



Florida Department of
TRANSPORTATION



DESIGNATED US DOT AVPG MEETING

CENTRAL FLORIDA AV PARTNERSHIP

City of Orlando

University of Central Florida

Florida Polytechnic University

FAMU-FSU College of Engineering

Florida's Turnpike Enterprise

Florida Department of Transportation D5

Florida Department of Transportation D1

Central Florida Expressway

LYNX

NASA, Kennedy Space Center

Mike Shannon

Florida's Turnpike Enterprise

Tuesday, February 28, 2017

TEAM / PARTNERS

The Central Florida Automated Vehicle Proving Ground Partnership offers a comprehensive multi-modal environment for research, development, testing and deployment of emerging mobility technologies and solutions.



Buddy Dyer
City of Orlando Mayor Buddy Dyer



M. Avent
Florida Polytechnic University
President Dr. Randy K. Avent



John C. Hitt
University of Central Florida
President Dr. John C. Hitt



J. Murray Gibson
FAMU-FSU
College of Engineering
Dean J. Murray Gibson, PhD



Laura Kelley
Central Florida Expressway
Authority Executive Director
Laura Kelley



Diane Gutierrez-Scaccetti
Florida's Turnpike Enterprise
Executive Director and CEO
Diane Gutierrez-Scaccetti



DISTRICT 5
Noranne Downs
FDOT District Five Secretary
Noranne Downs, P.E.



DISTRICT 1
L.K. Nandam
FDOT District One Secretary
L.K. Nandam



Edward L. Johnson
LYNX Chief Executive Officer
Edward L. Johnson



Thomas O. Engler
Thomas O. Engler
Director, Center Planning and Development

AREA OF FOCUS

- Five Modes of Travel



Automobiles



Freight



Transit



Bike-Ped



Space

- Interaction of Modes
- Safety

VARIETY OF TEST ENVIRONMENTS

SIMULATION AND TESTING



UCF



Florida Poly



FAMU-FSU

CONTROLLED ENVIRONMENTS



SunTrax



Kennedy Space Center

OPEN ENVIRONMENTS



City of Orlando



FDOT



FTE



LYNX

CAPABILITIES AND CHARACTERISTICS

- UCF
 - Consortium Member of USDOT-Designated University Transportation Center
 - Safety Research Using Simulation
- Florida Poly
 - Dedicated to STEM
 - Engineering 4905: Autonomous Systems and Self-Driving Vehicles
- FAMU-FSU
 - Minority Institution
 - Policy Development
 - Legislative Coordination

