owl nests are generally considered to be active from February to July. Avoid adverse impacts to burrowing owl nests by establishing a 150-foot radius around the burrow entrance that is staked and roped -off prior to construction. Take care to avoid digging or using heavy equipment near burrow entrances during the breeding season so as not to collapse burrows and potentially trap owls or destroy eggs. If impacts to burrowing owl burrows or nests are unavoidable, please contact the FWC staff identified below to discuss potential permitting alternatives.

4. For impacts to other state-listed species, refer to the FWC's Draft Species Action Plans which include methods for avoidance as well as options and state requirements for minimizing and mitigating potential impacts.

5. A compensatory mitigation plan should include the replacement of any wetland, upland, or aquatic habitat functional values for listed species which are lost as a result of the project. Replacement habitat for mitigation should be type for type, as productive, and equal to or of higher functional value. Please notify us immediately if the design, extent, or footprint of the current project is modified, as we may choose to provide additional comments and/or recommendations.

We appreciate the opportunity to provide input on highway design and the conservation of fish and wildlife resources. Please contact Brian Barnett at (772) 579-9746 or email brian.barnett@MyFWC.com to initiate the process for further overall coordination on this project.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 0 *None* assigned 10/09/2015 by Steve Bohl, FL Department of Agriculture and Consumer Services

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 09/11/2015 by John Wrublik, US Fish and Wildlife Service

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Federally listed species and fish and wildlife resources

Comments on Effects to Resources:

Federally-listed species -

The Service has reviewed our Geographic Information Systems (GIS) database for recorded locations of Federally listed threatened and endangered species on or adjacent to the project study area. The GIS database is a compilation of data received from several sources. Based on review of our GIS database, the Service notes that the following Federally listed species may occur in or near the project area.

Wood Stork

The project corridor is located in the Core Foraging Areas (CFA)(within 18.6 miles) of two active nesting colonies of the endangered wood stork (*Mycteria americana*). The Service believes that the loss of wetlands within a CFA due to an action could result in the loss of foraging habitat for the wood stork. To minimize adverse effects to the wood stork, we recommend that any lost foraging habitat resulting from the project be replaced within the CFA of the affected nesting colony. Moreover, wetlands provided as mitigation should adequately replace the wetland functions lost as a result of the action. The Service does not consider the preservation of wetlands, by itself, as adequate compensation for impacts to wood stork foraging habitat, because the habitat lost is not replaced. Accordingly, any wetland mitigation plan proposed should include a restoration, enhancement, or creation component. In some cases, the Service accepts wetlands compensation located outside the CFA of the affected wood stork nesting colony. Specifically, wetland credits purchased from a "Service Approved" mitigation bank located outside of the CFA would be acceptable to the Service, provided that the impacted wetlands occur within the permitted service area of the bank.

For projects that impact 5 or more acres of wood stork foraging habitat, the Service requires a functional assessment be conducted using our "Wood Stork Foraging Analysis Methodology" (Methodology) on the foraging habitat to be impacted and the foraging habitat provided as mitigation. The Methodology can be found at: <http://www.fws.gov/verobeach/ListedSpecies/Birds.html> . The Service believes that the following federally listed species have the potential to occur in or near the project site include the wood stork. Accordingly, the Service recommends that the Florida Department of Transportation (FDOT) prepare a Biological Assessment for the project (as required by 50 CFR 402.12) during the FDOT's Project Development and Environment process.

Fish and Wildlife Resources -

Wetlands provide important habitat for fish and wildlife, and are known to occur within the project area. We recommend that these valuable resources be avoided to the greatest extent practicable. If impacts to these wetlands are unavoidable, we recommend the FDOT provide mitigation that fully compensates for the loss of important resources.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Coastal and Marine

Project Effects

Coordinator Summary Degree of Effect: 0 None assigned 12/09/2015 by FDOT District 4

Comments:

The proposed project corridor is not located within a Coastal Barrier Resource Area, and Essential Fish Habitat is not located within the project limits. Consequently, FHWA, SFWMD, and NMFS anticipated that the effect to coastal and marine will be None; therefore, the Summary DOE is **None**.

