FINAL CULTURAL RESOURCE ASSESSMENT SURVEY

Florida Department of Transportation

District Four
3400 W Commercial Blvd
Fort Lauderdale, FL 33309

I-95 from SW 10th Street to Hillsboro Boulevard

Financial Management Number 436964-1-22-01
ETDM Number 14244

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.

November 2018

EXECUTIVE SUMMARY

At the request of the Florida Department of Transportation (FDOT), District 4, Janus Research, in cooperation with HNTB Corporation, conducted a cultural resource assessment survey (CRAS) for State Road (SR) 9/Interstate (I)-95 from South of SW 10th Street to north of Hillsboro Boulevard Project Development and Environment (PD&E) Study in Broward County, Florida (Financial Management [FM] No. 436964-1-22-01; Efficient Transportation Decision Making [ETDM] No. 14244). The objective of this CRAS was to identify cultural resources and assess their eligibility for listing in the National Register of Historic Places (National Register) according to the criteria set forth in 36 Code of Federal Regulations (CFR) Section 60.4.

The project extends along I-95 from just south of SW 10th 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.

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. SW 10th Street provides a direct connection between I-95 and the Sawgrass Expressway. The project also proposes improvements along both SW 10th Street and Hillsboro Boulevard near I-95.

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.

This assessment complies with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Public Law 89-665, as amended), as implemented by 36 CFR 800 -- Protection of Historic Properties (incorporating amendments effective August 5, 2004); Stipulation VII of the Programmatic Agreement among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation (ACHP), the Florida Division of Historical Resources (FDHR), the State Historic Preservation Officer (SHPO), and the FDOT Regarding Implementation of the Federal-Aid Highway Program in Florida (Section 106 Programmatic Agreement, effective March 2016, amended June 7, 2017); Section 102 of the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [USC] 4321 et seq.), as implemented by the regulations of the Council on Environmental Quality (CEQ) (40 CFR Parts 1500–1508); Section 4(f) of the Department of Transportation Act of 1966, as amended (49 USC 303 and 23 USC 138); the revised Chapter 267, Florida Statutes (F.S.); and the standards embodied in the FDHR's Cultural Resource Management Standards and

Operational Manual (February 2003), and Chapter 1A-46 (Archaeological and Historical Report Standards and Guidelines), Florida Administrative Code (F.A.C.). In addition, this report was prepared in conformity with standards set forth in Part 2, Chapter 8 (Archaeological and Historical Resources) of the FDOT Project Development and Environment Manual (effective June 14, 2017). All work also conforms to professional guidelines set forth in the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Federal Register [FR] 44716, as amended and annotated).

Principal Investigators meet the Secretary of the Interior's Professional Qualification Standards (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture. Archaeological investigations were conducted under the direction of James P. Pepe, M.A., RPA. Historic resource investigations were conducted under the direction of Amy Groover Streelman, M.H.P.

No newly or previously recorded archaeological sites were identified within the archaeological area of potential effect (APE). Two shovel tests were excavated within the archaeological APE. No cultural material was recovered. No subsurface testing could be conducted in most of the project area due to the presence of existing pavement, berms, and buried utilities.

The historic resources survey resulted in the identification of one linear resource within the project APE, the Seaboard Air Line (CSX) Railroad (8BD4649). While the current segment within the APE has not been previously recorded, a segment to the north, at Hillsboro Boulevard, was determined eligible by the SHPO on January 15, 2016 as part of the *CRAS for SR 810 from Military Trail to SR 5* completed by Janus Research in 2015 (Janus Research, 2015a; Florida Master Site File [FMSF] Manuscript No. 22530). This segment was determined National Register–eligible under Criterion A in the categories of Transportation and Community Planning and Development. The segment within the current APE, spanning approximately 1,225 feet and extending both to the north and south from SW 10th Street, is consistent with nearby segments, and accordingly, is considered eligible for listing in the National Register under Criterion A in the categories of Transportation and Community Planning and Development.

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1 INTRODUCTION

At the request of the Florida Department of Transportation (FDOT), District 4, Janus Research, in cooperation with HNTB Corporation, conducted a cultural resource assessment survey (CRAS) for State Road (SR) 9/Interstate (I)-95 from south of SW 10th Street to north of Hillsboro Boulevard Project Development and Environment (PD&E) Study in Broward County, Florida (Financial Management [FM] No. 436964-1-22-01; Efficient Transportation Decision Making [ETDM] No. 14244). The objective of this CRAS was to identify cultural resources and assess their eligibility for listing in the National Register of Historic Places (National Register) according to the criteria set forth in 36 Code of Federal Regulations (CFR) Section 60.4.

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1.1 Project Description and Location

The FDOT is currently conducting a PD&E study for SR 9/I-95 from south of SW 10th Street to north of Hillsboro Boulevard.

The project extends along I-95 from just south of SW 10th 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.

This study evaluates 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 the SW 10th Street interchange to just north of the Hillsboro Boulevard. SW 10th Street provides a direct connection between I-95 and the Sawgrass Expressway. The study also evaluates improvements along both SW 10th Street and Hillsboro Boulevard near I-95.

This study 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.

The I-95 design-build of express lanes on the corridor for the segment of this project area was originally included in a previous project, however will be analyzed as part of this study.

The project study area is shown in **Figure 1-1**.

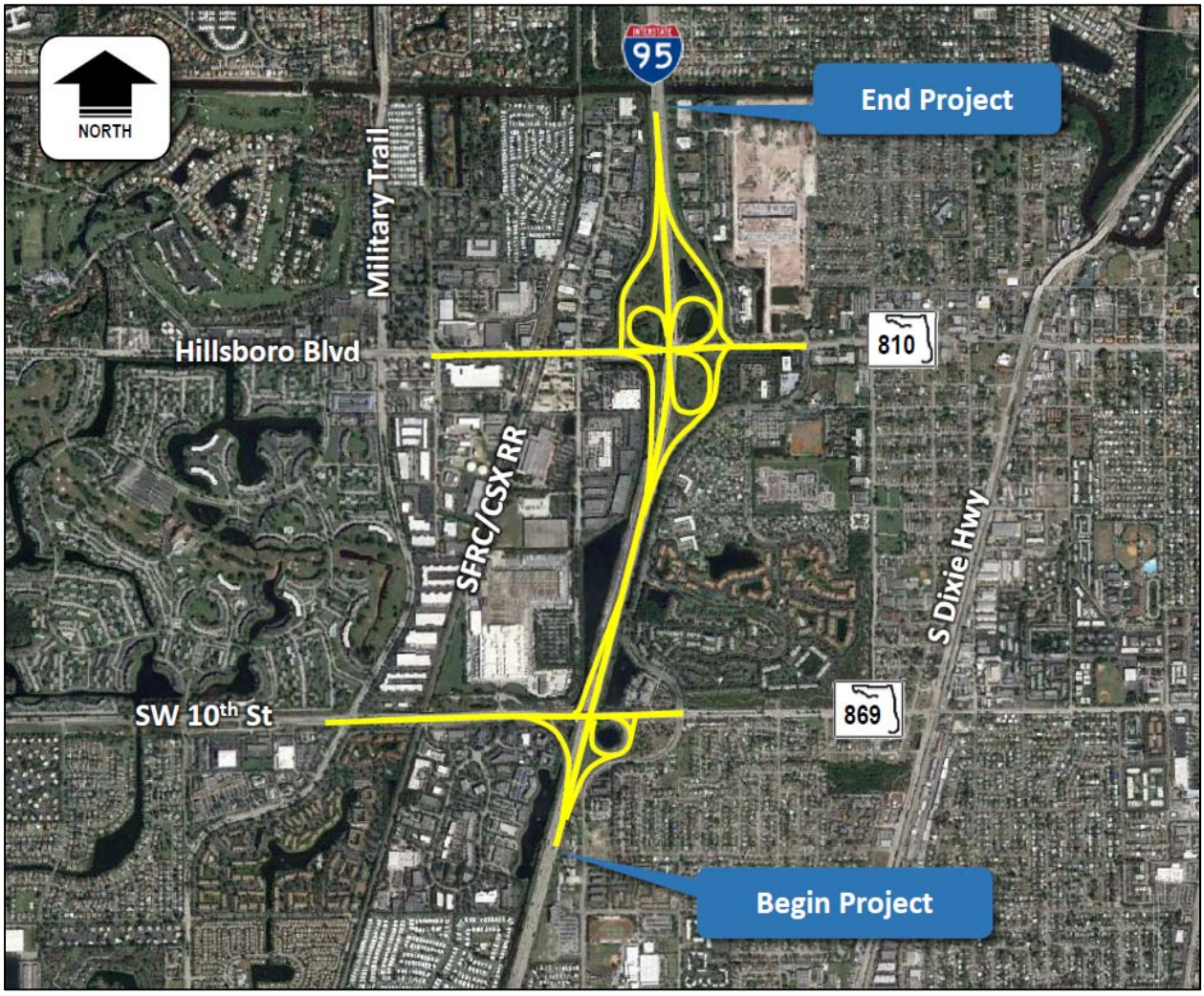


Figure 1-1 Project Study Area

1.2 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 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

- FDOT has identified the need 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 eastbound (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 EB and westbound (WB) and I-95 SB offramp 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 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 with preliminary engineering scheduled for fiscal years 2017 and 2018. The Broward County Metropolitan Planning Organization (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 Intermodal System (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.

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.

1.3 Commitments

To be provided.

1.4 Description of Recommended Alternative

To be provided.

2 EXISTING CONDITIONS

Due to the uniqueness of this project the analysis and evaluation of the existing conditions was separated into three corridors; I-95 (SR 9), S.W. 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.

2.1 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.

2.1.1 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 Strategic Intermodal System (SIS) and National Highway System (NHS) networks. Within the limits of the project, I-95 has six general purpose lanes (three in each direction) and two High Occupancy Vehicle (HOV) lanes (one in each direction).

2.1.2 SW 10th Street

Southwest 10th Street (SR 869) has a functional classification as an urban principal arterial other. SW 10th Street (SR 869) 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.

2.1.3 Hillsboro Boulevard

Hillsboro Boulevard (SR 810) 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.

2.2 Access Management

2.2.1 I-95

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

2.2.2 SW 10th Street

Southwest 10th Street (SR 869) is designated as Class 5 for access management.

2.2.3 Hillsboro Boulevard

Hillsboro Boulevard (SR 810) is designated as Class 5 for access management.

2.3 Typical Sections

The following **Table 2-1** depicts the existing typical section characteristics for each corridor.

Table 2-1
Existing Typical Section Characteristics

Typical Section Element	Roadway		
	I-95	SW 10th 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	2.5 ft	12 to 30.5 ft	15.5 to 30.5 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

2.3.1 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 (2.5') center barrier wall with two twelve-foot (12') paved inside shoulders (one in each direction). The inside lane in each direction is a twelve-foot (12') wide HOV lane with a two-foot (2') striped buffer area separating the HOV lane from the three twelve-foot (12') general purpose lanes. In each direction, along the outside of the general purpose lanes is a twelve-foot (12') shoulder (ten-foot (10') paved and two-foot (2') unpaved). In the northbound direction, a twelve-foot (12') auxiliary lane exists between the S.W. 10th Street on-ramp and Hillsboro Boulevard off-ramp. Additionally, in the southbound direction a twelve-foot (12') auxiliary lane exists between the Hillsboro Boulevard on-ramp

and SW 10th Street off-ramp. The existing roadway segment is depicted in **Figure 2-1** and typical section for this corridor is shown in **Figure 2-2**.

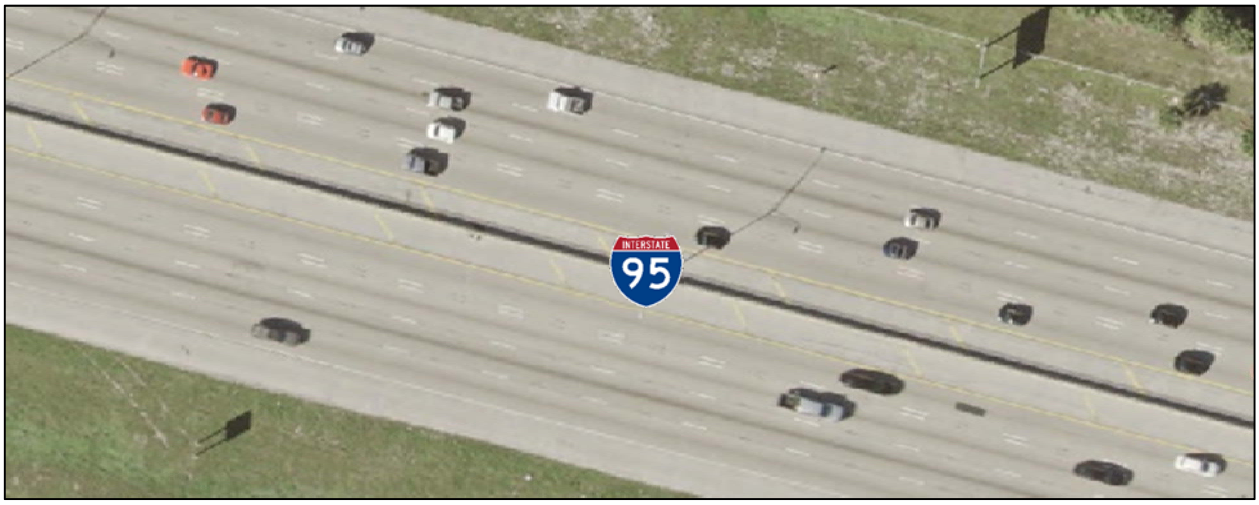


Figure 2-1 Roadway Segment – I-95 Corridor

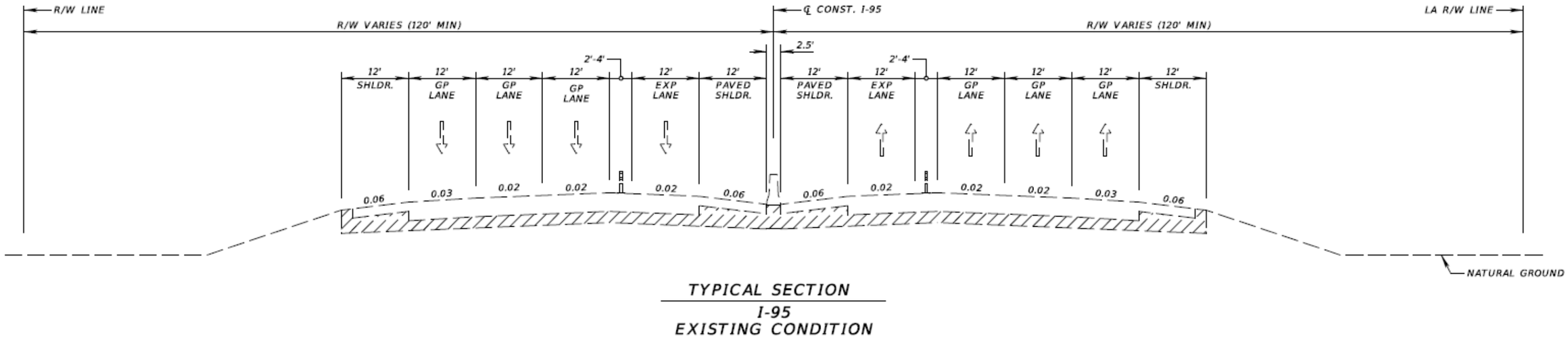


Figure 2-2 Existing Typical Section – I-95

2.3.2 SW 10th Street

Eastbound along SW 10th Street (SR 869) from approximately 1000-feet west of the intersection at Military Trail to the intersection there are three twelve-foot (12') lanes, a four to five-foot (4' to 5') bike lane, and an eight-foot (4' paved and 4' unpaved) outside shoulder. In the center, there is a raised curb and gutter median that varies in width from 19.5 to 30.5 feet.

Westbound along SW 10th Street (SR 869) from approximately 1000-feet west of the intersection at Military Trail to the intersection there are two twelve-foot (12') lanes, a four-foot (4') bike lane and four-foot (4') unpaved shoulder.

In each direction, from the intersection at Military Trail to East Newport Center Drive there are three twelve-foot (11') lanes, a four-foot (3') bike lane, two-foot (2') curb and gutter with a five-foot (5') 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 12.0 to 28.5 feet. In the westbound 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 eastbound direction a fourth (outside) 12 to 14-foot wide lane exists as an auxiliary lane used for right turns and/or acceleration and terminates at the southbound on-ramp to I-95.

From East Newport Center Drive to SW Natura Boulevard/FAU Research Park Boulevard there are three eleven-foot (11') lanes in each direction, two-foot (2') curb and gutter with a six-foot (6') concrete sidewalk running along at the back of curb with no bicycle lane or shoulder. Eastbound the third lane (outside) terminates at the northbound entrance ramp to I-95 and then remerges west of the northbound I-95 off-ramp intersection continuing on to the FAU Research Park Boulevard intersection. Westbound are three eleven-foot (11') lanes, two-foot (2') curb and gutter with a six-foot (6') concrete sidewalk running along at the back of curb with no bike lane or shoulder present. A fourth westbound lane emerges at the southbound 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 16.5 to 20 feet.

The existing roadway segment is depicted in **Figure 2-3** and typical section for this corridor is shown in **Figure 2-4**.

Figure 2-3 Existing Roadway Segment – SW 10th Street

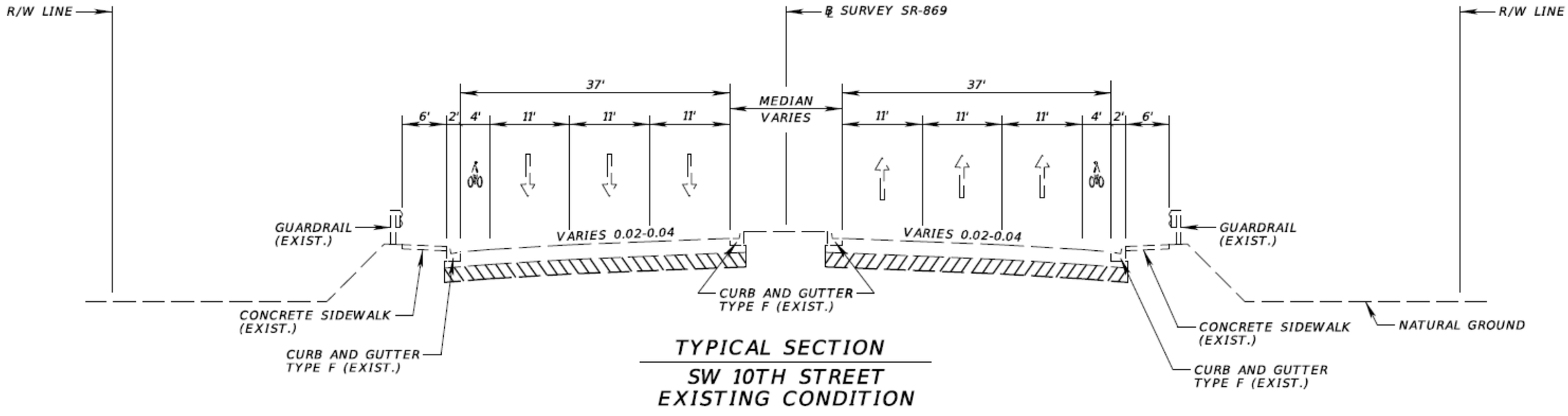


Figure 2-4 Existing Typical Section – SW 10th Street

2.3.3 Hillsboro Boulevard

Along Hillsboro Boulevard (SR 810) 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 (15.5') raised median, six eleven-foot (11') thru lanes (3 lanes in each direction) and two four-foot (4') 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 (2') curb and gutter with six-foot (6') concrete sidewalk running along at the back of curb. Total right-of-way varies.

The existing roadway segment is depicted in **Figure 2-5** and typical section for this corridor is shown in **Figure 2-6**.

Figure 2-5 Existing Roadway Segment – Hillsboro Boulevard

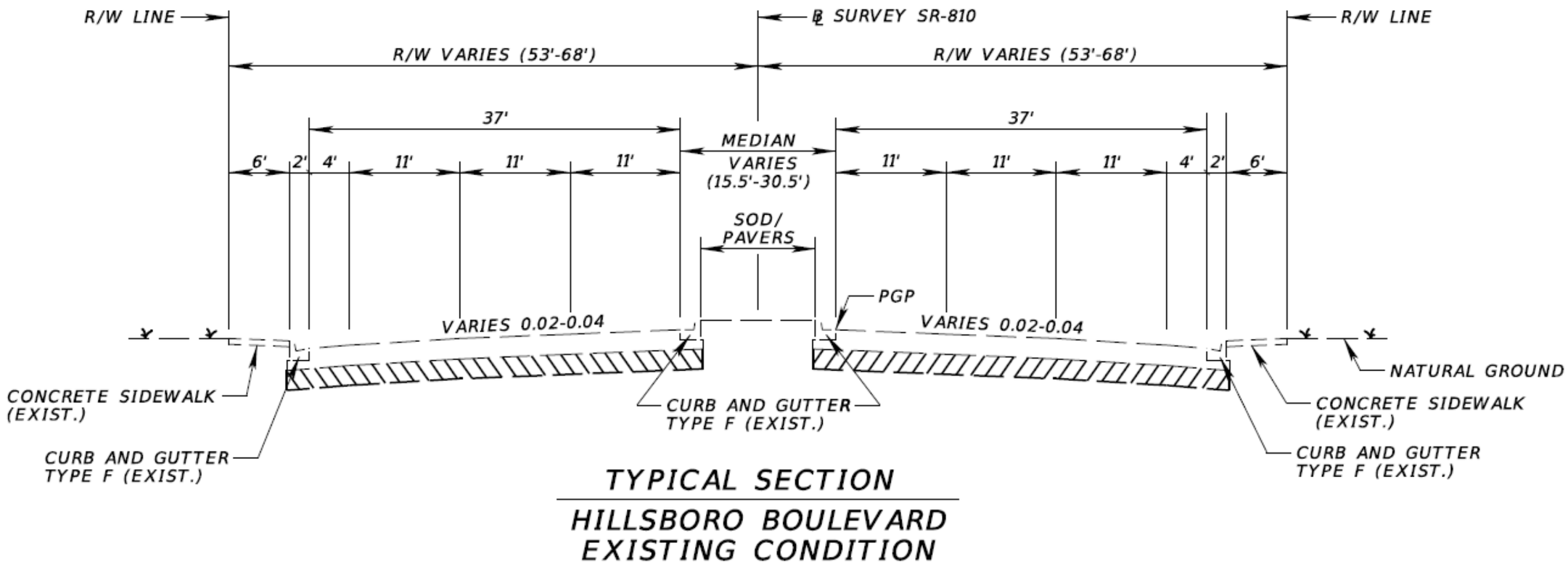


Figure 2-6 Existing Typical Section – Hillsboro Boulevard

2.4 Right-of-Way

2.4.1 I-95

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

2.4.2 SW 10th Street

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

2.4.3 Hillsboro Boulevard

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

3 ALTERNATIVES ANALYSIS

3.1 No-Build Alternative

The No-Build 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 Metropolitan Planning Organization (BMPO) Cost Feasible Long Range Transportation Plan (LRTP), transportation elements of Local Government Comprehensive Plans (LGCP), or developer-funded transportation improvements specified in approved development orders.

The advantage of the No-Build Alternative is that it requires no expenditure of public funds for design, right-of-way acquisition, construction or utility relocation. In addition, there would 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-Build Alternative does not address the purpose and need of the project.

3.2 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.

3.3 Build Alternatives

Build alternatives were developed along I-95, Southwest 10th Street and Hillsboro Boulevard to address the purpose and need of the project.

3.3.1 I-95

All build alternatives considered for I-95 include:

- Two 12-foot (12') wide express lanes (one in each direction)
- Six 12-foot (12') wide general purpose lanes (three in each direction)
- Four-foot (4') wide buffer with tubular markers separating the general purpose lanes from the express lanes
- A 12-foot (12') wide paved inside shoulder
- A 12-foot (12') wide outside shoulder (ten-feet (10') paved and two-feet (2') unpaved)

- A two and a half-foot (2.5') wide center barrier wall
- Twelve-foot (12') wide auxiliary lanes at selected locations

Alternative 1:

Alternative 1 is the recommended alternative from the Interchange Concept Development Reports for Southwest 10th Street (SR 869) and Hillsboro Boulevard (SR 810). It provides a 3-lane, physically separated collector distributed (CD) roadway 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 proposed CD roadway on the west side combines the eastbound to southbound and westbound to southbound on-ramps.

Alternative 2:

Alternative 2 provides a braided ramp for the 3-lane proposed CD roadway on the east of I-95 to separate the traffic destined to I-95 mainline from traffic exiting at Hillsboro Boulevard. A braided ramp is also proposed on the west side of I-95 for the southbound CD roadway to separate the traffic destined to I-95 mainline from traffic exiting at SW 10th Street.

3.3.2 SW 10th Street

Similarly, to I-95, alternative 1 is the recommended alternative from the Interchange Concept Development Report for Southwest 10th Street (SR 869).

Alternative 1:

Alternative 1 includes widening along Southwest 10th Street to provide an additional travel lane eastbound and westbound from Military Trail to I-95. Improvements along the ramp terminals are listed on Table 3.1.

Alternative 2:

Alternative 2 provides two managed lanes in each direction along SW 10th Street with direct connect access ramps to/from the I-95 express lanes. A westbound on-ramp and eastbound off-ramp access to the managed lanes is provided just east of the Military Trail. Improvements at the NB ramp terminal to accommodate triple lefts and triple rights as well as relocating the WB to NB entrance ramp from the SE quadrant of the interchange to the NE quadrant remain the same as alternative 1.

Three 12-foot lanes with 7-foot buffered bike lanes and 6-foot sidewalks are provided along SW 10th Street. 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 12 Avenue/E Newport Center Drive intersection. Two alignments were considered for the managed lanes.

- North Alignment:
- Center Alignment:

Both north and center alignment options are basically the same. The north alignment, however, provides direct access to the managed lanes from SW 12th Avenue (**Figure 3-1**). 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.

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 (**Figure 3-2**). No relocations are required.

3.3.3 Hillsboro Boulevard

Build alternatives considered at Hillsboro Boulevard include the recommended alternative from the Interchange Concept Development Report for Hillsboro Boulevard (SR 810) and an elevated alternative. Improvements at the I-95 ramp terminals remained the same as recommended in the Interchange Concept report and are the same for both build alternatives.

