

# ***Florida Department of Transportation District 5 Update***

***Loreen Bobo, P.E.***  
*Director of Transportation Development*

***Alan Hyman, P.E.***  
*Director of Transportation Operations*

***FACERS***  
***June 26, 2018***



## FDOT Vision

...serve the people of Florida [**residents & tourists**] by providing a transportation network [**connectivity**] that is well planned [**trends and priorities**] , supports economic growth [**modal improvements**], and has the goal of being congestion [**capacity projects**] and fatality free [**pedestrian & TSM&O improvements**]

# FDOT District 5 Central Florida



- Safety and mobility is our main focus.
- Regional Solutions
- Working with Counties, Cities, Towns, MPO/TPOs to build the right projects for the region.

# FDOT District 5 Central Florida



District Five is one of the fastest growing areas of the state.

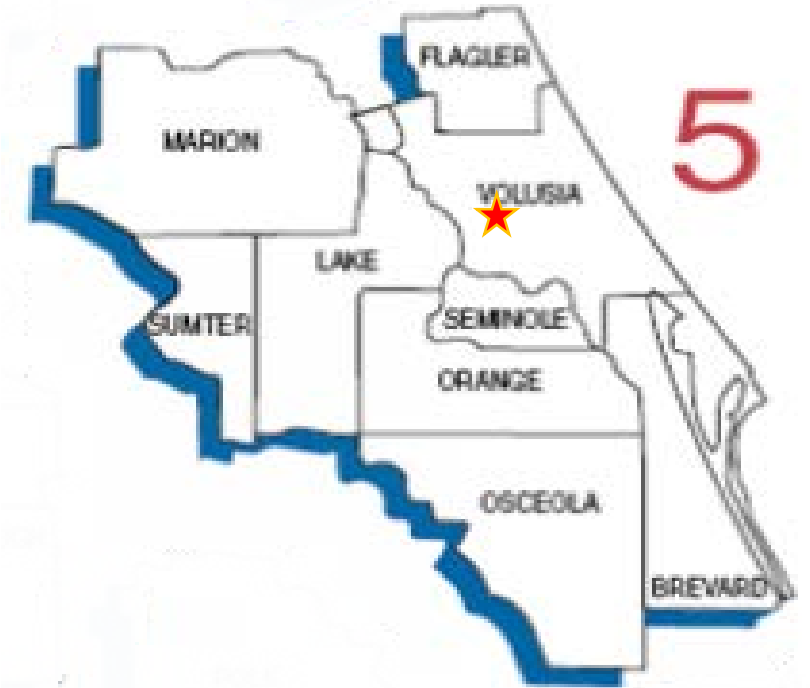
9,000 square miles over 9 counties:

Brevard	Flagler	Lake
Marion	Orange	Osceola
Seminole	Sumter	Volusia

Interact directly with Florida's Turnpike Enterprise (FTE) and Central Florida Expressway Authority (CFX)

Nearly 4,000,000 residents who log more than 55.6 million (estimated) vehicle miles traveled daily.

District Five is served by five transit authorities, five rail lines, one deep-water port, 160 public/private airports, nine Scenic Byways and Space Florida.



A.C.L. Depot, Orlando







Ferg's  
DEPOT

SUN TRUST

Trains →

Trains →

102

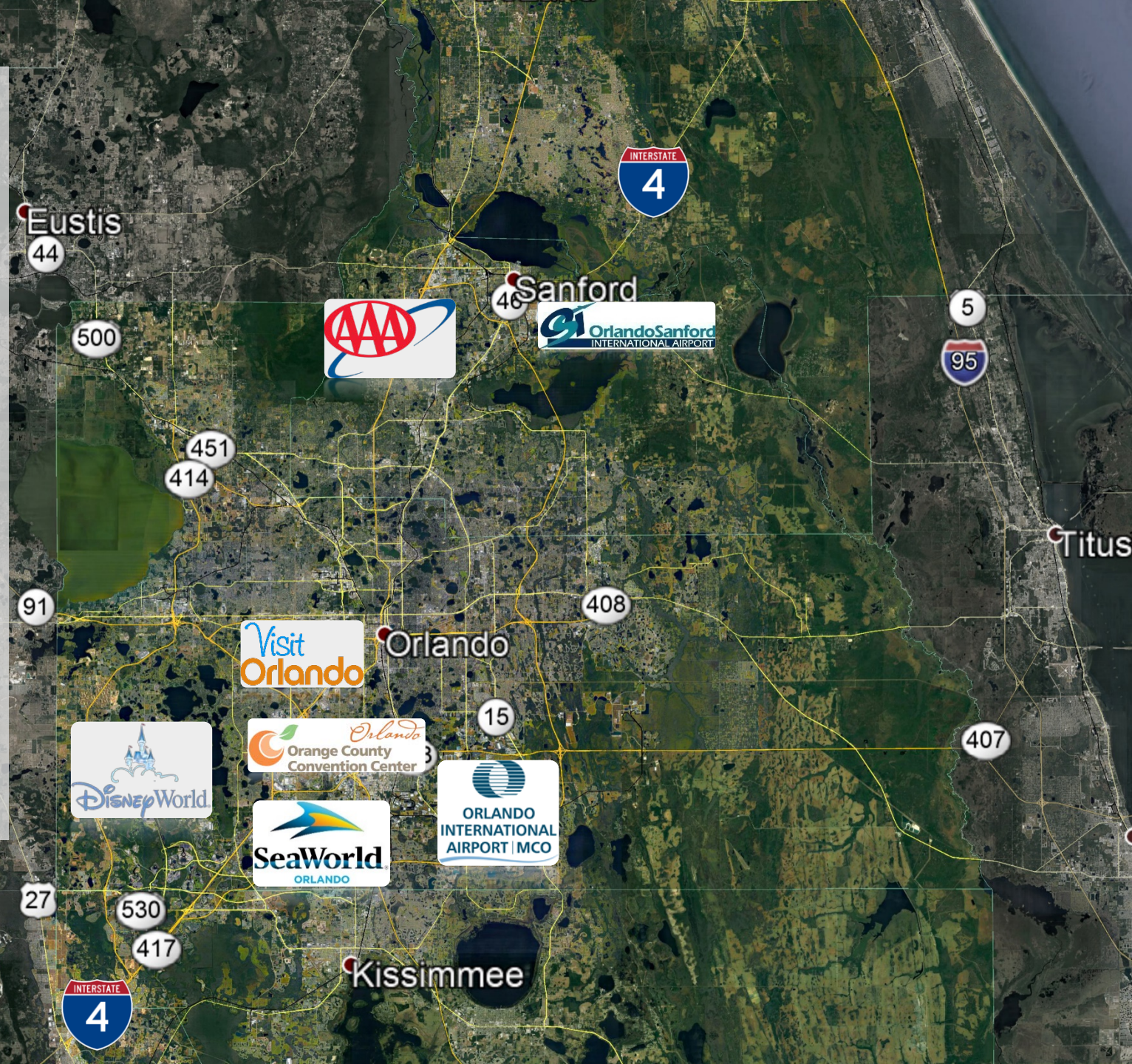
102

SunRail



# Central Florida has:

- The busiest airport in Florida (11<sup>th</sup> in the U.S.)
- The 2<sup>nd</sup> largest convention center in the U.S.
- Largest single-point employer in the U.S. (70,000 employees)
- Double the national job-growth rate (U.S. Census Bureau)
- *Texas Transportation Institute* reports Central Florida has:
  - 46 hours of annual traffic delays per commuter
  - 27<sup>th</sup> worst traffic in the U.S.





