



Florida Department of Transportation

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ETDM Summary Report

Project #14233 - CR 510 Widening from CR 512 to 58 Avenue

Final Programming Screen - Published on 08/17/2016

Generated by Anson Sonnett (on behalf of FDOT District 4)

Printed on: 9/09/2016

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Introduction to Programming Screen Summary Report

The Programming Screen Summary Report shown below is a read-only version of information contained in the Programming Screen Summary Report generated by the ETDM Coordinator for the selected project after completion of the ETAT Programming Screen review. The purpose of the Programming Screen Summary Report is to summarize the results of the ETAT Programming Screen review of the project; provide details concerning agency comments about potential effects to natural, cultural, and community resources; and provide additional documentation of activities related to the Programming Phase for the project. Available information for a Programming Screen Summary Report includes:

- Screening Summary Report chart
- Project Description information (including a summary description of the project, a summary of public comments on the project, and community-desired features identified during public involvement activities)
- Purpose and Need information (including the Purpose and Need Statement and the results of agency reviews of the project Purpose and Need)
- Alternative-specific information, consisting of descriptions of each alternative and associated road segments; an overview of ETAT Programming Screen reviews for each alternative; and agency comments concerning potential effects and degree of effect, by issue, to natural, cultural, and community resources.
- Project Scope information, consisting of general project recommendations resulting from the ETAT Programming Screen review, permits, and technical studies required (if any)
- Class of Action determined for the project
- Dispute Resolution Activity Log (if any)

The legend for the Degree of Effect chart is provided in an appendix to the report.

For complete documentation of the project record, also see the GIS Analysis Results Report published on the same date as the Programming Screen Summary Report.

#14233 CR 510 Widening from CR 512 to 58 Avenue

District: District 4

County: Indian River

Planning Organization: FDOT District 4

Plan ID: Not Available

Federal Involvement: FHWA Funding Other Federal Permit

Phase: Programming Screen

From: CR 512/85th Street

To: 58th Avenue

Financial Management No.: 405606-2-22-01

Contact Information: Shandra Davis-Sanders (954) 677-7896 shandra.davis@dot.state.fl.us

Snapshot Data From: Programming Screen Summary Report Re-published on 08/17/2016 by Anson Sonnett

Issues and Categories are reflective of what was in place at the time of the screening event.

	Social and Economic							Cultural			Natural					Physical					Special Designations
	Land Use Changes	Social	Relocation Potential	Farmlands	Aesthetic Effects	Economic	Mobility	Section 4(f) Potential	Historic and Archaeological Sites	Recreation Areas	Wetlands and Surface Waters	Water Quality and Quantity	Floodplains	Wildlife and Habitat	Coastal and Marine	Noise	Air Quality	Contamination	Infrastructure	Navigation	
Alternative #1 From: CR 512/ 85th Street To: 66th Avenue Re-Published: 08/17/2016 Reviewed from 01/06/2016 to 03/06/2016)	2	2	2	3	2	1	1	2	2	2	3	2	2	4	2	2	2	2	2	N/A	0

Purpose and Need

Purpose and Need

This project consists improving capacity on C.R. 510 from C.R. 512/85th St. to 58th Ave., in Indian River County (IRC), Florida, in order to achieve an acceptable Level of Service (LOS) on the facility in the future condition. While the roadway currently operates at an acceptable LOS, conditions will deteriorate below acceptable standards if no improvement occurs by 2035, as the roadway will have insufficient capacity to accommodate the project travel demand. It is important to note that this roadway is deemed deficient in the Indian River County 2035 Long Range Transportation Plan (LRTP) based on the projected 2035 AADT volumes derived from the Greater Treasure Coast Regional Planning Model for the Grid Densification Roadway Needs Plan Alternative. The results of the analysis revealed that portions of the project segment are expected to have volume to capacity ratio (V/C) ratios of 1.0 - 1.2 and above 1.2. Roadways are deemed deficient if the volume to capacity (V/C) ratio exceeds 0.9. As such, this segment of C.R. 510 will experience congestion by 2035 if additional improvements are not made. Overall, the proposed improvement is anticipated to allow C.R. 510 to continue to serve as a critical arterial in facilitating the west-east movement of local and regional traffic (including truck traffic) as it traverses Indian River County connecting C.R. 512 to S.R. A1A on the barrier island. The increased capacity on C.R. 510 is intended to improve traffic operations along the corridor and enhance access to targeted areas of growth within the county.

There are three bridge structures (880047, 880063, 880044), one at M.P. 1.276 - 1.284, one at M.P. 2.226 - M.P. 2.240, one at M.P. 2.726 - M.P. 2.735. The project is 4.270 miles in length and the acquisition of some right-of-way is anticipated. C.R. 510 is owned and maintained by Indian River County. According to the adopted Indian River County Comprehensive Plan, C.R. 510 is classified as an Urban Principal Arterial and is critical in facilitating the west-east movement of traffic in Indian River County. It connects Interstate 95 (I-95) to S.R. A1A. This roadway additionally provides access to commercial, educational, residential and agricultural uses. According to the Indian River County 2035 Long Range Transportation Plan (LRTP), the project is anticipated to cost \$29,068,307, of which the great majority will be Federally-funded dollars. C.R. 510 from C.R. 512/85th St. to 58th Ave. is identified as a cost-feasible project in the Indian River County 2035 LRTP. The project is identified within the Indian River County Metropolitan Planning Organization's (MPO) FY2015/2016 - FY2019/2020 Draft Transportation Improvement Program (TIP).

C.R. 510 is designated as an emergency evacuation route by both the Florida Division of Emergency Management and Indian River County. By increasing capacity, the improvement on C.R. 510 is anticipated to enhance emergency evacuation and response times by:

- Improving access to other emergency evacuation routes designated by the Florida Division of Emergency Management (C.R. 510, C.R. 512, and I-95); and
- Increasing the number of residents from the coastal communities of eastern Indian River County that can be evacuated during an emergency event.

The project is also identified within the Indian River County Metropolitan Planning Organization's (MPO) FY 2015/2016 - FY 2019/2020 Transportation Improvement Program (TIP). It should additionally be noted that \$2,092,063 is programmed for the Project Development and Environment (PD&E) Study in 2016 and \$2,211,838 is programmed for the Preliminary Engineering phase in 2019 within the 2016-2020 FDOT Work Program.

As the Indian River County 2035 LRTP Infill Alternative Land Use scenario matures along the C.R. 510 corridor encouraging higher densities and mixed-use development, premium transit service will be considered on C.R. 510 to serve and connect the transit-supportive land uses. Sidewalks are additionally anticipated as part of the widening as the corridor is intended to provide for adequate multi-modal facilities. While paved shoulders are currently present, they are also anticipated to be maintained as part of the project. Overall, the project is expected to accommodate multi-modal facilities and enhance corridor access for transit users, bicyclists, and pedestrians.

Logical Termini

The logical termini begin at the signalized intersection of C.R. 512/85th St. and terminate at the signalized intersection of 58th Avenue. C.R. 510 is designated as an emergency evacuation route by both the Florida Division of Emergency Management and Indian River County. By increasing capacity, the improvement on C.R. 510 is anticipated to enhance emergency evacuation and response times.

Project Description

The primary need for additional capacity on C.R. 510 from C.R. 512/85th St. to 58th Avenue is in order to achieve an acceptable Level of Service (LOS) on the facility in the future condition. While the roadway currently operates at an acceptable LOS, conditions will deteriorate below acceptable standards if no improvement occurs by 2035, as the roadway will have insufficient capacity to accommodate the project travel demand. The need for the project is based on the following primary and secondary criteria.

PRIMARY CRITERIA

CAPACITY/TRANSPORTATION DEMAND: Improve Traffic Operations (LOS and Volume to Capacity Ratio)

This project is anticipated to improve traffic operations along C.R. 510 by increasing operational capacity to meet the future travel demand projected as a result of Indian River County population and employment growth. The existing and future traffic conditions for the project corridor are as follows:

Existing Conditions

2014 AADT: 9,800

2014 Truck AADT: 5.3% (520 trucks per day)

LOS (2 Lanes): C or better

Future Conditions

-No Build-

2034 AADT: 20,000

2034 Truck AADT: 5.3% (1060trucks per day)

LOS (2 Lanes): F

-4 Lanes-

2034 AADT: 20,000

2034 Truck AADT: 5.3% (1060trucks per day)

LOS (4 Lanes): B

It is important to note that this roadway is deemed deficient in the Indian River County 2035 Long Range Transportation Plan (LRTP) based on the projected 2035 AADT volumes derived from the Greater Treasure Coast Regional Planning Model for the Grid Densification Roadway Needs Plan Alternative. The results of the analysis revealed that portions of the project segment are expected to have volume to capacity ratio (V/C) ratios of 1.0 - 1.2 and above 1.2. Roadways are deemed deficient if the volume to capacity (V/C) ratio exceeds 0.9. As such, this segment of C.R. 510 will experience congestion by 2035 if additional improvements are not made.

Overall, the proposed improvement is anticipated to allow C.R. 510 to continue to serve as a critical arterial in facilitating the west-east movement of local and regional traffic (including truck traffic) as it traverses Indian River County connecting C.R. 512 to S.R. A1A on the barrier island. The increased capacity on C.R. 510 is intended to improve traffic operations along the corridor and enhance access to targeted areas of growth within the county.

SECONDARY CRITERIA

MODAL INTERRELATIONSHIPS: Enhance Transit, Pedestrian, and Bicycle Access

As the Indian River County 2034 LRTP Infill Alternative Land Use scenario matures along the C.R. 510 corridor encouraging higher densities and mixed-use development, premium transit service will be considered on C.R. 510 to serve and connect the transit-supportive land uses. Sidewalks are additionally anticipated as part of the widening as the corridor is intended to provide for adequate multi-modal facilities. While paved shoulders are currently present, they are also anticipated to be maintained as part of the project. Overall, the project is expected to accommodate multi-modal facilities and enhance corridor access for transit users, bicyclists, and pedestrians.

Transportation Demand

The population of Indian River County is projected to increase from 155,000 in year 2004 to 209,000 in year 2034, with a steady 1.72% annual growth rate (Source: Bureau of Economic and Business Research.) As the population of the county increases, developments in the county will continue to grow thereby increasing the amount of traffic on the roads.

Employment is projected to grow from 54,429 in 2005 to 69,508 in 2034. Based on the socioeconomic characteristics of the Indian River County 2034 LRTP Infill Alternative Land Use scenario,

- Population within the proximate Traffic Analysis Zones (TAZs) is projected to grow from 88,520 in 2014 to 137,753 in 2034 (1.49% annual growth rate).
- Employment within the proximate TAZs is projected to increase from 41,507 in 2005 to 61,941 in 2034 (1.34% annual growth rate).

Further, 2 Planned Unit Developments and 0 approved Developments of Regional Impact are present along the corridor.

System Linkage

The proposed capacity improvements to C.R. 510 will help improve connectivity within the roadway network by enhancing mobility to the C.R. 510 corridor. Enhancing mobility in this area will provide an additional route and improve the movement of people, goods and services to and from Indian River County.

Plan Consistency

C.R. 510 from C.R. 512/85th St. to 58th Ave. is identified as a cost-feasible project, not currently funded for construction in the Indian River County 2035 LRTP. The project is also identified within the Indian River County Metropolitan Planning Organization's (MPO) Transportation Improvement Program (TIP). It should additionally be noted that \$2,092,063 is programmed for the Project Development and Environment (PD&E) Study in 2016 and \$2,211,838 is programmed for the Preliminary Engineering phase in 2017 within the FDOT Work Program.

Social Demands & Economic Development

Enhance Emergency Evacuation and Response Times

C.R. 510 is designated as an emergency evacuation route by both the Florida Division of Emergency Management and Indian River County. By increasing capacity, the improvement on C.R. 510 is anticipated to enhance emergency evacuation and response times by:

- Improving access to other emergency evacuation routes designated by the Florida Division of Emergency Management (C.R. 510, C.R. 512, and I-95); and
- Increasing the number of residents from the coastal communities of eastern Indian River County that can be evacuated during an emergency event.

The population of Indian River County is projected to increase from 155,000 in year 2004 to 209,000 in year 2034, with a steady 1.72% annual growth rate (Source: Bureau of Economic and Business Research.) As the population of the county increases, developments in the county will continue to grow thereby increasing the amount of traffic on the roads. Employment is projected to grow from 54,429 in 2005 to 69,508 in 2034.

Economic Development: Currently, the land around the proposed project is mainly agricultural and industrial. A review on satellite view illustrated green space and undisturbed land with a low density residential land use area in the northern part of the proposed project. Within the proposed project are two major employers; i.e., a Publix Supermarket and a Winn-Dixie. There are also two churches and five (5) parks. The North Indian River County Library is identified as a cultural facility. The median household income of the Sebastian South community is \$53,750, above the countywide median household income of \$47,341.

The 2035 Indian River County LRTP Public Process and Land Use Vision Plan identified land uses centered on an "infill and clustered" development pattern. The future land use plan included the following focus growth areas:

Downtown districts;
 Neighborhood commercial districts;
 Neighborhood infill development districts;
 US 1 development corridor;
 Regional workplace districts;
 Airport workplace districts; and
 Fellsmere Annex.

Summary of Public Comments

Summary of Public Comments is not available at this time.

Planning Consistency Status

Lead Agency

Federal Highway Administration

Participating and Cooperating Agencies

Participating and Cooperating agencies are not applicable for this class of action.

Exempted Agencies

Agency Name	Justification	Date
Federal Transit Administration	FTA has requested to be exempt from reviewing any non-transit projects.	06/05/2015

Community Desired Features

No desired features have been entered into the database. This does not necessarily imply that none have been identified.

User Defined Communities Within 500 Feet

- San Sebastian/Fisher Lake
- Sebastian Annex
- South Sebastian Highlands
- Vero Lake Estate
- Wabasso

Census Places Within 500 Feet

- Sebastian
- Wabasso

Purpose and Need Reviews

FDOT District 4

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	02/11/2016	Gaspar Jorge Padron (gaspar.padron@dot.state.fl.us)	No Purpose and Need comments found.

FL Department of Agriculture and Consumer Services

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	03/01/2016	Steve Bohl (Steve.Bohl@freshfromflorida.com)	No Purpose and Need comments found.

FL Department of Economic Opportunity

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	03/04/2016	Matt Preston (matt.preston@deo.myflorida.com)	No Purpose and Need comments found.

FL Department of State

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	02/04/2016	Daniel McClarnon (daniel.mcclarnon@dos.myflorida.com)	No Purpose and Need comments found.

FL Fish and Wildlife Conservation Commission

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	02/10/2016	Jennifer Goff (jennifer.goff@MyFWC.com)	No Purpose and Need comments found.

Federal Highway Administration

Acknowledgment	Date Reviewed	Reviewer	Comments
Accepted	02/18/2016	Luis Lopez (luis.d.lopez@dot.gov)	No Purpose and Need comments found.

National Marine Fisheries Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	02/10/2016	Brandon Howard (Brandon.Howard@noaa.gov)	None

National Park Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	01/14/2016	Anita Barnett (anita_barnett@nps.gov)	No Purpose and Need comments found.

Natural Resources Conservation Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	01/11/2016	Rick Robbins (rick.a.robbs@fl.usda.gov)	No Purpose and Need comments found.

Saint Johns River Water Management District

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	02/10/2016	Nathan Ottoson (nottoson@sjrwmd.com)	comments understood and SJRWMD staff is available to meet with FDOT or their consultants as preliminary designs are developed and pre application coordination is suggested.

US Army Corps of Engineers

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	02/18/2016	Tarrie Ostrofsky (Tarrie.L.Ostrofsky@usace.army.mil)	

US Environmental Protection Agency

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	02/22/2016	Kim Gates (gates.kim@epa.gov)	No comments at this time.

US Fish and Wildlife Service

Acknowledgment	Date Reviewed	Reviewer	Comments
Understood	01/14/2016	John Wrublik (john_wrublik@fws.gov)	No Purpose and Need comments found.

The following organizations were notified but did not submit a review of the Purpose and Need:

- FL Department of Environmental Protection
- Seminole Tribe of Florida

Alternative #1

Alternative Description

Name	From	To	Type	Status	Total Length	Cost	Modes	SIS
Alternative was not named.	CR 512/ 85th Street	66th Avenue	Widening	ETAT Review Complete	4.26 mi.		Roadway	N

Segment Description(s)

Location and Length

Segment Record	Segment Name	Facility Name	Beginning Location	Ending Location	Length (mi.)	Roadway Id	BMP	EMP
S-001	Segment 1	Segment 1			4.25			

Jurisdiction and Class

Segment Record	Segment Name	Jurisdiction	Urban Service Area	Functional Class
S-001	Segment 1			

Base Conditions

Segment Record	Segment Name	Year	AADT	Lanes	Config
S-001	Segment 1				

Interim Plan

Segment Record	Segment Name	Year	AADT	Lanes	Config
S-001	Segment 1				

Needs Plan

Segment Record	Segment Name	Year	AADT	Lanes	Config
S-001	Segment 1				

Cost Feasible Plan

Segment Record	Segment Name	Year	AADT	Lanes	Config
S-001	Segment 1				

Funding Sources

No funding sources found.

Project Effects Overview for Alternative #1

Issue	Degree of Effect	Organization	Date Reviewed
Social and Economic			
Land Use Changes	2 Minimal	FL Department of Economic Opportunity	03/04/2016
Land Use Changes	2 Minimal	Federal Highway Administration	02/18/2016
Land Use Changes	2 Minimal	FDOT District 4	02/11/2016
Social	2 Minimal	US Environmental Protection Agency	03/06/2016
Social	2 Minimal	Federal Highway Administration	02/18/2016
Social	2 Minimal	FDOT District 4	02/11/2016
Relocation Potential	2 Minimal	Federal Highway Administration	02/18/2016
Relocation Potential	2 Minimal	FDOT District 4	02/11/2016
Farmlands	3 Moderate	Federal Highway Administration	02/18/2016
Farmlands	3 Moderate	Natural Resources Conservation Service	01/11/2016
Aesthetic Effects	2 Minimal	Federal Highway Administration	02/18/2016
Aesthetic Effects	2 Minimal	FDOT District 4	02/11/2016

Economic	1 Enhanced	FL Department of Economic Opportunity	03/04/2016
Economic	1 Enhanced	Federal Highway Administration	02/18/2016
Economic	1 Enhanced	FDOT District 4	02/11/2016
Mobility	1 Enhanced	Federal Highway Administration	02/18/2016
Mobility	1 Enhanced	FDOT District 4	02/11/2016
Cultural			
Section 4(f) Potential	2 Minimal	Federal Highway Administration	02/18/2016
Historic and Archaeological Sites	2 Minimal	Federal Highway Administration	02/18/2016
Historic and Archaeological Sites	2 Minimal	FL Department of State	02/04/2016
Recreation Areas	2 Minimal	Federal Highway Administration	02/18/2016
Recreation Areas	N/A N/A / No Involvement	Saint Johns River Water Management District	02/10/2016
Recreation Areas	N/A N/A / No Involvement	National Park Service	01/14/2016
Natural			
Wetlands and Surface Waters	3 Moderate	Federal Highway Administration	02/18/2016
Wetlands and Surface Waters	3 Moderate	US Army Corps of Engineers	02/18/2016
Wetlands and Surface Waters	3 Moderate	Saint Johns River Water Management District	02/10/2016
Wetlands and Surface Waters	3 Moderate	National Marine Fisheries Service	02/10/2016
Wetlands and Surface Waters	3 Moderate	US Fish and Wildlife Service	01/14/2016
Water Quality and Quantity	2 Minimal	Federal Highway Administration	02/18/2016
Water Quality and Quantity	2 Minimal	Saint Johns River Water Management District	02/10/2016
Floodplains	2 Minimal	Federal Highway Administration	02/18/2016
Floodplains	2 Minimal	Saint Johns River Water Management District	02/10/2016
Wildlife and Habitat	0 None	FL Department of Agriculture and Consumer Services	03/01/2016
Wildlife and Habitat	2 Minimal	Federal Highway Administration	02/18/2016
Wildlife and Habitat	4 Substantial	US Fish and Wildlife Service	02/18/2016
Wildlife and Habitat	3 Moderate	FL Fish and Wildlife Conservation Commission	02/10/2016
Coastal and Marine	0 None	Federal Highway Administration	02/18/2016
Coastal and Marine	N/A N/A / No Involvement	Saint Johns River Water Management District	02/10/2016
Coastal and Marine	2 Minimal	National Marine Fisheries Service	02/10/2016
Physical			
Noise	2 Minimal	Federal Highway Administration	02/18/2016
Air Quality	2 Minimal	US Environmental Protection Agency	02/22/2016

Air Quality	2	Minimal	Federal Highway Administration	02/18/2016
Contamination	2	Minimal	US Environmental Protection Agency	03/04/2016
Contamination	2	Minimal	Federal Highway Administration	02/18/2016
Contamination	2	Minimal	Saint Johns River Water Management District	02/10/2016
Infrastructure	2	Minimal	Federal Highway Administration	02/18/2016
Navigation	N/A	N/A / No Involvement	Federal Highway Administration	02/18/2016
Navigation	0	None	US Army Corps of Engineers	02/18/2016
Special Designations				
Special Designations	0	None	Federal Highway Administration	02/18/2016
Special Designations	N/A	N/A / No Involvement	Saint Johns River Water Management District	02/10/2016

ETAT Reviews and Coordinator Summary: Social and Economic

Land Use Changes

Project Effects

Coordinator Summary Degree of Effect: 2 Minimal assigned 04/14/2016 by FDOT District 4

Comments:

Changes in existing and future land uses along the corridor are not anticipated as a result of the proposed improvements. FDOT acknowledges the presence Wabasso Scrub Conservation Area within a quarter mile of the Project. Direct impacts to this park are not expected, but FDOT will evaluate this 4(f) resource in accordance with the PD&E Manual. FDOT concurs with FL DEO assignment of a summary degree of effect of MINIMAL to LAND USE CHANGE.

Degree of Effect: 2 Minimal assigned 03/04/2016 by Matt Preston, FL Department of Economic Opportunity

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Comprehensive Plan(s) Reviewed:

Indian River County 2030 Comprehensive Plan. Specifically, the Future Land Use Element, Transportation Element, and the Capital Improvements Element were reviewed. The City of Sebastian Future Land Use Map 2025 (2008), and the City of Sebastian Zoning Map, 2015.

Comments on Effects to Resources:

Compatibility with Community Development Goals and Comprehensive Plan:

The project is compatible with the City and County development goals and Comprehensive Plans.

Future Transportation Map:

The project is included in the Capital Improvements Element (map and table) of the *Indian River County 2030 Comprehensive Plan*. It is also included in the Indian River Metropolitan Planning Organization's (MPO) most recently adopted 2035 Long Range Transportation Plan (LRTP). This plan prioritizes roadway improvements through a 25 year planning horizon.

Land Uses:

The Future Land Uses surrounding the project include: For the City of Sebastian, Very Low Density Residential, Low Density Residential, Commercial Limited, and Commercial General. For Indian River County, Agricultural 1 to the south - (permits 1 Dwelling Unit per 5 acres), Low-Density Residential (up to 3 units/acre), Rural Residential (up to 1 unit/acre), Conservation-2 (up to 1 unit/40 acres), and Commercial/Industrial.

Parks:

The proposed project is located within a quarter mile of the following County parks: *Wabasso Scrub Conservation Area* - This site is composed of xeric scrub and pine flatwoods plus a few acres of freshwater wetlands. It is a key property for the Sebastian area-wide Florida scrub jay habitat conservation plan. *South Prong Slough Conservation Area* - The southern portion of this conservation area

(Shadowbrook Tract) consists of ruderal areas and freshwater wetlands. *Ansin Tract* - This property contains primarily pine flatwoods with small amounts of hardwood hammock and freshwater wetlands.

Area of Critical State Concern (ACSC), Coastal High Hazard Area (CHHA), and Military Bases:

The project is not located within an Area of Critical State Concern, or the CHHA; nor does it encroach on any military bases.

Other Planning-Related Items:

The proposed enlarging of County Road 510 from two to four lanes around the south end of the City of Sebastian will ensure road traffic level of service is maintained as future growth occurs and will support such additional development in this currently undeveloped County-City boundary area (see map above). The road expansion serves as a major arterial corridor link from the coast to Interstate 95 inland (via County Road 512 that is being increased from four to six lanes from its intersection with C.R. 510 to I-95).

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No additional comments.

Comments on Effects to Resources:

No additional comments.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 02/11/2016 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Within the 500-ft and 1320-ft buffers, the GIS Analysis identified:

500-ft Buffer:

Agriculture - Rural Land, Farms < 0.5 Dwelling Units. : 182.5 Acres / 27.76%

Commercial, Office, Tourism, Marina: 48.9 Acres / 7.44%

Conservation, Natural and Protected: 26.8 Acres / 4.08%

Residential Lo Higher than Ag < 1 Dwelling Unit: 39.1 Acres / 5.95%

Residential Medium More than RI, < 13 Dwelling Units: 357.8 Acres / 54.44%

1320-ft Buffer:

Agriculture - Rural Land, Farms < 0.5 Dwelling Units. : 482.3 Acres / 26.68%

Commercial, Office, Tourism, Marina: 107.2 Acres / 5.93%

Conservation, Natural and Protected: 70.6 Acres / 3.91%

Residential Lo Higher than Ag < 1 Dwelling Unit: 144.4 Acres / 7.99%

Residential Medium More than RI, < 13 Dwelling Units: 992.6 Acres / 54.91%

In addition, 2 planned unit developments were within the project area.

