SR 9 / I-95

PD&E STUDY

FROM STIRLING ROAD (MP 5.093) TO NORTH OF OAKLAND PARK BOULEVARD (MP 13.742)

FM 429804-1-22-01 / ETDM 13168

BROWARD COUNTY, FLORIDA

TYPE 2 CATEGORICAL EXCLUSION REPORT

September, 2013

PREPARED FOR:
FDOT - District 4
3400 West Commercial Blvd
Fort Lauderdale, FL. 33309

SR 9 / I-95 PD&E STUDY

FROM STIRLING ROAD TO NORTH OF OAKLAND PARK BOULEVARD
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TYPE 2 CATEGORICAL EXCLUSION REPORT SEPTEMBER, 2013

Florida Department of Transportation – District Four
3400 West Commercial Blvd
Fort Lauderdale, Florida 33309

Prepared by:

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Florida Department of Transportation

RICK SCOTT
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3400 West Commercial Boulevard
Fort Lauderdale, FL 33309

ANANTH PRASAD, P.E.
SECRETARY

June 27, 2013

Mr. David Hawk
Acting Division Administrator
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, FL 32303

Attention: Mr. Mark Clasgens, Transportation Engineer

Dear Mr. Hawk:

SUBJECT: **Transmittal of Type 2 Categorical Exclusion for Approval**

State Road: SR 9/I-95 Project Development and Environment (PD&E) Study From SR 848/Stirling Road to North of SR 816/Oakland Park Boulevard
FM#: 429804-1-22-01
ETDM#: 13168
County: Broward

Enclosed are two (2) copies of the Preliminary Engineering Report (PER), Concept Plans and two (2) copies of the Type 2 Categorical Exclusion Report. Also enclosed is a certified transcript for the Public Hearing which was held on Thursday, April 11, 2013, for the above referenced project (attached to the CATEX II Report). Additional backup documentation is included on the attached CD.

Upon your review and acceptance of these documents, we request your concurrence that this project is properly classified as a Categorical Exclusion as described in 23 CFR 771.115 and 771.117, and that the general project location and design concepts described in these documents are acceptable as allowable in 23 CFR 771.113. Please acknowledge your concurrence with these findings by signing and dating this request below and then returning a signed copy for our project file.

Sincerely,

Gustavo Schmidt, P.E.
District Planning and Environmental Engineer

GS:jt

Enclosures

Concurrence by FHWA:

FHWA Division Administrator

9/3/13
Date

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

TYPE 2 CATEGORICAL EXCLUSION DETERMINATION FORM

1. GENERAL INFORMATION

County:	**Broward**		
Project Name:	**SR 9/I-95 Project Development & Environment (PD&E) Study**		
Project Limits:	**Stirling Road (SR 848) to North of Oakland Park Boulevard (SR 816)**		
Project Numbers:	**13168**	**429804-1-22-01**	**Not Assigned**
	ETDM (if applicable)	Financial Management	Federal-Aid

2. PROJECT PURPOSE AND NEED

a. Purpose and Need: **See Section 1.3**

b. Proposed Improvements: **See Sections 1.2 and 3.2**

c. Project Planning Consistency: **See below and attached pages from 2013-2017 Transportation Improvement Program (TIP), 2012 State TIP (STIP), & 2035 Broward Long Range Transportation Plan (LRTP) Cost Feasible Plan***

Segment Information:	Convert HOV to Express Lane and add one additional Express Lane in the median, in each direction
Segment Limits:	From SR 848/Stirling Road to South of SR 842/Broward Boulevard
Segment FM #:	429804-2
Currently Adopted CFP-LRTP	**COMMENTS**
Y	Identified in Broward County MPO, 2035 CFP LRTP , Project ID 64 - I-95 Managed Lanes from I-595 to Palm Beach County line, Construction funding in Fiscal Years 2021-2025 with $1,078.7 (Year of Expenditure Dollars in Millions)

PHASE	**Currently Approved TIP**	**Currently Approved STIP**	**TIP/ STIP $**	**TIP/STIP FY**	**COMMENTS**
PE (Final Design)	Yes	Yes	$1,760,000	2013/2014	ACNH Funding Source
R/W	No	No	$0	N/A	No right of way phase is needed
Construction	No	No	$0	N/A	LRTP: Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with $1,078.7 (Year of Expenditure Dollars in Millions). FDOT intends to fund construction as soon as possible. Currently some construction funds are scheduled in approved 2nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.

***Include pages from TIP/STIP/LRTP* (see Appendix D)**

Segment Information:	Convert HOV to Express Lane and add one additional Express Lane in the median, in each direction
Segment Limits:	From South of SR 842/Broward Boulevard to North of SR 816/Oakland Park Boulevard
Segment FM #:	429804-3
Currently Adopted CFP-LRTP	**COMMENTS**
Y	Identified in Broward County MPO, 2035 CFP LRTP , Project ID 64 - I-95 Managed Lanes from I-595 to Palm Beach County line, Construction funding in Fiscal Years 2021-2025 with $1,078.7 (Year of Expenditure Dollars in Millions)

PHASE	**Currently Approved TIP**	**Currently Approved STIP**	**TIP/ STIP $**	**TIP/STIP FY**	**COMMENTS**
PE (Final Design)	Yes	Yes	$2,084,000	2013/2014	ACNH Funding Source
R/W	No	No	$0		No right of way phase is needed
Construction	No	No	$0		LRTP: Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with $1,078.7 (Year of Expenditure Dollars in Millions). FDOT intends to fund construction as soon as possible. Currently some construction funds are scheduled in approved 2nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.

***Include pages from TIP/STIP/LRTP* (see Appendix D)**

3. CLASS OF ACTION

a. Class of Action:

☒ Type 2 Categorical Exclusion

b. Other Actions:

☐ Section 4(f) Evaluation
☒ Section 106 Consultation
☒ Endangered Species Biological Assessment

c. Public Involvement:

1. ☐ A public hearing is not required, therefore, approval of this Type 2 Categorical Exclusion constitutes acceptance of the location and design concepts for this project.

2. ☒ A public hearing was held on April 11, 2013 and a transcript is included. Approval of this determination constitutes location and design concept acceptance for this project.

   ☐ An opportunity for a public hearing was afforded and a certification of opportunity is included. Approval of this determination constitutes acceptance of the location and design concepts for this project.

3. ☐ A public hearing will be held and the public hearing transcript will be provided at a later date. Approval of this determination DOES NOT constitute acceptance of the project's location and design concepts.

   ☐ An opportunity for a public hearing will be afforded and a certification of opportunity will be provided at a later date. Approval of this determination DOES NOT constitute acceptance of the project's location and design concepts.

d. Cooperating Agency: ☐ COE ☐ USCG ☐ FWS ☐ EPA ☐ NMFS ☒ NONE

4. REVIEWERS' SIGNATURES

_____ 6/20/13
FDOT Project Manager — Date

_____ 6/20/13
FDOT Environmental Administrator or Designee — Date

5.FH WA CONCURRENCE

_____ ___/___/___
(For) Division Administrator or Designee — Date

6. IMPACT EVALUATION

Topical Categories	Impact Determination* Sig	Not sig	None	No Inv	Basis for Decision
A. SOCIAL & ECONOMIC					
1. Land Use Changes	☐	☐	☒	☐	**See attachment 4.1.1**
2. Community Cohesion	☐	☐	☒	☐	**See attachment 4.1.2**
3. Relocation Potential	☐	☐	☒	☐	**See attachment 4.1.3**
4. Community Services	☐	☐	☒	☐	**See attachment 4.1.4**
5. Nondiscrimination Considerations	☐	☐	☒	☐	**See attachment 4.1.5**
6. Controversy Potential	☐	☒	☐	☐	**See attachment 4.1.6**
7. Scenic Highways	☐	☐	☐	☒	
8. Farmlands	☐	☐	☐	☒	**See attachment 4.1.8**
B. CULTURAL					
1. Section 4(f)	☐	☒	☐	☐	**See attachment 4.2.1**
2. Historic Sites/Districts	☐	☒	☐	☐	**See attachment 4.2.2**
3. Archaeological Sites	☐	☐	☒	☐	**See attachment 4.2.3**
4. Recreation Areas	☐	☒	☐	☐	**See attachment 4.2.4**
C. NATURAL					
1. Wetlands	☐	☒	☐	☐	**See attachment 4.3.1**
2. Aquatic Preserves	☐	☐	☐	☒	
3. Water Quality	☐	☒	☐	☐	**See attachment 4.3.3**
4. Outstanding FL Waters	☐	☐	☐	☒	
5. Wild and Scenic Rivers	☐	☐	☐	☒	
6. Floodplains	☐	☐	☒	☐	**See attachment 4.3.6**
7. Coastal Zone Consistency	☐	☐	☒	☐	**See attachment 4.3.7**
8. Coastal Barrier Resources	☐	☐	☐	☒	
9. Wildlife and Habitat	☐	☒	☐	☐	**See attachment 4.3.9**
10. Essential Fish Habitat	☐	☒	☐	☐	**See attachment 4.3.10**
D. PHYSICAL					
1. Noise	☐	☒	☐	☐	**See attachment 4.4.1**
2. Air Quality	☐	☐	☒	☐	**See attachment 4.4.2**
3. Construction	☐	☒	☐	☐	**See attachment 4.4.3**
4. Contamination	☐	☒	☐	☐	**See attachment 4.4.4**
5. Aesthetic Effects	☐	☐	☒	☐	**See attachment 4.4.5**
6. Bicycles and Pedestrians	☐	☐	☒	☐	**See attachment 4.4.6**
7. Utilities and Railroads	☐	☒	☐	☐	**See attachment 4.4.7**
8. Navigation	☐	☒	☐	☐	**See attachment 4.4.8**

a. ☐ FHWA has determined that a USCG Permit IS NOT required in accordance with 23 CFR 650, Subpart H.

b. ☒ FHWA has determined that a USCG Permit IS required in accordance with CFR 650, Subpart H.

* Impact Determination: Sig = Significant; NotSig = Not Significant; None = Issue Present, no impact; NoInv = Issue absent, no involvement. Basis of decision is documented in the referenced attachment(s).

E. PERMITS REQUIRED

1. South Florida Water Management District (SFWMD) Environmental Resource Permit (ERP)
2. SFWMD Right of Way Occupancy Permit
3. SFWMD Water Use Permit (Dewatering)
4. Florida Department of Environmental Protection (FDEP) National Pollutant Discharge Elimination System (NPDES) Permit
5. FDEP Sovereign Submerged Lands (SSL) Public Use Easement
6. US Army Corps of Engineers (USACE) Individual or Nationwide Permit
7. USACE Nationwide Permit 14 (Linear Transportation Facilities)
8. USACE Section 408 Determination (minor modification) - for proposed piers within Dania Cut-Off Canal
9. US Coast Guard (USCG) Bridge Permit – pending Federal Highway Administration (FHWA) exemption review

7. COMMITMENTS AND RECOMMENDATIONS

The following commitments and recommendations have been made by the Florida Department of Transportation (FDOT) and will be adhered to during the final design and/or construction phases.

1. The FDOT will implement the most current versions of the following protection measures which will be included in the construction documents and implemented during construction: 1) Florida Fish and Wildlife Conservation Commission (FWC) *Standard Manatee Conditions for In-Water Work; 2)* US Fish and Wildlife Service (USFWS) *Standard Protection Measures for the Eastern Indigo Snake;* and 3) National Marine Fisheries Service (NMFS) *Sea Turtle and Smalltooth Sawfish Construction Conditions*.

2. The FDOT will coordinate with the USFWS during final design (through the environmental permitting process) to determine if wood stork nesting colonies are active in the project area. If mitigation for loss of wood stork foraging habitat is required, it will occur through purchase of mitigation credits from an appropriate USFWS-approved mitigation bank. In the event new drainage features do not offset wood stork Core Foraging Area (CFA), mitigation credits will be purchased.

3. The FDOT will provide to NMFS for review and approval (during final design through the environmental permitting process) a detailed mitigation plan that fully offsets the unavoidable adverse impacts to mangroves and tidal freshwater Submerged Aquatic Vegetation (SAV), i.e., Essential Fish Habitat (EFH).

4. During final design, if right of way (R/W) is acquired for offsite ponds or other drainage features, the FDOT will perform protected species and wetlands reviews of those locations.

5. The FDOT will coordinate with the SFWMD, USACE, and NMFS during final design (through the environmental permitting process) to further avoid and minimize, where practical, impacts to stormwater swales and surface waters, including mangroves.

6. The FDOT is committed to the construction of feasible noise abatement measures at the locations where noise barriers have been recommended for further consideration (Franklin Park neighborhood south of Sistrunk Boulevard - along the shoulder of the southbound lanes or along the west side of the adjacent railroad corridor) during the final design phase, contingent upon the following conditions:

   - *Detailed noise analyses during the final design process support the need for abatement;*
   - *Reasonable cost analyses indicate that the economic cost of the barrier(s) will not exceed the cost reasonable criterion;*
   - *Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved;*
   - *Community input regarding desires, types, heights and locations of barriers has been solicited by the FDOT; and*
   - *Any other mitigating circumstances found in Section 17-4.6.1 of FDOT's PD&E Manual have been analyzed.*

7. A reassessment of the project corridor for additional sites particularly sensitive to construction noise and/or vibration will be performed during design to ensure that impacts to such sites are minimized. Coordination between the FDOT and the operators of any construction noise/vibration sensitive locations identified during design will occur, and if applicable, Technical Special Provisions (TSP) developed for the project's contract package in order to ensure that impacts to such businesses are minimized.

8. The FDOT will reevaluate the feasibility and reasonableness of noise abatement measures during Final Design if warranted by changes to the project's design.

9. Construction noise and vibration impacts will be minimized by adherence to the controls listed in the latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction*.

10. Construction activities for the proposed action may potentially have short-term air quality impacts within the immediate vicinity of the project. Construction activities may generate temporary increases in air pollutant emissions in the form of dust from earthwork and unpaved roads and smoke from open burning. Such emissions and potential impacts will be minimized by adherence to all applicable State and local regulations and to the latest edition of the FDOT *Standard Specifications for Road and Bridge Construction.*

11. Water quality impacts resulting from erosion, sedimentation, and turbidity reduction will also be controlled through measures outlined in the latest edition of the FDOT

Standard Specifications for Road and Bridge Construction. The removal of structures and debris will be in accordance with local and State regulation agencies permitting this operation. The Contractor is responsible for methods of controlling pollution on haul roads, in borrow pits, other material pits, and areas used for disposal of waste materials from the project. Temporary erosion control features as specified in Section 104 of the FDOT *Standard Specifications for Road and Bridge Construction* may consist of temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, artificial coverings, and berms.

12. The sequence of construction will be planned in such a way as to minimize traffic delays. The project will involve the development and use of a Maintenance of Traffic (MOT) Plan. This Plan will include traffic management and signage, access to local businesses and residences, detour routes, public notification of alternate routes, emergency services coordination and project scheduling. The local news media will be notified in advance of road closings and other construction-related activities which could excessively inconvenience the community so that business owners, residents, and/or tourists in the area can plan travel routes in advance. A sign providing the name, address, and telephone of an FDOT contact person will be displayed on-site to assist the public in obtaining answers to questions or complaints about project construction.

13. The FDOT will coordinate with the City of Oakland Park regarding any potential impacts to the interchanges or potential pond sites within their city as this project progresses through the design and construction phases.

14. The FDOT will coordinate with the Broward County Aviation Department through the design and construction phases, to avoid any conflicts with the existing and new glide path, and ensure that the express and general purpose lanes are adequately signed and provide clear and concise messages to the airport patrons from both the north and south directions.

15. Utility Agency Owners (UAO) with facilities within the vicinity of the North Woodlawn Cemetery will refrain from relocating any facilities within the limits of the cemetery. The FDOT will also avoid the construction of any new underground utilities within the state R/W adjacent to the cemetery property.

16. The FDOT will incorporate design variances and exceptions for the 300-foot area in front of the North Woodlawn Cemetery, such that there will be no new engineering features located in front of the cemetery.

17. The contractor will be restricted from staging along the shoulder adjacent to the North Woodlawn Cemetery.

18. Before construction begins, an unanticipated finds plan will be developed. The plan will include specific procedures to be taken in the event that unanticipated finds, including human remains, are encountered during construction.

19. During construction, an archaeological monitor will be present during all subsurface excavations conducted within 250 feet of North Woodlawn Cemetery. Monitoring will be conducted in accordance with the unanticipated finds plan.

20. During final design, consideration will be given to the preservation or relocation of existing landscaping and/or and inclusion of new landscaping along the corridor. This includes landscaping beautification that exists at several interchanges along I-95 (Broward, Sunrise and Oakland Park Boulevards) as part of the "Greening Gateways" program. This will be done in collaboration with the Broward Metropolitan Planning Organization (MPO) and local jurisdiction. Coordination with the Greening Gateways Committee will be maintained during the design and construction phases as well.

21. The FDOT will perform detailed safety evaluations at the identified high crash locations after the PD&E Study or during design to quantitatively determine the impact of the proposed improvements and evaluate and address safety improvements if required. The detailed analysis will include preparation of collision diagrams, additional field reviews, expected value analysis and review of police reports (if necessary) to identify the crash patterns and potential countermeasures at each of the identified locations.

22. The FDOT will prepare an Incident Management Plan for the deployment of the next phase of express lanes. This plan will build upon and be coordinated with the existing Incident Management Plan in place for Phases I and II and with our agency partners. The plan will be submitted to FHWA for review and approval.

23. The FDOT is in the process of completing a study for the development of a Regional Concept of Transportation Operations. FDOT will continue to work with our agency partners to prepare a Concept of Operations plan. This plan will be submitted to FHWA for review and approval.

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1. SUMMARY OF PROJECT

1.1 Project Background

I-95 is one of the most important surface transportation facilities along the east coast of Florida as it provides for the movement of goods and people within the 12 coastal counties, including Miami-Dade, Broward and Palm Beach Counties. Over the past few decades, these three counties have experienced tremendous demographic growth which has translated into traffic volumes exceeding 250,000 vehicles per day along several segments of I-95 within the tri-county area. These high volumes have brought congestion during the peak hours on I-95 to unacceptable levels.

Preserving mobility within the corridor is of prime concern to Florida. In September 2003, the Florida Department of Transportation (FDOT) finalized a master planning study for the I-95/I-595 corridors and the South Florida Rail Corridor (SFRC), which evaluated the existing deficiencies and recommended possible future improvements along these corridors.

The Locally Preferred Alternative (LPA) from the master plan study, within the PD&E study limits, consisted of the following improvements:

- Widen I-95 in Broward County to eight general purpose lanes plus two HOV lanes with auxiliary lanes as needed (I-95 within the limits of this Study from Stirling Road to Oakland Park Boulevard already has eight general purpose lanes)
- Interchange improvements

In 2007, the FDOT began a PD&E study for the segment of I-95 from Oakland Park Boulevard to Glades Road (FM #409359-1 and #409355-1) to evaluate in detail the LPA recommendations from the master plan. A year into the study, the travel demand forecasting efforts were completed and showed that adding an additional general purpose lane in each direction within the study limits would not improve the existing and future operations of the corridor. The additional lanes were not expected to accommodate the projected travel demand and growth along the corridor. Therefore, the FDOT placed the study on hold and returned to the planning phase to evaluate other possible concepts that could address the anticipated high demand and growth corridor wide.

Late in 2007, the FDOT completed the Managed Lanes Comprehensive Traffic and Revenue Study, which evaluated the potential operations of the corridor with the implementation of two tolled express lanes in each direction. The study determined that the improvements will offer potential time savings of up to 38 minutes during peak travel periods by providing continuous express lanes along I-95 throughout Miami-Dade, Broward, and Palm Beach Counties.

In 2009, the FDOT began the I-95 Corridor Planning Study, between Stirling Road (SR 848) in Broward County and Indiantown Road (SR 706) in Palm Beach County, to evaluate the feasibility of adding tolled express lanes in the median of I-95. The study was completed in January 2012 and determined that express lanes along this portion of I-95 was feasible and could be studied further during the PD&E phase to evaluate the concept as a viable alternative along the corridor.

FDOT was also tasked by the state legislature to conduct the I-95 Transportation Alternatives Study from Miami to Jacksonville. Completed in 2010, this report was required to "...include [the] identification of cost-effective measures that may be implemented to alleviate congestion on Interstate 95, facilitate emergency and security responses and foster economic development."

The results of these studies identified, recommended and prioritized the development of an integrated multimodal transportation system which is economically efficient, safe and environmentally sound.

As a result, the Florida Department of Transportation (FDOT) is undertaking several Project Development and Environment studies to investigate alternatives for improving capacity along I-95 and identify and document the environmental impacts of these alternatives. In January 2012, FDOT initiated this PD&E study for an 8.649 mile segment of I-95, from Stirling Road (SR 848) to Oakland Park Boulevard (SR 816) in Broward County. This project was screened using FDOT's Environmental Screening Tool (EST) and an Efficient Transportation Decision Making (ETDM) Programming Screening Report was published on June 27, 2011 (ETDM # 13168) along with the Advanced Notification Package (AN).

The design and construction of the proposed improvements from Stirling Road to Oakland Park Boulevard are currently federally funding. Design is funded in the 1st five years of the Work Program (FY 2015) and construction is funded in the 2nd five years of the SIS Plan (FY 2019 and 2021)*. Construction funding and delivery methods will be evaluated by the Department to determine the final construction funding plan for this segment and the entire next phase of I-95 Express from Stirling Road (SR 848) to Linton Boulevard (CR 782).

Work Program Public Hearings will be held in November of this year. During these annual hearings, the public will be informed of the federal funding associated with this project.

* Note: The 2nd five year SIS plan is comprised of SIS projects that are scheduled to be funded in the five years (FY 2019 through 2023) following the tentative 1st five year Work Program (FY 2014 through 2018).

1.2 Project Description

This segment of I-95 is functionally classified as a Divided Urban Principal Arterial Interstate and is part of the state's Strategic Intermodal System (SIS). I-95 is one of only two major expressways (Florida's Turnpike being the other) that connect the major employment centers and residential areas within the South Florida tri-county area: Miami-Dade, Broward and Palm Beach Counties. I-95 is a critical corridor for moving freight, transit and passenger vehicles into, through and out of the corridor each day.

The majority of the project corridor has eight travel lanes, four in each direction, plus auxiliary lanes within closely spaced interchanges. The remainder of the corridor features a few segments that carry six and ten general purpose travel lanes. The northbound and southbound travel lanes are separated by either a concrete barrier wall or a grassy median. Roadway swales run on both sides of the facility. There are eight interchanges along the project corridor:

- Stirling Road (SR 848) & I-95
- Griffin Road (SR 818) & I-95
- I-595 & I-95
- SR 84 & I-95
- Davie Boulevard (SR 736) & I-95
- Broward Boulevard (SR 842) & I-95
- Sunrise Boulevard (SR 838) & I-95
- Oakland Park Boulevard (SR 816) & I-95

The project segment traverses a dense urban area with predominantly commercial and residential uses. Within the project limits, I-95 traverses five cities (Hollywood, Dania Beach, Fort Lauderdale, Wilton Manors and Oakland Park) and unincorporated Broward County. Both the Fort Lauderdale-Hollywood International Airport and Port Everglades are also located near the I-95 and I-595 interchange. Improvements to the I-95 corridor are needed in order to:

- Provide new and enhanced mobility options for motorists and transit users
- Enhance mobility of goods and services to support the freight network
- Improve emergency evacuation
- Support economic development

The study seeks to maximize long-term capacity needs, long-term mobility needs, travel reliability and travel options for drivers. The opportunity to incorporate regional express bus service will also be investigated. (See **Figure 1-1 – Project Location Map**).

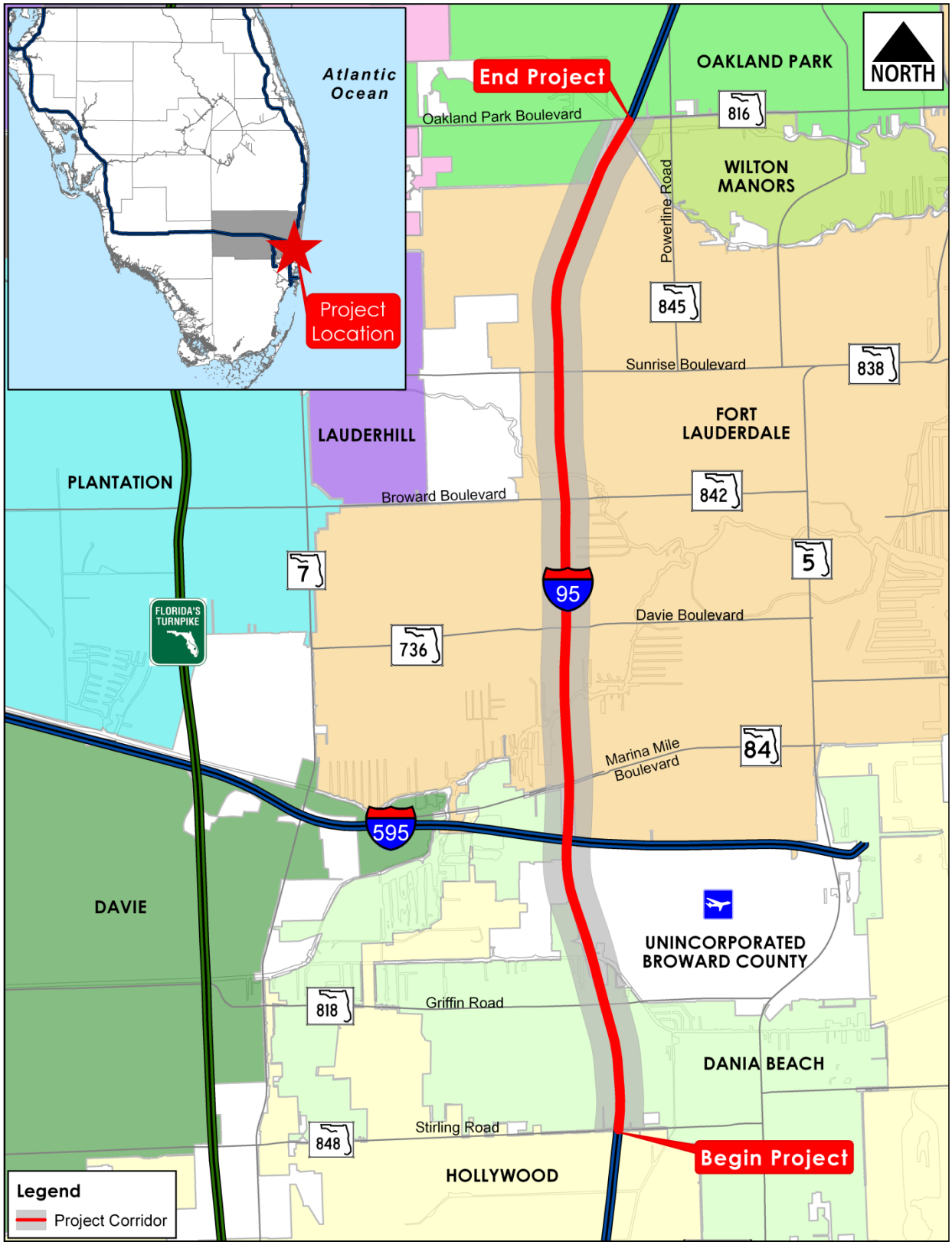


Figure 1-1
Project Location Map

1.3 Purpose and Need

The primary purpose of this project is to maximize long-term capacity needs, long-term mobility needs, travel reliability and travel options for drivers. The opportunity to incorporate regional express bus service will also be investigated. The need for the project is based on the following criteria:

Capacity/Transportation Demand: The I-95 project corridor operates at level of service (LOS) F; in addition, the High Occupancy Vehicle (HOV) lanes along much of this corridor are also operating near capacity at present. Without improvements, the project corridor will continue to experience high delays and operate at LOS F in 2035; driving conditions for residents and commuters will continue to deteriorate well below acceptable LOS standards. Travel demand forecasting efforts completed in previous studies have shown that the addition of general purpose lanes, within the study limits, would not improve the existing and future operations of the corridor. As a result, the study will evaluate strategies that maximize long-term capacity needs, long-term mobility needs, travel reliability and travel options (improve transit and other forms of ride sharing).

Growth Management Planning: This segment of I-95 is one of the most heavily traveled sections of urban interstate in the nation. As traffic levels increase due to population and employment growth, both along the corridor and in the region, it will become increasingly important to continue facilitating north-south traffic movement throughout Broward County and Southeast Florida. The regional roadway system is close to build-out and the ability to add more traffic lanes is limited; in addition, Broward County is only able to grow inward since it is geographically constrained.

System Linkage: This project is intended to maximize long-term mobility options for motorists and transit users. Strategies evaluated will complement and support efforts to improve thru-put, travel speeds and travel time reliability in the region.

Modal Interrelationships: Freight Activity: The proposed improvements along the I-95 project corridor are critical in order to enhance the mobility of goods by alleviating current and future congestion along the corridor and on the surrounding freight network. Reduced congestion will serve to maintain and improve viable access to the major transportation facilities and businesses of the area (including connectors to freight activity centers/local distribution facilities or between the regional freight corridors).

Emergency Evacuation: As part of the emergency evacuation route network designated by the Florida Division of Emergency Management, I-95 is critical in facilitating the movement of traffic during emergency evacuation periods. This facility connects other major arterials and highways designated on the state evacuation route network within the project limits, such as I-595 and Florida's Turnpike. The project will allow for enhanced emergency access and incident response times.

1.3.1 Capacity / Transportation Demand

The Broward Metropolitan Planning Organization (MPO) 2035 Long Range Transportation Plan (LRTP) currently identifies I-95 from Stirling Road (SR 848) to north of Oakland Park Boulevard

(SR 816) as a deficient roadway with a volume-to-capacity (v/c) ratio = 1.56. This indicates that the roadway segment has exceeded its designated service volume and LOS standard. In other words, the traffic volume exceeds capacity in the number of lanes available to accommodate the traffic demand.

According to data extracted from the 2009 Florida Department of Transportation (FDOT) Florida Traffic Information database and the 2035 Existing + Committed Network of the South East Regional Planning Model (SERPM), the existing and future traffic conditions for the I-95 project corridor are as follows:

The 2009 Annual Average Daily Traffic (AADT) volume is projected to grow from 286,500 vehicle trips per day to 310,350 vehicle trips per day in 2035 (0.3% annual growth rate).

The 2009 Annual Average Daily Truck Traffic (AADTT) volume is projected to increase from 24,410 truck trips per day (8.52%) to 26,442 truck trips per day in 2035 (assuming the percentage of trucks on the road remains the same as the base year percentage).

Based on the 2009 FDOT Generalized Annual Average Daily Volumes Table 1 of the FDOT Quality/Level of Service Handbook, the I-95 project corridor operates at LOS F. It is important to note that the HOV lanes along much of this corridor are also operating near capacity at present, offering little time savings to carpools/vanpools on I-95. As a result of the corridor being over capacity, travel demand is shifting vehicles onto less appropriate facilities. This, in turn, is negatively impacting the quality of life in local neighborhoods, as well as increasing driver frustration, reducing safety and increasing trip travel time. Without improvements, the project corridor will continue to experience high delays and operate at LOS F in 2035; driving conditions for residents and commuters will also deteriorate well below acceptable LOS standards.

The proposed project is expected to provide Southeast Florida motorists and transit users with a viable option for consistent and dependable travel. The project will offer potential time savings during peak travel periods.

1.3.2 Plan Consistency

The Broward Metropolitan Planning Organization (MPO) Fiscal Year 2010/2011 to Fiscal Year 2014/2015 Transportation Improvement Program (TIP) identifies Phase II of the I-95 Express Lanes (Managed Lanes) project (95 Express/HOT Lanes with Bus Rapid Transit) from Miami-Dade/Broward County Line to Broward Boulevard. It also identifies general HOV operations along I-95 throughout Broward County. The project is, however, identified as 'cost feasible' in the Broward MPO 2035 Long Range Transportation Plan (LRTP) as part of a larger project to implement four Express Lanes (managed lanes) on I-95 from I-595 to the Broward/Palm Beach County Line, as well as in the 2035 Southeast Florida Regional Transportation Plan. Furthermore, the Fiscal Year 2016/2017 to Fiscal Year 2020/2021 Strategic Intermodal System (SIS) Funding Strategy Second Five-Year Plan identifies $104,949,000 in 2019 for construction of two additional special use lanes on I-95 from Stirling Road (SR 848) to north of Oakland Park Boulevard (SR 816). In addition, $2,036,000 is programmed for the Project Development and Environment (PD&E) Study under Fiscal Years 2010/2011 and 2011/2012 of the Fiscal Year 2010/2011 to Fiscal Year 2014/2015 FDOT Work Program. Design is programmed at $3,450,000 in Fiscal Year 2015/2016. Although the project is not reflected on 'Map 3.2: Future Traffic

Circulation and Significant Parking Facilities' of the adopted Broward County Comprehensive Plan, improvements to the HOV system on I-95 are supported by Transportation Element Policy 3.4.18. FDOT District 4 will coordinate with Broward County and the Broward MPO to ensure that the project is included in the adopted Comprehensive Plan and that funding is identified for future project phases in the TIP, LRTP, State Transportation Improvement Program (STIP) and FDOT SIS Cost Feasible Plan.

1.3.3 Growth Management Planning

I-95 is recognized as a vital economic development corridor of Broward County. Serving as one of two major expressways that connect the major employment centers and residential areas of Miami-Dade, Broward and Palm Beach Counties (Florida's Turnpike being the other), the I-95 project segment fills an important role in facilitating the north-south movement of traffic in Southeast Florida. The project segment traverses a dense urban area with predominantly commercial and residential uses lining the corridor, and presently supports three designated Community Redevelopment Areas (located at the northern end of the segment within the vicinity of Sunrise Boulevard (SR 838) and Oakland Park Boulevard (SR 816)). These areas are defined as having the ability to accommodate residential infill and development interest due to their access to regional transportation corridors, support infrastructure and services. In addition, the project corridor supports and promotes the economic development and expansion activities of two major regional employers, Fort Lauderdale-Hollywood International Airport and Port Everglades (located east of the project corridor near the I-95 and I-595 interchange). Based on socioeconomic data extracted from the traffic analysis zones of the 2035 South East Regional Planning Model (SERPM), which encompass the I-95 project corridor:

- Population is projected to grow along the corridor from 21,339 in 2005 to 26,636 in 2035 (0.8% annual growth rate).
- Employment along the corridor is projected to grow from 22,879 in 2005 to 33,008 in 2035 (1.5% annual growth rate).

Similarly, according to projections prepared for the Broward MPO 2035 LRTP:

- Population within the county is forecasted to increase from 1,747,399 in 2005 to 2,250,830 in 2035 (1.0% annual growth rate).
- Employment within the county is projected to grow from 735,731 in 2005 to 1,011,286 in 2035 (1.3% annual growth rates).

This segment of I-95 is one of the most heavily traveled sections of urban interstate in the nation with an estimated 286,500 vehicle trips per day. The traffic volume is expected to exceed 310,000 vehicle trips per day by 2035. As traffic levels increase due to population and employment growth, both along the corridor and in the region, it will become increasingly important to facilitate reliable north-south traffic movement throughout Broward County and Southeast Florida. Broward County is only able to grow inward due to geographical constraints of the Atlantic Ocean to the east, the Everglades to the west, urbanized Palm Beach County to the north and urbanized Miami-Dade County to the south. The regional roadway system is also close to build-out and the ability to add more traffic lanes is limited. The project is anticipated to

meet the mobility needs of the area by alleviating current and future congestion on the corridor and surrounding roadway network. The proposed project will allow I-95 to continue to serve as an important arterial in facilitating the north-south movement of traffic in Southeast Florida, thus improving access between communities of Miami-Dade, Broward, and Palm Beach Counties.

1.3.4 System Linkage

The proposed project is intended to offer new and enhanced mobility options for motorists and transit users. Strategies evaluated will seek to complement and support efforts to improve thru-put, travel speeds and travel time reliability in the region. The following regional improvements are presently underway:

SR 9 (I-95) from Golden Glades Interchange to I-595 (SR 862) / (ETDM Project #3174)
Miami-Dade County, Broward County

Referred to as "95 Express - Phase 2", this project will extend the existing dual Express Lanes (HOT lanes) that were previously constructed in each direction along I-95 as part of the "95 Express - Phase 1" project . Approximately 11 miles in length, the "95 Express - Phase 2" project will implement two Express Lanes (HOT) lanes in each direction through widening, as well as the conversion of the existing single HOV lane in each direction. The Express Lanes (managed lanes) will have variable toll pricing based on congestion. Project construction (under a design-build contract) broke ground in early 2011 and is anticipated to be completed by early 2014.

SR 9 (I-95) from North of Oakland Park Boulevard (SR 816) to South of Glades Road (SR 808) / (ETDM Project #3330)
Broward County, Palm Beach County

This project (approximately 8 miles in length) is currently in the Project Development and Environment (PD&E) phase. As part of the PD&E process, alternatives are presently being analyzed to maximize long-term capacity needs, long-term mobility needs, travel reliability and travel options. The PD&E process is anticipated to be completed by 2013.

1.3.5 Modal Interrelationships

Freight Activity

I-95 is the primary interstate route along the east coast of the United States extending from Maine to Florida and serving some of the most populated urban areas in the country. In Florida, I-95 is a designated Strategic Intermodal System (SIS). The SIS is a statewide network of highway, railway and waterway corridors as well as transportation hubs that handle the bulk of Florida's passenger and freight traffic. Highways that are designated as part of the SIS provide for movement of high volumes of goods and people at high speeds. The SIS highway network is composed of interconnected limited- and controlled-access roadways (which include designated SIS highway corridors) that provide for high-speed and high-volume traffic movements within the state to serve both interstate and regional commerce and long-distance trips. This statewide

transportation network accommodates high occupancy vehicles, express bus transit and, in some corridors, passenger rail service.

Within southeast Florida, I-95 is a vital north-south transportation corridor providing important regional access to major east/west and north/south transportation corridors, as well as residential and employment activity centers and other regional destinations in the area. Within the project limits, I-95 connects to the local roadway network and a number of additional SIS facilities such as I-595, Florida's Turnpike, Fort Lauderdale-Hollywood International Airport and Port Everglades. Several SIS facilities also run parallel to the I-95 corridor including the FEC Railway, FEC Intermodal Terminal and South Florida Regional Transportation Authority Tri-Rail.

According to the Broward County Urban Freight/Intermodal Mobility Study (completed in 2008), the I-95 project corridor supports three freight industry zones:

- I-95/Powerline Road Corridor
- I-595/Airport Zone (Mega Transport Zone)
- South County/Other

It should be noted that the current daily truck volume on the corridor, which is as high as 8.52%, is expected to increase as freight activity within these zones expands.

The proposed improvements along the I-95 project corridor are critical to enhance the mobility of goods by alleviating current and future congestion along the corridor and on the surrounding freight network. Reduced congestion will serve to maintain and improve viable access to the major transportation facilities and businesses of the area (including connectors to freight activity centers/local distribution facilities or between the regional freight corridors).

Transit and Non-Motorized Travel:

Direct route services that do not require transfers will be explored for cross county trips to initially provide uncongested routes for buses on I-95 and subsequently on a regional network. Broward County Transit currently operates a number of local routes within the limits of the project; however, none use the I-95 corridor. Routes 16 and 72 operate along Stirling Road (SR 848) and Oakland Park Boulevard (SR 816). 95 Express premium bus service offers direct express service to Miami, Miami's Civic Center/Health District and Doral from convenient locations in Broward County and the Golden Glades Interchange. There are six express routes available. Buses along 95 Express are not tolled.

Based on the "FDOT Managed Lanes Comprehensive Traffic and Revenue Study" completed in 2007, the express bus service in Miami-Dade County contributed to an estimated 18% of the total person HOV lane throughput during peak-period conditions. By providing improved access to the section of the I-95 corridor from the Broward Boulevard Park and Ride lot (a major super-regional transit hub which provides access to Tri-Rail, Amtrak, proposed east/west light rail, greyhound, local bus and shuttle services), inter-county regional express bus service (or Bus Rapid Transit, BRT) service can be extended to the portion of the corridor in Broward County. As such, the proposed improvements provide an opportunity for express bus service to qualify as BRT, offering faster and more reliable service for many transit users.

1.3.6 Emergency Evacuation

I-95 serves as part of the emergency evacuation route network designated by the Florida Division of Emergency Management. Also designated as a Broward County evacuation facility, I-95 is critical in facilitating traffic during emergency evacuation periods as it connects other major arterials and highways of the state evacuation route network (i.e., I-595 and Florida's Turnpike). The project is anticipated to:

- Improve emergency evacuation capabilities by enhancing connectivity and accessibility to other major arterials designated on the state evacuation route network
- Increase the capacity of traffic that can be evacuated during an emergency event

Allow for enhanced emergency access and incident response times.

2. PLANNING PHASE

During the PD&E Study, a planning level analysis was conducted to evaluate conceptual typical section configurations that would serve the project's purpose and need. A planning Memorandum was developed to document the potential impacts of these conceptual typical sections. Four conceptual typical sections were developed during the initial phase of the study: 1) Barrier Wall Separated Express Lanes; 2) Standard Tubular Marker Separated Express Lanes; 3) Standard with Reduced Typical Section; and 4) I-95 Express Lanes Phase II. All four concepts provide two tolled Express Lanes and maintain the existing number of general purpose lanes and auxiliary lanes.

All four concepts were analyzed using the following elements: geometric evaluation of roadway template, qualitative drainage impacts, desktop environmental review of potential impacts, widening or replacement of bridges along the corridor, utility impacts, right of way acquisition and Long Range Estimates (LRE) based cost estimates. This analysis and the conceptual typical sections are detailed in the planning Memorandum, a summary of which is presented in the Preliminary Engineering Report (PER) and is on file at FDOT District 4. After careful evaluation and analysis of each concept considered, Concept #3 was selected as the Build Alternative to be carried forward into further analysis as part of this PD&E Study.

3. ALTERNATIVE ALIGNMENT ANALYSIS

A No-Build and Build Alternative were investigated to meet the needs of the project. These alternatives include the No-Build, the Transportation System Management (TSM) and the Build Alternative. The Build Alternative maximizes long-term capacity needs, long-term mobility needs, travel reliability and travel options for drivers. This also provides for the opportunity to incorporate regional express bus service.

3.1 No-Build Alternative

The No-Build Alternative assumes no proposed improvements and serves as a baseline for comparison against the other alternatives. This is consistent with the requirements of the National Environmental Policy Act (NEPA) and FHWA guidelines. The No-Build Alternative includes on-going construction projects and all funded or programmed improvements scheduled to be opened to traffic during the analysis years being considered.

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 be no direct or indirect impacts to the environment or socio-economic impacts from the project. However, the No-Build Alternative does not alleviate the chronic congestion, operational, safety and mobility issues currently experienced along I-95 during the peak hours. If no improvements are made, these conditions will continue to deteriorate. Consequently, the No-Build Alternative does not satisfy the purpose and need for this project.

3.2 Build Alternatives

As discussed, several planning level concepts were evaluated. These concepts vary on the roadway width (lanes and shoulder) and type of separation between the Express Lanes and the general purpose lanes. Concept #3 was recommended for further analysis as part of this PD&E and is presented below as Build Alternative 1.

The number of existing general purpose non-tolled lanes will not change. The proposed Express Lanes (managed lanes) will have variable pricing/tolls that fluctuate with increased congestion so that an operating speed of 50 MPH can be maintained in the Express Lanes (HOT lanes) at all times on the corridor. Transit (buses) and registered high occupancy vehicles with three or more people (HOV-3) will be able to use the Express Lanes (managed lanes) at no cost. Dual and single occupant vehicles will be allowed to enter the Express Lanes (managed lanes) by paying an all-electronic toll through the SunPass system. It should be noted that the FDOT is proposing to allocate a portion of the collected tolls to support regional express bus service (Bus Rapid Transit or BRT) operations on the corridor.

Overall, the build alternatives will consider:

- Increasing the (toll-free) occupancy requirement to HOV-3
- Converting the single HOV lane in each direction to dual Express Lanes (HOT lanes) in each direction

- Separating the Express Lanes (managed lanes) and the general purpose lanes via tubular delineators (to replace the open access to the HOV lanes now provided in the current configuration)
- Limiting the number of ingress and egress access points to the Express Lanes (managed lanes)
- Implementing regional express bus (BRT service)

3.2.1 Build Alternative 1

Build Alternative 1 consists of two tolled Express lanes, separated from the general purpose lanes by tubular markers, and maintains the same number of general purpose and auxiliary lanes.

Build Alternative 1 includes a combination of several typical section configurations: Standard Typical Section, Reduced Typical Section and Constrained Typical Section. They are as detailed in the following sections and depicted in **Figure 3-1** through **Figure 3-3**.

Standard Typical Section:
The standard typical section can be provided from Stirling Road (SR 848, M.P. 5.135) to I-595 (M.P. 7.555) and from north of the Broward Boulevard Park and Ride Ramp (M.P. 10.585) to Oakland Park Boulevard (SR 816, M.P. 13.742). It provides 12 ft. wide travel lanes, inside and outside shoulders, and a 4 ft. buffer between the Express Lanes and the general purpose lanes.

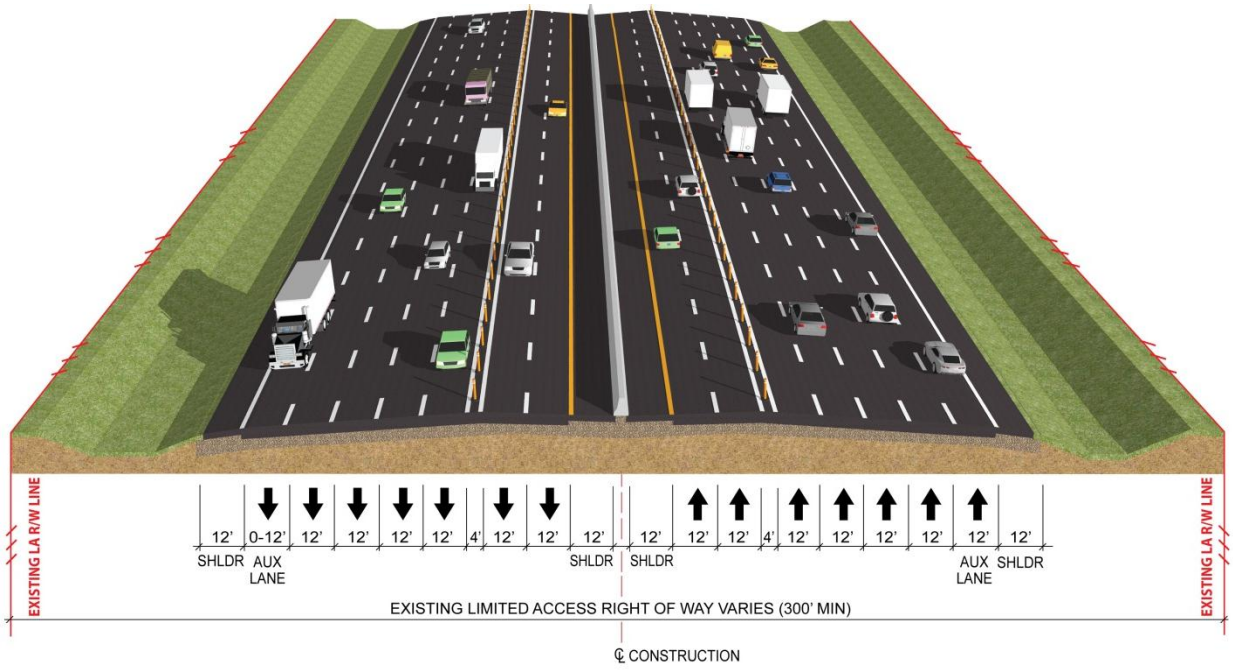


Figure 3-1 Standard Typical Section
from Stirling Road (SR 848, M.P. 5.135) to I-595 (M.P. 7.555) and from
North of the Broward Boulevard Park and Ride Ramp (M.P. 10.585) to Oakland Park Boulevard (SR 816, M.P. 13.742)

Reduced Typical Section:

Two different reduced typical sections are provided between I-595 (M.P. 7.555) and north of the Broward Boulevard Park and Ride Ramp (M.P. 10.585) as depicted in **Figure 3-2** and **Figure 3-3**, where the standard typical section would require the reconstruction of interchanges or overpasses. These configurations feature 11 ft. wide Express Lanes, 12 ft. general purpose lanes and a 2 ft. buffer between the Express Lanes and general purpose lanes. The inside shoulders are 10 ft. for Reduced Typical Section 1 and 12 ft. for Reduced Typical Section 2.

