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Record of Decision

April 2014

In support of the Environmental Impact Statement

St. Johns River Crossing Project in Clay and St. Johns Counties, Florida

Federal Highway Administration

Florida Department of Transportation

Financial Project Number: 208225-3
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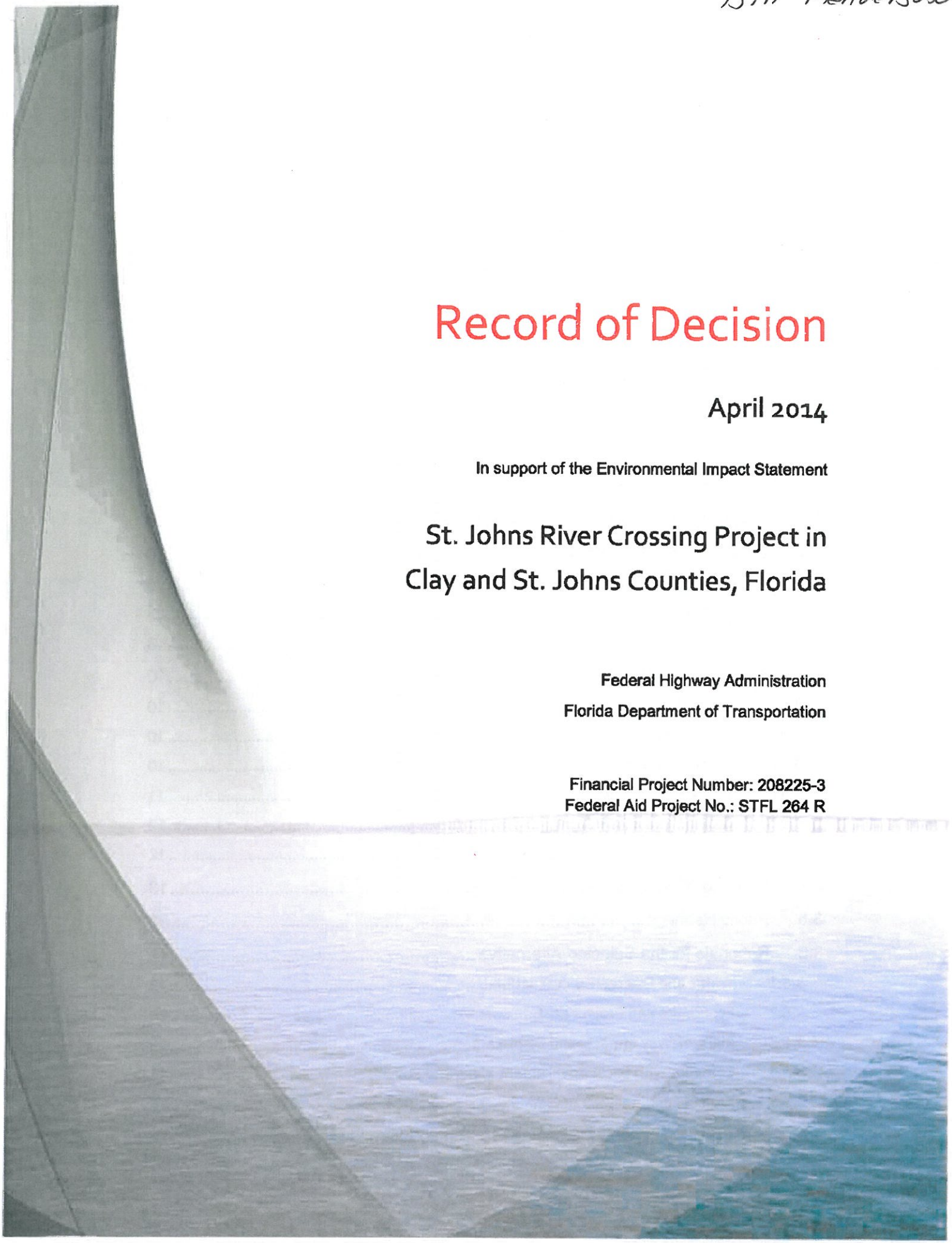

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1.0 INTRODUCTION

The Florida Department of Transportation (FDOT) identified the need for an improved highway corridor and bridge crossing of the St. Johns River between Clay and St. Johns Counties. The St. Johns River Crossing Project is an effort to identify the best solution to address that need, while trying to minimize the effect that solution might have on the communities and the environment in the two counties.

FDOT established three goals to guide the development of potential solutions to existing transportation problems in the project area (further defined below):

- Provide additional capacity to improve current and future transportation network deficiencies,
- Promote and support employment and economic development, and
- Improve emergency evacuation.

They then consolidated these goals into a statement of purpose, used to evaluate alternatives and identify the one that will best serve the area's transportation needs:

To address population growth and resulting traffic by providing additional capacity that meets the area's transportation, economic, employment and safety needs while avoiding, minimizing, and/or mitigating effects on the affected communities and the environment.

1.1 Purpose of this Document

The purpose of this Record of Decision (ROD) is to document the Federal Highway Administration (FHWA) decision on the St. Johns River Crossing Project. The ROD signifies formal federal approval of the proposed action. The decision is based on information presented in the Final Environmental Impact Study (EIS) and supporting technical documents, and input received from the public and interested local, state and federal agencies. In making the decision, FHWA considered the potential impacts of the project and alternative courses of action under the National Environmental Policy Act (NEPA), Section 4(f), and other applicable laws, and how well the alternatives would meet the purpose and need.

This ROD has been drafted in accordance with the regulations implementing the NEPA (40 CFR Part 1505.2). Specifically, this ROD:

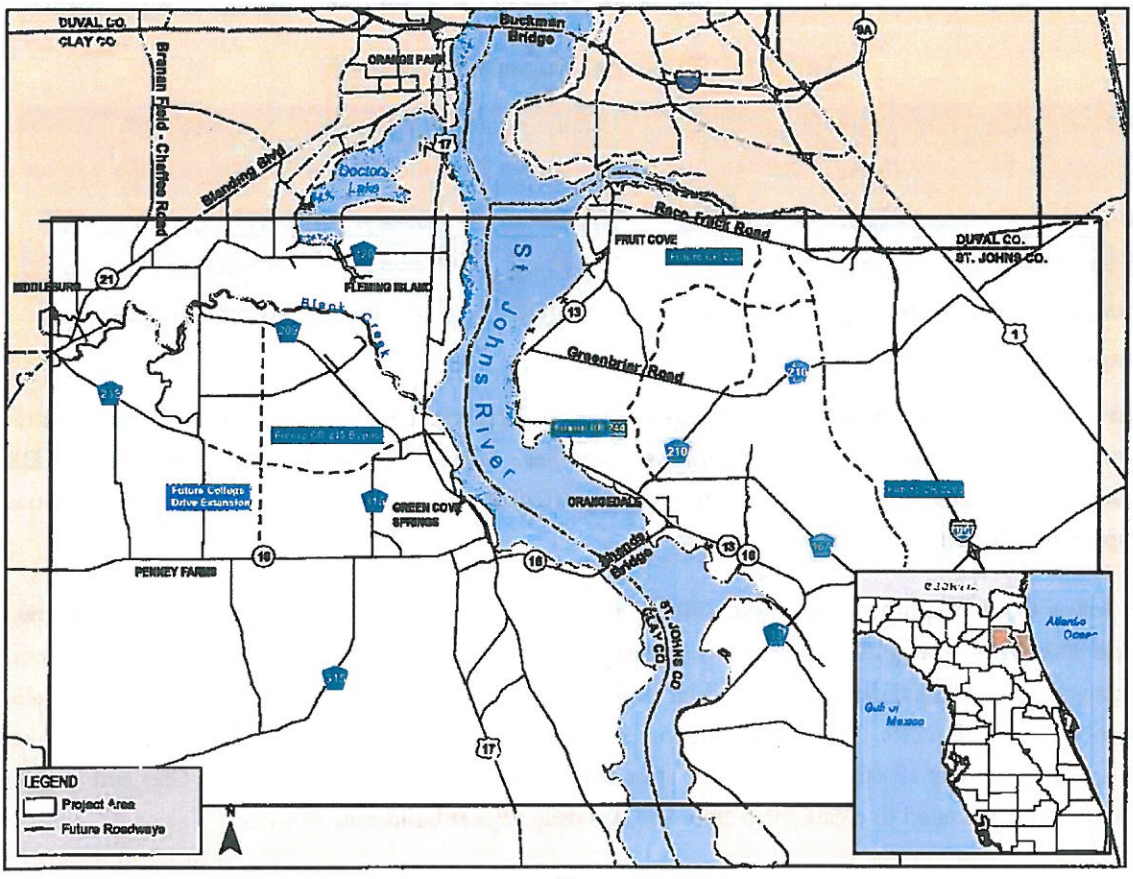
- States the purpose and need,
- Presents the alternatives considered in the FEIS,
- Presents the alternatives considered and dismissed in the FEIS,
- Discusses the Section 4(f) *de minimis* finding,
- Provides the rationale for the Selected Alternative, and
- Presents measures to avoid and minimize environmental harm.

1.2 Project Location

The project area, as shown in **Figure 1-1**, encompasses portions of Clay and St. Johns Counties in northeast Florida, south of Duval County. The St. Johns River separates Clay and St. Johns Counties, and the Shands Bridge is the only direct connection between the two Counties within the defined project area. The Shands Bridge is a two-lane bridge that carries State Road (SR) 16 east of Green Cove Springs in Clay County across the river to St. Johns County south of Orangedale. The Buckman Bridge is also in the vicinity of the project area, located in Duval County approximately 12 miles north of the Shands Bridge. The Buckman Bridge is an eight-lane bridge that carries Interstate (I)-295 over the St. Johns River southwest of downtown Jacksonville. I-295 serves as the beltway to the Jacksonville metropolitan area, connecting I-95 south of downtown to I-95 north of downtown near the Jacksonville International Airport. SR 9A completes the eastern portion of the beltway, forming a continuous loop through the entire city.

The project area focuses on the communities south of Duval County where a large amount of residential development has occurred in recent years. Although the areas north and south are served by wider bridge crossings of the St. Johns River, the two-lane Shands Bridge that services the population in this area is the only bridge between the eight-lane Buckman Bridge to the north and the four-lane United States (US) 17 bridge nearly 30 miles farther south in Palatka. Within the project area, connection points for a new route that could reasonably be expected to carry additional traffic are Branan Field – Chaffee Road west of the river and I-95 east of the river.

Figure 1-1: Project Location



1.3 Need for the Project

Rapid population growth in this area has resulted in additional traffic and congestion on local roads. When compared to recent years, growth in the area has slowed with the downturn in the economy, however, fluctuations in the market conditions are to be expected. By the year 2030, traffic congestion is still expected to worsen and there will still be a need for the project. Providing additional capacity to improve current and future transportation network deficiencies in the near term will help alleviate this congestion. In addition, providing access for residents to local employment centers will aid in promoting and supporting economic development. Perhaps most important, an improved crossing of the St. Johns River will result in more efficient emergency evacuation. Thus, the four major factors influencing the need for the project are population growth and development, transportation demand, economic and employment conditions, and safety. These factors are briefly discussed in the following subsections.

1.3.1 Population Growth and Development

In 1970, FDOT opened the first segment of I-295. The opening of this roadway facilitated the first major change in the area's development patterns by providing improved access to northern Clay County. This resulted in large population increases in Clay County and Orange Park. I-295 was completed in the late 1980s and growth continued to expand, shifting south from Duval County into Clay and St. Johns Counties. The population of Clay County grew from 105,986 persons in 1990 to 140,814 in 2000, reaching a population of 190,865 persons in 2010. St. Johns County experienced similar increases in population, growing from 83,829 persons in 1990 to 123,135 persons in 2000 and reaching a population of 190,039 in 2010. **Table 1-1** displays the changes in population experienced by Clay, St. Johns and Duval Counties.

Table 1-1: Regional Population Growth

County	1960	1970	1980	1990	2000	2010
Clay	19,535	32,059	67,052	105,986	140,814	190,865
Duval	455,411	528,865	571,003	672,971	778,879	864,263
St. Johns	30,034	31,035	51,303	83,829	123,135	190,039
Region	504,980	591,959	689,358	862,786	1,042,828	1,245,167

Source: U.S. Census Bureau

The number of Developments of Regional Impact (DRIs) approved in recent years further illustrates continuing growth trends in Clay and St. Johns Counties. Since 1990, Clay County approved seven DRIs south of Orange Park. At build-out (approximately 2028) these DRIs will include 52,832 residential units. Approximately 37,654 units have been built.

St. Johns County approved only four DRIs prior to 2000, but development patterns quickly changed. Since 2000, another eight DRIs have been approved and one is pending approval. In addition, the County approved 12 residential developments, each consisting of 300 residential units or more, for the area along County Road (CR) 210. At build-out (approximately 2035) these DRIs will include 67,552 residential units, approximately 12,845 of which have already been built. Combined, the DRIs in Clay and St. Johns Counties are estimated to create more than 850,000 daily trips at build-out.

1.3.2 Transportation Demand

As a result of population growth in Clay and St. Johns Counties since the 1970s, traffic congestion on the area's road network is getting worse. The most impacted roads include SR 21, US 17, CR 210, and Branan Field-Chaffee Road. These roads have experienced rises in average annual daily traffic (AADT) ranging from 13 percent (SR 21) to 21 percent (Branan Field-Chaffee Road) per year. FDOT expects these increases to continue at a similar rate in the future, and expects the Level of Service (LOS) on area bridges to deteriorate. The Buckman Bridge currently operates at a LOS C, but is projected to drop to LOS F by 2030. In 2005, the Shands Bridge operated at a LOS D; this is projected to drop to LOS F by 2030 (FDOT, Transportation Statistics Office).

1.3.3 Economic and Employment Conditions

Clay County has developed as a bedroom community to Jacksonville, and so relies heavily on neighboring Duval County to provide employment. According to the United States Census American Community Survey (ACS) 2005-2009 estimates, 57 percent of Clay County's residents who are employed full-time work outside the County. This traveling of the labor force out of Clay County is likely due, in part, to the lack of transportation infrastructure needed to provide and support in-County jobs. Clay County is the largest populated county in Florida without an Interstate facility and has the largest out-of-county commuting population in the state (Clay County Economic Development Council). These conditions have prompted Clay County's Board of County Commissioners to identify and promote future employment centers in Clay County.

In contrast to Clay County, St. Johns County has several major employment centers located within its boundaries that serve approximately 60 percent of its resident labor force (St. Johns Chamber of Commerce). Improving access to these employment centers, thereby facilitating the efficient movement of goods and services, will continue to support and enhance the economic opportunities within St. Johns County.