Degree of Effect: 0 None assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 0 None assigned 10/16/2015 by Mindy Parrott, South Florida Water Management District

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 0 None assigned 09/15/2015 by Brandon Howard, National Marine Fisheries Service

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

None

Comments on Effects to Resources:

None

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Magnuson-Stevens Act: Based on a site inspection on September 9, 2015, the project location, information provided in the ETDM website, and GIS-based analysis of impacts, NOAA's National Marine Fisheries Service (NMFS) concludes the proposed work would not directly impact areas that support essential fish habitat (EFH) or NOAA trust fishery resources. NMFS has no comments or recommendations to provide pursuant to the EFH requirements of the Magnuson-Stevens Fishery Conservation and Management Act (P.L. 104-297); and this project will not require an EFH Assessment. Further consultation on this matter is not necessary unless future modifications are proposed and you believe that the proposed action may result in adverse impacts to EFH.

Endangered Species Act: We are not aware of any threatened or endangered species or critical habitat under the purview of NMFS

that occur within the project area. However, it should be noted that a "no effect" determination must be made by the action agency and the reasoning underlying the determination should be documented in a project file. Please coordinate closely with the U.S. Fish and Wildlife Service for other species listed under the Endangered Species Act that may require consultation.

Fish and Wildlife Coordination Act: Based on the project location, information provided in the ETDM website, and GIS-based analysis of impacts, NOAA's National Marine Fisheries Service (NMFS) concludes the proposed work would not directly impact wetlands areas that support NOAA trust fishery resources. NMFS has no comments or recommendations to provide pursuant to the Fish and Wildlife Coordination Act.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

ETAT Reviews and Coordinator Summary: Physical

Noise

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 12/09/2015 by FDOT District 4

Comments:

Residential, commercial/retail, public, institutional and industrial properties were identified in the immediate vicinity of the project corridor. Residential land uses are located east of I-95 to the south of Hillsboro Boulevard. While temporary construction noise impacts may have short-term effects on adjacent properties, overall noise and vibration-related impacts as a result of the project are anticipated to be minimal. FHWA also anticipates noise effects to be minimal. Therefore, a Summary DOE of **Minimal** has been assigned to the Noise issue.

During the PD&E phase, a Noise Study Report will be prepared if warranted by the proposed project alternatives in accordance with Part 2, Chapter 17 of the FDOT PD&E Manual.

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Resources have been identified within the project area.

Comments on Effects to Resources:

A study will be prepared to assess potential noise impacts to the existing resources.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Air Quality

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 12/09/2015 by FDOT District 4

Comments:

The proposed project corridor is located within the Southeast Florida Airshed, which is a USEPA-designated Air Quality Maintenance Attainment Area for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. However, as a former ozone nonattainment area, the project is subject to the maintenance plan approved by USEPA as a revision to Florida's State Implementation Plan (75 FR 29671, May 27, 2010). Therefore, if federal funds are used for the proposed improvements then a transportation conformity demonstration will be necessary to show that estimated pollutant/precursor emissions associated with the project are within the emissions limits specified in the SIP.

USEPA and FHWA rated air quality issue as Minimal due to impacts during construction, but no permanent effects to air quality are anticipated. Minor air quality enhancement can be expected because the improvements are likely to reduce idling traffic conditions. A Summary DOE of *Minimal* has been assigned to the Air Quality issue.

An Air Quality Technical Memorandum will be prepared as a support document to the PD&E Study in accordance with Part 2, Chapter 16 of the FDOT PD&E Manual.

Degree of Effect: 2 *Minimal* assigned 10/23/2015 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

Air Quality Technical Memorandum (PD&E Manual, Part 2, Chapter 16, Section 16-3)

Direct Effects

Identified Resources and Level of Importance:

The project area is in attainment with the Clean Air Act's National Ambient Air Quality Standards (NAAQS). However, as a former ozone nonattainment area, the project is subject to the maintenance plan approved by USEPA as a revision to Florida's State Implementation Plan (75 FR 29671, May 27, 2010). As noted in Part 2, Chapter 16 of FDOT's PD&E Manual, current information on the NAAQS compliance status of areas in Florida is available in USEPA's "Green Book" (<http://www.epa.gov/oar/oaqps/greenbk/>).

Comments on Effects to Resources:

FDOT's PD&E Manual further states that USEPA promulgated transportation conformity regulations in 1993 to implement NAAQS requirements. These regulations (40 CFR Part 93) apply to transportation (highway) plans, programs, and projects within nonattainment or maintenance areas that are developed, funded, or approved under U.S.C. Title 23 or the Federal Transit Act.