Alternative 1:

Alternative 1 is the recommended alternative from the Interchange Concept Development Report. This alternative proposed a depressed section from Goolsby Boulevard to SW 12th Avenue with 2- 11 foot lanes in each direction and a 7.5 foot inside shoulder. An access road was proposed on each side with 1- 11 foot lane, 7 foot buffered bike lane and 6 foot sidewalk. This alternative was deemed not viable due to impacts to the South Florida Rail line.

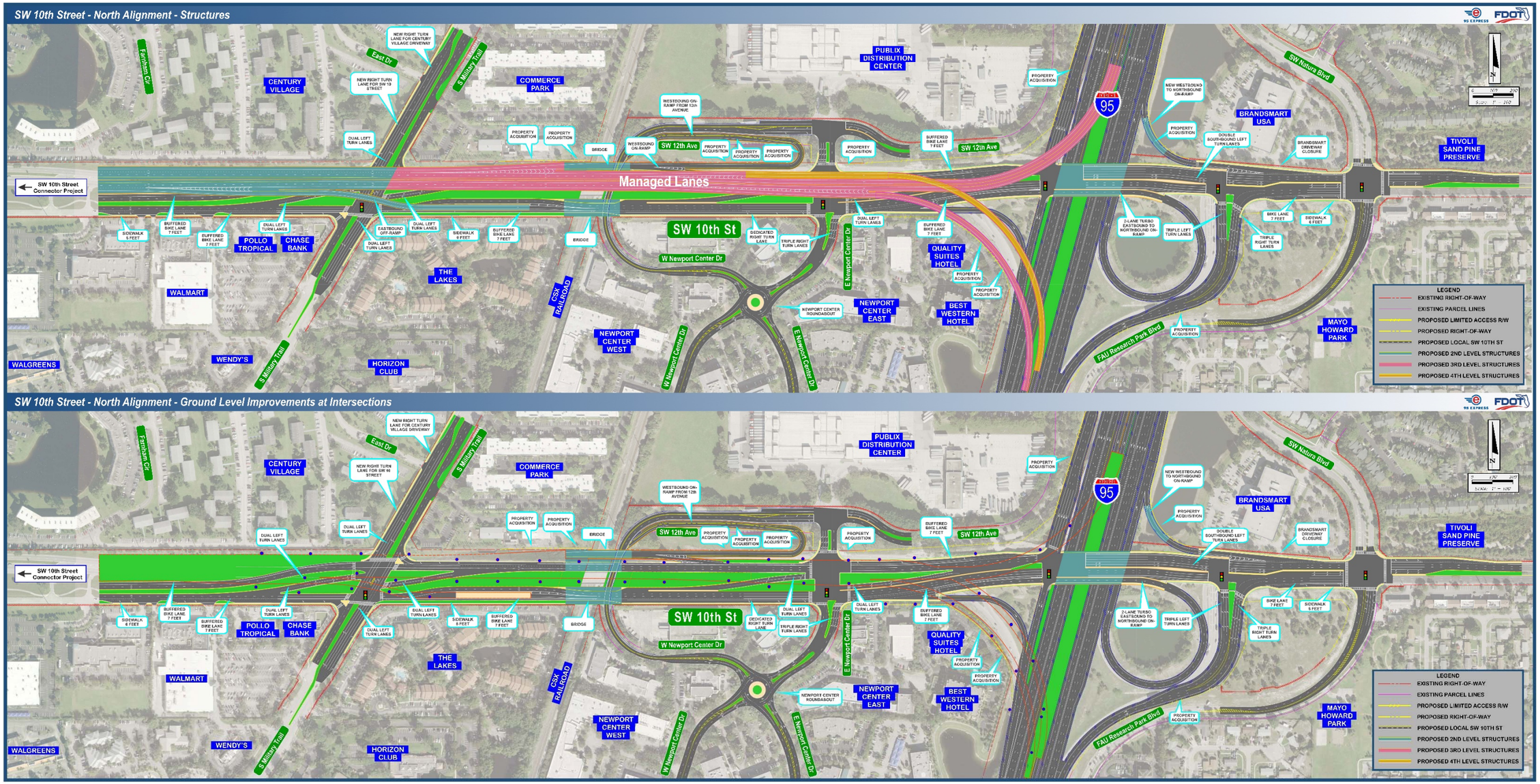


Figure 3-1 SW 10th Street – North Alignment Concept Plan

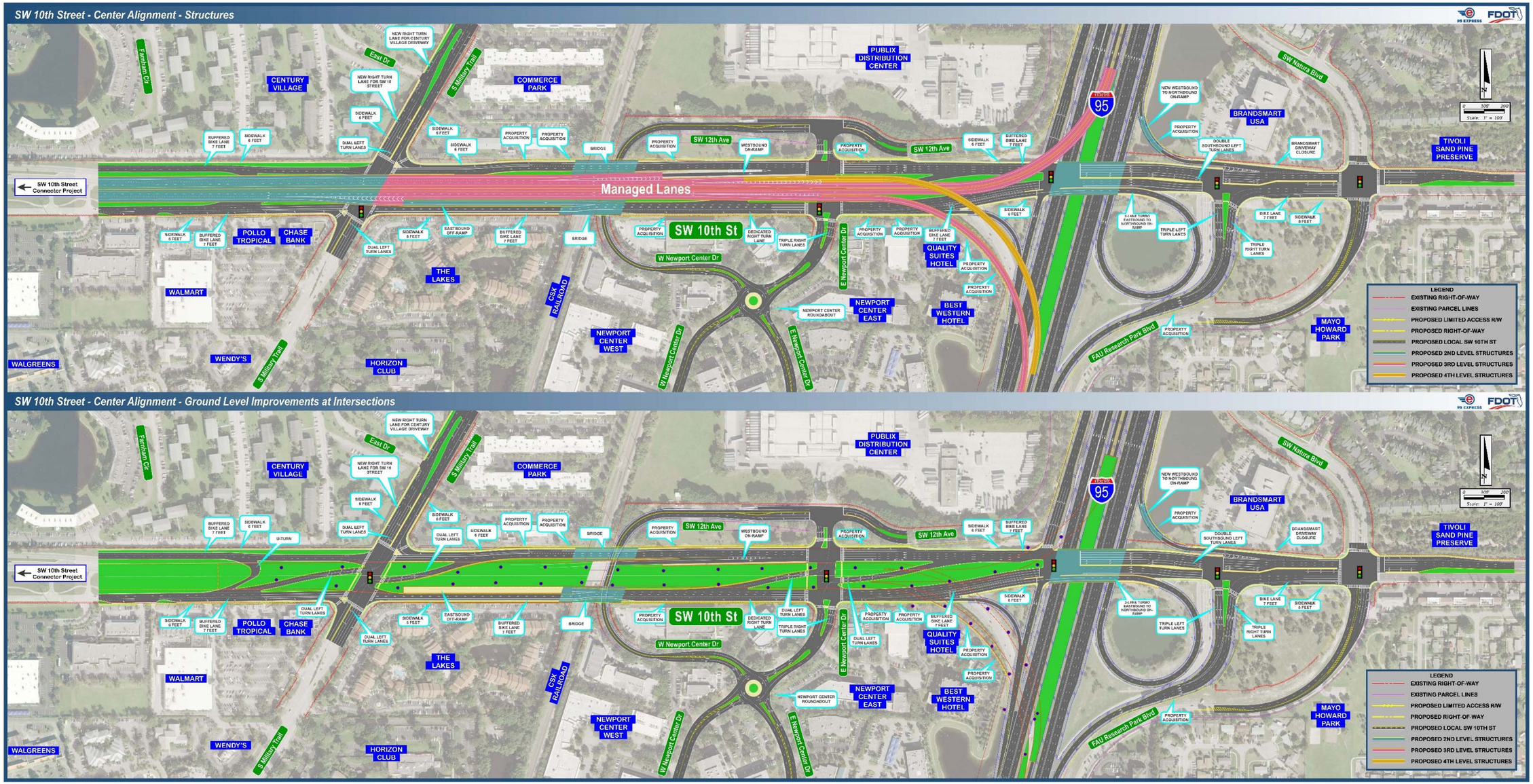


Figure 3-2 SW 10th Street – Center Alignment Concept Plan

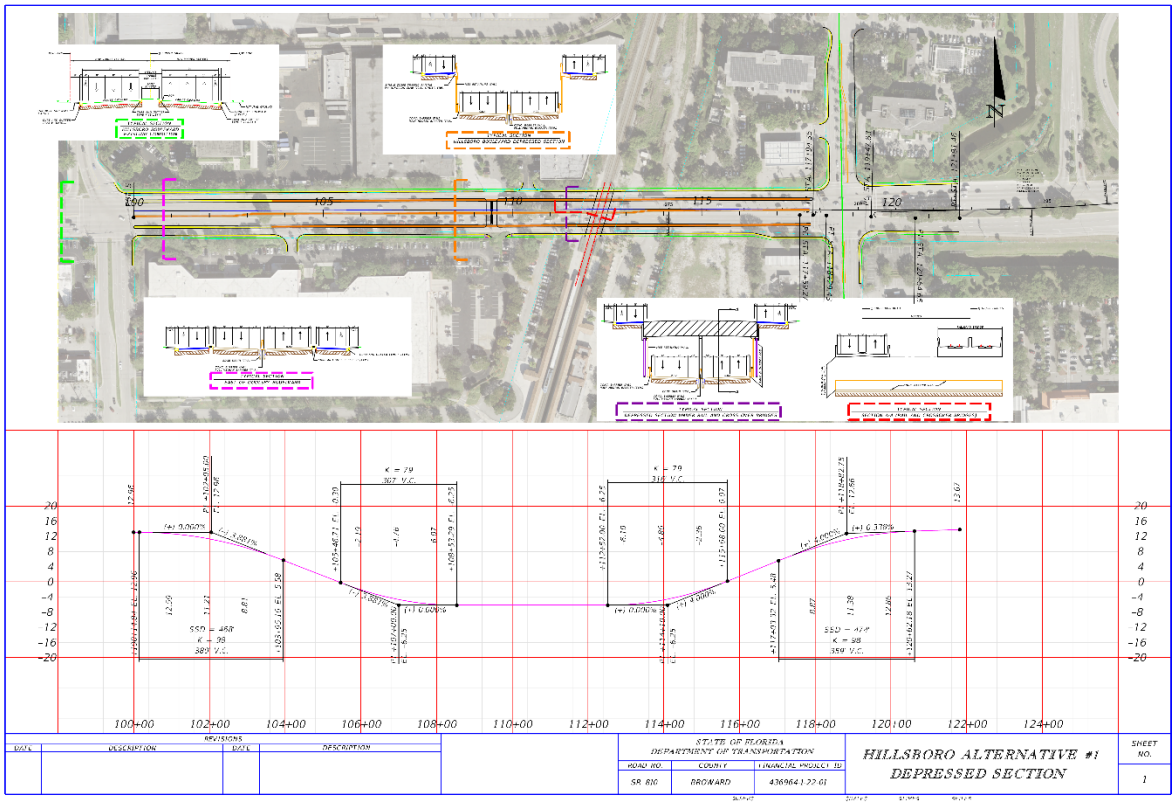


Figure 3-3 Hillsboro Boulevard – Concept Plan – Alternative 1

[Figure to be Provided]

Figure 3-4 Hillsboro Blvd – Concept Plan – Alternative 2

Alternative 2:

Alternative 2 proposes an elevated section from Goolsby Boulevard to SW 12th Avenue with 2- 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 1- 11 foot lane, 7 foot buffered bike lane and 6 foot sidewalk. This alternative was deemed not viable due to the access impacts to adjacent properties and the steep profile grade required to meet existing grade before the I-95 interchange.

3.3.3.1 Bridge Widening

The existing I-95 NB bridge over Hillsboro Boulevard (Bridge No. 860194) has a concrete superstructure with pre-stressed American Association of State Highway and Transportation Officials (AASHTO) Type II and Type III beams set on a curved alignment with a slight skew along the substructure of the multi-column intermediate piers and pile end bents. The bridge was constructed originally around 1972 and was widened along the

inside with the original outside traffic railing being replaced with FDOT F Shape Traffic Railing (Index No. 14286) around 1990. The bridge is comprised of four simple spans of 41'-3", 74'-3", 74'-3" and 41'-3" for a total overall length of 231'-0". The total bridge width is approximately 87'-2". The bridge currently carries an HOV lane, three travel lanes, one merge lane, and shoulders on both sides. A FDOT F shape concrete traffic railing barrier borders the bridge on each side. According to the as-built plans, the minimum vertical clearance is approximately 15.40'.

To accommodate roadway improvements on I-95, Bridge No. 860194 northbound lanes will need to be widened for additional one express land and one general lane.

The bridge inspection reports indicate good to excellent overall National Bridge Inventory (NBI) ratings for Bridge No. 860194. The sufficiency rating is 98 out of 100 and the health index is 99.81 out of 100.

Bridge No. 860194 was most recently load rated in 1991 with Load Factor Rating (LFR) method. Per the summary of the load rating analysis, the existing bridge has satisfactory rating factors and no posting is currently placed on the bridge.

Due to the need of bridge widening, multiple load rating analyses were performed per SDG 7.1.1. to evaluate the feasibility of the proposed bridge widening. At first, load rating of the entire widened bridge was performed using Load and Resistance Factor Rating (LRFR). It was found that an existing beam (beam no. 4) at Span 1 and Span 4 do not have sufficient load rating factors under the proposed bridge widening. Per SDG 7.1.1, LFR method was performed secondly.

The LFR analysis did not provided satisfactory rating factors either. At last, a decision was made to use Finite Element Method (FEM) to establish an enhanced live load distribution factor and improved load rating. The live load distribution factors (DFs) (moment and shear) of the beam of interest were derived by dividing the moment/shear of the girder under live load in the FEM model for the entire widened bridge with those from a corresponding line girder model. The DFs were then incorporated in the prestressed beam design program (Leap Bridge) to obtain refined load rating factors. Per the results of the FEM analysis, the Inventory Rating Factors and Operating Factors are still less than 1.0 and 1.67, respectively. According to SDG 7.1.1, three options as follows are further evaluated for the bridge widening:

1. Apply for Design Variation
2. Program Bridge for Strengthening
3. Program Bridge for Replacement

Given Bridge No. 860194 is on the National Highway System, option 1 to apply for design variation should not be considered further per SDG 7.1.1. The 2nd option to assign Bridge

No. 860194 for strengthening is feasible since the beams could be strengthen using conventional methods. In addition, only two beams are found to not be structurally adequate for the proposed bridge widening, replacing them along with partial reconstruction of the bridge deck is also a viable alternative. HNTB recommends this as the preferred option since it will minimize impact on the traffic maintenance and construction time and cost compared to the entire bridge replacement.

As per the load rating results, only two beams (beam No. 4) at Span 1 and Span 4 do not have sufficient load rating factors and the rest of all bridge beams have satisfactory rating factors that are adequate for bridge widening. In addition, inspection reports have reported no significant deficiencies. Thus, option 3 - replacement of the entire bridge is obviously not an economical solution given its significant impact to maintenance of traffic on I-95 and Hillsboro Blvd. along with increased construction time and cost.

Our conclusion, given these findings, is to widen the bridge by strengthening two existing beams with insufficient load rating factors or replacing them along with partial reconstruction of the deck. These two options could be further explored and developed later in the design stage.

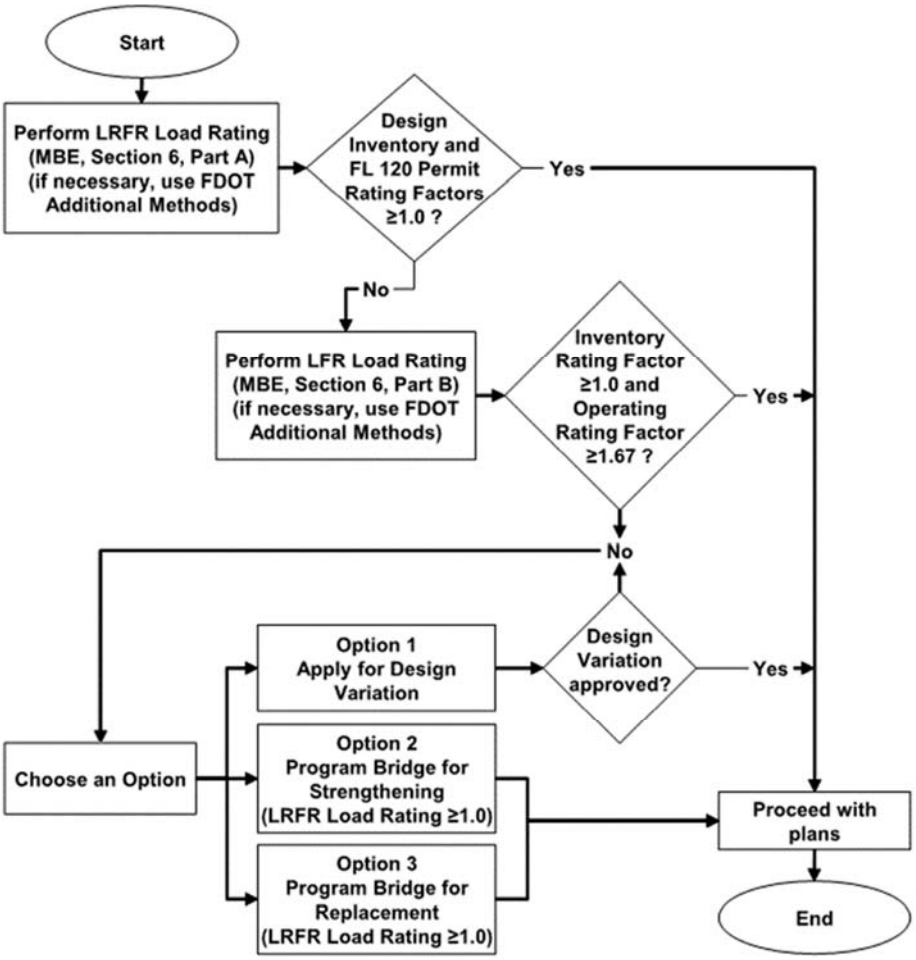
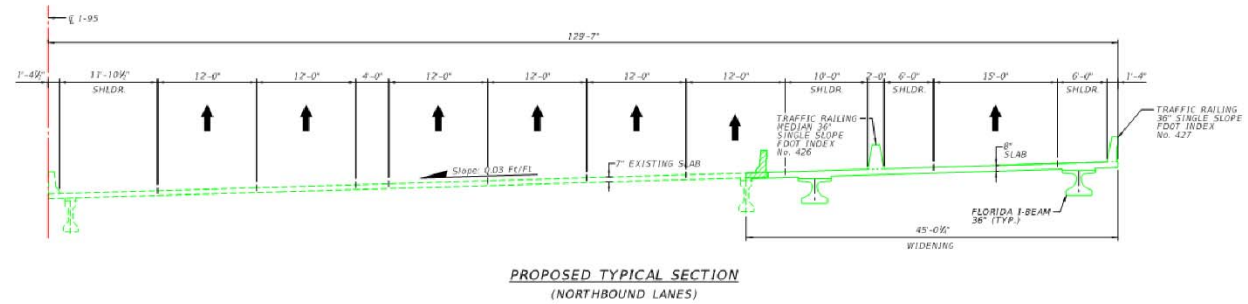
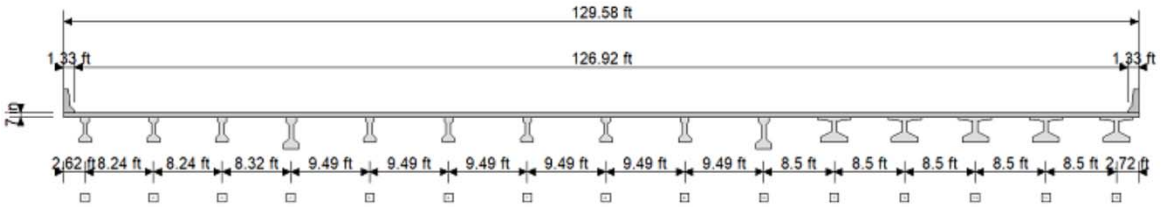


Figure 3-5 Widening / Rehabilitation Load Rating Flow Chart



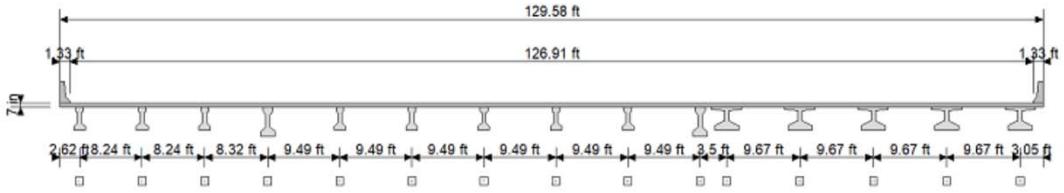
PROPOSED TYPICAL SECTION
(NORTHBOUND LANES)



Tentative Beam Spacings

Span 1
Span 4 Similar

Figure 3-6 Widening / Rehabilitation – Tentative Beam Spacings



Final Beam Spacings

Span 1
Span 4 Similar

Figure 3-7 Widening / Rehabilitation – Final Beam Spacings

4 AREA OF POTENTIAL EFFECT

According to 36 CFR 800.16(d), the area of potential effect (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking as well as its geographical setting. The APE must include measures to identify and evaluate both archaeological and historical resources. Normally, archaeological and other below-ground resources will be affected by ground disturbing activities and changes in ownership status. Structural resources and other above ground sites, however, are often impacted by those activities as well as alterations to setting, access and appearance. As a consequence, the survey methodologies for these two broad categories of sites differ.

The archaeological APE focuses upon identifying and evaluating resources within the geographic limits of the proposed improvements and its associated ground disturbing activities within the proposed right of way (ROW). The archaeological APE, therefore, is confined to the footprint of the proposed project improvements and proposed ROW (**Figure 4-1**).

The APE for historic resources took into consideration the scope of the proposed work and the developed urban nature of the project area. Therefore, the historic resources APE for at-grade improvements consists of the footprint of the proposed improvements and adjacent parcels up to a distance of 150 feet from the footprint. The historic resources APE for areas with high-level elevated improvements consists of the footprint of proposed improvements and extending out 500 feet from that footprint (**Figure 4-1**).

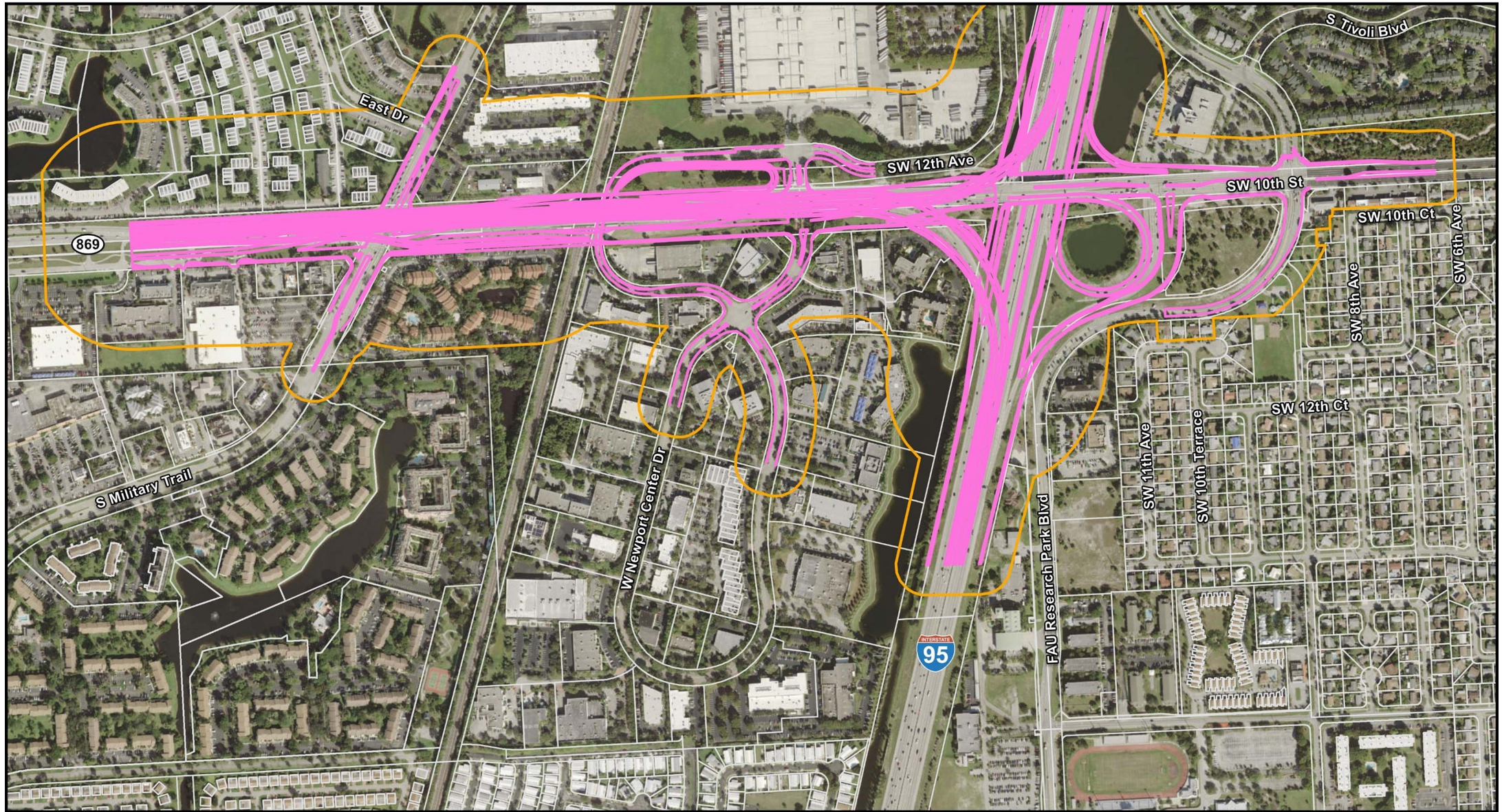


Figure 4-1a
Project APE (Map 1 of 3)

SR 9/I-95 from South of SW 10th Street to North of SR Hillsboro Boulevard PD&E (FM No. 436964-1-22-01, ETDM No.14244)

Archaeological APE

Historic Resources APE

Note: The archaeological APE is limited to the footprint of subsurface improvements and proposed ROW