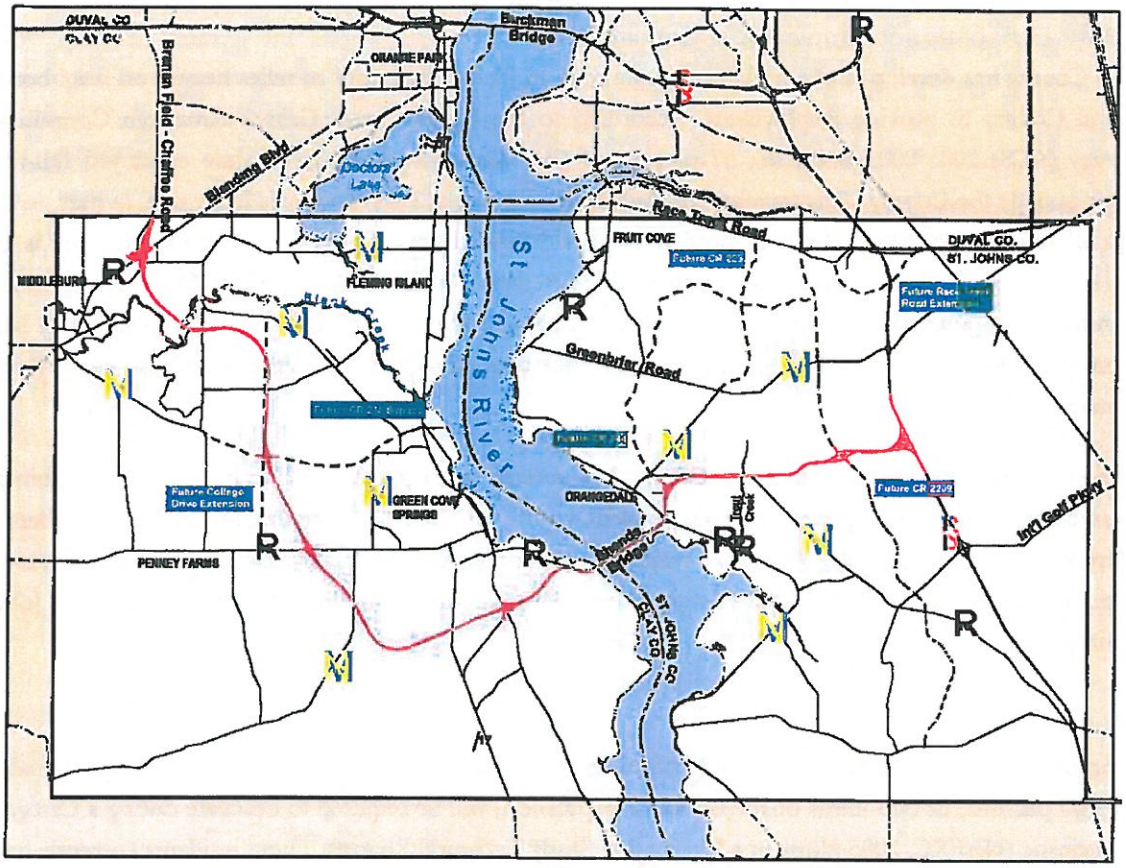
1.3.4 Safety

Congestion related to development could place the residents in St. Johns County at risk. Approximately 106,000 persons, or two-thirds of the County's population, will be required to evacuate during a Category 4 hurricane (NEFRC, 2005 Hurricane Evacuation Study Technical Report). These residents currently have three choices to move inland: the four-lane US 17 bridge in Palatka, the two-lane Shands Bridge at Green Cove Springs, or the eight-lane Buckman Bridge on I-295. Although the Buckman Bridge has an eight-lane capacity, it must also provide for evacuation of Duval County residents as well as vehicles from other southern coastal areas traveling north on I-95. The Shands Bridge has two lanes, accessed from St. Johns County by two-lane roads, and it disperses westward via SR 16, another two-lane road. The US 17 bridge connects to SR 20 and SR 100 in Palatka, both of which are two-lane roads leading inland. As population increases in St. Johns County and other coastal areas, relying on these existing routes to move a large number of people inland will jeopardize public safety by failing to provide safe and efficient evacuation during hurricanes or other times of emergency.

2.0 DECISION

The FHWA Florida Division, in coordination with FDOT and associated consultants and in accordance with NEPA and associated laws, regulation, and orders, proposes the construction of the St. Johns River Crossing Project. The Selected Alternative is the Pink 1 Alternative as documented in the Final EIS. The 31.4 mile project will begin at the Branan Field-Chaffee Road (SR 23) interchange with Blanding Boulevard (SR 21) and will connect with I-95 south of the CR 210 \ I-95 interchange. The location of the Selected Alternative is illustrated below in **Figure 2-1**.

Figure 2-1: **Selected Alternative**



3.0 ALTERNATIVES CONSIDERED

3.1 Summary of the Alternative Development Process

FDOT considered a number of alternative actions to address transportation problems in the project area. They evaluated conceptual alternatives identified through planning and feasibility studies, and refined them through public scoping and more detailed analysis. These efforts led to the final set of alternatives analyzed in the EIS.

FDOT first conducted a planning level study that looked at conceptual corridors and suggested several potential locations for an improved crossing of the St. Johns River. A corridor study immediately followed, building upon the results of the planning study and laying the groundwork for the corridor screening stages. The team then conducted an analysis to begin screening the potential alternatives, based on existing environmental and technical information. After public scoping and additional information gathering, the team performed a final corridor screening to select the final set of alternatives for detailed analysis. The dates and timeline for these activities are shown in **Table 3-1**.

3.2 Initial Alternatives Considered

3.2.1 Regional Transportation Planning Study

In 2002, FDOT completed a planning-level study for the St. Johns River Crossing Project that confirmed the need to provide additional traffic capacity between Clay and St. Johns Counties. The main purpose of this study was to assess the current and future travel demand and performance, so it did not consider social, economic, environmental or physical impacts, nor the costs of design, right-of-way acquisition, or construction.

FDOT evaluated the performance of twelve conceptual corridor alternatives (referred to as A through L plus a No Build Alternative. Nine of the alternatives were freeway-type facilities connecting Branan Field-Chaffee Road (SR 23) to I-95. The remaining three alternatives (E, H, and L) were arterial-type facilities, which simply provided another bridge over the St. Johns River by connecting US 17 in Clay County to SR 13 in St. Johns County. The study evaluated all of the corridors as four-lane roadways based upon a set of roadway improvements included in the 2025 North Florida Transportation Planning Organization (NFTPO) Long Range Transportation Plan (LRTP).

The analysis of the origins and destinations of trips crossing the St. Johns River showed that most trips would be an exchange of traffic between northern St. Johns County and neighboring Clay County, as residents traveled to employment centers in St. Johns and Duval Counties, with 58 percent of these trips expected to originate in Clay County and 42 percent in St. Johns County. The analysis concluded that most of the traffic crossing the St. Johns River would be local and could be satisfied by another bridge connecting the two counties across the river.

Table 3-1: Summary of Alternative Development Activities

2002 Regional Transportation Planning Study

12 conceptual alternatives (A through L) tested for traffic volume and travel time savings
B, D, F, G and K incorporated into next set of alternatives

2004 Arterial Corridor Analysis

2 arterial widening/upgrade alternatives (Red and Blue Arterials)
Widening/upgrading did not meet project need

2004 Desktop Analysis

Developed 5 limited access alternatives based on results of 2002 study - Purple, Brown, Orange, Green, and Pink Alternatives
Corridors were 500 feet wide to allow for further refinement

2004 Public Meetings

- *Informed public of proposed project, need and process*
- *Input received on overall project and 5 limited access alternatives*

2004-2005 Refinements to Alternatives

Refined alternatives based on public input and further technical analysis
Added Black Alternative based on public input
Corridors were reduced to 400 feet wide to reduce impacts

2005 Public Meetings and Agency Involvement

- *Input received on refinements to original 5 alternatives and new Black Alternative*
- *Advance Notification Package sent to federal, state and local agencies*

2005-2006 Further Refinements to Alternatives and New Decisions

Refined alternatives based on public input
FDOT decided the existing Shands Bridge will be removed as part of any southern alternative (Brown, Orange, Green or Pink)
Resolutions received from Clay and St Johns Counties favoring project and preferring southern alternatives
FDOT identified Pink Alternative as Locally Preferred Alternative

2006 Workshop and Agency Involvement

- *Informed public of decision to remove Shands Bridge with southern alternatives*
- *Received input on refined alternatives*
- *Informed public that the St Johns River Crossing Project will be combined with the Branan-Field Chaffee Road Project and the entire route will be tolled*
- *Initiated Efficient Transportation Decision Making process with agencies*
- *Held agency coordination meetings*

2007-2008 Final Desktop Analysis and Alternatives Screening

Re-evaluated Alternative E from planning study
Re-evaluated Alternative I from planning study and included it in final desktop analysis
Reduced all corridors to 324 feet to minimize right-of-way footprint and impacts
Conducted final desktop screening analysis with environmental and economic data

2008 Determine Final Set of Alternatives to Evaluate in Draft EIS

Alternatives eliminated from detailed evaluation in Draft EIS.

- Red and Blue Arterial Corridors, Alternative E, TSM Alternative eliminated because they did not meet need
- Alternative I eliminated due to very high residential relocation impacts

Four additional alternatives developed to avoid Section 4 (f) Resources

Alternatives carried forward to detailed evaluation in Draft EIS:

- Black, Purple, Brown 1, Brown 2, Orange 1, Orange 2, Green 1, Green 2, Pink 1, Pink 2 and No Build Alternatives

FDOT determines new southern bridge will be toll free

The study also evaluated the ability of major roadways, including the Buckman (I-295) and Shands (SR 16) bridges, to accommodate traffic projected in the year 2025. Despite the high volumes forecasted at each of the alternative bridge crossings, none of the alternatives provided much relief to the Buckman Bridge (I-295) due to latent demand (that is, at the times when the bridge does have free-flowing travel capacity available, people will be induced to use that roadway).

3.2.2 Arterial Corridor Analysis

The analysis conducted during the planning study identified the best performing crossings of the St. Johns River in terms of travel time savings and volume of traffic. The next step was to develop corridor alternatives that took into account these factors.

A key consideration in the development of alternatives was to determine if the need for additional roadway capacity in the area could be met by upgrading existing roadways. Two alternatives, referred to as the Red and Blue Arterial Corridor Alternatives, were developed that traveled entirely along existing routes and included the reconstruction of the existing Shands Bridge to a four-lane facility. These alternatives would involve upgrading or widening an existing roadway or contiguous set of existing roadways within the project area, depending on existing right-of-way availability.

These corridors were coded into the regional travel demand model by FDOT and the resulting future year volumes were developed based on these model runs. Analysis indicated that in the year 2015, several of the corridor segments for both alternatives would operate at a condition below LOS D, the acceptable standard as established by the state. By 2035, over half of the roadway segments for both the Red and the Blue Arterial Corridor Alternatives would operate below the acceptable LOS. For the Red Alternative, 9 out of 15 segments would fail to meet the LOS standard, with 7 segments operating at LOS F. For the Blue Alternative, 8 out of 14 segments would fail to meet the standard, all of which are projected to operate at LOS F. These deficiencies would continue to grow as demand increases. Thus, these alternatives did not improve the transportation network or offer relief to existing hurricane evacuation routes. Additionally, the Red and Blue Alternatives were not anticipated to promote employment and economic development. The results of the analysis indicated that the need for the project cannot be met by simply upgrading and/or widening existing roadways.

3.2.3 Desktop Analysis and Public Involvement

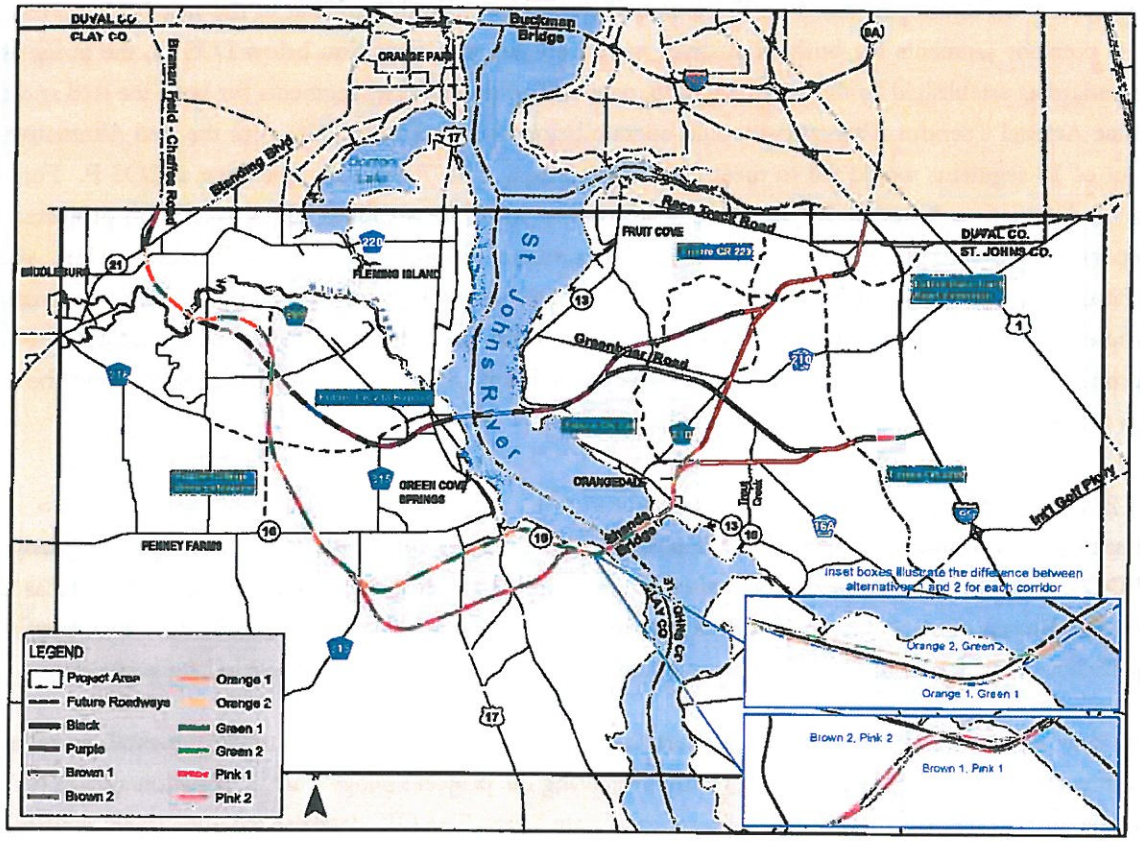
Based on the results of the Regional Transportation Planning Study and the arterial corridor analysis, FDOT developed five limited access alternatives. They established these alternatives, referred to as the Purple, Brown, Orange, Green, and Pink Alternatives, utilizing a 500-foot corridor width, which provided sufficient room for further adjustments to avoid, minimize or mitigate for impacts in later analyses.

As they developed the limited access alternatives, FDOT considered various environmental, social and technical factors. They evaluated the alternatives using the project's geographic information system (GIS), an electronic database that consists of a series of data layers. The GIS database included layers containing each of the alternatives and more than 50 layers of various environmental data including information on

wetlands, floodplains, threatened and endangered species, neighborhoods and community services. Key factors that influenced alternative design included wetlands, conservation and recreational lands, and residential relocations. Throughout the development process, FDOT attempted to design and refine project alternatives to avoid or minimize these impacts.

