

I-75 South Corridor Master Plan



Study Limits: South of Collier Boulevard (SR 951) to North of Bayshore Road (SR 78)

Final - Facilities Enhancement Element

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PREPARED FOR:

FLORIDA DEPARTMENT OF TRANSPORTATION – DISTRICT ONE

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Acronyms and Abbreviations

AADT	Annual Average Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ADT	Average Daily Traffic
ATMS	Advanced Traffic Management System
APE	Area of Potential Effects
BEBR	Bureau of Economic and Business Research
CAV	Connected and Automated Vehicles
CR	County Road
D/C	Demand to Capacity
EFH	Essential Fish Habitat
ERP	Environmental Resource Permit
ETAT	Environmental Technical Advisory Team
ETDM	Efficient Transportation Decision Making
FDEO	Florida Department of Economic Opportunity
FDOT	Florida Department of Transportation
FDEP	Florida Department of Environmental Protection
FDM	FDOT Design Manual
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIHS	Florida Intrastate Highway System
FIRM	Flood Insurance Rate Map
FMSF	Florida Master Site File
FWC	Florida Fish and Wildlife Conservation Commission
GIS	Geographic Information System
HCM	Highway Capacity Manual
ILC	Intermodal Logistics Center
LFR	Load Factor Rating



LOS	Level of Service
MPH	Miles per Hour
NAVD	North American Vertical Datum of 1988
NBI	National Bridge Institute
NGVD	National Geodetic Vertical Datum of 1929
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OFW	Outstanding Florida Waters
OGT	Office of Greenways and Trails
PCMS	Petroleum Contamination Monitoring Sites
PD&E	Project Development and Environment
PER	Preliminary Engineering Report
PTAR	Project Traffic Analysis Report
RCRA	Resource Conservation and Recovery Act
SDR	Sociocultural Data Report
SHPO	State Historic Preservation Officer
SIS	Strategic Intermodal System
SR	State Road
STCM	Storage Tank Contamination Monitoring
SUN	Shared-Use Nonmotorized
SFWMD	South Florida Water Management District
TSM&0	Transportation Systems Management and Operations
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
V/C	Volume to Capacity



WBID Water Body ID



I-75 SOUTH CORRIDOR MASTER PLAN

1.0 Introduction

The Interstate 75 (I-75) South Corridor is part of the Southwest Connect[™] Interstate Program which consists of multiple studies and projects within four corridors along I-75 and Interstate 4 (I-4) in Florida Department of Transportation (FDOT) District One.





The I-75 and I-4 corridors are key facilities of the Strategic Intermodal System (SIS). Both have experienced increasing traffic as a result of population growth, additional tourism, and special events. FDOT, in partnership with the local communities, wants to be proactive in planning for a safe and efficient interstate highway network. The goals during the Planning and Feasibility phase of the Master Plan phase are to identify and document (in a Master Plan) solutions that target needs that improve safety, operational capacity, functionality, efficiency, and connectivity along and across the corridor.

I-75 North, Central and South Corridors are included in the Southwest Connect[™] Interstate Program. The purpose of the program is to address the long-term needs of the interstate corridors in Southwest Florida. The I-4 Corridor will focus on needs for Central Florida. A separate Planning and Feasibility study is underway for each corridor.

1.1 Study Description

The I-75 South Corridor Master Plan evaluated strategies for the mainline and interchanges that will improve accessibility, mobility, and safety. Managed lanes, additional general-purpose lanes, collectordistributor roadways, and auxiliary lanes, and interchange operational improvements were evaluated in the Master Planning effort. The final Master Plan Report will document the road's needs as well as define and prioritize any necessary improvements. FDOT will develop an Implementation Plan based on segmentation and prioritization identified in the Master Plan. Funded priorities will become individual projects which progress through the project development process, beginning with the PD&E (Phase 22) projects.

The I-75 South Corridor study limits extend from south of Collier Boulevard (SR 951) in Collier County to north of Bayshore Road (SR 78) in Lee County as shown in **Figure 1.1**. The study spans 42.2 miles and traverses the major urban areas of Naples and Fort Myers in southwest Florida. I-75 also crosses the navigable Caloosahatchee River in Lee County, south of Bayshore Road (SR 78). The functional classifications of I-75 within the study limits are Rural Principal Arterial – Interstate and Urban Principal Arterial – Interstate. This segment of I-75 consists of a six-lane divided typical section with auxiliary lanes in various segments along the corridor. Existing right of way (ROW) along the corridor ranges from approximately 324 feet to 1,124 feet in width.

1.2 Report Purpose

The purpose of this report is to document the development and analysis of the Recommended Alternative and the Priority List of improvements, resulting from the Planning phase (Phase 12) efforts.









2.0 Mainline Alternatives

This section discusses the development of mainline alternatives and how the alternatives accommodate other factors including typical section considerations, alternative modes, incident management, and intelligent transportation systems.

2.1 Typical Section Considerations

This section discusses the consideration of the multimodal corridor and separation type. The multimodal corridor required consideration per previous planning efforts and at the direction of FDOT District One. Separation type was evaluated due to the possibility of adding managed lanes.

2.1.1 Multimodal Corridor Analysis

Alternative modes mean the use of modes of transportation other than single passenger motor vehicle. It can include, but is not limited to, carpools, public transit, walking and bicycling. There are currently no alternative modes in use along I-75 in the study limits; however, Lee County Transit (LeeTran) and Collier Area Transit (CAT) transit development plans (TDPs) have identified the need for routes along I-75 in the future. Alternative modes at each of the crossroads that interchange with I-75 are described in detail in the Existing Conditions Traffic Technical Memorandum.

The *I*-75 *Multimodal Master Plan* (August 1998) recommended typical sections that included a minimum median width of 64 feet for a future transit or multimodal system improvement project. The 64-foot median provides for 12-foot inside shoulders (10 feet paved) and a 40-foot multimodal envelope, for the potential future project. Subsequent PD&E studies and design studies have maintained these minimum widths for the median and multimodal envelope.

The potential use of the I-75 multimodal envelope was studied in the *Lee County Metropolitan Planning Organization (MPO) Rail Corridor Feasibility Study* (October 2013). The study identified multiple impediments to using the I-75 multimodal envelope including I-75 bridges over cross streets, cross street bridges over I-75, stormwater management facilities in the median, and access to transit stations. The study determined that the Seminole Gulf Railway corridor was better for intraurban multimodal uses and the I-75 multimodal envelope should be retained, to the extent possible, for possible future use for intercity, premium transit service from Tampa/Orlando to Sarasota/Fort Myers/Naples.

Currently, Collier County, Lee County, and their respective MPO planning documents do not include any specific plans or discussion for the I-75 multimodal envelope. However, it is still a Department requirement to maintain a multimodal envelope.

The build alternatives from this most recent I-75 Master Plan accommodate the minimum median width of 64 feet for the 40-foot multimodal envelope. Preservation of the multimodal envelope combined with the rigid barrier method result in parallel ROW acquisition needs, which are discussed in **Section 2.1.2**.



2.1.2 Separation Type

Prior to the evaluation and eventual determination to implement the Thru Lanes and Local Lanes Alternative as the recommended alternative, managed lane separation methods were evaluated for I-75 under a separate memorandum, *I*-75 *Managed Lane Separation Memorandum*, and are summarized here. Separation methods evaluated include buffer and rigid barrier separation options. The buffer separated typical section would include full-width shoulders and the 4-foot buffer area that includes installation of supplemental separation devices within the buffer space called tubular markers at 5-foot spacing. This separation method requires less right of way and allows for easier retrofitting and future modifications/expansion of the system. The rigid barrier typical section would include the concrete barrier separation and full-width shoulders on either side. The rigid barrier separation method requires a significant expansion of the existing roadway width and possibly right of way acquisition.

Operational considerations are important to evaluate when determining which separation treatment will be used. Literature review found that when there is significant traffic density, the speed differential between the managed lanes and general-purpose lanes generates a frictional effect that degrades the vehicle throughput in the buffer separated managed lanes facilities. In the same study, none of the modeled rigid barrier facilities experienced this frictional effect due to the physical and spatial separation of the two facilities. Access for incident management and emergency vehicles is continuous throughout the buffer separated system but is significantly limited to the specific entrance and exit points in a rigid barrier separated system, unless additional emergency access points are added.

Buffer separated systems are likely to be affected by any incident by reducing traffic flow to a rate similar to the directly affected lanes. Without a permanent physical structure separation, errant vehicles are also able to cross over the buffer space and tubular markers and impact the traffic in the adjacent facility. The potential cross over of errant vehicles is a safety concern because traffic in the adjacent facility is not expecting to merge with vehicles crossing through the tubular markers. Lack of shoulders between the adjacent facilities does not provide a safe location for disabled vehicles to move over and they are left stranded in the travel lane. Safety benefits for buffer separated systems include continuous access for responders to quickly clear incidents and the ability to divert traffic in and out of the managed lanes facility when there is significant lane blockage due to an incident.

Rigid barrier separation is generally considered the safest separation method for managed lanes facilities due to the physical and spatial limitations of the adjacent lanes. During high-speed differential conditions, the rigid barrier separation addresses safety concerns of motorists by providing a heightened sense of security by preventing illegal maneuvers into or out of the facility. Providing full-width shoulders allows for disabled vehicles to move over to a safe location off the travel lanes. This also allows for incident management to provide maintenance of traffic that diverts traffic around blocked travel lanes. However, speed differentials at ingress and egress points may be exacerbated if the general-purpose lanes are congested causing safety concerns for all motorists on the facility. Utilizing rigid barriers also requires impact attenuators or crash cushions to protect the blunt ends of the exposed barrier wall. These devices are used to reduce the impact resulting from errant vehicle collisions, where those impacts might damage other vehicles, motorists, or structures nearby. Deprived of the ability to cross over into the facility, response time for incident management and emergency vehicles will most likely be increased.



Maintenance needs of the buffer separation method are much more significant than rigid barrier separation due to the consistent wear-and-tear of the tubular markers. Rigid barrier separation provides a more stable and firm physical separation via a concrete barrier and impact attenuators at ingress and egress points which only need to be repaired or replaced due to high-speed collisions with vehicles. The frequency of the emergency repairs in comparison to the frequency required to maintain the flexible tubular markers is significant.