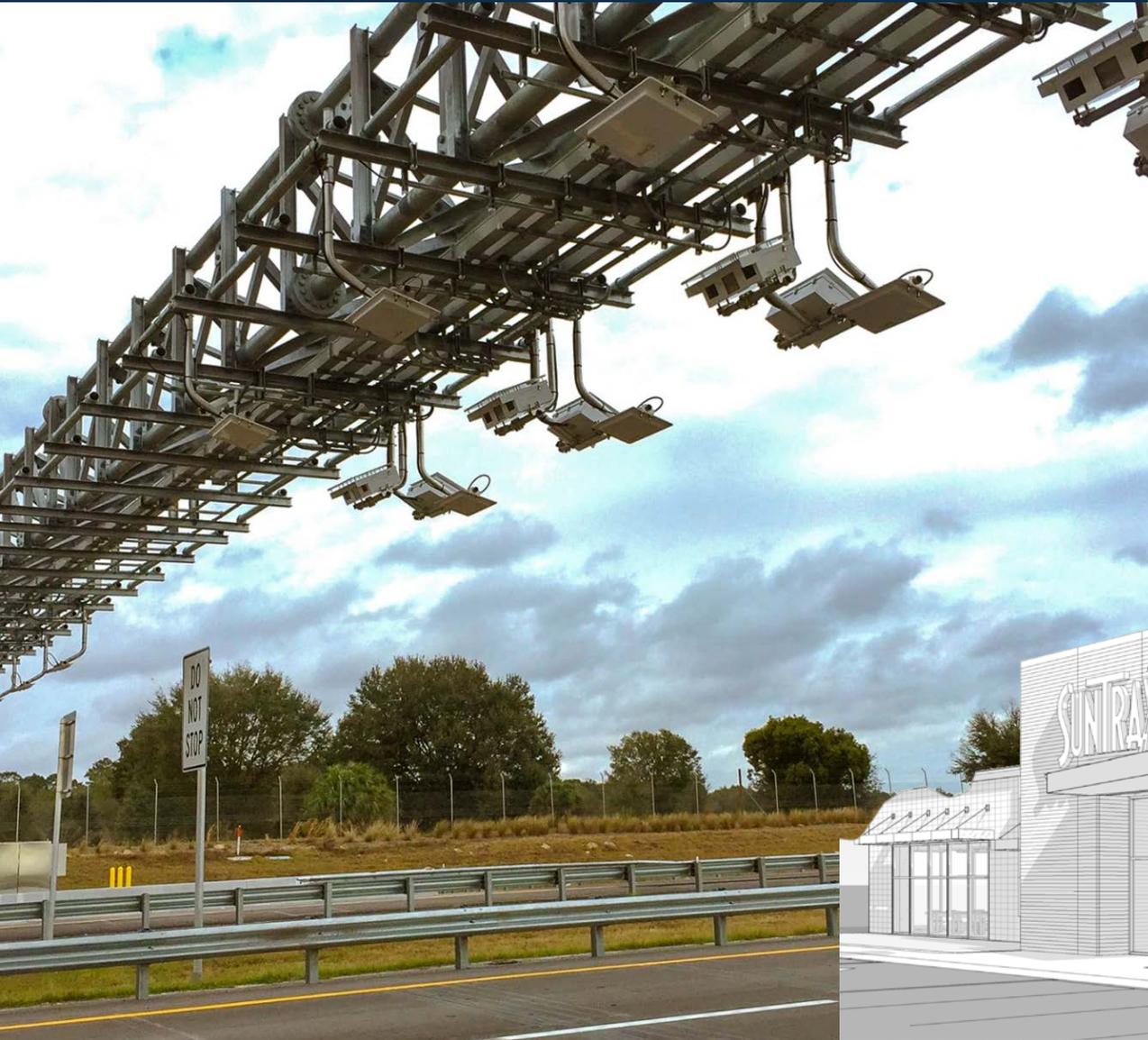


CAPABILITIES AND CHARACTERISTICS

- Kennedy Space Center
 - Controlled and Secured Private Network of Roads
 - More Than 500 Miles of Paved and Unpaved Roads
 - Mobility Options on Campus
 - High-Tech Testing Laboratories to Simulate Extreme Environments
 - Testing of Sensors



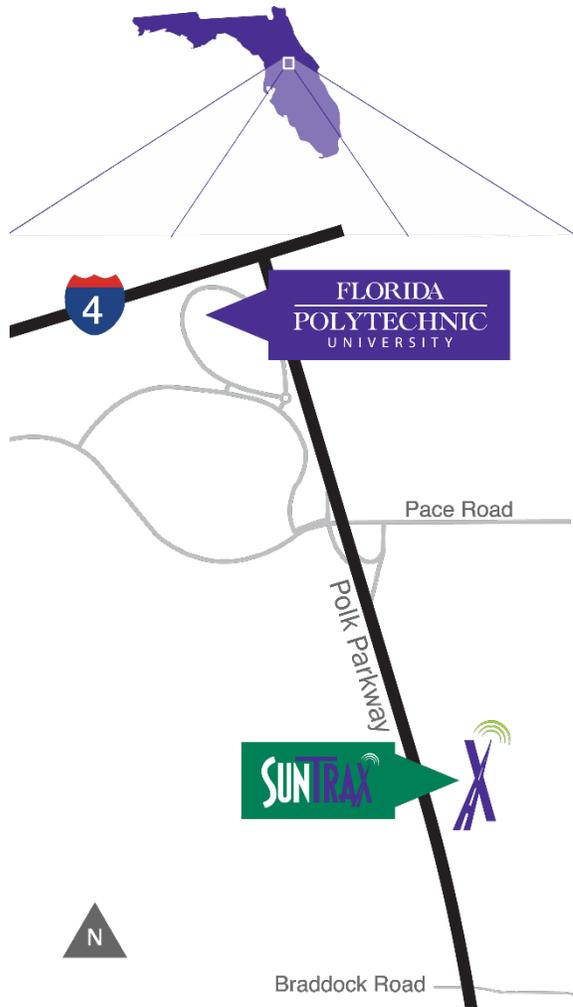
SUNTRAX TOLLS TESTING



- Need
 - 1.3 Billion Transactions a Year
 - Maintain Accuracy for Customers
- Testing
 - Toll Equipment
 - Managed Lanes and Corridors
 - Innovative Payment Systems