Comments on Effects to Resources:

Changes in existing and future land uses along the corridor are not anticipated as a result of the proposed improvements. The 2030 Indian River County Future Land Use Map revised on January 12, 2016 maintains the current use patterns, mainly agricultural and industrial, for the land adjacent to the project corridor. These improvements will support the current and future land use patterns of the area and increase operational capacity to meet future mobility needs of the growing population. The proposed improvements are identified as a cost feasible project in the County 2035 Long Range Transportation Plan LRTP and included in the MPO Fiscal Year (FY) 2015/16-2019/20 Transportation Improvement Plan (TIP). The proposed widening of this segment of CR 510 to convert it from 2-lanes undivided to a 4-lanes divided facility require right of way, but impacts to land use are not anticipated. **Therefore, it is anticipated that the effect to Land Use Changes will be Minimal.**

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Social

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/14/2016 by FDOT District 4

Comments:

GIS analysis indicated resources within the vicinity of corridor and this project is not expected to impact them. FDOT acknowledges USEPA comment on low-income, disadvantaged, minority and other special populations (including Indian tribes) in the project area. Widening this segment of CR 510 from 2 lanes undivided to 4 lanes divided will enhance mobility and create the opportunity to improve transit in the area. As such, this project is not anticipated to impact people below the poverty level who live in the vicinity of the corridor. Instead, this project has the ability to help satisfy their transportation needs. LEP populations will be taken into consideration during the Public Involvement process. FDOT will perform a Socio-Cultural Effects Evaluation as part of this PD&E study and concurs with USEPA assignment of a summary degree of effect of MINIMAL to Social changes. FDOT concurs with both US Environmental Protection Agency and FHWA assignment of a degree of effect MINIMAL to SOCIAL.

Degree of Effect: 2 *Minimal* assigned 03/06/2016 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

Sociocultural Effects (SCE) Evaluation Technical Memorandum (PD&E Manual, Part 2, Chapter 13; FDOT's Sociocultural Effects Evaluation Handbook) that addresses ETAT concerns and specifications in FDOT's Scope of Services for the PD&E

Direct Effects

Identified Resources and Level of Importance:

Resources: Low-income, disadvantaged, minority, and other special populations (including Indian tribes)

The importance of ensuring that these populations are not disproportionately impacted is discussed in FDOT's ETDM Manual, PD&E

Manual, Sociocultural Effects Evaluation Handbook, and Public Involvement Handbook. Applicable authorities include, but are not limited to:

- Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations [February 11, 1994];
- Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks [April 21, 1997];
- USDOT Order 5610.2: Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations [April 1997]; and,
- USDOT Order 6640.23: FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations [December 1998].

Note: See the comprehensive listing of relevant legal authorities in FDOT's Sociocultural Effects Evaluation Handbook.

In addition to special populations, sociocultural resources of concern include residential areas, commercial businesses, churches, schools, daycare facilities, group care and retirement centers, medical and emergency response facilities, police stations, cultural and community centers, and environmentally protected lands.

Comments on Effects to Resources:

Based on available information, including the EST and the USEPA's EJSCREEN tool (<http://www2.epa.gov/ejscreen>), the project could have disproportionately high and adverse human health or environmental effects on low-income, minority, or other special populations.

As noted in the Preliminary Environmental Discussion Comments Report, low-income populations are present in the project corridor. Presence of these populations may be attributable to the seasonal employment rates characteristic of the service and citrus industries (see page 36 in Indian River County's Comprehensive Plan, Chapter 5 - Economic Development Element, http://www.irccdd.com/planning_division/CP/2030/Ch05-Economic-Development.pdf). The high percentage of "elderly households" (i.e., retirees) in the county may also be a factor in the low income rates (see page 26 in Indian River County's Comprehensive Plan, Chapter 7 - Housing Element http://www.irccdd.com/planning_division/CP/2030/Ch07-Housing.pdf).

Given the potential need for considerable right-of-way in an area dominated by agricultural lands that have experienced major financial setbacks in recent years (<http://insidevero.com/2015/01/07/is-there-a-future-for-indian-river-citrus/>), the FDOT should ensure that the project does not have disproportionately high or adverse impacts on agricultural land owners and workers.

Children's health is also a concern given the presence of the following resources in the project corridor:

- Sebastian River High School, 9001 90th Avenue, Sebastian, FL 32958
- Treasure Coast Elementary School, 8955 85th Street, Vero Beach, FL 32958
- Redlands Christian Migrant Association (RCMA) Children's House, 7625 85th Street, Vero Beach, FL 32967 (<http://www.rcma.org/areas.asp?Area=G>)

The USEPA recommends evaluating potential project impacts, including air quality and noise, on children's health and safety during PD&E. Guidance for this evaluation is available online at: <http://www.epa.gov/children>

Other social resources of concern that require avoidance, minimization and mitigation of project impacts include:

- Allen Chapel AME Church, 6425 85th Street, Wabasso, FL 32970 (<http://www.tcpalm.com/specialty-publications/vero-beach/allen-chapel-seeks-funds-to-help-serve-wabasso-for-another-100-years-28204dad-c984-2dec-e053-0100007-364108421.html>)
- St Sebastian River Greenway/South Prong Preserve (http://www.irlt.org/cfiles/projects_sebastianriver.cfm#)
- Wabasso Scrub Conservation Area (http://www.ircgov.com/departments/general_services/parks/conservation/Wabasso_Scrub_Conservation_Area.htm).

According to the Project Description, "[d]uring the PD&E Study an extensive public involvement program will be conducted to obtain public input." However, performing preliminary outreach to ascertain which public involvement activities will be appropriate was not addressed. The USEPA recommends conducting a comprehensive Sociocultural Effects Evaluation to identify community concerns and preferences.

Furthermore, a proactive public involvement approach should be implemented to encourage all residents and businesses within the project area to provide input into this project. In particular, property owners and businesses that abut CR 510 and depend on it for access should be encouraged to provide recommendations on minimizing impacts.

The FDOT's Scope of Services for Project Development and Environment (PD&E) Studies for this project (<http://www2.dot.state.fl.us/procurement/ProfessionalServices/advertise/pdf/16448.pdf>) indicated that the following social issues need further study:

- Community Cohesion: identification of physical barriers, traffic pattern changes, social pattern changes, and loss of connectivity to community features and facilities.
- Community Facilities and Focal Points: Schools, churches, parks, emergency facilities, social services, day care facilities, retirement centers, community centers, and retail locations.
- Safety/Emergency Response: creation of isolated areas, emergency response time changes, location of police, fire, emergency medical services, healthcare facilities, and government offices.
- Title VI/VIII: Location of any Title VI/VIII involvement, minority displacement, special populations.
- Community Goals and Quality of Life: social value changes, compatibility with community goals and vision.

Consistent with our comments, the USEPA urges evaluation of these issues.

Of note is that the PED emphasizes multi-modal transportation and "[enhancing] corridor access for transit uses, bicyclists, and pedestrians." Therefore, it is not clear why no mention is made of incorporating bicycle lanes in the roadway widening as prescribed in the Indian River County Bicycle & Pedestrian Master Plan, February 2015, http://www.irmpo.com/Documents/BPP/BIKEPED_2015.pdf

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Direct and indirect impact to affected special populations, communities, businesses, and social resources should be avoided, minimized, or mitigated to the best extent practicable.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Population in the study area is diversified in terms of race, ethnicity and poverty level.

Comments on Effects to Resources:

Public Involvement Plan should address the Environmental Justice and access to limited English proficiency population.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 02/11/2016 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

GIS Analysis identified the following resources within the 500-ft and 1320-ft buffers:

Sebastian River Middle School
Treasure Coast Elementary School
North Indian River County Library
Several Churches
North Canal
Sebastian / Fisher Community
Sebastian Annex Community
South Sebastian Highlands Community
Vero Lake Community
Wabasso Community
Saint Sebastian River Preserve State Park
Wabasso Scrub Conservation Area
South Prong Slough Conservation Area
Ansin Tract
Bridge Structures: 880047, 880063 and 880044

Comments on Effects to Resources:

According to the 2010 US Census, the population of Indian River County was 138 028 with the following breakdown:

Caucasian Americans: 116,346 (84.0%)
Hispanics or Latinos: 15,465 (11.0%)
African-Americans or Blacks: 12,397(8%)
Some Other Race Other: 4,909 (3.0%)
Asian Americans: 1,666 (1%)
Two or More Races: 2251 (1.0%)
American Indians: 408 (Below 1.0%)
Three or More Races: 151 (Below 1.0%)

According to the Bureau of Economic and Business Research, Indian River County population is projected to exceed 210,000 by the year 2040, using an approximate annual increase rate of 1.72%. As the County's population continues to grow, traffic volumes on the existing the roadways will also increase significantly resulting in unacceptable level of service. The proposed improvements will alleviate congestion and will improve access for citizens to and from the businesses and community centers.

As part of the evacuation route network established by the Florida Division of Emergency Management, CR 510 plays an important role in facilitating traffic movement during emergency evacuation periods. Widening this segment of CR 510 will help enhance evacuation and response times by:

Improving access to other emergency evacuation routes designated by the Florida Division of Emergency Management (CR 510, CR 512, and I-95); and

Increasing the number of residents from the coastal communities of eastern Indian River County that can be evacuated during an emergency event.

This roadway provides access to commercial, educational, residential and agricultural lands. The project is anticipated to support the Indian County Infill Alternative Land Use scenario which will encourage higher densities and mixed-use development. Overall, the project is expected to accommodate multi-modal facilities. Premium transit service will be considered on CR 510 to serve and

connect the transit-supportive land uses and sidewalks and bike lanes will also be considered as part the corridor widening. The provision of these multimodal amenities will enhance mobility and promote social interaction/activity within the community and improve conditions for transportation disadvantaged people in the project area.

The proposed widening is not anticipated to have any impacts to existing community centers, churches and existing/proposed industrial or residential developments along the project corridor. **Therefore, it is anticipated that the effect to Social will be Minimal.**

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Public involvement strategies to reach transportation disadvantaged persons should be employed during the PD&E study. The GIS analysis for languages of the 2010 census tracks within the project area indicated that approximately 3% of the population is reported to either "Not Speak English at all" or "Speak English not well". Transportation projects using federal funding are required to satisfy the Executive Order 13166: "Improving Access to Services for Persons with Limited English Proficiency (LEP)." Chapter 11 of the Project Development and Environment (PD&E) Manual provides detailed guidance on LEP. Therefore, it is recommended to include strategies to disseminate information during the implementation of the Public Involvement Program that the Department will undertake as part of the future PD&E study.

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Relocation Potential

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/14/2016 by FDOT District 4

Comments:

GIS analysis indicated some residential, commercial and institutional properties within the vicinity of the corridor, but this widening is not expected to affect them. The proposed improvements are anticipated to be accommodated within the existing right of way. Some minor acquisition may be required but relocating property or business owners is not expected. If required, 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 (as amended by the Public Law 100-17.) .FDOT concurs with FHWA assignment of a degree of effect Minimal to RELOCATION POTENTIAL.

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Map and report doesn't show residences or businesses within a considerate distance to be relocated.

Comments on Effects to Resources:

Survey and design will discuss any possible relocation.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **2** *Minimal* assigned 02/11/2016 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Within 500-ft and 1320-ft buffers, the GIS Analysis identified:

High Density under Construction: 13.5 Acres
Low Density under Construction: 133.9 Acres
Medium Density under Construction: 34.6 Acres
Residential, Low Density - Less Than 2 Dwelling Units: 93.3 Acres
Residential, Medium Density, 2-5 Dwelling Units: 372.1 Acres
Rural Residential: 28.5 Acres
Sebastian High School
Treasure Coast Elementary School

Currently, the land use along CR 510 is mainly industrial and agricultural with some residential and commercial parcels and 2 schools. The 2030 Indian County Future Land Use Map does not indicate any major changes to the land use patterns.

Comments on Effects to Resources:

The proposed improvements are expected to be accommodated within the existing right of way. A drainage analysis will be performed to determine the need for off-site ponds. Depending on the recommended drainage system and final roadway design, some right of way acquisition may be required. Most of the land along the corridor is vacant or agriculture. Therefore, it is unlikely that the R/W acquisition would result in relocations.

A Conceptual Stage Relocation Plan will be prepared if right of way acquisition or relocations are determined to be necessary during the PD&E phase. If required, 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 (as amended by the Public Law 100-17.).

Therefore, it is anticipated that the effect to Relocation Potential will be Minimal.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Farmlands

Project Effects

Coordinator Summary Degree of Effect: **3** *Moderate* assigned 04/14/2016 by FDOT District 4

Comments:

GIS analysis indicated soils designated as Farmland of Unique Importance at all buffer widths from the project footprint of the proposed project. There are 117.2 acres of Farmland of Unique Importance at the 100 foot buffer, 235.1 acres At the 200 foot buffer, 595.2 acres at the 500 foot buffer width. The proposed widening of this segment of CR 510 is anticipated to be within the right of way. Drainage design may require additional right of way and a Pond Siting analysis will be performed to determine suitable sites. However, FDOT agrees with the reviewer on the importance of farmlands and the limited impacts due to the nature of the

project which includes widening within the existing public right of way. FDOT in collaboration with the county will make every effort to limit the impacts to farmlands along the corridor to a minimum. FDOT acknowledges FHWA and NRCS assignment degree of effect of MODERATE to FARMLANDS.

Degree of Effect: **3** *Moderate* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Resources have been identified in the report.

Comments on Effects to Resources:

Impacts should be avoided and minimized as much as possible with the widening of the existing roadway.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **3** *Moderate* assigned 01/11/2016 by Rick Allen Robbins, Natural Resources Conservation Service

Coordination Document: To Be Determined: Further Coordination Required

Coordination Document Comments:

The GIS analysis data indicates that approximately 45% percent of the total project area is classified as Farmland of Unique Importance that is in agricultural production.. The Farmland Protection Policy Act (FPPA) (PL 97-98; 7 U.S.C. 4201 et seq.) was enacted to protect the amount of open farmland which has substantially decreased as a result of land use changes. It states that Federal programs which contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses will be minimized. Agencies are also to consider alternative actions and ensure that their programs are compatible with state and local government programs.

Environmental assessments must be prepared for actions which may adversely affect such unique geographic characteristics as prime farmlands. The regulations apply to construction activities, development grants and loans, and certain Federal land management decisions that contribute either directly or indirectly to loss of farmland.

An Farmland Protection Policy Act (AD-1006) environmental assessment may be required for this project.

Direct Effects

Identified Resources and Level of Importance:

The USDA-NRCS considers soil map units with important soil properties for agricultural uses to be Prime Farmland. In addition, the USDA-NRCS considers any soils with important soil properties and have significant acreages that are used in the production of commodity crops (such as, cotton, citrus, row crops, specialty crops, nuts, etc.) to be considered as Farmlands of Unique Importance or Farmlands of Local Importance. Nationally, there has been a reduction in the overall amount of Prime and Unique Farmlands through conversion to non-farm uses. This trend has the possibility of impacting the nation's food supply and exporting capabilities.

Comments on Effects to Resources:

Conducting GIS analysis of Prime Farmland (using USDA-NRCS data) and Important Farmland Analysis ((using 2009 SJRWMD data and 2014 SSURGO data) has resulted in the determination that there are soils designated as Farmland of Unique Importance at all buffer widths within the Project footprint. In addition, there are areas currently used for agricultural production at all buffer widths.

At the 100 foot buffer width, there are 117.2 acres of Farmland of Unique Importance. At the 200 foot buffer width, there are 235.1 acres of Farmland of Unique Importance. At the 500 foot buffer width, there are 595.2 acres of Farmland of Unique Importance. Land

used for agricultural production (Citrus, Pastures)) ranges from 51.1 acres at the 100 foot buffer width to 270.9 acres at the 500 foot buffer width.

More importantly, land in agricultural use (primarily Citrus groves and pasture) that also classifies as Farmland of Unique Importance ranges from 56.5 acres at the 100 foot buffer width to 302.0 acres at the 500 foot buffer width. This combination of Important Farmland that is agricultural production amounts to approximately 45% of the Project footprint.

Under normal conditions, this project would have been assigned a rating of Substantial degree of effect. However, since this is a Widening Project, we have downgraded the Degree of effect to Moderate.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

An important note concerning Prime Farmland, Unique Farmland, and Locally Important Farmland soils:

It is important to remember that when agricultural lands that support commodity and other types of crops intersect Farmlands of Prime, Unique, or Local Importance, there will be a net loss of an important agricultural and national resource.

Once these important farmland soils have been truncated, heavily modified, or filled upon, the inherent soil properties that made these soils productive (and worthy of these farmland designations) will be lost. Even with land use designation shifts from rural to urban, the future needs and requirements of society as a whole should always be considered. The change in land use designations are temporal when based on scales of human and geologic time.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Land use implications associated with widening projects tends to place additional development pressures on adjacent agricultural lands. Careful planning and land use change considerations should be paramount during the Review process..

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Aesthetic Effects

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/14/2016 by FDOT District 4

Comments:

The GIS analysis did not identify any special aesthetic features within the project limits. The project will consider multimodal enhancements including sidewalks, bicycle lanes, and transit accommodations as well as coordination with the county since CR 510 is designated as a proposed greenway corridor within the 2035 LRTP. In summary, the widening of this segment of CR 510 from 2 to 4 lanes is not anticipated to impact any landscape or aesthetic features and concurs with FHWA to assign a degree of effect of MINIMAL to Aesthetics.

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No additional resources other than the one noted in the report.

Comments on Effects to Resources:

Minimal effects are expected as the project would increase widening the roadway.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 02/11/2016 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

GIS Analysis did not identify any landscape or aesthetics resources within the 500-ft or 1320-ft buffer from the project corridor, but the following was noted:

High Density under Construction: 13.5 Acres

Low Density under Construction: 133.9 Acres

Medium Density under Construction: 34.6 Acres

Residential, Low Density - Less Than 2 Dwelling Units: 93.3 Acres

Residential, Medium Density, 2-5 Dwelling Units: 372.1 Acres

Rural Residential: 28.5 Acres

Sebastian High School

Treasure Coast Elementary School

Comments on Effects to Resources:

The overall character of CR 510 project corridor is agricultural and rural low density residential. The eastern portion of the project has limited residential properties, and is flanked by agricultural and in some cases potential historic houses. However, further west along the project corridor an urban trend is setting in with two schools and mostly residential properties including a shopping plaza with community services. There are no landscape or aesthetic resources unique to the community and its environment along the project corridor. Widening this facility from a 2-lane to a 4-lane arterial is in Indian River County 2035 Long Range Transportation Plan (LRTP)

The project will consider multimodal facilities including sidewalks, bike lanes, and transit accommodations. CR 510 is designated as a Proposed Greenway Corridor in the 2035 LRTP. During the study, coordination with the county should be maintained in regards to the vision for this Greenway Corridor.

The proposed project will result in increased traffic that may create noise issues to residential or potential other noise sensitive receptors located in the immediate area. A noise study will be performed to assess these potential impacts and recommend feasible and reasonable countermeasures. The residential homes located within 500-ft of the proposed project may be susceptible to temporary noise or vibration effects resulting from construction activities. Should vibration sensitive sites be identified, they should be coordinated with during construction. In summary, the widening of this segment of CR 510 from 2 to 4 lanes is not anticipated to impact any landscape or aesthetic features. **Therefore, it is anticipated that the effect to Aesthetics will be Minimal.**

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Economic

Project Effects

Coordinator Summary Degree of Effect: **1** *Enhanced* assigned 04/14/2016 by FDOT District 4

Comments:

Several generators, including two (2) major employers: Publix Supermarket and Winn-Dixie, were also identified within the 500-ft & 1320-ft buffers. The CR 510 widening project corridor will support current trips to and from the two major employers and other businesses along the corridor and will serve the future travel demand needs to and from the growth area. The Indian River County L RTP Public Process and Land Use Vision Plan identified the area as part of the "infill and clustered" area where growth in economic activities is anticipated. Overall, this project will help support business development and promote job creation in the area surrounding the corridor. FDOT concurs with FDEO to assign a degree of effect ENHANCED to Economics.

Degree of Effect: **1** *Enhanced* assigned 03/04/2016 by Matt Preston, FL Department of Economic Opportunity

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Comprehensive Plan(s) Reviewed:

Indian River County 2030 Comprehensive Plan. Specifically, the Future Land Use Element, Transportation Element, and the Capital Improvements Element were reviewed. The City of Sebastian Future Land Use Map 2025 (2008), and the City of Sebastian Zoning Map, 2015.

Comments on Effects to Resources:

The project is not located within a Rural Area of Opportunity. As it was mentioned in the land use portion of this project review, there is potential to attract new development, in that the proposed enlarging of County Road 510 from two to four lanes around the south end of the City of Sebastian will ensure road traffic level of service is maintained as future growth occurs and will support such additional development in this currently undeveloped County-City boundary area. The road expansion serves as a major arterial corridor link from the coast to Interstate 95 inland (via County Road 512 that is being increased from four to six lanes from its intersection with C.R. 510 to I-95). That, in turn, could also increase the potential of generating additional employment opportunities.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **1** *Enhanced* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Local businesses have been identified in the report and the map.

Comments on Effects to Resources:

Local businesses could also benefit with the additional capacity on the CR-510.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **1** *Enhanced* assigned 02/11/2016 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Within 500-ft & 1320-ft buffers, the GIS Analysis identified 1815 out of 13399 households below the poverty levels in 2010. Several generators, including two (2) major employers: Publix Supermarket and Winn-Dixie, were also identified within the 500-ft & 1320-ft buffers.

Comments on Effects to Resources:

Indian River County is one of the fastest growing counties in Florida. The population is expected to increase from 130,028 in 2010 to an excess of 210,000 in 2040. However, employment will be outpaced by population growth since the jobs are expected to only increase by about 39% from 65244 in 2014 to 90968 in 2040 as per the Bureau of Economic and Business Research. Indian River County a median household income of \$ 47,341, the GIS analysis indicated that 1815 of 13399 households still live under poverty level. The Economic Development Positioning Analysis and Action Plan sponsored by the Board of County Commissioners is promoting policies that would help diversify the County the tax base, create quality jobs and foster economic development activity.

The CR 510 widening project corridor will support current trips to and from the two major employers and other businesses along the corridor and will serve the future travel demand needs to and from the growth area. The County LRTP Public Process and Land Use Vision Plan identified the area as part of the "infill and clustered" area where growth in economic activities is anticipated.

Overall, this project will help support business development and promote job creation in the area surrounding the corridor.

Therefore, it is anticipated that the effect to Economics will be Enhanced.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Mobility

Project Effects

Coordinator Summary Degree of Effect: **1** *Enhanced* assigned 04/14/2016 by FDOT District 4

Comments:

The proposed improvements will improve access to the facility for residents of the area during evacuation times. As an east-west evacuation route, widening this segment of CR 510 will allow Emergency Management to expedite the evacuation of the residents. This project will also improve the connectivity, mobility, emergency response and evacuation access to I-95, access to residences and businesses along the corridor and movement of goods and people between Indian County and surrounding counties. FDOT assigns the degree of effect as ENHANCED for Mobility.

Degree of Effect: **1** *Enhanced* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Additional capacity on the roadway and multimodal facilities would benefit the mobility of the corridor.

Comments on Effects to Resources:

Additional capacity on the roadway and multimodal facilities would benefit the mobility of the corridor.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **1** *Enhanced* assigned 02/11/2016 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Within the project area, the GIS Analysis identified the following resources:

Bridges # 880047, 880063, 880044

Bus Transit Routes: Route 9

Comments on Effects to Resources:

Comments on Effects to Resources:

CR 510 is classified as an Urban Principal Arterial. It is a major west-east link as that connects to the main north-south roadways such as Interstate 95 (I-95) to S.R. A1A in Indian River County. This roadway provides access to commercial, educational, residential and agricultural uses. CR 510 promotes network connectivity and mobility within the county. The proposed project will increase the capacity of CR 510 by widening it from a 2-lane undivided facility to a 4-lane divided facility in order to meet the future travel demand and increase mobility in the county. The bridges along the corridor will be widened or replaced to accommodate the new typical section. This project will consider multi modal facilities including sidewalks, bike lanes and transit. Opportunity to enhance the transit amenities that serve the existing Bus Transit Route 9 and additional transit considerations will be evaluated as part of this study.

The proposed improvements will improve access to the facility for residents of the area during evacuation times. As an east-west evacuation route, widening this segment of CR 510 will allow Emergency Management to expedite the evacuation of the residents. This project will improve routes connectivity, mobility, emergency response and evacuation access to I-95, access to residences and businesses along the corridor and movement of goods and people between Indian County and surrounding counties. **Therefore, it is anticipated that the effect to Mobility will be Enhanced.**

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

ETAT Reviews and Coordinator Summary: Cultural

Section 4(f) Potential

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/14/2016 by FDOT District 4

Comments:

Within the project corridor, six properties have been identified with potential Section 4(f) involvement: The Sebastian River High School, Treasure Coast Elementary School, St. Sebastian Greenway Corridor, South Prong Slough Conservation Area, Ansin Tract County Park, Wabasso Scrub Conservation Area (SCA). Along with the above mentioned properties, possible historic structures may occur along the project corridor. FDOT will evaluate these section 4(f) resources in accordance with the PD&E Manual and if needed a Section 4(f) Determination of Applicability will be conducted to determine the extent of Section 4(f) involvement. As a result, FDOT concurs with FHWA and assigns the degree of effect MINIMAL to Section 4(f) Potential.

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No additional comments.

Comments on Effects to Resources:

No additional comments.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Historic and Archaeological Sites

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/14/2016 by FDOT District 4

Comments:

A Cultural Resource Assessment Survey (CRAS) of CR-510 was completed in July 2005. An archaeological survey was conducted within the designated 300-foot Area of Potential Effects (APE) for CR-510 from CR-512 to Indian River Bridge for the PD&E study with financial management number 405606-1. Within the APE of the current study section of CR-510 from CR-512 to 58th Avenue two potential archaeological sites were identified which include 8IR1143 [Scatter Plot] and 8IR1142 [Wabasso Scrub]. At this time site, 8IR11743 and 8IR1142 were considered ineligible for inclusion in the National Register of Historic Places (NHRP).