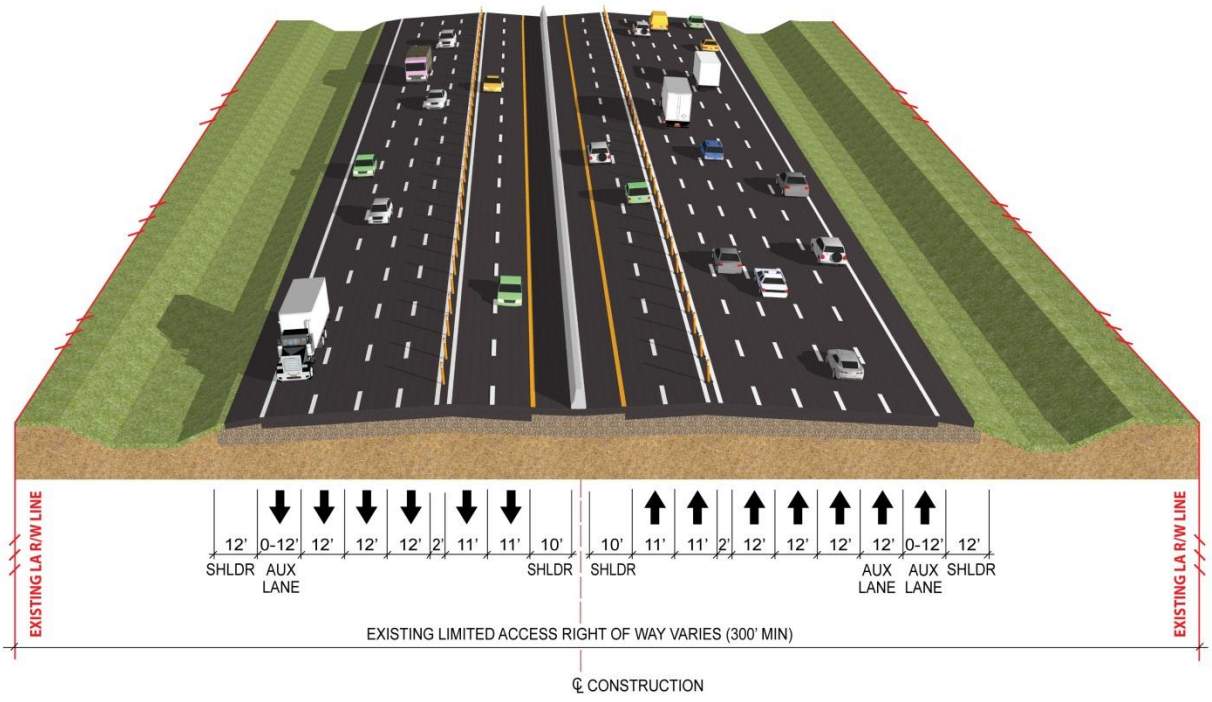


Figure 3-2 Reduced Typical Section 1
from I-595 (M.P. 7.555) to South of the Broward Boulevard Park and Ride Ramp (M.P. 9.738)

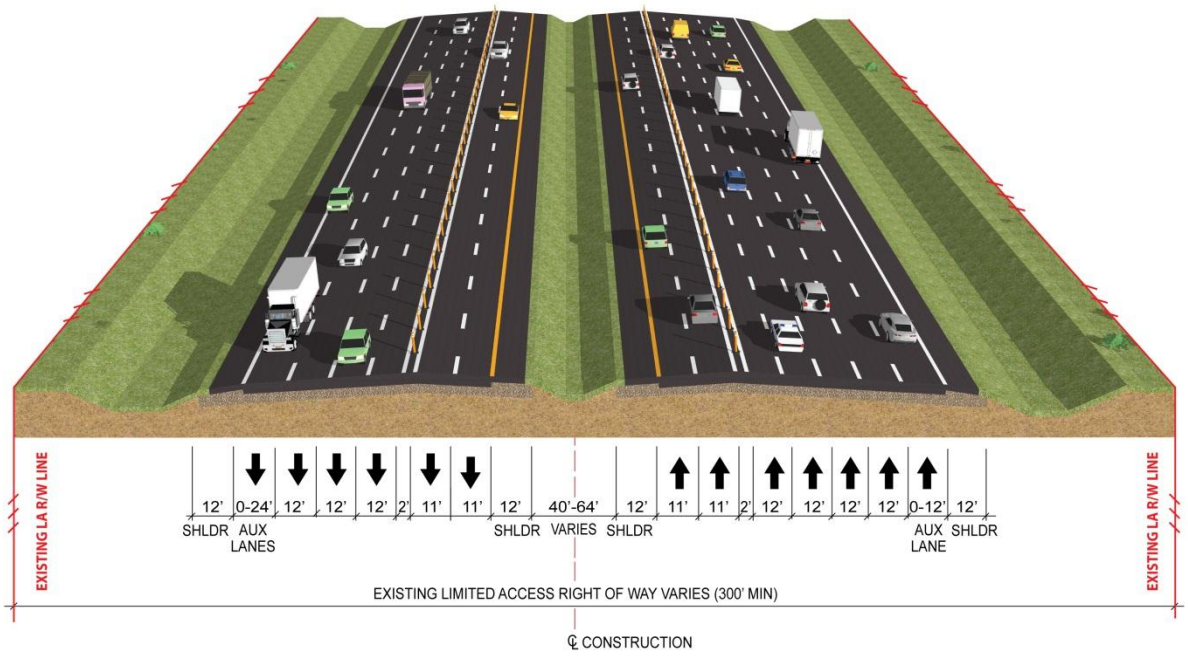


Figure 3-3 Reduced Typical Section 2
from South of the Broward Boulevard Park and Ride Ramp (M.P. 9.738) to North of the Broward Boulevard Park and Ride Ramp (M.P. 10.585)

Constrained Typical Section:
Within the corridor, there are also pinch points where a constrained typical section is required. Some of these pinch points occur underneath the bridges at SW 42 Street, SR 84, Davie Boulevard (SR 736) and Sunrise Boulevard (SR 838). Other locations include: along the northbound lanes at the Park and Ride ramp south of Broward Boulevard, along the South Fork New River bridges, and adjacent to the North Woodlawn Cemetery. The alignment for Build Alternative 1 was designed to avoid impacting these resources and the aforementioned bridges by providing a similar lane configuration as the reduced typical section plus narrower shoulders.

3.2.2 Build Alternatives 1A and 1B

Build Alternatives 1A and 1B are variations of Build Alternative 1. They also provide two tolled Express Lanes separated from the general purpose lanes by tubular markers. Build Alternatives 1A and 1B also include a combination of a standard typical section, reduced typical section and constrained typical sections similar to Build Alternative 1. Refer to **Appendix A**.

The main difference occurs at two locations: at the bridges over the South Fork New River (Build Alternative 1A) and at the Sunrise Boulevard (SR 838) interchange (Build Alternative 1B). Both locations are considered constrained typical sections under Build Alternative 1. In Build Alternative 1A and 1B, the design is modified in an effort to provide wider lanes and shoulders at these locations.

3.2.3 Build Alternative 1A

The mainline bridges over the South Fork New River are constrained by a Collector Distributor (CD) road bridge on either side. The southbound CD road bridge is further flanked by the CSX Railroad to the west. These restrictions make widening the mainline bridges impossible without impacting the existing CD road bridges and the railroad bridge over the South Fork New River.

Under Build Alternative 1, the northbound mainline bridge would require a constrained typical section with two 11 ft. Express Lanes, one 11 ft. general purpose lane, two 12 ft. general purpose lanes, two 12 ft. auxiliary lanes, an 8 ft. outside shoulder, a 3 ft. inside shoulder and a 2 ft. buffer between the Express Lanes and general purpose lanes. Under Build Alternative 1A, a concept was evaluated for the northbound mainline bridge to eliminate one of the existing auxiliary lanes to maximize the lane and shoulder widths. This concept would provide all 12 ft. lanes: two Express Lanes, three general purpose lanes, one auxiliary lane, a 10 ft. outside shoulder, an 8 ft. inside shoulder and a 4 ft. buffer between the Express Lanes and general purpose lanes for approximately 5000 ft. The northbound CD road bridge would accommodate three 12 ft. general purpose lanes, one 12 ft. auxiliary lane, and 10 ft. shoulders, as required for that type of facility. Refer to **Appendix A**.

3.2.4 Build Alternative 1B

At the northbound approach to the Sunrise Boulevard (SR 838) interchange, I-95 currently features one HOV lane, four general purpose lanes, and two auxiliary lanes: one for the northbound to westbound exit ramp and one for the northbound to eastbound exit ramp. Immediately adjacent to these auxiliary lanes is the North Woodlawn Cemetery. To minimize and avoid impacting this resource, Build Alternative 1 was designed to maintain the existing outside edge of pavement; therefore, no widening is required toward the outside. A constrained typical section is required at this location.

In the northbound direction, the typical section features two 11 ft. Express Lanes, one 11 ft. general purpose lane, three 12 ft. general purpose lanes, two 12 ft. auxiliary lanes, a 5 ft. inside shoulder, and maintains the existing 6 ft. outside shoulder. There is a 2 ft. buffer between the Express Lanes and general purpose lanes. This will also require widening the facility toward the median by approximately 6 ft. This inside widening can be accommodated above the original ground elevation.

The proposed southbound typical section features two 11 ft. Express Lanes, one 11 ft. general purpose lane, three 12 ft. general purpose lanes, a 5 ft. inside shoulder, and a 12 ft. outside shoulder. There is a 2 ft. buffer between the Express Lanes and general purpose lanes. This will require widening the facility toward the median by approximately 6 ft. This inside widening can be accommodated above the original ground elevation.

Under Build Alternative 1B, the auxiliary lane for the northbound to eastbound exit is combined with the auxiliary lane for the northbound to westbound exit. This modification would allow the existing edge of pavement immediately adjacent to the North Woodlawn Cemetery to be maintained while providing standard lane widths along I-95 northbound. The typical section at this location consists of: two 12 ft. Express Lanes, four 12 ft. general purpose lanes, one 12 ft. auxiliary lane, a 12 ft. inside shoulder and a 6 ft. outside shoulder. There is a 4 ft. buffer

between the Express Lanes and general purpose lanes. These improvements, however, essentially convert the existing eastbound exit auxiliary lane to both an eastbound and westbound exit lane. This modification would require the realignment of the northbound to westbound exit lane underneath the Sunrise Boulevard (SR 838) overpass to behind the existing bridge piers. The northbound typical section under the Sunrise Boulevard (SR 838) overpass would then feature two 12 ft. Express Lanes, four 12 ft. general purpose lanes, a 10 ft. inside shoulder, and a 8 ft. outside shoulder, along with a separate 15 ft. one lane ramp with 6 ft. inside and outside shoulders. Refer to **Appendix A**.

4. ENVIRONMENTAL IMPACT ANALYSIS

Summarized below are the results of the environmental data collection and analysis conducted as part of this PD&E Study. The purpose of this analysis was to determine the effects associated with the Recommended Alternative being considered for this project. This analysis was conducted using the information obtained from detailed studies of the Social & Economic, Cultural, Natural and Physical environments conducted for this project; as well as comments made by the various Environmental Technical Advisory Team (ETAT) members through the ETDM process, and the use of the EST. The ETAT review occurred during June-August 2011 (including circulation of the AN on June 28, 2011); and the ETDM Programming Screen Summary Report (#13168) was published on October 10, 2011 (re-published on December 8, 2011). This report is on file at the District Four Planning and Environmental Management (PL&EM) Office.

4.1 SOCIAL & ECONOMIC

4.1.1 Land Use Changes

The project corridor traverses a region of mixed land use designations, but is primarily transportation land use with sizable areas of residential, commercial and industrial land uses along both sides of the project corridor. The area west of the corridor is a mix of industrial and commercial with residential and transportation uses. The area to the east of the corridor is a mix of commercial, residential, and transportation uses.

A single, comprehensive future land use map for the study area is not available from Broward County due to the presence of cities and municipalities which govern their own land use designations. The cities and municipalities include the Cities of Hollywood, Dania Beach, Fort Lauderdale, Wilton Manors and Oakland Park and portions of unincorporated Broward County.

Individual future land use maps were obtained from the cities and Broward County. These future land use maps were evaluated, and they indicate that the existing commercial, industrial, and residential designations will retain their same land use designations. The following Future Land Use resources were reviewed:

- SEFL 2060: Baseline Future Land Use Map, Broward County, August 21, 2009
- City of Hollywood Future Land Use Map, September 2007
- City of Dania Beach, Land Use Map, 2010
- City of Fort Lauderdale Comprehensive Plan, Future Land Use Map, July 2006
- City of Wilton Manors, Comprehensive Plan, Future Land Use Map, July 2010
- City of Oakland Park Future Land Use Map, January 2010
- Broward County Future Land Use Plan, Broward County GIS, updated 2012

The character of the study area remains relatively unchanged due to the similar land use designations of the Future Land Use Maps from the cities of Hollywood, Dania Beach, Fort Lauderdale, Wilton Manors and Oakland Park. Therefore, the project improvements are not

anticipated to significantly affect the land use in the area. Also, the Recommended Alternative will not require additional R/W which will not result in impacts to land use.

The implementation of express lanes in each direction along I-95 from Stirling Road to north of Oakland Park Boulevard is identified within the Broward MPO Fiscal Year 2012/2013 to Fiscal Year 2016/2017 TIP and the STIP as two segments with the following limits: from Stirling Road to south of Broward Boulevard (FM #: 429804-2) and from south of Broward Boulevard to north of Oakland Park Boulevard (FM #: 429804-3). Both documents include the same project limits, description, and funding which has been approved for the design phase in the Fiscal Year 2013/2014 for $3,844,000. The project is also identified as 'cost feasible' in the Broward MPO 2035 LRTP as part of a larger project to implement four managed lanes on I-95 from I-595 to the Broward/Palm Beach County Line, as well as in the 2035 Southeast Florida Regional Transportation Plan. Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with $1,078.7 (Year of Expenditure Dollars in Millions). FDOT intends to fund construction as soon as possible. Currently some construction funds are scheduled in the approved FDOT second five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine the final construction funding plan. Although the project is not reflected on 'Map 3.2: Future Traffic Circulation and Significant Parking Facilities' of the adopted Broward County Comprehensive Plan, improvements to the HOV system on I-95 are supported by Transportation Element Policy 3.4.18. FDOT District Four will continue to coordinate with Broward County and the Broward MPO to ensure that the project is included in the adopted Comprehensive Plan, and that funding is identified for future project phases in the TIP, LRTP, STIP and FDOT SIS Cost Feasible Plan.

This project was reviewed by the appropriate agencies in the ETDM process, and assigned a summary degree of effect of Minimal for Land Use; the Florida Department of Community Affairs (FDCA) assigned the degree of effect as None and the FDOT District Four as Minimal. As the project supports the land use vision depicted through the Broward County Comprehensive Plan, effects on the area's character resulting from the improvements are anticipated to be minor. The FDOT will coordinate with the cities of Dania Beach, Fort Lauderdale and Oakland Park along with Broward County (for the unincorporated area associated with the project) to ensure that the project is included on the respective Future Transportation Maps of the adopted Comprehensive Plans, as well as the Broward MPO to ensure that funding is identified for future project phases in the TIP, LRTP, STIP and FDOT SIS Cost Feasible Plan.

4.1.2 Community Cohesion

The project was reviewed by the appropriate agencies through the ETDM process, and was assigned a summary degree of effect of Substantial for Social (see Section 4.1.6 Controversy Potential), with the major issue of concern identified as Environmental Justice. The FDOT is aware of the low income and minority populations living along the project corridor that have the potential to be impacted by this project. Extensive outreach has been conducted by FDOT in coordination with the Broward MPO and local municipalities to solicit input from the transportation disadvantaged, elderly, and low income populations to ensure transportation needs are addressed throughout the project.

As the project improvements are occurring on an existing interstate facility, the project will not create isolated areas, disrupt social relationships and patterns, or affect connectivity to community activity centers. Positive impacts are anticipated through improvements to local and regional transportation mode interfaces. Possible negative temporary impacts to adjacent communities may be direct (e.g., visual, noise) or indirect (e.g., induced traffic).

The Recommended Alternative is not anticipated to result in significant changes to community cohesion. Conversely, the proposed project is anticipated to enhance access and mobility to the surrounding commercial/industrial and residential areas along I-95 as well as facilitate access to Miami-Dade and Palm Beach Counties.

During the PD&E Study, an extensive Public Involvement Program (PIP) was conducted to coordinate with all Federal, State and local agencies as well as municipalities and other interest groups. The PIP is on file at FDOT District Four.

4.1.3 Relocation Potential

During the ETDM programming screen review, the FDOT District Four assigned a degree of effect of Minimal to the Relocation issue; no other ETAT agency comments were received. A concern at that time was the potential for R/W acquisition due to the need for stormwater management (drainage), although it was to be limited to absolute cases where the FDOT existing R/W was insufficient.

One of the objectives of the PD&E Study has been to minimize impacts to nearby residents (see Section 4.1.5 Nondiscrimination Considerations). No residential or commercial relocation impacts are proposed. A Conceptual Stage Relocation Plan (CSRP) was not prepared, after it was determined that no R/W acquisition would be required for the proposed stormwater management system (e.g., ponds). The project can be constructed within the existing limited access R/W, i.e., the Recommended Alternative is not anticipated to require R/W acquisition in order to accommodate the proposed improvements.

The proposed project, as presently conceived, will not displace any residences or businesses within the community. Should this change over the course of the project, the FDOT will carry out a Right of Way and relocation program in accordance with Florida Statute 339.09 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17). The brochures that describe in detail the department's relocation assistance program and Right of Way acquisition program are "Your Relocation: Residential," "Your Relocation: Business, Farms and Nonprofit Organizations," "Your Relocation: Signs" and "The Real Estate Acquisition Process." All of these brochures are distributed at all public hearings and made available upon request to any interested persons.

4.1.4 Community Services

Community services located within ¼ mile of the project study area include: International Game Fish Association, Rosenbaum Fine Art, Kappa Alpha PSI, Northwest Federated Woman's Club, Fort Lauderdale Fraternal Order of Eagles Aerie 3140, Big Brothers/Big Sisters, International Seakeepers Society, Lauderdale Small Boat Club, Inc., and the Sylvia L. Poitier & Theodora S. William Senior Center. Impacts to these community and cultural centers are not anticipated from the proposed improvements under the Recommended Alternative. In addition to

community and cultural centers, the community services are categorized by religious facilities, medical and emergency facilities, educational facilities, and government facilities, as described below.

Based on the proposed improvements, no adverse impacts to community facilities and services are anticipated. There will be temporary impacts in the form of noise, dust, emissions, and traffic disruptions during construction, but traffic will be maintained in the project area. As noted above in Section 4.1.2 Community Cohesion, many of the effects of the project are anticipated to be positive to the adjacent communities, through improvements to the I-95 corridor. These improvements will facilitate access to the current community services for the residents, commuters, and service providers.

4.1.4.1 Religious Facilities

There are 28 religious facilities located within ¼ mile of the project study area. These religious facilities are listed below:

- Multi-Flow Florida
- Abundant Life Christian Center
- Gospel Mission- South America
- Kingdom Hall of Jehova's Witness
- Church of Christ
- Youth for Christ Outreach
- Royal Assembly Church
- Peaceful Zion Missionary Baptist
- Rock of Ages Baptist Church
- New Covenant Praise & Worship
- Fort Lauderdale New Testament
- Church of God
- Sharing the Church of Jesus
- Rescue Mission Church
- Shivers Temple Church
- Agape Development Ministries
- National Church of God
- Mission Teens INC
- Tabernacle de L'Evangile
- Grace of Eternal Life Ministry
- Bethel Missionary Baptist Church
- Washington Park Church
- Conservatrice Baptist Church
- World Harvest Community
- National Church of God INC
- Central Fort Lauderdale Congregation
- Church of New Life Christian
- International Brotherhood of Christian Brotherhood

No impacts to any of these religious facilities are anticipated from the Recommended Alternative, due to their relative distances from the proposed improvements.

4.1.4.2 Medical and Emergency Facilities

The Choice Medical Center, located at 2832 Stirling Road in Hollywood is within ¼ mile of the project study area. There are no law enforcement or emergency facilities in the vicinity of the study area. This medical facility is not anticipated to be impacted, due its relative distance from the proposed improvements.

4.1.4.3 Educational Facilities

There are seven educational facilities identified within ¼ mile of the project study area. The first four institutions are primary and secondary schools while the remaining three are daycare centers. These educational facilities are listed below:

- Stranahan High School
- Broward Juvenile Detention Center
- Rock Island Elementary School
- Arthur Robert Ashe Jr Middle School
- Just For Kids Academy
- Dillard Park Child Care
- New Generation Learning Center

None of the educational facilities are expected to be impacted due to their relative distances from the proposed improvements.

4.1.4.4 Government Facilities

Four government facilities are located within ¼ mile of the project study area. These facilities are the Fort Lauderdale Housing Authority - Suncrest Court Branch and Sunnyreach Branch, Bryant Branch Library, and the Fort Lauderdale Building and Zoning Department. Impacts to these facilities are not anticipated.

4.1.5 Nondiscrimination Considerations

The existing demographics along the project area are a heterogeneous mix, largely composed of African-American, Caucasian-Americans and Hispanics. As a result, outreach efforts using Creole, Spanish and English media such as newsletters, newspaper advertisements and a project website were used as part of the PIP.

During the ETDM programming screen review, degrees of effect for the Social issue were assigned as Minimal by FDOT District Four, None by FDCA, Moderate by the US Environmental Protection Agency (EPA), and Substantial by FHWA. Therefore, the summary degree of effect assigned was Substantial. The major issue of concern, as identified by both EPA and FHWA, was Environmental Justice. The FDOT is aware of the substantial low income and minority populations living along the project corridor that have the potential to be impacted by this project. Extensive outreach has been conducted by FDOT in coordination with the Broward MPO and local municipalities to solicit input from the transportation disadvantaged, elderly, and low

income populations to ensure transportation needs are addressed throughout the project. In addition, a Sociocultural Effects (SCE) Evaluation was prepared as part of the PD&E Study and is on file at FDOT District Four.

On January 28, 2013 FDOT staff attended a meeting of the River Garden Sweeting Estates Homeowners Association (HOA) in the Franklin Park community to explain the FDOT noise process and to respond to the community's requests for noise abatement. The meeting was arranged by State Senator Smith and attended by his aide, Sharonda Wright-Placide. On March 13, 2012 FDOT staff and their noise representative met with the Shady Banks HOA President to measure noise levels in the neighborhood and explain the FDOT noise process. Also see Section 4.4.1 Noise for additional details regarding the noise analysis for the Franklin Park and Shady Bank communities.

This project has been developed in compliance with Title VI of the Civil Rights Act of 1964 and other federal and state nondiscrimination authorities. Neither FDOT nor this project will deny the benefits of, exclude from participation in, or subject to discrimination anyone on the basis of race, color, national origin, age, sex, religion, disability, or family status.

Also, the project has been developed in accordance with Executive Order 13166 - Improving Access to Services for Persons with Limited English Proficiency (LEP), which serves to ensure that people with limited English proficiency can meaningfully access programs and activities of agencies receiving federal financial assistance. The local population will benefit from the project by the improved access to and from I-95, as well as the local network of streets and interchanges, including Oakland Park Boulevard, Sunrise Boulevard, Broward Boulevard, Davie Boulevard, Marina Mile Boulevard, Griffin Road and Stirling Road.

4.1.6 Controversy Potential

As noted previously, a PIP was developed for this project to obtain comments and input from the public, government officials, and affected parties and agencies. The PIP includes a listing of the outreach activities that were performed during the PD&E Study. The major elements of the PIP consisted of the ETDM/AN process; coordination with local, county and other state agencies; a Public Kick-Off Meeting; Community Outreach Meetings (see Section 4.2.2); a Public Alternatives Workshop; and two Homeowners Association Meetings (see Section 4.1.5). The Public Hearing was held on April 11, 2013, and the official transcript is located in **Appendix A**. The Public Involvement Summary binder (which includes responses to oral and written comments received at the hearing and within the 10-day comment period) will be transmitted to FHWA along with the PER. The main concerns expressed during the various public involvement activities have been in regard to potential noise impacts (e.g., Shady Banks community) and potential involvement with the North Woodlawn Cemetery.

During the ETDM programming screen review, the FDOT District Four assigned a degree of effect of Minimal to Social issues, while the FDCA assigned a degree of effect of None, the EPA assigned a degree of effect of Moderate, and the FHWA assigned a degree of effect of Substantial. The proposed improvements for the Recommended Alternative are not anticipated to require additional R/W. Based on this, the PIP, and various environmental analyses, the project is considered to pose little controversy potential.

4.1.7 Scenic Highways

No attachment

4.1.8 Farmlands

Through the ETDM review process, the degree of effect assigned by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) was None. The NRCS considers soil map units important soil properties for agricultural uses to be Prime Farmland. In addition, the NRCS considers any soils used in the production of commodity crops (e.g., cotton, citrus, row crops, specialty crops, nuts) to possibly be considered as Unique Farmlands. An analysis of the EST Geographic Information System (GIS) layers confirmed the NRCS' ETAT comments that there are no Prime, Unique, or Locally Important Farmland soils located within the project area. Therefore, no impacts to farmlands will occur from this project.

4.2 CULTURAL

4.2.1 Section 4(f)

The FHWA assigned a degree of effect of Moderate to Section 4(f) Potential through the ETDM review process, and noted the presence of various potential Section 4(f) resources, including parks and National Register-eligible resources in the vicinity of the project. Four parks occur in proximity to the project corridor: Easterlin Park, owned by Broward County, and Osswald, Mills Pond, and Flamingo Parks, owned by the City of Fort Lauderdale.

Easterlin Park (formerly known as Cypress Park), the County's first inland regional park, is 46.6 acres in size and primarily functions as a campground. Other amenities include a nature trail, scenic lake, disc golf course, volleyball, playground, picnic shelter, and picnic tables/grills. This park is located to the west of I-95, at 1000 NW 38 Street (off Oakland Park Boulevard).

Osswald Park, a community park, is 30.9 acres in size. Various amenities and activities include a splashpad, recreation center, pavilions, playground, lighted athletic fields, tennis/racquetball courts, basketball courts, shuffleboard, volleyball, walking/jogging trail, golf, and a picnic area. This park is located to the west of I-95, at 2220 NW 21 Avenue (off Oakland Park Boulevard).

Mills Pond Park, an urban city park, is 152.5 acres in size. A number of amenities and activities are offered, including: lighted athletic fields (baseball/softball/football), batting cages, water skiing, an open play area, fishing, a recreation center, concessions, pavilions, picnic area/grills, and a playground. This park is located to the east of I-95, at 2201 NW 9 Avenue (off Oakland Park Boulevard).

Flamingo Park, a neighborhood park, is 3.0 acres in size. Within this small, passive park, only limited activities are available - an open play area, playground, and a picnic area. This park is located at 1600 SW 21 Way (off Davie Boulevard), to the west of and adjacent to southbound I-95.

The following is a description of the results of the noise analysis that was conducted for the Recommended Alternative, regarding potential impacts to each of these four parks:

Easterlin Park: This park is located to the west of I-95 and west of the SFRC. Design year traffic noise levels at the park are predicted to range from 65.7 to 66.2 dB(A), approximately 0.5 dB(A) greater than existing traffic noise levels. Only 20 of the 45 total campsites were predicted to be impacted by the project. Based on the noise analysis conducted for the Recommended Alternative, noise impacts will result from the project in this area. A 20 to 22 foot tall noise barrier was evaluated to mitigate these noise impacts. Cost reasonableness of this noise barrier was evaluated using campground usage data provided by the Broward County Parks and Recreation Division and the FDOT's methodology for determining cost reasonableness for special land use sites as described in the report *A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations* (Updated July 22, 2009). Although it was found that such a noise barrier would meet all of the FDOT's feasibility and noise level reduction requirements, it was determined that usage of the campground is well below a level sufficient to meet the cost criterion for construction of a noise barrier at this location. Therefore, a noise barrier was determined to be "not reasonable" and is not recommended. More specific information regarding the noise barrier evaluation for this campground may be found in the project's Noise Study Report (NSR).

Osswald Park: This park is located to the west of I-95 and west of the SFRC. It is bounded to the west by local roads. Any potential visual or noise impacts are existing, and no project improvements are proposed that would further impact this site. The golf course is located closest to I-95. Design year traffic noise levels at the golf course are predicted to range from 64.5 to 65.7 dB(A), approximately 1.3 dB(A) greater than existing traffic noise levels. Based on the noise analysis conducted for the Recommended Alternative, noise impacts will not result from the project in this area. Therefore, no direct or constructive use of this park under Section 4(f) is anticipated.

Mills Pond Park: This park is located to the east of I-95. Design year traffic noise levels at the park are predicted to range from 66.8 to 70.8 dB(A), approximately 1.3 dB(A) greater than existing traffic noise levels. Based on the noise analysis conducted for the Recommended Alternative, noise impacts will result from the project in this area. A 14 to 22 foot tall noise barrier was evaluated to mitigate these noise impacts. Cost reasonableness of this noise barrier was evaluated using park usage data provided by the Broward County Parks and Recreation Division and the FDOT's methodology for determining cost reasonableness for special land use sites as described in the report *A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations* (Updated July 22, 2009). Although it was found that such a noise barrier would meet all of the FDOT's feasibility and noise level reduction requirements, it was determined that usage of this property is well below a level sufficient to meet the cost criterion for construction of a noise barrier at this location. Therefore, a noise barrier was determined to be "not reasonable" and is not recommended. More specific information regarding the noise barrier evaluation for this park may be found in the project's NSR.

Flamingo Park: This park is adjacent to southbound I-95, separated only by a frontage road. It is bounded on nearly all sides by local roads or I-95. The parking area and access is at the local street level, i.e., below elevated I-95. Any potential visual or noise impacts are existing, and no project improvements are proposed that would further impact this site. The additional lane being added within this segment of I-95 is within the mainline structure, i.e., the edge of pavement of the adjacent southbound CD road will not be moved any closer to the park. No modifications are

proposed to the existing low-level noise barrier for the rail along the elevated shoulder of the southbound CD road. Design year traffic noise levels in this park are predicted to range from 60.3 to 60.8 dB(A), approximately 0.4 dB(A) greater than existing traffic noise levels. Based on the noise analysis conducted for the Recommended Alternative, noise impacts will not result from the project in this area. Therefore, no direct or constructive use of this park under Section 4(f) is anticipated.

For all four parks, there will be no R/W acquisition, and access will be maintained during construction. No other short term or long term impacts from the project would affect the activities or attributes of these parks.

No impacts are anticipated to any other public park or recreational land, wildlife and waterfowl refuge, or historic site. Note that Section 4(f) would apply to significant historic resources only if the Section 106 effects determination resulted in an adverse effect, which is not anticipated.

The potential applicability of Section 4(f) to the four parks was presented to FHWA on February 26, 2013, where the FDOT concluded that Section 4(f) would not be applicable to any of the four parks. The meeting minutes and powerpoint presentation, which constitute the Section 4(f) Determination of Applicability (DOA) for the PD&E Study, are located in **Appendix F**. The FHWA's concurrence of no project involvement with Easterlin, Osswald, Mills Pond, and Flamingo Parks was provided on May 6, 2013 (**Appendix F**).

4.2.2 Historic Sites/Districts

Note that when this project was reviewed through the ETDM Programming Screen, the issue was titled Historic and Archaeological Sites. Historic resources are discussed in this section, and archaeological sites in the following section.

Through the ETDM review process, the Florida Department of State (FDOS) assigned the degree of effect as Moderate, and noted that a number of historic bridges, standing structures, resource groups (railroad, canals, roadway), and a cemetery were in proximity to the project. The FDOS noted that the project area had not been subjected to a CRAS, and stated that it was unlikely most of the significant historic structures would be affected by the project, due to either the project scope or location relative to the resources. The FHWA did not provide comments related to historic resources.

In accordance with the procedures contained in 36 CFR Part 800, a CRAS, including background research and a field survey coordinated with the State Historic Preservation Officer (SHPO), was performed for the project, and is on file at the FDOT District Four PL&EM Office. As a result of the assessment, five historic resources (four previously recorded and one newly recorded) within the Area of Potential Effect (APE) were identified. Of these historic resources, two are considered eligible for listing in the National Register of Historic Places (National Register): the *Seaboard Air Line/CSX Railroad (8BD4649)*, and the newly recorded *North Woodlawn Cemetery (8BD4879)*. Both the *Dania Canal (8BD3221)* and the *Middle River Canal (8BD3225)* are ineligible for the National Register, and there is insufficient information to make a proper determination of eligibility for *Griffin Road (8BD4432)*.

The Seaboard Air Line/CSX Railroad is located adjacent to the western project R/W along much of the project's length. Only approximately 1.45 miles of the tracks are included within the APE, as the railroad enters and exits the APE at several locations within the project limits. The section of railroad between Davie Boulevard and SR 84 was previously determined (2010) to be National Register–eligible by the SHPO, due to its contributions to the patterns of development and transportation in Florida. The segment within the project APE, constructed circa 1927, maintains its original route and historic integrity. It also would be considered a contributing segment to a linear historic district, should this railroad ever be evaluated comprehensively.

The North Woodlawn Cemetery is located adjacent to the eastern side of I-95, south of Sunrise Boulevard. The extant portion of the cemetery is 4.1 acres in size; however, no definitive records indicating the original boundaries are available. This cemetery is considered eligible for listing in the National Register for significance on the local level under Criterion A in the area of ethnic heritage and under Criterion D for its association with historic events. It was established during the 1920s when the African-American community was restricted to the northwest quadrant of Fort Lauderdale, and thus was the only cemetery African-Americans, including many important leaders in the early settlement of the City, could be buried in until 1962. North Woodlawn Cemetery represents a rare, remaining resource associated with Fort Lauderdale's African-American community during the period of segregation. A Determination of Eligibility (DOE) was prepared for this resource and included in the CRAS.

For the Dania Canal, Middle River Canal, and Griffin Road, only the small portions of each of these linear historic resources located within the project APE near their intersection with I-95 were surveyed. All were constructed beginning in circa 1913. The portions of the two canals within the APE do not have any distinguishing engineering features, and both canals were previously determined ineligible for listing in the National Register by the SHPO. Although Griffin Road represents an early twentieth century road in South Florida, there are no remaining features indicating that the road is historic within the project APE. Also, the SHPO concurred in 2008 that due to the short length of another segment of Griffin Road surveyed four miles to the west, there was insufficient information to make a determination of eligibility. Because the project APE includes an even smaller section of roadway, there remains insufficient information with which to make an accurate determination of eligibility for this section of roadway as well.

In addition to the CRAS, a historic resources reconnaissance survey was performed to provide preliminary cultural resource information for areas outside the established APE, adjacent to the I-95 R/W. This survey resulted in the identification of four previously recorded historic resources: *Link Trainer Building (8BD2562)*, National Register–listed; *Seaboard Air Line Railroad Station (8BD1452)*, National Register–eligible; *CSXT Railroad Bridge (8BD3340)*, National Register–eligible; and *Dania Canal Railroad Bridge (8BD3220)*, ineligible for the National Register. Regarding the Seaboard Air Line Railroad Station, a portion of the non-historic platform and associated structures are located within the R/W; however, the historic station itself is outside of the R/W. Although the Dania Canal Railroad Bridge was determined ineligible for the National Register by the SHPO in 1999, this resource should be reevaluated, as it is likely a contributing resource to a potential Seaboard Air Line/CSX Railroad linear historic district.

During the CRAS, coordination with the Broward County Historic Preservation Coordinator and other local informants (e.g., Fort Lauderdale Historical Society) occurred regarding information on the historic resources located within the project APE, in particular the North Woodlawn Cemetery. In an effort to fulfill Section 106 requirements, two Community Outreach Meetings were held. The first meeting was held at the African-American Research Library and Cultural Center in Fort Lauderdale on October 17, 2012. Representatives from FHWA, the Florida SHPO, and the FDOT were in attendance as well as many local community members. Local informants provided important information concerning the history of North Woodlawn Cemetery and its historically associated potter's field. They also expressed their strong desire that the extant portion of the Cemetery not be disturbed. Their comments have been incorporated into the North Woodlawn Cemetery DOE. A second meeting was held on February 4, 2013, where the conceptual design was presented. To avoid impacting the cemetery, variations and exceptions to design standards will be requested to be able to match the existing edge of pavement of both the northbound and southbound travel lanes. Only minor widening is required in the median. Those in attendance were very supportive of FDOT's conceptual design. In addition, the FDOT has made several commitments regarding construction-related activities in proximity to the cemetery, including avoidance of relocation or construction of underground utilities within the R/W, as well as staging adjacent to the cemetery.

The CRAS was submitted to the FHWA on January 29, 2013, who subsequently (March 6, 2013) requested that the FDOT provide additional information regarding archaeological testing and site potential. On March 22, 2013 the FHWA approved and transmitted the CRAS to SHPO, who then provided CRAS eligibility concurrence on March 27, 2013. In addition, a copy of the CRAS was provided to the Seminole Tribe of Florida on August 15, 2013 as requested during the ETDM Programming Screen (**Appendix B**).

The request for Section 106 Determination of Effects for the Woodlawn Cemetery was submitted to the FHWA on May 9, 2013 for transmittal to the SHPO. The FHWA and the SHPO provided concurrences on June 17 and 24, 2013, respectively, that the Recommended Alternative will have no adverse effect on the National-Register eligible North Woodlawn Cemetery (**Appendix B**). A second Section 106 Determination of Effects for the Seaboard Airlines/CSX Railroad was submitted to FHWA on August 7, 2013 for transmittal to the SHPO. The FHWA and the SHPO provided concurrence on August 22 and 28, 2013, respectively, that the Recommended Alternative will have no adverse effect on the National-Register eligible Seaboard Airlines/CSX Railroad (**Appendix B**).

Through the application of the Criteria of Adverse Effect, the FHWA in consultation with the SHPO determined that the project did not constitute an adverse effect on any of the properties (**Appendix B**). Based on the fact that no additional archaeological or historical sites or properties are expected to be encountered during subsequent project development, the FHWA has determined that no other National Register properties would be impacted.

4.2.3 Archeological Sites

As noted in Section 4.2.2 Historic Sites/Districts, when this project was reviewed through the ETDM Programming Screen, the ETAT issue was titled Historic and Archaeological Sites. The Seminole Tribe of Florida (STOF) assigned a degree of effect as Minimal, and requested to

review the CRAS before commenting on possible effects to archaeological sites in the project area. The FDOS ETAT reviewer assigned the degree of effect as Moderate, and noted that a number of recorded archaeological sites were located within one mile of the project corridor (two within 500 feet), only one of which had been evaluated by the SHPO for significance. However, the reviewer stated that it was unlikely these sites would be affected, due to their distance from the project. The FHWA did not provide comments related to archaeological sites.

Background research indicated that one previously recorded archaeological site was located within 250 feet of the archaeological APE, and 22 previously recorded archaeological sites within one mile of the archaeological APE. In addition, the project corridor intersects with four archaeological zones, locally designated by Broward County: Stirling Road, Ravenswood, New River South Fork, and North Bank New River.

Coordination with the Broward County Archaeologist occurred regarding archaeological concerns within the APE. In addition to the four documented archaeological zones, two other areas of concern were identified: the I-95/Broward Boulevard interchange, and an Indian Camp area on the north bank of the South Fork of the New River.

Subsurface testing could not be conducted within three of the (four) archaeological zones, due to the presence of paved roads, buried utilities, and road berm; and only limited testing was possible within the Ravenswood archaeological zone. Shovel tests also could not be excavated in the vicinity of the Broward Boulevard interchange because of the presence of buried utilities, road berms, ditches, wetlands, and landscaping. Shovel tests on the northbound side of a moderate probability area south of NW 19th Street were negative.

Minimal testing was conducted within the R/W adjacent to/west of North Woodlawn Cemetery, in the area within the reported extent of the original cemetery. All tests were negative, and no evidence of human remains was found during the testing. The potter's field lies under the northbound lanes of I-95 and the R/W adjacent to the extent cemetery, thus there is a possibility that there are unmarked graves within the R/W.

As a result of the CRAS, no newly recorded archaeological sites were identified within the APE. In addition, all previously recorded archaeological sites are located outside of the APE. Therefore, no impacts to archaeological resources are anticipated as a result of the project. Coordination (by FHWA) with the STOF Tribal Historic Preservation Officer (THPO) will occur to notify them of the results of the CRAS.

If discovery of archaeological remains occurs during construction, all activity in the immediate area of the remains must cease while a professional archaeologist evaluates the remains. In the event that human remains are found during construction or maintenance activities, the provisions of Chapter 872.05 of the Florida Statutes will apply. 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, and the State Archaeologist has jurisdiction if the remains are more than 75 years of age.

The CRAS was submitted to the FHWA on January 29, 2013, and on March 6, 2013, the FHWA requested that the FDOT provide additional information regarding archaeological testing and site potential. On March 22, 2013 the FHWA approved and transmitted the CRAS to SHPO, who then provided eligibility concurrence on March 27, 2013 (**Appendix B**).

Through the application of the Criteria of Adverse Effect, the FHWA in consultation with the SHPO determined that the project did not constitute an adverse effect on any of the properties (**Appendix B**). Based on the fact that no additional archaeological or historical sites or properties are expected to be encountered during subsequent project development, the FHWA has determined that no other National Register properties would be impacted.

4.2.4 Recreation Areas

Through the ETDM process, the degree of effect assigned to Recreation Areas by both the National Park Service (NPS) and EPA was None. Neither the FDEP nor the FHWA provided comments on this issue. No existing recreational trails occur in the project area; the EST GIS indicated that FDEP has designations for one proposed multi-use trail (medium priority) and two paddling trails (low priorities) in relative proximity to the corridor. However, there would be no impacts from the project to these future trails.

As detailed in Section 4.2.1 Section 4(f), four parks are located along the project corridor: Easterlin Park, owned by Broward County, and Osswald, Mills Pond, and Flamingo Parks, owned by the City of Fort Lauderdale. Potential noise impacts to the various recreational activities that take place within these parks are described in Section 4.2.1 and in Section 4.4.1 Noise. No other public conservation lands or recreational areas are located in the vicinity of the project.

4.3 NATURAL

4.3.1 Wetlands

During the ETDM Programming Screen, comments regarding Wetlands were provided by the EPA, USACE, National Oceanic and Atmospheric Administration (NOAA) NMFS, USFWS, and SFWMD; the FDEP did not comment. The degree of effect assigned by the five ETAT agencies was either Minimal (SFWMD, USFWS) or Moderate (USACE, EPA, NMFS). All agencies noted the presence of varying acreages of wetlands, both palustrine and estuarine. The SFWMD noted that an ERP would be required for the project which must address surface water management as well as any work in wetlands and/or other surface waters. All of these agencies stated that measures must be taken to avoid or minimize impacts to these wetlands, and that unavoidable impacts must be fully mitigated. The NMFS provided information regarding EFH which they also provided under the Coastal and Marine ETDM issue (see Section 4.3.10).

A Wetland Evaluation Report (WER) was prepared and is on file at the FDOT District Four PL&EM Office. The stormwater swales located within and adjacent to the R/W are components of the highway drainage system, i.e., are constructed (man-made) features. Some swales have greater than 50% aerial coverage of obligate and facultative wet vegetation, and others have less than 50% coverage; the latter were classified as Other Surface Waters (OSWs) that also included retention ponds and the four tidal canals that cross underneath I-95. The total

acreages of each that were identified within the project limits were determined to be 21.60 and 55.93 acres, respectively.

As detailed in the WER, for the Recommended Alternative, the estimated total amount of impacts to stormwater swales supporting hydrophytic vegetation is 2.17 acres and to OSWs is 2.32 acres (the latter includes 0.11 acres of impacts to fringe mangroves adjacent to the canal bridges). These amounts were broken down as: direct impacts of 1.60 acres to stormwater swales with hydrophytic vegetation and 1.51 acres to OSWs; indirect effects of 0.57 acres and 0.81 acres, respectively. No cumulative effects are anticipated. Final acreages will be determined during the environmental permitting process.

Avoidance and minimization efforts include: elimination of work over the South Fork of the New River; constraining the typical section throughout the I-95/I-595 Interchange where the majority of wetland swales are located; and other minor construction modifications to swales/retention ponds. Where possible, impacted wet swales will be replaced with similar swales. As detailed in the WER, compensatory mitigation options include: purchase of mitigation bank credits (e.g., Everglades or Loxahatchee Mitigation Banks); FDOT's off-site mitigation area located within West Lake Park; and/or restoration within FDOT R/W (surplus lands). The project will not result in a significant adverse impact to wetlands or OSWs within or adjacent to the corridor.

The project was presented at the September 20, 2012 FDOT/SFWMD Interagency Coordination Meeting, where the USACE was in attendance. Subsequent field reviews and coordination with the SFWMD (November 13, 2012) and USACE (January 17 & 23, 2013) occurred (minutes of all meetings are included in the WER appendix). The SFWMD indicated that mitigation would not be required for impacts to stormwater swales and ponds, because they are considered OFWs and part of the surface water management system. The USACE stated that mitigation is dependent upon the functional loss incurred, and concurred that the swales have low function, and due to the project's location, compensatory mitigation, if required, would be minimal. Final mitigation requirements will be determined during final design through the environmental permitting process. Anticipated permits to be required, based in part on these coordination meetings, are listed in section 6.E. Permits Required.

The FDOT is committed to coordinate with the appropriate regulatory agencies as required throughout the design and permitting phases of the project, as well as during and after construction. Any indirect (secondary) effects to wetlands located within and outside the project limits, including turbidity from construction activities, sedimentation resulting from erosion associated with soil disturbance, use of heavy equipment, and staging or stockpiling of materials and equipment, will be minimized. The FDOT will comply with the current NPDES criteria, including preparation of a SWPPP. Also, BMPs typically associated with road and bridge construction projects will be implemented and maintained throughout all construction activities.

Executive Order 11990 requires the evaluation and documentation of wetland impacts associated with Type II Categorical Exclusion projects. *Wetland impacts which will result from the construction of this project will be mitigated pursuant to S. 373.4137 F.S. to satisfy all mitigation requirements of Part IV. Chapter 373, F.S. and 33 U.S.C.s. 1344.*

4.3.2 Aquatic Preserves

No attachment

4.3.3 Water Quality

During the ETDM Programming Screen, comments were provided by the EPA and SFWMD under the Water Quality and Quantity issue, with degrees of effects as Minimal and Moderate, respectively. No comments were provided by the FDEP. Under the related Special Designations issue, no comments were provided by FHWA, and the EPA assigned a degree of effect as None, but did not include comments (e.g., Biscayne Sole Source Aquifer). The SFWMD stated that an ERP would be required, and that the stormwater system design should provide for water quality treatment for existing as well as proposed pavement. They specified that the design discharge for the 25-year, 3-day design event be based on post development rates not exceeding existing conditions, and that any offsite flows from areas outside the R/W be accommodated in the post development condition. The EPA identified the various canals occurring in the project area, and noted the need for stormwater management and treatment to minimize impacts to these surface water bodies.

The preliminary drainage analysis, which documents the existing drainage conditions, the proposed drainage concepts, and the location analysis and recommendations are included in the Stormwater Management Report on file at FDOT District Four. The project corridor lies within four SFWMD regional basins (C-10, Coral Reef, C-12 and C-13 East). A review of GIS data sets from the FDEP indicates that each segment of the study corridor falls within a watershed identified as impaired. As such, the water quality calculations for this project will include a nutrient loading analysis to comply with FDOT District Four Environmental Permitting Guidelines. In general, stormwater runoff is conveyed through storm drains and swales towards one of the several major canals which cross the study corridor. The existing stormwater management systems consist mostly of dry-detention swales in the southern end of the project and retention areas within the interchanges, while the northern end is mostly free discharge. Based on geotechnical explorations conducted, the Seasonal High Ground Water Table is estimated to be less than 1 ft below the existing swale bottom in the southern end of the project.

As outlined in the Stormwater Management Report, the approach to meeting water quality requirements is to provide treatment for the increase in impervious area and restore or replace existing permitted treatment facilities impacted by this project. An emphasis was placed on providing treatment for the increase in impervious area rather than providing treatment for the entire project area since the project is geometrically constrained due to the linear nature of the facility and heavily urbanized areas surrounding the study area. This approach will be followed for the increase in impervious area as it relates to the total project area and not dependent on whether the increase in impervious area is due to roadway widening or total road reconstruction (as per the SFWMD interagency monthly meeting held on September 20th 2012). Given the preliminary nature of this study, the post development peak discharge has been attenuated to not exceed predevelopment levels in order to avoid impacting adjacent land uses. Based on preliminary calculations, the treatment/storage quantity provided for each receiving water body exceeds the required amount. Following this approach, R/W acquisition is not needed to meet current permitting requirements.

A Water Quality Impact Evaluation (WQIE) Checklist was performed for the project, in accordance with Part 2, Chapter 20 of the FDOT PD&E Manual, and is on file at the FDOT District Four PL&EM Office. *The proposed stormwater facility design will include, at a minimum, the water quantity requirements for water quality impacts as required by the SFWMD in Chapter 62-302 of the Florida Administrative Code.* Therefore, it is anticipated that water quality within the project area will remain the same or improve slightly due to the proposed stormwater treatment measures. In addition, all necessary permits will be obtained in accordance with federal, state, and local laws and regulations. Also, as noted in Section 4.4.4 Contamination, a Phase II Contamination Assessment is recommended to further quantify impacts to the project due to potential contamination.

The Biscayne Aquifer underlies all of Broward County, thus the project lies inside its designated boundaries. This aquifer is a designated Sole Source Aquifer, i.e., it is the sole or principal drinking water source for a populated area.

On March 15, 2013, the FDOT requested that the EPA review the project's effects on the Sole Source Aquifer. The EPA's concurrence that the project was not expected to cause significant impacts to the aquifer system, as long as proper protection measures were followed, was provided on April 29, 2013 (**Appendix B**). In this letter, the EPA provided recommendations (e.g., BMPs) and requested that coordination occur during design and construction (e.g., stormwater design, Wellhead Protection Plans) with appropriate and State and County officials. The issues identified in the EPA letter were verified as addressed in the PD&E Study's Stormwater Management Report. Again, this report details the project approach for meeting water quality requirements, including nutrient loading calculations, in order to comply with SFWMD and FDEP requirements. Also, there are no wellfields located within the project limits.

