CENTRAL FLORIDA TSM&O CONSORTIUM MEETING SUMMARY

Meeting Date: February 22, 2024 (Thursday)   **Time**: 10:00 AM – 12:00 PM

Subject: TSM&O Consortium Meeting

Meeting Location: Teleconference

I. OVERVIEW

The purpose of this recurring meeting is to provide an opportunity for District Five FDOT staff and local/regional agency partners to collaborate on the state of the TSM&O Program and ongoing efforts in Central Florida. Jeremy Dilmore gave a short introduction and outlined the meeting agenda.

II. TSM&O UPDATES

Jeremy Dilmore provided a brief update on *changes* to staff at District Five Traffic Operations.

- *TSM&O Development Manager – Tushar Patel*
- *TSM&O Design Project Manager – Daniel Simpson*
- *TSM&O Construction Project Manager – Jennifer Sardonini*
- *ICM Operations I-75 – Kyle Higgins (AECOM)*
- TSM&O Operations – John Lily
- TSM&O Engineer (Arterials) – Tricia Ballard
- TSM&O Maintenance and CEI – Lorena Cucek
- TSM&O RTMC Manager – Lauren Pearson
- TSM&O Pushbutton – Kevin Marquez
- TSM&O Retiming – Patrick White
- ICM Operations I-4 and I-95 – Dale Cody (Metric)

III. GRANTS 101

Alice Giuliani, FDOT District 5 Grant Coordinator, provided a brief update on federal discretionary grants, FDOT processes, and deadlines.

- Upcoming Grants
  - Strengthening Mobility and Revolutionziing Transportation (SMART)
    - Funding to conduct demosntration projects focused on advanced smart community technologies and systems to improve transportation efficiency and safety
    - NOFO Anticipated Spring 2024

- o Advanced Transportation Technologies and Innovative Mobility Deployment (ATTIMD)
  - ▪ Also known as Advanced Transportation Technology and Innovation (ATTAIN)
  - ▪ Program provides funding to deploy, install, operate advanced transportation technologies to improve safety, mobility, connectivity, and efficiency
  - ▪ NOFO anticipated Winter 2024
- o Consolidated Rail Infrastructure Safety Improvements (CRISI)
  - ▪ Provides funding for projects that improve the safety, efficiency, and reliability of intercity passenger and freight rail
  - ▪ NOFO anticipated Spring 2024
- o Charing and Fueling Infrastructure (CFI) Program
  - ▪ Provides funding to strategically deploy publicly accessible EV charging infrastructure
  - ▪ NOFO anticpiated Spring 2024
- Letters of Consistency
  - o You may request a Letter of Consistency from FDOT to support your grant application
  - o Grant application should be accompanied with letters from those that will benefit from the grant
  - o At a minimum, expect a 1-month turnaround time
- FDOT likes to look 3 months ahead to build a package that fits the grant
  - o The larger the ask, the beefier the submittal package
- For more information, reach out to Alice Giuliani
  - o 386-943-5247
  - o Alice.Giuliani@dot.state.fl.us

IV. Regional TSM&O Strategic Plan

Eric Hill provided an update on the Regional TSM&O (RTSMO) Strategic Plan in the early stages of development.

- Trying to bridge the two urbanized areas (Central Florida and Tampa area)
- Stakeholder Agencies include the five MPOs in Central Florida, as well as Hillsborough TPO, Pasco County MPO, Forward Pinellas MPO, Polk TPO, Sarasota-Manatee MPO, Central Florida Expressway Authority, Tampa Hillsborough Expressway Authority, FDOT, Florida's Turnpike Enterprise, and USDOT
- RTSMO Strategic Plan scope includes
  - o Task 1 – Develop organizational vision and refine RTSMOP Goals and Objectives
  - o Task 2 – Assessment of Regional Strengths and Opportunities
  - o Task 3 – Strategic Framework, Initiatives, and Actions
  - o Task 4 - RTSMOP Organizational Structure
  - o Task 5 – RTSMO Strategic Plan
- Schedule – still finalizing Task 1
  - o Anticipate RTSMO Strategic Plan delivery December 2024
- "Why does RTSMO Program Exist?"
  - o Vision to be developed based on input from working group and stakeholders, as well as related documentation

