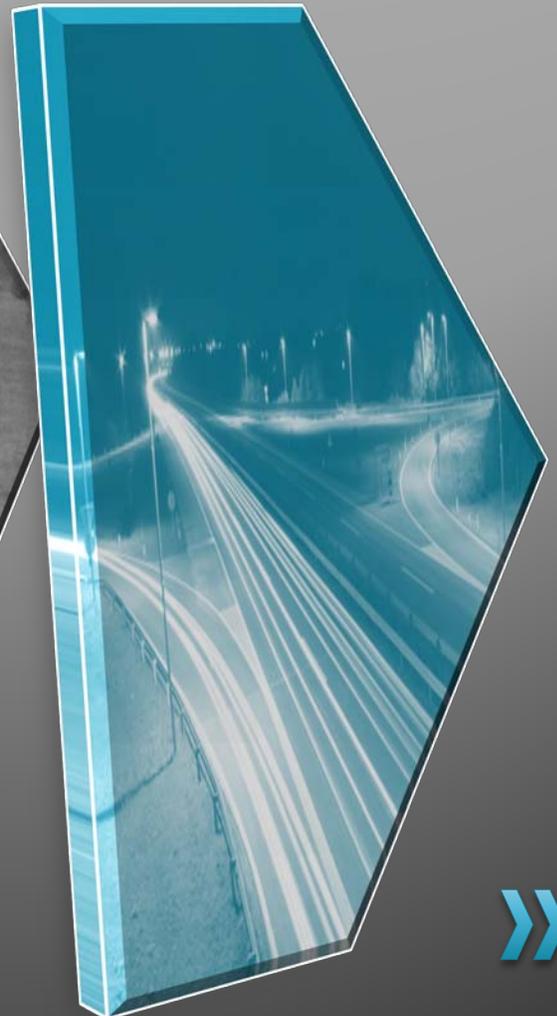


I-75 Sketch Interstate Plan Mainline Vision Report



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I-75 SOUTH SKETCH INTERSTATE PLAN MAINLINE VISION REPORT

**I-75 SOUTH CORRIDOR SKETCH INTERSTATE PLAN
FROM STATE ROAD 29 IN COLLIER COUNTY
TO COUNTY ROAD 476B IN SUMTER COUNTY**

Prepared for:

**Florida Department of Transportation
Systems Planning Office**



Prepared by:



December 2011

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Executive Summary

This report summarizes the 2035 Mainline Vision for the I-75 South Corridor (from SR 29 in Collier County to CR 476B in Sumter County) based upon all programmed and planned improvements. The findings of this report are based on a comprehensive analysis of existing conditions, future year 2035 traffic projections, and a review of all previous studies relevant to the corridor. This study was conducted over a two-year period from 2009 to 2011. Base year 2008 traffic data was collected along with 2030 traffic projections from each of the Florida Department of Transportation (FDOT) Districts and projected to 2035 for the purposes of this study. In many cases, datasets have now been updated to reflect newer traffic information and forecasts; however, the overall results from the analysis remain valid for the purposes of this study. As such, please note that within this report the “base year” traffic refers to 2008 traffic volumes and 2035 future or horizon year forecasts are based on the 2030 forecast volumes that were available at the time of this analysis.

The results of this analysis provide a mainline vision for the corridor, document 2008 and 2035 future capacity deficiencies, and identify planned and programmed improvements and any variations in mainline visions to satisfy those needs. By understanding the issues and opportunities within the I-75 South Corridor, FDOT can assess funding needs and coordinate major investments that will provide the most significant improvements to the statewide transportation network and support regional and local needs. This Sketch Interstate Plan (SIP) will ultimately feed the next phase of study as a baseline needs analysis, and will be utilized by FDOT for future corridor planning studies.

Mainline Vision

To provide a mainline vision for the corridor, proposed improvements from FDOT Work Programs, Metropolitan Planning Organization (MPO) Long-Range Transportation Plans, and transit agency master plans such as the Tampa Bay Area Regional Transportation Authority were reviewed and compared. By 2035, planned programmed improvements indicate that the majority of this corridor will be widened to accommodate between eight and ten lanes. In areas of Hillsborough County, particularly close to Tampa and the I-275 intersection, improvements in excess of twelve lanes have been identified based on 2035 future traffic projections. In addition, managed lanes (six or eight general use/four special use lanes), are proposed in several locations along the corridor, with the longest section extending from Sarasota to Pasco Counties.

Variations in the Mainline Vision

In analyzing the various programmed and planned improvements along the I-75 South Corridor, variations were noted along several sections of the corridor. These discrepancies all relate to managed lane proposals and should be reviewed in the subsequent phases of analysis to determine the best strategy for maximizing efficient use of the corridor.

The following are areas of the I-75 South Corridor where future visions vary:



- 1) The planned improvements vary in determining where managed lanes should begin and end, specifically in the section between the Charlotte/Sarasota County line (Segment 3) and SR 681 (Segment 4).
- 2) Planned improvements from all sources identify future managed lanes. However, the FDOT PD&E Study identifies a short-term eight lane section through Manatee County, which may not be compatible with future six general use lanes and four special use lanes, depending on typical section.
- 3) Planned improvements differ along I-75 in Hillsborough County, where either a ten, eight, and six lane freeway or managed lanes (six general use/four special lanes) are proposed.
- 4) In Pasco County, plans vary in terms of where managed lanes would begin, as follows:
 - FDOT PD&E Studies – identify six lanes with four auxiliary lanes (three through lanes in each direction with one northbound auxiliary lane and three southbound auxiliary lanes) from south of the I-275 apex to south of SR 56, six lanes with two auxiliary lanes (three through lanes in each direction one in each direction) between SR 56 and CR 54, six lanes between CR 54 and SR 52, and eight lanes from SR 52 to CR 476B. In addition, a two-lane off-ramp would run parallel to the I-75 mainline from I-75 and I-275 to SR 56.
 - Tampa Bay Area Regional Transportation Authority Master Plan– identifies managed lanes though Pasco County and into Hernando County.
 - Pasco County Long Range Transportation Plan (LRTP) – identifies a twelve lane freeway north of I-275 to SR 56, ten lanes between SR 56 and CR 54, eight lanes north of SR 52. Hernando County PD&E studies identify a future Phase 2 (eight lanes) while the Pasco County MPO LRTP limits I-75 to six lanes.
- 5) The PD&E Study from SR 52 to CR 476B identify a future Phase 2 improvement for eight lanes while the Lake-Sumter MPO LRTP limits I-75 to six lanes.

Comparing Planned Improvements to 2035 Traffic Needs

In comparing programmed and planned improvements against 2035 future traffic projections developed for this SIP, it was noted that 2035 traffic needs are expected to exceed programmed and planned improvements. These discrepancies should be reviewed in subsequent phases of analysis to determine the best strategy for maximizing efficient use of the corridor.

Based upon the findings of this analysis, six corridor segments were identified to guide the discussion of the mainline vision and corridor needs. The identification of these segments was based on the roadway area type, traffic volumes, horizon year



level of service (LOS), needed lanes in the 2035 horizon year, and emphasis was also given to the project limits from previous studies. The segments identified are shown in **Table 1**.

Table 1: I-75 South Corridor Improvement Segments

Segment	From	To
1	SR 29 (Collier County)	CR 886/Golden Gate Parkway (Collier County)
2	CR 886/Golden Gate Parkway (Collier County)	SR 78/Bayshore Road (Lee County)
3	SR 78/Bayshore Road (Lee County)	Sumter Boulevard (Sarasota County)
4	Sumter Boulevard (Sarasota County)	Mocassin Wallow Road/CR 6 (Manatee County)
5	Mocassin Wallow Road/CR 6 (Manatee County)	SR 50/US 98 (Hernando County)
6	SR 50/US 98 (Hernando County)	CR 476B (Sumter County)

The following provides a summary of the sufficiency of the programmed or planned improvements to address projected 2035 future traffic needs analyzed in this study (by segment). This summary reflects existing conditions and available data at the time of this analysis. It is understood that because FDOT projects remain ongoing, the status of these segment improvements may vary over time

- **Segment 1:** The existing four to six lane facility will be sufficient to address the 2035 needs for four or six lanes in this segment. The future projected traffic needs and programmed or planned improvements are consistent in this segment.
- **Segment 2:** Eight to ten lanes will be needed by 2035 along this segment. Proposed eight lane freeway and managed lanes (six general use/four special use lanes) are consistent with future projected traffic needs in this segment.



- **Segment 3:** Six to eight lanes will be needed by 2035 along this segment. The proposed eight lane freeway or managed lanes will be consistent with future projected traffic needs in this segment.
- **Segment 4:** Sections of this segment will vary, needing from eight to twelve lanes by 2035. While managed lanes (six general use/four special lanes) would be sufficient to address the ten lane needs from River Road to SR 681, the proposed eight lane widening of this same section would not be sufficient to address future projected traffic needs. Twelve lanes are anticipated to be needed by 2035 from SR 681 to SR 72/Clark Road and from SR 780/Fruitville Road to CR 610/University Parkway, and the proposed managed lanes (six general use/four special use lanes) will not be sufficient to address the future traffic needs in these sections.
- **Segment 5:** In excess of twelve lanes are needed from Gibsonton Drive to SR 43/US 301 and from SR 60/Brandon Boulevard to SR 400/I-4. The future proposed plans include either twelve lane freeway or managed lanes (eight general use/four special use lanes). Even with this proposed improvement, the analysis indicates that these sections of roadway will be operating below the adopted LOS.

Twelve lanes are also proposed by 2035 for the section from SR 400/I-4 to CR 581/Bruce B. Downs Boulevard and from SR 93/I-275 to SR 56. Proposed plans for these sections include either ten lanes or managed lanes (six general use/four special lanes), which will be insufficient to address the needed laneage in these segments. In addition, even if twelve lanes were implemented between SR 400/I-4 and Fowler Avenue this section will operate below adopted LOS.

- **Segment 6:** The six lanes proposed for this segment are consistent with anticipated future traffic needs in this segment.

Further Considerations and Next Steps

This Mainline Vision serves as a baseline analysis for subsequent, more detailed studies of this corridor. To aid in these subsequent research efforts, this report concludes by offering alternative strategies that may be considered for maximizing the I-75 South Corridor. Strategies discussed in detail in this report include adding capacity, parallel corridors, development of new corridors, transportation system management (TSM) and further investments in Intelligent Transportation Systems (ITS) infrastructure, managed lanes, freight and rail services, and improving intermodal connections. A detailed analysis of each of these alternative options will be considered as part of the next study phase for the corridor. Each of these strategies has benefits and disadvantages that would need to be investigated to implement context sensitive solutions that match corridor needs and features. While no one option may completely satisfy the projected needs, a combination of options may prove to be the most effective means for maximizing this vital corridor into the future.