Deerfield Beach, Broward County

Feet
0 250 500

Meters
0 100 200

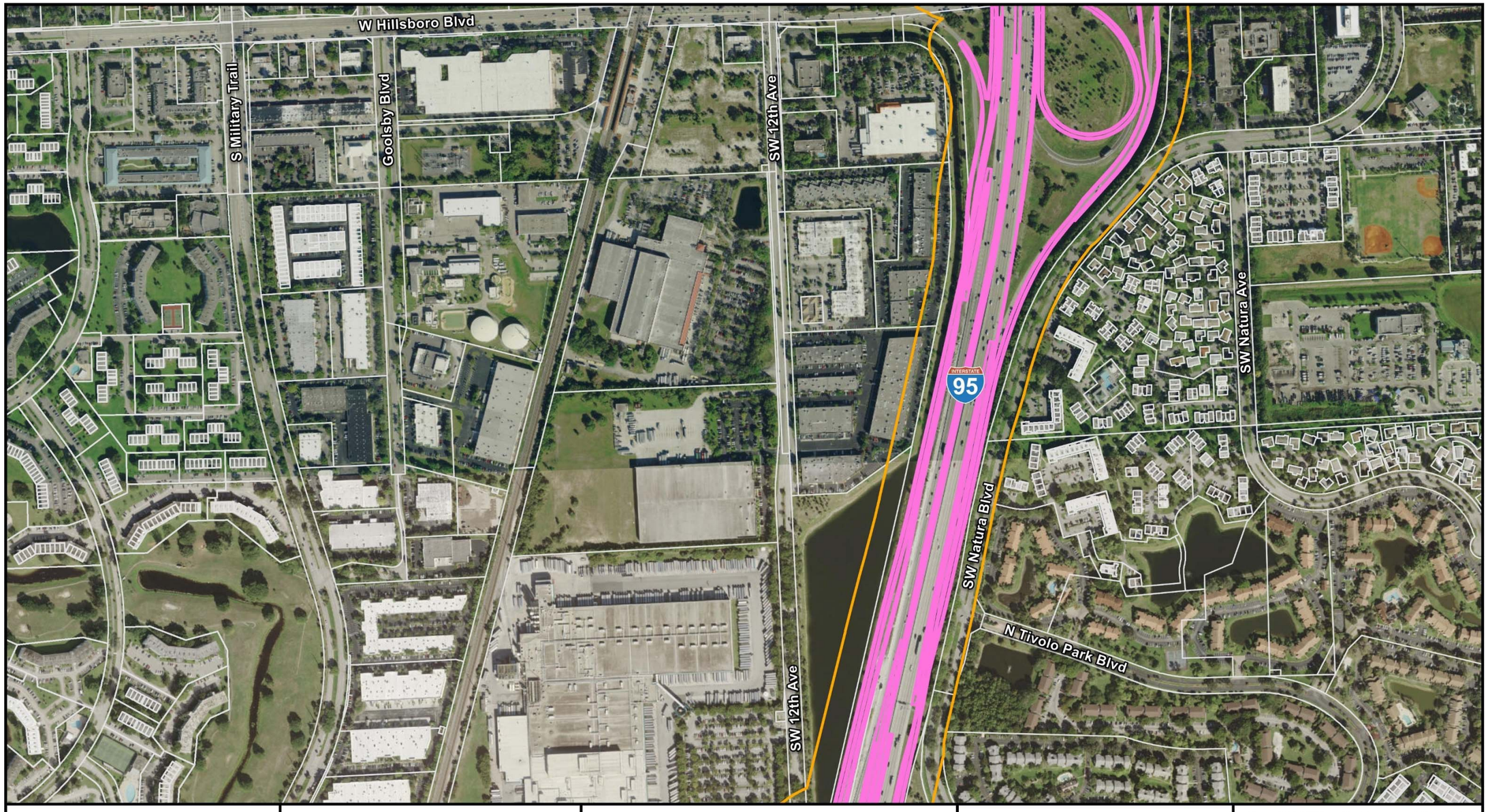


Figure 4-1b
Project APE (Map 2 of 3)

SR 9/I-95 from South of SW 10th Street to North of SR Hillsboro Boulevard PD&E (FM No. 436964-1-22-01, ETDM No.14244)

Archaeological APE

Historic Resources APE

Note: The archaeological APE is limited to the footprint of subsurface improvements and proposed ROW

Deerfield Beach, Broward County

Feet
0 250 500

Meters
0 100 200

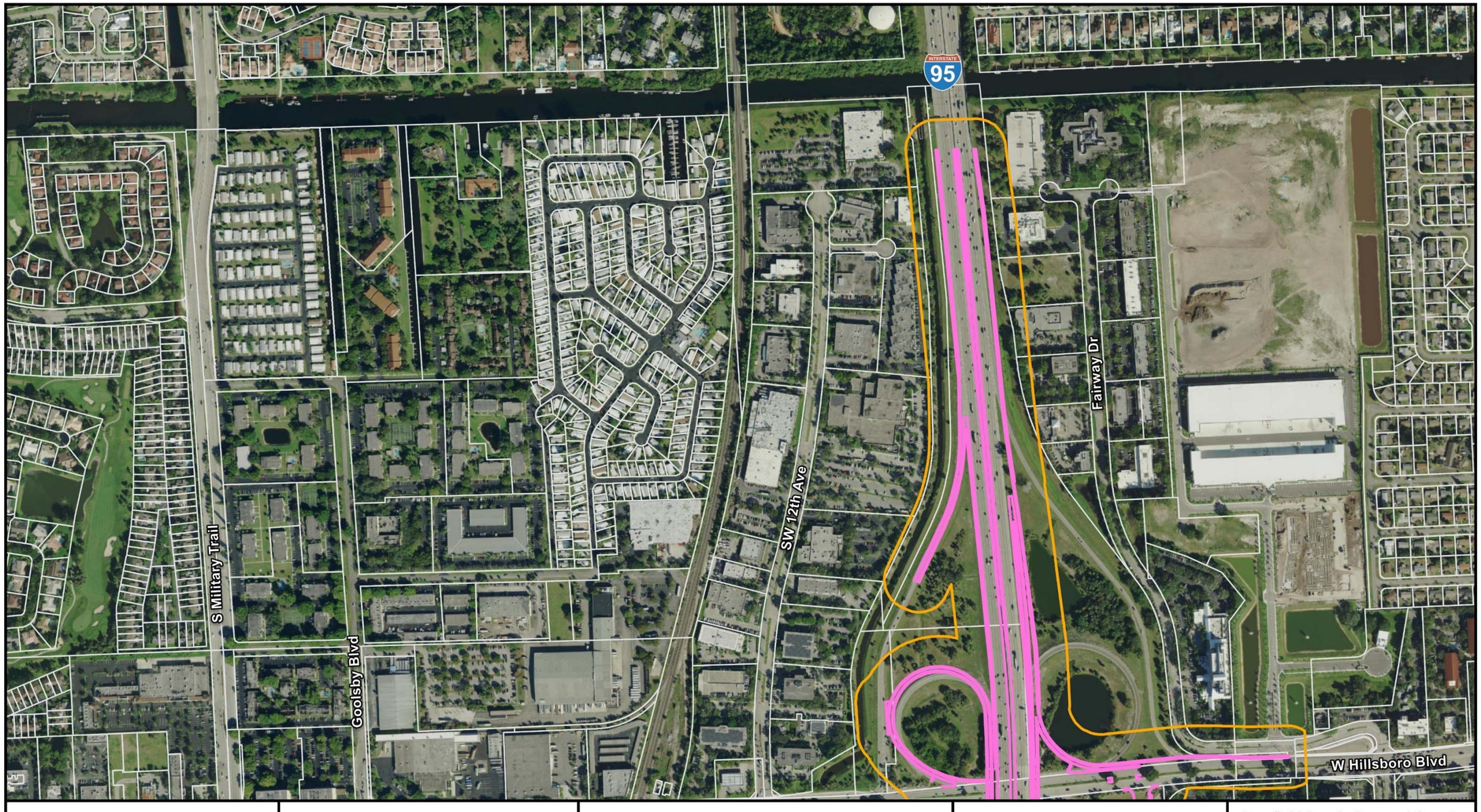


Figure 4-1c **Project APE (Map 3 of 3)**	*SR 9/I-95 from South of APSW 10th Street to North of SR Hillsboro Boulevard PD&E (FM No. 436964-1-22-01, ETDM No.14244)*	Archaeological APE Historic Resources APE	Note: The archaeological APE is limited to the footprint of subsurface improvements and proposed ROW	**Deerfield Beach, Broward County** Feet 0 250 500 Meters 0 100 200

5 ENVIRONMENTAL SETTING

Environmental and ecological factors through time have had a direct influence on the choice of occupation sites by precontact populations and early historic settlers. Therefore, factors such as geologic, hydrologic, and meteorological processes that may have affected the project APE and its biotic resources are important elements in the formulation of a settlement/subsistence model for precontact and early historic peoples.

5.1 Paleo-Environment and Macro-Vegetational Change

Although a comprehensive paleoenvironmental reconstruction is beyond the scope of this report, a brief description of the large-scale climatic and hydrologic conditions that have occurred since 31,050 BC is provided. This description is drawn primarily from the work of W. A. Watts (1969, 1971, 1975, and 1980) and Watts and Hansen (1988). Carbone (1983) has promoted the reconstruction of local paleoenvironments, or small-scale environmental change, with an effort towards developing regional paleoenvironmental mosaic landscapes. Vegetation and animals (including humans) either adapt to local areas (micro-habitats) or move to preferred locations. The descriptions given here provide some indication of the ecological context of precontact groups at different times, in particular, the environmental limitations. However, these descriptions are general and cannot be used to reconstruct the microhabitats of the project APE.

Since the termination of the Pleistocene Epoch at the end of the Wisconsin glaciation, roughly 11,550 BC, Florida has undergone significant climatic and environmental change. Notable changes in climate and subsequently in flora and fauna required human groups to adapt to their surroundings. These adaptations resulted in cultural changes in their hunting/foraging strategies and seasonal migration patterns. Within the archaeological record, these changes can be observed by differences in settlement patterns, midden composition, refuse disposal patterns, and the kinds of stone tools or pottery made.

The first 5,000 years or so of the Holocene were marked by rapid rises in sea levels. This inhibited the development of estuaries along the Gulf Coast and may have had the same impact on the Atlantic coast (Griffin 1988). However, even though sea levels were rising, they were still considerably lower than present levels. This, combined with low interior water tables, resulted in arid conditions for the interior of southern Florida (Watts 1983; Watts and Hansen 1988). The marshes and swamps for which southern Florida are famous had not yet been formed (Webb 1990).

At about 3050 BC, give or take 1,000 years, sea levels had risen to within a few meters of their current levels (Griffin 1988). Increased rainfall resulted in the formation of Lake Okeechobee, the Everglades, and other modern ecosystems (Watts and Stuiver 1980; Brooks 1984:38; Gleason et al. 1984:311). The relative sea level stability combined with freshwater discharge allowed for the development of coastal estuaries (Widmer 1988). Around 750 BC,

the rising sea level had slowed to the point that some modern beach ridges in southern Florida, like Cape Sable, began to form. Increased precipitation in the interior made cypress common in many areas, including the Big Cypress Swamp, and made droughts in the Everglades less common (Griffin 1988). The southern rim of Lake Okeechobee reached its maximum height about this time (Brooks 1984:38). Vegetation reached its present distributional patterning and estuaries were fully formed and supplied by enough freshwater drainage to become highly productive (Widmer 1988; Griffin 1988).

5.2 Regional Environment

The project APE is located within the Atlantic Coastal Ridge physiographic region. The Atlantic Coastal Ridge is characterized by low, poorly drained flatlands that represent the shallow, flat bottoms of ancient seas. Features associated with this province include the Atlantic Ocean to the east, the Everglades to the west, and the Southern Slope to the south. Superimposed on this flat terrain are several linear sand ridges that parallel the coast and are remnants of ancient shorelines, dunes, or offshore bars (White 1970:Plate 1-C). Elevation along the Atlantic Coastal Ridge averages approximately 10–15 feet (3–4.5 meters).

Limestone and dolostone dominate the sediments of Broward County. Outcrops of silicified limestone, or chert, which were often sought out by precontact peoples as raw material sources for the manufacture of stone tools, do not occur in this area (Lane et al. 1980). The closest known outcrops lie to the west along the Peace River in the central part of the state (Scott 1978; Upchurch et al. 1982).

Water resources consist of both ground and surface water. The principal groundwater aquifer is the Floridan, which occurs under artesian conditions with slowly permeable clays and sands forming a confining layer that effectively prevents the vertical movement of water from the surficial aquifer to the Floridan aquifer (Lane 1980). Surface sand deposits contain the surficial aquifer, which is recharged through local rainfall. Because of low hydraulic gradients, movement of water within this zone is very slow. Water is discharged from the aquifer through lateral seepage to streams or lakes, evapotranspiration, or movement downward to the Floridan aquifer where sinkhole development has breached the underlying confining layer of clay (Lane 1980; Lane et al. 1980).

5.3 Physical Environment of the Project Area

A review of the General Land Office (GLO) historic plat maps (Florida Department of Environmental Protection [FDEP] 1846 and 1870a) and surveyor's field notes (FDEP 1845a, 1845b, and 1870b) was conducted to examine past environmental conditions within the vicinity of the archeological APE. The majority of the I-95 corridor is described as 3rd rate pine land and scrubby land. The area south of SW 10th Street was described as scrubby pineland. The western portion of the project area along SW 10th Street was described as

glade and low pine land. No hammocks are illustrated on the plat maps or described in the surveyor's notes in the vicinity of the project area.

Aerial photographs from 1947, 1953, 1957, 1968, and 1971 (FDOT, Surveying and Mapping Office 2017; University of Florida, George A. Smathers Libraries 2017) were reviewed to examine land use within the vicinity of the archaeological APE during the 20th century. In 1947, the area was mostly undeveloped with much of the area then open land with pineland and marshy areas. Trails and small canals intersected the area at several locations. There were some agricultural fields in the western portion of the project area to the north and south of SW 10th Street. The Seaboard Air Line Railroad and Hillsboro Canal were present as well as Hillsboro Boulevard. In the area of SW 10th Street was a spur rail line extending west of the Seaboard Airline Railroad, running westward and connecting the Seaboard line to a large quarry a few miles to the west of the project APE. Very little development occurred within the project area during the 1950s. By 1968, residential development was expanding westward from the coast, but the project area remained undeveloped. SW 10th Street was constructed east of the Seaboard Air Line Railroad circa 1970. I-95 was constructed between 1971 and 1973 and development began in the area.

The *Soil Survey of Broward County Florida: Eastern Part, Florida* (United States Department of Agriculture [USDA] 1984) was reviewed to help determine the predevelopment environment, assess the level of modification, and identify natural features within the project corridor indicative of increased archaeological site potential. The project corridor is located within the Immokalee-Urban land-Pompano soil association. The Immokalee-Urban land-Pompano association is made up of broad, low ridges interspersed with sloughs and broad flats (USDA 1984:9). Natural vegetation includes slash pine, saw palmetto, and native grasses. Drainage characteristics and environmental association for each detailed soil type within the APE are included in **Table 5-1**.

Table 5-1
Characteristics of Detailed Soil Types within the Project APE

Drainage Characteristics	Soil Type	Environmental Association
Excessively drained	St. Lucie fine sand	Low knolls and ridges in the eastern part of the county. Native vegetation consists of sand pine, scrub oak, scattered palmetto, and cactus.
Moderately well drained	Pomello fine sand	Low ridges east of the Everglades. Natural vegetation is pine, palmetto, live oak, and native grasses.
Poorly drained	Immokalee fine sand	Broad, low ridges. Native vegetation consists of slash pine, saw palmetto, and native grasses.
	Pompano fine sand	Sloughs and broad flats. Native vegetation consists of slash pine, native grasses, and cypress in low areas. Typical vegetation can also include pepper and guava trees.
Not applicable	Udorthents, shaped	These soils are comprised of soil and geologic soil materials obtained from nearby excavations and spread over natural soils. It consists primarily of sand and limestone fragments and is shaped and contoured for major highways and golf course.

Source: USDA 1984: 19, 27–29, 36, 42-48

Currently, the project area consists primarily of existing pavement; roadway berms, curb and gutter; sidewalk; driveways; access drives; and grassy shoulder with buried utilities, junction boxes, and planted ornamentals. The level of development within the current project corridor has resulted in the removal of native vegetation.

6 PRECONTACT OVERVIEW

Native peoples have inhabited Florida for at least 14,000 years. The earliest cultural stages are pan-Florida in extent, while later cultures exhibited unique cultural traits. The following discussion of the precontact time period in the vicinity of the project area is included in order to provide a framework within which the local archaeological record can be understood.

6.1 Paleoindian Period (12,000-7,500 BC)

The earliest period of precontact cultural development dates from the time people first arrived in Florida. The greatest density of known Paleoindian sites in Florida is associated with the rivers of northern and north-central Florida where distinctive lanceolate projectile points and bone pins have been found in abundance in and along the Santa Fe, Silver, and Oklawaha Rivers (Dunbar and Waller 1983). The majority of these have been found at shallow fords and river crossings where Native Americans presumably ambushed Pleistocene mammals. The bones of extinct species such as mammoth, mastodon, and sloth are commonly found preserved in the highly mineralized waters of the area's springs and rivers. Despite early claims to the contrary, present evidence strongly supports the contemporaneity of Paleoindians and these extinct mammals.

The climate of Florida during the late Pleistocene was cooler and drier, and the level of the sea was as much as 160 feet (49 meters) lower (Milanich 1994:38–41). Rising sea levels are assumed to have inundated many coastal sites dating to the Paleoindian and Early Archaic periods (e.g., Ruppe 1980; Goodyear and Warren 1972; Goodyear et al. 1980; Dunbar et al. 1988). It is difficult to determine the dependence of Paleoindian groups on estuarine and littoral resources because little is known of these submerged archaeological sites.

The prevailing view of the Paleoindian culture, a view based on the uniformity of the known tool assemblage and the small size of most of the known sites, is that of a nomadic hunting and gathering existence, in which now-extinct Pleistocene megafauna were exploited. Settlement patterns were restricted by availability of fresh water and access to high-quality stone from which the specialized Paleoindian tool assemblages were made. Waller and Dunbar (1977) and Dunbar and Waller (1983), from their studies of the distribution of known Paleoindian sites and artifact occurrences, have shown that most sites of this time period are found near karst sinkholes or spring caverns.

The majority of Paleoindian sites in Florida consist of surface finds. The most widely recognized Paleoindian tool in Florida is the Suwannee point, typically found along the springs and rivers of northern Florida. Other points, including Simpson and Clovis points, are found in lesser numbers. Other Paleoindian stone tools are known from the Harney Flats site (Daniel and Wisenbaker 1987:41–97), the Silver Springs site in Marion County (Neill 1958), and other northern Florida sites (Purdy 1981:8–32). These Paleoindian tools tend to be unifacial and plano-convex, with steeply flaked, worked edges (Purdy and Beach 1980:114–118; Purdy 1981). Bifacial and "hump-backed" unifacial scrapers, blade tools, and retouched flakes, including spokeshaves, have been found at these sites (Purdy 1981; Daniel and Wisenbaker

1987:62–81, 86–87). However, some tools are little more than flakes or blades that were struck from cores, used, and discarded (Milanich 1994:51).

By the end of the Paleoindian period, the climate had become warmer and wetter and it is possible that the modern wetlands of southern Florida began to emerge. Sea levels began a fairly rapid rise, shrinking the available land mass through coastal inundation. These dramatic climate changes, and possible pressure from Paleoindian hunters, led to the extinction of the Pleistocene megafauna and other species.

6.2 Archaic Period (7,500-500 BC)

During the Archaic period, climate and sea levels gradually stabilized. The Archaic period is known for the adaptations made by Florida's earliest inhabitants to the modernizing climate and landscape. At the beginning of the Archaic, lifeways in Florida were quite similar to those of the preceding Paleoindian period. However, by the end of the Archaic, Florida's natives had developed more sedentary lifestyles, made many technological innovations, the most important of which was the invention of pottery, and began to differentiate themselves into distinct regional subcultures. Florida's Archaic is divided into Early, Middle, and Late sub-periods, each of which have recognized horizons that are limited to restricted geographic areas and/or times.

6.2.1 Early Archaic Period (7,500-5,000 BC)

With the wetter conditions that began about 8000 BC and the extinction of some of the Pleistocene animal species that helped to sustain earlier populations, Paleoindian subsistence strategies were no longer efficiently adapted to the Florida environment. As environmental conditions changed, surface water levels throughout the state increased and new locales became suitable for occupation. Early Archaic peoples might be viewed as a population changing from the nomadic Paleoindian subsistence pattern to the more sedentary coastal- and riverine-associated subsistence strategies of the Middle Archaic period.

The settlement patterns and tools of Early Archaic people in Florida were initially very similar to those of the preceding Paleoindian period. Cultural changes began after about 8000 BC with changes in projectile-point types, specifically a transition from lanceolate to stemmed varieties. Beginning about 7500 BC, Paleoindian points and knives were replaced by a variety of stemmed tools, such as the Kirk, Wacissa, Hamilton, and Arredondo types (Milanich 1994:63).

Kirk points and other Early Archaic diagnostic tools are often found at sites with Paleoindian components, suggesting that Early Archaic peoples and Paleoindians shared similar lifeways (Daniel and Wisenbaker 1987:33–34). However, it appears that the distribution of Early Archaic artifacts is wider than that of Paleoindian materials. Sites having both Paleoindian and Early Archaic components have been found to be largely restricted to natural springs and the extensive perched water sources of northern Florida.

Most of what is known about Early Archaic subsistence comes from highly preserved materials recovered from the anaerobic muck of the Windover Pond site in Brevard County. The Windover analysis (Andrews et al. 2002) indicates that Early Archaic peoples utilized the fibers of sabal palm, saw palmetto, and other plants in the weaving of baskets and textiles. Windover also illustrates that at least some Early Archaic populations had developed an intensive exploitation strategy focused on inland aquatic resources supplemented by terrestrial game (Dickel and Doran 2002:54). However, since the site has no correlates, it is unclear how representative it is of other Early Archaic sites in southern Florida (Dickel 2002).

6.2.2 Middle Archaic Period (5,000-3,000 BC)

Throughout the Middle Archaic, environmental and climatic conditions would become progressively more like modern conditions, which would appear by the end of the period, circa 3000 BC. During this period, rainfall increased, surface water became much less restricted and, as a result, vegetation patterns changed. The Middle Archaic period is characterized by increasing populations and a gradual shift toward shellfish, fish, and other food resources from freshwater and coastal wetlands as a significant part of their subsistence strategy (Milanich 1994:75–84; Watts and Hansen 1988:310). Pollen evidence from Florida and south-central Georgia indicates that after about 4000 BC, a gradual change in forest cover took place, with oaks in some regions giving way to pines or mixed forests. The vegetation communities that resulted from these changes, which culminated by 3000 BC, are essentially the same as those found in historic times before widespread land alteration took place (Watts 1969, 1971; Watts and Hansen 1988).

The Middle Archaic artifact assemblage is characterized by several varieties of stemmed, broad-blade projectile points. The Newnan point is the most distinctive and widespread in distribution (Bullen 1975:31). Other stemmed points of this period include the less common Alachua, Levy, Marion, and Putnam points (Bullen 1968; Milanich 1994). In addition to these stemmed points, the Middle Archaic lithic industry, as recognized in Florida, includes production of cores, true blades, modified and unmodified flakes, ovate blanks, hammerstones, “hump-backed” unifacial scrapers, and sandstone “honing” stones (Clausen et al. 1975; Purdy 1981). Additionally, thermal alteration, a technique in stone tool production, reached its peak during the Middle to Late Archaic periods.

Three common types of Middle Archaic sites are known in Florida (Bullen and Dolan 1959; Purdy 1975). The first are small, special-use camps, which appear archaeologically as scatters of lithic waste flakes and tools such as scrapers, points, and knives. These sites are numerous in river basins and along wetlands and probably represent sites of tool repair and food processing during hunting and gathering excursions (Milanich 1994:78). The second common site type is the large base camp. This type of site may cover several acres or more, and contains several thousand or more lithic waste flakes and tools. The third common type of site is the quarry-related site that occurs in localities of chert outcrops.

Middle Archaic sites are found in a variety of locations, including, for the first time, freshwater shell middens along the St. Johns River and the Atlantic Lagoon. Middle Archaic sites have

been found in the Hillsborough River drainage northeast of Tampa Bay, along the southwestern Florida coast, and in South Florida locales such as Little Salt Spring in Sarasota County. In addition, Middle Archaic sites occurred throughout the forests of the interior of northern Florida (Milanich 1994:76). Due to rising sea levels since the Middle Archaic, many sites dating to this period are now submerged beneath the waters of the Gulf of Mexico and Atlantic Ocean. One such site in St. Lucie County may be the Douglass Beach Midden (8SL17), from which artifacts predating the Late Archaic have been recovered (Murphy and Cummings 1990).

6.2.3 Late Archaic Period (3,000-500 BC)

By the beginning of the Late Archaic, all of the modern physiographic regions and ecosystems of southern Florida were present in essentially their modern forms. This includes the entire Kissimmee-Lake Okeechobee-Everglades drainage system. Although the environment of southern Florida had achieved some sense of stability, the archaeological record of this period is much more dynamic. Different ideas and perhaps, human populations, were moving into the area during this time. As a result, there is a great deal of variability between Late Archaic sites in central and southern Florida.

The one point upon which all researchers seem to agree is that, at the beginning of the Late Archaic, pottery had not yet been invented. How long this aceramic state persisted, what the earliest pottery types are and how they vary over space and time is a matter for considerable conjecture.

Until recently, variations of Bullen's chronology for the Late Archaic Orange culture in northeastern Florida were generally used for the Late Archaic in central and southern Florida. Using this scheme, fiber-tempered pottery, the earliest pottery type known for all of North America, was considered to be a marker for the pottery portion of the Late Archaic. The generally accepted chronological sequence for the Late Archaic was expressly unilineal, with plain (undecorated) fiber-tempered pottery, followed by decorated fiber-tempered pottery, replaced finally by plain pottery that was not tempered with fibers (Bullen 1954, 1955, 1972). It was also understood that sand was eventually added as a tempering agent to fiber-tempered pottery. As the Late Archaic progressed, the amount of sand temper was supposed to have increased while the amount of fiber temper decreased. Orange pottery tempered with both fiber and sand is sometimes referred to as "semi-fiber tempered." The application of this chronology to southern Florida seemed to indicate that most of the area, especially the Everglades, was sparsely settled during the Late Archaic due to the general absence of Orange pottery at sites (Griffin 2002:146-149; Widmer 1988:201-201).