- o 39 documents were reviewed, including long range transportation plans (LRTP), TSMO/ITS Master Plans, Expressway Authority and FTE TSMO/ITS plans, District TSMO plans, and unified planning work programs
- Goals and Objectivies
  - o Refine RTSMOP goals and objectives to:
    - ▪ Align with organizational vision
    - ▪ Reflect emerging TSMO strategies and best practices
    - ▪ Apply to a regional TSMO planning and decision-making organization
  - o Stakeholder interviews conducted with stakeholder organizations and staff
- Questions to consider:
  - o What is the role of your agency in advancing TSMO?
  - o What would be the role of a Regional TSMO program in advancing TSMO?
  - o What questions are critical to answer during development of the RTSMOP?
  - o What do you believe will be important characteristics of an effective Regional TSMO Program?
  - o What questions are critical to answer during development of this strategic plan?
  - o Do you have suggestions for stakeholders who should be included in the interview process?
- Next steps – conduct stakeholder interviews with partner agencies

V. MEGACON 2023 AND 2024 OBSERVATIONS AND LESSONS LEARNED

Luis Hernandez and Mike Hudson discussed the special event coordination conducted for the Orange County Convention Center (OCCC) during MegaCon 2023 and 2024.

- What is MEGACON
  - o Major showcase of popular culture (video games, TV, movies, anime, comics, etc.)
  - o Celebrity appearances
  - o 4-day event held Thursday to Sunday
- Historic Attendance – significant uptick following COVID-19
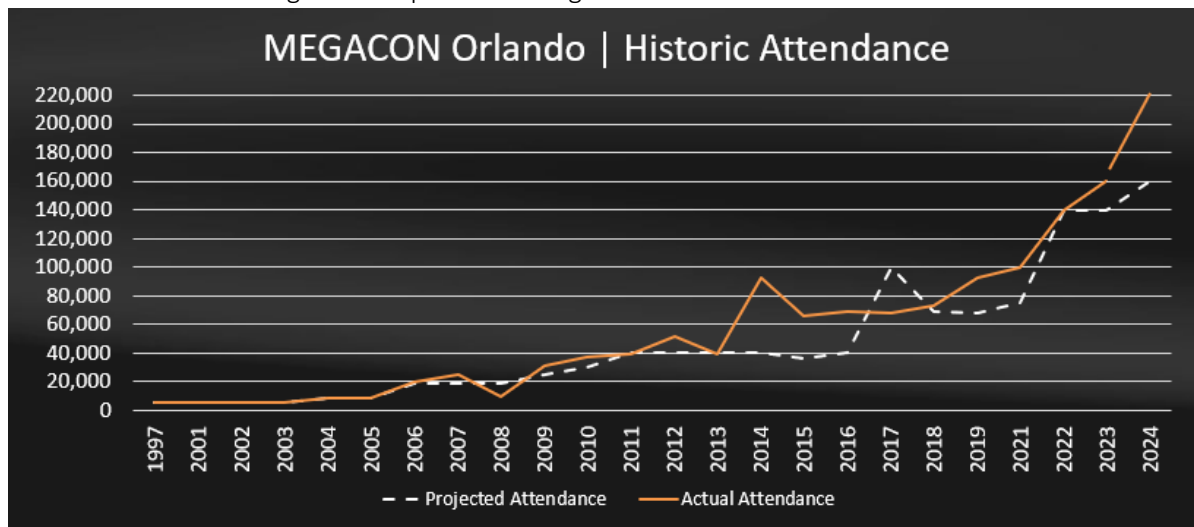
- MEGACON is mostly drive-up, generating 25,000+ parked vehicles over 4-day period
- How did we get here?
  - MegaCon 2022 – parking filled up for first time
    - No strategic planning for real-world numbers
      - Did not act on new information/ data
  - MegaCon 2023 – able to use EPIC universe parking lot
    - Was not available in 2024
    - This was the first year that the event pre-sold parking
      - Purchase included preferred routing from District Five / OCCC
    - Hyperfocused on third-party navigation applications and social media
  - Implemented Temporary Traffic Control to help with exit strategy
  - Messaging was critical
    - Consistency across multiple communication platforms (Google, Waze, social media, DMS, event materials)
- Command Center located at the Orange County EOC
  - Facilitated coordination across agencies and law enforcement
    - Active arterial management, drone surveillance activities, ground traffic detail, shuttle operations, rescue operations, etc.
- Shuttle was procured for the event; 80,000 passengers over 4 days
- In addition to Megacon, there was also the Olympic Trials and Pro Bowl happening that weekend in Orlando
- 2024 Results and Learning Opportunities
  - New adaptive signal control worked well with minimal interventions
  - Additional city-wide and in-house events created new challenges
  - Smaller operating footprint led to much heavier volumes
  - Much more pedestrian activity than 2023 will be a new element to plan for
  - Rideshare was lower than pre-Covid levels