A comparative evaluation of the two separation methods is presented in the *I*-75 Managed Lane Separation Memorandum.

The buffer separation method rated higher than the rigid barrier method. However, FDOT District One provided guidance on July 28, 2021, to complete the Master Plans assuming the rigid barrier separation method for the Master Plan typical section. The Department advised that FDOT's Central Office is conducting a research study to evaluate the two primary alternatives for Express Lanes and General-Purpose Lanes. This research study will not be completed prior to completion of the Master Plan. As such, any further evaluation by the District related to separation method would be completed during the PD&E phase of the project following completion of the Master Plan.

2.2 Alternative Modes

The Collier Area Transit (CAT) Ten-Year TDP 2021-2030 and the Lee County Transit (LeeTran) TDP (2020) both envision commuter express service on I-75. The commuter express service would use I-75 from Golden Gate Parkway to Colonial Boulevard. The CAT TDP plans to study commuter express service on I-75 in 2023 and implement service in 2029 (Note: the plan assumes no fiscal constraints). LeeTran TDP shows commuter express service on I-75 as unfunded. The Recommended Alternative could accommodate a commuter express service through use of the general-purpose lanes, and from Corkscrew Road to Daniels Parkway, buses could alternatively use the mainline thru lanes.

Additionally, the LeeTran TDP identifies a need for an express route with a limited number of stops between downtown Fort Myers and the Southwest Florida International Airport. This route would run along I-75 from Terminal Access Road to Dr. Martin Luther King Jr. Boulevard. The Proposed Mainline Alternative could accommodate this service through the local lanes.

2.3 Incident Management

Incident management is one of the most utilized tools in an advanced traffic management system (ATMS). Managed lanes typically require enhanced/additional incident management resources to meet operational performance requirements. Access to managed lanes for incident management personnel such as service patrol (Road Rangers), emergency and law enforcement vehicles, etc. is critical for safe and quick clearance of disabled vehicles. Incident management is discussed for both buffer and rigid barrier separation methods. Separation methods evaluated are included in this report in **Section 2.1.2**.

The rigid barrier separation method does not provide continual access to and from the thru lanes portion of the facility. Outside of the access points provided to the general motoring public, emergency access crossovers can be constructed at strategic points along the managed lanes facility. The emergency access crossovers are openings in the rigid barrier that provide same direction access for incident management and emergency vehicles. Crossovers are designed with specific signing and



pavement markings that restrict and deter the general motoring public from accessing the managed lanes facility. Incident management solutions will be further defined as the planning process moves into the PD&E phase.

Advance coordination with law enforcement and incident management agencies is key to providing a managed lanes facility with quick clearance to improve safety and mobility. This is a critical item to consider with the limited access of rigid barrier separation. Inter-agency response plans organize all responding agencies to determine which agency can access the incident location as quickly as possible. Advance coordination can help avoid unnecessary use of additional emergency resources when responding. This coordination results in a change in dispatch protocol and ensures the right agency is sent to clear the scene.

I-75 in Collier and Lee Counties is subdivided into separate response areas for notifications of traffic incidents. The number of agencies notified in each response area is dependent on the severity of the incident based on the following levels:

- Level 1 Minor: Incident duration less than 30 minutes, minor lane blockage.
- Level 2 Intermediate: Incident duration 30 minutes to 2 hours, multiple lanes blocked but no full closure.
- <u>Level 3 Major</u>: Incident duration estimated to be more than 2 hours or a full roadway closure in any direction. Significant area-wide congestion expected.

Information identifying the names and limits for each of the traffic incident response areas within the I-75 South Corridor Master Plan study limits is shown in **Table 2.1** below.

I-75 Traffic Incident Response Area	County	Milepost (MP) Limits	Response Area Limits Along I-75
Bayshore Fire Control and Rescue Response Area	Lee	MP 148.5 - 141.4	Manatee/Lee County Line to Caloosahatchee River
Tice Fire Control and Rescue Response Area	Lee	MP 141.4 - 139.0	Caloosahatchee River to Luckett Road
Fort Myers Fire Response Area	Lee	MP 139.0 - 136.0	Luckett Road to Colonial Boulevard (SR 884)
South Trail Fire Control and Rescue Response Area	Lee	MP 136.0 - 129.0	Colonial Boulevard (SR 884) to MP 129.0 Near Terminal Access Road Interchange
San Carlos Park Fire Control and Rescue Response Area	Lee	MP 129.0 - 125.5	MP 129.0 Near Terminal Access Road Interchange to MP 125.5 North of Estero Parkway
Estero Fire Rescue Response Area	Lee	MP 125.5 - 120.5	MP 125.5 North of Estero Parkway to MP 120.5 Near Bonita Lakes Boulevard
Bonita Springs Fire Control and Rescue Response Area	Lee	MP 120.5 - 115.0	MP 120.5 Near Bonita Lakes Boulevard to Lee/Collier County Line
North Naples Fire Control and Rescue Response Area	Collier	MP 115.0 - 104.6	Lee/Collier County Line to Golden Gate Parkway Overpass
Golden Gate Fire Control and Rescue Response Area	Collier	MP 104.6 - 82.0	Golden Gate Parkway Overpass to MP 82.0 West of SR 29

Table 2.1: I-75 Traffic Incident Response Areas



2.4 Intelligent Transportation Systems (ITS)

A key component to improving safety and mobility along this section of Interstate 75 is using Transportation Systems Management and Operations (TSMO) strategies to gain the greatest benefit. The future corridor will be more complex with thru lanes, integrated arterial and signal operations, future multimodal components, connected and automated vehicles, and facilitating major emergency evacuations. Intelligent Transportation System (ITS) technology will allow these strategies to be successful. The best long-term investment is to provide a robust communications network and redundant power systems to accommodate future transportation and technology needs. The Master Plan recommends replacing the current communications system to ensure it can serve another 50-75 years and serve the future high bandwidth and low latency needs for day-to-day operations, connected and automated vehicles, and integration with Collier and Lee County Advanced Traffic Management Systems (ATMS). The communications system replacement can be constructed in phases as the Master Plan is implemented.

A redundant backup power supply with permanent emergency generators will ensure I-75 can continue to operate before, during or after natural disasters, such as a major hurricane, and accommodate future ITS technologies such as connected and automated vehicles (CAV), artificial intelligence applications, and limited vehicle electrification. While the CAV market is in the process of maturing, this Master Plan and future improvements will lay the groundwork to ensure CAV technology is included and accommodated. Providing a robust communications network and redundant power systems will ensure a fully connected transportation environment to achieve the safety and mobility goals for the corridor and the flexibility to accommodate a range of technology solutions.

Ultimately, it is anticipated that Integrated Corridor Management (ICM) strategies across multiple jurisdictions will be established institutionally and procedurally to enable travelers to make informed travel decisions and dynamically shift modes of transportation, with multi-agency coordination and cooperation regionally. This will be further developed during the PD&E and Design phases.

2.5 Alternatives Development and Considerations

Three build alternatives were considered for the I-75 South Corridor: Managed Lanes (ML); General-Purpose (GP) Lanes; and Thru Lanes with Local Lanes with no tolling. The Master Plan originally envisioned a ML Alternative (tolled express lanes) based on recommendations from previous studies. The ML Alternative was developed based on guidance from the recent revision of the FDOT 2022 Managed Lanes Guidebook, which included consideration for direct connect ramps to and from the managed lanes system where directional hourly volumes for a movement between a managed lane access and a general-purpose ramp exceeds 400 vehicles per hour. The ML Alternative also assumed only those traveling three or more interchanges would pay to access these lanes, in line with the FDOT 2022 Managed Lanes Guidebook for ingress/egress. The ML Alternative graphical representation (line diagram) of the ML Alternative is shown in **Figure 2.1**.





Figure 2.1: Managed Lanes (ML) Alternative Line Diagram

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Empirical data for existing tolled facilities in Florida and around the Country show that an average of 25 percent of eligible users, which are users whose route is physically served by the MLs, would opt to pay to use of the MLs. The empirical data also show that a 40 percent utilization from eligible users was generally the highest observed on tolled facilities. Using an assumed 30 percent utilization rate, along with the origin-destination information developed for the design year (2045) build volumes (contained in the Future Conditions Traffic Technical Memorandum), the heavy local traffic patterns (high amount of short haul trips) result in overall low usage of the MLs. Despite having ingress/egress or direct connect opportunities for most interchanges, the ML Alternative was dismissed due to underutilized trips as well as ROW impacts and anticipated project costs driven by the extensive ingress/egress structural requirements.

The lack of utilization under the ML Alternative led to consideration of a second build alternative, the General-Purpose alternative, which adds lanes along I-75 in a non-separated manner. The GP Alternative graphical representation (line diagram) of the GP Alternative is shown in **Figure 2.2.** Compared to the ML Alternative, the GP Alternative has lower expected project costs, limited or no ROW impacts, simpler construction staging, and is simplified to facilitate more intuitive driver expectations. The GP Alternative was ultimately dismissed due to the perceived safety concern with a typical section of five or more GP lanes. The GP Alternative also does not meet FDOT District One's desire to promote regional mobility by preserving acceptable operations for certain lanes for users making longer distance trips along I-75.







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The shortcomings of the ML and GP Alternatives led to consideration of a third build alternative, the Thru Lanes with Local Lanes Alternative. The Thru Lanes with Local Lanes Alternative graphical representation (line diagram) of the Thru Lanes with Local Lanes Alternative is shown in

Figure 2.3. The Thru Lanes with Local Lanes Alternative keeps the turbulence of the shorter distance trips (those entering I-75 and exiting within a few interchanges) to the outside lanes while two separated inside lanes are carried continuously and can be accessed via weaving sections within multiple interchanges. The two inside lanes are not tolled, which addresses utilization concerns that were associated with the ML Alternative.