1.0 PURPOSE AND OBJECTIVES

1.1 Study Corridor

Traversing nine counties and eight metropolitan planning organizations (MPO's), the I-75 South Corridor is a principal north-south arterial interstate measuring approximately 227 miles in length and is located along Florida's southwest coast. The study area limits extend from State Road (SR) 29 in Collier County north to County Road (CR) 476B in Sumter County, as shown in **Figure 1-1**.

1.2 Background

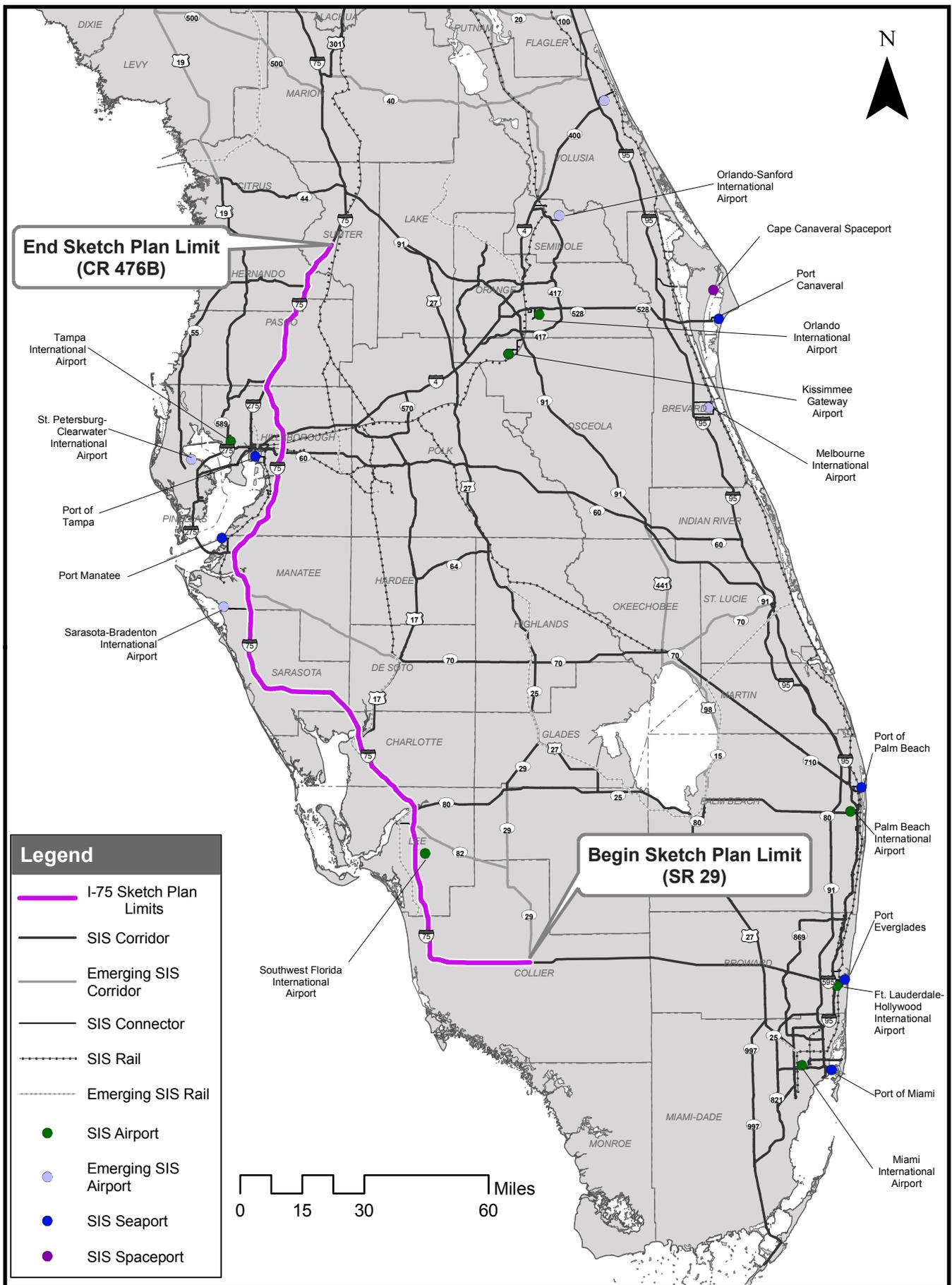
The I-75 South Corridor is a core element of the regional and statewide transportation system. I-75 was constructed during the late 1970's and early 1980's, and serves as the major north-south limited access road to move people and goods along the central western coast of Florida. As an integral part of the Strategic Intermodal System (SIS)/Florida Intrastate Highway System (FIHS), planning for improvements along I-75 is an essential and ongoing process for effectively moving high-speed and high-volume traffic within the state.

The last statewide *I-75 Master Plan* was completed in 1989. A subsequent *I-75 MultiModal Master Plan* was completed in 1998 with a 2020 horizon year to identify and recommend multimodal alternatives from CR 951 in Collier County to the I-75/I-275 interchange in Manatee County. Since these studies were completed, a number of Project Development and Environment (PD&E) studies, Interchange Justification Reports (IJR's), Interchange Modification Reports (IMR's), and Interchange Operational Analysis Reports (IOAR's) have been completed within the corridor. In addition, metropolitan planning organizations (MPO's) have updated their long-range plans for this corridor.

In light of these updates, the Florida Department of Transportation (FDOT) initiated this Sketch Interstate Plan (SIP) to reexamine the master plans and other studies to address changes in traffic, identify proposed improvements, and discern performance issues along the corridor.

1.3 Study Purpose

The purpose of this plan is to evaluate operational conditions within the existing I-75 right of way as it pertains to the SIS/FIHS. The overall study purpose is to compile and consolidate studies conducted within the I-75 South Corridor and identify updated traffic forecasts to provide FDOT with a strategic management vision of the entire corridor. By understanding these conditions, FDOT can strategically assess funding needs and coordinate major investments to provide the most significant improvements to the statewide transportation network and support regional and local goals.



I - 75 Sketch Interstate Plan (SIP)

Figure 1-1: Study Area Limits





The major objectives of the Mainline Vision Report are to evaluate conditions within the I-75 corridor for both base year conditions and the future year 2035, document base year (2008) and future year (2035) capacity deficiencies, and identify proposed improvements from previous studies and planning documents to satisfy these needs. As such, this SIP has been designed to comply with all provisions of Florida's growth management laws, rules, and policies, and considers all transportation modes in reviewing strategies for maximizing efficient use of the corridor.

1.4 Study Approach

Given the large study area (approximately 227 miles) and number of agencies involved in corridor planning along I-75, ongoing coordination was conducted with key stakeholders, including: FDOT District 1 and 7 representatives, FDOT's Systems Planning Office, and FDOT's Environmental Management Office. In addition, MPOs were contacted as needed to obtain planning documents and clarify the purpose and need for this study. Meetings were conducted throughout the process of this study to present findings, solicit feedback, and obtain updates on the status of projects within the corridor.

As a first step in this study, previous I-75 Master Plans, PD&E Studies, interchange reports, and Local Government Comprehensive Plans were compiled and reviewed. The most recently available FDOT Work Programs (i.e. first and second five-year SIS programs) and MPO Long-Range Transportation Plans (LRTPs) were obtained to understand planned and programmed improvements in the corridor. Regionally significant projects, such as developments of regional impact (DRIs), were also reviewed to note noteworthy development activities in the corridor which could have an impact upon traffic conditions through the 2035 planning horizon.

An existing conditions analysis was undertaken and documented in the *I-75 South SIP Existing Conditions Technical Memorandum*. In addition to obtaining the results from previous studies, the project team obtained pertinent data regarding natural and community features, freight movements, as well as supporting facilities and services within or adjacent to the corridor. Roadway characteristic inventory (RCI) data was reviewed within the corridor to identify existing typical sections, right-of-way needs, interchanges, posted speeds, major drainage systems, ITS infrastructure, and other relevant roadway characteristics. 2008 base year traffic data, including level of service (LOS), number of lanes, Annual Average Daily Traffic (AADT), and crash data were also reviewed and summarized. The existing conditions analysis and subsequent technical memorandum provided the project team with an understanding of the current conditions within which the SIP would be developed.

Another important component of the I-75 SIP was to project traffic for the year 2035 using interim 2015 and 2025 projections. These traffic forecasts were used to identify future transportation deficiencies and the number of lanes required to satisfy deficiencies in these interim years. These forecasts were also used to help prioritize the needed transportation projects. The results of this traffic forecast and analysis, along with planned and programmed improvements, were then documented in an I-



75 South SIP Future Conditions Technical Memorandum and form the basis for evaluating corridor needs. The following sections of this report summarize the findings of the existing and future conditions analysis and provide a summary of alternatives discussed in reviewed planning documentation to maximize the efficient movement of people and goods along this corridor.

An executive summary brochure has also been developed. As this study concludes, the project team will conduct meetings with the District One and District Seven to present study findings. District staff will be provided with copies of the brochure to facilitate coordination with regional partners.

2.0 URBAN AND COMMUNITY ENVIRONMENT

2.1 Land Use

For the purposes of analyzing land uses in the corridor, a half-mile distance was chosen for consistency in examining existing conditions for the I-75 South Corridor and to provide specific information related to the corridor. Land use data was assembled using district generalized land use data, and therefore land uses categories are condensed into fifteen major land use types. Supplemental land use information is also provided, where available, from existing PD&E studies. A more detailed discussion of land use is provided in the *I-75 South Corridor Existing Conditions Technical Memorandum*. A summary of important results found in this analysis is listed below:

- A large portion of the southern corridor (Collier and Lee Counties) is characterized by public/recreational land uses and conservations lands, such as the Florida Everglades. Specific improvements to segments of the corridor would need to provide additional analysis of environmental impacts to these areas;
- Throughout Lee and Charlotte Counties, residential developments are located adjacent to the corridor, specifically near Bayshore Road, US 17, and Kings Highway (Exits 143, 164, and 170).
- Recreational uses related to natural features make up the majority of land uses adjacent to I-75 in Sarasota County, and include the T. Mabry Carlton, Jr. Preserve, Myakka Pines, and a number of lands owned by Southwest Florida Water Management District and the Sarasota County Environmentally Sensitive Lands Protection Priority Program. These land uses are predominantly located between Exit 191 and Exit 195. Much of the remaining land uses consist of agricultural uses;
- Agricultural and vacant lands make up the most predominant land uses in Manatee County. Residential uses are scattered throughout the study area, located mainly along the western portion of the study area north to Manatee River. Potential future activity centers and growth areas are proposed between I-75 and US 41 in the northern portion of the County, north of the I-275 and I-75 interchange;



- The most densely populated residential areas adjacent to the I-75 Corridor in Hillsborough County are located between US 301 and Fletcher Avenue and adjacent to the Bruce B. Downs Boulevard interchange;
- In Pasco County, agricultural and vacant land uses make up the majority of uses and are scattered and intermixed with residential and commercial uses throughout I-75 in the county;
- The Croom Tract of the Withlacoochee State Forest is located north of SR 50 in Hernando County, and makes up a significant portion of the study area in this county; and,
- The land uses along the corridor in Sumter County are predominantly agricultural.