VI.   FLORIDA'S TURNPIKE ENTERPRISE – PROJECT UPDATES

Eric Gordin provided an update on FTE projects.

- Turnpike System overview
  - User-financed system
  - Fully instrumented ITS, focused on safety and mobility
  - 498 centerline miles; 2,433 lane miles; and 144 interchanges
  - 8 service plazas
  - 3 million customers
- Major projects
  - Widening MP 273+ (Lake/Sumter)
    - North of Olrando/SR 50
  - Widen Turnpike (Osceola)
    - Widen TPK (MP 239-242) and New Nolte Road interchange
  - Widen SR 417 MP 38+ (Seminole)
    - North of Aloma Rd

- o ITS Beachline East
- TSMO / Traffic Services
  - o Traffic Signals
    - ▪ Replacements, interchanges with non-state roadways, end-of-life
  - o TSMO Continuing Services
    - ▪ 3rd contract
    - ▪ Conduct TSMO analysis, traffic signal warrants, speed studies
    - ▪ Safety dashboard developed
    - ▪ WheelRight Tire Pressure stations at service plazas (new implementation)
  - o TSMO Program
    - ▪ Steering committee meetings
    - ▪ Strategic Plan (2024+)
- ITS / Infrastructure
  - o Video management = Milestone
    - ▪ Use Milestone, not SunGuide, for video sharing efforts
  - o Wrong Way Driving Deployments
  - o Pushbutton candidate projects
    - ▪ FTE is considering this
  - o DMS Upgrade and Retrofit TPK and SR 429
  - o Fiber sharing for important network redundancies
- Queue Warning Projects
  - o Two-phased projects
  - o Estimated queue lengths
  - o SunGuide software enhancements
  - o Message Concept
    - ▪ For slow traffic, message provided 2 miles ahead
    - ▪ For stopped traffic, message provided 3 miles ahead
- Lane Management and Smart Work Zones
  - o Lane closure notification system
  - o Construction projects
  - o Multiple SWZ projects
  - o Motorist advisory system enhancement
  - o 10-hour lane closure coordination
  - o FTE has conducted pilots on this; need to identify most appropriate approach
- Technology Projects
  - o Video analytics
    - ▪ Have evaluated several systems, but have no active deployments
      - • Telegra
      - • TrafficVision
  - o Electric Vehicles (EV)
  - o Artificial Intelligence (AI)
- CarFit
  - o Tailored to older drivers, recommending potential updates or safety improvements

Discussion

- Q: For Milestone, what is the best way to reach out?
    - A: there are a couple IT contacts that can help get an agency connected
- Q: Is that safety dashboard publicly available?
    - A: it is focused on Turnpike

VII.   CENTRAL FLORIDA EXPRESSWAY AUTHORITY – PROJECT UPDATES

Bryan Homayouni gave a brief update on CFX projects.