In reality, some motorists may choose to remain in the local lanes for long-haul trips, rather than using the separated thru lanes, depending on the current levels of congestion of other factors. Similarly, although less likely to a lesser extent, some motorists making short-haul trips may use the through lanes. This flexibility in driver route choice adds efficiency and redundancy to the network for better utilization of residual capacity. This dynamic routing phenomenon strengthens the durability of the concept by allowing the drivers a chance to achieve system equilibrium and not overload either the thru or local lanes. For analysis purposes, a base assumption was made that 100 percent of eligible thru lanes would use the separated lanes. Then local and thru lane routes were iteratively shifted onto segments where congestion was observed to better balance flows across all lanes and utilize the available capacity more efficiently. Unlike the GP Alternative, the Thru Lanes with Local Lanes Alternative provides for system redundancy and trip separation. Under this concept, there are weaving segments near the interchanges, and egress to and from the thru lanes would occur via slip ramps, rather than an open weaving segment to eliminate the possibility of lane diving (drivers weaving between managed lanes and general-purpose lanes as if there were no difference).

The three build alternatives were evaluated at a high level with consideration given to cost, environmental impacts, traffic operations, safety, and engineering considerations. The planning phase evaluation matrix is shown in **Table 2.2**.

From the discussion above, **the Thru Lanes with Local Lanes Alternative is the proposed Mainline Build Alternative for the Master Plan** because it mitigates congestion, promotes a better distribution of traffic across all lanes and offers an option for users to travel longer distances on the interstate while avoiding the ramp-to-ramp turbulence of those using the interstate for shorter distance trips.









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Table 2.2: Mainline Alternatives Comparison

Evaluation Criteria		Alternatives		s	Pomarka	
		ML	GP	TL+LA	- Relidiks	
					Rating Scale: 1 – Less Beneficial, 2 – Neutral, 3 – More Beneficial	
1	Project Cost	1.33	3	2	This item is an average of items 1.1 to 1.3.	
					ML - 153 Lane Miles and 9 Braided Ramp Bridges	
	1.1 Construction Cost	1	3	2	GP - 126 Lane Miles and 2 Braided Ramp Bridges	
					TL+LA - 447 Lane Miles and 0 Braided Ramp Bridge	
					ML - More ROW acquisition expected due to increased pavement and resulting increase in off-site ponds.	
	1.2 ROW Acquisition Cost*	2	3	2	GP - Least ROW acquisition requirements	
					TL+LA - More ROW acquisition expected due to increased pavement and resulting increase in off-site ponds.	
	1 3 Engineering Cost				• ML - More complex design due to barrier separation, braided ramp, ingress/egress and overall number of new bridges	
	(Design and CEI)	1	3	2	 GP - Less complex to design and construct, but does have 2 braided ramps 	
	(Besign and BEI)				TL+LA – Complex design due to barrier separation	
					ML - More ROW acquisition expected due to increased pavement and resulting increase in off-site ponds.	
2	Environmental Impacts**	2	3	2	GP - Least ROW acquisition requirements	
					TL+LA - More ROW acquisition expected due to increased pavement and resulting increase in off-site ponds.	
3	Traffic Operations	2.5	1.75	3	This item is an average of items 3.1 to 3.3.	
					ML - Less managed lane usage due to design and driver behavior	
	3.1 Traffic Operations	2	2	3	GP - Full access, but additional friction given 4 adjacent lanes	
					 TL+LA - Better access to through lanes and therefore better system capacity than ML 	
					ML- Not fully utilized	
	3.2 Throughput and ROI	2	3	3	GP - Good throughput	
					TL+LA - Good access to/from through lanes	
					• ML - Provides a supplemental system for regional or intrastate express bus as well as future Connected/ Automated Veh	
	3.3 System Flexibility	3	1	3	GP - Least flexible	
					TL+LA - Provides a supplemental system for regional or intrastate express bus as well as future Connected/ Automated V	
	3.4 Incident Management/				ML - Two systems in same ROW footprint that provide a bypass alternative for severe incidents and blockage	
	Emergency Evacuation	3	1	3	GP - Least redundancy for incidents	
					 TL+LA - Two systems in same ROW footprint that provide a bypass alternative for severe incidents and blockage 	
					ML - Provides spatial separation	
4	Safety	3	1	3	GP - Wider typical section encourages less safe weave "darting", no spatial separation	
					TL+LA - Provides spatial separation	
5	Engineering Considerations	1.66	3	2.33	This item is an average of items 5.1 to 5.3.	
					 ML - Most complex work associated with ingress/egress and overall system braids 	
	5.1 TMP / Constructability	1	3	2	 GP - Least complex work with no barrier separation and only 2 braided ramp bridges 	
					TL+LA - Less complex than ML but more complex than GP	
					 ML - Requires storm sewer trunk lines along the corridor requiring more drainage structures 	
	5.2 Drainage	2	3	2	GP - Less complex drainage design	
					 TL+LA - Require storm sewer trunk lines along the corridor requiring more drainage structures 	
	5.3 Design Exceptions and				 ML - More pinch points and potential shoulder width variations to achieve Managed Lanes ingress/egress 	
	Variations	2	3	3	GP - Minimal design exceptions and variations	
		405	44.75	40.00	TL+LA - Minimal design exceptions and variations	
L	IUIALS	10.5	11./5	12.33	Rating Scale: 1 – Less Beneficial, 2 – Neutral, 3 – More Bene	

* ROW Acquisition on this project is mostly for stormwater drainage and retention ponds. Roadway work will not typically require ROW acquisition, except for interchanges. ** Environmental considerations include social/economic, cultural, natural, and physical environments that may be impacted by this typical section analysis.



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3.0 Recommended Alternative and Priority List

3.1 Mainline Recommended Alternative

The Recommended Alternative is the Thru Lanes with Local Lanes (TL+LL) Alternative. This alternative consists of the typical sections described in **Section 3.1.1**.

Concept plans are included in Appendix A.

3.1.1 Typical Sections

From the Study's southern terminus northward to north of the Golden Gate interchange, the existing six-lane typical cross section (Typical Section #1) is maintained as shown in **Figure 3.1**; no mainline improvements are proposed.











The second proposed typical section (Typical Section #2) consists of an eight-lane typical cross section with four travel lanes in each direction. An additional lane is added outside of the existing outside travel lane in each direction. Ten-foot paved outside and inside shoulders will be provided. The median will vary but will maintain a 64-foot minimum width. Typical Section #2, as shown in **Figure 3.2**, is proposed for the segments identified below:

- Southbound from north of Golden Gate Parkway to south of Pine Ridge Road
- From south of Pine Ridge Road to north of Pine Ridge Road
- Northbound from north of Pine Ridge Road to south of Immokalee Road
- From south of Immokalee Road to north of Immokalee Road
- From south of Bonita Beach Road to north of Bonita Beach Road
- From Palm Beach Boulevard (SR 80) to south of Bayshore Road (SR 78)





Figure 3.2: Proposed Typical Section #2



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A third proposed typical section (Typical Section #3) provides two additional lanes in each direction to the existing six-lane typical section, for a total of ten travel lanes. Ten-foot paved outside and inside shoulders will be provided. The median will vary but will maintain a 64-foot minimum width. Typical Section #3, as shown in **Figure 3.3**, cross section is proposed for the segments identified below:

- Northbound from north of Golden Gate Parkway to south of Pine Ridge Road
- Southbound from north of Pine Ridge Road to south of Immokalee Road
- Northbound and Southbound from north of Immokalee Road to south of Bonita Beach Road
- Northbound and Southbound from north of Bonita Beach Road to north of Corkscrew Road









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A fourth proposed typical section provides two non-tolled travel lanes (thru lanes) on the inside in each direction for vehicles travelling on longer trips (three or more interchanges), with a 10-foot paved shoulder on the inside, and a 12-foot paved shoulder on the outside of these two lanes. Next to the outside paved shoulder is a two-foot concrete barrier wall that separates the inside two lanes from a group of four outside travel lanes (general-purpose local lanes). The four outside lanes in each direction are provided for local freeway vehicles. The four outside lanes have a 12-foot paved shoulder on the inside and outside. The median will vary but will maintain a 64-foot minimum width. Typical Section #4, as shown on **Figure 3.4**, extends from north of Corkscrew Road to south of Palm Beach Boulevard (SR 80).





Figure 3.4: Proposed Typical Section #4

The proposed Mainline Build Alternative concept plans accommodate the minimum median width of 64 feet for the multimodal envelope



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Figure 3.5: Proposed Slip Ramp Design at Daniels Parkway Interchange (Sheet 1 of 3)





I-75 SOUTH CORRIDOR MASTER PLAN





I-75 SOUTH CORRIDOR MASTER PLAN

75 $\pi \pi \pi \alpha$ LEGEND TRAVEL LANES BRIDGES BRIDGES BARRIER WALL EXISTING LA R/W EXISTING R/W EXISTING PROPERTY 40' MULTI NODEL CORRIDOR TRAVEL LAWES AUXILIARY LAWES DELINEATORS PROPOSED PROJECTS 100000 . STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION H. W. LOCHNER, INC. 4350 W. CYPRESS STREET - SUITE 800 TAMPA, FL 33607 CERTIFICATE OF AUTHORIZATION NO. 894 DATE DESCRIPTION DATE DESCRIPTION I-75 MASTER PLAN FINANCIAL PROJECT ID ROAD NO. COUNTY CONCEPT PLAN SR 93 LEE 442519-1-32-01

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I-75 SOUTH CORRIDOR MASTER PLAN

3.2 Access Modification

No changes are anticipated for the access classification for I-75 within the Master Plan study limits. Collier County MPO has requested coordination of a new I-75 interchange at Vanderbilt Beach Road. Feasibility reviews of interchange requests will be completed by FDOT. Improvements will be required for many of the interchanges within the study limits to reduce congestion to and from the I-75 Mainline. Interchange improvements will be studied in greater detail during subsequent PD&E phases. Access modifications to adjacent property at the interchanges will be in compliance with FS 335.199.

From Corkscrew Road north to Palm Beach Boulevard (SR 80), the Recommended Mainline Build Alternative creates a new mainline typical cross section that provides two managed lanes (Thru lanes) in each direction that are barrier-separated from the existing and/or improved interstate lanes (Local lanes) on the outside of the mainline typical section as depicted in **Figure 3.1**. Access to and from the two MLs is provided by a series of slip ramps strategically positioned along this corridor to provide opportunities to move to and from the managed lanes. The managed lanes provide vehicles traveling through this segment with an opportunity to travel in lanes that are less impacted by expected interchange merge and diverge congestion and should be attractive to vehicles with longer trip destinations beyond the Corkscrew Road-to-Palm Beach Boulevard (SR 80) segment. Placement of the slip ramps was determined by interchange location, traffic demand volumes, and geometric requirements for transitions to physically provide slip ramps. An example of the proposed slip ramp access design concept in the vicinity of the Daniels Parkway Interchange can be found in **Figure 3.7**.

