**Future Conditions Report** 



## SKETCH INTERSTATE PLAN (SIP) FOR INTERSTATE 95 (I-95)

From the Indian River / Brevard County Line to the Florida / Georgia State Line





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## I-95 Sketch Interstate Plan (SIP) Future Conditions Report

## **Table of Contents**

EXEC	UTIVE SUMMARY	i
I – IN	TRODUCTION	1-1
1.1	Report Purpose and Background	
1.2	Plan Development	
1.3	Stakeholder Involvement	
1.4	Relationships With Other Plans/Agencies	
2 – FU	ITURE LAND USE AND DEVELOPMENT	2-I
2.1	Future Land Use	2- I
2.2	Developments of Regional Impact (DRI)	2-4
2.3	Summary	2-7
3 – FU	ITURE SOCIOECONOMIC CONDITIONS	3-I
3.1	Employment Centers and Proposed High Growth Development Areas	3-I
3.2	Future Population and Employment Density	3-2
3.3	Summary	3-5
4 – FU	ITURE ROADWAY CONDITIONS	4- I
<b>4</b> . I	Hurricane Evacuation Routes	
4.2	Parallel Corridors to I-95	
4.3	Roadway and Transit Projects List	
4.4	Major Future Roadway and Transit Projects	4-15
4.5	Summary	4-20
5 – FU	ITURE BRIDGE CONDITIONS	5-I
5. I	Planned Bridge Related Projects	5- I
6 – FU	ITURE MULTIMODAL CONDITIONS	6- I
6.1	Future Multimodal Facilities (Airport, Maritime, Rail, and Transit)	6- I
7 – FU	ITURE TRAFFIC CONDITIONS	
7. I	Traffic Methodology	
7.2	Existing Year (2008) Traffic Volumes and Level of Service Analysis	7- I
7.3	Horizon Year (2035) Traffic Volumes and Lane Call Analysis	
7.4	Existing (2008) Level of Service and Horizon Year (2035) Lane Calls	
7.5	Future Traffic Operational Analysis (By County) – Crossroads Within the I-95 ROW	
7.6	Freight Considerations	
7.7	Summary	7-24
8 – RF	COMMENDATIONS	8-1



#### **APPENDICES**

**TABLES** 

## **List of Tables and Figures**

2.2	Developments of Regional Impact near I-95	
3.1	County Level Population Projections – BEBR Medium Series	3-3
<b>4</b> . I	Hurricane Evacuation Routes near I-95	
4.3	Anticipated Projects (By County)	
5.1a	Brevard County Planned Bridge Related Projects (Implementation by 2035)	5-I
5.1b	Volusia County Planned Bridge Related Projects (Implementation by 2035)	5-2
5.1c	Flagler County Planned Bridge Related Projects (Implementation by 2035)	5-2
5.1d	St. Johns County Planned Bridge Related Projects (Implementation by 2035)	5-3
5.1e	Duval County Planned Bridge Related Projects (Implementation by 2035)	5-4
5.1f	Nassau County Planned Bridge Related Projects (Implementation by 2035)	5-5
7.3a	FDOT Minimum Acceptable Operating Level of Service Standards	
7.3b	FDOT Generalized Average Annual Daily Volumes – Freeways (Urban Areas)	7-2
7.3c	FDOT Generalized Average Annual Daily Volumes – Freeways (Other Urban Areas)	
7.3d	FDOT Generalized Average Annual Daily Volumes – Freeways (Transition Areas)	
7.3e	FDOT Generalized Average Annual Daily Volumes – Freeways (Rural Areas)	
7.4a	Brevard County Horizon Year (2035) Lane Calls	7-7
7.4b	Volusia County Horizon Year (2035) Lane Calls	7-8
7.4c	Flagler County Horizon Year (2035) Lane Calls	7-9
7.4d	St. John's County Horizon Year (2035) Lane Calls	
7.4e	Duval County Horizon Year (2035) Lane Calls	7-12
7.4f	Nassau County Horizon Year (2035) Lane Calls	7-13
7.5a	Volume Minus Capacity Methodology Improvement Thresholds	7-14
7.5b	Brevard County Future Unconstrained Traffic Operational Analysis	
7.5c	Volusia County Future Unconstrained Traffic Operational Analysis	7-16
7.5d	Flagler County Future Unconstrained Traffic Operational Analysis	
7.5e	St. John's County Future Unconstrained Traffic Operational Analysis	
7.5f	Duval County Future Unconstrained Traffic Operational Analysis	7-18

### **FIGURES**

1.1	I-95 SIP Project Limits	1-2
2. I a	Brevard County Future Land Use	
2.1b	Volusia County Future Land Use	Appendix A
2.1c	Flagler County Future Land Use	Appendix A
2.1d	St. John's County Future Land Use	Appendix A
2. l e	Duval County Future Land Use	Appendix A
2.1f	Nassau County Future Land Use	Appendix A
3.2a	2025 Population Density for Brevard County	Appendix B
3.2b	2025 Employment Density for Brevard County	Appendix B
3.2c	2025 Population Density for Volusia County	Appendix B
3.2d	2025 Employment Density for Volusia County	Appendix B
3.2e	2025 Population Density for Flagler County	Appendix B



## I-95 Sketch Interstate Plan (SIP) From the Indian River / Brevard County Line to the Florida / Georgia State Line

3.2f	2025 Employment Density for Flagler County	Appendix B
3.2g	2025 Population Density for St. Johns County	Appendix B
3.2h	2025 Employment Density for St. Johns County	Appendix B
3.2i	2025 Population Density for Duval County	Appendix B
3.2j	2025 Employment Density for Duval County	Appendix B
3.2k	2025 Population Density for Nassau County	
3.21	2025 Employment Density for Nassau County	Appendix B
<b>4</b> . I a	Brevard County Hurricane Evacuation Routes	Appendix C
<b>4</b> .1b	Volusia County Hurricane Evacuation Routes	
4.1c	Flagler County Hurricane Evacuation Routes	Appendix C
4.1d	St. John's County Hurricane Evacuation Routes	Appendix C
4. l e	Duval County Hurricane Evacuation Routes	Appendix C
<b>4</b> . I f	Nassau County Hurricane Evacuation Routes	Appendix C
4.2	I-95 Parallel Corridors	4-10
4.2a	Brevard County I-95 Parallel Corridors	Appendix C
4.2b	Volusia County I-95 Parallel Corridors	Appendix C
4.2c	Flagler County I-95 Parallel Corridors	Appendix C
4.2d	St. John's County I-95 Parallel Corridors	Appendix C
4.2e	Duval County I-95 Parallel Corridors	Appendix C
4.2f	Nassau County I-95 Parallel Corridors	Appendix C
4.4a	Brevard County Future Roadway Projects	Appendix D
4.4b	Volusia County Future Roadway Projects	Appendix D
4.4c	Flagler County Future Roadway Projects	
4.4d	St. John's County Future Roadway Projects	Appendix D
4.4e	Duval County Future Roadway Projects	Appendix D
4.4f	Nassau County Future Roadway Projects	Appendix D
7.4	I-95 SIP 2035 Projected Lane Calls, Full Extent	7-5
7. <del>4</del> a	Brevard County 2035 Projected Lane Calls	Appendix E
7.4b	Volusia County 2035 Projected Lane Calls	Appendix E
7.4c	Flagler County 2035 Projected Lane Calls	
7.4d	St. John's County 2035 Projected Lane Calls	Appendix E
7.4e	Duval County 2035 Projected Lane Calls	Appendix E
7.4f	Nassau County 2035 Projected Lane Calls	• •
7. <b>6</b> a	2035 Freight Traffic from Statewide Freight Model Projections	
7.6b	2035 Truck Utilization from Statewide Freight Model Projections	
	•	

#### **EXECUTIVE SUMMARY**

The purpose of this Future Conditions Report of the Sketch Interstate Plan (SIP) is to help identify the potential circumstances that will impact efficient mobility within the I-95 corridor from the Indian River/Brevard County line to the Florida/Georgia State line. In order to identify those circumstances, a variety of features were surveyed and analyzed to determine the potential future travel demands on the I-95 corridor. These features include; the current and future built environment, socioeconomic conditions, roadway conditions, bridge conditions, multimodal conditions, and future traffic demands.

#### **Current and Future Built Environment**

The portion of I-95 under study stretches for 222 miles and includes six (6) counties and twelve (12) municipalities. The study area traverses through four (4) Metropolitan Planning Organization (MPO)/Transportation Planning Organizations (TPO) regions: the North Florida TPO, Volusia County MPO, Space Coast TPO, and the Indian River County MPO. An overwhelming majority of the existing development is located east of I-95 between the interstate and the Atlantic coast. Future growth is anticipated as infill between existing developments in Nassau County between Yulee and Fernandina Beach, throughout the City of Jacksonville in Duval County, in St. Johns County between the Duval County line and St. Augustine along the I-95 corridor, around Palm Coast and Flagler Beach in Flagler County, north of Ormond Beach in Volusia County, and both north and south of Melbourne in the communities of Viera and Palm Bay within Brevard County.

#### Socioeconomic Conditions

All of the current population and employment centers are located in existing urban areas or in suburban locations near the confluence of major roadways. Most of the proposed development areas, including the developments of regional impact (DRIs), are on the edge of these suburban locations and have the potential to substantially alter traffic demand and drastically influence the future needs of the I-95 corridor to support traffic generation associated with full build-out of these major developments. The current economic crisis may alter the development pattern as several of these proposed developments have been put on hold or scaled down; however, it is still important to plan for their eventual development (perhaps at an even greater density).

## **Roadway Conditions**

The roadway conditions chapter includes the identified hurricane evacuation routes, existing and future parallel corridors to I-95, and a list of roadway and multimodal projects from 2009 to 2035.

#### **Hurricane Evacuation Routes**

Within the I-95 SIP study area there a numerous coastal towns and cities, either on barrier islands or along the Intracoastal Waterway, and several more inland developments that lie in the destructive pathway of even the weakest hurricane or tropical storm. Therefore, it is important to maintain all of the major evacuation routes and plan new routes to appropriately handle future development.

#### **Parallel Corridors**

A majority of the identified parallel roadway facilities include lower speeds and numerous signalized intersections, which are not feasible alternatives to the high-speed travel along I-95. These parallel facilities, like US I, however, do remove traffic from I-95 and relieve congestion. While there are several multimodal alternatives, most of the current alternatives are only within portions of Volusia and Duval counties. Several of the future multimodal alternatives, such as commuter rail in Jacksonville and



From the Indian River / Brevard County Line to the Florida / Georgia State Line

regional rail, are not funded for construction. Therefore, it is difficult to determine the precise impact these improvements will have on I-95 and whether they could be viable parallel corridors.

#### **Road and Multimodal Projects**

Between 2009 and 2035, there are capacity expansions planned for I-95 within all six (6) counties comprising the six (6) county study-area, nine (9) new I-95 interchanges proposed to be constructed, two (2) new major freeways, a massive commuter rail system that will span four counties, and various other improvements within the vicinity of I-95.

## **Bridge Conditions**

It is estimated that every 15 years a bridge will require repainting of its steel surfaces. After the first 15 years, it is anticipated that minor repairs may be required. After the 30<sup>th</sup> year of bridge operation, the bridge will likely require minor rehabilitation to structural, mechanical and electrical components, which may be obsolete by that time and should be replaced with components that have spare parts available. After 45 years (another repainting required) bridges will likely require a major rehabilitation to its bridge components.

#### Multimodal Conditions

Many multimodal improvements are planned along the I-95 corridor with future projects including expansion of airports, passenger rail, freight rail, and seaports. In many instances, it is difficult to determine the precise impact these improvements will have on I-95. Some multimodal improvements may reduce traffic on I-95, such as future plans for passenger rail. Other improvements, such as those to airports, may increase traffic on I-95. The most concentrated area of multimodal improvements is located within the City of Jacksonville in Duval County.

## **Future Traffic Demand**

The lane calls analysis, utilizing the two (2) regional travel demand models were from "all-or-nothing" model runs with unconstrained demands. The analysis presents that, throughout a significant portion of the study area, I-95 needs to be expanded to twice its current capacity to accommodate traffic loads. Lane-calls of this magnitude should prompt serious consideration of transit and other alternatives to single-occupant vehicles to main line I-95 capacity expansion. The existing I-95 right-of-way can accommodate a two (2) or four (4) lane expansion in most areas, but any increase beyond that will necessitate impacting surrounding developments and environmental resources. In particular, segments in Brevard, Volusia, and Flagler Counties need to be expanded by six (6) lanes (three in each direction). Furthermore, a large majority of Duval County shows the need for up to 26 total lanes to provide an acceptable level of service (LOS). In order to accommodate these increases in demand by 2035, there would be substantial impacts to the natural and built environment. In several instances, specifically near the Downtown Jacksonville area, improvements of this size and scope are not feasible mostly because the costs and impacts substantially outweighs the proposed benefits of doing such action.

### CHAPTER I - INTRODUCTION

This section of the I-95 Sketch Interstate Plan (SIP) Future Conditions Report provides introductory information such as the purpose and background of the project, as well as information on plan development, stakeholder involvement and its relationship to other plans in the corridor. It should be noted that the Florida Department of Transportation (FDOT) decided to break the entire 382 mile I-95 corridor into a North and South Sketch Interstate Plan (SIP) area. Therefore, this Future Conditions Report focuses on the northern I-95 corridor with limits from the Indian River/Brevard County line to the Florida/Georgia State line. It encompasses a total of 222 miles, traversing six (6) counties and twelve (12) municipalities. This Future Conditions Report serves as a companion document to the I-95 SIP Existing Conditions Report.



## 1.1 Report Purpose and Background

The purpose of this Future Conditions Report of the SIP is to help identify the potential circumstances that will impact efficient mobility within the I-95 corridor from the Indian River/Brevard County line to the Florida/Georgia State line. In order to identify those circumstances, a variety of features were surveyed and analyzed to determine the potential future travel demands on the I-95 corridor. These features include; the current and future built environment, socioeconomic conditions, roadway conditions, bridge conditions, multimodal conditions, and future traffic demands. **Figure 1.1** provides a map of the I-95 Sketch Interstate Plan (SIP) project corridor. Finally, Stakeholder involvement and the importance of the Stakeholder's role in this project are outlined, as well as relationships with other plans and appropriate agencies.

This report will also provide support in the identification of an action plan that will improve mobility within the I-95 corridor from the Indian River / Brevard County line to the Florida / Georgia State line by identifying mainline concepts within the existing right-of-way to sufficiently accommodate high speed and high-volume travel, as well as long-distance trips with emphasis on project constraints. Existing conditions and future year 2035 analysis are the basis for recommendations and concepts developed during the SIP phase to be implemented in future phases of the study corridor. This SIP Study analyzed current conditions and concepts in order to determine previously unaccounted-for issues.



In late 2009, concurrence was reached by FDOT and the project team to utilize the regional travel demand models to forecast 2035 Annual Average Daily Traffic (AADT) volumes. In the northern section of the study area, the North Florida Transportation Planning Organization maintains the Northeast Regional Planning Model (NERPM). This travel demand model was used to obtain traffic volume forecasts within the FDOT District 2 region. NERPM model run outputs were provided in Geographic Information Systems (GIS) format for the years 2000 and 2030, which were then extrapolated to forecast 2035 AADT volumes, the horizon year for this study. Similarly, in the southern section of the study area travel demand model outputs were provided by the Central Florida Regional Planning Model (CFRPM), which encompasses 2000 and 2025 volumes for FDOT District 5. The AADT volumes from the CFRPM were also extrapolated to predict 2035 AADTs, level of service (LOS), and projected lane calls based on linear extrapolation and the 2009 FDOT Quality/Level of Service Handbook.

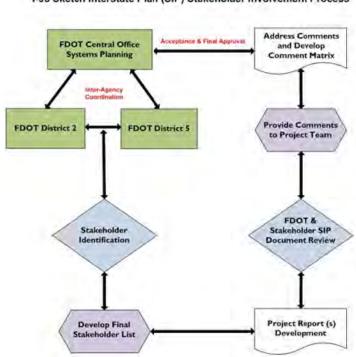


## 1.2 Plan Development

This SIP serves as a needs study for the continuing development of the Strategic Intermodal System (SIS)/Florida Intrastate Highway System (FIHS) and the basis for any future studies, such as Master Plans, Action Plans, Interchange Operational Analysis Reports (IOAR), Project Development and Environmental (PD&E) studies, Interchange Justification Reports (IJR), or Interchange Modification Reports (IMR). In addition to providing the basis for future planning studies along the project corridor, the SIP will also serve for updates to Long Range Transportation Plans (LRTP) for the Metropolitan Organizations involved. The SIP serves as a preliminary planning document and the information and conclusions provided in this phase will serve as the basis for the next study phase, which may consist of a Multimodal Master / Action Plan that will begin to address National Environmental Policy Act (NEPA) issues.

#### 1.3 Stakeholder Involvement

As part of this SIP Study, a "Project Team" has been formed consisting of Florida Department of Transportation (FDOT) Districts Two and Five, Systems Planning Office, and the Environmental Management Office, to provide guidance and review of the project. In addition, a group of stakeholders has also been formed consisting of advisory committees, local governments (such as County/City, port and transit agencies), representatives of transportation authorities, and other interested groups. The flowchart below illustrates the stakeholder involvement process implemented as part of the I-95 SIP.



I-95 Sketch Interstate Plan (SIP) Stakeholder Involvement Process

Other important stakeholders for the I-95 SIP include the MPO/TPOs within the project region. The MPO/TPOs in the region currently consist of the Space Coast TPO, Volusia County TPO, and the North Florida TPO. Federal Statutes require every urbanized area with a population of 50,000 or more, including all contiguous urban areas with a population of I,000 or more per square mile, to have a



From the Indian River / Brevard County Line to the Florida / Georgia State Line

Metropolitan Planning Organization. By state statute, MPO/TPOs are responsible for transportation-related air, noise, and water quality planning and the development of Long Range Transportation Plans. All MPO/TPOs are currently developing their 2035 Long Range Transportation Plans (LRTP), which is also the planning horizon year for the I-95 SIP. This means that all socioeconomic data factors (population and employment projections) will be as accurate as possible following recent land use policies, and therefore will provide consistency between the LRTPs and the I-95 SIP. In addition to being responsible for LRTP updates, the MPO/TPOs also produce a Unified Planning Work Program (UPWP) and Transportation Improvement Program (TIP) and are deeply involved in their respective regions for coordinating and implementing transportation planning projects as well as transportation policy-making, thereby making the MPO/TPOs vitally important to the success of the I-95 SIP. All together, the entire Stakeholder group is very important for the Public Involvement aspects of the project since they have intimate knowledge of their region and can provide recommendations to enhance the corridor and meet the needs of their regions. This type of feedback creates a synergy between the Department and the respective agencies involved.

## 1.4 Relationships with Other Plans/Agencies

A volunteer organization has been developed consisting of transportation agencies, toll authorities, and related organizations, including law enforcement, from the State of Florida to the State of Maine, with affiliate members in Canada. This volunteer organization is referred to as the I-95 Corridor Coalition and has served for interagency coordination on transportation related projects for over ten (10) years. The purpose of this organization is to provide an opportunity for key decision makers to offer recommendations and



comments on project related interests and concerns regarding transportation management and operations issues along the I-95 corridor nationwide. Although the I-95 SIP will not directly involve the I-95 Corridor Coalition, it will review policies set forth by the Coalition and ensure that the project is in compliance with these policies and other recommendations.

Another aspect of coordination between the Department and other local and state agencies includes integrating previous related studies and plans for the six (6) counties and twelve (12) municipalities involved in this project. Some of the influential projects, studies, and plans for the project corridor include those related to interchanges, Intelligent Transportation Systems (ITS), Florida Intrastate Highway System (FIHS), bridges, Systems Operational Analysis Reports (SOAR), Long Range Transportation Plans (LRTP), Transportation Improvement Programs (TIP), and Strategic Intermodal Systems (SIS). These projects, plans, and studies are further discussed in Chapter 4 of this Future Conditions Report.

Recent Interstate Master Plans (IMP) have also influenced the formation of the I-95 SIP. Two IMPs were completed in 2009: the I-10 East IMP and the I-95 South IMP. Completed in February 2009, the I-10 East IMP, focused on the corridor spanning between I-295 and I-95, recommended two preferred alternatives: an alternative that includes tolls and one without tolls. The tolled alternative would add three (3) elevated, reversible lanes. The "free" alternative would add two (2) high-occupancy vehicle (HOV) lanes in either direction with a barrier separating the HOV lanes from the general-use lanes. Both recommended alternatives for the I-10 East IMP include various interchange improvements and blend the recommended improvements into the recently completed I-10/I-95 interchange.



From the Indian River / Brevard County Line to the Florida / Georgia State Line

The second IMP, completed in June 2009, focused on the I-95 corridor spanning from the St. Johns/Flagler County line to I-10. The recommended preferred alternative for this study is broken into three (3) segments:

- St. Johns/Flagler County line to SR 206 included no mainline improvements;
- SR 206 to International Golf Parkway: add four (4) special use lanes (SUL) in the median separated by a barrier;
- International Golf Parkway to I-10, just south of the Fuller Warren Bridge: add two (2) general use lanes, and add four (4) SUL lanes in the median separated by a barrier.

The study recommends that SUL lanes as part of the alternatives for the International Golf Parkway to I-10 segment could be HOV, HOT, Express Through, or other lane types as determined through the PD&E process.

An additional IMP is scheduled to begin in July 2010 that will focus on the I-95 North corridor spanning from I-10 to the Georgia State line.

## **CHAPTER 2 – FUTURE LAND USE AND DEVELOPMENT**

This chapter describes the future land use and development which may influence the improvements needed on I-95 or which may be influenced by the improvements to I-95. Future land use patterns and anticipated development were surveyed within the six (6) counties comprising the study area based on the existing land use patterns, future land use maps, and identified developments of regional impact.

#### 2.1 Future Land Use

The following is a discussion of the future land uses within Brevard, Volusia, Flagler, St. Johns, Duval, and Nassau Counties. Future land use maps are provided in **Appendix A – Figure 2.1a through 2.1f**.

#### **Brevard County**

Brevard County is located south of Volusia County and north of Indian River County in East Central Florida. The County is 1,557 square miles and extends along the Atlantic Coast for approximately seventy (70) miles and includes the Cities of Titusville, Cocoa, Cocoa Beach, Viera, Melbourne, Melbourne Beach, and Palm Bay. Brevard County includes several of the largest barrier islands in the state. The two (2) largest islands, Merritt and Harrison Islands, are home to the Cape Canaveral Air Force Station and Kennedy Space Center. While Brevard County is about 25 miles wide at its widest point at the Indian River County line, it narrows to less than ten (10) miles in width from the seacoast (Intracoastal Waterway) to its western boundary with Orange and Osceola counties. The population of Brevard County has grown from approximately 475,000 residents in 2000 to over 525,000 residents in 2007.

The existing land uses adjacent to I-95 within Brevard County are mostly suburban residential communities. There are several larger concentrations of industrial and commercial uses south of Titusville (exit 212), west of Cocoa (exits 201 and 202), and in Melbourne (exits 183 and 180). The western portion of Brevard County includes mostly wetlands and waterways that comprise the Upper St. Johns River Ecosystem Management Area. Therefore, there is very little development in this area and most the land in western Brevard is part of either local or state conservation areas. Most of the development in Brevard County is focused between I-95 and the Intracoastal Waterway with three (3) main exceptions: west of Port St. John where the Beachline Expressway/SR 528 intersects I-95 (exits 212, 208, and 205), the City of Viera (exits 195 and 191), and the City of Palm Bay (exits 180, 176, and 173).

Since most of I-95 is located adjacent to residential communities, no noteworthy variations are expected from the existing land uses. The future land use maps, created in 2007 by Brevard County, shows additional residential and mixed use infill developments throughout the county (**Appendix A – Figure 2.1a**). The majority of the growth in Brevard County is anticipated to be in the City of Viera and the southernmost parts of the county just to the south of the City of Palm Bay.

#### **Volusia County**

Volusia County is located south of Flagler County and north of Brevard County in East Central Florida. The County is 1,432 square miles and includes the Cities of Daytona Beach, Port Orange, Ormond Beach, and New Smyrna Beach along the Atlantic Ocean to the east of I-95, and Deltona, Deland, and DeBary to the west of I-95. The population of Volusia County has grown from approximately 450,000 residents in 2000 to over 500,000 residents in 2007.

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## I-95 Sketch Interstate Plan (SIP)

From the Indian River / Brevard County Line to the Florida / Georgia State Line

The existing land uses adjacent to I-95 within Volusia County are mostly suburban residential and golf course communities. There are several larger industrial/commercial developments adjacent to the I-4 and International Speedway Boulevard interchanges (exits 260 & 261) near Daytona Beach International Airport and the Daytona Beach International Speedway. Most of the development in the County is focused in two (2) areas; between I-95 and the Atlantic Ocean and along I-4 in the southwest portion of the county. This is mostly because there are environmentally sensitive lands zoned as conservation or recreational located between the coastal communities and the western half of the county.

Since most of I-95 is located adjacent to residential communities, no noteworthy variations are expected from the existing land uses. The future land use maps, created in 2007 by Volusia County, shows additional residential and mixed use infill development in Ormond Beach, Port Orange, and New Smyrna Beach (**Appendix A – Figure 2.1b**). The majority of the growth in Volusia County is anticipated to be in the western portion of the county as suburban Orlando continues to grow northwest along the I-4 corridor within the Cities of Deltona, DeLand, and DeBary.

### **Flagler County**

Flagler County is located south of St. Johns County and north of Volusia County in Northeastern Florida. The County is 571 square miles and includes the cities of Palm Coast, Flagler Beach, and Bunnell. The population of Flagler County has grown from approximately 50,000 residents in 2000 to over 85,000 residents in 2007 making it one of the fastest growing counties in the entire United States. All expectations are that the population should show similar growth between 2007 and 2010.

The existing land uses adjacent to I-95 within Flagler County are mostly suburban residential and mixed use developments. In fact, nearly all of eastern Flagler County has been developed, while the western half of the County is covered with large scale farms and conservation lands. Development surrounds I-95 interchanges located in the county at Palm Coast Pkwy (exit 289), SR 100 (exit 284), and Old Dixie Highway (exit 278).

Since most of I-95 is located adjacent to newly developed residential and mixed use developments, no noteworthy variations are expected from the existing land uses. The future land use maps, created in 2007 by Flagler County, shows additional growth from residential and mixed use developments along US I, as well as surrounding the existing development in Palm Coast (**Appendix A – Figure 2.1c**). The majority of the growth in Flagler County is anticipated to be predominantly east of US I over the next few decades.

#### St. Johns County

St. Johns County is located just south of Duval County and the City of Jacksonville and north of Flagler County in Northeastern Florida. The County is 608 square miles and is surrounded with beaches, riverfront, and dozens of historical landmarks, which makes it attractive to residents, visitors, and businesses. Even though St. Johns County has substantial history within the City of St. Augustine, most of the rest of the county didn't begin to be developed until the last few decades. Population grew over 47 percent between 1990 and 2000, among the highest in the state.

The existing land uses adjacent to I-95 within St. Johns County are predominantly agriculture or wetlands interspaced with undeveloped forested areas, many of which are protected conservation recreation/open space areas. Most of the existing development is focused around the I-95 interchanges located in the county at SR 5/US I (exit 298), SR 206 (exit 305), SR 207 (exit 311), SR I6/Charles Usinas Highway (exit 318), International Golf Parkway (exit 323), and CR 210 (exit 329).

Since most of I-95 is located adjacent to undeveloped/natural or newly developing areas, variations from the existing land uses are anticipated. The future land use maps, created in 2008 by St. John's County,



From the Indian River / Brevard County Line to the Florida / Georgia State Line

displays substantial changes in the northern portion of the county and surrounding the City of St. Augustine. Specifically, from International Golf Parkway to the Duval County line, in the northern third of the County, the I-95 corridor is expected to develop with additional mixed use developments immediately adjacent to the interchanges surrounded by new residential areas (**Appendix A – Figure 2.1d**). The majority of the growth in St. Johns County is anticipated in this area over the next few decades. Smaller pockets of new commercial development surrounded by new residential development are expected between St. Augustine and I-95.

#### **Duval County**

Duval County is located just south of Nassau County and just north of St. Johns County in Northeastern Florida. The County is 918 square miles and is bisected approximately northeast to southwest by the St. Johns River. Nearly all of Duval County has been developed except for large pockets of conservation/recreational lands along the St. Johns and Nassau Rivers and agricultural lands in the southwest and northeast portions of the County. The County has approximately 825,000 residents who are mostly located in Jacksonville. There is a large population of residents who also live in the eastern portion of the County in Atlantic Beach, Jacksonville Beach, and Neptune Beach.

The existing land uses adjacent to I-95 within Duval County are mostly built up with more urban land uses in the city center of the City of Jacksonville, becoming more suburban in nature outward from the city center. The City of Jacksonville, which nearly covers all of Duval County, borders all of I-95. Specific areas of development includes: the Jacksonville International Airport and surrounding commercial and industrial uses between exits 366 and 362, industrial uses mostly east of I-95 from exit 362 to 358A, the downtown urban core and surrounding residential neighborhoods between exits 357 and 347, and the I-95 and US I (Philips Highway) commercial and industrial corridor between exits 347 and 335.

Since Duval County is predominantly built up there are relatively few land use changes from the existing conditions (**Appendix A – Figure 2.1e**). The only major changes in land use adjacent to I-95 include: the area surrounding the Jacksonville International Airport (exits 366 to 362), specifically north and northeast of the airport which is anticipated to experience substantial growth in commercial and industrial building, and the southernmost portion of the county which is also anticipated to see new commercial and industrial developments adjacent to the St. Johns County line.

#### **Nassau County**

Nassau County is located just north of Duval County and the City of Jacksonville in Northeastern Florida bordering the Florida/Georgia State line. The County is 726 square miles and is surrounded by beaches on the Atlantic Coast, the St. Mary's River to the north, and the Nassau River to the south. A large majority of Central and Western Nassau County consists of timber farms and other agricultural lands. The County has approximately 60,000 residents who are mostly located in the eastern portion of the county in Yulee and Fernandina Beach.

The existing land uses adjacent to I-95 within Nassau County are predominantly agriculture, predominately silviculture. Most of the existing development is focused around and just east of the I-95 interchange at SR 200/SR AIA (exit 373), which is located about a mile west of Yulee. The only other exit, US 17 (exit 380), is mostly surrounded by timber farms and a scattering of retail and hotels immediately adjacent to the interchange.

With the continued success of the timber industry in the central and western portions of the County, substantial residential changes are concentrated around Callahan and Hilliard, as depicted on the 2006 Nassau County Future Land Use Map. The 2006 Nassau County Future Land Use Map also depicts



From the Indian River / Brevard County Line to the Florida / Georgia State Line

substantial future development concentrated in the eastern half of the County, between Yulee and Fernandina Beach (**Appendix A – Figure 2.1f**). Noteworthy conservation/recreational land uses are anticipated between Amelia Island and mainland portions of the county along with the Nassau River corridor. To the east of the SR 200/SR A1A (exit 373) interchange over 3,000 acres are scheduled to be developed as residential and/or mixed use.

## 2.2 Developments of Regional Impact (DRI)

A Development of Regional Impact (DRI) is defined as "any development which, because of its character, magnitude, or location would have a substantial effect upon the health, safety, or welfare of citizens of more than one county." This following overview identifies DRIs whose proximity or nature should be taken into consideration in the I-95 SIP.

Since early 2008, the United States has experienced a substantial economic crisis which has directly impacted existing and planned developments across the country. While some areas of Florida have been able to weather this downturn, others have had noteworthy declines. This downturn has affected all of the existing and future developments within the limits of the I-95 SIP. Several DRIs identified within the project region are behind schedule or have been put on hold. With a horizon year of 2035, it would, however, be short-sighted to not consider these DRIs and their expected build-outs within this plan.

There are ninety (90) DRIs with statuses ranging from pre-construction to build-out within ten (10) miles of I-95 on either side (the study area). The assumption for analyses of impacts created by DRIs was that distances greater than ten (10) miles on either side of I-95 would have minimal traffic impact on the corridor. Most of those DRIs are nearing completion or are entirely built-out and, as such, will have little or no impact on the surrounding roadways or I-95. As the smaller percentage of DRIs that are in still in the development phase approach their respective build-outs, they are projected to have a substantial impact on the local roadways and I-95. The plan pays special interest to interchange locations where over 5,000 PM peak hour trips are expected to be added by one or more DRIs. **Table 2.2** summarizes the DRIs not yet built out by County, the closest I-95 interchange, trip generation, and distance to I-95.

#### **Brevard County**

There are several smaller DRIs planned in Brevard County, and two (2) have the potential to be large traffic generators. The Brevard Crossing retail and commercial development is proposed along SR 524 (exit 202), just east of I-95 between SR 528 and SR 520 (exits 205 and 201). A second large DRI is located in the growing community of Palm Bay, just south of Melbourne. The Phenion Gallery mixed-use development is proposed along Malabar Road (exit 173) just east of I-95.

Table 2.2: DRIs near I-95

	2.2. DRIS Hear 1-75				
County	I-95 Interchange	DRI	Trip Generation (PM Peak)*	Trip Generation (AADT)**	Distance to I-95
Brevard	Exit #173 (Malabar Rd.)	The Phenion Gallery	22,830	228,300	2.5 miles
County	Exit #202 (SR 524)	Brevard Crossing	65,550	0.5 miles	
	Exit #244 (CR 442)	Restoration	15,743	157,430	I mile
	Exit #265 (LPGA Blvd.)	LPGA	16,487	164,870	Adjacent
Volusia County	Exit #268 (SR 40)	Hunter's Ridge	6,744	67,440	3 miles
,	Exit #273 (US I)	Ormond Crossings	11,331	113,310	Adjacent
	Exit #231 (Stuckway Road)	Farmton	6,800	68,000	8 miles
		Town Center at Palm Coast	15,819	158,190	0.5 miles
Florators	Exit #284 (SR 100)	SR 100 Property	2,469	24,690	Adjacent
Flagler County		Bulow Plantation	878	8,780	3 miles
	Exit #298 (US	Palm Coast Park	8,644	86,440	1.5 miles
	Route I)	Old Brick Township	6,468	64,680	5 miles
Duval	Exit #335 (Old St.	Bartram Park	8,524	85,240	0.5 miles
County	Augustine Road)	Aberdeen	2,033	20,330	7 miles
	Exit #323 (International Golf	St. Johns	3,700	37,000	Adjacent
	` Parkway)	Cordova Palms	3,635 36,350		5 miles
St. Johns	Exit #329 (CR 210)	Nocatee	17,183	171,830	3.5 miles
County		Twin Creeks	9,778 97,780		1.5 miles
		Rivertown	5,648	56,480	9 miles
		Ashford Mills	3,359	33,590	4.5 miles
		Durbin	11,269	112,690	5 miles
		Durbin Crossing	2,743	27,430	2.5 miles
Nassau County	Exit #373 (A1A)	Yulee Area/ Fernandina International Tradeplex	19,623	196,230	Adjacent

<sup>\*</sup>Institute of Traffic Engineers (ITE) Trip Rate PM Peak Hour
\*\*PM Peak Hour trips are traditionally equal to 10% of the Average Annual Daily Trips (AADT)



From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### **Volusia County**

There are three (3) substantial DRIs in the early stages of development within Volusia County. The first location is to the north and west of Ormond Beach, adjacent to the Flagler County line. Existing exits are located at US I (exit 273) and SR 40 (exit 268), and a future interchange is proposed to be constructed within that area in the next five (5) years. The second location is on the western edge of Daytona Beach surrounding the Daytona International Speedway, Daytona International Airport, and the LPGA development. Most of the future development is planned in the LPGA development with access to I-95 provided at LPGA Boulevard (exit 265). The third location is at CR 442 (exit 244) where the Restoration DRI is proposed just to the west of I-95. The approximately 6,000-acre mixed-use development is in its early phases of development with full build-out expected in 20 to 25 years. A proposed DRI, called Farmton, has the potential to create an additional 6,800 pm peak-hour external trips though 2025. This new development, and the projected traffic volumes it may cause, may necessitate two (2) new interchanges on I-95 in southern Volusia County and northern Brevard County.

### **Flagler County**

There are two (2) locations in Flagler County where substantial DRIs are under development. The first location is in the northern portion of the County next to the St. Johns County line. Several mixed use, but mostly residential, developments are planned in the north and west sides of Palm Coast, including the Palm Coast Park and Old Brick Township DRIs. The nearest interchange, US I (exit 298), is actually in St. Johns County. But all of the future development is proposed in Flagler County. A future interchange is proposed approximately five (5) miles south along I-95 in the heart of Palm Coast. The second location is on the south side of the City of Palm Coast along SR 100 (exit 284) where three (3) DRIs are proposed. These three (3) developments are proposed to consist primarily of office and retail uses.

#### St. Johns County

There are approximately eight (8) DRIs within a ten (10) mile long by fifteen (15) mile wide stretch of northern St. Johns County that are mostly in the early stages of development. This portion of St. Johns County is anticipated to have explosive residential, office, and retail expansion over the next two decades. The area is currently served by two (2) I-95 interchanges at CR 210 (exit 329) and International Golf Parkway (exit 323). Two (2) future interchanges, SR 9B/future I-795 and the St. Johns River crossing, are planned over the next decade for the area.

#### **Duval County**

There are several DRIs within ten (10) miles of I-95 in Duval County, but most are either nearly complete or finished. The SR 202/JT Butler Boulevard corridor has several DRIs to the east of I-95 that are in the early phases of development. Nearly all of those DRIs are business parks with a retail component. Future traffic accessing these developments would likely be spread between four (4) existing interchanges at Old St. Augustine Road (exit 335), SR 9A/I-295 (exit 337), Southside Boulevard (exit 340), and SR 202 (exit 344).

#### **Nassau County**

Three (3) DRIs are under development immediately adjacent to I-95 in Nassau County. The Yulee Area DRI is still in the planning stages and is anticipated to cover over 25 square miles with numerous mixed-use developments. The approved development includes several roadways and a new interchange. Currently, there is only two (2) I-95 interchanges, #380 (US I7) and #373 (SR AIA/SR 200), within Nassau County near these DRIs.



From the Indian River / Brevard County Line to the Florida / Georgia State Line

## 2.3 Summary

The overwhelming majority of the existing development within the study area is located east of I-95 between the freeway and the Atlantic coast. The future growth is anticipated to consist mostly of infill development in the already-developed areas of Nassau County (between Yulee and Fernandina Beach), in St. Johns County (between the Duval County line and St. Augustine along the I-95 corridor), in Flagler County (around Palm Coast and Flagler Beach), in Volusia County (north of Ormond Beach), and in Brevard County (both north and south of Melbourne in the communities of Viera and Palm Bay). Though the local roadway networks for these future developments do not include the interstate, it is likely that the routes of many trips generated by these developments could affect I-95, creating the need for new and/or expanded access to the interstate.

## **CHAPTER 3 – FUTURE SOCIOECONOMIC CONDITIONS**

## 3.1 Employment Centers and Proposed High Growth Development Areas

#### **Brevard County**

There are six (6) noteworthy employment centers along the I-95 corridor within Brevard County: the US I corridor in Titusville (exits 220, 215, and 212); the US I corridor in between Cocoa and Rockledge (exits 202, 201, and 195); Wickham Road corridor in Viera (exit 191); the area around Melbourne International Airport (exits 183 and 180); Palm Bay Road corridor in West Melbourne (exit 176); and the Malabar Road corridor in Palm Bay (exit 173). There are a handful of newer mixed-use developments under construction or planned mostly surrounding the growing cities of Viera, north of Melbourne, and Palm Bay, south of Melbourne. New interchanges and local roadway improvements are planned throughout this corridor to alleviate the expected increases in traffic.

