I-4 Beyond the Ultimate Project Development & Environment (PD&E) Reevaluation Study

From East of SR 434 to East of US 17/92 Seminole County, Florida

Financial Project ID No: 432100-1-22-01 | Federal Aid Project No: 0041-227-1

PUBLIC HEARING | November 14, 2016
This public hearing is being held in accordance with:

- Moving Ahead for Progress in the 21st Century (MAP-21)
- Chapter 23 of the United States Code 128
- Title 40 of the Code of Federal Regulations, parts 1500 through 1508
- Title 23 of the Code of Federal Regulations part 771
- Florida Statute 120.525
- Florida Statute 286.011
- Florida Statute 335.199
- Florida Statute 339.155
- Americans with Disabilities Act of 1990 (ADA)
- Title VI of the Civil Rights Act of 1964, as amended
- 49 CFR Part 24, Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs
- Executive Order 11988, Floodplain Management
- Executive Order 11990, Protection of Wetlands
Title VI Compliance

This hearing is being conducted without regard to race, color, national origin, age, sex, religion, disability or family status. Persons wishing to express their concerns relative to FDOT compliance with Title VI may do so by contacting:

**District Five**
Florida Department of Transportation
District Five Title VI Coordinator
Jennifer Smith
719 South Woodland Boulevard
Deland, FL 32720-6834
(386) 943 – 5367
Jennifer.Smith2@dot.state.fl.us

**Central Office**
Florida Department of Transportation
Statewide Title VI Coordinator
Jacqueline Paramore
605 Suwannee Street, MS 65
Tallahassee, FL 32399-0450
(850) 414 – 4753
Jacqueline.Paramore@dot.state.fl.us

All inquiries or complaints will be handled according to FDOT procedure and in a prompt and courteous manner.
Purpose of Hearing

• Share information about the proposed improvements.
• Provide an opportunity for public input.
• All public comments will become part of the project’s public record.
What is a PD&E Study?

Project Development & Environment (PD&E) Study

- A process followed by FDOT to evaluate:
  - Social, cultural and economic impacts associated with a planned transportation project
  - Engineering alternatives
- Part of the project development process as mandated by the National Environmental Policy Act (NEPA) of 1969
- Required to secure federal approval and funding
Key PD&E Study Elements

1. Public Involvement
2. Engineering Analysis
3. Environmental and Socio-Economic Analysis
About the Project

SR 400 (Interstate 4), Segment 3 (E. of SR 434 to E. of US 17/92)

- Approximately 10 miles in length
- Widen to ten lanes, 6 general use lanes + 4 express lanes
- Bicycle and pedestrian facilities
- Urban Interstate, SIS corridor
- 5 interchanges; DDIs proposed at Lake Mary Blvd. and CR 46A, systems interchange at SR 417/Wekiva Parkway
MetroPlan Orlando Metropolitan Planning Organization (MPO)

- The MPO works with the Florida Department of Transportation and local governments to fund and implement projects identified through various plans developed by the MPO

- The I-4 BtU Segment 3 project was No. 2 on the MetroPlan Orlando National Highway System (NHS) priority list for funding, adopted September 14, 2016
Planning Consistency

• Identified in the MetroPlan Orlando Metropolitan Planning Organization (MPO) 2040 Long Range Transportation Plan (Adopted January 2016): Plan Development & Cost Feasible Projects

• Consistent with the State Transportation Improvement Program (STIP) and the MetroPlan Orlando MPO Transportation Improvement Program (TIP)
  http://www.dot.state.fl.us/OWPB/Federal/STIP/stip_dist_05.pdf

• Consistent with the Seminole County Comprehensive Plan Transportation Element, amended September 1, 2015

• Consistent with the City of Sanford Comprehensive Plan Transportation Element
Changes proposed in the Modified Build scenario (current Reevaluation study) as compared to the previously approved Original Build scenario (April, 2000)

- Proposed change in the project typical sections: switch from HOV (High Occupancy Vehicle) lanes in the median (number of HOV lanes varied from one to two in each direction), to four express lanes, two in each direction
- Proposed changes to interchange configurations: Several interchange configurations have been modified to better accommodate traffic volumes and improve interstate and cross-street operations