Therefore, if federal funds are used for the proposed improvements to the I-95 partial cloverleaf interchanges at SW 10th Street and Hillsboro Boulevard and along I-95 from just south of the SW 10th Street interchange to just north of the Hillsboro Boulevard interchange (a distance of approximately 1.8 miles not including the length of the ramps), then a transportation conformity demonstration will be necessary to show that estimated pollutant/precursor emissions associated with the project are within the emissions limits specified in the SIP.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Clean Air Act requirements doesn't apply to this project.

Comments on Effects to Resources:

Not additional comments.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Contamination

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 12/09/2015 by FDOT District 4

Comments:

A review of Geographic Information System data revealed the presence of dry cleaning sites, hazardous waste facilities, petroleum contamination monitoring sites, storage tank contamination monitoring sites, and Resource Conservation and Recovery Act regulated facilities within a quarter mile of the project, and two solid waste, CERCLA, and/or superfund sites within one mile of the project.

Due to the potential presence or documented presence of contamination associated with these sites and a Moderate degree of effect being assigned by SFWMD, USEPA, FDEP, and FHWA, a Summary DOE of **Moderate** has been assigned to the contamination issue.

A CSER will be prepared in accordance with Part 2, Chapter 22 of the FDOT PD&E Manual, including site specific surveys to assess existing or historical contamination sources and their proximity to construction activities. Contamination (including any required permits) will be evaluated during project development in accordance with federal, state and local laws and regulations. SFWMD noted that if dewatering is necessary, a water use permit may be required. A general permit under rule 40E-2.061(2), FAC may be applicable.

Degree of Effect: 3 *Moderate* assigned 10/23/2015 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

Contamination Screening Evaluation Report (PD&E Manual, Part 2, Chapter 22)

Direct Effects

Identified Resources and Level of Importance:

USEPA notes that more than 90 potentially contaminated facilities and sites are present within a quarter-mile of the project corridor, and two solid waste, RCRA, and/or CERCLA sites were identified within one mile of the project corridor.

Comments on Effects to Resources:

USEPA supports the contamination assessment process described in FDOT's PD&E Manual (Part 2, Chapter 22). Each property within the project corridor (including the buffer areas) needs to be evaluated for the presence of potential contamination within the right-of-way or contamination that may have migrated onto or under the right-of-way.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

USEPA recommends avoidance of, or minimized impacts to, these facilities/sites to the extent practicable.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 3 *Moderate* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Contamination facilities have been identified in the report.

Comments on Effects to Resources:

Contamination areas should be avoided, minimized and mitigated as possible.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 3 *Moderate* assigned 10/16/2015 by Mindy Parrott, South Florida Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

If dewatering is necessary, a water use permit may be required. A general permit is available in rule 40E-2.061(2), FAC. Projects that do not qualify for the general permit will require a water use permit from SFWMD.

Direct Effects

Identified Resources and Level of Importance:

Staff concurs with the preliminary evaluation.

Comments on Effects to Resources:

Construction methodologies, such as dewatering, must be designed to minimize movement of contaminant plumes.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 3 *Moderate* assigned 10/14/2015 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

GIS data indicates that there are 2 FDEP dry cleaning program sites, 17 hazardous waste facilities, 10 petroleum contamination monitoring sites, 29 storage tank contamination monitoring sites and 13 RCRA regulated facilities within the 500-ft. project buffer zone.

Comments on Effects to Resources:

A Contamination Screening Evaluation (similar to Phase I and Phase II Audits) may need to be conducted along the project rights-of-way considering the proximity to the listed petroleum and hazardous material handling facilities. The Contamination Screening Evaluation should outline specific procedures that would be followed by the applicant in the event drums, wastes, tanks or potentially contaminated soils are encountered during construction. Special attention should be made in the screening evaluation to historical land uses (such as solid waste disposal) that may have an affect on the proposed project, including stormwater retention and treatment areas.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Infrastructure

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 12/09/2015 by FDOT District 4

Comments:

The project corridor includes the SW 10th Street Bridge over I-95 and the I-95 over Hillsboro Boulevard Bridge. CSX railroad mainline runs within 2,000 feet east of the project limits and the Amtrak Deerfield Beach terminal is located southwest of the Hillsboro Boulevard interchange. The proposed project will utilize existing right-of-way. FHWA stated that effects to existing infrastructure would be minimal to none. A Summary DOE of *Minimal* has been assigned to the Infrastructure issue.

Degree of Effect: 2 *Minimal* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No additional resources besides the one mentioned in the report.