The use of the "standard" fiber-tempered sequence for the Late Archaic in southern Florida eventually came into question by several researchers. Based on his research in southwestern Florida, Widmer (1988:68) hypothesized that the earliest sites there "include untempered chalky pottery and limestone-tempered pottery as well as the usual fiber-tempered Orange pottery." Austin (1997:136) states that the "identification of a true Orange Horizon in south Florida is debatable." He points out that, in the Kissimmee River Valley, pure fiber-tempered

components are rare. Instead, what is more common is the presence of "semi-fiber tempered" pottery in the basal levels of middens, "often in association with thick St. Johns Plain or Sand-tempered Plain sherds, and overlying either culturally sterile sands, or sparse scatters of lithic artifacts" (Austin 1996, 1997:136). Both Widmer and Austin agree that semi-fiber tempered components at sites throughout southern Florida are "ephemeral" and soon replaced in the archaeological record by components consisting of exclusively sand-tempered pottery (Austin 1997:136; Widmer 1988:72-73).

Mike Russo has investigated the Joseph Reed Shell Ring on Jupiter Island (Russo and Heide 2002). Radiocarbon dates indicate that the site was constructed sometime between 3527-2746 CALYBP (Russo and Heide 2002:73). This confirms that the site dates to the Late Archaic period. However, no fiber-tempered pottery was recovered from the site. Instead, excavations yielded only chalky (possible early St. Johns Plain) and plain sand-tempered pottery. This is an earlier appearance for these types of pottery than has been predicted for southeastern Florida. Radiocarbon dates indicate that the chalky pottery appears at the Joseph Reed Shell Ring between 3500 and 3300 CALYBP whereas sand-tempered pottery is hypothesized to appear around 3280 CALYBP. Based on the evidence obtained from excavations at the Joseph Reed Shell Ring, Russo and Heide tentatively proposed a new chronology for the Late Archaic in southeastern Florida. A period labeled Late Archaic I is proposed that is marked by fiber-tempered and/or semi-fiber tempered plain pottery. During the next proposed period, Late Archaic II, only chalky ware pottery, possibly early St. Johns Plain, is predicted to occur. This is based on the earliest pottery-bearing levels from the Joseph Reed Shell Ring. The next proposed period, Late Archaic III, is distinguished by the presence of plain sand-tempered pottery along with the chalky pottery. This period is based on the latest levels from the Joseph Reed Shell Ring. Russo and Heide point out that this chronology is closest in resemblance to the chronology proposed by Widmer (1988) for southwestern Florida, suggesting, among other things, that non-fiber-tempered pottery was developed earlier in southern Florida than elsewhere in the state.

It is worth noting that all of these researchers mention in their Late Archaic chronologies the presence of St. Johns Plain, or plain "chalky ware" pottery. Specimens of this type are usually described as "thick" or "thick walled." The same phenomenon has been mentioned for Late Archaic sites in the Everglades (Mowers and Williams 1972). Often, this pottery is described in reports as "early St. Johns Plain."

Of perhaps equal interest to the reported early manifestations of St. Johns Plain are the early reports of Sand-tempered Plain pottery from some sites in southern Florida. In addition to the early examples of Sand-tempered Plain sherds from the Joseph Reed Shell Mound, early examples of this type are also reported from southwestern Florida. At the Mulberry Midden (8CR697), Sand-tempered Plain pottery was dated at about 3390 and 3430 CALYBP (Lee et al. 1993:46; dates recalibrated by Russo and Heide 2002). Dates for Sand-tempered Plain from Heineken Hammock (8CR231) are even earlier, ranging from 4000 to 4500 CALYBP (Lee et al. 1998; dates recalibrated by Russo and Heide 2002). Again, using the standard fiber-

tempered sequence for southern Florida, Sand-tempered Plain pottery should not be present at such early dates, only fiber-tempered pottery.

Finally and importantly, it is now becoming clear that many of the ubiquitous faunal bone middens located in the interior wetlands of southern Florida date to Late Archaic times, despite the fact that many of them lack pottery of any kind. These sites are notoriously difficult to date because, not only do they often lack chronologically diagnostic artifacts, but most of the faunal bone at the sites lacks collagen, the datable material in bone samples sent to radiocarbon labs. Nevertheless, many sites clearly have aceramic components that underlie pottery-bearing strata, logically indicating that these aceramic components most likely date at least as far back as Late Archaic times. Indeed, a few radiocarbon dates have been obtained from some of these components, mostly from shell artifacts or ecofacts. For instance, Taylor's Head (8BD74) yielded a radiocarbon date of 4840 ± 210 CALYBP from an aceramic stratum that lay beneath pottery-bearing strata, although no fiber-tempered pottery was identified (Masson et al. 1988:346). Additionally, radiocarbon dates from the lower, aceramic stratum at the Francis Groves Midden/Muhley site (8BD2911) are reported as ranging from 3960-3630 CALYBP (Pepe and Elgart 2006), despite the fact that fiber-tempered pottery is known during this time elsewhere in Florida (Russo and Heide 2002). Ongoing research by the National Park Service in the Big Cypress National Preserve and Everglades National Park has also yielded dense aceramic faunal bone middens yielding radiocarbon dates between 4800 and 3500 CALYBP (Michael Russo, personal communication with James Pepe 2007; Schwadron 2006).

To explain this dichotomy between Late Archaic Everglades area sites that lack fiber-tempered pottery and large, coastal shell mounds that have abundant examples of early pottery, Pepe and Jester (1995:19) propose that there are two, distinct Archaic traditions in southeastern Florida. In this model, the fiber-tempered pottery tradition is largely a coastal phenomenon associated with shell mound building, while the aceramic Archaic or "Glades Archaic" is a more widespread tradition, perhaps giving rise to the distinctive regional culture of the Tequesta and their ancestors (Pepe 2000:29-32; Russo and Heide 2002:80; Wheeler et al. 2002:143-144).

Additionally, Austin suggests that the presence of "semi-fiber-tempered" pottery at sites in southern Florida may not actually date to the Late Archaic, but instead may signify the beginning of the subsequent post-Archaic Tradition (Austin 1997:138). In other words, Austin holds out the possibility that the ephemeral "semi-fiber-tempered" components in the basal levels of middens in southern Florida may better be incorporated into the initial periods of post-Archaic chronologies (i.e. Glades I Early, Okeechobee Basin I, etc.).

The preceding discussion illustrates that a lack of fiber-tempered pottery at a site in southern Florida does not necessarily mean that the site does not date to the Late Archaic. In fact, recent research indicates that, at some sites or in some areas, the earliest pottery present may be Sand-tempered Plain or thick, chalky (St. Johns?) wares. Finally, Austin holds out the possibility that fiber-tempered pottery in southern Florida may not date to the Late Archaic at all, but instead, may be markers of the earliest post-Archaic expressions in the region.

6.3 Formative Period (500 BC-AD 1513)

The Formative Period is represented by changes in pottery and technology occurring throughout Florida. The specific changes in pottery traditionally used by archaeologists to mark the beginning of this period include the replacement of fiber-tempered pottery with sand-tempered, limestone-tempered, and chalky-paste ceramics. Three different projectile point styles (basally notched, corner-notched, and stemmed) also occur in some areas in contexts contemporaneous with these new ceramic types. This profusion of ceramic and tool traditions suggests population movement and social interaction between culture areas. The earliest known major occupations of southern Florida date to this period (Bullen et al. 1968; Sears 1982).

The regional diversity marking this period has been attributed to local adaptation to varied ecological conditions. It has been described archaeologically in terms of cultural periods based on variations in ceramic types. The ceramic tradition for southern Florida, characterized by sand tempered bowls with incurvate rims, is known as the Glades or Everglades cultural tradition.

The project APE is located in the Glades (Milanich 1994:301). As defined by Milanich (1994:298), the Glades cultural region includes all of south Florida “east and south of the Caloosahatchee and Okeechobee regions. It includes most of St. Lucie County, the Everglades itself, a largely sawgrass marsh in Hendry, Palm Beach, Broward, Dade, and Monroe counties; the Big Cypress Swamp west of the Everglades in Collier County; and extensive saltwater marshes and mangrove forests ounce found along both coasts, now almost totally destroyed in Broward and Dade counties” (**Figure 6-1**).

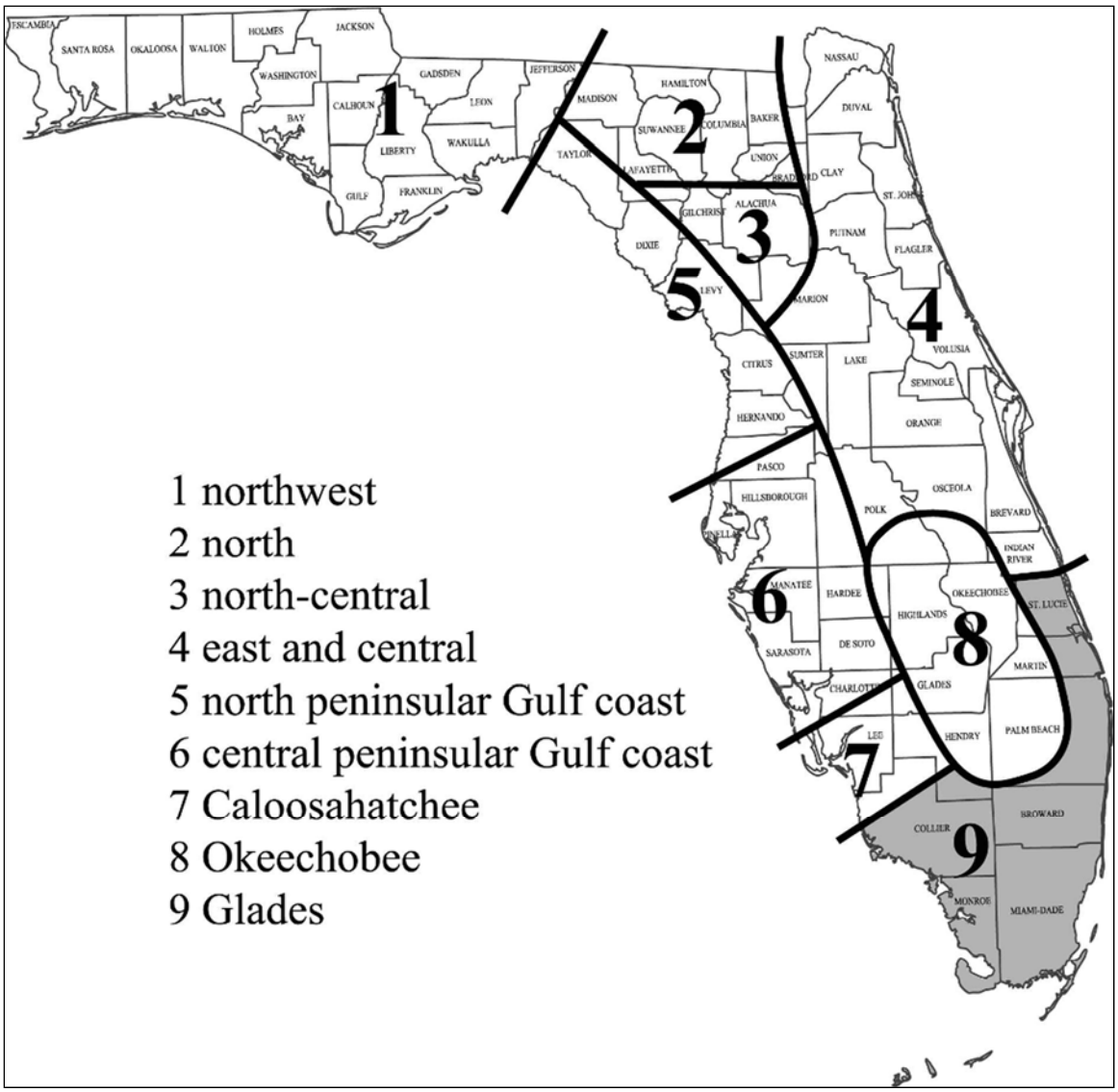


Figure 6-1 Glades Cultural Region

6.3.1 Glades Culture

Environmentally, the interior portions of the Everglades area are dominated by inundated or formerly inundated humic or peat soils which are drained by massive sheet-flow instead of river channeling. The Atlantic coast, which has developed from beach dune deposition, has a few rivers cutting through the Atlantic Coastal Ridge and a coast-parallel lagoon system.

John Goggin established a ceramic sequence for the Glades region on the basis of work he conducted from the 1930s to early 1950s (Goggin n.d.). Subsequent research has only served to refine his basic chronological framework. The most recent revision was presented by John Griffin (1988), who based his research on a series of radiocarbon dates from the Granada site in Dade County (Griffin et al. 1982) and research he conducted on the Bear Lake site in Everglades National Park. In presenting his revisions, Griffin makes a point to emphasize that

the Glades sequence represents a chronology of stylistic and technological changes in ceramics to which other cultural traits have been added.

Table 6-1 is based on Griffin's 1988 work and presents the most thorough chronological framework for southern Florida. Summaries of the ceramic markers associated with each period are provided, as well. It is important to note that the information provided in this table is most applicable to the heartland of the Glades archaeological area: The Big Cypress Swamp, Everglades, and coastal portions of southern Florida to south of Lake Okeechobee.

Table 6-1
Glades Cultural Sequence

Period	Dates	Distinguishing Characteristics
Glades I early	500 BC–AD 500	First appearance of sand-tempered pottery; no decoration
Glades I late	AD 500–750	First appearance of decorated pottery: Fort Drum Incised, Fort Drum Punctated, Cane Patch Incised, Gordon's Pass Incised, Opa Locka Incised, Sanibel Incised; sand-tempered plain persists
Glades IIa	AD 750–900	Appearance of Key Largo Incised and Miami Incised; sand-tempered plain and Opa Locka Incised persist; none of the earlier decorated types are present
Glades IIb	AD 900–1100	Sand-tempered plain and Key Largo Incised persist; Matecumbe Incised appears; none of the earlier decorated types are present; certain rim modifications (incised lip arcs and lip crimping and grooving) also appear for the first time
Glades IIc	AD 1100–1200	Almost no decorated ceramics; some grooved lips but no more lip arcs or crimped rims; Plantation Pinched appears
Glades IIIa	AD 1200–1400	Plantation Pinched is no longer present; Sand-tempered plain and grooved lips persist; appearance of Surfside Incised and St. Johns Check Stamped
Glades IIIb	AD 1400–1513	Glades Tooled, sand-tempered plain and St. Johns Check Stamped are present, Surfside Incised and grooved lips are not present
Glades IIIc	AD 1513-ca.1700	Same as previous period with the addition of historic artifacts

Griffin 1988:124–142

Glades period sites include those at Gordon's Pass (Goggin 1939), Goodland Point (Goggin 1950), Marco Island (Van Beck and Van Beck 1965), Useppa Island (Milanich et al. 1984), Horr's Island (McMichael 1982), Sanibel Island (Fradkin 1976), and the Turner River site (Sears 1956). An interesting feature of these large coastal sites is the progressive movement of habitation areas toward the water (Cushing 1896; Goggin 1950; Sears 1956), and indications are that dwellings may have been built to extend out over the water. Inland sites consist of shell and dirt middens along major watercourses (Laxson 1966) and small dirt middens containing animal bone and ceramic sherds in oak/palm hammocks or palm islands associated with freshwater marshes. The coastal Glades subsistence pattern is typified by the exploitation of fish and shellfish, wild plant food, and inland game, while Glades sites in the Big Cypress Swamp show a greater, if not exclusive, reliance on interior resources.

7 HISTORICAL OVERVIEW

The earliest contact between the native populations and the Europeans occurred through slave hunting expeditions. “Slaving expeditions,” which provided workers for the mines of Hispaniola and Cuba, were not recorded in official documents as the Spanish Crown prohibited the enslavement of Caribbean natives. Evidence of these slave raids comes from the familiarity with the Florida coast stated by navigators of the earliest official coastal reconnaissance surveys (Cabeza de Vaca 1542: Chapter 4). The hostile response of the native population to expeditions during the 1520s may confirm this hypothesis.

Official credit for the European discovery of Florida belongs to Juan Ponce de León, whose voyage of 1513 took him along the eastern coast of the peninsula (Tebeau 1971:21). He is believed to have sailed as far north as the mouth of the St. Johns River before turning south, stopping in the Cape Canaveral area and possibly at Biscayne Bay. The expedition then continued southward; following the Florida Keys, making contact with the local Tequesta people en route before turning to the northwest, where they encountered the Calusa along the southwestern Gulf Coast. Other Spanish explorers followed Juan Ponce de León, and over the next 50 years the Spanish government and private individuals financed expeditions hoping to establish a colony in “La Florida.” In 1565, King Philip II of Spain licensed Pedro Menéndez de Avilés to establish a settlement in St. Augustine, Florida. Between 1565 and 1566, Menéndez sailed along the Florida coast placing crosses at various locations and leaving Spaniards “of marked religious zeal” to introduce Christianity to the Native American people (Gannon 1965:29). Settlements with associated missions were established at St. Augustine, San Mateo (Ft. Caroline) and Santa Elena, and smaller outposts and missions were located in Ais, Tequesta, Calusa, and Tocobaga territory (Gannon 1965:29).

Jesuit missions were established in what are now referred to as the Central Peninsular Gulf Coast and Glades archaeological regions, including the mission of Carlos at Charlotte Harbor, the mission of Tocobaga at Tampa Bay, and a mission at a Tequesta village at the mouth of the Miami River. In March of 1567, Menéndez sailed into the Bay of Tocobaga (now Old Tampa Bay) with a group of 30 soldiers, Captain Martinez de Coz, and Fray Rogel. The mission was established at the village of the cacique known as Tocobaga and consisted of 24 houses (Velasco 1571:161). It was abandoned in January of 1568 due to the hostility of the Native Americans (Solis de Meras 1964:223–230). This Jesuit mission represented the final Spanish attempt to colonize the region.

In 1567, Brother Francisco Villareal was sent to one of the large Tequesta villages located on Biscayne Bay. In 1568, a skirmish between the Spanish soldiers and the Tequesta Indians temporarily closed the mission. By the end of 1568, the Tequesta were willing to reopen the mission, largely due to the work of Don Diego, a Tequesta who had visited Spain. Despite zealous attempts, the native groups in Florida continued to resist conversion, and in 1572 Jesuit authorities decided to abandon their missionary efforts in Florida.

Undaunted, Menéndez turned his attention to another order, the Franciscans, and entreated them to send priests. The Franciscan mission effort was most successful in the northern areas of Florida. One possible reason may have been differences in Native American settlement patterns and economies. According to Milanich (1978:68), the failure of the Spanish missions among the southern Florida native populations was due partially to the groups' subsistence pattern, which required seasonal movement for maximum resource exploitation. Consequently, for the remainder of the First Spanish period (1565–1763), southern Florida was virtually ignored as the Spanish concentrated their efforts in the northern half of

the peninsula.

Another attempt to build a mission in southeastern Florida took place nearly 150 years after the establishment of St. Augustine. Because it was in Spain's best interest to maintain control along the Florida coastline and alliances with the native groups inhabiting the coast, a missionary effort was supported in the Biscayne Bay area (Parks 1982:55–65). Father Joseph María Monaco and Joseph Xavier Alaña were sent from Cuba in 1743 and arrived at a Native American village located at the mouth of the Miami River. The village did not appear any more receptive towards accepting Christianity than before. After Joseph Xavier Alaña conveyed this to the Governor of Cuba, the mission was closed, and the fort they had erected was destroyed to prevent its fall into hostile hands (Parks 1982:55–65). Although the Spanish were resigned to the fact that missionization and settlement of South Florida came at too high a price, they did strive to maintain good relations with the various native people who lived in the area.

By the beginning of the eighteenth century, the Native American population of South Florida had declined considerably as a result of disease, slave raids, intertribal warfare, and attacks from a new group of Native Americans, the Seminoles. The Seminoles, descendants of Creek Indians, moved into Florida during the early eighteenth century to escape the political and population pressures of the expanding American colonies to the north (Wright 1986:218).

During the eighteenth century, Cuban fishermen had established seasonal fishing camps or ranchos along the Gulf coast. These fishermen were engaged in catching mullet and drying them for sale in the Havana markets. By the early nineteenth century, Native Americans were often employed as workers in these "ranchos pescados," which is probably why they were called "Spanish Indians" in Anglo-American documents (Wright 1986:219).

By the end of the eighteenth century, the Seminoles had become the dominant Native American group in the state. Groups of fugitive African American slaves also had settled among the Seminoles by the early nineteenth century (Brown 1991:5–19). Armed conflict with pioneers, homesteaders, and eventually the United States Army resulted in the removal of most of the Seminoles from Florida. This action forced the withdrawal of the remaining Seminole population to the harsh environment of the Everglades and Big Cypress Swamp by the late nineteenth century.

The first known non-Indian residents of what is now Fort Lauderdale were the Charles Lewis family, who arrived from the Bahamas with the British adventurer William Augustus Bowles in the late eighteenth century. Bowles tried to establish a sovereign nation of the native Creek

Indians, and Lewis established a plantation along the New River. In 1810, the Spanish government awarded nobleman Juan Arrambide a huge land grant extending from New River south to Biscayne Bay. Arrambide developed this land as a lumber source and, in the process, introduced black slaves to the region (Historic Property Associates 1995:28–29).

7.1 The Territorial and Statehood Period (1821-1890)

In 1821, after several years of negotiations with Spain, the U.S. acquired Florida as a territory. The population of the territory at that time was still centered in the northern areas around Pensacola, St. Augustine, and Tallahassee. By 1830, the New River Settlement included approximately 60 to 70 inhabitants. The leader of the settlement was William Cooley. Richard Fitzpatrick established plantation practices on his property (Historic Property Associates 1995:29–30). His assistant was Stephen Russell Mallory, who traveled from Key West to the New River area in 1830 and established a plantation in the Fort Lauderdale vicinity. Only there 12 months, he spent his time fishing, hunting and learning woodcraft from the Seminoles, who fished around the coast (Kemper 1981:4–6). In 1840, a skirmish occurred between the Seminoles and a small command of soldiers near the West Lake tract (Kemper 1981:4). Apparently, the Indians fired on two boats under the command of Lieutenant Rankin. The Indians were pursued inland but were not apprehended.

As more European-American settlers moved into the region, conflicts arose with the Seminole people over available land. Pressure began to bear upon the government to remove the Seminoles from northern Florida and relocate them farther south. The Treaty of Moultrie Creek (1823) restricted the Seminole people to approximately four million acres of land in the middle of the state, running south from Micanopy to just north of the Peace River (Mahon 1967:Rear foldout map). The Seminoles did not approve of this treaty because they were reluctant to move from their established homes to an area that they felt could not be cultivated. Other treaties soon followed such as Payne's Landing (1832) and Fort Gibson (1833), which called for Seminole emigration to the western territories (Mahon 1967:75–76, 82–83). These treaties fostered Seminole resentment of settlers that would culminate in the Second Seminole War in 1835.

During the Second Seminole War, the area around Lake Tohopekaliga was a Seminole stronghold. They kept their cattle in the woods around the lake and retreated into the cypress swamp west of the lake at the approach of soldiers (Mahon 1967; Sprague 1964; Moore-Willson 1935). Tohopekaliga means "Fort Site" and the lake was so named because the islands within the lake housed the forts and stockades of the Seminoles (Moore-Willson 1935:29).

In January 1837, General Jesup's men encountered the Seminoles near the "Great Cypress Swamp." The soldiers drove the Indians into the swamp, across the "Hatcheelusteell" and into even more dense swamp (Sprague 1964:172). On the 28th of January, the army "moved forward and occupied a strong position on Lake Tohopekaliga, within a few miles of the point at which the Cypress Swamp approaches it, where several hundred head of cattle were taken" (Sprague 1964:172). Hetherington (1980:3), citing Major Edward Keenan, a "noted authority on the Seminole Wars," believes that General Jesup's base camp was located in the vicinity

of the present-day Kissimmee Airport. The “Great Cypress Swamp” and “Hatcheelusteell Creek” referred to by Sprague (1964) are now called Reedy Creek Swamp and Reedy Creek (MacKay and Blake 1839; Mahon 1967: Rear fold out map; United States Geological Survey (USGS) Lake Tohopekaliga Quadrangle Map 1953; Hetherington 1980:3).

At the beginning of the Second Seminole War, the conflict was centered near the Withlacoochee region. In 1838, U.S. troops moved south to pursue the retreating Seminoles into the Lake Okeechobee and Everglades regions. Colonel Zachary Taylor was sent to the area between the Kissimmee River and Peace Creek. Colonel Persifor Smith and his volunteers were dispatched to the Caloosahatchee River, and U.S. Navy Lt. Levi N. Powell was assigned the task of penetrating the Everglades (Mahon 1967:219–220). Powell’s detachment had several skirmishes with Seminole people near Jupiter Inlet. Powell established a depot on the Miami River and erected Fort Dallas in the approximate location of present-day downtown Miami. For three months, Fort Dallas was a base of operations as Powell led his men into the Everglades in search of the Seminoles (Gaby 1993:47).

Following the Second Seminole War, the New River settlement was brought to an end. Seminoles massacred Cooley’s family in 1836 and the settlers fled to Cape Florida. In March 1938, Major William Lauderdale of the Tennessee Volunteers and his troops constructed an outpost near New River called Fort Lauderdale, which was later replaced by two other forts. The Third Seminole war in 1855 was fought primarily in other parts of the state, but some troops did visit New River (Historic Property Associates 1995:32–35).

The Second Seminole War had a deleterious effect on new settlement in Florida. To encourage settlement in the middle portion of the territory after the war, the Armed Occupation Act of 1842 offered settlers 160 acres of land at no cost, provided they built a house, cleared five acres, planted crops, and resided on the land for five years. Any head of a family or single man over 18 years of age and able to bear arms, was eligible to receive a homestead. This act, plus the end of the Second Seminole War, created a small wave of immigration by Anglo-American pioneers to central Florida. Most of these immigrants were Anglo-American farmers and cattle ranchers, or “crackers,” from the southeastern United States (Gaby 1993).