#### **Volusia County**

There are four (4) noteworthy employment centers along the I-95 corridor within Volusia County: Old Dixie Highway (exit 278), Ormond Beach/Ormond-By-The-Sea (exits 268 & 273), the Daytona airport and speedway area (exits 265, 261, & 260), and the New Smyrna Beach commercial and industrial corridor (exit 249). The area to the north and west of Ormond Beach, between exits 278 and 268, is expected to grow substantially - likely requiring upgrades of existing and future local roads along with I-95 interchanges to deal with the expected increase in demand. Additional existing employment centers within the County are located in Ocean City and DeLand along I-4 in the southwest portion of the County.

#### Flagler County

There are two (2) noteworthy employment centers along the I-95 corridor within Flagler County: the Palm Coast Parkway commercial and industrial corridor (exit 289), and the SR 100 commercial and industrial corridor (exit 284). With only two (2) substantial employment centers along the I-95 corridor, the majority of residents are likely to commute to adjacent counties for jobs. Each of these locations is, however, expected to grow substantially within the next few decades as several large developments are constructed around Palm Coast and Bunnell.

#### St. Johns County

St. Johns County has three (3) noteworthy employment centers located along the I-95 corridor: the International Golf Hall of Fame (exit 323), an outlet center and the Interstate Commerce Park (exit 318), and the St. Augustine Industrial Park (exit 311). Several additional employment centers, which are all in close proximity to each other, are anticipated to develop in northern third of St. Johns County within the next few decades as several large developments are constructed. Not surprisingly, in response to the increased development, this part of St. Johns County is also planned to have numerous freeway and local roadway improvements over the next two decades.

#### **Duval County**

There are several noteworthy employment centers adjacent to the I-95 corridor within Duval County including the Jacksonville International Airport area, St. Johns River industrial corridor, Jacksonville Central Business District (CBD), US I/Philips Highway industrial corridor, and the SR 202/JT Butler Boulevard commercial corridor. The growing Jacksonville International Airport area is served by three I-95 interchanges (exits 366, 363, and 362) and adjacent interchanges west on I-295 and east on SR 9A. Several large industrial facilities operate north of the St. Johns River to the east of I-95 and are accessed via two I-95 interchanges (exits 360 and 358) and adjacent interchanges east on SR 9A. Approximately





nine (9) urban-style (close spacing, partial movements, and short exit ramps) interchanges along I-95 surround Jacksonville's CBD, ranging from Martin Luther King Parkway (exit 354) on the north to the Acosta Bridge (exit 350A) on the south. US I/Philips Highway parallels I-95 from just south of the St. Johns River to approximately a half-mile north of the I-295 interchange, and continue to be roughly parallel until they intersect again in southern St. Johns County. This corridor includes large and small-scale industrial developments that thrive on the immediate access to two (2) major highway corridors (I-95 and US I). SR 202/JT Butler Boulevard connects central Jacksonville and I-95 with the beachfront communities of Neptune Beach, Jacksonville Beach, and Ponte Vedra Beach. There is also another developing employment center just south of I-295 adjacent to the St. Johns County boundary. Several large scale developments were proposed prior to the ongoing global financial crisis forcing them to delay or scale back plans. Even if the proposed developments are only partially constructed over the next few decades, this area is projected to see an explosion in population and the creation of another commercial/industrial employment center.

#### **Nassau County**

Nassau County only has one noteworthy employment center near the I-95 corridor, located in Yulee to the east along SR 200/SR A1A and US 17. Three additional employment centers are located in the County: Amelia Island (specifically Fernandina Beach), Callahan, and Hilliard. Employees who work in the Callahan and Hilliard employment centers in the northwestern portion of the County likely utilize the US I corridor, known as New Kings Road south of Callahan, which connects to I-295 in Duval County. Amelia Island residents are likely to commute to employment locations via the SR 200/SR A1A to I-95 route and, to a lesser extent, the SR A1A corridor to the south along the Atlantic Ocean. One major development is proposed just to the east of I-95 along both US 17 and SR 200/SR A1A. This future commercial and residential development is projected to necessitate improvements to the existing roadways and interchanges within Nassau County.

## 3.2 Future Population and Employment Density

A combination of two FDOT district (Districts 2 and 5) traffic models and the US Census traffic analysis zones (TAZ) were utilized to make an approximate determination of the future population and employment density based upon the anticipated future traffic within the I-95 SIP study area. It is important to point out that the two FDOT district traffic models; the Northeast Regional Planning Model (NERPM) and the Central Florida Regional Planning Model (CFRPM IV) have different planning horizons: District 2 (Nassau, Duval, and St. Johns Counties) has a planning horizon of 2030 for the NERPM model; District 5 (Flagler, Volusia, and Brevard Counties) has a target year of 2025 for the CFRPM IV model. Population and employment density determinations from these models, therefore, included forecasts projected to 2030 for the northern half of the study area and to 2025 for the southern half of the study area. The forecasted TAZ socioeconomic data follow projections based upon future land use maps from adopted comprehensive plans and are integrated into each MPO's Long Range Transportation Plan (LRTP). It should be noted that the North Florida TPO was developing their 2035 LRTP utilizing updated NERPM data. Adoption of the LRTP in November 2009 was, however, too late to include in the I-95 SIP.

A TAZ is a geographic boundary delineated by state and/or local transportation officials for tabulating traffic data from the US Census. TAZs vary in size, but typically share the same boundary as one or more census blocks and roughly contain 3,000 persons. Therefore, the geographical size of each TAZ differs, ranging from very large areas in rural locations to as small as city blocks or buildings in urban areas. The TAZ's are used to support both the NERPM and CFRPM IV four-step trip distribution travel demand models. Each TAZ contained both the total population and total persons employed, which were

two (2) factors needed to identify growth areas along the I-95 corridor study area. It is important to note that although the I-95 SIP project horizon year is 2035, the socioeconomic data at the TAZ level does not contain 2035 population and employment projections. As a result, the GIS mapping of the population and employment centers within the six (6) county study area generally identifies areas with higher population and employment densities.

To provide additional information on projected population to the year 2035 over the six (6) county region, **Table 3.1** depicts the Bureau of Economic and Business Research (BEBR) Medium Series county level population projections.

Table 3.1: County Level Population Projections - BEBR Medium Series

County	Estimate April 1, 2009	Estimate April I, 2035	Raw Change	Percent Change				
Brevard	555,700	724,800	169,100	30.40%				
Volusia	507,100	645,300	138,200	27.30%				
Flagler	94,900	198,000	103,100	108.60%				
St. Johns	183,600	363,900	180,300	98.20%				
Duval	900,500	1,222,400	321,900	35.80%				
Nassau	72,600	122,000	49,400	68.00%				
Source: Bureau of Economic and Business Research (BEBR) and FDOT Office of Policy Planning (2009)								

Maps illustrating the future population and employment densities for each county are provided in **Appendix B**. For the purposes of describing future conditions within the planning time frame, areas considered to have substantial population density have populations of 10,000 or greater.

#### **Brevard County**

For the 2025 planning horizon, there are eleven (11) concentrations of substantial population density projected for Brevard County, including: Titusville; Port St. John; Cocoa; Rockledge; the southern portion of Merritt Island; Cocoa Beach; Viera; just north of Melbourne International Airport; the barrier island communities of Satellite Beach, Indian Harbour Beach, and Melbourne Beach; West Melbourne; and Palm Bay (**Appendix B – Figure 3.2a**). All of these population centers are located to the east of I-95 except for the area within the City of Palm Bay, which is immediately west of I-95.

Seven (7) concentrations of substantial employment density are projected for Brevard County by 2025, including: the US I corridor in Titusville and between Cocoa and Rockledge; the southern portion of Merritt Island; Cocoa Beach; the area between Satellite Beach and Indian Harbour Beach; the area surrounding Melbourne International Airport; and West Melbourne (**Appendix B – Figure 3.2b**). All of these employment centers are focused predominantly on either the US I or SR AIA corridors, which are both located to the east of I-95.

#### **Volusia County**

Ten (10) concentrations of substantial 2025 population density were projected for Volusia County, including: the I-4 corridor communities of DeLand, Ocean City, DeBary, and Deltona in the western portion of the County; Ormond-By-The-Sea and Ormond Beach to the north of Daytona Beach; downtown Daytona Beach; Port Orange just south of Daytona Beach; and New Smyrna Beach and



From the Indian River / Brevard County Line to the Florida / Georgia State Line

Edgewater in the southeastern portion of the county (**Appendix B – Figure 3.2c**). TheWhat I-4 corridor communities and the area around Ormond Beach are projected to have the most future population growth in Volusia County. Also, even though the Deltona, DeLand, DeBary, and Ocean City communities are located along I-4, they would indirectly impact I-95 since they are serve as residential and employment destinations within Volusia County.

There are eight (8) concentrations of substantial 2025 employment density projected for Volusia County including: the I-4 corridor communities of DeLand and Ocean City, the area immediately adjacent to US I (exit 273) in the northernmost portion of the County; Ormond Beach to the north of Daytona Beach; both east and west of the Daytona International Airport within Daytona Beach; Port Orange to the south of Daytona Beach; and Edgewater which is located in the southeastern portion of the county (**Appendix B – Figure 3.2d**). The concentrations at exit 273 along US I, in Ormond Beach, on the west side of Daytona Beach, and along the I-4 corridor are projected to be mostly new employment centers which will impact I-95.

### Flagler County

There are two concentrations of substantial 2025 population density projected for Flagler County including the City of Palm Coast on both sides of I-95 and Flagler Beach along the Atlantic Coast (**Appendix B – Figure 3.2e**). Both of these communities are existing population centers in Flagler County.

Three (3) concentrations of substantial 2025 employment density are projected for Flagler County including the area immediately surrounding Palm Coast Parkway (exit 289) in Palm Coast, Flagler Beach, and Bunnell (**Appendix B – Figure 3.2f**). These are all existing employment centers in Flagler County.

#### St. Johns County

There are four (4) concentrations of substantial 2030 population density projected for St. Johns County including Ponte Vedra Beach in the northeastern portion of the county; the area around Durbin adjacent to I-95; the City of St. Augustine; and St. Augustine Beach/Crescent Beach (**Appendix B – Figure 3.2g**). While the cities of Ponte Vedra Beach, St. Augustine, St. Augustine Beach, and Crescent Beach are all known population centers, the area near Durbin in the northern portion of St. Johns County adjacent to I-95 is a newer population center. This location is expected to be one of the main growth corridors within the entire I-95 SIP study area.

There are two (2) concentrations of substantial 2030 employment density projected for St. Johns County including the City of St. Augustine and the area surrounding the community of Durbin adjacent to US I and I-95 at the Duval County line (**Appendix B – Figure 3.2h**). The area surrounding Durbin is anticipated to see considerable increases in employment; however, due to the suburban style of development the densities will likely remain relatively small. It is important to consider the increase in both residences and employment centers within the northernmost portion of St. Johns County in the I-95 SIP.

#### **Duval County**

There are approximately twelve (12) concentrations of substantial 2030 population density projected for Duval County including the beach cities of Atlantic Beach; Neptune Beach; and Jacksonville Beach; the Town of Baldwin in western Duval County; and ten (10) locations within the City of Jacksonville (**Appendix B – Figure 3.2i**). The City of Jacksonville locations include: near the I-95/I-295 junction on the north side of town, near the I-295/US I interchange, just west of downtown, just north of downtown, just south of downtown across the St. Johns River, just southwest of downtown along the west bank of the St. Johns River, near the I-295/US 17 interchange in the southwest portion of the city,



From the Indian River / Brevard County Line to the Florida / Georgia State Line

near the I-95/I-295 interchange on the south side of town, near the I-95/SR 202 interchange, and near the SR 9A/Atlantic Boulevard interchange. All of these areas are current population centers within Duval County.

There are approximately eight concentrations of substantial 2030 employment density projected for Duval County including the beach communities of Atlantic Beach, Neptune Beach, and Jacksonville Beach, and seven locations within the City of Jacksonville (**Appendix B – Figure 3.2j**). The City of Jacksonville locations include: the area surrounding the Jacksonville International Airport; just south of the I-95/I-295 interchange on the north side of town; downtown Jacksonville; the area immediately west of downtown bordered roughly by I-95, I-10, and US I; near the I-295/US I7 interchange on the south side of town; along the I-95 and US I corridors from just south of downtown all the way I-295; and near the SR 9A/Atlantic Boulevard interchange. All of these locations are existing employment centers, but the area surrounding the airport is expected to continue to grow as discussed in the **Current Employment Centers and Proposed High Growth Development Areas** section.

### **Nassau County**

There are four (4) concentrations of substantial 2030 population density projected for Nassau County, including the area along SR A1A (SR 200) between I-95 and the wetlands on the eastern edge of Yulee; Amelia Island; surrounding Callahan; and the western portion of the town of Hilliard (**Appendix B – Figure 3.2k**). All of these areas are current population centers in Nassau County.

There are two concentrations of substantial 2030 employment density projected for Nassau County and both are located on Amelia Island. One concentration area is located on the northern portion of Amelia Island in and around the downtown area in Fernandina Beach (**Appendix B – Figure 3.2I**). The other location is in the southern portion of the island at the Amelia Island Plantation, which is a large residential and golf course community. Both of these locations are current employment centers in Nassau County.

## 3.3 Summary

All of the current population and employment centers are located in existing urban areas or in suburban locations near the confluence of major roadways. Most of the proposed development areas are on the edge of these suburban locations. This mirrors Florida's development pattern over the past several decades - expansion on the fringe of urban areas where land values are cheaper. While that pattern of development is initially cheaper regarding land values, it becomes a financial burden for suburban or rural areas to extend infrastructure and provide standard services such as fire, police, and schools. The current economic downturn may alter the development pattern as several of these proposed developments have been put on hold or scaled down; however, it is still important to plan for their eventual development (perhaps at an even greater density).

While it is important to plan for all of the population and employment centers, it is imperative to focus on the areas where they overlap and transportation demands are expected to be at their maximum. The locations with high concentrations of population and employment that will directly impact I-95 (between 0 to 5 miles from I-95) are vital to this analysis and are listed as follows:

- ✓ Nassau County No locations within five miles of I-95.
- ✓ Duval County Four locations: near the I-95/I-295 interchange on the north side of town; the urban core of downtown Jacksonville; Southwest Jacksonville along the western shore of the St.



From the Indian River / Brevard County Line to the Florida / Georgia State Line

Johns River; and South Jacksonville along I-95 and US I from the St. Johns River to the I-95/SR 202 interchange.

- ✓ St. Johns County One location near the community of Durbin in the northern portion of the county.
- ✓ Flagler County Two locations: the downtown area of Flagler Beach, and within the City of Palm Coast just east of I-95.
- √ Volusia County Four locations: Ormond Beach to the north of Daytona Beach; east of the
  Daytona International Airport within Daytona Beach, Port Orange to the south of Daytona
  Beach, and in Edgewater which is located in the southeastern portion of the county.
- Brevard County Four locations: along US I in Titusville; along US I between Cocoa and Rockledge; the area surrounding Melbourne International Airport; and West Melbourne.

Each of the locations is currently served by major roadways other than I-95 including; I-295, US 17, US I, SR 202 in Duval County; US I and CR 210 in St. Johns County; US I, Palm Coast Parkway, and SR 100 in Flagler County; US I, SR 40, US 92, SR 400, and SR 415 in Volusia County; and US I, SR A1A, US 192, and CR 514 in Brevard County. For continued safe and efficient movement of people and goods on I-95, each of the interchanges with these roadways needs to operate at a satisfactory level or better.

## **CHAPTER 4 – FUTURE ROADWAY CONDITIONS**

### 4.1 Hurricane Evacuation Routes

Hurricanes are the most common natural disaster threat for Florida and can cause both coastal and inland hazards. Coastal hazards include high tides and storm surges. Continuous rainfall and storm surge leads to flooding inland. Additionally, high winds and wind-blown debris from hurricanes can cause severe inland damage. The potential for devastation is further increased by the fact that hurricanes have a tendency to spawn tornadoes. These hazards may disrupt critical infrastructure and services, such as: transportation systems; fuel supplies; fresh water supplies and delivery; and electrical power delivery.

The official Atlantic hurricane season is from June 1st through November 30th. Probability of a hurricane strike within the study area ranges from highest to lowest as a driver travels from the south to the north. Specific urban areas of note include the City of Melbourne (1 in 20), City of Daytona Beach (1 in 50), and the City of Jacksonville (1 in 100). Therefore, each of the counties, metropolitan planning areas, FDOT districts, and other state agencies have put together hurricane emergency management plans to not only deal with the effects, but also to be proactive to avoid and minimize damage. One component of those plans is the hurricane evacuation routes. Each of the major hurricane evacuation routes in the project region are listed in **Table 4.1** by county. Maps for each county identifying the major hurricane evacuation routes are provided in **Appendix C, Figures 4.1a – 4.1f**.

Table 4.1: Hurricane Evacuation Routes near I-95

Hurricane Evacuation Routes (Major Roadways)								
Brevard	Volusia	Flagler	St. Johns	Duval	Nassau			
I-95	I-95	I-95	I-95	I-95	I-95			
US I	US I	US I	US I	I-295	SR A1A/SR 200			
SR AIA	SR AIA	SR AIA	SR ATA	I-10	US 17			
SR 46	SR 40	SR 100/Moody Blvd	CR 210	US I	US 1/US 23/US 301			
SR 50	US 92	SR II	SR 16	SR AIA	SR 108			
SR 528/Beachline Expwy	SR 415		SR 207	SR 9A				
SR 407	CR 442		SR 206	SR 202/JT Butler Blvd				
SR 405/NASA Pkwy	I-4		CR 204	US 90				
SR 520	US 17			US 17				
Wickham Rd	LPGA Blvd			Heckscher Dr				
Eau Gallie Blvd								
US 192								
SR 514/Malabar Rd		_						

#### Summary

Even the weakest hurricane or tropical storm has the potential to significantly impact numerous inland and coastal towns and cities, including those on barrier islands and along the Intracoastal Waterway, within the I-95 SIP study area. Therefore, it is vitally important to maintain all of the major evacuation routes and plan new routes to appropriately handle future development.

### 4.2 Parallel Corridors to 1-95

As highlighted in Chapter 3, existing and planned developments within the I-95 SIP study area are projected to increase both local and inter-county travel on I-95. While the current economic downturn has slowed the development, there is concern that the size and scope of these ongoing and planned future developments will exceed the available capacity on I-95, and thereby impair its function as an interstate facility.

In order to keep I-95 functional, parallel routes - both roadway and multi-modal - should be examined in an effort relieve demand on I-95 and provide an alternative route to local and inter-county traffic within the study area. Maps for each County identifying the parallel corridors are provided in **Appendix C**, **Figures 4.2a-4.2f.** 

#### **Brevard County**

Brevard County extends along the central Florida Atlantic Coast for approximately seventy (70) miles and includes several of the largest barrier islands in the entire state. The two (2) largest islands, Merritt and Harrison Islands, are home to the Cape Canaveral Air Force Station and Kennedy Space Center which are mostly uninhabited and have no through public roadways. While Brevard County is about 25 miles wide at its furthest point at the Indian River County line, it averages less than ten (10) miles in width from the seacoast (Intracoastal Waterway). The western portion of Brevard County includes mostly wetlands and waterways that make up the Upper St. Johns River Ecosystem Management Area. Given that most of the land in western Brevard (as well as eastern Osceola County and eastern Orange County) is part of either local or state conservation areas, there is very little development to the west. With the conservation lands to the west and the Intracoastal Waterway to the east, there is a relatively narrow corridor which contains I-95 and only two (2) existing parallel corridors, US I and SR AIA. In addition to these corridors, there is one future corridor - the St. Johns Heritage Parkway.

#### US I

US I parallels I-95 approximately two (2) to five (5) miles to the east and provides the major north-south local roadway for the Cities of Titusville, Cocoa, Rockledge, Melbourne, and Malabar. US I is a four-lane divided highway throughout Brevard County, except for a five (5) mile section within Melbourne where US I is a five-lane undivided highway. Even though US I stretches for approximately seventy (70) miles within Brevard County, there are relatively few segments that are outside city or town limits. Therefore, the roadway has lower speeds, has numerous signalized intersections, and mostly serves local traffic. Since the majority of the population of Brevard County is located to the east of I-95, US I provides a highly-utilized, parallel route to I-95. It should be noted that I-95 is still the quickest route for lengthy journeys within Brevard County, but US I likely removes a large majority of the local traffic from I-95.

#### SR AIA

SR AIA stretches from Cape Canaveral to the Indian River County line within Brevard County. It varies from a limited access freeway between US I and the outer barrier island in Cape Canaveral, to a two or four-lane local roadway through the communities of Cocoa Beach, Indian Harbour Beach, Indialantic, and Melbourne Beach. SR AIA provides access to numerous other beachfront communities and is the only north-south route on the barrier islands of Brevard County. SR AIA is a parallel facility to I-95. It should, however, not be considered a viable alternative to I-95. The majority of traffic on SR AIA is for local trips or for a scenic drive. SR AIA, considered the "beach parkway", has numerous signalized



From the Indian River / Brevard County Line to the Florida / Georgia State Line

intersections and low operating speed limits (35 MPH or less), which is incompatible to the high-speed, high-volume travel found on I-95.

#### St. Johns Heritage Parkway

The St. Johns Heritage Parkway is a thirty (30) mile long future four-lane boulevard that will eventually provide a bypass around the south and west side of City of Palm Bay. Completion of the future parkway is projected for 2020. Right-of-way is currently being acquired for the northernmost portion of the parkway. Speeds on the new parkway are anticipated to be between 45 and 55 miles per hour, but will include signalized major intersections which will slow down travelers.

#### **Volusia County**

Volusia County is one of most populous counties in northeast/east central Florida and, more importantly, houses the junction of I-95 and I-4. At this junction, drivers traveling south from Flagler, St. Johns, Duval, and Nassau Counties (and those from Georgia or further north) either continue on I-95 to Cape Canaveral area, Melbourne, West Palm Beach, Ft. Lauderdale, and Miami or they turn to the southwest and utilize the I-4 corridor to Orlando and eventually Tampa/St. Petersburg. From the south, I-95 traffic joins I-4 to reach northeast Florida and destinations up the Atlantic Coast. Within Volusia County, the I-4 corridor provides access to the rapidly developing communities that comprise Orlando's northeast suburbs. The sensitive environmental lands to the west of I-95 split Volusia County into two (2) areas of development providing for very few feasible parallel facilities to I-95.

#### US I

US I parallels I-95 from exit 273 in the northernmost part of Volusia County to the Brevard County line traveling through the downtowns of Ormond Beach, Daytona Beach, Port Orange, New Smyrna Beach, Edgewater, and Oak Hill. For the majority of its route through Volusia County, US I is predominantly a four-lane divided highway; however, it becomes a five or six-lane facility for approximately ten (10) miles within Daytona Beach and Port Orange. The roadway passes through heavily populated areas. As such, US I has lower operating speeds and numerous signalized intersections preventing US I from becoming a viable alternative to I-95. US I does, however, provide a high-volume local roadway between several communities.

#### SR AIA

SR AIA travels along the coastline from Flagler Beach (Flagler County) to Daytona Beach Shores where it moves inland and intersects US I. It continues south along US I to New Smyrna Beach where it once again provides access to the barrier islands. It terminates just north of the Canaveral National Seashore about five (5) miles south of New Smyrna Beach. SR AIA is a parallel facility to I-95. It should, however, not be considered a viable alternative to I-95. The majority of traffic on SR AIA is for local trips or for a scenic drive. SR AIA, considered the "beach parkway", has numerous signalized intersections and low operating speed limits (35 MPH or less), which is incompatible to the high-speed, high-volume travel found on I-95.

#### Williamson Boulevard

Williamson Boulevard stretches along the eastern side of I-95 from SR 40/Tomoka Road (exit 268) in Ormond Beach to just south of Taylor Road/SR 412 (exit 256) in Port Orange. Williamson Boulevard is a four-lane roadway north of SR 400/I-4 (exit 260) and a narrows to two (2) lanes to the south. About one (1) mile south of SR 400, Williamson Boulevard passes over I-95 and parallels it to the west. Future plans for Williamson Boulevard include extensions to Pioneer Trail (two miles to the south) and SR 44 (an additional three miles south) along with the expansion of the existing two-lane sections to four lanes. Since Williamson Boulevard includes several signalized intersections, relatively low operating speeds, and only connects an approximately 13-mile stretch, it is likely not a viable alternative for the



From the Indian River / Brevard County Line to the Florida / Georgia State Line

high speed travel along I-95. Williamson Boulevard's immediate adjacency to I-95, however, provides a connection between several highly populated areas along with several commercial corridors thereby mitigating a considerable amount of local traffic for this stretch of I-95.

#### **US 17**

Entering northwest Volusia County from Putnam County, US 17 provides a mostly rural connection between Jacksonville and its southwestern suburbs and the Deltona/Deland/northern Orlando area. US 17 is a poor parallel alternative facility to I-95 since it is inundated with small towns and villages from the southwest corner of Duval County to the extreme northeast suburbs of Orlando along with low speed limits, several signalized intersections, and is located west of the St. Johns River. In combination with SR 207 (St. Johns County) or US I/SR II (Flagler County), which both intersect I-95, US 17 can, however, provide alternative routes to reach Deltona, Deland, and northeast Orlando.

#### Flagler County

Flagler County is one of the fastest growing counties in Florida and the United States with several larger developments either planned or currently under construction in the project region. All of the planned future developments are immediately adjacent to the I-95 corridor. Traffic generated by these developments will place a substantial burden on the local roads along with I-95. It is, therefore, important to identify the parallel north-south corridors in Flagler County that could relieve traffic on I-95 and provide an alternate route.

#### US I

Currently, US I is the only major parallel facility within Flagler County. US I is a four-lane facility that parallels I-95 roughly one (I) to five (5) miles to the west and travels through the Town of Bunnell - the county seat. It is important to note that nearly all of the development in Flagler County (existing and planned) is east of US I. US I provides a viable alternative to I-95 for travelers between St. Augustine in St. Johns County and the northern suburbs of Daytona Beach in Volusia County. Since US I connects most of the cities and towns between St. Augustine and Daytona Beach, US I has numerous signalized intersections slowing traffic, which is unfavorable to high speed, high volume travel. Therefore, US I is a viable alternative to I-95 for a portion of local traffic. But, US I is not a viable alternative to I-95 for inter-county traffic.

#### SR AIA

SR AIA is a minor parallel facility within Flagler County, located about four (4) miles east of I-95. SR AIA is a two-lane facility that stretches along the barrier island communities of Marineland, Beverly Beach, and Flagler Beach. SR AIA is a parallel facility to I-95. It should, however, not be considered a viable alternative to I-95. The majority of traffic on SR AIA is for local trips or for a scenic drive. SR AIA, considered the "beach parkway", has numerous signalized intersections and low operating speed limits (35 MPH or less), which is incompatible to the high-speed, high-volume travel found on I-95.

#### **US 17**

US17 is located in western Putnam County and west of the St. Johns River. US 17 provides a mostly rural connection between Jacksonville and its southwestern suburbs and the Deltona/Deland/northern Orlando area. US 17 traverses through many small towns and villages, has low operating speeds, and several signalized intersections. As such, it is a poor alternative parallel facility to I-95. In combination with SR 207 in St. Johns County, however, US 17 provides alternative routes to reach Deltona, Deland, and northeast Orlando. The combination of US 1, SR 11, and US 17 provide an alternate route to the same area. Additionally, the combination of SR 100 and US 17 or SR 100 and US 301 allows a variety of routes to reach the western side of Jacksonville or I-10 in western Duval County.



From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### Old Kings Road

Old Kings Road is a two-lane facility that parallels just east of I-95 from its intersection with US I near the St. Johns County line to Ormond Beach in Volusia County. Old Kings Road is a viable alternative to I-95 for local traffic, linking the developing suburban style developments between the Cities of Palm Coast, Flagler Beach, and Ormond Beach.

#### St. Johns County

St. Johns County is one of the fastest growing counties in Florida and has substantial planned future developments adjacent to the I-95 corridor. As these developments grow, they will generate an additional traffic burden on the local roads and I-95. Therefore, it is important to identify the parallel north-south corridors in St. Johns County that could relieve traffic on I-95 and provide an alternative route.

#### US I (Philips Highway)

Currently, US I (Philips Highway) is the only major parallel facility within St. Johns County. US I is a four-lane facility that parallels I-95 roughly two (2) to five (5) miles to the east and travels through downtown St. Augustine. It provides a viable alternative to I-95 for travelers between St. Augustine and I-295 on the south side of Jacksonville. In addition, it provides a viable alternative for travelers heading south from St. Augustine to Palm Coast in Flagler County or Daytona Beach in Volusia County. Since US I connects most of the cities between Jacksonville and Daytona Beach, traffic is slowed by numerous signalized intersections which is unfavorable to high speed, high volume travel. Therefore, US I is a viable alternative to I-95 for local traffic, but it does not have the capacity to provide a substantial benefits to inter-county travelers over I-95.

St. Johns County is exploring a northwest bypass around the City of St. Augustine called SR 313 (SR 312 extension). The proposed four/six-lane facility will provide an alternative to US I, avoiding the numerous signalized intersections. The new roadway, however, is not expected to be constructed until approximately 2020.

#### SR AIA

Located about ten to fifteen miles east of I-95, SR AIA is a two-lane facility that stretches between the barrier island communities of Marineland (Flagler County), Crescent Beach, St. Augustine Beach, Vilano Beach, Ponte Vedra Beach, and Jacksonville Beach (Duval County). The majority of traffic on SR AIA is for local trips or for a scenic drive. SR AIA, considered the "beach parkway", has numerous signalized intersections and low operating speed limits (35 MPH or less), which is incompatible to the high-speed, high-volume travel found on I-95.

#### **US 17**

There are currently no parallel facilities to the west of I-95 other than US 17, which is located outside of St. Johns County. US 17 has numerous small towns and villages from the southwest corner of Duval County to the extreme northeast suburbs of Orlando and Deltona in Volusia County. Low speed limits, numerous signalized intersections, and its location west of the St. Johns River make it a poor alternative parallel facility. In combination with SR 16, however, US 17 provides alternative routes to I-95/I-295 to reach the suburbs of southwest Jacksonville. Further, with SR 207 it provides an alternate route to I-95/I-4 to reach Deltona and northeast Orlando.

#### County Route 2209

A future roadway, CR 2209, is expected to parallel I-95 from the future terminus of SR 9B (north of CR 210) to CR 208. This anticipated four-lane facility will provide access to several planned developments. The first phases of this roadway are not expected to be completed until approximately 2015.

# 95

## I-95 Sketch Interstate Plan (SIP)

From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### **Duval County**

Duval County, which includes the City of Jacksonville, is the most populated county in Northeastern Florida. Commuters who live or work within the Jacksonville Metropolitan Area are aware that I-95 can experience substantial congestion during its peak hours in the morning/evening along with occasional slowdowns throughout the day. Due to a lack of alternative high-speed, high-volume facilities, most commuters must utilize at least a portion of I-95 for their travel needs. There are only four (4) major facilities parallel to I-95 within Duval County: I-295, SR 9A, US I, and US I7. In addition, the First Coast Outer Beltway and River Crossing, a planned improvement, is a future parallel corridor. It should be noted that both US I (New Kings Road) and US I7 (Main Street) in northern Duval County, are included in the Nassau County section as they relate to parallel routes in Nassau.

#### 1-295

I-295 provides a western bypass of I-95 within the City of Jacksonville and intersects with I-10. I-295 is a six-lane facility between I-95 and I-10 on the southwest side of Jacksonville and a four-lane facility on the northwest side of Jacksonville between I-95 and I-10. Since this is an interstate facility, it does provide a high speed, uninterrupted alternative to I-95. Additionally, since it intersects with I-10 it provides an alternative route that avoids the highly congested I-95/I-10 interchange in Downtown Jacksonville. However, since I-295 bypasses numerous businesses and cultural activities within Downtown Jacksonville, it may only be a viable alternative for through traffic.

#### **SR 9A**

SR 9A provides an eastern bypass of I-95 within the City of Jacksonville and intersects with one (I) limited access facility, SR 202/JT Butler Boulevard, and one arterial, SR 10/Atlantic Boulevard. These facilities connect I-95 to the communities located along the Atlantic Ocean. SR 10/Atlantic Boulevard has frequent driveways and several signalized intersections. SR 9A is a four-lane facility on the northeast side of Jacksonville from I-95 to the St. Johns River; a six-lane facility from Napoleon B. Broward (Dames Point) Bridge, from SR 105 (Heckscher Drive) to SR 116 (Merrill Road); and a four-lane facility on the southeast side of Jacksonville from SR 202/JT Butler Boulevard and I-95. Since this is an interstate-type facility it does provide a high speed, uninterrupted alternative to I-95. However, since SR 9 bypasses numerous businesses and cultural activities within Downtown Jacksonville it may only be a viable alternative for through traffic.

#### US I (Philips Highway)

US I (Philips Highway) parallels I-95 for an approximately ten (10) mile stretch from just south of Downtown Jacksonville to the St. Johns County line. US I is a four-lane divided highway that is surrounded by numerous industrial and commercial developments. Therefore, it is relatively low speed and has numerous signalized intersections making it a low-priority parallel alternative to I-95. Most drivers who utilize US I are reaching an employment or shopping destination.

#### SR 115

South and east of the St. Johns River, SR 115 is a four-lane divided highway that provides a parallel alternative to I-95. Headed east from downtown Jacksonville, SR 115 crosses the St. Johns River as the Mathews Bridge and then transitions into the Arlington Expressway. Approximately 6.8 miles from downtown Jacksonville, SR 115 turns south, known as Southside Boulevard, and connects with I-95 approximately nine (9) miles. This route has several signals and passes through residential and commercially developed areas. As such, this route should not be considered a high-speed alternative to I-95.

First Coast Outer Beltway and River Crossing



From the Indian River / Brevard County Line to the Florida / Georgia State Line

The First Coast Outer Beltway is a proposed southwest outer-bypass of Jacksonville connecting I-10 and I-95 through Duval, Clay, and St. Johns Counties. The combination of the Branan Field Chaffee Road (SR 23) and St. Johns River Crossing Corridor form the beltway. Several segments of the Branan Field Chaffee Road (SR 23) portion are currently under construction. No segments of the St. Johns River Crossing are under construction. The Department anticipates this facility to be a public-private partnership, and as such, a facility with tolls. If the partnership does not happen, the Department does not have an anticipated funding source and the project will be delayed indefinitely.

#### **Nassau County**

If someone were to look at a map of Northeast Florida they would likely identify three possible parallel facilities to I-95 within Nassau County including; US 17, SR A1A, and US I/US 23/US 301. One of the those routes, SR A1A, has a substantial east/west stretch through Nassau County and therefore must be combined with north/south segments to provide a parallel route to the east and west of I-95. It is important to note that I-95 within Nassau County is only twelve (I2) miles long while the County itself is approximately 36 miles wide. Therefore, several of these potential parallel facilities do not appear to be feasible when analyzed only within Nassau County. Given these factors and due to the proximity to Duval County and the City of Jacksonville, the analysis for these routes includes portions of northern Duval County.

#### **US 17**

Currently, US 17 is a two-lane facility that parallels I-95 roughly one (I) to three (3) miles to the east. However, US 17 intersects I-95 (exit 380) in the northernmost portion of Nassau County and then runs parallel to the west for approximately thirty (30) miles, before intersecting I-95 again within southern Georgia (near the City of Brunswick). US 17 (Main Street) becomes a four-lane facility at New Berlin Road, just north of I-295, near the Jacksonville International Airport, approximately nine (9) miles north of downtown Jacksonville. US 17 provides a viable alternative from I-95 for travelers heading south from Fernandina Beach and Yulee into Jacksonville, specifically the commercial and industrial developments near Jacksonville International Airport and industrial/port facilities north of the St. Johns River.

#### SR AIA

SR A1A intersects I-95 (exit 373) approximately three (3) miles north of the Duval County line. To the west of the interchange SR A1A continues to the west/southwest into Callahan where it terminates. US 301 traverses to the southwest into Duval County where it intersects I-10, and then Clay and Bradford Counties where it intersects with I-75 within the City of Gainesville (via SR 24). Additionally, US I/US 23 stretch to the southeast and connect with I-295 in Duval County. These corridors are examined further in the following US I/US 23/US 301 section.

To the east of the interchange, SR AIA turns north to Fernandina Beach, then south, following the coast into Duval County. At the Ft. George Inlet, SR AIA terminates, but the roadway turns westward as Heckscher Drive and follows along the northern shore of the St. Johns River over to SR 9A - a limited access freeway that bypasses Jacksonville to the east. There is a ferry which continues south to the US Navy facilities at Mayport. The ferry departs about every thirty (30) minutes and can transport approximately forty (40) vehicles and 200 passengers. The ferry docks on the south side of the inlet at SR AIA, which continues south to the communities of Atlantic Beach, Neptune Beach, Jacksonville Beach, and Ponte Vedra Beach in St. Johns County. Since I-95 is located over ten (10) miles to the west, this route is only a feasible alternative for local traffic between Amelia Island and the St. Johns River corridor. Any drivers located further west of Amelia Island, the western portion of the St. Johns River corridor, or south of the St. Johns River along SR AIA would likely still utilize a combination of I-95, US 17, and/or SR 9A to reach their destination.

From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### US 1/US 23/US 301

US I/US 23/US 301 enters into Florida from Georgia in the northwest portion of Nassau County. Where all three (3) routes run together, between the Georgia state line and the City of Callahan, the road is a four-lane facility. In Callahan, US 301 continues to the southwest as a two-lane facility, while US I/US 23 extends to the southeast as a four-lane facility. All three (3) roadways lie approximately ten (10) to 25 miles to the west of I-95. US I/US 23/US 301 is not a viable parallel corridor for I-95 as it predominately servers smaller cities in Georgia from twenty (20) miles to the west of I-95 at the Georgia state line to over 100 miles to the west of I-95 at Savannah. However, in the town of Callahan SR A1A intersects these three (3) routes and creates two (2) possible feasible corridors; SR A1A-US 301 and SR A1A-US 1/US 23. The SR A1A-US 301 corridor is a feasible alternative to both I-95 and I-295 when the destination is further west along I-10. Utilizing SR A1A and US 301 is more of a direct connection between I-95 and I-10 and it avoids possible congestion in and around Jacksonville. The SR A1A-US 1/US 23 corridor provides an alternative to reaching northwest Jacksonville for some local traffic, but it cannot be expected to provide a substantial benefits to inter-county travelers over I-95.

### **Additional Study Area Parallel Corridors**

There may be other parallel corridors which could provide a feasible alternative for long-distance travelers over the six (6) county, 220-mile, study area. The only feasible long-distance routes are a combination of Florida's Turnpike and I-4 between Fort Pierce (south of the I-95 study area within St. Lucie County) and Daytona Beach. It should be noted that this route does travel through highly congested sections through Orlando and between Daytona Beach and northeast Orlando suburbs. In addition, Florida's Turnpike is a tolled facility requiring an additional cost of \$8 per car or \$16 per four-axel truck.