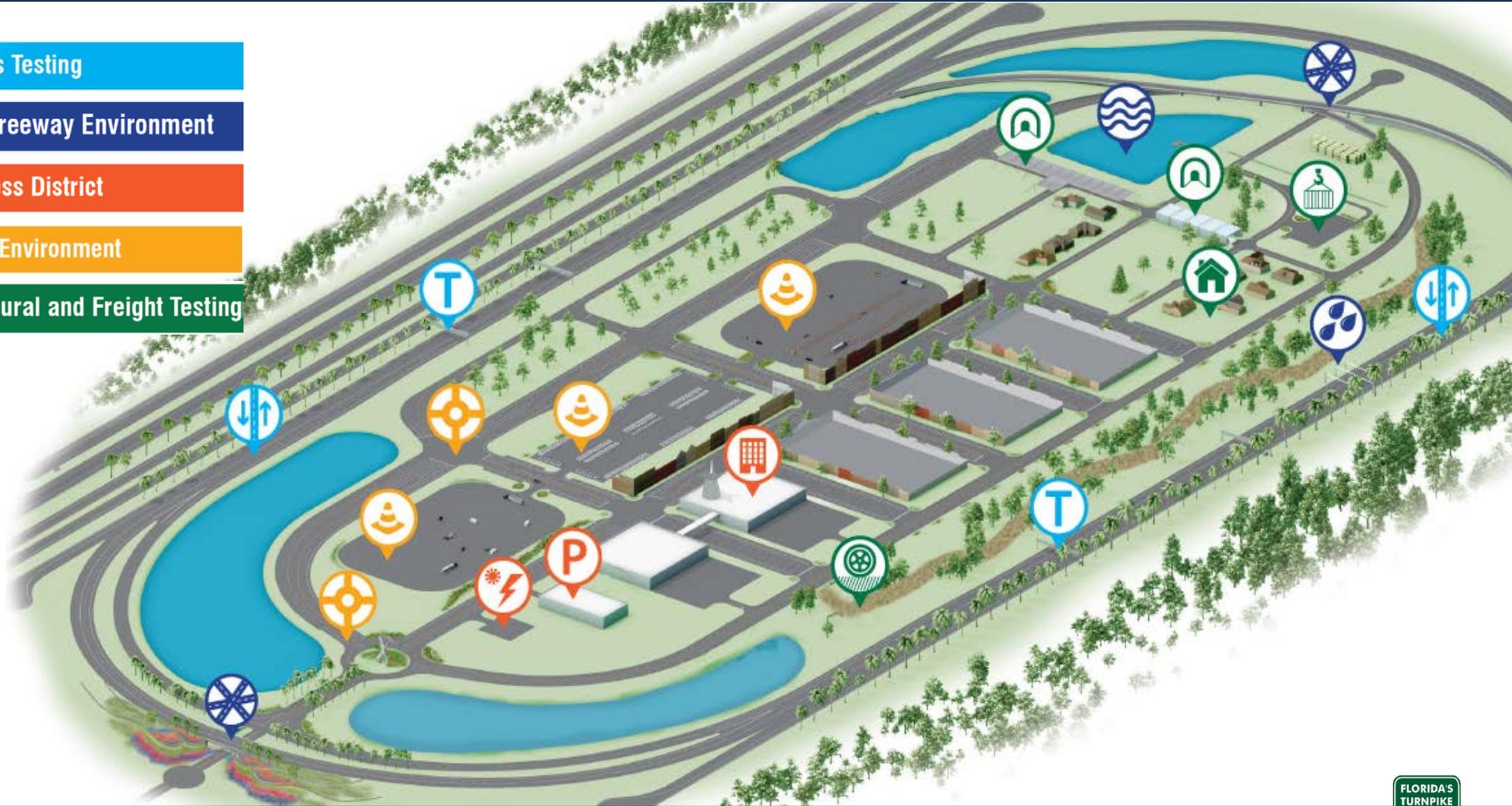


SUNTRAX PROJECT LOCATION



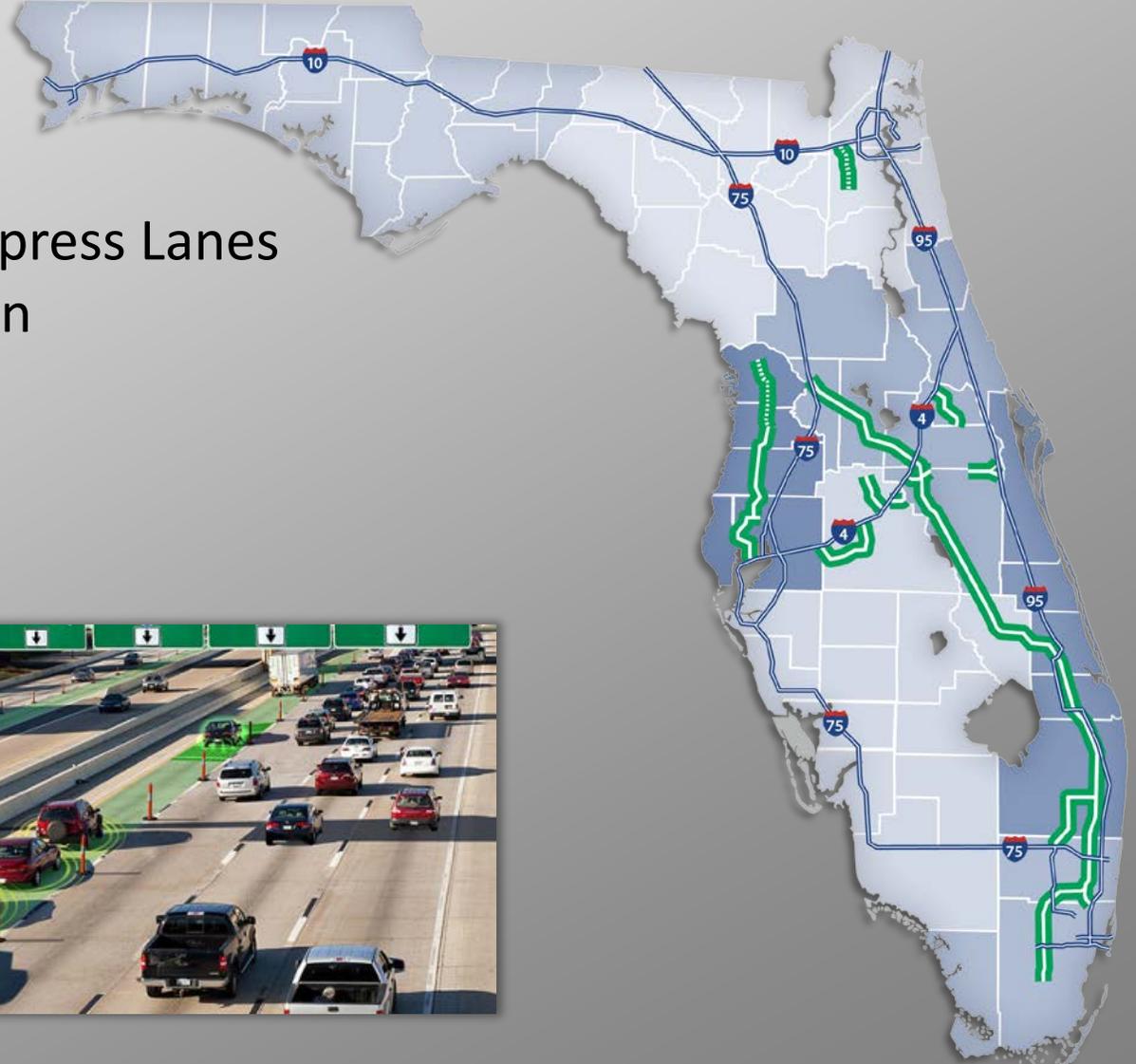
SUNTRAX VISION

- 1 Toll Collections Testing
- 2 High-Speed Freeway Environment
- 3 Central Business District
- 4 Urban Arterial Environment
- 5 Residential, Rural and Freight Testing



CAPABILITIES AND CHARACTERISTICS

- Limited Access and Tolled Highways (FDOT, FTE)
 - Buffer and Barrier Separated Tolled Express Lanes
 - Continuous Fiber Optic Communication
 - Camera Coverage
 - 24/7 Traffic Management
 - Tolls Back Office



DRIVER ASSISTED TRUCK PLATOONING

- **Near Term** (~6 months) – Comply with Florida law on AV platooning.
- **Medium Term** (summer 2018) – Design a leave in place AV based system of goods movement between Orlando and the Space Coast Ports.
- **Long Term** – Multi-state AV-based freight corridor between FL/TX/AZ.



CITY OF ORLANDO

- Transit (Lynx) – Exclusive BRT Lanes
- Bike-Ped-Vehicle
- Arterial Road Network



LEGISLATION

- Open Environment for AVs
 - House Bill 1207 (established July 2012)
 - House Bill 7027 (effective July 2016)
 - Allows fully autonomous operations, but requires an operator (human driver) to take control in case of failure
 - Defines a driver-assisted truck platooning pilot project, enables a pilot project and requires a study
 - House Bill 725 (proposed)
 - Deems the autonomous technology to be a valid operator



Photo courtesy of USDOT

OTHER OPPORTUNITIES

- Major Sea and Airport Facilities
 - Passengers
 - Freight
- Largest Rental Car Fleet in the World
- 66 Million Visitors Each Year
- Top Ranked Transportation Infrastructure



NEXT STEPS OF PARTNERSHIP



Memorandum of Understanding



Research and Development



Safety



Communication and Media





SunTraxFL.com

FTE/FDOT/SUNTRAX

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CITY OF ORLANDO

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Florida Department of Transportation