Water quality impacts resulting from erosion and sedimentation during construction activities will be controlled in accordance with FDEP's NPDES Permit (including the preparation of a SWPPP), the latest edition of the FDOT *Standard Specifications for Road and Bridge Construction,* and through the use of BMPs including temporary erosion control features. Turbidity will be appropriately addressed through established permit conditions and appropriate BMPs to control erosion and sedimentation during construction. As per State water quality standards, no degradation of water quality, increased turbidity of the waters, and/or the discharge of any foreign material into the water is permitted. Turbidity is not allowed to exceed 29 Nephelometric Turbidity Units (NTUs) above background beyond the turbidity controls. The FDOT will continue to coordinate water quality and quantity impacts and stormwater management with the appropriate regulatory agencies as required throughout the design and permitting phases of the project, as well as during and after construction.

4.3.4 Outstanding Florida Waters

No attachment

4.3.5 Wild and Scenic Rivers

No attachment

4.3.6 Floodplains

During the ETDM review process, the degree of effect assigned by the EPA to Floodplains was Minimal. The EPA stated that additional floodplain impacts would be minimal due to the existing facility and project scope. No review comments were provided by FDEP or FHWA.

During the PD&E Study, potential floodplain impacts were assessed and a Location Hydraulics Memorandum was prepared and is on file at FDOT District Four. As part of this assessment, potential 100-year (base) floodplain encroachments resulting from the proposed roadway improvements were addressed. In accordance with Executive Order 11988 "Floodplain Management", USDOT Order 5650.2, "Floodplain Management and Protection", and Federal-Aid Policy Guide 23 CFR 650A, floodplains must be protected. The intent of these regulations is to avoid or minimize highway encroachments within the base floodplains, and to avoid supporting land use development incompatible with floodplain values.

The Federal Emergency Management Agency (FEMA) website was reviewed to find the latest (1997) Flood Insurance Rate Maps (FIRM) for the project area in Broward County. Most of the project corridor is located within Special Flood Hazard Zone AE (areas within the 100-year floodplain for which base elevations have been determined) with an average floodplain elevation of 7 ft; an exception is the approximately one mile portion from Sunrise Boulevard north which is in Zone X (outside the 500-year floodplain). Base flood elevations within Zone AE are estimated to range from 4.4 to 5.4 ft North American Vertical Datum (NAVD) (6.0 ft to 7.0 ft National Geodetic Vertical Datum [NGVD]), and the proposed roadway improvements are estimated to be no lower than elevation 5.5 ft NAVD (7.1 ft NGVD). As such, the facility is anticipated to remain open to traffic during a 100-year or base flood event.

At the local level, the project does not have defined floodplains established by the SFWMD. Due to the magnitude of the contributing basins and flat topography, the floodplain encroachment produced by the widening of I-95 is considered negligible since the work will be done within the R/W. In addition, the SFWMD and FDOT design criteria for a conveyance system (e.g., culverts) allows no significant increase in flood stages. (Also see Section 4.3.3 Water Quality).

In accordance with the FDOT PD&E Manual, Part 1, Chapter 24, the following floodplain statement, a slightly modified version of statement 5, "Projects on existing alignment involving replacement of drainage structures in heavily urbanized floodplains," tailored for this project, would apply:

"Replacements of drainage structures for this project are limited to hydraulically equivalent structures. The limitations to the hydraulic equivalency being proposed are basically due to restrictions imposed by the geometrics of design, existing development, cost feasibility, or practicability. An alternative encroachment location is not considered in this category since it defeats the project purpose or is economically unfeasible. Since flooding conditions in the project area are inherent in the topography or are a result of other outside contributing sources, and there is no practical alternative to totally eradicate flood impacts or even reduce them in any significant amount, existing flooding will continue, but not be increased. The proposed structures will be hydraulically equivalent to or greater than the existing structure, and backwater surface elevations are not expected to increase. As a result, the project will not affect

existing flood heights or floodplain limits. This project will not result in any new or increased adverse environmental impacts. There will be no significant change in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that the floodplain encroachment is not significant."

There is no change in flood "risk" nor adverse floodplain impacts associated with this project. In addition, there are no designated regulated floodways within Broward County, thus there is no involvement with regulatory floodways.

4.3.7 Coastal Zone Consistency

The FDEP is responsible for the coordination of the review of federal activities for consistency with the Coastal Zone Management Act and its implementing regulations, 15 CFR 930. Based on comments provided by various Florida Coastal Management Plan (FCMP) agencies, FDEP makes a determination (on behalf of the State of Florida) regarding the consistency of a proposed federal action with the policies in the FCMP. On August 17, 2011, during the ETDM Programming Screen review, this project was determined to be consistent with the Coastal Zone Management Program. Therefore (as per the FDOT PD&E Manual, Part 2, Chapter 25), the State of Florida has determined that this project is consistent with the Florida Coastal Zone Management Plan.

Note that a separate Coastal Zone Consistency determination will be provided during the final design phase, in which the permitting process (e.g., issuance of SFWMD ERP) serves as the State's consistency decision.

4.3.8 Coastal Barrier Resources

No attachment

4.3.9 Wildlife and Habitat

The USFWS and the FWC both assigned a degree of effect of Minimal to this issue in the ETDM Programming Screen. The USFWS reviewer stated that the project was not located in the CFA of any known active nesting colonies of the endangered wood stork. (Note: A review of the EST GIS analysis revealed that the project area is located within the CFA of one wood stork colony and within the USFWS consultation area for the Everglade snail kite.) The USFWS further stated that due to the highly urbanized nature of the project area, it was unlikely the project would result in adverse effects to the wood stork or any other Federally-listed species. The FWC reviewer noted that although most of the native habitat in the project area had been lost to urban development, various State or Federally listed species could occur in the project area. The FWC stated that minimal impacts to fish or wildlife resources were anticipated to result from the project, with the exception of the manatee; protection measures during any in water work were recommended.

An Endangered Species Biological Assessment (ESBA) was prepared for the project in accordance with Section 7(c) of the Endangered Species Act of 1973, as amended, as well as the FDOT PD&E Manual, Part 2, Chapter 27, and is on file at the FDOT District Four PL&EM Office. Identified in the ESBA are the Federally and/or State listed species that could potentially occur in

the project area, consisting of 13 species designated as Federally Endangered (E) or Threatened (T), one Federal candidate species (C), and 12 species designated as State Threatened (ST) or Species of Special Concern (SSC).

The Federally listed species under the purview of the USFWS are: West Indian manatee (*Trichechus manatus*) (E); wood stork (*Mycteria americana*) (E); Everglade snail kite (*Rostrhamus sociabilis plumbeus*) (E); Eastern indigo snake (*Drymarchon corais couperi*) (T); American alligator (*Alligator mississippiensis*) (T due to similarity of appearance); gopher tortoise (*Gopherus polyphemus*) (C); Okeechobee gourd (*Cucurbita okeechobeensis*) (E); beach jacquemontia (*Jacquemontia reclinata*) (E); and tiny polygala (*Polygala smallii*) (E). The Federally listed species under the purview of the NMFS are: hawksbill sea turtle (*Eretmochelys imbricata*) (E); leatherback sea turtle (*Dermochelys coriacea*) (E); green sea turtle (*Chelonia mydas*) (E); loggerhead sea turtle (*Caretta caretta*) (T); and smalltooth sawfish (*Pristis pectinata*) (E).

The State-listed species under the purview of FWC are: gopher tortoise (*Gopherus polyphemus*) (ST); least tern (*Sterna antillarum*), brown pelican (*Pelecanus occidentalis*), little blue heron (*Egretta caerulea*), tricolored heron (*Egretta tricolor*), snowy egret (*Egretta thula*), reddish egret (*Egretta rufescens*), roseate spoonbill (*Platalea ajaja*), white ibis (*Eudocimus albus*), black skimmer (*Rynchops niger*), American oystercatcher (*Haematopus palliatus*), and burrowing owl (*Athene cunicularia*); these avian species are all designated as SSC, except for the least tern (ST).

Field investigations were conducted in August and October 2012, and no evidence of the occurrence of any of these species was found, as limited or no suitable upland/wetland habitats for any of these species occurs in the highly urbanized and disturbed project area. Potential temporary involvement with manatee habitat resulting from the Recommended Alternative may result from bridge widening and/or installation of piers within the North Fork of the New River and Dania Cut-Off Canal.

As stated in Section 4.3.1 Wetlands, the Recommended Alternative will impact an estimated 2.17 acres of stormwater swales with hydrophytic vegetation, and 2.32 acres of other surface waters. The stormwater swales with hydrophytic vegetation in the project area may provide Suitable Foraging Habitat (SFH) for wood storks, although their location within or adjacent to I-95 and/or the CSX railroad decreases their suitability. The retention ponds and tidal canals, including mangroves, were not considered SFH.

A USFWS Wood Stork Biomass Analysis was performed to assess the potential biomass associated with the PD&E project. Approximately 13.14 kg of biomass is available, including 5.02 kg of this total within the R/W. The Recommended Alternative impacts approximately 1.68 kg of biomass. Further coordination with USFWS is needed to determine if wood stork nesting colonies are active in the project area and if SFH impacts apply. If biomass mitigation is required, a USFWS-approved mitigation bank (e.g., Everglades or Loxahatchee Mitigation Bank) may be used for wood stork mitigation. Wood stork and wetland mitigation credits do not need to be purchased separately at Everglades Mitigation Bank. Based on the results of the biomass analysis, and existing mitigation bank credits, less than two credits would be needed to mitigate

the estimated 1.68 kg of biomass lost as a result of the project. Where possible, impacted wet swales will be replaced with similar swales. The final mitigation acreage, if applicable, will be determined during the environmental permitting process. Thus, no net loss of wood stork SFH is anticipated as a result of the project.

Based upon the results of the ESBA, the FDOT and FHWA have made the following determinations on Federally-listed species for all project alternatives: *may affect, not likely to adversely affect* for the West Indian manatee, wood stork, Eastern indigo snake, and gopher tortoise; *no effect* for the Everglade snail kite, American alligator, four species of sea turtles, smalltooth sawfish, and three species of plants. Note that the USFWS Wood Stork Effect Determination Key and Eastern Indigo Snake Programmatic Effect Determination Key were also reviewed as part of the Section 7 effects determinations for those two species. In addition (although not required), similar determinations of effect for State-listed species were made, consisting of *may affect, not likely to adversely affect* for all species, except *no effect* for the least tern and brown pelican.

The FDOT will ensure that protection measures including the FWC *Standard Manatee Conditions for In-Water Work,* USFWS *Standard Protection Measures for the Eastern Indigo Snake,* and NMFS *Sea Turtle and Smalltooth Sawfish Construction Conditions* are implemented during construction. If R/W is acquired for offsite ponds or other drainage features, the FDOT will perform protected species and wetlands reviews of those locations during final design.

Based on coordination with NMFS, the ESBA was not submitted for their concurrence, since the project was determined to have *no effect* on the species under the purview of NMFS (four species of sea turtles and smalltooth sawfish).

The ESBA was submitted to the USFWS on May 8, 2013 for concurrence that the project will not adversely affect Federally-listed species under their purview. On May 14, 2013, the USFWS provided concurrence with the determinations of *may affect, not likely to adversely affect* for the West Indian manatee, Eastern indigo snake, and wood stork. The USFWS also stated that their letter fulfills the requirements of Section 7 of the ESA and further consultation is not required unless the project was modified or new information on listed species becomes available (**Appendix B**).

4.3.10 Essential Fish Habitat

Under the Coastal and Marine ETDM issue, the NOAA NMFS assigned a degree of effect of Moderate, and provided the results of a field review conducted on July 28, 2011. Concerns were expressed by the NMFS reviewer regarding potential project impacts to EFH, specifically mangrove fringe and palustrine wetlands located along the canals and water bodies that intersect I-95; as well as effects of water quality degradation from stormwater runoff on NOAA trust fishery resources in receiving waters. The NMFS stated that the project would require an EFH assessment; requested sequential avoidance, minimization and mitigation measures; and requested that further consultation by FDOT with NMFS occur.

In accordance with the 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), pertinent NMFS guidelines, and the FDOT PD&E Manual, Part 2,

Chapter 11, an EFH Assessment Report was prepared and is on file at the FDOT District Four PL&EM Office. The objective of this assessment was to describe how the proposed actions may affect EFH designated by the NMFS' South Atlantic Fishery Management Council (SAFMC). EFH is defined by Congress as "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity". A subset of EFH is Habitat Areas of Particular Concern (HAPC), such as mangroves, which merit special considerations based on the ecological value of the habitat to managed fish populations.

As a result of the EFH assessment field review on August 22, 2012, EFH habitats identified within the project area were found to be estuarine scrub/shrub mangroves (*Rhizophora mangle, Avicennia germinans,* and *Laguncularia racemosa*), sand/mud bottom, and palustrine emergent (tidal freshwater) systems. No rooted marine seagrass was identified. Based on the EFH habitats identified, as well as EFH guidelines (Fishery Management Plans and Managed Species for the South Atlantic Region), the Shrimp Fishery and Snapper Grouper Complex Fishery Management Units were determined to be located within the project area. These units include: brown shrimp (*Farfantepenaeus aztecus),* pink shrimp (*Farfantepenaeus duorarum)*, white shrimp (*Litopenaeus setiferus)*, gray snapper (*Lutjanus griseus)*, mutton snapper (*Lutjanus analis)*, lane snapper (*Lutjanus synagris)*, goliath grouper (*Epinephelus itajara)*, and white grunt (*Haemulon plumieri)*; all of which could potentially occur within the project limits. This information was verified with the NMFS on August 28, 2012.

Widening of the I-95 bridges over the Dania Cut-Off Canal, North Fork of the New River, and Middle River/C-13 East Canal is proposed. Although EFH resources occur within the area of construction, the potential impacts to fisheries will be negligible. The Recommended Alternative is estimated to result in direct impacts to 0.31 acres of EFH which include: 0.11 acres of mangrove, 0.19 acres of sand/mud bottom, and less than 0.01 acres of tidal freshwater/SAV (e.g., freshwater tape grass [*Vallisneria* sp.]) habitats. Mangrove impacts will involve the direct removal of the resource to accommodate the construction of Mechanically Stabilized Earth (MSE) walls. The sand/mud bottom impacts will involve both shading from the proposed bridge and pile caps as well as the placement of piles within the resource, and the SAV impacts will result from shading.

As stated in Section 4.3.1 Wetlands, the FDOT will utilize BMP's to minimize any temporary impacts that may occur during construction, and comply with current NPDES criteria, including preparation of a SWPPP to prevent stormwater runoff from entering wetlands or surface waters. Other EFH avoidance and minimization efforts include no construction work over the South Fork of the New River, and the use of MSE walls rather than 2:1 side slopes that would further encroach into EFH habitat, particularly mangrove habitat. It is expected that fishery resources (e.g., shrimp, fish described above) will avoid construction areas, resulting in only a temporary displacement of individuals. No indirect or cumulative effects are anticipated.

As detailed in the WER and EFH Assessment Report, compensatory mitigation options that could offset the small amount of impact to EFH include: purchase of mitigation bank credits, FDOT's off-site mitigation area located within West Lake Park, and/or restoration within FDOT R/W (surplus lands).

Mitigation for impacts to sand/mud bottom is typically not required. Based on input from NMFS, the small amount of impacts to freshwater SAV could be offset by the removal of exotic vegetation in the area of impact, or demonstrating an overall increase in water quality associated with the project's drainage improvements. The FDOT will continue to coordinate with the NMFS, SFWMD and USACE on the type and amount of mitigation required for this project during final design through the environmental permitting process.

The EFH Assessment Report was submitted to the NMFS on May 13, 2013, requesting that the NMFS provide concurrence that the project would not have a substantial adverse impact on EFH and managed species. On June 20, 2013, the NMFS provided concurrence with the findings of the EFH Assessment including conceptual mitigation, noting that the project would have an adverse impact on EFH (**Appendix B**). However, the Conservation Recommendation provided by NMFS consists of the FDOT providing a detailed mitigation plan that fully offsets the unavoidable adverse impacts to mangroves and tidal freshwater SAV. This would occur during the design/environmental permitting phase.

An EFH Assessment has been prepared and consultation has been completed in accordance with the MSFCMA. It has been determined that this project will have adverse effects to EFH. A response to Conservation Recommendations has been sent to the NMFS, thus concluding consultation.

4.4 PHYSICAL

4.4.1 Noise

The FHWA did not provide comments under the Aesthetics ETDM issue (which includes Noise), but noted the potential for noise (and air) effects on adjacent low income, minority residents under the Social ETDM issue (see Section 4.1.5). The FDOT District Four ETAT reviewer provided a Minimal degree of effect, noting the potential for minor noise and vibration effects on residential and business areas in proximity to the project.

A Noise Study Report (NSR) was prepared for the proposed project and is on file at the FDOT District Four PL&EM Office. This NSR was prepared in accordance with 23 CFR 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* dated July 13, 2010 and Chapter 335.17, Florida Statutes. This study was also conducted according to guidelines contained in the FDOT PD&E Manual, Part 2, Chapter 17.

Approximately 957 first and second-row residential noise sensitive sites were identified along the project corridor. Also, 16 non-residential noise sensitive sites, including religious facilities, parks, and pools at hotels/apartment complexes were identified. Traffic noise levels were predicted for noise sensitive locations along the project corridor for the existing conditions and the design year (2040) No-Build and Build Alternative.

Design year traffic noise levels at residences along the corridor are predicted to range from 52.6 to 75.2 dB(A) (A-weighted decibels) with the Build Alternative. The design year noise levels with the project are predicted to be no more than 1.4 dB(A) greater than the existing noise levels. The Build Alternative noise levels at Special Use Sites are predicted to range from 57.6 dB(A) at an apartment complex pool to 79.4 dB(A) at the North Woodlawn Cemetery. With the

Build Alternative, noise levels are predicted to exceed the Noise Abatement Criteria (NAC) at 182 residences along the project corridor and at four special use areas. No other noise sensitive sites within the project study area are predicted to experience traffic noise levels equal to or exceeding the FDOT NAC. Also, no sites are expected to experience any substantial noise level increases as defined by the FDOT [i.e., greater than 15.0 dB(A) over existing levels] with the Build Alternative.

On March 13, 2012 FDOT staff and their traffic noise representative met with the Shady Banks HOA President to measure noise levels in the neighborhood and to explain the FDOT noise process. Traffic noise levels were measured at her home at 1524 SW 19th Avenue and in front of another nearby home located closer to I-95. Traffic noise levels were measured between approximately 9:00 and 10:30 AM and were found to be approximately 62 dB(A) at the HOA president's home and 64 dB(A) at the other nearby home.

FDOT policy requires that the reasonableness and feasibility of noise abatement be considered when the FHWA NAC is approached or exceeded. In accordance with traffic noise study requirements set forth by both the FHWA and FDOT, noise barriers were considered for all noise sensitive receptor sites where design-year traffic noise levels were predicted to equal or exceed the NAC.

A wide range of factors are used to evaluate the feasibility and reasonableness of noise abatement measures. Feasibility primarily concerns engineering considerations including the ability to construct a noise barrier using standard construction methods and techniques. Feasibility also concerns the ability to provide a noise level reduction of at least 5 dB(A) for two or more impacted receivers given certain access, drainage, utility, safety, or maintenance requirements. Reasonableness implies that common sense and good judgment were applied in a decision related to noise abatement. Reasonableness includes the consideration of the cost of providing noise abatement. To be deemed reasonable, a noise barrier or other noise abatement measure must not exceed the FDOT's reasonable cost criteria of $42,000 per benefited receptor site and must attain the FDOT noise reduction design goal of 7 dB(A) at one or more impacted receptor sites. In addition, once the noise abatement measure has been determined to be reasonable and feasible, the viewpoint of the benefited property owners must be considered.

To facilitate the noise barrier analysis, contiguous noise sensitive areas were grouped together into one of 13 Common Noise Environments (CNE). A CNE represents a group of impacted receptor sites that would benefit from the same noise barrier or barrier system (i.e., overlapping/continuous barriers) and are exposed to similar noise sources and levels, traffic volumes, traffic mix, speeds and topographic features. Generally, CNEs occur between two secondary noise sources, such as interchanges, intersections and/or cross-roads. In addition, the primary method for determining the cost of noise abatement involves a review of the cost per benefited receptor site for the construction of a noise barrier benefiting a single location or CNE (e.g., a subdivision or contiguous impact area).

Many of the locations where noise impacts are predicted to occur are near existing noise barriers. In these cases, alternatives such as increasing the length of an existing noise barrier or filling in gaps in noise barrier coverage were selected, since increasing the height of an existing noise barrier is not possible without completely replacing the noise barrier with a new

taller noise barrier. (Refer to NSR for detailed tables and figures, summarizing the results of the noise barrier analyses and recommendations for each of the locations where noise barriers were evaluated, as well as figures of locations where noise barriers were evaluated or planned.)

A noise barrier for one CNE meets all of the FDOT's noise barrier feasibility and reasonableness requirements and is recommended for further consideration and public input. This noise barrier, CNE-W4, is recommended for the Franklin Park neighborhood south of Sistrunk Boulevard. The recommended location for this noise barrier is along the shoulder of the southbound lanes, although an alternative location along the west side of the adjacent railroad corridor is also under consideration. As noted previously in Section 4.1.5, FDOT staff attended a meeting of the River Garden Sweeting Estates Homeowners Association in the Franklin Park community on January 28, 2013 to explain the FDOT traffic noise process and to respond to the community's requests for noise abatement. The meeting was arranged by State Senator Smith and attended by his aide, Sharonda Wright-Placide. It is expected that further coordination with this community will occur as the project progresses through design in order to determine the most favorable noise barrier for this community. Depending upon location, at least 43 of the 48 nearby impacted residences are expected to be benefited by the noise barrier design concepts being considered. The cost per benefited site of these concepts ranges from $12,893 to $16,053, which is within FDOT's noise barrier cost criteria. Also, either design concept will meet FDOT's noise reduction design requirement of 7 dB(A) at one or more sites.

It is likely that the noise abatement measure for the location identified above will be constructed if found feasible based on the contingencies listed in the project's NSR. If, during the Final Design phase, any of the contingency conditions cause abatement to no longer be considered reasonable or feasible for this location, such a determination will be made prior to requesting approval for construction advertisement. Commitments regarding the exact abatement measure locations, heights, and type (or approved alternatives) will be made during project reevaluation and at a time before the construction advertisement is approved.

The cost to construct noise barriers for the following residential neighborhoods exceeded FDOT's reasonable cost criteria of $42,000 per benefited site:

- CNE-E1 - Lauderdale Lakes ($155,100 per benefited site); and,
- CNE-E4 - Unnamed neighborhood ($87,000 per benefited site).

Based on the usage rates provided by the agencies overseeing the following sites, or in the case of CNE-E5, on the usage necessary to be considered cost reasonable, construction costs for noise barriers were determined to exceed FDOT's reasonable cost criteria for special land use sites at the following locations:

- CNE-E5 - Woodlawn Cemetery (>$995,935/person-hr/square-foot);
- CNE-E7 – Mills Pond Park (>$995,935/person-hr/square-foot); and,
- CNE-W5 – Easterlin Park (>$995,935/person-hr/square-foot).

It was not possible to provide at least a 7 dB(A) noise level reduction at the following locations. There these noise barriers were determined to not be reasonable according to FDOT noise level reduction requirements:

- CNE-E2 - Marina Oaks apartments [4.3 dB(A) maximum noise level reduction];
- CNE-E3 - Shady Banks [4.0 dB(A) maximum noise level reduction];
- CNE-W2 - Marina Bay apartments [5.0 dB(A) maximum noise level reduction];
- CNE-W3 - Holland Mobile-home Park [5.8 dB(A) maximum noise level reduction];
- CNE-E6 – Lauderdale Manor [3.7 dB(A) maximum noise level reduction]; and,
- CNE-E8 – Jenada Isles [2.4 dB(A) maximum noise level reduction].

Therefore, noise barriers were not recommended for further consideration or construction at these locations. Several of the noise barriers that were not recommended are adjacent to neighborhoods that already have nearby existing noise barriers, so it was not possible to further reduce noise levels enough to meet either FDOT's noise level reduction criteria [7 dB(A)] or the reasonable cost criteria. Based on the noise analyses performed to date, there are no apparent solutions available to mitigate the noise impacts at these locations. The traffic noise impacts to these noise sensitive sites are considered to be an unavoidable consequence of the project.

The FDOT is committed to the construction of feasible noise abatement measures at the locations where noise barriers have been recommended for further consideration during the final design phase, contingent upon the following conditions:

- Detailed noise analyses during the final design process support the need for abatement;
- Reasonable cost analyses indicate that the economic cost of the barrier(s) will not exceed the cost reasonable criterion;
- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved;
- Community input regarding desires, types, heights and locations of barriers has been solicited by the FDOT; and
- Any other mitigating circumstances found in Section 17-4.6.1 of FDOT's PD&E Manual have been analyzed.

During construction of the project, there is the potential for noise impacts to be substantially greater than those resulting from normal traffic operations because heavy equipment is typically used to build roadways. In addition, construction activities may result in vibration impacts. Therefore, early identification of potential noise/vibration sensitive sites along the project corridor is important in minimizing noise and vibration impacts. The project area does include residential, institutional and commercial areas including hotels, schools and nearby churches. Construction noise and vibration impacts to these sites will be minimized by adherence to the controls listed in the latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction*.

A reassessment of the project corridor for additional sites particularly sensitive to construction noise and/or vibration will be performed during design to ensure that impacts to such sites are minimized. Coordination between the FDOT and the operators of any construction noise/vibration sensitive locations identified during design should occur and TSPs should be developed for the project's contract package in order to ensure that impacts to such businesses are minimized.

4.4.2 Air Quality

Through the ETDM review process, the EPA assigned the degree of effect to Air Quality as None, and did not provide any additional comments. The FHWA did not provide comments under the Air Quality issue, but noted the potential for "air pollution" effects on adjacent low income, minority residents under the Social ETDM issue. Also during the ETDM Programming Screen review, this project was determined to be consistent with Air Quality Conformity.

The proposed project has the potential to alter traffic conditions and influence the air quality within the project study area. Potential air quality impacts in the area surrounding the project corridor were assessed for all viable project alternatives, including the No-Build Alternative, in accordance with applicable FHWA guidelines and guidelines contained in the FDOT PD&E Manual, Part 2, Chapter 16.

Much of the property along the project corridor from the southern project terminus to I-595 is commercial/industrial and transportation uses, Hotels and retail use occur near the interchanges. Between I-595 and Davie Boulevard, much of the adjacent land use is residential. North of Davie Boulevard there is a mix of residential and park use to the east of I-95 and generally commercial/industrial use to the west. Small pockets of residential and park use also occur west of this portion of the project. The residential and park properties are considered to be generally more sensitive to changes in air quality than the large tracts of commercial and industrial properties.

The project's No Build and Build Alternatives were assessed for potential air quality impacts at the project level using the FDOT's PC-based CO Florida 2012 screening model. The Carbon Monoxide (CO) screening analysis for this project indicates that the worst-case one-hour CO level is 9.4 parts per million (ppm) during the build year and 9.6 ppm during the project's design year. The predicted worst-case eight-hour CO level is estimated to be 5.8 ppm during the build year and during the project's design year. The results of the CO screening analysis indicate the proposed project is not expected to cause any exceedances of the one-hour or eight-hour National Ambient Air Quality Standards (NAAQS) for CO. Thus, the project passes the CO screening analysis, and air quality impacts resulting from the proposed project are not expected.

The South Florida region is currently in attainment for all of the pollutants for which NAAQS have been developed. As of June 2005, Broward County is located in an area which is designated as attainment for all of the NAAQS under the criteria provided in the Clean Air Act. Therefore, the project is located in an area which is designated as attainment under the criteria provided in the Clean Air Act; the Clean Air Act conformity requirements do not apply to the project.

An Air Quality Technical Memorandum (AQTM) was prepared for the proposed project, and is on file at the FDOT District Four PL&EM Office. Based on the air quality analysis conducted, air quality impacts are not expected to occur as a result of this project.

Construction activities for the proposed action may potentially have short-term air quality impacts within the immediate vicinity of the project. Construction activities may generate temporary increases in air pollutant emissions in the form of dust from earthwork and unpaved roads and smoke from open burning. Such emissions and potential impacts will be minimized by adherence to all applicable State and local regulations and to the FDOT *Standard Specifications for Road and Bridge Construction.*

4.4.3 Construction

Construction activities for the proposed project may generate air, noise, vibration, water quality, and visual impacts of a temporary nature for those businesses and residents within the immediate project vicinity. As discussed in Sections 4.4.1 Noise and 4.4.2 Air Quality, the Contractor will adhere to the measures outlined in the latest edition of the FDOT *Standard Specifications for Road and Bridge Construction*. Water quality impacts resulting from erosion, sedimentation, and turbidity reduction will also be controlled through measures outlined in the latest edition of the FDOT *Standard Specifications for Road and Bridge Construction*. The removal of structures and debris will be in accordance with local and State regulation agencies permitting this operation. The Contractor is responsible for methods of controlling pollution on haul roads, in borrow pits, other material pits, and areas used for disposal of waste materials from the project. Temporary erosion control features as specified in Section 104 of the FDOT *Standard Specifications for Road and Bridge Construction* may consist of temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, artificial coverings, and berms.

During construction, the safety and mobility of both vehicular and pedestrian traffic must be ensured, and impacts to commuters and businesses must be minimized. As part of the PD&E Study, a preliminary traffic control plan for the construction of the proposed improvements under the Recommended Alternative was prepared. Due to the high traffic volume along I-95 and interchange ramps, the existing number of travel lanes should be maintained during each construction phase. However, temporary lane closures may be required in some locations such as overhead construction over existing roadways and should be limited to off-peak hours. This temporary traffic control plan is proposed to be divided into four construction segments, each completed in three phases, the details of which are included in the PD&E Study's conceptual design plans.

The sequence of construction will be planned in such a way as to minimize traffic delays, including the development of a MOT Plan. The local news media will be notified in advance of road closings and other construction-related activities which could excessively inconvenience the community so that business owners, residents, and/or tourists in the area can plan travel routes in advance. A sign providing the name, address, and telephone number of an FDOT contact person will be displayed on-site to assist the public in obtaining answers to questions or complaints about project construction.

4.4.4 Contamination

During the ETDM review process, the EPA assigned a degree of effect of Moderate for the Contaminated Sites issue; no comments were received from FDEP. The EPA indicated that a number of solid waste, Resource Conservation and Recovery Act (RCRA) regulated facilities, underground storage tanks (UST) and brownfields existed within the 500-ft buffer zone, and recommended that site-specific investigations occur to determine the presence of soil and groundwater contamination.

A Contamination Screening Evaluation Report (CSER) was prepared in accordance with the FDOT PD&E Manual, Part 2, Chapter 22, and is on file at the FDOT District Four PL&EM Office. This report summarizes the data gathered from site visits, review of historic aerials, review of

Federal, State, and local (Broward County) regulatory agencies' GIS layers, site history investigations of agencies' databases, and review of information generated by Environmental First Search. The CSER provides the results of a detailed Level I evaluation of the project area, and defines the potential risks from soil or groundwater contamination. The evaluation method was developed in coordination with District Four PL&EM staff, and consisted of those properties within and adjacent to I-95, as well as any "adjacent +1" properties (i.e., the next properties away from the corridor, having known storage tank or contamination, that are adjacent to/contiguous with the properties immediately adjacent to the corridor).

This proposed project contains no known significant contamination. As a result of the CSER, over 250 sites were identified as potential hazardous material generators for the project. Of those sites determined to have a high or medium risk of potential involvement with the project, 18 are located within the current R/W. The CSER sites include an EPA National Priority List (NPL) site and five Brownfields (e.g., landfills), as well as vehicular accidents/spills and the Fort Lauderdale-Hollywood International Airport. In addition, asbestos containing materials (ACMs) testing and lead-based paint surveys were conducted on 60 and 30 bridges, respectively. No positive ACMs or hazardous concentrations of lead-based paint were detected; however, lead was identified at non-hazardous concentrations in all but one of the bridge paints tested.

No R/W acquisition is currently anticipated from any of the adjacent and "adjacent+1" properties. However, subsurface excavation work, including construction or modification of stormwater drainage areas, is proposed to occur within the R/W adjacent to most of the High and Medium Risk sites; therefore, the project has the potential for involvement with contamination within the I-95 R/W.

Based on the fact that a High or Medium Risk for soil and/or groundwater contamination has been documented for at least 50 locations in the vicinity of the project corridor, a Level II Contamination Assessment investigation is warranted during the final design phase for the High and Medium Risk sites adjacent to the proposed construction areas of the Recommended Alternative, including any proposed drainage areas outside the FDOT R/W, to confirm the existence of soil and/or groundwater contamination at these sites. Additionally, these sites pose a dewatering concern based on their proximity to the project corridor.

If dewatering will be necessary during construction, a SFWMD Water Use Permit will be required. (The project may not qualify for a SFWMD No Notice Dewatering Permit, because it is located within one mile of a landfill.) The Contractor will be held responsible for obtaining and ensuring compliance with any necessary dewatering permit(s). Any dewatering operations in the vicinity of potentially contaminated areas shall be limited to low-flow, short-term. A dewatering plan may be necessary to avoid potential contamination plume exacerbation. All permits will be obtained in accordance with Federal, State, and local laws and regulations.

Additionally, Section 120 Excavation and Embankment – Subarticle 120.1.2 Unidentified Areas of Contamination of the FDOT *Standard Specifications for Road and Bridge Construction* will be provided in the project construction contract documents. This specification requires that in the event that any hazardous material or suspected contamination is encountered during construction, or if any spills caused by construction-related activities should occur, the

Contractor shall be instructed to stop work immediately and notify the District Four PL&EM Office as well as the appropriate regulatory agencies for assistance.

4.4.5 Aesthetic Effects

The visual impacts of an area are ascertained by establishing the visual environment and identifying the key visual resources within the area. The evaluation of the visual and aesthetics impacts is based on two perspectives: 1) the view from the road and 2) the view of the road. The view from the road is the driver's perspective and leaves a lasting impression of the community or area on the driver or resident, while the view of the road by the driver or resident contributes to the feeling of community value and pride.

I-95 serves as one of the major north-south expressways that connect Miami-Dade, Broward and Palm Beach Counties to northern counties. The view from the major roadways and interchange ramps is comprised mainly of noise barriers, MSE walls, and overhead bridge structures located along I-95.

Through the ETDM review process, the FDOT District Four assigned a Minimal degree of effect to the Aesthetics issue; no comments were received from FHWA. The FDOT noted that a concern of the project was potential noise and vibration effects to the residences and businesses nearby. Noise barriers exist along areas of the project corridor, and a noise analysis, including evaluation of the reasonableness and feasibility of additional noise barriers, was performed (see Section 4.4.1 Noise). Additionally, extensive outreach has been conducted by FDOT in coordination with the Broward MPO and local municipalities to solicit input and preferences from residents and businesses on potential project effects and general design concepts related to aesthetics.

As the Recommended Alternative proposes to convert the existing HOV lanes to tolled Express Lanes and add one additional tolled Express Lane in each direction to the median of I-95, it is anticipated to be compatible with the community's aesthetic values and surrounding developed areas. Additionally, this conversion and addition of lanes will occur within the existing facility, and thus will be in character with the visual aesthetics of the facility. Also, the proposed improvements under the Recommended Alternative may provide an opportunity for additional landscaping within the project study area.

Landscaping beautification exists at several interchanges along I-95 (Broward, Sunrise and Oakland Park Boulevards), as part of the "Greening Gateways" program (smart landscape designs emphasizing native plant communities with low water needs). These areas will be modified in order to accommodate the stormwater management needs within the existing R/W. During final design, consideration will be given to the preservation or relocation of existing landscaping and/or inclusion of new landscaping. This will be done in collaboration with the Broward MPO and local jurisdiction. The Study Team met with the Greening Gateways Committee on March 14, 2013. The Committee understood the needs of the study and requested to stay involved during final design. Further coordination during the next phase is recommended.

4.4.6 Bicycles and Pedestrians

Pedestrians and bicycles are prohibited from operating and/or traveling on any limited access facilities, as per Florida Statute 316.091. Since I-95 is a limited access facility, no pedestrian or bicycle facilities are planned along I-95 as part of the proposed improvements under the Recommended Alternative. However, pedestrian and bicycle facilities are present along the overpasses and underpasses of the interchange cross streets. The following is a description of these facilities at each cross street:

- Stirling Road (SR 848) - sidewalks along both sides of the street and crosswalks at all intersections with ramps.
- Griffin Road (SR 818) - sidewalks along both sides of the street and crosswalks at all intersections with ramps.
- SW 42 Street - no pedestrian or bicycle facilities
- SR 84 - no pedestrian facilities in this area along SR 84; however, bicyclists are allowed to travel the roadway in this area.
- Davie Boulevard (SR 736) - sidewalks and crosswalks along the north side of this street. A concrete barrier separates pedestrians from the travel lanes.
- Broward Boulevard (SR 842) - sidewalks along both sides of the street and crosswalks at all intersections with ramps.
- NW 6 Street - sidewalks along both sides of the street.
- Sunrise Boulevard (SR 838) - sidewalks along both sides of the street and crosswalks at all intersections with ramps.
- NW 19 Street - sidewalks along both sides of the street.
- Oakland Park Boulevard (SR 816) - sidewalks along both sides of the street and crosswalks at all intersections with ramps.

No impacts to the above-listed pedestrian and bicycle facilities are anticipated to occur as a result of the project improvements.

4.4.7 Utilities and Railroads

No ETDM comments were received from FHWA regarding the Infrastructure issue.

Utilities

The UAOs that could be impacted by the proposed improvements were contacted to obtain information on their respective facilities within the project study limits. Seventeen UAOs were identified as having the potential for involvement: AT&T Florida (telecommunications), Broward County Water & Sewer (water and sewer), Broward County ITS (ITS), Broward County (Traffic), City of Dania Beach (water and sewer), City of Fort Lauderdale (water and sewer), City of Hollywood (water and sewer), City of Oakland Park (water and sewer), Comcast (cable TV), FiberLight LLC (telecommunications), Florida Gas Transmission (Gas – Distribution), FPL – Distribution (Electric), FPL – FiberNet (telecommunications), FPL – Transmission (electric), Level3 Communications LLC (telecommunications), Time Warner Telecommunications (telecommunications), and Verizon Business (f.k.a. MCI) (telecommunications).

A preliminary evaluation of potential utility conflicts within the project corridor based on the Recommended Alternative is provided in the Utility Impact Assessment Memorandum prepared for this study. For the Recommended Alternative, several utility facilities will be in conflict with the proposed improvements, particularly at the crossing roadways and interchanges where the facilities are either underground or attached underneath the bridges. In addition to the utilities at the interchanges and overpasses, ITS Fiber Optic cables run along the east side of I-95 from the beginning of the project to just north of SR 84 where they cross to the west side and run along the R/W line until the end of the project. No impacts to these ITS Fiber Optic cables are expected because they run close to the R/W line. However, their exact location is not known at this time; therefore, they should be horizontally and vertically verified during design and construction. It should be noted that most of the UAO(s) owning major facilities within the area of the project have master agreements with FDOT. Should the need to relocate arise, this should expedite the coordination process, eliminating the need for individual work agreements.

The PER notes that FPL Distribution and Transmission owns several 23 KV overhead electric lines and other underground facilities across I-95 at the NW 19th Street Bridge. This bridge is recommended for replacement, and potential conflicts will be resolved during final design. The City of Fort Lauderdale owns two underground water mains (10 inch and 24 inch) and a 12-inch force main across I-95 at this location. These utilities will not be in direct conflict with the proposed roadway widening; however, filed verification is recommended during design and construction.

The FDOT District Four Utility Office will maintain coordination with these utility providers throughout the subsequent Final Design phase. Based on early coordination with the utility owners, no significant impacts to the utility services or disruptions of services to area businesses are expected to occur.

Railroads

There are two main railroad facilities in the vicinity of the project: the SFRC and the Florida East Coast (FEC) Railway. Both of these railroad facilities are used to transport freight. Only the SFRC transports passengers; however, the FEC Railway has future plans to implement passenger service as well.

The project corridor is adjacent to the SFRC which is owned by FDOT and is a segment of the most extensive rail network in Florida, CSX Transportation (CSXT). This segment was acquired by FDOT from CSXT in 1988 and spans from Miami-Dade to Palm Beach Counties. As part of the purchase agreement, CSXT has an exclusive perpetual freight easement. The SFRC is used for transporting freight such as nonmetallic minerals, chemicals, coal, and miscellaneous shipments. The SFRC is also used for passenger travel. There are two passenger rail services utilized along the SFRC: Tri-Rail and Amtrak. Tri-Rail is operated by SFRTA and provides passenger commuter rail services between Miami-Dade and Palm Beach Counties. Amtrak operates over 21,000 route miles in 46 states, the District of Columbia and three Canadian provinces with more than 300 trains each day at speeds up to 150 mph to more than 500 destinations. The Amtrak system utilizes the SFRC which is adjacent to the project corridor. One Amtrak station exists near the project corridor at the Broward Boulevard Park and Ride lot.

The FEC Railway is a regional railroad operating between Miami and Jacksonville. FEC maintains the second largest railroad network in the State after CSXT, and provides the only north-south mainline along the Atlantic Coast between West Palm Beach and Jacksonville. FEC provides exclusive rail service to the Ports of Palm Beach, Everglades (Fort Lauderdale), Miami, and the Kennedy Space Center. The FEC railroad corridor is used for transporting aggregates, automobiles, lumber, cement, food products, and other commodities. Currently, the All Aboard Florida (AAF) initiative is underway with plans to restore passenger rail service along the FEC Railway.

It is anticipated that this project can be accomplished with no disruption of rail service.

4.4.8 Navigation

During the ETDM review, the USACE and USCG assigned degrees of effect of Minimal and Moderate, respectively. The USACE noted that waters within the corridor are navigable and would be regulated under Section 10 of the Rivers and Harbors Act of 1899. The USCG commented that bridge permits would be required for the three waterway crossings located at the South and North Forks of the New River and the Dania Cut-off Canal.

Four waterway crossings are located with the project limits: North and South Forks of the New River, Dania Cut-Off Canal, and the C-13 East Canal which connects to the Middle River east of I-95. The USCG ETAT did not include comments regarding the Middle River/C-13 East Canal which implies it is non-navigable. It is not identified in the ETDM EST as a navigable waterway, and there is a SFWMD water control structure located on this canal just west of I-95.

Regarding the three navigable waterway crossings identified by the USCG, no work is proposed for the bridge over the South Fork of the New River, and only limited modifications to the bridges over the North Fork of the New River and Dania Cut-Off Canal will occur. Based on the proposed scope of work at these two bridge crossings (widening with no resultant changes to vertical or horizontal clearances), an assessment of potential impacts to navigation was prepared, in order for FHWA to make a determination (under 23 CFR 650, Subpart H) as to whether an exemption from the USCG bridge permit is applicable to either bridge. This information was compiled as per the FDOT PD&E Manual Part 1, Chapter 5, and is essentially the USCG's bridge permit questionnaire (see **Appendix C**).

On August 6, 2013, the FHWA indicated that for the Dania Cut-Off Canal, the USCG will need to determine if a bridge permit is required during the design phase of the project. The USCG responded to the FHWA in a letter dated August 21, 2013 indicating that a bridge permit will be required for the proposed work on Dania Cut-Off Canal Bridge (see **Appendix B**). On September 3, 2013, the FHWA indicated that a USCG bridge permit would not be required for the work proposed over the North Fork of the New River (see **Appendix B**).

APPENDIX A

Public Hearing Transcript

PUBLIC HEARING CERTIFICATION

I hereby certify that on Thursday, April 11, 2013, beginning at 6:30 p.m. I presided over a Public Hearing for the following project:

State Road (SR) 9/I-95 Project Development and Environment (PD&E) Study
Project Limits: From SR 848/Stirling Road to North of SR 816/Oakland Park Boulevard
County/State: Broward County, Florida
Financial Management Number: 429804-1-22-01
Efficient Transportation Decision Making Number: 13168

Hearing Location: Sheraton Fort Lauderdale Airport & Cruise Port Hotel
1825 Griffin Road
Fort Lauderdale, FL 33004

Date and Time: Thursday, April 11, 2013
5:30 p.m. Informal Open House
6:30 p.m. Formal Presentation

CERTIFICATION

I further certify that the subject Public Hearing was conducted relative to the economic and social effects of the location and design concept for the subject project and its impact on the environment, that a transcript was made and the document attached herein is a full, true, and complete transcript of what was said at the Hearing, and that the Florida Department of Transportation has considered the social, economic, and environmental effects of the proposed improvement and is of the opinion that it is properly located and should be constructed.

Richard A Young

Richard Young, P.E, Project Development Engineer
Planning and Environmental Management
Hearing Moderator, District Four

5/8/2013
Date

PUBLIC HEARING

SR 9/I-95 PROJECT DEVELOPMENT AND ENVIRONMENT STUDY (PD&E)

FROM STIRLING ROAD (SR 848) TO NORTH OF OAKLAND PARK BOULEVARD (SR 816)

BROWARD COUNTY, FLORIDA

FINANCIAL MANAGEMENT NUMBER 429804-1-22-01

EFFICIENT TRANSPORTATION DECISION MAKING (ETDM) NUMBER 13168

PRESENT: Richard Young, P.E.
Project Development Engineer
Florida Department of Transportation (FDOT)

John Olson, P.E.
Roadway Design Project Manager
Florida Department of Transportation (FDOT)

Silvia Beltre, P.E.
Consultant Project Manager
Stantec Engineering

DATE: April 11, 2013

TIME: 6:30 P.M. - 7:16 P.M.

PLACE: SHERATON FORT LAUDERDALE AIRPORT & CRUISE PORT HOTEL
1825 Griffin Road
Fort Lauderdale, Florida 33004

MR. YOUNG: Thank you everybody for coming to our Public Hearing tonight. My name is Richard Young. I'm the District Project Development Engineer for District Four of the State of Florida Department of Transportation (FDOT). This hearing is relative to the potential improvements to the I-95 corridor in Broward County.

And here with me tonight are Mr. John Olson, Project Manager with District Four; Ms. Silvia Beltre, our consultant project manager with Stantec Engineering. And, as you can see, we have many other representatives of the FDOT and consultant project team.

At this time we'd like to recognize any federal, state, county, or city officials who may be present here tonight. We do have Mayor John Adornato, Mayor of Oakland Park, here with us.

Are there any other officials who would like to be recognized?

All right. Then we will begin our Power Point presentation.

POWER POINT SPEAKER: The State of Florida Department of Transportation, also known as FDOT, would like to welcome you to the Public Hearing for the State Road 9, Interstate 95 Project Development

and Environment Study. This public hearing is being held relative to FDOT Financial Management Number 429804-1-22-01 and Efficient Transportation Decision Making Number 13168.

This public hearing is being held in accordance with Chapter 23 of the United States Code 128, Title 40 of the Code of Federal Regulations, parts 1500 through 1508; Title 23 of the Federal Regulations part 771; the Federal Highway Act of 1968 as amended; Florida Statutes Section 339.155; Florida Statutes Section 335.199; Executive Order 11988, Floodplain Management; and Executive Order 11990, Protection of Wetlands.

This public hearing was advertised consistent with federal and state requirements and is being conducted consistent with the Americans with Disabilities Act of 1990.

The Florida Department of Transportation is required to comply with various non-discrimination laws and regulations, including Title VI of the Civil Rights Act of 1964. This hearing is being held to give all interested persons the right to understand the project and comment on their concerns to the Department.

Public participation at this hearing is

solicited without regard to race, color, national origin, age, sex, religion, disability, or family status.

Persons wishing to express their concerns about Title VI may do so by contacting the individuals listed on this slide and on a board displayed at this hearing.

The purpose of this Public Hearing is to share information with the general public about the alternatives under consideration, the proposed improvements, and their potential environmental impacts.

This public hearing also serves as an official forum providing an opportunity to the public to express their opinions and concerns regarding the location, conceptual design, and potential social, economic, and environmental effects of the proposed improvement on the community.

There is a court reporter present and tonight's proceedings are being recorded. An official transcript of the hearing will be produced. Following this presentation, the floor will be open for public comments. All written and oral material presented by the public will become part of the public record for the project.

The Project Development and Environment Study or PD&E is the second step of the Project Development process that the Florida Department of Transportation follows to evaluate social, cultural, economic, and environmental impacts associated with a planned transportation improvement project.

The PD&E process was established by the FDOT as the state's procedure for complying with the National Environmental Policy Act or NEPA of 1969. This phase involves the preparation of all preliminary engineering and environmental documentation required for federal approval and subsequent funding.

95 Express is an innovative alternative to traditional highway construction that offers a variety of options to increase trip time reliability. The first express lanes in South Florida were constructed in 2009 along I-95 in Miami-Dade County.

There is a project currently under construction that is extending the express lanes from the Golden Glades interchange to Broward Boulevard.

This PD&E Study evaluates the feasibility of

extending the express lanes north from Stirling Road to Oakland Park Boulevard in Broward County.

Two other studies will evaluate a continuation of the express lanes north from Oakland Park Boulevard in Broward County to Glades Road in Palm Beach County and from Glades Road to Linton Boulevard in Palm Beach County.

There are a number of ongoing and future studies that will evaluate the expansion of express lanes to other facilities in Miami-Dade, Broward, and Palm Beach Counties. The vision is to create an Express Lane Network within Southeast Florida for the efficient movement of people, goods, and services.