The distance along I-95 between Fort Pierce and Daytona Beach is approximately I35 miles, while the same trip utilizing Florida's Turnpike and I-4 is approximately I60 miles. While it is unlikely that long distance travelers would bypass this stretch of I-95 within Indian River, Brevard, and part of Volusia counties, it is still a viable parallel corridor.

#### **Multi-Modal Options**

#### **Transit Facilities**

Transit facilities vary from demand-response van service, trolley service in beachfront communities, and various types of bus services. While those services are important within each of the study area counties, only the Volusia County Transit Authority (VOTRAN) and Jacksonville Transportation Authority (JTA) have services which could provide a viable alternative to traveling on I-95.

VOTRAN (Volusia County Transportation Authority) provides transportation to all urban areas of the county with 56 fixed-route buses, four (4) trackless trolleys, 29 van pools, and 44 paratransit vehicles. VOTRAN has several planned expansions related to new developments throughout the county. Additionally, they are pursuing expansion plans around the DeLand Amtrak station located near I-4.

The Jacksonville Transportation Authority (JTA) transit services include express and regular bus service, a downtown Skyway monorail, trolley service within several neighborhoods and beach areas, and elderly/employee customized transportation options.

#### Passenger Rail Facilities

Jacksonville Amtrak Rail Terminal operates in northwest Jacksonville along US I approximately three (3) miles west of I-95. Amtrak offers two (2) daily northbound and southbound passenger train routes called the Silver Meteor and Silver Star with service between New York City and Miami. From Jacksonville, the next stops are in Jessup, Georgia roughly 75 miles to the north and Palatka, Florida



From the Indian River / Brevard County Line to the Florida / Georgia State Line

(Putnam County), which is sixty (60) miles to the south. From Palatka the train also stops in Volusia County on the western side of the City of DeLand before heading south to Orlando, west to Tampa, or southeast to Miami.

JTA recently studied the creation of several commuter rail lines that would begin in downtown Jacksonville: a line heading north to Yulee (Nassau County); a line heading southwest to Green Cove Springs (Clay County); and a line heading southeast to St. Augustine (St. Johns County). None of these passenger rail facilities are anticipated to be in place before 2030.

FDOT has plans to connect Jacksonville and Miami with high speed rail along Florida's east coast. Under the plan, eight (8) new stations will be constructed between Jacksonville and Miami. Other corridors between Miami, Orlando, and Tampa were prioritized by FDOT over the east coast line; however, all of the high speed corridors could be achieved within the I-95 SIP horizon year of 2035 if funding is identified.

#### Summary

**Figure 4.2** illustrates the potential parallel corridors within the I-95 SIP area. Within the 220-mile study area for the I-95 SIP, there are relatively few parallel corridors to I-95. This stretch of Florida has two (2) unique characteristics that limit the number of parallel corridors. First, the population of this six (6) county study area is predominantly located to the east of I-95 between the freeway and the Atlantic coastline. Second, to the immediate west of I-95, there are either environmentally sensitive areas that are wetlands/waterways or large scale farming/conservation areas. Therefore, there is a relatively narrow corridor within the study area in which parallel roadways to I-95 could be located.

The majority of the identified parallel roadway facilities include lower speeds and numerous signalized intersections, which are not feasible alternatives to the high speed travel along I-95. However, these parallel facilities, like US I, do remove local traffic from I-95. By providing an alternative for local traffic, the number of vehicles on the freeway is reduced.

While there are several multi-modal alternatives, most of the current options are only within portions of Volusia and Duval counties. Several of the future options, such as commuter rail in Jacksonville and regional rail, are not funded for construction. Therefore, it is difficult to determine the precise impact these improvements will have on I-95 and whether they could be viable parallel corridors.





From the Indian River / Brevard County Line to the Florida / Georgia State Line

## 4.3 Roadway and Transit Projects List

Summarized in **Table 4.3** are the roadway and transit projects anticipated between 2009 and 2035. Projects were analyzed from several sources including FDOT Work Plans, SIS/FIHS Plans, and MPO/TPO Plans. They are listed by county and include a project location (description), project type, proximity to I-95, anticipated completion (up-to-date as of November, 2009), FDOT District the project resides in, approximate length of the improvement, number of added lanes (if applicable), whether or not the improvement is related to an approved DRI, and the source of the information.



Table 4.3: Anticipated Projects in Brevard and Volusia counties (2009-2035)

COUNTY	PROJECT LOCATION	PROJECT TYPE	PROXIMITY TO I-95	ANTICIPATED COMPLETION	FDOT DISTRICT	APPROX LENGTH (MILES)	ADDED LANES	DRI-RELATED IMPROVEMENT	SOURCE
BREVARD	SR 520 FROM 0.1MI W OF FRIDAY RD TO WEST OF TUCKER LANE	ADD LANES & RECONSTRUCT	adjacent roadway	2009	5	0.5	2		FDOT
BREVARD	I-95 FROM PALM BAY RD TO SR 519	ADD LANES/REHAB PAVEMENT	mainline	2010	5	18.1	2		FDOT
BREVARD	I-95 @ PINEDA CAUSEWAY EXT INTERCHANGE	INTERCHANGE (NEW)	interchange	2010	5	0.0	0		FDOT
BREVARD	PINEDA CAUSEWAY EXT TO I-95	NEW ROAD CONSTRUCTION	adjacent roadway	2010	5	1.9	4	VIERA	FDOT
BREVARD	I-95 FROM S OF SR 528 TO PORT ST JOHN	ADD LANES/REHAB PAVEMENT	mainline	2011	5	3.5	2		FDOT
BREVARD	CR 516 (PALM BAY RD) FROM MINTON RD TO CONLAN BLVD	ADD LANES & RECONSTRUCT	adjacent roadway	2011	5	4.5	2		FDOT
BREVARD	SR 507/SR 514 (MALABAR) INTERSECTION RECONSTRUCTION IMPROVE	ADD LANES & RECONSTRUCT	adjacent roadway	2011	5	0.2	2		FDOT
BREVARD	BARNES BOULEVARD FROM MURRELL ROAD TO FISKE BLVD (SR 519)	ADD LANES & RECONSTRUCT	adjacent roadway	2011	5	0.0	0		FDOT
BREVARD	PALM BAY ROAD FROM MINTON RD TO PINEWOOD DR	ADD LANES & RECONSTRUCT	adjacent roadway	2011	5	4.0	2	HAMMOCK LANDINGS	FDOT
BREVARD	I-95 FROM SR 518 TO SR 519	ADD LANES/REHAB PAVEMENT	mainline	2012	5	9.6	2		FDOT
BREVARD	I-95 FROM S OF SR 519 TO N OF SR 528	ADD LANES/REHAB PAVEMENT	mainline	2012	5	10.4	2		FDOT
BREVARD	I-95 FROM S OF SR514 (MALABAR) TO PALM BAY RD	ADD LANES/REHAB PAVEMENT	mainline	2012	5	4.1	2		FDOT
BREVARD	I-95 FROM SR 50 TO 0.5 MILE N OF SR 46	ADD LANES/REHAB PAVEMENT	mainline	2013	5	8.8	2		FDOT
BREVARD	I-95 FROM SR 514 (MALABAR RD) TO SR 50	ADD LANES/REHAB PAVEMENT	mainline	2014	5	44.3	2		FDOT
BREVARD	I-95 FROM 0.5 MILE N OF SR 46 TO VOLUSIA CO LINE	ADD LANES/REHAB PAVEMENT	mainline	2015	5	8.5	2		FDOT
BREVARD	I-95 FROM BREVARD CO LINE TO S OF SR 514 (MALABAR)	ADD LANES/REHAB PAVEMENT	mainline	2015	5	12.4	2		FDOT
BREVARD	I-95 @ VIERA BLVD EXT INTERCHANGE	INTERCHANGE (NEW)	interchange	2015	5	0.0	0	VIERA	SPACE COAST TPO
BREVARD	ELLIS ROAD INTERCHANGE (I-95)	INTERCHANGE (NEW)	interchange	2016	5	0.0	0		SPACE COAST TPO
BREVARD	I-95 FROM SR 50 TO VOLUSIA CO LINE	ADD LANES/REHAB PAVEMENT	mainline	2018	5	17.1	2		FDOT
BREVARD	ST. JOHNS HERITAGE PARKWAY	NEW ROAD CONSTRUCTION	parallel road	2020	5	30.0	4		BREVARD COUNTY
BREVARD	ST. JOHNS HERITAGE PARKWAY INTERCHANGE (I-95)	INTERCHANGE (NEW)	interchange	2020	5	0.0	0		BREVARD COUNTY
BREVARD	SR 528 PD&E STUDY FROM SR 520 TO SR A1A	ADD LANES & RECONSTRUCT	adjacent roadway	2020	5	17.7	2		FDOT
BREVARD	SR 528 EXT FROM ORLANDO TO I-95	NEW ROAD CONSTRUCTION	adjacent roadway	2025	5	60.0	6		SPACE COUNTY TPO
BREVARD	SR 408 EAST EXT FROM ORLANDO TO I-95	NEW ROAD CONSTRUCTION	adjacent roadway	2030	5	50.0	6		SPACE COUNTY TPO
VOLUSIA	SR 417 E CONNECTOR FROM SR 417 TO I-95	PD&E/EMO STUDY	adjacent roadway	2009	5	18.9	N/A		FDOT
VOLUSIA	I-4 / I-95 FROM SR 472 TO SR 40	ITS FREEWAY MANAGEMENT	ITS	2010	5	26.5	N/A		FDOT
VOLUSIA	I-95 CAMERA EQUIPMENT FROM SR 44 TO SR 400	ITS FREEWAY MANAGEMENT	ITS	2010	5	12.8	N/A		FDOT
VOLUSIA	I-95 FROM SR 40 TO US 1	ITS FREEWAY MANAGEMENT	ITS	2010	5	6.0	N/A		FDOT
VOLUSIA	I-95 FROM SR 40 TO US 1	ITS FREEWAY MANAGEMENT	ITS	2010	5	6.0	N/A		FDOT
VOLUSIA	I-95 FROM US 1 TO US1 AT FLAGLER CO LINE	ITS FREEWAY MANAGEMENT	ITS	2010	5	4.9	N/A		FDOT
VOLUSIA	I-95 FROM .2MI N OF SR600/US92 TO 1.2MI NORTH OF SR 40	ADD LANES/REHAB PAVEMENT	mainline	2011	5	6.8	2		FDOT
VOLUSIA	I-95 FROM 0.5MI S OF I-4 TO 0.2MI N OF SR 600 US92	ADD LANES/REHAB PAVEMENT	mainline	2011	5	2.3	2		FDOT
VOLUSIA	I-95 FROM 1.2 MI. N OF SR 40 TO FLAGLER CO LINE	ADD LANES/REHAB PAVEMENT	mainline	2012	5	9.3	2		FDOT
VOLUSIA	I-95 FROM 0.5 MILE N OF SR 44 SOUTH OF I-4	ADD LANES/REHAB PAVEMENT	mainline	2012	5	10.6	2		FDOT
VOLUSIA	I-95 FROM BREVARD CO LINE TO 0.5 MILE N OF SR 44	ADD LANES/REHAB PAVEMENT	mainline	2012	5	16.8	2		FDOT
VOLUSIA	I-95 N ORMOND BUSINESS PARK NEW INTERCHANGE	INTERCHANGE (NEW)	interchange	2012	5	0.0	0	ORMOND CROSSINGS/PLANTATION BAY	FDOT
VOLUSIA	I-4 FROM E OF SR 44 TO W OF I-95	ADD LANES & RECONSTRUCT	adjacent roadway	2012	5	12.2	2		FDOT
VOLUSIA	I-95 AND I-4 SYSTEMS INTERCHANGE MOD	INTERCHANGE (MODIFY)	interchange	2014	5	0.0	0		FDOT
VOLUSIA	SR 442 (INDIAN RIVER BLVD) INTERCHANGE IMPROVEMENTS	INTERCHANGE (MODIFY)	interchange	2016	5	0.0	0	RESTORATION	VOLUSIA MPO
VOLUSIA	INDIAN RIVER BLVD I-95 TO WILLIAMSON BLVD	ADD LANES/REHAB PAVEMENT	adjacent roadway	2016	5	5.0	2	RESTORATION	VOLUSIA COUNTY MP
VOLUSIA	WILLIAMSON BLVD TAYLOR RD TO PIONEER TRAIL	ADD LANES & REHABILITATE PVMNT	parallel road	2016	5	6.0	2	SPRUCE CREEK/SPRUCE CREEK VILLAGE	VOLUSIA COUNTY MPO
VOLUSIA	I-95 INTERCHANGE @ PIONEER TRAIL	INTERCHANGE (NEW)	interchange	2025	5	0.0	0	SPRUCE CREEK/SPRUCE CREEK VILLAGE	VOLUSIA MPO
VOLUSIA	WILLIAMSON BLVD SR 44 TO INDIAN RIVER BLVD	ADD LANES & REHABILITATE PVMNT	parallel road	2025	5	4.5	2	RESTORATION	VOLUSIA COUNTY MPO
VOLUSIA	SR 417 EXT FROM NE ORLANDO TO I-95	NEW ROAD CONSTRUCTION	adjacent roadway	2035	5	35.0	6	İ	VOLUSIA COUNTY MP



Table 4.3: Anticipated Projects in Flagler and St. Johns counties (2009-2035)

COUNTY	cipated Projects in Flagler and St. Johns counties  PROJECT LOCATION	PROJECT TYPE	PROXIMITY TO I-95	ANTICIPATED COMPLETION	FDOT DISTRICT	APPROX LENGTH (MILES)	ADDED LANES	DRI-RELATED IMPROVEMENT	SOURCE
FLAGLER	I-95 @ MATANZAS WOOD PKWY INTERCHANGE	INTERCHANGE (NEW)	interchange	2011	5	0.0	0	PALM COAST PARK	FDOT
FLAGLER	MATANZAS WOOD PKWY FROM BIRD OF PARADISE DR TO OLD KINGS RD	NEW ROAD CONSTRUCTION	adjacent roadway	2011	5	1.9	2	PALM COAST PARK	FDOT
FLAGLER	I-95 FROM CO LN/OLD DIXIE HWY TO PALM COAST PKWY	ADD LANES/REHAB PAVEMENT	mainline	2012	5	11.6	2		FDOT
FLAGLER	OLD KINGS DRIVE FROM FORREST GROVE DR TO OLD KINGS RD	NEW ROAD CONSTRUCTION	parallel road	2012	5	0.0	4	PALM COAST PARK	FDOT
FLAGLER	I-95 FROM PALM COAST PKWY TO ST JOHNS CO LINE	ADD LANES/REHAB PAVEMENT	mainline	2013	5	7.7	2		FDOT
FLAGLER/ST. JOHNS	COMMUTER RAIL SE EXT FROM ST AUGUSTINE TO PALM COAST	TRANSIT	transit	2035	2/5	28.0	N/A		NORTH COAST TPO
ST. JOHNS	SR 16 FROM CR16A TO INT'L GOLF PARKWAY	ADD LANES & RECONSTRUCT	parallel road	2010	2	1.5	2	WORLD COMMERCE CENTER/ST. JOHNS	FDOT
ST. JOHNS	US 1 (PHILLIPS HWY) FROM INT'L GOLF PKWY TO DUVAL C/L	PD&E/EMO STUDY	parallel road	2010	2	8.2	N/A	NOCATEE/DURBIN/TWIN CREEKS	FDOT
ST. JOHNS	I-95 @ CR 210	INTERCHANGE (MODIFY)	interchange	2011	2	0.0	0	NOCATEE/DURBIN/TWIN CREEKS	FDOT
ST. JOHNS	SR 207 FROM CR 305 TO WEST OF I-95	ADD LANES & RECONSTRUCT	adjacent roadway	2011	2	3.7	2	SOUTHWOOD PRESERVE	FDOT
ST. JOHNS	I-95 @ CR 210 PHASE 2	INTERSECTION (MODIFY)	interchange	2012	2	0.0	0	NOCATEE/DURBIN/TWIN CREEKS	FDOT
ST. JOHNS	US 1 @ CR 210	INTERCHANGE RAMP (NEW)	parallel road	2012	2	0.7	0	NOCATEE/DURBIN/TWIN CREEKS	FDOT
ST. JOHNS	SR 9B CONNECTOR RELOCATED RACETRACK RD TO I-95	NEW ROAD CONSTRUCTION	adjacent roadway	2013	2	0.6	0	NOCATEE/DURBIN/DURBIN CROSSING	FDOT
ST. JOHNS	RACETRACK RD REALIGNMENT FROM WEST OF SR 9B TO US 1	NEW ROAD CONSTRUCTION	adjacent roadway	2015	2	2.5	4	NOCATEE/DURBIN CROSSING	NORTH FLORIDA TPO
ST. JOHNS	CR 2209 EXTENSION FROM FIRST COAST OUTER BELTWAY TO CR 210	NEW ROAD CONSTRUCTION	parallel road	2015	2	4.0	4	ST. JOHNS/ASHFORD MILLS/SILVERLEAF	NORTH FLORIDA TPO
ST. JOHNS	CR 2209 EXTENSION FROM INTER GOLF PKWY TO CR 210	NEW ROAD CONSTRUCTION	parallel road	2016	2	4.0	4	ST. JOHNS/ASHFORD MILLS/SILVERLEAF	NORTH FLORIDA TPO
ST. JOHNS	SR 16 FROM CR 2209 EXT TO PRIME OUTLET MALL	ADD LANES & REHABILITATE PVMNT	parallel road	2016	2	4.0	2	ASHFORD MILLS	NORTH FLORIDA TPO
ST. JOHNS	SR 16 FROM I-95 TO SR 313 (SR 312 EXT)	ADD LANES & REHABILITATE PVMNT	parallel road	2016	2	4.0	4	ST. JOHNS	NORTH FLORIDA TPO
ST. JOHNS	CR 2209 EXTENSION FROM CR 208 TO SR 16	NEW ROAD CONSTRUCTION	parallel road	2016	2	4.0	4	ST. JOHNS/ASHFORD MILLS/SILVERLEAF	NORTH FLORIDA TPO
ST. JOHNS	I-95 @ SR 9B	INTERCHANGE (NEW)	interchange	2017	2	0.0	0		FDOT
ST. JOHNS	SR 9B EXTENSION ST. JOHNS COUNTY PHASE I	NEW ROAD CONSTRUCTION	adjacent roadway	2017	2	0.6	0	NOCATEE/DURBIN/DURBIN CROSSING	FDOT
ST. JOHNS	CR 2209 EXTENSION FROM SR 16 TO INTER GOLF PKWY	NEW ROAD CONSTRUCTION	parallel road	2017	2	4.0	4	ST. JOHNS/ASHFORD MILLS/SILVERLEAF	NORTH FLORIDA TPO
ST. JOHNS	SR 9B PHASE 2: CONNECTION WITH CR 2209	NEW ROAD CONSTRUCTION	adjacent roadway	2018	2	2.5	4	NOCATEE/DURBIN/DURBIN CROSSING	NORTH FLORIDA TPO
ST. JOHNS	I-95 FROM INTER GOLF PKWY TO I-295	ADD LANES/REHAB PAVEMENT	mainline	2018	2	26.0	2	on occurre	NORTH FLORIDA TPO
ST. JOHNS	I-95 @ SR 206 INTERCHANGE MOD	INTERCHANGE (MODIFY)	interchange	2020	2	0.0	0		NORTH FLORIDA TPO
ST. JOHNS	SR 9B PHASE 3: DURBIN PKWY INTERCHANGE	INTERCHANGE (MAJOR)	adjacent roadway	2020	2	0.0	0	DURBIN/DURBIN CROSSING	NORTH FLORIDA TPO
ST. JOHNS	SR 207 FROM I-95 TO SOUTH HOLMES BLVD	ADD LANES/REHAB PAVEMENT	adjacent roadway	2020	2	6.0	2	SOUTHWOOD PRESERVE	NORTH FLORIDA TPO
ST. JOHNS	SR 313 (SR 312 EXT) FROM CR 214 (KING ST) TO SR 16	NEW ROAD CONSTRUCTION	parallel road	2020	2	8.0	6		NORTH FLORIDA TPO
ST. JOHNS	SR 313 (SR 312 EXT) FROM SR 16 TO US 1	NEW ROAD CONSTRUCTION	parallel road	2020	2	7.0	6		NORTH FLORIDA TPO
ST. JOHNS	SR 313 (SR 312 EXT) FROM SR 207 TO CR 214 (KING ST)	NEW ROAD CONSTRUCTION	parallel road	2020	2	3.0	4		NORTH FLORIDA TPO
ST. JOHNS	I-95 @ SR 207 INTERCHANGE MOD	INTERCHANGE (MODIFY)	interchange	2025	2	0.0	0	SOUTHWOOD PRESERVE	NORTH FLORIDA TPO
ST. JOHNS	US 1 FROM SR 206 TO LEWIS POINT RD	ADD LANES & REHABILITATE PVMNT	parallel road	2025	2	8.0	2	CORDOVA PALMS/MARSHALL CREEK	NORTH FLORIDA TPO
ST. JOHNS	US 1 FROM SR 313 (SR 312 EXT) TO INTER GOLF PKWY	ADD LANES & REHABILITATE PVMNT	parallel road	2025	2	12.0	2	CORDOVA PALMS/MARSHALL CREEK	NORTH FLORIDA TPO
ST. JOHNS	FIRST COAST OUTER BELTWAY FROM I-95 TO US 17	NEW ROAD CONSTRUCTION	adjacent roadway	2030	2	19.0	8		NORTH FLORIDA TPO
ST. JOHNS	FIRST COAST OUTER BELTWAY INTERCHANGE @ CR 2209	INTERCHANGE (MAJOR)	adjacent roadway	2030	2	0.0	0	ST. JOHNS/ASHFORD MILLS/SILVERLEAF	NORTH FLORIDA TPO
ST. JOHNS/DUVAL	COMMUTER RAIL SE FROM DOWNTOWN JAX TO ST AUGUSTINE	TRANSIT	transit	2030	2	33.0	N/A		NORTH COAST TPO
T. JOHNS/FLAGLER	COMMUTER RAIL SE EXT FROM ST AUGUSTINE TO PALM COAST	TRANSIT	transit	2035	2/5	28.0	N/A		NORTH COAST TPO



Table 4.3: Anticipated Projects in Duval and Nassau counties (2009-2035)

COUNTY	PROJECT LOCATION	PROJECT TYPE	PROXIMITY TO I-95	ANTICIPATED COMPLETION	FDOT DISTRICT	APPROX LENGTH (MILES)	ADDED LANES	DRI-RELATED IMPROVEMENT	SOURCE
DUVAL	SR 202 (JTB BLVD) @ I-95 OFF RAMP	INTERCHANGE (MINOR)	interchange	2010	2	0.0	0		FDOT
DUVAL	I-95 @ AIRPORT RD. FROM ACCESS TO JIA/ROW TO FLYOVER	INTERCHANGE (MODIFY)	interchange	2010	2	0.0	0		FDOT
DUVAL	I-295/I-95/SR9A NORTH OPERATIONAL IMPROVEMENTS	INTERCHANGE RAMP (NEW)	interchange	2010	2	0.0	0		FDOT
		, ,	•			<u> </u>	, ,	+	
DUVAL	SR 9A WEST OF US 1. EAST OF US 1. US 1 (PHILIPS HWY) FROM ST.JOHNS C/L TO N OF SR 9A	NEW ROAD CONSTRUCTION PD&E/EMO STUDY	parallel road parallel road	2010 2010	2 2	1.5 3.2	6 N/A		FDOT FDOT
DUVAL	I-295 FROM I-95 SOUTH TO I-10	ITS FREEWAY MANAGEMENT	ITS	2010	2	20.5	N/A N/A	+	FDOT
DUVAL	I-95 /DUNN AVENUE INTERCHANGE	INTERCHANGE (MODIFY)	interchange	2010	2	0.0	0		FDOT
DUVAL	I-10/I-95INTERCHANGE FROM SO OF I-10 INTERCH. TO SO OF MYRTLE AVE	INTERCHANGE (MODIFY)	interchange	2011	2	0.0	0		FDOT
DUVAL	SR 115/MATTHEW'S BR FROM SOUTHSIDE BLVD TO I-95 (MATTHEW BR REPL)	ADD LANES & RECONSTRUCT		2011	2	6.9	0		FDOT
	· · · · · · · · · · · · · · · · · · ·		adjacent roadway			<u> </u>			
DUVAL	US 1 (PHILIPS HWY) FROM CR116 (SUNBEAM ROAD) TO SR 202 (BUTLER BLVD)	ADD LANES & RECONSTRUCT	parallel road	2011	2	3.0	2		FDOT
DUVAL	US 1 (PHILIPS HWY) FROM SR 9A TO SUNBEAM	ADD LANES & RECONSTRUCT	parallel road	2011	2	3.0	2		FDOT
DUVAL	I-95 FROM ST. JOHNS C/L TO I-295	ITS FREEWAY MANAGEMENT	ITS	2011	2	7.6	N/A	-	FDOT
DUVAL	I-95 INTERCHANGE @ MLK JR. PARKWAY (JAXPORT TALLEYRAND)  SR 9A FROM I-95 INTERCHANGE TO DAMES POINT BRIDGE	INTERCHANGE (MODIFY)	interchange	2012 2012	2	0.0	0	+	FDOT FDOT
DUVAL	I-295 MASTER PLAN	INTERCHANGE (MODIFY) PD&E/EMO STUDY	interchange	2012	2	62.0	N/A	+	NORTH FLORIDA TPC
DUVAL	US 1 (PHILLIPS HWY) FROM J.T.BUTLER BLVD TO FEC TERMINAL ENTRANCE	PRELIMINARY ENGINEERING	adjacent roadway	2012	2	1.9	0	+	FDOT
DUVAL	SR 9A FROM I-95 TO MONUMENT ROAD	ITS FREEWAY MANAGEMENT	parallel road ITS	2012	2	13.4	N/A	+	FDOT
DUVAL	SR 9A FROM MONUMENT ROAD TO I-95 NORTH	ITS FREEWAY MANAGEMENT	ITS	2012	2	20.9	N/A	+	FDOT
DUVAL	I-295 FROM I-10 TO I-95 N	ITS FREEWAY MANAGEMENT	ITS	2012	2	14.2	N/A		FDOT
DUVAL	I-295 FROM I-10 TO I-95 N	ITS FREEWAY MANAGEMENT	ITS	2012	2	24.5	N/A	+	FDOT
DUVAL	SR 9A FROM MONUMENT ROAD TO I-95 NORTH	ITS FREEWAY MANAGEMENT	ITS	2012	2	20.9	N/A		FDOT
DUVAL/NASSAU	NORTHERN OUTER BELTWAY FROM I-10 TO I-95	PD&E/EMO STUDY	adjacent roadway	2012	2	35.0	N/A		NORTH FLORIDA TPO
DUVAL	I-95 @ NO I-295 INTERCHANGE PHASE I - NORTH	INTERCHANGE RAMP (NEW)	interchange	2013	2	0.0	0		FDOT
DUVAL	US 17 FROM NEW BERLIN ROAD TO PECAN PARK ROAD	ADD LANES & RECONSTRUCT	parallel road	2013	2	4.0	2		FDOT
DUVAL	I-295 AUX-LANES FROM SR 13 TO I-95	ADD LANES & RECONSTRUCT	adjacent roadway	2014	2	4.5	0		FDOT
DUVAL	SR 9B / PHASE I FROM N OF US 1 TO SR 9A/9B SPLIT	NEW ROAD CONSTRUCTION	adjacent roadway	2014	2	3.6	4		FDOT
DUVAL	I-295 FROM I-95 SOUTH/SR9 TO PRITCHARD RD.	ADD LANES & RECONSTRUCT	adjacent roadway	2015	2	22.7	0		FDOT
DUVAL	SR 9B PHASE II FROM SOUTH OF US 1 TO NORTH OF US 1	INTERCHANGE (NEW)	adjacent roadway	2015	2	0.4	0		FDOT
DUVAL	JIA NORTH ACCESS RD. FROM AIRPORT ROAD TO PECAN PARK (I-95)	NEW ROAD CONSTRUCTION	adjacent roadway	2016	2	3.5	4	JACKSONVILLE INT'L AIRPORT	FDOT
DUVAL	SR 9B PHASE III I-95 TO S OF US 1	NEW ROAD CONSTRUCTION	adjacent roadway	2016	2	1.3	0		FDOT
DUVAL	SR 9B PHASE IV FROM ST. JOHNS C/L TO I-95	NEW ROAD CONSTRUCTION	adjacent roadway	2016	2	0.6	0		FDOT
DUVAL	OLD ST AUGUSTINE RD FROM BARTRAM PARK BLVD TO PHILIPS HWY(US1)	ADD LANES/REHAB PAVEMENT	adjacent roadway	2016	2	2.5	2	BARTRAM PARK	NORTH FLORIDA TPO
DUVAL	PECAN PARK RD FROM I-95 TO US 17	ADD LANES/REHAB PAVEMENT	adjacent roadway	2016	2	4.0	2	2,	NORTH FLORIDA TPO
DUVAL/NASSAU	US 17 FROM PECAN PARK RD TO SR 200/AIA	ADD LANES & REHABILITATE PVMNT	parallel road	2018	2	3.2	2		
DUVAL	SR 9A FROM HECKSCHER DR (SR 105) TO I-95	ADD LANES/REHAB PAVEMENT	adjacent roadway	2020	2	6.5	2		NORTH FLORIDA TPO
DUVAL	BAYMEADOWS RD FROM US 1 TO BAYMEADOWS WAY	ADD LANES/REHAB PAVEMENT	adjacent roadway	2022	2		2	FREEDOM COMMERCE CENTRE	NORTH FLORIDA TPO
DUVAL	BAYMEADOWS RD FROM WESTERN WAY TO SOUTHSIDE BLVD	ADD LANES/REHAB PAVEMENT	adjacent roadway	2022	2		2	FREEDOM COMMERCE CENTRE	NORTH FLORIDA TPO
DUVAL	I-95 INTERCHANGE MOD BETWEEN PHILLIPS HWY AND SOUTHSIDE BLVD	INTERCHANGE (MODIFY)	interchange	2025	2	0.0	0	FREEDOM COMMERCE CENTRE	NORTH FLORIDA TPO
DUVAL	BRT NORTH FROM GATEWAY MALL TO JAX AIRPORT	TRANSIT	transit	2030	2	13.5	N/A		NORTH COAST TPO
DUVAL	BRT SE FROM DOWNTOWN JAX TO AVENUES MALL (VIA US 1)	TRANSIT	transit	2030	2	10.5	N/A		NORTH COAST TPO
DUVAL/NASSAU	COMMUTER RAIL NORTH FROM DOWNTOWN JAX TO YULEE	TRANSIT	transit	2030	2	22.0	N/A		NORTH COAST TPO
DUVAL/ST. JOHNS	COMMUTER RAIL SE FROM DOWNTOWN JAX TO ST AUGUSTINE	TRANSIT	transit	2030	2	33.0	N/A		NORTH COAST TPO
NASSAU	SR 200/ A1A @ I-95 INTERCHANGE	INTERCHANGE (MINOR)	interchange	2009	2	0.0	0	YULEE AREA	FDOT
NASSAU	SR 200/A1A GRIFFIN ROAD I-95	ADD LANES & RECONSTRUCT	adjacent roadway	2010	2	5.1	2	YULEE AREA	FDOT
NASSAU	SR 200 (A1A) FROM I-95 TO W.OF STILL QUARTERS RD	ADD LANES & RECONSTRUCT	adjacent roadway	2011	2	2.2	2	YULEE AREA	FDOT
NASSAU/DUVAL	NORTHERN OUTER BELTWAY FROM I-10 TO I-95	PD&E/EMO STUDY	adjacent roadway	2012	2	35.0	N/A		NORTH FLORIDA TPO
NASSAU/DUVAL	US 17 FROM PECAN PARK RD TO SR 200/AIA	ADD LANES & REHABILITATE PVMNT	parallel road	2018	2	3.2	2		
	EAST NASSAU CONNECTOR FROM I-95 TO CHESTER RD	NEW ROAD CONSTRUCTION	adjacent roadway	2024	2	5.0	4	YULEE AREA	NORTH FLORIDA TPO
NASSAU NASSAU	I-95 @ EAST NASSAU CONNECTOR INTERCHANGE	INTERCHANGE (NEW)	interchange	2025	2	0.0	0	YULEE AREA	NORTH FLORIDA TPO

## 4.4 Major Future Roadway and Transit Projects

Summarized below are several of the major capacity improvements, new roadways, or transit alternatives that are anticipated between 2009 and 2035. Data for future roadway and transit projects over the study horizon was extracted from the State Transportation Improvement Plan, the LRTPs of the affected MPOs, and the FDOT 5-Year Work Plan (as of November 2009). Please note that several of these projects are located in more than one county. These major roadway and transit projects are illustrated by county in **Appendix D**.

#### **Brevard County**

Below is a summary of the future major roadway and transit projects planned for Brevard County (**Appendix D – Figure 4.4a**).

#### **1-95** Mainline Widening

FDOT is intending to widen I-95 in phases throughout Brevard County, with the anticipated completion by approximately 2020. Two (2) lanes would be added, bringing the total number of lanes to six (three northbound and three southbound).

#### Ellis Road Extension Interchange (new)

The Ellis Road Extension is a new four-lane roadway connecting the industrial areas and Melbourne International Airport directly to I-95. Both the US 192/Space Coast Parkway interchange to the south and Eau Gallie Boulevard interchange to the north are experiencing increased congestion. The Ellis Road interchange should alleviate some of that congestion when it is completed in 2016. Additionally, the Ellis Road extension is proposed to intersect with the St. Johns Heritage Parkway which is under study to the west of I-95.

#### <u>I-95 Pineda Causeway Extension Interchange (new)</u>

The Pineda Causeway Extension is a new four-lane roadway connecting the US I with I-95 between the communities of Palm Shores and Viera. Construction on the roadway and interchange began in early 2009 and is expected to be completed by October, 2010. The existing Pineda Causeway connects SR AIA near Patrick Air Force Base in Satellite Beach with US I. The new interchange will be approximately two and half miles south of exit 191 (Wickham Road) and four and a half miles north of exit 183 (Eau Gallie Boulevard).

#### <u>I-95 Viera Boulevard Interchange (new)</u>

Viera Boulevard currently connects US I with the residential communities on the western edge of Viera just to the south of Rockledge and north of Melbourne. The proposed interchange is located about two (2) miles south of exit 195 (SR 519/Fiske Boulevard) and two (2) miles north of exit 191 (Wickham Road) and is proposed to be constructed in 2015.

#### St. Johns Heritage Parkway and I-95 interchange (new)

The St. Johns Heritage Parkway is proposed to be a four-lane boulevard type facility that will provide a western bypass of the City of Palm Bay. The idea for the Parkway has been under study since the early 1990's, but only recently have plans been drawn up and National Environmental Policy Act (NEPA) clearance granted by FHWA. Right-of-way acquisition is underway for the northernmost portion of the proposed thirty (30) mile bypass, with eventual completion of the entire roadway by approximately 2020. The new I-95 interchange is expected around the same timeframe; however, alternative sources of funding could expedite the process.



From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### SR 408 Eastern Extension

In November 2006, the Expressway Authority kicked off the SR 408 Eastern Extension Study to evaluate a potential new roadway between east Orange County and north Brevard County. Covering approximately 25 miles east-west, and nine (9) miles north-south, the study area generally parallels SR 50 from east of Alafaya Trail to Interstate 95. In July 2008, the initial study determined that Corridor 3B would be recommended for further development. Corridor 3B utilizes the SR 50 corridor to SR 520, and then connects to SR 528 along the SR 520 corridor. A PD&E study is expected to begin in 2010 or 2011.

#### SR 528 (Beach Line Expressway) Multi-use/Multi-modal Corridor Study

The SR 528 Multi-use/Multi-modal Corridor Study is looking at expansion or possible new corridors for the existing limited access toll highway from Orange County to I-95 in Brevard County. In November 2006, the Expressway Authority began the study examining transportation and utility needs and potential improvements in a broad area north and south of SR 528 from Orlando International Airport (OIA) to near SR AIA in Brevard County. The total study area is approximately I,200 square miles and includes an evaluation of the existing SR 528 corridor from SR 436 at Orlando International Airport to SR AIA at Port Canaveral, as well as potential new transportation and utility corridors in southeast Orange, northeast Osceola and central Brevard counties. The northern boundary is approximately three (3) miles north of the existing SR 528 corridor and the southern boundary extends to US 192 in Osceola County. A Level 2 detailed corridor analysis is expected to begin in the next year.

#### **Volusia County**

Below is a summary of the future major roadway and transit projects planned for Volusia County (**Appendix D – Figure 4.4b**).

#### 1-95 Mainline Widening

Currently, I-95 is four (4) lanes, two (2) northbound and two (2) southbound, from the Brevard County line to exit 256 (Taylor Road/SR 421) and six (6) lanes, three northbound and three (3) southbound, from exit 256 to the Flagler County line. By 2012, FDOT projects to complete widening I-95 by two (2) additional lanes (one northbound and one southbound) in phases throughout Volusia County.

#### SR 417 Eastern Connector Study

The SR 417 Eastern Connector study is looking at possible corridors to extend the limited access toll highway from Seminole County towards I-95 in Volusia County (to the northeast). Currently SR 417 (also known as the Central Florida Greenway) forms the eastern beltway around the Orlando. The study is expected to begin in 2010 or 2011.

#### 1-95 Ormond Crossings Interchange (new)

Ormond Crossings is a mixed-use development that was approved in 2008 to the west of I-95 in the City of Ormond Beach. Additional access to I-95 has been necessitated due to the rapid expansion of residential and commercial development on the western edge of Ormond Beach. The interchange would be located approximately half-way between exit 273 (US I) and ext 268 (SR 40), and is planned to be constructed in 2012.

#### 1-95 Pioneer Trail Interchange (new)

Pioneer Trail (signed as CR 4118) is a county road that stretches approximately thirteen (13) miles through Volusia County between SR 44 and New Smyrna Beach. Pioneer Trail was formerly SR 44, but in the 1980's a new four-lane section of roadway was built about four (4) miles to the south. Several

## 95

## I-95 Sketch Interstate Plan (SIP)

From the Indian River / Brevard County Line to the Florida / Georgia State Line

larger planned developments to the north in Port Orange have increased the demand to access I-95. The interchange would be located about four (4) miles south of exit 256 (Taylor Road) and three (3) miles north of exit 249 (SR 44), and is planned to be constructed around 2025.

#### Flagler County

Below is a summary of the future major roadway and transit projects planned for Flagler County (**Appendix D – Figure 4.4c**).

#### 1-95 Mainline Widening

Currently, I-95 is six (6) lanes, three (3) northbound and three (3) southbound, throughout Flagler County. FDOT intends to widen I-95 by two (2) additional lanes (one northbound and one southbound) in two (2) phases, from the Volusia County line to exit 289 (Palm Coast Parkway) and then north of the exit to the St. Johns County line. The anticipated completion is currently listed as 2013, but FDOT may delay the project for up to five (5) years based upon funding limitations.

#### <u>I-95 Matanzas Wood Parkway Extension Interchange (new)</u>

Matanzas Wood Parkway connects US I with Old Kings Road in the City of Palm Coast. The roadway was constructed several years ago and will be expanded to accommodate the expected increase in traffic. The interchange is expected to be completed in 2011 and will be located five (5) miles south of exit 298 (US I) and three and half miles north exit 289 (Palm Coast Parkway).