# A Growing Region



Population  
1,837,359

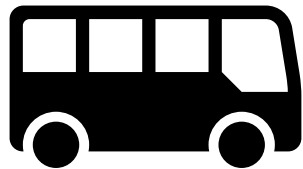
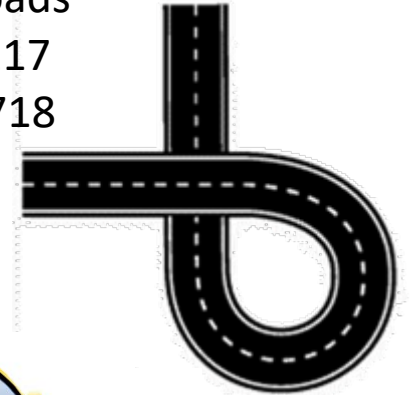


Airplane  
Passengers  
41,289,459



1.8 Million Registered  
Vehicles

Miles of Roads  
State - 3,217  
Local - 6,718



Total Transit  
Ridership  
29,377,735



Road Ranger  
Assists  
80,254

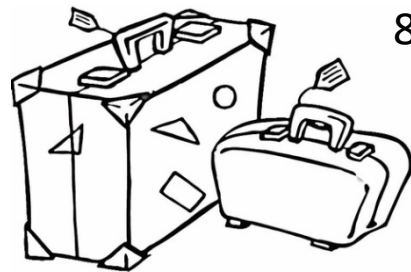
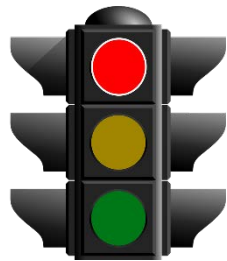


1.5 Million  
Drivers Licenses



Daily  
Vehicle Miles  
Traveled  
32,615 Miles

Traffic Signals  
1,686



68 Million Tourists  
(#1 Tourist Destination in US)



Average Annual  
Commuter Delay  
46 hours

Average Cost Congestion  
\$1,044 per Auto Commuter

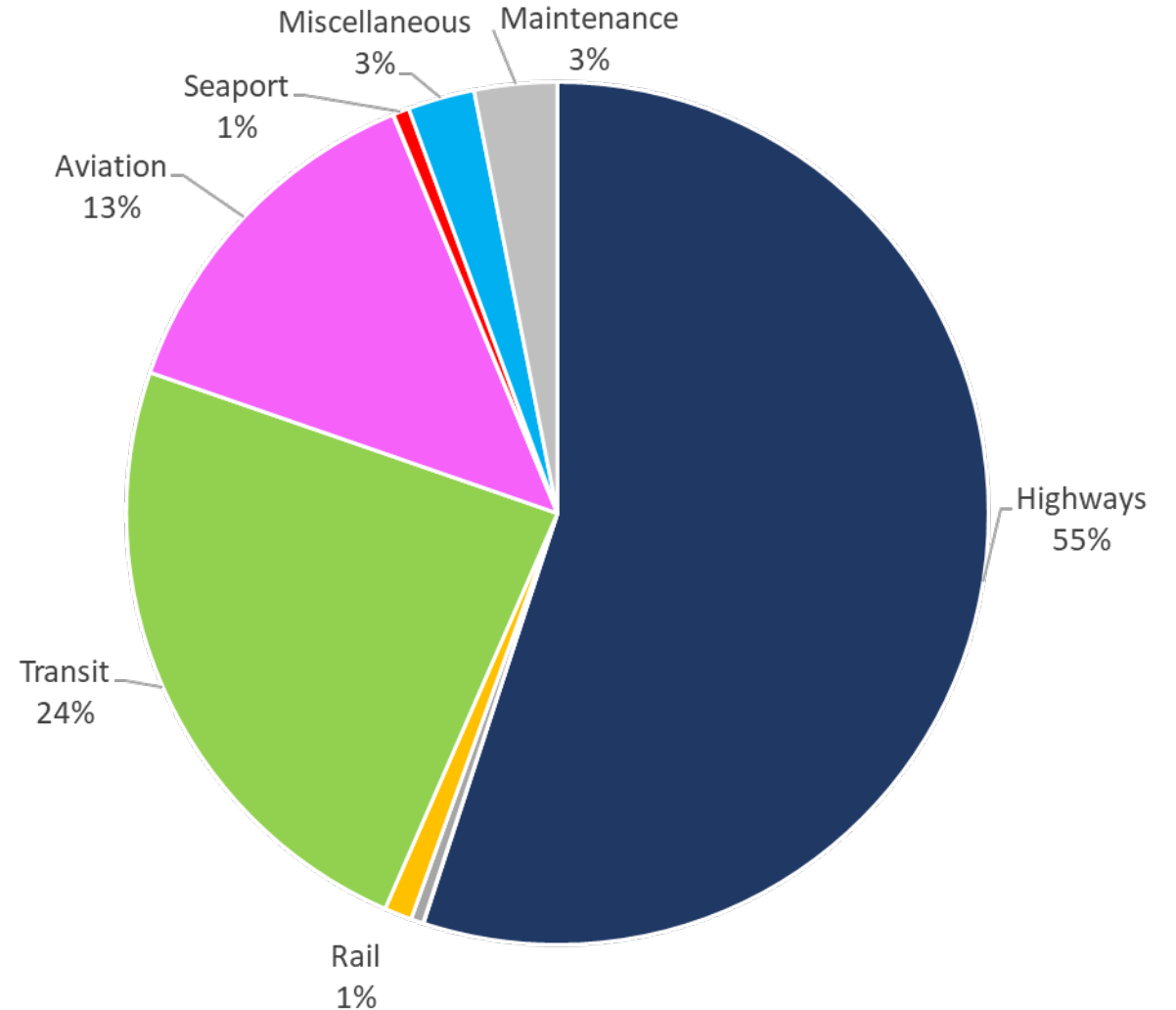


# Overview of Five-Year Work Program

## FY 2018/19 to FY 2022/23



County	Total (Millions)
Brevard	\$1,030.8
Flagler	\$179.2
Lake	\$804.5
Marion	\$518.1
Orange	\$2,384.9
Osceola	\$265.2
Seminole	\$107.4
Sumter	\$100.7
Volusia	\$659.5
<b>Total</b>	<b>\$6,050.3</b>



# Improving Mobility and Safety in Central Florida

FDOT is ...