7.2 Civil War and Post War Period (1960-1898)

With the beginning of the Civil War, cattle were needed to help feed the Confederate Army. Herds from as far south as central Florida were driven to railheads near the Georgia border. However, cattle ranchers discovered they could sell their herds in Cuba for a greater profit and began dealing with blockade-runners. The Union attempted to stop all shipping from Florida ports, but blockade-runners were too abundant. Cattle ranchers from all over Florida drove their cattle to Punta Rassa to be shipped to Cuba for payment in Spanish gold. Jacob Summerlin, a successful cattle rancher from the Fort Meade area, gave up his contract with the Confederate government to supply cattle and in 1863 teamed up with James McKay from the Tampa area. McKay, a successful and daring blockade-runner, supplied the schooners and Summerlin the cattle. It is not known how many cattle were shipped from the port during the

Civil War. However, after the war as cattle continued to be shipped; it is reported that in the decade between 1870 and 1879, more than 165,000 head were shipped (Grismer 1949).

The New River region was sparsely settled during the Civil War. A Miami Unionist who served as a gunboat pilot, Isaiah Hall, and his family lived there after being driven from the Miami area by Confederate sympathizers (Historic Property Associates 1995:35). In 1868, hog farmer and beachcomber John J. "Pig" Brown settled on New River with his family, as well. Brown was elected to the Florida Legislature in 1876 and never returned from Tallahassee. During the same time, the United States Life Saving Service established 10 Government Houses of Refuge for shipwrecked sailors along the uninhabited eastern coastline, and the first permanent white settler in present day Fort Lauderdale came to the area in 1876 to occupy one of the cabins (Nance 1962:334). At this time, the population center of present-day Broward County was Pine Island, west of present-day Davie. Approximately 30 Seminole families cultivated gardens and roamed the Everglades in search of game (McGoun 1999).

The post-war economic conditions of much of the rest of the south contributed to changes in the economy of the Tampa Bay area and communities to the south along the Gulf Coast. An influx of poor farmers coinciding with the southward movement of cattle ranches made the economic stability of the area dependent upon reliable sources of overland freight transport. Beginning about 1870, many settlers began to buy the land on which they had homesteaded for so many years in anticipation of the coming railroad (Hetherington 1980:86).

Concern for future settlement created survey activity in Broward County. It had already been surveyed in 1845, but in 1870 many more areas were surveyed. The Florida Surveyor General approved a plat map on November 30, 1870 (Kemper 1981:12). Isolated events such as the surveying would lead to increased development of Broward County. Another such event was the purchase of four million acres of Florida's land with a drainage project in mind. The drainage project would turn swampland into agriculture and development lands.

In the 1880s, interest in the resources of South Florida increased due in large part to people like Hamilton Disston and Henry B. Plant. By 1881, the State of Florida faced a financial crisis involving a title to public lands. On the eve of the Civil War, land had been pledged by the Internal Improvement Fund to underwrite railroad bonds. After the War, when the railroads failed, the land reverted to the State. Almost $1 million was needed by the state to pay off the principal and accumulated interest on the debt, thereby giving clear title.

Hamilton Disston, son of a wealthy Philadelphia industrialist, contracted with the State of Florida in two large land deals: the Disston Drainage Contract and the Disston Land Purchase. The Drainage Contract was an agreement between Disston and the State in which Disston and his associates agreed to drain and reclaim all overflow lands south of present-day Orlando and east of the Peace River in exchange for one-half the acreage that could be reclaimed and made fit for cultivation.

The Disston Land Purchase was an agreement between Disston and the State in which Disston agreed to purchase Internal Improvement Fund Lands at $0.25 an acre to satisfy the indebtedness of the fund. A contract was signed on June 1, 1881 for the sale of 4,000,000

acres for the sum of $1 million, the estimated debt owed by the Improvement Fund. Disston was allowed to select tracts of land in lots of 10,000 acres, up to 3,500,000 acres. The remainder was to be selected in tracts of 640 acres (Davis 1938:206–207). Before he could fulfill his obligation, Disston sold half of this contract to a British concern, the Florida Land and Mortgage Company, headed by Sir Edward James Reed (Tischendorf 1954:123).

Disston changed Florida from a wilderness of swamps, heat, and mosquitoes into an area ripe for investment. This enabled Henry B. Plant to move forward with his plans to open the west coast of Florida with a railroad-steamship operation called the Jacksonville, Tampa & Key West Railway. Through the Plant Investment Company, he bought up defunct rail lines such as the Silver Springs, Ocala & Gulf Railroad, Florida Transit and Peninsular Railroad, South Florida Railroad, and Florida Southern Railroad to establish his operation (Mann 1983:68; Harner 1973:18–23). In 1902, Henry Plant sold all of his Florida holdings to the Atlantic Coast Line, which would become the backbone of the southeast (Mann 1983:68).

During 1881 and 1882, channels were dug between the lake systems to the north and the Kissimmee River (Tebeau 1971:288). The Atlantic and Gulf Coast Canal and Okeechobee Land Company was responsible for opening up Lake Okeechobee to the Gulf of Mexico by dredging a channel to the Caloosahatchee River. Disston and his associates received 1,652,711 acres of land under the Drainage Contract, although they probably never permanently drained more than 50,000 acres (Tebeau 1971:280). Drainage operations began and the Florida Land and Improvement Company and Kissimmee Land Company were formed to help fulfill the drainage contract (Hetherington 1980:6).

Private land claims between 1881 and 1883 were probably squatters acquiring the land on which they lived prior to the land transfers under the Disston Land Purchase contract. The flurry of land transfers recorded in the early 1880s was mainly the result of two factors: large influxes of people as a result of the railroads, and the widespread unpopularity of the Disston Land Purchase and Drainage Contracts.

The Disston Land Purchase and Disston Drainage Contract were not very well liked among many of Florida's residents. They resented the $0.25 per acre price Disston paid under the land contract, as they were required to pay $1.25 per acre under the terms of the Homestead Act of 1876. Claims also were made that Disston was receiving title to lands that were not swamplands or wetlands (Tebeau 1971:278). Many residents bought up the higher, better-drained parcels of land for speculation, knowing that the surrounding wetlands and flatwoods would be deeded to Disston under the Land Purchase contract. Many hoped that their more desirable land purchases would increase in value.

In August 1881, at the same time Disston's companies were beginning their work, the legislature granted a state charter to the privately owned Florida Coast Line Canal & Transportation Company to construct a continuous waterway from the St. Johns River to Miami; the intracoastal channel would provide a sheltered, inland passage for shallow-draft vessels. The charter granted the company 3,840 acres of land for every mile of canal built. Construction began in 1883 on a 5-foot-deep, 50-foot-wide, intracoastal channel connecting

coastal bays, rivers, and lakes (Buker 1975:117). Although the canal company dredged almost continuously from 1883 until the 268-mile channel was completed in 1912, the firm's waterway operations were never successful. While the channel was still under construction, the company faced a formidable challenge from competing transportation interests expanding into South Florida (Buker 1975:120).

Development in Broward County was slow, but sure. By the early 1890s, land was purchased and development was being planned (Kemper 1981:12). For example in Hollywood, tract book records indicate the majority of the township's land, approximately 27 square miles out of the town's total 36 square miles, was purchased by the Florida Coast Line Canal and Transportation Company on September 24, 1890. By 1910, the first person lived in the Hollywood area. Fred Zirbs established a five-acre farm where he grew peppers and tomatoes (Kemper 1981:12). New River was the site of a ferry and an overnight camp for stage line passengers. Frank Stranahan, who is regarded as the first permanent white settler of what is now Fort Lauderdale, ran both the ferry and the camp (Historic Property Associates 1995:38).

Development and settlement would increase after the freezes of 1894 and 1895 that killed citrus crops, vegetables, and coconut palms north of Broward County. This event in part caused Henry M. Flagler to extend the Florida East Coast Railway 70 miles south to Miami, where no damaging frosts had occurred (Shepard Associates 1981:1–10). The completion of the railroad to Miami in 1896 launched the most significant period in the region's development. The railroad brought farmers from the north, and agriculture was developed. Other businesses also began to emerge (Historic Property Associates 1995:39–42). A comprehensive overview of the land apportionment within the project APE is outlined in **Table 7-1**. Historic plat maps for the project area were also examined and no evidence was found of military forts, historic homesteads or roads.

Table 7-1
Land Apportionment in the Project Area as Recorded in the Tract Book Records

Township 48 South, Range 42 East			
Section	**Portion Owned**	**Owner**	**Date of Deed or Sale**
1	E ½ & W ½	Florida Coastline Canal and Canal Transportation Company	September 24, 1890
2	All	Florida Coastline Canal and Canal Transportation Company	September 24, 1890
11	All	Florida Coastline Canal and Canal Transportation Company	September 24, 1890
12	NE ¼ of NE ¼; W ½ of NE ¼; S ½ of NW ¼; NE ¼ of NW ¼; W ½ of SE ¼ & SW ¼	Florida Coastline Canal and Canal Transportation Company	September 24, 1890
Township 47 South, Range 42 East			
36	All	Florida Coastline Canal and Canal Transportation Company	September 24, 1890

FDEP n.d.

7.3 Spanish American War Period / Turn of the Century (1898-1916)

At the turn-of-the-century, Florida's history was marked by the outbreak of the Spanish-American War in 1898. As Florida is the closest state to Cuba, American troops were stationed and deployed from the state's coastal cities. Harbors in Tampa, Pensacola, and Key West were improved as more ships were launched with troops and supplies. "The Splendid Little War" was short in duration, but evidence of the conflict remained in the form of improved harbors, expanded railroads, and military installations (Miller 1990).

Fort Lauderdale saw growth at this time despite a yellow fever epidemic, in 1899. In the same year, the area's first schoolhouse was built. The 1900 census reported 52 residents in Fort Lauderdale. The area's first incorporated communities were Dania in 1904, Pompano in 1908, and Fort Lauderdale in 1911; these communities predate the formal incorporation of Broward County (McGoun 1978:19). Fort Lauderdale's downtown began to develop at this time; the commercial area centered on the intersection of the railroad and the New River. Unfortunately, a fire in June of 1912 destroyed most of the business district, but the disaster did little to impair Fort Lauderdale's growth (Historic Property Associates 1995:42–47).

In 1904, Governor Napoleon Bonaparte Broward initiated significant reforms in Florida's politics. Several of Broward's major issues included the Everglades drainage project, railroad regulation, and the construction of roads. The draining of the Everglades resulted in the construction of canals, an increase in land available for agriculture, and the fueling of Fort Lauderdale's growth. One of the first elements of the project was the dredging of the North New River Canal. By 1912, the New River Canal extended all the way to Lake Okeechobee, and shipping of agricultural products along the water route was immediately the preferred method of transportation (Historic Property Associates 1995:44).

During this time, railroads were constructed throughout the state and automobile use became more prevalent. Improved transportation in the state opened the lines to export Florida's agricultural and industrial products (Miller 1990). As various products such as fruits and vegetables were leaving the state, people were arriving in Florida. Some entered as new residents and others as tourists.

Between 1900 and 1910, the state population increased from 528,542 residents to 752,619. At this time, St. Lucie and Palm Beach counties were established, indicative of the increasing numbers of people moving to the east coast of the state. Fort Lauderdale incorporated in 1906. A fire in June of 1912, which destroyed most of the business district, did little to slow the city's growth (Historic Property Associates 1995:4–47).

Broward County incorporated in 1915 with a population of 8,000, and Fort Lauderdale was named county seat (Historic Property Associates 1995:50). The county was named after the former Governor Broward. As recently as 1910, the County had been a wilderness of pine trees and swampland and had few homesteaders. Agriculture was still the main economy. Before 1915, Broward County had at times been part of St. Johns, Monroe, Mosquito, Dade, St. Lucie, Brevard, and Palm Beach counties. By the time of the County's incorporation, most citizens were living in the eastern areas along the coast such as Dania, Pompano, Fort

Lauderdale, Deerfield, Hallandale, Davie, Colohatchee, and Progresso (Shepard Associates 1981:I-10).

The area's tourist trade began to emerge around the time of incorporation. Development of the Fort Lauderdale beach area began in 1914 when D. C. Alexander purchased 32 acres of beachfront property. In July 1915, the Dixie Highway, the first major highway linking Fort Lauderdale with the rest of the nation, was completed. This highway and other new Broward County roads would play a significant role in Florida's growing tourist trade (Historic Property Associates 1995:50–51).

Rapid and widespread growth was the theme of this period in Florida history. Thousands of miles of railroad tracks were laid, including the Florida East Coast, Atlantic Coast Line, and Seaboard Air Line railroads. While agriculture, especially the citrus industry, had become the backbone of Florida's economy, manufacturing and industry began growing during the beginning of the century. Fertilizer production, boat building, and lumber and timber products were strong secondary industries (Weaver et al. 1996:3).

7.4 World War I and Aftermath Period (1917-1920)

The World War I and Aftermath period of Florida's history begins with the United States' entry into World War I in 1917. Wartime activity required the development of several training facilities in the state, and protecting the coastlines was a priority at this time. Although the conflict only lasted until November 1918, the economy was boosted greatly by the war. For example, the war brought industrialization to port cities such as Tampa and Jacksonville, where shipbuilding accelerated. These cities also functioned as supply depots and embarkation points. An indirect economic benefit of the war was an increase in agricultural production, as beef, vegetables, and cotton were in great demand (Miller 1990).

Area development was halted temporarily during World War I, although the construction of bridges from the mainland over to the beaches at Pompano, Hallandale, and Fort Lauderdale were completed in 1917 (Historic Property Associates 1995:51). Truck farming still dominated Broward County's economy before the 1920s Boom Times development began in earnest. Higher areas in the county were preferred for planting crops like beans, squash, cabbage, tomatoes, pineapples, and turpentine mangoes (Shepard Associates 1981:I-11–13, 34).

While Florida industrialization and agriculture flourished, immigration and housing development slowed during the war. Tourism increased as a result of the war in Europe, which forced Americans to vacation domestically. Tycoons such as Henry Flagler and Henry Plant were building the hotels and railroads for people desiring winter vacations in sunny Florida. These magnates took an interest in the improvements and promotion of Florida in an effort to bring in more tourist dollars. The end of the war marked a slight increase in population, and Flagler and Okeechobee counties were created at this time.

7.5 Florida Boom Period (1920-1930)

After World War I, Florida experienced unprecedented growth. Many people relocated to Florida during the war to work in wartime industries or were stationed in the state as soldiers.

Bank deposits increased, real estate companies opened in many cities, and state and county road systems expanded quickly. Road building became a statewide concern as it shifted from a local to a state function. These roads made even remote areas of the state accessible and allowed the boom to spread. On a daily basis up to 20,000 people were arriving in the state. Besides the inexpensive property, Florida's legislative prohibition on income and inheritance taxes also encouraged more people to move into the state.

Earlier land reclamation projects created thousands of new acres of land to be developed. Real estate activity increased steadily after the war's end and drove up property values. Prices on lots were inflated to appear more enticing to out-of-state buyers. Every city and town in Florida had new subdivisions platted and lots were selling and reselling for quick profits. Southeastern Florida, including cities such as Miami and Palm Beach, experienced the most activity, although the boom affected most communities in central and South Florida (Weaver et al. 1996:3).

In the late 1910s and early 1920s Fort Lauderdale was used as a setting for movies. Real estate sales increased as swamps were dredged and "finger islands," narrow strips of fill alternating with channels of water, were developed. Building included exclusive and moderately priced homes, as well as hotels and commercial structures downtown. These activities in Florida's southeastern "Gold Coast" represented the highest intensity of Florida's land boom. By 1925, Fort Lauderdale's population reached 16,000 people (Historic Property Associates 1995:51–54). Other cities in Broward County were incorporated during the Land Boom period including Hollywood, Davie, Floranada and Deerfield (McGoun 1978:20). Deereidl was incorporated June 11, 1925 and George Emory Butler, Jr. was elected as the first mayor. The town added their first public library to their modest list of public buildings which served a population of almost 1,300 residents (Deerfield Beach Historical Society n.d.).

In 1918, George Henry came to Fort Lauderdale to build the Broward Hotel. The city financed the development in part in hopes of bringing an economic boom similar to those that occurred in Palm Beach and St. Augustine. After the hotel's opening in 1919, tourists flocked to the area. In 1921, Joseph Young bought land that would transform the area of Hollywood from truck farming agricultural fields into a city. Development began full-scale in the summer of 1921; the town was based on the design for Indianapolis, Indiana where Young had lived. By 1925, the town would have neighborhoods, a country club and golf course, and the famous Hollywood Beach Hotel (Shepard Associates 1981:I-11–13, 34).

An important development in Fort Lauderdale during the late 1920s was the division of the city into quadrants, which not only assisted tourists in finding their destinations, but also solidified racial segregation. Blacks arrived as laborers on the railroad and remained as farmers, settling in the northwestern section of the town. Following the adoption of the grid system, the city officially restricted black homes to the northwest quadrant (Historic Property Associates 1995:56–58).

The Boom period began to decline in August 1925, when the Florida East Coast Railway placed an embargo on freight shipments to South Florida. Ports and rail terminals were overflowing

with unused building materials. In addition, northern newspapers published reports of fraudulent land deals in Florida. In 1926 and 1928, two hurricanes hit southeastern Florida, killing hundreds of people and destroying thousands of buildings. The 1926 hurricane hit Hollywood, killing 37 people there and 15 in Fort Lauderdale. The collapse of the real estate market and the subsequent hurricane damage effectively ended the boom. The 1929 Mediterranean fruit fly infestation that devastated citrus groves throughout the state only worsened the recession (Weaver et al. 1996:4).

For Broward County, 1926 saw a dramatic reversal of fortune, as real estate activity declined as a result of a stock market slump the previous November. People began defaulting on payments, and business came to a near standstill (Kemper 1981:47). Overspeculation in real estate, the F.E.C. Railway freight embargo, and the 1926 hurricane created economic havoc, further devastating the area's land boom (Historic Property Associates 1995:55–56). In order to promote morale and development, right-of-way was granted to the Seaboard Air Line Railway (Shepard Associates 1981: I-43).

By the time the stock market collapsed in 1929, Florida was suffering from an economic depression. Construction activity had halted and industry dramatically declined. Subdivisions platted several years earlier remained empty and buildings stood on lots partially-finished and vacant (Weaver et al. 1996).

Despite the economic hardships of the Depression era, local financiers began a project to create a port in the Fort Lauderdale area. One of the greatest supporters of the port was the developer of the city of Hollywood, J. W. Young. Throughout the early 1920s, Young worked towards the creation of a deepwater harbor from a body of water originally known as Lake Mabel, but various circumstances including the bust of the real estate market, initially prevented its construction. A special act of the Florida Legislature established the Broward County Port Authority in 1927, and construction of the port was soon underway (Broward County 2001). After several years of financial difficulties, the port was opened in 1929 for use by cargo ships and military vessels. The name "Port Everglades" was chosen, as it represented the port as the "gateway to the rich agricultural area" of Florida (Broward County 2001). In July 1929, the construction of a railroad to the port was underway, and several months later it was decided that storage warehouses were needed on the port property.

Another big event that took place during 1929 was the opening of the Merle Fogg Airport in Fort Lauderdale (known today as the Fort Lauderdale-Hollywood International Airport). Named after the city's renowned aviator, the Merle Fogg Airport opened in May 1929 with a ceremony attended by over 5,000 people (Nelson 1963:22).

7.6 Depression and New Deal Period (1930-1940)

This era of Florida's history begins with the stock market crash of 1929. As previously discussed, there were several causes for the economic depression in Florida, including the grossly inflated real estate market, the hurricanes, and fruit fly infestation. During the Great Depression, Florida suffered significantly. Between 1929 and 1933, 148 state and national

banks collapsed, more than half of the state's teachers were owed back pay, and a quarter of the residents were receiving public relief (Miller 1990).

Employment in Hollywood was difficult, if not impossible to find. Many property owners requested of the City of Hollywood that their labor be accepted in lieu of their property taxes, and in August of 1932, the City manager had compiled a list of 73 unemployed men in the city and arranged for two days of work for each man every week (TenEick 1989:327).

As a result of hard economic times, President Franklin D. Roosevelt initiated several national relief programs. Important New Deal–era programs in Florida were the Works Progress Administration (WPA) and the Civilian Conservation Corps (CCC). The WPA provided jobs for professional workers and laborers, who constructed or improved many roads, public buildings, parks, and airports in Florida. The CCC improved and preserved forests, parks, and agricultural lands (Miller 1990).

The Depression affected most areas of the state's economy. Beef and citrus production declined, manufacturing slowed, and development projects were stopped. Even the railroad industry felt the pressures of the 1930s and had to downsize. In addition, the increasing use of the automobile lessened the demand for travel by rail. Despite the Depression, tourism remained an integral part of the Florida economy during this period. New highways made automobile travel to Florida easy and affordable and more middle-class families were able to vacation in the "Sunshine State" (Miller 1990).

A slow recovery began as the thirties progressed in Broward County (Historic Property Associates 1995:58). In the mid-1930s, Federal loans were secured for several projects in Broward County, including the construction of U.S. 1, from south Dania to the Dade/Broward County line, and the construction of a water softening system at the municipal water plant in 1935 (Kemper 1981:49). Tourism and the hotel business were making a comeback.

In 1935, the first annual Collegiate Aquatic Forum was held at the Fort Lauderdale municipal pool, making Fort Lauderdale a popular college vacation destination (Historic Property Associates 1995:58–59). Agriculture and residential building began in the western suburbs of Hollywood, and several new businesses were started along Hollywood Boulevard (TenEick 1989:335–337,342). Additionally, Port Everglades was evolving into one of Florida's premier ports; it was ranked seventh in the state in imports and exports. At the end of 1934, the port's export commerce increased from 1,850 tons to 10,859 tons in one year (Burghard 1982:74).

Even small communities within Broward County, began feeling the economic impacts of the increased tourism, and some who were still economically based largely on agriculture, began changing their name to let tourists know that the community had a beach front. One such community, Deerfield, changed its name to Deerfield Beach in 1939 to attract tourists (Deerfield Beach Historical Society n.d.). Deerfield Beach had grown to a population of around 1,800 residents by the end of the 1930s.

7.7 World War II and the Post War Period (1940-1950)

From the end of the Great Depression until after the close of the post-war era, Florida's history was inextricably bound with World War II and its aftermath. It became one of the nation's major training grounds for the various military branches including the Army, Navy, and Air Force. Prior to this time, tourism had been the state's major industry and it was brought to a halt as tourist and civilian facilities, such as hotels and private homes, were placed into wartime service. The influx of thousands of servicemen and their families increased industrial and agricultural production in Florida, it also introduced these new residents to the warm weather and tropical beauty of Florida.

Wartime activities brought an economic boom to Broward County (Shepard Associates 1981:I-51). Fort Lauderdale felt the conflict in December 1939 when the British cruiser Orion drove the German freighter Arauca into Port Everglades, which opened in 1928. The Arauca remained there for over a year. The 1942 attack of Allied shipping by German U-boats was visible from the shoreline. The area lent itself to military training, and the influx of military personnel brought business to Broward County (Historic Property Associates 1995:58–60). Two military training centers were opened in Hollywood, the United States Naval Air Gunners School and the United States Naval Indoctrination and Training School. Soldiers trained in the schools and on Hollywood's beaches. The Navy also maintained a station in Fort Lauderdale where naval aviators were trained, and the site of the current Broward County Community College was used for military training during the war. Some of the servicemen stationed here returned at the war's end to live permanently (Shepard Associates 1981: I-51).

Port Everglades was used extensively for military operations. The port possessed numerous tanks for petroleum storage and modern equipment used for loading and unloading. Fuel reserved for the defense of the Caribbean Islands and molasses, which would be used later in the production of explosives for the Navy, also were stored at the port. The seaport accommodated an undersea warfare experimental station and a Navy boat service used in the recovery of torpedoes dropped by planes at the Fort Lauderdale Naval Air Station during training (George 1991:6).

The wartime activities of Port Everglades were inextricably connected to those at the Fort Lauderdale Naval Air Station, the area's largest military installation. Fort Lauderdale was considered an ideal location for an air station due to its moderate climate, which allowed for year-round training, and its proximity to the Atlantic Ocean and the Everglades, that provided open areas for training, bombing targets, and ranges. Construction of the more than 1,000-acre naval air station began in 1942; the facility absorbed the City's Merle Fogg Airport. The facility, which could accommodate 3,000 people, included more than 4,000 feet of runways and 217 buildings. By late 1942, the base was complete. During the war, the Fort Lauderdale Naval Air Station was one of two facilities from Illinois to Florida equipped to combat train Navy pilots and crewmen in torpedo bomber planes (George 1991:7, 9). At the conclusion of the war, the facility was abandoned by the military and remained unused for several years.

During this time, railroads profited, since servicemen, military goods and materials needed to be transported. However, airplanes were now becoming the new form of transportation, and Florida became a major airline destination. The highway system was also being expanded at this time. The State Road Department constructed 1,560 miles of highway during the war era (Miller 1990). Although Deerfield remained primarily an agricultural community until the late 1940s, tourists continued to discover and enjoy Deerfield's scenic oceanfront. The growing tourism industry became evident in the changing shoreline as hotels and motels began popping up all along Deerfield's waterfront. The growth was reflected within the community as well with the formation of Deerfield's most influential civic organization, the Lions Club in 1947. The club established parks along the banks of the Hillsboro Canal, cleared the scrub growth and fashioned picnic areas, baseball diamonds and barbecue pits. To raise funds, the club held several chicken and rib barbecues. The fund-raiser became so popular it became an annual celebration, known as Founders' Day (Deerfield Beach Historical Society n.d.).

7.8 Period Post World War II and Modern Period (1950-current)

Growth in Broward County continued to increase after the end of World War II, as a result of the leftover benefits of a wartime economy and the renewed availability of construction materials and durable goods (Kemper 1981:50, TenEick 1989:407). Servicemen stationed in the area returned to live, often convincing family and friends to return as well. Tourism to and within Broward County reinvigorated during this time period and increasingly became popular as a tourist destination. By 1955 the yearly influx of tourists added more than 10,000 more temporary residents to the base population of Hollywood alone.

In 1951, Deerfield Beach constructed a picturesque wooden pier, intentionally built low to the water to accommodate fishing practices to better cater to tourists. The pier quickly became a popular tourist attraction and gathering point for townspeople. Deerfield Beach established a Chamber of Commerce in 1953 and construction on the building began soon thereafter on land donated by local developer Robert Sullivan just off Hillsboro Boulevard. Among the many existing hotels and motels along the waterfront, the city constructed its first high-rise on the Beach in 1964 just north of the pier. The structure was built using a 118-foot crane, a new construction type. The structure boasted ground breaking wind-bracing technology and became the first buildings in the state to be entirely computed by IBM (Deerfield Beach Historical Society n.d.).