3.3 Interchanges

This Master Plan evaluated each of the following existing I-75 interchange locations in Collier and Lee Counties (as depicted in **Figure 1.1**) to determine feasible improvements that would prevent traffic on the associated ramps from spilling back onto the I-75 mainline. Examples of the proposed interchange types can be found on the *Florida Interchange Portal* on FDOT's website. These potential improvements will need to be further analyzed and refined during the subsequent PD&E phase.

I-75 at Collier Boulevard (SR 951)

The currently proposed interchange appears to accommodate the projected volumes. The current proposed concept is a diamond with loop ramps in the northeast and southwest quadrants and both a northbound and southbound flyover of Davis Boulevard. The interchange appears to function with current volume projections but there are some concerns with the capacity of the NE loop ramp with volumes over 1,200 vph during the PM Peak hour. Issues resulting from that deficiency will not impact the I-75 mainline as traffic will instead back up along northbound Collier Boulevard. Similarly, potential capacity issues with the southbound right turn to westbound Davis Boulevard are unlikely to impact interchange operations.

Proposed Interchange: Two Quadrant Cloverleaf with Flyovers

I-75 at Golden Gate Parkway

The current loop ramp in the southeast quadrant of the Golden Gate Parkway Interchange will not have the capacity to handle the projected volumes and widening the loop ramp is not practical due to



geometry, cost, and capacity constraints. The canal that runs along the east edge of I-75 in this area complicates interchange options as additional structure will be necessary. For example, a Single Point Urban Interchange's (SPUI's) structure would be made much larger by the proximity of the canal.

The heavy northbound left volume indicates that a displaced left diamond or Diverging Diamond Interchange (DDI) would be good options. The asymmetry in turning movements to and from the north may make the displaced left diamond interchange the simplest bridge configuration across the canal. The canal would complicate the horizontal alignment of the crossovers associated with the eastern half of a diverging diamond interchange.

Proposed Interchange: Displaced Left Diamond

I-75 at Pine Ridge Road

The current interchange at Pine Ridge Road will be replaced by a DDI as part of a proposed designbuild project. While there are many possible interchange configurations that could accommodate the projected volumes, expansion of the currently proposed DDI will result in the smallest footprint, cost, and impact. The DDI also offers the most residual capacity making it the least sensitive to additional unforeseen traffic volume growth.

Proposed Interchange: Diverging Diamond (DDI)

I-75 at Immokalee Road

Immokalee Road has limited available right of way around the existing interchange. Currently, there is a canal bordering Immokalee Road to the north on both sides of I-75 as well as businesses and buildings built close to the interchange. While there is some space available for widening the existing interchange, it is limited due to the proximity of the canal in the northern quadrants. Expansion of the existing diamond interchange concept to accommodate future traffic projections is likely not possible.

Right of way is unavailable for loop ramps on the northern quadrants of the interchange. While there is room in the southern quadrants of the interchange for loop ramps, the forecasted traffic volumes make an eastbound to northbound loop ramp infeasible.

Future traffic projections indicate that the through volume along Immokalee Road will be relatively high and heavily directional during the peak periods which removes a SPUI as a good interchange option. Ramp traffic is skewed more heavily toward the north facing ramps at the interchange, which would tend to favor options like the displaced left diamond, but directionality of the volumes would lend themselves well to a DDI. A displaced left turn interchange may also be viable, though the southbound left turn volume at the west ramp terminal may create operational issues.

Proposed Interchange: Diverging Diamond (DDI)

I-75 at Bonita Beach Road

Bonita Beach Road currently is a diamond interchange with dual left turn lanes in all directions and a triple southbound right turn lane. There is available right of way space in the northeast, southeast, and northwest quadrants, so potential interchange designs are limited more by capacity and operational performance than by geometric constraints. Loop ramps are feasible in the northwest and southwest quadrants to serve the southbound left and westbound left respectively but could not accommodate the traffic predicted for the northbound left or eastbound left. Widening the existing diamond



interchange would be possible but might not provide adequate capacity due to the need for triple turn lanes. The current forecasted northbound left volume is 1,200 vph which is nearing the capacity of triple turn lanes. Additionally, if analysis indicates that triple turn lanes can allow the interchange to function with the forecasted volumes, additional widening of the triple turn lanes would be challenging, and the configuration would be sensitive to unforeseen traffic increases. Through traffic along Bonita Beach Road is expected to remain relatively low, but the high volumes of turning movements will drive the interchange design.

A DDI would process the heavy left turning movements at this interchange better than other options and would provide a smaller footprint than other options designed to handle these turning volumes.

Proposed Interchange: Diverging Diamond (DDI)

I-75 at Corkscrew Road

The Corkscrew Road interchange has right of way constraints in all four quadrants that include both residential and commercial development which limit ramp alignment options. These right of way constraints eliminate loop ramps as possible ramp configurations leaving options such as a diamond, SPUI, inverted diamond, or DDI. High turning volumes are forecasted here which would likely require triple turn lanes at traditional interchange types, such as a diamond or SPUI. A displaced diamond or DDI will be able to process the projected volumes while reducing the overall interchange footprint.

Proposed Interchange: Diverging Diamond (DDI)



I-75 at Alico Road

Currently, Alico Road has loop ramps in the northwest and southeast quadrants. The future volumes indicate that while the northwest ramp will remain functional, the southeast ramp will be over capacity. The existing Alico Road interchange footprint is quite large and there is open land to the west which offers flexibility for a multitude of interchange concepts. The northwest quadrant, however, does not have enough space to accommodate a loop ramp. The thru traffic on Alico Road is projected to be quite high with almost 5,000 vph eastbound in the PM peak hour. Currently, Alico has only three thru lanes in each direction which would need to be significantly expanded for any interchange configuration to process the high volume of traffic at the interchange.

The high volumes traveling through the interchange area are such that any stoppage of traffic would need to be minimized. Even two-phase signals at a diverging diamond interchange would create capacity impacts that would require a DDI to be exceptionally large, perhaps exceeding 12-lanes in the interchange core. The Alico Road corridor has the space to accommodate a third level structure as it has minimal access points along Alico Road immediately adjacent to I-75. An interchange concept that utilizes a third level to minimize conflicting traffic across the heavy thru movement would function best at this location but a system interchange with free-flowing movements would create significant weaving issues downstream of the interchange area on the approaches to the major signalized intersections on both sides of I-75.

Proposed Interchange: Three-level Interchange to be determined

I-75 at Terminal Access Road

No proposed changes are needed at this interchange aside from changes to the structure over I-75 that may be needed to accommodate the proposed typical section of the I-75 mainline. Failure of this interchange in the no build analysis was a result of the failure of the Alico Road interchange and onto the existing collector-distributor system that is shared by those two interchanges.

I-75 at Daniels Parkway

The existing diamond interchange with a single loop ramp is also proposed for replacement with a DDI, to process the high turning volumes present at this interchange. A DDI is able to accommodate future widening better than other interchange options such as a SPUI.

The first signalized intersection to the east of the interchange is Treeline Avenue. The projected volumes at this interchange are quite high, and the current configuration of the intersection will not be able to deliver the demand volume to the interchange.

Currently at Treeline Avenue, there are triple left turns for the northbound left turn movement, with dual left turns in all other directions. This indicates that this intersection may already be close to capacity with the current vehicle demand and widening will not be a viable solution in the future. This same problem appears to be present at Danport Boulevard, the signalized intersection to the west of the interchange. Although there is a County proposed project to widen Daniels Parkway from 6 lanes to 8 lanes, the future projected volumes have over 4,000 vph traveling through in both the AM and PM peak hours at this intersection which will overload the proposed 8-lane cross section and meter traffic traveling along the corridor.



The Fiddlesticks Boulevard intersection west of Danport Boulevard must be addressed for any interchange option to function. The severity of the operational issues at the Fiddlesticks Boulevard intersection is a direct result of projected development associated with the Three Oaks Extension project. Further coordination with Lee County is recommended regarding the improvements at Daniels Parkway and adjacent intersections so that an effective interchange configuration is selected.

Proposed Interchange: Diverging Diamond (DDI)

I-75 at Colonial Boulevard (SR 884)

The existing interchange at Colonial Boulevard is a diamond interchange with a single loop in the southeast quadrant that will be replaced by a DDI as part of an existing design-build project. A DDI will function well with the forecasted future volumes since the turning traffic both to and from the ramps is high. Maintaining the DDI concept for the future condition is the most economical solution and it can be easily widened to provide additional capacity, if needed.

Proposed Interchange: Diverging Diamond (DDI)

I-75 at Martin Luther King, Jr. Boulevard (SR 82)

Currently, Martin Luther King (MLK) Jr. Boulevard (SR 82) is a diamond interchange. The projected ramp and turning volumes at this interchange are similar to other interchanges in the study area but the through volumes are very high (up to 4,700 vph) and heavily directional (65%/35%) during the AM and PM peak hour.

Ortiz Avenue is the first signalized intersection to the west of the I-75 interchange along MLK Jr. Boulevard (SR 82). The projected volumes at this intersection are quite high and include approximately 1,700 vph westbound left turns opposing 2,100 vph eastbound through. Currently, Ortiz Avenue has two left turn lanes and three thru lanes to accommodate this traffic. Unless substantial improvements are made to increase the capacity of this intersection, it will struggle to deliver the anticipated volumes to the MLK Jr. Boulevard (SR 82) interchange. This same problem is present at Forum Boulevard to the east of the interchange, where the forecasted through volume is approaching 4,800 vph westbound. While the left turns here are not as high as at Ortiz Avenue, any interruption of the flow of almost 5,000 vph in the existing three lanes will result in substantial operational issues unless significant changes are made.

Presuming that improvements are made and that traffic demand can reach the MLK Jr. Boulevard (SR 82) interchange, any type of at-grade intersection will struggle to process the high through volumes, even with an evenly balanced two-phase signal. A third level will be required at this location and development of this interchange concept must avoid creating downstream weaving to the adjacent signalized intersections. Options such as an echelon interchange or other three-level, two-phase signal system should be considered.