- Designing and building a better I-4 through Central Florida
- Improving mobility and safety on 60 miles of I-4 from Polk County into Volusia County
  - I-4 Ultimate (opening 2021)
  - Wekiva Parkway Section 8 (opening 2021)
  - I-4 Beyond the Ultimate, North and South





- Completes Orlando's beltway
- New 25-mile four lane toll facility
- Non-Tolled improvements
  - Widening 7 miles of State Road (S.R.) 46
  - Rebuilding the U.S. 441/S.R. 46 interchange
  - Providing parallel service roads
  - Building a 10-mile, multi-use trail
- \$1.6 Billion project
- Project complete 2022
- [wekivaparkway.com](http://wekivaparkway.com)





# WEKIVA PARKWAY

Completing Central Florida's Beltway



**FDOT/TPK SECTIONS**  
\* Indicates Design Build

**GFX SECTIONS**

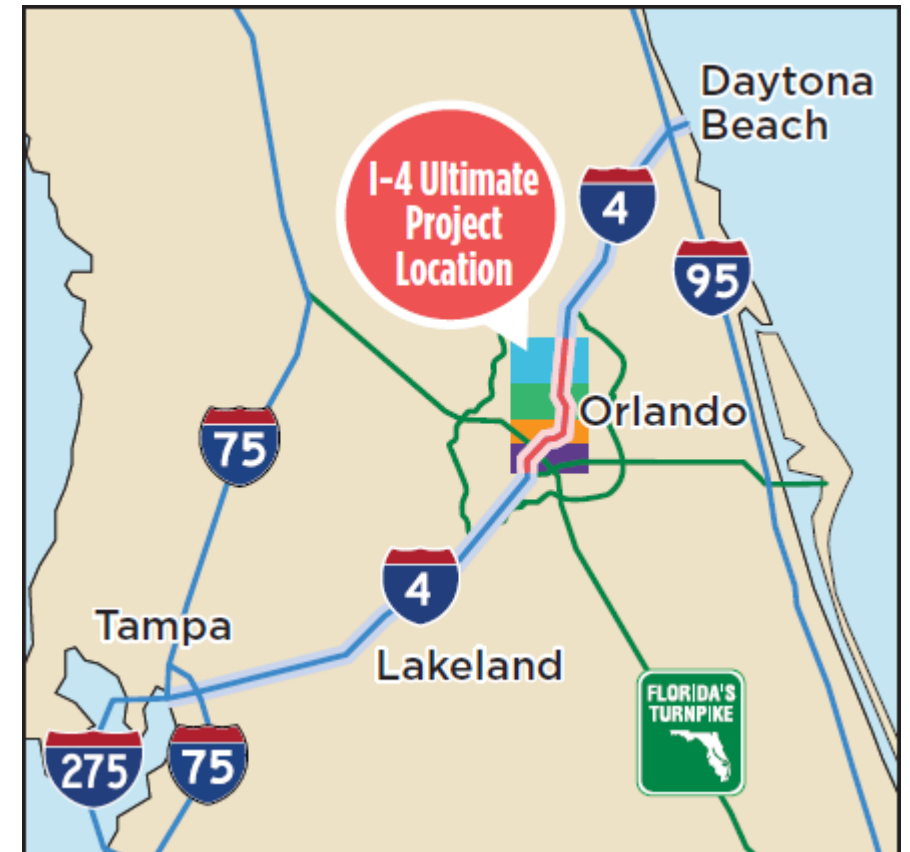
<http://www.wekivaparkway.com/>



# I-4 Ultimate



- From West of Kirkman Road to S.R. 434
  - 21 miles
  - Includes new bridges, bridge replacements & improvements
  - Adds four Express Lanes (Two each direction) featuring dynamic tolling
  - Improves sight distance and geometry
  - Enhances travel time reliability
  - \$2.3 Billion (Design & Construction)
  - Construction complete 2021
- [i4ultimate.com](http://i4ultimate.com)



# Goals of I-4 Beyond the Ultimate



- Increase safety
- Increase mobility/ease congestion
- Increase connectivity among Central Florida communities
- Increase and support alternative transportation modes: rail, bicycles, pedestrians
- Support the region's economy and lifestyle long into the future
- [www.i4Express.com](http://www.i4Express.com)







**NORTH**



**SOUTH**



## DESIGN SEGMENTS

(may be broken into different construction segments based on available funding)

- 5 SEGMENT 5** — 4 miles from west of U.S. 27 to west of County Road (C.R.) 532; Currently in design; Funded for right-of-way acquisition in 2023; Estimated construction cost: \$317M (FPID: 201210-3)
- 1A SEGMENT 1A** — 8 miles from west of C.R. 532 to east of C.R. 522; Currently in design, right-of-way acquisition will start in 2020. Estimated construction cost: \$989M (FPID: 431456-1)
- 1B SEGMENT 1B** — 5.7 miles from east of C.R. 522 to west of Central Florida Pkwy.; Currently in design and right-of-way acquisition. Estimated construction cost: \$1.3B (FPID: 242484-8)
- 2 SEGMENT 2** — 4.6 miles from west of Central Florida Pkwy. to west of Kirkman Rd. (S.R. 435); Currently in design and right-of-way acquisition. Estimated construction cost: \$760M (FPID: 242484-7)
- 3 SEGMENT 3** — 9 miles from east of S.R. 434 to east of U.S. 17-92; Currently in design; Funded for right-of-way acquisition in 2022. Construction scheduled to begin in late 2026; Estimated construction cost: \$468M (FPID: 242592-4)
- 4 SEGMENT 4** — 10.1 miles from east of U.S. 17-92 to east of S.R. 472; Currently under design; Not currently funded for right-of-way acquisition or construction; Estimated construction cost: \$572M (FPID: 408464-2)

# I-4 Beyond the Ultimate Typical Section

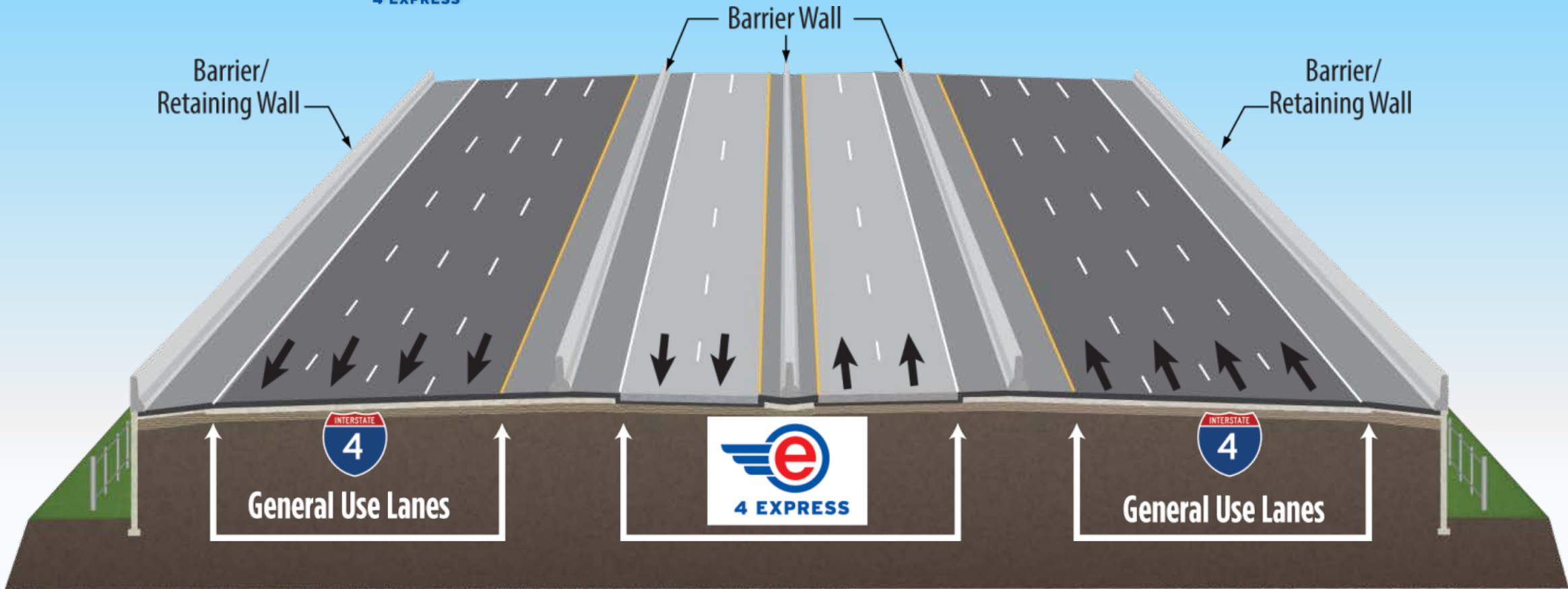
S.R. 528 thru St. Johns River



Six general use lanes + auxiliary lanes



Four Express Lanes (two in each direction)