Accommodate future traffic needs based on anticipated population and employment growth

- Certain roadway segments are nearing capacity
- Meet capacity needs for design year 2040 project traffic

Enhance safety and mobility

- Reduction in congestion is expected to positively impact occurrences of rear end crashes
- Improvement to all interchanges along the corridor resulting in fewer congestion bottleneck locations
- Additional Advanced Signage – understanding that many in the corridor are visitors and are unfamiliar with the corridor
- Gaps exist in sidewalks and bicycle lanes
- Provide sidewalks and 7-foot buffered bicycle lanes on State crossroads within study limits
• This study is developing design alternatives that would efficiently accommodate traffic volumes that are projected to occur in year 2040

• Goal is to maintain an acceptable level of service through year 2040

  ▪ Level of service measures to what extent cars are delayed when travelling through a given area

  ▪ As in grade school, “F” is failing (or highly congested) and “A” is the best (or free flowing)

• Traffic analysis is documented in the I-4 Beyond the Ultimate Systems Access Modification Report (SAMR) Re-Evaluation
Results of Traffic Analysis

- Drivers will experience level of service E and F in the “Original Build” scenario along portions of Segment 3 and intersections along the cross streets.

- Drivers will experience level of service D or better in the “Modified Build” scenario along majority of Segment 3 and intersections along the cross streets.

- **4 additional travel lanes and interchange modifications** will be needed to accommodate projected 2040 traffic volumes.
The existing right-of-way varies from 300 feet to 350 feet.

Three 12-foot travel lanes in each direction.

Outside and inside shoulders are 12 feet wide with 10 feet paved

Guardrail on the inside shoulder of the eastbound lanes.
Local Agency & Other Stakeholder Meetings

- Cities of Sanford and Lake Mary
- Seminole County
- MetroPlan Orlando
- Florida’s Turnpike Enterprise
- Utility companies (Florida Gas Transmission and Duke Energy)
- St. Johns River Water Management District (SJRWMD)
- Markham Woods HOA

*list is not all-inclusive
Public Involvement

• Project website:  
  www.i4express.com

• Alternatives Public Workshop  
  – March 20, 2014  
  – 43 citizens & 15 project team members attended  
  – 3 written comments were received
Alternatives Considered

• ‘No-Build’ or ‘Do Nothing’ Alternative
  – No corridor/capacity improvements
  – Remains as an alternative throughout the PD&E study

• ‘Reversible Lanes’ Alternative
  – 6 GUL + 3 EL (with Reversible “Zipper” Lane) - Six general use lanes and three express lanes (one in each direction with a center reversible “zipper” lane)
  – 6 GUL + 4 EL & 6 GUL + 2 EL (No Reversible Lanes) - Six general use lanes and four express lanes from east of SR 434 (Begin Project Station 2043+71.32) to the slip ramps west of Dirksen Drive (Station 2710+01.89) and six general use lanes and two express lanes from west of Dirksen Drive to east of SR 472 (End Project Station 3118+46.00).

• ‘Build’ Alternative
  – Widen road to ten lanes, 5 travel lanes in each direction (3 general use lanes + 2 express lanes)
  – 70 MPH Design Speed
  – Diverging diamond interchange at Lake Mary Boulevard and CR 46
  – Collector-Distributor system between CR 46A and SR 46
  – Tight Urban Diamond Interchange at US 17/92
  – Provide 7-ft buffered bicycle lanes on State roads and 4-ft bicycle lanes on other cross-streets
  – Provisions to accommodate the multi-use trail at the St. Johns River crossing
  – Locate potential pond sites
### Alternatives Evaluation Matrix