Proposed Interchange: Three-level Interchange to be determined

I-75 at Luckett Road

The existing Luckett Road Interchange is a diamond interchange with retail development in the northeast and southwest quadrants. There is space for widening the existing diamond interchange but widening would require expanding the I-75 bridges to accommodate the additional lanes under the


structures. The projected volumes at Luckett Road are much lower than at other interchanges along the I-75 corridor and there are many different interchange configurations that would be able to handle forecasted traffic demand.

A DDI was selected at this location due to the proportion of left turns to through traffic. A DDI would have a substantially reduced typical section footprint compared to other interchanges such as a SPUI or any diamond configuration.

Proposed Interchange: Diverging Diamond (DDI)

I-75 at Palm Beach Boulevard (SR 80)

Palm Beach Boulevard (SR 80) is currently a diamond interchange with a high skew angle across I-75. There are business and residential developments in all four quadrants limiting available right of way. Combined, these two factors make many interchange designs difficult to build at this location. The existing intersection of Orange River Road/Louise Street immediately east of the interchange creates additional complications. A significant amount of traffic leaving the interchange turns south on Orange River Road. The Louise Street approach provides the only access to an otherwise inaccessible set of residential properties along the Orange River north of Palm Beach Boulevard (SR 80).

The limited right of way in all quadrants of the interchange precludes the use of loop ramps. The skew angle of the intersection also creates issues with both a DDI and SPUI. The crossover intersections at a DDI would require a significant reduction in design speed from the posted speed limit to avoid impacting existing properties in the area.

The angle of intersection would require the ramps for a SPUI to impact the northwest and southeast quadrants. The paths of the left turns at a SPUI with this significant skew angle would also require a much longer structure central span than all other interchange concepts.

The high westbound left turn volume (2,200 vph) will be difficult to accommodate at a traditional diamond interchange as the left turn would conflict with the eastbound through volume (2,700 vph) at a three-phase signal.

A displaced left diamond interchange was selected because it provides the simplest geometric alignment at the interchange as it would allow the thru movements to remain on tangent through the interchange area. This concept should also reduce vehicle delay at the ramp terminals.

Proposed Interchange: Displaced Left Diamond

I-75 at Bayshore Road (SR 78)

The Bayshore Road (SR 78) Interchange does not currently have very much development immediately adjacent to the interchange with the southeast and northwest quadrants completely forested. While the future volumes along Bayshore Road (SR 78) are not exceptionally high and could be accommodated by widening the existing diamond interchange, the forecasted volume for the northbound left movement is over 1,000 vehicles per hour (vph). This volume would be difficult to accommodate with a diamond interchange without triple left turn lanes which would not allow for any future expansion of the interchange. A diverging diamond interchange (DDI) would be a better choice to meet the operational needs of the interchange while keeping a small footprint and allowing for additional capacity.



Proposed Interchange: Diverging Diamond (DDI)

3.4 Recommended Alternative Analysis

The I-75 South Corridor was initially broken into 28 segments, using the north and south gore points at each interchange as the break between segments. The resulting South Corridor segments and associated lengths are provided in **Table 3.1.** The construction cost was tabulated for each segment to facilitate the subsequent segmentation and prioritization of the Master Plan's Proposed Mainline Build Alternative.

Sogmont	Decorintion	Segment Length			
Segment	Description	(LF)	(MI)		
1	Collier Boulevard (SR 951) Interchange	5800	1.10		
2	from Collier interchange to Golden Gate Parkway interchange	12500	2.37		
3	Golden Gate Parkway interchange	6500	1.23		
4	from Golden Gate Parkway interchange to Pine Ridge Road interchange	7000	1.33		
5	Pine Ridge Road interchange	5000	0.95		
6	from Pine Ridge Road interchange to Immokalee Road interchange	18500	3.50		
7	Immokalee Road interchange	3500	0.66		
8	from Immokalee Road interchange to Bonita Beach Road interchange	18000	3.41		
9	Bonita Beach Road interchange	4000	0.76		
10	from Bonita Beach Road interchange to Corkscrew Road interchange	34500	6.53		
11	Corkscrew Road interchange	4000	0.76		
12	from Corkscrew Road interchange to Alico Road interchange	16000	3.03		
13	Alico Road interchange	8500	1.61		
14	from Alico Road interchange to Terminal Access Road interchange	1500	0.28		
15	Terminal Access Road interchange	5000	0.95		
16	from Terminal Access Road interchange to Daniels Parkway interchange	6500	1.23		
17	Daniels Parkway interchange	7000	1.33		
18	from Daniels Parkway interchange to Colonial Boulevard interchange	17000	3.22		
19	Colonial Boulevard interchange	7000	1.33		
20	from Colonial Boulevard interchange to MLK, Jr. Boulevard interchange	3000	0.57		
21	MLK, Jr. Boulevard interchange	3500	0.66		
22	from MLK, Jr. Boulevard interchange to Luckett Road interchange	3000	0.57		
23	Luckett Road interchange	6000	1.14		
24	from Luckett Road interchange to Palm Beach Boulevard (SR 80) interchange	5000	0.95		
25	Palm Beach Boulevard (SR 80) interchange	5000	0.95		
26	from Caloosahatchee Bridge to Bayshore Road (SR 78) interchange	4000	0.76		
27	Bayshore Road (SR 78) interchange	3500	0.66		
28	from Bayshore Road (SR 78) interchange to end of project	2200	0.42		

Table 3.1: I-75 South Corridor Segments



The construction cost estimate was prepared using FDOT cost per mile models, the FDOT Long Range Estimate (LRE) tool, and costs from recent projects of similar scope around the state. The 12-month Statewide and Market Area 10 average unit costs were used in the estimate (April 2021 through March 2022).

The following components were included in the Proposed Mainline Build Alternative construction estimate:

- Roadway
 - Clearing and grubbing
 - o Earthwork
 - Erosion and sediment control
 - Roadway pavement
 - o Shoulder pavement
 - Shoulder treatment
 - Noise wall
- Bridge
 - Bridge replacement or widening
 - Bridge box culvert replacement or extension
- Drainage
 - Stormwater management ponds
 - o Storm sewer system
 - Cross drains
- Signing
 - Overhead truss and span signs
 - Ground mounted signs
- Pavement markings
- Lighting
 - Conventional LED lighting
 - Bridge and underdeck lighting
- ITS
- Interchange improvements
 - o Interim and ultimate improvements, including ramp signalization

The Master Plan concept drawings were used to quantify the length (mileage or linear feet) of widened roadway, milled/resurfaced roadway, widened shoulder, milled/resurfaced shoulder, barrier wall, and pavement markings. The concepts were also used to estimate quantities for potential noise walls, bridge, drainage, signing, lighting, and ITS components in each segment.

The estimated construction cost estimate for each initial segment is summarized in **Table 3.2.** The estimated Total Project Cost for construction based on the spreadsheet is \$2,794,769,878, including 15% for Maintenance of Traffic, 15% for Mobilization and 10% for Contingencies. Detailed tabulation of each component of the construction cost estimate is provided in **Appendix B**.



			e	Brainago	Jighing	Favement Markings	Lighting	115	Improvements	Segment Subtotal
1	Collier Boulevard (SR 951) Interchange	\$1,660,370	\$O	\$5,025,173	\$1,416,000	\$37,117	\$1,335,531	\$1,352,000	\$0	\$0
2	from Collier Boulevard (SR 951) interchange to Golden Gate Parkway interchange	\$6,106,184	\$O	\$11,274,324	\$669,000	\$65,195	\$O	\$1,820,000	\$0	\$0
3	Golden Gate Parkway interchange	\$1,860,760	\$0	\$5,621,842	\$1,428,000	\$41,489	\$1,207,853	\$1,115,000	\$0	\$0
4	from Golden Gate Parkway interchange to Pine Ridge Road interchange	\$18,219,148	\$O	\$8,031,556	\$406,000	\$36,207	\$O	\$1,015,000	\$0	\$27,707,911
5	Pine Ridge Road interchange	\$3,191,765	\$1,723,800	\$7,780,552	\$1,392,000	\$60,778	\$1,483,964	\$1,015,000	\$0	\$16,647,858
6	from Pine Ridge Road interchange to Immokalee Road interchange	\$25,053,199	\$2,163,600	\$19,891,144	\$884,000	\$76,711	\$0	\$2,470,000	\$0	\$50,538,654
7	Immokalee Road interchange	\$2,234,235	\$1,211,200	\$3,769,311	\$1,368,000	\$52,584	\$851,688	\$880,000	\$150,000,000	\$160,367,019
8	from Immokalee Road interchange to Bonita Beach Road interchange	\$18,653,267	\$856,000	\$22,132,243	\$872,000	\$80,435	\$0	\$2,400,000	\$0	\$44,993,944
9	Bonita Beach Road interchange	\$2,657,605	\$4,124,800	\$5,253,665	\$1,380,000	\$86,356	\$830,562	\$995,000	\$50,000,000	\$65,327,989
10	to Corkscrew Road interchange	\$35,021,206	\$6,406,299	\$42,712,597	\$1,565,000	\$147,003	\$0	\$4,000,000	\$0	\$89,852,104
11	Corkscrew Road interchange	\$3,971,602	\$4,031,700	\$4,801,653	\$2,855,000	\$89,736	\$961,193	\$925,000	\$50,000,000	\$67,635,885
12	from Corkscrew Road interchange to Alico Road interchange	\$60,691,278	\$6,213,880	\$31,679,519	\$848,000	\$158,657	\$0	\$2,300,000	\$0	\$101,891,333
13	Alico Road interchange	\$44,340,326	\$0	\$16,531,687	\$1,440,000	\$108,472	\$768,478	\$1,330,000	\$250,000,000	\$314,518,964
14	from Alico Road interchange to Terminal Access Road interchange	\$4,885,365	\$0	\$3,123,024	\$179,000	\$14,874	\$0	\$485,000	\$0	\$8,687,263
15	Terminal Access Road interchange	\$16,821,676	\$4,190,900	\$9,774,482	\$1,392,000	\$53,998	\$1,454,413	\$1,045,000	\$0	\$34,732,470
16	from Terminal Access Road interchange to Daniels Parkway interchange	\$26,283,430	\$O	\$12,645,821	\$406,000	\$64,454	\$0	\$1,305,000	\$0	\$40,704,706
17	Daniels Parkway interchange	\$44,114,745	\$6,791,400	\$13,624,334	\$4,366,000	\$192,458	\$1,211,594	\$1,260,000	\$0	\$71,560,531
18	from Daniels Parkway interchange to Colonial Boulevard (SR 884) interchange	\$47,982,583	\$3,764,900	\$34,363,387	\$860,000	\$168,573	\$0	\$2,460,000	\$0	\$89,599,442
19	Colonial Boulevard (SR 884) interchange	\$42,549,404	\$7,697,600	\$13,650,903	\$4,366,000	\$191,408	\$1,341,105	\$1,195,000	\$0	\$70,991,420
20	from Colonial Boulevard (SR 884) interchange to MLK, Jr. Boulevard (SR 82) interchange	\$11,049,842	\$O	\$6,031,185	\$203,000	\$31,293	\$0	\$955,000	\$0	\$18,270,321
21	MLK, Jr. Boulevard (SR 82) interchange	\$20,738,370	\$6,318,000	\$7,043,889	\$1,368,000	\$53,386	\$1,169,686	\$910,000	\$250,000,000	\$287,601,332
22	from MLK, Jr. Boulevard (SR 82) interchange to Luckett Road interchange	\$11,555,858	\$O	\$6,178,737	\$203,000	\$29,748	\$O	\$655,000	\$0	\$18,622,343
23	Luckett Road interchange	\$34,324,559	\$5,304,000	\$12,145,897	\$4,354,000	\$178,163	\$1,267,010	\$1,185,000	\$50,000,000	\$108,758,628
24	from Luckett Road interchange to Palm Beach Blvd (SR 80) interchange	\$24,416,013	\$0	\$9,964,210	\$227,000	\$49,580	\$0	\$835,000	\$0	\$35,491,803
25	Palm Beach Boulevard (SR 80) interchange	\$8,296,026	\$3,506,800	\$4,505,037	\$2,867,000	\$79,437	\$1,020,320	\$1,045,000	\$100,000,000	\$121,319,621
26	from Caloosahatchee Bridge to Bayshore Road (SR 78) interchange	\$1,543,142	\$7,099,600	\$3,686,981	\$215,000	\$21,892	\$O	\$1,115,000	\$0	\$13,681,616
27	Bayshore Road (SR 78) interchange	\$1,350,250	\$0	\$3,292,759	\$1,368,000	\$38,771	\$969,458	\$910,000	\$50,000,000	\$57,929,238
28	from Bayshore Road (SR 78) interchange to end of project	\$687,102	\$0	\$2,184,162	\$191,000	\$11,474	\$0	\$628,000	\$0	\$3,701,738
							SOU	TH CORRIDOR SUBTOTAL	\$1,921,	134,131
						Mahiliation	MOT (15% OF Subtotal)	\$288,1	./0,120	
							WIODIIIZATION		\$331,3	90,038 60,080
						COIL	SOUTH (CORRIDOR GRAND TOTAL	\$2.794.	769,878