During these years, the construction of I-95 affected many communities along Florida's east coast. Miles of fractured highway were incorporated into what would become the main vein of Florida's east coast. Construction of I-95 in southern Florida progressed throughout the 1960s (Janus Research 2012, 2014, 2015a). In 1967, the Seaboard Air Line Railroad was merged with its competitor the Atlantic Coast Line Railroad to form the Seaboard Coast Line Railroad. A later merger with the Chessie System in the 1980s formed the CSX Corporation. By 1976, most of the highway was complete from the Georgia State Line to Ft. Pierce and from Palm Beach Gardens to Miami, including the portion in Broward County.

As Broward County's population soared toward one million, several developers became overextended or came under criticism because of the close ties between their firms and the cities which they had created. Also, the ever-growing number of newcomers and tourists incited fear that too-rapid growth would create problems. At the beginning of the 1970s, residents began demanding that cities aim for slower growth and lower limits on the number of residences per acre. Gradually, governments began to respond (McGoun 1978).

Growth decreased in 1974, but not as a result of municipal actions. South Florida was hit by the recession sweeping the nation. Unsold properties were a major problem at this time, and at one point, there were an estimated 50,000 unsold condominium apartments in the area (McGoun 1978). By 1976, the building industry witnessed a revival. However, there were still concerns that the uncontrolled growth of the past would be repeated. A new county charter gave the Broward County government broad powers to monitor and improve the quality of life and the environment. The passage of the 1977 Land Use Plan was a major step toward limiting urban sprawl and ensuring that the area's natural, economic, and social resources would be put to their best use (McGoun 1978).

Growth continued and by 1979, Deerfield Beach opened one of the largest retirement communities in South Florida. The property spanned across 800 acres and the 8,508 units sold rapidly to Miami Beach and northeastern retirees, By the 1980s businesses were relocating to Deerfield Beach to cater to the tourists and retiree lifestyles. Deerfield Beach quickly became ‘Surf Central’ after Island Water Sports opened in 1979 providing surf gear, clothing, boards and surf culture to residents. The franchise expanded to over 26 stores by the mid-1980s.

Development slowly radiated westward during this time. Near the current project APE, development remained minimal until the late 1970s and 1980s. Up until this time, SW 10th Street did not extend westward past the project APE. SW 10th Street was extended to meet Florida’s Turnpike during the early 1980s and the surrounding land was converted for residential and apartment development. Figures 6.4.1 through 6.4.3, included in the Historic Map and Aerial Photography section of this report, illustrate the growth over time near the project APE.

8 FLORIDA MASTER SITE FILE SEARCH AND LITERATURE REVIEW

An archaeological and historical literature and background information search pertinent to the project APE has been performed. This research determined the chronological placement, types, and location patterning of cultural resources within the project area. This included a search of the Florida Master Site File (FMSF), county and local site inventories, unpublished CRM reports, and other pertinent literature.

The FMSF search will serve as a guide to the field investigations by identifying the possible locations of any archaeological sites and historic resources within the project APE and providing expectations regarding the potential historic significance of any such sites. The FMSF serves as an archive and repository of information about Florida's recorded cultural resources. It represents an inventory of resources for which available information exists and describes their condition at a particular point of time. Because the inventory of resources is not all-inclusive on a statewide basis, gaps in data may exist. The FMSF is only as accurate and as comprehensive as the information that has been submitted. Users should be cognizant of the sometimes uneven quality of the information. The FMSF is an important planning tool that assists in identifying potential cultural resources issues and resources that may warrant further investigation and protection. It can be used as a guide but should not be used to determine the FDHR/SHPO official position about the significance of a resource.

The work of previous investigators was reviewed in order to gather information about the types of precolumbian and early historic period sites that could be expected to occur within the project APE. An extensive search of pertinent literature and records was conducted to determine the locations of previously recorded National Register–listed, eligible, and potentially eligible resources within the project APE, as well as any archaeological and historical assessments of other tracts of land within the project APE.

8.1 Previously Conducted Cultural Resource Surveys

A search of the FMSF identified 12 previously conducted cultural resource surveys which intersected with or were within the project area (**Table 8-1**). Three comprehensive surveys have been conducted within the current project area. Janus Research conducted a *CRAS of SR 9 (I-95) from North of Oakland Park Boulevard (SR 816) to South of Glades Road (SR 808), Broward and Palm Beach Counties, Florida* (2012, FMSF Survey No. 19805) within the current I-95 ROW. The *CRAS SR 810 (Hillsboro Boulevard) from Military Trail to SR 5 (US 1), Broward County, Florida* Janus Research 2015a, FMSF Survey No. 22530) included part of the project APE along Hillsboro Boulevard and the northbound I-95 exit ramp to Hillsboro Boulevard. In 2015, Janus Research also conducted a CRAS within a portion of the ROW of SW 10th Street east of SW Natura Boulevard (Janus Research 2015b, FMSF Survey No. 22996).

Table 8-1 Surveys Conducted within the Project APE			
FMSF Survey No.	**Report Title**	**Author(s)**	**Publication Date**
1844	Proposed Upgrading of SR 869/SW 10th Street from a Four-lane Highway to a Six-lane Urban Freeway, from the Florida Turnpike to I-95, in Broward County, Florida	Browning, William D., and Melissa G. Wiedenfeld	1989
2933	An Archaeological Survey of Broward County, Florida: Phase One	Archaeological and Historical Conservancy, Inc.	1991
3633	An Archaeological Survey of Broward County, Florida: Phase Two	Archaeological and Historical Conservancy, Inc.	1993
4538	Cultural Resource Assessment Survey of Proposed Maintenance on State Road 810/Hillsboro Boulevard, Military Trail to State Road 5/US 1	Milano, Karen Webster	1995
4931	Cultural Resource Assessment, A Proposed Line Addition to the South Florida Rail Corridor Phase II and Phase III, Dade, Broward, Palm Beach Counties	Lewis, Scott P., and Karen Webster	1996
5844	Tri-County Commuter Rail Authority Double Track Corridor Improvement Program for Segment 5 Cultural Resource Assessment Survey	Janus Research, Inc.	1999
8291	An Archaeological and Historical Survey of the Proposed Deerfield Highlands Tower Location in Broward County, Florida	Panamerican Consultants, Inc	2001
10301	An Archaeological and Historical Assessment for the Existing Goolsby Boulevard Cellular Tower, Broward County, Florida	Groff, Amanda T., Nash, Jennifer L. F.	2004
14000	Cultural Resources Reconnaissance Study, South Florida East Coast Corridor Transit Analysis, Miami-Dade, Broward and Palm Beach Counties	Janus Research, Inc.	2006
19805	Cultural Resource Assessment Survey, Project Development and Environment Study of State Road 9 (I-95) from North of Oakland Park Boulevard (SR 816) to South of Glades Road (SR 808), Broward and Palm Beach Counties, Florida	Janus Research, Inc.	2012
22530	Cultural Resource Assessment Survey SR 810 (Hillsboro Boulevard) from Military Trail to SR 5 (US 1), Broward County, Florida	Janus Research, Inc.	2015
22996	Cultural Resource Assessment Survey of the Design Build Broward Mobility Project, Group 3 (Sequences 350, 370, and 380), Broward County, Florida	Janus Research, Inc.	2015

8.2 Previously Recorded Archaeological Sites

A search of the FMSF identified no previously recorded archaeological sites within one mile of the archaeological APE. The project area is not located near any Broward County Archaeologically Sensitive Zones.

8.3 Previously Recorded Historic Resources

The FMSF and local inventory search identified one linear resource within the project APE, the Seaboard Air Line (CSX) Railroad (8BD4649) (**Figure 11-5**). While the current segment within the APE has not been previously recorded, a segment to the north, at Hillsboro Boulevard, was determined eligible by the SHPO January 15, 2016 as part of the *CRAS for SR 810 from Military Trail to SR 5* completed by Janus Research in 2015 (Janus Research 2012, 2014, 2015a; FMSF Manuscript No. 22530). This segment was determined National Register–eligible under Criterion A in the categories of Transportation and Community Planning and Development.

8.4 Summary of ETDM Comments

The FHWA assigned a minimal degree of effect and the Florida Department of State (FDOS) assigned a moderate degree of effect. The comments noted one National Register–listed site, the Seaboard Air Line Railway Station (8BD128), a circa-1927 Mediterranean Revival railway depot. However, this resource is no longer within the historic resources APE. FDOS requested that a comprehensive survey be conducted for those areas not previously covered by the *CRAS, PD&E Study of SR 9 (I-95) from North of Oakland Park Boulevard (SR 816) to South of Glades Road (SR 808), Broward and Palm Beach Counties, Florida*, conducted by Janus Research (2012, FMSF Manuscript No. 19805), which received FDHR/SHPO concurrence in 2013. The 2012 survey included a CRAS of the I-95 ROW and a CRRS of all parcels adjacent to the ROW. This 2012 survey did not cover SW 10th Street, the I-95 ramps for SW 10th Street, and W Hillsboro Boulevard.

9 PROJECT RESEARCH DESIGN AND SITE LOCATION MODEL

9.1 Precontact Archaeological Site Location Model

Four environmental factors are typically employed in predicting site locations: distance to fresh (potable) water, distance to hardwood hammocks, topography, and soil type (soil drainage). Zones of archaeological site potential are designated based on these environmental factors and previous research conducted within the Glades cultural region.

Probability zones along existing roads can be affected by underground utilities and the resulting effects of road construction which often include berms and ditches. Areas that may have originally been moderate or high site potential zones and are directly affected by modern development may decrease in potential due to soil disturbance.

Fresh water is obviously an important resource, as the need for water is universal. This variable would have been of greater importance during the Paleoindian and Early Archaic periods (12,000–5000 BC) when the perched water system was more restricted. Although no large freshwater source of water (such as a lake or river) is nearby, the many sloughs and wetlands that were present prior to canaling and drainage would have adequately provided water and aquatic and terrestrial resources for people living in the area.

Hardwood hammocks (hydric, mesic, or xeric) provide a variety of resources that would have been exploited by the aboriginal inhabitants of this region. Often, areas of higher relative elevation correspond with better-drained soils or the presence of hardwood hammocks (xeric and mesic). No hammocks were identified within the archaeological APE during the review of historic plat maps or aerial photographs.

The characteristics of soils have been used successfully by several researchers in the formulation of predictive models for precontact site location. As mentioned previously, most of the soils within the project area are poorly drained. Better drained soils are present near the along SW 10th Street east of I-95.

The project corridor is relatively flat at an elevation between 10 and 20 feet above sea level.

Based on the background research, the project area has low probability for the presence of intact archaeological sites. Before modern drainage, most of the area was within cypress swamp, glades, and low pine flatwoods.

9.2 Historic Archaeological Site Location Model

The historic plat maps were also reviewed for evidence of other early settlement. This review of the historic plat maps and surveyor's notes identified no military forts, roads, encampments, battlefields, homesteads, boat ramps, harbors, or historic Native American villages or trails located within the vicinity of the project area. The archaeological APE has low probability for intact historic archaeological sites.

10 METHODS

10.1 Archaeological Field Methods

The archaeological field survey included a surface inspection that consisted of a visual inspection of exposed ground to look for evidence of archaeological sites. Additionally, a careful surface inspection was undertaken in areas of minimal vegetation and/or upturned soil such as drainage ditches, recent clearings, and animal burrows. Subsurface testing employed conventional shovel testing throughout the investigation. Shovel tests were circular and roughly 20 inches (50 centimeters) in diameter. They were excavated to a minimum depth of 39 inches (1 meter). All excavated soil was dry screened through ¼-inch hardware cloth suspended from portable wooden frames. Areas of low site potential were tested judgmentally within at least 10 percent of the total study area designated as having low site potential, field conditions permitting. Archaeological testing is not conducted near buried utilities as the area has been disturbed by the excavation of trenches for the utilities, there is concern for the safety of archaeological field teams, and potential for substantial fines if a utility is damaged.

Standard archaeological methods for recording field data was followed throughout the project. The identification number, location, stratigraphic profile, and soil descriptions were recorded for every shovel test excavated. The locations of all tests were plotted on field aerial maps of the project APE and recorded with Wide Area Augmentation System (WAAS)-enabled hand-held Global Positioning System (GPS) units (Universal Transverse Mercator [UTM]-North American Datum [NAD]83).

10.2 Historic Resources Field Methods

A historic resource assessment survey was conducted within the historic resources APE. The historic resource survey used standard field methods to identify and record historic structures. All buildings within the historic APE received a preliminary visual reconnaissance. Any resource with features indicative of 1970 or earlier construction materials, building methods, or architectural styles was noted on aerial photographs and a USGS quadrangle map.

For each historic resource identified in the preliminary assessment, a FMSF form was completed with field data, including notes from site observations and informant interviews. The estimated date of construction, distinctive features, and architectural style were noted. All buildings, structures, and objects were photographed using a high-resolution digital camera. A log was kept to record the resource's physical location and compass direction of each photograph.

Each historic resource's individual significance was evaluated for its potential eligibility for listing in the National Register. Historic physical integrity was determined from site observations, field data, and photographic documentation.

10.3 Local Informants and Certified Local Government Coordination

In accordance with Chapter 1A-46, attempts were made to contact and interview local informants. Local informants may often provide valuable information which is otherwise not available through official records or library collections. The City of Deerfield Beach is not listed on the May 23, 2018 list of Certified Local Governments (CLG) posted on the FDHR website (FDHR 2018). Mr. Rick Ferrer, Historic Preservation Officer of Broward County, was contacted on August 21, 2018 via email regarding input on the proposed project and information on potential locally significant cultural resources within the project APE. As of the submittal date of this document, a response has not been received.

11 RESULTS

11.1 Archaeological Results

No previously recorded or newly recorded archaeological sites were identified within the archaeological APE. Background research and a pedestrian survey indicated that there is a low probability of finding intact archaeological sites within the archaeological APE. Subsurface archaeological testing was not feasible within most of the archaeological APE due to the existence of pavement, sidewalks, berms, buried utilities, landscaping, and residential and commercial frontage (**Appendix A**). Representative photographs of the archaeological APE are included below (**Figures 11-1 to 11-3**).

A total of two shovel tests were excavated within the archaeological APE. No cultural material was recovered. The soil stratigraphy consisted of mottled gray sand with modern trash from 0 to 25 centimeters below surface (cmbs) and light gray sand from 25 to 105 cmbs (**Figure 11-4**).

Figure 11-1 SW 10th Street from SW Natura Boulevard, facing west

Figure 11-2 Military Trail from SW 10th Street, facing north

Figure 11-3 I-95 at SW 10th Street Interchange near Shovel Test 2, facing south

Figure 11-4 Shovel Test 1, facing east

11.2 Historic Resources Survey Results

Within the project APE, the Seaboard Air Line (CSX) Railroad (8BD4649) passes beneath an elevated portion of SW 10th Street in a north south direction for a length of approximately 1,225 feet (**Figure 11-5**). The railroad exhibits two sets of north-south tracks and a gravel shoulder on either side. The CSX Railroad is located in Section 2 and 11 in Township 48 South, Range 42 East on the West Dixie Bend (1983) USGS quadrangle map, in Deerfield Beach, Broward County, Florida.

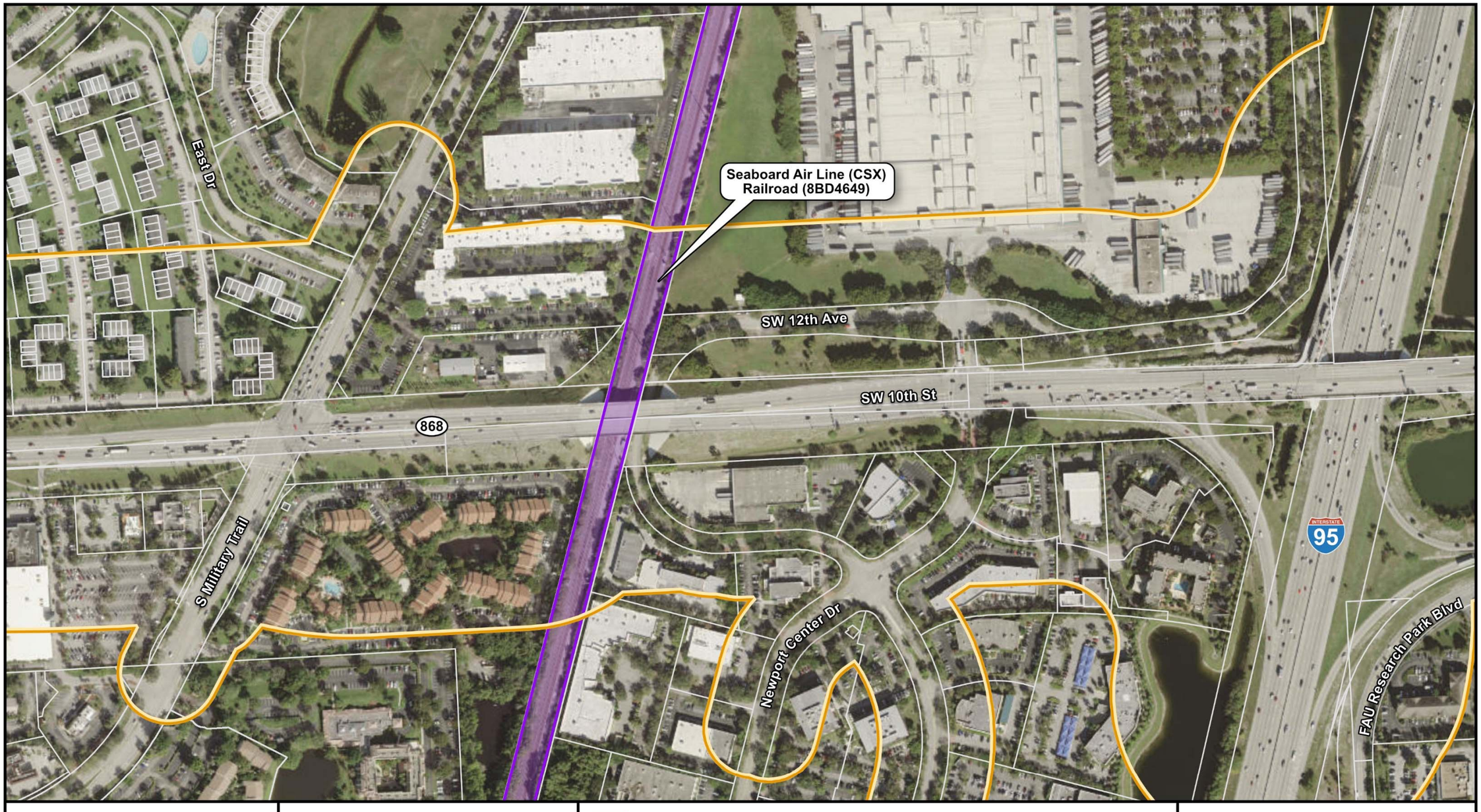


Figure 11-5
Identified Historic Resource

SR 9/I-95 from South ofSW 10th Street to North of SR Hillsboro Boulevard PD&E (FM No. 436964-1-22-01, ETDM No.14244)

Historic Resources APE

Historic Linear Resource

Deerfield Beach, Broward County

Feet
0 250 500

Figure 11-6 Seaboard Air Line (CSX) Railroad (8BD4649) at intersection with SW 10th Street overpass, facing north

Seaboard Air Line (CSX) Railroad (8BD4649)

The CSX Railroad was originally part of the extensive Seaboard Air Line Railroad, started in the 1880s, which consisted of a number of individual branches in Florida, Georgia, and North Carolina. In 1923, the President of the Seaboard Air Line Railroad, S. Davis Warfield, initiated a move to construct a continuous line from the existing Coleman Station in Sumter County, Florida, to West Palm Beach; with the ultimate goal of connecting the line to Miami.

After Warfield organized the quick purchase of over 160,000 acres of ROW, construction began on the West Palm beach branch in the summer of 1924. Over 204 miles of nearly straight track from Coleman to West Pam Beach was completed fall of 1925. Immediately following this expeditious construction, work on the line connecting West Palm Beach and Miami was initiated, including the section located within the current project APE, and by the end of the year the line was extended from Miami to Homestead.

In 1967, the Seaboard Air Line Railroad was merged with its competitor, the Atlantic Coast Line Railroad, to form the Seaboard Coast Line Railroad. The Seaboard Coast Line merged again in 1982, with the Louisville & Nashville Railroad to form the Seaboard System Railroad. These two railroads had been under common ownership by Seaboard Coast Line Industries, whose entire railroad subsidiaries were known as the Family Lines System. Eventually, Seaboard Coast Line Industries merged with the Chessie System, creating the CSX Corporation which combined the Family Lines System and the Seaboard System Railroad. In 1980, the Chessie units were merged into the Seaboard System Railroad creating CSX Transportation (Janus Research 2012, 2014, 2015a; FMSF Manuscript No. 22530).

While several portions of the Seaboard Air Line (CSX) Railroad (8BD4649) have been documented to the north and south of the current APE, the segment which lies within APE has not been previously documented. Therefore, an updated FMSF form was completed to reflect this new section (**Appendix B**). The SHPO has determined the previously documented portions of Seaboard Air Line, both to the north and south, to be National Register–eligible under Criterion A in the categories of Transition and Community Planning and Development. The segment of the railroad within the current project APE is consistent with nearby segments, retains integrity and continues to display its historical significance as a major contributor to the development and transportation patterns within the state. Therefore, the current survey considers the newly recorded portion eligible for listing in the National Register under Criterion A in the categories of Transportation and Community Planning and Development.

12 CONCLUSIONS

The objective of the CRAS for I-95 from SW 10th Street to Hillsboro Boulevard, Broward County, Florida was to identify cultural resources within the project APE and assess their eligibility for listing in the National Register according to the criteria set forth in 36 CFR Section 60.4. This CRAS also addresses ETDM agency comments requiring a comprehensive survey of the project area that was not covered in the 2012 CRAS documenting all cultural resources and assessing their National Register eligibility.

No newly or previously recorded archaeological sites were identified within the archaeological APE. Two shovel tests were excavated within the archaeological APE. No cultural material was recovered. No subsurface testing could be conducted in most of the project area due to the presence of existing pavement, berms, and buried utilities.

The historic resources survey resulted in the identification of one linear resource within the project APE, the Seaboard Air Line (CSX) Railroad (8BD4649). While the current segment within the APE has not been previously recorded, a segment to the north, at Hillsboro Boulevard, was determined eligible by the SHPO January 15, 2016 as part of the *CRAS for SR 810 from Military Trail to SR 5* completed by Janus Research in 2015 (Janus Research 2012, 2014, 2015a; FMSF Manuscript No. 22530). This segment was determined National Register–eligible under Criterion A in the categories of Transportation and Community Planning and Development. The segment within the current APE, spanning approximately 1,225 feet and extending both to the north and south from SW 10th Street, is consistent with nearby segments, retains integrity, and continues to display its historical significance as a major contributor to the development and transportation patterns of the region. Therefore, the current survey considers the newly recorded portion eligible for listing in the National Register under Criterion A in the categories of Transportation and Community Planning and Development.

12.1 Unanticipated Finds

Although unlikely, should construction activities uncover any archaeological material, it is recommended that activity in the immediate area be stopped while a professional archaeologist evaluates the material. If human remains are found during construction or maintenance activities, Chapter 872.05, *F.S.* applies and the treatment of human remains will conform to Chapter 3 of the FDOT *CRM Handbook*, Section 7-1.6 of the *FDOT's Standard Specifications for Road and Bridge Construction*, and Stipulation XI of the Section 106 Programmatic Agreement, which require that all work cease immediately in the area of the human remains. Chapter 872.05 states that, when human remains are encountered, all activity that might disturb the remains shall cease and may not resume until authorized by the District Medical Examiner or the State Archaeologist. The District Medical Examiner has jurisdiction if the remains are less than 75 years old or if the remains are involved in a criminal investigation. The State Archaeologist has jurisdiction if the remains are 75 years of age or more.

If previously unidentified historic properties are discovered before or during construction, the potential to affect historic properties changes after the Section 106 review has been completed, or if unanticipated impacts to historic properties occur during construction, then the consultation process outlined in Stipulation VII of the Section 106 Programmatic Agreement will be followed in accordance with 36 CFR 800.13 and Stipulation X of the Section 106 Programmatic Agreement.

12.2 Curation

Updated FMSF file forms (**Appendix B**), survey log sheet (**Appendix C**), and photographs are curated at the FMSF in Tallahassee, along with a copy of this report. Field notes and other pertinent project records are temporarily stored at Janus Research until their transfer to the FDOT storage facilities.