FDOT presented the five limited access alternatives to the public and agencies in the spring of 2004, and used input gained through the scoping process to further refine the initial alternatives. Based on the comments received and evaluation of the five proposed alternatives, decisions were made to eliminate the Green and Orange Alternatives and add the Black Alternative. The Black Alternative was presented at the November 2005 public meeting. Following additional public meetings in 2006, the alternatives were further evaluated against the social, natural and physical environment to determine potential impacts. Because of impacts to the Bayard Conservation Area (BCA) from the southern crossing alternatives, the Green and Orange Alternatives were put back in the study and four additional alternatives were developed which avoided this area. The four new alternatives are the same as the Brown, Green, Orange and Pink Alternatives but with a slight alignment modification to avoid the BCA. They are referred to as Brown 2, Green 2, Orange 2 and Pink 2 Alternatives. The final alternatives selected for detailed study are shown in **Figure 3-1** and described below.

Figure 3-1: Final Build Alternatives



3.3 Alternatives Considered for Detailed Study

The EIS evaluated ten build alternatives. All of the build alternatives involve a new limited access roadway connecting the proposed Branan Field-Chaffee Road (SR 21) / Blanding Boulevard (SR 23) interchange in Clay County, eastward across the St. Johns River to I-95 in St. Johns County. The first segment for all the alternatives starts at the intersection of Branan Field-Chaffee Road and SR 21 in Clay County and continues to the Black Creek crossing. This segment continues to a point just east of CR 739, where alternative alignments begin to diverge.

3.3.1 Black Alternative

After crossing Black Creek, the northern segment of the Black Alternative proceeds in a southeasterly direction away from Black Creek towards Green Cove Springs and crosses the St. Johns River at one of its narrower locations, proceeding into St. Johns County. The northern segment continues in a northeasterly direction toward the proposed SR 9B/I-95 interchange near the St. Johns County/Duval County line. The northern segment of the Black Alternative then turns towards the east, interchanging with CR 2209 south of Race Track Road. The northern segment continues to the northeast, connecting to I-95 at proposed SR 9B. The length of the northern segment is 25.6 miles.

The southern segment of the Black Alternative begins by splitting from the northern segment just south of Greenbriar Road and west of the proposed CR 244 in St. Johns County. The alternative continues east, paralleling Greenbriar Road to the south and then proceeding in a southeasterly direction, crossing CR 210 approximately one-quarter mile south of the Greenbriar Road/CR 210 intersection. The southern segment of the Black Alternative continues southeasterly, crossing Trout Creek 1 mile north of CR 16A. The southern segment then turns east towards I-95, terminating approximately 3 miles south of CR 210 and 3 miles north of International Golf Parkway. The length of the southern segment is 10.0 miles.

Interchanges along the Black Alternative are provided for in Clay County at SR 21, the proposed College Drive extension, and US 17. Interchanges in St. Johns County are provided for at Greenbriar Road, CR 2209, the planned Race Track Road Extension, and I-95 for the northern segment; and at CR 210, CR 2209 and I-95 for the southern segment.

3.3.2 Purple Alternative

The Purple Alternative follows the same alignment as the northern segment of the Black Alternative. The total length of the Purple Alternative is 25.6 miles. Interchanges along the Purple Alternative are provided for in Clay County at SR 21, the proposed College Drive extension, and US 17. Interchanges in St. Johns County are provided for at Greenbriar Road, CR 2209, the planned Race Track Road Extension, and I-95.

3.3.3 Brown 1 and 2 Alternatives

After crossing Black Creek, the Brown 1 Alternative turns south towards SR 16, paralleling the proposed College Drive extension on the east. The total length of the Brown 1 Alternative is 34.0 miles. The alternative intercepts a power line easement just south of the proposed CR 218 Bypass and then parallels it

on its western side to its intersection with SR 16. The alternative continues to follow the power line on the west side south of SR 16, crossing CR 315. East of CR 315, the Brown 1 Alternative proceeds in a northeasterly direction, interchanging with US 17 south of Green Cove Springs. After crossing US 17, the alternative continues east toward the existing Shands Bridge, just east of the Reynolds Industrial Park. The Brown 1 Alternative then crosses the St. Johns River into St. Johns County, paralleling and replacing the existing Shands Bridge and SR 16 on the south.

The alternative then proceeds northeast towards the proposed SR 9B/I-95 interchange, interchanging with CR 210 just east of the CR 210/Greenbriar Road intersection. The Brown 1 Alternative continues north across CR 210 and turns east, interchanging with the proposed CR 2209 roadway. As with the Purple Alternative, the Brown 1 Alternative connects to I-95 at the proposed SR 9B.

Interchanges along the Brown 1 Alternative are provided for in Clay County at SR 21, CR 739, the proposed CR 218 Bypass, SR 16, and US 17. Interchanges in St. Johns County are provided for at CR 16A, CR 210, CR 2209, the planned Race Track Road Extension, and I-95.

The Brown 2 Alternative follows the same route as the Brown 1 Alternative with an exception in route location east of the Reynolds Industrial Park in Clay County in order to avoid the Bayard Conservation Area. The total length of the Brown 2 Alternative is 34.0 miles. The Brown 2 Alternative parallels SR 16 on the north side, continuing east towards the St. Johns River. The alternative crosses the St. Johns River paralleling the south side of the existing Shands Bridge (which it would replace), following the same route as the Brown 1 Alternative.

3.3.4 Orange 1 and 2 Alternatives

The Orange 1 Alternative follows the same alignment as the Brown 1 Alternative to a point just south of SR 16 in Clay County. The total length of the Orange 1 Alternative is 33.3 miles. The alternative then takes an easterly course north of the Brown 1 Alternative. It skirts the southern fringe of Green Cove Springs, interchanging with US 17 near the existing US 17/SR 16 intersection. From this point to the Shands Bridge, the alternative collocates with SR 16. This alternative will involve the reconstruction of SR 16 to serve as parallel, one-way frontage roads on either side of the mainline, providing local access to the Reynolds Industrial Park and the development north of SR 16. The Orange 1 Alternative crosses the St. Johns River south of the existing Shands Bridge (which it would replace), at which point the alternative then assumes the Brown 1 alternative routing. After crossing the river, the alignment heads north then east to the proposed SR 9B/I-95 Interchange.

Interchanges along the Orange 1 Alternative are provided for in Clay County at SR 21, CR 739, the proposed CR 218 Bypass, SR 16, and US 17. Interchanges in St. Johns County are provided for at CR 16A, CR 210, CR 2209, the planned Race Track Road Extension, and I-95.

The Orange 2 Alternative follows the same route as the Orange 1 Alternative with an exception in route location east of the Reynolds Industrial Park in Clay County in order to avoid the Bayard Conservation

Area. The total length of the Orange 2 Alternative is 33.2 miles. The Orange 2 Alternative parallels SR 16 on the north side continuing east towards the St. Johns River. The alternative crosses the St. Johns River parallel and to the south of the existing Shands Bridge (which it would replace), following the same route location as the Orange 1 Alternative.

3.3.5 Green 1 and 2 Alternatives

The Green 1 Alternative follows the same route as the Orange 1 Alternative in Clay County and across the St. Johns River to a point just east of SR 13 in St. Johns County. The total length of the Green 1 Alternative is 30.7 miles. Similar to the Orange 1 Alternative, the Green 1 Alternative will include the reconstruction of SR 16 to serve as parallel, one-way frontage roads on either side of the mainline, providing local access to the Reynolds Industrial Park and the development north of SR 16. After crossing SR 13 in St. Johns County, the Green 1 Alternative continues east, paralleling CR 16A to the south, and intersecting the proposed CR 2209 roadway just west of I-95, approximately 3 miles north of the I-95/International Golf Parkway interchange.

Interchanges along the Green 1 Alternative are provided for in Clay County at SR 21, CR 739, the proposed CR 218 Bypass, SR 16, and US 17. Interchanges in St. Johns County are provided for at CR 16A, CR 2209 and I-95.

The Green 2 Alternative follows the same route as the Green 1 Alternative with an exception in route location east of the Reynolds Industrial Park in Clay County in order to avoid the Bayard Conservation Area. The total length of the Green 2 Alternative is 30.6 miles. The Green 2 Alternative parallels SR 16 on the north side continuing east towards the St. Johns River. The alternative crosses the St. Johns River parallel and to the south of the existing Shands Bridge (which it would replace), following the same route location as the Green 1 Alternative.

3.3.6 Pink 1 and 2 Alternatives

The Pink 1 Alternative follows the same route as the Brown 1 Alternative in Clay County to just east of the St. Johns River. The alternative then continues east along the same route as the Green 1 Alternative to its termination at I-95. The total length of the Pink 1 Alternative is 31.4 miles.

Interchanges along the Pink 1 Alternative are provided for in Clay County at SR 21, CR 739, the proposed CR 218 Bypass, SR 16, and US 17. Interchanges in St. Johns County are provided for at CR 16A, CR 2209, and I-95.

The Pink 2 Alternative follows the same route as the Pink 1 Alternative with an exception in route location east of the Reynolds Industrial Park in Clay County in order to avoid the Bayard Conservation. The total length of the Pink 2 Alternative is 31.4 miles. The Pink 2 Alternative parallels SR 16 on the north side continuing east towards the St. Johns River. The alternative crosses the St. Johns River parallel and to the south of the existing Shands Bridge (which it would replace), following the same route location as the Pink 1 Alternative.

3.4 No Build Alternative

Consistent with requirements of NEPA and FHWA guidelines, the EIS evaluated an alternative that assesses what would happen to the environment in the future if the proposed project were not built. This alternative, called the No Build Alternative, includes the routine maintenance improvements of the existing roads in the study area and the currently programmed, committed, and funded roadway projects as included in the NFTPO 2035 LRTP. The No Build Alternative was not selected because it does not meet the purpose and need for the project.

3.5 Public Hearings

A series of four public hearings were held for the St. Johns River Crossing Project in early 2010. The purpose of these hearings was to allow the public the opportunity to provide input on the alternatives presented in the Draft EIS. In total, approximately 520 people attended the four public hearings and 121 comments were received at the hearings and during the 30-day comment period that followed. The majority of comments were concerned with the selection of an alternative, the use of tolls, general support or opposition to the project, opposition to the interchange at CR 739, and/or environmental impacts. Of those comments stating a preference for a particular alternative, the majority stated a preference for the Pink Alternative (mostly without specifying options 1 or 2).

3.6 Rationale for the Selected Alternative

The Pink 1 Alternative was identified by FHWA and FDOT as the Selected Alternative for the St. Johns River Crossing Project. The following discussion explains the factors considered by FHWA and FDOT and summarizes the reasons for choosing the Selected Alternative. Alternatives were compared relative to the project purposes and environmental impacts. **Table 3-2** summarizes the results of the comparison among alternatives. The following sections further describe this evaluation.

3.6.1 Traffic and Emergency Evacuation

All of the Build Alternatives provide additional capacity and improve transportation network deficiencies over the No Build Alternative. As discussed in Chapter 1, the major north-south roads in Clay County, US 17 and SR 21, and the only major east-west route in St. Johns County in the study area, CR 210, have been impacted by increasing transportation demand. The Selected Alternative adds 44 new lane miles west of the St. Johns River in Clay County and 21 new lane miles east of the river in St. Johns County. While the Selected Alternative does not reduce travel time as much as other alternatives, the Pink 1 and 2 and Green 1 and 2 Alternatives would have the fewest number of segments operating below LOS C in the design year. Additionally, these alternatives require the least amount of mitigation along I-95 to achieve same or better LOS compared to the No-Build. I-95 ramp mitigation analysis shows that all of the Build Alternatives except for the Pink 1 and 2 and Green 1 and 2 Alternatives require some freeway ramp mitigation. Even with the recommended mitigation there are some ramp junctions in the Build Alternatives that have LOS worse than the No Build Alternative. This is true for all Alternatives except Pink and Green. For example, under the Purple Alternative, the two-lane SR 9B northbound entrance ramp has a LOS E whereas the No Build Alternative has a LOS D for the same ramp with two lanes.

All of the Build Alternatives provide some benefit to emergency evacuation by increasing the amount of roadway west of the St. Johns River. The southern alternatives (Brown 1 and 2, Orange 1 and 2, Green 1 and 2, and Pink 1 and 2) provide the most lane miles west of the St. Johns River and result in the lowest number of vehicles in queue east of the river in the areas prone to flooding. The southern alternatives remove over 5,000 more vehicles from east of the river in areas prone to flooding when compared to the northern alternatives. Of the southern alternatives, Pink 1 and 2 and Brown 1 and 2 provide slightly more lane miles west of the St. Johns River.

Another distinguishing emergency evacuation factor between the Build Alternatives was the location of the I-95 interchange. For evacuation purposes, a location near the center of St. Johns County is preferred by the county. SR 16 is the primary arterial for evacuating the City of St. Augustine. The Pink 1 and 2 and Green 1 and 2 Alternatives have the closest interchange on I-95 to SR 16. Thus, Pink 1 and 2 and Green 1 and 2 Alternatives provide the better evacuation route for the St. Augustine area, an area currently underserved by existing evacuation routes, and also serve the populated areas in southern St. Johns County, Flagler County and Volusia County by providing a more accessible route from I-95.

Considering both the number of vehicles in queue in areas prone to flooding and the location of the connection to I-95, the Selected Alternative provides the most favorable results.

3.6.2 Economics and Project Cost

The Selected Alternative supports employment and economic opportunities in Clay County. The right-of-way and interchanges associated with the Selected Alternative will be adjacent to land uses identified by the County for future industrial and commercial development including the Reynolds Industrial Park located west of the Shands Bridge, the proposed Lake Asbury activity center located west of the City of Green Cove Springs, and Governors Park DRI located west of the existing US 17 / SR 16 intersection. The Green 1 and 2 and Orange 1 and 2 Alternatives are also located near these developments; however, these alternatives have more community and business impacts to the Green Cove Springs area, including displacement of a shopping center. The Black and Purple Alternatives also involve more relocations in the Green Cove Springs area and would not serve the southern developments as well.

In St. Johns County, the Selected Alternative terminus at I-95 will be directly north of the World Commerce Center, one of the St. Johns County's major employment centers. The Selected Alternative will be easily accessible to and from five employment centers, including the World Commerce Center, International Park, St. Augustine Center, St Augustine Industrial Park and the St. Augustine Airport Park. In addition, it will be accessible to 2.6 million square feet of industrial / commercial property and adjacent to 376 acres of vacant industrial zoned land. The northern alternatives would provide access to more employment areas and DRIs; however, due to the DRIs approved or in place and the existing six interchanges with I-95, the Build Alternatives would add little value to St. Johns County as an economic driver.

In addition, the Selected Alternative would cost the least of all the Build Alternatives, have the least taxable revenue lost from right-of-way conversion and generate the second highest amount of toll revenue.

3.6.3 Right-of-Way Impacts and Displacements

The Selected Alternative would have the least amount of residential, commercial and total parcel impacts compared to other Build Alternatives and result in the least amount of taxable revenue lost due to right-of-way conversion. The Black, Purple, Brown 1 and 2 and Orange 1 and 2 Alternatives would all lose at least $650,000 more tax revenue annually from right-of-way conversion.