- Part-time Shoulder Use (PTSU) rebranded to FLEX lane
    - First of its kind implementation; typically, it's implemented on corridors that are already constrained
    - First few years will be used for nonrecurring congestion primarily
    - Will double number of ITS signs and sensors during the next couple of years
    - SR 417
        - 21 miles, International Drive to SR 528
        - 55 Flex lane sign structures
    - SR 429
        - 13 miles, Tilden Rd to SR 414
        - 31 Flex lane sign structures
    - Both facilities being widened to inside
        - 3rd full-time/regular lane
        - 19' left shoulder (12' for Flex lane, 7' for full-time shoulder)
        - Right shoulder remains the same
        - Flex lane sign structures every ½-mile
- FHWA has published design guidance
- Flex Lane System Components
    - Lane control signals (LCS)
    - Variable speed limit signs (VSLS)
        - No static signs throughout project corridors
    - Incident management dynamic message signs (IDMS)
    - Travel-time dynamic message signs (DMS)
    - SunGuide software
- FLEX Lane operations
    - SR 417 Flex Lanes beginning mid-2024
    - SR 429 Flex lanes beginning mid- to end-2025
    - Initially, Flex lanes will only be used for ICM on both facilities
- CFX coordinated with SwRI who deployed a similar system in Tennessee
- Hoping some of the Flex lane enhancements can be leveraged by Districts
- Potential benefits for TIM
    - Very wide left shoulder
    - Reinforcement of lane closures through red 'X'
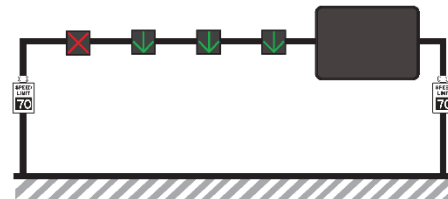
    o   Additional flexibility to manage traffic during incidents

    o   Display of symbol or message to support "move over" law

VIII. FLASH AWARD

Kevin Marquez (FDOT) gave a brief presentation of FDOT's FLASH Award to Melbourne Traffic Operations team members.

- This is District Five TSM&O's new recognition program for outstanding maintaining agency response to traffic signal emergencies
- Focuses on showcasing specific efforts throughout the District
- Discuss processes, best practices, lessons learned, etc.
- SR 507 at Florida Avenue
  - Crash occurred on August 9, 2023 at 7:09am
  - Left turn crash
  - After initial crash, northbound thru vehicle was redirected towards northeast corner of intersection where he struck the traffic signal concrete pole
  - No significant injuries
  - Emergency Response details
    - Staff identified loss of communications via ATMS, then utilized CCTV to observe the intersection and detect the damage
    - City staff contacted their signal contractor at 7:15am to deploy them (6 minutes after hit)
    - Staff arrived on scene at 7:40am (31 minutes after) to begin inspections and carry out MOT
  - Contractor was on site at 10am with materials (wooden pole)
    - Had material on hand for this event, but the City also stocked materials in case they needed to lend to contractors
  - City provided MOT during 15 hours of signal downtime

IX. DIGITAL ANALYTICS NOTIFICATION FOR INCIDENT AND EVENT LOCALIZATION

Katie King (Metric) gave a brief presentation on the status of the DANIEL project.

- Video analytics project – system is required to provide the following minimum real-time alerts:
  - Stopped vehicle on freeway
  - Pedestrian on freeway
  - Queue formation on freeway
  - System must use existing multicast data feeds supplied by the Department's existing Wowza application
  - Connection of the service directly to CCTV camera or other edge devices in the field shall be prohibited
  - System shall be integrated into SunGuide using the IDS Alert protocol
  - Advertisement date – March 4, 2024
  - Posting of Intended Award anticipated – May 6, 2024

      o   Initial project setup and service of 200 streams (3 phases)
      o   Scalable up to 500 streams depending on funding

X.   CURRENT INITIATIVES

Jeremy Dilmore briefly provided an update on the current work efforts throughout District Five.