#### St. Johns County

Below is a summary of the future major roadway and transit projects planned for St. Johns County (**Appendix D – Figure 4.4d**).

#### **I-95** Mainline Widening

Currently, I-95 is six (6) lanes, three (3) northbound and three (3) southbound, throughout St. Johns County. FDOT intends to widen I-95 by two (2) additional lanes (one northbound and one southbound) between exit 323 (International Golf Parkway) and exit 337 (I-295/SR 9A) in Duval County. Completion is anticipated to be by 2018, dependent upon concurrent implementation of the First Coast Outer Beltway (FCOB).

#### County Road 2209 Extension Projects

The CR 2209 Extension projects extend from Racetrack Road in the north to County Road 208 in the south, forming a fifteen (15) mile corridor. This proposed four-lane arterial has been divided into three (3) sections:

- North Segment: Begins at Race Track Road and proceeds south along the existing alignment of Russell Sampson Road to a power line easement. It then parallels the power line easement to its termination at CR 210, a distance of 3.1 miles.
- <u>Central Segment:</u> Begins at CR 210 and proceeds south parallel to I-95. It crosses International Golf Parkway near Mill Creek Elementary School and terminates at SR 16, a distance of eight (8) miles.
- South Segment: Begins at SR 16 and proceeds south, east of Six Mile Creek, and terminates at CR 208 near Bakersville, a distance of 4.1 miles.

A study is currently underway on the Central and South segments (CR 210 to CR 208). The North segment is being designed by the developers of the Durbin Crossing DRI. All of the CR 2209 Extension projects should be completed by 2017; however, residential and commercial development will drive the urgency of the roadway.

# 95

## I-95 Sketch Interstate Plan (SIP)

From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### First Coast Outer Beltway

The First Coast Outer Beltway is a proposed limited access bypass beginning in western Jacksonville at I-10 and extending south through Clay County, and terminating at I-95 between the International Golf Parkway and CR 210 interchanges in St. Johns County (the locally preferred altertnative). The combination of the Branan Field Chaffee Road (SR 23) and St. Johns River Crossing Corridor form the beltway. Several segments of the Branan Field Chaffee Road (SR 23) portion are currently under construction. No segments of the St. Johns River Crossing are under construction. Due to a lack of available funds, FDOT has explored possible public-private ownership deals to assist in paying for the roadway. The St. Johns River Crossing portion of the project is not anticipated to be completed until 2030, unless a public-private partnership can be formed which would move the completion date sooner. If a public-private partnership can be formed, the facility will have tolls.

#### <u>Commuter Rail Southeast Extension (from St. Augustine to Palm Coast)</u>

The Jacksonville Transportation Authority (JTA) and North Florida TPO identified this corridor for future commuter rail service. The Southeast Corridor Extension would connect St. Augustine with Palm Coast in Flagler County. JTA's feasibility study was concluded in July 2009 and determined that this route should be considered in the future, but the other corridors (north, southeast, southwest) should be developed initially. This project is anticipated to be constructed by 2035.

#### **Duval County**

Below is a summary of the future major roadway and transit projects planned for Duval County (**Appendix D – Figure 4.4e**).

#### **I-95 Mainline Widening**

Currently, I-95 varies between six (6) lanes, three (3) northbound and three (3) southbound, and eight (8) lanes, four (4) northbound and four (4) southbound, throughout Duval County. FDOT has completed widening (one lane northbound and one lane southbound) of several sections of I-95 within Duval County including: from exit 344 (SR 202/J. Turner Butler Boulevard) to exit 347 (Emerson Street/ALT US I), exit 356 (Norwood Avenue/Lem Turner Road) to exit 362 (I-295/SR 9A), and exit 363 (Duval Road/Jacksonville International Airport) to the Nassau County line. FDOT intends to widen I-95 to eight (8) lanes from the St. Johns County line to exit 337 (I-295/SR 9A).

#### State Route 9B (future I-795)

SR 9B is a planned limited access freeway southeast of Jacksonville in both Duval and St. Johns Counties. Its northern terminus will be SR 9A and it will continue southwest and connect to I-95 at a new interchange near the county line. SR 9B is anticipated to continue southwest to serve newer developments in northern St. Johns County. In March 2010 a Design-Build project began for the segment between US I (Philips Hwy.) and SR 9A; completion of this four-lane limited access connection is expected in the summer of 2012. Final design and right-of-way phases continue for the segment between I-95 and US I, including the interchanges at both facilities. There is no construction funding programmed at present, beyond the current Design-Build project.

#### <u>[IA North Access Road (from Airport Rd. to I-95)</u>

The Jacksonville International Airport (JIA) North Access Road project is expected to add a new road as the continuation of International Airport Boulevard. This facility is anticipated to separate truck traffic using the warehouse and distribution facilities at the private Tradeport property, public airport air cargo, and US Postal facilities from the passenger traffic using SR 102 (Airport Road) to access the main passenger terminal at JIA.



From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### <u>Commuter Rail Southeast (from Downtown Jacksonville to St. Augustine)</u>

The Jacksonville Transportation Authority (JTA) and North Florida TPO identified this corridor for future commuter rail service. The Southeast Corridor would connect Downtown Jacksonville with St. Augustine in St. Johns County. JTA's feasibility study was concluded in July 2009 and determined that this route would cost approximately \$170 million. This project is anticipated to be constructed by 2030.

#### **Nassau County**

Below is a summary of the future major roadway and transit projects planned for Nassau County (**Appendix D – Figure 4.4f**).

#### 1-95 Mainline Widening

Currently, I-95 is six (6) lanes, three (3) northbound and three (3) southbound, throughout Nassau County. FDOT is intending to widen I-95 by two (2) additional lanes (one northbound and one southbound) from the Duval County line to the Georgia state line. The anticipated completion is currently listed as 2020.

#### Northern Outer Beltway (Northwest Jacksonville from I-95 to I-10)

The proposed Northern Beltway will loop north of Interstate I-10 and Jacksonville International Airport to I-95 in Nassau County. The southern end will tie into the First Coast Outer Beltway. It is anticipated that the road will be a limited access toll road. FDOT began looking at traffic projects for the Northern Beltway in summer 2009. No formal study has begun.

#### East Nassau Connector/Interchange (new)

The proposed East Nassau Connector will connect to I-95 approximately half-way between Exit 380 (US I7) and Exit 373 (SR AIA/SR 200) and continue eastward to a new Chester Road extension. This roadway is anticipated to serve the Yulee Area DRI and alleviate heavy traffic on existing SR AIA/SR 200. No formal study has begun.

#### Commuter Rail North (from Downtown Jacksonville to Yulee)

The Jacksonville Transportation Authority (JTA) and North Florida TPO identified this corridor for future commuter rail service. The North Corridor would connect Downtown Jacksonville in Duval County with Yulee. JTA's feasibility study was concluded in July 2009 and determined that this route would cost approximately \$240 million. This project is anticipated to be constructed by 2030.



From the Indian River / Brevard County Line to the Florida / Georgia State Line

## 4.5 Summary

FDOT along with metropolitan/transportation planning organizations, six (6) study area counties, and all of the local partners should identify creative funding solutions to construct some of these major new roadways, interchanges, transit, and proposed capacity expansions. For the large majority of these projects, funding for construction has not been identified and with financial shortfalls across Florida and the United States, some of these projects may never be developed. Florida has changed the mechanism by which to fund transportation improvements, shifting a portion of the financial burden for the existing and future transportation network on the DRIs. The recent economic climate, however, has made a significant number of DRIs and other developments infeasible. And, as such, their funding for roadway improvements is not in place. There may be marked improvements in the economy and development climate within the life of the I-95 SIP. In the short-term, however, without some expansions to the local roadways, the network will begin to break down which will, in turn, impact the capacity and safety of I-95. Over the longer term, without these improvements (road and transit), quality of life will suffer for affected residents, and the business climate will degrade, leaving the potential for residents and businesses to chose other parts of the state or country to avoid actual or perceived inadequate transportation service and options.

#### **CHAPTER 5 – FUTURE BRIDGE CONDITIONS**

## 5. I Planned Bridge-Related Projects

It is estimated that every fifteen (15) years the steel surfaces of a bridge require repainting. After the first fifteen (15) years, it is anticipated that minor repairs may be required. After the 30th year of bridge operation, the bridge will likely require minor rehabilitation to structural, mechanical and electrical components, which may be obsolete by that time and should be replaced with components that have spare parts available. After 45 years, a bridge is likely to require major rehabilitation to its components in addition to another repainting.

This section of the Future Conditions Report is intended to serve as a general list of anticipated bridge improvement projects by 2035. All of the existing bridges within the six (6) study-area counties are listed below (by county) and were previously listed in the I-95 Sketch Interstate Plan Existing Conditions Report according to the FDOT Comprehensive Inventory Data (CID) Reports.

#### **Brevard County**

I-95 crosses 54 existing bridges within Brevard County. The following thirteen (13) projects with bridge-related construction activities are planned for implementation by 2035. These projects include four (4) new interchanges, four (4) new road construction projects, and five (5) roadway reconstruction projects adjacent to I-95.

Table 5.1a: Brevard County Planned Bridge-Related Projects (Implementation by 2035)

PROJECT LOCATION	PROJECT TYPE	PROXIMITY TO I-95	ANTICIPATED COMPLETION	APPROX LENGTH (MILES)	ADDED LANES	SOURCE
CR 516 (PALM BAY RD) FROM MINTON RD TO CONLAN BLVD	ADD LANES & RECONSTRUCT	ADJACENT ROADWAY	2011	4.5	2	FDOT
SR 507/SR 514 (MALABAR) INTERSECTION RECONSTRUCTION IMPROVEMENT	ADD LANES & RECONSTRUCT	ADJACENT ROADWAY	2011	0.2	2	FDOT
BARNES BOULEVARD FROM MURRELL ROAD TO FISKE BLVD (SR 519)	ADD LANES & RECONSTRUCT	ADJACENT ROADWAY	2011	0.0	0	FDOT
PALM BAY ROAD FROM MINTON RD TO PINEWOOD DR	ADD LANES & RECONSTRUCT	ADJACENT ROADWAY	2011	4.0	2	FDOT
SR 528 PD&E STUDY FROM SR 520 TO SR AIA	ADD LANES & RECONSTRUCT	ADJACENT ROADWAY	2020	17.7	2	FDOT
I-95 @ PINEDA CAUSEWAY EXT INTERCHANGE	INTERCHANGE (NEW)	INTERCHANGE	2010	0.0	0	FDOT
I-95 @ VIERA BLVD EXT INTERCHANGE	INTERCHANGE (NEW)	INTERCHANGE	2015	0.0	0	NORTH FLORIDA TPO
ELLIS ROAD INTERCHANGE (I-95)	INTERCHANGE (NEW)	INTERCHANGE	2016	0.0	0	NORTH FLORIDA TPO
ST. JOHNS HERITAGE PARKWAY INTERCHANGE (I-95)	INTERCHANGE (NEW)	INTERCHANGE	2020	0.0	0	BREVARD COUNTY
PINEDA CAUSEWAY EXT TO I-95	NEW ROAD CONSTRUCTION	ADJACENT ROADWAY	2010	1.9	4	FDOT
ST. JOHNS HERITAGE PARKWAY	NEW ROAD CONSTRUCTION	PARALLEL ROAD	2020	30.0	4	BREVARD COUNTY
SR 528 EXT FROM ORLANDO TO I-95	NEW ROAD CONSTRUCTION	ADJACENT ROADWAY	2025	60.0	6	NORTH FLORIDA TPO
SR 408 EAST EXT FROM ORLANDO TO I-95	NEW ROAD CONSTRUCTION	ADJACENT ROADWAY	2030	50.0	6	NORTH FLORIDA TPO

#### **Volusia County**

I-95 crosses 29 existing bridges within Volusia County. The following six (6) bridge-related projects are planned for implementation by 2035. These projects include two (2) new interchanges, two (2) interchange modifications, one (I) new construction project and one reconstruction project to an adjacent roadway.

Table 5.1b: Volusia County Planned Bridge-Related Projects (Implementation by 2035)

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PROJECT LOCATION	PROJECT TYPE	PROXIMITY TO I-95	ANTICIPATED COMPLETION	APPROX LENGTH (MILES)	ADDED LANES	SOURCE
I-4 FROM E OF SR 44 TO W OF I-95	ADD LANES & RECONSTRUCT	adjacent roadway	2012	12.2	2	FDOT
I-95 AND I-4 SYSTEMS INTERCHANGE MOD	INTERCHANGE (MODIFY)	interchange	2014	0.0	0	FDOT
SR 442 (INDIAN RIVER BLVD) INTERCHANGE IMPROVEMENTS	INTERCHANGE (MODIFY)	interchange	2016	0.0	0	VOLUSIA COUNTY MPO
I-95 N ORMOND BUSINESS PARK NEW INTERCHANGE	INTERCHANGE (NEW)	interchange	2012	0.0	0	FDOT
I-95 INTERCHANGE @ PIONEER TRAIL	INTERCHANGE (NEW)	interchange	2025	0.0	0	VOLUSIA COUNTY MPO
SR 417 EXT FROM NE ORLANDO TO I-95	NEW ROAD CONSTRUCTION	adjacent roadway	2035	35.0	6	VOLUSIA COUNTY MPO

#### Flagler County

There are seven (7) existing bridges that I-95 crosses throughout Flagler County. The following four (4) bridge-related projects are planned for implementation by 2035. These include a new interchange project, two (2) new construction projects, and a transit-related project.

Table 5.1c: Flagler County Planned Bridge-Related Projects (Implementation by 2035)

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PROJECT LOCATION	PROJECT TYPE	PROXIMITY TO I-95	ANTICIPATED COMPLETION	APPROX LENGTH (MILES)	ADDED LANES	SOURCE
I-95 @ MATANZAS WOOD PKWY INTERCHANGE	INTERCHANGE (NEW)	interchange	2011	0.0	0	FDOT
MATANZAS WOOD PKWY FROM BIRD OF PARADISE DR TO OLD KINGS RD	NEW ROAD CONSTRUCTION	adjacent roadway	2011	1.9	2	FDOT
OLD KINGS DRIVE FROM FORREST GROVE DR TO OLD KINGS RD	NEW ROAD CONSTRUCTION	parallel road	2012	0.0	4	FDOT
COMMUTER RAIL SE EXT FROM ST AUGUSTINE TO PALM COAST	TRANSIT	transit	2035	28.0	N/A	NORTH FLORIDA TPO

#### St. Johns County

There are 21 existing bridges that I-95 crosses throughout St. Johns County. The following 24 bridge-related projects are planned for implementation by 2035. These projects include four (4) new interchange projects (including two major interchanges), four interchange modifications, twelve (12) new roadway construction projects, two roadway reconstruction projects, and two (2) transit-related projects.

From the Indian River / Brevard County Line to the Florida / Georgia State Line

## Table 5.1d: St. Johns County Planned Bridge-Related Projects (Implementation by 2035)

PROJECT LOCATION	PROJECT TYPE	PROXIMITY TO I-95	ANTICIPATED COMPLETION	APPROX LENGTH (MILES)	ADDED LANES	SOURCE
SR 16 FROM CR16A TO INT'L GOLF PARKWAY	ADD LANES & RECONSTRUCT	parallel road	2010	1.5	2	FDOT
SR 207 FROM CR 305 TO WEST OF I-95	ADD LANES & RECONSTRUCT	adjacent roadway	2011	3.7	2	FDOT
SR 9B PHASE 3: DURBIN PKWY INTERCHANGE	INTERCHANGE (MAJOR)	adjacent roadway	2020	0.0	0	NORTH FLORIDA TPO
FIRST COAST OUTER BELTWAY INTERCHANGE @ CR 2209	INTERCHANGE (MAJOR)	adjacent roadway	2030	0.0	0	NORTH FLORIDA TPO
I-95 @ CR 210	INTERCHANGE (MODIFY)	interchange	2011	0.0	0	FDOT
I-95 @ SR 206 INTERCHANGE MOD	INTERCHANGE (MODIFY)	interchange	2020	0.0	0	NORTH FLORIDA TPO
I-95 @ SR 207 INTERCHANGE MOD	INTERCHANGE (MODIFY)	interchange	2025	0.0	0	NORTH FLORIDA TPO
I-95 @ SR 9B	INTERCHANGE (NEW)	interchange	2017	0.0	0	FDOT
US I @ CR 210	INTERCHANGE RAMP (NEW)	parallel road	2012	0.7	0	FDOT
I-95 @ CR 210 PHASE 2	INTERSECTION (MODIFY)	interchange	2012	0.0	0	FDOT
SR 9B CONNECTOR RELOCATED RACETRACK RD TO I-95	NEW ROAD CONSTRUCTION	adjacent roadway	2013	0.6	0	FDOT
RACETRACK RD REALIGNMENT FROM WEST OF SR 9B TO US I	NEW ROAD CONSTRUCTION	adjacent roadway	2015	2.5	4	NORTH FLORIDA TPO
CR 2209 EXTENSION FROM FIRST COAST OUTER BELTWAY TO CR 210	NEW ROAD CONSTRUCTION	parallel road	2015	4.0	4	NORTH FLORIDA TPO
CR 2209 EXTENSION FROM INTER GOLF PKWY TO CR 210	NEW ROAD CONSTRUCTION	parallel road	2016	4.0	4	NORTH FLORIDA TPO
CR 2209 EXTENSION FROM CR 208 TO SR 16	NEW ROAD CONSTRUCTION	parallel road	2016	4.0	4	NORTH FLORIDA TPO
SR 9B EXTENSION ST. JOHNS COUNTY PHASE	NEW ROAD CONSTRUCTION	adjacent roadway	2017	0.6	0	FDOT
CR 2209 EXTENSION FROM SR 16 TO INTER GOLF PKWY	NEW ROAD CONSTRUCTION	parallel road	2017	4.0	4	NORTH FLORIDA TPO
SR 9B PHASE 2: CONNECTION WITH CR 2209	NEW ROAD CONSTRUCTION	adjacent roadway	2018	2.5	4	NORTH FLORIDA TPO
SR 313 (SR 312 EXT) FROM CR 214 (KING ST) TO SR 16	NEW ROAD CONSTRUCTION	parallel road	2020	8.0	6	NORTH FLORIDA TPO
SR 313 (SR 312 EXT) FROM SR 16 TO US 1	NEW ROAD CONSTRUCTION	parallel road	2020	7.0	6	NORTH FLORIDA TPO
SR 313 (SR 312 EXT) FROM SR 207 TO CR 214 (KING ST)	NEW ROAD CONSTRUCTION	parallel road	2020	3.0	4	NORTH FLORIDA TPO
FIRST COAST OUTER BELTWAY FROM I-95 TO US 17	NEW ROAD CONSTRUCTION	adjacent roadway	2030	19.0	8	NORTH FLORIDA TPO
COMMUTER RAIL SE FROM DOWNTOWN JAX TO ST AUGUSTINE	TRANSIT	transit	2030	33.0	N/A	NORTH FLORIDA TPO
COMMUTER RAIL SE EXT FROM ST AUGUSTINE TO PALM COAST	TRANSIT	transit	2035	28.0	N/A	NORTH FLORIDA TPO

From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### **Duval County**

There are 84 existing bridges that I-95 crosses throughout Duval County. The following 26 bridge-related projects are planned for implementation by 2035. These projects include four (4) new interchange projects, seven (7) modified interchange projects, five (5) new road construction projects, six (6) roadway reconstruction projects, and four (4) transit-related projects.

Table 5.1e: Duval County Planned Bridge-Related Projects (Implementation by 2035)

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PROJECT LOCATION	PROJECT TYPE	PROXIMITY TO I-95	ANTICIPATED COMPLETION	APPROX LENGTH (MILES)	ADDED LANES	SOURCE
SR 115/MATTHEW'S BR FROM SOUTHSIDE BLVD TO 1-95 (MATTHEW BR REPL)	ADD LANES & RECONSTRUCT	adjacent roadway	2011	6.9	0	FDOT
US I (PHILIPS HWY) FROM CRII6 (SUNBEAM ROAD) TO SR 202 (BUTLER BLVD)	ADD LANES & RECONSTRUCT	parallel road	2011	3.0	2	FDOT
US I (PHILIPS HWY) FROM SR 9A TO SUNBEAM	ADD LANES & RECONSTRUCT	parallel road	2011	3.0	2	FDOT
US 17 FROM NEW BERLIN ROAD TO PECAN PARK ROAD	ADD LANES & RECONSTRUCT	parallel road	2013	4.0	2	FDOT
I-295 AUX-LANES FROM SR 13 TO I-95	ADD LANES & RECONSTRUCT	adjacent roadway	2014	4.5	0	FDOT
I-295 FROM I-95 SOUTH/SR9 TO PRITCHARD RD.	ADD LANES & RECONSTRUCT	adjacent roadway	2015	22.7	0	FDOT
SR 202 (JTB BLVD) @ I-95 OFF RAMP	INTERCHANGE (MINOR)	interchange	2010	0.0	0	FDOT
I-95 @ AIRPORT RD. FROM ACCESS TO JIA/ROW TO FLYOVER	INTERCHANGE (MODIFY)	interchange	2010	0.0	0	FDOT
I-95 /DUNN AVENUE INTERCHANGE	INTERCHANGE (MODIFY)	interchange	2011	0.0	0	FDOT
SR 9A/I-295/I-95 INTERCHANGE	INTERCHANGE (MODIFY)	interchange	2011	0.0	0	FDOT
I-10/I-95INTERCHANGE FROM SO OF I-10 INTERCH. TO SO OF MYRTLE AVE	INTERCHANGE (MODIFY)	interchange	2011	0.0	0	FDOT
I-95 INTERCHANGE @ MLK JR. PARKWAY (JAXPORT TALLEYRAND)	INTERCHANGE (MODIFY)	interchange	2012	0.0	0	FDOT
SR 9A FROM I-95 INTERCHANGE TO DAMES POINT BRIDGE	INTERCHANGE (MODIFY)	interchange	2012	0.0	0	FDOT
I-95 INTERCHANGE MOD BETWEEN PHILIPS HWY AND SOUTHSIDE BLVD	INTERCHANGE (MODIFY)	interchange	2025	0.0	0	NORTH FLORIDA TPO
SR 9B PHASE II FROM SOUTH OF US 1 TO NORTH OF US 1	INTERCHANGE (NEW)	adjacent roadway	2015	0.4	0	FDOT
I-295/I-95/SR9A NORTH OPERATIONAL IMPROVEMENTS	INTERCHANGE RAMP (NEW)	interchange	2010	0.0	0	FDOT
I-95 @ NO I-295 INTERCHANGE PHASE I - NORTH	INTERCHANGE RAMP (NEW)	interchange	2013	0.0	0	FDOT

From the Indian River / Brevard County Line to the Florida / Georgia State Line

PROJECT LOCATION	PROJECT TYPE	PROXIMITY TO I-95	ANTICIPATED COMPLETION	APPROX LENGTH (MILES)	ADDED LANES	SOURCE
SR 9A WEST OF US I. EAST OF US I.	NEW ROAD CONSTRUCTION	parallel road	2010	1.5	6	FDOT
SR 9B / PHASE I FROM N OF US I TO SR 9A/9B SPLIT	NEW ROAD CONSTRUCTION	adjacent roadway	2014	3.6	4	FDOT
JIA NORTH ACCESS RD. FROM AIRPORT ROAD TO PECAN PARK (I-95)	NEW ROAD CONSTRUCTION	adjacent roadway	2016	3.5	4	FDOT
SR 9B PHASE III I-95 TO S OF US I	NEW ROAD CONSTRUCTION	adjacent roadway	2016	1.3	0	FDOT
SR 9B PHASE IV FROM ST. JOHNS C/L TO I-95	NEW ROAD CONSTRUCTION	adjacent roadway	2016	0.6	0	FDOT
BRT NORTH FROM GATEWAY MALL TO JAX AIRPORT	TRANSIT	transit	2030	13.5	N/A	NORTH FLORIDA TPO
BRT SE FROM DOWNTOWN JAX TO AVENUES MALL (VIA US I)	TRANSIT	transit	2030	10.5	N/A	NORTH FLORIDATPO
COMMUTER RAIL NORTH FROM DOWNTOWN JAX TO YULEE	TRANSIT	transit	2030	22.0	N/A	NORTH FLORIDATPO
COMMUTER RAIL SE FROM DOWNTOWN JAX TO ST AUGUSTINE	TRANSIT	transit	2030	33.0	N/A	NORTH FLORIDA TPO

#### **Nassau County**

There are ten (10) existing bridges that I-95 crosses throughout Nassau County. The following six (6) bridge-related projects are planned for implementation by 2035. These projects include one (1) new interchange project, one (1) interchange modification project, one (1) new roadway construction, two (2) roadway reconstruction projects, and one (1) transit-related project.

Table 5.1f Nassau County Planned Bridge-Related Projects (Implementation by 2035)

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PROJECT LOCATION	PROJECT TYPE	PROXIMITY TO I-95	ANTICIPATED COMPLETION	APPROX LENGTH (MILES)	ADDED LANES	SOURCE
SR 200/A1A GRIFFIN ROAD I-95	ADD LANES & RECONSTRUCT	adjacent roadway	2010	5.1	2	FDOT
SR 200 (A1A) FROM I-95 TO W.OF STILL QUARTERS RD	ADD LANES & RECONSTRUCT	adjacent roadway	2011	2.2	2	FDOT
SR 200/ AIA @ I-95 INTERCHANGE	INTERCHANGE (MINOR)	interchange	2009	0.0	0	FDOT
I-95 @ EAST NASSAU CONNECTOR INTERCHANGE	INTERCHANGE (NEW)	interchange	2025	0.0	0	NORTH FLORIDA TPO
EAST NASSAU CONNECTOR FROM I-95 TO CHESTER RD	NEW ROAD CONSTRUCTION	adjacent roadway	2024	5.0	4	NORTH FLORIDA TPO
COMMUTER RAIL NORTH FROM DOWNTOWN JAX TO YULEE	TRANSIT	transit	2030	22.0	N/A	NORTH FLORIDA TPO

#### **CHAPTER 6 – FUTURE MULTIMODAL CONDITIONS**

### 6.1 Future Multimodal Facilities (Airport, Maritime, Rail, and Transit)

All of the major existing and future multimodal facilities within the six (6) study area counties are listed below by the county they reside in. The multimodal facilities include airports, maritime/ports, freight/passenger rail, and transit services.

#### **Brevard County**

#### Airport Facilities

Titusville-Cocoa Airport Authority operates Arthur Dunn Airpark (less than a mile east of I-95 at exit 220 – SR 406), Space Coast Regional Airport (three miles east of I-95 at exit 212 – SR 407), and the Merritt Island Airport (six miles east of I-95 at exit 201 – SR 520). The extent of future development at these facilities is unknown. Melbourne International Airport is a commercial service airport about five (5) miles east of I-95 between exits 183 (Eau Gallie Blvd) and 180 (US 192). The airport has plans to extend the main runway length within the next decade. The airport connects to Greyhound Bus and Space Coast Area Transit (SCAT) bus service at a station at the airport.

#### **Maritime Facilities**

Port Canaveral is a seaport located thirteen (13) miles east of I-95 via SR A1A at exit 205 (SR 528). The Port is a first-class deep water port that includes both cruise and cargo line docks. The Port's 2007 Master Plan includes several future improvement projects, such as: a 2,200-foot conveyor system to reduce unloading time of materials; administrative building renovations; construction of a waterfront hotel; a \$40 million renovation program of the Port's cargo piers; terminal upgrades; new marina and marina district; and a \$120 million project to develop a major fuel storage terminal and pipeline on a 30-acre site.

#### **Rail Facilities**

In 2009, Norfolk Southern opened a new intermodal freight terminal in Titusville that will provide more efficient freight service between northeast and east central Florida and Chicago. The terminal is located about two and half miles east of I-95 at exit 220 (SR 406).

#### **Transit Facilities**

Space Coast Area Transit (SCAT) provides service to all of the major urban areas in Brevard County via fourteen (14) bus routes and trolley service (only in Cocoa Beach). SCAT has several planned expansions related to new developments throughout the County.

#### Other Facilities

Cape Canaveral Spaceport lies eight (8) miles east of I-95 on Merritt Island along SR 405/NASA Parkway. The spaceport is accessed by exits 215 (SR 50/Columbia Blvd) or 212 (SR 407/Challenger Memorial Pkwy). The future land use plan for the spaceport projects increases in the number of spacecraft launches and tourists visiting the Space Center. In addition to new launch pads, the future land use plan includes expansions to the visitor complex, hotels, and conference center facilities.

#### **Volusia County**

#### Airport Facilities

Ormond Beach Municipal Airport lies about one (I) mile east of I-95 between exits 273 (US I) and 268 (SR 40) and is a general aviation airport that is constructing an air traffic control tower, rehabilitating a taxiway, and building new roads. Daytona Beach International Airport is a commercial service airport

## 95

## I-95 Sketch Interstate Plan (SIP)

From the Indian River / Brevard County Line to the Florida / Georgia State Line

two and half miles east of I-95 at exit 261 (US 92). Several updates were made to the terminal and runway facilities over the past decade, so it is unknown what future plans exist for the airport. Additionally, the DeLand Municipal Airport lies approximately fourteen (14) miles west of I-95 at the same exit and offers general aviation air service. The airport plans to expand its business park on 300 acres of land on the northwest side of the airport. Spruce Creek Airport is a private airport located within a private community that lies about two miles west of I-95 at exit 256 (CR 415). The Spruce Creek community is billed as the world's largest residential fly-in community. Future expansion of the airport is not likely because it is entirely surrounded by existing homes. The New Smyrna Beach Airport is a public airport that lies about three and half miles east of I-95 at exit 249 (SR 44). There are no immediate expansion plans at the airport.

#### Transit Facilities

VOTRAN (Volusia County Transportation Authority) provides transportation to all urban areas of the County with 56 fixed route buses, four (4) trackless trolleys, 29 van pools, and 44 paratransit vehicles. VOTRAN has several planned expansions related to new developments throughout the County. Additionally, VOTRAN is pursing expansion plans around the DeLand Amtrak station.

#### **Flagler County**

#### Airport Facilities

Flagler County Airport is located approximately one and half miles west of I-95 at exit 284 (SR 100). The airport master plan identifies several facility improvements through 2022 including runways, hangars, terminals, parking, and administration space to accommodate current and future demand in this rapidly-growing county.

#### **Transit Facilities**

Palm Coast offers a demand-response van service that is mostly utilized by the elderly. There are no known plans for expansion.

#### St. Johns County

#### Airport Facilities

St. Augustine Airport is located about eight (8) miles east of I-95 at exit 318 (SR 16). The County has several projects planned over the next few years, including construction of 15,000 square feet of new office space, creation of a public park, and widening and rehabilitation of its oldest taxiway. Plans also include a \$10 million runway rehabilitation. Further, there is a proposed 50,000 square foot multimodal facility to accommodate aviation, rail, and all surface vehicle demands in a single facility. The multimodal facility is projected to cost \$20 million.

#### **Transit Facilities**

The Sunshine Bus Company provides shuttle bus service from seven (7) fixed-routes to any destination within St. Augustine. There are no known plans for expansion.

#### **Duval County**

#### Airport Facilities

The Jacksonville International Airport is a commercial service airport located two (2) miles west of I-95 north of Jacksonville at exit 363 (Airport Rd). The airport bills itself as the gateway to northeast Florida and southeast Georgia and future plans for expansion mostly consist of industrial landside development to the north and east of the airport. In addition to the industrial development, the Jacksonville International Airport is undergoing a significant reconstruction of the passenger terminal. Craig Municipal Airport lies eight (8) miles east of I-95, along SR 9A, and helps divert general aviation traffic away from Jacksonville International Airport. It is located near residential areas and has become a noise

# 95

## I-95 Sketch Interstate Plan (SIP)

From the Indian River / Brevard County Line to the Florida / Georgia State Line

sensitive airport. As such, there are no expansion plans proposed. Herlong Airport lies nine (9) miles west of I-95, and two (2) miles south of I-10, and is a recreational and sport flying airport. The airport has renovated its terminal and built a new hangar to anticipate future growth in demand. Cecil Field is about fifteen (15) miles west of I-95, along I-10, and is used by corporate aircraft, general aviation, air cargo, and National Guard and Reserve aviation. With its I2,500 foot runway, Cecil Field was recently designated as a commercial Space Port for horizontal launch and landing spacecraft. Cecil Field is poised to grow as it develops its 2.9 million square feet of buildings, four (4) runways, and 425,000 square foot of warehouse, industrial, and general-use space.

#### Maritime Facilities

Port of Jacksonville contains the Talleyrand Marine Terminal, located on 173 acres on the St. Johns River. The terminal is three (3) miles east of I-95 and provides direct switching service for Norfolk Southern and CSX railroads. Tracks will be added from the existing Talleyrand Marine Terminal on-site rail facilities to a switching yard to accommodate a projected increase of 8,000 rail cars. Blount Island Marine Terminal lies on 754 acres in Jacksonville and is one of the largest vehicle import/export centers in the U.S. Dames Point Marine Terminal lies on 158 acres approximately three (3) miles east of 1-95 near the intersection of Heckscher Drive and SR 9A and includes cargo docks and the temporary lacksonville cruise ship terminal, which was constructed in 2003. A permanent cruise ship terminal is proposed to be constructed within the next decade in Mayport near the mouth of the St. Johns River. Existing freight rail is planned to be extended from Blount Island and Dames Point south and looped to serve all Port tenants. The Jacksonville Port Authority has plans to expand the Port and deepen the river channel to tap into increased trade spurred by expansion of the Panama Canal to be finished in 2014. The Jacksonville port's cargo-handling capacity will triple once a new terminal is complete in 2013. All of these facilities are located to the northeast of downtown Jacksonville and either access I-95 at exits 362 (I-295/9A) or 358 (Heckscher Dr), if the facilities are north or east of the St. Johns River, or exits 357 (SR 111/Edgewood Ave) and 356 (SR 115/SR 117), if the facilities are west of the river.

#### Railroad Facilities

Jacksonville FEC Intermodal Terminal is a freight railroad terminal located two (2) miles west of I-95 between exits 346 (SR 109/University Blvd) and 344 (SR 202/JT Butler Blvd). In 2007, the facility performed over 215,000 lifts and connects to the Jacksonville-Miami Florida East Coast Railway line.

#### **Transit Facilities**

The Jacksonville Transportation Authority (JTA) is an independent state agency that serves Duval County and whose responsibilities include: designing and constructing bridges and highways and providing a variety of mass transit services. They include express and regular bus service, a downtown Skyway monorail, Trolley service within several neighborhoods and beach areas, and elderly/employee customized transportation options. JTA recently studied the creation of several commuter rail lines. Plans estimate that construction of a 90-mile commuter rail system on existing railroad tracks would include three (3) tracks that would begin in downtown Jacksonville: one line would go north to Yulee (Nassau County); one line would go southwest to Green Cove Springs (Clay County); and a line would go southeast to St. Augustine (St. Johns County). Ridership estimates in 2015 are: 2,400-4,800 daily riders on the southeast route; 1,500-3,000 daily riders on the southwest route; and 800-1,500 daily riders on the north route.

Jacksonville Amtrak Rail Terminal operates in northwest Jacksonville along US I approximately three (3) miles west of I-95. Amtrak offers twice daily northbound and southbound passenger train routes called the Silver Meteor and Silver Star with service between New York City and Miami. From Jacksonville, the next stops are in Jessup, Georgia roughly 75 miles to the north, and Palatka, Florida (Putnam County) which is sixty (60) miles to the south. From Palatka, the train also stops in Volusia County on the



From the Indian River / Brevard County Line to the Florida / Georgia State Line

western side of DeLand before heading south to Orlando and eventually Miami. FDOT has plans to connect Jacksonville with Miami along Florida's east coast with high speed rail. Under the plan, eight (8) new stations will be constructed between Jacksonville and Miami. Other corridors between Miami, Orlando, and Tampa were prioritized by FDOT over the east coast line; however, all of the high speed corridors could be achieved within the I-95 SIP horizon year of 2035.

#### Other Facilities

The Jacksonville Regional Intermodal Terminal Center was awarded funding in 2008 for design of a multimodal facility that will serve rail, bus, rapid transit, and pedestrian services in LaVilla around the existing Skyway terminal between west Forsyth and Bay streets just west of downtown Jacksonville. The initial phase includes 60,000 square feet of JTA offices and a Regional Transportation Management Center of 35,000 square feet housing City and FDOT transportation management, transit dispatchers, Florida Highway Patrol and the North Florida Transportation Planning Organization, all located west of the existing Skyway terminal. Phase one (I) will also integrate the existing Skyway terminal with two (2) Bus Rapid Transit stations on the north and south sides, a public plaza, and parking for 200 vehicles plus retail space. The later phases call for a JTA bus facility with sixteen (16) bus bays between Forsyth and Houston streets, more retail space, a public plaza fronting Johnson Street, structured parking for another 876 vehicles, an Amtrak and Commuter Rail terminal adjacent to the historic Jacksonville Union Terminal and Prime Osborn Convention Center, and a Greyhound Bus facility between Houston and Adams Streets.

#### **Nassau County**

#### Airport Facilities

The Fernandina Beach Municipal Airport is located ten (10) miles east of I-95 adjacent to SR A1A and has future plans to grow through the lease of land for aeronautical and commercial development.

#### Maritime Facilities

The Port of Fernandina is the northernmost port in Florida. It is a natural deep water seaport located in Fernandina Beach approximately 14 miles east of I-95 at exit 373 (SR A1A/SR 200). It is a full-service port that is served daily by the CSX railroad.

#### Transit Facilities

Fernandina Beach offers a demand-response van service that is mostly utilized by the elderly. There are no known plans for expansion.

#### **Summary**

Many multimodal improvements are planned along the I-95 corridor with future projects including expansion of airports, passenger rail, freight rail, and seaports. In many instances, it is difficult to determine the precise impact these improvements will have on I-95. Some multimodal improvements may reduce traffic on I-95, such as future plans for passenger rail. Other improvements, such as those to airports, may increase traffic on I-95. The most concentrated area of multimodal improvements is located within the City of Jacksonville in Duval County.

### **CHAPTER 7 – FUTURE TRAFFIC CONDITIONS**

## 7.1 Traffic Methodology

Within the study area, the I-95 corridor traverses through six (6) counties and two FDOT Districts (2 and 5) for a total of over 220 miles of freeway mainline and 64 existing interchanges. In order to develop a plan for the corridor, horizon year (2035) traffic volumes are necessary; these volumes can be used to determine the number and types of lanes needed throughout segments of the study corridor. Several data sources are currently available for developing these traffic volumes. Therefore, a Traffic Methodology Memorandum was completed to review the data available from various sources and determine the desired methodology for creating the best future year traffic forecast. The desired methodology is briefly described in the following paragraph. A detailed description of the methodology and data sources can be found in the Memorandum.

In late 2009, concurrence was reached by FDOT and the project team to utilize the regional travel demand models to forecast 2035 Annual Average Daily Traffic (AADT) volumes. Unconstrained model runs were utilized for this purpose. In the northern section of the study area, the North Florida Transportation Planning Organization maintains the Northeast Regional Planning Model (NERPM). This NERPM 2030 travel demand model was used to obtain traffic volume forecasts within the I-95 Counties of Clay, Duval, Nassau, and St. Johns. NERPM model run outputs were provided in GIS format for the years 2000 and 2030, which, were then extrapolated to forecast 2035 AADT volumes. Similarly, in the southern section of the study area travel demand model outputs were provided for the Central Florida Regional Planning Model (CFRPM), which encompasses 2005 and 2025 volumes for FDOT District 5. The AADT volumes from the CFRPM were also used to predict 2035 AADTs based on linear extrapolation.