<table>
<thead>
<tr>
<th>Summary of Impacts</th>
<th>No-Build</th>
<th>I-4 Maintaine</th>
<th>Lake Mary Boulevard</th>
<th>CR 46A</th>
<th>SR 46</th>
<th>US 17/92</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alt. 1</td>
<td>Alt. 2</td>
<td>Alt. 3</td>
<td>Alt. 4</td>
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<td>Alt. 2</td>
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<td>Alt. 2</td>
<td>Alt. 3</td>
<td>Alt. 4</td>
<td>Alt. 1</td>
<td>Alt. 2</td>
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<tr>
<td></td>
<td>Alt. 1</td>
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<td>Alt. 4</td>
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<td>Alt. 2</td>
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<tr>
<td></td>
<td>Alt. 1</td>
<td>Alt. 2</td>
<td>Alt. 3</td>
<td>Alt. 4</td>
<td>Alt. 1</td>
<td>Alt. 2</td>
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<tr>
<td></td>
<td>Base</td>
<td>SPUI</td>
<td>GS - DDI</td>
<td>DDI w/ Lake Enve Road Connector</td>
<td>Base Geometry</td>
<td>CFI</td>
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<td>Royalty ROW Area to be acquired (Acres)</td>
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<td>Wetland Impacts (Acres)</td>
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<td>Section 4(f) Properties</td>
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<td>0</td>
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<td>Potential Historic Sites</td>
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<td>Potential to Improve Traffic Operational Performance</td>
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<td>Controllability</td>
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<td>Medium</td>
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<td>Low</td>
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<td>Bridges (Acres)</td>
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<td>86.471</td>
<td>52.000</td>
<td>71.273</td>
<td>67.340</td>
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</tbody>
</table>

Notes:
- Data provided is a work in progress and may be updated or replaced.
- Wetlands, 6.60; Stormwater Pond.
- Pond 300, FPC 300-A, FPC 300-B, & State 315, Med.
Proposed Roadway Typical Section
- From E. of SR 434 to E. of US 17/92

East of SR 434 to West of Lake Mary Boulevard (Design Speed = 70 MPH)
8 General Use Lanes + 4 Express Lanes

West of Lake Mary Boulevard to East of US 17/92 (Design Speed = 70 MPH)
6 General Use Lanes + 4 Express Lanes
Recommended Alternative
- I-4 Mainline from E. of SR 434 to E. of US 17/92

- The proposed roadway typical section is recommended to follow the existing alignment of the Interstate

- Additional right-of-way required primarily for recommended stormwater and floodplain compensation pond sites
Recommended Alternative:

- Replaces the two existing bridges with a single bridge that will carry both vehicular and pedestrian traffic.
- Provides one 11-foot travel lane in each direction with a 14-foot two-way left turn lane, 6-foot and 10-foot sidewalks on the south and north sides of the road, respectively.
- No additional right-of-way is required.
Recommended Alternative:

- Diverging Diamond Interchange (DDI)
- Includes a new two-way, east-west connector roadway approximately 1/4 mile south of Lake Mary Boulevard.
- The eastbound connector road will spur off the I-4 eastbound off-ramp and terminate at a new signalized intersection at Lake Emma Road.
- Additional right-of-way is required
Recommended Alternative:

- CR 46A widened to three through lanes in each direction between International Parkway and east of Rinehart Road.
- Bike lanes provided along CR 46A through the interchange
- DDI design changes signal operations at the eastbound ramp terminal from a three-phase to two-phase cycle, as the left turn movements from the crossroad to the on ramp are now free flow movements
- Eliminates eastbound and westbound left turn lanes at the intersection of CR 46A and Rinehart Road; U-turns at median openings on Rinehart Road north and south of CR 46A
- Additional right-of-way is required
Recommended Alternative:

- Widening of eastbound SR 46 for an additional left turn lane from eastbound SR 46 to eastbound I-4
- Existing 2-lane eastbound ramp between CR 46A, SR 417 and SR 46 will be modified
- No additional right-of-way is required
Recommended Alternative:

- Tight Urban Diamond Interchange (TUDI) that realigns US 17/92 to directly align with Monroe Road
- Two single-lane roundabouts are proposed, one each at the locations of the existing US 17/92 ramp terminals east and west of I-4.
- Existing at grade crossing of Monroe Road and SunRail will remain; however Monroe Road will be a two-lane roadway north of Orange Boulevard instead of the current four-lane section, reducing the rail crossing width
- Additional right-of-way is required
Drainage Analysis