The project corridor is located in Broward County. The limits are along I-95 from Stirling Road to north of Oakland Park Boulevard.

I-95 is designated as a Strategic Intermodal System, S-I-S, facility. The SIS is a statewide network of Florida's transportation facilities that are regionally significant to the state.

I-95 also serves as part of the emergency evacuation route network designated by the Florida Division of Emergency Management.

The project corridor traverses the cities of

Hollywood, Dania Beach, Fort Lauderdale, Wilton Manors, and Oakland Park as well as unincorporated Broward County.

Within the project limits, I-95 connects to the local roadway network and a number of additional SIS facilities such as I-595, Florida's Turnpike, Fort Lauderdale-Hollywood International Airport, and Port Everglades.

It is also a critical corridor for freight and transit and provides a direct connection to the Broward Boulevard Park and Ride Lot.

The corridor can be subdivided into three typical sections. From Stirling Road to I-595 and from north of the Broward Boulevard Park and Ride Ramp to Oakland Park Boulevard, I-95 consists primarily of four 12 foot wide general purpose lanes, one 12 foot wide HOV lane, 12 foot outside shoulders, and inside shoulders that vary from 10 to 12 feet.

There is one 12 foot wide auxiliary lane in each direction. A 2 foot buffer separates the HOV lane from the general purpose lanes. The northbound and southbound travel lanes are separated by concrete barrier walls. The limited access right-of-way is typically 300 feet in these

limits.

From I-595 to south of the Broward Boulevard Park and Ride Ramp, I-95 consists of three 12 foot wide general purpose lanes, one 12 foot wide HOV lane, 10 foot wide inside and 12 foot outside shoulders.

There are two auxiliary lanes in the northbound direction and one auxiliary lane in the southbound direction. A 14 foot concrete buffer separates the northbound and southbound lanes. The limited access right-of-way is typically 300 feet in these limits.

From south of the Broward Boulevard Park and Ride Ramp to north of the Broward Boulevard Park and Ride Ramp, I-95 consists of three 12 foot wide general purpose lanes, one 12 foot wide HOV lane, 12 foot inside and outside shoulders, and a grass median that varies from 40 to 64 feet.

There are two auxiliary lanes in the southbound direction and one auxiliary lane in the northbound direction. The limited access right-of-way is typically 300 feet in these limits.

The primary purpose of this project is to provide reliability by managing capacity along the State Road 9, I-95 corridor by converting the

existing HOV lanes to tolled Express Lanes and adding one additional tolled Express Lane in each direction.

Parallel to the PD&E study, an Express Bus transit service is being planned. The service will provide faster and more reliable bus service through the use of the Express Lanes. It is very important to note that the proposed bus service will connect travel sheds that complement Tri-Rail, are regional and will operate in the express lanes.

The corridor also allows for direct access to and from the Express Lanes and the Broward Boulevard Park and Ride Lot, providing an opportunity for park and riders to carpool. The project will also enhance emergency access and incident response times.

The existing annual average daily traffic on this segment of I-95 ranges from 186,000 to 292,000 vehicles per day. By the design year of 2040, the annual average daily traffic is projected to range from 218,000 to 379,000 vehicles per day. This increase in traffic will exceed the capacity of I-95 causing heavier levels of congestion if no improvements are made.

During a Project Development and Environment

Study, several alternatives are developed to meet the purpose and need for the project. These alternatives are developed with input from the public, local government, and environmental agencies obtained throughout the study process. Keeping the public involved and informed throughout the study is paramount to the success of a PD&E study.

An Alternatives Public Workshop and Community Outreach meetings have been held since this study began in January of 2012 and public input has factored into the project decision making process.

A project website was developed for the project. The website, www.95stirlingoakland.com is another method used to allow the public to communicate with the project team and provide comments. Today's hearing will also provide the public with another opportunity to comment on the proposed improvements under consideration.

Several alternatives were investigated as part of this PD&E study. The No-Build Alternative maintains the existing facility as is. No improvements are made. The No-Build Alternative is also evaluated as a baseline for comparison with the TSM and build alternative.

The Transportation System Management or TSM Alternative was also evaluated. The TSM Alternative included the evaluation of low cost, short-term improvements along the corridor. However, none provided the improvements needed to meet the purpose and need for the project.

All three Build Alternatives propose to convert the existing HOV lanes into tolled Express Lanes and add an additional tolled express lane in each direction. The express lanes are separated from the general purpose lanes by tubular markers, and the number of general purpose and auxiliary lanes will remain the same. Other improvements to I-95 and to the interchanges along the corridor will be evaluated as part of an upcoming Interchange Master Plan Study in Broward County.

Build Alternative 1 is divided into three typical section configurations. The first typical section extends from Stirling Road to I-595 and from north of the Broward Boulevard Park and Ride Ramp to Oakland Park Boulevard. As you can see, the existing HOV lanes are converted to tolled Express Lanes and a second tolled express lane is added in each direction.

This typical section provides 12 foot wide

general purpose lanes and express lanes and 12 foot wide inside and outside shoulders. A 4 foot buffer separates the Express Lanes and the general purpose lanes.

The second typical section extends from I-595 to south of the Broward Boulevard Park and Ride Ramp. This typical section provides 12 foot wide general purpose lanes and auxiliary lanes and 11 foot wide Express Lanes. The inside shoulders are 10 feet wide and the outside shoulders are 12 feet wide. A 2 foot buffer separates the express lanes and general purpose lanes. In this typical section, the concrete median will be removed and replaced with a median barrier.

The third typical section extends from south of the Broward Boulevard Park and Ride Ramp to north of the Broward Boulevard Park and Ride Ramp. This typical section provides 12 foot wide general purpose lanes and auxiliary lanes and 11 foot wide Express Lanes. Both inside and outside shoulders are 12 feet wide. A 2 foot buffer separates the express lanes and general purpose lanes.

Build Alternative 1A and 1B are variations of Build Alternative 1 and are shown on display boards here tonight. The preliminary construction costs

are estimated at 84.5 million dollars for Build Alternative 1, 94.8 million dollars for Build Alternative 1A, and 85.2 million dollars for Build Alternative 1B.

A comparative evaluation among the alternatives was performed considering the engineering, socioeconomic, and environmental impacts of each alternative. Based on the results of this evaluation, along with the input received from the public, Build Alternative 1 was ranked and then chosen as the proposed alternative.

Draft documents from this public hearing are available for review from March 21st, 2013 to April 22nd, 2013 at three locations within the project limits and also on the project's website, www.95stirlingoakland.com. These documents are also on display here tonight.

Build Alternative 1, as previously described, has been selected as the Proposed Alternative. The proposed alternative converts the existing HOV lanes into tolled Express Lanes and adds an additional tolled express lane in each direction. The express lanes are separated from the general purpose lanes by tubular markers, and the number of general purpose and auxiliary lanes will remain the

same.

Within the corridor, there are areas where the typical section is adjusted to avoid impacting existing interchanges, bridges, or other constrained areas. These occur at the following locations: underneath the bridges at Southwest 42nd Street, at the State Road 84 interchange, underneath the bridges at Davie Boulevard and Sunrise Boulevard.

Other constrained locations occur at: the South Fork New River bridges, adjacent to the Broward Boulevard Park and Ride Lot Ramp located south of Broward Boulevard, and adjacent to the North Woodlawn Cemetery.

The proposed alternative was designed to avoid impacting these resources by providing one 11 foot general purpose lane, two 11 foot express lanes, and narrowing the shoulders in each direction. The width of the remaining general purpose lanes is 12 feet.

The preliminary access points for the express lanes were determined based on the 2010 Corridor Planning Study. This Planning Study identified the Express Lanes feasible access locations that serve major home to work trip pairs and provide

connections to multimodal facilities. These potential access points will continue to be refined during final design, taking into account public input, results of the traffic analysis, and geometric and right-of-way constraints.

In the northbound direction, the only entrance within the project limits occurs from the Broward Boulevard Park and Ride Lot Ramp onto the express lanes. The next entrance would be located north of the project limits and would serve all I-95 interchanges from Ives Dairy Road to Cypress Creek Road.

There is also one exit located just south of Stirling Road that would allow express lane users to access all interchanges from Griffin Road to Commercial Boulevard. An exit from the express lanes to the Broward Boulevard Park and Ride Lot is also provided. The next exit would be located north of the project limits and would serve all I-95 interchanges from Cypress Creek Road to Sample Road.

In the southbound direction, entrance to the express lanes is provided north of the project limits and would serve all I-95 interchanges from Sample Road to Commercial Boulevard. Entrance

within the project limits occurs from the Broward Boulevard Park and Ride Lot Ramp onto the express lanes. The next entrance is located just south of Stirling Road and would serve all I-95 interchanges from Oakland Park Boulevard to Griffin Road.

There are no exits from the express lanes to the general purpose lanes within the project limits. The closest exit is located north of the project limits and would serve all I-95 interchanges from Cypress Creek Road to Ives Dairy Road. An exit from the express lanes to the Broward Boulevard Park and Ride Lot is also provided.

Tolling will be in accordance with the Florida Administrative Code Rule 14-100.003 for Express Lanes. Tolls will vary based on the level of congestion as you enter the express lanes. Toll rates will be based on the traffic conditions of the express lanes only and not on the conditions of the local lanes.

Roadway monitors placed along the project limits of the highway provide continuous monitoring of traffic data, providing information about how many vehicles are in the express lanes; how fast they are going; and how close together they are.

This information is used to determine whether tolls go up or down.

The goal is to maintain a minimum of at least 45 mile per hour service throughout the day. As the express lanes become more congested, toll rates increase. As the congestion goes down, toll rates decrease. Initially registered carpools will ride for free.

The express lanes will offer faster, more reliable service for transit users. A portion of the tolls collected may be used to fund expanded transit service that serves a regional travel shed that complements Tri-Rail.

The existing drainage system will be enhanced to accommodate stormwater runoff from the roadway improvements. This will be accomplished by upgrading roadside ditches and optimizing existing ponds within the existing right-of-way.

Stormwater management systems proposed by this study meet existing water quality standards as set forth in Chapter 62-302 of the Florida Administrative Code. Discharge attenuation requirements will be met as required by the South Florida Water Management District.

No off-site ponds will be required for this

project. The project will be permitted through the South Florida Water Management District by modifying the existing environmental resource permit for the corridor.

Modification of landscaping established through the Greening Gateway projects at the Sunrise Boulevard and Oakland Park Boulevard interchanges will be required to accommodate improvements to the roadway drainage system.

The Study Team has coordinated with the Greening Gateway Committee and stakeholders. In general, the depressed areas shown in red will be excavated to create a wet pond. The design of the pond will focus on minimizing impacts to existing landscaping while creating an aesthetically pleasing water feature. Coordination with the Greening Gateway Committee and local stakeholders will be maintained during the final design phase.

Floodplains were analyzed in accordance with Executive Order 11988, Floodplain Management. Floodplain encroachment from the project is negligible, and no adverse floodplain impacts will occur.

No right-of-way acquisition is anticipated for this project. As this project progresses to the

final design phase, more detailed analysis will be completed which may result in the need for right-of-way.

Any right-of-way acquisition will be as per the Federal Uniform Relocation Assistance and Real Property Acquisition Act of 1970 and FDOT Real Estate Acquisition Process. The FDOT District Four Right-of-Way Department will coordinate this process if needed.

The project improvements will have positive socioeconomic impacts on the study area as it improves mobility and relieves congestion. Impacts to land use and community services are not anticipated.

An assessment of cultural resources within the project Area of Potential Effect resulted in the identification of five historic resources (canals, bridges, and structures). Two of these are considered eligible for listing in the National Register of Historic Places: North Woodlawn Cemetery and Seaboard Airline/CSX Railroad.

No archaeological sites were identified within the Area of Potential Effect. No adverse effects to any cultural resources are anticipated. Concurrence from the State Historic Preservation

Officer is pending.

One of these resources, the North Woodlawn Cemetery, is located just south of Sunrise Boulevard and adjacent to I-95. The Potter's Field is an area adjacent to the main cemetery where additional burials may have taken place.

Community Outreach meetings and interviews were conducted with the local community to obtain historical information about the cemetery and address the community's concerns.

Through extensive coordination with the local community, the proposed improvements adjacent to the North Woodlawn Cemetery were designed to avoid impacting this important resource.

The proposed design will match the existing edge of pavement in both northbound and southbound directions adjacent to the cemetery. Widening will only take place within the median and above the elevation of the original ground. The existing fence adjacent to the cemetery will remain at its current location.

Section 4(f) was enacted in 1966 as part of the Department of Transportation Act. It states that for federally funded projects "It is the policy of the United States Government that special

effort be made to preserve the natural beauty of the countryside, public park and recreation lands, wildlife and waterfowl refuges, and historic sites."

Four parks are located in proximity to the project's corridor: Easterlin Park, owned by Broward County; and Osswald Park, Mills Pond Park, and Flamingo Park, all owned by the City of Fort Lauderdale. Coordination with the Federal Highway Administration has determined that there will be no Section 4(f) involvement with these parks resulting from this project.

The project was evaluated in accordance with Executive Order 11990, Protection of Wetlands. The Proposed Alternative will result in approximately 2.17 acres of impacts to wetlands (these are stormwater swales supporting hydrophytic vegetation) and 2.32 acres of impacts to other surface waters (such as retention ponds and canals) within the FDOT right-of-way. This includes 0.11 acres of impacts to mangroves (also designated as Essential Fish Habitat) at the four canal crossings.

Where impacts could not be avoided, they were minimized to the greatest extent practical.

Unavoidable impacts to wetlands and other surface waters will be mitigated during the environmental permitting process.

Potential effects to Federal and state listed (protected) species were assessed. It was determined that the project may affect, but is not likely to adversely affect, three species: Wood Stork, Eastern Indigo Snake, and West Indian Manatee. Concurrence from the U.S. Fish and Wildlife Service is pending.

Potentially contaminated sites in the vicinity of the project corridor were identified and evaluated to determine if impacts would occur as a result of the proposed improvements. During final design, further assessment of approximately 52 High and Medium Risk sites will be conducted. However, the project contains no known significant contamination.

Traffic noise was analyzed in accordance with the latest noise criteria as per Title 23 Code of Federal Regulations Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise dated July 13th, 2010 and Florida Statutes Chapter 335.17. Worst-case traffic noise levels were predicted for all project alternatives.

Approximately 957 residences and 16 non-residential/special-use sites (such as churches, schools, and parks) located along the project corridor were identified as being sensitive to traffic noise.

Traffic noise impacts were predicted to occur at 182 residences and 4 non-residential/special-use areas. Noise walls were evaluated at 13 locations. One noise wall is recommended for further consideration located along the west side of I-95, south of Sistrunk Boulevard.

The remaining 12 noise walls were not recommended; because construction cost for noise walls were determined to exceed FDOT's reasonable cost criteria, or it was not possible to reduce noise levels by at least 7 decibels in accordance with FDOT's noise level reduction requirement.

The project area meets Environmental Protection Agency standards of attainment under the criteria provided in the Clean Air Act. No air quality impacts are expected to occur as a result of the proposed improvements.

To summarize, the HOV lanes will be converted to tolled Express Lanes and an additional tolled Express Lane will be added in each direction.

Access to the Broward Boulevard Park and Ride Lot will be via the Express Lanes or local roads only. North Woodlawn Cemetery will not be impacted.

No right-of-way acquisition is anticipated. Existing noise walls will remain. And a new noise wall is recommended along the southbound lanes from the Park and Ride Lot Ramp north of Broward Boulevard to Northwest 6th Street (Sistrunk Boulevard).

Over the next several months, FDOT will continue to finalize the analysis and will seek approval from the Federal Highway Administration on the improvements presented here at tonight's public hearing. Following approval, FDOT will continue with the design phase and the construction phase as funding becomes available.

The study is anticipated to be completed in the summer of 2013. Design is fully funded for this segment for the years 2019 and 2021. The Department is evaluating advancing the design phase to begin construction in the summer of 2015.

No final decisions will be made until after we hear your comments. You may provide your comments in several ways. You may provide an oral statement to the court reporter. Complete a speaker card and

make an oral statement at the microphone during the public comment period.

Complete a comment form and drop it in the comment box provided at the hearing or mail your comments to the FDOT project manager at the address shown on the comment form. E-mail your comments to the FDOT at the address shown on the comment form or visit the project website and submit comments electronically.

All written material received at this public hearing and at the Florida Department of Transportation office, postmarked no later than ten days following the date of this public hearing, will become a part of the public record for this hearing.

A public website was created for this project. You can go to www.95stirlingoakland.com for additional project information. If you would like to submit a comment electronically, there is a dedicated page on the website for comments. Roll over the public involvement menu. Click on the Submit Feedback link. Then fill out the form and click send. Submitting a comment through the website will generate an e-mail to our project team.

This concludes our presentation. Thank you.

MR. YOUNG: At this time anyone desiring to make a statement or present written views and/or exhibits relative to the location, conceptual design, socioeconomic effects, or impact on the environment as a result of this project will now have an opportunity to do so. This is an opportunity for you to formally present your comments, opinion, and ideas about the project for the permanent record.

We ask that you limit your comments to three minutes. And if you have additional comments, you may continue after other people have had the opportunity to comment. We will also have staff available after the comment period to address any specific questions one-on-one.

If you are holding speaker cards, please pass your cards to the aisle and our staff will collect them. And if you have not received a card and wish to speak, please raise your hand and our staff will provide you with one.

Mayor Adornato, would you like to make a statement?

MR. ADORNATO: Thank you. Thanks to the DOT and for all the project team that's here. I

appreciate that you're all here and listening to the comments.

I had talked to a few people beforehand. And I appreciate being able to just let you know that the residents of the City of Oakland Park truly appreciate the Greening Gateway at the Oakland Park Boulevard interchange and appreciate that you're trying to maximize or minimize the impact to the existing vegetation. I know they'll appreciate that.

In general, I personally am in support of this project, and I think it will help benefit the congestion that exists. I know I use the toll lanes in Miami-Dade County and I know others do too. So I appreciate it. Thank you for being here.

MR. YOUNG: Thank you. Are there any other elected officials who would like to make a statement?

Are there any other public officials?

Seeing none, I'll call the cards that I have. First is Mr. Michael Smith.

MR. SMITH: Good evening. Like the former speaker, I thank you for being able to participate in the hearing tonight. I'm a resident of Broward

County for more years than I care to remember, at least three decades. And I've seen I-95 grow from the time that the New River Bridge was initially built to connect with northbound 95 and southbound 95 and finally it was finished. And it's grown and grown two and three times.

According to the project description -- and this is a copy of the preliminary report on page 2 -- the majority of the project corridor is eight travel lanes, four in each direction. Fine. The lane width on -- I jumped to page 142 in the preliminary report, the Table 3-6 -- it says your project will have 11 foot lanes.

Eleven feet is really less than the standard for, as far as I know, for FDOT lane widths. It is also less than the standard for lane widths for major roads and expressways in the European Union. So you're building something -- and according to the report, it's 547 million dollars over that, over half a billion dollars for a project that's going to have lanes that are less than standard.

That's a problem with me. I don't drive I-95 to Miami every day, but I ride it occasionally. And I have experienced the lane widths in the construction area between Fort Lauderdale and Miami

and you're right up against that barrier. And even at the reduced speed, it's work to get to drive that. It's not fun.

The other point I'd like to make is on page 48 of the preliminary report, there's a list of crash frequency by severity from 2006 through 2010. And, according to that, there is a list down at the bottom which says interchange ramps fatalities, 0000, total zero.

There was an article in Sunday's April 7th Fort Lauderdale News, the early edition, codifying or at least relating how many fatalities there were at 84 and I-95 on the interchange ramps. That's not directly attributable to the construction, but a fatality could happen during construction time. So that's a problem.

Another problem is this project requires a toll on getting, from using the existing ramps from I-95 to the Park and Ride areas of Amtrak and Tri-Rail at the Fort Lauderdale Station. The last upgrade for the diamond lanes, carpool lanes, that was an exclusive direct access to improve access to the station and alternate means of transportation.

You're going to have at least more than two years of construction where the Tri-Rail is going

to be a good alternative if people are going south or even north. I can't see this as an extra toll just to get to the Park and Ride area. That may not be the conclusion of your engineers, but certainly that's my feeling.

Finally, the area of 84 northbound right now is four free lanes northbound north of the 84 overpass and over the river. According to your project, the toll lanes are going to be added at that point. And according to the pictures in the report -- which I don't have the number right now, but there's a picture in the report of the toll lanes as a completed project -- it will be three lanes.

So you're really not adding -- you're adding two lanes at the expense of one free lane. To me that's choking a free lane northbound on I-95 at that point. Well, fine. You're going to increase mobility by putting new lanes. But that doesn't seem to fit the criteria of the description, as I recall.

And let me make a quote here. I'm sorry. I'm going to get this right, because I'm not that good at memorization. This is the Secretary of Transportation, Mr. Prasad's quote in the report on

page 4.

"Florida will be implementing a policy that all new capacity on Interstates and expressways and widening and replacement of all major river crossings should be tolled where feasible, or at the very least tolls should complement traditional funding in delivering improvements and new capacity."

He very carefully stated twice in that paragraph that he's talking about new capacity. I don't see the area north of 84 northbound as new capacity when you're relinquishing one free lane and turning it into a toll lane or two lanes northbound. That's a little detailed. But thank you for your time.

MR. YOUNG: Thank you, Mr. Smith.

The next speaker card I have is Richard Miller. And when you come to the microphone, if you would please state your name and address for the record.

MR. MILLER: Richard Miller, 1914 Southwest 14th Court, Fort Lauderdale, Florida. I worked with the DOT for a number of years. And I came here for two reasons, basically.

First was I recollected that there was a

contamination site over by Broward Boulevard, which an unusually high number of firefighters back in the late '60s had died cause they were eating smoke. That site is in your contamination report. Heads up to Vincent who was right there.

The other item I came up with regards to this. Remember, initially there wasn't a noise wall in my backyard. And to make a long story short, there is now. However, it wasn't properly constructed. And I'm getting 4 foot iguanas coming up in the noise wall in my backyard from time to time.

I approached a management engineer seven years ago and I was told, well, it costs too much. I recollect that people that would complain about not having a noise wall would be telling me that when we do the study there we'll look at it, and if we can build one we will.

So simplistically stated, I want you to fix not the noise wall. But, basically, there's a 1 foot gap underneath my noise wall where I'm getting various critters coming into my backyard, even 4 foot iguanas. And if you could accomplish that, it would be much appreciated. Look on your reports.

Good job, Rich. Bye.

MR. YOUNG: Thank you, Mr. Miller. Our

district maintenance engineer is here, and I think she took note of your comments.

The next speaker is L. Thomas Chancey.

MR. CHANCEY: My name is L. Thomas Chancey, 1619 Southwest 4th Court, Riverside Park. I have Softscapes, which is at the corner of I-95 and Broward. It's a National Wildlife Federation wildlife preserve.

I'm a landscape architect, consulting arborist, tree preservationist. I've been involved in the City of Fort Lauderdale since the early '70s bringing in landscaping, trees, and nature, been involved in many boards. Right now I'm with the Utility Advisory Committee for the City and Tree Preservation Board.

My interest, of course, is that corner. I bought the property 25 years ago and decided not to put a three story, 14 unit apartment at the entrance of our city. I decided as a landscape architect to turn it into a green space in the interest of our city and spent a lot of time.

And when the FDOT over the Tri-Rail widened and was ready to destroy a thousand trees, I went to the landscape architect of DOT -- I had worked with them for many years -- and said can our

neighborhood have them. At my expense I moved 450 trees into Riverside Park, blocked streets off when they were cutting from Davie Boulevard up to Broward Boulevard through our neighborhood.

It was horrible. They didn't want to stay on I-95 for that period. And we blocked the streets, putting in trees, did whatever. We got a national award for it. Now we got a quiet neighborhood. So I'm on your side. Do not misunderstand me.

As you come around that corner on that bend, the water comes down around Softscapes and lands in the bend, percolates down, goes out, which is wonderful. It works its way around the sound wall. Whenever it overflows, we've got a 20 inch rain or a hurricane or whatever and it's three inches deep for an hour or two, it goes out there and goes over the river. So your drainage is good.

I heard you commenting on the side of the road where there might be some accommodations for some additional reception of water from what you're doing. I was going to make sure that from Davie Boulevard up to Broward Boulevard where you're close to the sound wall -- and it's very efficient, I want you to know that -- I'm volunteering my services free of charge, as I've done for the City

for 40 years, for anybody that you're doing business with on that intersection to just inform them of observations that I've made in that corner so that it's helpful.

There's no reason to go out and get an engineer -- don't misunderstand my comments -- an engineer from Columbus, Ohio who comes and gets on a piece of paper and draws a beautiful thing and says this is what you should do. I'm not suggesting you're doing that, but I've seen it happen.

So I'm saying that locally some of us have not only experience, but observations that are very helpful in the neighborhood. I graduated there at Stranahan in 1960 before I-95 was even built, so I'm very familiar with the whole area. And I know what you generally talked about across the street, across 95 on the pollution and all that.

So I'm offering my time and effort and observations that would be helpful as you're going to get -- not only along that area. But perhaps it would be helpful in such a standard that you won't waste your money on certain things as you just might not have known or your hired consultants might not have known.

Number two, I know next you're coming up to go down Broward. There's lot of issues I can bring to you and help you very much. I've already mentioned to your engineers about some things that you can do right away that will cost you hardly no money, no money to correct and help your flow of traffic. And there's a number of us in the neighborhood and in the city that are doing these such things over the years.

And that's why I'm speaking, because I care and I know you know it. I care about nature, God's creation. I care about the wildlife. I have a lot of my birds and butterflies you'd never want to believe there. And I'm concerned about it.

I have a snake. And the children come from the school, and they're just thrilled to come in to a forest in the middle of a city and see such beautiful wildlife and all kinds of things you would never believe existed. And that's what I'm trying to encourage people to do, to love our planet.

And do what you're doing. We have to do this. We have to transfer and we have to encourage people to please double up on your cars. You know America, everybody's got a single car. You know we

got a problem. I'm not going to go over that. That's not your issue right now. But I want to tell you there's people that care and we're here to help. Thanks.

MR. YOUNG: Thank you very much for that offer.

I don't have any more request to speak cards. But does anybody else want to make a comment?

Okay. If no one else desires to speak --

MR. OLSON: There might be somebody up here, Richard.

MR. YOUNG: Okay. Come up to microphone and state your name and address, and you can fill out a card later.

MR. HINTON: My name is Walter "Mickey" Hinton, President of Durr Homeowner's Association, Fort Lauderdale.

After one meeting with the staff that came to our neighborhood, I really feel good about the Woodlawn Cemetery. And in that cemetery, there's a lot of historical burials there. And we, the homeowner's association, made a historical witness to Fort Lauderdale.

And so I want to thank you for doing what I've seen tonight about the cemetery, and I hope that it

doesn't change. And I appreciate it very much. Thank you.

MR. YOUNG: Thank you, sir.

Does anyone else want to make a comment?

Yes, sir. Come on up and state your name and address and you can fill out a card.

MR. COLON: My name is Charlie Colon, and I'm the new general manager of the DCOTA Center. And I just got here about three weeks ago. The reason I'm here today is because the owners of the DCOTA Center -- they're from New York City -- they saw your paperwork, literature, and everything.

And they were concerned in regards to the entrance and the exiting of this development, including this hotel also. We just want to make sure that there's no interruptions of our tenants coming in, going out at any time during your project. And that's basically it.

MR. YOUNG: Okay. Thank you.

Anyone else?

Okay. If no one else desires to speak, I want to remind you that written statements and/or exhibits may be presented in lieu of or as support to oral statements made here tonight.

The written statements may be sent to the

attention of Mr. Ray Holzweiss at the Florida Department of Transportation, District Four Office at 3400 West Commercial Boulevard, Fort Lauderdale, Florida 33309. If written statements are postmarked within ten days after the day of this hearing, they will be included as part of the hearing.

The verbatim transcript of tonight's oral proceedings, together with all the material displayed at this hearing, will be made a part of the project decision making process and will be available for public review at the District office in Fort Lauderdale.

I really want to thank you for attending this public hearing and for providing your input into the project. And at 7:16 this hearing is officially adjourned. Thank you very much for coming and good night.

(Meeting concluded at 7:16 p.m.)

STATE OF FLORIDA

COUNTY OF PALM BEACH

I, THOMAS N. SEVIER, Florida Professional Reporter, certify that I was authorized to and did stenographically report the foregoing proceeding; and that pages 1 through 39, inclusive, are a true and complete record of my stenographic notes.

Dated this 22nd day of April, 2013.

DocuSigned by:
Thomas Sevier
8723FA3DAAD7483...

THOMAS N. SEVIER
Florida Professional Reporter

APPENDIX B

Agency Coordination Letters

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

April 29, 2013

Ms. Ann Broadwell
District Environmental Administrator
Florida Department of Transportation - District Four
3400 West Commercial Boulevard
Fort Lauderdale, FL 33309

Subject: Sole Source Aquifer Review for the FDOT SR 9/I-95 Project Development and Environment (PD&E) Study from Stirling Road (SR 848) to North of Oakland Park Boulevard (SR 816) - 8.649 mile proposed widening of I-95 in Broward County

Dear Ms. Broadwell:

The U.S. Environmental Protection Agency (EPA), Region 4, received your March 15, 2013 request to assess the above referenced project and we reviewed it pursuant to Section 1424(e) of the Safe Drinking Water Act. The assessment is to determine if the project lies within the boundaries (recharge and streamflow source zones) of an EPA designated Sole Source Aquifer (SSA); and to determine if the project poses potential, adverse health or environmental impacts. A sole source aquifer is the sole or principal water source for a designated area. If the aquifer is contaminated, there would be a significant hazard to public health and an economic burden for those using the aquifer to tap into and deliver drinking water from another water source.

The project has been determined to lie **inside** the designated boundaries of the Biscayne Aquifer. Regulatory groups within the EPA responsible for administering other programs may, at their own discretion and under separate cover, provide additional comments

Based on the information provided, the project is not expected to cause a significant impact to the aquifer system. However, it is requested that all debris from any demolition of the existing structures are properly contained and removed from the site prior to construction of the new building. If applicable, contractors should follow all county flood plain management's plans and public notification processes. During construction, it is EPA's understanding and expectation that those responsible for the project will strictly adhere to all Federal, State and local government permits, ordinances, planning designs, construction codes, operation & maintenance requirements, and engineering. All best management practices for erosion and sedimentation control should be followed. State and County environmental offices should be contacted to address proper drainage and storm water designs. Additionally, the project manager should contact State and local environmental officials to obtain a copy of any local Wellhead Protection Plans. http://www.dep.state.fl.us/swapp/Default.htm

If proper protection measures are followed, this project is not expected to cause significant adverse impacts to the aquifer. All findings of "no significant impact" are based on EPA's understanding and expectation that those responsible for the project will strictly adhere to all federal, state and local government permits, ordinances, best management practices, planning designs, construction and maintenance requirements, monitoring requirements and engineering recommendations to protect the integrity of the surrounding ground water recharge zones. It is requested that you contact the EPA Region 4 office should there be any major project changes.

Thank you for your concern with the environmental impacts of this project. If you have any questions, please contact me at 404-562-9474.

Sincerely,

Larry T. Cole
Environmental Engineer
Ground Water and UIC Section

Florida Department of Transportation

RICK SCOTT
GOVERNOR

3400 W. Commercial Blvd.
Fort Lauderdale, FL 33309

ANANTH PRASAD, P.E.
SECRETARY

January 29, 2013

Ms. Linda Anderson
U.S. Department of Transportation
Federal Highway Administration
Florida Division Office
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Subject: **Request for Review**
Cultural Resource Assessment Survey (CRAS)
SR 9/I-95 from SR 848 (Stirling Road) to north of SR 816 (Oakland Park Boulevard)
Financial Management Number: 429804-1-22-01
ETDM Number: 13168
Broward County, Florida

Dear Ms. Anderson:

FDOT, District 4 is currently conducting a Project Development & Environment (PD&E) study for the proposed widening of SR-9/I-95 in Broward County, Florida. The limits of the project are from Stirling Road to north of Oakland Park Boulevard. The primary purpose of the project is to relieve congestion along the I-95 corridor by converting the existing High Occupancy Vehicle (HOV) lanes to tolled express lanes and adding one additional lane to the median, in each direction. All improvements will be constructed within current FDOT right of way (ROW). This CRAS was undertaken in order to locate and evaluate archaeological and historic resources within the Area of Potential Effect (APE) and to assess eligibility for inclusion in the National Register of Historic Places (NRHP) according to criteria set forth in 36 CFR 60.4.

No newly or previously recorded archaeological sites were identified within the project APE. The historic resources survey resulted in the identification of four previously recorded historic resources and one newly recorded resource within the APE. The resources include one cemetery, one roadway section, one railroad, and two canals. Florida Master Site File (MSF) forms were not updated for three of the previously recorded resources, as they were found to be unchanged since their recordation. The MSF form for the Seaboard Air Line (CSX) Railroad was updated. Previously recorded segments of this resource have been determined to be eligible for listing on the NRHP. The segment that is the subject of this CRAS is also considered eligible for listing. The newly recorded resource, the North Woodlawn Cemetery, is also considered eligible for listing in the NRHP. A Determination of Eligibility (DOE) for the cemetery is included with this CRAS.

SR-9 (I-95)
FM 429804.1
Cultural Resources Assessment Survey

A reconnaissance survey was also undertaken in order to identify any significant historic resources adjacent to the current I-95 ROW. The reconnaissance survey resulted in the identification of four previously recorded historic resources, one of which is currently listed (Link Trainer Building) and two of which are considered eligible for listing (CSX Railroad Station and the CSX Railroad Bridge). The Dania Canal Railroad Bridge was determined ineligible for listing in 1999; however, this resource should be reevaluated, as it is likely a contributing resource to a potential CSX Railroad linear historic district.

Please complete the signature block below and forward the additional report copy to SHPO. If you have questions regarding the subject project, please contact me at 954-777-4325, or Lynn Kelley at 954-777-4334.

Sincerely,

Ann Broadwell
Environmental Administrator
FDOT - District 4

Enclosures
Cc: Ray Holzweiss– District Four
Roy Jackson - CEMO
Project File

SR-9 (I-95)
FM 429804.1
Cultural Resources Assessment Survey

The FHWA finds the attached Cultural Resources Assessment Report complete and sufficient and ✓ approves / ___ does not approve the above recommendations and findings.

The FHWA requests the SHPO's opinion on the sufficiency of the attached report and the SHPO's opinion on the recommendations and findings contained in this cover letter and in the comment block below.

FHWA Comments:

SEE ATTACHED FHWA COMMENTS | FDOT [redacted] RESPONSES OF 3-20-13.
PLEASE ADDRESS COMMENTS | OPINION TO LINDA ANDERSON, FHWA.
P: 850-553-2226. E: linda.anderson@dot.gov. PLEASE CC:
LYNN KELLEY, FDOT DM; MARK CLASGENS, FHWA; & ROY JACKSON, FDOT CEMO.

/s/ [signature]
David C. Hawk
Acting Division Administrator
Florida and Puerto Rico Divisions
Federal Highway Administration

3-22-13
Date

The Florida State Historic Preservation Officer finds the attached Cultural Resources Assessment Report complete and sufficient and concurs with the recommendations and findings provided in this cover letter for SHPO/DHR Project File Number 2013-897.

[signature]
Robert Bendus
Director, and State Historic Preservation Officer
Florida Division of Historical Resources

3/27/13
Date

Anderson, Linda (FHWA)

From: Anderson, Linda (FHWA)
Sent: Wednesday, March 06, 2013 12:06 PM
To: Kelley, Lynn (Lynn.Kelley@dot.state.fl.us)
Cc: Jones, Ginny L. (Ginny.Jones@DOS.MyFlorida.com); 'Jackson, Roy'
Subject: CRAS for SR 9/I-95 from Stirling Road to North of Oakland Park Blvd., FM # 42980412201

FHWA has reviewed the CRAS for SR 9/I-95 from Stirling Road to North of Oakland Park Blvd., FM # 42980412201, and has the following comments:

1. Does this CRAS clear drainage facilities? Please note pond on plan sheet 8 in area of high site potential. Is this an existing pond or a planned pond? If planned, was it tested for archaeological resources in a previous CRAS? If not, why wasn't it tested during this CRAS?

2. FHWA's understanding of this project is that the outer edges of outer lanes will not move; instead, lanes will be added in the median. If this is the case, why was shovel testing done outside of lanes, especially in areas where FDOT ROW appears to be too narrow for ponds?

3. Per page 69, no shovel testing was done in areas of low archaeological probability. Per Roy Jackson, low probability zones should have a 100m testing interval with judgment exercised as there are a number of acceptable reasons for not digging in low probability zones. Please test areas of low probability or provide a detailed explanation about why shovel testing is not appropriate in these areas.

FHWA is concerned about the thoroughness of archaeological field testing, but concurs with the NRHP-eligibility determinations for historic resources. FHWA will reserve its determination on the project until it receives a response to the above comments.

Meanwhile, the CRAS will be sent to SHPO via shuttle today for concurrent review. Please cc SHPO on FDOT responses to the above comments. SHPO needs to refrain from concurrence or lack of until FHWA has made its determination.

Thanks.

Linda Anderson
Environmental Protection Specialist
Federal Highway Administration
545 John Knox Rd., Ste. 200
Tallahassee, FL 32303
P: 850-553-2226
F: 850-942-8308

From:	Kelley, Lynn
To:	Anderson, Linda (FHWA); Fusconi, Vincent
Subject:	FW: response to FHWA comments: CRAS for SR 9/I-95 from Stirling Road to North of Oakland Park Blvd., FM # 42980412201
Date:	Thursday, March 21, 2013 3:45:50 PM
Attachments:	FHWA comments_response_edited_noon_3_14.docx

Hi Linda,

(in red ink)

I was wondering if the attached responses had answered your concerns. Let me know – thanks!

From: Kelley, Lynn
Sent: Wednesday, March 20, 2013 1:37 PM
To: Linda.Anderson@dot.gov
Cc: Fusconi, Vincent; Holzweiss, Ray; Broadwell, Ann L
Subject: FW: response to FHWA comments: CRAS for SR 9/I-95 from Stirling Road to North of Oakland Park Blvd., FM # 42980412201

Linda, please see attached responses. Please let me know if this is helpful. Thank you!

1. Does this CRAS clear drainage facilities? Please note pond on plan sheet 8 in area of high site potential. Is this an existing pond or a planned pond? If planned, was it tested for archaeological resources in a previous CRAS? If not, why wasn't it tested during this CRAS? – Drainage facilities are not specifically addressed in the CRAS, but all planned drainage facilities for this project fall within the existing FDOT ROW. As such, any new drainage facilities would have fallen within the archaeological APE that was tested for the current project.

   The pond on plan sheet 8 that is mentioned is an existing pond. The reference to this pond is only made in Appendix E – Shovel Test Maps. This appendix contains the plan maps overlain with the locations of excavated shovel tests and other notes that were taken during the field survey. The location of this existing pond was noted during the field survey to explain why no shovel testing was conducted there. This notation is not included anywhere else in the CRAS (for instance, in Appendix C).

2. FHWA's understanding of this project is that the outer edges of outer lanes will not move; instead, lanes will be added in the median. If this is the case, why was shovel testing done outside of lanes, especially in areas where FDOT ROW appears to be too narrow for ponds? – The outer edges of lanes will be moved throughout much of the corridor. It is only in the vicinity of North Woodlawn Cemetery that FDOT has made a commitment not to widen or conduct any ground disturbance beyond the edge of the existing pavement.

   As with most projects, field testing and research conducted for this CRAS was conducted as multiple alternatives and engineering options were being considered. As such, the archaeological fieldwork was designed at the time to adequately test all possible alternatives, including widening past the edge of existing pavement. The initial results of the CRAS were provided to the FDOT design team as early as possible in order to help them design alternatives that avoid and minimize impacts on any potential cultural resources.

   The recommended alternative proposes to widen I-95 on the outside in order to accommodate the new Express Lanes system in the median. However, at the vicinity of the North Woodlawn Cemetery, I-95 will be widened by approximately 6-ft toward the median to avoid impacting this resource. The existing edge outside edge of pavement will remain and the inside shoulder width will be reduced to accommodate the express and general purpose lanes with no impacts to the cemetery.

3. Per page 69, no shovel testing was done in areas of low archaeological probability. Per Roy Jackson, low probability zones should have a 100m testing interval with judgment

exercised as there are a number of acceptable reasons for not digging in low probability zones. Please test areas of low probability or provide a detailed explanation about why shovel testing is not appropriate in these areas. – The archaeological testing was perhaps not explained well enough in the CRAS report. A more detailed explanation is provided here.

A Research Design that included background research for this project, including initial zones of archaeological probability, was prepared and presented to FDOT before any field-testing was conducted. The initial Archaeological Site Potential Zones included in the Research Design were reformatted as Figures 9-1, 9-2, and 9-3 within the current CRAS report.

However, it should be noted that, because of the highly urbanized nature of the project corridor, the initial field reconnaissance and utility coordination revealed that very little of the project corridor was actually testable. This was due to a number of factors including the extensive modifications to the natural ground surface associated with the construction and subsequent modification of the Interstate and the presence of extensive buried utilities. Because of this, some portions of the project corridor that were initially evaluated as having high or moderate archaeological site potential were evaluated in the field as untestable. This was also true for all portions of the project corridor that were initially evaluated as having low archaeological site potential in the original Research Design.

The field crew did their best to include notes and take photographs that document why testing in large portions of the project corridor was not possible. Their notes are overlain on plan maps in Appendix E. Noted disturbances that precluded archaeological testing includes existing ponds, berms, buried utilities, etc.

Florida Department of Transportation

RICK SCOTT
GOVERNOR

3400 W. Commercial Blvd.
Fort Lauderdale, FL 33309

ANANTH PRASAD, P.E.
SECRETARY

May 9, 2013

Mr. David Hawk
Division Administrator (Acting)
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Attention: Ms. Linda Anderson, Environmental Specialist

Subject: **Request for Review**
Evaluation of Effects to North Woodlawn Cemetery
Interstate 95 (I-95)/State Road (SR) 9
From: Stirling Road
To: Oakland Park Boulevard
County: Broward
FM Number: 429804-1-22-01
ETDM Number: 13168

Dear Ms. Anderson:

FDOT, District 4 is currently conducting a Project Development and Environment (PD&E) study for the proposed widening of SR-9/I-95 in Broward County, Florida. The limits of the project are from Stirling Road to north of Oakland Park Boulevard. The primary purpose of the project is to relieve congestion along the I-95 corridor by converting the existing High Occupancy Vehicle (HOV) lanes to tolled express lanes and adding one additional lane to the median, in each direction. All improvements will be constructed within current FDOT right of way (ROW).

As part of the PD&E, a Cultural Resource Assessment Survey (CRAS) was undertaken in order to locate and evaluate archaeological and historical resources within the Area of Potential Effect (APE) and to assess eligibility for inclusion in the National Register of Historic Places (NRHP) according to criteria set forth in 36 CFR 60.4. As a result of this CRAS, North Woodlawn Cemetery (8BD4879), a historic African-American cemetery, was recorded. The CRAS and a Determination of Eligibility (DOE) for North Woodlawn Cemetery was submitted to FHWA and the Florida State Historic Preservation Officer (SHPO) in January of this year. FHWA and the SHPO both concurred with the results of

the CRAS and in a determination that North Woodlawn Cemetery is eligible for the NRHP.

North Woodlawn Cemetery and the Proposed I-95 Widening

In the vicinity of the North Woodlawn Cemetery, the existing I-95 typical section features four general purpose lanes, and one High Occupancy Vehicle (HOV) lane in each direction. In addition, there are two auxiliary lanes in the northbound direction: one for the northbound to westbound exit ramp and one for the northbound to eastbound exit ramp. This lane configuration is depicted in Figures 1 and 2 below:

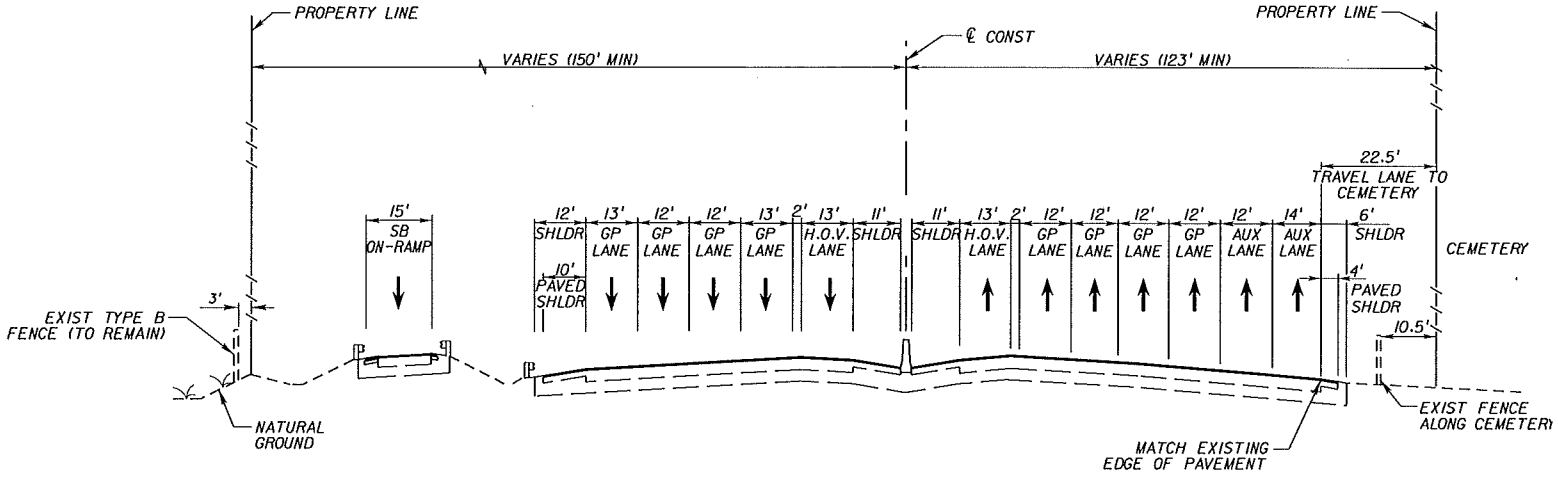


Figure 1 – Existing Typical Section at the North Woodlawn Cemetery

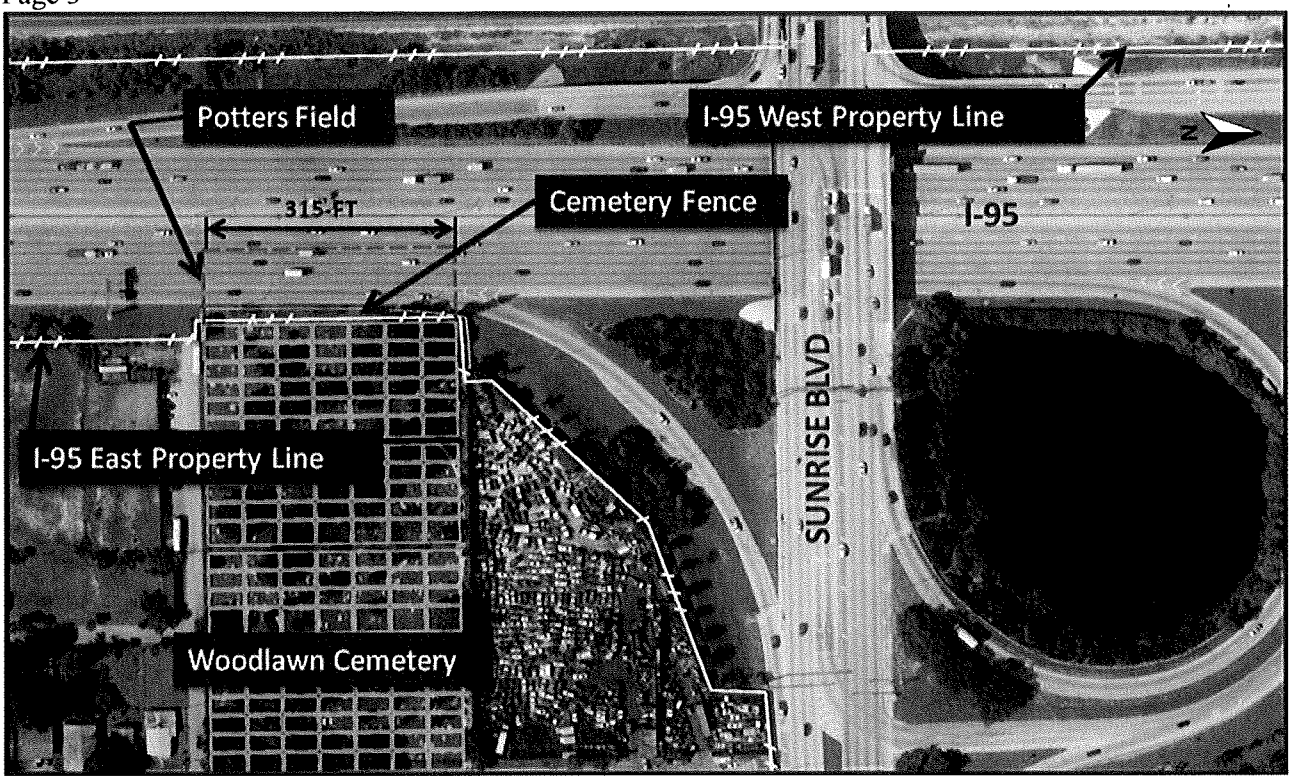


Figure 2 – Existing Plan View at the North Woodlawn Cemetery

The proposed improvements for I-95 in the area of the North Woodlawn Cemetery are developed to avoid impacting the North Woodlawn Cemetery and the Potter's Field. In general, the design intent was to avoid any excavation within the FDOT right of way for the 315 ft. limits of the North Woodlawn Cemetery. As a result, the proposed typical section maintains the existing outside edges of pavement in both directions within the 315 ft. limits of the North Woodlawn Cemetery.