- **I-4 Express Lanes** – BTU development ongoing
- **Smart Work Zone** – mobilized in late November
- **I-4 FRAME** – focused on Package 1 (Tampa area)
  - Package 2 should start to happen in Orlando area in next few months
- **OBU –** coordinating MOUs with several Fire Departments for EVP
- **Signal Design** – D5 established new internal process for Signal Operating Plans
  - Seen a fair amount of issues with SOPs
  - After 60% plans, will hold internal meeting to review SOPs
    - Designers (FDOT or consultant staff)
    - Traffic Ops staff
    - Do locals want us to discuss anything else during these meetings?
- **AV Shuttle** – hoping to fully start up again in Spring 2024
- **Kiosks at UCF** – wooden prototype developed for more accessible kiosk
- TSMCA – FDOT is holding annual one-on-one check-in meetings in February and March
- **PedSafe II –** operational manual developed; will have an element in FL511 app
  - Featured in Construction Career Days
  - Phase 1 construction complete; awaiting material delivery for Phase 2
  - Developing operational manual

XI.   NEXT MEETING

- April 25, 2024

XII.   ATTACHMENTS

- A – Presentation Slides
- B – Meeting agenda

END OF SUMMARY

This summary was prepared by David Williams and is provided as a summary (not verbatim) for use by the Consortium Members. The comments do not reflect FDOT's concurrence. Please review and send comments via e-mail to dwilliams@vhb.com *so the meeting summary can be finalized.*

Meeting Agenda

1. FDOT District Five Updates
2. Federal Grants and the FDOT Application Process
3. Regional TSM&O Update
4. Special Event Coordination
5. CFX – Project Updates
6. FTE – Project Updates
7. FLASH Award for Emergency Repairs
8. Current Initiatives

FDOT District Five Updates

Jeremy Dilmore, FDOT District Five

Traffic Operations Staff Updates

- TSM&O Development Manager
  - Tushar Patel
- TSM&O Design Project Manager
  - Daniel Simpson
- TSM&O Construction Project Manager
  - Jennifer Sardonini
- ICM Operations I-75 (AECOM)
  - Kyle Higgins

Org Chart will be posted to CFLSmartRoads shortly

FDOT
TSM&O
Transportation Systems Management & Operations

Traffic Operations Staff Updates

- ICM Operations I-4 & I-95 – Dale Cody (Metric)
- TSM&O Engineer (Arterials) – Tricia Ballard
- TSM&O Operations – John Lilly
- TSM&O Maintenance and CEI – Lorena Cucek
- TSM&O RTMC Manager – Lauren Pearson
- TSM&O Pushbutton – Kevin Marquez
- TSM&O Retiming – Patrick White

FDOT

FDOT DISTRICT FIVE TRAFFIC OPERATIONS AND TSM&O STRUCTURE
ORGANIZATIONAL CHART

Jim Wood (District Traffic Operations Engineer)

Jeremy Dilmore (TSM&O Program Engineer)

Tricia Ballard (TSM&O Engineer - Arterials)

Kevin Marquez (Pushbutton Program)

Tushar Patel (TSM&O Development Manager)

Steve Johnson (ITS Network Supervisor)

Lorena Cucek (Contract Management, Maintenance)
- David Bormann (Maintenance)
  - Maintenance Technicians
- Chris Kulow (Maintenance)
  - Maintenance Technicians
- Kevin Boston (Maintenance)
  - Maintenance Technicians

Lauren Pearson (RTMC Manager)

Dale Cody (Operations PM, I-4 & I-95)
- Eddie Grant (RTMC Operations)
  - Assistant RTMC Manager
  - Shift Supervisor
    - Operators
  - Express Supervisor
    - Express Operators
  - QA/QC Specialist
- Mike Hudson (TIM, Service Patrol)
  - TIM Specialists
- Manny Rodriguez (Operations)
  - Arterial Supervisor
    - Arterial Operators
- Tim Forcella (PIO)