In terms of displacements, the Selected Alternative displaces the second fewest number of residences, businesses and other facilities according to the Conceptual Stage Relocation Plan. The Selected Alternative is also the only southern alternative that would not have a potential disproportionately high and adverse impact on minority and low-income populations from displacements.

3.6.4 Complies with Local Government Plans and Policies

Regional Planning: The St. Johns River Crossing project combined with the Toll 23 [Cecil Commerce Center Parkway and Branan Field Road between Interstate 10 and SR 21 (Blanding Boulevard)] comprise the First Coast Outer Beltway (currently referred to as First Coast Expressway). The St. Johns River Crossing, Project Development and Environment (PD&E) was conducted with state funds and is in the State Transportation Improvement Plan (STIP) for fiscal year 2014 and prior. The First Coast Outer Beltway project is included in the STIP and the North Florida Transportation Planning Organization (NFTPO) planning documents. The NFTPO included the First Coast Outer Beltway project in the December 2009 adoption of the Long-Range Transportation Plan (LRTP) as well as the Transportation Improvement Program (TIP) for fiscal year 2013/14 – 2017/18, approved June 13, 2013. The NFTPO also included the First Coast Outer Beltway project in their *2010 List of Priority Projects*, which are projects in the 2035 LRTP determined by the NFTPO to be of the highest priority.

St. Johns County: To address the growth that the northern part of the county has experienced, the County drafted the *St. Johns County Northwest Sector Plan.* The plan was approved by the Board of County Commissioners and the Department of Community Affairs (DCA) in 2003. The plan includes an adopted policy stating the following:

"...additional needed roadway capacity across the St. Johns River shall be provided at the existing Shands Bridge location (Policy A.2.1.2)."

In 2003, the County's *2015 Comprehensive Plan* was amended to include the goals, objectives and policies identified in the sector plan. The County also amended its *2015 Transportation Plan* to include the proposed action, describing the new highway corridor as:

"...entering St. Johns County near the existing Shands Bridge and terminating at Interstate 95 between CR 210 and International Golf Parkway. "

In accordance with the planning efforts of St. Johns County, the Selected Alternative is consistent with the *St. Johns County Northwest Sector Plan* and the *2015 St. Johns County Comprehensive Plan.*

In 2006, the St. Johns County Board of County Commissioners took the next steps in establishing the support for a new highway facility when they adopted a resolution. The resolution, adopted March 21, 2006, stated the County's support for a new highway corridor that crossed the St. Johns River near the existing Shands Bridge and terminated at Interstate 95.

The Pink 1 and 2 and Green 1 and 2 Alternatives are consistent with St. Johns County plans.

Clay County: To address the long-term future growth and the issues facing its transportation infrastructure, the County in 1998 drafted the *Lake Asbury Master Plan.* The master plan was developed as a partnership between Clay County government and the community and consists of a planning area that is 30,293 acres, of which approximately 18,000 acres are largely undeveloped. This planning area is in the heart of the Clay County portion of the project study area. The adopted master plan identifies a conceptual location for the St. Johns River Crossing Project at the location of the existing Shands Bridge and includes a policy stating:

"The County shall support FDOT in their efforts to plan for and fund an Outer Beltway that connects the terminus of Branan Field Road with Interstate 95 in St. Johns County (LA Policy 1.4)."

The St. Johns River Crossing project is included in the Transportation Element of the county's 2015 Comprehensive Plan. The project is shown in the plan as beginning at Branan Field – Chaffee Road and exiting the county at the existing Shands Bridge.

In 2006, the Clay County Board of County Commissioners joined in the effort with St. Johns County to pass a resolution stating their support and need for a new highway facility in their county. The resolution supported the southerly crossing of the St. Johns River, stating that a new highway corridor will serve as a "critically needed traffic reliever and economic development stimulator." The Selected Alternative is consistent with this statement and with the *Lake Asbury Master Plan* and the *2015 Clay County Comprehensive Plan.*

The southern alternatives are consistent with Clay County plans. The Selected Alternative and Brown 1 Alternative best support the County's goal of economic development. Additionally, the Selected Alternative received the most public support of all the Build Alternatives at the Public Hearing.

3.6.5 Project Funding

The St. Johns River Crossing project combined with the Toll 23 [Cecil Commerce Center Parkway and Branan Field Road between Interstate 10 and SR 21 (Blanding Boulevard)] comprise the First Coast Outer

Beltway (currently referred to as First Coast Expressway)]. The St. Johns River Crossing, Project Development and Environment (PD&E) was conducted with state and local funds and is in the State Transportation Improvement Plan (STIP) for fiscal year 2014 and prior. The First Coast Outer Beltway project is included in the STIP and the North Florida Transportation Planning Organization (NFTPO) planning documents. The NFTPO included the First Coast Outer Beltway project in the December 2009 adoption of the Long-Range Transportation Plan (LRTP) as well as in the Transportation Improvement Program (TIP) for fiscal year 2013/14 – 2017/18, approved June 13, 2013. These planning document were modified on March 13, 2014 to reflect the Right of Way costs by fiscal year. The NFTPO also included the First Coast Outer Beltway project in their *2010 List of Priority Projects*, which are projects in the 2035 LRTP determined by the NFTPO to be of the highest priority. The Preliminary Engineering for the St. Johns River Crossing was conducted under the larger First Coast Outer Beltway Project, Financial Management Number (FM) 422938-1. The limits of the First Coast Outer Beltway, FM: 422928-1, I-10 to I-95 fully encompass the limits of the St. Johns River Crossing, SR 21 to I-95. The two construction segments of the St. Johns River Crossing are FM: 422938-2, I-95 to US 17 and FM: 422938-3, US 17 to SR 21 (Blanding Boulevard). The Right of Way phase is funded for these two segments.

This Project Action-The St. Johns River Crossing Project-SR 21 to I-95						
Segment	**1 – I-95 to US 17** (13.26 miles)			**2 – US 17 to SR 21** (17.3 miles)		
Phase	**Est. Cost $ Millions**	**Time Frame**	**Funding Sources**	**Est. Cost $ Millions**	**Time Frame**	**Funding Sources**
Preliminary Engineering*	27.5	<2014 - 2014		State/Fed		
ROW	$95.5	2014 - >2017	State/Fed	$188.4	2014->2017	State/Fed
Construction**	$909	2016-2020	State/Fed/Toll	$459	2016-2020	State/Fed/Toll
Est. Total	$1.68 Billion					

Sources: LRTP, STIP, TIP

*The cost for design includes, in addition to these two segments, the entire FCOB, which extends beyond the limits of this action.

**Construction estimated to be completed by 2025 for each segment.

3.7 Least Environmentally Damaging Practicable Alternative

Under the 23 CFR 777 guidelines, the FHWA may only permit discharges of dredged or fill material into waters of the United States where there is no practicable alternative to such construction and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. Additionally, 33 CFR parts 320 through 330, Regulatory Program, U.S. Army Corps of Engineers; Section

404, Clean Water Act and 40 CFR part 230, Section 404(b)(1) Guidelines for the Specification of Disposal Sites for Dredged or Fill Material, establish requirements for the permitting of discharge of dredge or fill material in wetlands and other waters of the United States.

Any new highway alignment will have impacts on the environment. FDOT made every reasonable effort to avoid and minimize impacts to wetlands and other resources. Where impacts were unavoidable, FDOT examined mitigation options. On the basis of the guidelines, all of the Build Alternatives dredge and fill sites are specified as complying with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects to the aquatic ecosystem. The Selected Alternative is the least environmentally damaging practicable alternative (LEDPA) because the other alternatives have either greater impacts to the aquatic ecosystem, or have other significant environmental consequences. An alternative is considered practicable if "it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes".

While the Selected Alternative does not have the least amount of wetland impacts, it best meets the purpose and need, best complies with local government plans, and minimizes impacts to other environmental resources resulting in the least overall environmental impact (See **Table 3-2**). The Selected Alternative avoids several environmental impacts which would occur with the selection of other alternatives. The Selected Alternative:

- Avoids the Green Cove Springs Nature Preserve which would be impacted by the Green and Orange Alternatives.
- Avoids longitudinal floodway crossings which occur under the Purple and Black Alternatives.
- Avoids Blacks Ford Swamp which would be crossed by all alternatives except the Green 1 and 2 and Pink 1 and 2 Alternatives.
- Is the only southern crossing alternative that does not result in a disproportionately high and adverse Environmental Justice impact.
- Has the least potential to impact cultural resources both in terms of known resources and the probability for undiscovered archaeological sites.
- Has the second lowest number of relocations (residential and business) with just three more relocations than the Brown 1 Alternative. All other Build Alternatives have at least 10 more relocations than the Selected Alternative.
- Has the least amount of taxable value lost from lands within the road right-of-way. The Build Alternatives with a connection at I-95 further north would all lose at least five times more taxable value.
- Has the lowest amount (same as the Brown 1 Alternative) of potential involvement with contaminated sites.

The Selected Alternative incorporates all practicable measures to minimize harm. These measures are outlined in Section 6 along with a summary of the potential environmental impacts.

The following table compares and ranks the alternatives according to how they performed relative to cost, meeting the purpose and need and environmental impacts. The Build Alternatives were ranked one through ten for various parameters and resources with one being the best score and ten being the worst score. The scores within each of the three categories of cost, purpose and need and environment were totaled and the alternatives were given an overall rank for each category. The sum of the overall rankings for the three categories was calculated to determine the final ranking of the Build Alternatives. These rankings demonstrate the rationale for the Selected Alternative.

Table 3-2: Summary Comparison and Ranking of Alternatives

Resource or Parameter	No Build	Black	Purple	Brown 1	Brown 2	Orange 1	Orange 2	Green 1	Green 2	Pink 1	Pink 2
PROJECT COSTS											
Construction Cost ($ billions)	N/A	$1.57	$1.28	$1.45	$1.46	$1.54	$1.55	$1.33	$1.34	$1.24	$1.25
Right-of-Way Cost ($ millions)	N/A	$337	$269	$284	$359	$286	$314	$239	$265	$236	$313
Wetland Mitigation Costs ($ millions)	N/A	$85	$54	$57	$55	$55	$54	$57	$56	$59	$57
Total Cost ($ billions)	N/A	$2.41	$1.92	$2.15	$2.24	$2.27	$2.31	$1.97	$2.00	$1.85	$1.94
Cost Rank	N/A	10	2	6	7	8	9	4	5	1	3
PURPOSE AND NEED											
TRAFFIC AND EMERGENCY EVACUATION											
2035 Network Performance (volume/capacity)	0.878	0.822	0.824	0.819	0.819	0.813	0.813	0.823	0.823	0.825	0.825
Rank	N/A	5	8	3	3	1	1	6	6	9	9
2035 Network Travel Time Reduction (daily vehicle hours)	N/A	328,041	358,199	331,900	331,900	352,425	352,425	290,639	290,639	280,654	280,654
Rank	N/A	6	1	4	4	2	2	7	7	9	9
2035 Annual Congestion Cost ($ billions)	$7.2	$5.2	$5.0	$5.2	$5.2	$5.1	$5.2	$5.4	$5.4	$5.5	$5.5
Rank	N/A	5	1	5	5	2	2	7	7	9	9
Number of Segments on New Facility Operating below LOS C in design year	N/A	8	5	10	10	8	8	2	2	2	2

Resource or Parameter	No Build	Black	Purple	Brown 1	Brown 2	Orange 1	Orange 2	Green 1	Green 2	Pink 1	Pink 2
Rank	N/A	6	5	9	9	6	6	1	1	1	1
Emergency Evacuation Lane Miles West of River	82.0	102.62	103.01	125.69	125.69	124.03	124.03	124.03	124.03	125.69	125.69
Rank	N/A	10	9	1	1	5	5	5	5	1	1
Evacuation Effectiveness (vehicles in queue east of river, including the bridge)	65,419	59,977	59,874	53,866	53,866	54,325	54,324	54,324	54,324	53,886	53,886
Rank	N/A	10	9	1	1	5	5	5	5	1	1
Southern Interchange with I-95	N/A	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Rank	N/A	10	10	10	10	10	10	1	1	1	1
SOCIOECONOMICS											
Consistency with Local Plans	N/A	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Rank	N/A	10	10	10	10	10	10	1	1	1	1
Resolutions from Clay and St. Johns County	N/A	No	No	No	No	No	No	No	No	Yes	No
Rank	N/A	10	10	10	10	10	10	10	10	1	10
Public Comments from Public Hearing in Favor of Alternative	25	6	10	4	4	5	5	7	7	21	18
Rank	N/A	6	3	9	9	7	7	4	4	1	2
Existing & Proposed Developments Served by Proposed Interchanges (number within 2 miles)	N/A	10	2	12	12	12	12	8	8	8	8
Rank	N/A	5	10	1	1	1	1	10	10	10	10
Annual Tax Revenue Lost from Right-of-	N/A	$989	$928	$815	$834	$860	$883	$181	$204	$137	$155

Resource or Parameter	No Build	Black	Purple	Brown 1	Brown 2	Orange 1	Orange 2	Green 1	Green 2	Pink 1	Pink 2
Way Conversion ($ thousands)											
Rank	N/A	10	9	5	6	7	8	3	4	1	2
Estimated Toll Revenue for years 2025 to 2040 (in billions)	N/A	$1.17	$1.10	$1.14	$1.14	$1.14	$1.14	$1.15	$1.15	$1.18	$1.18
Rank	N/A	2	10	5	5	5	5	3	3	1	1
Purpose and Need Score	N/A	95	85	73	74	71	72	63	64	46	57
Purpose and Need Rank	N/A	9	9	7	8	5	6	3	4	1	2
ENVIRONMENTAL CONSIDERATIONS (INCLUDES SOCIAL, PHYSICAL AND NATURAL ENVIRONMENT)											
ENVIRONMENTAL JUSTICE – MINORITY AND LOW-INCOME POPULATIONS											
Residential Displacements	N/A	0	0	2	12	3	13	3	13	2	12
Business Displacements	N/A	0	0	2	2	13	14	13	14	2	3
Rank	N/A	1	1	3	5	7	9	7	9	3	6
Potential Disproportionate Impacts from Displacements?	N/A	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Rank	N/A	1	1	10	10	10	10	10	10	1	10
CULTURAL RESOURCES											
Known Resources Potentially Eligible for NRHP Listing	N/A	6	6	1	1	5	5	5	5	1	1
Rank	N/A	10	10	1	1	5	5	5	5	1	1