The proposed southbound typical section features two 11 ft. Express Lanes, one 11 ft. general purpose lane, three 12 ft. general purpose lanes, a 5 ft. inside shoulder, and a 12 ft. outside shoulder. This will require widening the facility toward the median by approximately 6 ft. This widening can be accommodated above the original ground elevation that was in place prior to the construction of I-95 in the 1970's. This typical section avoids widening toward the outside where there is less of a clearance to the original ground and also eliminates the potential need to extend the existing retaining wall that supports the southbound on-ramp from Sunrise Boulevard.

In the northbound direction, the typical section features two 11 ft. Express Lanes, one 11 ft. general purpose lane, three 12 ft. general purpose lanes, two 12 ft. auxiliary lanes, a 5 ft. inside shoulder, and a 6 ft. outside shoulder. This will also require widening the facility toward the median by approximately 6 ft. This widening can be

accommodated above the original ground elevation that was in place prior to the construction of I-95 in the 1970's.

Widening to provide full depth pavement in the median will not require excavating below the original ground that was in place prior to the construction of I-95 in the 1970's. Since the construction will stay above the original ground, the proposed work in the median should not disturb any potential unmarked graves underneath I-95. The resulting inside shoulders will be 5 ft. This configuration is depicted in Figures 3 and 4 below:

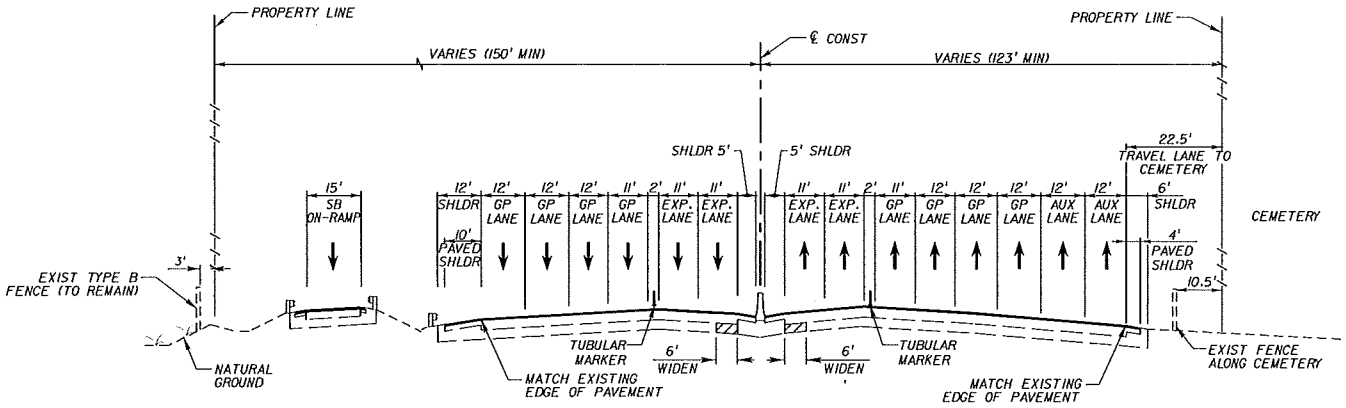


Figure 3 – Proposed Typical Section at the North Woodlawn Cemetery

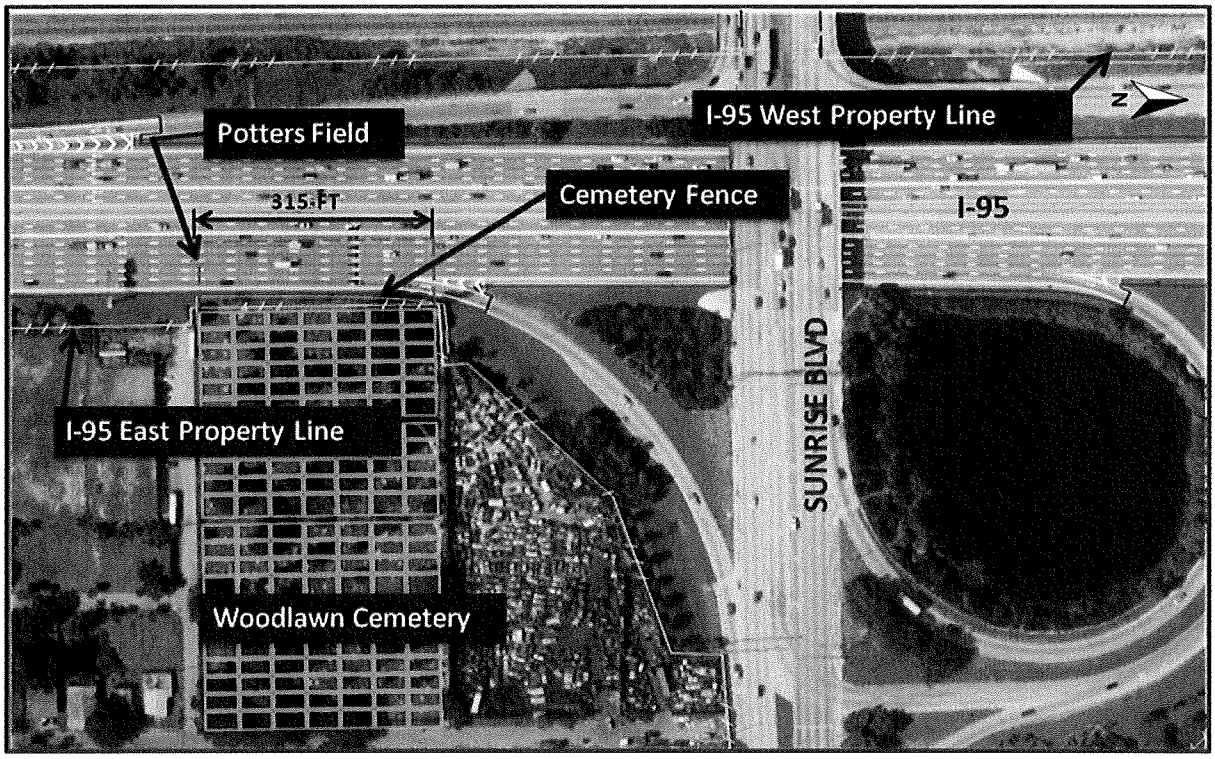


Figure 4 – Proposed Plan View at the North Woodlawn Cemetery

Public Involvement

Based on the requirements of the Section 106 process, coordination was conducted with parties which have a potential interest in North Woodlawn Cemetery. Coordination included two Community Outreach Meetings and an informational article published online by a local newspaper.

Both CRC meetings were held at the African-American Research Library and Cultural Center in Fort Lauderdale. Representatives from FDOT, FHWA, SHPO, Broward County, the City of Fort Lauderdale and members of the local African-American community took part in these meetings.

During the first meeting in October, 2012, the project background, need, and preliminary results of the CRAS were presented. Information on the history of North Woodlawn Cemetery and its historic "Potter's Field" as well as the construction of I-95 in the vicinity of North Woodlawn was requested and provided by a number of local citizens. Members of the local public also stated strongly their desire that the proposed project not impact the extant portion of North Woodlawn Cemetery, located just to the east of I-95.

During this first CRC meeting, several individuals suggested that an article describing the proposed project and requesting additional information from the community be published in the local Westside Gazette newspaper. It was felt that this would be the most appropriate outlet for the information as the Westside Gazette is a historic newspaper focused on Fort Lauderdale's African-American community. As such, FDOT staff and consultants worked with the publishers of the Westside Gazette to publish a brief online article on Woodlawn and the proposed project in January of this year.

The second CRC meeting was held in February of 2013. The purpose of this meeting was to present concept plans to the various government agencies and the interested public. The plans took into account the sentiment expressed at the first meeting that the project should not impact the extant portion of North Woodlawn Cemetery in any way. As discussed earlier in this document, these plans included avoidance measures in the vicinity of North Woodlawn that include no additional widening of I-95 past the edge of the existing pavement. All parties in attendance at this CRC meeting noted their approval to this approach.

Avoidance Commitments

A commitment will be added to the Preliminary Engineering Report and the Categorical Exclusion Type 2 document that restricts Utility Agency Owners (UAO) with facilities

within the vicinity of the North Woodlawn Cemetery from relocating any facilities within the limits of the cemetery.

A commitment will also be added to the Preliminary Engineering Report and the Categorical Exclusion Type 2 document that restricts the contractor from staging along the shoulder adjacent to the North Woodlawn Cemetery.

Before construction begins an unanticipated finds plan will developed. The plan will include specific procedures to be taken in the event that unanticipated finds, including human remains, are encountered during construction.

During construction, an archaeological monitor will be present during all subsurface excavations conducted within 250 feet of North Woodlawn Cemetery. Monitoring will be conducted in accordance with the unanticipated finds plan.

Please complete the signature block below and forward the additional report copy to SHPO. If you have any questions or comments regarding this submittal, please do not hesitate to contact me at 954-777-4325 or Lynn Kelley at (954) 777-4334.

Sincerely,

Ann Broadwell

Ann Broadwell
Environmental Administrator
District Four

cc: Ray Holzweiss – District Four
Roy Jackson, CEMO
Project File

From:	Kelley, Lynn
To:	Anderson, Linda (FHWA); Mark.Clark@stantec.com; Cunill, Benito
Cc:	Broadwell, Ann L
Subject:	FW: FHWA has reviewed the Evaluations of Effects to North Woodlawn Cemetery, I-95 from Stirling Rd. to Oakland Park Blvd., Broward County, FM 3: 429804-1-22-01
Date:	Tuesday, June 18, 2013 2:37:44 PM
Attachments:	Case Study last page.docx

Linda, please see attached language. Please let me know if this addresses your concerns. I did send it to Roy first and he concurred.

Thank you!

Lynn Kelley
Senior Environmental Specialist
FDOT District 4 Planning & Environmental Management
(954) 777-4334
lynn.kelley@dot.state.fl.us

-----Original Message-----
From: Linda.Anderson@dot.gov [mailto:Linda.Anderson@dot.gov]
Sent: Thursday, June 13, 2013 3:55 PM
To: Kelley, Lynn
Cc: Clasgens, Mark; Jackson, Roy
Subject: FHWA has reviewed the Evaluations of Effects to North Woodlawn Cemetery, I-95 from Stirling Rd. to Oakland Park Blvd., Broward County, FM 3: 429804-1-22-01

FHWA has reviewed the Evaluation of Effects to North Woodlawn Cemetery, I-95 from Stirling Rd. to Oakland Park Blvd., Broward County, FM 3: 429804-1-22-01 and has the following comment:

1. The document does not state what the effect to Woodlawn Cemetery is, i.e., No Effect, No Adverse Effect, etc.

Please coordinate with Roy Jackson and decide what the effect is, then revise the document accordingly.

Thanks.

Linda Anderson

FHWA

Effects Analysis Results and Conclusions:
36 CFR Part 800 defines the Criteria of Adverse Effect as the following:

> *"An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."*

The information provided previously in this document details the level of effort that is being taken to avoid adverse effects to North Woodlawn Cemetery (8BD4879), including both the extant portion of the cemetery just to the east of I-95 and the potter's field that was acquired in the early 1970s for the construction of the northbound lanes of I-95. All proposed work in the vicinity of the extant portion of North Woodlawn Cemetery will be limited to the current edge of pavement for northbound SR9/I-95. The current utilities and light poles along the eastern edge of the interstate here will be maintained in their current locations. Current drainage features will also be maintained in their current states in the vicinity of North Woodlawn.

As described, grading and other excavations necessary for the widening along the median of SR9/I-95 in the vicinity of North Woodlawn are also expected to be limited to current fill materials under the pavement and should not penetrate the original pre-fill ground surface here. As an added precaution, any subsurface work that is anticipated to penetrate 2.5 feet below the current surface in the vicinity of North Woodlawn, whether in the median or the southbound lanes, will be monitored by a professional archaeologist. Also, as indicated, before construction begins, an unanticipated finds plan will be developed. The plan will include specific procedures to be taken in the event that unanticipated finds, including human remains, are encountered during construction.

North Woodlawn Cemetery is considered eligible for listing in the National Register for significance on the local level under Criterion A in the area of Ethnic Heritage: Black. Based on the information available, the project will have no adverse effect on the significant cemetery or the characteristics that determine its National Register eligibility.

The FHWA finds the attached Evaluation of Effects complete and sufficient and ✓ approves / ___ does not approve the above recommendations and findings.

The FHWA requests the SHPO's opinion on the sufficiency of the attached evaluation and the SHPO's opinion on the findings contained in this cover letter and in the comment block below.

FHWA Comments:

SEE "EFFECTS ANALYSIS AND CONCLUSIONS" ATTACHED. ADDRESS COMMENTS/ OPINION TO LINDA ANDERSON, FHWA. P: 850-553-2226. E: linda.anderson@dot.gov PLEASE CC: LYNN KELLEY, FDOT D4; MARK CLASGENS, FHWA; AND ROY JACKSON, FDOT CO MO.

/s/

David Hawk
Division Administrator (Acting)
Florida Division
Federal Highway Administration

6-17-13
Date

The Florida State Historic Preservation Officer finds the attached Evaluation of Effects complete and sufficient and concurs with the recommendations and findings provided in this cover letter for SHPO/DHR Project File Number 2013-2507.

Robert F. Bendus
State Historic Preservation Officer
Florida Division of Historical Resources

6/24/13
Date

Florida Department of Transportation

RICK SCOTT
GOVERNOR

3400 W. Commercial Blvd.
Fort Lauderdale, FL 33309

ANANTH PRASAD, P.E.
SECRETARY

August 7, 2013

Mr. David Hawk
Division Administrator (Acting)
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Attention: Ms. Linda Anderson, Environmental Specialist

Subject: **Request for Review**
Evaluation of Effects to the Seaboard Airline/CSX Railroad
Interstate 95 (I-95)/State Road (SR) 9
From: Stirling Road
To: Oakland Park Boulevard
County: Broward
FM Number: 429804-1-22-01
ETDM Number: 13168

Dear Mr. Hawk:

FDOT, District 4 is currently conducting a Project Development and Environment (PD&E) study for the proposed widening of SR-9/I-95 in Broward County, Florida. The limits of the project are from Stirling Road to north of Oakland Park Boulevard. The primary purpose of the project is to relieve congestion along the I-95 corridor by converting the existing High Occupancy Vehicle (HOV) lanes to tolled express lanes and adding one additional lane to the median, in each direction. All improvements will be constructed within current FDOT right of way (ROW).

As part of the PD&E, a Cultural Resource Assessment Survey (CRAS) was undertaken in order to locate and evaluate archaeological and historical resources within the Area of Potential Effect (APE) and to assess eligibility for inclusion in the National Register of Historic Places (NRHP) according to criteria set forth in 36 CFR 60.4. As a result of this CRAS, the Seaboard Airline/CSX Railroad (8BD4649) was identified in the APE, and this resource has been previously determined eligible for inclusion in the National Register of Historic Places (National Register) by the State Historic Preservation Officer (SHPO). The segment within the project APE, constructed circa 1927, maintains its original route and historic integrity. It also would be considered a contributing segment to a linear historic district, should this railroad ever be evaluated comprehensively.

The Seaboard Air Line/CSX Railroad is located adjacent to the western project ROW along much of the project's length. Only approximately 1.45 miles of the tracks are included within the APE, as the railroad enters and exits the APE at several locations within the project limits. During the course of this study, coordination with the CSX Transportation (CSXT) was maintained. The proposed project improvements are all within the FDOT right of way, and no project improvements that may indirectly or directly result in adverse effects to the Seaboard Airline/CSX Railroad are anticipated. During construction, flagging operations may be required if equipment is needed within 25-feet from the centerline of the tracks. The FDOT has indicated that continued coordination with the CSXT will be provided during the next phase of the study.

The Seaboard Airline/CSX Railroad has been determined eligible for listing in the National Register due to its contributions to the patterns of development and transportation in Florida. Based on the project information available, the FDOT finds that the project will have no adverse effect on the significant railroad or the characteristics that determine its National Register eligibility.

Please complete the signature block below and forward all associated information to SHPO. If you have any questions or comments regarding this submittal, please do not hesitate to contact me at 954-777-4325 or Lynn Kelley at (954) 777-4334.

Sincerely,

Ann Broadwell

Ann Broadwell
District Environmental Administrator

Enclosures
Cc: Ray Holzweiss – District Four
Roy Jackson, CEMO
Project File

The FHWA finds the attached Effects Finding complete and sufficient and ✓ approves / ___ does not approve the above recommendations and findings.

The FHWA requests the SHPO's opinion on the sufficiency of the attached Effects Finding and the SHPO's opinion on the findings contained in this letter and in the comment block below.

FHWA Comments:

PLEASE ADDRESS COMMENTS/OPINION TO LINDA ANDERSON, FHWA, P: 850-553-2226, e: linda.anderson@dot.gov. PLEASE CC: ANN BROADWELL, FDOT D4; MARK CLASGENS, FHWA; AND ROY JACKSON, FDOT CEMO.

/s/ Linda K Anderson

David Hawk
Division Administrator (Acting)
Florida Division
Federal Highway Administration

8-22-13
Date

The Florida State Historic Preservation Officer finds the attached Effects Finding complete and sufficient and concurs with the recommendations and findings provided in this cover letter for SHPO/DHR Project File Number 2013-3697 **.**

Robert F. Bendus
State Historic Preservation Officer
Florida Division of Historical Resources

8/28/13
Date

U.S. Department of Transportation
Federal Highway Administration

Florida Division

August 15, 2013

545 John Knox Road, Suite 200
Tallahassee, Florida 32303
Phone: (850) 553-2200
Fax: (850) 942-9691 / 942-8308
www.fhwa.dot.gov/fldiv

In Reply Refer To:
HDA-FL

Mr. James E. Billie
Chairman
Seminole Tribe of Florida
6300 Stirling Road
Hollywood, Florida 33024

Subject: CRAS for I-95 PD&E Study from Stirling Rd. to North of Oakland Park Blvd., Broward County, FL, FM # 429804-1-22-01, ETDM # 13168

Dear Chairman Billie:

In the Efficient Transportation Decision-Making (ETDM) Programing Screen for the subject project, the Tribal Historic Preservation Officer (THPO) requested a copy of the Cultural Resource Assessment Study (CRAS). A copy of this letter and a CD containing the CRAS will be sent to the THPO.

Desk and field studies indicated that no previously recorded or newly discovered archaeological resources are located in the project Area of Potential Effect (APE).

If you have any questions or require additional information, please contact Linda Anderson, Federal Highway Administration Environmental Specialist, at (850) 553-2226, or by email at linda.anderson@dot.gov.

Sincerely,

For: David C. Hawk
Acting Division Administrator

cc: Dr. Paul N. Backhouse, Acting THPO, 30290 Josie Billie Hwy, PMB 1004, Clewiston, FL 33440. Enclosure.: CRAS (CD) for I-95 PD&E Study from Stirling Rd. to North of Oakland Park Blvd., Broward County, FL, FM # 429804-1-22-01, ETDM # 13168

United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960

May 14, 2013

Ann Broadwell
Florida Department of Transportation
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

Service CPA Activity Code: 2013-CPA-0190
Service Consultation Code: 2013-I-0169
Date Received: May 8, 2013
Project: Interstate 95 from Stirling Road to Oakland Park Boulevard
County: Broward

Dear Ms. Broadwell:

The U.S. Fish and Wildlife Service (Service) has reviewed your letter dated May 8, 2013, and other information submitted by the Florida Department of Transportation (FDOT), on behalf of the Federal Highway Administration, for the project referenced above. This letter is submitted in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 *et seq.*).

PROJECT DESCRIPTION

The FDOT is proposing improvements to an 8.65-mile section of Interstate 95 (I-95) from Stirling Road to north of Oakland Park Boulevard. The improvements consist of converting the existing High Occupancy Vehicle lanes to tolled express lanes. The project will also add an additional tolled express lane to the both the northbound and southbound lanes. The purpose of the project is to improve traffic movement and reduce traffic congestion. The project will impact 1.7 acres of wetlands. The FDOT will compensate for impacts to wetlands by providing credits from a Service-approved wetland mitigation bank. The project site is located in Broward County, Florida.

THREATENED AND ENDANGERED SPECIES

West Indian manatee

The project occurs within the geographic range of the endangered West Indian manatee (*Trichechus manatus*). The Service notes that the project will not affect seagrasses. To provide protection for manatees during construction of the project, the FDOT has agreed to follow the

Standard Manatee Protection Construction Conditions for In-Water Work (FWC 2011). The FDOT has determined the project "may affect, but is not likely to adversely affect" the manatee. Based on the information provided, the Service concurs with this determination.

Eastern indigo snake

The project occurs within the geographic range of the threatened eastern indigo snake (*Drymarchon corais couperi*). Eastern indigo snakes were not observed during pedestrian surveys of the project footprint. To minimize adverse effects to this species during construction, the FDOT has agreed to follow the Service's *Standard Protection Measures for the Eastern Indigo Snake* (Service 2004a) during construction of the project. The FDOT has determined the project "may affect, but is not likely to adversely affect" the eastern indigo snake. Based on the adherence to the indigo snake protection measures, the Service concurs with this determination.

Wood stork

The project site is located within the geographic range of the endangered wood stork (*Mycteria americana*). The project is not located within a core foraging area (CFA; within 18.6 miles) of an active breeding colony of the wood stork. Further, wetlands impacted by the project will be mitigated through purchase of credits at a Service-approved bank. The FDOT has determined the project "may affect, but is not likely to adversely affect" the wood stork. Based on the information provided, the Service concurs with the FDOT's determination for the wood stork.

This letter fulfills the requirements of section 7 of the Act and further action is not required. If modifications are made to the project, if additional information involving potential effects to listed species becomes available, or if a new species is listed, reinitiation of consultation may be necessary.

Thank you for your cooperation in the effort to protect fish and wildlife resources. If you have any questions regarding this project, please contact John Wrublik at 772-469-4282.

Sincerely yours,

for Larry Williams
Field Supervisor
South Florida Ecological Services Office

cc: electronic only
FWC, Tallahassee, Florida (FWC-CPS)
NOAA Fisheries, West Palm Beach, Florida (Brandon Howard)
Corps, Palm Beach Gardens, Florida (Garett Lips)

LITERATURE CITED

Florida Fish and Wildlife Conservation Commission (FWC). 2011. Standard Manatee Conditions for In-water Work. Tallahassee, Florida. http://myfwc.com/media/415448/Manatee_StdCondIn_waterWork.pdf

U.S. Fish and Wildlife Service. 2004a. Standard protection measures for the eastern indigo snake. Fish and Wildlife Service, South Florida Ecological Services Office; Vero Beach, Florida.

U.S. Fish and Wildlife Service. 2004b. Draft Supplemental Habitat Management Guidelines for the Wood Stork in the South Florida Ecological Services Consultation Area. Fish and Wildlife Service, South Florida Ecological Services Office; Vero Beach, Florida.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701-5505
http://sero.nmfs.noaa.gov

June 20, 2013 F/SER4:BH/pw

(Sent via Electronic Mail)

Ann Broadwell
District Environmental Administrator
Florida Department of Transportation, District 4
3400 W Commercial Boulevard
Fort Lauderdale, Florida 33309

Dear Ms. Broadwell:

NOAA's National Marine Fisheries Service (NMFS) reviewed the essential fish habitat (EFH) assessment dated May 13, 2013, for the expansion of Interstate 95 (I-95) adding an express lane between Oakland Park Boulevard and Stirling Road in Broward County (ETDM-13168). The project would directly impact 0.11 acres of mangrove wetlands, 0.01 acres of tidal freshwater submerged aquatic vegetation (SAV), and 0.19 acres of sand and mud bottom. FDOT's initial determination is the project would not have a substantial adverse impact on EFH or federally managed fishery species. As the nation's federal trustee for the conservation and management of marine, estuarine, and anadromous fishery resources, the following comments and recommendations are provided pursuant to authorities of the Fish and Wildlife Coordination Act and the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

Project Description
FDOT proposes to expand I-95 by adding an additional express lane to both the northbound and southbound lanes. The expansion would occur within the existing median. The new construction would require expansion of bridges over the Dania Cut-Off Canal, North Fork of the New River, and Middle River. NMFS provided comments through the Environmental Screening Tool (ETDM No. 13168) on August 10, 2011, recommending avoidance, minimization, and mitigation for unavoidable impacts to wetlands and EFH. In response, FDOT agreed to use best management practices (BMPs) to minimize impacts to EFH and wetlands, including preparation of a pollution prevention plan for stormwater runoff, use of staked hay bales and turbidity curtains, and re-vegetation of denuded areas. To avoid impacts to EFH, FDOT opted to reduce the project footprint by using retaining walls at bridge crossings instead of earthen embankments with a typical 2:1 slope.

Project Area Essential Fish Habitat and Fishery Species
NMFS examined the site on July 28, 2011. NMFS agrees with the descriptions of EFH and Habitat Areas of Particular Concern provided in section 6.0 of the EFH assessment and will not augment those descriptions here.

Impacts to Essential Fish Habitat
The project would directly impact 0.11 acres of mangrove wetlands and 0.01 acres of tidal freshwater SAV. The fringing mangrove community is vegetated by red (*Rhizophora mangle*), black (*Avicennia germinans*), and white (*Laguncularia racemosa*) mangroves. FDOT's consultant performed an in-water benthic resource assessment on August 22, 2012. The SAV species present are hydrilla (*Hydrilla*

verticillata), Indian waterweed (*Hygrophila polysperma*), and tape grass (*Vallisneria americana*), and bottom coverages range from 25% to 50%. Both Indian waterweed and hydrilla are invasive species. As noted in the EFH assessment, tape grass and mangroves benefit the fish within the New River, Intracoastal Waterway, and adjoining waters by providing water quality benefits and nursery habitat. Additional information about tape grass and mangroves and how these habitats support fishery species is available in *Fishery Ecosystem Plan of the South Atlantic Region* (available at *www.safmc.net*).

The project would impact 0.19 acres of sand and mud bottom. Sand and mud bottom is EFH for penaeid shrimp and members of the snapper-grouper complex. Impacts to this habitat are proposed from the bridge spans. If inadvertent impacts occur from installation of the retaining walls, the impacts should be minimal and the benthic communities affected should quickly recover their fishery support functions. To avoid and minimize impacts, best management practices, such as vibrating in the sheet pile, constructing from the uplands, and using turbidity curtains, should be used and jetting sheet pile into the bottom should be avoided.

Discussion and Information Needs
Section 7.5 of the EFH assessment provides conceptual mitigation options that include removal of exotic SAV to offset the impacts to SAV and either land acquisition or use of credits from the Everglades Mitigation Bank (EMB) or West Lake Park[1] to offset the impacts to mangroves. NMFS supports removal of exotic SAV from the area to offset the impacts to this habitat. NMFS questions whether impacts to fishery communities that utilize mangrove habitat at these upstream locations on the Dania Cut-Off Canal, North Fork of the New River, and Middle River would be offset by mangrove restoration at the lagoonal West Lake Park. FDOT's final mitigation plan should examine the match in fishery usage between the impact and mitigation areas as well include detailed descriptions of the mitigation sites; detailed plans for each site, including pre-construction and post-construction drawings; and a monitoring plan that defines success criteria and adequately gauges performance of the mitigation sites with respect to those success criteria. The amount of the mitigation should be based on a functional assessment methodology such as the Uniform Mitigation Assessment Procedure (UMAM). Once FDOT chooses a mitigation strategy, FDOT should provide the UMAM scores for NMFS to review.

EFH Conservation Recommendation
Based on the information provided, NMFS finds that the proposed project would have an adverse impact on EFH. Section 305(b)(4)(A) of the Magnuson-Stevens Act requires NMFS to provide EFH conservation recommendations when an activity is expected to adversely impact EFH. Based on this requirement, NMFS provides the following:

EFH Conservation Recommendation

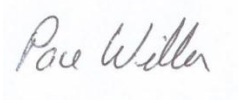
- FDOT shall provide NMFS for review and approval a detailed mitigation plan that fully offsets the unavoidable adverse impacts to mangroves and tidal freshwater SAV.

Section 305(b)(4)(B) of the Magnuson-Stevens Act and its implementing regulation at 50 CFR Section 600.920(k) require your office to provide a written response to this letter within 30 days of its receipt. If it is not possible to provide a substantive response within 30 days, an interim response should be provided to NMFS. A detailed response then must be provided prior to final approval of the action. Your detailed response must include a description of measures proposed by your agency to avoid, mitigate, or offset the adverse impacts of the activity. If your response is inconsistent with our EFH Conservation Recommendation, you must provide a substantive discussion justifying the reasons for not following the recommendation.

[1] FDOT has credits at West Lake Park that remain from a previously approved project.

We appreciate the opportunity to provide these comments. Questions should be directed to the attention of Mr. Brandon Howard in our West Palm Beach Field Office, 400 North Congress Avenue, Suite 120, West Palm Beach, FL 33401. He also may be reached by telephone at (561) 249-1652, or by email at Brandon.Howard@noaa.gov.

Sincerely,



/ for

Virginia M. Fay
Assistant Regional Administrator
Habitat Conservation Division

cc:

SAFMC, Roger.Pugliese@safmc.net
COE, Garett.G.Lips@usace.army.mil
FWS, John_Wrublik@fws.gov
FDOT, David.Bogardus@dot.state.fl.us
FDOT, Ann.Broadwell@dot.state.fl.us
F/SER4
F/SER47, Karazsia, Howard

U.S. Department of Transportation
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www.fhwa.dot.gov/fldiv

August 12, 2013

In Reply Refer To:
HDA-FL

Ms. Ann Broadwell
Florida Department of Transportation, District IV
Environmental Management Office
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309-3421

Subject: I-95 PD&E Study from Stirling Road to North of Oakland Park Blvd.
State Financial Management ID No.: 429804-1-22-01
Federal-Aid Project No.: N/A
Broward County, Florida

Dear Ms. Broadwell:

This is in regards to Federal Highway Administration's (FHWA) determination of the U.S. Coast Guard (USCG) permit requirement for the subject project, as it is established on the Surface Transportation Assistance (STA) Act of 1978. FHWA has the responsibility under 23 U.S.C. 144(h) to determine that a USCG permit is not required for bridge construction.

Based on 23 CFR § 650.805, a USCG permit shall not be required if FHWA determines that the proposed construction, reconstruction, rehabilitation, or replacement of the federally aided or assisted bridge is over waters:

(1) Which are not used or are not susceptible to use in their natural condition, or by reasonable improvement as a means to transport interstate or foreign commerce; and

(2) Which are not tidal, or if tidal, used only by recreational boating, fishing, and other small vessels less than 21 feet in length.

Based on our review of the documentation submitted by the Florida Department of Transportation (FDOT), it appears that the length of vessels utilizing the marina for bridges (# 860109 & # 860209) over the Dania Cut-Off Canal channel is from 50-55 feet in length. Therefore, the USCG will need to make the determination whether a permit will be required.

Should you have any comments or questions, please contact Mr. Mark Clasgens, District Transportation Engineer, at (850) 553-2234.

Sincerely,

For: David C. Hawk
Acting Division Administrator

cc: Mr. Barry Dragon, Chief, Bridge Branch, Seventh District, USCG
Mr. Jeff Ger, Ph.D., P.E., FHWA Senior Structures Engineer

U.S. Department
of Homeland Security

**United States
Coast Guard**

Commander
Seventh Coast Guard District

909 SE 1st Ave Rm 432
Miami, FL 33131-3050
Staff Symbol: (dpb)
Phone: (305) 415-6989
Fax: (305) 415-6763
Email: Evelyn.Smart@uscg.mil

16211/3096
Serial #: 2320
August 21, 2013

Mr. David C. Hawk
Acting Division Administrator
Federal Highway Administration – FL Division
545 John Knox Road, Suite 200
Tallahassee, FL 32303

Dear Mr. Hawk:

We have reviewed your letter dated August 12, 2013 to Ms. Ann Broadwell, of the Florida Department of Transportation, District Four, Environmental Management Office, regarding the Federal Highway Administration's (FHWA) responsibility under 23 U.S.C. 144(h) to determine whether a USCG Bridge Permit is not required for the proposed replacement/widening of the I-95 Bridge across the Dania Cut-Off Canal in Broward County, Florida

A Coast Guard bridge permit will be required for the proposed bridge project. Earlier surveys conducted by the Coast Guard resulted in establishing a Vertical Guide Clearance of 15 feet above Mean High Water for all new bridges proposed across the Dania Cut-Off Canal in order to meet the reasonable needs of navigation. In order to determine the exact clearance requirements for existing and prospective navigation, you are encouraged to consult with waterway users early in your design process. This needs analysis should help avoid unnecessary delays in the permitting process.

The Coast Guard decision on navigational adequacy is necessarily part of the permit approval process. We will consider any information you provide, the comments responding to the public notice we issue after receiving your application, and all other available information in making this decision.

Since federal funds will be used for the proposed project, the FHWA will act as federal lead agency for the National Environmental Policy Act (NEPA) process and the Coast Guard will act as a cooperating agency. Please submit a copy of the FHWA's environmental determination when it becomes available.

Please call me, if you have any questions, at (305) 415-6989.

Sincerely,

Evelyn Smart

EVELYN SMART
Environmental Protection Specialist
Seventh Coast Guard District
By direction of the District Commander

Copy: Ms. Ann Broadwell, FDOT District Four, EMO

U.S. Department of Transportation
Federal Highway Administration

Florida Division

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September 3, 2013

In Reply Refer To:
HDA-FL

Ms. Ann Broadwell
Florida Department of Transportation, District IV
Environmental Management Office
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309-3421

Subject: I-95 PD&E Study from Stirling Rd to North of Oakland Park Blvd
State Financial Management ID Number: 429804-1-22-01
Federal Aid Project Number: N/A
Broward County, Florida

Dear Ms. Broadwell:

This letter is in regards to Federal Highway Administration's (FHWA) determination of U.S. Coast Guard (USCG) permit requirements for the subject project, as it is established on the Surface Transportation Assistance (STA) Act of 1978. FHWA has the responsibility under 23 U.S.C. 144(h) to determine that a USCG permit is not required for bridge construction.

Based on 23 CFR § 650.805, a USCG permit shall not be required if FHWA determines that the proposed construction, reconstruction, rehabilitation, or replacement of the federally aided or assisted bridge is over waters:

(1) which are not used or are not susceptible to use in their natural condition, or by reasonable improvement as a means to transport interstate or foreign commerce; and

(2) which are not tidal, or if tidal, used only by recreational boating, fishing, and other small vessels less than 21 feet in length.

Based on our review of the documentation submitted by the Florida Department of Transportation (FDOT), we have determined that for the I-95 bridges (# 860271, # 860270 and # 860260) over the North Fork of the New River (NFNR), a USCG permit will not be required.

Should you have any comments or questions, please contact Mr. Mark Clasgens, District Transportation Engineer, at (850) 553-2234.

Sincerely,

For: David C. Hawk
Acting Division Administrator

cc: Mr. Barry Dragon, Chief, Bridge Branch, Seventh District, USCG
Mr. Jeff Ger, Ph.D., P.E., FHWA Senior Structures Engineer

APPENDIX C

Navigation Information for Bridge Permit Exemption Review

Navigation Supporting Documentation – Dania Cut-Off Canal

The information in the following text is provided to assist the Federal Highway Administration (FHWA) in determining if the work proposed on the Dania Cut-Off Canal bridge is exempt from bridge permitting by the US Coast Guard (USCG).

Project Description

The Florida Department of Transportation (FDOT) District 4 is conducting a Project Development and Environment (PD&E) Study for the proposed widening of Interstate 95 (SR 9/I-95) in Broward County, Florida. The PD&E Study limits extend from Stirling Road (SR 848), Mile Post (M.P.) 5.093 to north of Oakland Park Boulevard (SR 816, M.P. 13.742), a distance of 8.649 miles (see Figure 1). The primary purpose of this project is to enhance operational capacity and relieve congestion along the I-95 corridor by converting the existing High Occupancy Vehicle (HOV) lanes to tolled Express Lanes and adding one additional tolled Express Lane to the median of I-95 in each direction. This also provides for the opportunity to incorporate regional express bus service.

The project crosses three potentially navigable tidal channels: the Dania Cut-Off Canal and the North and South Forks of the New River. I-95 currently crosses all of these canals and bridge replacements are not proposed. Bridge widening over the Dania Cut-Off Canal (DCOC) and the North Fork of the New River (NFNR) is proposed, and work is not proposed on the I-95 bridge over the South Fork of the New River. See Figure 1 for the locations of the DCOC and NRNR.

Please see the responses to the questions listed in Part 1, Chapter 5, Section 8.0 (Navigation) of the Project Development and Environment (PD&E) Manual. The question is repeated followed by the response in **bold**.

Navigation Questions –DCOC

a) Three (3) photographs taken at the proposed bridge site: one looking upstream, one looking downstream, and one looking along the alignment centerline across the bridge site.

The photos are included in Appendix A.

b) Provide name of waterway including: (1) Mileage along waterway measured from mouth or confluence; or (2) Tributary of (name of river) at mile ____.

The I-95 Bridge over the DCOC is located approximately 3.6 miles above the mouth.

c) Geographical location including: road number, City, County and State.

The I-95 Bridge (both northbound and southbound) over the DCOC, Dania Beach, Broward County, Florida.

d) Section, Township, and Range, if applicable.

Section 28, Township 50, Range 42

e) Whether waters are tidally influenced at proposed bridge site and the range of tide.

The DCOC is tidally influenced. Five days of projected tides at Port Laudania on the DCOC (approximately 0.8 miles east of US 1) were used to determine the range of tides. The low tide range for February 1, 2013 to February 5, 2013 is -0.4 ft to 0.4 ft and the high tide range is 2.2 ft to 2.3 ft.

f) Whether the waters are used to transport interstate or foreign commerce, and also indicate:

This canal is no longer used for interstate or foreign commerce. A South Florida Water Management District (SFWMD) salinity control structure (S-13) is located approximately 2.7 miles upstream (west) of I-95. This control structure severs the tidal connection so freshwater is located upstream.

If these waters are susceptible to use in their natural condition or by reasonable improvement as a means to support interstate or foreign commerce.

No, per the previous text.

If there are any planned waterway improvements to permit larger vessels to navigate based on coordination with U.S. Army Corps of Engineers (COE).

Currently (2012-2013) the Florida Inland Navigation District (FIND) is funding dredging in DCOC, located east of I-95. Specifically, the limits are Port Everglades to US 1. David Roach (FIND) was contacted regarding other dredging projects along the DCOC. FIND does not have any planned projects for this canal at this time.

Cynthia Perez of the COE was contacted. The COE is performing a Port Study of the area. This study includes evaluating improvements to the DCOC. At this time, the type of improvements, the limits of these improvements or whether improvements are needed is still not known. Brodie Rich of the USCG was also contacted and he was not aware of any other improvements to this canal.

SFWMD staff was contacted regarding dredging projects within the DCOC. SFMWD does not have any planned projects at this time.

g) Whether there are any natural or manmade obstructions, bridges, dams, weirs, etc., downstream or upstream.

1. If obstructions exist, provide upstream/downstream location with relation to the proposed bridge.

A SFWMD salinity control structure (S-13) is located approximately 2.7 miles upstream (west) of I-95. This control structure severs the tidal connection so freshwater is located upstream.

In addition, a Local Notice to Mariners and USCG Hazard to Navigation is located on the DCOC. See the following text.

FLORIDA-FORT LAUDERDALE-DANIA CUT-OFF CANAL: Hazard to Navigation. The Coast Guard received a report of a hazardous rock outcropping located in the Dania Cutoff Canal along the northern side between Dania Cut Super Yacht Repair and Broward Shipyard, just west of the AT&T cable crossing. Estimated location is 26° 3.593′ N, 80° 7.893′ W. The outcropping extends approximately 30 ft. from the seawall towards the channel and is marked with a red 15" round buoy numbered 2. Mariners are urged to transit cautiously thru this area and stay in the channel. Chart 11470

The US 1 Bridge over the DCOC is located approximately 1.6 miles east of I-95. This bridge is a fixed span, non-elevated structure (see Appendix A) with a vertical clearance of 14 ft. at low water and 12 ft. at high water. The horizontal clearance is 29 ft.

2. Provide a photograph of the bridge from the waterway showing channel spans.

See Appendix A.

h) Names and addresses/locations of marinas, marine repair facilities, public boat ramps, private piers/docks along waterway within a half- mile of site.

East of I-95: Lauderdale Small Boat Club (1740 SW 42nd Street, 954-359-7659/954-360-2087); west of I-95: Anglers Avenue Marine Center (4470 Anglers Avenue, 954-962-8702), Thunderboat Marine Center (1451 Old Griffin Road, 954-963-2660), Banyan Bay Marine Center (4491 Anglers Avenue, 954-893-0004), North Coast Trailer Park and Marina (4500 Anglers Avenue, 954-983-2083), and InterMarine (4550 Anglers Avenue, 954-894-9895. Residential and commercial properties are located to the west and east.

i) Location map and plans (if available) for the proposed bridge, including intended or desired vertical clearances above mean high water and intended or desired mean low water and horizontal clearance normal to axis of the waterway.

See Appendix B. Per the Bridge Analysis Report, there is no proposed decrease in vertical clearance but the existing fender system will be extended beyond the limits of the proposed widening which extends the existing embankment that requires 14 new piles (7 of which are within the DCOC).

j) Description of the navigational clearances provided by the existing bridge(s).

Per the USCG Bridges over Navigable Waters of US Atlantic: the DCOC has 60 ft horizontal clearance, 13 ft vertical clearance over low water and 11 ft vertical clearance over high water. Per the adjacent marinas, the vertical clearance at DCOC is 10.5 ft over high water and 13 ft over low water. Per the Bridge Analysis Report, the vertical clearance is 11.4 ft for the main span and the horizontal clearance is 60 ft.

k) Description of waterway characteristics at the bridge site(s), including width at mean high and mean low water, depth at mean high and mean low water, and currents.

See the response to item j) for the width of the canal. Per the National Oceanic and Atmospheric Administration (NOAA) current stations' locations and ranges, Port Everglades New River: Speed 0.8 Direction 005 (Flood)/Speed 0.5 Direction 130 (Ebb).

l) Description of the type, size, and number of vessels using the waterway, and when applicable, the number of documented bridge openings required to serve waterborne traffic. This includes the vertical clearance requirement for the known tallest vessel using the waterway, a representative photograph of vessels using the waterway, and the length of the largest type vessel using the waterway. If the types or dimensions of vessels using the waterways are not known, coordinate with USCG to determine if that agency has any of this information and document the results of the coordination.

Photos of Anglers Avenue Marine Center and the Lauderdale Small Boat Club facilities are included in Appendix A which show representative boat types using the DCOC. As stated in Item h), the Lauderdale Small Boat Club is located east of I-95 and Anglers Avenue Marine Center is located west of I-95. Staff at the Anglers Avenue Marine Center stated they can receive boats with a maximum 13 ft. vertical clearance only at low tide. This marina was contacted on July 29, 2013 to discuss the maximum boat length received at this facility. Marina staff stated their facility can receive boats up to a maximum length of 50-55 feet.

m) Description of any bridge-related boating accidents.

Coordination with the FDOT and the USCG revealed there have been no bridge-related boating accidents at the I-95 Bridge over the DCOC.

n) Description of the potential impacts of the project on navigation including effects during the construction period.

There is no proposed change in the bridge's vertical clearance so impacts to navigation are not anticipated post-project. Installation of new piles requires in-water work and requires the use of turbidity barriers, which may temporarily reduce the horizontal clearance while deployed. These new piles will be located in line with existing piles and will not reduce the horizontal clearance post-construction. Temporary channel closings may be required as the piles are moved into place. Construction methods will be determined during construction by the Contractor.

o) The need for navigational lighting or signals or special notices to mariners for the proposed bridge and its construction activity.

Brodie Rich of the USCG was contacted. Mr. Rich stated the crossings over the DCOC must be lighted.

References

Bridges over the Navigable Waters of the United States. 1984. US Department of Transportation, US Coast Guard. COMDTPUB P16590.1.

Part 1, Chapter 5. 2012. Project Development and Environment Manual. Florida Department of Transportation.

FIGURE 1

Project and Canal Location Map

Project Location Map

APPENDIX A

Field Photos

Photo 1: Looking west/upstream from the I-95 Bridge crossing over the Dania Cut-Off Canal (DCOC). Photo taken from the southbound off-ramp to Griffin Road. Note: DCOC and railroad bridge.

Photo 2: Looking south. Note: the I-95 Southbound off-ramp to Griffin Road and southbound I-95 to the west. The DCOC crosses underneath I-95.

Photo 3: Looking east towards I-95 from the Anglers Avenue Bridge over the DCOC. Note: I-95 crossings over the DCOC.

Photo 4: Anglers Avenue Marine Facility located on the DCOC west of I-95. Note: boats in marina.

Photo 5: Anglers Avenue Marine Facility located on the DCOC west of I-95. Note: boats in marina.

Photo 6: I-95 crossing over the DCOC, photo taken on the east side of I-95.

Photo 7: Looking east/downstream at the DCOC from the east side of I-95.

Photo 8: Looking north at I-95 over the DCOC.

Photo 9: The Lauderdale Small Boat Club located on the DCOC, east of I-95. Note: boats in marina.

Photo 10: The US 1 Bridge over the DCOC located east of I-95. Note: fixed span, non-elevated structure.

APPENDIX B

Engineering Information

6.0 I-95 OVER DANIA CUT-OFF CANAL (BRIDGES 860109 AND 860209)

6.1 Existing Condition

Bridges 860109 and 860209 carry I-95 southbound and northbound traffic over the Dania Cut-Off Canal (**PERMIT NUMBER 8291**). The existing bridges are three span twin structures with a total bridge length of 180'-2½" and spans lengths of 49'-11 11/16" , 80'-1½" and 50'-1 11/16". The existing superstructure consists of AASHTO TYPE III Beams. The original structures were built in the 1960's and were widened in the mid 80's.

Table 4
Dania Cut-off Canal Existing Bridge Information

SPAN NO.	SPAN LENGTH	SUPERSTRUCTURE TYPE
1	49.97	AASHTO Type III
2	80.13	AASHTO Type III
3	50.14	AASHTO Type III

The existing bridge typical section consists of five 12'-0" general purpose lanes in the northbound direction with one 14'-0" HOV lane and 10'-0" shoulders. In the southbound direction, the typical section consists of four 12'-0" general purpose lanes, one 14'-0" HOV lane, 10'-0" inside shoulder and 12'-0" outside shoulder. The proposed northbound bridge is 96'-7½" wide while the southbound bridge varies from 88'-2½" to 91'-2⅛". The main span provides a minimum vertical clearance of 11'-4" over the Mean High Water elevation (EL. 1.8 MSL) and a horizontal clearance of 60'-0" over the navigable channel. **Figure 6-1** shows the existing bridge typical section.

The substructure consists of end bents and intermediate bents all supported on 18" SQ prestressed concrete piles. The canal embankments are protected with Sand Cement Riprap. There is an existing fender system protecting the intermediate bridge bents that will have to be extended beyond the limits of the proposed widening.

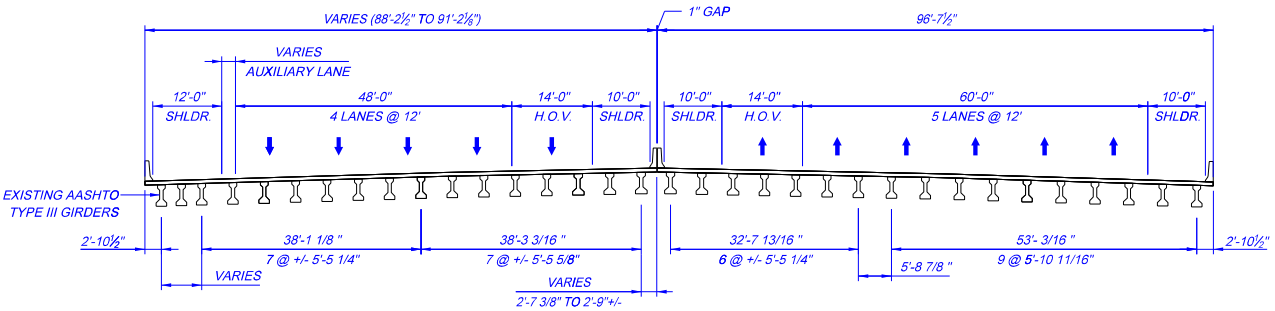


Figure 6-1 Dania Cut-Off Existing Bridge Section (Main Span)

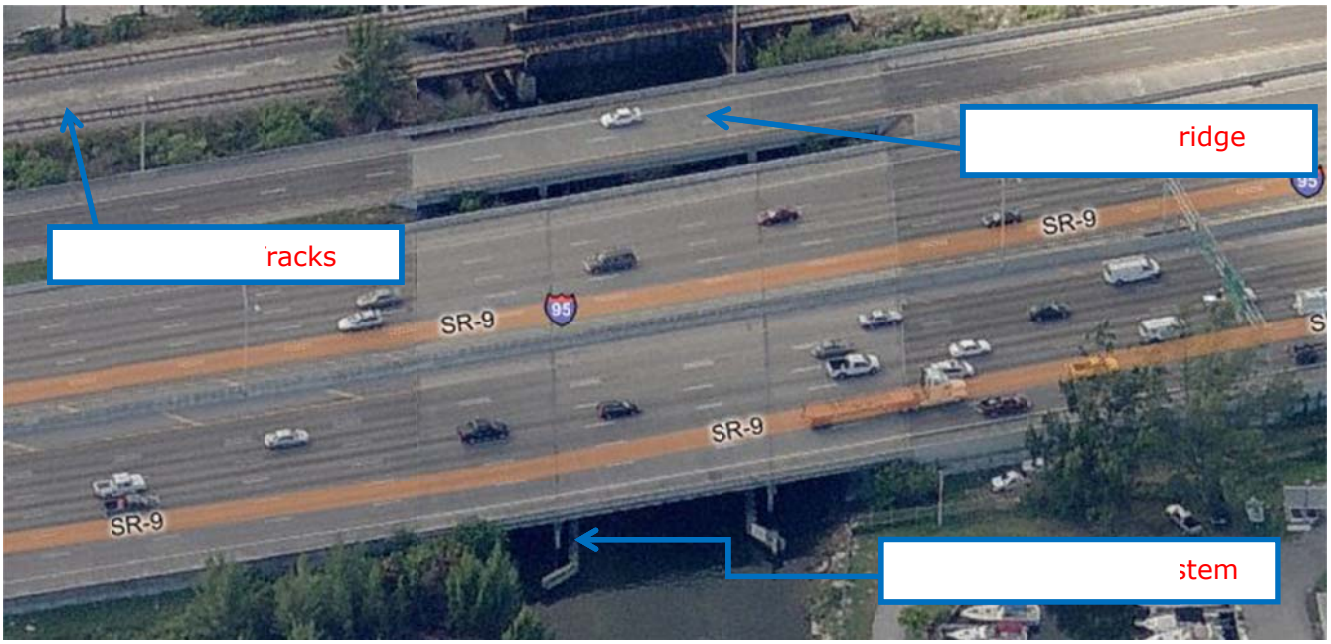


Figure 6-2 Existing Bridge Over Dania Cut-Off Canal Aerial View.