2.2 Natural Features

Because of the location of the I-75 South Corridor along coastal areas and the Everglades in South Florida, an analysis was undertaken of natural features along the corridor, including sensitive surface waters, wetlands and floodplains, drainage features, sensitive habitats, publicly owned or managed lands, and contaminated sites. PD&E study information was used to supplement information concerning the potential impacts of proposed improvements along the corridor. Further details on this analysis may be found in *the I-75 South Corridor Existing Conditions Technical Memorandum*. Notable natural features along the I-75 South Corridor include twelve outstanding Florida Waters (OFLs), proximity to the Everglades and related wetlands and floodplains in the study area (particularly in Collier and Lee Counties), several designated regulatory Federal Emergency Management Agency (FEMA) floodways, sensitive habitats, and public lands.

2.3 Cultural Features

To determine cultural resource impacts along the I-75 Southern Corridor, an overview analysis of historic and archeological resources was conducted and previous studies were reviewed to identify any notable cultural resources in the vicinity of the I-75 Corridor. Where needed, the Florida Master Site File (FMSF), a database of recorded historical cultural resources in Florida, was also utilized. The FMSF contains records for archaeological sites, historical structures, historical cemeteries, historical bridges, and historic districts. Sites were reviewed for designations from the Florida Division of Historical Resources, the state historic preservation office (SHPO) for the state of Florida. Further details on this analysis may be found in *the I-75 South Corridor Existing Conditions Technical Memorandum*.



3.0 CURRENT ELEMENTS AND NEEDS

To provide an overall context for the corridor, this section describes the 2008 base year transportation condition within which the SIP has been developed, and includes a summary of conditions along the mainline roadway, interchanges, bridges, ITS infrastructure, intermodal connections, base year (2008) and future year (2035) projected traffic, as well as safety issues related to the I-75 South Corridor. Detailed information on existing conditions may be found in the *I-75 South Corridor Technical Memorandum*.

3.1 Mainline

The study corridor is designated as either rural or urban principal arterial interstate and the posted speed is 70 miles per hour (MPH) for the entire limits of this study. According to current FDOT TranStat GIS data, pavement along the entire length of the project corridor is in good to very good condition. For all counties, the lane width is twelve feet, and the number of lanes ranges from four to nine. The median width varies from a minimum of twenty-three feet in Charlotte County to a maximum of 975 feet in Sarasota County. While most of the median consists of grass only, some sections have single or double guardrail or barrier walls.

3.2 Interchanges

There are more than fifty interchanges and seven different interchange varieties located within the study area. The majority of the interchanges are of a "diamond" type, and five interchanges are considered system interchanges that are free flowing with no local access. Twenty interchange studies were reviewed in addition to previous PD&E interchange recommendations, FDOT's Five Year Work Program, and Transportation Improvement Programs (TIPs) from Metropolitan Planning Organizations in the study area. Based upon a review of these studies, improvement recommendations were identified for twenty-five interchanges. None of the major systems interchanges were identified as requiring improvements through the 2035 horizon year.

3.3 Bridges

FDOT performs an inventory of all bridges on a biennial basis, which feeds the National Bridge Inventory. The I-75 South Corridor bridges were last evaluated in 2008 with a focus on typical sections, age and condition, and vertical clearances. A detailed inventory of bridges by county are shown and discussed in the *I-75 South Corridor Existing Conditions Technical Memorandum*. Following is a summary of the findings:

- All bridges in the study corridor are rated as being in fair or better condition. As such, there are no structures identified as being in poor, serious, critical, imminent failure, or failed condition.



- There are four structures in the I-75 South Corridor that should be considered as a priority for improvements due to their structural condition; they are:
 - (1) New Castle Waterway southbound in Sarasota County;
 - (2) Moccasin Wallow Road (CR 675) southbound in Manatee County;
 - (3) 24th Street in Hillsborough County; and
 - (4) SR 52 southbound in Pasco County.

Numerous bridges do not meet FDOT's minimum vertical clearance standard of 16.5 feet. The current vertical clearance at Croom Rital Road (SB) in Hernando County is listed as 14.3 feet and should also be considered as a priority for improvement. Other structures with less significant vertical clearance deficiencies are further discussed in the *I-75 South Corridor Existing Conditions Technical Memorandum*.

3.4 Intelligent Transportation system (ITS) Infrastructure

The available ITS infrastructure varies across counties; however, all counties are at least equipped with a free cellular telephone number for reporting incidents. Charlotte and Hillsborough counties have invested more heavily in ITS infrastructure. Improving the ITS system and transportation system infrastructure will enhance FDOT's ability to manage traffic flow, reduce congestion, provide information to travelers, enhance efficiency, improve incident management, and most importantly, increase the safety along I-75. Four ITS improvement projects are programmed in the MPO Transportation Improvement Plans (TIPs) used for this study, and they include: Charlotte County, Hillsborough County from the Manatee County Line to Bloomingdale Avenue, Hillsborough County from Fowler Avenue (SR 582) to the Pasco County Line, and Pasco County. Specific ITS infrastructure investments are discussed in further detail in the *I-75 South Corridor Existing Conditions Technical Memorandum*.

3.5 Intermodal Connections

I-75 is designated as a Strategic Intermodal System (SIS) highway corridor, in part because it supports regional and statewide freight movements. As a SIS Corridor, I-75 promotes Florida's economic competitiveness by enhancing the modal links to airports, seaports, rail, and bus stations. Within the project corridor, there are nine SIS Hubs, including two seaports, three commercial service airports, three intermodal passenger terminals, and one intermodal freight-rail terminal.

The single freight-rail terminal located in the I-75 study area is the CSX-Tampa Uceta Yard in Hillsborough County. Uceta Yard is a rail yard located nearly halfway between downtown Tampa and suburban Brandon, east of the City of Tampa. Its borders include Tampa city limits to the north, Tampa Bypass Canal to the east, Palm River-Clair Mel to the South and East Ybor to the west. Uceta was the primary yard for the former Atlantic Coast Line Railroad prior to its merger with Seaboard Air Line. Today it serves CSX and houses a storage yard, car shops, and the CST Intermodal Tampa Terminal. Primary access from I-75 is via I-4 to Columbus Drive to the 62nd Street entrance.



The following intermodal connection considerations within the corridor were noted in the review of state and regional plans:

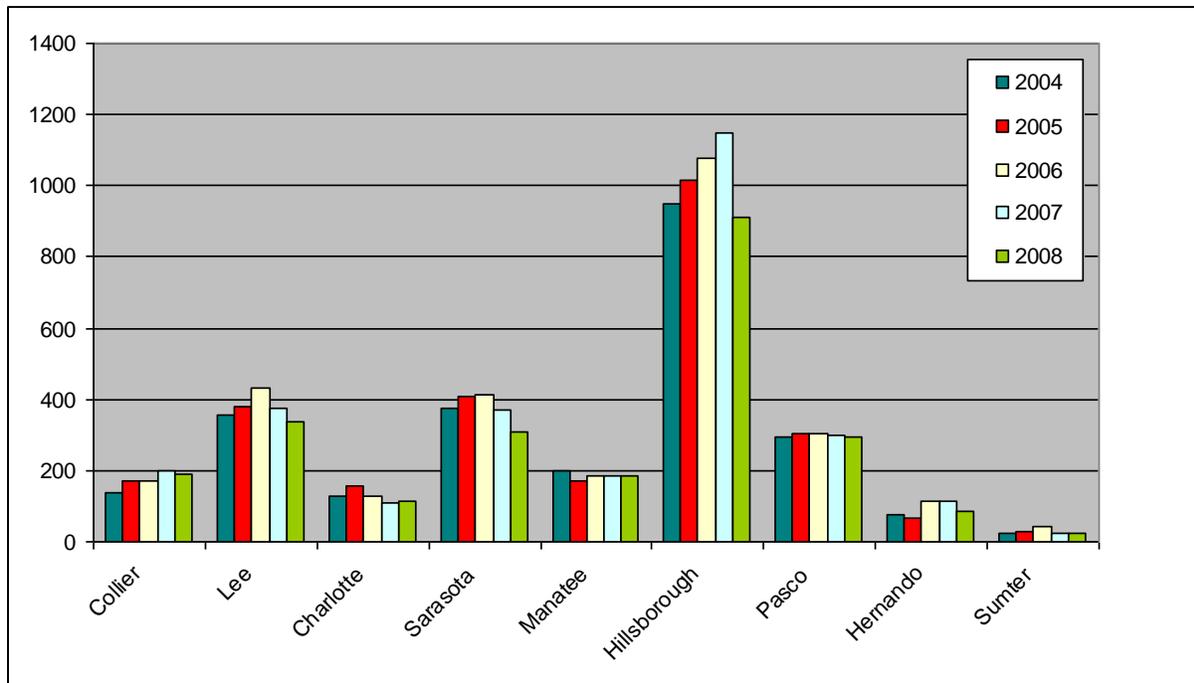
- SR 29 in Collier County is an Emerging SIS Highway Corridor. Traffic volumes in this segment of the corridor do not indicate improvements needed at this time, but should continue to be reviewed to ensure connection needs between SR 29 and I-75 are met now and into the future.
- Strengthening intermodal connections to the Southwest Florida International Airport (located between Alico Road and Daniels Parkway in Lee County) through an interchange modification and collector-distributor system at the airport has been identified in the FDOT Five Year Work Program. Construction of this connector system is included in the Second Five Year Work Program for FY 2019. No improvements to the existing LeeTran Intermodal Center were noted in the review of MPO and FDOT planning documents.
- The Sarasota/Bradenton International Airport connects to the I-75 South Corridor through University Parkway and Port Manatee. New limited access facilities that will help connections to and from I-75 are also included in the financially feasible plan at US 301 and from Port Manatee to I-75 (Port Manatee Connector). The new facility at US 301 is not yet funded in the FDOT Work Programs or SIS Coast Feasible Plan; however, interchange modifications at this location have been programmed into the SIS Cost Feasible Plan. The new Port Manatee Connector is included in the SIS Cost Feasible Plan for 2031 to 2035.
- Intermodal connections are essential along the corridor in Hillsborough County, where five SIS hubs are accessible from various I-75 interchanges: Port of Tampa (via Lee Roy Selmon Expressway or CR 672/Big Bend Road), CSX-Tampa Uceta Yard (via I-4), Tampa Amtrak (via Adamo Drive), Tampa International Airport (via SR 60 or I-4), and Tampa Greyhound (via I-4). It was noted in the review of intermodal plans that there is a planned I-4 connector to Lee Roy Selmon planned which may strengthen intermodal connections in this segment. No I-75 improvements are proposed in the plans reviewed specifically for these intermodal connections; however, interchange improvements at CR 672/Big Bend Road and SR 400/I-4 will aid intermodal connectivity in these areas.