Resource or Parameter	No Build	Black	Purple	Brown 1	Brown 2	Orange 1	Orange 2	Green 1	Green 2	Pink 1	Pink 2
Moderate to High Potential for Archeological Sites (percent of corridor)	N/A	22%	27%	30%	30%	32%	32%	20%	20%	18%	18%
Rank	N/A	5	6	7	7	9	9	3	3	1	1
PUBLIC SERVICES AND UTILITIES											
Blacks Ford Swamp Effluent Disposal Site (acres)	N/A	3.5	3.5	9.3	9.3	9.3	9.3	0	0	0	0
Rank	N/A	5	5	10	10	10	10	1	1	1	1
VISUAL QUALITY											
Additive Visual Impact Rating (higher numbers indicate higher impacts)	N/A	37.1	33.8	41.0	38.3	42.3	39.6	36.3	33.6	35.0	32.3
Rank	N/A	6	4	8	7	10	9	5	3	2	1
WATER RESOURCES											
Stormwater Runoff Treatment Volume Required (millions of cubic feet)	N/A	4.9	3.7	4.8	4.8	4.7	4.7	4.4	4.4	4.4	4.4
Rank	N/A	10	1	8	8	6	6	2	2	2	2
Clean Water Act Section 303(d) Basins Affected	N/A	4	4	4	4	4	4	3	3	3	3
Rank	N/A	10	10	10	10	10	10	1	1	1	1
WETLANDS											
Direct, Dredge or Fill (acres)	N/A	748	477	502	487	484	476	501	493	518	504
Direct, No Dredge or Fill (acres)	N/A	976	601	666	653	642	629	687	674	713	702
Surface Water (acres)	N/A	88	85	72	70	67	65	69	67	74	72

Resource or Parameter	No Build	Black	Purple	Brown 1	Brown 2	Orange 1	Orange 2	Green 1	Green 2	Pink 1	Pink 2
Total Acres	N/A	1,812	1,163	1,240	1,210	1,194	1,170	1,257	1,234	1,305	1,278
UMAM Debit	N/A	643	408	430	417	413	406	435	427	450	438
Rank	N/A	10	1	6	4	3	2	7	5	9	8
WILDLIFE AND HABITAT											
Total Acres (including agriculture, rangeland, water, wetlands, and upland forests)	N/A	2,044	1,395	1,840	1,817	1,751	1,731	1,591	1,571	1,679	1,657
Rank	N/A	10	1	9	8	7	6	3	2	5	4
FISH AND AQUATIC RESOURCES											
Submerged Aquatic Vegetation (acres)	N/A	3.7	3.7	2.5	2.3	2.5	2.3	2.5	2.3	2.5	2.3
Rank	N/A	10	10	5	1	5	1	5	1	5	1
EFH Habitat (acres)	N/A	261	223	237	226	228	220	172	164	181	170
Rank	N/A	10	6	9	7	8	5	3	1	4	2
ENERGY											
Energy Used for Construction (millions of BTUs)	N/A	14,664,277	11,369,046	12,850,146	12,949,822	13,668,194	13,734,505	11,945,563	12,011,874	11,127,515	11,227,191
Rank	N/A	10	3	6	7	8	9	4	5	1	2
Energy Savings per Year over No Build (gallons)	0	7,492,635	8,331,066	4,980,908		5,586,637		3,463,017		2,979,071	
Rank	N/A	2	1	4		3		5		6	
CONTAMINATED PROPERTIES											
Contaminated Sites	N/A	9	9	8	10	18	18	18	18	8	10
Rank	N/A	5	5	1	3	10	10	10	10	1	3

Resource or Parameter	No Build	Black	Purple	Brown 1	Brown 2	Orange 1	Orange 2	Green 1	Green 2	Pink 1	Pink 2
FLOODPLAINS											
Transverse Crossings of 100-Year Floodplain	N/A	13	6	17	17	15	15	14	14	16	16
Rank	N/A	2	1	9	9	5	5	3	3	7	7
Transverse Crossings of Regulatory Floodways	N/A	8	7	5	5	6	6	5	5	4	4
Rank	N/A	10	9	3	3	7	7	3	3	1	1
Longitudinal Crossings	N/A	2	2	0	0	0	0	0	0	0	0
Rank	N/A	10	10	1	1	1	1	1	1	1	1
RIGHT-OF-WAY IMPACTS											
Total Parcels	N/A	273	219	206	221	227	245	183	201	162	177
Rank	N/A	10	6	5	7	8	9	3	4	1	2
Total Acres Converted to Right-of-Way	N/A	1,907	1,301	1,724	1,710	1,654	1,639	1,590	1,576	1,661	1,647
Rank	N/A	10	1	9	8	6	4	3	2	7	5
Total Displacements (Residential, Business, Church)	N/A	58	57	31	42	42	53	45	56	34	45
Rank	N/A	10	9	1	3	3	7	5	8	2	5
Environmental Score	N/A	157	101	125	123	141	137	89	84	62	70
Environmental Rank	N/A	10	5	7	6	9	8	4	3	1	2
Sum of Cost, Purpose and Need and Environmental Ranks	N/A	29	16	20	21	22	23	11	12	3	7
OVERALL RANK	N/A	10	5	6	7	8	9	3	4	1	2

4.0 AGENCY COORDINATION

To ensure early communication and coordination, FDOT processed the project through the Florida Efficient Transportation Decision Making (ETDM) process to solicit agency concerns and recommendations. FDOT provided an Advance Notification (AN) package to state and federal agencies and other interested parties defining the project and describing anticipated issues and impacts. As a result of the AN review process, comments were received from the US Coast Guard (USCG), US Army Corps of Engineers (USACE), National Marine Fisheries Service (NMFS), Florida Fish and Wildlife Conservation Commission (FWC), St. Johns River Water Management District (SJRWMD), Clay County Board of County Commissioners, and Putnam County Planning and Development Services. General comments were received, with the agencies referencing wetland impacts, essential fish habitat impacts, and stormwater treatment as areas of concern.

In order to comply with section 6002(b) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users Act (SAFETEA-LU), Florida's streamlined approach for conducting National Environmental Policy Act (NEPA) studies, the ETDM process, was also used to solicit project concerns and recommendations from the agencies. The project was loaded into the system in April 2006 and released to the Environmental Technical Advisory Team (ETAT) on June 1, 2006. ETAT is a group created by FDOT that is comprised of representatives from numerous agencies. Each agency appoints its ETAT representative(s), and delegates to them the authority and responsibility to internally coordinate transportation reviews and to represent agency positions. ETAT representatives then provide agency responses to the FDOT. Agency comments were completed through the ETDM process in July of 2006. The comments received mirrored the comments received through the AN process, with wetlands, wildlife and habitat areas of primary concern.

In response to the concerns, FDOT proposed and addressed the following measures in addition to those undertaken in preparation of the Draft Environmental Impact Statement (EIS):

- Conduct a scrub jay survey for potentially occupied scrub habitat within the Preferred Alternative.
- Comply with the most recent guidance issued by the USFWS relating to potential involvement with bald eagles.
- Conduct red cockaded woodpecker surveys for potentially occupied habitat within the Preferred Alternative.
- Conduct submerged grass bed surveys within the vicinity of the project bridge crossing of the St. Johns River.
- Consider wildlife underpasses to facilitate wildlife mobility in the design of the project for areas where the linkage of public lands can be achieved.
- Continue coordination with NMFS on issues relating to Essential Fish Habitat (EFH) and the Endangered Species Act (ESA).
- Prepare an Air Quality Screening Test for the Preferred Alternative to evaluate project intersections.

An ETAT meeting was held by FDOT on June 7, 2006. In addition to the FDOT, other agencies were in attendance including the U.S. Environmental Protection Agency (EPA), Federal Highway Administration (FHWA), U. S. Coast Guard (USCG), National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), Florida Department of Environmental Protection (FDEP), Florida Fish and Wildlife Conservation Commission (FWC), and the U.S. Fish and Wildlife Service (USFWS). A presentation was given to those in attendance explaining the history and need for the St. Johns River Crossing Project, followed immediately by a question and answer session.

Additional ETAT meetings were held on June 5, 2007 and June 25, 2008 in Jacksonville. At these two meetings, a presentation was made to update the ETAT members on the status of the project. At the June 25, 2008 meeting, responses to the ETAT's comments made in ETDM from July 2006 were provided.

A field survey was conducted July 1 and 2 in 2008 that provided agencies the opportunity to see the land use and habitat in the project area. This field visit was attended by representatives from FDOT, FWC, NMFS, USACE and USFWS.

FDOT also coordinated with appropriate federal and state resource agencies regarding specific issues related to various environmental resources. **Table 4-1** summarizes the concurrence points throughout the project.

Following FHWA approval of the Draft Environmental Impact Statement (EIS) in December 2009, FDOT distributed copies of the Draft EIS to interested agencies. A copy of the draft Final EIS was also provided to cooperating agencies for comments in July 2011. These gave interested agencies further opportunity to comment on the project.

Table 4-1: **Agency Concurrence Points**

Date(s)	Agencies	Resource	Description
01/29/2007	SHPO and FDOT	Cultural Resources	SHPO stated in a letter to FDOT that if the preferred alternative was designed to bridge over the historic railroad segment and not interfere with the current or future operation of the rail line, the project would not adversely affect this resource.
01/14/2008	USACE	Wetlands	Suggested Revisions to the Draft EIS and 404(b)(1) alternatives.
04/23/2008	SHPO, FHWA, FDOT	Cultural Resources	The agencies met and agreed upon the methodology and area of potential effect for historic and archaeological resources.
04/30/2008 and 10/09/2008	FDOT and SJRWMD	Wetlands	These were initial coordination meetings in which SJRWMD indicated that the project could be permitted and that mitigation bank credits were acceptable for wetland mitigation.

Date(s)	Agencies	Resource	Description
01/29/2009	USACE	Wetlands	Suggested Revisions to the Draft EIS and 404(b)(1) alternatives.
05/26/2009	USACE	Wetlands	Suggested Revisions to the Draft EIS and 404(b)(1) alternatives.
11/02/2009	USACE	Wetlands	Concurrence with the Draft EIS for publication in Federal Register.
03/05/2010	USACE	Wetlands	Concurrence with the Draft EIS for publication in Federal Register.
04/16/2010	SJRWMD and FDOT	Bayard Conservation Area	SJRWMD wrote a letter stating its concurrence with the *de minimis* finding for the Selected Alternative (discussed further in Section 5.0).
10/14/2010	SJRWMD, USEPA, FWC, USACE, USFWS, NMFS,FHWA, and FDOT	Wetlands	The agencies agreed to a regional wetland mitigation approach and FDOT committed to coordinating with the resource agencies in developing the framework for a regional wetlands mitigation plan.
05/13/2011	FDOT and NMFS	Essential Fish Habitat	A teleconference was held in which FDOT and NMFS agreed upon the methodology presented in the Final EIS.
09/20/2011, 09/29/2011 and 10/4/2011	SJRWMD, USEPA, FWC, USACE, USFWS, NMFS,FHWA, and FDOT	Wetlands, Selection of Preferred Alternative	Teleconferences were held to discuss wetland mitigation and the selection of the preferred alternative. It was agreed that more detail would be added to the existing wetland mitigation plan. All parties were agreeable to the selection of the Pink 1 Alternative as FDOT's Preferred Alternative. It was advised that FDOT identify the LEDPA and provide supporting information.
10/14/2011	USACE	Wetlands	Suggested revisions to the Draft Final EIS and 404(b)(1) alternatives.
12/18/2012	FDOT, FFWCC, FHWA, NMFS, USACE, USEPA, USFWS	Endangered Species	A teleconference was held where the revised Endangered Species Biological Assessment and commitments were agreed upon.
01/24/2013	USFWS	Endangered Species	Concurrence with the Endangered Species Biological Assessment findings and commitments.

5.0 SECTION 4(F)

Section 4(f) applies to significant publicly owned parks, recreations areas, wildlife or waterfowl refuges, as well as historic sites regardless of ownership. Protection of Section 4(f) resources is covered by Section 4(f) of the Department of Transportation Act of 1966, which is codified at 49 U.S.C. 303 and 23 U.S.C. 138.

The Section 4(f) law was amended as part of the latest federal transportation bill. Section 6009 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Pub. L. 109-59, amended existing Section 4(f) legislation at Section 138 of Title 23 and Section 303 of Title 49, United States Code. SAFETEA-LU was signed into law August 10, 2005. Section 6009 amends 49 U.S.C. § 303 and 23 U.S.C § 138; see specifically 49 U.S.C. § 303(d) and 23 U.S.C §138(b).

On March 12, 2008 FHWA issued a Final Rule (23 C.F.R. 774) on Section 4(f) which, among other things, clarifies the 4(f) approval process, establishes procedures for determining that the use of a Section 4(f) property has *de minimis* impacts, and simplifies its regulatory requirement.

The regulations provide protection for significant publicly owned parks, recreation areas, historic sites, wildlife and/or waterfowl refuges from conversion to a transportation use. A "use" occurs when:

1. Land from a Section 4(f) property is acquired for a transportation project,
2. There is an occupancy of land that is adverse in terms of the statute's preservationist purposes, or
3. The proximity impacts of the transportation project on the Section 4(f) property, without acquisition of land, are so great that the purposes for which the property exists are substantially impaired (normally referred to as a "constructive use").

The FHWA may not approve such a use unless a determination is made that:

- There is no feasible and prudent alternative to the use of land from the property, and
- The action includes all possible planning to minimize harm to the property resulting from such use; or
- It is determined that the use of the property, including any measures to minimize harm, committed to by the applicant, will have a *de minimis* impact on the property.

5.1 De Minimis Impacts

For a *de minimis* impact determination, FHWA must determine that the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a *de minimis* impact on the property. For historic sites, *de minimis* impact means that FHWA has determined, in accordance with 36 CFR 800, that no historic property would

be affected by the project or that the project will have "no adverse effect" on the historic property in question. For recreational resources, a *de minimis* impact can be made when an alternative involves a direct physical impact on a Section 4(f) resource but there are no adverse effects on the significant qualities of the resource. If a finding of *de minimis* impact is made for a Section 4(f) resource, the requirements of Section 4(f) are satisfied.

The Selected Alternative affects one Section 4(f) resource, the Bayard Conservation Area (BCA). FDOT and FHWA conducted consultation with the Official with Jurisdiction for the BCA (St. Johns River Water Management District (SJRWMD)), and solicited and received public and agency comments on the potential Section 4(f) impacts of the project. As a result, FHWA has determined that the Selected Alternative will have minimal impacts to existing facilities at the BCA but will not interfere with the primary function of the BCA. SJRWMD agrees that the mitigation and enhancement measures agreed upon and committed to by FDOT will result in a net improvement and enhancement of the property when compared to the No-Build Alternative and present condition of the property. Therefore, FHWA has made a *de minimis* determination for the Selected Alternative. Section 5.2 provides a brief overview of the impacts, mitigation, enhancement and coordination efforts.

5.2 Bayard Conservation Area

The Selected Alternative will require approximately 34.46 acres (0.3 percent of the total BCA) of right-of-way from the BCA, including 31.66 acres south of SR 16 and 2.80 acres situated southeast of the Reynolds Industrial Park. The Selected Alternative will have impacts to two of the BCA's four unpaved parking areas and one of two caretaker residences located on the north end of the property near SR 16. Impacts are also anticipated for 0.15 miles of the BCA's 10.5 mile unpaved trail system (less than 1.5% of total trail length). Proximity impacts will be limited, as the noise level increases attributable to the Selected Alternative will not substantially interfere with the use and enjoyment of the resource since there are no noise sensitive activities near the proposed project. In addition, the proximity of the Selected Alternative will not substantially impair aesthetic features or attributes of the BCA since SR 16 is already an existing well traveled roadway and an airport facility and heavy industrial uses are adjacent to the property. FDOT consulted with the SJRWMD to develop mitigation and enhancement measures as discussed in the following section.