Table 3.2: Preliminary Construction Cost Estimate for Preliminary I-75 South Corridor Segments

Note: These cost estimates do not have the benefit of a PD&E Preferred Alternative engineering level cost estimate and do not have a cost and schedule risk analysis workshop factored in as required in PD&E for FHWA major projects. These factors, and the current economic uncertainty around cost increases due to inflation, should be factored in when using these planning level estimates for 5-year work programming.



3.4.1 Right of Way Costs

Right of way costs were estimated based on planning level cost per acre provided by FDOT. Planning level costs vary by county and by rural and urban context. **Table 3.3** shows the assumptions. For the I-75 South Corridor, all of the acreage is classified as urban. **Table 3.4** displays the planning level right of way cost estimates by segment. Detailed tabulation of each component of the right of way cost estimate is provided in **Appendix C.**

County	Urban Per Acre	Rural Per Acre
Collier	\$1M / acre	\$0.5M / acre
Lee	\$1M / acre	\$0.5M / acre

Table 3.3: Planning Level Right of Way Cost Per Acre Assumptions

Segment	Description	Right of Way Acreage Needed	Right of Way Cost
1	Collier Boulevard (SR 951) Interchange	0	\$0
2	from Collier Boulevard (SR 951) interchange to Golden Gate Parkway interchange	0	\$O
3	Golden Gate Parkway interchange	0.00	\$0
4	from Golden Gate Parkway interchange to Pine Ridge Road interchange	9.58	\$9,583,425
5	Pine Ridge Road interchange	6.85	\$6,845,304
6	from Pine Ridge Road interchange to Immokalee Road interchange	25.33	\$25,327,624
7	Immokalee Road interchange	9.79	\$9,791,713
8	from Immokalee Road interchange to Bonita Beach Road interchange	39.62	\$39,616,545
9	Bonita Beach Road interchange	38.80	\$38,803,677
10	from Bonita Beach Road interchange to Corkscrew Road interchange	75.93	\$75,931,712
11	Corkscrew Road interchange	30.00	\$30,000,000
12	from Corkscrew Road interchange to Alico Road interchange	54.98	\$54,978,723
13	Alico Road interchange	61.20	\$61,197,447
14	from Alico Road interchange to Terminal Access Road interchange	5.15	\$5,154,256
15	Terminal Access Road interchange	17.18	\$17,180,852
16	from Terminal Access Road interchange to Daniels Parkway interchange	22.68	\$22,675,106
17	Daniels Parkway interchange	27.11	\$27,113,191
18	from Daniels Parkway interchange to Colonial Boulevard (SR 884) interchange	58.41	\$58,414,894
19	Colonial Boulevard (SR 884) interchange	26.60	\$26,603,191
20	from Colonial Boulevard (SR 884) interchange to MLK, Jr. Boulevard (SR 82) interchange	10.31	\$10,308,511
21	MLK, Jr. Boulevard (SR 82) interchange	42.52	\$42,516,596
22	from MLK, Jr. Boulevard (SR 82) interchange to Luckett Road interchange	10.38	\$10,378,511
23	Luckett Road interchange	53.05	\$53,047,021
24	from Luckett Road interchange to Palm Beach Boulevard (SR 80) interchange	18.17	\$18,170,851
25	Palm Beach Boulevard (SR 80) interchange	22.31	\$22,310,851
26	from Caloosahatchee Bridge to Bayshore Road (SR 78) interchange	0.00	\$0

Table 3.4: Planning Level Right of Way Cost Estimates



27	Bayshore Road (SR 78) interchange	30.00	\$30,000,000
28	from Bayshore Road (SR 78) interchange to end of project	0.00	\$0
	TOTAL	695.95	\$695,950,000

3.5 Preliminary Master Plan Projects List

For each of the initial segments of the I-75 South Corridor, the Design Year 2045 No-Build Year of Need was developed in isolation from the other segments. For mainline segments, the Year of Need is the forecasted year at which the mainline segment reaches Level of Service (LOS) E. For interchanges, the Year of Need is the year at which the queues on the interchange ramps are forecasted to spillback onto the I-75 mainline during peak periods. **Figure 3.8** depicts the Year of Need for each of the segments.

Additionally, the study team identified locations where improvements could be deferred by making minor improvements and other considerations such as continuity and staged/standalone implementation. Based on this approach, the study team developed a Preliminary Master Plan Projects List for the I-75 South Corridor combining segments into projects yielding construction packages of appropriate size (generally \$450 million maximum construction cost) to facilitate funding availability and the size and capabilities of the contractors in the region and prioritized based on Year of Need. The Preliminary Master Plan Projects List for the I-75 South Corridor is provided in **Table 3.5**.



Figure 3.8: 2045 No Build Year of Need (South Corridor)





I-75 SOUTH CORRIDOR MASTER PLAN

FACILITY ENHANCEMENT ELEMENT

Priority	Segment	Interchange/I-75	Description	Construction Cost
1	7	Immokalee Rd	Interim DDI under existing structure and adjacent intersection improvements	\$233.2M
2	21	MLK Blvd	Major reconstruction of interchange and adjacent intersection improvements (possible grade and separation and three-level interchange)	\$418.4M
За	10-25	I-75	Mainline improvements from Colonial Blvd to Palm Beach Blvd	\$105.3M
3b	19-25	Luckett Rd	DDI and adjacent intersection improvements, including signal at Country Lakes Dr.	\$158.3M
4	13	Alico Rd	Major reconstruction of interchange and adjacent intersection improvemtents (possible grade separation and three-level interchange)	\$457.5M
5a	13-18	Daniels Pkwy	Re-evaluate proposed County improvements at Fiddlesticks Blvd as part of Three Oaks Extension project	TBD
5b		I-75	Mainline improvements from Alico Rd to Colonial Blvd	\$356.9M
6a	27	Bayshore Rd	2-lane exist at Bayshore Rd to increase off-ramp capacity	TBD
6b	25	Palm Beach Blvd	Adjacent intersection improvements at Orange River Blvd	TBD
7a	7-12	I-75	Mainline improvements from Immokalee Rd to Alico Rd	\$392.3M
7b		Corkscrew Rd	DDI and adjacent intersection improvements	\$98.3M
8	17	Daniels Pkwy	Revisit interim DDI for additional improvements if needed after mainline bridges are reconstructed	TBD
9	9	Bonita Beach Rd	DDI and adjacent intersection improvements	\$95.0M
10	7	Immokalee Rd	Revisit interim DDI for additional improvements if needed after mainline bridges are reconstructed	TBD
11	27	Bayshore Rd	DDI and adjacent intersection improvements (reconstruct I-75 bridges if needed)	\$176.5
12a	3.6	I-75	Mainline improvements from Golden Gate Pkwy to Immokalee Rd	\$138.1M
12b		Golden Gate Pkwy	Displaced Left Diamond and adjacent intersection improvements	\$161.9M
14	25	Palm Beach Blvd	Displaced Left Diamond and adjacent intersection improvements	\$176.5
15	5	Pine Ridge Rd	Revisit interim DDI for additional improvements if needed after mainline bridges are reconstructed	TBD

Table 3.5: I-75 South Corridor – Preliminary Master Plan Projects List

Note: Construction estimates include 15% for Maintenance of Traffic, 15% for Mobilization and 10% for Contingencies.