Within the 300-foot APE of CR-510 from CR-512 to 58th Avenue, forty historic-aged structures were identified in the 2005 CRAS. Of those forty structures, none appeared to be eligible for listing on the NRHP. However, some structures are considered to be of local interest and potentially eligible for listing on the Indian River County local register. Since the project involves widening from a 2-lane undivided roadway into a 4-lane divided roadway, the potential for impacts should be considered. Cultural resources will be further evaluated during the PD&E in accordance with the National Historic Preservation Act of 1966. FDOT agrees with FHWA and FDOS and assigns a degree of effect of MINIMAL to Historic and Archeological Sites.

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No resources eligible for the NRHP were identified in the 2005 CRAS.

Comments on Effects to Resources:

It is expected that the project would have minimal or no impacts on historic resources. Additional study is expected to confirm the information.

Recommended Avoidance, Minimization, and Mitigation Opportunities:**CLC Recommendations:****Indirect Effects****Identified Resources and Level of Importance:****Comments on Effects to Resources:****Recommended Avoidance, Minimization, and Mitigation Opportunities:**

Degree of Effect: 2 *Minimal* assigned 02/04/2016 by Daniel McClarnon, FL Department of State

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects**Identified Resources and Level of Importance:**

The Cultural Resource Assessment Survey from 2005 should be updated to include structures previous unrecorded. It is also noted that some of the structures previously recorded may no longer be extant due to hurricane damage. The archaeological survey methodology from the previous work should be reviewed to determine if appropriate for the current APE.

Comments on Effects to Resources:

There is minimal potential for effects to NRHP-eligible resources, but an updated survey should be submitted to confirm.

Recommended Avoidance, Minimization, and Mitigation Opportunities:**CLC Recommendations:****Indirect Effects****Identified Resources and Level of Importance:****Comments on Effects to Resources:****Recommended Avoidance, Minimization, and Mitigation Opportunities:**

The following organization(s) were expected to but did not submit a review of the Historic and Archaeological Sites issue for this alternative: Seminole Tribe of Florida

Recreation Areas**Project Effects**

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/22/2016 by FDOT District 4

Comments:

Several potential recreation resources were identified within the project corridor:

Sebastian High School

Treasure Coast Elementary School

South Prong Slough Conservation Area

St. Sebastian River Greenway Corridor

Ansin Tract County Park

Wabasso Scrub Conservation Area

Direct impacts to these resources are not expected, but they will be further evaluated during the PD&E. FDOT acknowledges the No Involvement assignment by the NRCS and SJRWMD, but FDOT concurs with FHWA, to assign a degree of effect of MINIMAL to Recreation Areas.

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No additional resources.

Comments on Effects to Resources:

Any effects on recreational resources need to be mitigated. Section 4(f) needs to be evaluated as needed.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: N/A *N/A / No Involvement* assigned 02/10/2016 by Nathan Ottoson, Saint Johns River Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

ERP/permit required from SJRWMD

Direct Effects

Identified Resources and Level of Importance:

Listed recreation areas have minimal or no involvement with SJRWMD regulatory issues

Comments on Effects to Resources:

n/a

Recommended Avoidance, Minimization, and Mitigation Opportunities:

n/a

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

n/a

Comments on Effects to Resources:

n/a

Recommended Avoidance, Minimization, and Mitigation Opportunities:

n/a

Degree of Effect: N/A N/A / *No Involvement* assigned 01/14/2016 by Anita Barnett, National Park Service

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

The following organization(s) were expected to but did not submit a review of the Recreation Areas issue for this alternative: FL Department of Environmental Protection

ETAT Reviews and Coordinator Summary: Natural Wetlands and Surface Waters

Project Effects

Coordinator Summary Degree of Effect: 3 *Moderate* assigned 04/22/2016 by FDOT District 4

Comments:

The National Wetlands Inventory ETDM GIS report indicates that there are a total of 23 acres of palustrine wetlands and 2.3 acres of riverine wetlands within the 500-ft buffer of the proposed project. The project area is within the Saint Johns River Water Management District (SJRWMD). The analysis report of the 2009 SJRWMD Wetlands ETDM GIS layer identifies 2 acres of freshwater marshes and 10.8 acres of mixed wetland hardwoods within the 500-ft buffer of the proposed project. Avoidance and minimization along with mitigation strategies will be evaluated through the PD&E process, in order to avoid wetland impacts to the South Prong Slough Conservation Area. Further assessment of wetland impacts will be evaluated in accordance with Executive Order 11990 entitled "Protection of Wetlands" and procedures outlined in Part 2, Chapter 18 of the FDOT Project Development and Environmental Manual. These results will be documented in a Wetlands Evaluation Report. FDOT concurs with FHWA, USACE, SJRWMD, USFWS and NMFS and assigns a degree of effect of MODERATE for Wetlands and Surface Waters.

Degree of Effect: 3 *Moderate* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No additional comments.

Comments on Effects to Resources:

No additional comments.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **3** *Moderate* assigned 02/18/2016 by Tarrie L Ostrofsky, US Army Corps of Engineers

Coordination Document: Permit Required

Coordination Document Comments:

It is likely that a Corps permit would be required for this projects, as the amount of aquatic resources within the project area is high. The project may be evaluated under a Nationwide Permit, SAJ-92, or Individual Permit. It is difficult to determine without understand the amount of proposed impacts.

Direct Effects

Identified Resources and Level of Importance:

According to the information provided, the National Wetlands Inventory ETDM GIS report indicated that there are a total of 23 acres of palustrine wetlands and 2.3 acres of riverine wetlands within the 500-ft buffer of the proposed project. also, the project area is within the Saint Johns River Water Management District (SJRWMD), and the analysis report of the 2009 SJRWMD Wetlands ETDM GIS layer identifies 2 acres of freshwater marshes and 10.8 acres of mixed wetland hardwoods within the 500-ft buffer of the proposed project. Depending on the proposed design, and the functional assessment of existing resources,the level of importance is anticipated to be moderate.

Comments on Effects to Resources:

The effects on the resources would depending on the proposed design and functional assessment of resources. Wetlands adjacent to the existing roadway may be assessed at a lower quality than wetlands further away from the existing roadway, but still within the project area.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

The applicant shall evaluate alternatives which would avoid impacts to resources. If impacts cannot be avoided, impacts shall be minimized. And finally, mitigation shall be evaluated for any unavoidable impacts. The applicant shall demonstrate that impacts have been avoided to the utmost before pursuing mitigation.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Secondary effects would likely occur given the large area of resources within the project area. However, the quality of the existing resources would need to be determined using a functional assessment before secondary effects can be determined. The level of importance of secondary effects is anticipated to be moderate.

Comments on Effects to Resources:

Existing wetlands which had previously not been disturbed would likely experience secondary effects as a result of the construction of the improved roadway. Additionally, a higher volume of vehicles would result in an increase of fuels which may spill onto the roadway and ultimately into adjacent wetlands, not directly impacted by the new construction.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

The applicant shall evaluate secondary effects by considering increase of vehicles, reduction of vegetation which would reduce shading, hydrology which the wetlands are currently receiving, etc. After evaluating avoidance measures, the applicant shall investigate minimization efforts and finally mitigation if secondary impacts are proposed.

Degree of Effect: **3** *Moderate* assigned 02/10/2016 by Nathan Ottoson, Saint Johns River Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

ERP/permit from SJRWMD needed for this project

Direct Effects

Identified Resources and Level of Importance:

Wetlands and surface waters within limits of this project will need to be evaluated and reviewed by SJRWMD (as part of ERP/application process.)

Comments on Effects to Resources:

effects to resources should be addressed

Recommended Avoidance, Minimization, and Mitigation Opportunities:

contact SJRWMD staff to discuss mitigation options or ideas

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

n/a

Comments on Effects to Resources:

n/a

Recommended Avoidance, Minimization, and Mitigation Opportunities:

n/a

Degree of Effect: 3 *Moderate* assigned 02/10/2016 by Brandon Howard, National Marine Fisheries Service

Coordination Document: Tech Memo Required

Coordination Document Comments:

EFH assessment

Direct Effects

Identified Resources and Level of Importance:

Magnuson-Stevens Act and Fish and Wildlife Coordination Act: The portion of the project the crosses the South Prong of the St. Sebastian River is essential fish habitat (EFH) for white shrimp (*Litopenaeus setiferus*). A future interagency site visit will be conducted to verify this determination. The South Atlantic Fishery Management Council (SAFMC) designates forested palustrine wetlands as EFH for juvenile white shrimp. The project would impact moderate to low quality freshwater marsh.

Comments on Effects to Resources:

Impacts to these wetlands should be sequentially avoided, minimized, and compensated with mitigation. FDOT should explore expanding only within the right-of-way. This would demonstrate that adequate avoidance measures have been taken. If the project continues to PD&E without this sequential mitigation, NMFS would likely find it necessary to issue EFH conservation recommendations, assuming the site inspection confirms EFH is present.

With expansion of the road, impervious surface area will be replaced or expanded. Surface and stormwater runoff into the surrounding waters may result. The discharge of hydrocarbons and other contaminants may degrade water quality. Subsequently, NOAA trust resources located in the receiving waters could be adversely affected. To the extent practicable, runoff from the new roads should be treated before being discharged into the canal.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

NMFS recommends that the following measures be taken as project development progresses from Programming to PD&E, design, and construction phases:

- 1) Adverse impacts to wetlands should be sequentially avoided and/or minimized, and unavoidable impacts should be offset in a manner that precludes a net loss of wetland function.
- 2) A habitat characterization of the wetlands within the project site, including the size and location of wetlands that would be directly and/or indirectly impacted by the proposed project should be prepared.
- 3) Information on measures to avoid and/or minimize adverse impacts to EFH (if present) within the vicinity of the project site should be identified.

4) Conservation measures (i.e., best management practices for water quality and erosion control) should be included in the project design and implemented during project construction.

5) A Stormwater Management Plan for containment/treatment of surface and stormwater runoff from impervious surfaces should be prepared. Treatment should be in accordance with state and federal (NPDES) standards. Details of the stormwater plan should include location, area, and cross section of proposed stormwater swales, and/or ponds and information on wetland vegetation planting if proposed.

6) A mitigation plan should be developed that includes the following items:

Detailed overview and cross-sectional drawings of the mitigation area(s) with elevations.

A vegetative planting plan for the mitigation site.

A detailed description of the proposed mitigation plan, including success criteria. The mitigation plan should contain sufficient detail to ensure no net loss of wetland functions and values as a result of project authorization.

A functional assessment such as the Uniform Mitigation Assessment Method (UMAM) should be prepared for the impact and mitigation sites.

7) Timely coordination between NMFS and FDOT staff should continue through project planning and until environmental issues are addressed and resolved.

Endangered Species Act: We are not aware of any threatened or endangered species or critical habitat under the purview of NMFS that occur within the project area. However, it should be noted that a "no effect" determination must be made by the action agency and the reasoning underlying the determination should be documented in a project file. Please coordinate closely with the U.S. Fish and Wildlife Service for other species listed under the Endangered Species Act that may require consultation.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **3** *Moderate* assigned 01/14/2016 by John Wrublik, US Fish and Wildlife Service

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Wetlands

Comments on Effects to Resources:

Wetlands provide important habitat for fish and wildlife, and are known to occur within the project area. We recommend that these valuable resources be avoided to the greatest extent practicable. If impacts to these wetlands are unavoidable, we recommend the FDOT provide mitigation that fully compensates for the loss of important resources.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

The following organization(s) were expected to but did not submit a review of the Wetlands and Surface Waters issue for this alternative: FL Department of Environmental Protection, US Environmental Protection Agency

Water Quality and Quantity

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/22/2016 by FDOT District 4

Comments:

The existing drainage consists of swales collecting the sheet flow runoff and conveying the runoff to nearby irrigation ditches and canals. Currently, there are multiple culverts, cross drains, and side drains throughout the project corridor. Future drainage features will depend on the recommended drainage system and may require ponds to accommodate the additional runoff which will result from the added impervious area. This project is not located within the boundaries of a sole source aquifer or an Outstanding Florida Waters (OFW). However, the Indian River Lagoon (IRL) is ultimately the receiver of all drainage waters from the project corridor. The IRL is an Aquatic Preserve therefore under Florida Administrative code 62-302.700 (9) is considered an OFW. A Water Quality Impact Evaluation (WQIE) will be completed as per Chapter 20 of the FDOT PD&E manual. The WQIE will comply with the goals of the Clean Water Act (CWA). FDOT concurs with FHWA and SJRWMD and assigns a degree of effect of MINIMAL to Water Quality and Quantity.

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No additional comments.

Comments on Effects to Resources:

No additional comments.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 02/10/2016 by Nathan Ottoson, Saint Johns River Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

ERP/permit needed from SJRWMD prior to start of construction of planned improvements

Direct Effects

Identified Resources and Level of Importance:

For portions of the project that discharge to an OFW or aquatic preserve, an additional 50 percent stormwater treatment will be needed (supplemental to minimum requirements).

Comments on Effects to Resources:

Minimal effects to resources if adequate stormwater treatment facilities and measures are proposed

Recommended Avoidance, Minimization, and Mitigation Opportunities:

n/a

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

n/a

Comments on Effects to Resources:

n/a

Recommended Avoidance, Minimization, and Mitigation Opportunities:

n/a

The following organization(s) were expected to but did not submit a review of the Water Quality and Quantity issue for this alternative: FL Department of Environmental Protection, US Environmental Protection Agency

Floodplains

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/14/2016 by FDOT District 4

Comments:

The western portion of the project area and the portion through South Prong Slough are located within Zone AE of the 100-year floodplain. FDOT acknowledges the need for an ERP permit for this project and will file the required application in due time. FDOT will perform a floodplain analysis in accordance with PD&E and Drainage Manuals. FDOT concurs with FHWA and SJRWMD to assign a degree of effect of MINIMAL for Floodplains.

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No additional comments.

Comments on Effects to Resources:

No comments.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 02/10/2016 by Nathan Ottoson, Saint Johns River Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

Project requires an ERP/permit from SJRWMD for improvements--to be obtained prior to construction commencement

Direct Effects

Identified Resources and Level of Importance:

impacts to the 100 year floodplain would not be regulated by SJRWMD but may be reviewed and regulated by the local water Control districts

Comments on Effects to Resources:

minimal

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Suggestion: to provide no net Loss of floodplain storage if impacts are proposed

CLC Recommendations:**Indirect Effects****Identified Resources and Level of Importance:**

n/a

Comments on Effects to Resources:**Recommended Avoidance, Minimization, and Mitigation Opportunities:**

n/a

Wildlife and Habitat**Project Effects**

Coordinator Summary Degree of Effect: 4 *Substantial* assigned 04/14/2016 by FDOT District 4

Comments:

The proposed project is located within the U.S. Fish and Wildlife Service (USFWS) Consultation Areas for the Audubon's crested caracara, Florida scrub jay (multiple known families in Wabasso SCA); Florida grasshopper sparrow, red cockaded woodpecker, and Everglade snail kite. The corridor is also within the Core Foraging Area (CFA) of six wood stork nesting colonies. Based on a review of the Florida Fish and Wildlife Conservation Commission (FWC) eagle nest database, the closest documented eagle nest is located approximately two miles north of the project limits. During the PD&E Study, documentation and consultation regarding listed species and potential project effects will be documented within the ESBA. FDOT will prepare an Endangered Species Biological Assessment for the project as part of the PD&E Study. Based on the potential for the occurrence of listed species, FDOT acknowledges the assignment of MODERATE by FFWCC and SUBSTANTIAL by USFWS for Wildlife and Habitat. At this time FDOT assigns a degree of effect of SUBSTANTIAL to Wildlife and Habitat.

Degree of Effect: 0 *None* assigned 03/01/2016 by Steve Bohl, FL Department of Agriculture and Consumer Services

Coordination Document: No Involvement

Direct Effects**Identified Resources and Level of Importance:****Comments on Effects to Resources:****Recommended Avoidance, Minimization, and Mitigation Opportunities:****CLC Recommendations:****Indirect Effects****Identified Resources and Level of Importance:****Comments on Effects to Resources:****Recommended Avoidance, Minimization, and Mitigation Opportunities:**

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Species have been identified and based on the information provided a survey would be needed during the PD&E for accurate information.

Comments on Effects to Resources:

Species have been identified and based on the information provided a survey would be needed during the PD&E for accurate information.

Recommended Avoidance, Minimization, and Mitigation Opportunities:**CLC Recommendations:****Indirect Effects****Identified Resources and Level of Importance:****Comments on Effects to Resources:****Recommended Avoidance, Minimization, and Mitigation Opportunities:**

Degree of Effect: 4 *Substantial* assigned 02/18/2016 by John Wrublik, US Fish and Wildlife Service

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects**Identified Resources and Level of Importance:**

Federally listed species and fish and wildlife resources

Comments on Effects to Resources:

Federally-listed species -

The Service has reviewed our Geographic Information Systems (GIS) database for recorded locations of Federally listed threatened and endangered species on or adjacent to the project study area. The GIS database is a compilation of data received from several sources. Based on review of our GIS database, the Service notes that the following Federally listed species may occur in or near the project area.

Wood Stork

The project corridor is located in the Core Foraging Areas (CFA)(within 18.6 miles) of two active nesting colonies of the endangered wood stork (*Mycteria americana*). The Service believes that the loss of wetlands within a CFA due to an action could result in the loss of foraging habitat for the wood stork. To minimize adverse effects to the wood stork, we recommend that any lost foraging habitat resulting from the project be replaced within the CFA of the affected nesting colony. Moreover, wetlands provided as mitigation should adequately replace the wetland functions lost as a result of the action. The Service does not consider the preservation of wetlands, by itself, as adequate compensation for impacts to wood stork foraging habitat, because the habitat lost is not replaced. Accordingly, any wetland mitigation plan proposed should include a restoration, enhancement, or creation component. In some cases, the Service accepts wetlands compensation located outside the CFA of the affected wood stork nesting colony. Specifically, wetland credits purchased from a "Service Approved" mitigation bank located outside of the CFA would be acceptable to the Service, provided that the impacted wetlands occur within the permitted service area of the bank.

For projects that impact 5 or more acres of wood stork foraging habitat, the Service requires a functional assessment be conducted using our "Wood Stork Foraging Analysis Methodology"(Methodology) on the foraging habitat to be impacted and the foraging habitat provided as mitigation. The Methodology can found in the Service's May 18, 2010, wood stork determination key (Service Federal Activity Code Number 41420-2007-FA-1494) provided to the Corps.

Florida Scrub-Jay

The project occurs within the geographic range of the threatened Florida Scrub-Jay (*Aphelocoma coerulescens*). According to the Service's records, the project footprint lies immediately adjacent to occupied scrub-jay habitat at Indian River County's Wabasso Scrub Conservation Area ([WSCA] north of the existing CR 510 and west of 58th Avenue).At least three families of scrub-jays are known to occur within the WCSA. Consequently, road construction in the WCSA would likely result in the incidental take of the scrub

jay within an area acquired to protect scrub-jay habitat as compensation for a different development project. We recommend that the project be designed to conduct all widening activities to lands south of road in the section of the project adjacent to the WSCA.

Audubon's crested caracara

The project occurs within the geographic range of the threatened Audubon's crested caracara (*Polyborus cheriway* = *Polyborus plancus audubonii*). If suitable habitat occurs in or near the project footprint, we recommend that nest surveys based on Service protocol be conducted to determine the status of caracara nesting in the project area. The Service's caracara nest survey guidance can be found at: <http://www.fws.gov/verobeach/ListedSpeciesBirds.html>

The Service believes that the following federally listed species have the potential to occur in or near the project site: wood stork, Florida scrub-jay, Audubon's crested caracara, Eastern indigo snake (*Drymarchon corais couperi*), and Federally listed plants in Indian River County at <http://ecos.fws.gov/ipac/>. Accordingly, the Service recommends that the Florida Department of Transportation (FDOT) prepare a Biological Assessment for the project (as required by 50 CFR 402.12) during the FDOT's Project Development and Environment process.

Fish and Wildlife Resources -

Wetlands provide important habitat for fish and wildlife, and are known to occur within the project area. We recommend that these valuable resources be avoided to the greatest extent practicable. If impacts to these wetlands are unavoidable, we recommend the FDOT provide mitigation that fully compensates for the loss of important resources.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **3** Moderate assigned 02/10/2016 by Jennifer Goff, FL Fish and Wildlife Conservation Commission

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Florida Fish and Wildlife Conservation Commission (FWC) staff has reviewed ETDM #14233, Indian River County, and provides the following comments related to potential effects to fish and wildlife resources of this Programming Phase project.

The Project Description Summary states that this project involves the widening of CR 714 between CR 512 and 58th Avenue from a two-lane to a four-lane road, with multi-modal facilities to accommodate transit users, bicyclists, and pedestrians. The project length is approximately 4.25 miles, and acquisition of additional right-of-way is anticipated. The Project Description did not address the possible need for new drainage retention areas (DRAs) to handle the stormwater runoff from the expanded roadway.

An assessment of the project area was performed on lands within 500 feet of the proposed alignment to determine potential impacts to habitat which supports listed species and other fish and wildlife resources. Our inventory included a review of aerial and ground-level photography, various wildlife observation and landcover data bases, along with coordination with FWC biologists and other State and Federal agencies. A GIS analysis was performed using the Florida Department of Transportation's (FDOT) Environmental Screening Tool to determine the potential quality and extent of upland and wetland habitat, and other wildlife and fisheries resource information. We have reviewed the Preliminary Environmental Discussion Comments Report provided by the FDOT, and offer the following comments and recommendations.

Our assessment reveals that land use in the project area is a mix of Agriculture (mostly citrus or former citrus with some pasture - 55.27%), Urban (23.45%), and other landcover types including Rural Lands (4.34%, 28.5 acres), Hardwood Forested Uplands (3.59%, 23.6 acres), Mixed Hardwood-Coniferous (3.30%, 21.7 acres), Mesic Flatwoods (2.75%, 18.1 acres), Other Hardwood

Wetlands (1.61%, 10.6 acres), Open Water (1.43%, 9.4 acres), Shrub and Brushland (1.42%, 9.3 acres), Scrub (1.28%, 8.4 acres), Extractive (1.00 %, 6.6 acres), Wet Prairie (0.31%, 2.1 acres), and Exotic Plants (0.27%, 1.8 acres).

The most valuable wildlife habitats in the project area are within the three adjacent public conservation land parcels owned and managed by Indian River County. The Wabasso Scrub Conservation Area is a 111-acre parcel on the north side of this project's east end, and it contains xeric oak scrub, sand pine scrub, and scrubby flatwoods. It supports three families of Florida scrub jays, along with gopher tortoises and other xeric habitat animals and plants. The 37.48-acre South Prong Slough Conservation Area is on both sides of CR 510 where it crosses the upper end of the South Prong St. Sebastian River. The narrow slough is a hardwood and cypress swamp. Across CR 512 from the project's north terminus is the Ansin Tract, a 28.12-acre parcel that connects to the St. Sebastian River Preserve State Park. It contains pine flatwoods and wetlands within the floodplain of the river.

Based on range and preferred habitat type, the following species listed by the Federal Endangered Species Act and the State of Florida as Federally Endangered (FE), Federally Threatened (FT), State-Threatened (ST), or State Species of Special Concern (SSC) have the potential to occur in the project area: American alligator (FT based on similarity of appearance to American crocodile), Eastern indigo snake (FT), crested caracara (FT), Florida scrub jay (FT), wood stork (FT), gopher frog (SSC), Florida pine snake (SSC), gopher tortoise (ST), burrowing owl (SSC), southeastern American kestrel (ST), Florida sandhill crane (ST), limpkin (SSC), snowy egret (SSC), little blue heron (SSC), tricolored heron (SSC), roseate spoonbill (SSC), white ibis (SSC), Florida mouse (SSC), and Sherman's fox squirrel (SSC). All of these species either likely or potentially utilize appropriate habitats in the project vicinity.

The GIS analysis revealed several specific characteristics associated with lands along the project alignment that provide an indication of potential habitat quality or sensitivity that will require field studies to verify the presence or absence of listed wildlife species and the quality of wildlife habitat resources. In the FWC's Integrated Wildlife Habitat Ranking System, 17.15% of the assessment area is ranked Moderately High or Medium. In the Florida Natural Areas Inventory Critical Lands and Waters Identification Project (CLIP), 4.72%% is ranked Priority 1 or 2 (high) for Biodiversity Resources. The project is within U.S. Fish and Wildlife Service Consultation Areas for Caracara, Red-cockaded Woodpecker, Snail Kite, Piping Plover, Grasshopper Sparrow, Scrub Jay, and Manatee. It is also within the Core Foraging Area of eight wood stork colonies. Three Rare and Imperiled Fish species are found in this project's drainage basin: the mountain mullet, river goby, and opossum pipefish.

Comments on Effects to Resources:

Primary wildlife issues associated with this project include: potential loss of scrub and forested wetlands habitat adjacent to or within public conservation lands; potential adverse effects to a moderate number of species listed by the Federal Endangered Species Act as Endangered or Threatened, or by the State of Florida as Threatened or Species of Special Concern; and potential for water quality impacts during construction.

Based on the project information provided, we believe that direct and indirect effects of this project could be moderate, provided that road construction is confined to the existing cleared right-of-way as much as possible, any loss of public conservation land is replaced in kind, any required DRAs are constructed on disturbed sites, and Best Management Practices are followed for treatment of stormwater runoff.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

We recommend that the Project Development and Environment Study address natural resources by including the following measures for conserving fish and wildlife and habitat resources that may occur within and adjacent to the project area.