5.2.1 Mitigation and Enhancement Measures

Several coordination meetings between FDOT and the SJRWMD were conducted during the course of the Project Development and Environment (PD&E) Study to discuss impacts to the BCA and potential mitigation and enhancement measures. Based on these discussions, FDOT has committed to implementing the following measures to mitigate and minimize harm to the BCA. These mitigation and enhancement measures will be in place before impacts occur, making the BCA facilities available throughout the land transfer and replacement effort:

73.81 acres of land adjacent to the conservation area will be conveyed to the SJRWMD for incorporation into the BCA, resulting in a net increase of 39.35 acres. The 73.81 acres of adjoining land includes a golf course which is fertilized on a regular basis. The golf course

was not designed per the new SJRWMD stormwater rules and thus has direct runoff to the St. Johns River. The 73.81 acres will be converted to a conservation use and restored to an environmentally acceptable condition. As stated by the SJRWMD during discussions, this conveyance of land will allow the proposed limited access roadway to serve as a barrier between existing development and the conservation area, thereby making the BCA more manageable. Conveyance of the land is also consistent with the primary goals of the BCA Land Management Plan, which includes the acquisition of additional adjacent land.

- The two (of the four total) impacted unpaved parking areas and the north caretaker residence (1 of 2) will be reconstructed in an area south of the proposed roadway. During discussions, the SJRWMD expressed concern over the existing location of the parking lots and the caretaker residence and stated their interest in consolidating the parking areas. By combining the parking areas and caretaker residence, access to the BCA from SR 16 can be better controlled and security for the property can be more easily provided. This action will enhance the management of this area for recreation.

- FDOT's mitigation plan for the impacted parking areas is also consistent with FHWA's guidance for de minimis impacts which states that encroachment on a parking area may be deemed de minimis as long as the public's ability to access and use the site is not reduced.

- Existing unpaved trails expected to be impacted by the Selected Alternative will be bridged. Bridging the unpaved trails will allow access to the unpaved trails to be maintained. Mitigation and enhancement measures will be in place prior to impacts.

- A multi-use trail will be constructed along the north side of the conservation area, adjacent to the roadway. The multi-use trail will add 0.6 mile of paved trails, connecting the BCA to the St. Johns River. The new trail will also connect directly to the multi-use path that will be part of the new bridge across the river. This system will allow users direct access to the conservation area and will enhance the connectivity between the conservation area, the nearby fishing pier and other recreational opportunities available across the river in St. Johns County.

- Incorporate elements into the design to help minimize visual effects, where feasible and practical, including consideration of the following:

  - *Selective Clearing:* Clearing only the vegetation required to construct the project, particularly trees.
  - *Landscaping:* Incorporation of trees and groundcover to add visual interest to the roadway.
  - *Screening:* Screening can be achieved with landscape materials or by using permanent construction materials such as metal and concrete walls.

5.2.2 Agency Concurrence

The SJRWMD and other agencies have had the opportunity to comment on the impacts to the conservation property through the Efficient Transportation Decision Making (ETDM) process, scoping meetings, agency coordination meetings and other public involvement opportunities. The FDOT has worked closely with the SJRWMD to develop the mitigation and enhancement measures discussed above and agree that:

- The use of the property will not adversely affect the activities, features and attributes of the property,
- The Selected Alternative includes all possible planning to minimize harm, and
- The net result is an overall improvement and enhancement of the property when compared to the No-Build Alternative and present condition of the property.

In addition to the SJRWMD, the Florida Wildlife Federation also stated their support for FDOT's minimization, mitigation and enhancement efforts. In a letter dated March 15, 2010, the Florida Wildlife Federation stated their support for avoiding impacts to the BCA, but added that if an alternative is selected that impacts the BCA, FDOT should mitigate those impacts above and beyond the value of the lands that will be converted. The mitigation measures FDOT has committed to will be above and beyond the BCA's current conditions by increasing the amount of land (net increase of 39.35 acres), improving access, and providing connectivity to other facilities.

6.0 SUMMARY OF POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS AND MEASURES TO MINIMIZE HARM

Potential adverse environmental impacts from the Selected Alterative are identified in the Final EIS and are summarized in Section 6.1. Mitigation measures and monitoring or enforcement requirements for avoiding, reducing and minimizing potential impacts are summarized in Section 6.2.

This project incorporates all practical measures to avoid or minimize environmental harm. Although some impacts will occur, every effort will be made to minimize impacts through the institution of feasible measures applicable to each situation. Many potential impacts were eliminated or reduced by adjusting the Selected Alternative. The remaining impacts associated with project construction and operation will be minimized by following the FDOT standard specifications for road and bridge construction and implementing a variety of project-specific mitigation measures. The environmental impacts of the Selected Alternative were evaluated in a qualitative as well as quantitative manner in the EIS. Both beneficial and adverse impacts were evaluated and mitigation measures were developed where necessary.

6.1 Potential Adverse Environmental Impacts

6.1.1 Traffic during Construction

Construction of the proposed project will temporarily disrupt traffic flow at some points along the alignment during construction. Potential impacts include detours resulting in longer travel routes for some travelers, restricted access to area residences and businesses, and delays in response times for emergency vehicles. Mitigation measures have been identified that will reduce these potential impacts below the level of significance.

I-95 will be widened under a separate project prior to or within the opening year of this project to mitigate for the additional impacts to the interstate created by this project.

6.1.2 Noise

Increased traffic noise will occur with implementation of the Selected Alternative. FDOT used FHWA's Traffic Noise Model to predict traffic noise levels. The noise analysis determined that the Selected Alternative will have noise impacts on 48 sensitive receptors along the alignment, primarily single-family residences along the roadway. Potential noise impacts were also identified at the trailheads in the Bayard Conservation Area. During conceptual design, FDOT evaluated the feasibility of noise abatement measures including traffic management measures, alignment modification, property acquisition programs, land use controls, and noise barriers, none of which were deemed feasible.

FDOT has committed to reevaluating noise mitigation during final design (see Section 6.2). Feasible mitigation measures may be identified to reduce some noise impacts to less than significant levels; however, sufficient information is not currently available to conclude with certainty that mitigation will

reduce operational noise impacts to a less-than-significant level in all circumstances. Temporary noise impacts during construction will be mitigated to below the level of significance.

6.1.3 Social and Land Use

Implementation of the Selected Alternative will require the relocation of 29 residences, 4 businesses and one church. Temporary impacts to local communities during construction may include increased traffic or detours; restricted access to businesses, residences or community facilities; and air quality, noise, and visual impacts. Mitigation measures have been identified to reduce these impacts to less than significant.

6.1.4 Environmental Justice

Relocation and tolling impacts were potential concerns during the environmental justice (EJ) analysis. The Selected Alternative would displace 2 residences and 2 businesses within EJ areas but impacts would not be disproportionate. Tolling has the potential to create a greater economic impact on low-income users because the cost of paying tolls will represent a higher percentage of household income. Additionally, electronic transponders have the potential to restrict access to the facility or disproportionately burden low-income populations because of a lack of credit or the difficulty of maintaining a prepaid account. Mitigation measures have been identified to reduce these impacts to less than significant.

6.1.5 Cultural Resources

The Selected Alternative crosses a recorded segment of the historic Jacksonville, Tampa, and Key West rail corridor, a resource determined to be potentially eligible for the National Register of Historic Places (NRHP). FHWA has completed its evaluation of this resource, and determined that the Selected Alternative would have no adverse effect on this rail corridor, because it will bridge over the rail corridor and not affect any existing or future operations. The State Historic Preservation Officer (SHPO) also stated in a letter to FDOT on January 29, 2008 that if the Selected Alternative was designed to bridge over the railroad segment and not interfere with the current or future operation of the rail line, the Selected Alternative would not adversely affect this resource. No other known cultural resources were identified within the Area of Potential Effects for the Selected Alternative. However, there is potential for impacts to unknown resources inadvertently disturbed during construction. Mitigation measures will reduce these potential impacts to less than significant.

6.1.6 Public Utilities and Services

Construction activities will result in temporary lane closures on some roads, potentially increasing congestion and slowing emergency response times while also limiting emergency vehicle access to those areas. The potential for construction-related accidents could result in an increased need for emergency medical aid. Access to schools, fire and police facilities, and other public service providers could be restricted. Construction could also cause disruption to public utilities due to pile-driving and other earth-disturbing activities. There may be a need for temporary relocation of utility lines or cables, resulting in outages. These potential impacts are expected to be temporary and mitigation measures will avoid significant effects.

6.1.7 Visual Quality

The addition of a new highway will create permanent visual changes at road crossings, residential areas, and at the Bayard Conservation Area. The most noticeable visual effects during construction will be:

- Vegetation Removal - This visual change will be especially noticeable around already developed areas such as neighborhoods, public spaces such as parks and schools, and existing roadway crossings.
- Erosion Control - Silt fences, temporary sediment basins, and other erosion control measures will be visible for most of the construction process. Although unsightly, they are temporary and will be removed once construction is complete.
- Demolition of Old Roadways and Bridges - Demolition where the Selected Alternative crosses existing roads will create temporary visual changes. Equipment, dust, debris and demolished material staging areas will likely be visible from adjacent properties and the roadway. The demolition of the Shands Bridge will likely take several months.
- Construction Equipment and Staging/Stockpiling Areas - The presence of construction equipment and materials along the alignment will intrude on the existing visual landscape in the project area.

Mitigation measures have been identified to reduce these temporary impacts to a level below significant. The changes to the visual landscape from the new roadway will be permanent but are not considered significant.

6.1.8 Air Quality

Results from the air quality analysis indicated that the highest project-related emission levels will not exceed the National Ambient Air Quality Standards (NAAQS) for carbon monoxide or other criteria pollutants for the Selected Alternative. Earth moving, excavating, laying gravel, and similar activities will cause localized dust emissions. In addition, running heavy construction equipment will result in localized odors from diesel exhaust. Construction-related impacts will be short term and mitigation measures will reduce impacts to a less-than-significant level.

6.1.9 Water Resources

The Selected Alternative could impact the water quality in the study area based on the amount of stormwater runoff generated and the treatment volumes that would result. The Selected Alternative crosses three 303(d) basins and FDOT will demonstrate that the proposed project does not exceed the TMDL requirements for those basins in final design. FDOT will also follow Basin Management Action Plans (BMAPs) for impaired water bodies. Based on this requirement and the mitigation measures identified, impacts to water resources will be less than significant.

6.1.10 Wetlands

The Selected Alternative will impact approximately 1,305 acres of wetlands including 74 acres of surface waters, 518 acres of direct impact with dredging or filling, and 713 acres of direct impact without dredging or filling. The estimated Uniform Mitigation Assessment Methodology (UMAM) functional loss is 450 acres.

In accordance with Executive Order 11990, FDOT evaluated wetlands relative to potential impacts and options for avoiding and minimizing such impacts. Wetlands were avoided to the extent practicable. FDOT attempted to design and refine the Selected Alternative to avoid and minimize impacts to wetlands. Alignment adjustments were made to avoid major wetlands systems. The Selected Alternative was adjusted in Clay County near Blanding Boulevard to minimize impacts to the Black Creek wetland system. Where wetland impacts could not be completely avoided, they were minimized to the extent practicable. The Selected Alternative was shifted in St. Johns County to minimize environmental impacts to Trout Creek and was shifted to the west where it approaches SR 16 in Clay County in order to minimize impacts to the Peters Creek wetland system. The Selected Alternative also provides the benefit of utilizing the existing Shands Bridge instead of the new river crossing proposed for the Black and Purple Alternatives. By utilizing the existing crossing, the Selected Alternative minimizes open water and submerged aquatic vegetation (SAV) impacts. It would also impact an area that is already disturbed whereas the river crossing for the Black and Purple Alternatives would impact an undeveloped area in St. Johns County.

On April 30, 2008 and October 9, 2008, FDOT met with SJRWMD to discuss the First Coast Outer Beltway project and potential mitigation strategies. In addition to the meetings, coordination has been ongoing with SJRWMD throughout the project to address the initial concerns raised during the ETDM process. FDOT also held an agency coordination meeting on October 14, 2010 with SJRWMD, EPA, FWC, USACE, USFWS, NMFS and FHWA to discuss comments received on the Draft EIS regarding the desire to formulate a regional wetland mitigation plan for the project. Working with USACE and SJRWMD during final design, FDOT will determine the extent of mitigation necessary to reduce impacts to wetlands to less than significant levels.

6.1.11 Wildlife and Habitat

The Selected Alternative may affect but is not likely to adversely affect any listed species based on their likelihood of occurring along the alternative. Federally listed species the Selected Alternative may affect but is not likely to adversely affect include the eastern indigo snake, West Indian manatee, and wood stork. The Selected Alternative will impact approximately 1,679 acres of habitat including 152 acres of agricultural land, 81 acres of rangeland, 68 acres of water, 365 acres of wetland, and 1,013 acres of upland forests. Construction activities will have air, noise, waste hauling and disposal, and water quality impacts on wildlife and associated habitats within the immediate vicinity of the Selected Alternative. Mitigation measures have been identified that will reduce impacts to wildlife and habitat to levels below significant.

6.1.12 Essential Fish Habitat

The Selected Alternative would impact approximately 183.44 acres of essential fish habitat (EFH)

including 2.5 acres of SAV and 180.94 acres of wetlands. There will also be minimal temporary construction-related impacts to wetland vegetation associated with the new bridge. The species potentially present in the tidally influenced portions of the St. Johns River and associated Black Creek include Atlantic croaker, spot, Atlantic menhaden, striped mullet, hickory shad, river herring and shortnosed sturgeon. Portions of the study area are designated as EFH for the pink, brown and white shrimp. Mitigation measures have been identified that will reduce these impacts to less than significant. Species will not be impacted by the proposed project through the avoidance of habitat and compensatory mitigation.

6.1.13 Geology and Soils

By covering over parts of the surficial aquifer with less permeable materials, the Selected Alternative will limit the amount of rainwater recharge in areas where the proposed highway is constructed. However, these impacts will be minor and limited to the areas that are paved and designed to handle runoff, both during construction and operation of the Selected Alternative. During construction surficial soils will be excavated and removed. Because these soils are common to the area, these impacts are considered to be minimal.

6.1.14 Energy

Consumption of energy for the construction or operation of the St. Johns River Crossing Project is not expected to affect regional energy supplies, or result in any unavoidable adverse effects. Construction of the Selected Alternative will reduce the energy needs of vehicles operating in the project area by improving traffic flow and thereby increasing the efficiency of cars driving through these portions of Clay and St. Johns Counties. The Selected Alternative will result in approximately 2.9 million gallons less fuel consumption than current conditions. Thus, no mitigation measures for energy are required.