With FDOT's desire to know the worst case scenario, unconstrained modeling forecasts were used over constrained output results for future year conditions to determine the number of lanes required on the I-95.

## 7.2 Existing Year (2008) Traffic Volumes and Level of Service Analysis

Since the two (2) travel demand models have different base years, the Annual Average Daily Traffic (AADT) for 2008 was determined by applying a growth rate to the 2005 model volumes for District 5 and the 2000 model volumes for District 2. For the purposes of these calculations, the growth rates were determined from the constrained base year model and unconstrained future year model within each district.

Existing level of service (LOS) for each freeway segment was determined by comparing the 2008 volumes to the generalized Annual Average Daily Volume Tables (as detailed in the **Horizon Year** (2035) Traffic Volumes and Lane Calls Analysis) based on the existing area type and lanes.

## 7.3 Horizon Year (2035) Traffic Volumes and Lane Calls Analysis

Traffic volumes were developed for each I-95 freeway segment within the I-95 SIP study area. A freeway segment was defined as the portion of the freeway that is located between two interchanges and not the portion of the freeway located within the interchange, as more detailed analyses at a more refined stage of development would be needed. These volumes were calculated using model results from the regional

models maintained by the local Metropolitan Planning Organizations (MPOs) for FDOT Districts 2 and 5. A base year 2000 or 2005 model data set was provided by each MPO as well as an all-or-nothing unconstrained future year model data set. Extrapolation was used to develop 2035 traffic volumes for each freeway segment. The model traffic volumes were adjusted in Duval County which will be discussed later in the report under Duval County.

A minimum LOS threshold was established for each I-95 freeway segment based on the projected area type for that segment. FDOT maintains minimum acceptable operating level of service standards for the Strategic Intermodal System (SIS) for I-95. The statewide minimum LOS for the State Highway System varies according geography, with three broad types: urbanized, transitioning, and rural areas. Urbanized areas are designated by the U.S. Census Bureau as well as the surrounding geographical areas as agreed upon by the FDOT, the MPO, and Federal Highway Administration (FHWA), commonly called FHWA Urbanized Area Boundaries. The thresholds used are as follows:

Table 7.3a: FDOT Minimum Acceptable Operating Level of Service Standards (LOS)

A T	LOS Threshold used to
Area Type	determine Future Lanes
Rural	LOSB
Transition	LOSC
Other Urban	LOSC
Large Urban	LOSD

The 2035 volumes were compared to the freeway section of the generalized Annual Average Daily Volume Tables shown below from the 2009 FDOT Quality/Level of Service Handbook to determine the number of lanes required to manage projected future traffic volumes. As shown above, the threshold for each area type is highlighted in **Tables 7.3b – 7.3e**.

Table 7.3b: FDOT Generalized Average Annual Daily Volumes - Freeways (Urban Areas)

Generalized Annual Average Daily Volumes								
	Large Urban Area							
	Fre	eways						
Lanes	LOSB	LOSC	LOSD	LOSE				
4	43,500	59,800	73,600	79,400				
6	65,300	90,500	110,300	122,700				
8	87,000	120,100	146,500	166,000				
10	108,700	151,700	184,000	209,200				
12	149,300	202,100	238,600*	252,500				

Source: Table 1 of 2009 FDOT Quality/Level of Service Handbook

The goal for 'Large Urban Area' is to maintain LOS D

\*For volumes over 238,600; 19,880 vehicles per lane threshold was used.

Table 7.3c: FDOT Generalized Average Annual Daily Volumes - Freeways (Other Urban Areas)

General	Generalized Annual Average Daily Volumes							
	Other U	rban Area						
	Free	eways						
Lanes	LOSB	LOSC	LOS D	LOSE				
4	43,500	59,800	73,600	79,400				
6	65,300	90,500	110,300	122,700				
8	87,000	120,100	146,500	166,000				
10	10 108,700 <mark>151,700</mark> 184,000 209,200							
12	149,300	202,100*	238,600	252,500				

Source: Table 1 of 2009 FDOT Quality/Level of Service Handbook

The goal for 'Other Urban Area' is to maintain LOS C

Table 7.3d: FDOT Generalized Average Annual Daily Volumes - Freeways (Transition Areas)

General	Generalized Annual Average Daily Volumes										
Transition Area											
Freeways											
Lanes	Lanes LOSB LOSC LOSD LOSE										
4	42,600	57,600	68,700	73,600							
6	63,900	86,600	103,300	113,700							
8	8 85,200 <b>115,600</b> 137,600 153,700										
10	106,400	145,600*	172,400	192,800							

Source: Table 2 of 2009 FDOT Quality/Level of Service Handbook

The goal for 'Transition Area' is to maintain LOS C

Table 7.3e: FDOT Generalized Average Annual Daily Volumes - Freeways (Rural Areas)

Generalized Annual Average Daily Volumes												
Rural Area												
Freeways												
Lanes	Lanes LOSB LOSC LOSD LOSE											
4	37,100	49,900	59,400	63,700								
6	6 54,800 74,600 89,000 98,300											
8	73,300*	100,200	118,700	132,700								

Source: Table 3 of 2009 FDOT Quality/Level of Service Handbook

The goal for 'Rural Area' is to maintain LOS B

The goal is to determine the number of lanes required to maintain LOS B/C/D operations based on the area type. The table does not include values high enough to account for some of the calculated 2035

<sup>\*</sup>For volumes over 202,100; 16,850 vehicles per lane threshold was used.

<sup>\*</sup>For volumes over 145,600; 14,460 vehicles per lane threshold was used.

<sup>\*</sup>For volumes over 73,300; 9,160 vehicles per lane threshold was used.



From the Indian River / Brevard County Line to the Florida / Georgia State Line

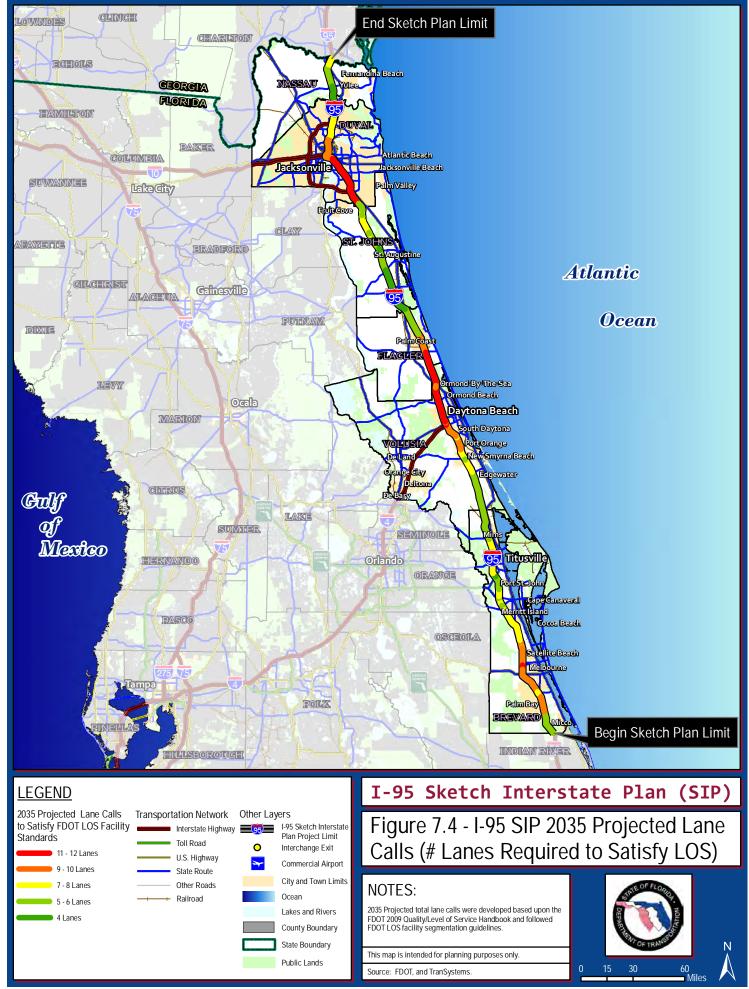
volumes. Therefore, as shown in the footnotes for each of the above tables, certain vehicle per lane threshold were set based on each area type. Using this means of determination, a number of lanes could then be established for each segment of I-95.

## 7.4 Existing (2008) Level of Service and Horizon Year (2035) Lane Calls

Existing level of service (LOS) as well as the projected traffic volumes and lane calls for all of I-95 within the six (6) study area counties for the horizon year of 2035 are detailed in the following pages. The following criteria are included in each table:

- ✓ From/To segment of I-95 between two (2) existing or future exits (county lines are listed between each county and at the south and north ends of the study area).
- ✓ 2008 AADT From FDOT Traffic Information the AADT as identified in the 2008 Florida
  Traffic Information and Highway Data is shown in the tables. It should be noted that not all
  segments had an AADT listed. This information was included to compare with the 2008 AADT's
  from the model outputs.
- ✓ Existing Area Type Area type as defined by FDOT for each freeway segment.
- ✓ <u>Projected 2008 Total AADT based on Model Output</u> The AADT for 2008 was determined by applying a growth rate to the 2005 model volumes for District 5 and the 2000 model volumes for District 2.
- ✓ Existing Total Lanes The existing number of lanes (both directions) are up-to-date as of October 2009.
- ✓ LOS based on Lookup Tables Existing LOS for each freeway segment is determined by comparing the projected 2008 volumes (based on model output) to the generalized Annual Average Daily Volume Tables provided by FDOT.
- ✓ <u>Future Area Type</u> Area type as projected for each freeway segment based upon anticipated future land use changes.
- ✓ 2035 Total AADT The future AADT (both directions) are from the 2030 unconstrained model runs and then extrapolated to 2035.
- ✓ <u>FDOT Facility Minimum LOS</u> As shown in a table earlier in this chapter, minimum LOS thresholds were established based on the area type.
- ✓ 2035 Future Conditions Total Lanes This lists the number of lanes required to service the expected AADT on each segment (total) based upon tables and thresholds described in the Horizon Year (2035) Traffic Volumes and Lane Calls Analysis.

See **Figure 7.4** for more information.





From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### **Brevard County**

Currently, I-95 is four (4) lanes, two (2) northbound and two (2) southbound, throughout Brevard County. FDOT is intending to widen I-95 in phases throughout Brevard County, with the anticipated completion by approximately 2020. Two lanes would be added, bringing the total number of lanes to six (6) (three northbound and three southbound) (**Appendix E – Figure 7.4a**).

The future horizon year traffic volume (AADT) for both directions are from the 2030 unconstrained model runs and then extrapolated to 2035. It is important to point out that on several segments within Brevard County the 2008 AADT from the FDOT Traffic Information is greater than the 2008 AADT from the model data. The 2008 AADT from the FDOT traffic information is calculated from known counts; therefore for evaluation purposes it's necessary to adjust the LOS to show the worst case scenario. So, a lower LOS (B/C versus E/F) is identified on some segments of I-95.

As shown in **Table 7.4a**, only three (3) small segments of I-95 are projected to require six (6) lanes or less while the large majority of I-95 within Brevard County is anticipated to require between eight (8) and ten (10) lanes. The highest numbers of lanes are projected around Melbourne and the adjacent Cities of Palm Bay and Viera.

From the Indian River / Brevard County Line to the Florida / Georgia State Line

Table 7.4a: Brevard County Horizon Year (2035) Lane Calls

			Existing (20	008) Condition	ns		Fut	ure (2035)	Conditions	
From	То	2008 AADT From FDOT Traffic Information	Area Type	Projected 2008 Total AADT based on Model Output	Total Lanes	LOS based on Lookup Tables	Area Type	2035 Total AADT	Total Facility Minimum	
Indian River County Line	Future Exit 167 (St. Johns Heritage Parkway)	33,390	Rural	40,079	4	С	Rural	83,400	В	10
Future Exit 167 (St. Johns Heritage Parkway)	Exit 173 (Malabar Road)	33,390	Rural	44,099	4	С	Transition	123,600	С	10
Exit 173 (Malabar Road)	Exit 176 (Palm Bay Road)	77,500	Other Urban	58,331	4	E*	Other Urban	131,900	С	10
Exit 176 (Palm Bay Road)	Ex it 180 (US 192)	80,000	Other Urban	58,046	4	F*	Other Urban	130,500	С	10
Ex it 180 (US 192)	Future Exit 181 (Ellis Road)	81,500	Other Urban	56,449	4	F*	Other Urban	141,800	С	10
Future Exit 181 (Ellis Road)	Exit 183 (Eau Gallie Boulev ard)	81,500	Other Urban	57,589	4	F*	Other Urban	153,200	С	12
Ex it 183 (Eau Gallie Boulev ard)	Future Exit 188 (Pineda Causeway Extension)	83,000	Other Urban	59,506	4	F*	Other Urban	141,300	С	10
Future Exit 188 (Pineda Causeway Extension)	Exit 191 (Wickham Road)	83,000	Other Urban	58,076	4	F*	Other Urban	127,000	С	10
Exit 191 (Wickham Road)	Future Exit 193 (Viera Boulevard)	77,000	Other Urban	57,765	4	E*	Other Urban	106,400	С	8
Future Exit 193 (Viera Boulevard)	Exit 195 (SR 519/Fiske Boulev ard)	77,000	Other Urban	57,765	4	E*	Other Urban	106,400	С	8
Exit 195 (SR 519/Fiske Boulev ard)	Exit 201 (SR 520)	71,500	Other Urban	55,392	4	D*	Other Urban	113,500	С	8
Exit 201 (SR 520)	Exit 202 (SR 524/Bennett Causway)	63,000	Other Urban	51,135	4	D*	Other Urban	93,700	С	8
Exit 202 (SR 524/Bennett Causway)	Ex it 205 (Beachline Ex pressway/SR 528)	55,500	Other Urban	47,724	4	С	Other Urban	92,400	С	8
Exit 205 (Beachline Expressway/SR 528)	Exit 208 (Port St. Johns Road)	48,500	Other Urban	47,348	4	С	Other Urban	93,900	С	8
Exit 208 (Port St. Johns Road)	Ex it 212 (SR 407)	41,000	Other Urban	39,654	4	В	Other Urban	81,000	С	6
Exit 212 (SR 407)	Exit 215 (Cheney Road/SR 50)	39,500	Other Urban	45,350	4	С	Other Urban	98,300	С	8
Exit 215 (Cheney Road/SR 50)	Exit 220 (Garden Street/SR 406)	42,500	Other Urban	50,800	4	В	Other Urban	112,500	С	8
Exit 220 (Garden Street/SR 406)	Exit 223 (SR 46)	33,000	Other Urban	43,243	4	В	Other Urban	94,200	С	8
Exit 223 (SR 46)	Exit 231 (Stuck Way Road)	27,122	Transition	29,870	4	В	Transition	77,100	С	6
Exit 231 (Stuck Way Road)	Volusia County Line	24,500	Rural	25,907	4	В	Transition	69,200	С	6

<sup>\*</sup>LOS based on 2008 AADT from Florida Traffic Information. The model projected volumes indicated LOS C for these segments.

<sup>\*\*</sup> The future AADT (both directions) are from the 2030 unconstrained model runs and then extrapolated to 2035.

From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### **Volusia County**

Currently, I-95 is four (4) lanes, two (2) northbound and two (2) southbound, from the Brevard County line to exit 256 (Taylor Road/SR 421) and six (6) lanes, three (3) northbound and three (3) southbound, from exit 256 to the Flagler County line. FDOT is intending to widen I-95 by two (2) additional lanes (one northbound and one southbound) in phases throughout Volusia County, with the anticipated completion by approximately 2012 (**Appendix E – Figure 7.4b**). As shown in **Table 7.4b**, the area between the Brevard County line to the future exit 252 (Pioneer Trail), which is adjacent to the cities of New Smyrna Beach and Port Orange is anticipated to require eight (8) lanes, which the future widening would accommodate. However, the remainder of I-95 within Volusia County is anticipated to require between ten (10) and twelve (12) lanes. The area between the I-4 interchange in Daytona Beach to just south of Port Orange is projected to need ten (10) lanes. The area between I-4 and the Flagler County line, which includes the cities of Daytona Beach and Ormond Beach, is projected to need twelve (12) lanes to accommodate the anticipated 2035 traffic. It should be noted the future horizon year traffic volume (AADT) for both directions are from the 2030 unconstrained model runs and then extrapolated to 2035.

Table 7.4b: Volusia County Horizon Year (2035) Lane Calls

		,	Existing (20	08) Condition	ons		Future	(2035) C	onditions	
From	То	2008 AADT From FDOT Traffic Information	Агеа Туре	2008 Total AADT based on Model Output	Total Lanes	LOS based on Lookup Tables	Агеа Туре	2035 Total AADT	FDOT Facility Minimum LOS	Total Lanes Required
Brevard County Line	Exit 244 (Indian River Boulevard)	24,500	Rural	25,907	4	В	Rural	69,200	В	8
Exit 244 (Indian River Boulevard)	Exit 249 (SR 44)	34,000	Rural	39,241	4	С	Transition	94,400	С	8
Exit 249 (SR 44)	Future Exit 252 (Pioneer Trail)	36,377	Other Urban	46,538	4	С	Other Urban	107,700	С	8
Future Exit 252 (Pioneer Trail)	Exit 256 (Taylor Road/SR 421)	36,377	Other Urban	49,238	4	С	Other Urban	134,700	С	10
Exit 256 (Taylor Road/SR 421)	Exit 260 (I-4/SR 400)	57,500	Other Urban	62,268	4	В	Other Urban	140,500	С	10
Exit 260 (I-4/SR 400)	Exit 261 (US 92/International Speedway Boulevard)		Other Urban	93,093	4	D	Other Urban	198,200	С	12
Exit 261 (US 92/International Speedway Boulevard)	Exit 265 (LPGA Boulevard)	68,000	Other Urban	83,734	6	С	Other Urban	198,300	С	12
Exit 265 (LPGA Boulevard)	Exit 268 (SR 40/Tomoka Road)	79,000	Other Urban	84,969	6	С	Other Urban	187,600	С	12
Exit 268 (SR 40/Tomoka Road)	Future Exit 270 (Ormond Crossings)	55,000	Other Urban	68,198	6	С	Other Urban	181,200	С	12
Future Exit 270 (Ormond Crossings)	Exit 273 (US 1)	55,000	Transition	68,198	6	С	Other Urban	181,200	С	12
Exit 273 (US 1)	Flagler County Line/Exit 278 (Old Dixie Highway)	53,000	Transition	68,781	6	С	Other Urban	159,500	С	12

## I-95 Sketch Interstate Plan (SIP) From the Indian River / Brevard County Line to the Florida / Georgia State Line

			Existing (20	008) Condition	ns		Fut	ure (2035)	Conditions	
From	То	2008 AADT From FDOT Traffic Information	Area Type	2008 Total AADT based on Model Output	Total Lanes	LOS based on Lookup Tables	Агеа Туре	2035 Total AADT	Facility Minimum LOS  B  C  C  C  C  C  C  C  C	Total Lanes Required
Brevard County Line	Ex it 244 (Indian River Boulevard)	24,500	Rural	25,907	4	В	Rural	69,200	В	8
Exit 244 (Indian River Boulevard)	Exit 249 (SR 44)	34,000	Rural	39,241	4	С	Transition	94,400	С	8
Exit 249 (SR 44)	Future Exit 252 (Pioneer Trail)	36,377	Other Urban	46,538	4	С	Other Urban	107,700	С	8
Future Exit 252 (Pioneer Trail)	Exit 256 (Taylor Road/SR 421)	36,377	Other Urban	49,238	4	С	Other Urban	134,700	С	10
Exit 256 (Taylor Road/SR 421)	Exit 260 (I-4/SR 400)	57,500	Other Urban	62,268	6	В	Other Urban	140,500	С	10
Exit 260 (I-4/SR 400)	Exit 261 (US 92/International Speedway Boulevard)		Other Urban	93,093	6	D	Other Urban	198,200	С	12
Exit 261 (US 92/International Speedway Boulevard)	Exit 265 (LPGA Boulev ard)	68,000	Other Urban	83,734	6	С	Other Urban	198,300	С	12
Ex it 265 (LPGA Boulev ard)	Exit 268 (SR 40/Tomoka Road)	79,000	Other Urban	84,969	6	С	Other Urban	187,600	С	12
Exit 268 (SR 40/Tomoka Road)	Future Exit 270 (Ormond Crossings)	55,000	Other Urban	68,198	6	С	Other Urban	181,200	С	12
Future Exit 270 (Ormond Crossings)	Exit 273 (US 1)	55,000	Transition	68,198	6	С	Other Urban	181,200	С	12
Exit 273 (US 1)	Flagler County Line/Exit 278 (Old Dixie Highway)	53,000	Transition	68,781	6	С	Other Urban	159,500	С	12

<sup>\*</sup> The future AADT (both directions) are from the 2030 unconstrained model runs and then extrapolated to 2035.

From the Indian River / Brevard County Line to the Florida / Georgia State Line

#### **Flagler County**

Currently, I-95 is six (6) lanes, three (3) northbound and three (3) southbound, throughout Flagler County. FDOT intends to widen I-95 by two (2) additional lanes (one northbound and one southbound) in two phases, from the Volusia County line to exit 289 (Palm Coast Parkway) and then north of this exit to the St. Johns County line (**Appendix E – Figure 7.4c**). The anticipated completion is currently listed as 2013, but FDOT may delay the project for up to five (5) years based upon funding limitations. As shown in **Table 7.4c**, based on the 2030 unconstrained model runs and extrapolated to 2035, the resulting horizon year traffic volumes (for both directions) project only the northernmost third of I-95 would require six (6) lanes while the large majority of I-95 within Flagler County is anticipated to require between ten (10) and twelve (12) lanes. The segment of I-95 from the Volusia County line and exit 278 (Old Dixie Highway) to exit 284 (SR 100/Moody Boulevard) is projected to require twelve (12) total lanes. This area is within and adjacent to the growing city of Flagler Beach and incorporates the explosive growth in extreme northern Volusia County as well. Between exit 284 and exit 289 (Palm Coast Parkway) adjacent to the cities of Flagler Beach, Bunnell, and Palm Coast, I-95 is projected to require ten (10) lanes.

Table 7.4c: Flagler County Horizon Year (2035) Lane Calls<sup>1</sup>

			Existing (20	008) Condition	ıs		Future (2035) Conditions				
From	То	2008 AADT From FDOT Traffic Information	Агеа Туре	2008 Total AADT based on Model Output	Total Lanes	LOS based on Lookup Tables	Area Type	2035 Total AADT	FDOT Facility Minimum LOS	Total Lanes Required	
Volusia County Line/Exit 278 (Old Dixie Highway)	Ex it 284 (SR 100/Moody Boulev ard)		Transition	67,059	6	С	Other Urban	157,000	С	12	
Exit 284 (SR 100/Moody Boulev ard)	Exit 289 (Palm Coast Parkway)	57,736	Other Urban	62,130	6	В	Other Urban	127,700	С	10	
Exit 289 (Palm Coast Parkway)	Future Exit 293 (Matanzas Wood Parkway)	45,500	Other Urban	45,510	6	В	Other Urban	85,400	С	6	
Future Exit 293 (Matanzas Wood Parkway)	St. John's County Line	45,500	Other Urban	45,510	6	В	Other Urban	85,400	С	6	

<sup>\*</sup> The future AADT (both directions) are from the 2030 unconstrained model runs and then extrapolated to 2035.

I-95 LOS standard to be raised from LOS B to LOS C along the corridor."

<sup>&</sup>lt;sup>1</sup> I-95 throughout Flagler County currently has a level of service (LOS) exception since Flagler County's area type designation is classified as "Transitioning" carrying with it a LOS C standard. At the time of the 2000 Census, I-95 throughout Flagler County was classified as a rural area type with an FDOT LOS B standard. However, since the 2000 Census and as a result of the area type transition from rural to transitioning, the LOS exception has caused the



#### St. Johns County

Currently, I-95 is six (6) lanes, three (3) northbound and three (3) southbound, throughout St. Johns County. FDOT is intending to widen I-95 by two additional lanes (one northbound and one southbound) between exit 323 (International Golf Parkway) and exit 337 (I-295/SR 9A) in Duval County by approximately 2018 (**Appendix E – Figure 7.4d**). As shown in **Table 7.4d**, the southern half of the County from the Flagler County line to exit 218 (SR 16/Charles Usinas Highway) should not need any mainline expansions. Additionally, the northern half of the county should be effectively serviced by the expanded eight (8) lane facility when it is completed in approximately 2018. It should be noted that the future horizon year traffic volumes (both directions) are from the 2030 unconstrained model runs and then extrapolated to 2035.

Table 7.4d: St. Johns County Horizon Year (2035) Lane Calls

		Ex	cisting (2	008) Cond	litions		Fut	ure (203!	5) Condition	ns
From	То	2008 AADT From FDOT Traffic Information	Area Type	2008 Total AADT based on Model Output	Total Lanes	LOS based on Lookup Tables	Агеа Туре	2035 Total AADT	FDOT Facility Minimum LOS	Total Lanes Required
Flagler County Line	Exit 298 (US I)		Rural	40,798	6	В	Transitioning Urban	60,900	С	6
Exit 298 (US I)	Exit 305 (SR 206)	44,000	Rural	34,298	6	В	Transitioning Urban	53,200	С	6
Exit 305 (SR 206)	Exit 311 (SR 207)	45,000	Other Urban	35,864	6	В	Transitioning Urban	53,700	С	6
Exit 311 (SR 207)	Exit 318 (SR 16/Charles Usinas Highway)	59,000	Other Urban	42,597	6	В	Transitioning Urban	60,700	С	6
Exit 318 (SR 16/Charles Usinas Highway)	Exit 323 (International Golf Parkway)	66,000	Other Urban	55,256	6	В	Transitioning Urban	89,200	С	6
Exit 323 (International Golf Parkway)	Future Exit 326 (First Coast Outer Beltway)	75,000	Other Urban	63,501	6	С	Transitioning Urban	106,900	С	8
Future Exit 326 (First Coast Outer Beltway)	Exit 329 (CR 210)	75,000	Other Urban	63,501	6	С	Transitioning Urban	106,900	С	8
Exit 329 (CR 210)	Duval County Line		Other Urban	69,856	6	С	Transitioning Urban	98,700	С	8

<sup>\*</sup> The future AADT (both directions) are from the 2030 unconstrained model runs and then extrapolated to 2035.

#### **Duval County**

Currently, I-95 varies between six (6) lanes, three (3) northbound and three (3) southbound, and eight (8) lanes, four (4) northbound and four (4) southbound, throughout Duval County. The eight (8) lane sections are located between exit 335 (Old St. Augustine Road) and exit 340 (SR I15/Southside Boulevard), exit 349 (US 90) and exit 352 (Myrtle Avenue/Forsyth Street/Monroe Street), exit 353 (US 23/SR I14/Church Street/8th Street) and exit 354 (US I/20th Street/MLK Parkway), and exit 362 (I-295/SR 9A) and exit 363 (Duval Road/Jacksonville International Airport). FDOT has also widened (one lane northbound and one lane southbound) several sections of I-95 within Duval County including: from the St. Johns County line to exit 337 (I-295/SR 9A), from exit 344 (SR 202/J. Turner Butler Boulevard) to exit 347 (Emerson Street/ALT US I), exit 356 (Norwood Avenue/Lem Turner Road) to exit 362 (I-295/SR 9A), and exit 363 (Duval Road/Jacksonville International Airport) to the Nassau County line



From the Indian River / Brevard County Line to the Florida / Georgia State Line

(**Appendix E – Figure 7.4e**). There are no current plans to go to eight (8) lanes, except from the St. Johns County line to I-295/SR 9A South.

It is important to note that the District 2 unconstrained model for 2030, which was used to project the 2035 traffic volumes, had predicted unreasonably high traffic volumes for the I-95 corridor within the City of Jacksonville. It was also noticed in the model that traffic was being pulled from the major parallel corridors (i.e. – US I, US 17, etc.) onto I-95. District 2 expressed their concerns about over-assigning traffic to I-95, particular through downtown Jacksonville. In response to these concerns, both the constrained and unconstrained model outputs were checked randomly at two locations in Duval County. The constrained model run for 2000 and 2030 showed an average annual growth rate of less than I percent in Duval County. The unconstrained model runs for 2000 and 2030 indicated an annual growth rate of less than two percent. In order to make corrections to the traffic volumes, existing AADT (from the 2008 Florida Traffic Information & Highway Data) were used wherever the model volumes seemed unreasonable and an annual average growth rate of two percent was applied to the 2008 traffic volumes to obtain the 2035 traffic volumes in Duval County. This exercise resulted in more reasonable traffic volume projections in Duval County.

Substantial growth of I-95 traffic volumes is expected within Duval County by 2035. Only two areas, the southernmost and northernmost portions of I-95, are expected to see relatively minor growth. At the same time, nearly everywhere else within the I-295/SR 9A beltway is expected to increase to eight (8), ten (10), twelve (12), or fourteen (14) lanes. Of particular note is the segment from exit 346 (University Boulevard) to exit 354 (US I/20<sup>th</sup> Street/MLK Parkway), which includes South Jacksonville, the central business district, and just north of downtown, would require between ten (10) and fourteen (14) lanes. Since some of the densest development in all of the I-95 SIP study area is located in that area, numerous private properties would need to be acquired, structures demolished, bridges widened, and likely several additional detrimental impacts to the built environment would occur. FDOT may have obvious operational and safety concerns with the motoring public in utilizing a seven (7) lane directional stretch of freeway.

From the Indian River / Brevard County Line to the Florida / Georgia State Line

## Table 7.4e: Duval County Horizon Year (2035) Lane Calls

	,		Existing (20	008) Condition	าร		Fut	ure (2035)	Conditions	
From	То	2008 AADT From FDOT Traffic Information	Area Type	2008 Total AADT based on Model Output	Total Lanes	LOS based on Lookup Tables	Area Type	2035 Total AADT	Pacility La Region Regi	Total Lanes Required
St. John's County Line	Future Exit 333 (SR 9B/future I-795)		Large Urban	69,856	6	С	Large Urban	98,700	D	6
Future Exit 333 (SR 9B/future I-795)	Exit 335 (Old St. Augustine Road)		Large Urban	90,793	6	D	Large Urban	190,300	D	12
Exit 335 (Old St. Augustine Road)	Ex it 337 (I-295/SR 9A)	83,842	Large Urban	94,533	8	С	Large Urban	206,662	D	12
Ex it 337 (I-295/SR 9A)	Ex it 339 (US 1/Philips Highway)	124,000	Large Urban	124,000	8	D	Large Urban	191,000	D	12
Exit 339 (US 1/Philips Highway)	Exit 340 (SR 115/Southside Boulevard)		Large Urban	e Urban 144,722 8 D Large		Large Urban	211,400	D	12	
Exit 340 (SR 115/Southside Boulev ard)	Exit 341 (Bay meadow s Road)	115,000	Large Urban	114,784	6	E	Large Urban	149,600	D	10
Exit 341 (Bay meadows Road)	Exit 344 (SR 202/J. Turner Butler Boulevard)	133,000	Large Urban	128,094	6	F	Large Urban	198,300	D	12
Exit 344 (SR 202/J. Turner Butler Boulev ard)	Exit 345 (Bowden Road)	143,000	Large Urban	143,000	6	F	Large Urban	220,200	D	12
Exit 345 (Bowden Road)	Exit 346 (University Boulevard)	145,000	Large Urban	145,000	6	F	Large Urban	223,300	D	12
Exit 346 (University Boulevard)	Exit 347 (Emerson Street/ALT US 1)	118,450	Large Urban	118,450	6	E	Large Urban	182,400	D	10
Exit 347 (Emerson Street/ALT US 1)	Ex it 348 (US 1/Philips Highway)	123,500	Large Urban	123,500	6	F	Large Urban	190,200	D	12
Exit 348 (US 1/Philips Highway)	Exit 349 (US 90)		Large Urban	125,537	6	F	Large Urban	174,800	D	10
Ex it 349 (US 90)*	Exit 350 (US 1/US 90/San Marco Boulevard)		Large Urban	157,775	8	E	Large Urban	245,000	D	14
Exit 350 (US 1/US 90/San Marco Boulev ard)*	Exit 351 (I-10/Park Street/Margaret Street)	172,000	Large Urban	172,000	8	F	Large Urban	264,900	D	14
Exit 351 (I-10/Park Street/Margaret Street)	Exit 352 (Myrtle Av enue/Forsy th Street/Monroe Street)		Large Urban	125,916	8	D	Large Urban	154,900	D	10
Ex it 352 (My rtle Av enue/Forsy th Street/Monroe Street)	Exit 353 (US 23/SR 114/Church Street/8th Street)	118,000	Large Urban	118,000	6	E	Large Urban	181,700	D	10
Exit 353 (US 23/SR 114/Church Street/8th Street)	Exit 354 (US 1/20th Street/MLK Parkway)	104,500	Large Urban	104,500	8	С	Large Urban	160,900	D	10
Exit 354 (US 1/20th Street/MLK Parkway)	Exit 355 (SR 122/Golfair Boulevard)	106,500	Large Urban	106,500	6	D	Large Urban	164,000	D	10
Ex it 355 (SR 122/Golfair Boulev ard)	Exit 356 (Norwood Av enue/Lem Turner Road)		Large Urban	102,251	6	D	Large Urban	159,900	D	10
Exit 356 (Norwood Av enue/Lem Turner Road)	Exit 357 (SR 111/Edgewood Avenue)		Large Urban	80,649	6	С	Large Urban	128,100	D	8
Exit 357 (SR 111/Edgew ood Av enue)	Exit 358 (SR 105/Heckscher Drive/Broward Road)		Large Urban	93,340	6	D	Large Urban	136,200	D	8
Exit 358 (SR 105/Heckscher Driv e/Broward Road)	Exit 360 (SR 104/Dunn Avenue)	77,500	Large Urban	77,500	6	С	Large Urban	119,400	D	8
Exit 360 (SR 104/Dunn Avenue)	Ex it 362 (I-295/SR 9A)	61,000	Large Urban	61,000	6	В	Large Urban	93,900	D	6
Ex it 362 (I-295/SR 9A)	Exit 363 (Duv al Road/Jacksonville International Airport)	89,000	Large Urban	89,000	8	С	Large Urban	137,100	D	8
Exit 363 (Duv al Road/Jacksonville International Airport)	Ex it 366 (Pecan Park Road)	67,000	Large Urban	67,000	6	С	Large Urban	103,200	D	6
Exit 366 (Pecan Park Road)	Nassau County Line	59,500	Transition	59,614	6	В	Large Urban	87,100	D	6
	l								i	1

#### **Nassau County**

Currently, I-95 is six (6) lanes, three (3) northbound and three (3) southbound, throughout Nassau County. FDOT is intending to widen I-95 by two additional lanes (one northbound and one southbound) from the Duval County line to the Georgia state line (**Appendix E – Figure 7.4f**). The anticipated completion is currently listed as 2020. As shown in **Table 7.4f**, only the northernmost portion of I-95 is projected to require eight (8) lanes by 2035, with the remainder of I-95 only requiring six (6) lanes. It is important to point out that even though the AADTs are anticipated to nearly double by 2035 (based on unconstrained model runs), as it is currently configured, I-95 is operating at a LOS A or B, and so the increased future traffic can mostly be absorbed by the existing capacity.

Table 7.4f: Nassau County Horizon Year (2035) Lane Calls

		E	xisting (20	08) Cond	itions	
From	То	2008 AADT From FDOT Traffic Information	Area Type	2008 Total AADT based on Model Output	Total Lanes	LOS based on Lookup Tables
Duval County Line	Exit 373 (SR 200/SR ATA)	59,500	Transition	59,614	6	В
Exit 373 (SR 200/SR ATA)	Exit 380 (US 17)	45,500	Transition	50,634	6	В
Exit 380 (US 17)	Georgia State Line	54,003	Transition	64,434	6	С

Fut	Future (2035) Conditions										
Area Type	2035 Total AADT	FDOT Facility Minimum LOS	Total Lanes Required								
Transitioning Urban	87,100	С	6								
Transitioning Urban	72,500	С	6								
Transitioning Urban	101,600	С	8								

## 7.5 Future Traffic Operational Analysis (by County) – Crossroads within the I-95 Right-of-Way (ROW)

This section focuses on the future year unconstrained traffic operational conditions for all crossroads within the I-95 ROW that have been modeled within the Central Florida Regional Planning Model (CFRPM IV) that is maintained by FDOT District 5 and the Northeast Regional Planning Model (NERPM) administered by FDOT District 2. It is important to note that all true roads have not been modeled in CFRPM IV's and NERPM's build year travel demand model runs. In actuality, it is the purpose of these loaded travel demand models to display traffic characteristics for all facility types for collector, arterial, and freeway/expressway roadways. There are many different acceptable approaches or ways one can use to analyze the travel demand models to identify future operational traffic demand for those crossroads within the I-95 ROW. FDOT has had success in developing this level of analysis by using a volume minus capacity analysis approach methodology. CFRPM IV and NERPM both contain future year loaded unconstrained model networks of 2025 and 2030 that have been extrapolated out to the 2035 planning horizon year, respectively by comparison to each models base year traffic. For these horizon year models, the unconstrained loaded networks provide three essential attributes; total two-way volume, total capacity, and volume-to-capacity ratios (v/c) that can be used to identify traffic congestion hotspots as a result of insufficient roadway capacity. Therefore, where v/c ratios of 1.0 or greater exist, this indicates that the volume has exceeded the roadway facility's capacity and therefore will begin to bottleneck typically during peak traffic periods of the day.