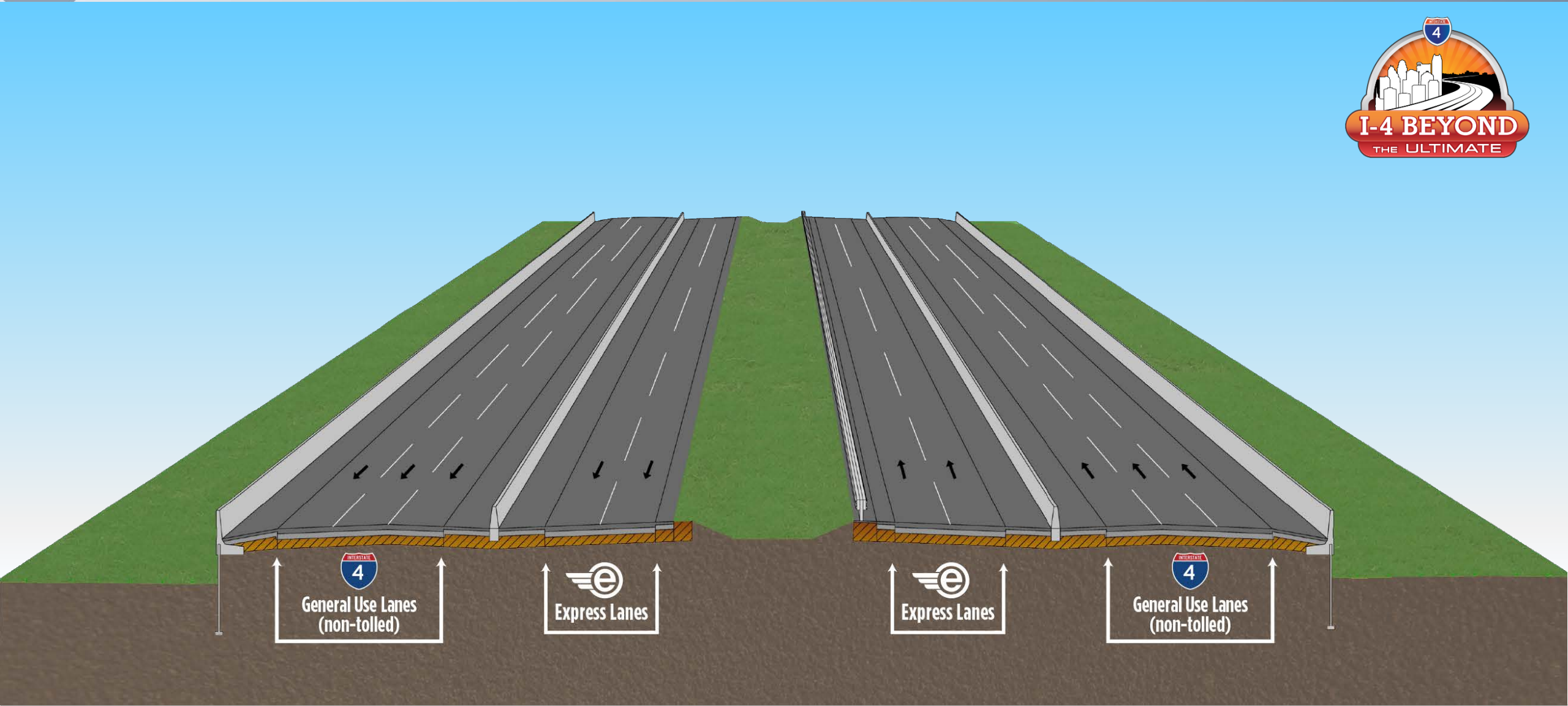






# I-4 Beyond the Ultimate Typical Section

U.S. 25 thru S.R. 528 • St. Johns River thru S.R. 472



# Express Lanes

- Provide options
- Variable tolls based on demand
- Priced to maintain 50 mph
- Limited access points
- Direct connection ramps
- Concrete barrier separation
- Reduce congestion in general lanes
- Electronic toll collection





# Seamless Travel Between I-4 Ultimate and I-4 Beyond the Ultimate

- 60-mile signature corridor
- Aesthetic treatments consistent with I-4 Ultimate: tolling gantries, pylons, lighting and signage



The background of the slide is a light blue gradient. In the top left corner, there is a decorative graphic consisting of four squares: three light blue and one dark blue. The main content area is a white horizontal band that spans the width of the slide. Behind this band, there are three large, overlapping, semi-transparent light blue circles that create a sense of depth and movement.

# **Innovative Interchanges Increase Mobility and Safety**



# Four Kinds of Innovative Interchanges on I-4 Beyond the Ultimate

1. Diverging Diamond Interchange
2. Modified Diverging Diamond Interchange
3. Mid-block U-turn
4. Echelon Interchange





# I-4 Beyond the Ultimate Includes Four Diverging Diamond Interchanges



- Beyond the Ultimate, South
  - Daryl Carter Parkway
  - County Road (C.R.) 532 (Champions Gate Boulevard)
- Beyond the Ultimate, North
  - C.R. 46A
  - S.R. 472





# Sand Lake Road



Interchange features an additional loop for movement from Sand Lake Road to Turkey Lake Road

Removes the left turn from westbound Sand Lake Road to southbound Turkey Lake Road





# Lake Mary Boulevard Interchange



Lake Mary Boulevard interchange features a Modified Diverging Diamond with additional ramps to connect I-4 to Lake Emma Road



I-4 WB GUL  
I-4 WB EXPRESS LANES  
I-4 EB EXPRESS LANES  
I-4 EB GUL





# I-4/CR 46A Interchange

- Mid-block U-turns on Rinehart
  - Will increase traffic flow on Rinehart Road through C.R. 46A
  - Signal phasing will allow drivers on Rinehart Road to reach I-4 in less time than the current left turns
- Full diverging diamond interchange
- Funded for construction in 2027



- Echelon interchanges are designed for:
  - High-volume urban or suburban intersections within a signalized network
  - Arterial and cross street volumes are similar
- How it works:
  - One approach on both the arterial and cross streets is elevated
  - The other approach intersects at-grade
  - A symmetrical — but offset — pair of intersections operated with two- or three-phase signals (instead of four-phase signals)





1

535

2

INTERSTATE  
4

**S.R. 535/Apopka Vineland Road will get two echelon interchanges**

- 1. at Hotel Plaza Boulevard
- 2. at Vineland Road



## Total Funding FY 2018-2023 \$1.2 Billion

- Capital for Fixed Routes
- New Busses and Equipment
- Upgrade to Lymmo
- Expansion of Operation Center
- Purchase of Commuter Vans