TBD = To Be Determined



3.6 Preliminary Proposed Projects Implementation List

FDOT District One's Interstate Program Office (IPO) team met and reviewed the list of prioritized projects identified by the study team. Their review included proposed segmentation, safety data, years of need, typical sections, scopes of work, project requested by local agencies, existing programmed and/or recently constructed projects, among other considerations. The IPO team then generated a list of potential projects for implementation that covered most of the needs identified. The IPO team has reached out to the MPOs for comments and recommendations on priorities on these potential projects to further refine this list. The proposed projects will also be considered in development of the SIS Cost Feasible Plan (CFP) update. **Table 4.6** lists the potential projects for implementation on the I-75 South Corridor. This list will continue to be refined and updated based on coordination with the local agencies, FDOT District One leadership, and FDOT Central Office. The list will also be presented to the public at a Corridor Workshop tentatively scheduled for early 2023.



Table 3.6: Collier and Lee County Master Plan Project Segmentation

Facility Type	Facility Name	Limit From	Limit To	FDOT Comments	Estimated ROW Impact (acres)	Construction Estimate
Interstate / Interchange	I-75 (SR 93) at Immokalee Road	South of Immokalee Road	North of Immokalee Road	I-75 Southwest Connect South Corridor Master Plan identified need. Project assumes Type II CE Class of Action, complete reconstruction of interchange, and replacement of I-75 mainline bridges to accommodate ultimate mainline typical section. Interim improvement of Diverging Diamond Interchange within existing right-of-way may be feasible if warranted.	10	\$233,293,921
Interstate	I-75 (SR 93)	North of Golden Gate Parkway	South of Bonita Beach Road	I-75 Southwest Connect South Corridor Master Plan identified need. Mainline capacity only (no managed lanes). Project assumes Type II Class of Action, Add one (1) general purpose land and one (1) auxiliary lane between interchanges on I-75 from north of Golden Gate Parkway to South of Bonita Beach Road.	81	\$203,502,602
Interstate / Interchange	I-75 (SR 93) at SR 82 (Martin Luther King Jr. Boulevard)	South of SR 82 (Martin Luther King Jr. Boulevard)	North of SR 82 (Martin Luther King Jr. Boulevard	I-75 Southwest Connect South Corridor Master Plan identified need. Project assumes Type II CE Class of Action, major reconstruction of interchange and adjacent intersection improvements (possible grade separation/3-level interchange), and reconstruction of I-75 mainline bridges to accommodate ultimate mainline typical section.	43	\$418,388,037
Interstate	I-75 (SR 93)	North of SR 884 (Colonial Boulevard)	South of SR 80 (Palm Beach Boulevard)	I-75 Southwest Connect South Corridor Master Plan identified need. Project assumes Type II Class of Action, construction of ultimate managed lanes typical section (2 ML + 3 GP + 1 AUX) on I-75 between SR 884 (Colonial Boulevard) and SR 80 (Palm Beach Boulevard).	62	\$105,301,303
Interstate / Interchange	I-75 (SR 93) at Luckett Road	South of Luckett Road	North of Luckett Road	I-75 Southwest Connect South Corridor Master Plan identified need. Project assumes Type II Class of Action, interchange reconstruction, reconstruction of I-75 mainline bridges to accommodate ultimate mainline typical section, and adjacent intersection improvements (signalization at County Lakes Drive).	30	\$158,216,614
Interstate / Interchange	I-75 (SR 93) at Alico Road / Terminal Access Road	South of Alico Road / Terminal Access Road	North of Alico Road / Terminal Access Road	I-75 Southwest Connect South Corridor Master Plan identified need. Project assumes Type II Class of Action, major reconstruction of interchange, reconstruction of I-75 mainline bridges to accommodate ultimate typical section, and adjacent intersection improvements (possible grade separation/3-level interchange).	84	\$520,711,319
Interstate	I-75 (SR 93)	North of Corkscrew Road	North of SR 884 (Colonial Boulevard)	I-75 Southwest Connect South Corridor Master Plan identified need. Project assumes Type II Class of Action, construct ultimate managed lanes typical section (2 ML + 3 GP + 1 AUX) on I-75 between Corkskrew Road and SR 884 (Colonial Boulevard).	190	\$545,163,828
Interstate / Interchange	I-75 (SR 93) at SR 78 (Bayshore Road)	SR 78 (Bayshore Road) NB Off / SB on Gore Point	SR 78 (Bayshore Road) NB On / SB Off Gore Point	I-75 Southwest Connect South Corridor Master Plan identified need. Interchange is included in ongoing PD&E study (444937-1) for the SR 78 corridor. Project assumes reconstruction of existing interchange to Diverging Diamond Interchange and adding one (1) lane to the I-75 NB exit-ramp at SR 78 (Bayshore Road) (total of 2 lanes at gore point).	30	\$109,560,992
Interstate / Interchange	I-75 (SR 93) at SR 80 (Palm Beach Boulevard)	SR 80 (Palm Beach Boulevard) NB Off / SB On Gore Point	SR 80 (Palm Beach Boulevard) NB On / SB Off Gore Poin	I-75 Southwest Connect South Corridor Master Plan identified need. Project assumes Type II Class of Action, reconstruction of interchange to a displaced left diamond, and adjacent intersection improvements	22	\$176,489,718
Interstate	I-75 (SR 93)	South of Bonita Beach Road	North of Corkscrew Road	I-75 Southwest Connect South Corridor Master Plan identified need. Mainline capacity only (no managed lanes). Project assumes Type II Class of Action, Add one (1) general purpose land and one (1) auxiliary lane between interchanges on I-75 from south of Bonita Beach Road to north of Corkscrew Road.	76	\$130,712,349
Interstate / Interchange	I-75 (SR 93) at Corkscrew Road	South of Corkscrew Road	North of Corkscrew Road	I-75 Southwest Connect South Corridor Master Plan identified need. Project assumes Type II Class of Action, reconstruction of existing interchange to diverging diamond interchange, and adjacent intersection improvements.	30	\$98,393,303
Interstate / Interchange	I-75 (SR 93) at Bonita Beach Road	South of Bonita Beach Road	North of Bonita Beach Road	I-75 Southwest Connect South Corridor Master Plan identified need. Project assumes Type II Class of Action, reconstruction of existing interchange to diverging diamond interchange, and adjacent intersection improvements.	39	\$95,035,891



I-75 SOUTH CORRIDOR MASTER PLAN

FACILITY ENHANCEMENT ELEMENT

4.0 References

Collier Area Transit, Ten-Year Transit Development Plan 2021-2030. October 2020.

Lee County MPO, Rail Corridor Feasibility Study. October 2013.

LeeTran, Transit Development Plan Final Report. November 2020.

FDOT, SR 78 (Bayshore Road) PD&E Study from I-75 to SR 31 (FPID 444937-1).

FDOT, I-75 Multimodal Master Plan. August 1998.

FDOT, Traffic Incident Management Team Notification & Agency Resource Guide. June 2011.



5.0 Appendices

Appendix A – Concept Plans

- Appendix B Construction Cost Estimate
- Appendix C Right of Way Cost Estimate



Appendix A Concept Plans



I-75 SOUTH CORRIDOR MASTER PLAN

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FACILITY ENHANCEMENT ELEMENT





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121101010					STATE OF FLORIDA			
DATE	DESCRIPTION	DATE	DESCRIPTION	H. W. LOCHNER, INC.	DEPARTMENT OF TRANSPORTATION			
				4350 W. CYPRESS STREET - SUITE 800				
				TAMPA, FL 33607	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	
				CERTIFICATE OF AUTHORIZATION NO. 894				
					SR 93	LEE	442519-1-32-01	
								1

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			CERTIFICATE OF AUTHORIZATION NO. 894	SR 93	LEE	
			TAMPA, FL 33607	ROAD NO.	COUNTY	F
			4350 W. CYPRESS SIREEI - SUITE 800			













Appendix B

Construction Cost Estimate



I-75 SOUTH CORRIDOR MASTER PLAN

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FACILITY ENHANCEMENT ELEMENT

A spreadsheet of the overall study cost estimate was prepared and includes a detailed look at all necessary components. As discussed in Section 4.1.1, the study corridor utilizes four typical sections. Through each of the segments, certain costs associated with the applicable typical section were applied over the full length. In this case, the FDOT Cost Per Mile templates were used to approximate the cost per mile of items including Earthwork, Erosion and Sediment Control, Roadway and Shoulder Pavement, and Right of Way. Quantities were then calculated based on the concept plans for items from the Roadway, Signing, Pavement Markings, Drainage, Bridge, Lighting and ITS components. For these items, a cost was applied from either the FDOT Statewide average unit costs or the Area 10 average unit costs. A description of the various components and the assumptions made is included below.

For the Roadway component, in addition to the items calculated using the Cost Per Mile approach, several peripheral items were quantified based on the concepts including shoulder barriers, median barriers, retaining walls and noise barriers. The shoulder and median barriers were based on the typical section applied over the length of each segment. The retaining walls were estimated to be 50% of the total shoulder barrier length with an assumed average height of 15 feet. Noise barriers with a height of 22 feet were assumed at all locations where a residential subdivision backs up to or is reasonably close to the limited access right of way and there are no existing noise barriers present.

The Bridge component used an inventory of the structures identified in the Straight Line Diagram. Based on the concept plans and typical sections, bridge widening quantities were gathered. Additionally, a few bridges were earmarked for replacement based on the existing condition.

The Drainage component was divided into three main categories: Stormwater Management Ponds, Storm Sewer System, and Cross Drains and Culverts. For the Stormwater Management Ponds, based on the basin area per segment broken down by an associated number of ponds and pond area, quantities for items such as pond excavation, control structures, pipes and mitered end sections were calculated. For the Storm Sewer System, based on the length per segment and each associated typical section, various pipe sizes and inlet spacings were used to calculate quantities. Finally, for the Cross Drains and Culverts, an inventory of the structures identified in the Straight Line Diagrams allowed for a compilation of the various pipe and endwall sizes. Also included in this section were quantities for Box Culvert extensions. All these items utilized appropriate FDOT Historical Unit Costs available.

For the Signing component, quantities were tallied based on assumptions of the number of overhead signs and panels necessary at each exit, entrance, and slip ramp to or from the "Thru Lanes". Pavement Markings were tallied based on the lengths of each segment and number of lanes with the addition of markings and messages at each exit, entrance, and slip ramp.