Comments on Effects to Resources:

Minimal to no effects are expected on the existing infrastructure.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Navigation

Project Effects

Coordinator Summary Degree of Effect: N/A N/A / *No Involvement* assigned 12/09/2015 by FDOT District 4

Comments:

USACE and FHWA assigned a DOE of None because no navigable waters were identified in the project area. Therefore, a Summary DOE of **No Involvement** has been assigned to the Navigation issue.

Degree of Effect: N/A N/A / *No Involvement* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: N/A N/A / *No Involvement* assigned 10/09/2015 by Randy Turner, US Army Corps of Engineers

Coordination Document: Permit Required

Coordination Document Comments:

Permit required for any discharge of fill material into waters of the U.S. Section 404 of the Clean Water Act.

Direct Effects

Identified Resources and Level of Importance:

No navigable waters were identified within the project area. The project will have no impacts to navigation.

Comments on Effects to Resources:

N/A

Recommended Avoidance, Minimization, and Mitigation Opportunities:

N/A

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

N/A

Comments on Effects to Resources:

N/A

Recommended Avoidance, Minimization, and Mitigation Opportunities:

N/A

ETAT Reviews and Coordinator Summary: Special Designations

Special Designations

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 12/21/2015 by FDOT District 4

Comments:

There are no Outstanding Florida Waters, Aquatic Preserves, Scenic Highways/Byways, or Wild and Scenic Rivers reported within the project area. The FHWA and SFWMD rated the DOE as None. However, USEPA noted the Biscayne Bay sole source aquifer, sensitive karst area, and wellfield protection area as special designations which must be protected from groundwater contamination. USEPA assigned a Moderate DOE. Therefore, a Summary DOE of **Moderate** has been assigned to the issue Special Designations. As recommended by USEPA, FDOT will seek to avoid, minimize, and mitigate impacts of stormwater runoff in the project vicinity.

Degree of Effect: 3 *Moderate* assigned 10/23/2015 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

Water Quality Impact Evaluation (PD&E Manual, Part 2, Chapter 20)

Direct Effects

Identified Resources and Level of Importance:

Sole Source Aquifer - In southeast Florida, the Biscayne aquifer supplies virtually all of the potable water needs for over 4 million residents in densely populated Dade, Broward, Palm Beach, and Monroe Counties. Water from the Biscayne aquifer is also transported by pipeline to the Florida Keys. USEPA has designated the Biscayne aquifer as a Sole Source Aquifer.

Sensitive Karst Area - The Biscayne aquifer is mainly composed of two lithostratigraphic formations dominated by eogenetic karst limestone: the Miami Limestone and the Fort Thompson Formation (<http://www.sciencedirect.com/science/article/pii/S0022169414003229>). The Biscayne aquifer is highly susceptible to contamination due to its high permeability and proximity to the land surface (http://my.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/2013_lec_plan.pdf).

Wellfield Protection Area - Because the Biscayne aquifer is extremely porous and the water table is very close to the surface, pollutants discharged onto the ground or that occur in surface waters can contaminate the groundwater and be drawn into wells that supply drinking water. To reduce the risk of pollution and the cost of public water treatment, Broward County and local municipalities oversee protection programs in areas around networks of drinking water wells (<http://www.broward.org/POLLUTIONPREVENTION/WELLFIELD/Pages/ProtectionProgram.aspx>).

Comments on Effects to Resources:

Contaminated stormwater runoff in the project corridor could impact the surrounding surface water bodies, which are hydraulically connected to the Biscayne Aquifer. Contaminated stormwater runoff could also impact Broward County's 2A Wellfield Protection Area (http://www.broward.org/PollutionPrevention/Wellfield/Documents/Official11_5_13WPZOrdMap.pdf).

Recommended Avoidance, Minimization, and Mitigation Opportunities:

To the extent practicable, USEPA encourages FDOT to avoid, minimize, and mitigate impacts of stormwater runoff in the project vicinity. In addition, we recommend performing a Water Quality Impact Evaluation and coordinating with the South Florida Water Management District and Broward County.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 0 *None* assigned 10/22/2015 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 0 *None* assigned 10/16/2015 by Mindy Parrott, South Florida Water Management District

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

APPENDIX B

(Noise Barrier Summary and Recommendations)