3.6 Safety Conditions

During the five year analysis period from 2004 to 2008, 13,382 crashes occurred on the I-75 South Corridor. Hillsborough County experienced the highest total number of crashes, followed by Lee County and Sarasota County, respectively. A complete summary of accidents by county for the five-year period is shown in **Figure 3-1**. Overall, the number of crashes per year has remained fairly stable.

Figure 3-1: Number of Crashes by County (2004-2008)

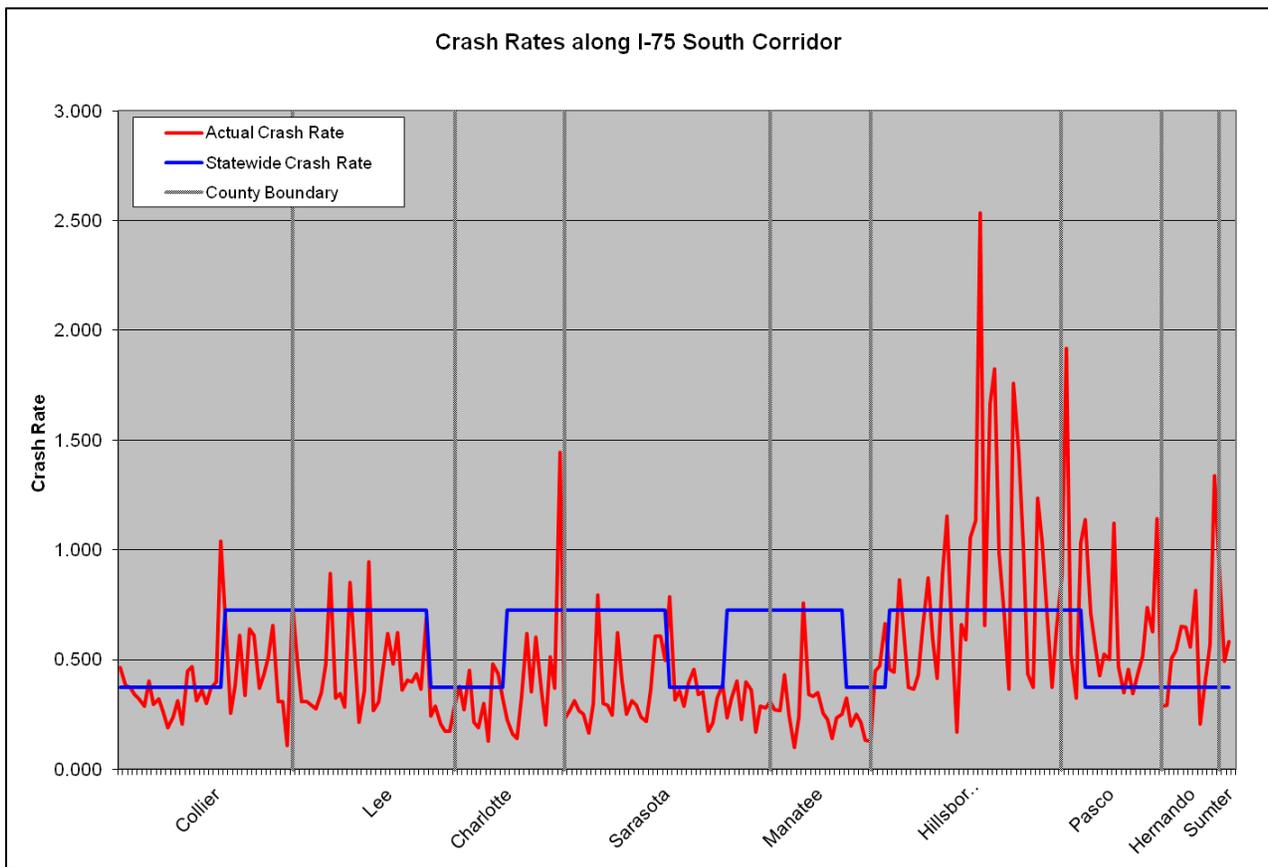


Along with crash counts, crash rates are instrumental in determining safety patterns along the corridor. Crash rates were calculated for the I-75 South Corridor in one-mile segments. **Figure 3-2** compares crash rates for each of the corridor segments within the study corridor compared to the statewide crash rates for urban and rural interstates.

Based on the five-year crash analysis, the following is a summary of the findings for both rural and urban crashes from 2004 to 2008:

- Sumter County has the highest rural crash rate (0.671 crashes/MVMT) followed by Pasco County (0.620 crashes/MVMT).
- Even though Pasco County’s crash rate is lower than that of Sumter, Pasco had more crashes per mile than Sumter. The rural segment of Pasco County, north of CR 54, has the most rural interstate crashes of all the counties in the study. Pasco County also had the highest number of injuries for rural interstate and the second highest number of fatalities on rural interstates.

Figure 3-2: Crash Rates by County



- Hernando County and the rural southern segment of I-75 south of SR 674 in Hillsborough County both have rural interstate crash rates above the statewide average.
- Pasco County had the highest urban crash rate (0.937 crashes/MVMT) followed by Hillsborough County (0.8760 crashes/MVMT).

Many crashes along the corridor can be attributed to merge/diverge locations associated with interchange movements. This was evident in the higher number of crashes at interchange locations. The causes of other crashes, specifically the number of rear-end crashes, can be attributed to recurring conditions. Further insight into the causes of crashes may be provided within individual crash data, which was not analyzed in detail for the purposes of the SIP.

3.7 2008 Base Year and 2035 Future Traffic Conditions

Traffic volumes on I-75 vary throughout the study corridor. The section with the lowest amount of existing traffic is found in Collier County where the 2008 Average



Annual Daily Traffic (AADT) was as low as 19,000 vehicles per day. The most heavily travelled section is in Hillsborough County where the 2008 AADT was found to be as high as 152,000 vehicles per day.

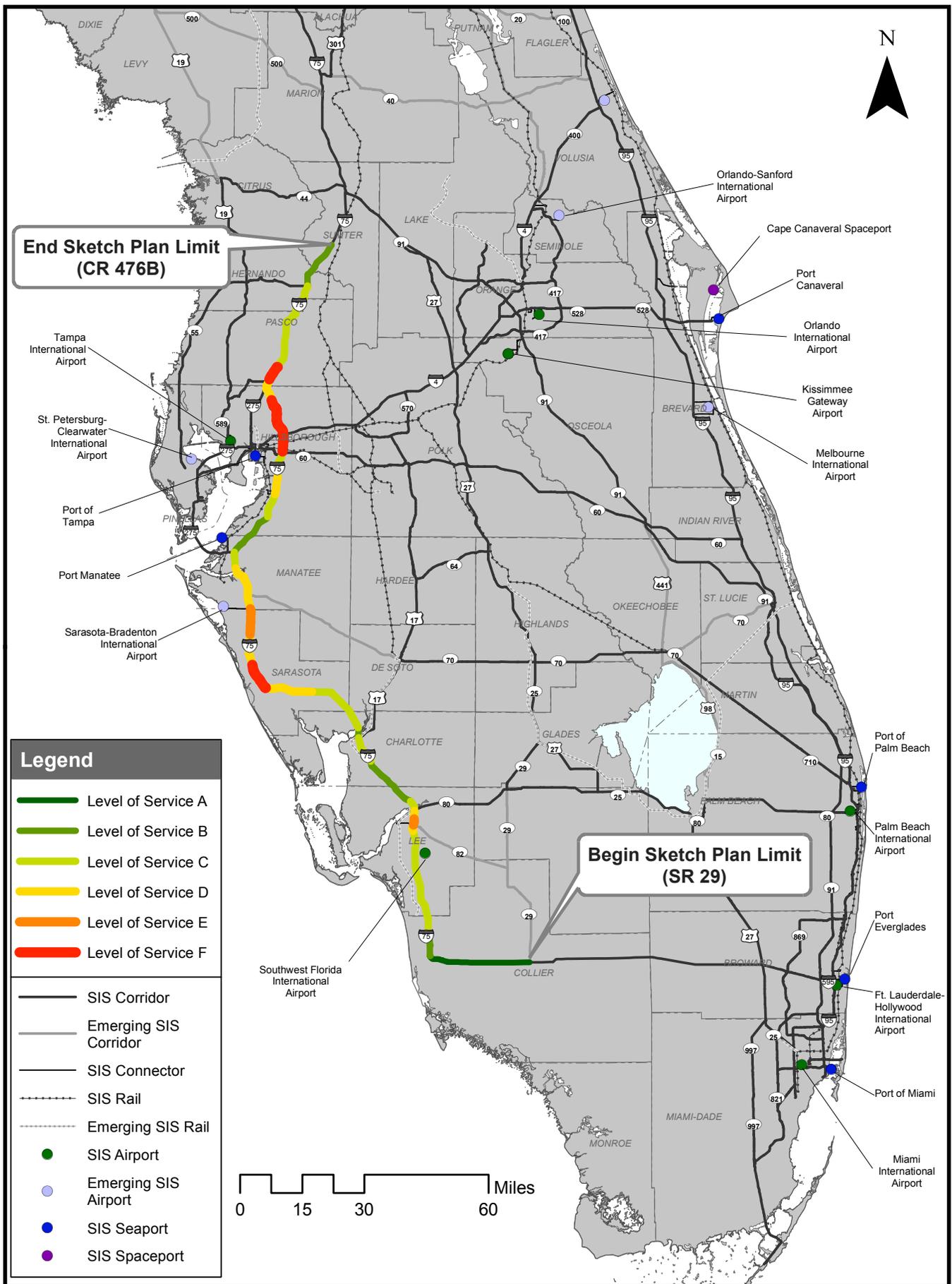
A generalized planning level of service analysis was conducted for the I-75 corridor using Florida’s 2007 Generalized Service Volume Tables for Level of Service. Based on this analysis, seven general areas of the interstate are operating at unacceptable levels of service during peak travel periods, as shown in **Table 3-1** and **Figure 3-3**. One of these segments is located in Lee County, four segments are located in Sarasota County, one segment is located in Hillsborough County, and one segment is located in Pasco County.