6.2 Proposed Condition

The proposed condition adds one express lane and converts the existing HOV lane into a second express lane. The number of general purpose lanes will remain at 5 and 4 for the northbound and southbound directions respectively. The proposed outside shoulders will be 10’-0” wide. The northbound inside shoulders will be 12’-0” wide for the northbound direction and 8’-0” wide for the southbound. This will result in a widening of 16’-1¼” on the northbound bridge and 7’-0” to 11’-1” on the southbound.

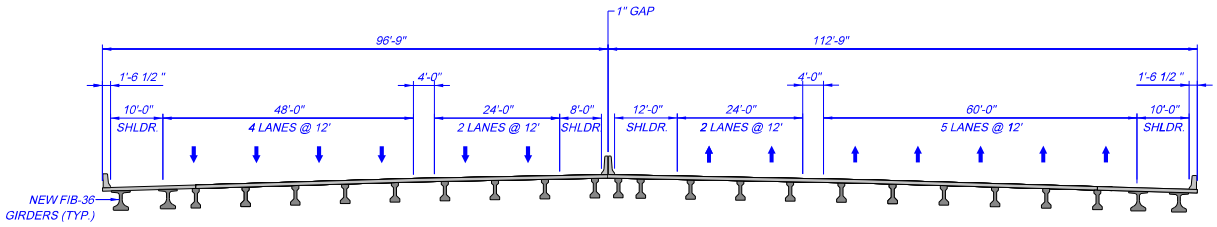


Figure 6-3 Dania Cut-Off Final Bridge Typical Section

6.2.1 Superstructure

The superstructure options for the proposed widening are limited to Florida I-Girders. Two lines of FIB-36 beams will be required on each bridge to accommodate the proposed widening. The first beam will be located such that the tributary spacing for the existing exterior beam would be less than the existing interior beam spacing. The existing deck will be saw cut along the center line of the exterior beam and the concrete removed without damaging the existing reinforcement to allow for lapping of the transverse reinforcement. On the southbound bridge the widening reduces the existing gap between the southbound I-95 bridge and the adjacent CD road bridge as shown in **Figure 6-5**. The southbound I-95 bridge has a varying width and as a result the existing gap between bridges to be widening is not constant. The existing exterior beam on span 1, the exterior and first interior beams on spans 2 and 3 are flared. Beam spacing constraints do not allow for a solution that maintains the existing flared beam and as a result, removal of the flared beams on all three spans is required. The bridge deck will be cut and removed along the existing beam to remain and two lines of FIB-36 beams will be required to accommodate the proposed widening.

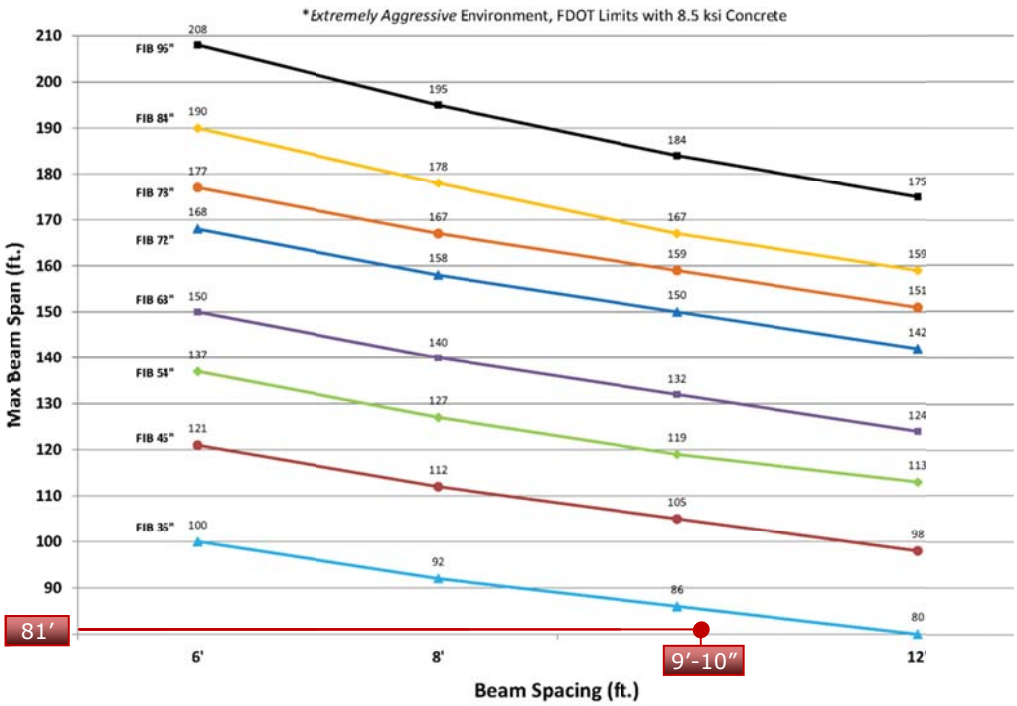


Figure 6-4 Florida-I Beam Estimated Maximum Span Lengths

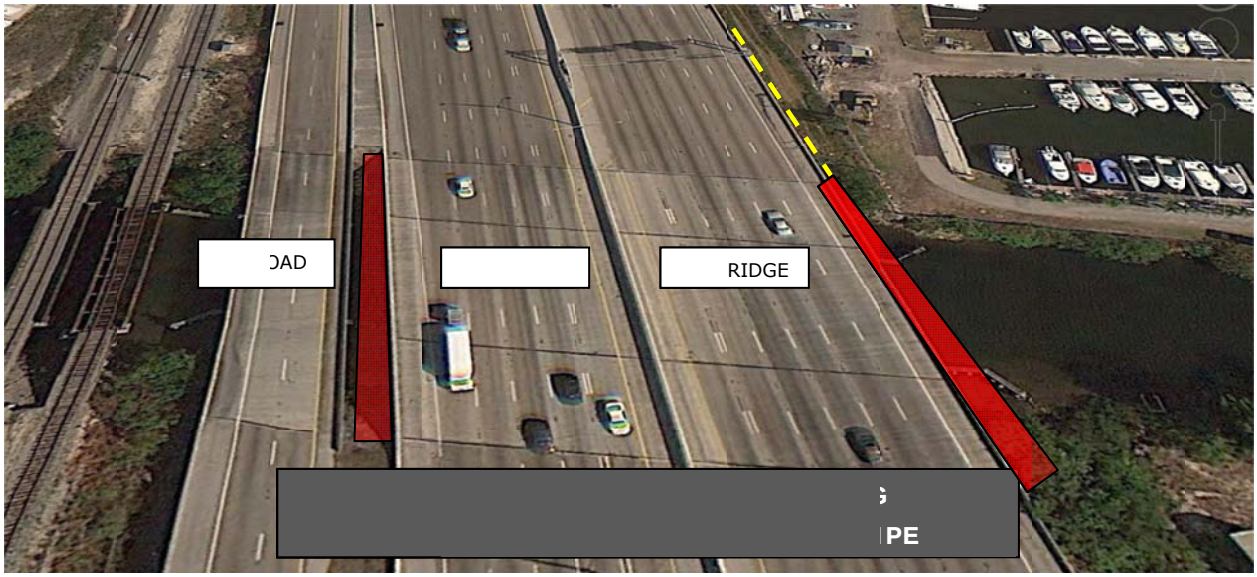


Figure 6-5 Bride over Dania Cut-off Proposed Widening

6.2.2 Substructure

In order to extend the bents, two new piles will be required at each location. A total of 16 piles will be added of which eight will be within the limits of the canal. The proposed pile size will be 24" SQ prestressed piles. One lane of traffic on the CD road will have to be closed in order to facilitate the pile driving operations for the widening of the southbound bridge. Existing bridge plans show a 60" reinforced concrete pipe on the NE quadrant of the bridge. Coordination with owner and relocation of the pipe might be necessary.

6.2.3 Retaining Wall

No walls will be required in front of the end bents. The existing Rip-Rap embankment will be extended to the new widening. Soil retaining walls will be used on the sides on the bridge approaches because of grade differentials. The proposed wall will be an MSE wall will be located approximately 15 feet in front of the existing wall.

Navigation – Supporting Documentation – North Fork of the New River

The information in the following text is provided to assist the Federal Highway Administration (FHWA) in determining if the work proposed on the North Fork of the New River bridge is exempt from bridge permitting by the US Coast Guard (USCG).

Project Description

The Florida Department of Transportation (FDOT) District 4 is conducting a Project Development and Environment (PD&E) Study for the proposed widening of Interstate 95 (SR 9/I-95) in Broward County, Florida. The PD&E Study limits extend from Stirling Road (SR 848), Mile Post (M.P.) 5.093 to north of Oakland Park Boulevard (SR 816, M.P. 13.742), a distance of 8.649 miles (see Figure 1). The primary purpose of this project is to enhance operational capacity and relieve congestion along the I-95 corridor by converting the existing High Occupancy Vehicle (HOV) lanes to tolled Express Lanes and adding one additional tolled Express Lane to the median of I-95 in each direction. This also provides for the opportunity to incorporate regional express bus service.

The project crosses three potentially navigable tidal channels: the Dania Cut-Off Canal and the North and South Forks of the New River. I-95 currently crosses all of these canals and bridge replacements are not proposed. Bridge widening over the Dania Cut-Off Canal (DCOC) and the North Fork of the New River (NFNR) is proposed, and work is not proposed on the I-95 bridge over the South Fork of the New River. See Figure 1 for the locations of the DCOC and NFNR.

Please see the responses to the questions listed in Part 1, Chapter 5, Section 8.0 (Navigation) of the Project Development and Environment (PD&E) Manual. The question is repeated followed by the response in **bold**.

Navigation Questions –NFNR

a) Three (3) photographs taken at the proposed bridge site: one looking upstream, one looking downstream, and one looking along the alignment centerline across the bridge site.

The photos are included as Appendix A.

b) Provide name of waterway including: (1) Mileage along waterway measured from mouth or confluence; or (2) Tributary of (name of river) at mile ____.

The I-95 Bridge over the NFNR is located approximately 2.7 miles above the mouth.

c) Geographical location including: road number, City, County and State.

The I-95 Bridge (both northbound and southbound) over the NFNR, Fort Lauderdale, Broward County, Florida.

d) Section, Township, and Range, if applicable.

Section 04, Township 50, Range 42

e) Whether waters are tidally influenced at proposed bridge site and the range of tide.

The NFNR has minimal tidal exchange. Five days of projected tides at the Andrews Avenue Bridge, located approximately 1.6 miles east of I-95, were used to determine the range of tides. The low tide range for February 1, 2013 to February 5, 2013 is -0.3 ft to 0.3 ft and the high tide range is 2.0 ft to 2.1 ft.

f) Whether the waters are used to transport interstate or foreign commerce, and also indicate:

This canal is not used for interstate or foreign commerce. An aerial review of this canal shows boat traffic stopping at the Broward Boulevard Bridge over the NFNR which is located east of I-95. A South Florida Water Management District (SFWMD) salinity control structure (S-33) is located approximately 2.1 miles upstream (west) of I-95. This control structure severs the tidal connection so freshwater is located upstream.

Staff at Seven Seas Yacht Sales confirmed navigation terminates at the Broward Boulevard Bridge.

If these waters are susceptible to use in their natural condition or by reasonable improvement as a means to support interstate or foreign commerce.

No, per the previous text.

If there are any planned waterway improvements to permit larger vessels to navigate based on coordination with U.S. Army Corps of Engineers (COE).

Cynthia Perez of the COE was contacted. The COE is performing a Port Study of the area. This study includes various canal improvements but the NFNR is not included in that study. Brodie Rich (USCG) was also contacted and he was not aware of any improvements to this canal.

SFWMD staff and David Roach of the Florida Inland Navigation District (FIND) were contacted. Neither agency has planned improvements to the NFNR.

g) Whether there are any natural or manmade obstructions, bridges, dams, weirs, etc., downstream or upstream.

1. If obstructions exist, provide upstream/downstream location with relation to the proposed bridge.

A SFWMD salinity control structure (S-33) is located approximately 2.1 miles upstream (west) of I-95. This control structure severs the tidal connection so freshwater is located upstream. In addition, the

Broward Boulevard Bridge over the NFNR is located east of I-95. Boat traffic stops south of this bridge (see Appendix A).

Per a conversation with Seven Seas Yacht Sales, the nearest downstream obstruction is the 11th Avenue Swing Bridge. Navigation is not impeded when this bridge is open. When open, unlimited vertical clearance is provided.

2. Provide a photograph of the bridge from the waterway showing channel spans.

See Appendix A.

h) Names and addresses/locations of marinas, marine repair facilities, public boat ramps, private piers/docks along waterway within a half- mile of site.

Seven Seas Yacht Sales located at 1500 W. Broward Boulevard, Fort Lauderdale, Florida (954-463-8143). This facility is adjacent to the NFNR, just east of I-95. Commercial and institutional properties exist directly east and west of I-95 as well as residential.

i) Location map and plans (if available) for the proposed bridge, including intended or desired vertical clearances above mean high water and intended or desired mean low water and horizontal clearance normal to axis of the waterway.

See Appendix B. Per the Bridge Analysis Report, there is no proposed decrease in vertical or horizontal clearance.

j) Description of the navigational clearances provided by the existing bridge(s).

Per the USCG Bridges over Navigable Waters of US Atlantic: the NFNR has 30 ft horizontal clearance, 8 ft low water vertical clearance and 7 ft high water vertical clearance. Per the adjacent marina and the Bridge Analysis Report, the NFNR provides a vertical clearance of 7.55 ft above high water (southbound), 6.35 ft vertical clearance above high water (northbound), and the horizontal clearance is 60 ft.

k) Description of waterway characteristics at the bridge site(s), including width at mean high and mean low water, depth at mean high and mean low water, and currents.

See the response to item j) for the width of the canal. Per the National Oceanic and Atmospheric Administration (NOAA) current stations' locations and ranges (2006), Port Everglades New River: Speed 0.8 Direction 005 (Flood)/Speed 0.5 Direction 130 (Ebb).

l) Description of the type, size, and number of vessels using the waterway, and when applicable, the number of documented bridge openings requiredto serve waterborne traffic. This includes the vertical clearance requirement for the known tallest vessel using the waterway, a representative photograph of vessels using the waterway, and the length of the largest type vessel using the waterway. If the types or dimensions of vessels using the waterways are not known, coordinate with USCG to determine if that agency has any of this information and document the results of the coordination.

Currently, no commercial marinas are directly adjacent, upstream or downstream, of the I-95 crossing over the North Fork of the New River (NFNR). The closest marina, Seven Seas Yacht Sales, is located directly adjacent/downstream of the Broward Boulevard Bridge over the NFNR, which is also east/downstream of I-95. The Seven Seas Yacht Sales staff stated "only a small skiff/canoe, johnboat, or paddleboat can go under the I-95 bridge; the water is only two feet deep". The nearest downstream obstruction is the 11th Avenue Swing Bridge. Navigation is not impeded when this bridge is open. When open, unlimited vertical clearance is provided.

Staff at this marina were re-interviewed and stated navigation upstream of their facility currently stops at the Broward Boulevard Bridge and the length of boat is not an impediment to navigation as compared to the existing vertical clearance at the Broward Boulevard Bridge. Since only non-commercial, personal watercraft such as canoes, kayaks, skiffs and john boats, can travel beneath the low level Broward Boulevard Bridge, the anticipated length that can access from the downstream direction is approximately 10 feet.

Marina staff were not aware of boat use under I-95 as they stated this use was likely coming from the west, upstream of their location. An aerial review of the NFNR was performed. This review began on north side of the Broward Boulevard Bridge (east of I-95) and ended at the South Florida Water Management District (SFWMD) salinity control structure (west of I-95). The review revealed two boats docked within the NFNR waterway. One boat was 20 ft. long and the other 15 ft. long. Therefore, the average boat length potentially crossing under I-95 along this waterway from the upstream direction is approximately 17.5 ft.

m) Description of any bridge-related boating accidents.

Coordination with the FDOT and the USCG revealed there have been no bridge-related boating accidents at the I-95 Bridge over the NFNR.

n) Description of the potential impacts of the project on navigation including effects during the construction period.

There is no proposed change in the bridge's vertical clearance so impacts to navigation post-construction are not anticipated. Work within this canal is not proposed at this time.

o) The need for navigational lighting or signals or special notices to mariners for the proposed bridge and its construction activity.

Brodie Rich of the USCG was contacted. Mr. Rich stated he was not aware of any lighting requirements for the I-95 Bridge over the NFNR.

References

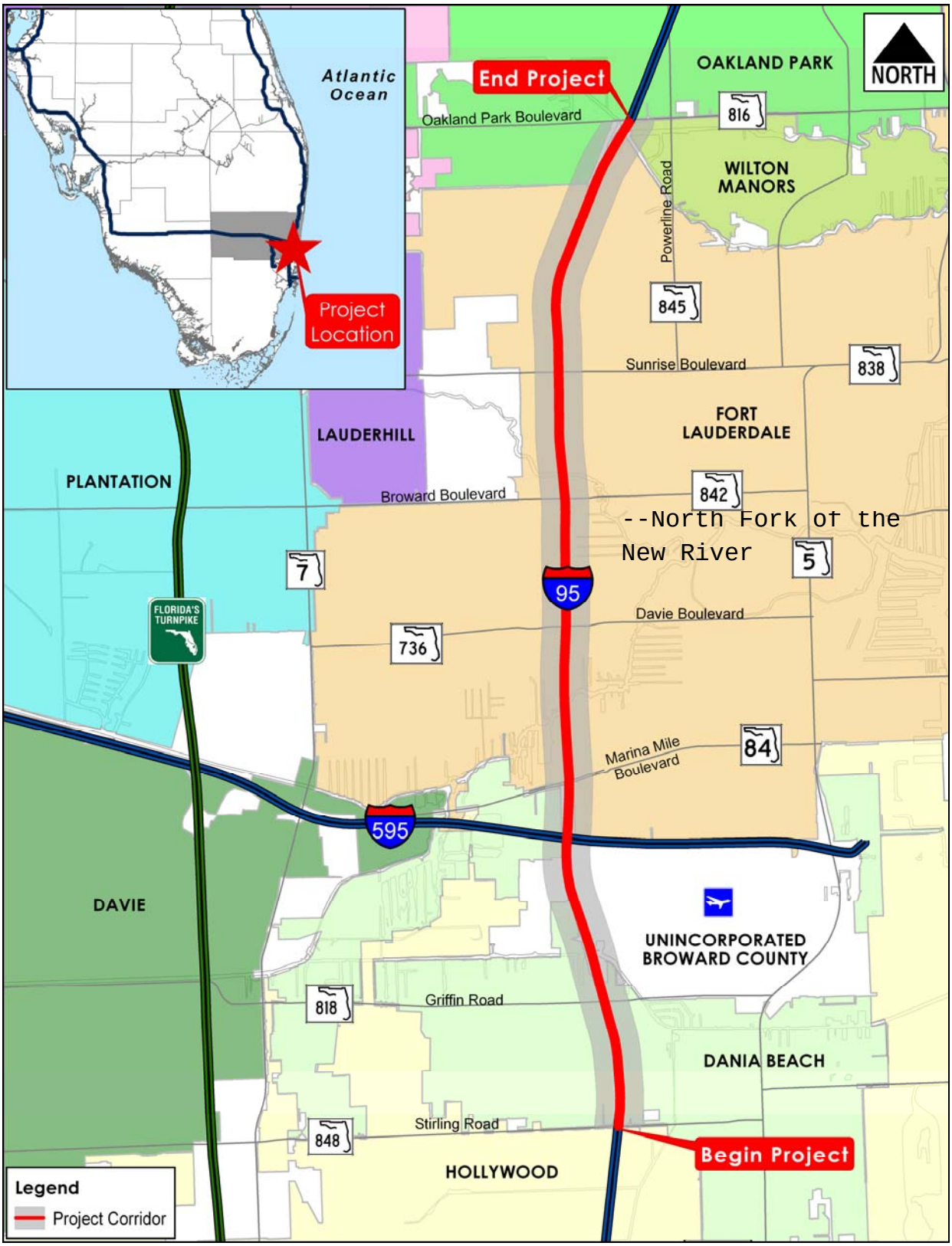
Bridges over the Navigable Waters of the United States. 1984. US Department of Transportation, US Coast Guard. COMDTPUB P16590.1.

New River Restoration Plan. 1994. Department of Natural Resources Protection (now the Environmental Protection and Growth Management Department). Technical Report Series TR: 94-04.

Part 1, Chapter 5. 2012. Project Development and Environment Manual. Florida Department of Transportation.

FIGURE 1

Project and Canal Location Map



Project Location Map

APPENDIX A

Field Photos

Photo 1: Looking west/upstream from the I-95 Bridge crossing over the North Fork of the New River (NFNR). Photo taken from the southbound off-ramp to Broward Boulevard. Note: NFNR and railroad bridge.

Photo 2: Looking south. Note: the I-95 off-ramp to Broward Boulevard. The NFNR crosses underneath I-95.

Photo 3: Looking south. Note: Southbound I-95 adjacent to the Broward Boulevard off-ramp. NFNR is underneath road.

Photo 4: Looking east/downstream from the west side of I-95 towards the I-95 off-ramp to Broward Boulevard. Note: Bridge crossing over the NFNR.

Photo 5: Looking west/upstream from the east side of I-95 towards the northbound I-95 on-ramp from Broward Boulevard and the I-95 mainline. Note: Bridge crossing over the NFNR.

Photo 6: Looking north at I-95 over the NFNR.

Photo 7: Looking south/downstream from the Broward Boulevard Bridge over the NFNR at Seven Seas Yacht Sales (east of I-95). Note: Boat dockage indicating navigation up to Broward Boulevard.

Photo 8: Looking north/upstream of the Broward Boulevard Bridge over the NFNR (east of I-95). Note: no evidence of boat traffic/navigation.

APPENDIX B

Engineering Information

8.0 NORTHBOUND I-95 OVER NORTH FORK NEW RIVER (BRIDGE 860271)

8.1 Existing Condition

Bridge 860271 carries I-95 northbound traffic over North Fork New River. The existing bridge is a five span structure with a total bridge length of 250'-0". Spans 1, 2, 4 and 5 are all 45'-0" long while span 3 (center span) is 70'-0" long. The existing superstructure consists of AASHTO TYPE II and AASHTO Type III Beams. The original structure was built in the early 1970's and was replaced in the early 90's. See **Table 7** for existing bridge span arrangement.

Table 7
Existing Bridge Information (860271)

SPAN NO.	SPAN LENGTH	SUPERSTRUCTURE TYPE
1	45.0	AASHTO Type II
2	45.0	AASHTO Type II
3	70.0	AASHTO Type III
4	45.0	AASHTO Type II
5	45.0	AASHTO Type II

The existing bridge typical section consist four 12'-0" general purpose lanes, one 14'-0" HOV lane and 10'-0" shoulders. The out to out width of the bridge is 85'-1" at spans 1, 2, 4 and 5; at span 3 the overall width is 88'-0½". The minimum vertical clearance over Mean High Water is 6.35'. **Figure 8-1** shows the existing bridge typical section.

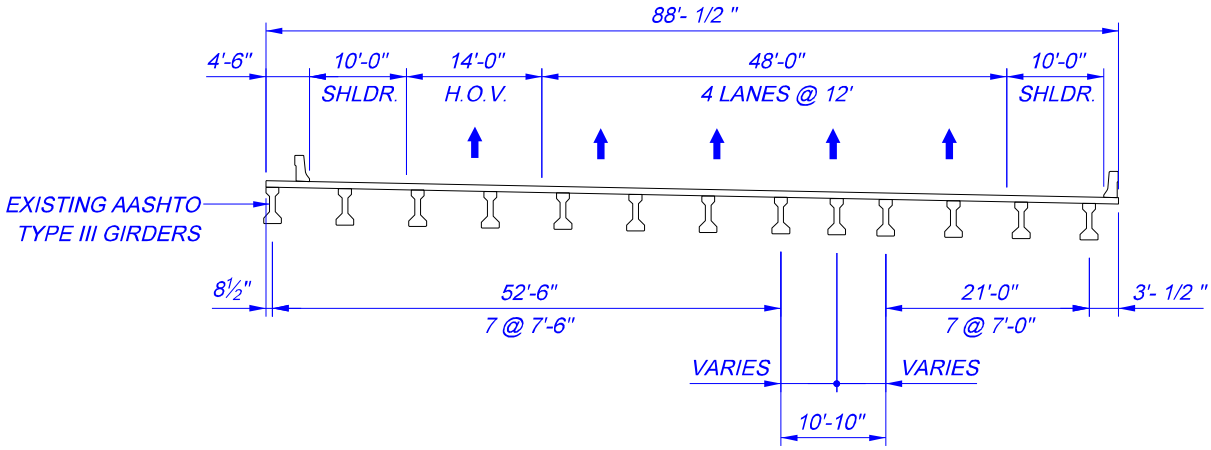
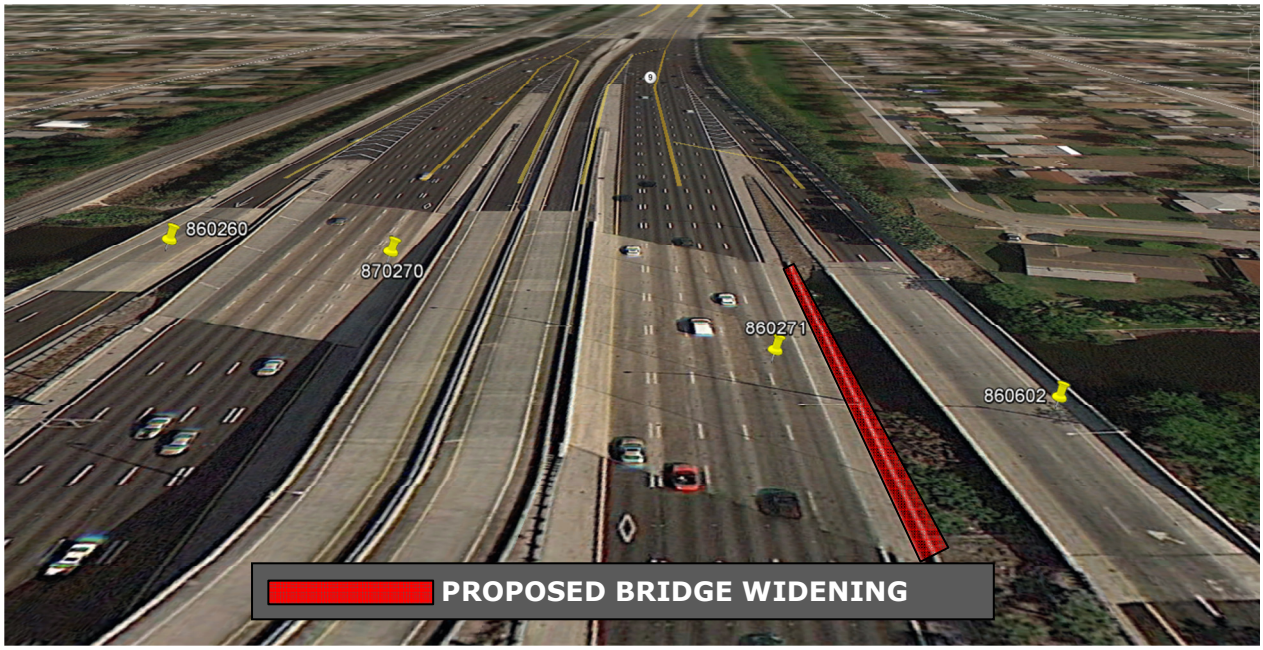


Figure 8-1 Existing Bridge Section (Span 3 shown)



8.2 Proposed Condition

As shown in **Figure 8-2** the proposed condition consists of two 11'-0" manages lanes, two 12'-0" general purpose lanes and another two 11'-0" general purpose lanes. The proposed shoulders are 10'-0" wide. The proposed improvements will require a bridge widening of 8'-11" to the east. The proposed out to out width will be 94'-1" for all spans except span 3 which will be 97'-0½" wide. Span 3 is currently wider than the other spans because of modifications that were previously made to the bridge on the west coping to make room for bridges 860601 and 860628.

8.2.1 Superstructure

The superstructure options for the proposed widening are limited to Florida I-Beams (FIB) Girders. Two lines of FIB-45 spaced at 7-7½" will be required on each bridge to accommodate the proposed widening. The existing deck will be saw cut along the center line of the exterior beam. The concrete will be removed without damaging the existing reinforcement to allow for a lapping of the transverse reinforcement.

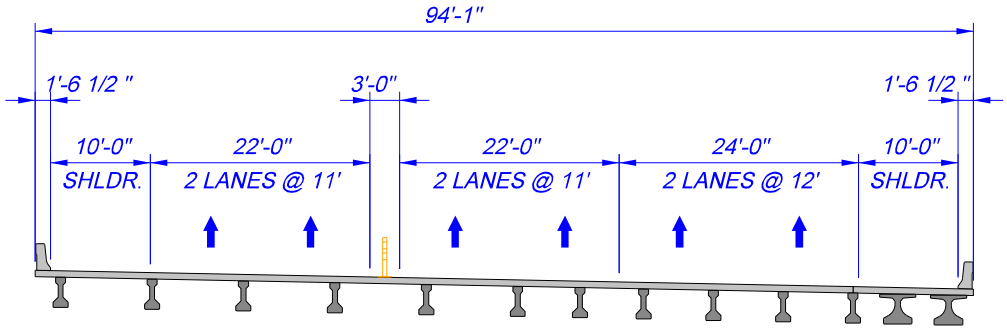


Figure 8-2 Final Bridge Section (Spans 1, 2, 4 & 5)

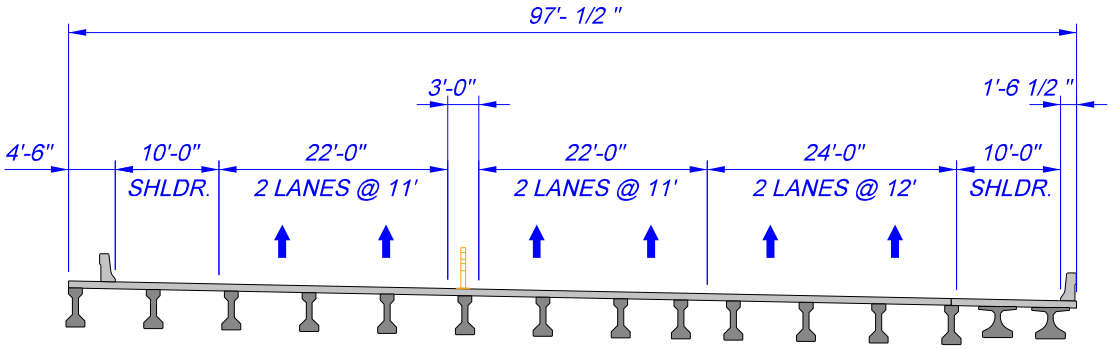


Figure 8-3 Final Bridge Section (Span 3)

8.2.2 Substructure

Two (2) additional 18” SQ prestressed concrete piles will be required at each bent in order to accommodate the additional beam lines.

8.2.3 Retaining Wall

The canal banks are protected by Sand Cement Riprap which will be extended to the new widened portion and therefore no there will be no need for retaining walls at this location.

8.2.4 Maintenance of Traffic

Widening of I-95 bridge over and southbound I-95 over North Fork New River will be accomplished in one phase. Consistent with the proposed roadway MOT, the work will be done during sequence 1 as show in **Figure 8-4** and **Figure 8-5.**

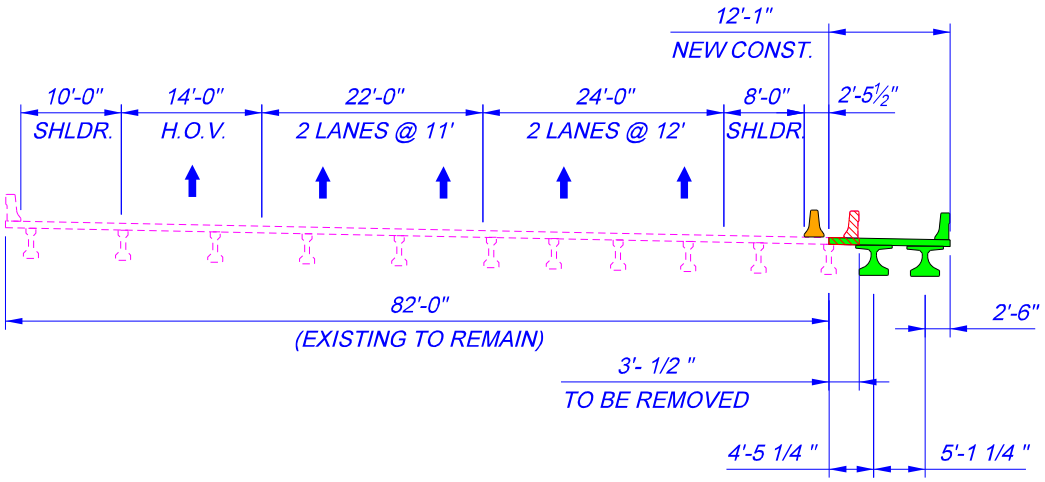


Figure 8-4 Bridge Section – Proposed MOT (Spans 1, 2, 4 & 5)

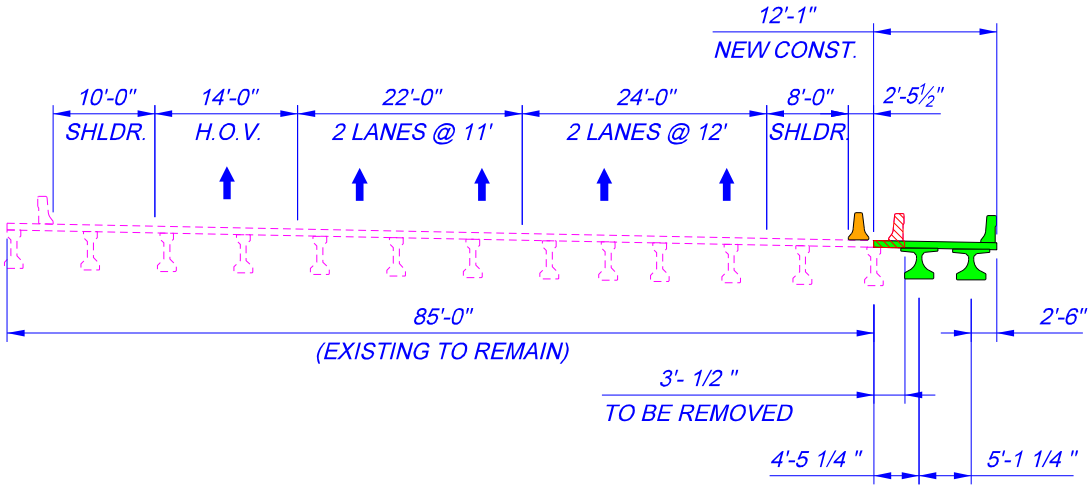


Figure 8-5 Bridge Section – Proposed MOT (Span 3)

APPENDIX D

Planning Consistency Information

Planning Requirements for Environmental Document Approvals with Segmented Implementation

Document Information:
Date: 5/20/2013 **Document Type:** CE II **Document Status:** Draft

Project Name: SR 9/I-95 Project Development & Environment (PD&E) Study **FM #:** 429804-1-22-01

Project Limits: From Stirling Road (SR 848) to North of Oakland Park Boulevard (SR 818) **ETDM #:** 13168

Are the limits consistent with the plans? Yes

Identify MPO(s) (if applicable): Broward County MPO **Original PD&E FAP#** N/A

Segment Information: Convert HOV to Express Lane and add one additional Express Lane in the median, in each direction
Segment Limits: From SR 848/Stirling Road to South of SR 842/Broward Boulevard **Segment FM #:** 429804-2

Currently Adopted CFP-LRTP	COMMENTS
Yes	Identified in Broward County MPO, 2035 CFP LRTP , Project ID 64 - I-95 Managed Lanes from I-595 to Palm Beach County line, Construction funding in Fiscal Years 2021-2025 with $1,078.7 (Year of Expenditure Dollars in Millions)

PHASE	Currently Approved TIP	Currently Approved STIP	TIP/STIP $	TIP/STIP FY	
PE (Final Design)	Yes	Yes	$1,760,000	2013/2014	ACNH Funding Source
R/W	No	No	$0	N/A	No right of way phase is needed
Construction	No	NO	$0	N/A	LRTP: Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with $1,078.7 (Year of Expenditure Dollars in Millions). FDOT intends to fund construction as soon as possible. Currently some construction funds are scheduled in approved 2nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.

Segment Information: Convert HOV to Express Lane and add one additional Express Lane in the median, in each direction
Segment Limits: From South of SR 842/Broward Boulevard to North of SR 816/Oakland Park Boulevard **Segment FM #:** 429804-3

Currently Adopted CFP-LRTP	COMMENTS
Yes	Identified in Broward County MPO, 2035 CFP LRTP , Project ID 64 - I-95 Managed Lanes from I-595 to Palm Beach County line, Construction funding in Fiscal Years 2021-2025 with $1,078.7 (Year of Expenditure Dollars in Millions)

PHASE	Currently Approved TIP	Currently Approved STIP	TIP/STIP $	TIP/STIP FY	COMMENTS
PE (Final Design)	Yes	Yes	$2,084,000	2013/2014	ACNH Funding Source
R/W	No	No	$0		No right of way phase is needed
Construction	No	No	$0		LRTP: Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with $1,078.7 (Year of Expenditure Dollars in Millions). FDOT intends to fund construction as soon as possible. Currently some construction funds are scheduled in approved 2nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.

FDOT Preparer's Name: Ray Holzweiss, P.E. **Date:** **Phone #:** (954) 777-4425

Preparer's Signature: **Email:** Ray.Holzweiss@dot.state.fl.us

***Attach: LRTP, TIP, STIP pages**

Project Name: SR 9/I-95 Project Development and Environment Study **Financial Project Number:** _429804-1-22-01

FHWA Reviewer: _____ **Date:** _____

Planning Requirements Summary (FHWA Planners complete): Planner: Date:	YES	NO	Comments
1. Is project fully reflected in current ***cost-feasible*** LRTP?			
2. Is project in current TIP?			
3. Is project in current STIP and consistent with the TIP?			
4. Is the project described in the TIP and STIP consistent with the cost-feasible LRTP with regards to project description, limits, implementation and funding? If NO, describe outcome of conversation with District to produce consistency.			
5. Are the cost-feasible LRTP, TIP, and STIP consistent with the project implementation as demonstrated in the project schedule? If NO, describe outcome of conversation with District to produce consistency.			
6. Is the environmental document consistent with the project implementation as demonstrated in the project schedule? If NO, describe outcome of conversation with District to produce consistency.			

FLORIDA DEPARTMENT OF TRANSPORTATION
OFFICE OF WORK PROGRAM
STIP REPORT
==========
HIGHWAYS
==========

LF	0	0	4,825,000	0	0	0	4,825,000
TOTAL <N/A>	0	0	9,650,000	0	0	0	9,650,000
TOTAL 429783 1	0	0	9,650,000	0	0	0	9,650,000

ITEM NUMBER:429784 1 PROJECT DESCRIPTION:SR-817/UNIVERSITY DR AND SAMPLE ROAD AT VARIOUS LOCATIONS *NON-SIS*
DISTRICT:04 COUNTY:BROWARD TYPE OF WORK:ADD TURN LANE(S)
ROADWAY ID:86511500 PROJECT LENGTH: .684MI LANES EXIST/IMPROVED/ADDED: 6/ 0/ 0

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS
FEDERAL PROJECT NUMBER: <N/A>							
PHASE: Construction / RESPONSIBLE AGENCY: Managed by CITY OF CORAL SPRINGS							
CIGP	0	0	0	752,813	0	0	752,813
LF	0	0	0	752,813	0	0	752,813
TOTAL <N/A>	0	0	0	1,505,626	0	0	1,505,626
TOTAL 429784 1	0	0	0	1,505,626	0	0	1,505,626

ITEM NUMBER:429804 2 PROJECT DESCRIPTION:SR-9/I-95 FR N OF SR-848/STIRLING TO S OF SR-842/BROWARD BV *SIS*
DISTRICT:04 COUNTY:BROWARD TYPE OF WORK:PD&E/EMO STUDY
ROADWAY ID:86070000 PROJECT LENGTH: 4.300MI LANES EXIST/IMPROVED/ADDED: 9/ 0/ 0

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS
FEDERAL PROJECT NUMBER: <N/A>							
PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	1,760,000	0	0	0	1,760,000
PHASE: Railroad and Utilities / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	0	0	0	8,288,020	8,288,020
PHASE: Construction / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	0	0	0	140,938,514	140,938,514
PHASE: Grants and Miscellaneous / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	0	0	0	1,400,000	1,400,000
TOTAL <N/A>	0	0	1,760,000	0	0	150,626,534	152,386,534
TOTAL 429804 2	0	0	1,760,000	0	0	150,626,534	152,386,534

FLORIDA DEPARTMENT OF TRANSPORTATION
OFFICE OF WORK PROGRAM
STIP REPORT
==========
HIGHWAYS
==========

ITEM NUMBER:429804 3 PROJECT DESCRIPTION:SR-9/I-95 FR S OF SR-842/BROWARD BV TO N OF SR-816/OAKLAND PK *SIS*
DISTRICT:04 COUNTY:BROWARD TYPE OF WORK:PD&E/EMO STUDY
ROADWAY ID:86070000 PROJECT LENGTH: 4.100MI LANES EXIST/IMPROVED/ADDED: 9/ 0/ 0

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS
FEDERAL PROJECT NUMBER: <N/A>							
PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	2,084,000	0	0	0	2,084,000
PHASE: Railroad and Utilities / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	0	0	0	9,537,401	9,537,401
PHASE: Construction / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	0	0	0	175,654,554	175,654,554
PHASE: Grants and Miscellaneous / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	0	0	0	1,400,000	1,400,000
TOTAL <N/A>	0	0	2,084,000	0	0	186,591,955	188,675,955
TOTAL 429804 3	0	0	2,084,000	0	0	186,591,955	188,675,955

ITEM NUMBER:429905 1 PROJECT DESCRIPTION:SR-A1A DANIA BCH BLVD OVER ICWW BRIDGE #860920 *NON-SIS*
DISTRICT:04 COUNTY:BROWARD TYPE OF WORK:BRIDGE-REPAIR/REHABILITATION
ROADWAY ID:86030000 PROJECT LENGTH: .099MI LANES EXIST/IMPROVED/ADDED: 4/ 0/ 0

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS
FEDERAL PROJECT NUMBER: <N/A>							
PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
BRRP	0	500,000	0	0	0	0	500,000
DIH	11,223	5,000	0	0	0	0	16,223
PHASE: Construction / RESPONSIBLE AGENCY: Managed by FDOT							
BRRP	0	0	0	8,060,560	0	0	8,060,560
DIH	0	0	0	11,020	0	0	11,020
TOTAL <N/A>	11,223	505,000	0	8,071,580	0	0	8,587,803
TOTAL 429905 1	11,223	505,000	0	8,071,580	0	0	8,587,803

Phase	Fund Source	2012/13	2013/14	2014/15	2015/16	2016/17	Total
SR-9/I-95 FROM N OF SR-848/STIRLING TO S OF SR-842/BROWARD BV - FM# 4298042 (TIP#)						***SIS***	
Type of Work: PD&E/EMO STUDY					**Lead Agency: FDOT**		
					LRTP#: 09R64		
PE (32)	ACNH	0	1,600,000	0	0	0	**1,600,000**
PE (31)	ACNH	0	160,000	0	0	0	**160,000**
Total		**0**	**1,760,000**	**0**	**0**	**0**	**1,760,000**
	Prior Years Cost		*Future Years Cost*	*150,626,534*		*Total Project Cost*	*152,386,534*
SR-9/I-95 FROM S OF SR-842/BROWARD BV TO N OF SR-816/OAKLAND PK - FM# 4298043 (TIP#)						***SIS***	
Type of Work: PD&E/EMO STUDY					**Lead Agency: FDOT**		
					LRTP#: 09R64		
PE (32)	ACNH	0	1,900,000	0	0	0	**1,900,000**
PE (31)	ACNH	0	184,000	0	0	0	**184,000**
Total		**0**	**2,084,000**	**0**	**0**	**0**	**2,084,000**
	Prior Years Cost		*Future Years Cost*	*186,591,955*		*Total Project Cost*	*188,675,955*

Exhibit 71-2035 Cost Feasible Roadway Projects (continued)

Project ID	Project Name	From	To	Miles	Project Description	Project	Score	Total Cost (2009 dollars)	Cumulative Project Cost (2009 dollars)	FYs 2014-2015 (YOE dollars in millions)	FYs 2016-2020 (YOE dollars in millions)	FYs 2021-2025 (YOE dollars in millions)	FYs 2026-2030 (YOE dollars in millions)	FYs 2031-2035 (YOE dollars in millions)	Total for 21 Years (YOE dollars in millions)
FIHS/SIS Projects															
54[2]	I-75 Express Lanes	HEFT	I-595	12.4	Ultimate Plan[3], including two managed lanes	SIS Projects	17	$18,000,000	$18,000,000	$0.0	$0.0	$29.0	$0.0	$0.0	$29
												PE			
64	I-95 Managed Lanes	I-595	Palm Beach County Line	15	4 Managed Lanes		15	$670,000,000	$688,000,000	$0.0	$0.0	$1,078.7	$0.0	$0.0	$1,079
												C			
52	I-595	Reimbursement	-	NA	Ultimate Plan[3]		12	$29,493,367	$717,493,367	$11.2	$27.9	$0.0	$0.0	$0.0	$39
										C	C				
69	I-595	I-75	West of I-95	11.7	P3/CEI		12	$168,608	$717,661,975	$0.21	$0	$0	$0	$0	$0.21
										C					
70	I-595	East of I-75	West of I-95	11.7	P3/GEO TECH		12	$168,608	$717,830,583	$0.21	$0	$0	$0	$0	$0.21
										C					
71	I-595	I-75/ Sawgrass	SR 5/US 1	NA	P3		12	$1,558,784	$719,389,367	$1.57	$0.37	$0	$0	$0	$2
										C	C				
72	I-595/SR 862	East of I-75	West of I-95	11.7	Ultimate Plan		12	$514,537,375	$1,233,926,742	$83.8	$610.9	$0.0	$0.0	$0.0	$695
										C	C				
73	I-595	I-75	SR 7	9.5	Ultimate Plan		12	$1,382,000,000	$2,615,926,742	$0.0	$0.0	$2,225.0	$0.0	$0.0	$2,225
												C			
53[4]	I-595 Causeway	SR 7 / US 441	I-95	2.2	Ultimate Plan[3]		12	$21,000,000	$2,636,926,742	$0.0	$0.0	$33.8	$0.0	$0.0	$34
												PE			
Total - SIS /FIHS Projects								$2,636,926,742		$97	$639	$3,367	$0	$0	$4,103

APPENDIX E

On-Going Projects on I-95

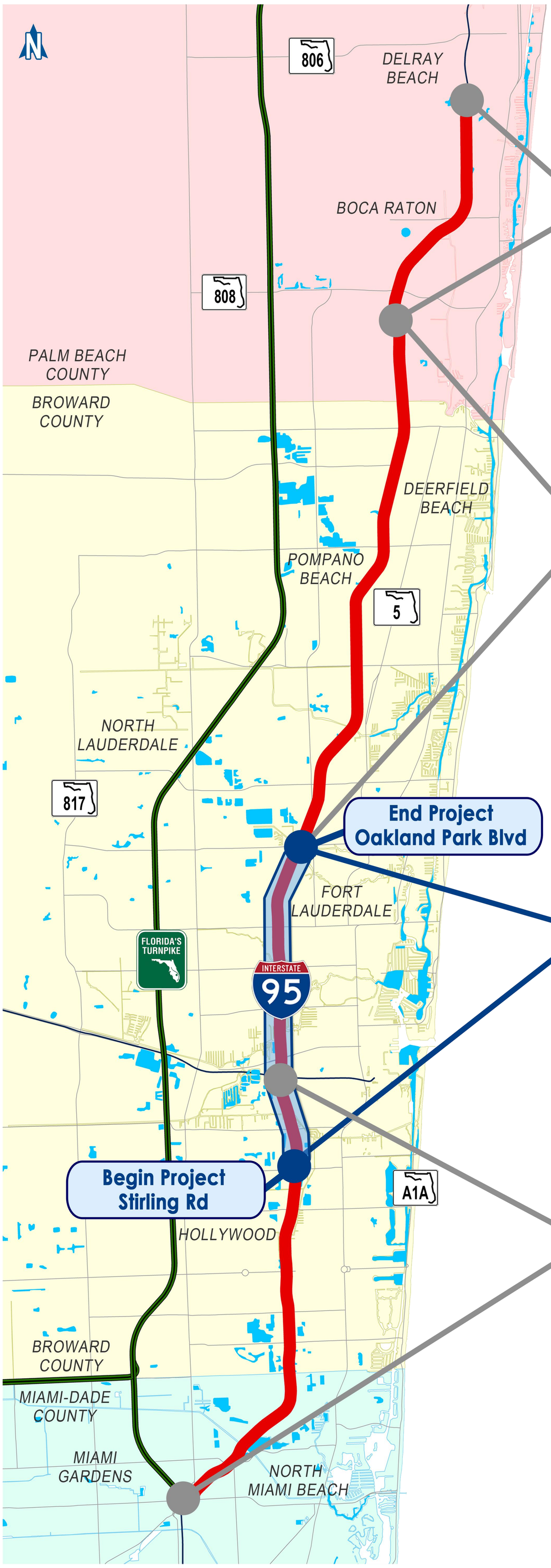
SR 9 / I-95 PD&E STUDY

FROM STIRLING ROAD TO NORTH OF OAKLAND PARK BOULEVARD

FM 42980412201 / ETDM 13168

BROWARD COUNTY, FLORIDA

ON-GOING PROJECTS ON I-95



FM#: 412420-1

Description: I-95 Re-Evaluation
Limits: from north of Glades Rd to south of Linton Blvd
County: Palm Beach
Project Manager: Ron Wallace (954) 777-4641

FM#: 409359-1 & 409355-1

Description: I-95 PD&E Study
Limits: from north of Oakland Park Blvd to south of Glades Rd
Counties: Broward (MP 14.0 - MP 25.362) & Palm Beach (MP 0.0 - 2.3)
Project Manager: Henry Oaikhena (954) 777-4445

FM#: 429804-1

Description: SR 9/ I-95 PD&E Study
Limits: from SR 848/Stirling Rd to south of SR 816/Oakland Park Blvd
County: Broward (MP 5.903 - MP 13.742)
Project Manager: Ray Holzweiss (954) 777-4425

FM #: 422796-1 & 422796-2

Description: I-95 Express, Phase 2 (under construction)
Limits: from Golden Glades to Broward Blvd
Counties: Miami-Dade & Broward
Project Managers: Jason Chang (D6) (305) 470-5331
& Donovan Pessoa (D4) (954) 777-4442

APPENDIX F

Section 4(f) Documentation

DATE: March 25, 2013

TO: Ray Holzweiss, P.E., FDOT Project Manager

FROM: Nicole Carter, C3TS

PROJECT: SR 9 (I-95) PD&E Study from Stirling Road (SR 848) (MP 5.093) to North of Oakland Park Boulevard (SR 816) (MP 13.742)
Financial Project ID: 429804-1-22-01
Federal Aid Project Number: Not Assigned
ETDM #: 13168
Broward County

COPY TO: All attendees, Project correspondence file

SUBJECT: **Section 4(f) Presentation held on February 26, 2013**

A web-based presentation was held on February 26, 2013 with the Florida Department of Transportation (FDOT), Federal Highway Administration (FHWA) and FDOT Central Office. The purpose of the presentation was to discuss potential impacts to the Section 4(f) resources located along the corridor and determine if Section 4(f) applied to these resources. The following individuals participated in this meeting:

Attendee Name	Agency/Firm	E-mail	Phone No.
Paola Riveros	FDOT-District Four	paola.riveros@dot.state.fl.us	954-777-4677
Richard Young	FDOT-District Four	richard.young@dot.state.fl.us	954-777-4323
Ann Broadwell	FDOT-District Four	ann.broadwell@dot.state.fl.us	954-777-4325
Vince Fusconi	FDOT-District Four	vince.fusconi@dot.state.fl.us	954-777-4286
Henry Oaikhena	FDOT-District Four	henry.oaikhena@dot.state.fl.us	954-777-4445
Roy Jackson	FDOT	roy.jackson@dot.state.fl.us	850-414-4443
Buddy Cunill	FHWA	benito.cunill@dot.gov	850-553-2224
Linda Anderson	FHWA	linda.anderson@dot.gov	850-553-2226
Cathy Kendall	FHWA	cathy.kendall@dot.gov	850-553-2225
Joe Sullivan	FHWA	joe.sullivan@dot.gov	850-553-2248
Mark Clasgens	FHWA	mark.clasgens@dot.gov	850-553-2234
Silvia Beltre	C3TS	sbeltre@c3ts.com	305-445-2900
Nicole Carter	C3TS	nicolec@c3ts.com	305-445-2900

The presentation began with a project overview including a summary of the project description and purpose and need. The project runs along I-95 from Stirling Road to Oakland Park Boulevard, traversing 5 cities and unincorporated Broward County. I-95 is a Strategic Intermodal System (SIS) facility providing regional access to airports, ports and the Broward Boulevard Park and Ride. The study proposes to convert the existing High Occupancy Vehicle (HOV) lane to a tolled Express Lane and add one (1) additional tolled Express Lane in each direction. The existing number of General Purpose Lanes will be maintained. The purpose and need of the project is to enhance operational capacity and relieve congestion; improve travel in the General Purpose Lanes; and provide the opportunity for regional express bus service.