Kyle Higgins (Operations PM, I-75)
- Gary Rutledge (RTMC Operations, SunGuide Admin)
  - 10 Traffic Management Specialists
- Garrett Popovich (Mapping/Navigation Support)
  - Traffic Incident Management
  - 2 Traffic Management Specialists
- Major Mark Castleberry (Law Enforcement)
  - FHP Staff (Law Enforcement)

Steph McMahon (Road Rangers)
- John Tixier (Road Ranger Manager)
  - I-4 East Road Rangers Service Patrol
  - I-75 Road Rangers Service Patrol
  - I-95 Road Rangers Service Patrol
- Armando Figueroa (Road Rangers)
  - I-4 West Road Rangers Service Patrol
  - Wekiva Parkway Road Rangers Service Patrol
  - Arterials Road Rangers Service Patrol

Patrick White (Retiming)
John Lilly (Operations)
Ray Marlin (Operations)

Kevin Marquez (Pushbutton Program)
- Randall Carter (Pushbutton)
- Ed Draganchuk (Pushbutton)
- Volvems Pierre Gilles (Pushbutton)
- Richard Smith (Pushbutton)
- Bjorg Olafs (Pushbutton)
- Hadi Moussly (Pushbutton)
- Abid Virani (Pushbutton)

Tushar Patel (TSM&O Development Manager)
- Daniel Simpson (Design)
- Jennifer Sardonini (Construction)
- Katie King (PM, 940 Compliance)
- David Williams (Planning, Coordination, Grants)
- Ryan Cunningham (Research with University)
- Ryan Casbum (Research with University)
- Nathan Mozeleski (Design, Organization)
- Anne Allan (Data and Software)
- Clay Packard (Data and Software)
- Charles Coody (Construction Support)
- Jim Miller (Construction Support)

Steve Johnson (ITS Network Supervisor)
- Cheryl Burke (Data Collection)
- Vacant (Purchasing Agent)
- Demetrius Lewis (Project Manager)
- Ejae Williams (Database Administration)
- Vacant (SunGuide Admin, CAV)
- Jovanny Varela (SunGuide Admin)
- Yi Che (ATSPM/Software/IMCs)
- Abram Little (ITS Specialist)
- Aurelio Giovinazzo (ITS Specialist)
- Dmitry Shevchuk (Network)
- Shane Owens (Network)
- Robert Daniels (ITS Specialist)
- Nuridean Mubarak (Workstation)
- John Hope (Software)
- Natesh Kirpalani (Software)
- Michael Henson (Software)

Functions (Lorena Cucek)
- Negotiate hours; scope development; technical advisor / selection
- Contract Management
- Maintenance
  - Coordination with maintaining agencies
  - Maintenance of FDOT-owned assets

Functions (Lauren Pearson)
- Negotiate hours; scope development; technical advisor / selection
- TMC Management
- Public Calls / GovQA / PIO
  - Investigate / Respond to signal complaints
- Pricing of Express Lanes
- Arterial ATMS Oversight
- Actively Manage Arterials
- Incident Coordination

Functions (Kyle Higgins)
- TMC Management
- Arterial ATMS Oversight
- Actively Manage Arterials
- Incident Coordination
- Public Calls / GovQA / PIO
  - Investigate / Respond to signal complaints

Functions (Steph McMahon)
- Negotiate hours; scope development; technical advisor / selection
- Traffic Incident Management
- Road Rangers
- FHP Contract Administration
- TIM Coordination

Functions (Patrick White)
Signal Retiming
- Negotiate hours; scope development; technical advisor/selection
- Signal Retiming