# **District 5 Transportation Operations**

## **Update and Challenges**

**Alan Hyman, P.E. – Director of Transportation Operations**

- Partnering meetings
- Stakeholders
- Common areas of interest
- Local Operations Units
  - Get to know them
  - 1<sup>st</sup> Point of contact
  - Solve issues at local level



- Local Agency Role
  - Communicate with District Emergency Coordination Officer (DECO)
  - Participate on damage assessment
  - Complete emergency repairs
- Emergency Declaration
  - Debris removal
    - Secretary Dew's Letter
    - First Push
    - First Pass
    - Subsequent work
- Emergency Operation Center (EOC) liaisons
- Guidelines
  - FHWA
  - FEMA



# Emergency Response



Florida Department of Transportation

805 Suwannee Street  
Tallahassee, FL 32399-0450

NICK SCOTT  
GOVERNOR

MIKE DEW  
SECRETARY

May 11, 2018

Wes Maul, Director  
Florida Division of Emergency Management  
2055 Shumard Oak Blvd  
Tallahassee, Florida 32399

Dear Director Maul:

*wes*

The 2016 and 2017 hurricane seasons presented FDOT with significant challenges. With over 6.8 million people under evacuation orders during Hurricane Irma, the pressure on the state highway system's capacity was unprecedented and many lessons were learned. Several policies relating to debris management and the state's new fuels initiative are highlighted below for your situational awareness as we prepare for the upcoming storm season.

#### Debris Management

Debris was a weeks-long concern for many areas across the state following Hurricane Irma. After landfall, FDOT collected over 1.18 million cubic yards of debris.

Following a hurricane or tropical storm, FDOT is responsible for the removal of the storm-related debris that fell on the state highway system. After the initial push of debris to the side of the roadway, which allows emergency and other vehicles to pass safely, FDOT will conduct one pass to collect the storm-related debris that fell within the right of way of the state highway system. FDOT will not remove other debris, whether storm-related or not, that is placed on the state highway system for collection after the one pass is completed. All debris left for collection along the state highway system after the one pass by FDOT is completed, whether placed on or off the state highway system, will be the responsibility of the local government with jurisdiction over the area where the debris is located.

Additionally, we faced many challenges with the multiple debris removal contracts procured in advance of hurricane season. As a result, FDOT will no longer procure pre-event debris removal contracts. Instead, we will use emergency "H" contracts, as permitted by state law, to solicit vendors that have the needed expertise, capabilities and assets to complete the work expeditiously through an emergency procurement process.

The use of post-event emergency "H" contracts is beneficial to both motorists and taxpayers. Contractors have a better understanding after the incident has occurred of the scope of the job for

[www.fdot.gov](http://www.fdot.gov)

which they are bidding on, resulting in more accurate estimates of the resources required and more precise bids.

FDOT will continue to procure pre-event contracts for the following services: cut and loss; disaster monitoring; construction, engineering and inspection; traffic signal repair; sign repair and replacement; generator installation; and roadside assistance services.

#### Fuel

Following Irma, Governor Scott directed FDOT to begin examining ways to increase the state's fuel capacity during emergencies. We submitted a report to Governor Scott in January that assessed the conditions affecting Florida's fuel distribution system; identified positive actions that aid efficient distribution; and provided recommendations for improvement.

In the short term, we are working with your agency, law enforcement and the fuel industry to identify critical fuel stations along state evacuation routes and plan for more efficient fuel service. We are also assessing options for expanding fuel capacity at FDOT facilities for use by first responders and coordinating with neighboring states on the movement plan for overweight and over-dimensional vehicles. In the long term, we are working with the fuel industry and Florida's ports to assess options for increasing fuel storage capacity and dispensing operations at seaport fuel terminals.

We will also serve, in close coordination with FDEM, in the coordination and logistics of meeting emergency fuel requests from state agencies and counties during large scale events. FDOT will purchase fuel from emergency fuel vendors to meet these needs and will maintain a cost inventory of the fuel we deploy in order to bill those entities for the fuel delivered to them after the emergency phase of the event.

The strong collaboration and communication between state agencies and local partners is critical to our success in the safety of and for meeting the needs of citizens and visitors to our state during emergencies.

Thank you for your continued partnership.

Sincerely,

Mike Dew  
Secretary



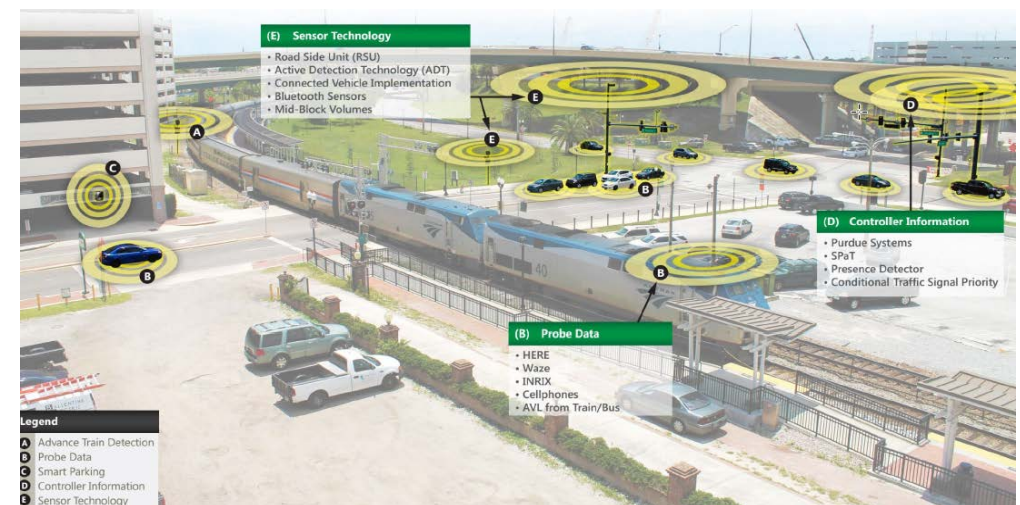
- Roadway Lighting/Traffic Signal Maintenance Agreements
- Drainage
- Golf carts on the State Highway System
  - Traffic Engineering Manual – Section 5
  - District Traffic Operations
- Context Sensitive Solutions
  - Traffic calming
  - Road diets
  - Hardscaping
  - Landscaping
  - Intersection Control Evaluation (ICE)
    - Alternative intersections
      - Roundabouts

# TSM&O – Transportation Systems Management and Operations



## › Regional Transportation Management Center

- New 44,700 square-foot building in Seminole County
- Monitor traffic conditions around the nine-county area
- \$13.2 Million
- Spring 2019



## Integrated Corridor Management

- Includes a wide variety of strategies to mitigate traffic congestion
  - Active Traffic Management
  - Traveler information
  - Incident management
  - Emergency management information
- Partnership with local agency to coordinate and manage the multimodal transportation system to enhance operational efficiency





# TSM&O – Transportation Systems Management and Operations



- Transportation Signal Priority (TSP)
  - FDOT, Lynx and Orlando partnering to reduce transit time for routes connecting to SunRail
  - Reduces delay for transit vehicles
- Intersection Movement Counts (IMC)
  - 32 intersections in Orlando, Winter Park and Maitland
  - Allows for real time active monitoring and managing





# Bridges and Safety



- BRIDGES
  - Safety Inspections
  - Repairs/Rehabilitation
  - Replacement
    - Federal aid
    - State funds
- SAFETY
  - District Safety Office
  - Cross walks
  - Bike lanes