There are four (4) Section 4(f) recreational resources located along the project corridor: Easterlin Park, Osswald Park, Mills Pond Park, and Flamingo Park. Consistent with the 13 points for a Determination of Applicability (DOA) in Part 2, Chapter 13 of the PD&E Manual, the following information was discussed for each park:

- Location;
- Size;
- Ownership;
- Usage, Hours of operation, and Activities;
- Access;
- Short term or long term impacts; and,
- Direct or constructive use.

This information is provided for each park in the attached powerpoint slides. No right-of-way acquisition is proposed at any of the park facilities. There will be no impacts to the access to any of the parks since all are accessed via local streets and not from I-95. No short term or long term impacts from the project will affect the activities or attributes of these parks. No direct or constructive use of any park is anticipated.

The following noise analysis findings for each park is detailed in the attached powerpoint slides (no noise barriers are proposed adjacent to any of these parks):

Easterlin Park - noise impacts may occur but a noise barrier is not recommended:

- Only 20 of the 45 total campsites are predicted to be impacted
- Design year traffic noise levels (at the campground) are predicted to range from 65.7 to 66.2 dB(A), approximately 0.5 dB(A) greater than existing traffic noise levels
- A 20 to 22 foot tall noise barrier was evaluated to mitigate noise impacts
- Cost reasonableness of the noise barrier was determined using campground usage data and FDOT's methodology regarding special land use sites
- The noise barrier meets all of FDOT's feasibility and noise level reduction requirements, but campground usage is well below a level that is sufficient to meet the cost criterion for construction of a noise barrier at this location
- Therefore, the noise barrier was determined to be not reasonable and is not recommended

Osswald Park - noise impacts may occur but a noise barrier is not recommended:

- Design year traffic noise levels (at the golf course) are predicted to range from 64.5 to 65.7 dB(A), approximately 1.3 dB(A) greater than existing traffic noise levels
- The maximum noise level was just under the Noise Abatement Criterion (NAC)
- Consideration of a noise barrier at this location was not applicable; thus no evaluation of reasonableness or feasibility occurred
- Therefore, no additional noise impacts would occur to this site due to the project

Mills Pond Park - noise impacts may occur but noise barrier is not recommended:

- Design year traffic noise levels are predicted to range from 66.8 to 70.8 dB(A), approximately 1.3 dB(A) greater than existing traffic noise levels

- A 14 to 22 foot tall noise barrier was evaluated to mitigate noise impacts
- Cost reasonableness of the noise barrier was determined using park usage data and FDOT's methodology regarding special land use sites
- The noise barrier meets all of FDOT's feasibility and noise level reduction requirements, but the park usage is well below a level that is sufficient to meet the cost criterion for construction of a noise barrier at this location
- Therefore, the noise barrier was determined to be not reasonable and is not recommended

Flamingo Park – no noise impacts:

- The edge of pavement of the adjacent southbound Collector Distributor (CD) road will not be moved any closer to the park (i.e., the additional lane is being added within the I-95 mainline)
- No modifications are proposed to the existing low-level noise barrier for the rail along the elevated shoulder of the southbound CD road
- Design year traffic noise levels are predicted to range from 60.3 to 60.8 dB(A), approximately 0.4 dB(A) greater than existing traffic noise levels
- The maximum noise level was under the NAC
- Consideration of a noise barrier at this location was not necessary; thus no evaluation of reasonableness or feasibility occurred
- Therefore, no additional noise impacts would occur to this site due to the project.

After the presentation given by Nicole, several questions were asked by FHWA and FDOT Central Office.

Joe asked what criteria (e.g., number of users) were utilized in the noise study to determine cost reasonableness. Richard explained there is a special land use methodology for certain types of land use, including parks. It is a complicated formula that correlates short term (e.g., 2 to 4 hours) park usage to 24-hour usage, as in a residential area. It was developed by UCF and has been used for a number of years. Richard will obtain the exact figure from Tim Ogle, along with the special land use methodology, and provide to FHWA.

Linda asked about the Woodlawn Cemetery site. It was clarified that this presentation applied only to the recreational parks (not the cemetery).

Roy asked for clarification on noise impacts, i.e., whether any of the park sites were sensitive to noise. Richard replied that no park uses were noise sensitive, again based on the special land use criteria. Linda noted that it was difficult to prove proximity impacts; however, it was important to include that information in the DOA.

The teleconference meeting minutes will be submitted by FDOT to FHWA for review, along with an applicability determination for each park. The powerpoint and meeting minutes, along with FHWA approval, are to be included in the Categorical Exclusion Type II.

These meeting minutes and the attached presentation constitute the Section 4(f) DOA for this PD&E Study. The FDOT's conclusion is that Section 4(f) does not apply to Easterlin Park, Osswald Park, Mills Pond Park, or Flamingo Park.

The FHWA finds this information complete and sufficient, and concurs that there is no Section 4(f) involvement with Easterlin Park, Osswald Park, Mills Pond Park, or Flamingo Park.

/s/ David K Hawk

David C. Hawk
Acting Division Administrator
Florida and Puerto Rico Divisions
Federal Highway Administration

5-6-13
Date

Potential Section 4(f) Resources

Presentation to FHWA

February 26, 2013

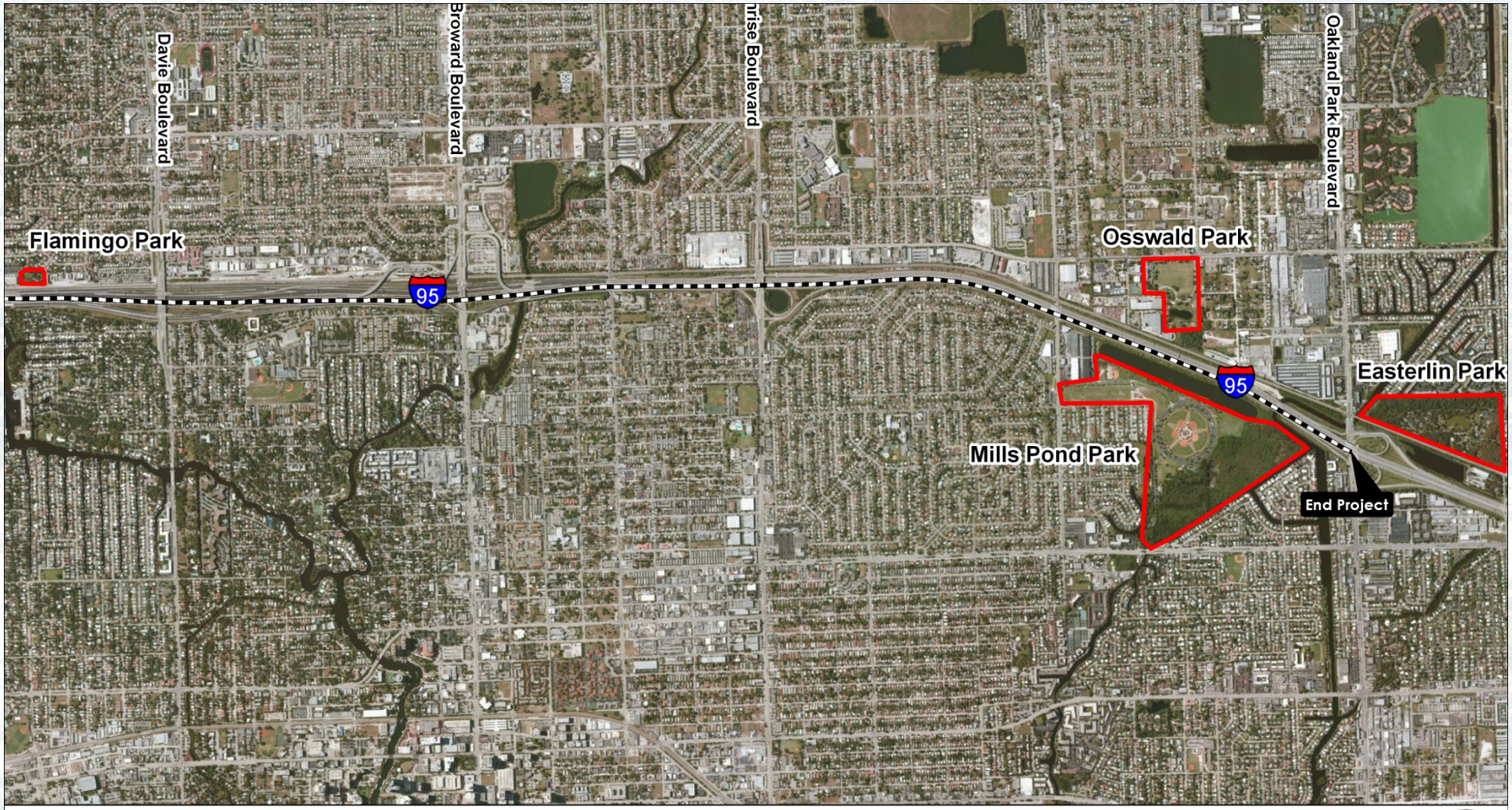
SR 9 / I-95

PD&E STUDY

FROM STIRLING ROAD TO NORTH OF OAKLAND PARK BOULEVARD

FM 42980412201 / ETDM 13168

Project Overview



- From Stirling Rd. to Oakland Park Blvd.
- Strategic Intermodal System (SIS) Facility
- Connects to other SIS facilities
- Regional access to airports / ports
- Connects to Broward Blvd. Park & Ride
- Evacuation route
- Existing Traffic 2011: 230,000 vehicles/day
- Projected Traffic 2040: 320,000 vehicles/day

About the Study

- Convert existing High Occupancy Vehicle (HOV) lane to a tolled Express Lane
- Add one (1) additional tolled Express Lane in each direction

Purpose and Need

- Enhance operational capacity and relieve congestion
- Improve travel in free lanes during times of heavy traffic
- Provide a fast and reliable travel option
- Provide for the opportunity to incorporate regional express bus service.

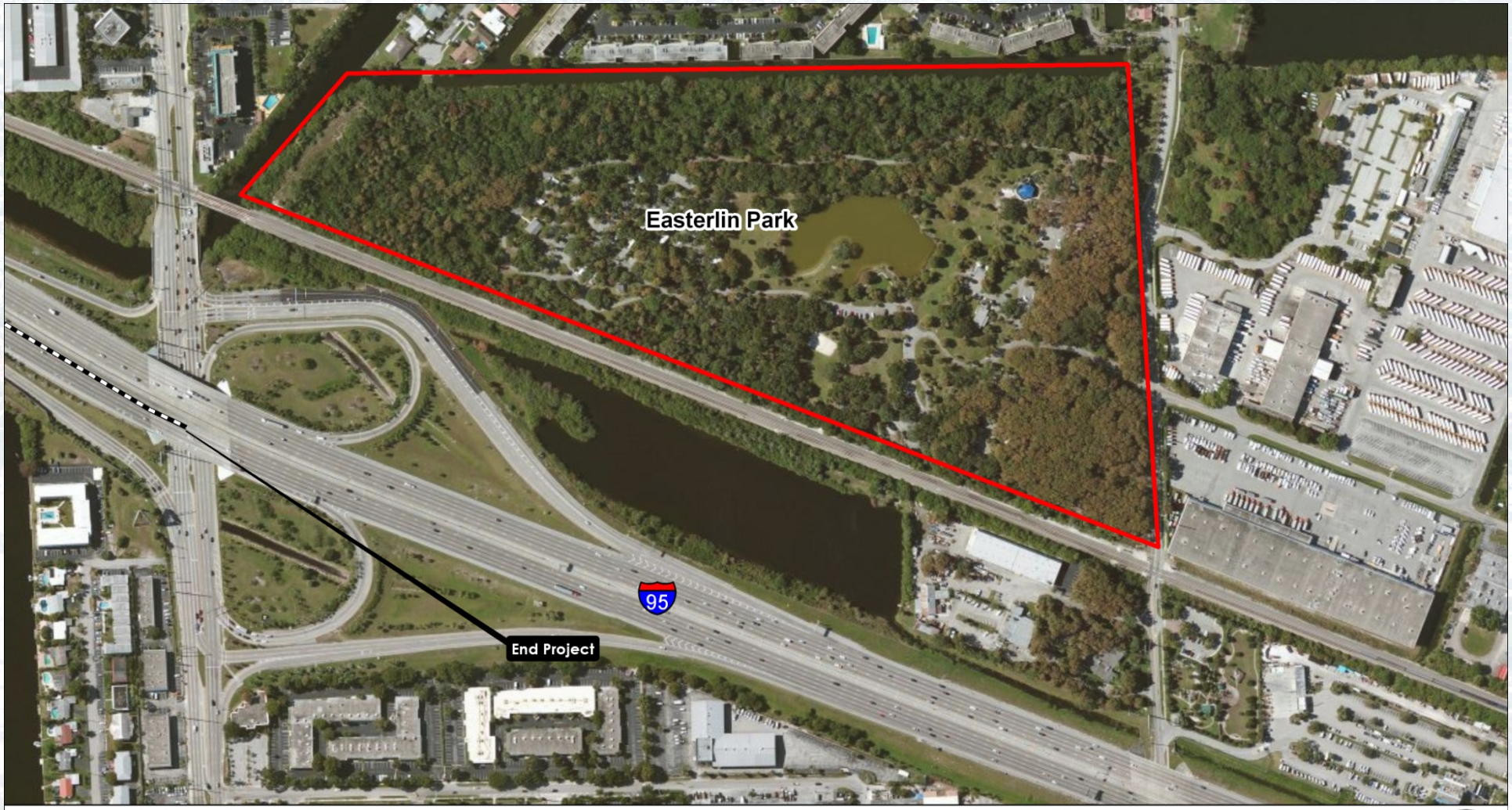
Easterlin Park

Osswald Park

Mills Pond Park

Flamingo Park

EASTERLIN PARK



EASTERLIN PARK

- Designated Urban Wilderness Area owned by Broward County
- County's first Inland Regional Park, formerly known as Cypress Park (*old growth cypress trees*)
- Size = 46.6 acres
- Activities: Campground (RVs and tents; Primitive Youth Camping), Nature Trail, Scenic Lake, Bird Watching, Disc Golf Course, Volleyball, Horseshoes, Playground, Picnic Shelter, Picnic Tables/Grills
- Park hours: 8am to dusk
- Usage records kept for camping only: 2,300/month during high (winter) season

EASTERLIN PARK – Project Effects

- No right of way acquisition from property (located at 1000 NW 38th St.)
- Access (off Oakland Park Blvd. to Powerline Rd.) will be maintained during construction
- Park located to west of I-95 and west of South Florida Rail Corridor (SFRC)/CSX railroad
- Noise Analysis results*: noise impacts may occur but noise barrier is not recommended
- No other short term or long term impacts from the project would affect the activities or attributes of this park
- No direct or constructive use of park anticipated

EASTERLIN PARK – Noise Analysis*

- Only 20 of 45 total campsites are predicted to be impacted
- Design year traffic noise levels (at campground) predicted to range from 65.7 to 66.2 dB(A), approx. 0.5 dB(A) greater than existing traffic noise levels
- A 20 to 22 foot tall noise barrier was evaluated to mitigate noise impacts
- Cost reasonableness of the noise barrier was determined using campground usage data and FDOT's methodology regarding special land use sites
- Noise barrier meets all of FDOT's feasibility and noise level reduction requirements, but campground usage is well below a level that is sufficient to meet the cost criterion for construction of a noise barrier at this location
- Noise barrier determined to be not reasonable and is not recommended

OSSWALD PARK

OSSWALD PARK

- Community Park owned by City of Fort Lauderdale
- Size = 30.9 acres
- Activities: Splashpad, Recreation Center, Pavilions, Playground, Lighted Athletic Fields, Tennis/Racquetball Courts, Basketball Courts, Shuffleboard, Volleyball, Walking/Jogging Trail, Golf (3-Hole course, Putting Green, Driving Range), Picnic Area
- Park hours: 6am to 9pm
- Usage: Approx. 300 people/day

OSSWALD PARK – Project Effects

- No right of way acquisition from property (located at 2220 NW 21st Ave.)
- Access (off Oakland Park Blvd.) will be maintained during construction
- Park located to west of I-95 and west of South Florida Rail Corridor (SFRC)/CSX railroad
- Noise Analysis results*: noise impacts may occur but noise barrier is not recommended
- No other short term or long term impacts from the project would affect the activities or attributes of this park
- No direct or constructive use of park anticipated

OSSWALD PARK – Noise Analysis*

- Design year traffic noise levels (at golf course) predicted to range from 64.5 to 65.7 dB(A), approx. 1.3 dB(A) greater than existing traffic noise levels
- Maximum noise level was just under the Noise Abatement Criterion (NAC)
- Consideration of a noise barrier at this location was not applicable; thus no evaluation of reasonableness or feasibility occurred
- No additional noise impacts to this site due to the project

SR 9 / I-95

PD&E STUDY

FROM STIRLING ROAD TO NORTH OF OAKLAND PARK BOULEVARD

FM 42980412201 / ETDM 13168

MILLS POND PARK

MILLS POND PARK

- Large Urban Park owned by City of Fort Lauderdale
- Size: 152.5 acres
- Activities: Lighted Athletic Fields (Baseball, Softball, Football, Multipurpose), Batting Cages, Water Skiing, Open Play Area, Radio-Controlled Cars, Fishing, Recreation Center, Concessions (Softball Complex), Pavilions, Picnic Area, Grills, Playground
- Park hours: 7am to 11pm
- Usage (fields only): Approx. 3,000/week during softball season

MILLS POND PARK – Project Effects

- No right of way acquisition from property (located at 2201 NW 9 Ave./Powerline Rd.)
- Access (off Oakland Park Blvd.) will be maintained during construction
- Park located to east of I-95
- Noise Analysis results*: noise impacts may occur but noise barrier is not recommended
- No other short term or long term impacts from the project would affect the activities or attributes of this park
- No direct or constructive use of park anticipated

MILLS POND PARK – Noise Analysis*

- Design year traffic noise levels predicted to range from 66.8 to 70.8 dB(A), approx. 1.3 dB(A) greater than existing traffic noise levels
- A 14 to 22 foot tall noise barrier was evaluated to mitigate noise impacts
- Cost reasonableness of the noise barrier was determined using park usage data & FDOT's methodology regarding special land use sites
- Noise barrier meets all of FDOT's feasibility and noise level reduction requirements, but park usage is well below a level that is sufficient to meet the cost criterion for construction of a noise barrier at this location
- Noise barrier determined to be not reasonable and is not recommended

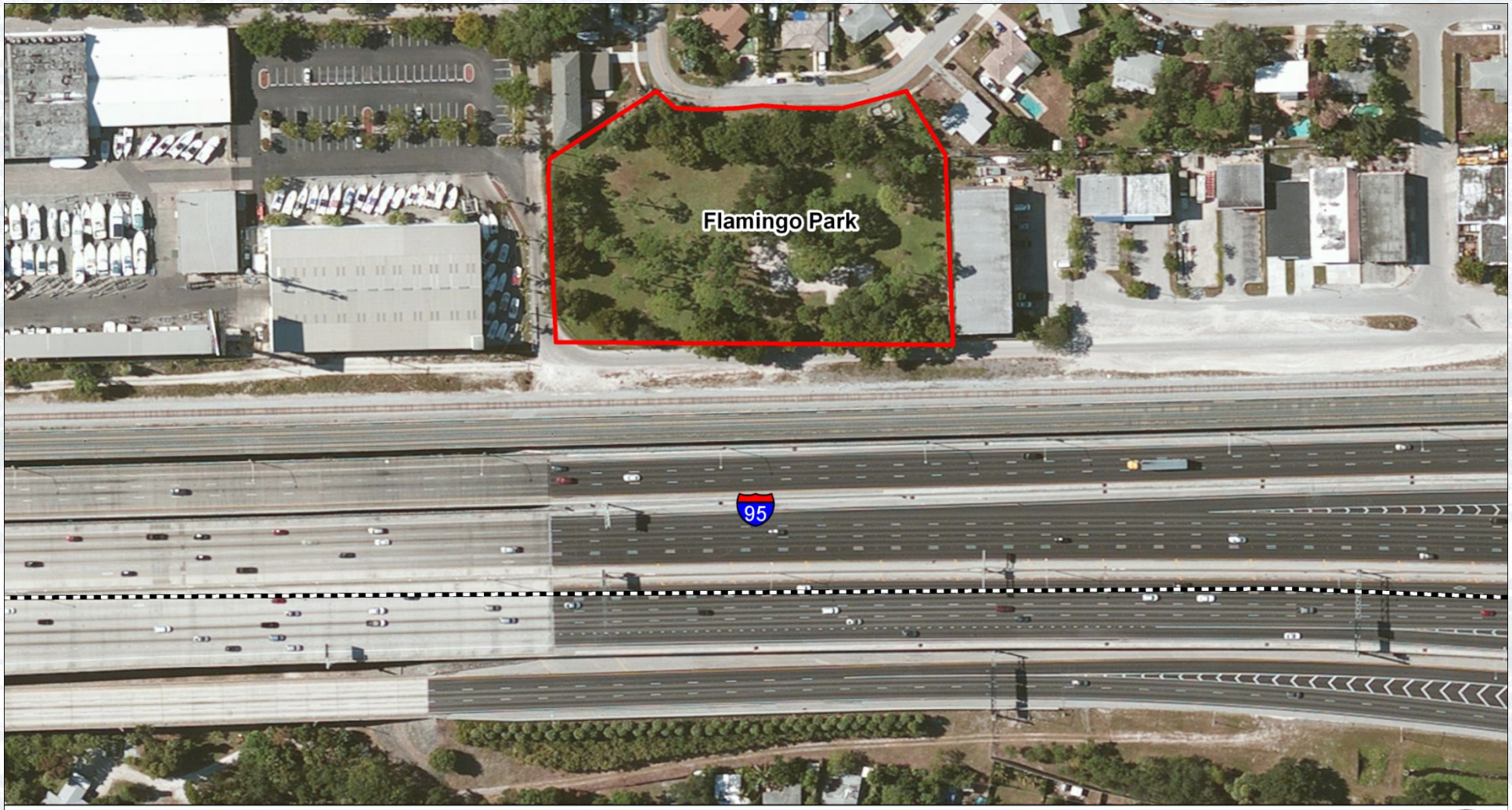
SR 9 / I-95

PD&E STUDY

FROM STIRLING ROAD TO NORTH OF OAKLAND PARK BOULEVARD

FM 42980412201 / ETDM 13168

FLAMINGO PARK



Legend

Parks

Project Corridor

0 0.05 0.1 Miles

FLAMINGO PARK

- Neighborhood Park owned by City of Fort Lauderdale
- Size = 3.0 acres
- Activities: Playground, Open Play Area, Picnic Area/Grill
- Park hours: 8am to 9pm
- City keeps no records on usage

FLAMINGO PARK – Project Effects

- No right of way acquisition from property (located at 1600 SW 21 Way)
- Access (off Davie Blvd.) will be maintained during construction
- Park located to east of I-95, immediately adjacent to frontage road; bounded on nearly all sides by local roads
- Noise Analysis results*: no noise impacts
- No other short term or long term impacts from the project would affect the activities or attributes of this park
- No direct or constructive use of park anticipated

FLAMINGO PARK – Noise Analysis*

- Edge of pavement of adjacent southbound Collector Distributor (CD) road will not be moved any closer to the park (i.e., additional lane being added within I-95 mainline)
- No modifications proposed to existing low-level noise barrier for rail along elevated shoulder of southbound CD road
- Design year traffic noise levels predicted to range from 60.3 to 60.8 dB(A), approx. 0.4 dB(A) greater than existing traffic noise levels
- Maximum noise level was under the NAC
- Consideration of a noise barrier at this location was not necessary; thus no evaluation of reasonableness or feasibility occurred
- No additional noise impacts to this site due to the project

APPENDIX G

13 Point Concurrency Memorandum

SR 9 / I-95 PD&E STUDY

FROM STIRLING ROAD TO NORTH OF OAKLAND PARK BOULEVARD
FM 42980412201 / ETDM 13168
Broward County

13 Point Concurrency Memorandum June 2013

Prepared for:

Florida Department of Transportation – District 4
3400 West Commercial Blvd
Fort Lauderdale, Florida 33309

Prepared by:

Stantec Consulting Services, Inc.
901 Ponce de Leon Boulevard, Suite 900
Coral Gables, Florida 33134
Stantec.com

Project Description

This segment of I-95 is functionally classified as a Divided Urban Principal Arterial Interstate and is part of the state's Strategic Intermodal System (SIS). I-95 is one of only two major expressways (Florida's Turnpike being the other) that connect the major employment centers and residential areas within the South Florida tri-county area: Miami-Dade, Broward and Palm Beach Counties. I-95 is a critical corridor for moving freight, transit and passenger vehicles into, through and out of the corridor each day.

The majority of the project corridor has eight travel lanes, four in each direction, plus auxiliary lanes within closely spaced interchanges. The remainder of the corridor features a few segments that carry six and ten general purpose travel lanes. The northbound and southbound travel lanes are separated by either a concrete barrier wall, or a grassy median. Roadway swales run on both sides of the facility. There are eight interchanges along the project corridor:

- Stirling Road (SR 848) & I-95
- Griffin Road (SR 818) & I-95
- I-595 & I-95
- SR 84 & I-95
- Davie Boulevard (SR 736) & I-95
- Broward Boulevard (SR 842) & I-95
- Sunrise Boulevard (SR 838) & I-95
- Oakland Park Boulevard (SR 816) & I-95

The project segment traverses a dense urban area with predominantly commercial and residential uses. Within the project limits, I-95 traverses five cities (Hollywood, Dania Beach, Fort Lauderdale, Wilton Manors and Oakland Park) and unincorporated Broward County. Both the Fort Lauderdale-Hollywood International Airport and Port Everglades are also located near the I-95 and I-595 interchange. Improvements to the I-95 corridor are needed in order to:

- Provide new and enhanced mobility options for motorists and transit users
- Enhance mobility of goods and services to support the freight network
- Improve emergency evacuation
- Support economic development

The study seeks to enhance operational capacity and relieve congestion along the I-95 corridor by converting the existing High Occupancy Vehicle (HOV) lane to a tolled Express Lane and adding one additional tolled Express Lane to the median of I-95, in each direction.

This also provides for the opportunity to incorporate regional express bus service. The Express Lanes will have variable toll pricing based on congestion to optimize traffic flow.

Summary of Design Variations and Exceptions

The geometry of the roadway was analyzed to determine compliance with the FDOT Plans Preparation Manual and with the criteria set forth in the American Association of State Highway Transportation Officials (AASHTO) Manual. The following 13 controlling design elements were analyzed:

1. Design Speed
2. Lane Widths
3. Shoulder Widths
4. Bridge Widths
5. Structural Capacity
6. Vertical Clearance
7. Grades
8. Cross Slope
9. Superelevation
10. Horizontal Alignment
11. Vertical Alignment
12. Stopping Sight Distance
13. Horizontal Clearance

In addition to the 13 controlling elements, the border width was also reviewed for compliance with the FDOT PPM criteria. Table 1 summarizes the design exceptions and variations required for the project.

Table 1 Design Variations and Exceptions Summary		
Design Compliance	**Design Element**	**Location/Description**
Design Exceptions	Lane Width	11-ft. Express lanes throughout the project and one 11-ft. general purpose lane at the constrained locations.
	Shoulder Width	The shoulder width varies at the following locations (see Table 2): -SW 42 Street -SR 84 -South Fork New River -Davie Boulevard (SR 736) -NB at Park and Ride Ramp south of Broward Boulevard -North Woodlawn Cemetery -Sunrise Boulevard (SR 838)
Design Variations	Horizontal Clearance	Two existing light poles on breakaway supports are located approximately 8 ft. from the auxiliary lane in the vicinity of the North Woodlawn Cemetery.
	Bridge Width	Bridge No. 860430 and Bridge No. 860431 over the South Fork New River
	Vertical Clearance	I-595 EB over I-95 NB measures 16.43 I-595 WB over I-95 NB measures 16.43 WB I-595 to SB I-95 over I-95 measures 16.33 PNR #2 to I-95 ramp over I-95 SB measures 16.02 Sunrise Boulevard (SR 838) over I-95 measures 16.41 I-95 over Griffin Road (SR 818) measures 16.10 I-95 over NW 6 Street measures 16.35 I-95 over NW 19th Street measures 14.78 ft. (see notes) I-95 over Oakland Park Boulevard (SR 816) measures 15.05 ft. (Refer to Table 3)
	Horizontal Alignment	Nine curves do not meet the minimum length requirement as per PPM
	Vertical Alignment	Eight curves do not meet the minimum K-Value requirement. Two sag curves and 7 crest curves do not meet the minimum length requirement.
	Stopping Sight Distance	Six curves do not meet the minimum stopping sight distance requirement.
	Shoulder Width	From I-595 to to North of the Broward Boulevard Park and Ride Ramp (M.P. 10.585) the inside shoulders vary from 10-ft to 12 ft.
	Border Width	Border width varies throughout the corridor from 9 ft. to 178 ft.

Notes: In accordance with the Value Engineering recommendations for this study, the I-95 bridge over NW 19th Street should be evaluated further during final design for possible widening solutions in lieu of replacement options. The vertical clearance should be re-evaluated at that time based on the solutions proposed.

1. Design Speed and Posted Speed

A review of existing plans provided by the FDOT indicated that the design speed for the study corridor has varied from 60 mph for the original design to 70 mph for subsequent resurfacing projects. The existing posted speed for the corridor is 65 mph. A speed study performed by FDOT in 2011 determined that a design speed of 65 mph is appropriate for this corridor.

2. Lane Widths

Lane widths for the corridor will vary per segment. From Stirling Road (SR 848) to I-595 and from north of the Broward Boulevard Park and Ride to Oakland Park Boulevard (SR 816) the Express Lanes and the general purpose lanes will be 12 ft.

From I-595 to north of the Broward Boulevard Park and Ride ramp, the Express Lanes will be 11 ft. In addition, there will be one 11 ft. general purpose lane in each direction at the constrained locations where the typical section is reduced. **As a result, a design exception for lane width is required under the proposed alternative. Refer to Attachment B for typical sections.**

3. Shoulder Widths

Shoulder widths for the corridor will also vary per segment. From Stirling Road (SR 848) to I-595 and from north of the Broward Boulevard Park and Ride ramp to Oakland Park Boulevard (SR 816), both inside and outside shoulders will be 12 ft. wide.

From I-595 to north of the Broward Boulevard Park and Ride ramp, the shoulder will vary in width. Generally, the inside shoulders will be 10 ft. wide and the outside shoulders will be 12 ft. wide. However, the typical section will be further reduced at several constrained locations. The constrained sections are described in the Table below.

Table 2
Typical Sections at Constrained Locations

Location	Direction	Shoulder Width		Auxiliary Lane (ft.)	Number of General Purpose Lanes	Total Width (ft.)	Length of Reduced Section (ft.)
		Outside (ft.)	Inside (ft.)				
SW 42 Street Underpass	SB	8	3	12	4	94	1840
	NB	8	3	12	4	94	1650
SR 84 Underpass	SB	8	8	0	3	76	8000*
	NB	9	8	0	3	76	6300**
South Fork New River Bridge	SB	8	4	0	3	72	8000*
	NB	8	3	24	3	94	6300**
Davie Boulevard (SR 736) Underpass	SB	8	3	12	3	88	8000*
	NB	11	11	15	3	122	Not constrained
Park and Ride Ramp south of Broward Boulevard (SR 842)	SB	10	10	24	3	103	Not constrained
	NB	11	7	12	4	102	1200
North Woodlawn Cemetery	SB	12	5	0	4	88	2200***
	NB	6	5	24	4	106	1900****
Sunrise Boulevard (SR 838) Underpass	SB	15	5	0	4	94	2200***
	NB	8	3	12	4	94	1900****

*Southbound SR 84, South Fork New River, and Davie Boulevard are one continuous constrained section for 8000 ft.
**Northbound SR 84 and South Fork New River are one continuous constrained section for 6300 ft.
***Southbound North Woodlawn Cemetery and Sunrise Boulevard are one continuous constrained section for 2000 ft.
****Northbound North Woodlawn Cemetery and Sunrise Boulevard are one continuous constrained section for 2000 ft.

Providing a 12 ft. outside shoulder at Sunrise Boulevard (SR 838) would result in a shift of the edge of pavement toward the west. This would require widening I-95 toward the outside and the transition would extend into the constrained section at the North Woodlawn Cemetery. Consequently, the 15 ft. outside shoulder at Sunrise Boulevard (SR 838) cannot be reduced in order to provide additional width for the inside shoulder.

A design exception for shoulder width is required under the proposed alternative.

4. Bridge Widths

The bridges along the project corridor are being widened and will provide adequate lane and shoulder widths except for the bridges over the South Fork New River. The bridges over Stirling Road were widened as part of I-95 Express Phase 2 project. The proposed improvements will tie into the Phase 2 construction at Stirling Road. Therefore, the current widths will be maintained and no further action is required. The inside shoulder widths on the northbound and southbound bridges over the South Fork New River are reduced to 3 ft. and 4 ft., respectively. The outside shoulders at these bridges are reduced to 8-ft in both directions. These bridges are part of the constrained section from SR 84 to Davie Boulevard (SR 736), and as such, the approaching roadway width is maintained through the bridges. **A design variation for bridge width is required under the proposed alternative.**

5. Structural Capacity

The I-95 southbound bridge over the Dania Cut-Off Canal has a load rating of 0.90. The bridges over NW 19th Street have load ratings of 0.833 and are being proposed for replacement. However, a load rating analysis will be performed on all bridges to be widened or replaced and a final decision will be made after the analysis is completed. The bridges over NW 6th Street have load ratings of 0.952, however, as per the FDOT Bridge Load Rating Manual, a value over 0.95 may be rounded up to 1.0. All other I-95 bridges have load rating over 1.0. **However, a design variation will be required in case the refined analysis does not yield a satisfactory load rating.**

6. Cross Slope

The two inside lanes (the Express Lanes) will feature 2% cross slopes and will slope toward the median. The first two general purpose lanes (from the Express Lanes toward the outside) will slope at 2% toward the outside. The remaining lanes will slope at 3% toward the outside. No design variation or exception will be required.

7. Vertical Clearance

As per Table 2.10.1 of the FDOT PPM, the minimum vertical clearance allowed for roadway over roadway is 16.5 ft. Existing vertical clearances over I-95 were field verified and the minimum vertical clearance is not met at five locations. In addition, existing vertical clearances below I-95 were verified with existing plans. Widening of the bridges will not reduce the existing vertical clearances below I-95; however, three locations were identified that do not meet the minimum PPM vertical clearance, including one that does not meet AASHTO criteria. AASHTO, however, states that 14 ft. clearance is allowed in highly developed urban areas if an alternate route can be provided. Sunrise Boulevard, which goes over I-95, is located 2 miles from Oakland Park Boulevard and can serve as alternate route.

The deficient vertical clearances along the corridor are detailed in **Table 3**. **Under the proposed alternative, a design variation for vertical clearance is required.**

Table 3
Vertical Clearance Design Variations

Location	Minimum Vertical Clearance (ft.)	PPM (ft.)	AASHTO (ft.)	Variation/ Exception
I-595 EB over I-95 NB	16.43	16.50	16.00	Variation
I-595 WB over I-95 NB	16.43	16.50	16.00	Variation
WB I-595 to SB I-95 over I-95	16.33	16.50	16.00	Variation
PNR #2 to I-95 ramp over I-95 SB	16.02	16.50	16.00	Variation
Sunrise Boulevard (SR 838) over I-95	16.41	16.50	16.00	Variation
I-95 over Griffin Road (SR 818)	16.10	16.50	16.00	Variation
I-95 over NW 6th Street	16.35	16.50	16.00	Variation
I-95 over NW 19th Street	14.78	16.50	16.00	Variation*
I-95 over Oakland Park Boulevard (SR 816)	15.05	16.50	16.00	Variation*

*14 feet allowed in highly developed urban areas if alternate route has 16 feet.

The bridges over NW 19th Street have load ratings of 0.833 and are being proposed for replacement. However, a load rating analysis will be performed on all bridges to be widened or replaced and a final decision will be made after the analysis is completed.

8. Superelevation

All horizontal curves along the corridor meet the required superelevation as per the FDOT PPM. No design variation or exception will be required.

9. Horizontal Alignment

Nine horizontal curves do not meet the minimum curve length as required by the FDOT PPM. **A design variation for horizontal alignment is proposed under the proposed alternative. Refer to Attachment B for geometric controls.**

10. Grade

All grades along the corridor are 3% or less, as required by the FDOT PPM. No design variation or design exception will be required under the proposed alternative.

11. Vertical Alignment

Eight curves do not meet the minimum K-Value required by the FDOT PPM. In addition, one sag curve and seven crest curves do not meet the minimum length required by the FDOT PPM. **Under the proposed alternative, a design variation for vertical alignment is required.**

12. Stopping Sight Distance

Six curves do not meet the minimum stopping sight distance required by the FDOT PPM. **Under the proposed alternative, a design variation for stopping sight distance is required.**

13. Horizontal Clearance

Two existing light poles in the vicinity of the North Woodlawn Cemetery are located approximately 8 ft. from the auxiliary lane. **A design variation for horizontal clearance is required** for the proposed alternative to avoid and minimize impacts to the cemetery resulting from the implementation of a barrier system.