1. The Preliminary Environmental Discussion Comments Report referenced FDOT's commitment to prepare an Endangered Species Biological Assessment (ESBA). This should include plant community mapping and wildlife surveys for the occurrence of wildlife species listed by the Federal Endangered Species Act as Endangered or Threatened, or by the State of Florida as Threatened or Species of Special Concern. Basic guidance for conducting wildlife surveys may be found in the FWC's Florida Wildlife Conservation Guide at: <http://myfwc.com/conservation/value/fwcg/>.
2. Based on the survey results, a plan should be developed to address direct, indirect, and cumulative effects of the project on wildlife and habitat resources, including listed species. Avoidance, minimization, and mitigation measures should also be formulated and implemented. Equipment staging areas should be located in previously disturbed sites to avoid habitat destruction or degradation. The plan should address specific habitat needs which are biologically compatible with the recovery of the target species. For guidance in this effort, FWC's Species Action Plans should be consulted at: <http://myfwc.com/wildlifehabitats/imperiled/species-action-plans/>.
3. Gopher tortoises may be present within the project area. If gopher tortoises or nests of other ST or SSC species are present within any permanent or temporary construction area, a permit may be necessary from the FWC. For gopher tortoise survey methodology and permitting guidance, we recommend that FDOT refer to the FWC's Gopher Tortoise Permitting Guidelines (Revised

February 2015) at: <http://www.myfwc.com/media/2984206/GT-Permitting-Guidelines-FINAL-Feb2015.pdf>

4. A compensatory mitigation plan should include the replacement of any wetland, upland, or aquatic habitat functional values for listed species which are lost as a result of the project. Replacement habitat for mitigation should be type for type, as productive, and equal to or of higher functional value. Please notify us immediately if the design, extent, or footprint of the current project is modified, as we may choose to provide additional comments and/or recommendations.

We appreciate the opportunity to provide input on highway design and the conservation of fish and wildlife resources. Please contact Brian Barnett at (772) 579-9746 or email brian.barnett@MyFWC.com to initiate the process for further overall coordination on this project.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Coastal and Marine

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/22/2016 by FDOT District 4

Comments:

Within the project corridor where CR-510 intersects the South Prong Slough Conservation Area the potential for Essential Fish Habitat (EFH) exists since no salinity control structure has been observed north of the slough. The project is not located near any Coastal Barrier Resource Area (CBRA). FDOT acknowledges the recommendations of the National Marine Fisheries Service and will proceed in accordance with the PD&E Manual. FDOT concurs with degree of effect assignment of MINIMAL for Coastal and Marine.

Degree of Effect: 0 *None* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: N/A *N/A / No Involvement* assigned 02/10/2016 by Nathan Ottoson, Saint Johns River Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

ERP permit required for roadway improvements

Direct Effects

Identified Resources and Level of Importance:

n/a

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: **2** *Minimal* assigned 02/10/2016 by Brandon Howard, National Marine Fisheries Service

Coordination Document: Tech Memo Required

Coordination Document Comments:

EFH Assessment will be required if the onsite wetlands are determined to be EFH.

Direct Effects

Identified Resources and Level of Importance:

Magnuson-Stevens Act and Fish and Wildlife Coordination Act: The portion of the project the crosses the South Prong of the St. Sebastian River is essential fish habitat (EFH) for white shrimp (*Litopenaeus setiferus*). A future interagency site visit will be conducted to verify this determination. The South Atlantic Fishery Management Council (SAFMC) designates forested palustrine wetlands as EFH for juvenile white shrimp. The project would impact moderate to low quality freshwater marsh.

Comments on Effects to Resources:

Impacts to these wetlands should be sequentially avoided, minimized, and compensated with mitigation. FDOT should explore expanding only within the right-of-way. This would demonstrate that adequate avoidance measures have been taken. If the project continues to PD&E without this sequential mitigation, NMFS would likely find it necessary to issue EFH conservation recommendations, assuming the site inspection confirms EFH is present.

With expansion of the road, impervious surface area will be replaced or expanded. Surface and stormwater runoff into the surrounding waters may result. The discharge of hydrocarbons and other contaminants may degrade water quality. Subsequently, NOAA trust resources located in the receiving waters could be adversely affected. To the extent practicable, runoff from the new roads should be treated before being discharged into the canal.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

NMFS recommends that the following measures be taken as project development progresses from Programming to PD&E, design, and construction phases:

- 1) Adverse impacts to wetlands should be sequentially avoided and/or minimized, and unavoidable impacts should be offset in a manner that precludes a net loss of wetland function.
- 2) A habitat characterization of the wetlands within the project site, including the size and location of wetlands that would be directly and/or indirectly impacted by the proposed project should be prepared.
- 3) Information on measures to avoid and/or minimize adverse impacts to EFH (if present) within the vicinity of the project site should be identified.
- 4) Conservation measures (i.e., best management practices for water quality and erosion control) should be included in the project design and implemented during project construction.

5) A Stormwater Management Plan for containment/treatment of surface and stormwater runoff from impervious surfaces should be prepared. Treatment should be in accordance with state and federal (NPDES) standards. Details of the stormwater plan should include location, area, and cross section of proposed stormwater swales, and/or ponds and information on wetland vegetation planting if proposed.

6) A mitigation plan should be developed that includes the following items:

Detailed overview and cross-sectional drawings of the mitigation area(s) with elevations.

A vegetative planting plan for the mitigation site.

A detailed description of the proposed mitigation plan, including success criteria. The mitigation plan should contain sufficient detail to ensure no net loss of wetland functions and values as a result of project authorization.

A functional assessment such as the Uniform Mitigation Assessment Method (UMAM) should be prepared for the impact and mitigation sites.

7) Timely coordination between NMFS and FDOT staff should continue through project planning and until environmental issues are addressed and resolved.

Endangered Species Act: We are not aware of any threatened or endangered species or critical habitat under the purview of NMFS that occur within the project area. However, it should be noted that a "no effect" determination must be made by the action agency and the reasoning underlying the determination should be documented in a project file. Please coordinate closely with the U.S. Fish and Wildlife Service for other species listed under the Endangered Species Act that may require consultation.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

ETAT Reviews and Coordinator Summary: Physical Noise

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/14/2016 by FDOT District 4

Comments:

Several residential homes are located along the proposed project corridor. GIS Analysis from ETDM identified no high-density residential areas of six or more dwelling units per acre within the 500-foot buffer. However, 33.9 acres of medium density residential area of 2-5 dwelling units per acre are within 500-ft of the project corridor. A Noise Study Report (NSR) will be prepared in accordance with 23 Code of Federal Regulations Part 772, Chapter 335.17 Florida Statutes, and the FDOT PD&E Manual to identify unavoidable noise impacts, and an evaluation of abatement. Based on a review of the EST GIS layers and a field review, FDOT assigns a degree of effect of MINIMAL to Noise.

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Resources and sensitive receptors will be identified.

Comments on Effects to Resources:

Additional noise impacts to sensitive receptors will be analyzed and mitigated as required.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Air Quality

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/14/2016 by FDOT District 4

Comments:

This project is located within an US Environmental Protection Agency (USEPA) designated Air Quality Maintenance Attainment Area for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. Therefore, the Clean Air Act conformity requirements do not apply to this project at this time. However, an Air Quality Technical Memorandum will be prepared as a support document to the environmental document. Based on a review of the EST GIS layers, FDOT assigns a degree of effect of MINIMAL to Air Quality.

Degree of Effect: 2 *Minimal* assigned 02/22/2016 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

Air Quality Technical Memorandum (PD&E Manual, Part 2, Chapter 16)

Direct Effects

Identified Resources and Level of Importance:

Congress established the Clean Air Act in 1970, and made revisions in 1977 and 1990 to improve its effectiveness and to target newly recognized air pollution problems, including acid rain and damage to the stratospheric ozone layer. To protect public health and welfare nationwide, the Clean Air Act requires the USEPA to establish national ambient air quality standards for certain common and widespread pollutants. The USEPA has set air quality standards for six "criteria pollutants": particulate matter, ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead. States are required to adopt enforceable plans to achieve and maintain air quality meeting these standards.

Comments on Effects to Resources:

The project area is currently in attainment with the Clean Air Act's National Ambient Air Quality Standards (NAAQS).

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

The project is located within an Air Quality Maintenance Attainment Area.

Comments on Effects to Resources:

No additional comments other than the one noted in the report.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Contamination

Project Effects

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/22/2016 by FDOT District 4

Comments:

According to the Contamination Screening Evaluation Report (CSER) from PD&E 405606-1 CR-510 from CR-512 to Indian River Bridge, twelve sources of possible contamination have been identified within the project corridor. Ten of the sources have a low to no potential for contamination; one source has a medium potential; and one source has high potential for contamination. The medium potential source is located at 9020 95th Street, A+ Sunoco Speedway (FAC ID 318509326). The high potential source is located at 6375 85thW Street, McDonald Property (FAC ID 319100095). An updated CSER will be prepared during the PD&E phase to document and update any potential contamination sources within the project vicinity. Avoidance, minimization, and mitigation strategies as well as any necessary special construction provisions will be developed based on this documentation, to avoid impacts, and to ensure human health and safety if avoidance is not possible. Therefore, FDOT assigns a degree of effect of MINIMAL to Contamination.

Degree of Effect: 2 *Minimal* assigned 03/04/2016 by Kim Gates, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

Contamination Screening Evaluation Report (PD&E Manual, Part 2, Chapter 22)

Direct Effects

Identified Resources and Level of Importance:

In its PD&E Manual (Part 2, Chapter 22), the FDOT defines 'Contamination' as: "The presence of any regulated material / chemical contained within the soil, surface water or groundwater on or adjacent to Department property, or proposed property, that may require assessment, remediation, or special handling, or that has a potential for liability. These materials would include, but not be limited to, those substances normally referred to as petroleum or petroleum products, solvents, organic and inorganic substances, metals, hazardous materials or substances, etc." Furthermore, a 'Hazardous Material' is defined as "any material that has, or, when combined with other materials, will have, a deleterious effect on people or the environment." In addition to the risks posed to human health and the environment, the presence of hazardous materials in soils, surface waters, and groundwater can dramatically affect the project cost, scope and schedule.

Major federal laws govern the remediation of contaminated sites, including the Resource Conservation and Recovery Act of 1976 (RCRA), as amended; and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as

amended, which includes the Small Business Liability Relief and Brownfields Revitalization Act (Brownfields).

Comments on Effects to Resources:

Based on information in the EST, there are no USEPA-designated Brownfields or National Priorities List sites within one mile of the project corridor. One RCRA-regulated facility, Sebastian River High School, is located within 100 feet of CR 510; it is a Small Quantity Generator with no enforcement violations or onsite contamination recorded in the USEPA's RCRAInfo database.

However, a number of State-regulated facilities are located in the project vicinity, including Petroleum Contamination Monitoring Sites and Storage Tank Contamination Monitoring sites. Considering the potential need for more than 160 feet of right-of-way for widening CR 510 to four lanes (see page 90 in Indian River County's Comprehensive Plan, Chapter 4 Transportation Element, http://www.irccdd.com/Planning_Division/CP/2030/Ch04-Transportation.pdf), the USEPA encourages updating the Contamination Screening Evaluation Report prepared in 2005. All sites within the project corridor (including buffer areas) need to be evaluated for the presence of potential contamination within the right-of-way or contamination that may have migrated onto or under the right-of-way.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

No additional resources other than the one noted in the report.

Comments on Effects to Resources:

The updated CSER should identify the contaminated areas and it should be analyzed any measure to avoid or minimize the effect of the contamination.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 2 *Minimal* assigned 02/10/2016 by Nathan Ottoson, Saint Johns River Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

ERP required from SJRWMD

Direct Effects

Identified Resources and Level of Importance:

minimal involvement on this issue (contamination)

Comments on Effects to Resources:

minimal

Recommended Avoidance, Minimization, and Mitigation Opportunities:

n/a

CLC Recommendations:**Indirect Effects****Identified Resources and Level of Importance:**

none

Comments on Effects to Resources:

none

Recommended Avoidance, Minimization, and Mitigation Opportunities:

none

The following organization(s) were expected to but did not submit a review of the Contamination issue for this alternative: FL Department of Environmental Protection

Infrastructure**Project Effects**

Coordinator Summary Degree of Effect: 2 *Minimal* assigned 04/14/2016 by FDOT District 4

Comments:

The following utilities were identified:

Florida Power and Light overhead electrical

Sebastian River Drainage District

Underground gas line

Indian River County Bus Transit serves CR-510 (Route 9). The intersection of CR-510 and CR-512 is the North County Transit Hub. The widening of the road may cause impacts to utilities. Further review of utilities on the corridor is needed. It is anticipated that the effect to Infrastructure will be MINIMAL

Degree of Effect: 2 *Minimal* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects**Identified Resources and Level of Importance:**

No additional resources identified.

Comments on Effects to Resources:

No comments.

Recommended Avoidance, Minimization, and Mitigation Opportunities:**CLC Recommendations:****Indirect Effects****Identified Resources and Level of Importance:****Comments on Effects to Resources:****Recommended Avoidance, Minimization, and Mitigation Opportunities:**

Navigation

Project Effects

Coordinator Summary Degree of Effect: N/A N/A / *No Involvement* assigned 04/22/2016 by FDOT District 4

Comments:

FDOT concurs with FHWA and USACE that there are no navigational waters within the project limits. All required permits will be filed during the appropriate phase. A degree of effect of NO INVOLVEMENT is assigned to Navigation.

Degree of Effect: N/A N/A / *No Involvement* assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: 0 *None* assigned 02/18/2016 by Tarrie L Ostrofsky, US Army Corps of Engineers

Coordination Document: Permit Required

Coordination Document Comments:

Although no navigable waterways have been identified, wetlands and other surface waters have been. Therefore, a Corps permit is likely required as a result of impacts to these resources. This may be a Nationwide Permit, SAJ-92 or Individual Permit, determining on the proposed impacts.

Direct Effects

Identified Resources and Level of Importance:

There are no waterways within the project area which have been identified as being navigable, according to the information provided. The level of importance would be none.

Comments on Effects to Resources:

Since no navigable waters have been identified, there would be no effect.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Since no navigable waters have been identified within the project area, avoidance, minimization and mitigation would not need to be evaluated in this respect.

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

There are no waterways within the project area which have been identified as being navigable, according to the information provided.

Comments on Effects to Resources:

Since no navigable waters have been identified, there would be no effect.

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Since no navigable waters have been identified within the project area, avoidance, minimization and mitigation would not need to be evaluated in this respect.

ETAT Reviews and Coordinator Summary: Special Designations

Special Designations

Project Effects

Coordinator Summary Degree of Effect: 0 None assigned 04/14/2016 by FDOT District 4

Comments:

This project is not located within an Outstanding Florida Water or in the vicinity of a Wild and Scenic River or an Aquatic Preserve. Although the South Prong of the Sebastian River located within the vicinity of the project is a designated aquatic preserve but this designation does not extend into the South Prong Slough Conservation Area. FDOT concurs with FHWA and SJRWMD that there are no identified special designation issues within the project area and the degree of effect of NONE assigned to Special Designations.

Degree of Effect: 0 None assigned 02/18/2016 by Luis D Lopez, Federal Highway Administration

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Recommended Avoidance, Minimization, and Mitigation Opportunities:

Degree of Effect: N/A N/A / No Involvement assigned 02/10/2016 by Nathan Ottoson, Saint Johns River Water Management District

Coordination Document: Permit Required

Coordination Document Comments:

ERP/permit required from SJRWMD

Direct Effects

Identified Resources and Level of Importance:

Listed recreation areas have minimal or no involvement with SJRWMD regulatory issues

Comments on Effects to Resources:

n/a

Recommended Avoidance, Minimization, and Mitigation Opportunities:

n/a

CLC Recommendations:

Indirect Effects

Identified Resources and Level of Importance:

n/a

Comments on Effects to Resources:

n/a

Recommended Avoidance, Minimization, and Mitigation Opportunities:

n/a

The following organization(s) were expected to but did not submit a review of the Special Designations issue for this alternative: US Environmental Protection Agency

Eliminated Alternatives

There are no eliminated alternatives for this project.

Project Scope

General Project Recommendations

There are no general project recommendations identified for this project in the EST.

Anticipated Permits

There are no anticipated permits identified for this project in the EST.

Anticipated Technical Studies

There are no anticipated technical studies identified for this project in the EST.

Class of Action

Class of Action Determination

Class of Action	Other Actions	Lead Agency	Cooperating Agencies	Participating Agencies
Type 2 Categorical Exclusion	None	Federal Highway Administration	No Cooperating Agencies have been identified.	US Army Corps of Engineers

Class of Action Signatures

Name	Agency	Review Status	Date	ETDM Role
Anson Sonnett	FDOT District 4	ACCEPTED	08/11/2016	FDOT ETDM Coordinator
Luis D Lopez	Federal Highway Administration	ACCEPTED	08/15/2016	Lead Agency ETAT Member

Dispute Resolution Activity Log

There are no dispute actions identified for this project in the EST.

Appendices

Preliminary Environmental Discussion Comments

Social and Economic

Land Use Changes

Project Level

Comments:

Current generalized land uses within the 500-foot buffer along the corridor primarily consist of agricultural (36.5%) and residential (13.5%), with portions of private land zoned for similar uses. The proposed improvements are anticipated to support the current and future land use patterns of the area and increase operational capacity to meet future mobility needs of the growing population. Additionally, the proposed improvements are consistent with the Indian River County 2035 Long Range Transportation Plan and FY 2016-2020 Transportation Improvement Program (priority 1). Overall, the proposed project is expected to have some land use impacts along the corridor due to the widening of CR-510 from two lanes to four lanes.

It is anticipated that the effect to Land Use will be Minimal.

Social

Project Level

Comments:

The demographic characteristics of the project corridor are comparable to the characteristics for Indian River County. According to the 2010 US Census, the population of Indian River County is 138,028 and includes the following breakdown:

African-Americans: 12,397

American Indian, Eskimo or Aleut: 408

Asian Americans: 1,666

Caucasian American: 116,346

Native Hawaiian and Other Pacific Islander: 51

Other: 7160

Hispanics: 15,465

The population of Indian River County is projected to increase from 141,994 in year 2013 to 194,600 in year 2040 (Source: Bureau of Economic and Business Research). As the population of the county increases, so will development and traffic volume.

The project is anticipated to support the growing residential areas along the corridor and mobility enhancements for non-motorized travel, thus, encouraging social interaction/activity within the community and improving conditions for transportation disadvantaged persons in the project area. Because of the widening, some residential and agricultural land could be affected given their close proximity to the roadway.

Overall impacts on the Social Environment and Community Cohesion are anticipated to be Minimal.

Relocation Potential

Project Level

Comments:

The CR-510 corridor primarily includes a mix of residential and agricultural land with portions of private land zoned for similar uses. Since the project calls for the widening of CR-510 from a two lane to a four-lane road some residential and agricultural land impacts will occur due to their close proximity to the roadway. However, the majority of the land is vacant agricultural and the limited residences are set back from the existing road, which decreases relocation potential.

Therefore, Relocation Potential is Minimal.

Farmlands

Project Level

Comments:

A review of the GIS Analysis on ETDM identified 595 acres of Prime Farm Land with a classification of Farmland of Unique Importance within the 500-ft buffer. Specific agricultural land uses within the 500-ft buffer include 6 acres of ornamentals, 218 acres of citrus groves, 37 acres of improved pastures, 25 acres of other open lands, and 15.5 acres of woodland pastures. During the PD&E Study, the proposed project impacts to farmlands will be evaluated further. Coordination with the Natural Resources Conservation Service (NRCS), including preparation of a Farmland Conversion Impact Rating Form, shall occur.

It is anticipated that the effect to Farmlands will be Moderate.

Aesthetic Effects

Project Level

Comments:

The overall character of the CR-510 project corridor is a mix of urban and rural. The eastern portion of the project has limited residential properties, and is flanked by agricultural and in some cases potential historic houses. However, further west along the project corridor an urban trend is setting in with two schools and mostly residential properties including a shopping plaza with community services. The compatibility of going from a 2-lane to a 4-lane road fits in with the Indian River County 2035 Long Range Transportation Plan (LRTP) and future land use along the CR-510 corridor encouraging higher densities and mixed-use development.

It is anticipated that the Aesthetic Effects will be Minimal.

Economic

Project Level

Comments:

According to ETDM and 2013 American Community Survey Block Group Data-Income, the total number of households below the poverty level within the 2640-foot buffer is 2,779 households. When compared to the 2013 American Community Survey Block Group Data-Housing in ETDM,

the total number of occupied housing units within the 2640-foot buffer zone is 6,526 units. Therefore, the percent of households below the poverty level as compared to the total number of occupied housing units is 42.5%. As was previously stated, the total percent of households below the poverty level within the 2640-foot buffer is 42.5%. With the anticipated land use changes for the area and the addition of roadway capacity, should draw more investment into the community and likewise increase economic growth.

It is anticipated that the effect to Economic will be Enhanced.

Mobility

Project Level

Comments:

As the Indian River County continues to develop and grow along the CR-510 corridor encouraging higher densities and mixed-use development a multi-modal approach is important. Multi-modal transportation will be considered on CR-510 to serve and connect the transit-supportive land uses. Sidewalks are additionally anticipated as part of the widening as the corridor is intended to provide for adequate multi-modal facilities. While paved shoulders are currently present, they are also anticipated to be maintained as part of the project. Overall, the project is expected to accommodate multi-modal facilities and enhance corridor access for transit users, bicyclists, and pedestrians.

It is anticipated that the effect to Mobility will be Enhanced.

Cultural

Section 4(f) Potential

Project Level

Comments:

Within the project corridor, six properties have been identified with potential Section 4(f) involvement. The Sebastian River High School, Treasure Coast Elementary School, St. Sebastian Greenway Corridor, South Prong Slough Conservation Area, Ansin Tract County Park, Wabasso Scrub Conservation Area (SCA) are identified and further analysis will be made during the PD&E process to determine if applicability is necessary as per Section 4(f) of the Department of Transportation Act of 1966. Along with the above mentioned properties, possible historic structures may occur along the project corridor.

It is anticipated that the effect to Section 4(f) Potential will be Minimal.

Historic and Archaeological Sites

Project Level

Comments:

A Cultural Resource Assessment Survey (CRAS) of CR-510 was complete in July 2005. An archaeological survey was conducted within the designated 300-foot Area of Potential Effects (APE) for CR-510 from CR-512 to Indian River Bridge Project Development and Environmental Study (PD&E) financial management number 405606-1. Within the APE of the current study section of CR-510 from CR-512 to 58th Avenue two potential archaeological site were identified

8IR1143 [Scatter Plot] and 8IR1142 [Wabasso Scrub]. At the time site, 8IR11743 and 8IR1142 were considered ineligible for inclusion in the National Register of Historic Places (NHRP).

Within the 300-foot APE of CR-510 from CR-512 to 58th Avenue, forty historic-aged structures were identified in the 2005 CRAS. Of those fourty structures, none appeared to be eligible for listing on the NRHP. However, some structures are considered to be of local interest and potentially eligible for listing on the Indian River County local register. Since the project involves widening from a 2-lane undivided roadway into a 4-lane divided roadway the potential for impacts are present. Cultural resources will be further evaluated during the PD&E in accordance with the National Historic Preservation Act of 1966.

It is anticipated that the effect to Historic and Archaeological resources will be Minimal.

Recreation Areas

Project Level

Comments:

Five possible recreation areas have been identified within the project corridor:

Sebastian High School

Treasure Coast Elementary School

South Prong Slough Conservation Area

St. Sebastian River Greenway Corridor

Ansin Tract County Park

Wabasso Scrub Conservation Area

Further evaluation of these properties and the projects potential involvement will be looked at during the PD&E.

It is anticipated that the effect to Recreation Areas will be Minimal.

Natural

Wetlands and Surface Waters

Project Level

Comments:

The National Wetlands Inventory ETDM GIS report indicates that there are a total of 23 acres of palustrine wetlands and 2.3 acres of riverine wetlands within the 500-ft buffer of the proposed project. The project area is within the Saint Johns River Water Management District (SJRWMD). The analysis report of the 2009 SJRWMD Wetlands ETDM GIS layer identifies 2 acres of freshwater marshes and 10.8 acres of mixed wetland hardwoods within the 500-ft buffer of the proposed project. Avoidance and minimization along with mitigation strategies will be evaluated through the PD&E process, in order to avoid wetland impacts to the South Prong Slough Conservation Area. Further assessment of wetland impacts will be evaluated in accordance with Executive Order 11990 entitled "Protection of Wetlands" and procedures outlined in Part 2, Chapter 18 of the FDOT Project Development and Environmental Manual. These results will be documented in a Wetlands Evaluation Report.

It is anticipated that the effect to Wetlands will be Moderate.

Wetlands

Project Level

Comments:

The National Wetlands Inventory ETDM GIS report indicates that there are a total of 23 acres of palustrine wetlands and 2.3 acres of riverine wetlands within the 500-ft buffer of the proposed project. The project area is within the Saint Johns River Water Management District (SJRWMD). The analysis report of the 2009 SJRWMD Wetlands ETDM GIS layer identifies 2 acres of freshwater marshes and 10.8 acres of mixed wetland hardwoods within the 500-ft buffer of the proposed project. Avoidance and minimization along with mitigation strategies will be evaluated through the PD&E process, in order to avoid wetland impacts to the South Prong Slough Conservation Area. Further assessment of wetland impacts will be evaluated in accordance with Executive Order 11990 entitled "Protection of Wetlands" and procedures outlined in Part 2, Chapter 18 of the FDOT Project Development and Environmental Manual. These results will be documented in a Wetlands Evaluation Report.

It is anticipated that the effect to Wetlands will be Moderate.

Water Quality and Quantity

Project Level

Comments:

The existing drainage consists of swales collecting the sheet flow runoff and conveying the runoff to nearby irrigation ditches and canals. Currently, there are multiple culverts, cross drains, and side drains throughout the project corridor. Future proposed drainage will include a curb and gutter system with multiple pond sites. This project is not located within the boundaries of a sole source aquifer or an Outstanding Florida Waters (OFW). However, the Indian River Lagoon (IRL) is ultimately the receiver of all drainage waters from the project corridor. The IRL is an Aquatic Preserve therefore under Florida Administrative code 62-302.700 (9) is considered an OFW. A Water Quality Impact Evaluation (WQIE) will be completed as per Chapter 20 of the FDOT PD&E manual. The WQIE will comply with the goals of the Clean Water Act (CWA).