From the Indian River / Brevard County Line to the Florida / Georgia State Line

FDOT utilized the volume exceeding capacity (V/C) analysis approach to first identify those roadway facilities that are exceeding their capacities, including the total volume exceeding the roadway capacities as indicated by the FDOT Level of Service Handbook (2002 version). The real overall value is this method allows a more "drill-down" approach that quantifies a potential improvement ranging from major capacity improvements to operational improvements for those major roadways that traverse over the I-95 ROW. **Table 7.5a** displays the performance measures from the V/C methodology:

Table 7.5a: Volume Minus Capacity Methodology Improvement Thresholds:

				Arterials     Collectors       ≥ 450     ≥ 250       449 - 150     249 - 100       < 150     < 100	
Roadway Improvement Type	Potential Projects Description	Freeways and Expressways	Arterials	Collectors	
Major Capacity Addition	Widening, new location roadway, two-way to one-way conversion, interchange addition	≥ 650	≥ 450	≥ 250	
Minor Capacity Improvements	Passing lane addition, major intersection improvement, turn lane addition	649 – 200	449 – 150	249 – 100	
Operational Improvements	Traffic signalization, signal coordination, ITS	< 200	< 150	< 100	

#### **Brevard County**

There are 24 existing crossroads that traverse completely over the I-95 ROW with in the project study area. By 2025, CFRPM IV has modeled traffic impacts for three (3) new interchanges at exits 181, 188, and 193. **Table 7.5b** describes these roadway facilities by name, model source, facility type, total volume exceeding capacity (if applicable) and the modeled V/C ratio within Brevard County:

From the Indian River / Brevard County Line to the Florida / Georgia State Line

Table 7.5b: Brevard County Future Unconstrained Traffic Operational Analysis

			2035 Uncon	strained Traffic	Operational Ar	nalysis (Volume	Minus (	Capacity)		
	Cross Street Over/Under I-95 Within I-95 Right of Way	Model Source	Facility Type	Total Volume	Total Capacity	Total Volume Exceeding Capacity	V/C Ratio	Total Lanes (From Models)	Roadway Facility Group	Potential Improvement
	Micco Rd	CFRPM IV	35 - Undivided Arterial Unsignalized without Turn Bays	8,155	21,546	0	0.38	2	Arterial	N/A
	Grant Rd	CFRPM IV	43 - Major Local Undivided Roadway without Turn Bays	760	11,628	0	0.07	2	Collector	N/A
	Valkaria Rd	CFRPM IV	45 - Other Local Undivided Roadway with Turn Bays	4,981	14,122	0	0.35	2	Collector	N/A
	Exit 173 (Malabar Road)	CFRPM IV	24 - Divided Arterial Class 1b	58,843	49,298	9,545	1.19	6	Arterial	Major Capacity Addition
	Exit 176 (Palm Bay Road)	CFRPM IV	23 - Divided Arterial Class 1a	65,816	51,524	14,292	1.28	6	Arterial	Major Capacity Addition
	Minton Rd		23 - Divided Arterial Class 1a	28,067	34,350	0	0.82	4	Arterial	N/A
	Exit 180 (US 192)		24 - Divided Arterial Class 1b	50,882	49,298	1,584	1.03	6	Arterial	Minor Capacity Improvement
	Future Exit 181 (Ellis Road)		23 - Divided Arterial Class 1a	20,742	34,350	0	0.60	4	Arterial	N/A
	Exit 183 (Eau Gallie Boulevard)	CFRPM IV	23 - Divided Arterial Class 1a	18,419	34,350	0	0.54	4	Arterial	N/A
	Lake Washington Rd	CFRPM IV	43 - Major Local Undivided Roadway without Turn Bays	688	11,628	0	0.06	2	Collector	N/A
	Future Exit 188 (Pineda Causeway Extension)	CFRPM IV	23 - Divided Arterial Class 1a	2,970	34,350	0	0.09	4	Arterial	N/A
Brevard County - Dist 5	Exit 191 (Wickham Road)	CFRPM IV	12 - Other Freeway	26,674	71,134	0	0.37	4	Freeways and Expressways	N/A
į.	Future Exit 193 (Viera Boulevard)	CFRPM IV	23 - Divided Arterial Class 1a	10,521	34,350	0	0.31	4	Arterial	N/A
ln oc	Exit 195 (SR 519/Fiske Boulevard)	CFRPM IV	46 - Other Local Undivided Roadway without Turn Bays	18,216	17,690	526	1.03	4	Collector	Minor Capacity Improvement
ard	Exit 201 (SR 520)	CFRPM IV	32 - Undivided Arterial Class 1A with Turn Bays	41,469	32,618	8,851	1.27	4	Arterial	Major Capacity Addition
Brev	Exit 202 (SR 524/Bennett Causway)		23 - Divided Arterial Class 1a	21,339	34,350	0	0.62	4	Arterial	N/A
	Exit 205 (Beachline Expressway/SR 528)	CFRPM IV	12 - Other Freeway	35,918	65,978	0	0.54	4	Freeways and Expressways	N/A
	Citrus Blvd	CFRPM IV	43 - Major Local Undivided Roadway without Turn Bays	8,797	11,628	0	0.76	2	Collector	N/A
	Exit 208 (Port St. Johns Road)	CFRPM IV	22 - Divided Arterial Unsignalized (45 mph)	16,281	65,154	0	0.25	4	Arterial	N/A
	Fay Blvd	CFRPM IV	43 - Major Local Undivided Roadway without Turn Bays	3,905	11,628	0	0.34	2	Collector	N/A
	Exit 212 (SR 407)	CFRPM IV	31 - Undivided Arterial Unsignalized with Turn Bays	27,851	45,360	0	0.61	2	Arterial	N/A
	Exit 215 (Cheney Road/SR 50)		21 - Divided Arterial Unsignalized (55 mph)	57,907	67,134	0	0.86	4	Arterial	N/A
	Fox Lake Rd		21 - Divided Arterial Unsignalized (55 mph)	2,407	11,628	0	0.21	2	Arterial	N/A
	Exit 220 (Garden Street/SR 406)		23 - Divided Arterial Class 1a	21,283	34,350	. 0	0.62	4	Arterial	N/A
	Dairy Rd		42 - Major Local Undivided Roadway With Turn Bays	12,683	14,536	0	0.87	2	Arterial	N/A
	Exit 223 (SR 46)	CFRPM IV	31 - Undivided Arterial Unsignalized with Turn Bays	12,945	25,978	. 0	0.50	.2	Arterial	N/A
	Exit 231 (Stuck Way Road)	CFRPM IV	46 - Other Local Undivided Roadway without Turn Bays	4,408	20,720	0	0.21	2	Collector	N/A

#### **Volusia County**

There are eleven (II) existing crossroads that traverse completely over the I-95 ROW within the project study area. By 2025, CFRPM IV has modeled traffic impacts for two (2) new interchanges at exits 252, and 270. **Table 7.5c** describes these roadway facilities by name, model source, facility type, total volume exceeding capacity (if applicable) and the modeled V/C ratio within Volusia County:

From the Indian River / Brevard County Line to the Florida / Georgia State Line

Table 7.5c: Volusia County Future Unconstrained Traffic Operational Analysis

	Future Unconstrained Traffic Operational Analysis (Volume Minus Capacity)									
	Cross Street Over/Under I-95 Within I-95 Right of Way	Model Source	Facility Type	Total Volume	Total Capacity	Total Volume Exceeding Capacity	V/C Ratio	Total Lanes (From Models)	Roadway Facility Group	Potential Improvement
	Maytown Rd	CFRPM IV	43 - Major Local Undivided Roadway without Turn Bays	321	21,546	0	0.01	2	Collector	N/A
	Exit 244 (Indian River Boulevard)	CFRPM IV	23 - Divided Arterial Class 1a	13,020	59,092	0	0.22	4	Arterial	N/A
	Exit 249 (SR 44)	CFRPM IV	23 - Divided Arterial Class 1a	36,253	31,546	4,707	1.15	4	Arterial	Major Capacity Addition
Dist 5	Future Exit 252 (Pioneer Trail)	CFRPM IV	43 - Major Local Undivided Roadway without Turn Bays	24,986	21,546	3,440	1.16	2	Collector	Major Capacity Addition
	Exit 256 (Taylor Road/SR 421)	CFRPM IV	23 - Divided Arterial Class 1a	75,083	51,524	23,559	1.46	6	Arterial	Major Capacity Addition
	Williamson Blvd	CFRPM IV	23 - Divided Arterial Class 1a	12,619	17,112	0	0.74	2	Arterial	N/A
County	Exit 260 (I-4/SR 400)	CFRPM IV	12 - Other Freeway	38,752	115,463	0	0.34	6	Freeways and Expressways	N/A
V o lu s ia	Exit 261 (US 92/International Speedway Boulevard)	CFRPM IV	23 - Divided Arterial Class 1a	85,491	63,092	22,399	1.36	8	Arterial	Major Capacity Addition
>	Exit 265 (LPGA Boulevard)		31 - Undivided Arterial Unsignalized with Turn Bays	39,566	31,030	8,536	1.28	2	Arterial	Major Capacity Addition
	Exit 268 (SR 40/Tomoka Road)	CFRPM IV	23 - Divided Arterial Class 1a	78,703	34,350	44,353	2.29	4	Arterial	Major Capacity Addition
	Airport Rd	CFRPM IV	41 - Major Local Divided Roadway	16,408	31,256	0	0.52	4	Collector	N/A
	Future Exit 270 (Ormond Crossings)	CFRPM IV	43 - Major Local Undivided Roadway without Turn Bays	21,630	11,854	9,776	1.82	2	Collector	Major Capacity Addition
	Exit 273 (US 1)	CFRPM IV	23 - Divided Arterial Class 1a	49,804	31,546	18,258	1.58	4	Arterial	Major Capacity Addition

#### Flagler County

There are four (4) existing crossroads that traverse completely over the I-95 ROW with in the project study area. By 2025, CFRPM IV has modeled traffic impacts for one (1) new interchanges as exits 293. **Table 7.5d** describes these roadway facilities by name, model source, facility type, total volume exceeding capacity (if applicable) and the modeled v/c ratio within Flagler County:

Table 7.5d: Flagler County Future Unconstrained Traffic Operational Analysis

	Future Unconstrained Traffic Operational Analysis (Volume Minus Capacity)										
	Cross Street Over/Under I-95 Within I-95 Right of Way	Model Source	Facility Type	Total Volume	Total Capacity	Total Volume Exceeding Capacity	V/C Ratio	Total Lanes (From Models)	Roadway Facility Group	Potential Improvement	
ridylel v u u li ly - u ls l 3	Volusia County Line/Exit 278 (Old Dixie Highway)	CFRPM IV	47 - Low Speed Local Collector	6,088	20,720	0	0.29	2	Collector	N/A	
	Exit 284 (SR 100/Moody Boulevard)	CFRPMIV	22 - Divided Arterial Unsignalized (45 mph)	36,646	60,122	0	0.61	4	Arterial	N/A	
	Exit 289 (Palm Coast Parkway)	CFRPM IV	22 - Divided Arterial Unsignalized (45 mph)	76,590	95,380	0	0.80	6	Arterial	N/A	
	Future Exit 293 (Matanzas Wood Parkway)	CFRPM IV	41 - Major Local Divided Roadway	5,277	31,256	0	0.17	4	Collector	N/A	
	Old Kings Rd	CFRPM IV	48 - Very Low Speed Local Collector	903	20,720	0	0.04	2	Collector	N/A	

#### St. Johns County

There are eight (8) existing crossroads that traverse completely over the I-95 ROW with in the project study area according to the 2030 NERPM model. **Table 7.5e** describes these roadway facilities by name, model source, facility type, total volume exceeding capacity (if applicable) and the modeled V/C ratio within St. Johns County:

Table 7.5e: St. Johns County Future Unconstrained Traffic Operational Analysis

		Future Unconstrained Traffic Operational Analysis (Volume Minus Capacity)									
	Cross Street Over/Under I-95 Within I-95 Right of Way	Model Source	Facility Type	Total Volume	Total Capacity	Total Volume Exceeding Capacity	V/C Ratio	Total Lanes (From Models)	Roadway Facility Group	Potential Improvement	
	Exit 298 (US 1)	NERPM	21 - Divided Arterial Unsignalized (55 mph)	25,072	33,800	0	0.74	4	Arterial	N/A	
	Exit 305 (SR 206)	NERPM	35 - Undivided Arterial Unsignalized without Turn Bays	8,209	13,054	0	0.63	2	Arterial	N/A	
is t 2	Exit 311 (SR 207)	NERPM	22 - Divided Arterial Unsignalized (45 mph)	27,354	33,800	0	0.81	4	Arterial	N/A	
St. Johns County - Di	CR 214	NERPM	43 - Major Local Undivided Roadway without Turn Bays	5,950	31,200	0	0.19	2	Collector	N/A	
	Exit 318 (SR 16/Charles Usinas Highway)	NERPM	21 - Divided Arterial Unsignalized (55 mph)	25,079	35,500	0	0.71	4	Arterial	NA	
	Exit 323 (International Golf Parkway)	NERPM	21 - Divided Arterial Unsignalized (55 mph)	5,510	44,968	0	0.12	4	Arterial	N/A	
	Exit 329 (CR 210)	NERPM	23 - Divided Arterial Class 1a	8,853	11,858	0	0.75	4	Arterial	N/A	
	Racetrack Rd	NERPM	16 - Controlled Access Expressway	80,317	149,200	0	0.54	4	Freeways and Expressways	NA	

#### **Duval County**

There are 29 existing crossroads that traverse completely over the I-95 ROW within the project study area. By 2030, NERPM has modeled traffic impacts for one (I) new interchanges as exits 333. **Table 7.5f** describes these roadway facilities by name, model source, facility type, total volume exceeding capacity (if applicable) and the modeled V/C ratio within Duval County:

From the Indian River / Brevard County Line to the Florida / Georgia State Line

Table 7.5f: Duval County Future Unconstrained Traffic Operational Analysis

	Future Unconstrained Traffic Operational Analysis (Volume Minus Capacity)									
	Cross Street Over/Under I-95 Within I-95 Right of Way	Model Source	Facility Type	Total Volume	Total Capacity	Total Volume Exceeding Capacity	V/C Ratio	Total Lanes (From Models)	Roadway Facility Group	Potential Improvement
	Future Exit 333 (SR 9B/future I-795)	NERPM	12 - Other Freeway	23,011	149,200	0	0.15	4	Freeways and Expressways	N/A
	Exit 335 (Old St. Augustine Road)	NERPM	37 - Undivided Arterial Class 1b without Turn Bays	46,875	33,800	13,075	1.39	4	Arterial	Major Capacity Addition
	Greenland Rd	NERPM	46 - Other Local Undivided Roadway without Turn Bays	6,035	31,200	0	0.19	4	Collector	N/A
	Exit 337 (I-295/SR 9A)	NERPM	12 - Other Freeway	161,016	230,600	0	0.70	4	Freeways and Expressways	N/A
	Exit 339 (US 1/Philips Highway)	NERPM	23 - Divided Arterial Class 1a	15,827	53,500	0	0.30	6	Arterial	N/A
	Exit 341 (Baymeadows Road)	NERPM	24 - Divided Arterial Class 1b	55,420	31,082	24,338	1.78	4	Arterial	N/A
	Exit 344 (SR 202/J. Turner Butler Boulevard)	NERPM	24 - Divided Arterial Class 1b	36,487	53,500	0	0.68	6	Arterial	N/A
	Exit 345 (Bowden Road)	NERPM	44 - Other Local Divided Roadway	19,251	20,638	0	0.93	4	Collector	N/A
	Exit 346 (University Boulevard)	NERPM	24 - Divided Arterial Class 1b	58,704	31,082	27,622	1.89	4	Arterial	Major Capacity Addition
	Exit 347 (Emerson Street/ALT US 1)	NERPM	25 - Divided Arterial Class 2/3	38,934	65,600	0	0.59 1.20	4	Arterial	N/A
	Exit 348 (US 1/Philips Highway)  Exit 349 (US 90)*	NERPM NERPM	24 - Divided Arterial Class 1b 11 - Urban Freeway Group 1	30,106 27,222	25,132 33,800	4,974 0	0.81	4	Arterial Freeways and Expressways	Major Capacity Addition N/A
	Hendricks Ave	NERPM	24 - Divided Arterial Class 1b	16,876	23,292	0	0.72	2	Arterial	N/A
	Exit 350 (US 1/US 90/San Marco Boulevard)*	NERPM	16 - Controlled Access Expressway	29,947	31,000	0	0.97	4	Freeways and Expressways	N/A
1.2	Riverside Ave	NERPM	34 - Undivided Arterial Class 2/3 with Turn Bays	5,076	26,082	0	0.19	4	Arterial	N/A
Dis	Park St	NERPM	37 - Undivided Arterial Class 1b without Turn Bays	6,002	33,800	0	0.18	4	Arterial	N/A
Duval County - Dist 2	Exit 351 (I-10)	NERPM	11 - Urban Freeway Group 1	93,035	115,300	0	0.81	6	Freeways and Expressways	N/A
Duval	Exit 352 (Myrtle Avenue/Forsyth Street/Monroe Street)	NERPM	44 - Other Local Divided Roadway	12,467	32,900	0	0.38	4	Collector	N/A
	Exit 353 (US 23/SR 114/Church Street/8th Street)	NERPM	37 - Undivided Arterial Class 1b without Turn Bays	7,446	11,778	0	0.63	2	Arterial	N/A
	W Beaver St	NERPM	38 - Undivided Arterial Class 2/3 without Turn Bays	6,862	15,550	0	0.44	4	Arterial	N/A
	Exit 354 (US 1/20th Street/MLK Parkway)	NERPM	16 - Controlled Access Expressway	47,768	49,232	0	0.97	4	Freeways and Expressways	N/A
	Exit 355 (SR 122/Golfair Boulevard)	NERPM	37 - Undivided Arterial Class 1b without Turn Bays	9,796	33,800	0	0.29	4	Arterial	N/A
	Exit 356 (Norwood Avenue/Lem Turner Road)	NERPM	24 - Divided Arterial Class 1b	2,606	31,082	0	80.0	4	Arterial	N/A
	Exit 357 (SR 111/Edgewood Avenue)	NERPM	24 - Divided Arterial Class 1b	11,227	31,082	0	0.36	4	Arterial	N/A
	Exit 358 (SR 105/Heckscher Drive/Broward Road)	NERPM	16 - Controlled Access Expressway	10,162	49,232	0	0.21	4	Freeways and Expressways	N/A
	Clark Rd	NERPM	43 - Major Local Undivided Roadway without Turn Bays	12,407	31,200	0	0.40	2	Collector	N/A
	Exit 359 (SR 104/Dunn Avenue)	NERPM	25 - Divided Arterial Class 2/3	13,734	45,042	0	0.30	6	Arterial	N/A
	Exit 362 (I-295/SR 9A)	NERPM	11 - Urban Freeway Group 1	68,728	149,200	0	0.46	4	Freeways and Expressways	N/A
	Exit 363 (Duval Road/Jacksonville International Airport)	NERPM	43 - Major Local Undivided Roadway without Turn Bays	12,407	21,528	0	0.58	4	Collector	N/A
	Exit 366 (Pecan Park Road)	NERPM	36 - Undivided Arterial Class 1a without Turn Bays	25,466	31,200	0	0.82	4	Arterial	N/A

#### **Nassau County**

There are three (3) existing crossroads that traverse completely over the I-95 ROW with in the project study area according to the 2030 NERPM model. **Table 7.5g** describes these roadway facilities by name, model source, facility type, total volume exceeding capacity (if applicable) and the modeled V/C ratio within Nassau County:

### I-95 Sketch Interstate Plan (SIP)

From the Indian River / Brevard County Line to the Florida / Georgia State Line

Table 7.5g: Nassau County Future Unconstrained Traffic Operational Analysis

	Future Unconstrained Traffic Operational Analysis (Volume Minus Capacity)									
	Cross Street Over/Under I-95 Within I-95 Right of Way	Model Source	Facility Type	Total Volume	Total Capacity	Total Volume Exceeding Capacity	V/C Ratio	Total Lanes (From Models)	Roadway Facility Group	Potential Improvement
Country's Bist	Exit 373 (SR 200/SR A1A)	NERPM	22 - Divided Arterial Unsignalized (45 mph)	39,838	33,800	6,038	1.18	4	Arterial	Major Capacity Addition
	CR 108	NERPM	43 - Major Local Undivided Roadway without Turn Bays	4,476	31,200	0	0.14	2	Collector	N/A
	Exit 380 (US 17)	NERPM	22 - Divided Arterial Unsignalized (45 mph)	4,941	41,696	0	0.12	4	Arterial	N/A

## 7.6 Freight Considerations

FDOT provided 2035 statewide freight model data for each of the corresponding six (6) Counties traversing the I-95 corridor. The data output suggests that in general, the I-95 corridor is going to see a significant increase in overall freight traffic along the I-95 corridor. There are many contributing factors for such increases in the freight traffic, including the Panama Canal expansion, new DRIs, implementation of freight villages, and general increase of local and regional commerce that will increase local and through trips. This statewide model data output identifies (by County) the rate of change between 2005 and 2035 freight model volumes. For the purposes of this report, the maximum values by the rate of change have been mapped in GIS and these overall 2035 truck AADT and 2035 truck utilization results are depicted in **Figures 7.6a and 7b.** The data suggests that truck freight traffic has and will continue to place a heavy traffic burden on the I-95 corridor, particularly throughout Brevard, Volusia, and Duval Counties. Further, the data suggests that by 2035, as this freight traffic demand increases, that the capacity of I-95 will not be able to fully accommodate the truck traffic without some freight mobility improvements being made to the I-95 corridor. Perhaps one of the most viable options for FDOT to consider for facilitating freight movement along the I-95 corridor is the implementation of truck-only lanes.

Truck only lanes are often considered as a way to increase roadway capacity and reduce travel time delay along interstate corridors that service large volumes of trucks, such as the I-95 corridor. These truck only lanes provide a separate facility to accommodate the trucks freeing up capacity on the burdened existing lanes. The exclusive lanes also allow for greater truck capacity during the peak hours, as freight companies often try to avoid these congested areas during commuter peak periods; a dedicated facility would allow them to use the peak hours more readily. Truck-only lanes must provide a measurable time savings, before the benefit is truly realized.

#### **Truck Only Lanes – Types**

A review of available documentation, including the FDOT District 5 "Truck-Only Lane Quick Reference" (2008), shows that there are several concepts that have been constructed or considered within the United States. These concepts range in size, location, access, and operational parameters.

Truck only lanes can be a single lane, but for several reasons this is often considered a poor solution. Within the nation's trucking fleet there are vehicles and payloads with a wide range of operational characteristics. Some trucks can travel at typical freeway speeds, while others may not have the horsepower or may be hauling a large load that prohibits traveling at high speed; these lower speed trucks would inhibit the operations of the faster trucks and reduce the capacity of the roadway facility.



### I-95 Sketch Interstate Plan (SIP)

From the Indian River / Brevard County Line to the Florida / Georgia State Line

A single-lane facility, if separated by a barrier, would not have a means to provide bypass around a disabled vehicle unless wide shoulders are provided. Additionally, maintenance operations in the truck only lane would likely close the facility if it were only one lane wide. For these reasons it is often best to consider a two-lane truck-only facility for managing truck traffic along interstate corridors.

To maintain the integrity of the truck-only lanes, typical practice is to have the lanes separated by a physical boundary, whether that be elevating the lanes due to lack of available right-of-way or keeping the lanes at-grade separated by a concrete divider or median. A physical barrier provides an element of safety as well that is missing if the truck only lanes are identified by pavement marking alone.

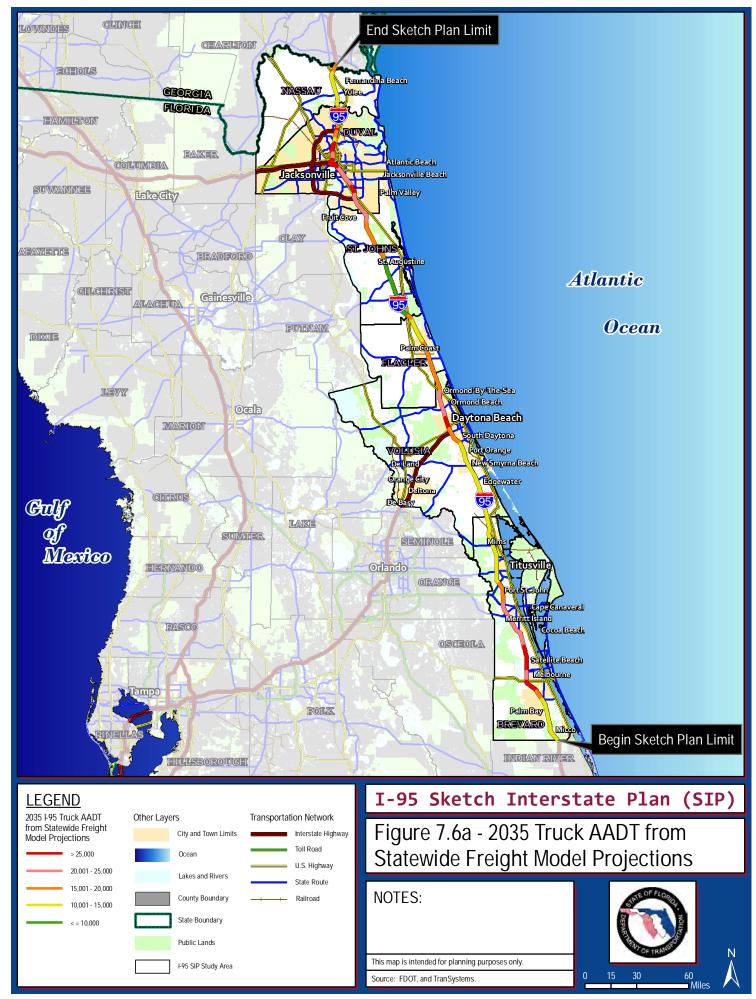
Access is another consideration when evaluating truck only lanes. Often with separated high occupancy vehicle (HOV) lanes, the traffic exits the facility at a set crossover location and crosses the local lanes to access an interchange and makes a similar movement to enter the HOV facility from an interchange. Heavy trucks are much larger and have less maneuverability, which would make these movements unsafe for traffic in the general purpose lanes. To mitigate this unsafe condition, the truck only facility would require its own access ramps at interchanges; this would likely limit the ingress and egress points for trucks as it would not be feasible to construct costly ramps at every interchange.

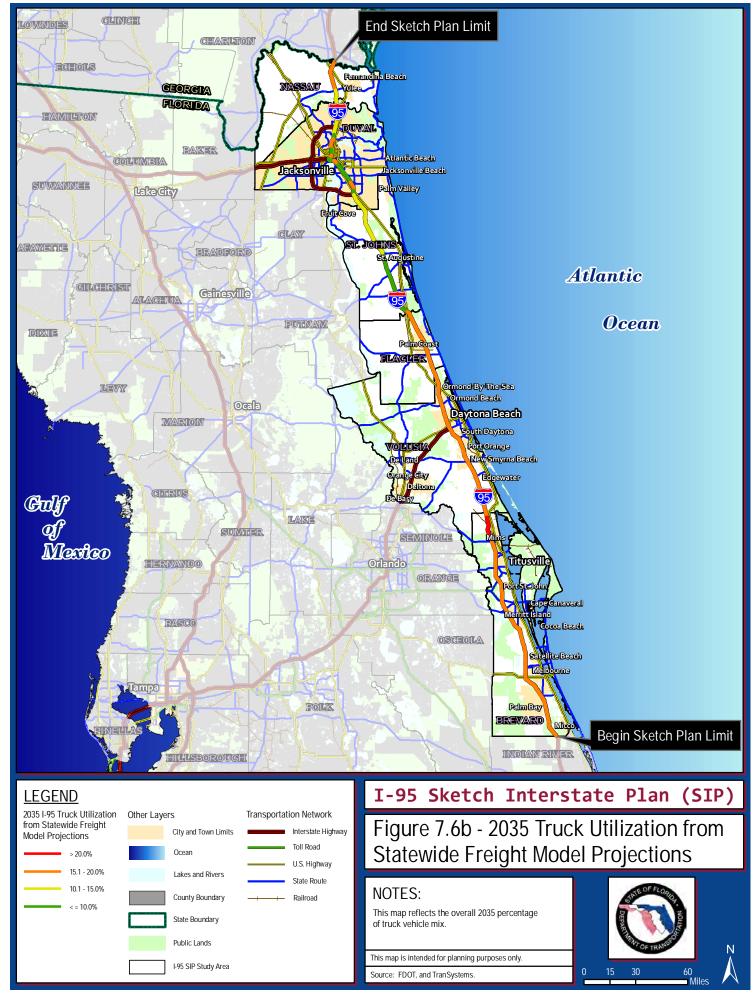
Some states, such as Georgia, California, and Indiana, have investigated a couple operational variances pertaining to truck only lanes. One practice that has been considered is using the same separated facility to accommodate trucks and HOV traffic. However, this concept is often rejected by the engineering community due to the reduced safety for the passenger cars. Research has shown the most deadly crashes are those between a passenger vehicle and a large truck; placing the HOV traffic on a facility that is likely greater than 50% trucks will increase the likelihood of these crashes. Funding is often a concern for the construction of these facilities causing some states to consider tolling the truck only lanes. The consideration that typically coincides with this determination is whether the facility should become mandatory causing all freight vehicles to pay a toll for use of the facility rather than provide an option of using the free general purpose lanes. Trucking associations seem to be split based on the tolling issue as their drivers already pay tax on fuel for roadways, but the truck only lanes provide a less disrupted flow. If the travel time is substantially shorter as a result of the facility, the use of tolling can be an easier sell to implement.

For the purpose of the I-95 SIP, a general threshold of 30% of the overall vehicle mix was used as the performance measure to identify potential roadway segments along the I-95 corridor for truck-only lane implementation. However, at this time, and according to the data supporting the 2035 Statewide Model, the entire 222-mile corridor does not currently reflect any I-95 roadway segments that could warrant a recommendation for FDOT to consider truck-only lanes. **Figure 7.6b** illustrates the overall truck utilization by roadway segment in 2035. Portions of I-95 through the northern in Brevard County are the only section(s) that reflect a truck vehicle percentage mix of greater than 20%.

#### **Truck Regulation**

Consideration will need to be given to the use of tandem trucks on truck only lanes. Their dimensions require the construction and operation of the facility to be accommodating. Currently standard tandems are permitted on the State Highway System unless otherwise posted due to safety or geometric constrain. Standard tandems are defined as tandem truck unit where neither the semitrailer nor trailer exceeds 28 feet.







### I-95 Sketch Interstate Plan (SIP)

From the Indian River / Brevard County Line to the Florida / Georgia State Line

## 7.7 Summary

The lane calls analysis, utilizing the two (2) regional travel demand models, shows that throughout the majority of the study area I-95 needs to be expanded to twice its current capacity. The existing I-95 right-of-way can handle a two (2) or four (4) lane expansion in most areas, but any increase beyond that will require impacting surrounding developments. In particular, segments in Brevard, Volusia, and Flagler counties need to be expanded by up to six (6) lanes.

In order to accommodate these increases in demand by 2035, there would be substantial impacts to the natural and built environment. In several instances, specifically near the downtown Jacksonville area, improvements of this size and scope are not feasible mostly because the costs and impacts substantially outweighs the proposed benefits of doing such action. This analysis, however, does provide valuable insight into future regional travel demands, which may be used to study the feasibility of alternate route enhancements and multimodal transportation options.

From the Indian River / Brevard County Line to the Florida / Georgia State Line

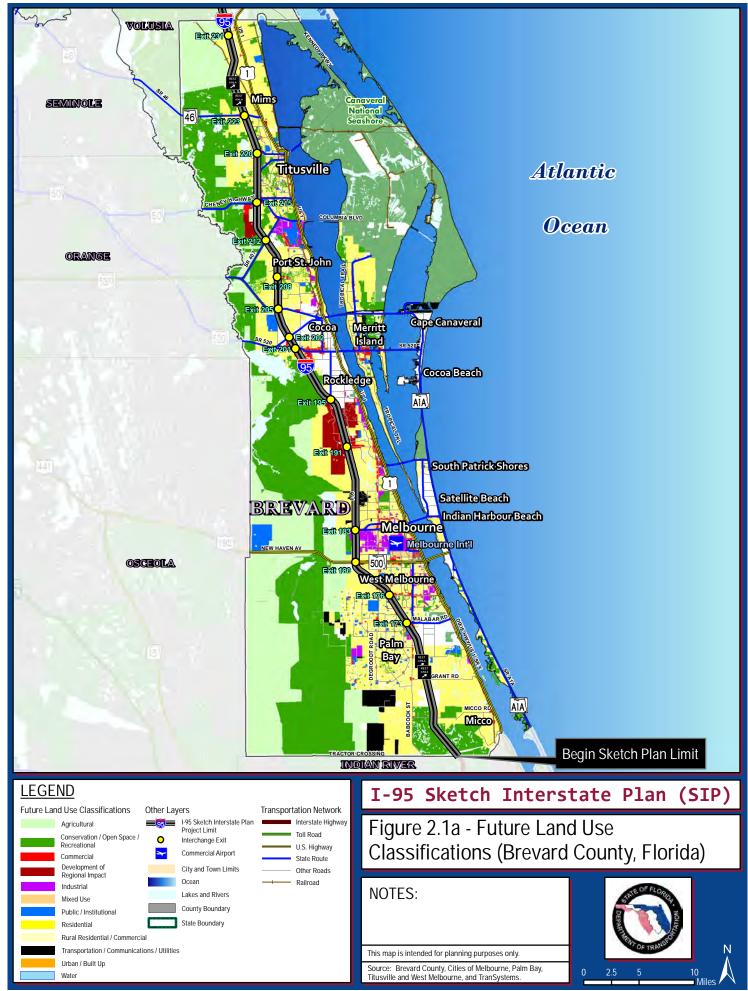
#### **CHAPTER 8 – RECOMMENDATIONS**

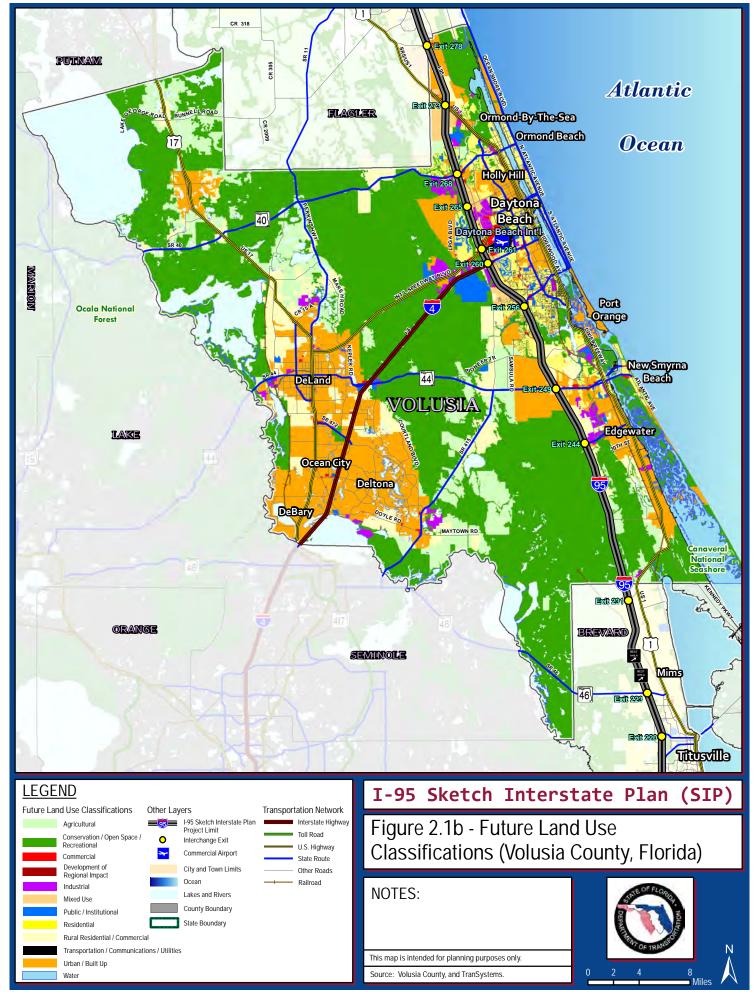
This chapter provides recommendations to handle the expected increase in demand along I-95 between today and 2035. The following recommendations are drawn from the analysis of the I-95 Sketch Interstate Plan and provide a culmination to the study.

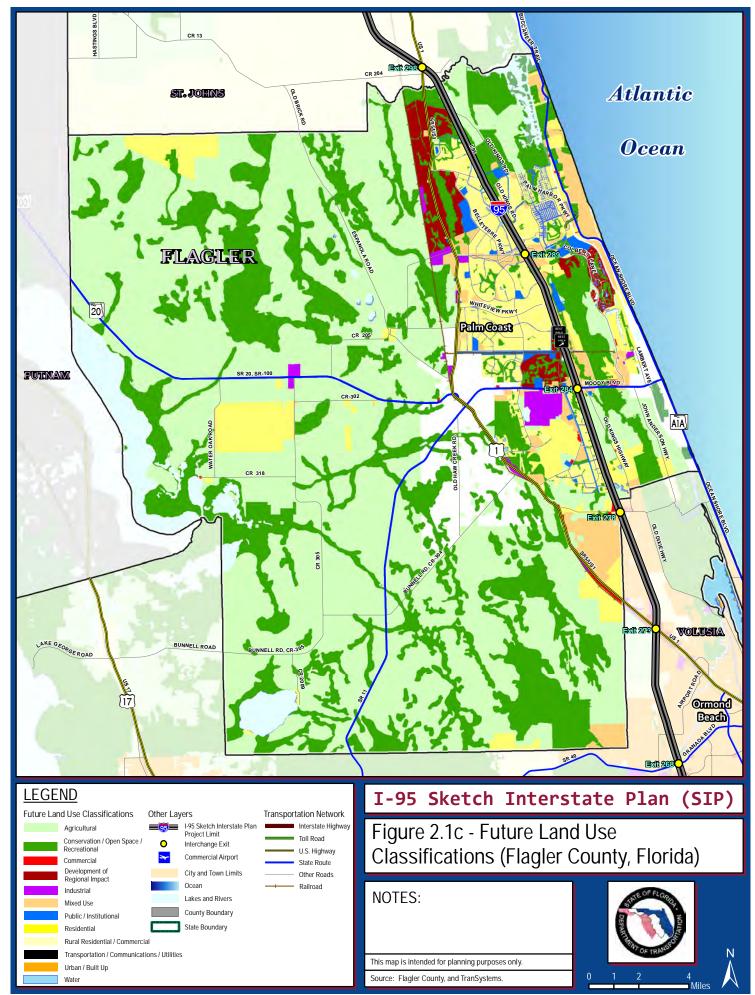
- I) The regional and local agencies need to continue to update land use and zoning regulations and understand the impact that past developments have had and what future developments will have on I-95. Where possible the agencies should work with larger scale developments (i.e. DRI's) to encourage them to provide for transportation improvements that not only meet the desires of the developments, but also address and meet the identified long term needs of the area.
- 2) The regional and local agencies need to pay particular attention to the anticipated high growth development areas. These high growth development areas are projected to have substantial increases in both population and employment over the next several decades. These locations are anticipated to mostly fill in gaps between existing developments in Nassau County between Yulee and Fernandina Beach, throughout Duval County, in St. John's County between the Duval County line and St. Augustine along the I-95 corridor, around Palm Coast and Flagler Beach in Flagler County, around Ormond Beach in Volusia County, and both north and south of Melbourne in the communities of Viera and Palm Bay within Brevard County.
- 3) Multimodal options may provide the greatest long term parallel options to traveling on I-95; however, it is difficult to determine the precise impact these may have on I-95. Passenger rail, which is being considered throughout Florida and the remainder of the country as a viable option to roadway expansion, requires substantial financial investments. Currently, those finances do not exist due to the varied uses of flexible transportation dollars; on the other hand, the next federal transportation bill may have a greater financial vehicle for all multimodal options.
- 4) Where possible, all of the identified parallel corridors to I-95 should be promoted and expanded to alleviate the demand. The regional and local transportation agencies should move forward with planned parallel corridors (road and multimodal) and attempt to provide similar time benefits compared with I-95.
- 5) In order to accommodate the number of lanes identified to handle the increased demand by 2035, FDOT along with the regional and local agencies need to set aside right-of-way where it is not currently developed. It is important that these anticipated future needs do not occur at the expense of the built and natural environment.