Table 3-1: 2008 Base Year Operating LOS Deficiencies

County	From	To	Total Miles	LOS Standard	Operating LOS
Lee	Martin Luther King Road (SR 82)	Luckett Road	1.52	D	E
Sarasota	Sumter Boulevard	Jacaranda Boulevard	11.32	C	D
Sarasota	Jacaranda Boulevard	SR 681	6.60	C	F
Sarasota	SR 681	Clark Road (SR 72)	5.46	C	D
Sarasota	Bee Ridge Road (SR 758)	Fruitville Road (SR 780)	6.21	D	E
Hillsborough	Brandon Boulevard (SR 60)	Bruce B. Downs Boulevard (CR 581)	13.28	D	F
Pasco	SR 56	CR 54	3.47	D	F

Source: FDOT Generalized Level of Service Tables, 2007.

Future (2035) traffic projections were also developed as part of this SIP. Prior to performing the traffic analysis, a technical memorandum documenting the methodology for forecasting and analyzing future traffic volumes was prepared and submitted to FDOT for concurrence. The methodology was approved by staff from FDOT District One, District Seven, the Systems Planning Office, and the Environmental Management Office. Full details on the future traffic methodology and results may be found in the *I-75 South Corridor Traffic Methodology Memorandum* and the *I-75 South Corridor Future Conditions Technical Memorandum*. A summary of average future traffic volumes (2015, 2025, 2035) and lane needs developed for this project are summarized in **Table 3-2**.



I - 75 Sketch Interstate Plan (SIP)

Figure 3-3: 2008 Level-of-Service





Table 3-2: Future Traffic Volumes and Lane Needs (2015-2035)*

Section		Laneage				Average Forecast Volume		
From	To	Existing	Laneage Needs (2015)	Laneage Needs (2025)	Laneage Needs (2035)	2015	2025	2035
Collier County								
SR 29	SR 951/Collier Boulevard	4	4	4	4	23,250	30,150	37,075
SR 951/Collier Boulevard	CR 886/Golden Gate Parkway	4	6	6	6	43,425	59,125	74,850
CR 886/Golden Gate Parkway	Pine Ridge Road	6	6	6	6	55,025	78,225	101,450
Pine Ridge Road	CR 846/Immokalee Road	6	6	6	8	72,900	96,750	120,625
CR 846/Immokalee Road	Lee County Line	6	6	8	10	92,675	118,825	145,000
Lee County								
Collier County Line	CR 865/Bonita Beach Road	6	6	8	10	92,675	118,825	145,000
CR 865/Bonita Beach Road	Corkscrew Road	6	6	8	10	85,825	113,900	141,975
Corkscrew Road	Alico Road	6	6	8	8	84,175	107,850	131,500
Alico Road	CR 876/Daniels Parkway	6	6	6	8	75,125	91,225	107,275
CR 876/Daniels Parkway	SR 884/Colonial Boulevard	6	6	6	8	72,775	90,725	108,675
SR 884/Colonial Boulevard	SR 82/Martin Luther King Rd	4	6	8	8	73,900	94,525	115,175
SR 82/Martin Luther King Rd	Luckett Road	4	6	8	8	77,525	97,625	117,725
Luckett Road	SR 80/Palm Beach Boulevard	4	6	6	8	75,225	95,575	115,925
SR 80/Palm Beach Boulevard	SR 78/Bay Shore Road	4	4	6	8	63,625	84,650	105,700
SR 78/Bay Shore Road	Charlotte County Line	4	4	6	6	44,275	59,700	75,150
Charlotte County								
Lee County Line	Tuckers Grade Boulevard	4	4	6	6	44,275	59,700	75,150
Tuckers Grade Boulevard	CR 768/N. Jones Loop Road	4	4	6	8	49,500	65,300	81,125
CR 768/N. Jones Loop Road	SR 35/US 17	4	4	6	6	56,750	74,025	91,325
SR 35/US 17	CR 776/Harborview Road	6	6	6	6	61,150	80,500	99,875
CR 776/Harborview Road	Kings Highway	4	4	6	6	54,175	70,250	86,325
Kings Highway	Sarasota County Line	4	4	4	6	48,375	63,925	79,550
Sarasota County								
Charlotte County Line	Toledo Blade Boulevard	4	4	6	6	48,375	63,925	79,550

* This analysis does not consider the new 2035 Metropolitan Planning Organization (MPO) travel demand model volumes.



Table 3-2: Future Traffic Volumes and Lane Needs (2015-2035)*

Section		Laneage				Average Forecast Volume		
From	To	Existing	Laneage Needs (2015)	Laneage Needs (2025)	Laneage Needs (2035)	2015	2025	2035
Toledo Blade Boulevard	Sumter Boulevard	4	6	6	8	55,125	72,825	90,550
Sumter Boulevard	River Road	4	6	8	8	62,850	82,575	102,275
River Road	Jacaranda Boulevard	4	6	8	10	74,275	96,375	118,475
Jacaranda Boulevard	Laurel Road	4	8	8	10	83,600	105,475	127,275
Laurel Road	SR 681	4	8	8	10	83,100	104,075	125,050
SR 681	SR 72/Clark Road	6	8	10	12	95,375	120,200	144,950
SR 72/Clark Road	SR 758/Bee Ridge Road	6	6	8	10	102,300	125,425	148,550
SR 758/Bee Ridge Road	SR 780/Fruitville Road	6	8	10	10	118,775	144,300	169,775
SR 780/Fruitville Road	CR 610/University Parkway	6	8	10	12	124,200	152,050	179,925
Manatee County								
CR 610/University Parkway	SR 70/Oneco Myakka City Road	6	8	8	10	112,375	136,300	160,225
SR 70/Oneco Myakka City Road	SR 64	6	8	8	10	110,650	134,325	157,950
SR 64	SR 43/SR 43/US 301	6	6	8	10	101,850	124,950	148,025
SR 43/SR 43/US 301	SR 93/I-275	6	6	6	8	83,000	100,425	117,925
SR 93/I-275	CR 675/Moccasin Wallow Road	8	8	8	8	67,275	86,875	106,475
CR 675/Moccasin Wallow Road	Hillsborough County Line	6	6	6	8	61,175	79,075	96,930
Hillsborough County								
Manatee County Line	SR 674/College Avenue	6	6	6	8	61,175	79,075	96,930
SR 674/College Avenue	CR 672/Big Bend Road	6	6	6	8	79,450	100,200	120,950
CR 672/Big Bend Road	Gibsonton Drive	6	8	10	10	108,475	140,950	173,400
Gibsonton Drive	SR 43/US 301	8	8	12	12	136,875	179,150	221,425
SR 43/US 301	SR 618/Lee Roy Selmon Expressway	8	8	10	12	119,750	162,625	205,525
SR 618/Lee Roy Selmon Expressway	SR 60/Brandon Boulevard	6	8	10	12	110,600	140,775	170,975

* Please Note: This analysis does not consider the new 2035 Metropolitan Planning Organization (MPO) travel demand model volumes.



Table 3-2: Future Traffic Volumes and Lane Needs (2015-2035)*

Section		Laneage				Average Forecast Volume		
From	To	Existing	Laneage Needs (2015)	Laneage Needs (2025)	Laneage Needs (2035)	2015	2025	2035
SR 60/Brandon Boulevard	SR 574/Martin Luther King Blvd	6	10	12	12	163,350	199,775	236,175
SR 574/Martin Luther King Blvd	SR 400/I-4	6	10	12	12	174,050	220,800	267,525
SR 400/I-4	SR 582/Fowler Avenue	6	10	12	12	148,250	187,050	225,850
SR 582/Fowler Avenue	CR 582A/Fletcher Avenue	4	8	10	12	129,400	164,250	199,075
CR 582A/Fletcher Avenue	CR 581/Bruce B Downs Boulevard	4	8	10	12	110,525	143,900	177,250
CR 581/Bruce B Downs Boulevard	SR 93/I-275	4	6	6	8	75,700	101,000	126,325
Pasco County								
SR 93/I-275	SR 56	8	8	10	12	130,350	161,725	193,150
SR 56	CR 54/Wesley Chapel Boulevard	4	6	6	8	81,150	102,200	123,275
CR 54/Wesley Chapel Boulevard	SR 52	4	6	6	8	61,500	80,700	99,850
SR 52	CR 41/Blanton Road	4	4	6	6	48,225	61,925	75,600
CR 41/Blanton Road	Hernando County Line	4	4	6	6	48,625	62,150	75,650
Hernando County								
Pasco County Line	SR 50/US 98	4	4	6	6	48,625	62,150	75,650
SR 50/US 98/Cortez Boulevard	Sumter County Line	4	4	6	6	41,475	53,525	64,775
Sumter County								
Hernando County Line	CR 476B	4	4	6	6	41,475	53,525	64,775

* Please Note: This analysis does not consider the new 2035 Metropolitan Planning Organization (MPO) travel demand model volumes.



4.0 MAINLINE VISION

To provide the ultimate mainline vision for the I-75 South Corridor, all relevant Master Plans, previous studies, planned and programmed improvement plans were reviewed. The following section provides an overview of the transportation plans reviewed for this SIP, provides the overall mainline vision of the corridor, and identifies variations between transportation plans reviewed as well as sections where proposed improvements are not expected to meet the 2035 future projected traffic needs in the corridor.

4.1 Transportation Plans Reviewed

The I-75 Master Plan and the I-75 Multi-Modal Master Plan, as well as nine Project Development and Environment (PD&E) studies and a managed lanes study for Collier and Lee counties, were reviewed as part of this SIP. A detailed review of these studies may be found in the *I-75 South Corridor Existing Conditions Technical Memorandum* prepared for this study. The following is a brief listing of these studies. Additional information on each of these studies may be found in the Existing Conditions Technical Memorandum and the Future Conditions Technical Memorandum.