It is anticipated that the effect to Water Quality and Quantity will be Minimal.

Floodplains

Project Level

Comments:

The western portion of the project area and the portion through South Prong Slough are located within Zone AE of the 100-year floodplain.

It is anticipated that the effect to Floodplains will be Minimal.

Wildlife and Habitat

Project Level

Comments:

The proposed project is located within the U.S. Fish and Wildlife Service (USFWS) Consultation Areas for the Audubon's crested caracara, Florida scrub jay (multiple known families in Wabasso SCA); Florida grasshopper sparrow, red cockaded woodpecker, and Everglade snail kite. The corridor is also within the Core Foraging Area (CFA) of six wood stork nesting colonies. Based on a review of the Florida Fish and Wildlife Conservation Commission (FWC) eagle nest database, the closest documented eagle nest is located approximately two miles north of the project limits. During the PD&E Study, documentation and consultation regarding listed species and potential project effects will be documented within the ESBA.

It is anticipated that the effect to Wildlife and Habitat will be Minimal.

Coastal and Marine**Project Level****Comments:**

Within the project corridor where CR-510 intersects the South Prong Slough Conservation Area the potential for Essential Fish Habitat (EFH) exist, since no salinity control structure has been observed north of the slough. The project is not located within a Coastal Barrier Resource Area (CBRA)

It is anticipated that the effect to Coastal and Marine will be None.

Physical**Noise****Project Level****Comments:**

Several residential homes are located along the proposed project corridor. A review of the GIS Analysis from ETDM identified no high-density residential areas of six or more dwelling units per acre within the 500-foot buffer. However, 33.9 acres of medium density residential area of 2-5 dwelling units per acre are within 500-ft of the project corridor. A Noise Study Report (NSR) will be prepared in accordance with 23 Code of Federal Regulations Part 772, Chapter 335.17 Florida Statutes, and the FDOT PD&E Manual to identify unavoidable noise impacts, and an evaluation of abatement measures will occur where appropriate.

It is anticipated that the effect to Noise will be Minimal.

Air Quality**Project Level****Comments:**

This project is located within an US Environmental Protection Agency (USEPA) designated Air Quality Maintenance Attainment Area for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. Therefore, the Clean Air Act conformity requirements do not apply to this project at this time. However, an Air Quality Technical Memorandum will be prepared as a support document to the PD&E Study.

It is anticipated that the effect to Air Quality will be Minimal.

Contamination

Project Level

Comments:

According to the Contamination Screening Evaluation Report (CSER) from PD&E 405606-1 CR-510 from CR-512 to Indian River Bridge, twelve sources of possible contamination have been identified within the project corridor. Ten of the sources have a low to no potential for contamination, one source has a medium potential, and one source has high potential for contamination. The medium potential source is located at 9020 95th Street, A+ Sunoco Speedway (FAC ID 318509326). The high potential source is located at 6375 85th Street, McDonald Property (FAC ID 319100095)

An updated CSER will be prepared during the PD&E phase to document and update any potential contamination sources within the project vicinity. Avoidance, minimization, and mitigation strategies as well as any necessary special construction provisions will be developed based on this documentation, to avoid impacts, and to ensure human health and safety if avoidance is not possible.

It is anticipated that the effect to Contamination will be Minimal.

Infrastructure

Project Level

Comments:

Along the project corridor, the following utilities were visually identified:

Florida Power and Light overhead electrical

Sebastian River Drainage District

Underground gas line

Indian River County Bus Transit serves CR-510 (Route 9). The intersection of CR-510 and CR-512 is the North County Transit Hub. The widening of the road may cause impacts to utilities. Further review of utilities on the corridor is needed.

It is anticipated that the effect to Infrastructure will be Minimal.

Navigation

Project Level

Comments:

There are no navigable waterways in the project area.

It is anticipated that the effect to Navigation will be No Involvement.

Special Designations

Special Designations: Outstanding Florida Waters

Project Level

Comments:

This project is not located within an Outstanding Florida Water.

It is anticipated that the effect to Outstanding Florida Waters will be No Involvement.

Special Designations: Aquatic Preserves

Project Level

Comments:

This project is not located within an Aquatic Preserve. However, the South Prong of the Sebastian River is designated an aquatic preserve but the designation does not extend into the South Prong Slough Conservation Area.

It is anticipated that the effect to Aquatic Preserves will be None.

Special Designations: Scenic Highways

Project Level

Comments:

This project does not involve Scenic Highways.

It is anticipated that the effect to Scenic Highways will be No Involvement.

Special Designations: Wild and Scenic Rivers

Project Level

Comments:

This project is not located within the vicinity of a Wild and Scenic River.

It is anticipated that the effect to Wild and Scenic Rivers will be No Involvement.

Advance Notification Comments

Federal Highway Administration Comment --

The project needs to meet planning consistency for FHWA approval.

The project is located in an area with a very diverse population and low income communities. A public involvement plan needs to be developed for the project.

There is no discussion on existence of transit in the corridor, but it needs to be considered during the project development if it is existing or planned.

--Luis D Lopez, 2/18/2016

No response

Saint Johns River Water Management District Comment --

SJRWMD has no input or comments on Federal consistency Review, issues/comments have been added earlier this month related to WQ and environmental.

--Nathan Ottoson, 2/25/2016

No response

US Army Corps of Engineers Comment --

The advance notification package does not include specifics in regard to alignments. Therefore, it is difficult to determine the anticipated impacts. However, the information provided does provide an evaluation of existing resources, which is helpful in the initial overall project area review.

--Tarrie L Ostrofsky, 3/4/2016

No response

GIS Analyses

Since there are so many GIS Analyses available for Project #14233 - CR 510 Widening from CR 512 to 58 Avenue, they have not been included in this ETDM Summary Report. GIS Analyses, however, are always available for this project on the Public ETDM Website. Please click on the link below (or copy this link into your Web Browser) in order to view detailed GIS tabular information for this project:

<http://etdmpub.fla-etat.org/est/index.jsp?tpID=14233&startPageName=GIS%20Analysis%20Results>

Special Note: Please be sure that when the GIS Analysis Results page loads, the **Programming Screen Summary Report Re-published on 08/17/2016 by Anson Sonnett Milestone** is selected. GIS Analyses snapshots have been taken for Project #14233 at various points throughout the project's life-cycle, so it is important that you view the correct snapshot.

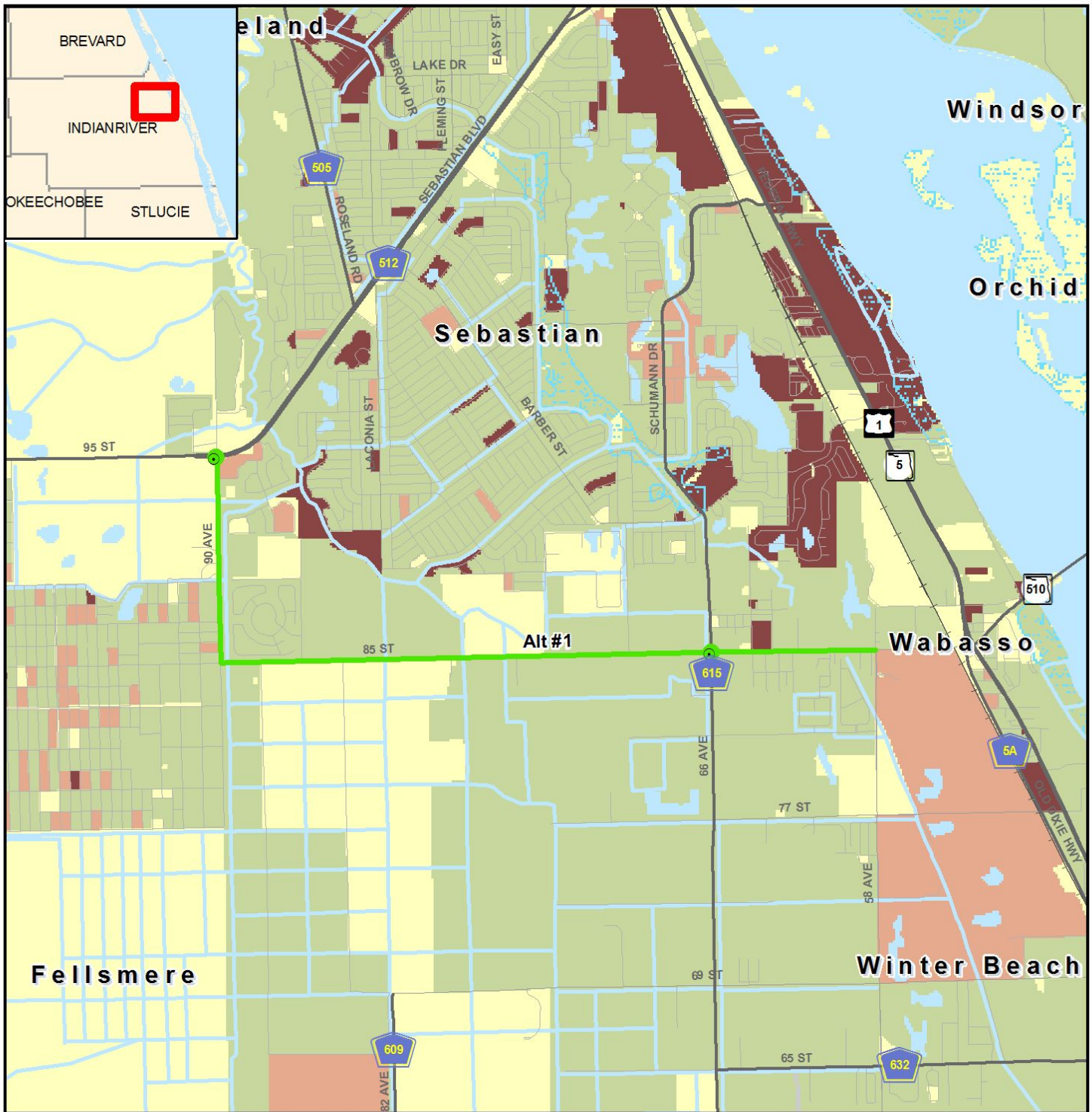
Degree of Effect Legend

Color Code	Meaning	ETAT	Public Involvement
N/A	Not Applicable / No Involvement	There is no presence of the issue in relationship to the project, or the issue is irrelevant in relationship to the proposed transportation action.	
0	None (after 12/5/2005)	The issue is present, but the project will have no impact on the issue; project has no adverse effect on ETAT resources; permit issuance or consultation involves routine interaction with the agency. The <i>None</i> degree of effect is new as of 12/5/2005.	No community opposition to the planned project. No adverse effect on the community.
1	Enhanced	Project has positive effect on the ETAT resource or can reverse a previous adverse effect leading to environmental improvement.	Affected community supports the proposed project. Project has positive effect.
2	Minimal	Project has little adverse effect on ETAT resources. Permit issuance or consultation involves routine interaction with the agency. Low cost options are available to address concerns.	Minimum community opposition to the planned project. Minimum adverse effect on the community.
2	Minimal to None (assigned prior to 12/5/2005)	Project has little adverse effect on ETAT resources. Permit issuance or consultation involves routine interaction with the agency. Low cost options are available to address concerns.	Minimum community opposition to the planned project. Minimum adverse effect on the community.
3	Moderate	Agency resources are affected by the proposed project, but avoidance and minimization options are available and can be addressed during development with a moderated amount of agency involvement and moderate cost impact.	Project has adverse effect on elements of the affected community. Public Involvement is needed to seek alternatives more acceptable to the community. Moderate community interaction will be required during project development.
4	Substantial	The project has substantial adverse effects but ETAT understands the project need and will be able to seek avoidance and minimization or mitigation options during project development. Substantial interaction will be required during project development and permitting.	Project has substantial adverse effects on the community and faces substantial community opposition. Intensive community interaction with focused Public Involvement will be required during project development to address community concerns.
5	Potential Dispute (Planning Screen)	Project may not conform to agency statutory requirements and may not be permitted. Project modification or evaluation of alternatives is required before advancing to the LRTP Programming Screen.	Community strongly opposes the project. Project is not in conformity with local comprehensive plan and has severe negative impact on the affected community.

5	Dispute Resolution (Programming Screen)	Project does not conform to agency statutory requirements and will not be permitted. Dispute resolution is required before the project proceeds to programming.	Community strongly opposes the project. Project is not in conformity with local comprehensive plan and has severe negative impact on the affected community.
	No ETAT Consensus	ETAT members from different agencies assigned a different degree of effect to this project, and the ETDM coordinator has not assigned a summary degree of effect.	
	No ETAT Reviews	No ETAT members have reviewed the corresponding issue for this project, and the ETDM coordinator has not assigned a summary degree of effect.	

Project-Level Hardcopy Maps

14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue

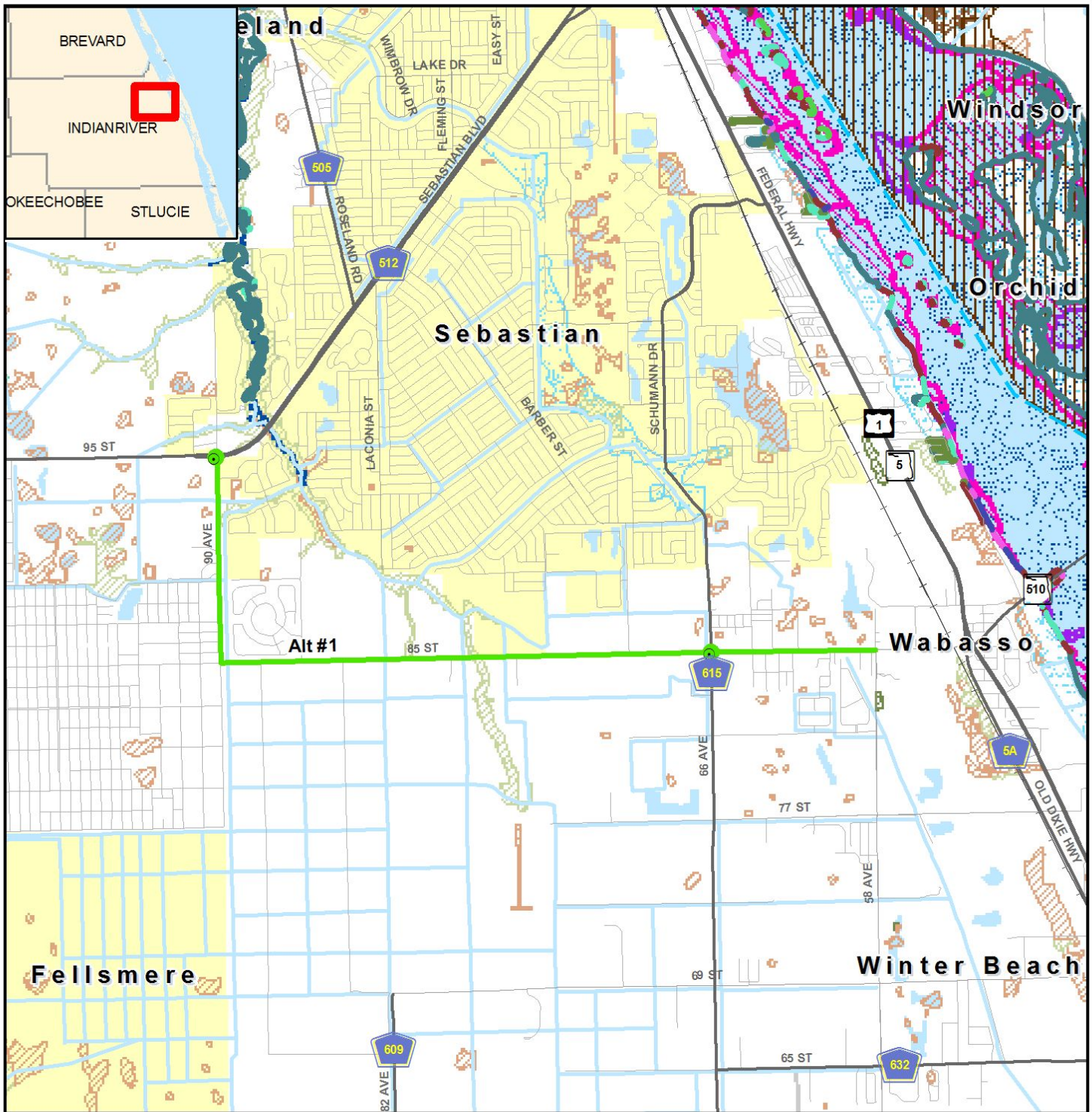


Age Distribution Map



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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue



Coastal and Marine Map

- | | |
|--|---|
| ■ ETDM Alternative | ■ Swamp or Marsh |
| ● ETDM Alternative Terminus | ■ Exposed Rocky Platform |
| ■ City Limits | ■ Sand Beach |
| — Navigable Water Way | ■ Gravel Beach/Riprap |
| | ■ Exposed Tidal Flat |
| | ■ Sheltered Tidal Flat |
| | ■ Mixed Sand And Gravel Beach |
| | ■ Sheltered Rock/Seawall/Vegetated |
| | ■ Exposed Vertical Rocky Shore/Seawall |

- | | |
|---|--|
| □ Coastal Barrier Resource Area | ■ Non-vegetated Wetland |
| ■ Continuous Seagrass | ■ Vegetated Non-forested Wetland |
| ■ Discontinuous Seagrass | ■ Wetland Forested Mixed |
| ■ Aquatic Preserve | ■ Wetland Coniferous Forest |
| | ■ Wetland Hardwood Forest |

Data Sources: NAVTEQ; US Geological Survey; Florida Marine Research Institute; Florida Department of Transportation; Florida Department of Environmental Protection; National Oceanic and Atmospheric Association; Florida Water Management Districts

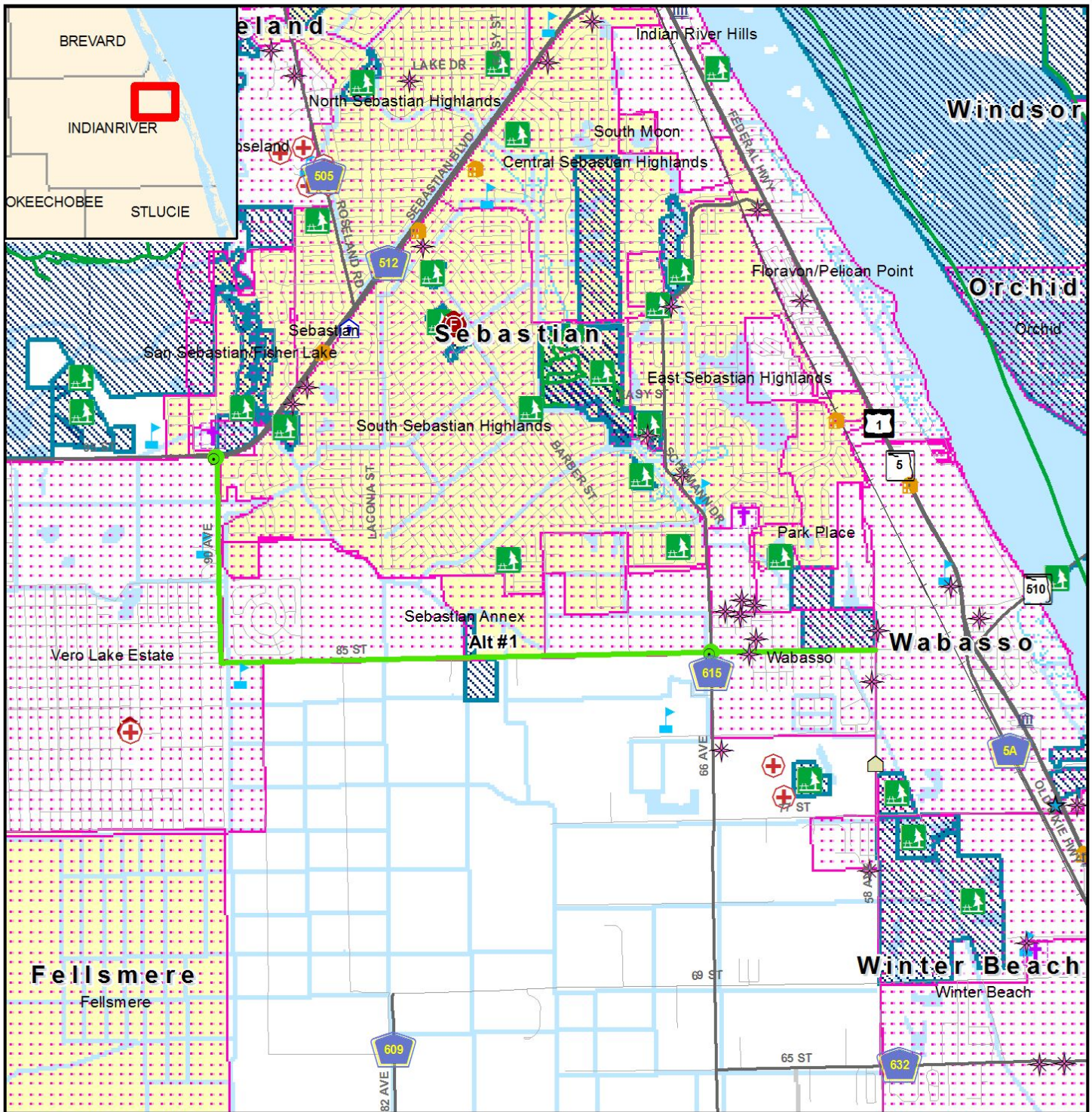
etdm
Environmental Screening Tool



1/5/2016

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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue



Community Services Map

- | | | | | |
|--|------------------|------------------|-------------|---------------------------------|
| ■ ETDM Alternative | Government | Law Enforcement | Health Care | Recreational Trail |
| ● ETDM Alternative Terminus | Civic Center | Place of Worship | School | Community Boundary |
| Major Road | Cemetery | Cultural Center | Park | Conservation or Recreation Area |
| Local Road or Trail | Social Service | Fire Station | | |
| City Limits | Community Center | | | |

Data Sources:
US Geological Survey; FL Department of Transportation; NAVTEQ; FL Property Appraisers; FL Natural Areas Inventory

0 0.25 0.5 1 Miles



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The map displays the Sebastian area in Florida, highlighting the proposed Sebastian Bypass (Alt #1) in green. The route starts near the intersection of US 1 and SR 605, runs east through the city of Sebastian, and then continues east towards Wabasso. Key roads shown include US 1, SR 605, SR 612, SR 615, and SR 609. The map also shows the locations of Sebastian, Wabasso, Winter Beach, and Fellsmere. An inset map in the top left corner shows the location of Sebastian within the state of Florida, bordered by Brevard, Indian River, Okeechobee, and St. Lucie counties.