• The existing drainage systems will be enhanced to accommodate stormwater runoff from roadway improvements
  – Upgrading roadside ditches (within FDOT right-of-way)
  – Constructing offsite ponds
  – Enhanced Water Quality (Treatment)
  – Enhanced Water Quantity (Attenuation)

• Modify several existing SJRWMD Permits
## Pond Siting Evaluation & Design Criteria

### Pond Site Design Criteria
- Governed by the rules and criteria set forth by the St. Johns River Water Management District (SJRWMD) and the FDOT.
- **Water Quality and Pond Recovery**
  - Wet/Dry Retention
  - Wekiva Recharge Area
  - Wekiva River Hydrologic Basin
- **Water Quantity**
  - Open Basin
  - Closed Basin (with and without outfall)
- **Pond Design**
  - Minimum horizontal clearance
  - Rounded corner radii
  - Minimum 1-foot of freeboard

### Pond Site Evaluation Criteria

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
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<tbody>
<tr>
<td>Residential, business, and unimproved properties</td>
</tr>
<tr>
<td>Community Facilities</td>
</tr>
<tr>
<td>Section 4(f) / Public Lands</td>
</tr>
<tr>
<td>Historic / Archaeological</td>
</tr>
<tr>
<td>Wetlands</td>
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<tr>
<td>Upland Areas</td>
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<tr>
<td>Aquatic Preserves / Outstanding Florida Waters</td>
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<tr>
<td>Wild and Scenic Rivers</td>
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<tr>
<td>Floodplains</td>
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<tr>
<td>Threatened and Endangered Species</td>
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<tr>
<td>Farmlands</td>
</tr>
<tr>
<td>Noise</td>
</tr>
<tr>
<td>Contamination</td>
</tr>
<tr>
<td>Utilities</td>
</tr>
<tr>
<td>Right-of-Way Acquisition and Cost</td>
</tr>
</tbody>
</table>
Recommended Pond Site Locations
To comply with various Executive Orders and other federal and state requirements, engineering and environmental information was reviewed and evaluated to determine if there were any substantial impacts to social and economic, cultural, physical, and natural resources that may result from construction of the proposed improvements.

**Social & Economic Effects:**
- Land use changes
- Economic impacts
- Relocations of residences or businesses

**Cultural Effects:**
- Historic & archaeological sites

**Physical Effects:**
- Noise and air
- Contamination
- Utility Relocations

**Natural Effects:**
- Wetlands
- Threatened and endangered species
- Water quality
- Floodplains
Socio-Economic

- Improves mobility
- Relieves congestion
- Provides regional economic benefits
Cultural and Historic Resources

- An Cultural Resource Assessment Survey was performed within the within the project Area of Potential Effect (APE).
- The APE includes the existing ROW along I-4 and was extended to a distance of no more than 100 meters (330 feet) from the proposed ROW and includes the proposed pond footprints plus a 100-foot buffer.
- Pedestrian surface inspection and excavation of 135 shovel tests.
- No artifacts were recovered from any of the 135 shovel tests.
- No archaeological sites or occurrences were identified.
- 30 historic resources constructed before 1971 located within the I-4 Segment 3 APE.
- 3 historic resources are recommended eligible for National Register of Historic Places (NRHP) inclusion.
- No adverse effects to any cultural resources are anticipated.
In accordance with Executive Order 11990 “Protection of Wetlands”

- Estimated 11.86 Acres of Direct Wetland Impacts
- Estimated 6.75 Acres of Jurisdictional Other Surface Water Impacts
Threatened and Endangered Species

• In accordance with Title 50 Code of Federal Regulations Part 402 of the Endangered Species Act of 1973, as amended

• The proposed I-4 segment 3 project has either a “No effect” or “May Affect but Not Likely to Adversely Affect” determination for all federally or state listed species that may be impacted by the project.
The proposed stormwater facilities will be designed to meet the current requirements of the St. Johns River Water Management District.