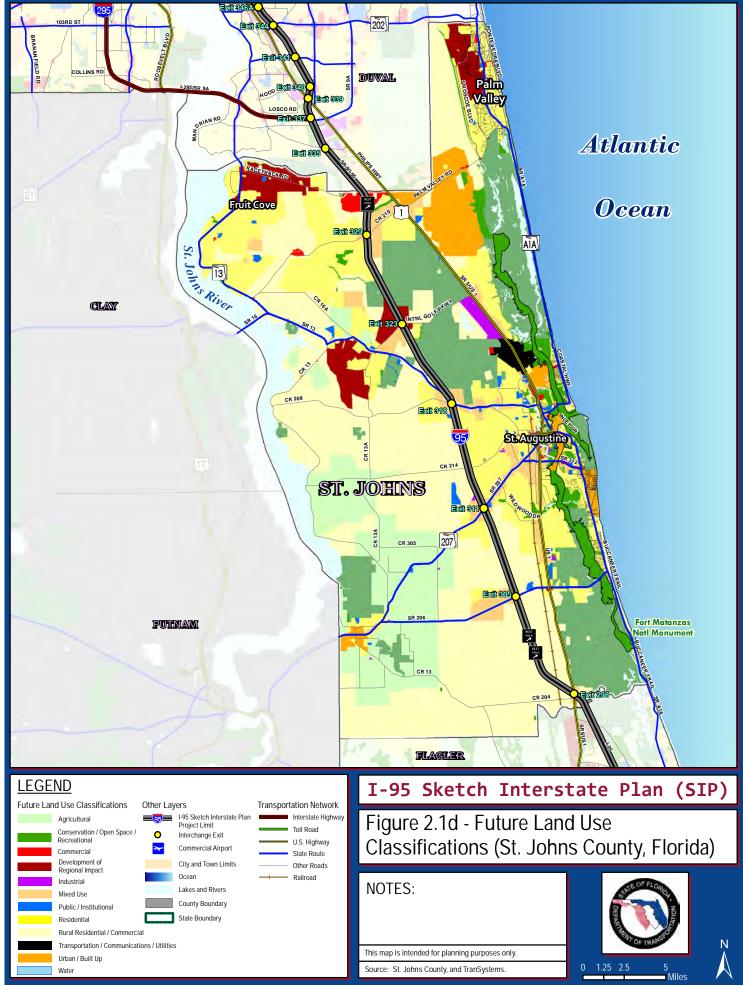
# **APPENDIX A**

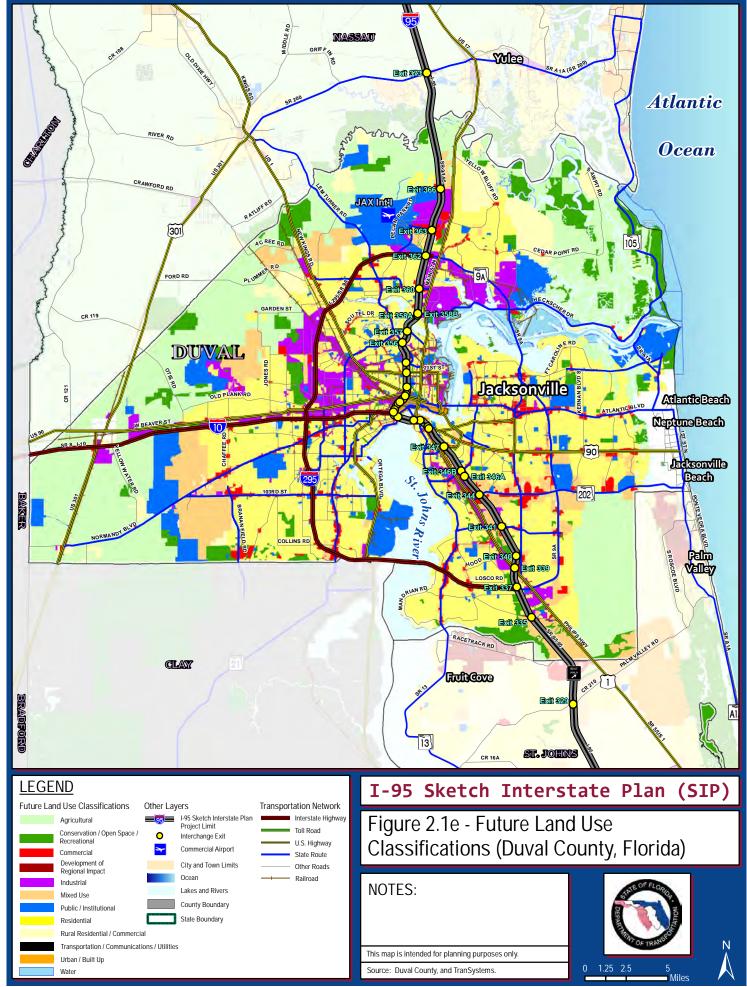
# **COUNTY BY COUNTY FUTURE LAND USE MAPS**