Other: Border Width

The border width varies from 9 ft. to 178 ft. For the majority of the corridor, except at the interchanges, the border width is less than the 94 ft. required by the FDOT PPM. It is never less than the 8 ft. required by AASHTO**. A design variation for border width is required under the proposed alternative.**

Attachment A
EXCERPTS FROM PRELIMINARY ENGINEERING REPORT

Proposed Horizontal Alignment - Radius of Curvature and Superelevation								
Curve No.	Existing Curve Parameters					Criteria		Variations or Exceptions
	Baseline	Design Speed (mph)	Radius (ft.)	Superelevation	Length (ft.)	PPM	AASHTO	
H1	NB & SB	65	5779.600	0.033	1,078.07	0.033	0.033	OK
H2	NB & SB	65	5779.570	0.033	1,064.86	0.033	0.033	OK
H3	NB & SB	65	28647.890	0.020	2,003.86	NC	NC	OK
H4	NB & SB	65	5729.570	0.033	2,294.27	0.033	0.033	OK
H5	NB & SB	65	28648.13	0.020	2,333.52	NC	NC	OK
H6	NB & SB	65	11458.060	0.020	835.74	0.020	0.020	OK
H7	NB & SB	65	11458.690	0.030	682.30	0.020	0.020	OK
H8	NB & SB	65	22918.350	0.020	1,982.45	NC	NC	OK
H9	NB	65	22929.00	0.020	2,073.86	NC	NC	OK
H10	NB	65	23988.00	0.020	975.02	NC	NC	OK
H11	NB	65	10511.00	0.020	786.65	RC	RC	OK
H12	NB	65	10511.00	0.020	560.39	RC	RC	OK
H13	NB	65	11989.00	0.020	1,426.11	RC	RC	OK
H14	SB	65	15048.00	0.020	1,873.05	NC	NC	OK
H15	SB	Curves H15 and H16 combined with curve H14						
H16	SB							
H17	SB	65	9009.00	0.021	1,199.91	0.021	0.021	OK
H18	SB	65	4573.00	0.041	678.17	0.041	0.041	OK
H19	SB	65	5022.00	0.038	484.87	0.038	0.038	OK
H20	NB & SB	65	11459.560	0.020	7751.68	0.020	0.020	OK
H21	NB & SB	65	4583.660	0.047	2,053.46	0.041	0.041	OK
H22	NB & SB	65	5729.620	0.037	947.11	0.033	0.033	OK
H23	NB & SB	65	5729.590	0.039	946.90	0.033	0.033	OK

Proposed Horizontal Alignment – Horizontal Curve Length								
Curve No.	Existing Curve Parameters					PPM/AASTHO Criteria		Variations or Exceptions
	Baseline	Design Speed (mph)	Radius (ft.)	Superelevation	Length (ft.)	Desirable (ft.)	Minimum (ft.)	
H1	NB & SB	65	5779.600	0.030	1,078.07	1950	975	OK
H2	NB & SB	65	5779.570	0.030	1,064.86	1950	975	OK
H3	NB & SB	65	28647.890	0.020	2,003.86	1950	975	OK
H4	NB & SB	65	5729.570	0.032	2,294.27	1950	975	OK
H5	NB & SB	65	28648.13	0.020	2,333.52	1950	975	OK
H6	NB & SB	65	11458.060	0.020	835.74	1950	975	Variation
H7	NB & SB	65	11458.690	0.030	682.30	1950	975	Variation
H8	NB & SB	65	22918.350	0.020	1,982.45	1950	975	OK
H9	NB	65	22929.00	0.020	2,073.86	1950	975	OK
H10	NB	65	23988.00	0.020	975.02	1950	975	OK
H11	NB	65	10511.00	0.020	786.65	1950	975	Variation
H12	NB	65	10511.00	0.020	560.39	1950	975	Variation
H13	NB	65	11989.00	0.020	1,426.11	1950	975	OK
H14	SB	65	15048.00	0.020	1,873.05	1950	975	OK

Proposed Horizontal Alignment – Horizontal Curve Length								
Curve No.	Existing Curve Parameters					PPM/AASTHO Criteria		Variations or Exceptions
	Baseline	Design Speed (mph)	Radius (ft.)	Superelevation	Length (ft.)	Desirable (ft.)	Minimum (ft.)	
H15	SB	Curves H15 and H16 combined with curve H14						
H16	SB							
H17	SB	65	9009.00	0.021	1,199.91	1950	975	OK
H18	SB	65	4573.00	0.041	678.17	1950	975	Variation
H19	SB	65	5022.00	0.038	484.87	1950	975	Variation
H20	NB & SB	65	11459.560	0.020	751.68	1950	975	Variation
H21	NB & SB	65	4583.660	0.047	2,053.46	1950	975	OK
H22	NB & SB	65	5729.620	0.037	947.11	1950	975	Variation
H23	NB & SB	65	5729.590	0.039	946.90	1950	975	Variation

Proposed Horizontal Alignment – Horizontal Sight Distance								
Curve No.	Existing Curve Parameters					Criteria		Variations or Exceptions
	Baseline	Design Speed (mph)	Radius (ft.)	Horizontal Sightline Offset (ft.)	Sight Distance (ft.)	PPM (ft.)	AASHTO (ft.)	
H1	NB & SB	65	5779.600	16.50	874	730.00	645.00	OK
H2	NB & SB	65	5779.570	16.50	874	730.00	645.00	OK
H3	NB & SB	65	28647.890	11.50	1623	730.00	645.00	OK
H4	NB & SB	65	5729.570	16.50	870	730.00	645.00	OK
H5	NB & SB	65	28648.13	16.50	1945	730.00	645.00	OK
H6	NB & SB	65	11458.060	11.50	1027	730.00	645.00	OK
H7	NB & SB	65	11458.690	11.50	1027	730.00	645.00	OK
H8	NB & SB	65	22918.350	11.50	1452	730.00	645.00	OK
H9	NB	65	22929.00	11.50	1452	730.00	645.00	OK
H10	NB	65	23988.00	11.50	1452	730.00	645.00	OK
H11	NB	65	10511.00	16.50	1486	730.00	645.00	OK
H12	NB	65	10511.00	11.50	1178	730.00	645.00	OK
H13	NB	65	11989.00	16.50	983	730.00	645.00	OK
H14	SB	65	15048.00	16.50	1409	730.00	645.00	OK
H15	SB	65	Curves H15 and H16 combined with curve H14					
H16	SB	65						
H17	SB	65	9009.00	11.50	910	730.00	645.00	OK
H18	SB	65	4573.00	40.00	1210	730.00	645.00	OK
H19	SB	65	5022.00	42.00	1300	730.00	645.00	OK
H20	NB & SB	65	11459.560	16.50	1230	730.00	645.00	OK
H21	NB & SB	65	4583.660	16.50	778	730.00	645.00	OK
H22	NB & SB	65	5729.620	16.50	870	730.00	645.00	OK
H23	NB & SB	65	5729.590	16.50	870	730.00	645.00	OK

Vertical Alignment - Grades and K Values

Curve No.	Baseline	Design Speed (mph)	Vertical Curve Type	Grade		Δ G	Existing Curve Length (ft.)	Existing K-Value	Criteria- K Value		Variation or Exception
				Back	Ahead				PPM	AASHTO	
V1	NB & SB	65	Sag	Curve is outside of the project limits							
V2	NB & SB	65	Crest	3.000	3.000	6.000	1800.00	300.00	401.00	193.00	Variation
V3	NB & SB	65	Sag	Sag curve to be brought up to PPM standards with overbuild							Variation
V4	SB	65	Sag	0.0000	2.5220	2.522	825.00	327.12	181.00	157.00	OK
V5	NB	65	Sag	0.0000	2.5220	2.522	800.00	317.21	181.00	157.00	OK
V6	NB & SB	65	Crest	2.522	2.434	4.956	1500.00	302.66	401.00	193.00	Variation
V7	NB & SB	65	Sag	Sag curve to be corrected with overbuild							
V8	NB & SB	65	Sag	0.000	1.500	1.500	600.00	400.00	181.00	157.00	OK
V9	NB & SB	65	Crest	1.500	0.500	2.000	640.00	320.00	401.00	193.00	Variation
V10	NB & SB	65	Sag	0.500	0.302	0.802	500.00	623.44	181.00	157.00	OK
V11	NB	65	Sag	0.3020	0.300	0.602	440.00	730.90	181.00	157.00	OK
V12	SB	65	Sag	0.302	0.300	0.602	500.00	830.56	181.00	157.00	OK
V13	NB	65	Crest	0.300	0.300	0.600	500.00	833.33	401.00	193.00	OK
V14	SB	65	Crest	0.300	0.300	0.600	500.00	833.33	401.00	193.00	OK
V15	NB & SB	65	Sag	0.300	0.300	0.600	500.00	833.33	181.00	157.00	OK
V16	NB & SB	65	Crest	0.300	0.300	0.600	500.00	833.33	401.00	193.00	OK
V17	NB & SB	65	Sag	0.300	3.000	3.300	778.00	235.76	181.00	157.00	OK
V18	NB & SB	65	Crest	3.000	3.000	6.000	1800.00	300.00	401.00	193.00	Variation
V19	NB & SB	65	Sag	3.000	0.750	2.250	1000.00	266.67	181.00	157.00	OK
V20	NB & SB	65	Sag	0.750	0.400	1.150	1000.00	869.57	181.00	157.00	OK
V21	NB & SB	65	Crest	0.400	0.9	1.300	1000.00	769.23	401.00	193.00	OK
V22	NB & SB	65	Sag	0.9000	0.4200	1.320	800.00	606.06	181.00	157.00	OK
V23	SB	65	Crest	0.4200	0.3700	0.790	1000.00	1265.82	401.00	193.00	OK
V24	NB	65	Crest	0.420	0.300	0.720	1000.00	1388.70	401.00	193.00	OK
V25	NB	65	Sag	0.300	0.414	0.714	800.00	1120.45	181.00	157.00	OK
V26	SB	65	Sag	2.117	0.000	2.117	800.00	377.84	181.00	157.00	OK
V27	NB	65	Sag	2.137	0.000	2.117	800.00	374.36	181.00	157.00	OK
V28	SB	65	Sag	0.000	0.109	0.109	800.00	7332.72	181.00	157.00	OK
V29	NB	65	Sag	0.000	0.1040	0.104	800.00	7692.31	181.00	157.00	OK
V30	SB	65	Sag	0.1091	2.468	2.359	600.00	232.81	181.00	157.00	OK
V31	NB	65	Sag	0.104	2.503	2.399	600.00	230.16	181.00	157.00	OK
V32	SB	65	Crest	Curve to be reconstructed as part of the NW 19 Street bridge replacement							
V33	NB	65	Crest	Curve to be reconstructed as part of the NW 19 Street bridge replacement							
V34	SB	65	Sag	2.484	0.000	2.484	800.00	322.06	181.00	157.00	OK
V35	NB	65	Sag	2.496	0.000	2.496	800.00	320.46	181.00	157.00	OK
V36	SB	65	Sag	0.000	2.478	2.478	600.00	242.16	181.00	157.00	OK
V37	NB	65	Sag	0.000	2.515	2.515	600.00	238.60	181.00	157.00	OK
V38	SB	65	Crest	2.478	2.007	4.485	1170.00	260.86	401.00	193.00	Variation
V39	NB	65	Crest	2.515	2.023	4.538	1170.00	257.82	401.00	193.00	Variation

Vertical Alignment - Vertical Curve Length											
Curve No.	Baseline	Design Speed (mph)	Vertical Curve Type	Grade		Δ G	Existing Curve Length (ft.)	Existing K-Value	Criteria- Curve Length		Variation or Exception
				Back	Ahead				PPM	AASHTO	
V1	NB & SB	65	Sag	Curve is outside of the project limits							
V2	NB & SB	65	Crest	3.000	3.000	6.000	1800.00	300.00	1800.00	1158.00	OK
V3	NB & SB	65	Sag	Sag curve to be brought up to PPM standards with overbuild							Variation
V4	SB	65	Sag	0.0000	2.5220	2.522	825.00	327.12	800.00	395.95	OK
V5	NB	65	Sag	0.0000	2.5220	2.522	800.00	317.21	800.00	395.95	OK
V6	NB & SB	65	Crest	2.522	2.434	4.956	1500.00	302.66	1800.00	956.51	Variation
V7	NB & SB	65	Sag	Sag curve to be corrected with overbuild							
V8	NB & SB	65	Sag	Sag curve to be corrected with overbuild							
V9	NB & SB	65	Crest	1.500	0.500	2.000	640.00	320.00	1000.00	386.00	Variation
V10	NB & SB	65	Sag	Sag curve to be corrected with overbuild							
V11	NB	65	Sag	Sag curve to be corrected with overbuild							
V12	SB	65	Sag	Sag curve to be corrected with overbuild							
V13	NB	65	Crest	0.300	0.300	0.600	500.00	833.33	1000.00	115.80	Variation
V14	SB	65	Crest	0.300	0.300	0.600	500.00	833.33	1000.00	115.80	Variation
V15	NB & SB	65	Sag	Sag curve to be corrected with overbuild							
V16	NB & SB	65	Crest	0.300	0.300	0.600	500.00	833.33	1000.00	115.80	Variation
V17	NB & SB	65	Sag	Sag curve to be corrected with overbuild							
V18	NB & SB	65	Crest	3.000	3.000	6.000	1800.00	300.00	1000.00	1158.00	OK
V19	NB & SB	65	Sag	3.000	0.750	2.250	1000.00	266.67	800.00	588.75	OK
V20	NB & SB	65	Sag	0.750	0.400	1.150	1000.00	869.57	800.00	180.55	OK
V21	NB & SB	65	Crest	0.400	0.9	1.300	1000.00	769.23	1000.00	250.90	OK
V22	NB & SB	65	Sag	0.9000	0.4200	1.320	800.00	606.06	800.00	207.24	OK
V23	SB	65	Crest	0.4200	0.3700	0.790	1000.00	1265.82	1000.00	152.47	OK
V24	NB	65	Crest	0.420	0.300	0.720	1000.00	1388.70	1000.00	138.98	OK
V25	NB	65	Sag	0.300	0.414	0.714	800.00	1120.45	800.00	112.10	OK
V26	SB	65	Sag	2.117	0.000	2.117	800.00	377.84	800.00	332.42	OK
V27	NB	65	Sag	2.137	0.000	2.117	800.00	374.36	800.00	335.51	OK
V28	SB	65	Sag	0.000	0.109	0.109	800.00	7332.72	800.00	17.13	OK
V29	NB	65	Sag	0.000	0.1040	0.104	800.00	7692.31	800.00	16.33	OK
V30	SB	65	Sag	Sag curve to be corrected with overbuild							
V31	NB	65	Sag	Sag curve to be corrected with overbuild							
V32	SB	65	Crest	Curve to be reconstructed as part of the NW 19 Street bridge replacement							
V33	NB	65	Crest	Curve to be reconstructed as part of the NW 19 Street bridge replacement							
V34	SB	65	Sag	2.484	0.000	2.484	800.00	322.06	800.00	389.99	OK
V35	NB	65	Sag	2.496	0.000	2.496	800.00	320.46	800.00	391.93	OK
V36	SB	65	Sag	Sag curve to be corrected with overbuild							
V37	NB	65	Sag	Sag curve to be corrected with overbuild							
V38	SB	65	Crest	2.478	2.007	4.485	1170.00	260.86	1800.00	865.62	Variation
V39	NB	65	Crest	2.515	2.023	4.538	1170.00	257.82	1800.00	875.85	Variation

Vertical Alignment- Vertical Stopping Sight Distance											
Curve No.	Baseline	Vertical Curve Type	Grade		Δ G	Existing Curve Length (ft.)	Existing SSD		Criteria - SSD		Variation or Exception
			Back	Ahead			PPM	AASHTO	PPM	AASHTO	
V2	NB & SB	Crest	3.000	3.000	6.000	1800.00	631.46	804.67	730.00	645.00	Variation
V6	NB & SB	Crest	2.522	2.434	4.956	1500.00	634.26	808.23	730.00	645.00	Variation
V9	NB & SB	Crest	1.500	0.500	2.000	640.00	652.17	831.06	730.00	645.00	Variation
V13	NB	Crest	0.300	0.300	0.600	500.00	1052.44	1341.11	730.00	645.00	OK
V14	SB	Crest	0.300	0.300	0.600	500.00	1052.44	1341.11	730.00	645.00	OK
V16	NB & SB	Crest	0.300	0.300	0.600	500.00	1052.44	1341.11	730.00	645.00	OK
V18	NB & SB	Crest	3.000	3.000	6.000	1800.00	631.46	804.67	730.00	645.00	Variation
V21	NB & SB	Crest	0.400	0.9	1.300	1000.00	1011.15	1288.50	730.00	645.00	OK
V23	SB	Crest	0.4200	0.3700	0.790	1000.00	1297.10	1652.88	730.00	645.00	OK
V24	NB	Crest	0.420	0.300	0.720	1000.00	1358.60	1731.25	730.00	645.00	OK
V32	SB	Crest	Curve to be reconstructed as part of the NW 19 Street bridge replacement								
V33	NB	Crest	Curve to be reconstructed as part of the NW 19 Street bridge replacement								
V38	SB	Crest	2.478	2.007	4.485	1170.00	588.84	750.35	730.00	645.00	Variation
V39	NB	Crest	2.515	2.023	4.538	1170.00	585.39	745.95	730.00	645.00	Variation

Existing Bridge Characteristics

#	Location	Bridge Numbers	Minimum Vertical Clearance (ft.)	Superstructure Type	Substructure Type	Average Bridge Width (ft.)	Bridge Length (ft.)	No. of Spans	Max Span Length (ft.)	Load Rating	Sufficiency Rating	Health Index	Bridge Railings	Substructure	Restriction	Deficiency	Year Built/ Reconst.
1	I-95 over Stirling Road (SR 848)	860579 (SB)	16.25**	AASHTO Type IV	Pier/Bents 18" Prest. Piles	85.7/ 85.7	178.0	2	89.0	HS 20 (RF>1)	98.0	99.82	Meets Standard	Very Good	Open, no restriction	Not deficient	1990
2		860580 (NB)								HS 20 (RF>1)	98.0	99.99	Meets Standard	Very Good	Open, no restriction	Not deficient	
3	I-95 over Griffin Road (SR 818)	860554 (SB)	16.10	AASHTO Type IV	Pier/Bents 18" Prest. Piles	85.7/ 85.7	180.0	2	90.0	HS 20 (RF>1)	96.0	99.54	Meets Standard	Satisfactory	Open, no restriction	Not deficient	1990
4		860555 (NB)								HS 20 (RF>1)	93.0	99.62	Meets Standard	Satisfactory	Open, no restriction	Not deficient	1989
5	I-95 over Dania Cut-off Canal	860109 (SB)	11.35 (MHW)	AASHTO Type III	Pier/Bents 18" Prest. Piles	96.54/ 96.54	180.2	3	80.2	HL 93 (IRF<1) 0.90	85.0	99.30	Meets Standard	Satisfactory	Open, no restriction	Not deficient	1965/ 1989
6		860209 (NB)								HS 20 (RF>1)	85.0	96.93	Meets Standard	Good	Open, no restriction	Not deficient	
7	SB I-95 to Griffin Road (SR 818) over Dania Cut off Canal	860546	11.65 (MHW)	AASHTO Type III	Pier/Bents 18" Prest. Piles	42.8	180.3	3	80.2	HS 20 (RF>1)	98.6	92.1	Meets Standard	Good	Open, no restriction	Not deficient	1988
8	SW 42 St over I-95/RR	860548	23.0 (RR)	Steel Plate Girders with Haunches	Pier/Bents 18" Prest. Piles	38.8	367.1	2	202.0	HS 20 (RF>1)	91.8	94.59	Meets Standard	Very Good	Open, no restriction	Functionally Obsolete	1989
9	I-595 over I-95/RR/ Ravenswood Road	860535 (WB)	16.43(NB)/ 16.66(SB)/ 23.55(RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	58.8	1197.4	10	132.0	HS 20 (RF>1)	91.8	94.59	Meets Standard	Good	Open, no restriction	Not deficient	1989
10		860536 (EB)	16.43(NB)/ 17.00(SB)/ 23.55(RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles					HS 20 (RF>1)	83.0	99.90	Meets Standard	Good	Open, no restriction	Not deficient	1989
11	SB I-95 to WB I-595 over Ravenswood Road	860537	24.32/ 23.01(RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	42.8	695.0	5	213.0	HS 20 (RF>1)	97.8	99.46	Meets Standard	Good	Open, no restriction	Not deficient	1989
12	EB I-595 to NB I-95	860538	16.76/65.18 (RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	42.8	3749.7	22	210.8	HS 20 (RF>1)	82.6	90.84	Meets Standard	Good	Open, no restriction	Not deficient	1990
13	WB I-595 to SB I-95 over I-95	860539	16.44	Steel Box Girders	Pier/Bents 18" Prest. Piles	42.8	769.8	5	183.3	HS 20 (RF>1)	96.8	99.93	Meets Standard	Very Good	Open, no restriction	Not deficient	1990
14	EB I-595 to SB I-95 over Ramp	860540	21.67/ 23.40 (RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	42.8	820.3	6	184.0	HS 20 (RF>1)	96.8	96.57	Meets Standard	Good	Open, no restriction	Not deficient	1988
15	NB I-95 to WB I-595 over I-95	860541	16.87/32.35 (RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	42.8	1639.0	10	206.3	HS 20 (IRF>1)	80.1	90.89	Meets Standard	Good	Open, no restriction	Not deficient	1990
16	SB I-95 to EB I-595	860542	16.50	Steel Box Girders	Pier/Bents 18" Prest. Piles	42.8	1965.0	12	203.8	HS 20 (RF>1)	84.9	92.48	Meets Standard	Good	Open, no restriction	Not deficient	1990
17	SB I-95 to Griffin Road (SR-818)	860547	N/A	Steel Box Girders	Pier/Bents 18" Prest. Piles	29.7	389.7	3	184.1	HS 20 (RF>1)	97.7	98.92	Meets Standard	Very Good	Open, no restriction	Not deficient	1988
18	EB SR 84 to SB I-95 over CSX	860521	21.14/ 23.17(RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	29.8	272.0	3	120.0	HS 20 (RF>1)	97.6	99.76	Meets Standard	Very Good	Open, no restriction	Not deficient	1989
19	WB SR 84 over RR	860522	21.0/ 23.08(RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	77.8	280.0	3	120.0	HS 20 (RF>1)	96.3	99.74	Meets Standard	Very Good	Open, no restriction	Not deficient	1990
20	WB SR 84 over I-95	860523	17.22	Steel Box Girders	Pier/Bents 18" Prest. Piles	71.3	175.0	1	175.0	HS 20 (RF>1)	93.1	99.83	Meets Standard	Very Good	Open, no restriction	Not deficient	1990
21	WB SR 84 over I-595 ramps to NB I-595	860524	16.36	Steel Box Girders	Pier/Bents 18" Prest. Piles	77.3	297.8	2	161.8	HS 20 (RF>1)	95.0	75.95	Meets Standard	Very Good	Open, no restriction	Not deficient	1990
22	NB I-95 to EB SR 84	860525	16.36	Steel Box Girders	Pier/Bents 18" Prest. Piles	29.8	302.3	2	164.3	HS 20 (RF>1)	95.1	98.26	Meets Standard	Very Good	Open, no restriction	Not deficient	1990
23	SB I-95 to EB SR 84	860526	N/A	Steel Box Girders	Pier/Bents 18" Prest. Piles	38.8	623.6	5	130.0	HS 20 (RF>1)	95.5	98.95	Meets Standard	Very Good	Open, no restriction	Not deficient	1990
24	EB SR 84 to NB I-95	860527	N/A	Steel Box Girders	Pier/Bents 18" Prest. Piles	38.8	625.7	5	132.0	HS 20 (RF>1)	96.8	99.24	Meets Standard	Very Good	Open, no restriction	Not deficient	1990
25	EB SR 84 over I-95/RR/Ramps	860528	17.96	AASHTO Type IV/ Steel Box Girders	Pier/Bents 18" Prest. Piles	68.3	1584.0	13	192.0	HS 20 (RF>1)	93.0	85.21	Meets Standard	Good	Open, no restriction	Not deficient	1988
26	I-595 to I-95 NB over South Fork New River	860213	55.1	AASHTO/PT Haunch Girders	Pier/Bents 18" Prest. Piles	47.3	1509.8	15	150.0	HS 20 (RF>1)	65.0	85.84	Substandard	Good	Open, no restriction	Not deficient	1969

Existing Bridge Characteristics

#	Location	Bridge Numbers	Minimum Vertical Clearance (ft.)	Superstructure Type	Substructure Type	Average Bridge Width (ft.)	Bridge Length (ft.)	No. of Spans	Max Span Length (ft.)	Load Rating	Sufficiency Rating	Health Index	Bridge Railings	Substructure	Restriction	Deficiency	Year Built/ Reconst.
27	I-95 SB to I-595 over South Fork New River	860429	55.1	AASHTO Girders	Pier/Bents 18" Prest. Piles	54.8	1945.0	11	300.0	HS 20 (RF>1)	89.9	83.13	Meets Standard	Good	Open, no restriction	Not deficient	1987
28	I-95 over South Fork New River	860430 (SB)	55.1	Steel Plate Girders with Haunches	Pier/Bents 18" Prest. Piles	72.6	1945.0	11	300.0	HS 20 (RF>1)	85.0	97.23	Meets Standard	*	Open, no restriction	Not deficient	1988
29		860431 (NB)								HS 20 (RF>1)	91.0	82.99	Meets Standard	Good	Open, no restriction	Not deficient	1988
30	Davie Boulevard over I-95	860603	16.53	Steel Box Girders	Pier/Bents 18" Prest. Piles	141.2	979.0	8	136.0	HS 20 (RF>1)	84.7	99.98	Meets Standard	Good	Open, no restriction	Not deficient	1994
31	SB I-95 Off-ramp to Davie Boulevard	860604	N/A	Steel Box Girders	Pier/Bents 18" Prest. Piles	48.0	101.0	1	99.0	HS 20 (RF>1)	97.6	99.83	Meets Standard	Very Good	Open, no restriction	Not deficient	1993
32	NB I-95 Off-ramp to Davie Boulevard	860605	N/A	Steel Box Girders	Pier/Bents 18" Prest. Piles	52.8	101.0	1	99.0	HS 20 (RF>1)	95.2	99.83	Meets Standard	Very Good	Open, no restriction	Not deficient	1994
33	Broward Boulevard (SR 842) to SB I-95 over I-95 SB ramp to I-595	860606	16.50	Steel Box Girders	Pier/Bents 18" Prest. Piles	29.8	631.5	3	263.5	HS 20 (RF>1)	97.2	98.59	Meets Standard	Good	Open, no restriction	Not deficient	1994
34	NB I-95 to Broward Boulevard (SR 842) over I-595 ramp to NB I-95	860607	16.50	Steel Box Girders	Pier/Bents 18" Prest. Piles	29.8	527.5	3	219.5	HS 20 (RF>1)	97.5	99.48	Meets Standard	*	Open, no restriction	Not deficient	1994
35	WB Broward Boulevard (SR 842) over PNR Access	860257	23.50	AASHTO Girders	Pier/Bents 18" Prest. Piles	68.1	222.0	4	74.6	HS 20 (RF>1)	78.8	97.81	Substandard (Programmed to be replaced)	Satisfactory	Open, no restriction	Not deficient	1974
36	EB Broward Boulevard (SR 842) over PNR Access	860258	23.50	AASHTO Girders	Pier/Bents 18" Prest. Piles	68.1	222.0	3	107.6	HS 20 (RF>1)	78.8	98.46	Substandard (Programmed to be replaced)	Very Good	Open, no restriction	Not deficient	1974
37	Broward Boulevard (SR 842) over I-95	860269	16.50	AASHTO Girders	Pier/Bents 18" Prest. Piles	112.1	298.1	4	112.2	HS 20 (RF>1)	88.7	99.66	Substandard (Programmed to be replaced)	Good	Open, no restriction	Not deficient	1974
38	EB Broward Boulevard (SR 842) to NB I-95 Flyover	860598	16.69/ 29.95(RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	31.1	1458.5	9	210.0	HS 20 (RF>1)	99.8	99.93	Meets Standard	Good	Open, no restriction	Not deficient	1994
39	PNR #2 to I-95 ramp over SB I-95 and SB I-95/I-595 Conn.	860600	16.02(SB)/ 16.91/ 25.59(RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	31.1	1305.0	7	275.0	HS 20 (RF>1)	98.5	99.92	Meets Standard	Very Good	Open, no restriction	Not deficient	1995
40	PNR #2 to I-95 ramp over SB I-95 and SB I-95/I-595 Conn.	860638	16.91/ 25.59(RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	31.1	1305.0	7	275.0	HS 20 (RF>1)	98.5	99.92	Meets Standard	Very Good	Open, no restriction	Not deficient	1995
41	I-95 to PNR #1 over I-95 SB/Broward Boulevard (SR 842)	860601	16.98/ 24.83(RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	31.1	1275.0	9	250.0	HS 20 (RF>1)	97.9	78.85	Meets Standard	Good	Open, no restriction	Not deficient	1994
42	PNR to I-95 NB over I-95 SB/Broward Boulevard (SR 842)	860628	16.98/ 24.83(RR)	Steel Box Girders	Pier/Bents 18" Prest. Piles	31.1	1275.0	9	250.0	HS 20 (RF>1)	97.9	79.57	Meets Standard	Very Good	Open, no restriction	Functionally Obsolete	1994
43	SB I-95 to Broward Boulevard (SR 842) over North Fork New River	860260	6.89' ABOVE MHW	AASHTO Type II/ III	Pier/Bents 18"/20" Prest. Piles	48.3	155.0	3	65.0	HS 20 (RF>1)	96.7	88.96	Meets Standard	Very Good	Open, no restriction	Not deficient	1974/ 1994
44	I-95 over North Fork New River	860270 (SB)	7.55 Above MHW	AASHTO Type III	Pier/Bents 18"/20" Prest. Piles	89.2	207.0	5	69.0	HS 20 (RF>1)	85.0	86.85	Meets Standard	Good	Open, no restriction	Not deficient	1994
45		860271 (NB)	6.35 Above MHW	AASHTO Type II/ III		85.1	250.0	3	70.0	HS 20 (RF>1)	78.6	99.32	Meets Standard	Good	Open, no restriction	Not deficient	
46	Broward Boulevard (SR 842) to I-95 over North Fork New River	860602	7.29' ABOVE MHW	AASHTO Type III	Pile Bents/18" Prest. Piles	44.1	232.0	3	77.3	HS 20 (RF>1)	99.9	99.71	Meets Standard	Good	Open, no restriction	Not deficient	1993

Existing Bridge Characteristics

#	Location	Bridge Numbers	Minimum Vertical Clearance (ft.)	Superstructure Type	Substructure Type	Average Bridge Width (ft.)	Bridge Length (ft.)	No. of Spans	Max Span Length (ft.)	Load Rating	Sufficiency Rating	Health Index	Bridge Railings	Substructure	Restriction	Deficiency	Year Built/ Reconst.
47	I-95 over NW 6 St	860272 (SB)	16.35	AASHTO Type II/ IV	Pier/Bents 18" Prest. Piles	97.08/ 109.08	158.6	3	83.1	HS 20 (IRF<1) 0.952	85.1	98.41	Meets Standard	Good	Open, no restriction	Not deficient	1994
48		860273 (NB)								HS 20 (IRF<1) 0.952	85.1	99.60	Meets Standard	Good	Open, no restriction	Not deficient	
49	Sunrise Boulevard (SR 838) over I-95	860126	16.41	AASHTO Girders	Pile Bents/18" Prest. Piles	141.4	531.1	8	99.6	HL 93 (IRF<1)	85.7	99.46	Meets Standard	Very Good	Open, no restriction	Not deficient	1974/ 1991
50	Sunrise Boulevard (SR 838) to I-95 SB	860263	N/A	AASHTO Girders	Piers/Bents/18" Prest. Piles	39.3	303.0	6	69.0	HS 20 (RF>1)	99.4	98.97	Meets Standard	Very Good	Open, no restriction	Not deficient	1974/ 1990
51	I-95 SB to Sunrise Boulevard (SR 838)	860264	N/A	AASHTO Girders	Piers/Bents/18" Prest. Piles	39.3	258.0	5	71.0	HS 20 (RF>1)	81.7	98.59	Meets Standard	Very Good	Open, no restriction	Functionally Obsolete	1975
52	I-95 over NW 19 St	860115	14.78	AASHTO Type II/ III	Pier/Bents 18" Prest. Piles	94.61/ 94.61	191.6	3	111.6	HS 20 (IRF<1) 0.833	87.2	99.16	Meets Standard	Good	Open, no restriction	Not deficient	1972/ 1990
53		860215								HS 20 (IRF<1) 0.833	88.2	99.15	Meets Standard	Good	Open, no restriction	Not deficient	
54	I-95 over C-13 Canal	860116	6' Above MHW	AASHTO Type II	Pier/Bents 18" Prest. Piles	94.61/ 94.61	109.0	3	36.3	HS 20 (RF>1)	87.7	95.50	Meets Standard	Good	Open, no restriction	Not deficient	1972/ 1990
55		860216								HS 20 (RF>1)	87.7	99.33	Meets Standard	Good	Open, no restriction	Not deficient	
56	I-95 over Oakland Park Boulevard (SR 816)	860117	15.05	AASHTO Type II/IV	Pier/Bents 18" Prest. Piles	94.61/ 94.61	253.8	4	83.3	HS 20 (RF>1)	83.0	99.96	Meets Standard	Good	Open, no restriction	Not deficient	1971/ 1990
57		860217								HS 20 (RF>1)	83.0	100.0	Meets Standard	Good	Open, no restriction	Not deficient	
58	Oakland Park Boulevard (SR 816) over C-13 Canal	860139	N/A	Prestressed Slab Units	Pile Bents/18" Prest. Piles	129.8	100.5	3	33.4	HS 20 (RF>1)	88.8	87.31	Meets Standard	Fair	Open, no restriction	Not deficient	1965/ 2004

Notes:

- NBI Bridge Condition; Deck, Superstructure & Substructure: Satisfactory to Very Good
- Load Rating RF>1 (Rating Factor greater than 1); IRF<1 (Inventory Rating Factor less than 1)
- Vertical Clearance: 1- Field Measured, 2- Previous Widening Project, 3- Existing Plans
- Vertical clearance values in red do not meet the FDOT PPM or AASHTO recommended minimum vertical clearance and are being impacted by the proposed improvements. A design variation is being requested for these values.
- * Information not available
- **The bridges over Stirling Road were widened as part of the I-95 Express Phase 2 project. The proposed improvements will tie into the Phase 2 construction at Stirling Road.

Definitions:

- Load Rating - indicates the live-load capacity of the bridge based on current conditions
- Sufficiency Rating - a measure used to determine whether a bridge that is structurally deficient or functionally obsolete should be repaired or just replaced
- Functionally Obsolete - refers to a bridge that does not meet current roadway design standards
- Health Index - a measure used to indicate overall conditions of a bridge. A Health Index below 85 generally indicates that some repairs are needed.

Proposed Bridge Characteristics – Proposed Alternative							
#	**Location**	**Bridge Numbers**	**Existing Bridge Width (ft.)**	**Proposed Bridge Width (ft.)**	**Min. Vert. Cl. (ft.)**	**Bridge Length (ft.)**	**Proposed Improvement**
3	I-95 over Griffin Road (SR 818)	860554 (SB)	85625	100.875	16.10	180	Widening
4		860555 (NB)	85.625	100.875			Widening
5	I-95 over Dania Cut-off Canal	860109 (SB)	Varies from 88.208 to 91.177	96.75	11.33 (MHW)	180.3	Widening
6		860209 (NB)	96.625	112.75			Widening
43	SB I-95 to Broward Boulevard (SR 842) over North Fork New River	860260	51	Varies from 46.88 to 49.896	6.89 (MHW)	155	Widening
44	I-95 over North Fork New River	860270 (SB)	93.6	95.08	6.35 (MHW)	250	Widening
45		860271 (NB)	88.04	Varies from 94.08 to 97.042	7.55 (MHW)	207	
47	I-95 over NW 6 St	860272 (SB)	97.08	Varies from 219.33 to 224.00	16.35	158.6	Widening - bridges to be united
48		860273 (NB)	109.08				
52	I-95 over NW 19 St	860115	98.625	229.083	16.5	191.6	Replacement
53		860215	98.625				
54	I-95 over C-13 Canal	860116	Varies from 99.719 to 101.594	124.875	6 (MHW)	108	Widening
55		860216	98.708	112.875			Widening
56	I-95 over Oakland Park Boulevard (SR 816)	860117	94.61	112.875	15.05	253.8	Widening
57		860217	94.61	112.875			Widening

Attachment B
Typical Sections and Schematic Line Diagram

N.T.S.

SOUTHBOUND

NORTHBOUND

V1 K L

V2

K

K L

V3

K L

V6

STIRLING ROAD

GRIFFIN ROAD

DANIA CANAL

SW 42 STREET

K L

V9

V14

V13

L

L

I-595

L

V16

V18

K

H6

H7

SR 84

SOUTH FORK NEW RIVER

MATCH LINE "A"

MATCH LINE "A"

SOUTHBOUND

NORTHBOUND

PARK & RIDE RAMP

PARK & RIDE RAMP

DAVIE BOULEVARD

BROWARD BOULEVARD

H18

H11

NORTH FORK NEW RIVER

H19

H12

NW 6TH STREET

W SISTRUNK BOULEVARD

SUNRISE BOULEVARD

H20

NW 19TH STREET

H22

NORTH FORK MIDDLE RIVER

H23

K L

K L

V38

V39

OAKLAND PARK BOULEVARD

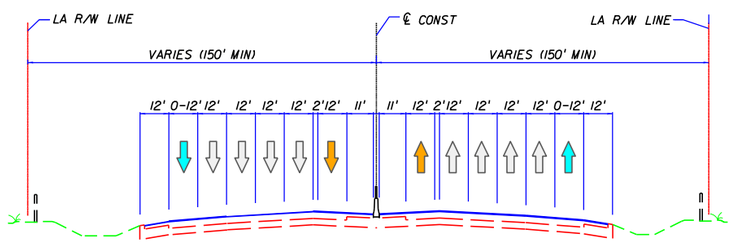
GENERAL PURPOSE LANE

AUXILIARY LANE

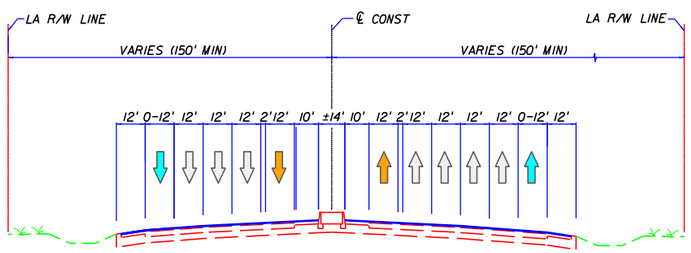
HIGH OCCUPANCY VEHICLE LANE

LEGEND:

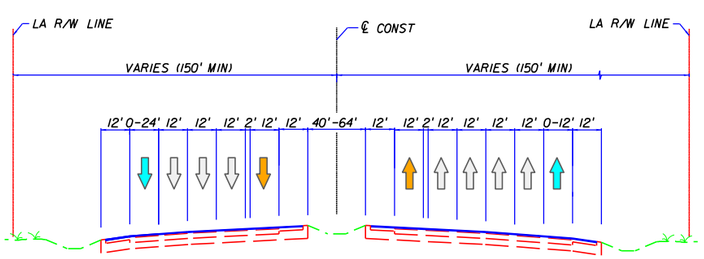
- OVERPASS STRUCTURE
- FULL FDOT /AASHTO STANDARDS
- PROPOSED SHOULDER VARIATION AND LANE WIDTH EXCEPTION (11') AND 2' WIDE BUFFER
- PROPOSED LANE AND SHOULDER WIDTH EXCEPTIONS AND 2' WIDE BUFFER
- VERTICAL ALIGNMENT DESIGN VARIATION
- HORIZONTAL ALIGNMENT DESIGN VARIATION
- VERTICAL CLEARANCE DESIGN VARIATION
- STOPPING SIGHT DISTANCE DESIGN VARIATION
- LOAD RATING <1 (FURTHER ANALYSIS DURING DESIGN)
- HX — HORIZONTAL CURVE NUMBER
- VX — VERTICAL CURVE NUMBER



from Stirling Road (SR 848, M.P. 5.135) to I-595 (M.P. 7.555)
and from North of the Broward Boulevard Park and Ride Ramp (M.P. 10.585)
to Oakland Park Boulevard (SR 816, M.P. 13.742)



from I-595 (M.P. 7.555) to
South of the Broward Boulevard Park and Ride Ramp (M.P. 9.738)



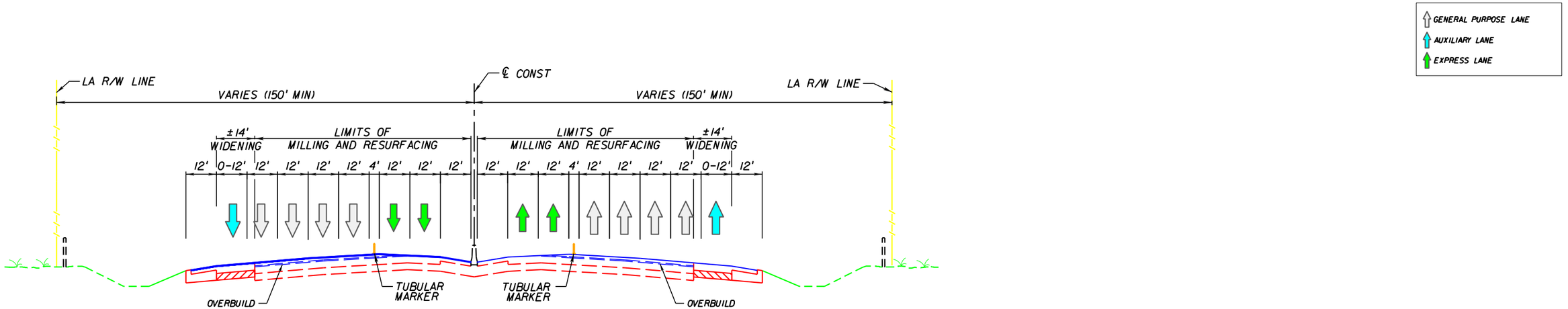
from South of the Broward Bouelvard Park and Ride Ramp (M.P. 9.738)
to North of the Broward Boulevard Park and Ride Ramp (M.P. 10.585)

FLORIDA DEPARTMENT OF TRANSPORTATION
BROWARD COUNTY

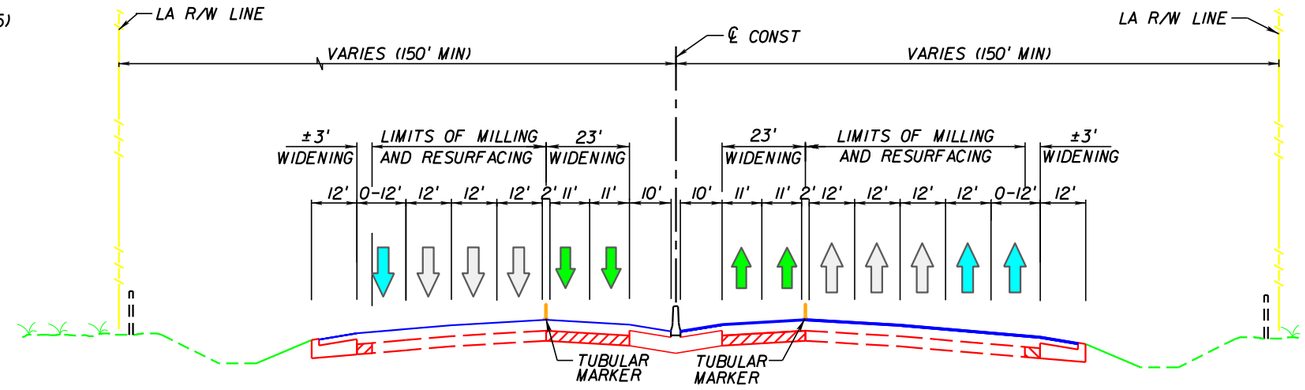
I-95 (SR 9) PD&E STUDY
FPID: 429804-1-22-01

CONCEPT #3
SCHEMATIC LINE DIAGRAM

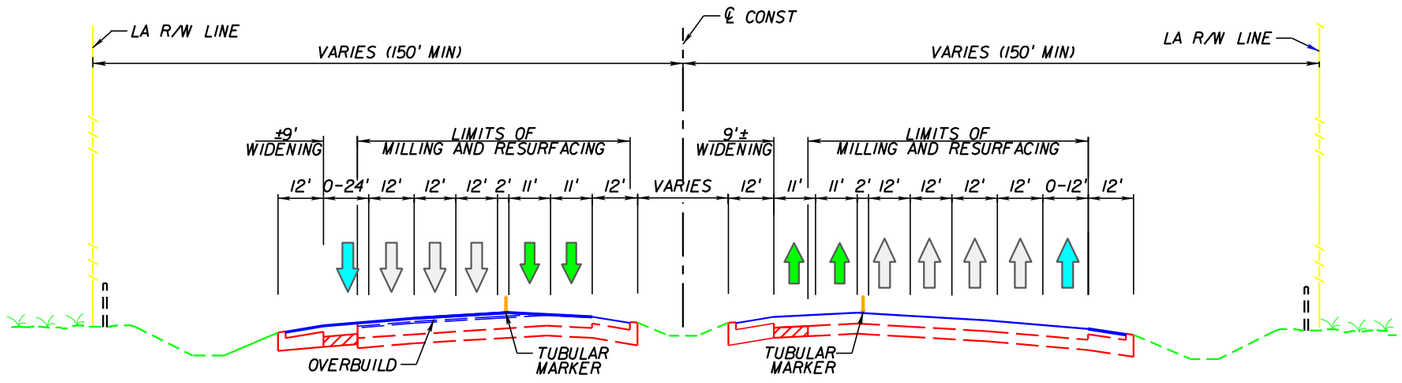
SHEET NO.
B-2



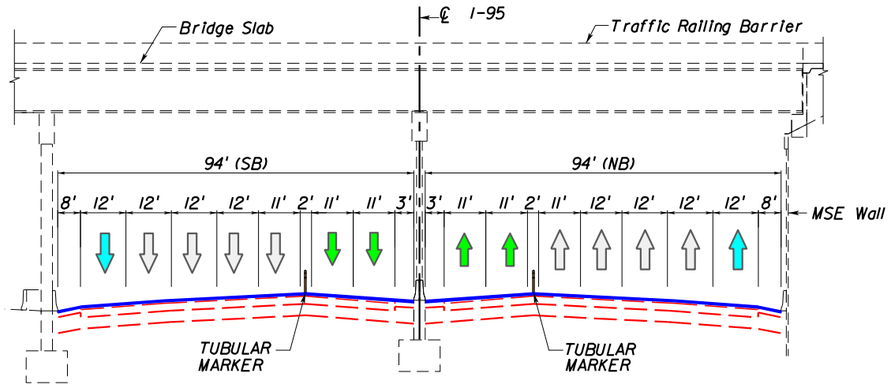
TYPICAL SECTION
from Stirling Road (SR 848, M.P. 5.135) to I-595 (M.P. 7.555)
and from North of the Broward Boulevard Park and Ride Ramp (M.P. 10.585)
to Oakland Park Boulevard (SR 816, M.P. 13.742)



TYPICAL SECTION
from I-595 (M.P. 7.555) to
South of the Broward Boulevard Park and Ride Ramp (M.P. 9.738)

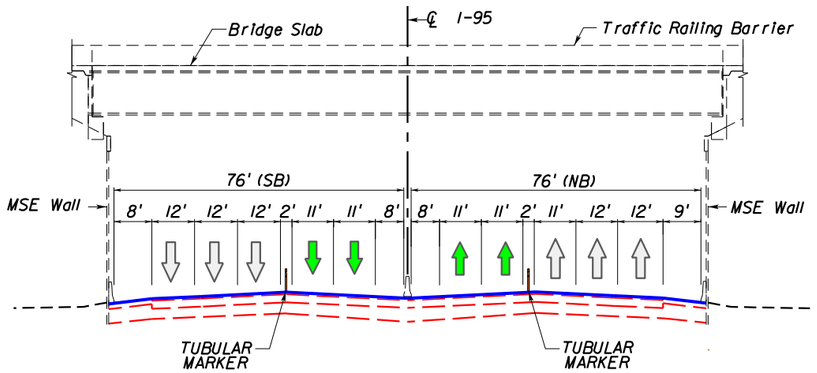


TYPICAL SECTION
from South of the Broward Boulevard Park and Ride Ramp (M.P. 9.738)
to North of the Broward Boulevard Park and Ride Ramp (M.P. 10.585)



CONSTRAINED
TYPICAL SECTION
AT SW 42 STREET

CONSTRAINED
TYPICAL SECTION
AT SOUTH FORK NEW RIVER



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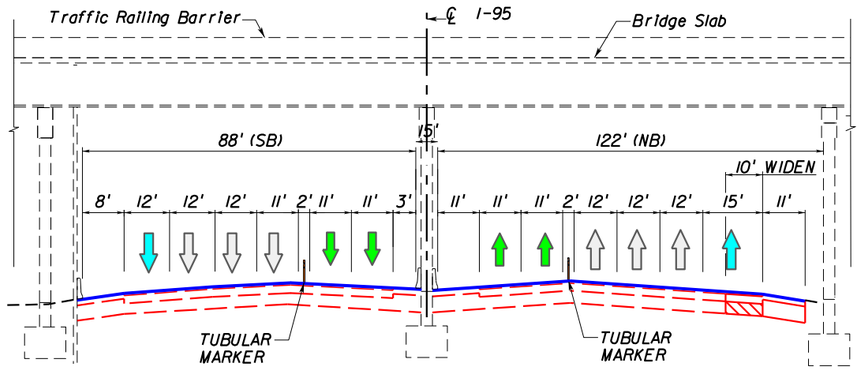
AT SR 84



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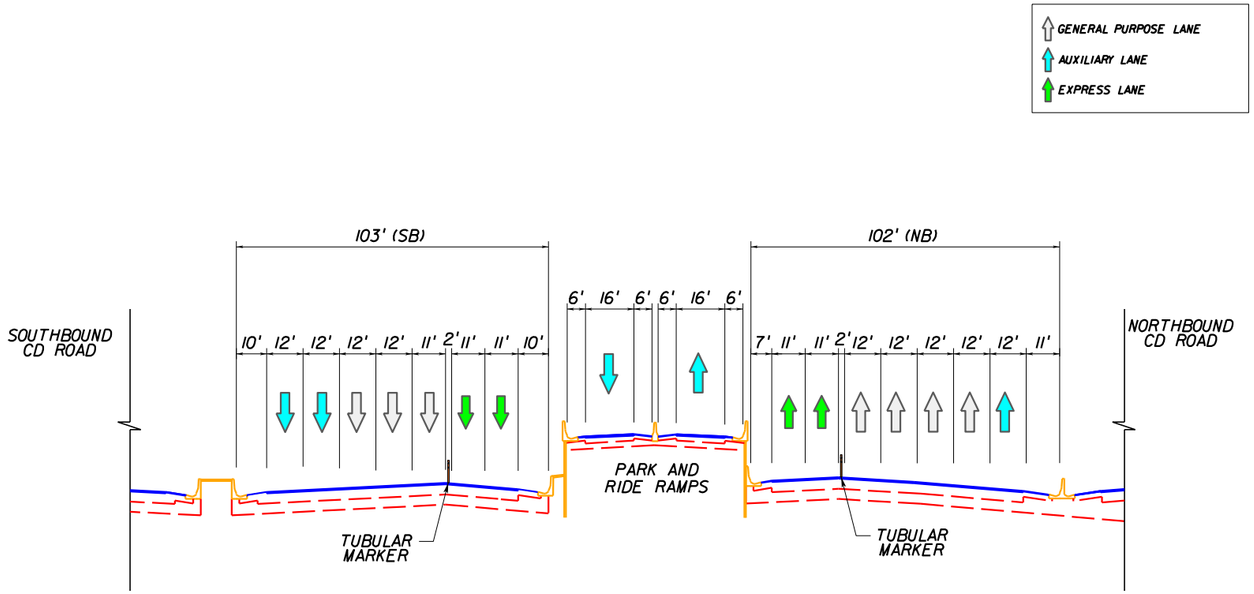
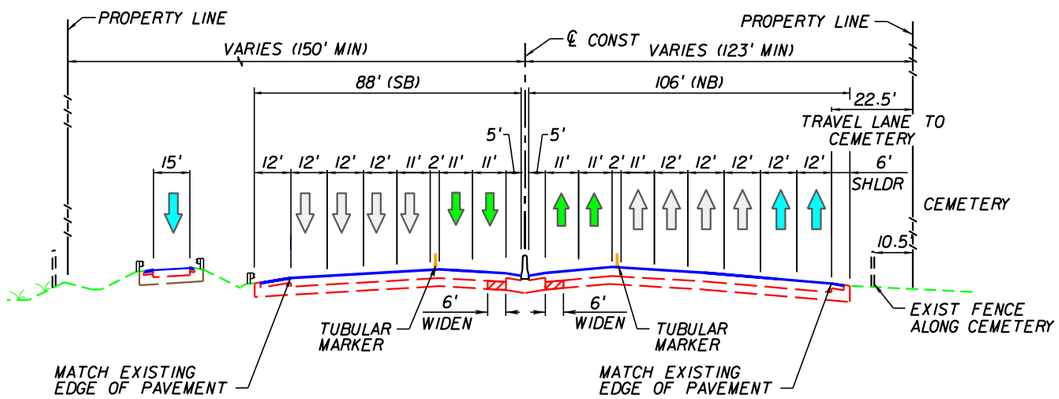
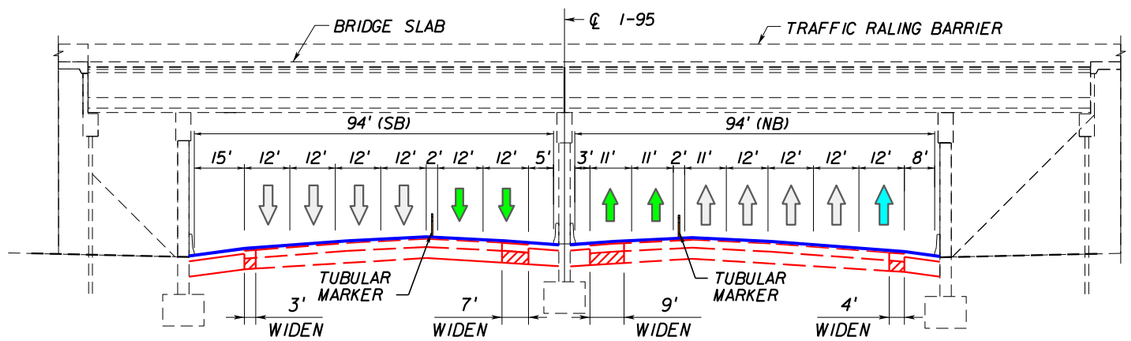
AT DAVIE BLVD. (SR 736)



CONSTRAINED
TYPICAL SECTION
AT PARK AND RIDE RAMP
SOUTH OF BROWARD BOULEVARD



CONSTRAINED
TYPICAL SECTION
BY NORTH WOODLAWN CEMETERY



CONSTRAINED
TYPICAL SECTION
AT SUNRISE BLVD. (SR 838)