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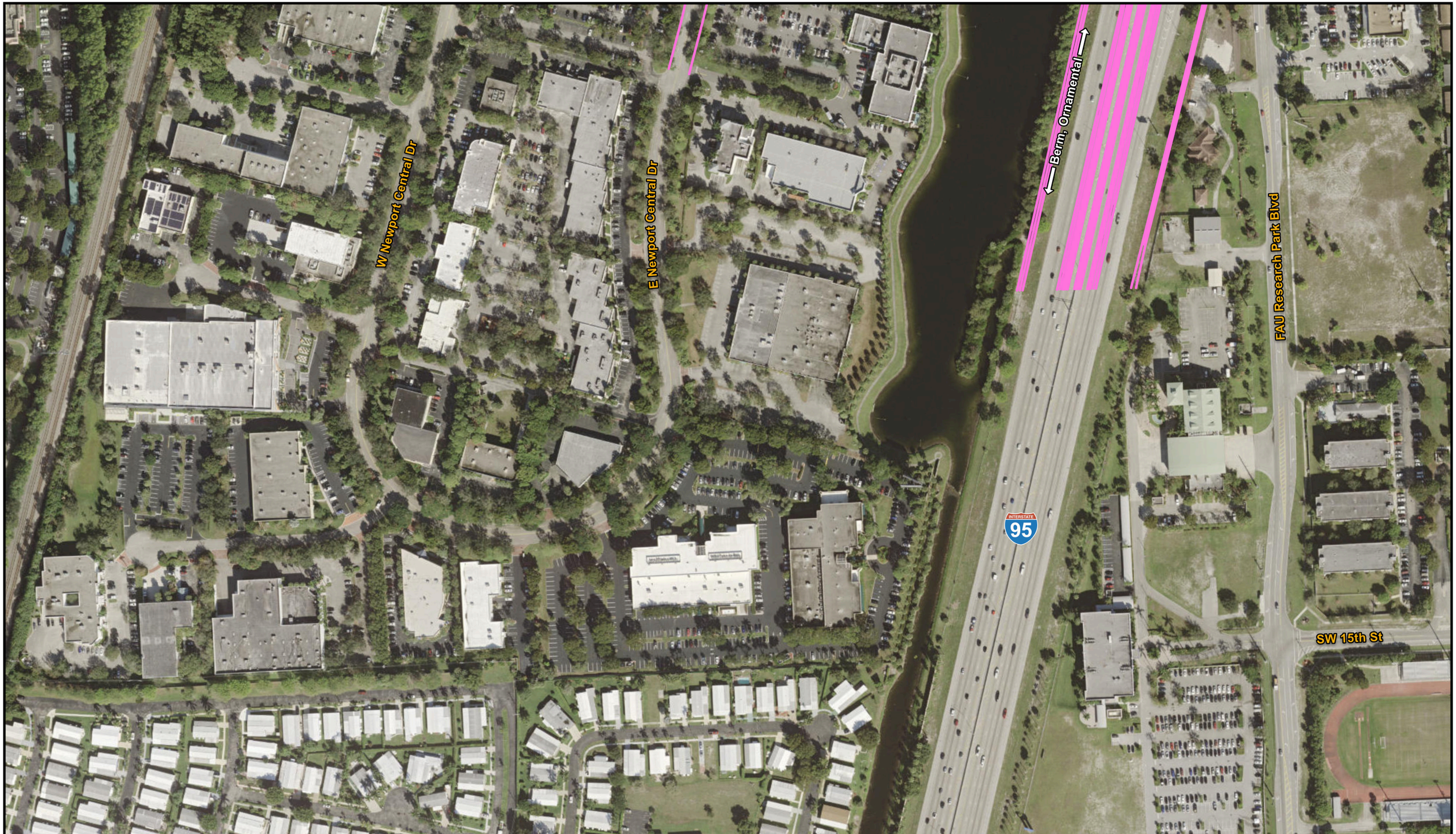
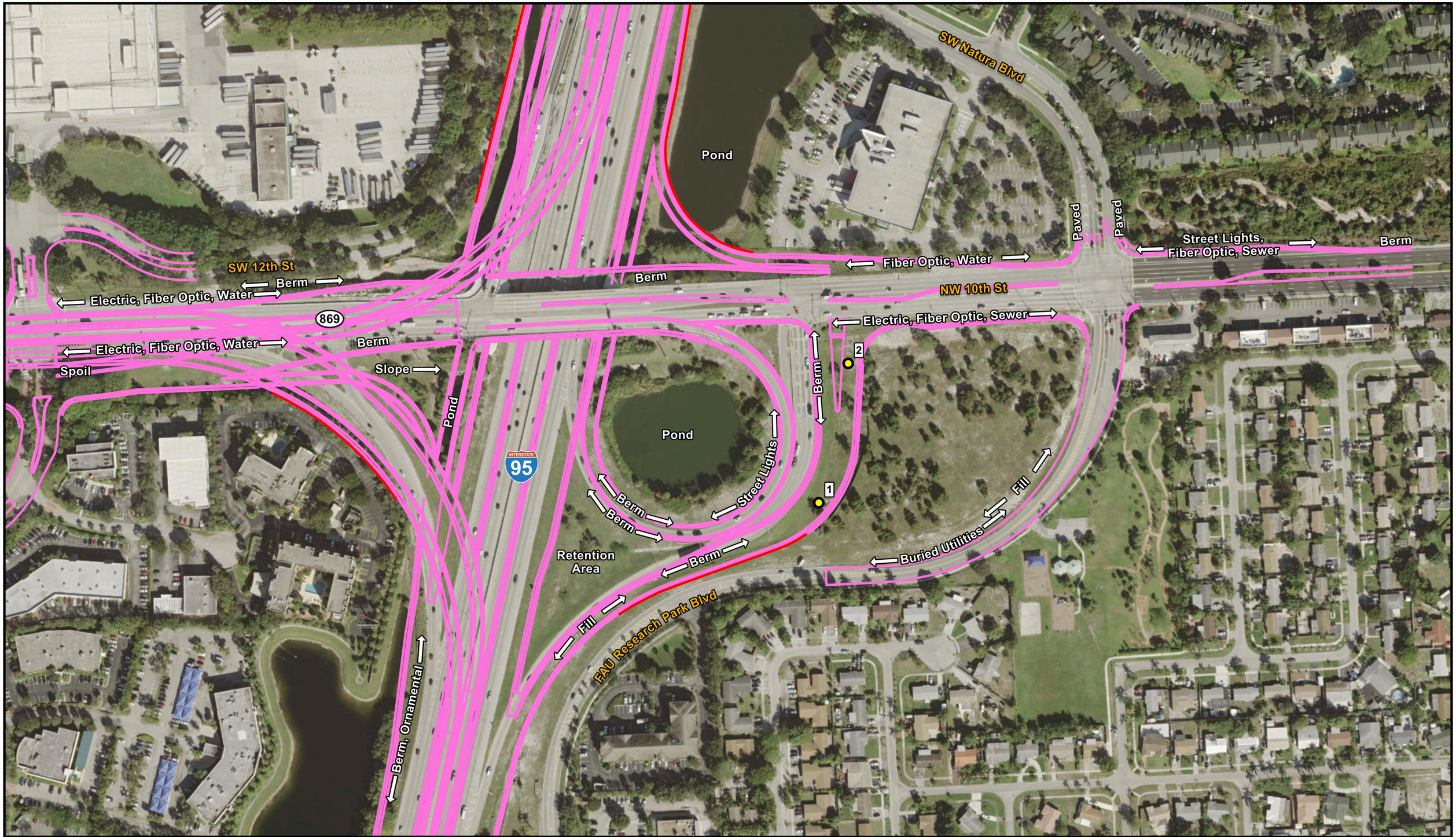
APPENDIX A

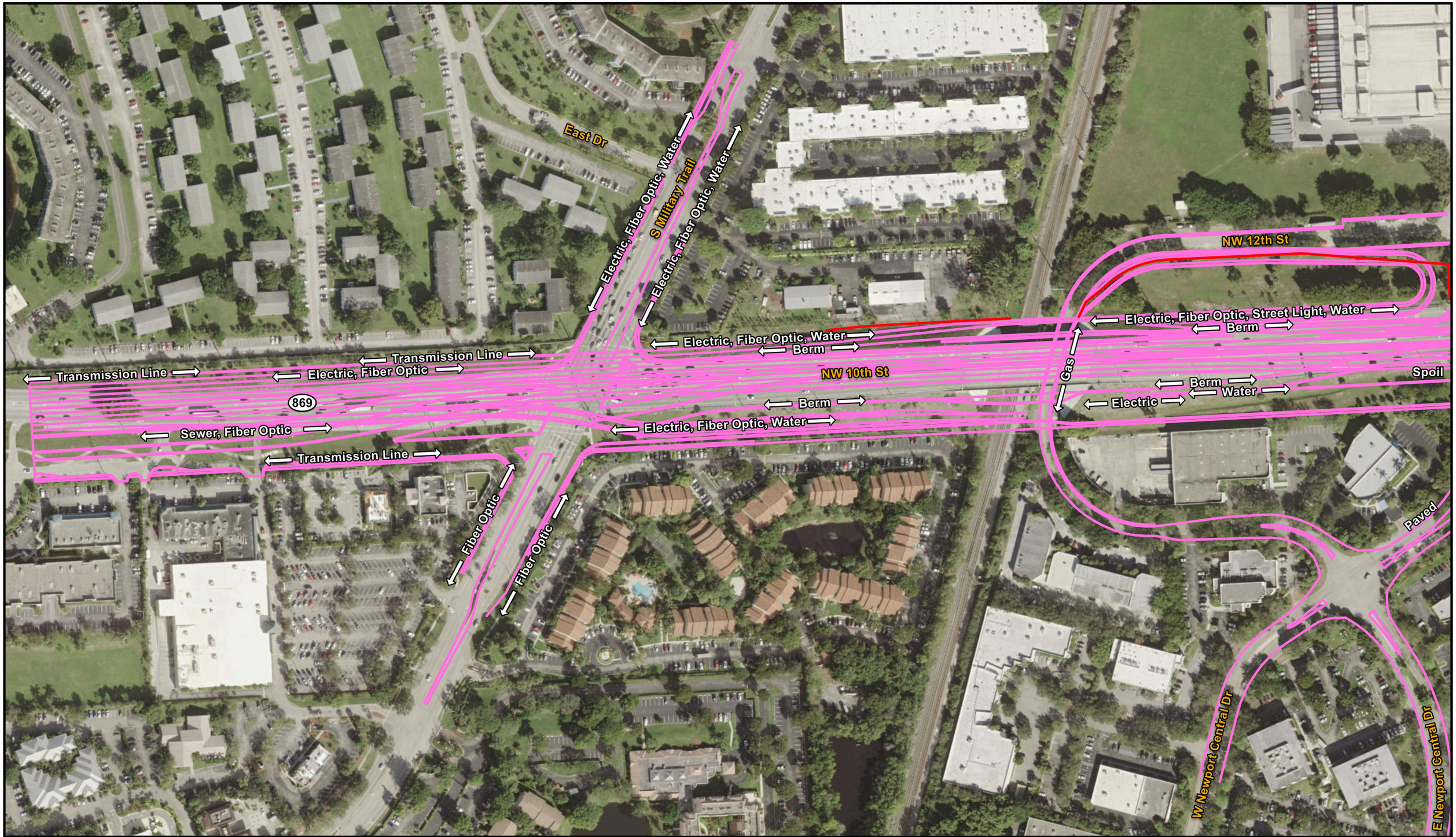
(Shovel Test Maps)



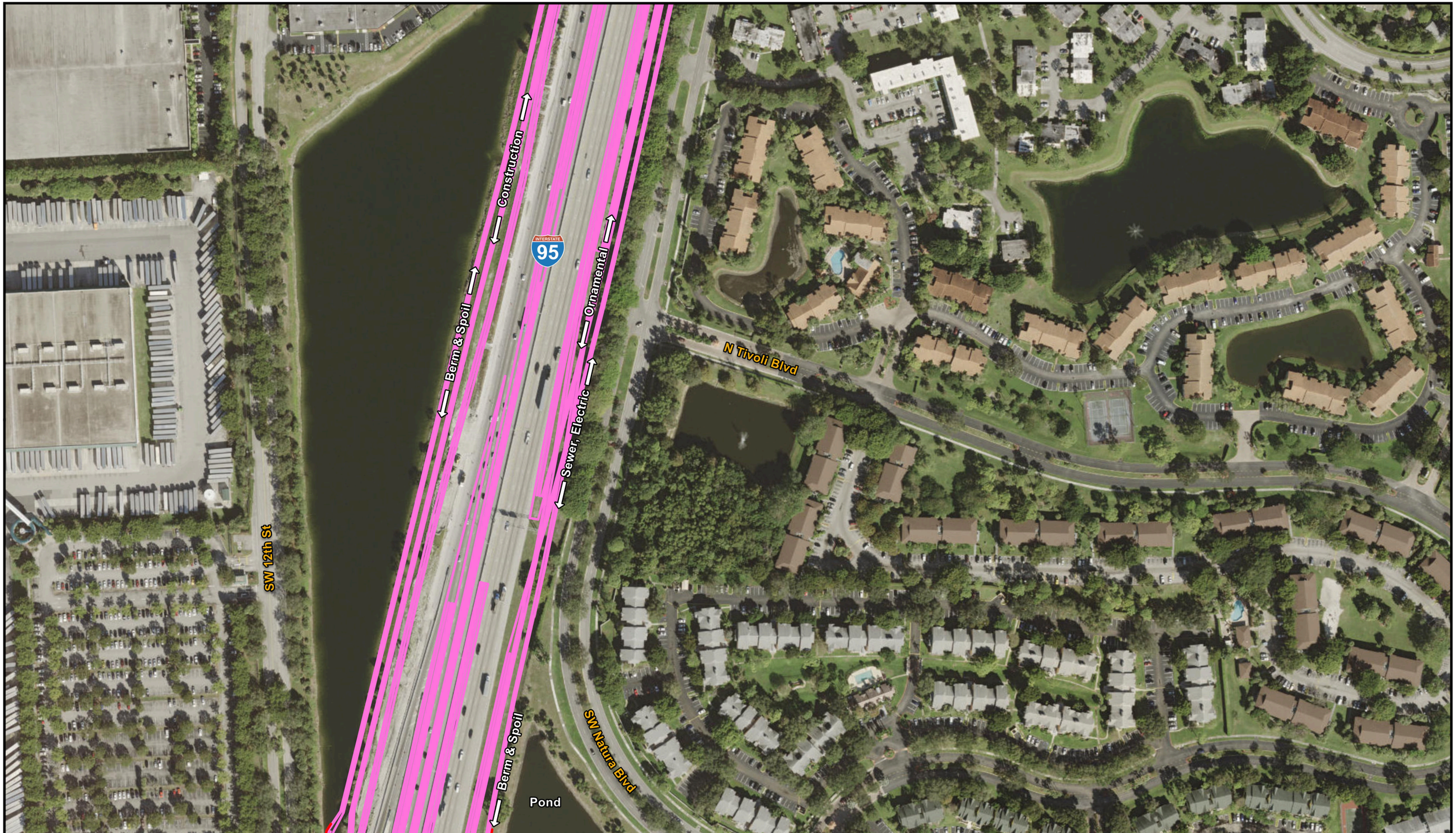
Shovel Test Map	*SR 9/I-95 from South of SW 10th Street to North of Hillsboro Boulevard PD&E (FM No. 436964-1-22-01, ETDM No.14244)*	Archaeological APE Proposed ROW Negative Shovel Test	**Deerfield Beach, Broward County** N 0 50 100 Meters	**Map 1**



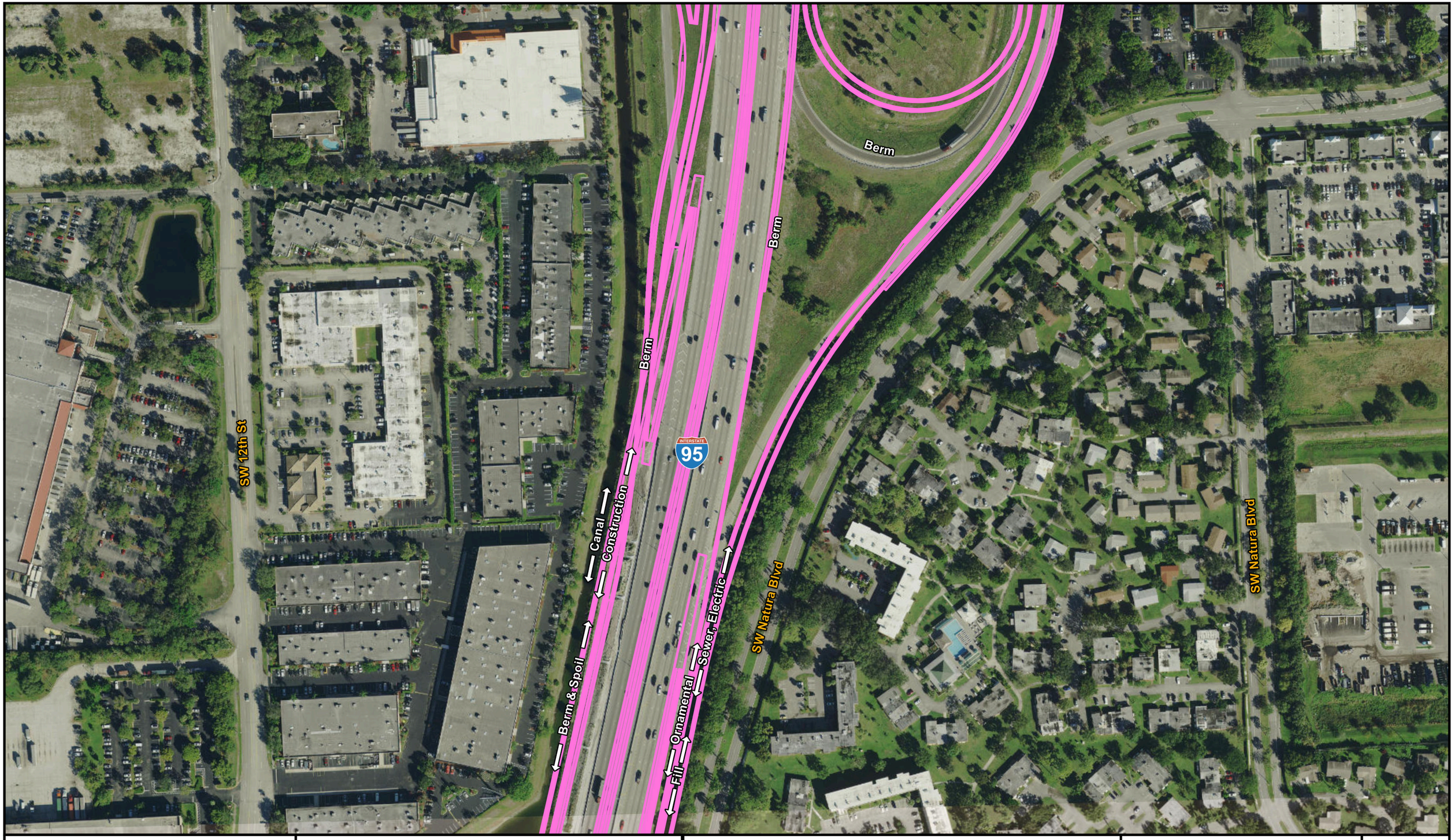
Shovel Test Map	*SR 9/I-95 from South of SW 10th Street to North of Hillsboro Boulevard PD&E (FM No. 436964-1-22-01, ETDM No.14244)*	Archaeological APE Proposed ROW Negative Shovel Test	**Deerfield Beach, Broward County** N 0 50 100 Meters	**Map 2**



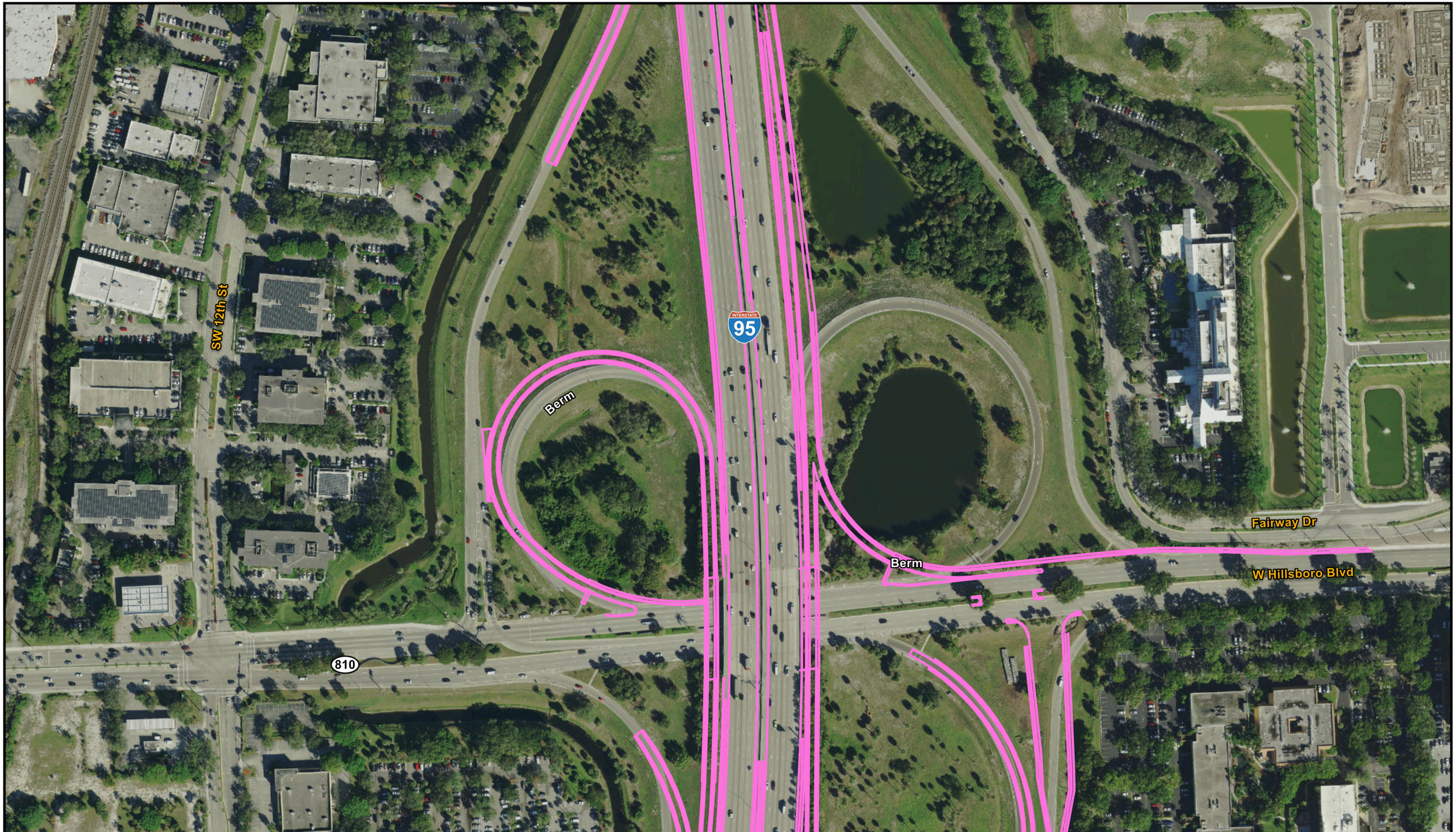
Shovel Test Map	*SR 9/I-95 from South of SW 10th Street to North of Hillsboro Boulevard PD&E (FM No. 436964-1-22-01, ETDM No.14244)*	Archaeological APE Proposed ROW Negative Shovel Test	**Deerfield Beach, Broward County** N 0 50 100 Meters	**Map 3**



Shovel Test Map	*SR 9/I-95 from South of SW 10th Street to North of Hillsboro Boulevard PD&E (FM No. 436964-1-22-01, ETDM No.14244)*	Archaeological APE Proposed ROW Negative Shovel Test	**Deerfield Beach, Broward County** 0 50 100 Meters	**Map 4**



Shovel Test Map	*SR 9/I-95 from South of SW 10th Street to North of Hillsboro Boulevard PD&E (FM No. 436964-1-22-01, ETDM No.14244)*	Archaeological APE Proposed ROW Negative Shovel Test	**Deerfield Beach, Broward County** N 0 50 100 Meters	**Map 5**



Shovel Test Map

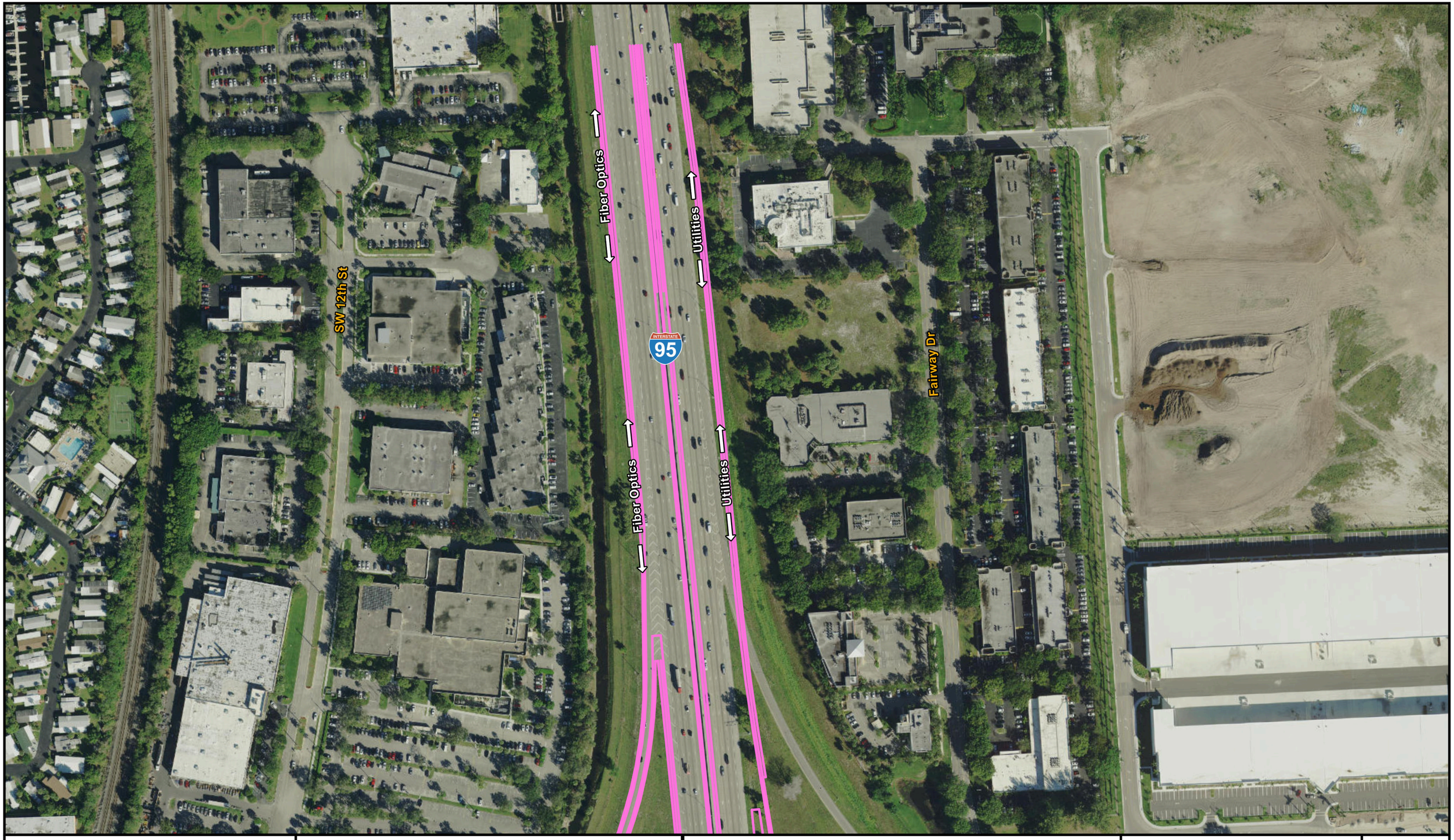
SR 9/I-95 from South of SW 10th Street to North of Hillsboro Boulevard PD&E
(FM No. 436964-1-22-01, ETDM No.14244)

Archaeological APE
Proposed ROW
Negative Shovel Test

Deerfield Beach, Broward County

N
0 50 100 Meters

Map 6



Shovel Test Map	*SR 9/I-95 from South of SW 10th Street to North of Hillsboro Boulevard PD&E (FM No. 436964-1-22-01, ETDM No.14244)*	Archaeological APE Proposed ROW Negative Shovel Test	**Deerfield Beach, Broward County** N 0 50 100 Meters	**Map 7**

APPENDIX B

(FMSF Form)

☐ Original
☒ Update

RESOURCE GROUP FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Site #8 BD04649
Field Date 5-14-18
Form Date 6-22-2018
Recorder# 2

NOTE: Use this form to document districts, landscapes, building complexes and linear resources as described in the box below. Cultural resources contributing to the Resource Group should also be documented individually at the Site File. **Do not use this form for National Register multiple property submissions** (MPSs). National Register MPSs are treated as Site File manuscripts and are associated to the individual resources included under the MPS cover using the Site File manuscript number.