**QUESTIONS?**

***THANK YOU!***

**Alan Hyman, P.E. – Director of Transportation Operations**

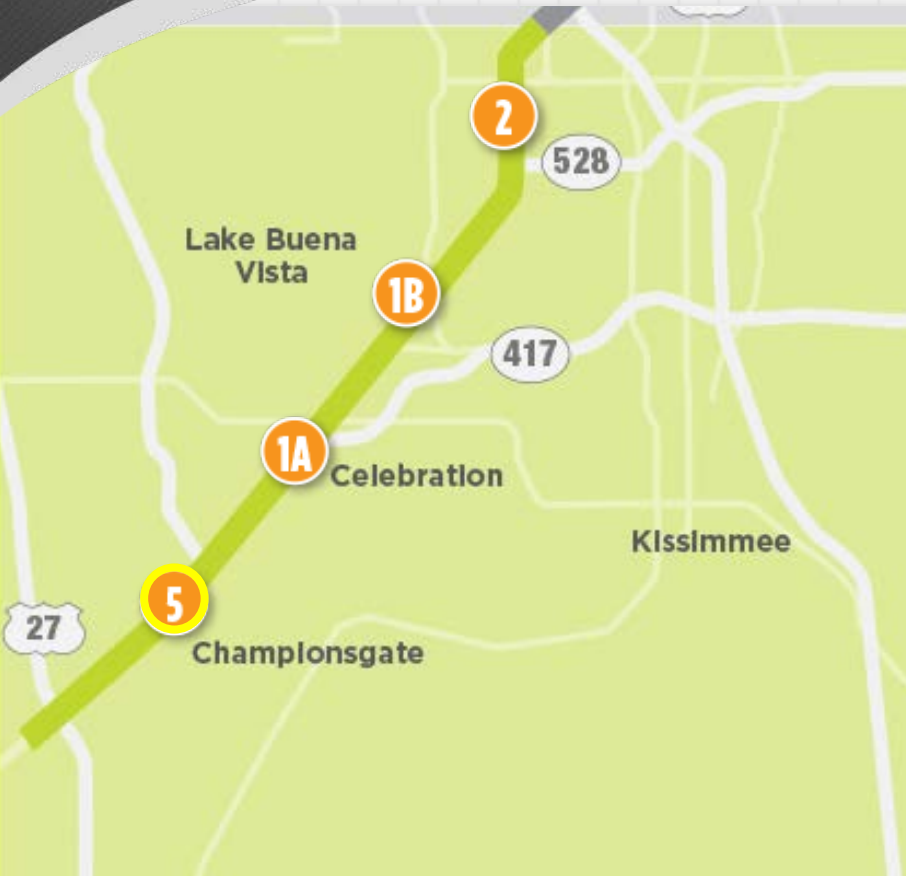
**[Alan.Hyman@dot.state.fl.us](mailto:Alan.Hyman@dot.state.fl.us)**

**Loreen Bobo, P.E. – Director of Transportation Development**

**[Loreen.Bobo@dot.state.fl.us](mailto:Loreen.Bobo@dot.state.fl.us)**



# Project Schedule: South



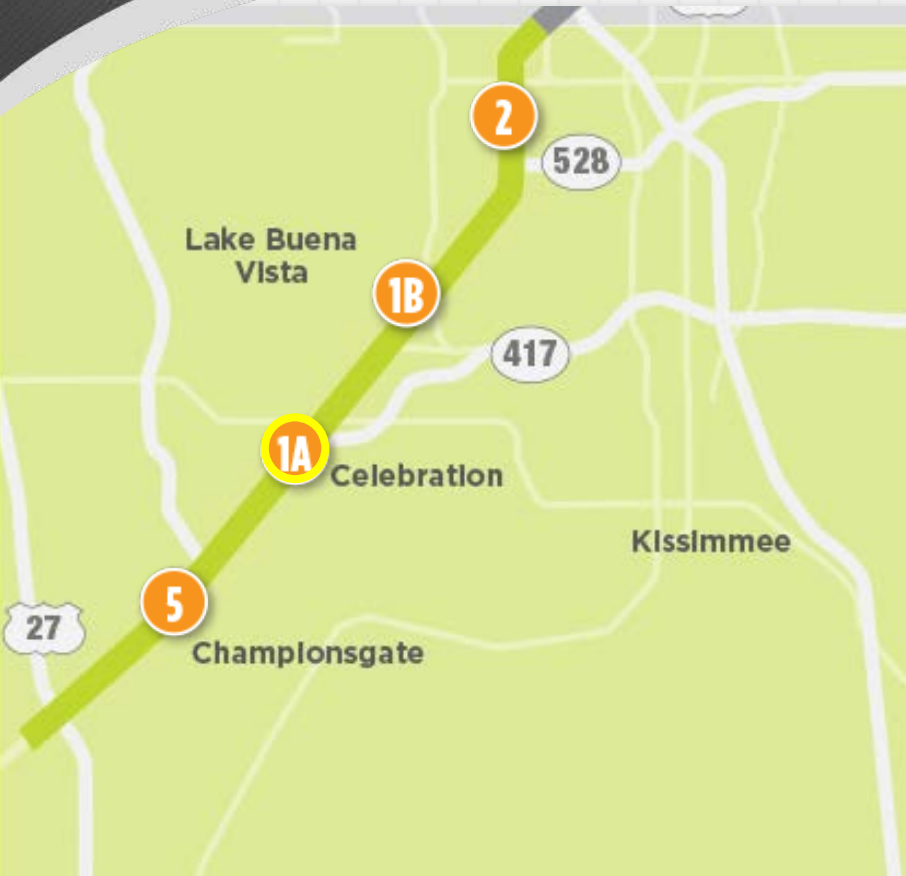
## Segment 5 (201210-3)

- 4 miles from west of U.S. 27 in Polk County to west of C.R. 532
- \$317 million
- Currently in preliminary design
- Right-of-way mapping in process
- Construction is unfunded