Stormwater treatment will be provided by a combination of dry swales, wet ponds and dry ponds which may be on-site or off-site.
Floodplains

• In accordance with Executive Order 11988 “Floodplain Management”

• 6.43 Ac-ft. floodplain impacts are anticipated
In accordance with the Code of Federal Regulation Part 772

A 10-ft tall, 1,746-ft long barrier-mounted or a 12-ft high, 1,802-ft long ground-mounted noise barrier is reasonable and cost feasible on the east side of I-4, from the rest area to Emma Oaks Drive (adjacent to the Pine Bay Drive Subdivision)
Potential Contamination Sites

- 294 sites identified as potential contamination sites
- 2 rated high risk, 14 rated medium risk and 2 rated low/medium risk
- Out of 22 proposed pond sites, six were rated medium risk and two were rated high risk
- 25 pond sites rated as low risk

276 sites are rated as No Risk or Low Risk for potential contamination
An air quality analysis, specifically an analysis of carbon monoxide (CO) concentrations, has been performed on the recommended alternative.

The analysis has been conducted using the established FDOT Air Quality Screening Model.

Air quality impacts are not expected to occur as a result of this project.
Right-of-Way Requirements

- Approximately 18 acres of additional right-of-way is anticipated for roadway improvements
- Approximately 23 acres of additional right-of-way is anticipated for off-site ponds
- 4 potential relocations (3 residential, 1 business) are anticipated

**Florida Statute 330.09**
Federal Uniform Relocation Assistance and Real Property Acquisition Act of 1970
(Public law 91-646 as amended by public law 100-17)
• You will be contacted by an appraiser who will inspect your property
• Be present and provide information about the value of your property
• Eligibility for relocation advisory services and payment benefits
• You may appeal relocation determination
• If you move before notification is received, benefits may be jeopardized
• Relocation specialists will answer any questions
# Project Cost Estimates

## Estimated Project Costs for I-4 Segment 3

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRE</td>
<td>$288,746,044.44</td>
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<tr>
<td>MOT (10%)</td>
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<tr>
<td>Mobilization (10%)</td>
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<td>Project Unknowns (15%)</td>
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<td>Project Non-Bid Subtotal</td>
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<tr>
<td>Construction Subtotal</td>
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<tr>
<td>Design (8%)</td>
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<td>CEI (8%)</td>
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<td>ROW</td>
<td>$35,179,000.00</td>
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<tr>
<td>Utilities</td>
<td>$2,800,000.00</td>
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<tr>
<td>Permits</td>
<td>$165,900.00</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$504,395,440.18</strong>*</td>
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*Subject to Change*
Schedule and Funding

• Obtain Environmental Impact Statement Update approval; Record of Decision from the FHWA
  ▪ Anticipated end November 2016

• Design
  ▪ Funded FY2016
  ▪ Potential for Design-Build

• Permits
  ▪ Currently not funded

• Right-of-Way Purchase
  ▪ Funded FY2022-FY2025

• Utilities
  ▪ Currently not funded

• Construction (w/design)
  ▪ Currently not funded

• Construction Engineering and Inspection (CEI)
  ▪ Currently not funded
• Draft documents were available for review starting September 14, 2016 and will remain on display until November 25, 2016 at:
  - Seminole County Public Library Northwest Branch
    580 Greenway Boulevard
    Lake Mary, FL 32746

- Project website: www.i4express.com
• Make an oral statement
  – To the court reporter
  – During the public comment period, after completing a “Speaker Card”
• Submit written comments
  – During the Public Hearing
  – Mail to the FDOT Project Manager: Beata Stys-Palasz, P.E.
    ➢ Florida Department of Transportation
    719 South Woodland Boulevard
    Deland, FL 32720

Comment Period Ends on November 25, 2016
• Email or call
  – (386) 943-5418 or beata.stys-palasz@dot.state.fl.us

• Visit www.i4express.com
  – Click on the Contact Us link
  – Fill out the form and click submit

• All comments become public record
Thank you for attending!

PUBLIC HEARING

I-4 Beyond the Ultimate PD&E Reevaluation Study

FDOT