The Lighting component accounts for all proposed lighting needed at each interchange including the use of Conventional LED Lighting, high mast light poles, and associated lengths of conduit, conductors, pull boxes, etc.

The ITS component used a combined approach of assumptions for areas between interchanges, needing items such as DMS Structures, CCTV Structures, MVDS, Fiber and more, while meeting the needs specific to the interchange areas to account for additional ADMS structures, Wrong Way Detection Systems and Power Stations.



I-75 SOUTH CORRIDOR MASTER PLAN

			PAVEMENT			INTERCHANGE	SEGMENT	MAINLINE SUBTOTALS WITHOUT	
BRIDGE	DRAINAGE	SIGNING	MARKINGS	LIGHTING	ITS	IMPROVEMENTS	SUBTOTAL	INTERCHANGE IMPROVEMENTS	
\$0	\$5,025,173	\$1,416,000	\$37,117	\$1,335,531	\$1,352,000	\$0	\$0	\$10,826,192	2
\$0	\$11,274,324	\$669,000	\$65,195	\$0	\$1,820,000	\$0	\$0	\$19,934,703	
\$0	\$5,621,842	\$1,428,000	\$41,489	\$1,207,853	\$1,115,000	\$0	\$0	\$11,274,944	Ļ
\$0	\$8,031,556	\$406,000	\$36,207	\$0	\$1,015,000	\$0	\$27,707,911	\$27,707,911	
\$1,723,800	\$7,780,552	\$1,392,000	\$60,778	\$1,483,964	\$1,015,000	\$0	\$16,647,858	\$16,647,858	
\$2,163,600	\$19,891,144	\$884,000	\$76,711	\$0	\$2,470,000	\$0	\$50,538,654	\$50,538,654	
\$1,211,200	\$3,769,311	\$1,368,000	\$52,584	\$851,688	\$880,000	\$150,000,000	\$160,367,019	\$10,367,019	
\$856,000	\$22,132,243	\$872,000	\$80,435	\$0	\$2,400,000	\$0	\$44,993,944	\$44,993,944	
\$4,124,800	\$5,253,665	\$1,380,000	\$86,356	\$830,562	\$995,000	\$50,000,000	\$65,327,989	\$15,327,989	
\$6,406,299	\$42,712,597	\$1,565,000	\$147,003	\$0	\$4,000,000	\$0	\$89,852,104	\$89,852,104	ł
\$4,031,700	\$4,801,653	\$2,855,000	\$89,736	\$961,193	\$925,000	\$50,000,000	\$67,635,885	\$17,635,885	
\$6,213,880	\$31,679,519	\$848,000	\$158,657	\$0	\$2,300,000	\$0	\$101,891,333	\$101,891,333	
\$0	\$16,531,687	\$1,440,000	\$108,472	\$768,478	\$1,330,000	\$250,000,000	\$314,518,964	\$64,518,964	
\$0	\$3,123,024	\$179,000	\$14,874	\$0	\$485,000	\$0	\$8,687,263	\$8,687,263	
\$4,190,900	\$9,774,482	\$1,392,000	\$53,998	\$1,454,413	\$1,045,000	\$0	\$34,732,470	\$34,732,470	
\$0	\$12,645,821	\$406,000	\$64,454	\$0	\$1,305,000	\$0	\$40,704,706	\$40,704,706	
\$6,791,400	\$13,624,334	\$4,366,000	\$192,458	\$1,211,594	\$1,260,000	\$0	\$71,560,531	\$71,560,531	
\$3,764,900	\$34,363,387	\$860,000	\$168,573	\$0	\$2,460,000	\$0	\$89,599,442	\$89,599,442	
\$7,697,600	\$13,650,903	\$4,366,000	\$191,408	\$1,341,105	\$1,195,000	\$0	\$70,991,420	\$70,991,420	
\$0	\$6,031,185	\$203,000	\$31,293	\$0	\$955,000	\$0	\$18,270,321	\$18,270,321	
\$6,318,000	\$7,043,889	\$1,368,000	\$53,386	\$1,169,686	\$910,000	\$250,000,000	\$287,601,332	\$37,601,332	
\$0	\$6,178,737	\$203,000	\$29,748	\$0	\$655,000	\$0	\$18,622,343	\$18,622,343	
\$5,304,000	\$12,145,897	\$4,354,000	\$178,163	\$1,267,010	\$1,185,000	\$50,000,000	\$108,758,628	\$58,758,628	
\$0	\$9,964,210	\$227,000	\$49,580	\$0	\$835,000	\$0	\$35,491,803	\$35,491,803	
\$3,506,800	\$4,505,037	\$2,867,000	\$79,437	\$1,020,320	\$1,045,000	\$100,000,000	\$121,319,621	\$21,319,621	
\$7,099,600	\$3,686,981	\$215,000	\$21,892	\$0	\$1,115,000	\$0	\$13,681,616	\$13,681,616	i
\$0	\$3,292,759	\$1,368,000	\$38,771	\$969,458	\$910,000	\$50,000,000	\$57,929,238	\$7,929,238	
\$0	\$2,184,162	\$191,000	\$11,474		\$628,000	\$0	\$3,701,738	\$3,701,738	
					SOUTH CO	DRRIDOR SUBTOTAL	\$1,921,134,131		
					MO	T (15% of Subtotal)	\$288,170,120		
				Mobil	ization (15%	of Subtotal + MOT)	\$331,395,638		
			Continge	ency (10% of	Subtotal + N	IOT + Mobilization)	\$254,069,989		Col
				SC	OUTH CORRI	DOR GRAND TOTAL	\$2,794,769,878		Lee
1									1



	Excluded	
	Excluded	
\$42.035.838	Excluded	
6420 000 257		
\$139,888,367		
6400.045.070		
\$122,815,978		
\$107,938,696		
\$374,747,433		
\$72 384 467		
912,304,401		
¢17 202 204		
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	Urban	Rural
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Lee	\$15M / Mile	\$5M / Mile

I-75 SOUTH CORRIDOR MASTER PLAN

FACILITY ENHANCEMENT ELEMENT
Appendix C

Right of Way Cost Estimate



I-75 SOUTH CORRIDOR MASTER PLAN

		SEGMEN	T LENGTH	Proposed LA R/W			Proposed LA R/W				INTERCHANGE AND ADJACENT		
		(15)	(5/1)	(ROADWAY ONLY)(AC)		(DRAINAGE ONLY)(AC)			INTERSECTION IMPROVEMENTS (AC)				
SEGMENT	DESCRIPTION			(AC)		Cost	SMF (AC)	FPC (AC)		Cost	AC		Cost
1	Collier Interchange	5800	1.10										
2	from Collier interchange to Golden Gate interchange	12500	2.37										
3	Golden Gate interchange	6500	1.23										
4	from Golden Gate interchange to Pine Ridge interchange	7000	1.33					9.6	\$	9,583,425.41			
5	Pine Ridge interchange	5000	0.95					6.8	\$	6,845,303.87			
6	from Pine Ridge interchange to Immokalee interchange	18500	3.50					25.3	\$	25,327,624.31			
7	Immokalee interchange	3500	0.66					4.8	\$	4,791,712.71	5	\$	5,000,000.00
8	from Immokalee interchange to Bonita Beach interchange	18000	3.41				15.0	24.6	\$	39,616,545.25			
9	Bonita Beach interchange	4000	0.76				3.3	5.5	\$	8,803,676.72	30	\$	30,000,000.00
10	from Bonita Beach interchange to Corkscrew interchange	34500	6.53				28.7	47.2	\$	75,931,711.73			
11	Corkscrew interchange	4000	0.76								30	\$	30,000,000.00
12	from Corkscrew interchange to Alico interchange	16000	3.03				28.9	26.0	\$	54,978,723.40			
13	Alico interchange	8500	1.61	1.99	\$	1,990,000.00	15.4	13.8	\$	29,207,446.81	30	\$	30,000,000.00
14	from Alico interchange to Airport access interchange	1500	0.28				2.7	2.4	\$	5,154,255.32			
15	Airport access interchange	5000	0.95				9.0	8.1	\$	17,180,851.06			
16	from Airport access interchange to Daniels interchange	6500	1.23	0.34	\$	340,000.00	11.8	10.6	\$	22,335,106.38			
17	Daniels interchange	7000	1.33	3.06	\$	3,060,000.00	12.7	11.4	\$	24,053,191.49			
18	from Daniels interchange to Colonial interchange	17000	3.22				30.7	27.7	\$	58,414,893.62			
19	Colonial interchange	7000	1.33	2.55	\$	2,550,000.00	12.7	11.4	\$	24,053,191.49			
20	from Colonial interchange to MLK interchange	3000	0.57				5.4	4.9	\$	10,308,510.64			
21	MLK interchange	3500	0.66	0.49	\$	490,000.00	6.3	5.7	\$	12,026,595.74	30	\$	30,000,000.00
22	from MLK interchange to Luckett interchange	3000	0.57	0.07	\$	70,000.00	5.4	4.9	\$	10,308,510.64			
23	Luckett interchange	6000	1.14	2.43	\$	2,430,000.00	10.9	9.8	\$	20,617,021.28	30	\$	30,000,000.00
24	from Luckett interchange to Palm Beach Blvd interchange	5000	0.95	0.99	\$	990,000.00	9.0	8.1	\$	17,180,851.06			
25	Palm Beach Blvd interchange	5000	0.95	0.13	\$	130,000.00	9.0	8.1	\$	17,180,851.06	5	\$	5,000,000.00
26	from Caloosahatchee Bridge to Bayshore interchange	4000	0.76						\$	-			
27	Bayshore interchange	3500	0.66						\$	-	30	\$	30,000,000.00
28	from Bayshore interchange to end of project	2200	0.42										
				12.1	\$	12,050,000.00	217.0	276.9	\$	493,900,000.00	\$ 190	\$	190,000,000.00
										TOTAL RO	W Cost:	\$	695,950,000.00

Collier Lee



R/\	W Cost				
Urban	Rural				
\$1M / acre	\$0.5M / acre				
<pre>\$1M / acre</pre>	\$0.5M / acre				

I-75 SOUTH CORRIDOR MASTER PLAN

FACILITY ENHANCEMENT ELEMENT