6.1.15 Hazardous Sites and Contaminated Properties

The Selected Alternative crosses a total of 8 known contaminated sites, including 5 low risk, 1 medium risk, and 2 high risk sites. Mitigation measures have been identified that will reduce potential contamination and safety impacts to less that significant levels.

6.1.16 Navigable Waterways

The Selected Alternative will result in a new bridge replacing the Shands Bridge with a higher vertical clearance removing the current height restriction of the Shands Bridge. Any structure in a navigable waterway presents at least a minor risk of collision with a passing vehicle; however, similar risks exist with the Shands Bridge and a new bridge with a greater horizontal clearance could reduce potential for accidents. During construction, there is a potential for disruption to navigation traffic and blockage of waterways. Demolition of the existing Shands Bridge and construction of the new bridge could increase turbidity or result in discharges of debris into navigable waterways. Mitigation measures have been identified that will reduce these impacts to less than significant levels.

6.1.17 Floodplains

The Selected Alternative will cross 16 floodplains and 4 regulatory floodways. It will not involve any longitudinal crossings. It is not anticipated that the Selected Alternative would encourage any floodplain development due to local floodplain regulations and management from the SJRWMD. Mitigation measures have been identified that will minimize floodplain encroachments by the Selected Alternative.

6.2 Measures to Minimize Harm

The mitigation, monitoring and/or enforcement measures described below in **Table 6-1** are to be implemented to avoid, minimize, or reduce any potentially significant environmental impacts. The appropriate timing for implementing these measures (during final design, prior to construction, during construction, or after construction) is also indicated in **Table 6-1**.

Table 6-1: Measures to Minimize Harm

Resource Topic	Potential Impact / Issue	Mitigation Measures and Monitoring/Enforcement Requirements
Traffic and Circulation	Traffic and circulation during construction.	• I-95 will be widened under a separate project prior to or within the opening year of this project. • FDOT will develop a traffic management plan that will be implemented by the construction contractor. The plan will include the following elements: ▪ traffic management and signage ▪ access to local businesses and residences ▪ detour routes, public notification and alternate routes ▪ emergency services coordination ▪ project scheduling
Noise	Long-term operational noise	• During final design of the Selected Alternative, FDOT will reevaluate potential noise impacts on sensitive receptors where noise levels were predicted to be above 66 dBA, or where they would increase 15 dBA or more above existing levels. • FDOT will reevaluate the feasibility of noise abatement measures during final design. • FDOT will reevaluate the feasibility of noise barriers at the trailheads of the Bayard Conservation Area after plans for the parking lot relocation and area access are finalized.
	Short-term construction noise	• The contractor will be required to adhere to the most current FDOT guidance for construction and any special provisions related to the control of noise and vibration impacts. The FDOT Standard Specifications contain the following requirements for construction noise and vibration control: ▪ The contractor shall operate only factory recommended exhaust mufflers on internal combustion engines ▪ Pile driving operations will be restricted to the hours between 7:00 am and 10:00 pm to avoid interfering with any adjacent noise and/or vibration sensitive land uses or a different foundation design will be considered (i.e., a drilled shaft) ▪ Preformed pile holes will be required where they are in proximity to vibration sensitive land uses to minimize vibration transfer ▪ Back up alarm noise from heavy equipment and trucks will be minimized by requiring the contractor to operate in forward passes or a figure eight pattern when dumping, spreading, or compacting material

Resource Topic	Potential Impact / Issue	Mitigation Measures and Monitoring/Enforcement Requirements
		▪ Adequate equipment maintenance procedures will be used to ensure that the elimination of unnecessary noise caused by loose body parts on all construction equipment ▪ Excessive tailgate banging by haul trucks will be prohibited ▪ All stationary equipment shall be screened from noise sensitive receivers if the equipment is to operate beyond normal working hours ▪ If feasible, the equipment shall be screened during normal working hours to reduce noise impacts ▪ When feasible, the contractor shall establish haul routes to direct vehicles away from developed areas and ensure that noise from hauling operations is kept to a minimum ▪ Specific noise impact problems that may arise during construction of the project will be addressed by the FDOT Construction Engineer in cooperation with environmental staff
Social and Land Use	Relocation of residences, businesses and churches	• FDOT will carry out a Right-of-Way and relocation program in accordance with Florida Statute 339-09 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17). • FDOT will relocate residences and businesses within their existing general vicinity when feasible.
	Short-term construction impacts to local traffic, air quality, noise and aesthetics	• See measures under Traffic and Circulation, Air Quality, Noise and Visual Resources
Environmental Justice	Relocation of residences and businesses in EJ communities	• See Relocation above for Social and Land Use
	Tolls may have disproportionate impacts to low-income drivers	• FDOT will allow trips using the toll road solely to cross the St. Johns River to remain toll-free • FDOT will implement a tolling system that will allow drivers to set up and maintain a transponder account without the use of a credit card.
Cultural Resources	Potential impacts to railroad segment potentially eligible for National Register	• FDOT will submit design plans to the State Historic Preservation Officer for the crossing of the potentially eligible segment of the Jacksonville, Tampa & Key West Railroad when the plans become available to confirm that the final design avoids an adverse effect to the rail segment.
	Potential impacts to previously unknown cultural resources during construction	• FDOT will develop an inadvertent discovery plan to address what steps will be taken if construction areas contain unexpected cultural resources and will mitigate any unavoidable loss of

Resource Topic	Potential Impact / Issue	Mitigation Measures and Monitoring/Enforcement Requirements
		eligible or listed properties or structures under the terms of Section 106.
Section 4(f)	Impacts to Bayard Conservation Area (BCA)	• 73.81 acres of land adjacent to the conservation area will be conveyed to the SJRWMD for incorporation into the BCA, resulting in a net increase of 39.35 acres. The 73.81 acres will be converted to a conservation use and restored to an environmentally acceptable condition. • The two (of the four total) impacted unpaved parking areas and the north caretaker residence (1 of 2) will be reconstructed in an area south of the proposed roadway. • Existing unpaved trails expected to be impacted by the Selected Alternative will be bridged. • A multi-use trail will be constructed along the north side of the conservation area, adjacent to the roadway.
Public Utilities and Services	Short-term, potential traffic issues, delays, or access restrictions affecting emergency services, schools, and other public services, and potential disruption to public utilities in the project area	• FDOT will develop a traffic management plan as described above under Traffic and Circulation • FDOT will coordinate with all service providers, including emergency services, and utility providers during final design to ensure that access is maintained and alternate routes are developed. FDOT is also committed to the additional following measures: ▪ Notify and coordinate with the fire departments for waterline relocations that may affect water supply for fire suppression and establish alternate supply lines prior to any breaks ▪ Notify and coordinate with the fire departments during construction to ensure all calls can be handled by developing plans for alternate routes. ▪ Provide emergency service providers and police departments with advance notification of construction schedules and any planned street closures. ▪ Coordinate with school officials during construction. Also schedule evening construction, where allowed, to reduce congestion during peak hours and have less effect on school bus routes. ▪ Field-verify the exact locations and depths of underground utilities prior to construction. ▪ Notify neighborhoods of utility interruptions by providing a schedule of construction activities to the public in those areas. ▪ Prepare a consolidated utility plan consisting of key elements such as existing locations, potential temporary locations, and potential new locations for utilities; sequence and coordinated schedules for utility work; and detailed description of any service disruptions.

Resource Topic	Potential Impact / Issue	Mitigation Measures and Monitoring/Enforcement Requirements
		This plan will be reviewed by and discussed with affected utility providers prior to the start of construction.
Visual Resources	Visual changes to the existing landscape from a new permanent roadway facility.	• FDOT will employ the following measures where feasible: ▪ Selective Clearing – Clearing only the vegetation required to construct the project, particularly trees. ▪ Landscaping – Incorporation of trees and groundcover to add visual interest to the roadway, compliment existing roadside vegetation or screen undesirable elements. ▪ Screening – Screening with landscape materials or by using permanent construction materials such as metal and concrete walls.
	Temporary visual impacts of construction areas (equipment staging, demolition, vegetation removal, erosion control)	• Where feasible, vegetation removed during construction may be replaced or allowed to regenerate, depending on the location and safety considerations. • Where feasible, locate equipment and material staging areas out of sight from the roadway or screened from sensitive views. • Maintain clean and orderly work sites to the extent practicable.
Air Quality	Short term air quality impacts during construction	• Potential effects of construction on local air quality will be addressed in accordance with FDOT's most current edition of Standard Specifications for Road and Bridge Construction (Florida, 2007). In addition, the contractor will be required to implement the following specific best management practices (BMPs): ▪ Appropriate fugitive dust suppression controls, such as spraying water on haul roads adjacent to construction sites, daily street sweeping, covering loaded trucks, and washing haul trucks before leaving the construction site. ▪ Re-vegetate disturbed areas with native grasses as soon as possible after construction activities are completed in order to minimize windblown dust. ▪ Shut off construction equipment when not in direct use in order to reduce idling emissions. ▪ Properly maintain and inspect construction equipment to ensure that required pollution control devices are in working condition. ▪ Preserve existing vegetation to the maximum extent practical.

Resource Topic	Potential Impact / Issue	Mitigation Measures and Monitoring/Enforcement Requirements
		▪ Route heavy truck traffic away from schools and residences when feasible. • All construction sites (including any unpaved roads and parking and storage areas) will be watered during dry weather or at least once daily to minimize fugitive dust emissions.
Water Quality	Water quality impacts due to construction and stormwater runoff during operation	• Measures will be incorporated into the design of the Selected Alternative to ensure that permit requirements for water quality are met. Such design measures typically include grass ditches to carry stormwater to the treatment facilities, stormwater treatment ponds for settling and storage, and measures to convey stormwater from either end of the bridge as it drains from the bridge deck to on-land treatment. • All stormwater runoff from the proposed roadway will be collected and treated before being discharged to surface waters. Typical BMPs such as staked hay bales, silt fences, mulching and reseeding, and use of buffer zones along water bodies will be used as appropriate • FDOT will consult with the Florida Department of Environmental Protection (FDEP) and the SJRWMD regarding the status of development of TMDLs and BMAPs for water bodies that are impaired and that are impacted by the project.
Wetlands	Direct and indirect impacts to approximately 1,305 acres of wetlands	• Every effort will be made to mitigate wetland impacts within the mitigation basin in which they are impacted. FDOT will coordinate with USACE and SJRWMD during the design phase to establish the extent of mitigation before final permits will be issued. FDOT's mitigation will be from federally permitted mitigation banks or equivalent project-specific offsite mitigation. The final decision will be based on cost and environmental benefit of banks versus project-specific mitigation. • FDOT will work with the appropriate agencies to develop a regional wetland mitigation plan as the project progresses into the final design phase. The plan will establish procedures, guidelines and responsibilities to implement regionally significant mitigation for unavoidable impacts caused by the St. Johns River Crossing Project and other future FDOT projects within the jurisdictional boundaries of SJRWMD. • During final design, facilities and work space outside the right-of-way, such as stormwater treatment ponds and construction staging areas, will be designed and sited to avoid and minimize impacts to wetlands.

Resource Topic	Potential Impact / Issue	Mitigation Measures and Monitoring/Enforcement Requirements
Wildlife and Habitat	Habitat fragmentation	• FDOT will design and construct the proposed project to provide wildlife passage across the corridor to reduce habitat fragmentation, prevent genetic isolation, and limit direct mortality on the roadway. Wildlife passage will be accomplished by designing appropriate bridge lengths, culvert locations, signage, and construction of dedicated wildlife crossings where justified. These efforts will follow the FDOT Wildlife Crossing Guidelines. Specific recommendations for location and design of wildlife crossings that are provided by the Florida Fish and Wildlife Conservation Commission, the USFWS and other regulatory agencies will be incorporated during the design and permitting phase.
	Short term construction, noise, air quality, water quality and waste disposal impacts to habitat and wildlife	• See measures under Noise, Air Quality, and Water Quality above • Demucking at wetland sites is regulated under Section 120 of the FDOT Standard Specifications for Road and Bridge Construction (FDOT, 2007). Disposal will be on-site in detention areas or off-site. • Removal of structures and debris will be in accordance with local and state regulatory agencies. • The contractor will be responsible for controlling pollution on haul roads, borrow pits, and areas used for disposal of waste materials from construction of the Selected Alternative. • Temporary erosion control features as specified in Section 104 of the FDOT Standard Specifications for Road and Bridge Construction (FDOT, 2007) will consist of temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, artificial coverings, and berms. • FDOT will undertake a number of actions to avoid or minimize impacts to federally listed species including the following: ▪ Use special provisions for protection of the shortnosed sturgeon during construction to ensure that no sturgeons are harmed. Use drilled shaft pile construction if determined by FDOT to be prudent and feasible. No explosives will be used in bridge demolition. ▪ Conduct surveys for gopher tortoise burrows within two years of the construction start date. ▪ Utilize the USFWS Survey Protocol for the Eastern Indigo Snake Drymarchon couperi, in North and Central Florida, if applicable. ▪ Implement the standard USFWS protection measures for the eastern indigo snake and an

Resource Topic	Potential Impact / Issue	Mitigation Measures and Monitoring/Enforcement Requirements
		eastern indigo snake education plan prior to and during construction. ▪ Conduct a detailed Eastern indigo snake habitat impact analysis during the Final Design and Permitting phases in close coordination with USFWS and FWC during this process. ▪ Mitigate the impacts to Eastern indigo snake habitat through the purchase and conservation of appropriate upland habitat as determined by the Endangered Species Biological Assessment during the Final Design/Permitting/Right-of-Way phases. Furthermore, the FDOT is committed to close coordination with USFWS and FWC during this process. ▪ Use special provisions for the protection of manatees during construction to ensure that no manatees are harmed. Trained personnel will conduct surveillance of in-water work areas during construction. Erosion and turbidity control measures will be installed and maintained around in-water work areas. ▪ Follow the Standard Manatee Protection Construction Conditions for In-Water Work (FWC, 2009) for the Florida manatee during implementation of the project, and TSPs will be incorporated into the contractor's bid documents. ▪ Develop and utilize a manatee watch plan specific to this project during the Permitting phase, at which time the USFWS will be provided the opportunity to provide input and approval. ▪ Implement water quality improvement initiatives as an additional mitigation option for impacts to SAV. A draft plan is contained in Appendix D of the *Endangered Species Biological Assessment.* ▪ Restore near-shore areas upon the removal of the existing Shands Bridge. ▪ Should the striped newt or gopher tortoise be listed prior to the time construction commences, an effects determination will be made in coordination with USFWS. Furthermore, compliance with all applicable state and Federal regulations, guidelines, survey protocol, etc., will be adhered to. ▪ Where the proposed project will alter wetlands, wetland compensation will include a temporal-lag factor to account for time required for successful mitigation with type-for-type-mitigation and comparable hydroperiod, to compensate for potential adverse effects to the wood stork foraging area. ▪ Design and construct the proposed project to provide wildlife passage across the project

Resource Topic	Potential Impact / Issue	Mitigation Measures and Monitoring/Enforcement Requirements
		corridor to reduce habitat fragmentation, prevent genetic isolation, and limit direct mortality on the roadway. Wildlife passage will be accomplished by designing appropriate bridge lengths, culvert locations, signage, and construction of dedicated wildlife crossing where justified. These efforts will follow the FDOT Wildlife Crossing Guidelines. Specific recommendations for location and design of wildlife crossings that are provided by the FWC, the USFWS and other regulatory agencies will be incorporated during the design and permitting phase.
Essential Fish Habitat	Impacts to 52.3 acres of Essential Fish Habitat	Coordination with the National Marine Fisheries Service (NMFS) has been ongoing and will continue regarding mitigation for essential fish habitat. FDOT is committed to mitigating all EFH impacts as a result of the construction of the Preferred Alternative. Blasting will not be used for demolition of the Shands Bridge. FDOT is committed to the following actions to avoid, minimize or mitigate for EFH impacts: ▪ Evaluating, considering, and implementing design/construction techniques which lead to the continued avoidance and minimization of wetland impacts, to include EFH impacts. ▪ Mitigating all wetland impacts to include EFH impacts as a result of the construction of the Preferred Alternative. ▪ Working with the agencies and developing a regional wetland mitigation plan as the project progresses into the design phase. The plan will establish procedures, guidelines and responsibilities to implement regionally significant mitigation for unavoidable impacts caused by the St. Johns River Crossing Project and other future FDOT projects within the jurisdictional boundaries of SJRWMD. FDOT will continue to coordinate with the resource agencies in developing the framework for a regional wetlands mitigation plan. ▪ Mitigating for SAV impacts through water quality improvement initiatives. A draft plan is contained in Appendix H of the *Essential Fish Habitat Report*. ▪ Restoring the near-shore areas upon the removal of the existing Shands Bridge.
Geology and Soils	Removal and disposal of surficial soils	• The contractor will be responsible for methods of controlling pollution in borrow pits where fill is removed, and in areas used for the disposal of waste soils from project construction. • The contractor will control impacts from the placement of soils for embankments through the same BMPs employed to protect soil erosion for air and water quality, including temporary grassing, sodding, mulching, sandbagging, slope drains, sediment basins, sediment checks, artificial coverings, and berms.