■ ETDM Alternative
 ● ETDM Alternative Terminus
 — Major Road
 — Local Road or Trail
 ● Toxic Release Inventory
 ☆ Dry Cleaning Facility
 ☆ Solid Waste Facility
 ☆ Hazardous Material Site
 Power Plant
 Superfund Site
 Nuclear Site
 FDEP Tanks
 5 FT Contour
 NPL Remediation Site
 Brownfield Area
Soil Drainage
 Excessively Drained
 Well Drained
 Somewhat Excessively Drained
 Moderately Well Drained
 Somewhat Poorly Drained
 Poorly Drained
 Very Poorly Drained
 Unclassified

Data Sources: NAVTEQ; US Geological Survey; FL Department of Transportation;
 FL Department of Environmental Protection; FL Water Management Districts;
 US Environmental Protection Agency; Natural Resource Conservation Service

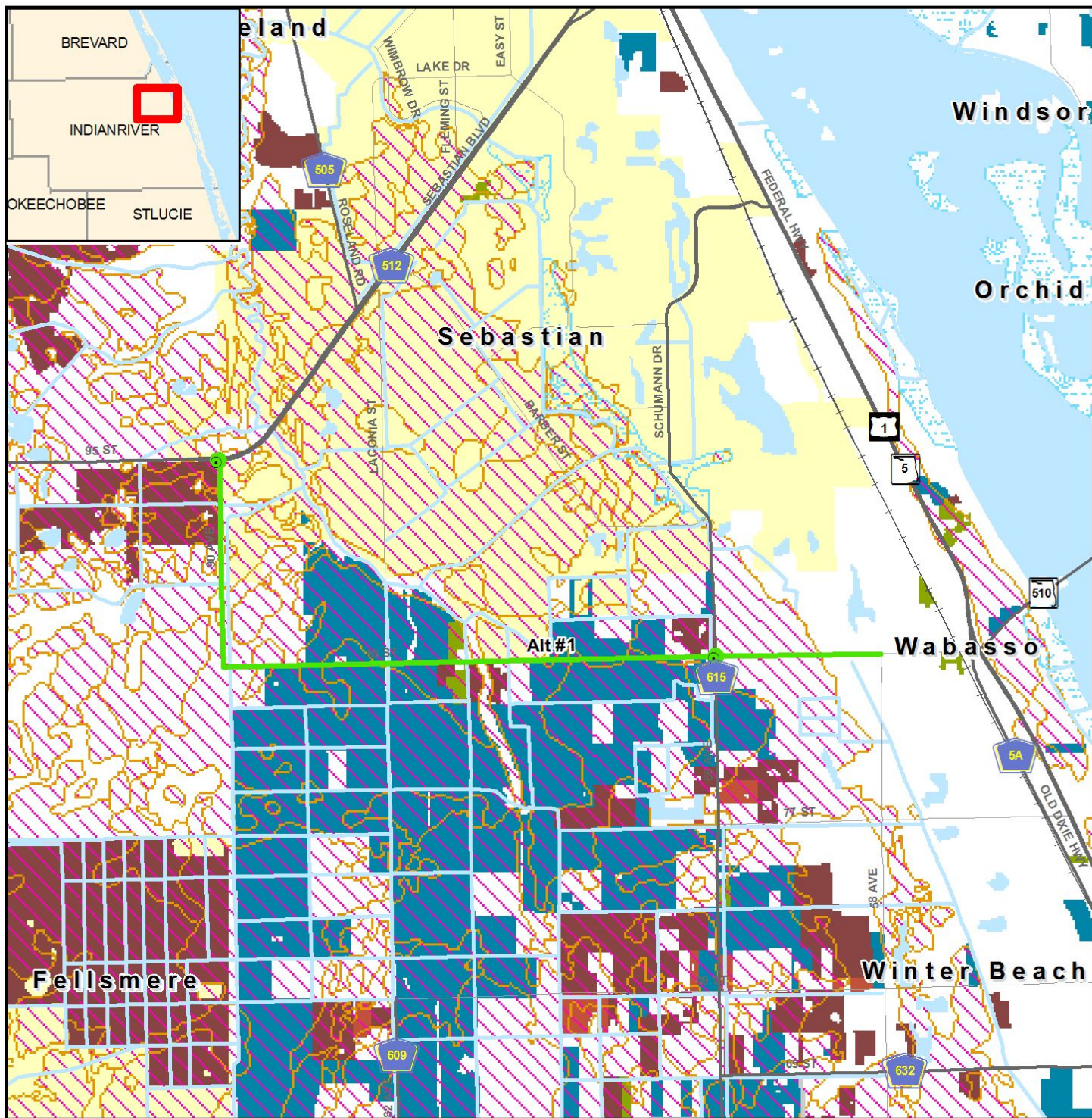
0 0.25 0.5 1 Miles
 1/5/2016

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 Environmental Screening Tool

FDOT

Printed on: 9/09/2016

14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue



Farmlands Map

- ETDM Alternative
- ETDM Alternative Terminus
- Major Road
- Local Road or Trail
- City Limits
- Cropland/Pastureland
- Nurseries/Vineyards
- Specialty Farms
- Tree Crops
- Rural Open Lands
- Prime Farmland Soils

Data Sources:
 NAVTEQ
 Florida Water Management Districts
 US Geological Survey
 Natural Resources Conservation Services

0 0.25 0.5 1 Miles



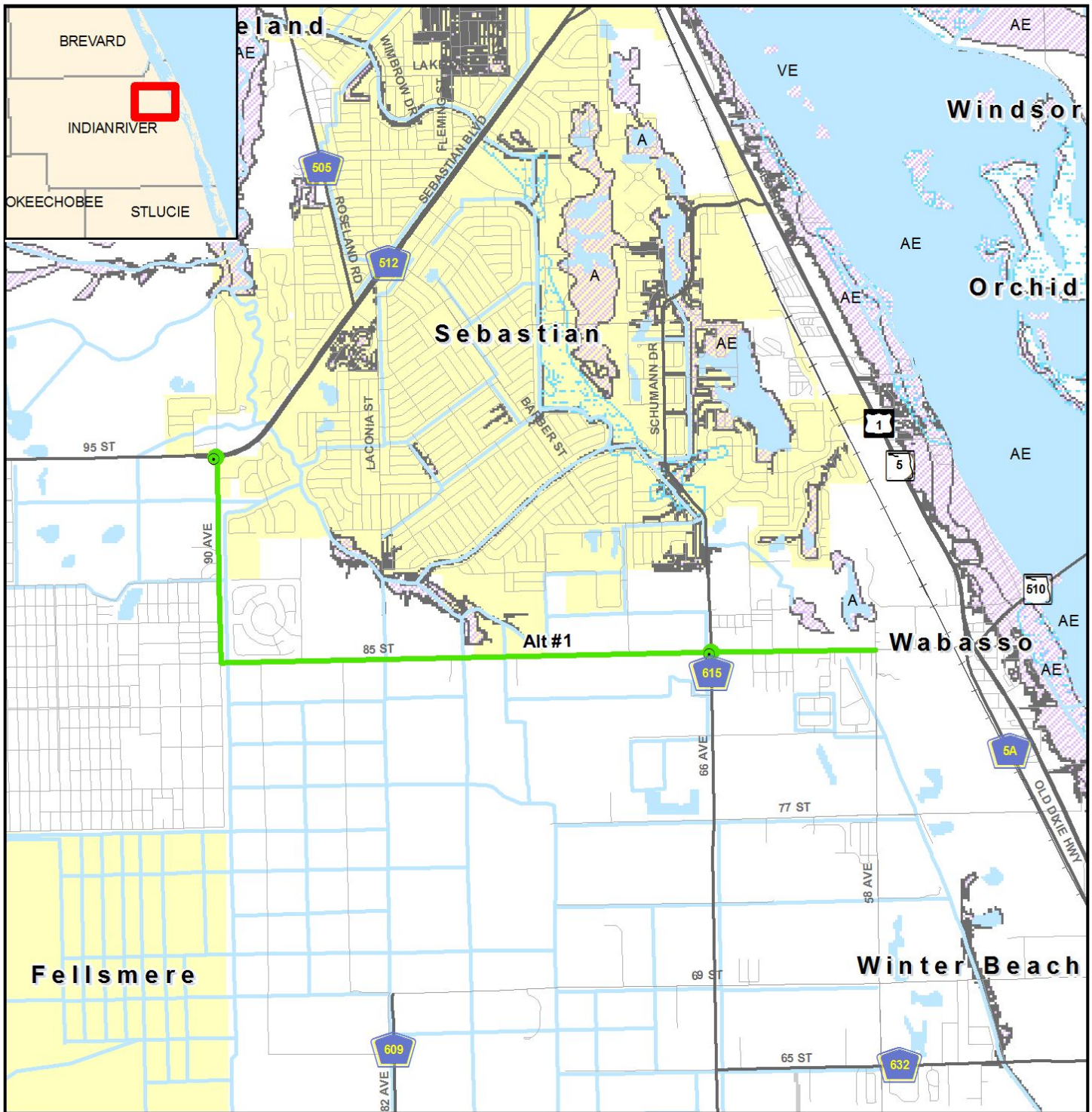
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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue



Floodplains Map

- ETDM Alternative
- ETDM Alternative Terminus
- Major Road
- Local Road or Trail
- City Limits
- Special Flood Hazard Area

Data Sources:
NAVTEQ
US Geological Survey
Federal Emergency Management Agency

0 0.3 0.6 1.2 Miles



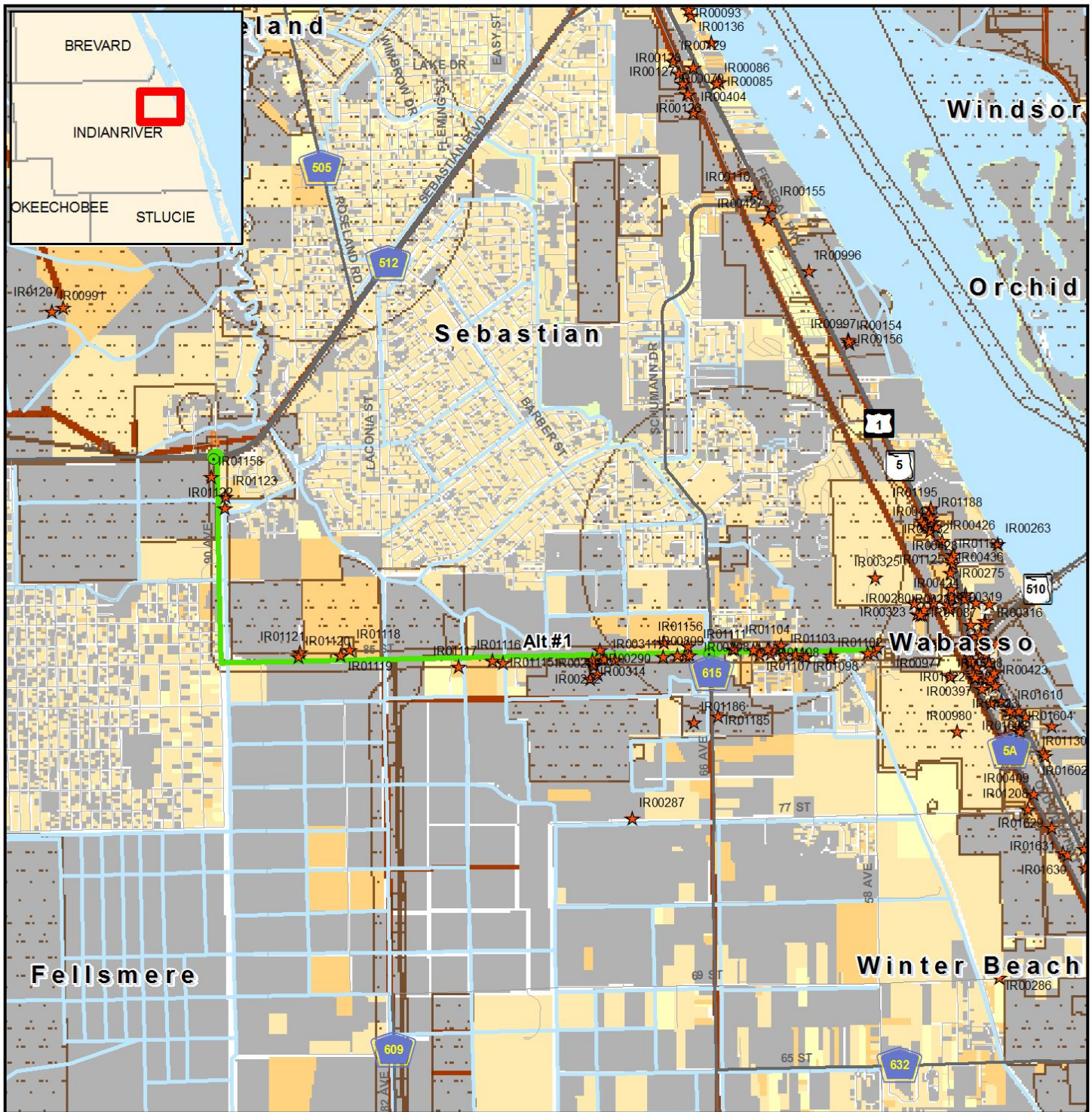
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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue



Historic Resource Map

- | | | |
|--|---|--|
| ■ ETDM Alternative | Year Built | ★ Historic Structure |
| ● ETDM Alternative Terminus | ■ Pre 1970 | — Historic Bridge |
| — Major Road | ■ Post 1980 | — State Historic Highway |
| — Local Road or Trail | ■ 1970 - 1979 | □ Historic Cemetery |
| | ■ Parcels w/ no values | □ Historic Resource Group |
| | | □ Cultural Resource Field Survey Area |

Data Sources:
 NAVTEQ
 US Geological Survey
 Florida Department of Transportation
 Florida Department of State,
 Bureau of Archaeological Research

Note: Historic properties depicted on this map represent resources listed in the Florida Master Site File excluding archeological site locations, which, pursuant to Chapter 267.135, Florida Statutes, may be exempt from public record (Chapter 119.07, Florida Statutes). Absence of features on the map does not necessarily indicate an absence of resources in the project vicinity.

0 0.25 0.5 1 Miles



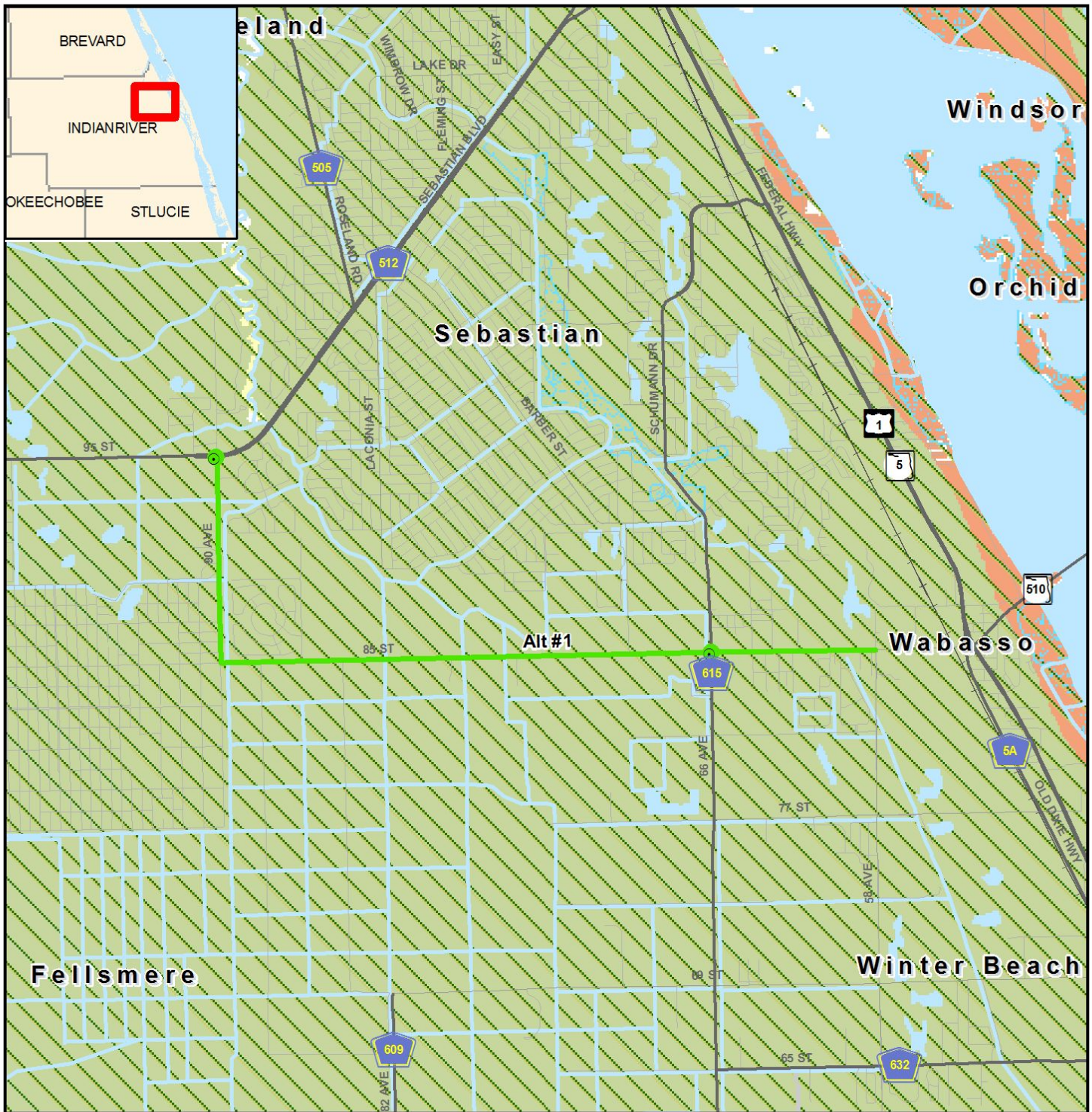
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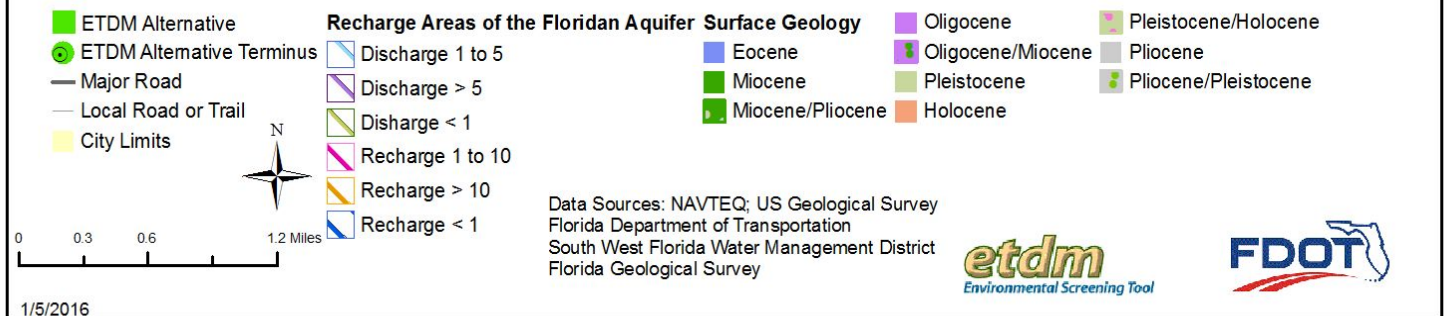


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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue

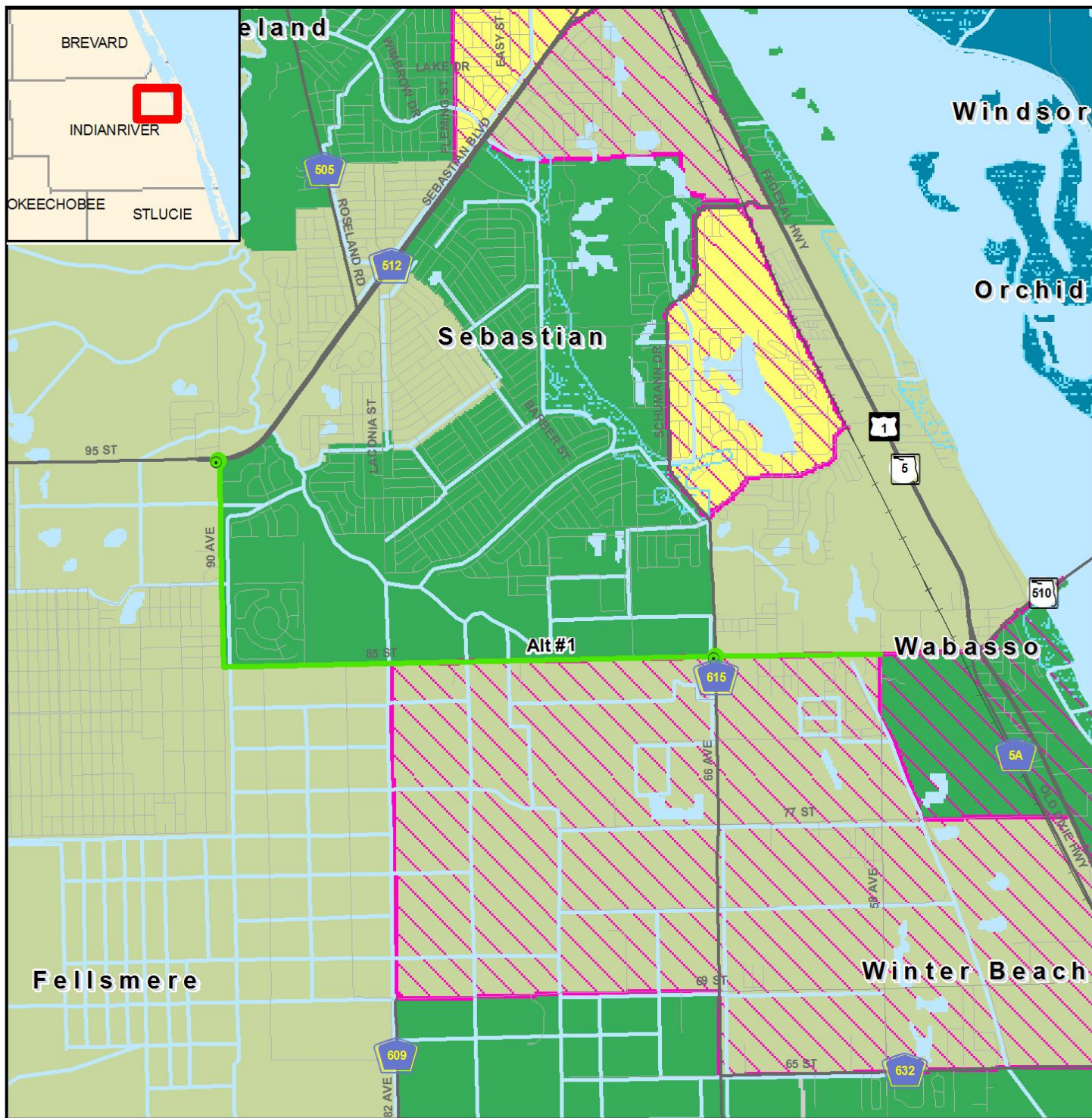


Hydrogeology Map

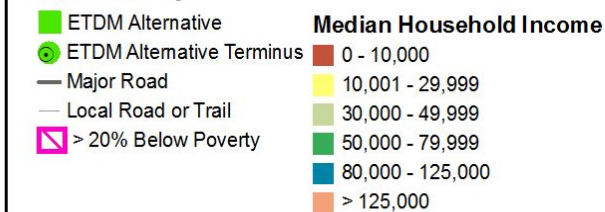


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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue



Income Map



Data Sources:
US Geological Survey
FL Department of Transportation
NAVTEQ
US Census Bureau (2010)

0 0.3 0.6 1.2 Miles



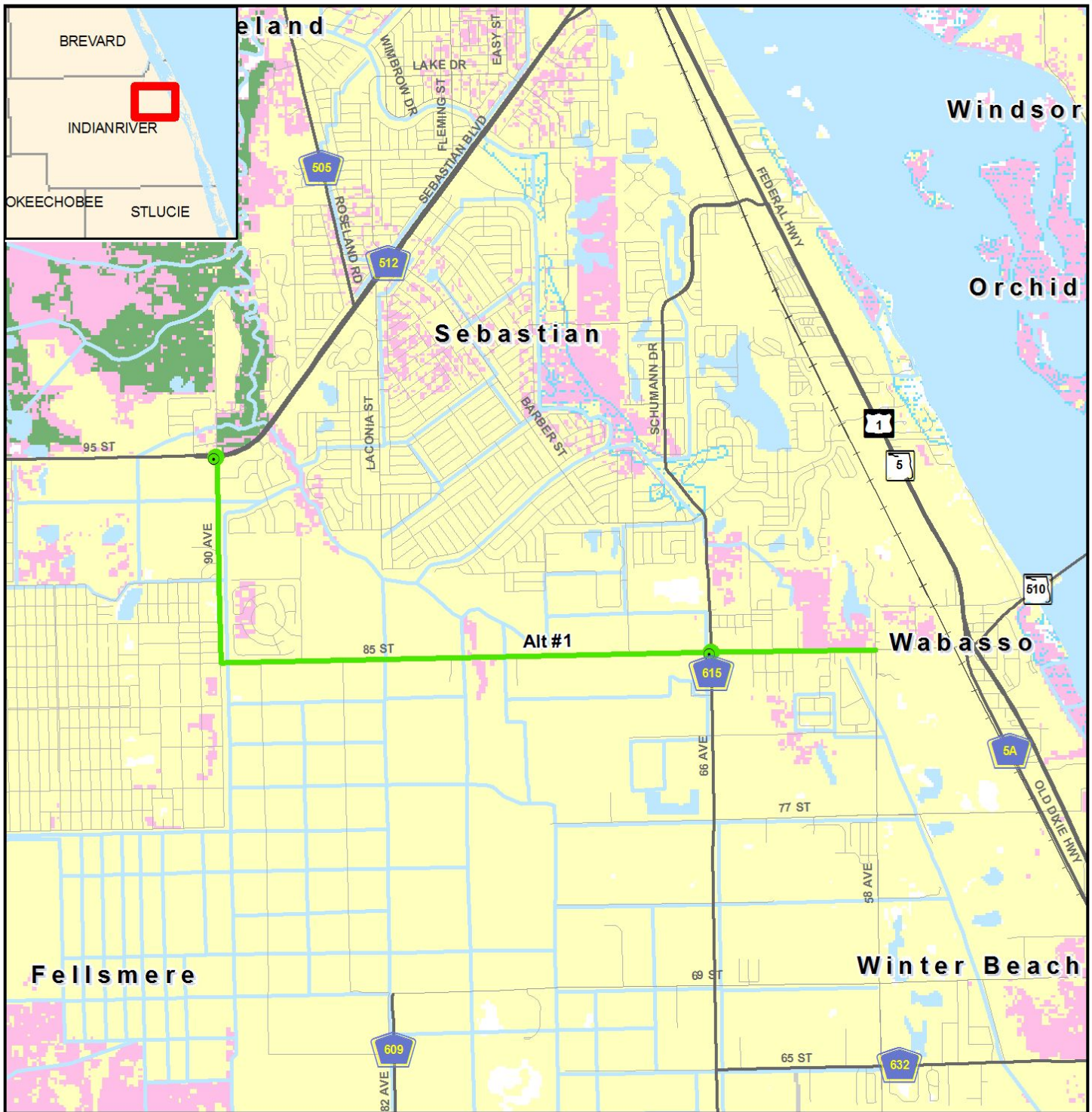
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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue

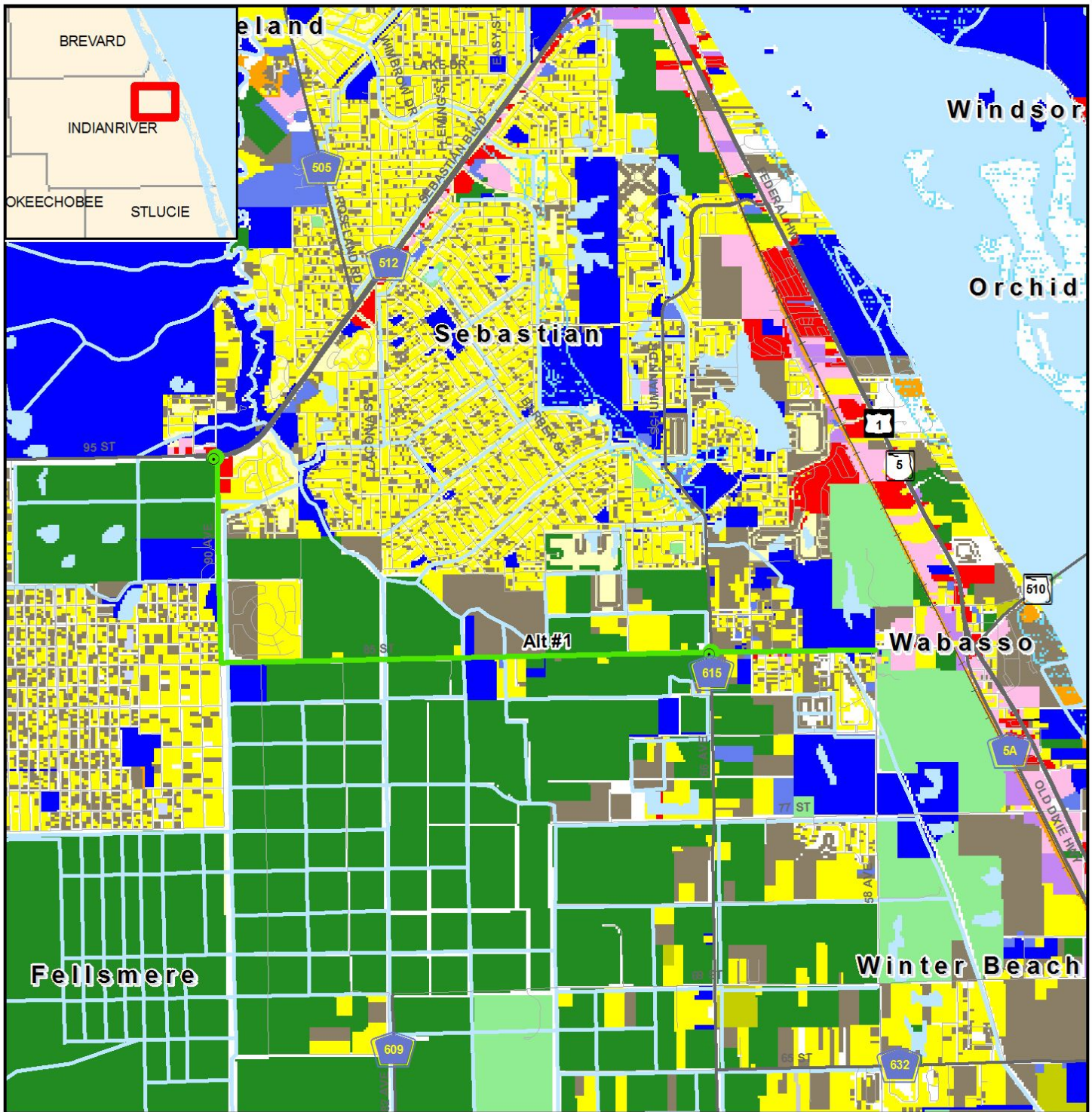


Integrated Wildlife Model Map



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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue



Land Use Map

- | | | | |
|--|---|--|---|
| ■ ETDM Alternative | ■ Agricultural | ■ Other | ■ Retail/Office |
| ● ETDM Alternative Terminus | ■ Industrial | ■ Public | ■ Vacant (Residential) |
| — Major Road | ■ Institutional | ■ Right-of-Way | ■ Vacant (Nonresidential) |
| — Local Road or Trail | ■ Mining | ■ Recreational | ■ Water |
| | ■ Open (Not Agricultural) | ■ Residential | □ No Data |

Data Sources:
 NAVTEQ
 US Geological Survey
 Florida Department of Revenue
 Florida Department of Transportation
 Florida County Property Appraiser Offices

0 0.3 0.6 1.2 Miles



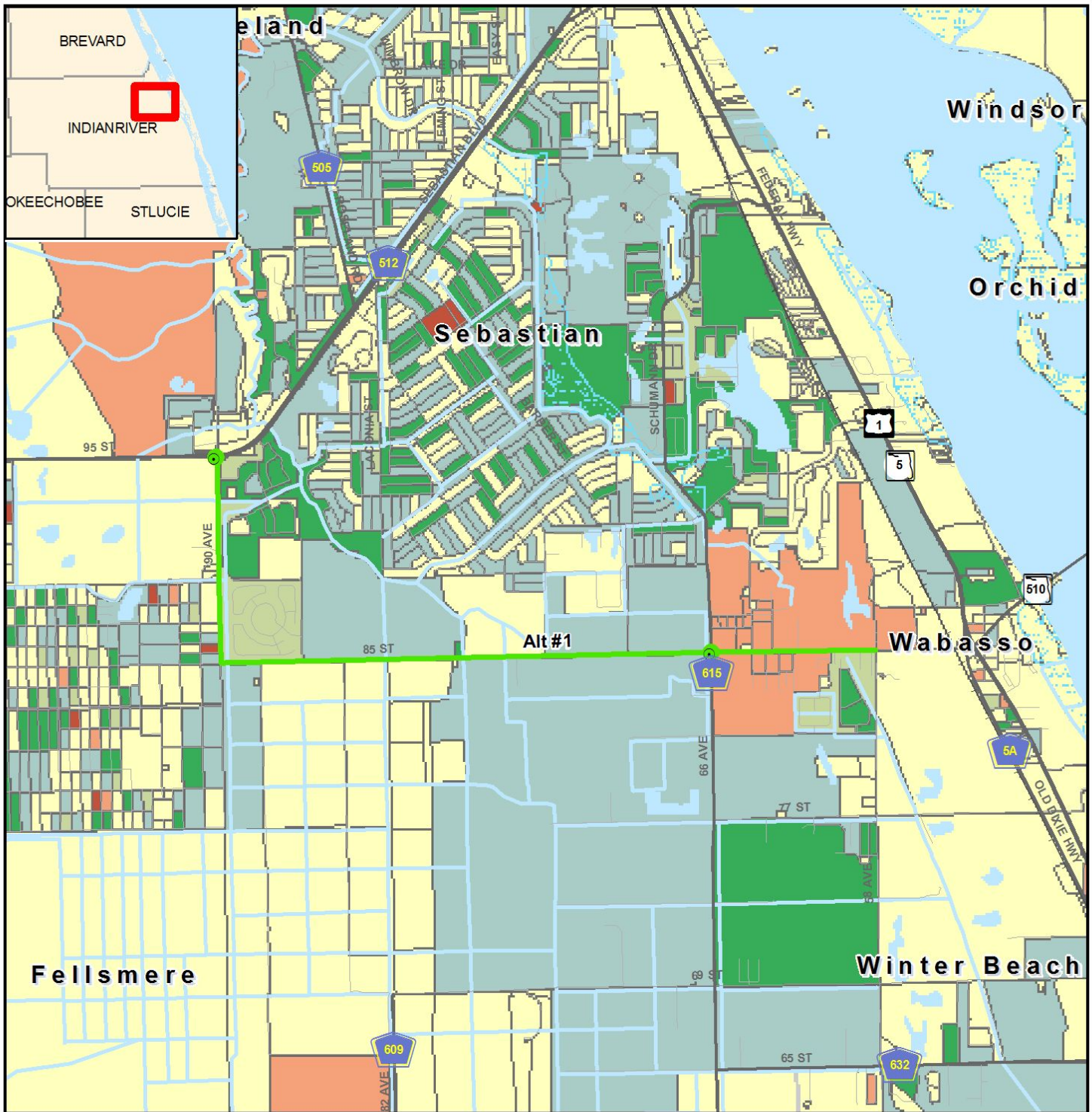
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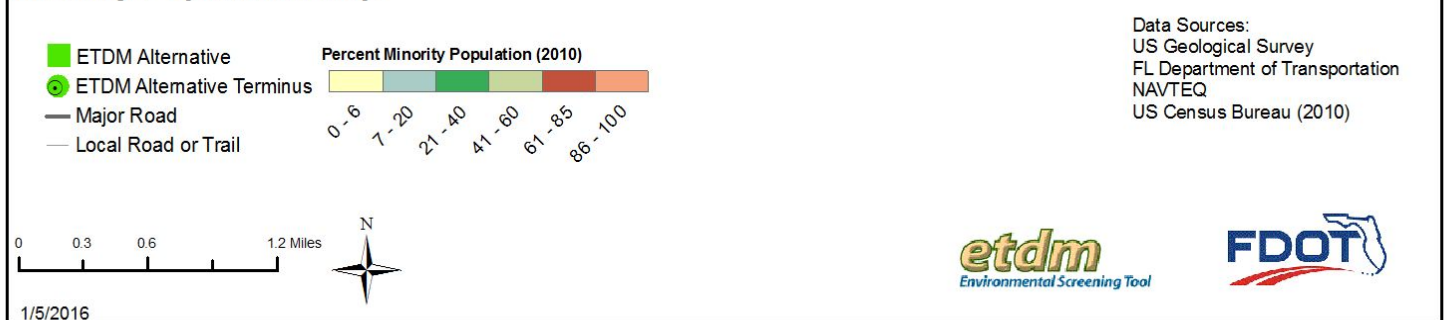
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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue

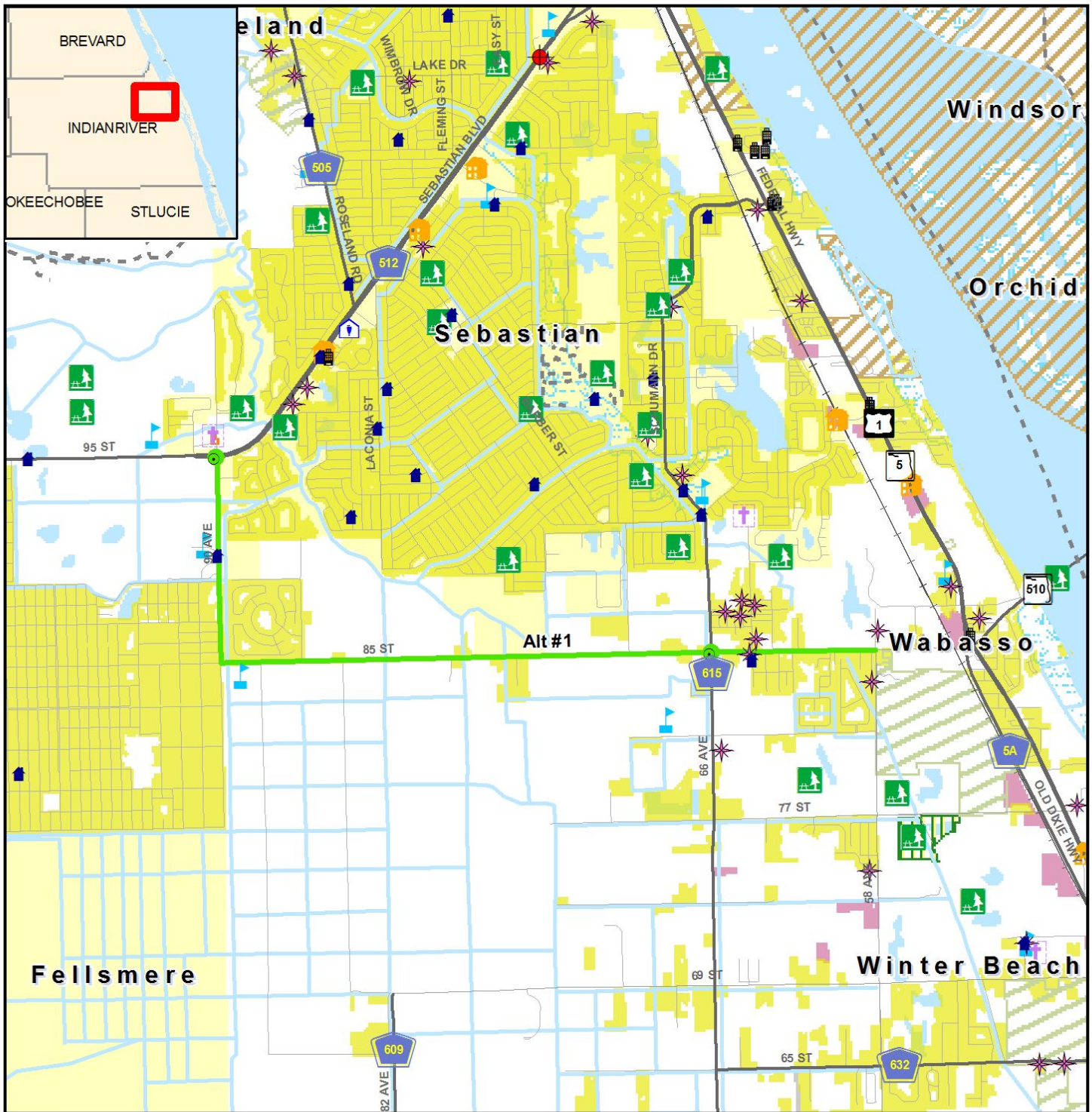


Minority Population Map

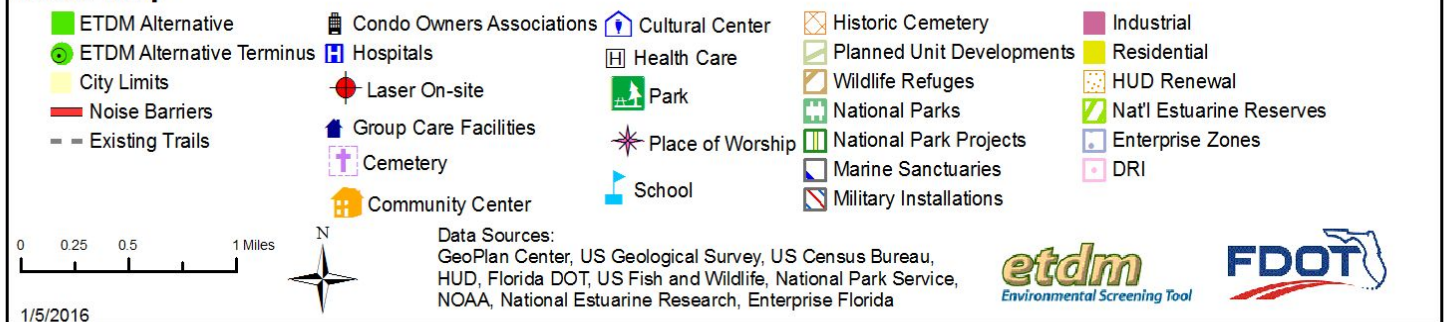


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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue

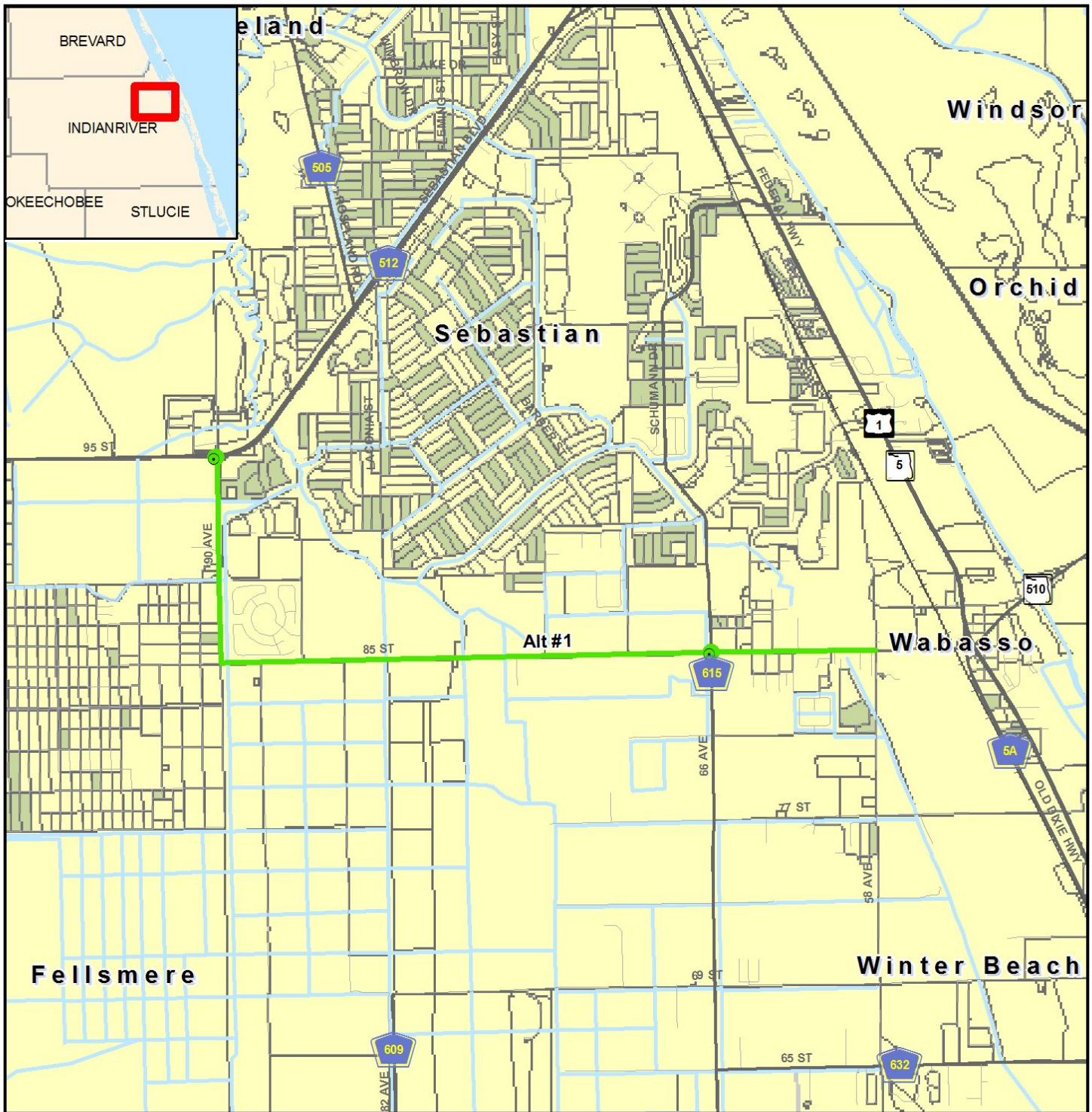


Noise Map

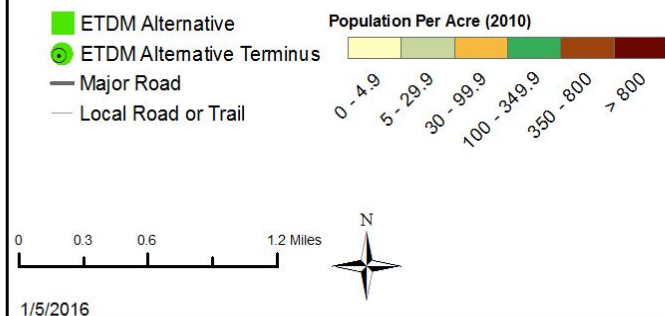


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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue



Population Density Map



Data Sources:
US Geological Survey
FL Department of Transportation
NAVTEQ
US Census Bureau (2010)

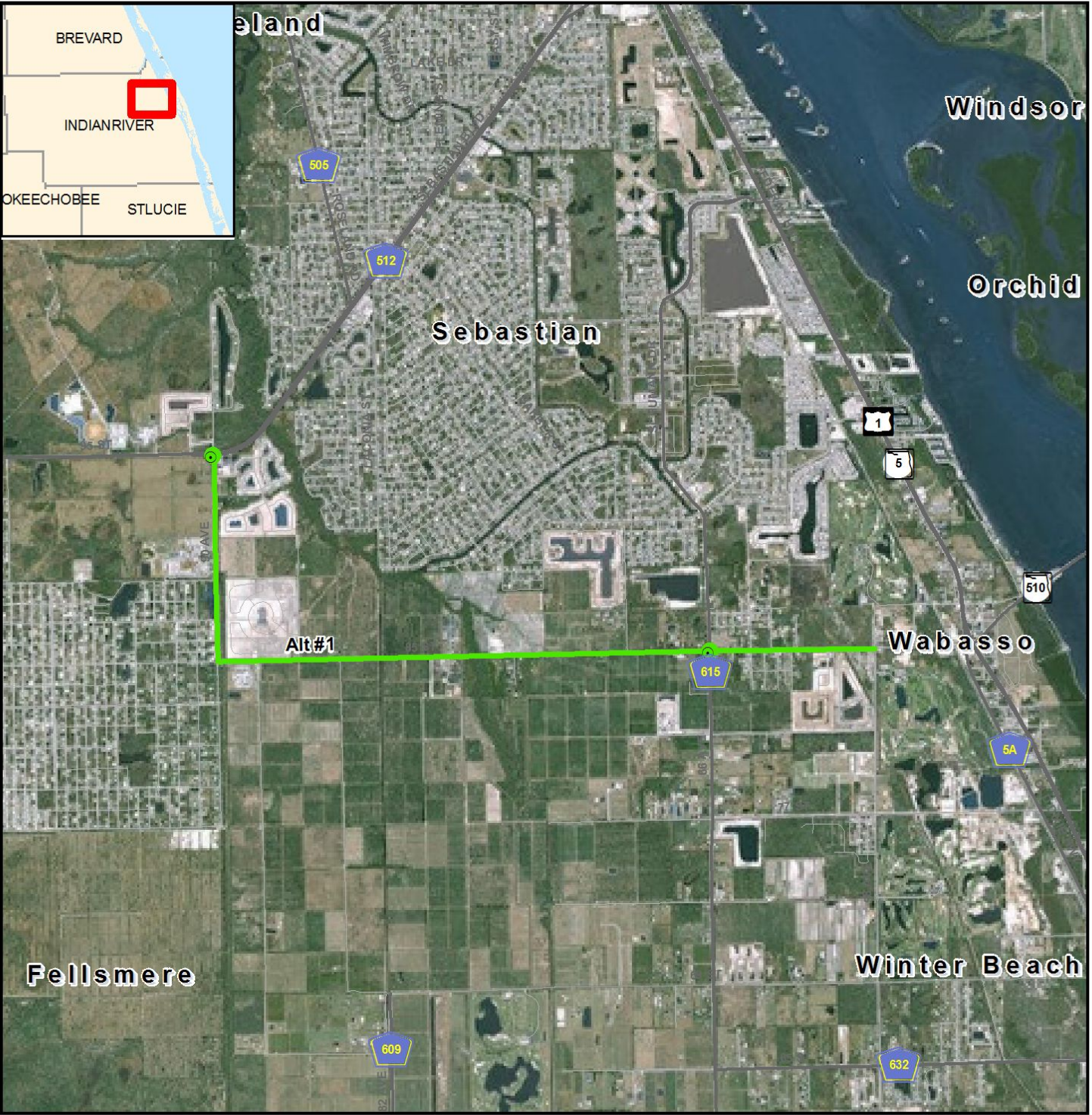
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Environmental Screening Tool



1/5/2016

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14233 CR 510 Widening from CR 512 to 58 Avenue
CR 512/85th Street to 58th Avenue



Project Aerial Map

- ETDM Alternative
- ETDM Alternative Terminus
- Major Road
- Local Road or Trail

Data Sources:
Highways - NAVTEQ
Digital Orthophotograph - ArcGIS Online



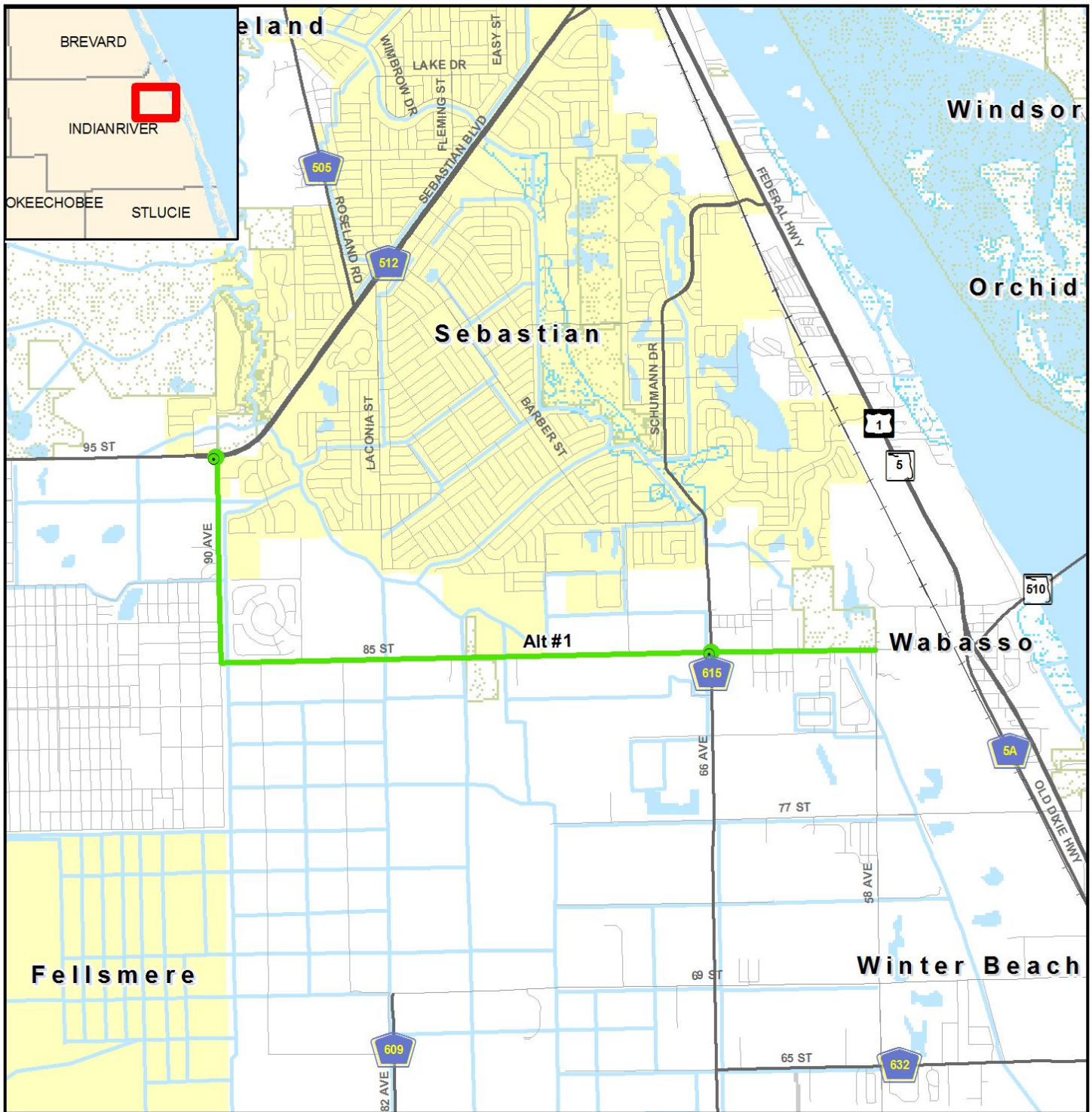
2/26/2016

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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue

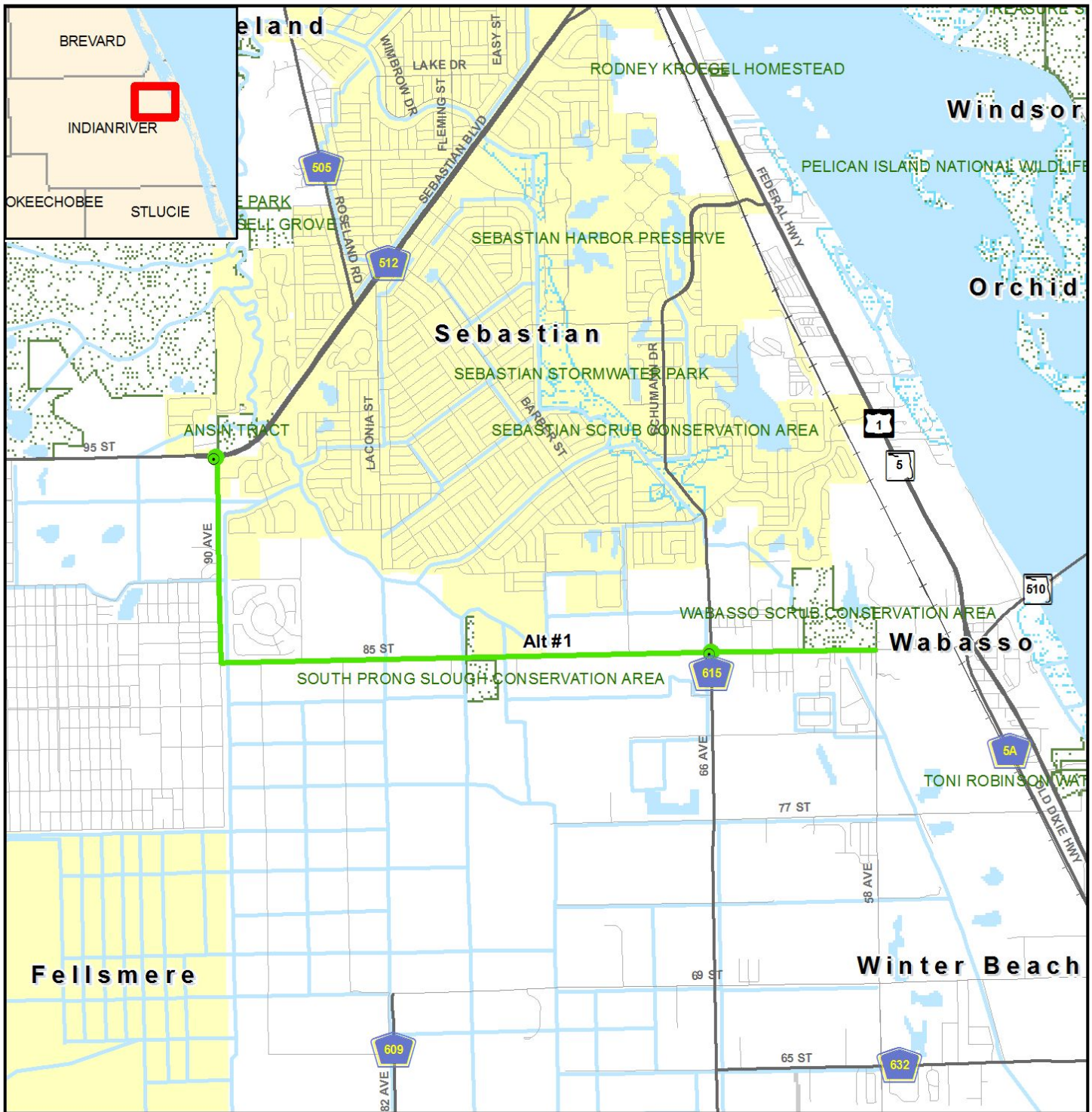


Project Base Map

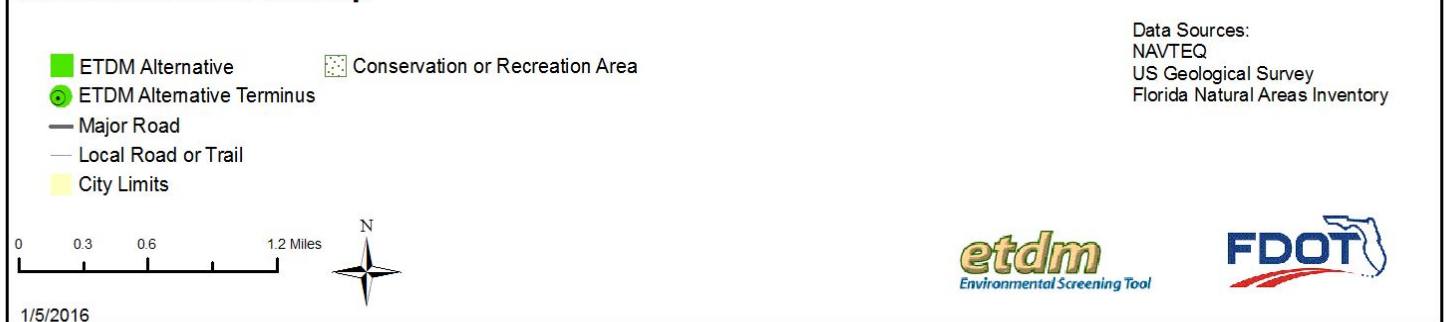


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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue

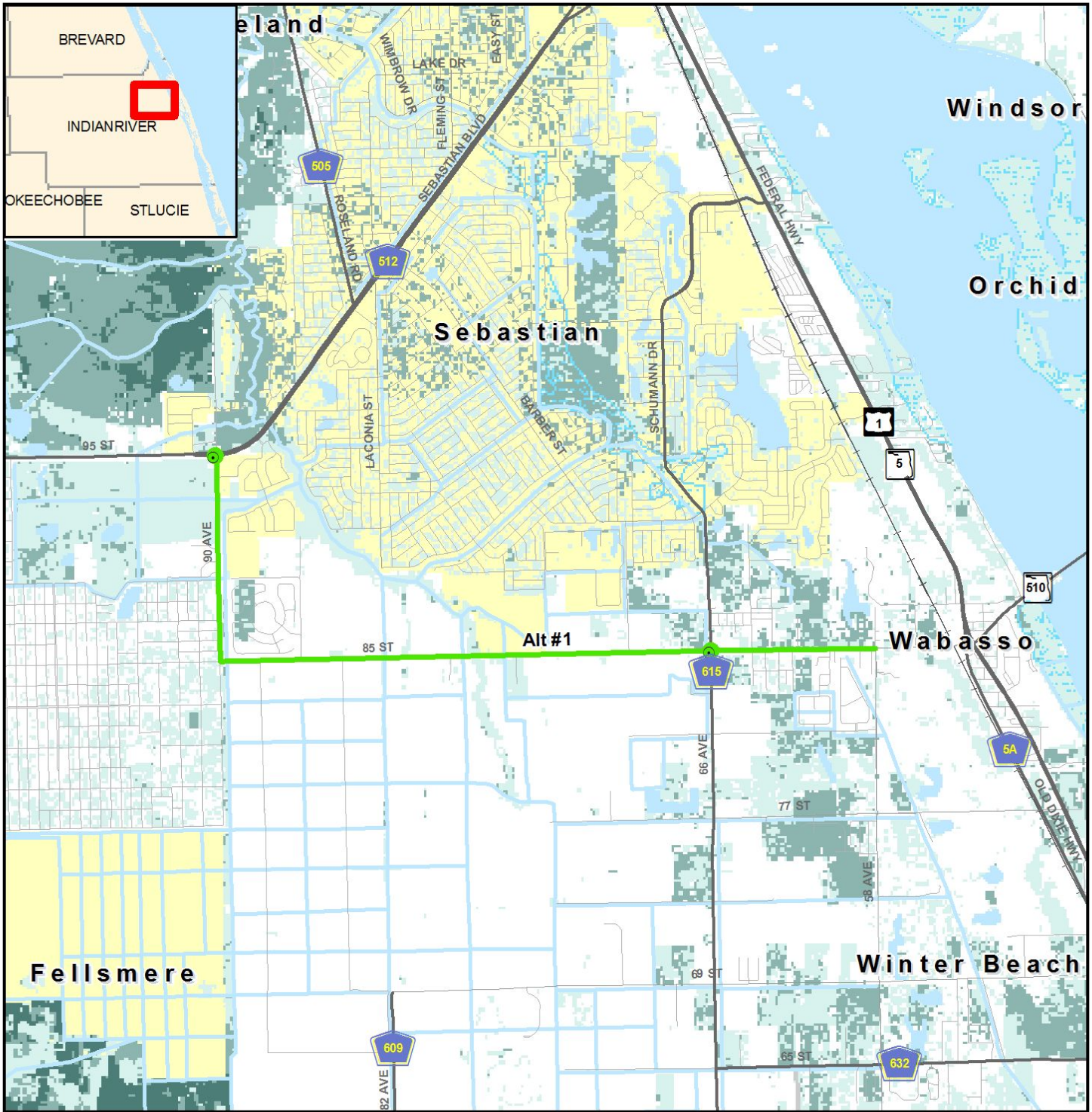


Recreational Areas Map

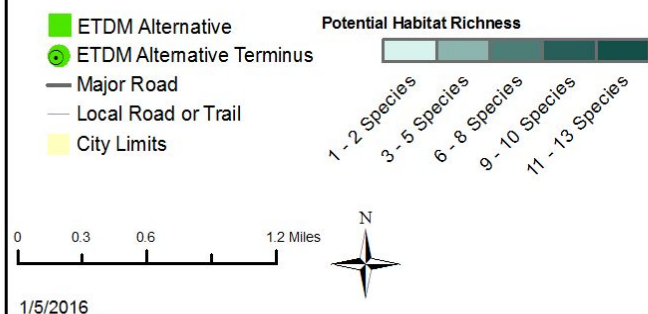


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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue



Species Potential Map



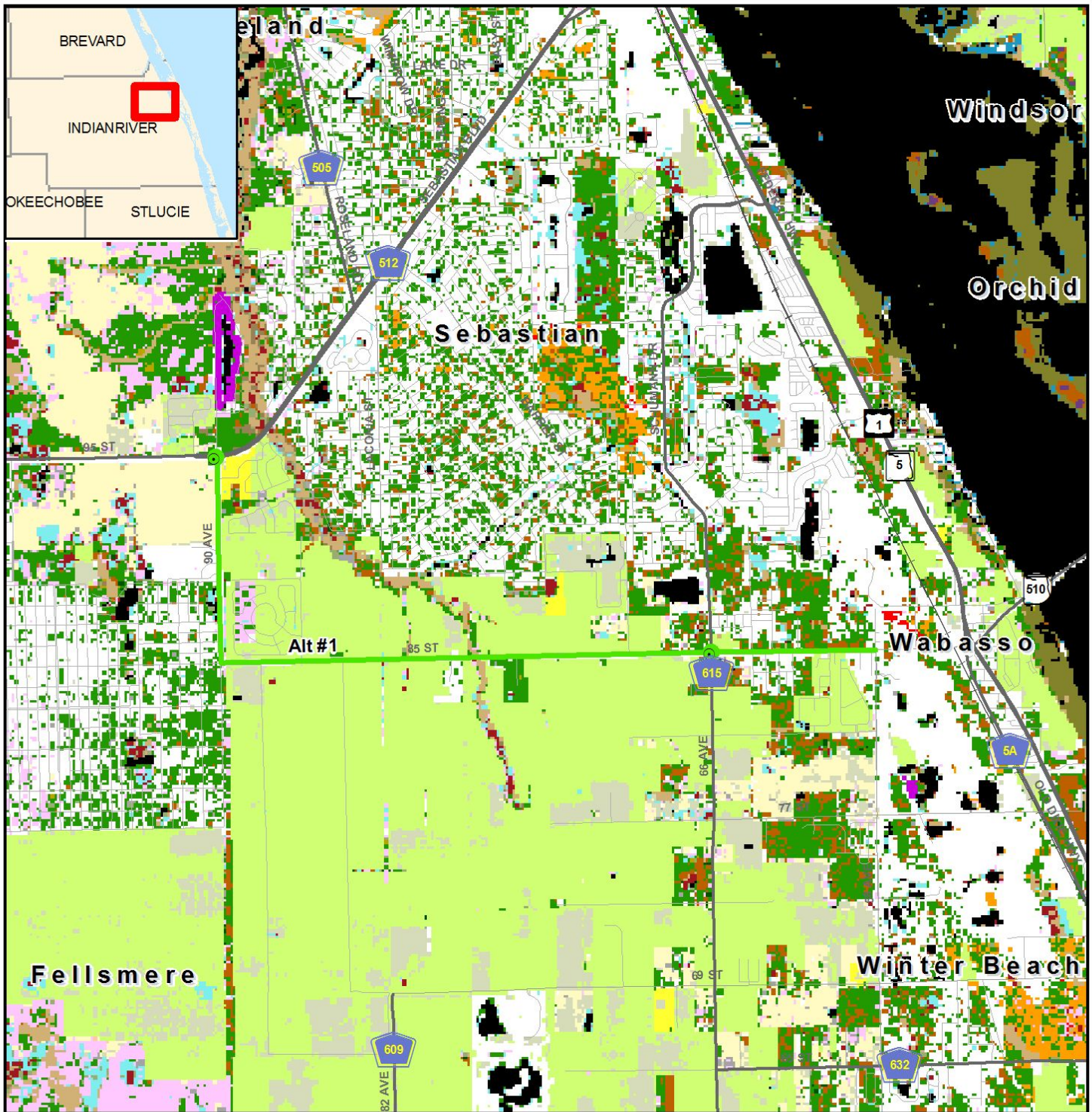
Data Sources:
NAVTEQ
US Geological Survey
Florida Department of Transportation
Florida Fish & Wildlife Conservation Commission

etdm
Environmental Screening Tool

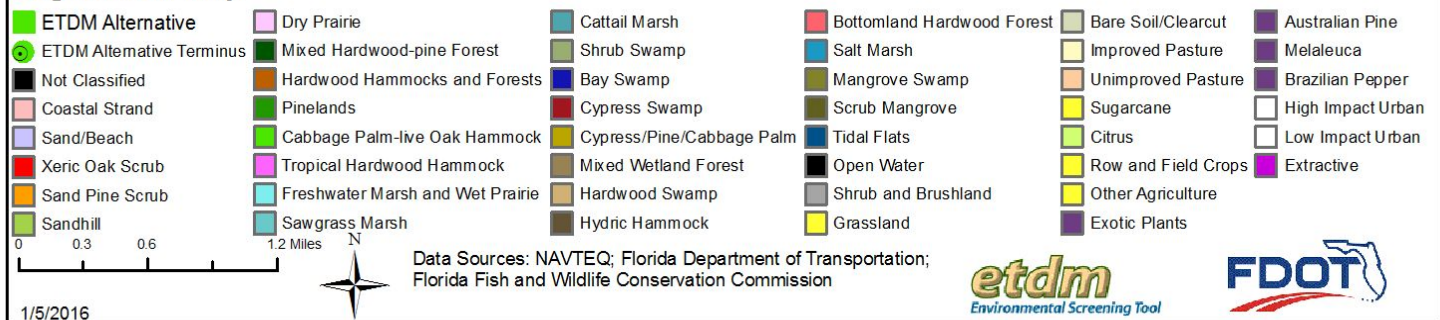
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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue

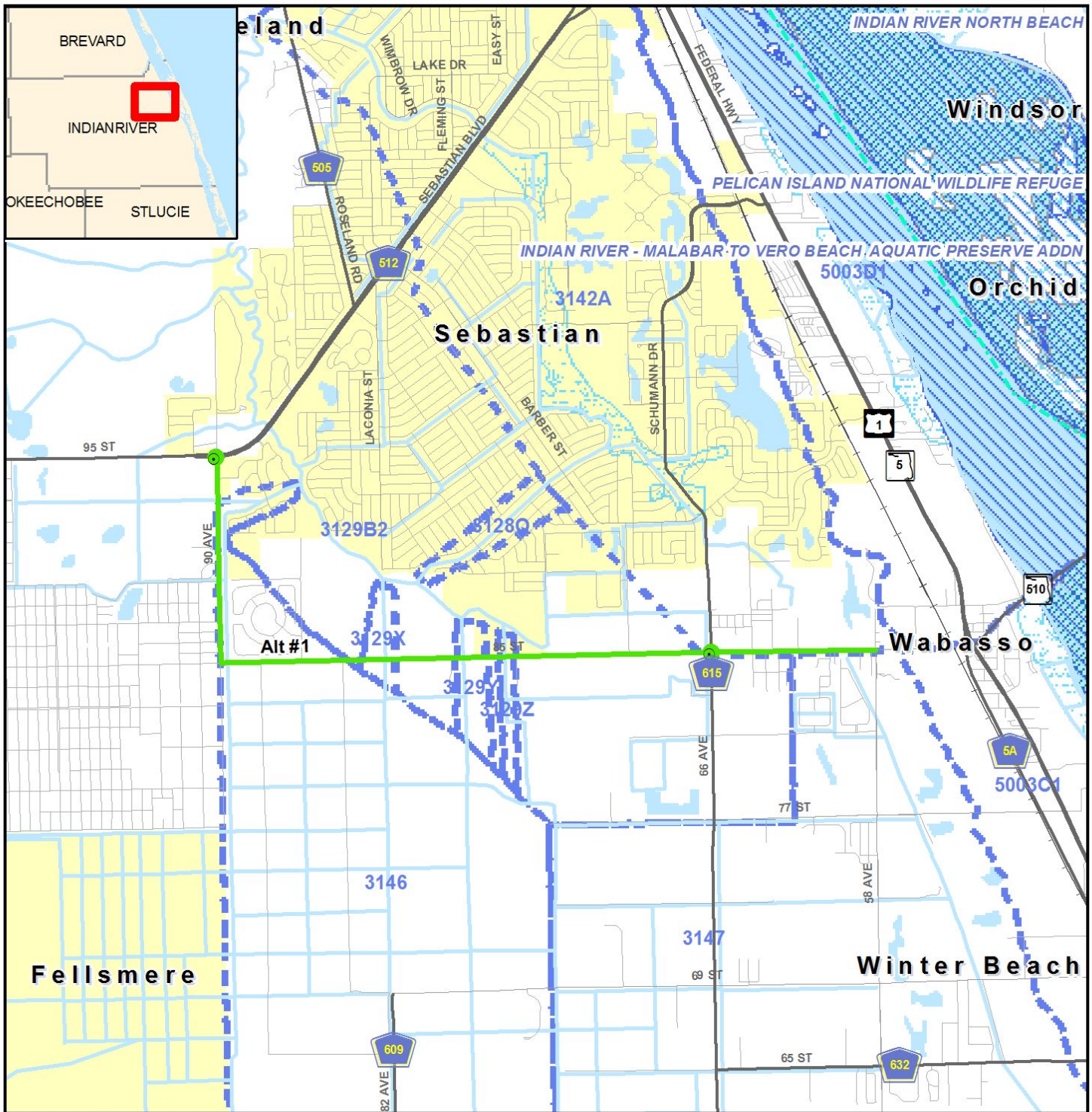


Vegetation Map

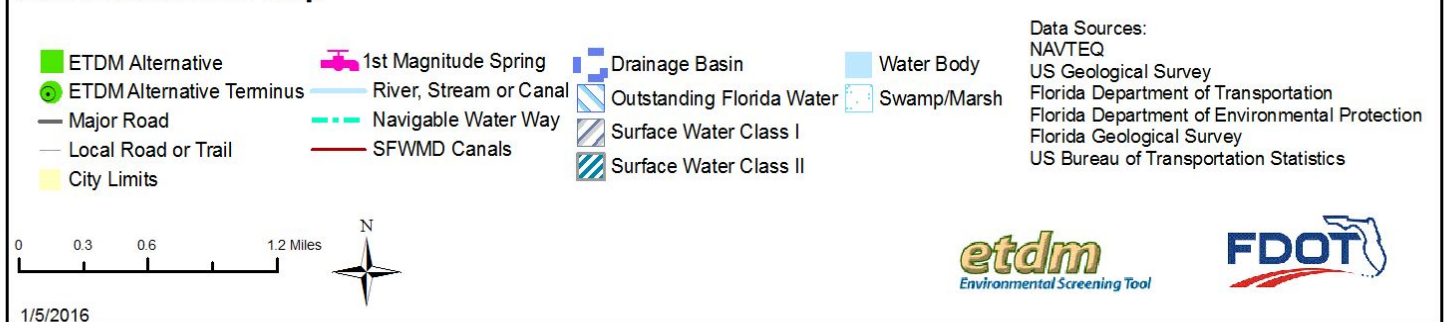


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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue

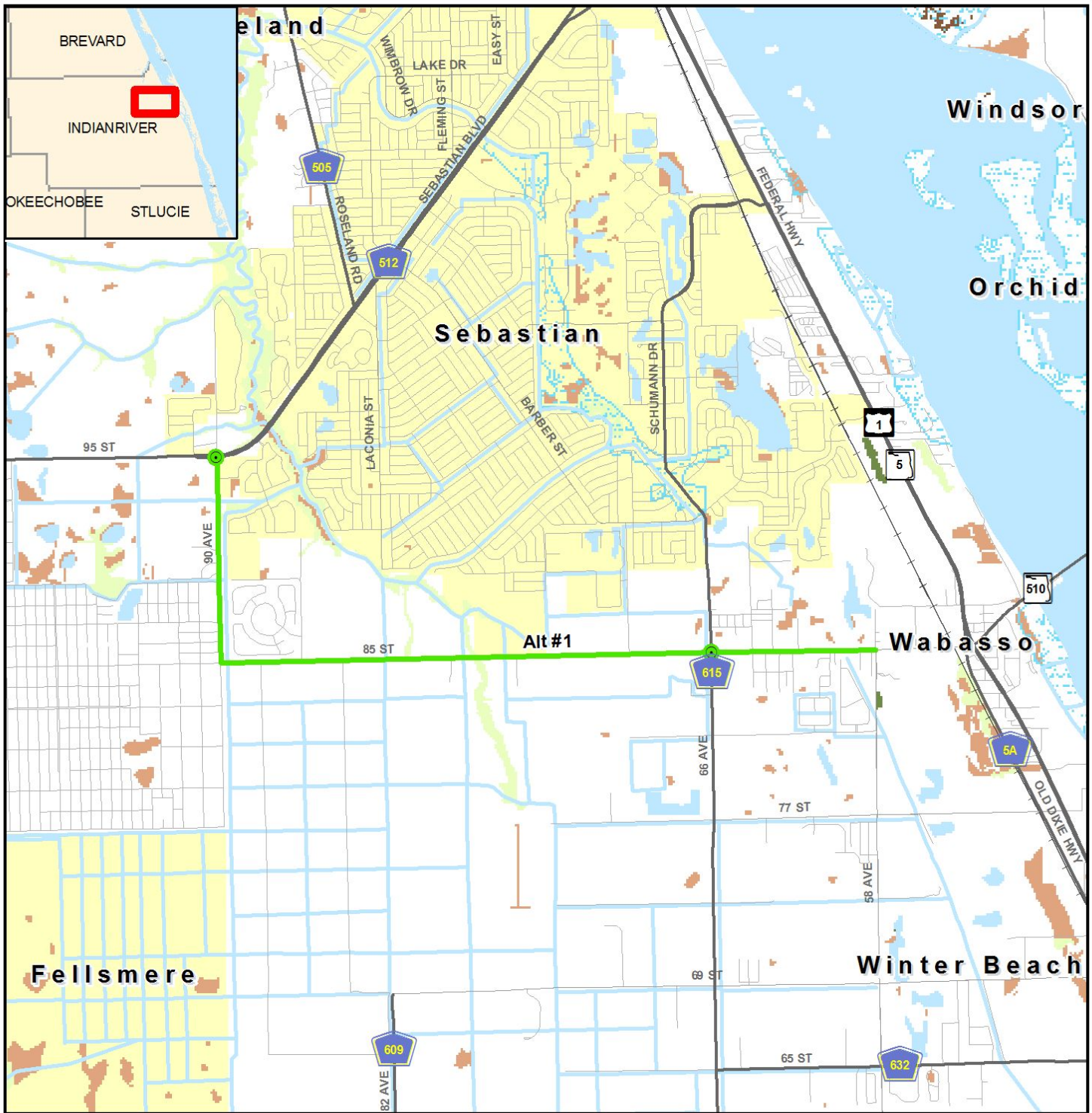


Water Resource Map



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14233 CR 510 Widening from CR 512 to 58 Avenue CR 512/85th Street to 58th Avenue



Wetlands and Surface Waters Map

- ETDM Alternative
- ETDM Alternative Terminus
- Major Road
- Local Road or Trail
- City Limits
- River, Stream or Canal
- Water Body
- Swamp/Marsh
- Non-vegetated Wetland
- Vegetated Non-forested Wetland
- Wetland Forested Mixed
- Wetland Coniferous Forest
- Wetland Hardwood Forest

Data Sources:
NAVTEQ
Florida Water Management Districts
US Geological Survey

0 0.3 0.6 1.2 Miles



etdm
Environmental Screening Tool



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