Operations - Signals
- Design
  - ERC review
  - Permit review
  - Incorporate lessons learned
- Construction
  - Monitor & update timing based on MOT
  - Ensure communication maintained along corridors
  - Ensure detection maintained along corridors
- GIS data for signals

Functions (Kevin Marquez)
- Traffic Operations Pushbutton Program
  - In-house design - safety, minor traffic, roadway improvements
  - Oversee consultant design process, review, and invoicing
  - Develop work documents for construction contracts
  - Monitor CST process and CST invoice process via CEI
- Traffic Operations Maintenance Pushbutton Program
  - In-house design - traffic signal respan/rebuild
  - Oversee consultant design process, review, and invoicing
  - Develop work documents for construction contracts
  - Monitor CST process and CST invoice process via CEI
- TSM&O Pushbutton Program
  - Perform In-house design for TSM&O improvements in the District
  - Oversee consultant design process, review, and invoicing
  - Develop work documents for construction contracts
  - Monitor CST process and CST invoice process via CEI
- TSM&O Project Management – Work Program projects
  - Project management - WWD projects & standalone traffic signal (new and rebuild) projects

Functions (Tushar Patel)
- Planning
  - Identification of needs using data
  - Schedule preparation
  - Budget estimates
  - Secure funding
  - Performance measures for roadways
    - Setting and Evaluating PMs
    - Before & After studies
  - Systems Engineering Analysis (SEA) Documentation
- Design
- Construction

Functions (Steve Johnson)
- Negotiate hours; scope development; technical advisor / selection
- IT Functions
  - Workstation support
  - Network Administration
  - Patch management & updates
  - Develop deployment environments
  - Server maintenance
  - Hardware install at TMC site
  - Security Administration
  - Special Application Administration
  - Purchasing
- Permanent Traffic Monitoring Site (PTMS)
  - Collect counts, ensure quality, submit data

LEGEND

John Smith (Organization)
— Work Effort
— Name

CONTRACTS
- GSA
- CSC Traffic Operations VHB
- Continuing Services (CS) TSM&O Atkins
- Maintenance Contract (Eland)
- Maintenance Contract (Transcore)
- Maintenance Contract (ACS)
- Operations Contract (Metric)
- Operations Contract (AECOM)
- Florida Highway Patrol Contract
- Road Rangers Service Patrol Contract (Autobase)
- Road Rangers Service Patrol Contract (Lynx)

GRANTS 101

Important Dates to watch for and deadlines

Upcoming Grants to watch out for!

Strengthening Mobility and Revolutionizing Transportation (SMART)
- Funding to conduct demonstration projects focused on advanced smart community technologies and systems to improve transportation efficiency and safety.
- NOFO anticipated: Spring 2024
- NOFO page - More information available [here](#)

Advanced Transportation Technologies and Innovative Mobility Deployment (ATTIMD)
- Also known as the ***Advanced Transportation Technology and Innovation (ATTAIN).***
- Program, provides funding to deploy, install, and operate advanced transportation technologies to improve safety, mobility, efficiency, system performance, intermodal connectivity, and infrastructure return on investment.
- NOFO anticipated: Winter 2024
- NOFO page - More information available [here](#)

Consolidated Rail Infrastructure Safety Improvements (CRISI)

- Provides funds projects that improve the safety, efficiency, and reliability of intercity passenger and freight rail.
- Deployment of railroad safety technology
- *Anticipated NOFO has not been advertised as of today*

Charging and Fueling Infrastructure (CFI) Program

- Provides funding to strategically deploy publicly accessible electric vehicle charging infrastructure and other alternative fueling infrastructure.
- NOFO anticipated: Spring 2024
- NOFO page - More information available here

GRANT RESOURCES

- SMART - Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program | US Department of Transportation

- ATTAIN - SMART Grants Fact Sheet | US Department of Transportation

- CRISI - Consolidated Rail Infrastructure & Safety Improvements (CRISI) Grant Program | US Department of Transportation

- Grants for Charging and Fueling - Federal Funding Programs | US Department of Transportation

- Carbon Reduction Program - Carbon Reduction Program | US Department of Transportation

- Key Notices of Funding Opportunity | US Department of Transportation

Letters of Consistency

- You may request a Letter of Consistency from FDOT to support your Grant application.