# Project Schedule: South

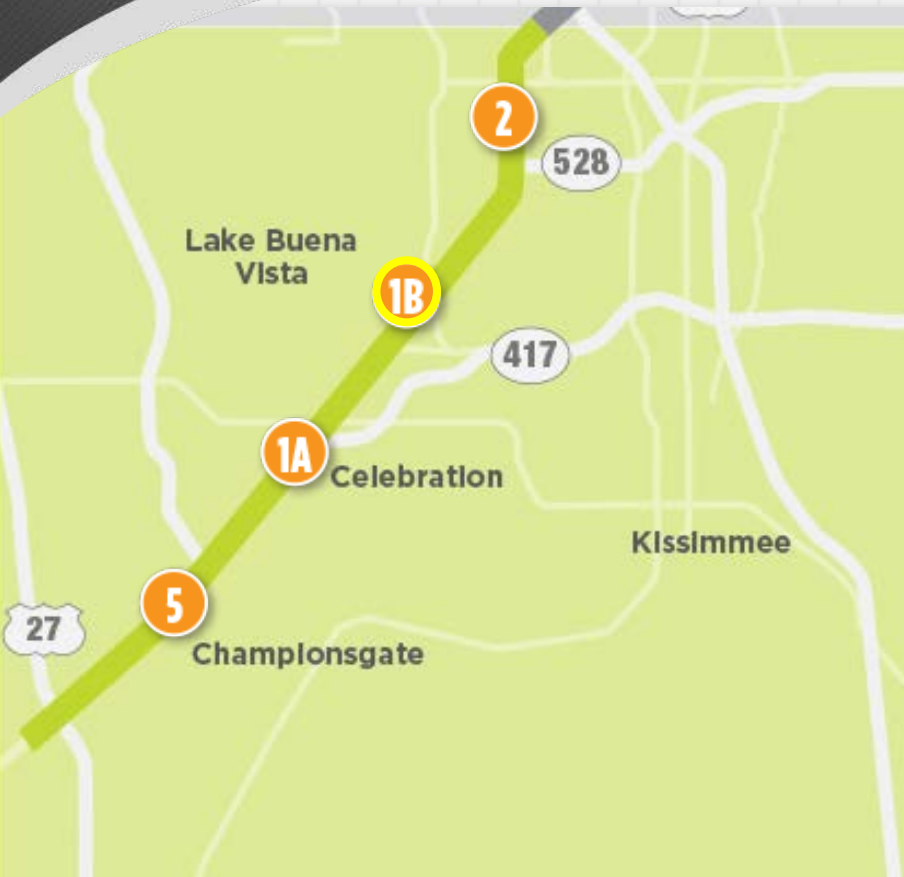


## Segment 1A (431456-1)

- 8 miles from west of C.R. 532 to east of Osceola Pkwy (C.R. 522)
- \$989 million
- In design
- Right-of-way acquisition starts in 2021
- Construction is unfunded



# Project Schedule: South



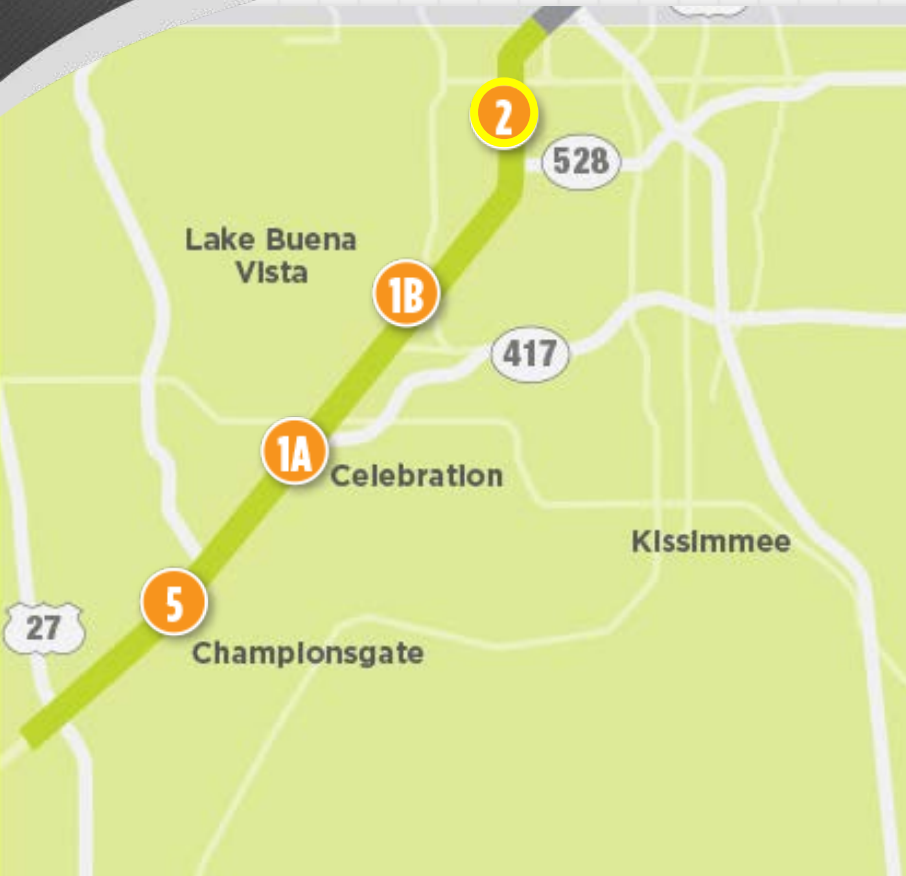
## Segment 1B (242484-8)

- 5.7 miles from east of Osceola Pkwy (C.R. 522) to west of Central Florida Pkwy
- \$1,294 million
- In design
- Right-of-way acquisition underway
- Construction is unfunded





# Project Schedule: South

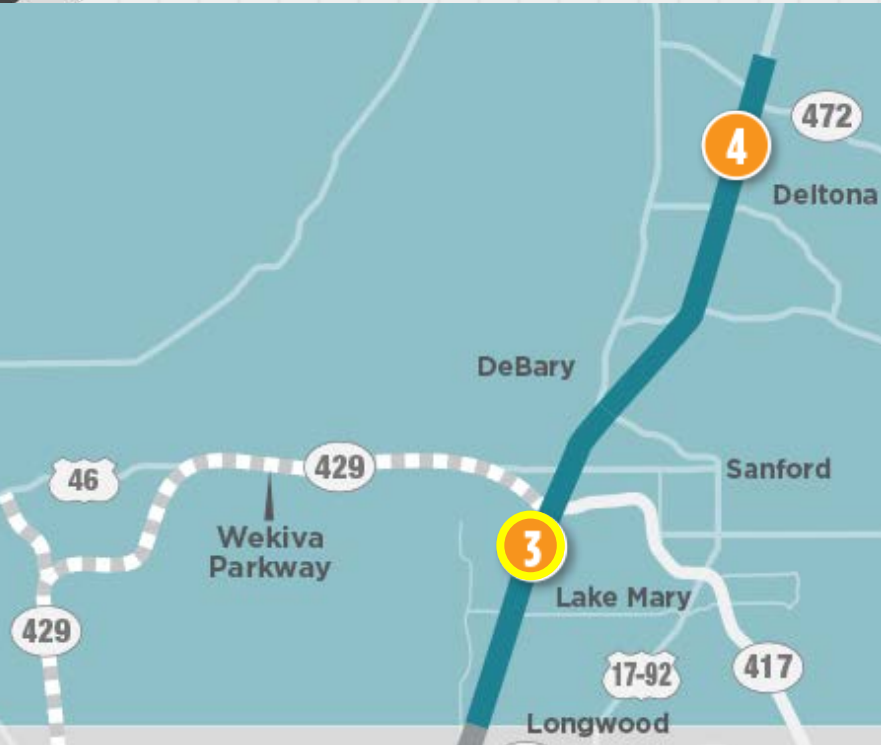


## Segment 2 (242484-7 & 441362-1)

- 4.6 miles from west of Central Florida Pkwy to west of S.R. 435 (Kirkman Rd)
- \$760 million
- In design
- Right-of-way acquisition underway
- Construction is scheduled from 2020 thru 2024