Resource Topic	Potential Impact / Issue	Mitigation Measures and Monitoring/Enforcement Requirements
Hazardous Sites and Contaminated Properties	Construction encounters with hazardous waste or contaminated properties	• Sites identified along the Selected Alternative will be fully characterized prior to construction. • FDOT will discuss the results of that assessment work with the contractor and develop appropriate response plans to either avoid or remove known areas of contamination. • A response plan developed prior to construction and approved by FDEP will cover contaminants that may be unexpectedly encountered or accidentally spilled during construction. FDOT will also notify the state of any unanticipated discoveries or spills during construction, and coordinate cleanup with FDEP staff.
Navigable Waterways	Impediments to navigation during construction or operation of the roadway and bridges over navigable waters	• FDOT will coordinate with the US Coast Guard to develop and implement marine traffic management plans during construction and to provide public information on construction activities that affect navigation. • FDOT will provide vertical and horizontal bridge clearances in final design that are acceptable to maritime community. In addition, FDOT will implement the following measures for the demolition and construction of the bridge across the St. Johns River: ▪ Prior to beginning construction or demolition, the river bottom 500 feet upstream and downstream from the bridge centerline will be surveyed by multi-beam and side scan sonar to set baseline conditions for bottom elevation (multi-beam) and bottom material (side scan). ▪ Erosion and turbidity control measures will be installed and maintained around work areas. ▪ The existing bridge will be removed down to six inches above the mud line and disposed of offsite at a landfill or recycling facility. No demolition material will be discharged to the water way or disposed of onsite. ▪ No blasting will be used to demolish the bridge. ▪ The river bottom will be resurveyed after demolition if there are any concerns from the regulatory agencies concerning deposition (multi-beam) or remnant debris (side scan). ▪ In the event of an accidental spill of demolition materials or equipment, the Contractor will immediately notify SJRWMD and the USACE. Retrieval of the accidentally discharged material will be initiated within seventy-two hours of approval from the regulatory agencies. ▪ The project will not involve excavation of the river bottom without the Contractor applying for and receiving a permit modification and mixing zone approval.

Resource Topic	Potential Impact / Issue	Mitigation Measures and Monitoring/Enforcement Requirements
Floodplains	Encroachments on floodplains	• The project's drainage design will comply with FDOT, SJRWMD, and FEMA standards to ensure that encroachments on the floodplains will be minimal. FDOT will also implement the following measures: ▪ Design the project to be consistent with FEMA, FDOT and SJRWMD design standards. No significant changes in BFE or flood limits will occur. Any impacts to regulatory floodways will be coordinated with SJRWMD with approval prior to construction. Drainage structures conveying non-regulatory floodplains will be sized to generate less than 0.1 feet of backwater during a 100-year flood event. Detailed volumetric floodplain calculations will be provided for all floodplain encroachments where encroachment volume exceeds 0.1% of the 100-year flood volume. ▪ Size all bridges and culverts to qualify for a FEMA Zero Rise for any regulatory floodway crossings. ▪ Final design will include appropriately sized cross drains to maintain the natural and beneficial floodplain values. ▪ Erosion and sediment control measures will ensure that the no sediment is carried downstream to clog channels and reduce their flood-carrying capacity.

7.0 PERMITS AND APPROVALS

The United States Army Corps of Engineers (USACE) and the St. Johns River Water Management District (SJRWMD) regulate wetlands within the study area. The United States Fish and Wildlife Service, the National Marine Fisheries Service, and the Florida Fish and Wildlife Conservation Commission (FWC) will review and comment on the wetland permit applications. It is currently anticipated that the major permits shown in **Table 7-1** will be required for this project.

Table 7-1: Major Permits Required

Permit	Agency
Environmental Resource Permit (ERP)	SJRWMD
Section 404 Dredge and Fill Permit	USACE
Section 10 Permit	USACE
National Pollutant Discharge Elimination System Permit (NPDES)	FDEP
Section 9 Bridge Permit	USCG
Gopher Tortoise Relocation Permit	FWC

The complexity of the permitting process depends greatly on the degree of impact. The SJRWMD requires an Environmental Resource Permit when construction of any project results in the creation of a water management system or isolated wetlands or an impact to "waters of the State." The district will require an individual permit along with mitigation since wetland impacts will be greater than one acre.

The USACE will require an individual permit in compliance with the Section 404(b)(1) guidelines of the Clean Water Act, including verification that:

- The Selected Alternative is the Least Environmentally Damaging Practicable Alternative or sufficient rationale as to why another alternative was chosen,
- All impacts have first been avoided to the greatest extent possible,
- Unavoidable impacts have been minimized to the greatest extent possible, and
- Unavoidable impacts have been mitigated in the form of wetlands creation, restoration, and/or enhancement.

The USACE 2008 Final Compensatory Mitigation Rule established a mitigation preference hierarchy. The most preferred form of mitigation is mitigation bank credits. In-lieu, fee program credits are second in the preference hierarchy and permittee-responsible mitigation is the third preference. FDOT is committed to working with the agencies and developing a regional wetland mitigation plan as the project progresses into the design phase. FDOT's proposed mitigation will be from a combination of banks and other mitigation projects that may include preservation, restoration and/or creation.

The USACE will also require a Section 10 Permit in accordance with the Rivers and Harbors Act verifying that the project will not obstruct or alter navigable waters of the United States.

The Florida Department of Environmental Protection (FDEP) requires that any project that results in the clearing of five or more acres of land also obtain a National Pollutant Discharge Elimination System (NPDES) permit pursuant to 40 CFR parts 122 and 124. In association with this permit, they would also require a Stormwater Pollution Prevention Plan that would be implemented during the construction of the Selected Alternative. The primary functions of the NPDES requirements are to ensure that sediment and erosion during construction are controlled. These permits typically utilize Best Management Practices to ensure compliance.

A Section 9 Bridge Permit from the United States Coast Guard (USCG) is needed for construction of a bridge over navigable waters, which in this case would include the St. Johns River and Black Creek.

During construction, the contractor will likely use borrow pits in the project area to provide fill for roadway construction. In accordance with FDOT procedures, the contractor will be responsible for obtaining necessary permits for such uses, which may vary depending on borrow sites selected. The contractor will be required to obtain appropriate cultural resources clearances for any borrow sites, including conducting any necessary site investigations and consultation with the State Historic Preservation Officer. In the case of threatened and endangered species clearances, however, FDOT will be responsible for these clearances, if necessary, including consultation with the appropriate resources agencies.

8.0 COMMENTS ON FINAL EIS

The FEIS was approved for circulation on August 29, 2013 and the notice of its availability was published in the Federal Register on September 27, 2013 (revised notice of availability on October 25, 2013), with a request that comments be postmarked by November 19, 2013. The FHWA, in coordination with the FDOT, has taken into consideration all pertinent correspondence, documents, and technical reports postmarked through November 19, 2013. FDOT has adequately responded to all substantive comments received from interested parties regarding the content and accuracy of the FEIS and supporting studies for selection of the Pink 1 alternative.

9.0 SUMMARY OF COMMENTS AND RESPONSES CONCERNING THE FEIS

Two comment letters were received by FDOT regarding the St. Johns River Crossing FEIS. The comments and responses are summarized below:

USACE Comments

Comment 1: The USACE commented that the footnote at the bottom of Exhibit 2-43: Summary Comparison and Ranking of Alternatives was incorrect.

Response 1: FDOT agrees that the footnote was incorrect. The footnote at the bottom of Exhibit 2-43 on pages 2-70 to 2-75 is "Note: 10 is the least favorable rank and 1 is the most favorable."

EPA Comments

Comment 1: The Pink 1 Alternative will have significant direct impacts to approximately 518 acres of wetlands. There will be additional wetlands impacts in the project area due to the reduced functional value of wetlands and also additional impacts to surface water areas. During the Draft EIS review phase, several resource agencies expressed an interest in working with FDOT in the development of a comprehensive wetlands mitigation plan. The EPA requested that FDOT establish an interagency technical advisory team to evaluate options to reduce and effectively mitigate wetland, wildlife, and water quality impacts. The Final EIS does not provide a detailed mitigation plan, but states that FDOT is committed to working with and coordinating with resource agencies and developing a regional wetland mitigation plan as the project progresses into the design phase. FDOT plans for a regional, umbrella approach to mitigation projects that may include preservation, restoration and/or creation. The locations of four federally approved wetland mitigation banks are identified in the report. The EPA would like to reiterate its desire to be involved in the development of a wetlands mitigation plan as the project moves closer to the permitting phase. The Record of Decision (ROD) should include strict avoidance and minimization measures and mitigation commitments for wetlands and stream impacts.

Response 1: FDOT will involve EPA in the development of the regional wetland mitigation plan as the project progresses into the final design phase. The plan will establish procedures, guidelines and responsibilities to implement regionally significant mitigation for unavoidable impacts caused by the St. Johns River Crossing Project and other future FDOT projects within the jurisdictional boundaries of SJRWMD. The ROD includes minimization measures and mitigation commitments for wetlands and streams as noted in Table 6-1.

Comment 2: In accordance with Executive Order 12898, federal actions must address environmental justice (EJ) in minority and low-income populations. Most federal agencies have made EJ part of their mission by identifying and addressing disproportionately high and adverse human

health or environmental effects of programs, policies, and activities on minority and low-income populations. The Final EIS provides information relating to EJ communities which occur within or adjacent to the Pink 1 Alternative. It also includes measures to avoid or minimize effects of the project on EJ populations. The report illustrates the EJ areas located along the proposed roadway in southern Clay County which could be affected by tolling and displacement and relocation of residences and businesses. FDOT should continue to delineate potential EJ communities and ensure that these communities and those living in other EJ areas have the opportunity to participate in future public meetings, as stated in the Final EIS. The EPA recommends the project be planned, designed, and operated to ensure that there is not a disproportionate adverse impacts on minority or low-income populations in the project area.

Response 2: Existing EJ communities were identified in the FEIS. Outreach throughout the progression of the study occurred to give residents the opportunity to participate in public meetings. FDOT will continue to ensure that there are no disproportionate impacts on minority or low-income populations as the project moves into future phases.

Comment 3: Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, was issued to direct federal agencies to minimize environmental health and safety risks to children, and to prioritize the identification and assessment of environmental health and safety risks that may have a disproportionate impact on children. Future NEPA documents should identify the population of children living along each of the proposed alternatives and other sensitive receptors such as preschools, childcare centers, and schools. The documents should include a cohesive discussion of the potential project impacts, including air quality and noise, in relationship to children's health and safety. The EPA recommends that transportation projects be planned, designed, and operated to ensure that project impacts, including air and noise, in relationship to children's health and safety is minimized, especially in areas already impacted by higher levels of air pollution, disease (asthma), and other indicators of social vulnerability. The following we link (http://yosemite.epa.gov/ochp/ochpweb.nsf/content/regs.htm) provides more information on children's health.

Response 3: The FEIS identified schools and daycare facilities within the vicinity of the project. Future NEPA documents will identify the population of children living in the project area and will include measures to minimize children's health and safety if necessary.

Comment 4: In addition to the comments outlined above, the EPA offers these additional recommendations relating to the proposed project: 1) noise mitigation alternatives should be considered and implemented, where feasible, during project design and construction; 2) analysis of air toxics and near-roadway health impacts should continue to be evaluated, especially with regard to sensitive populations; 3) FDOT should work with local and regional planners in the development of compatible land use plans to avoid or minimize adverse secondary impacts to the human and natural environment; and 4) commitments such as those outlined in Chapter 5 of the Final EIS should be included in the Record of Decision.

Response 4: The additional recommendations noted by EPA will be taken into consideration during future phases of the project. The commitments outlined in Chapter of the Final EIS are in the Record of Decision, Table 6.1.

Comment 5: Pursuant to its authority under the Clean Water Act, the EPA requests to be part of the further development of mitigation plans for this project. In addition, the EPA requests to receive a copy of the final Record of Decision for this project.

Response 5: EPA will be included in the future development of the project's mitigation plan. A copy of the final Record of Decision will be provided to EPA.

10.0 CONCLUSION

For the foregoing reasons, and based upon consideration of all the social, economic, and environmental evaluation contained in the Final Environmental Impact Statement, with the input received from other agencies, organization, and the public, the Federal Highway Administration has determined that the FEIS Preferred Alternative (Pink 1 Alternative), is hereby the Selected Alternative. Therefore it is my decision to adopt this alternative as the proposed action for this project.

James Christian, P.E.
Florida Division Administrator

April 7, 2014
Date

Limitation on Claims Statement
A Federal agency may publish a notice in the Federal Register, pursuant to 23 USC §139(l), indicating that one or more Federal agencies have taken final action on permits, licenses, or approvals for a transportation project. If such notice is published, claims seeking judicial review of those Federal agency actions will be barred unless such claims are filed within 150 days after the date of publication of the notice, or within such shorter time period as is specified in the Federal laws pursuant to which judicial review of the Federal agency action is allowed. If no notice is published, then the periods of time that otherwise are provided by the Federal laws governing such claims will apply.