Table 7 - 1: Noise Barrier Summary and Recommendations

General Location (Cross Streets or Address)	Noise Barrier Conceptual Design	Noise Barrier Type	Height (feet)	Length (feet)	Limits (Begin/End Station Number)	Number of Benefited Receptors (Impacted/Not Impacted/Total)	Average (Maximum) Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Overall Cost (\$30 per square foot)	Estimated Cost/Site Benefited	Meets FDOT's Reasonable Cost Criteria of \$42,000/Site Benefited	Meets FDOT's Noise Reduction Design Goal	Noise Barrier Recommended for Further Consideration and Community Input	Comments
Highland Village East Side of I-95 from NE 48 th Street to NE 52 nd Street.	I95HV-CD2	Shoulder-Mounted	14	1,815	46+50 to 410+15	35/31/66	8.1 (10.7)	\$834,300	\$12,641	Yes	Yes	Yes	Recommended – This design concept would replace all of the existing noise barrier with a new noise barrier along the roadway shoulder.
		Structure-Mounted	8	300	410+15 to 413+15								
Deerfield Beach Teen Center East side of I-95 between NE 15 th Street and NE 14 th Street	I95Teen-CD1	Ground-Mounted	8	275	339+45 to 342+20	1 SLU	7.0 (8.6)	\$66,000	N/A	Cost exceeds reasonableness criteria for Special Use Sites	Yes	No	Not Recommended – Based on needed usage, cost exceeds FDOT's Noise Barrier Cost Reasonable Cost Criteria for Special Use Sites.
Deerfield Highlands East side of FAU Research Park Boulevard from SW 12 th Court to SW 11 th Court.	I95DH-CD2	Ground-Mounted	22	800	606+00 to 617+60	1/3/4	5.8 (6.7)	\$755,700	\$188,925	No	No	No	Not Recommended – Residences are more than 100 feet from the near lane of the northbound I-95 off-ramp to SW 10 th Street. FAU Research Park Boulevard is located adjacent to these residences. Cost exceeds FDOT's cost reasonableness criteria. Does not achieve 7.0 dB(A) at any of the benefited sites.
Tivoli Sand Pine Preserve North side SW 10 th Street from Natura Boulevard to Eastern Project Limit	TSPPark-CD3	Ground-Mounted	12	600	410+00 to 416+00	1 SLU	7.1 (7.5)	\$216,000	N/A	Cost exceeds reasonableness criteria for Special Use Sites	Yes	No	Not Recommended – Based on needed usage, cost exceeds FDOT's Noise Barrier Cost Reasonable Cost Criteria for Special Use Sites.
Spring Lake and Lake Island West side of I-95 from Southern Project Terminus to NW 48 th Street	I95SL_LI-CD2	Shoulder-Mounted	14	500	30+50 to 35+50	2/0/2	7.5 (7.5)	\$210,000	Not Applicable. Replacement Noise Barrier	Not Applicable. Replacement Noise Barrier	Not Applicable. Replacement Noise Barrier	Yes	Recommended - This design concept replaces only the southern gap in the noise barrier with a new 14-foot tall shoulder-mounted noise barrier segment.
Highland Meadows Estates and Country Knolls West side of I-95 from NE 48 th Street to NE 53 rd Place	I95CK_HM-CD2	Structure-Mounted	14	2,805	45+90 to 118+50	55/29/84	7.7 (11.8)	\$1,178,100	\$14,025	Yes	Yes	N/A	Recommended - Benefits all of the impacted sites. Achieves a 7.0 dB(A) noise reduction at all 55 of the benefited sites. Expected to require a design variation for constructing a 14-foot tall noise barrier on structure.
JM Family Daycare Center Playground West side of I-95 at NW 6 th Street	I95JMPG-CD2	Ground-Mounted	16	1,040	176+30 to 186+70	1 SLU	6.3 (7.5)	\$499,200	N/A	Cost exceeds reasonableness criteria for Special Use Sites	Yes	No	Not Recommended – Based on needed usage, cost exceeds FDOT's Noise Barrier Cost Reasonable Cost Criteria for Special Use Sites.
Lakes at Deerfield Apartments South side of SW 10 th Street at S Military Trail	LAKES-CD2	Ground-Mounted	22	545	142+35 to 147+60	4/10/14	5.8 (6.2)	\$665,700	\$47,550	No	No	No	Not Recommended – Cost exceeds FDOT's Noise Barrier Cost Reasonable Cost Criteria. Also, does not achieve 7.0 dB(A) at any of the benefited sites.
		Structure-Mounted	14	830	174+10 to 182+40								
		Structure-Mounted	8	500	95+00 to 100+00								