# Project Schedule: North



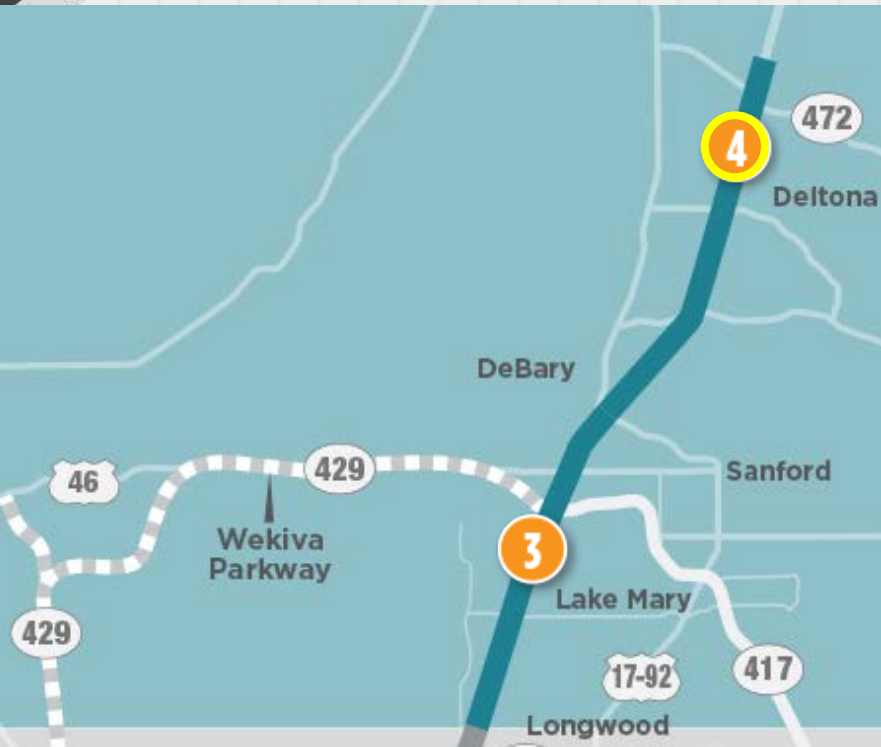
## Segment 3 (242592-4)

- 9 miles from east of S.R. 434 to east of U.S. 17/92 in Seminole County
- \$468 million
- In design (60% plans submitted)
- Right-of-way is funded for Q3 2021
- Construction scheduled to begin in Q4 2026





# Project Schedule: North

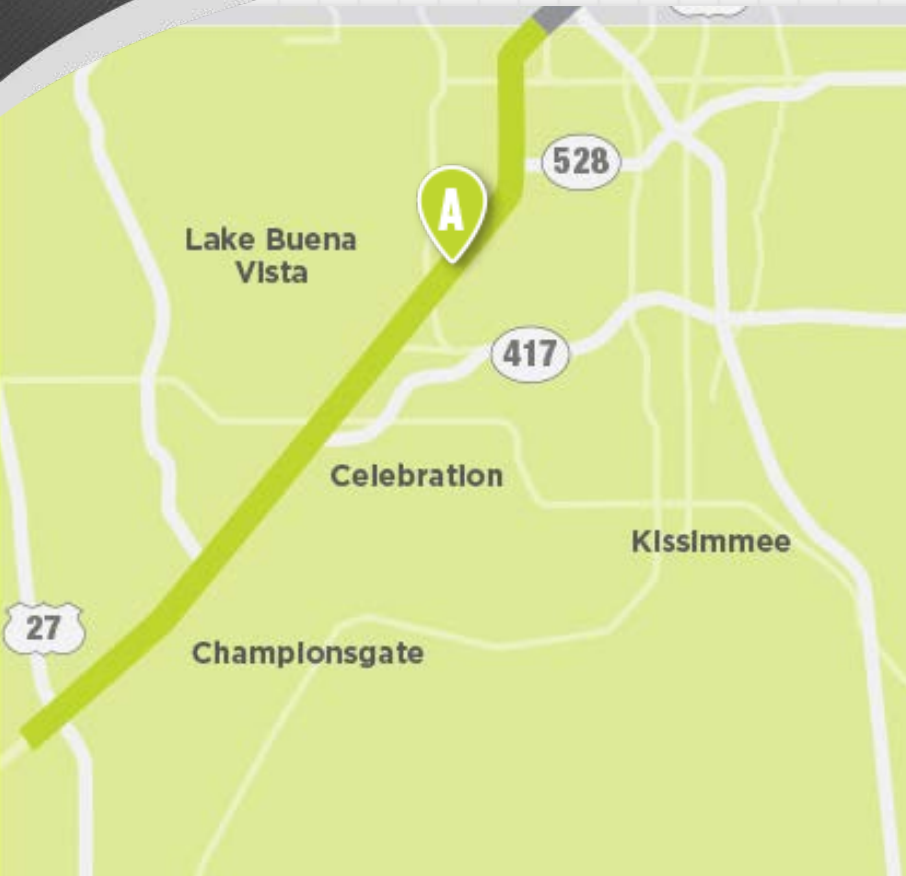


## Segment 4 (408464-2)

- 10.1 miles from east of U.S. 17/92 to east of S.R. 472 in Volusia County
- \$572 million
- In design
- Right-of-way is unfunded
- Construction is unfunded



# Interim Project: South

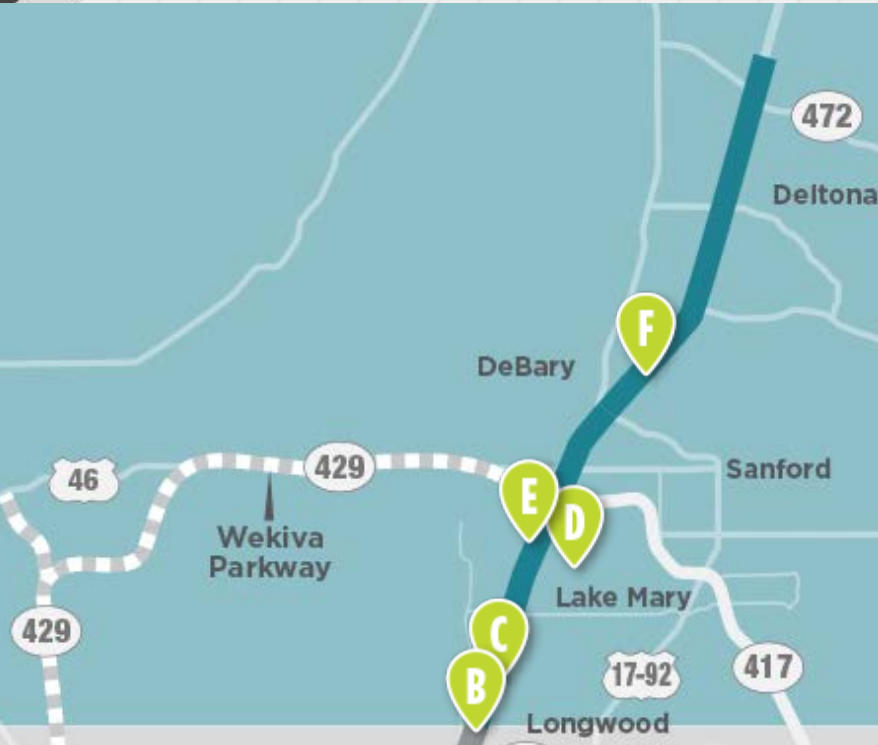


## Interim Project A (441113-1)

- Interim I-4/Daryl Carter Parkway Interchange
- Adding eastbound I-4 entrance and exit ramps and westbound I-4 exit ramp
- Making a diverging diamond interchange
- In design
- Right-of-way acquisition is underway
- Construction is currently unfunded



# I-4 Beyond the Ultimate, North Interim Projects



## Project B (439682-4)

- E.E. Williamson bridge replacement

## Project C (439682-3)

- Add eastbound general purpose lane on I-4 from the end of I-4 Ultimate to Lake Mary Blvd.

## Projects E & F (439682-2 & 439682-5)

- Resurfacing north and south of I-4/Wekiva Parkway Interchange