- **I-75 Master Plan** – This *I-75 Master Plan* was completed in 1989 for the section of I-75 from SR 84 (Alligator Alley) in Collier County to the Georgia state line. Recommendations from this study built upon 2010 traffic projections to identify mainline cross section improvements by county.
- **I-75 Multi-Modal Master Plan** – The 1998 *I-75 Multi-Modal Master Plan* updates the 1989 Master Plan and spans a 125-mile long corridor along I-75, from CR 951 in Collier County to the I-75/I-275 interchange in Manatee County. This Master Plan was developed based on mandates from federal passage of the 1991 Intermodal Surface Transport Efficiency Act (ISTEA). This plan recommended multi-modal and geometric alternatives along I-75 to improve capacity, facilitate interstate and regional long-distance trips for private vehicles and freight, define a schedule for implementation of recommended improvements, and provided conceptual alternatives analyses and environmental evaluations for future PD&E studies. This plan was developed using a horizon year of 2020 and recommended eight key upgrades to interchanges and the mainline corridor based on future (2020) traffic projections. A multi-modal envelope in the median was preserved in all master plan recommendations for potential future rail transit service in the corridor. Subsequent PD&E studies throughout the corridor have been conducted, and a number of their recommended improvements have already been completed.
- **PD&E Studies** – Within the past ten years, FDOT has completed nine PD&E studies along the I-75 study corridor. In addition, two studies in Hillsborough County are ongoing, with FHWA approval pending. These studies encompass most of the I-75 study corridor with the following exceptions: I-75 in Collier



County from SR 29 to east of SR 951 (21.5 miles); and I-75 in Pasco County from SR 56 to SR 52 (10 miles).

- **Lee/Collier County Managed Lanes Study** – In addition to the PD&E study recommendations, a managed lanes study was conducted to evaluate proposed express toll lanes along I-75 through Collier and Lee counties. Toll lanes were evaluated over a 35-mile study area along I-75, extending from the new interchange at Golden Gate Parkway (SR 881) to Palm Beach Boulevard (SR 80). The Southwest Florida Expressway Authority (SWFEA) was created by legislation in 2005 for the sole purpose of adding express toll lanes to I-75 within Lee and Collier Counties. Due to the downturn in the economy and the related prediction of reduced traffic flow on I-75, the SWFEA Board voted to suspend active operations and defer the project until such time that expansion is warranted.

In developing a mainline vision for the I-75 South Corridor, a full listing of potential transportation improvements along the corridor was also needed. These potential improvements are classified in two categories: (1) programmed/committed projects, and (2) planned projects, and are discussed below.

- **Programmed/committed projects** include projects with available funding for implementation. FDOT's Five Year Work Program as well as Transportation Improvement Programs (TIPs) from all MPOs within the corridor served as the basis for the programmed/committed projects.
 - **FDOT Five-Year Work Program:** The FY 2009/2010 to FY 2013/2014 Adopted SIS 5-Year Plan was approved in July 2009. There are twenty-nine projects listed in the Five Year Work Program. Nineteen of these projects are located in District One, and ten projects are located in District Seven. Projects include capacity improvements such as adding lanes to I-75 and modifying interchanges. Operational improvements throughout the corridor are also planned.
 - **Transportation Improvement Programs (TIPs):** The MPO's TIP contains a list of projects for which funds are available within a five year period, and were reviewed to identify projects to be included within the I-75 South Corridor committed network. TIPs for the period from FY 2009/2010 to 2013/2014 were adopted in May 2009 by the Lake-Sumter MPO and Charlotte County-Punta Gorda MPO; June 2009 for the MPOs for Hernando, Lee, Pasco, and Sarasota-Manatee; and, July 2009 for the Hillsborough County MPO. The TIP for the Collier County MPO for the period from FY 2010/2011 to 2014/2015 was adopted in June 2010. The TIPs for each MPO are discussed in further detail in the *I-75 South Corridor Existing Conditions Technical Memorandum*. The next cycle of TIPs (excluding the Collier County MPO), from FY 2010/2011 to FY 2014/2015, was not available at the time this analysis was completed.



- **Planned projects** include projects not yet funded through the FDOT Five Year Work Program or TIP but which have been identified in long range transportation plans (LRTPs). These projects are included in either FDOT's Second Five Year Program or an MPO's Cost Feasible Plan. The MPOs' Financially Feasible Plan and Needs Plan form the basis for planned projects within the urbanized areas. Detailed information on projects included in each of these documents may be found in the *I-75 South Corridor Future Conditions Technical Memorandum*. A brief description of the planning documents reviewed for the SIP is included below:
 - **FDOT Second Five-Year Work Program:** The FY 2014/2015 to FY 2018/2019 Adopted SIS Second Five Year Plan was approved in September 2009. The Second Five-Year Work Program covers the period from 2015 to 2019 and includes ten projects in the I-75 corridor.
 - **FDOT SIS 2035 Highway Component Cost Feasible Plan:** FDOT also prepares a longer range planning tool referred to as the SIS 2035 Highway Component Cost Feasible Plan. The most recent update to this plan was adopted in December 2009. Major projects identified in this document are divided into three phases: fiscal years 2020 to 2025; fiscal years 2025 to 2030; and fiscal years 2030 to 2035. Eight projects were identified within the I-75 South Corridor for 2020 to 2025, three projects were identified from 2025 to 2030, and six projects were identified from 2030 to 2035.
 - **2035 Long-Range Transportation Plans (LRTPs):** The Long Range Transportation Plans (LRTPs) for the urban areas within the study corridor were recently updated by each of the MPOs and extend through the year 2035. These newly updated LRTPs were used to identify the most recent proposed improvements along I-75 and are detailed in this section. It should be noted that a number of these plans were awaiting adoption by the MPO at the time of this analysis; draft documents were used in cases where the 2035 LRTPs had not yet been adopted to provide the most up to date information on the corridor.

These LRTPs are comprised of two primary components: the Financially Feasible Plan, a listing of projects for which potential funding has been identified; and the Needs Plan, which identifies those transportation improvements needed to satisfy projected demand regardless of costs. Forty-nine projects related to I-75 have been identified. Details on all projects can be found in the *I-75 South Corridor Future Conditions Technical Memorandum*.

- **Tampa Bay Area Regional Transportation Authority Master Plan (TBARTA):** TBARTA was created on July 1, 2007 for the stated purpose "to plan, develop, finance, construct, own, purchase, operate, maintain, relocate, equip, repair, and manage multi-modal systems in Citrus,



Hernando, Hillsborough, Manatee, Pasco, Pinellas, and Sarasota Counties." The agency coordinates its efforts with the Florida Department of Transportation and various MPOs within the planning area to improve transportation in the Tampa Bay area. On May 22, 2009, the TBARTA adopted its Master Plan Vision for the Tampa Bay Region. The plan consists of an interconnected transit network and a managed lanes program, and includes 220 lanes of managed lanes, which directly or indirectly relate to the I-75 South Corridor.

From the analysis of all previous studies, programmed/committed projects, and planned projects, a mainline vision for the I-75 South Corridor was defined for the purposes of this SIP and is described in the following section. It should be understood that updates to the FDOT Five Year Work Program, Transportation Improvement Programs, and SIS First and Second Five Year Work Programs are ongoing. This summary provides a snapshot in time of the recommendations for the corridor. As improvements occur and additional updates to planning documents are made, conditions on the segments identified may change.

4.2 Mainline Vision Summary

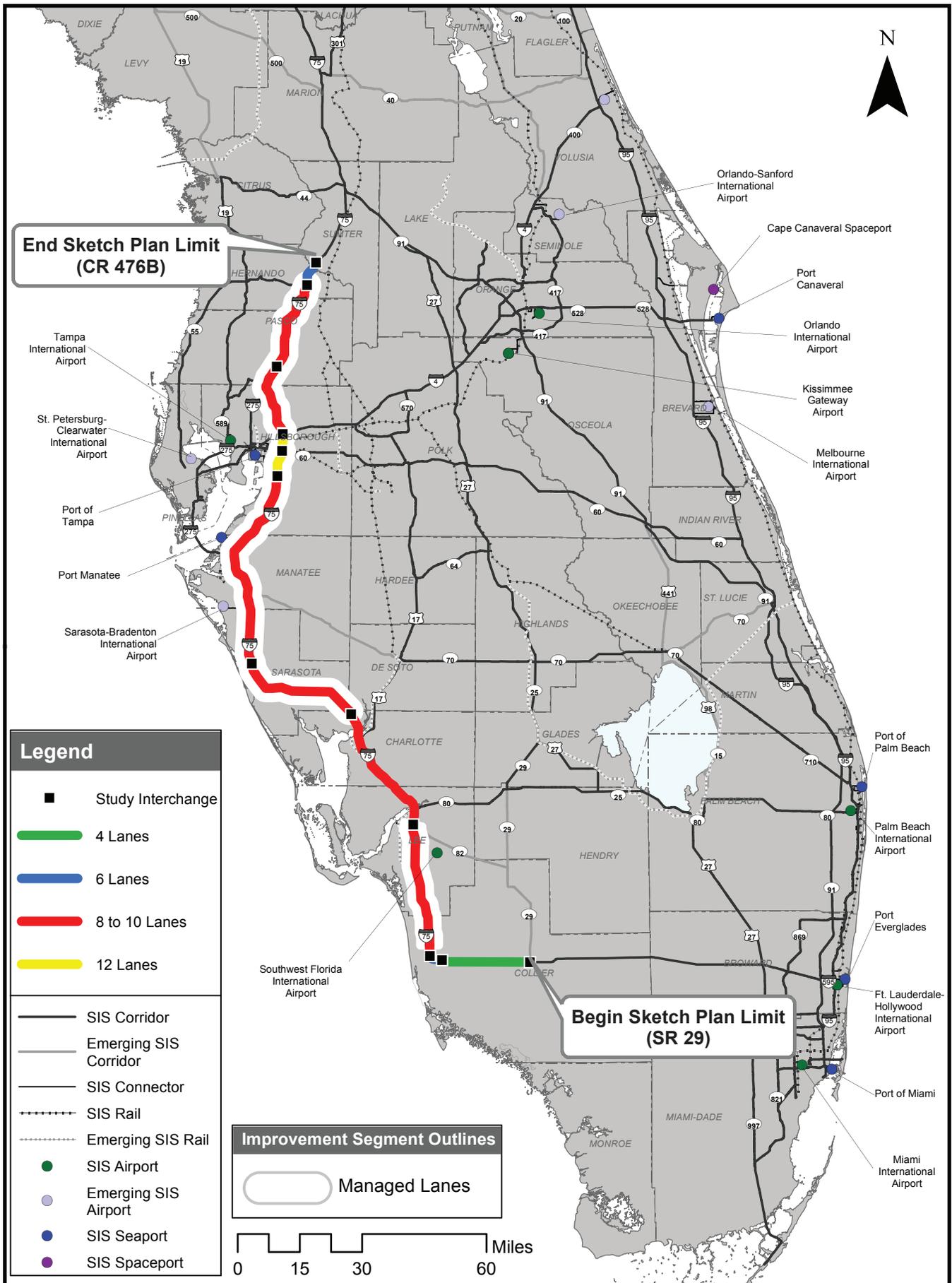
Based upon the findings of this analysis, six corridor segments were identified to guide the discussion of the mainline vision and corridor needs. The identification of these segments was based on the roadway area type, traffic volumes, horizon year LOS, needed lanes in the horizon year, and emphasis was also given to the project limits for previous studies. The segments identified are shown in **Table 4-1**.