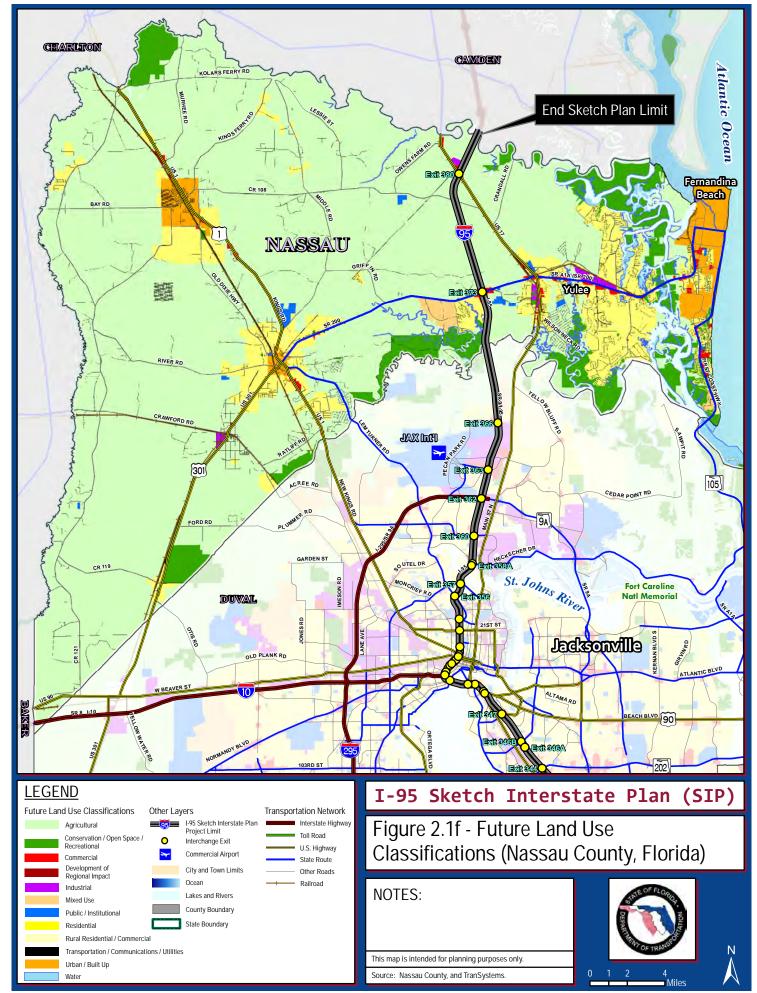






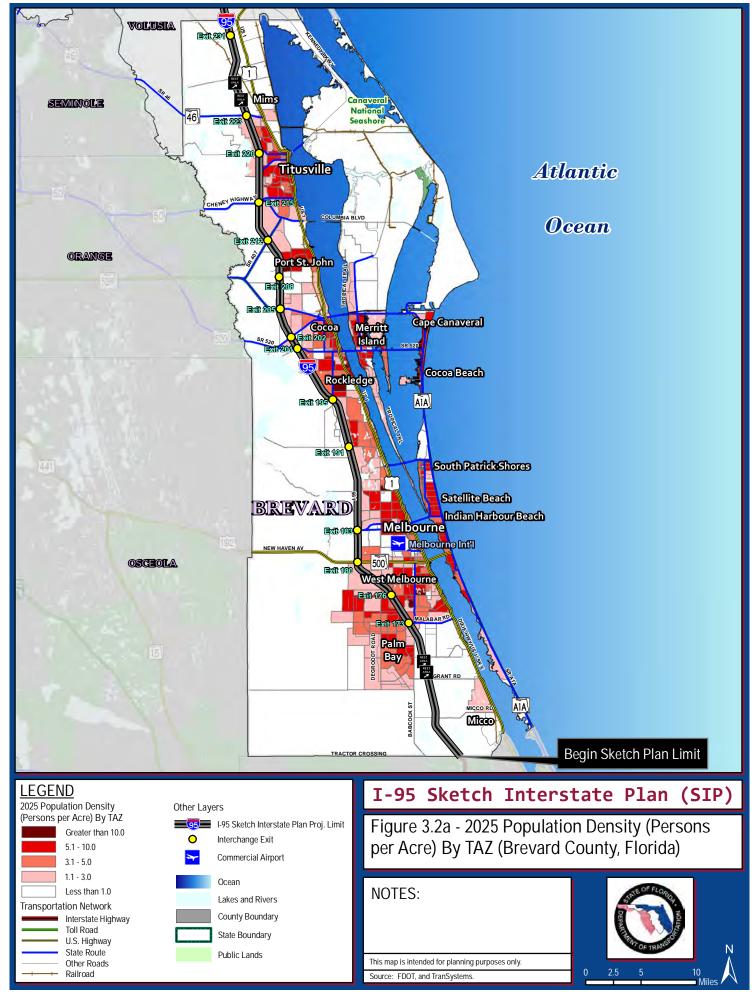


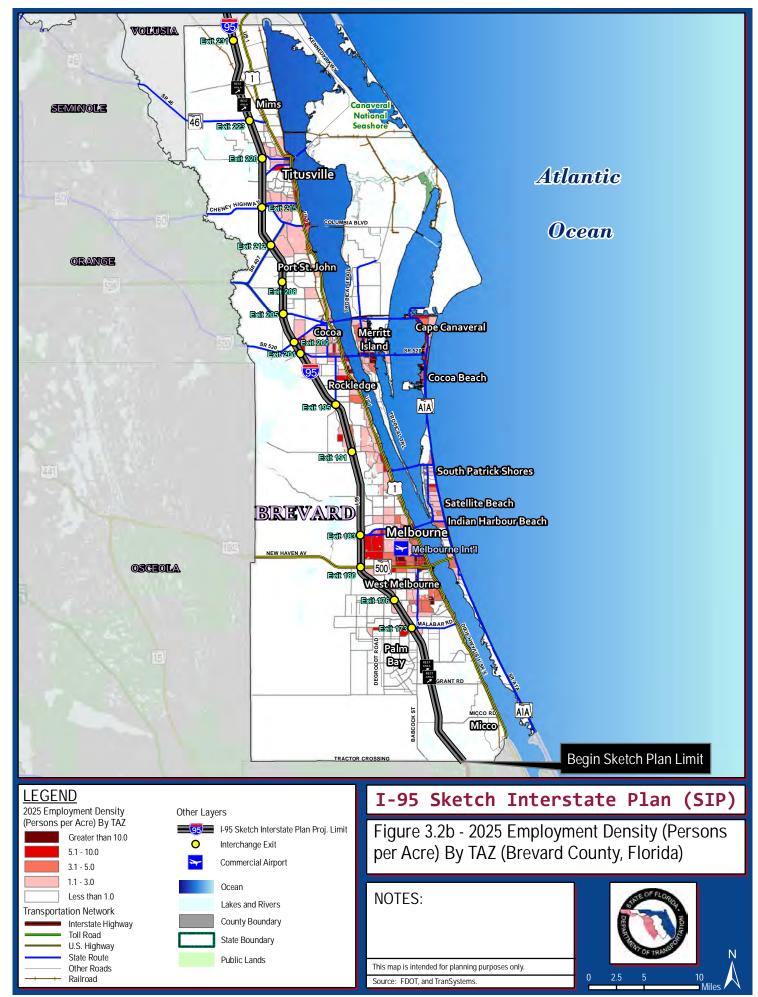


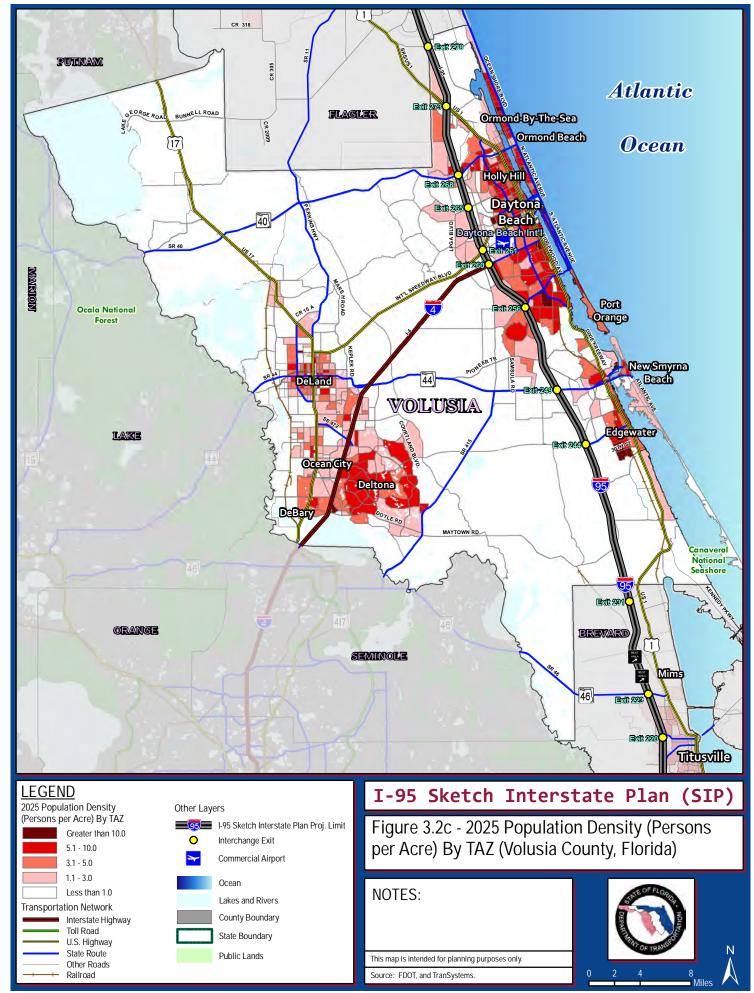


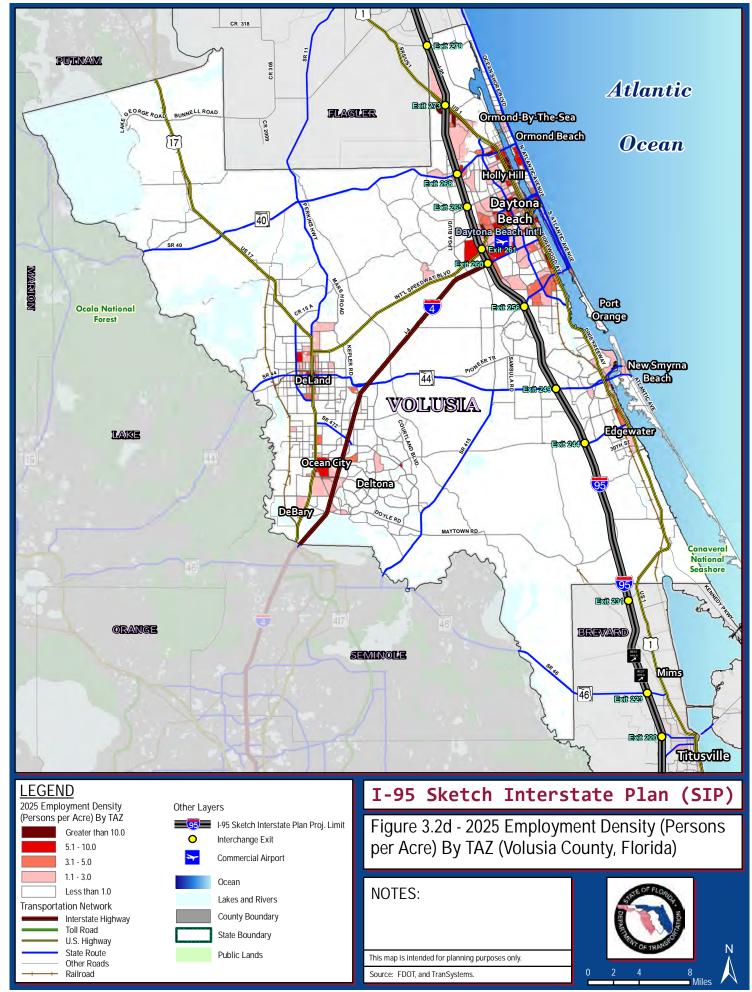
# **APPENDIX B**

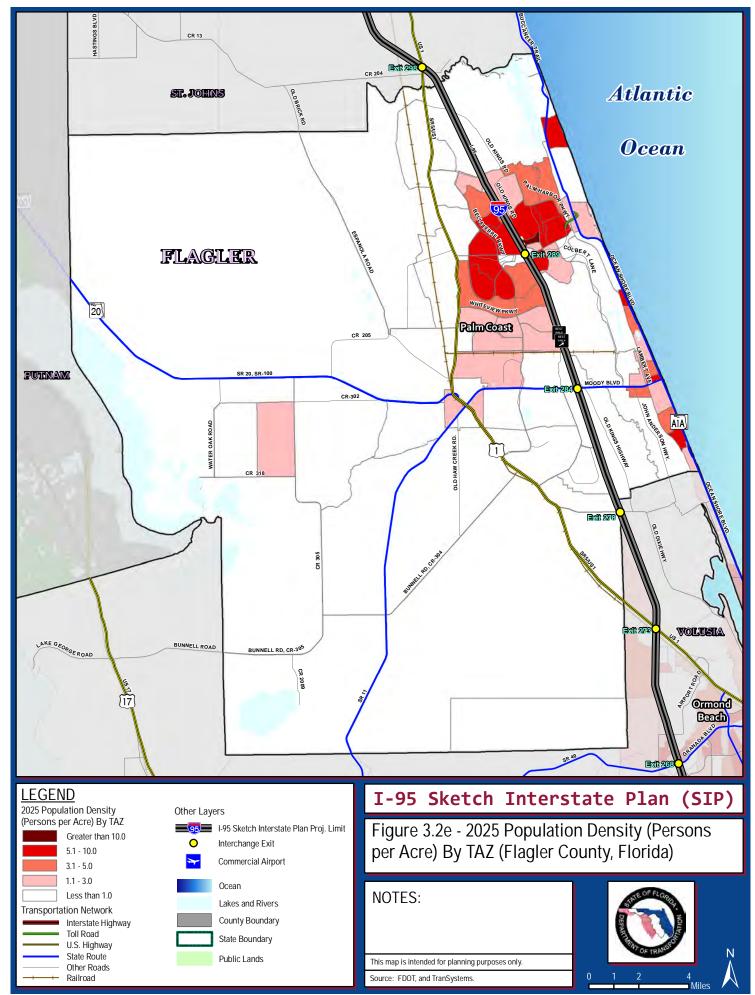
# **COUNTY BY COUNTY 2025 POPULATION AND EMPLOYMENT DENSITY**

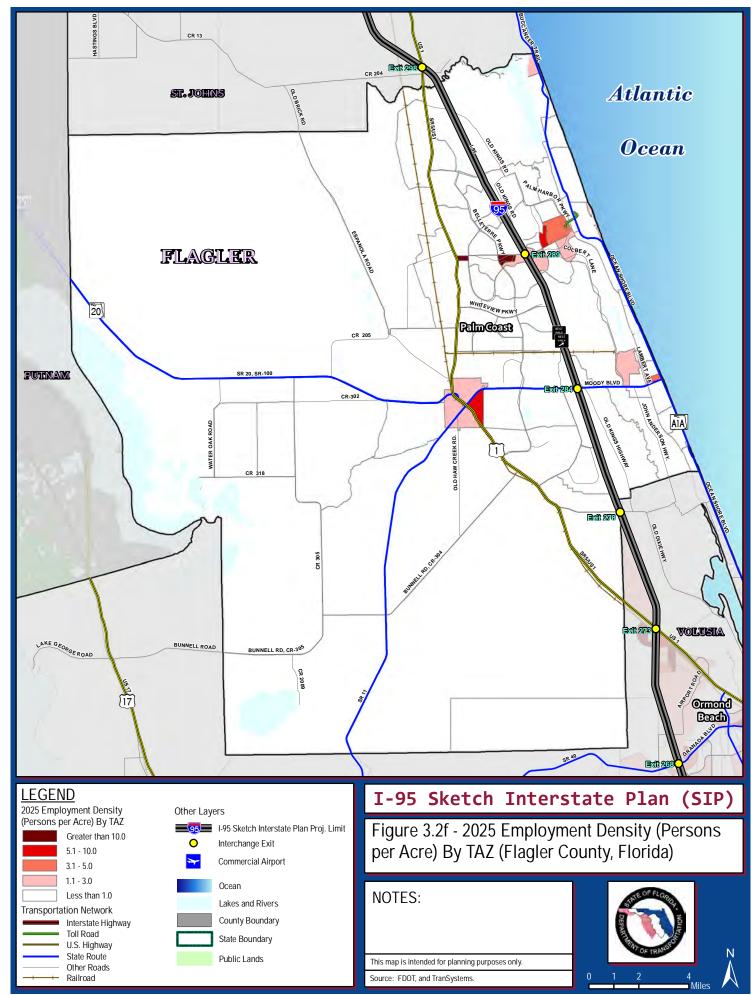


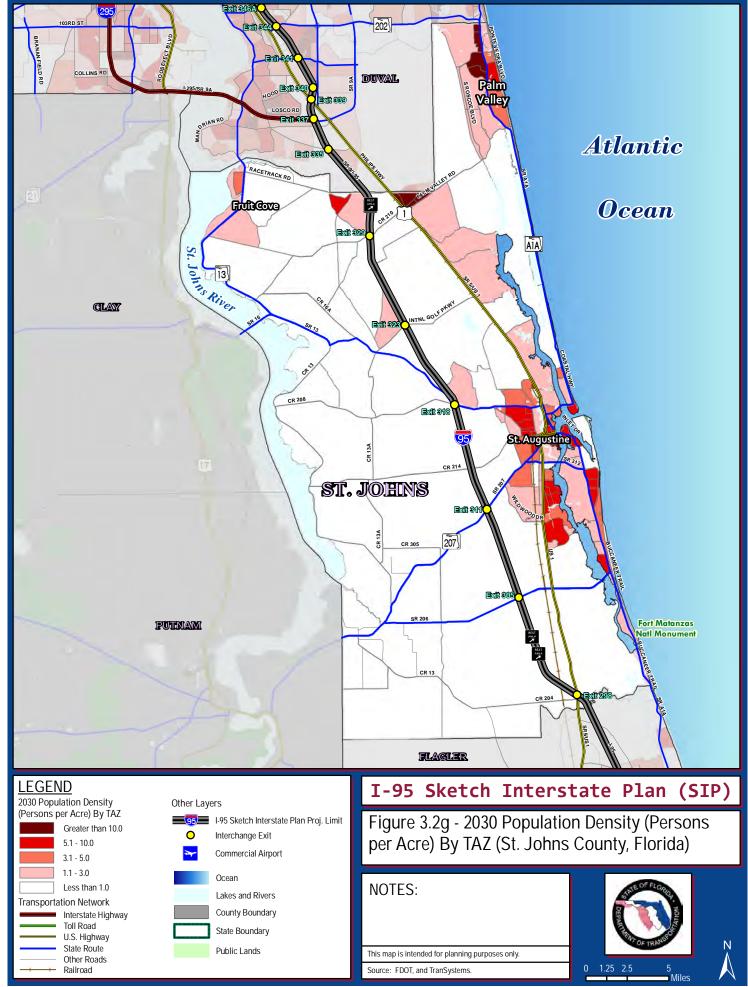


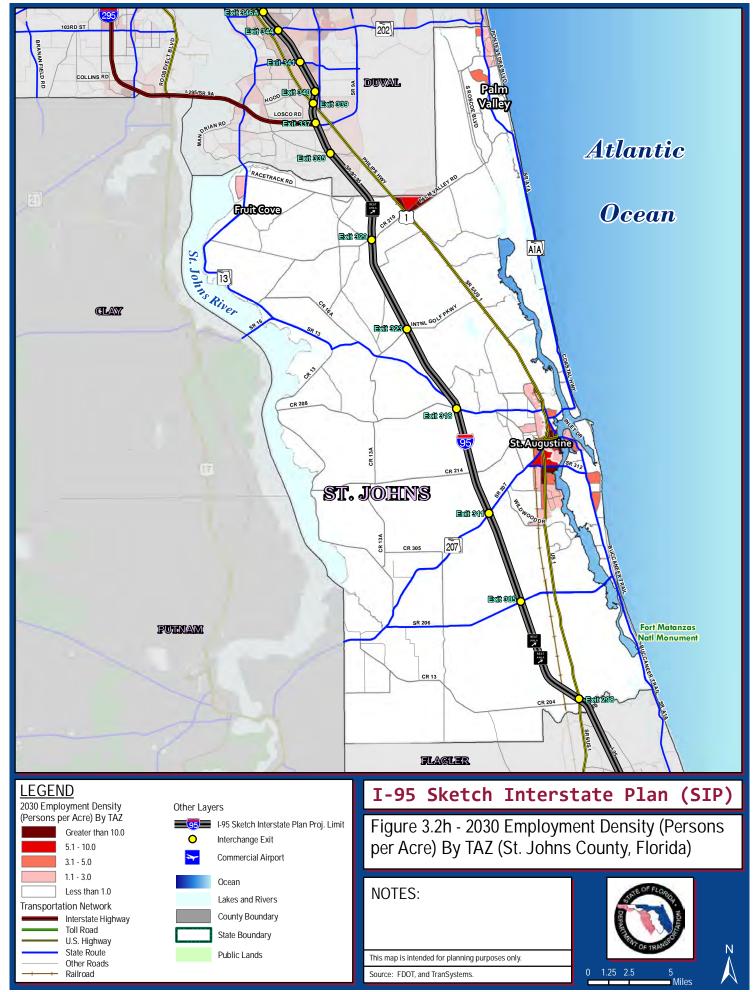


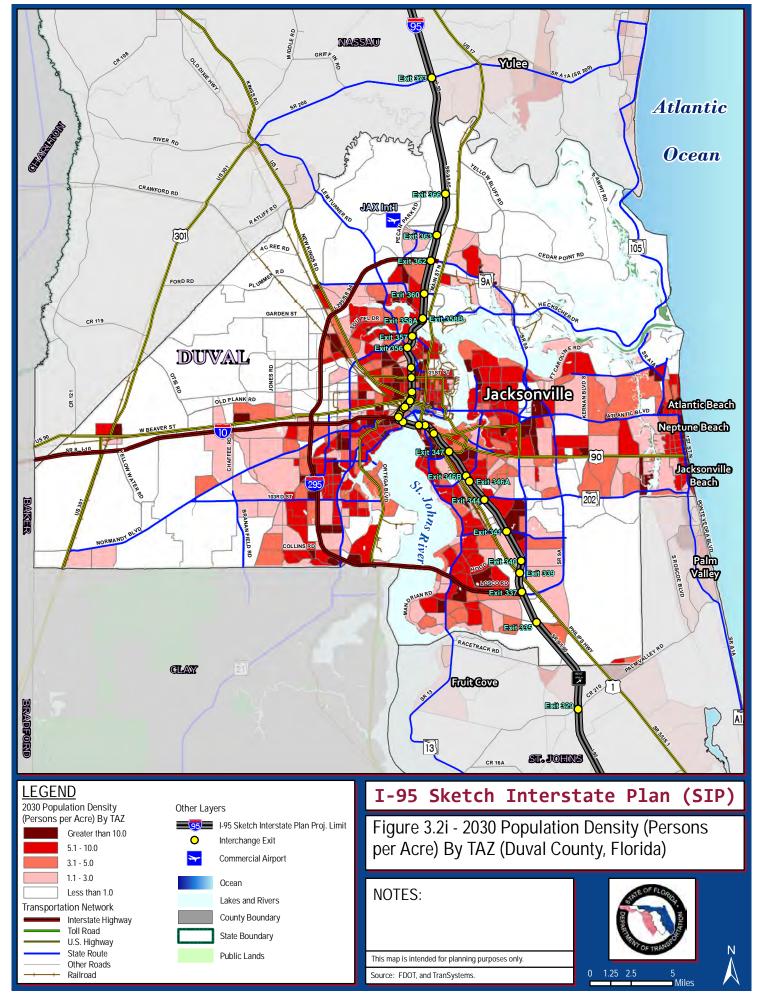


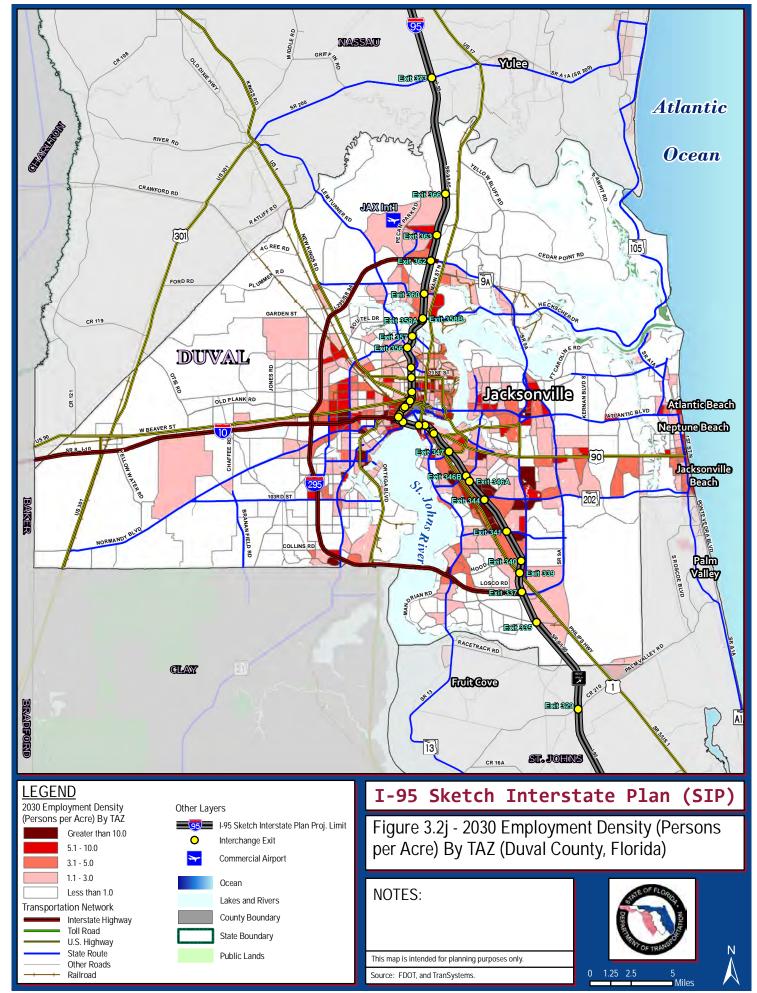


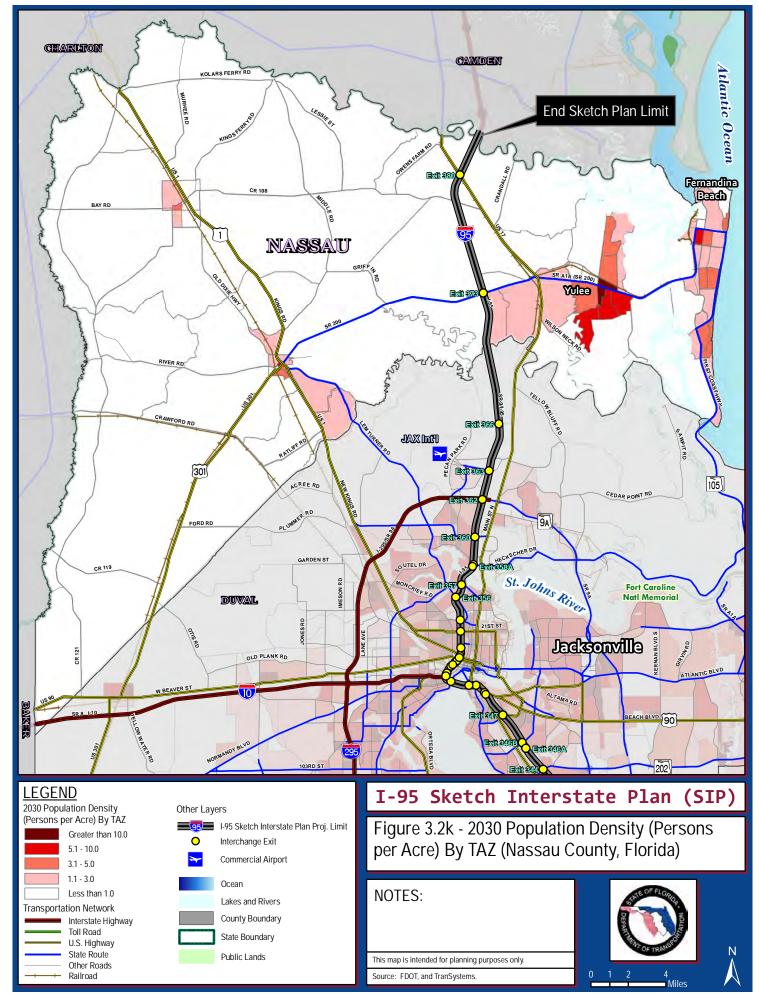


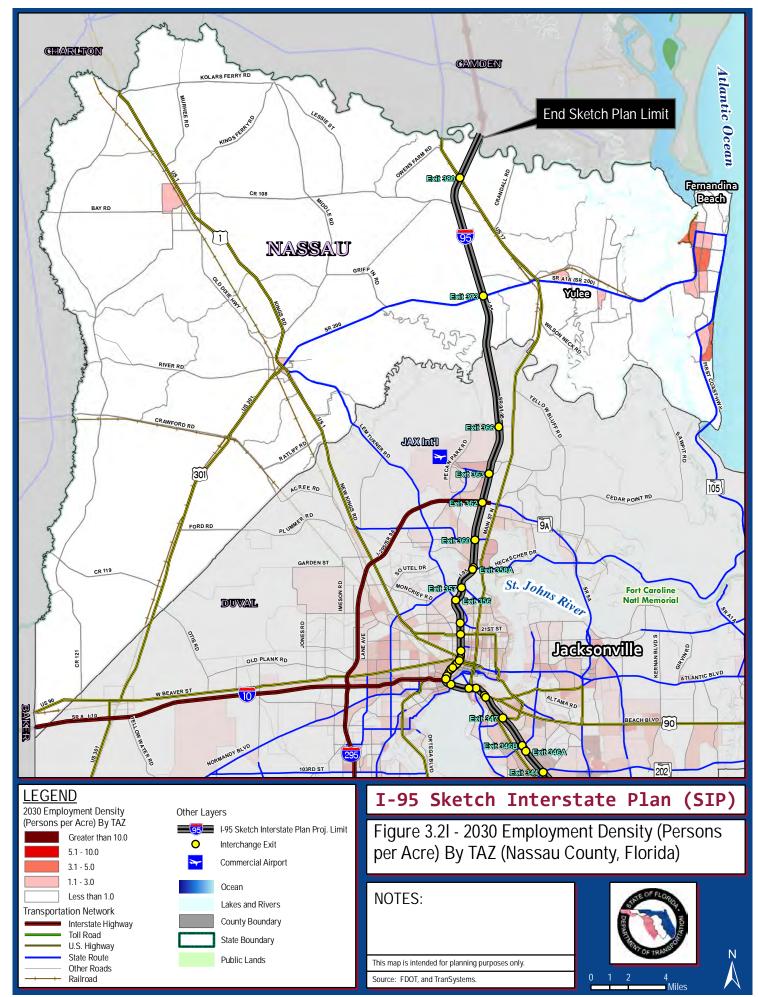






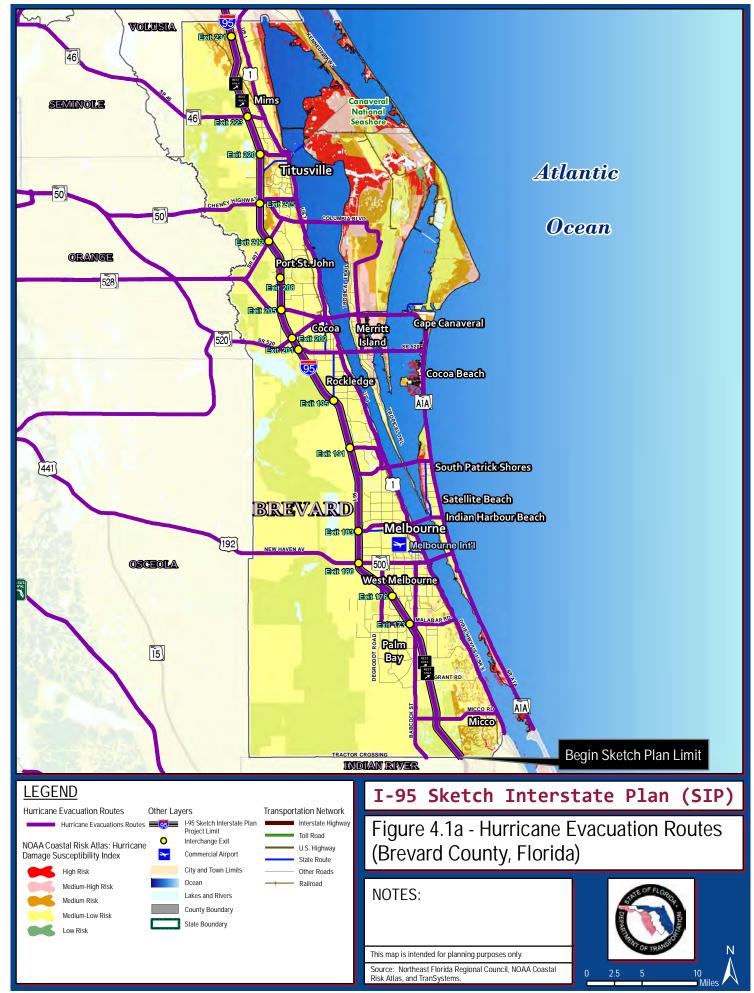


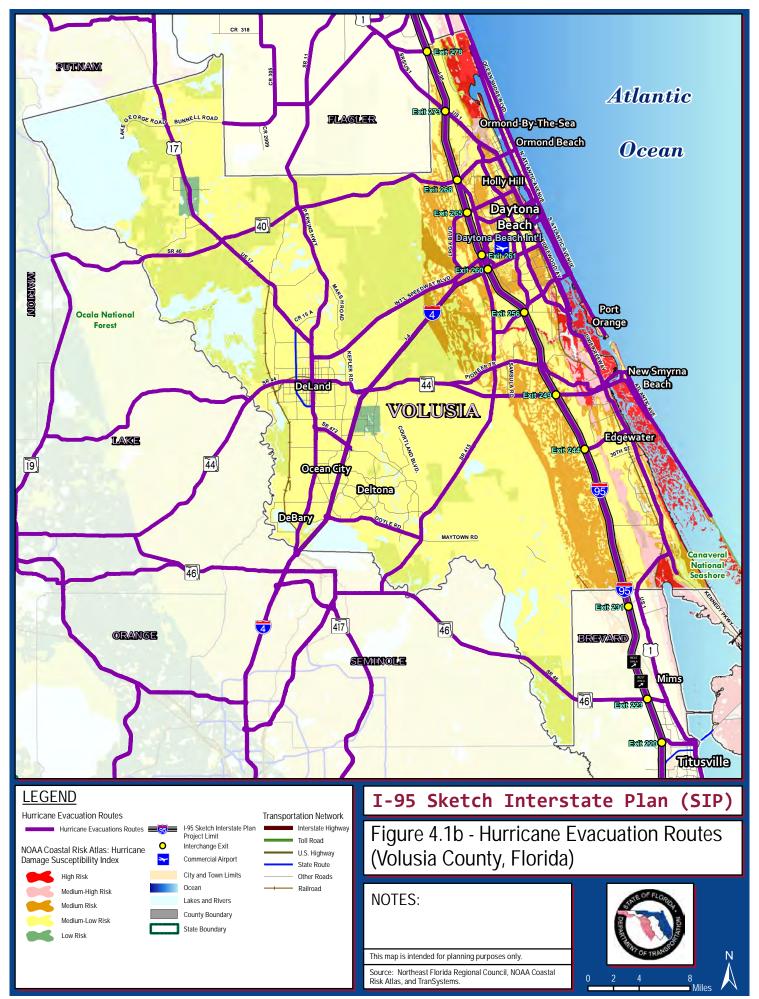


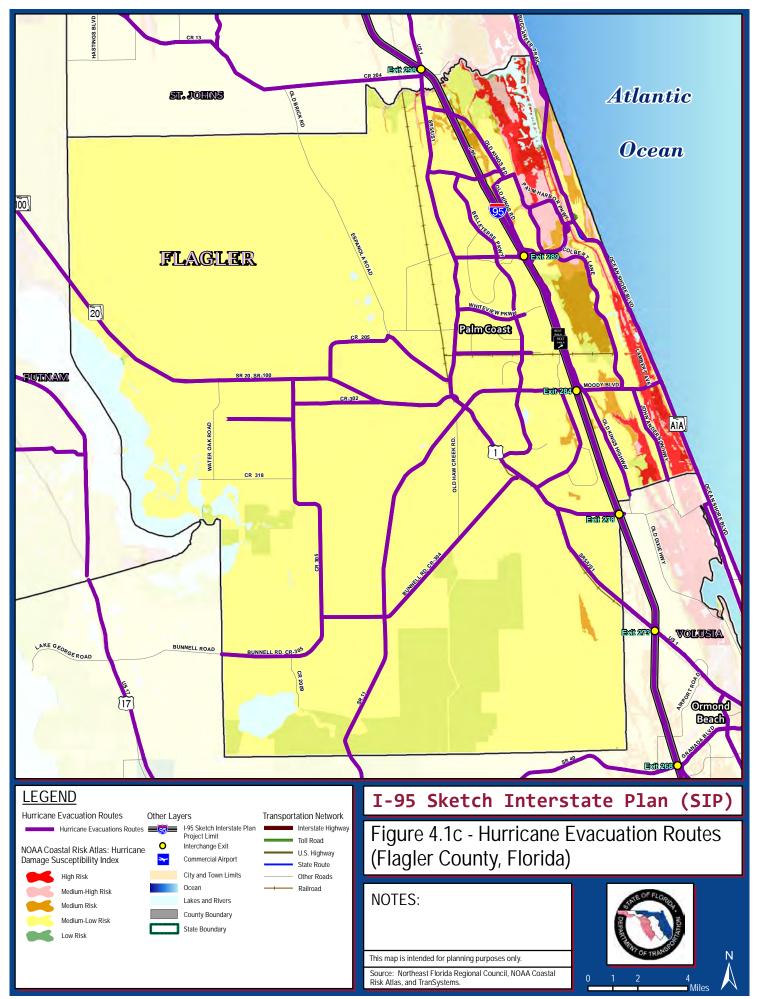


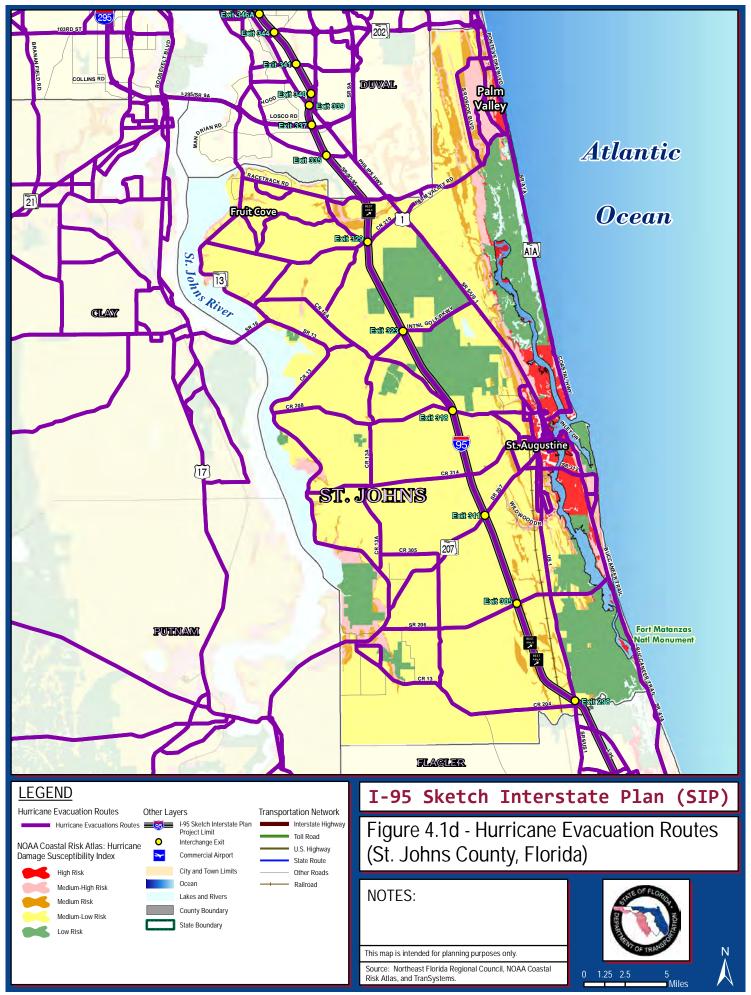
# **APPENDIX C**

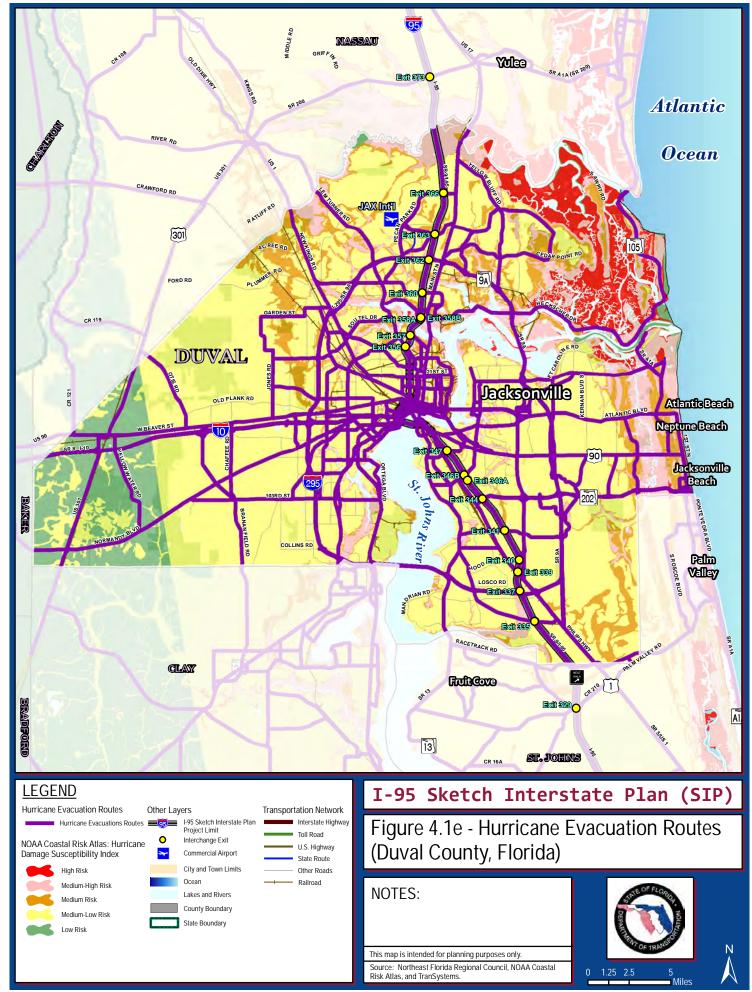
# **COUNTY BY COUNTY HURRICANE EVACUATION MAPS**

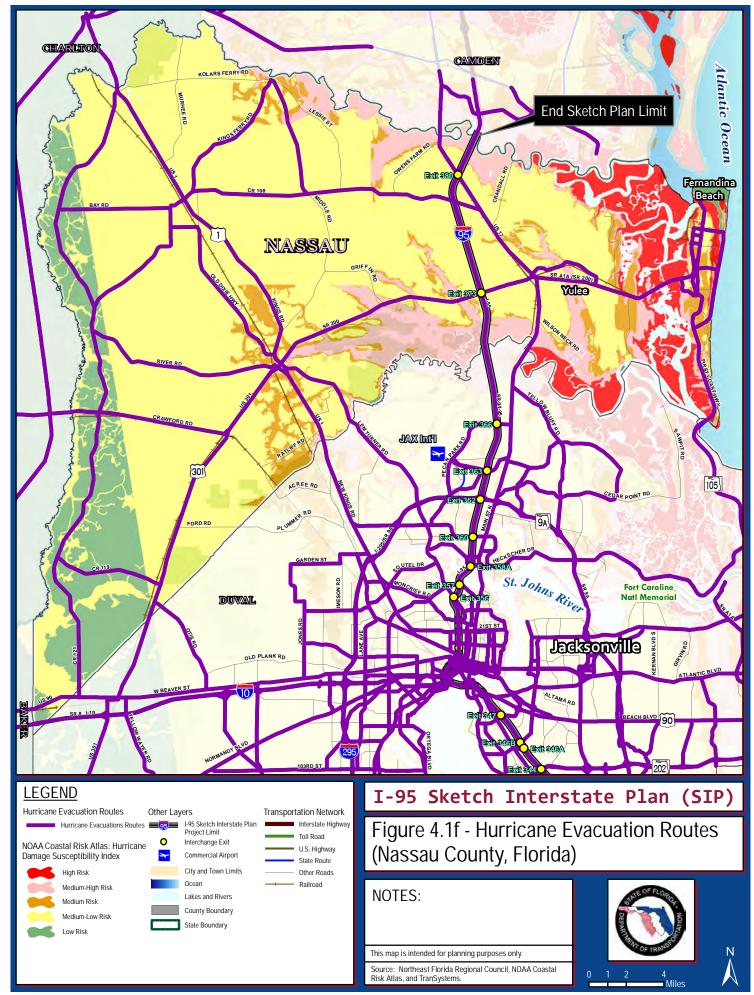


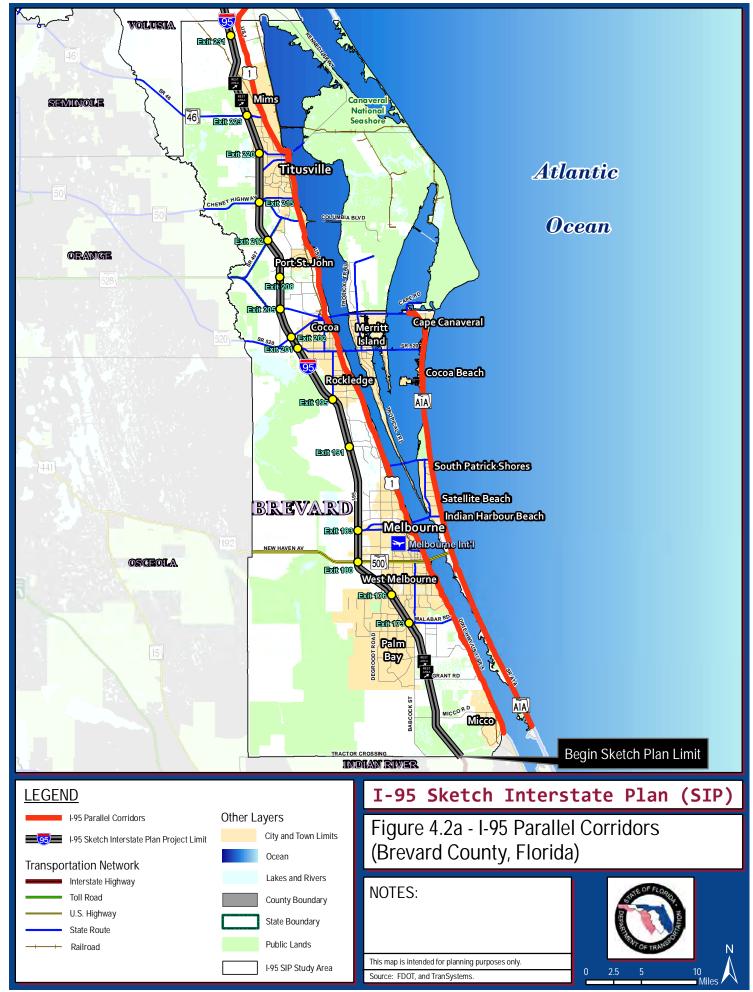


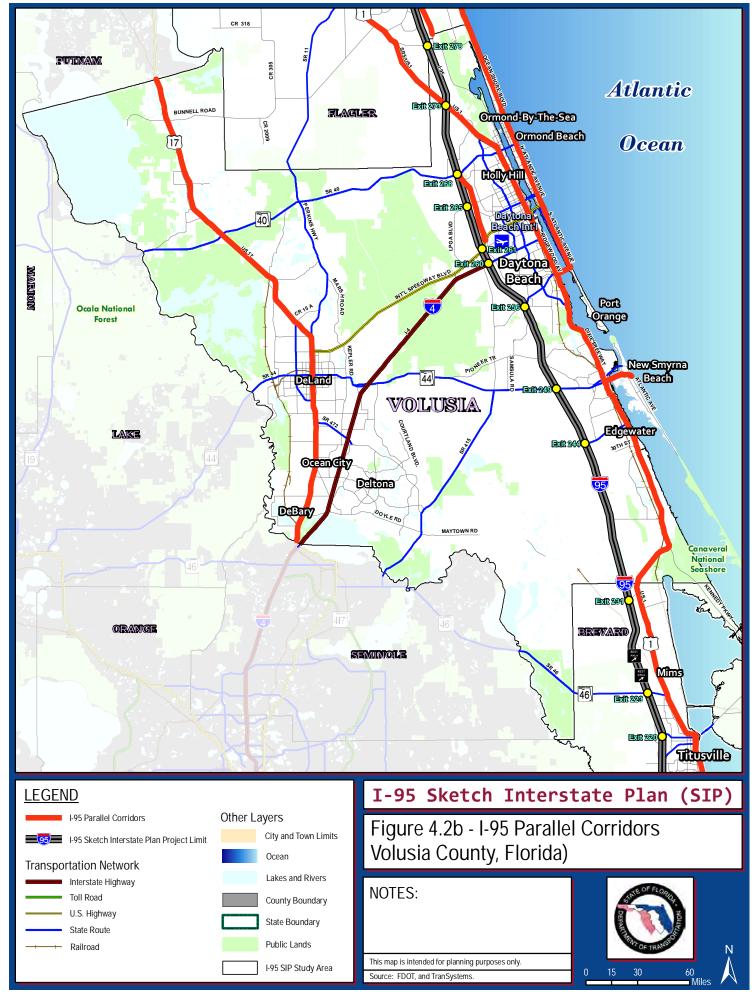


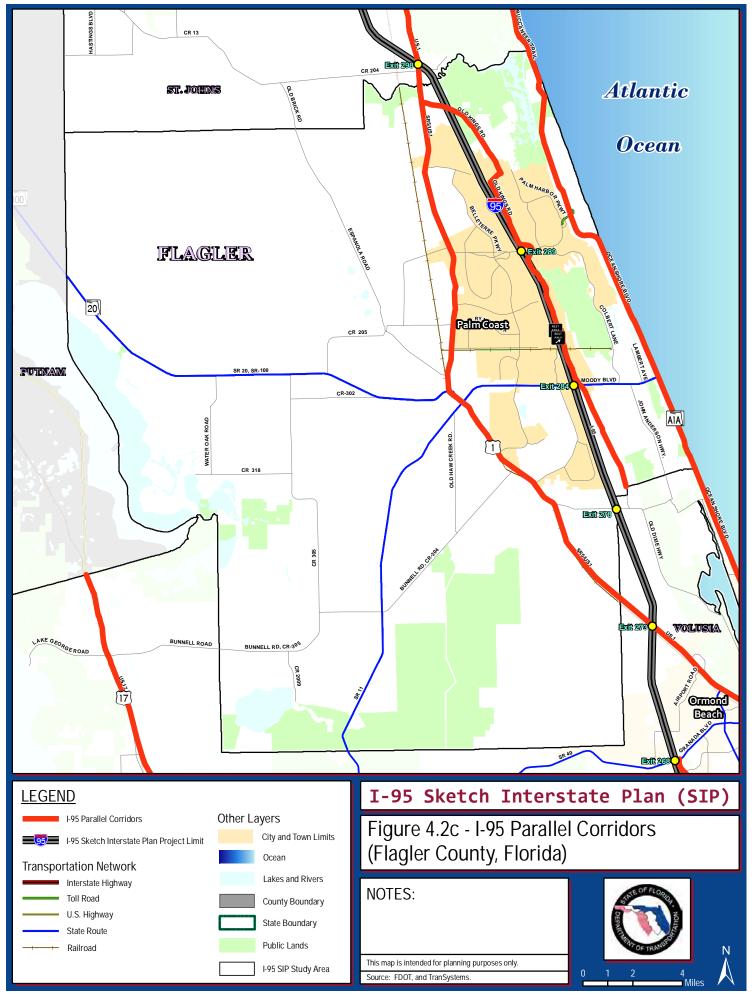


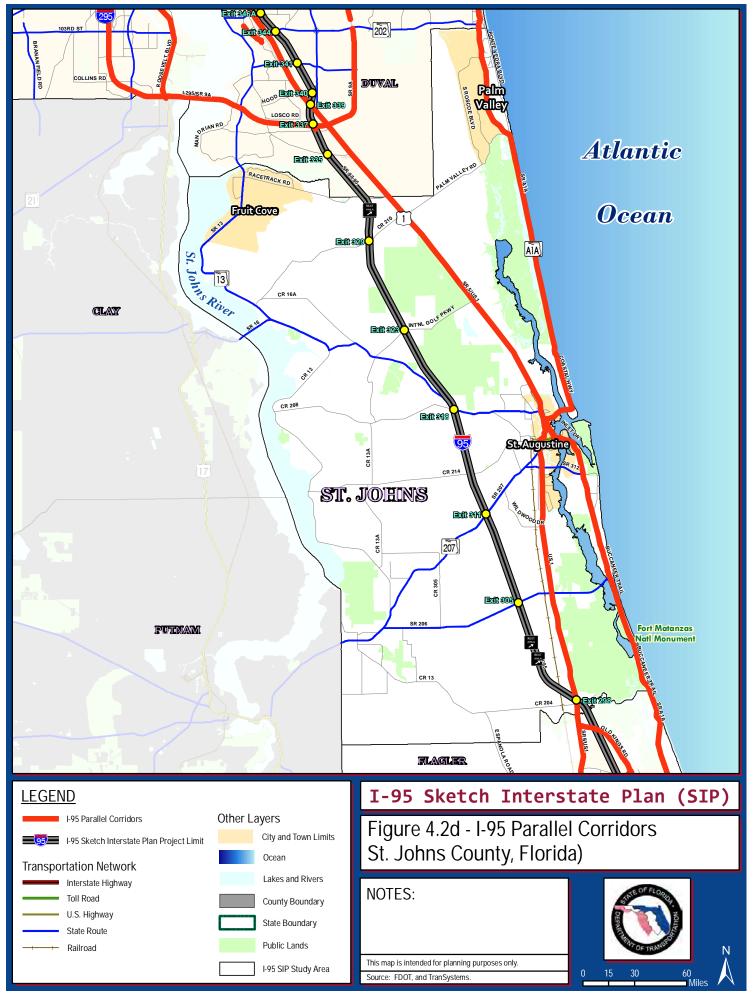


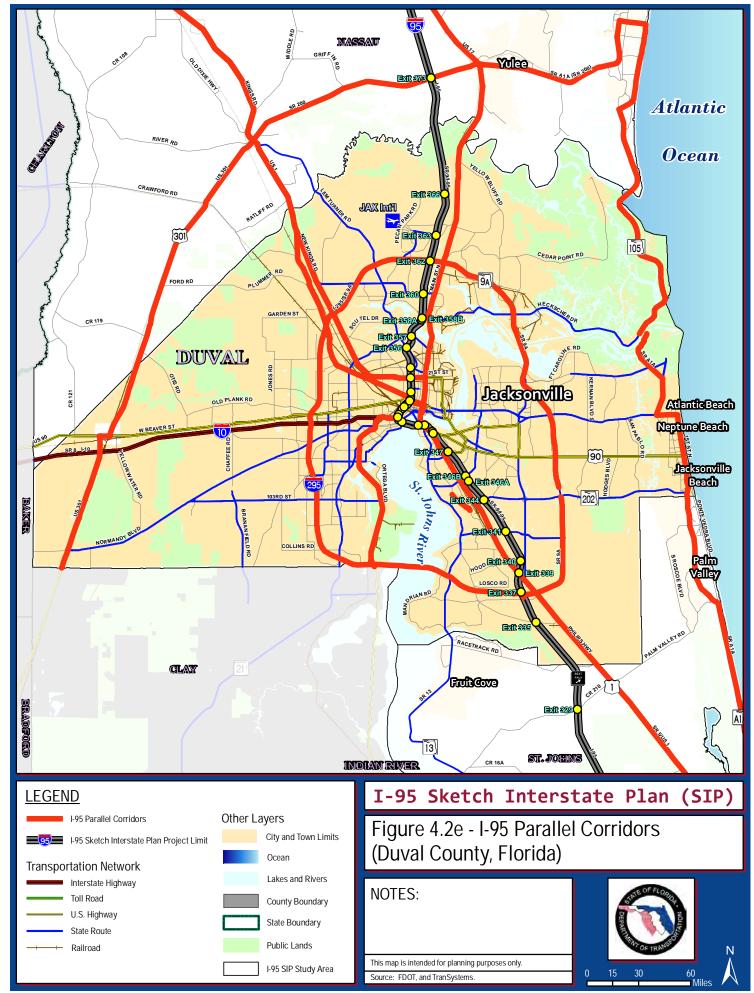


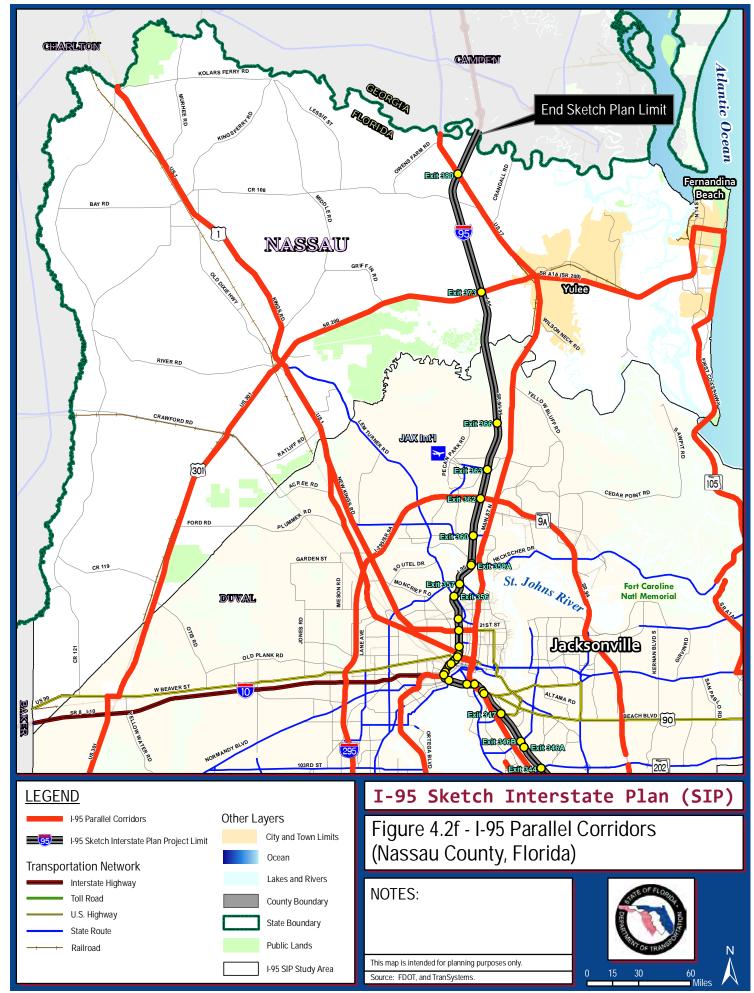






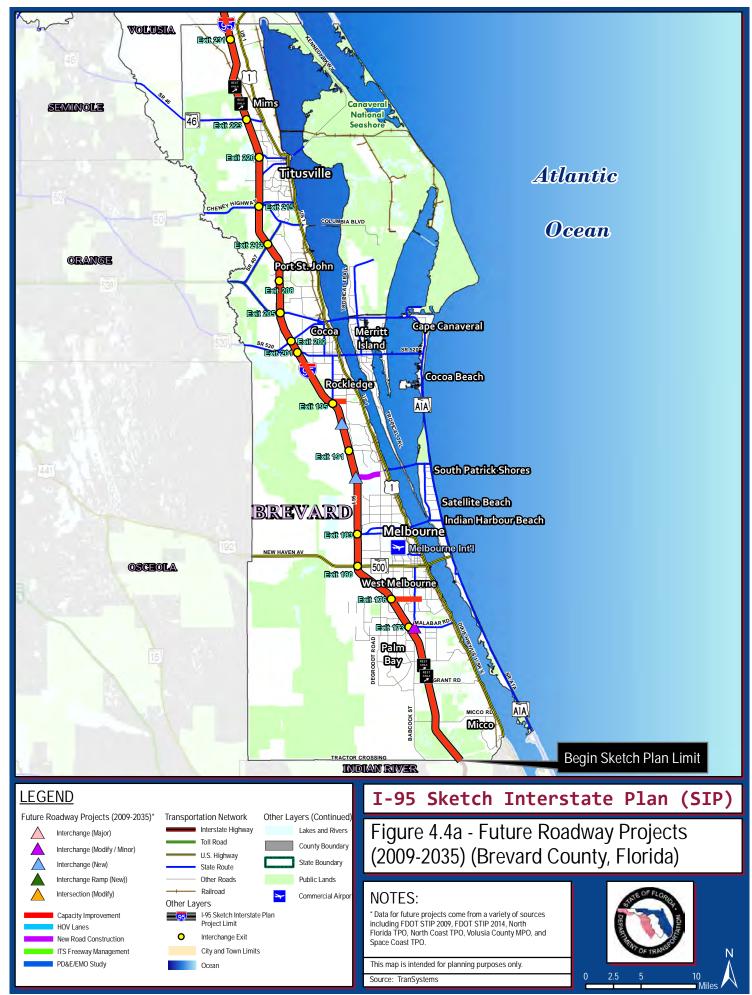


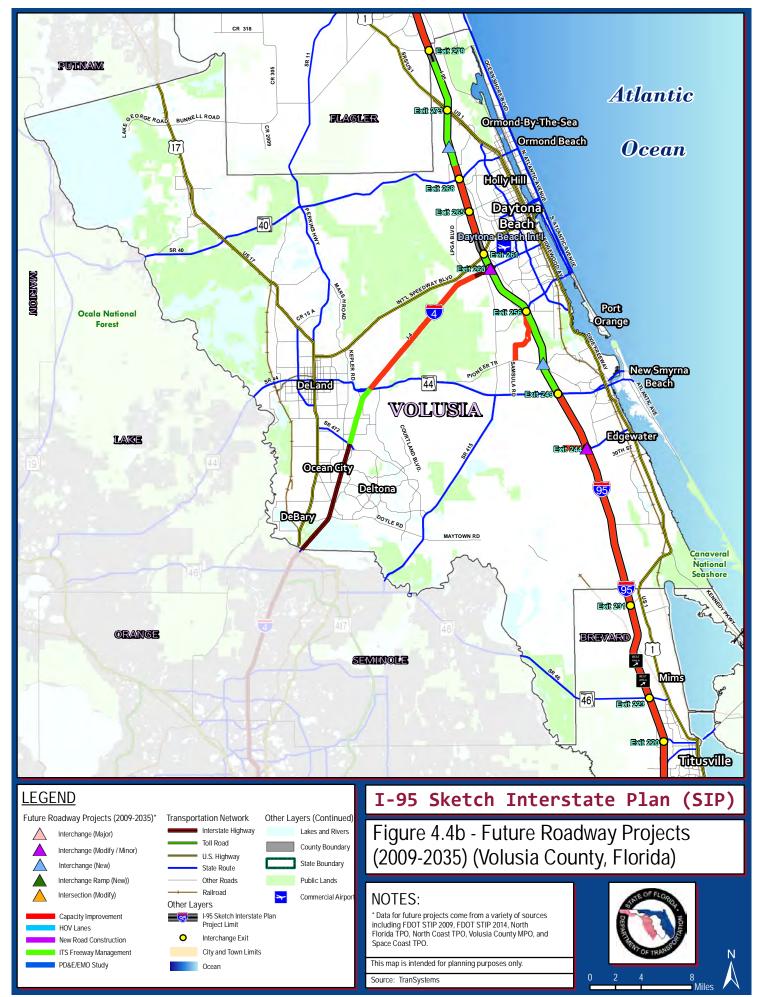


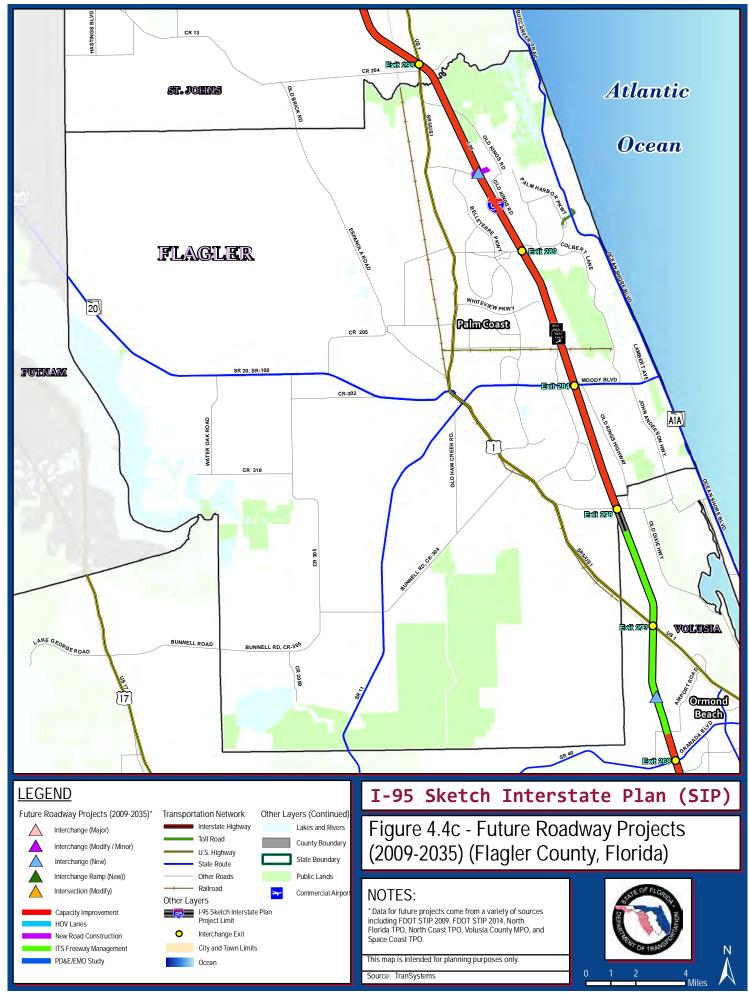


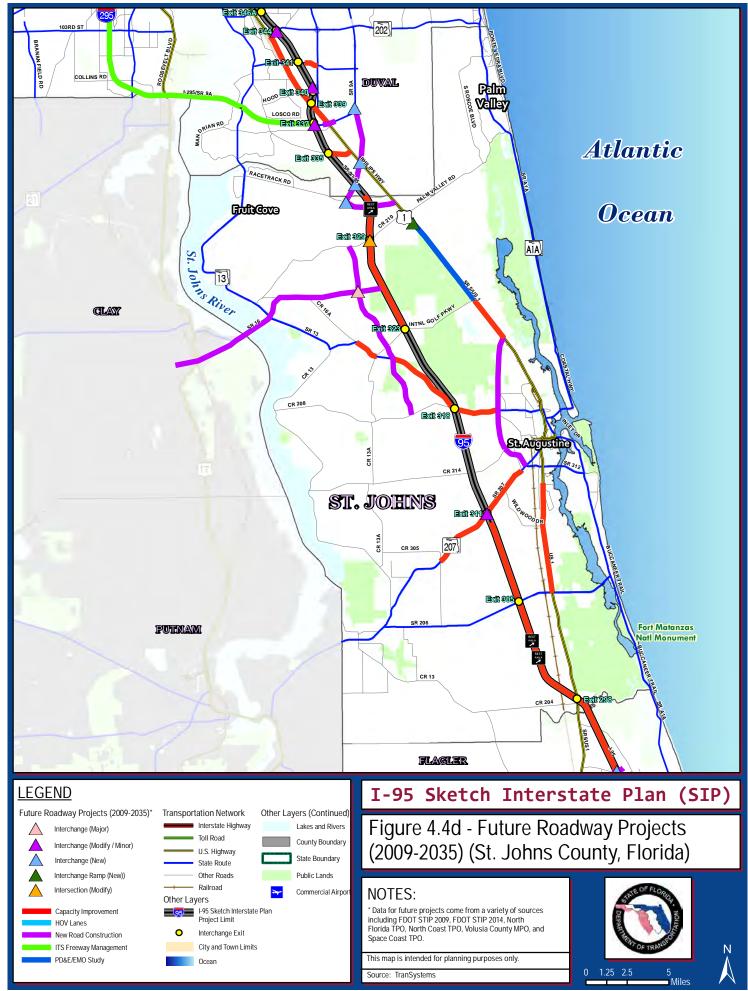
## **APPENDIX D**

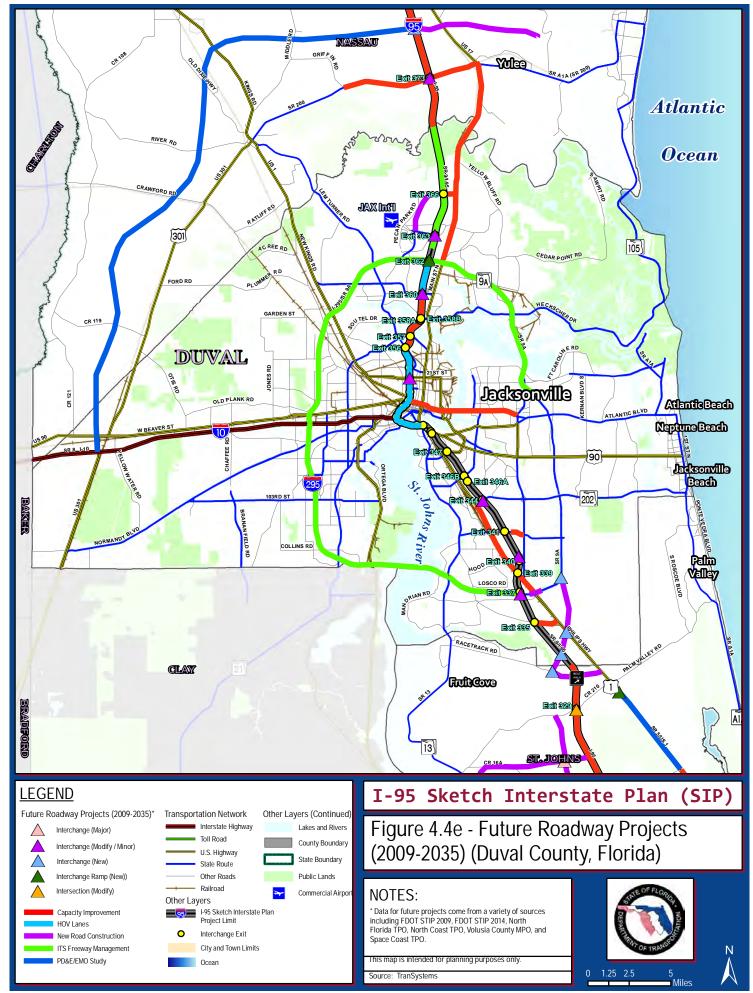
## **COUNTY BY COUNTY FUTURE ROADWAYS PROJECTS**

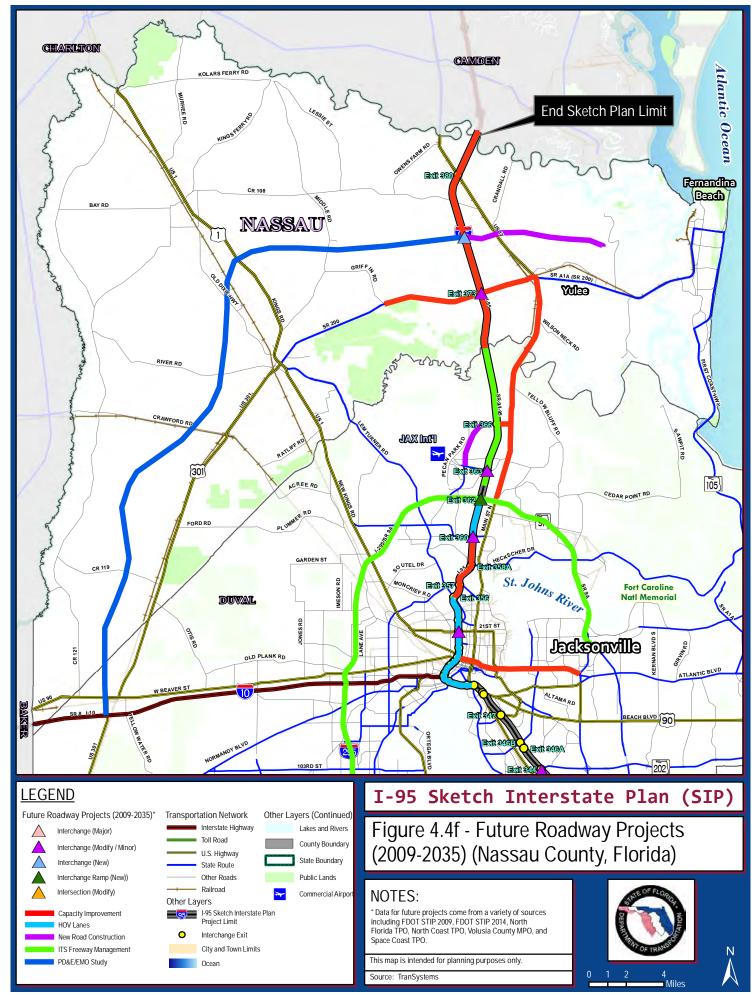












## **APPENDIX E**

## **COUNTY BY COUNTY 2035 PROJECTED LANE CALLS**