Check ONE box that best describes the Resource Group:

- ☐ **Historic district** (NR category "district"): buildings and NR structures only: NO archaeological sites
- ☐ **Archaeological district** (NR category "district"): archaeological sites only: NO buildings or NR structures
- ☐ **Mixed district** (NR category "district"): includes more than one type of cultural resource (example: archaeological sites and buildings)
- ☐ **Building complex** (NR category usually "building(s)"): multiple buildings in close spatial and functional association
- ☐ **Designed historic landscape** (NR category usually "district" or "site"): can include multiple resources (see *National Register Bulletin #18*, page 2 for more detailed definition and examples: e.g. parks, golf courses, campuses, resorts, etc.)
- ☐ **Rural historic landscape** (NR category usually "district" or "site"): can include multiple resources and resources not formally designed (see *National Register Bulletin #30, Guidelines for Evaluating and Documenting Rural Historic Landscapes* for more detailed definition and examples: e.g. farmsteads, fish camps, lumber camps, traditional ceremonial sites, etc.)
- ☒ **Linear resource** (NR category usually "structure"): Linear resources are a special type of rural historic landscape and can include canals, railways, roads, etc.

Resource Group Name Seaboard Air Line (CSX) Railroad Multiple Listing [DHR only] _____
Project Name I-95 from SW 10th Street to Hillsboro Blvd FMSF Survey # _____
National Register Category (please check one): ☐building(s) ☒structure ☐district ☐site ☐object
Linear Resource Type (if applicable): ☐canal ☒railway ☐road ☐other (describe): _____
Ownership: ☐private-profit ☐private-nonprofit ☐private-individual ☒private-nonspecific ☐city ☐county ☐state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

	Street Number	Direction	Street Name	Street Type	Suffix Direction
Address:					

City/Town (within 3 miles) Deerfield Beach In Current City Limits? ☒yes ☐no ☐unknown
County or Counties (do not abbreviate) Broward County
Name of Public Tract (e.g., park) _____
1) Township 48S Range 42E Section 2 ¼ section: ☐NW ☐SW ☐SE ☐NE Irregular-name: _____
2) Township 48S Range 42E Section 11 ¼ section: ☐NW ☐SW ☐SE ☐NE
3) Township _____ Range _____ Section _____ ¼ section: ☐NW ☐SW ☐SE ☐NE
4) Township _____ Range _____ Section _____ ¼ section: ☐NW ☐SW ☐SE ☐NE
USGS 7.5' Map(s) 1) Name WEST DIXIE BEND USGS Date 1983
2) Name _____ USGS Date _____
Plat, Aerial, or Other Map (map's name, originating office with location) _____
Landgrant _____
Verbal Description of Boundaries (description does not replace required map) _____

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

RESOURCE GROUP FORM

Site #8 BD04649

HISTORY & DESCRIPTION

Construction Year: 1927 ☒approximately ☐year listed or earlier ☐year listed or later
Architect/Designer(last name first): Unknown Builder(last name first): _____
Total number of individual resources included in this Resource Group: # of contributing_____# of non-contributing_____
Time period(s) of significance (choose a period from the list or type in date range(s), e.g. *1895-1925*)
1. Boom Times 1921-1929 3. _____
2. Twentieth C American 4. _____
Narrative Description (*National Register Bulletin 16A* pp. 33-34; fit a summary into 3 lines or attach supplementary sheets if needed) See continuation sheet

RESEARCH METHODS (check all that apply)

☒FMSF record search (sites/surveys)	☐library research	☐building permits	☐Sanborn maps
☐FL State Archives/photo collection	☐city directory	☐occupant/owner interview	☐plat maps
☒property appraiser / tax records	☐newspaper files	☐neighbor interview	☐Public Lands Survey (DEP)
☒cultural resource survey	☐historic photos	☐interior inspection	☐HABS/HAER record search

☒other methods (specify) Historic Aerials
Bibliographic References (give FMSF Manuscript # if relevant) _____

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? ☒yes ☐no ☐insufficient information
Potentially eligible as contributor to a National Register district? ☐yes ☒no ☐insufficient information
Explanation of Evaluation (required, see *National Register Bulletin 16A* p. 48-49. Attach longer statement, if needed, on separate sheet.) See continuation sheet

Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)
1. Community planning & development 3._____ 5. _____
2. Transportation 4._____ 6. _____

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type Field maps Maintaining organization Janus Research
Document description _____ File or accession #'s _____

2) Document type Field notes Maintaining organization Janus Research
Document description _____ File or accession #'s _____

RECORDER INFORMATION

Recorder Name Janus Research Affiliation Janus Research
Recorder Contact Information 1107 N. Ward St., Tampa FL 33607 / (813) 636-8200 / janus@janus-research.com
(address / phone / fax / e-mail)

Required Attachments

❶ PHOTOCOPY OF USGS 7.5' MAP WITH DISTRICT BOUNDARY CLEARLY MARKED
❷ LARGE SCALE STREET, PLAT OR PARCEL MAP WITH RESOURCES MAPPED & LABELED
❸ TABULATION OF ALL INCLUDED RESOURCES (name, FMSF #, contributing? Y/N, resource category, street address or township-range-section if no address)
❹ PHOTOS OF GENERAL STREETSCAPE OR VIEWS (Optional: aerial photos, views of typical resources)
Photos may be archival B&W prints OR digital image files. If submitting digital image files, they must be included on disk or CD AND in hard copy format (plain paper is acceptable). Digital images must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

A. NARRATIE DESCRIPTION OF SITE

Within the project APE, the Seaboard Air Line (CSX) Railroad (8BD4649) intersects SW 10th Street in a north south direction for a length of approximately 1,225 feet (Figure 1). The CSX Railroad is located in Section 2 and 11 in Township 48 South, Range 42 East on the West Dixie Bend (1983) USGS quadrangle map, in Deerfield Beach, Broward County, Florida.

Figure 1: Seaboard Air Line (CSX) Railroad (8BD4649) at intersection with SW 10th Street overpass, facing north

B. DISCUSSION OF SIGNIFICANCE

The CSX Railroad was originally part of the extensive Seaboard Air Line Railroad, started in the 1880s, which consisted of a number of individual branches in Florida, Georgia, and North Carolina. In 1923, the President of the Seaboard Air Line Railroad, S. Davis Warfield, initiated a move to construct a continuous line from the existing Coleman Station in Sumter County, Florida, to West Palm Beach; with the ultimate goal of connecting the line to Miami.

After Warfield organized the quick purchase of over 160,000 acres of ROW, construction began on the West Palm beach branch in the summer of 1924. Over 204 miles of nearly straight track from Coleman to West Pam Beach was completed fall of 1925. Immediately following this expeditious construction, work on the line connecting West Palm Beach and Miami was initiated, including the section located within the current project APE, and by the end of the year the line was extended from Miami to Homestead.

In 1967, the Seaboard Air Line Railroad was merged with its competitor, the Atlantic Coast Line Railroad, to form the Seaboard Coast Line Railroad. The Seaboard Coast Line merged again in 1982, with the Louisville & Nashville Railroad to form the Seaboard System Railroad. These two

railroads had been under common ownership by Seaboard Coast Line Industries, whose entire railroad subsidiaries were known as the Family Lines System. Eventually, Seaboard Coast Line Industries merged with the Chessie System, creating the CSX Corporation which combined the Family Lines System and the Seaboard System Railroad. In 1980, the Chessie units were merged into the Seaboard System Railroad creating CSX Transportation (Janus Research 2012).

While several portions of the Seaboard Air Line (CSX) Railroad (8BD4649) have been documented to the north and south of the current APE, the segment which lies within APE has not been previously documented. Therefore, an updated FMSF form was completed to reflect this new section. The SHPO has determined the previously documented portions of Seaboard Air Line, both to the north and south, to be National Register–eligible under Criterion A in the categories of Transition and Community Planning and Development. The segment of the railroad within the current project APE is consistent with nearby segments, retains integrity and continues to display its historical significance as a major contributor to the development and transportation patterns within the state. Therefore, the current survey considers the newly recorded portion eligible for listing in the National Register under Criterion A in the categories of Transportation and Community Planning and Development.

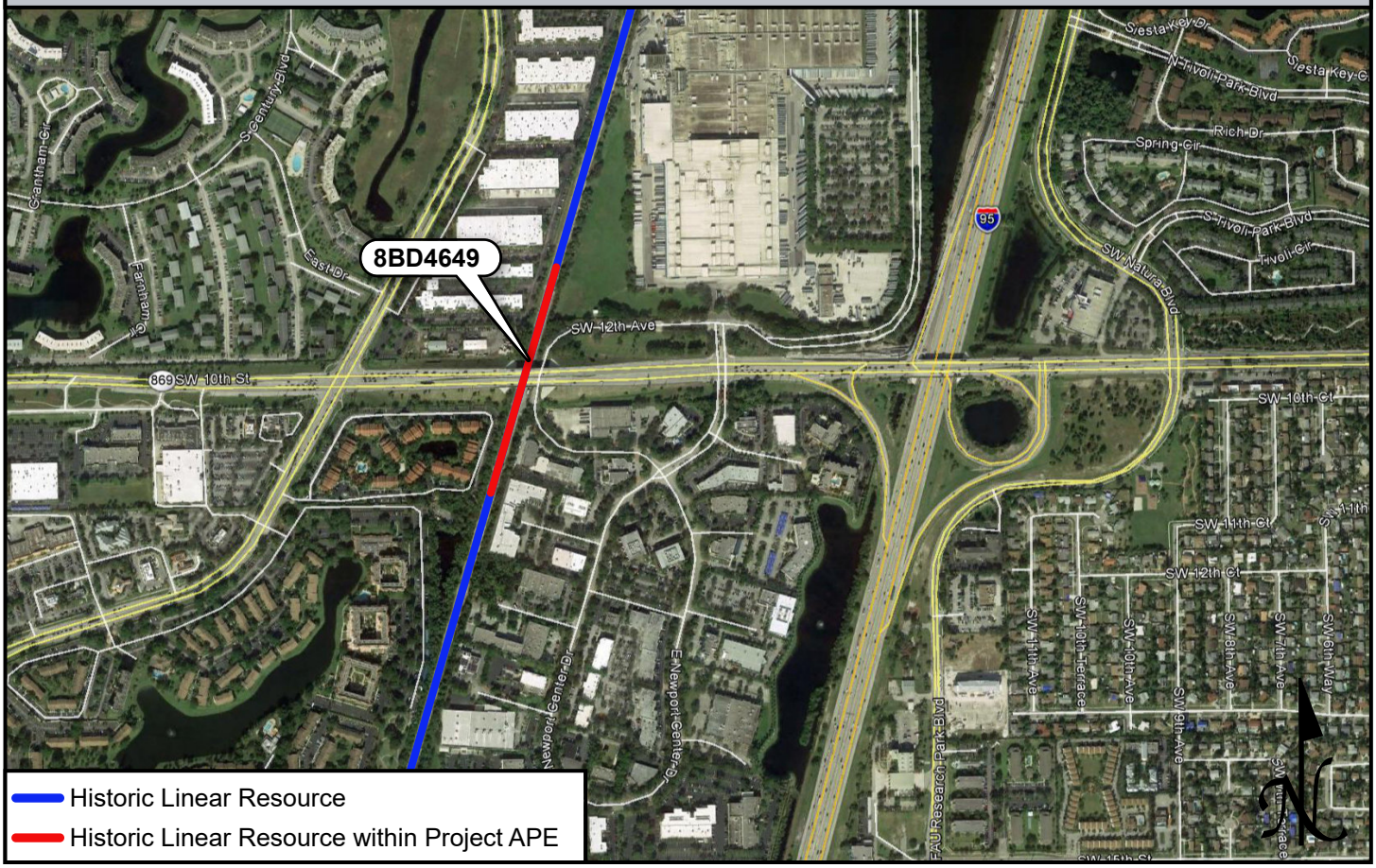
C. HISTORY AND BIBLIOGRAPHY OF PAST WORK AT SITE

Janus Research

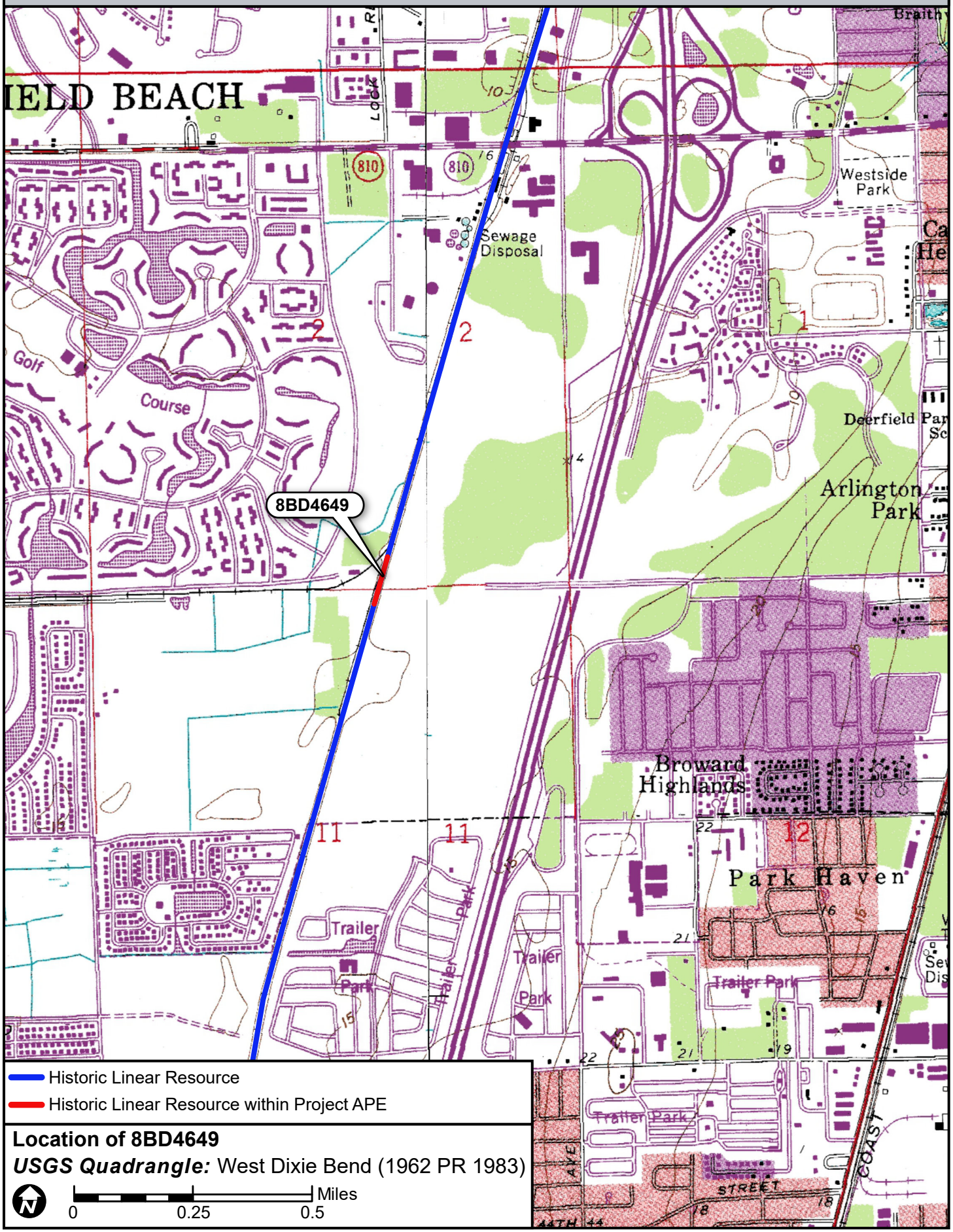
2014 Site file for the Seaboard Air Line (CSX) Railroad (8BD4649). On file, Florida Department of State, Division of Historical Resources, Tallahassee, Florida.

PHOTOGRAPH

SKETCH MAP



USGS QUADRANGLE MAP



APPENDIX C

(Survey Log)

Ent D (FMSF only)_____

Survey Log Sheet

Florida Master Site File
Version 4.1 1/07

Survey # (FMSF only) _____

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Identification and Bibliographic Information

Survey Project (name and project phase) CRAS I-95 from SW 10th Street to Hillsboro Boulevard

Report Title (exactly as on title page) Cultural Resource Assessment Survey I-95 from SW 10th Street to Hillsboro Boulevard

Report Authors (as on title page, last names first) 1. Janus Research 3. _____ 2. _____ 4. _____

Publication Date (year) 2018 **Total Number of Pages in Report** (count text, figures, tables, not site forms) 72

Publication Information (Give series, number in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)
Janus Research, 1107 N. Ward Street, Tampa FL 33607

Supervisors of Fieldwork (even if same as author) Names Pepe, James P., Streelman, Amy Groover

Affiliation of Fieldworkers: Organization Janus Research City Tampa

Key Words/Phrases (Don't use county name, or common words like *archaeology*, *structure*, *survey, architecture, etc.*)

1. I-95 3. SW 10th Street 5. Hillsboro Boulevard 7. _____
2. SR 869 4. Military Trail 6. _____ 8. _____

Survey Sponsors (corporation, government unit, organization or person directly funding fieldwork)

Name _____ Organization Florida Dept of Transportation - District 4

Address/Phone/E-mail 3400 West Commercial Blvd., Fort Lauderdale, Florida, 33309

Recorder of Log Sheet Janus Research **Date Log Sheet Completed** 8-21-2018

Is this survey or project a continuation of a previous project? ☒ No ☐ Yes: **Previous survey #s (FMSF only)** _____

Mapping

Counties (List each one in which field survey was done; attach additional sheet if necessary)

1. Broward 3. _____ 5. _____
2. _____ 4. _____ 6. _____

USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary)

1. Name WEST DIXIE BEND Year 1983 4. Name _____ Year _____
2. Name BOCA RATON Year 1983 5. Name _____ Year _____
3. Name _____ Year _____ 6. Name _____ Year _____

Description of Survey Area

Dates for Fieldwork: Start 3-23-2017 End 3-23-2017 **Total Area Surveyed** (fill in one) _____ hectares 162 acres

Number of Distinct Tracts or Areas Surveyed 1

If Corridor (fill in one for each) **Width:** _____ meters _____ feet **Length:** _____ kilometers _____ miles

Survey Log Sheet

Survey #_____

Research and Field Methods

Types of Survey (check all that apply): ☒archaeological ☒architectural ☐historical/archival ☐underwater
☐damage assessment ☐monitoring report ☐other(describe): _____

Scope/Intensity/Procedures Pedestrian survey; 2 judgmental shovel tests

Preliminary Methods (check as many as apply to the project as a whole)

☐Florida Archives (Gray Building)	☐library research- *local public*	☐local property or tax records	☐other historic maps
☐Florida Photo Archives (Gray Building)	☐library-special collection - *nonlocal*	☐newspaper files	☒soils maps or data
☒Site File property search	☒Public Lands Survey (maps at DEP)	☐literature search	☐windshield survey
☒Site File survey search	☐local informant(s)	☐Sanborn Insurance maps	☒aerial photography

☒other (describe): Janus Library

Archaeological Methods (check as many as apply to the project as a whole)

☐Check here if **NO** archaeological methods were used.

☐surface collection, controlled	☐shovel test-other screen size	☐block excavation (at least 2x2 m)
☐surface collection, **un**controlled	☐water screen	☐soil resistivity
☒shovel test-1/4"screen	☐posthole tests	☐magnetometer
☐shovel test-1/8" screen	☐auger tests	☐side scan sonar
☐shovel test 1/16"screen	☐coring	☒pedestrian survey
☐shovel test-unscreened	☐test excavation (at least 1x2 m)	☐unknown

☐other (describe): _____

Historical/Architectural Methods (check as many as apply to the project as a whole)

☐Check here if **NO** historical/architectural methods were used.

☐building permits	☐demolition permits	☒neighbor interview	☐subdivision maps
☐commercial permits	☐exposed ground inspected	☐occupant interview	☐tax records
☐interior documentation	☒local property records	☐occupation permits	☐unknown

☒other (describe): aerial photography

Survey Results (cultural resources recorded)

Site Significance Evaluated? ☒Yes ☐No

Count of Previously Recorded Sites 1 **Count of Newly Recorded Sites** 0

Previously Recorded Site #'s with Site File Update Forms (List site #'s without "8". Attach additional pages if necessary.) BD4649

Newly Recorded Site #'s (Are all originals and not updates? List site #'s without "8". Attach additional pages if necessary.) _____

Site Forms Used: ☐Site File Paper Form ☒Site File Electronic Recording Form

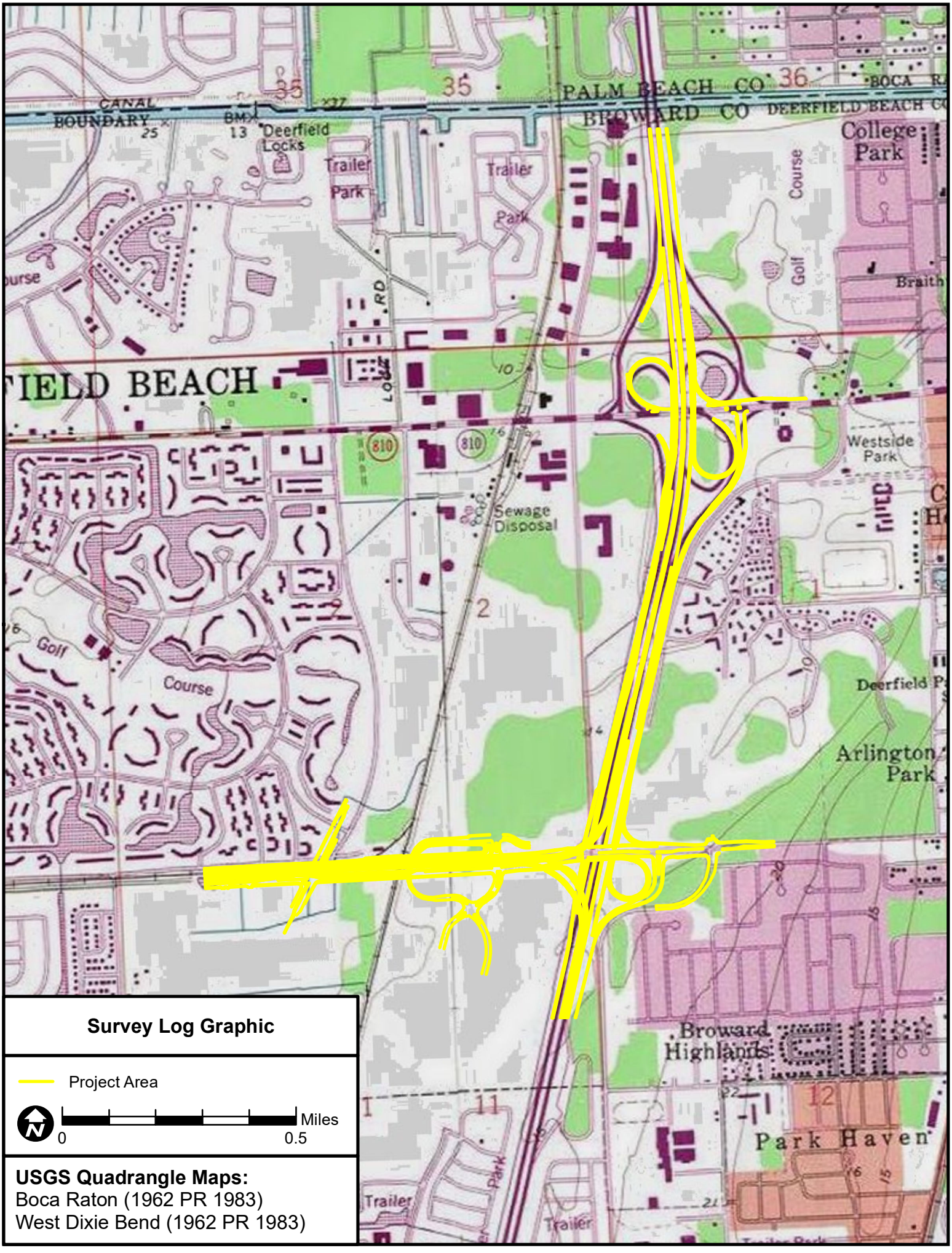
*****REQUIRED: ATTACH PLOT OF SURVEY AREA ON PHOTOCOPY OF USGS 1:24,000 MAP(S)*****

SHPO USE ONLY	SHPO USE ONLY	SHPO USE ONLY

Origin of Report: ☐872 ☐CARL ☐UW ☐1A32 # _____ ☐Academic ☐Contract ☐Avocational
☐Grant Project # _____ ☐Compliance Review: CRAT # _____

Type of Document: ☐Archaeological Survey ☐Historical/Architectural Survey ☐Marine Survey ☐Cell Tower CRAS ☐Monitoring Report
☐Overview ☐Excavation Report ☐Multi-Site Excavation Report ☐Structure Detailed Report ☐Library, Hist. or Archival Doc
☐MPS ☐MRA ☐TG ☐Other: _____

Document Destination: _____ **Plotability:** _____


PALM BEACH CO
BROWARD CO
DEERFIELD BEACH
CANAL
BOUNDARY
Deerfield
Locks
Trailer
Park
College
Park
Course
Golf
Braith
Westside
Park
Sewage
Disposal
Golf
Course
Deerfield
Arlington
Park
Broward
Highlands
Park Haven
Trailer
Park
Trailer
810
Survey Log Graphic
Project Area
N
0
0.5
Miles
USGS Quadrangle Maps:
Boca Raton (1962 PR 1983)
West Dixie Bend (1962 PR 1983)