Table 4-1: I-75 South Corridor Improvement Segments

Segment	From	To
1	SR 29 (Collier County)	CR 886/Golden Gate Parkway (Collier County)
2	CR 886/Golden Gate Parkway (Collier County)	SR 78/Bayshore Road (Lee County)
3	SR 78/Bayshore Road (Lee County)	Sumter Boulevard (Sarasota County)
4	Sumter Boulevard (Sarasota County)	Moccasin Wallow Road/CR6 (Manatee County)
5	Moccasin Wallow Road/CR6 (Manatee County)	SR 50/US 98 (Hernando County)
6	SR 50/US 98 (Hernando County)	CR 476B (Sumter County)



An overview of the mainline vision for the I-75 South Corridor is shown in **Figure 4-1**. The vast majority of the I-75 South Corridor is currently planned to be an eight to ten lane facility, with managed lanes considered for implementation in most areas. The largest exception to this is the section of I-75 through Charlotte County in which managed lanes are not currently proposed. On both the northern and southern ends of the corridor in Sumter and Collier Counties, the mainline vision includes only a four to six lane segment. In addition, in Hillsborough County, a large stretch of I-75 near the I-4 corridor is planned as a twelve lane facility.



I - 75 Sketch Interstate Plan (SIP)

Figure 4-1: 2035 Mainline Vision

* The lane requirements noted in this map reflect the 2035 Long Range Transportation Plan Cost Feasible Plan improvements. These proposed improvements are compared against earlier 2035 traffic forecasts and do not reflect the 2035 Metropolitan Planning Organization travel demand volumes.





4.3 Variations in the Mainline Vision

In analyzing the various planned and programmed improvements in the I-75 South Corridor, several sections were identified where visions of the corridor differ between the FDOT and MPO plans and other agency visions for the corridor. These discrepancies should be reviewed in the subsequent phase of analysis for this corridor to determine the best strategy for maximizing efficient use of the roadway.

The following are areas of the I-75 South Corridor where 2035 future visions differ:

Segments 3 and 4: The planned improvements vary in identification of where managed lanes should begin and end, specifically in the section between the Charlotte/Sarasota County line (Segment 3) and SR 681 (Segment 4). The following are differing planned improvements within this segment:

- FDOT PD&E Studies – Identify six and eight lane sections from the Charlotte/Sarasota County line north to SR 681 where managed lanes begin.
- TBARTA Master Plan Vision – Identifies managed lanes as beginning in the proximity of Sumter Boulevard and heading north.
- Sarasota-Manatee MPO 2035 LRTP – Identifies the managed lanes as beginning at SR 681.

Segment 4: Planned improvements from all sources identify future managed lanes. However, the FDOT PD&E Studies identify a short-term eight lane section through Manatee County. District staff will ensure interim projects consider compatibility with the ultimate section, minimizing interim reconstruction efforts that might have to be removed in the future.

Segment 5: Planned improvements differ in this segment, where a ten, eight, and six-lane freeway or managed lanes (six general use/four special use lanes) are proposed.

Planned improvements within Hillsborough County include:

- FDOT PD&E Studies – North of Fletcher, previous PD&E studies reference additional auxiliary lanes on I-75 but do not reference managed lanes.
- TBARTA Master Plan Vision – Identifies managed lanes throughout Hillsborough County.
- Hillsborough County MPO LRTP – References managed lanes (six general use/four special use lanes and eight general use/four special use lanes) from the Manatee County line north to SR 60.



In Pasco County, plans vary in terms of where managed lanes would begin, as follows:

- FDOT PD&E Studies – Identify a 10-lane section (six through lanes and two auxiliary/managed lanes in each direction) from I-275 to SR 56, eight lanes between SR 56 and CR 54, six lanes between CR 54 and SR 52, and six or eight lanes north of SR 52.
- TBARTA Master Plan Vision – Identifies managed lanes through Pasco County and into Hernando County.
- Pasco County MPO LRTP – Identifies a twelve lane freeway from I-275 to SR 56, ten-lanes between SR 56 and CR 54, and eight lanes north of SR 52. Hernando County PD&E studies identify a future Phase 2 improvement for eight lanes while the Pasco County MPO LRTP limits I-75 to six lanes.

Segment 6: The PD&E Study from SR 52 to CR 476B identifies a future Phase 2 improvement from eight lanes while the Lake-Sumter MPO LRTP limits I-75 to six lanes through 2035.

4.4 Comparing Future Needs to Planned Improvements

In comparing planned and programmed improvements against 2035 future traffic projections developed for this SIP, it was noted that future traffic needs are expected to exceed planned and programmed improvements. These discrepancies should be reviewed in the subsequent phase of analysis for this corridor and by comparing forecasts used in this analysis against the most recently developed 2035 forecasts to determine the best strategy for maximizing efficient use of the roadway. In some cases, improvements are now underway. The following provides a summary of the sufficiency of the programmed or planned improvements analyzed for this SIP to address the projected future traffic needs and 2007 adopted LOS (by segment):

Segment 1: The existing four to six-lane facility will be sufficient to address the 2035 needs for four or six-lanes along this segment. The future projected traffic needs and programmed or planned improvements are consistent in this segment.

Segment 2: Eight to ten lanes will be needed by 2035 along this segment. The proposed eight lane freeway and managed lanes (six general purpose/four special use lanes) are consistent with future projected traffic needs in this segment.

Segment 3: Six to eight lanes will be needed by 2035 along this segment. The proposed eight lane freeway or managed lanes are consistent with future projected traffic needs in this segment.

Segment 4: Sections of this segment will vary from needing eight to twelve-lanes by 2035. While managed lanes (six general purpose/four special use lanes) would be sufficient to address the ten lane needs from River Road to SR 681, the proposed



eight lane widening of this same section would not be sufficient to address future projected traffic needs. Twelve-lanes are anticipated to be needed by 2035 from SR 681 to SR 72/Clark Road and from SR 780/Fruitville Road to CR 610/University Parkway, and the proposed managed lanes (six general use/four special use lanes) will not be sufficient to address the future traffic needs in these sections.

Segment 5: In excess of twelve lanes are needed from Gibsonton Drive to SR 43/US 301 and from SR 60/Brandon Boulevard to SR 400/I-4. The future proposed plans include either twelve-lane freeway or managed lanes (eight general purpose/four special use lanes). Even with this proposed improvement, the analysis indicates that these sections of roadway will be operating below the adopted LOS.

Twelve lanes are also proposed by 2035 for the section from SR 400/I-4 and CR 581/Bruce B. Downs Boulevard and from SR 93/I-275 to SR 56. Proposed plans for these sections include either ten lanes or managed lanes (six general purpose/four special use lanes). Even with these improvements, adopted LOS cannot be maintained given future traffic projections. In addition, even if twelve lanes were implemented between SR 400/I-4 and Fowler Avenue, this section will operate below adopted LOS.

Segment 6: The six lanes proposed for this segment are consistent with anticipated future traffic needs in this segment.



5.0 ALTERNATIVE OPTIONS FOR FURTHER CONSIDERATION

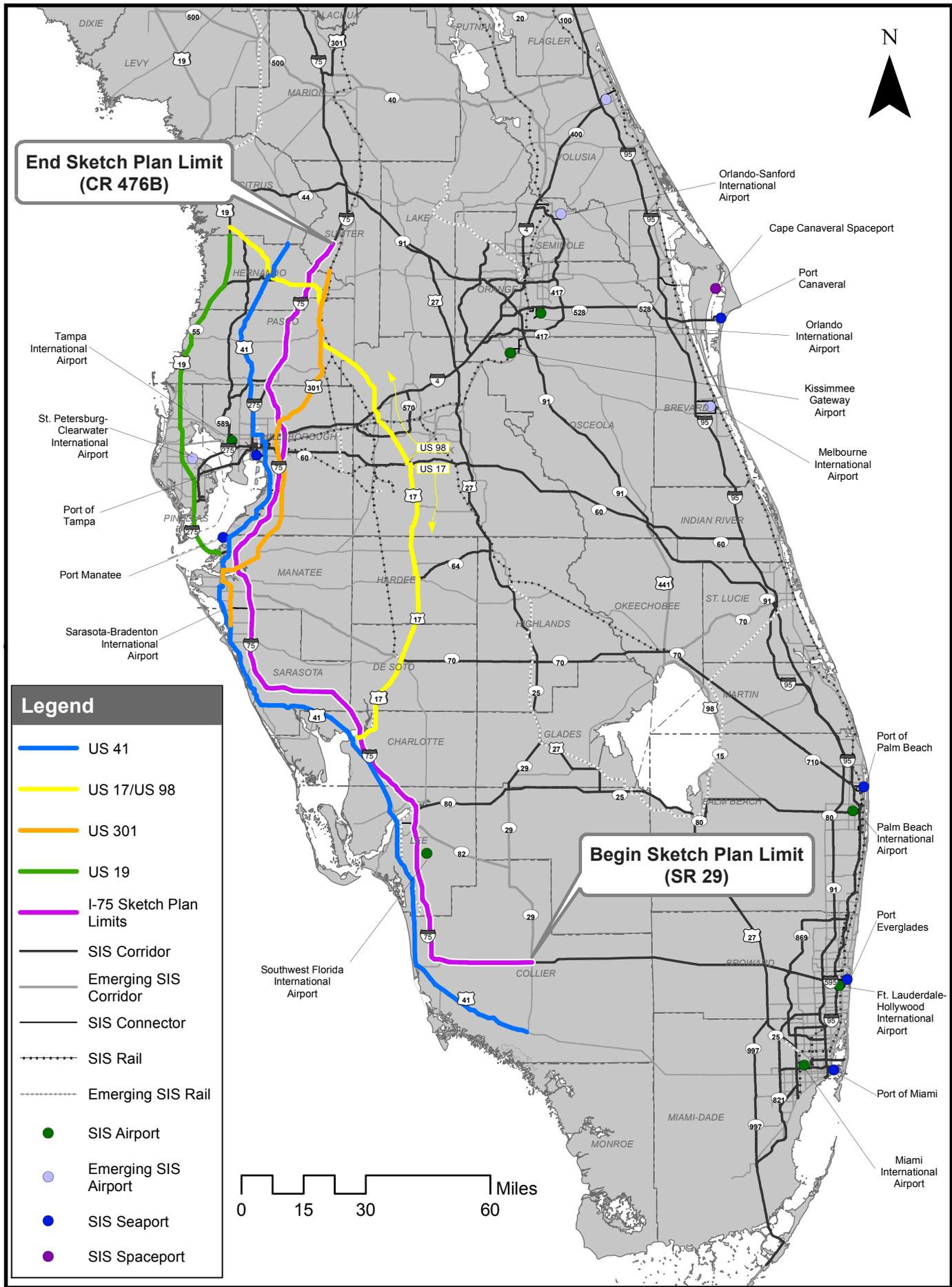
The preparation of this SIP, delineating the mainline vision of the I-75 South Corridor from the most recently available plans and projects, is essential to the continuing development of the SIS/FIHS. This mainline vision offers a baseline needs analysis so improvements to the I-75 South Corridor can be efficiently prioritized and scheduled. It should also be noted a number of alternative strategies exist to increase capacity, divert demand, and manage congestion. While no one option may completely satisfy the projected needs, a combination of options may prove to be the most effective means for maximizing this vital corridor. Alternative strategies are summarized in **Table 5-1** and described in the sections below.

5.1 Add Capacity to Parallel Corridors

Due to the urbanization which has taken place between I-75, the west coast of Florida, and the large areas of conservation lands east of I-75, particularly in the southern portion of the study corridor, options for creating new corridors are somewhat limited. However, an alternative option to meeting the projected demand for the I-75 corridor is to add capacity to existing parallel corridors. Four potential parallel corridors were preliminarily identified as offering connectivity for a reasonable length of the corridor, and are shown in **Figure 5-1**.

Table 5-1: Typical Alternative Options for the I-75 Corridor

Alternative Option	Typical Strategies			Typical Cost Per Mile
	Increase Capacity	Divert Demand	Manage Congestion	
Add Capacity to Parallel Corridors		√		\$10 to \$25 M
Transportation System Management (TSM) and Intelligent Transportation Systems (ITS)			√	\$2 to \$5 M
Special/Managed Lanes and Transit	√		√	\$50 to \$100 M
Improve Freight Rail Corridors		√		\$5 to \$10 M
Improve Passenger Rail Service		√	√	\$5 m to \$1 m
Interregional Transit/Commuter Rail Service		√	√	N/A
Intermodal Connections		√		Varies -- \$235 m and \$40 m for projects identified.



I - 75 Sketch Interstate Plan (SIP)
 Figure 5-1: Parallel Corridors





Proceeding from south to north, potential parallel corridors could include:

- US 41: SR 29 in Collier County (south of I-75), extending west of the corridor to CR 476B in Hernando County
- US 17/US 98: I-75 interchange in Charlotte County, extending east of the corridor, becoming US 98/US 301 in Pasco County, providing reconnection with I-75 in Hernando County, and continuing north to Citrus County
- US 301: US 41 in Sarasota County, extending east and west of the I-75 corridor and continuing north beyond the project limits
- US 19: US 41 in Manatee County, extending west of the I-75 corridor through Hernando County and running west of the I-75 corridor north beyond the project limits

Due to the urbanization that has taken place west of I-75, viable alternative corridors do not exist in most locations. A full analysis of environmental constraints along these corridors or the potential of these parallel corridors to divert projected demand from the I-75 corridor is outside the scope of this report, but may be considered for further analysis in a subsequent phase of study.

5.2 TSM and ITS

Transportation systems management (TSM) and intelligent transportation systems (ITS) encompass a broad range of electronic communications-based information and control technologies. When integrated into the transportation system infrastructure, these technologies can aid in monitoring and managing traffic flow, reducing congestion, managing incidents, selecting alternate routes, and electronic monitoring of traffic flow. Ultimately, these technologies can enhance corridor traffic flow and safety.

Segments of I-75 are already equipped with a variety of ITS infrastructure which aids in incident management and electronic surveillance of traffic flow. The continued expansion of the ITS infrastructure, such as variable message signs and real time traffic control, should be analyzed in further detail for its potential to reduce congestion and delays during peak travel periods. Other TSM-based programs, such as car or vanpools, may aid in congestion reduction during peak travel periods as well. Typical costs for implementation of ITS can vary dramatically, particularly as new technologies are developed, but could total as much as \$2 to \$5 million per mile to implement.

5.3 Special/Managed Lanes and Transit

As traffic within a corridor increases, special or managed lanes have become a viable alternative to increase capacity and manage congestion. Special or managed lanes



include a variety of options such as high occupancy vehicle (HOV) lanes, high occupancy toll (HOT) lanes, truck only lanes, and bus rapid transit lanes. Recent popularity in HOT lanes is partially the result of new federal regulations which allow tolling on interstate facilities. This strategy brings additional revenue to the road building process, but usually only enough revenue to cover operating and maintenance costs of the facility. Combined with congestion pricing, managed lanes are a strong congestion management tool and may be a viable option given the needs on this corridor through 2035.

Managed lanes are under consideration throughout the I-75 study corridor. The recent TBARTA Master Plan relies heavily on managed lanes along I-75 corridor concurrent with express bus service as a multi-modal solution for accommodating travel demand. The Lee/Collier Managed Lane Study, numerous PD&E studies, and a number of MPO LRTPs in the corridor have also considered managed lanes for the I-75 South Corridor. More specifically, managed lanes have been discussed in the following areas:

- Collier/Lee – Managed lanes (six general use/four special use) from Pine Ridge to SR 82
- Sarasota – Managed lanes (six general use/four special use) from SR 681 to Moccasin Wallow Road;
- Manatee/Hillsborough – Managed lanes between Moccasin Wallow Road to US 301 south of SR 60 in Hillsborough County; and,
- Hillsborough – Managed lanes between US 301 south of SR 60 to north of Fletcher Avenue.

5.4 Improve Freight Rail Corridor

The regional freight transportation network can be divided into three systems: highway corridors, rail corridors, and waterways. These complimentary systems are essential for moving goods within the region. The I-75 South Corridor is served primarily by two carriers: CSX Transportation (CSXT) in the northern half of the corridor and Seminole Gulf Railway (SGLR) in the southern half of the corridor.

These two lines may have some potential for longer range freight movement since both connect to the CSXT “S” line and ultimately extend to Jacksonville. However, segments of the SGLR line have very low operating speeds (below 10 mph) and would require significant investment to improve operating speeds. Because the two lines are discontinuous within the corridor by approximately forty miles, their effectiveness is limited in serving other types of travel, such as connecting freight villages or commuter rail service. Typical cost to upgrade a rail line for freight service could range from \$5 to \$10 million per mile, but significant improvements could ultimately help divert significant levels of freight traffic from trucks (and I-75) to rail. In addition, the CSX Integrated Logistics Center in Winter Haven and CSX track



upgrades north of Winter Haven will have a significant impact on the I-75 roadway corridor and rail line, and should be monitored as SunRail development moves forward.

5.5 Improve Passenger Rail Service

In addition to improving freight rail lines (mentioned above), another alternative is to upgrade existing rail lines to improve passenger rail service. If a rail line is located within close proximity to a congested corridor, passenger rail service has the potential to divert passenger trips from a highway corridor to a passenger rail. Examples of this strategy include Tri-Rail in South Florida and SunRail in Central Florida.

The Vision Plan developed by TBARTA for the Tampa Bay region envisions 115 miles of commuter rail service to run parallel with US 41 and I-75 between Bradenton and Brooksville. If implemented, the service could divert vehicular traffic from the I-75 South Corridor. The congestion projected in future years (2015, 2025, 2035) and the proximity of the rail corridor to the I-75 South Corridor indicate that this strategy could be an effective option. Unlike freight service, which could be negatively affected by such a short route (i.e., there is no connection south of Bradenton), the purposes of passenger rail service could be adequately served by this alternative. However, the need to upgrade existing tracks and costs of the project versus potential ridership gains are potential disadvantages that would need to be reviewed in further detail for implementation of this alternative.

5.6 Interregional Transit/Commuter Rail Service

This alternative option includes a number of transit related options such as bus rapid transit (BRT), express bus service, and car or vanpool programs. The TBARTA Plan envisions regional transit services through: express bus service in managed lanes on I-75 between Sarasota and Pasco Counties, and in mixed traffic on I-75 in Sarasota, Manatee, Pasco, and Hernando Counties.

This alternative could be used concurrently with the managed lanes concept to allow express bus service and other high occupancy vehicles to use separate, high-speed lanes. Carpools and vanpools could also potentially use these lanes depending on the number of persons per vehicle allowed to utilize HOV lanes. In the near term, two express bus corridor feasibility studies are proposed to refine these concepts and include:

- I-75 Regional Express Bus from Downtown Tampa to SR 54 in Hillsborough and Pasco Counties to begin in 2011 with FDOT funding; and,
- I-75 Regional Bus (Cross-town Expressway to Bradenton and Sarasota via SR 64 and Fruitville/Bee Ridge Roads) in Sarasota, Manatee and Hillsborough Counties will begin in 2010 with FDOT funding.



Currently only the corridor studies are funded. Additional funding for design and construction is not yet available. If implemented, these and other transit projects have the potential to relieve commuter traffic congestion by diverting trips to transit. The extent to which this can occur has not yet been determined. Further review of park and ride lots and other needs to enhance the success of this alternative would need to be studied in subsequent phases of study for the corridor.

5.7 Strengthen Intermodal Connections

A final option to consider is strengthening intermodal connections. This could include investments in connections to both freight and passenger facilities. These connections could enhance roadway efficiency by diverting freight traffic to other modes or reducing congestion levels by providing peak hour travel connections to commuter rail or express bus services for passengers.

Currently, the FDOT SIS plans identify two improvements to multimodal connections: the new interchange and collector-distributor roads for the Southwest Florida International Airport and the Port Manatee connection. The new interchange and collector-distributor system for the airport is contained in the FDOT Second Five-Year Work Program and the Port Manatee connection is in the Sarasota-Manatee MPO's 2035 Cost Feasible Plan. These projects are estimated to cost \$235 million and \$40 million (2009 \$), respectively.

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