- Grant applications should be accompanied with Letter's from those that will benefit from the Grant.

- You can ask businesses around the target area to write a letter on your behalf.

GRANT COORDINATOR

ALICE GIULIANI

☎ 386-943-5247
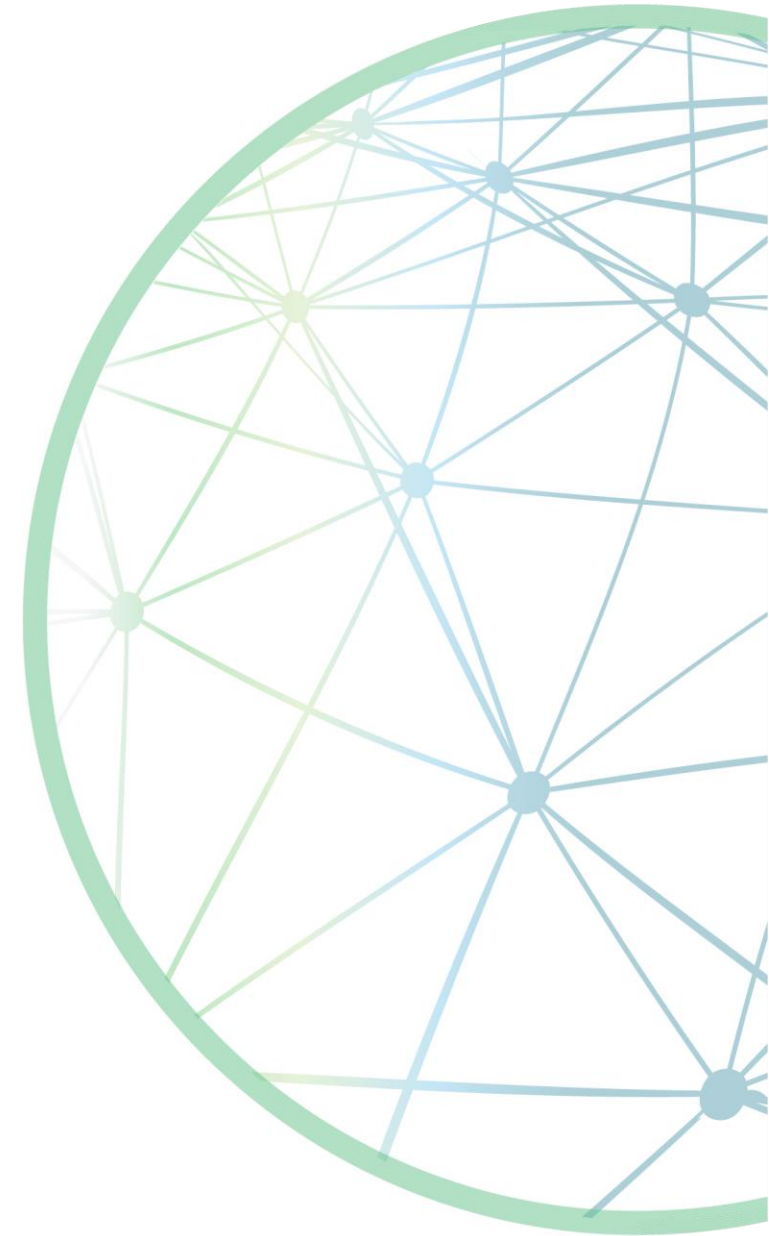
📧 E-MAIL Alice.Giuliani@dot.state.fl.us

Regional TSM&O Strategic Plan

Working Group Meeting

February 1, 2024

Welcome & Introductions

Stakeholder Agencies

Regional TSMO Participating M/TPOs

- Memorandum of Understanding (MOU)

- Working Group
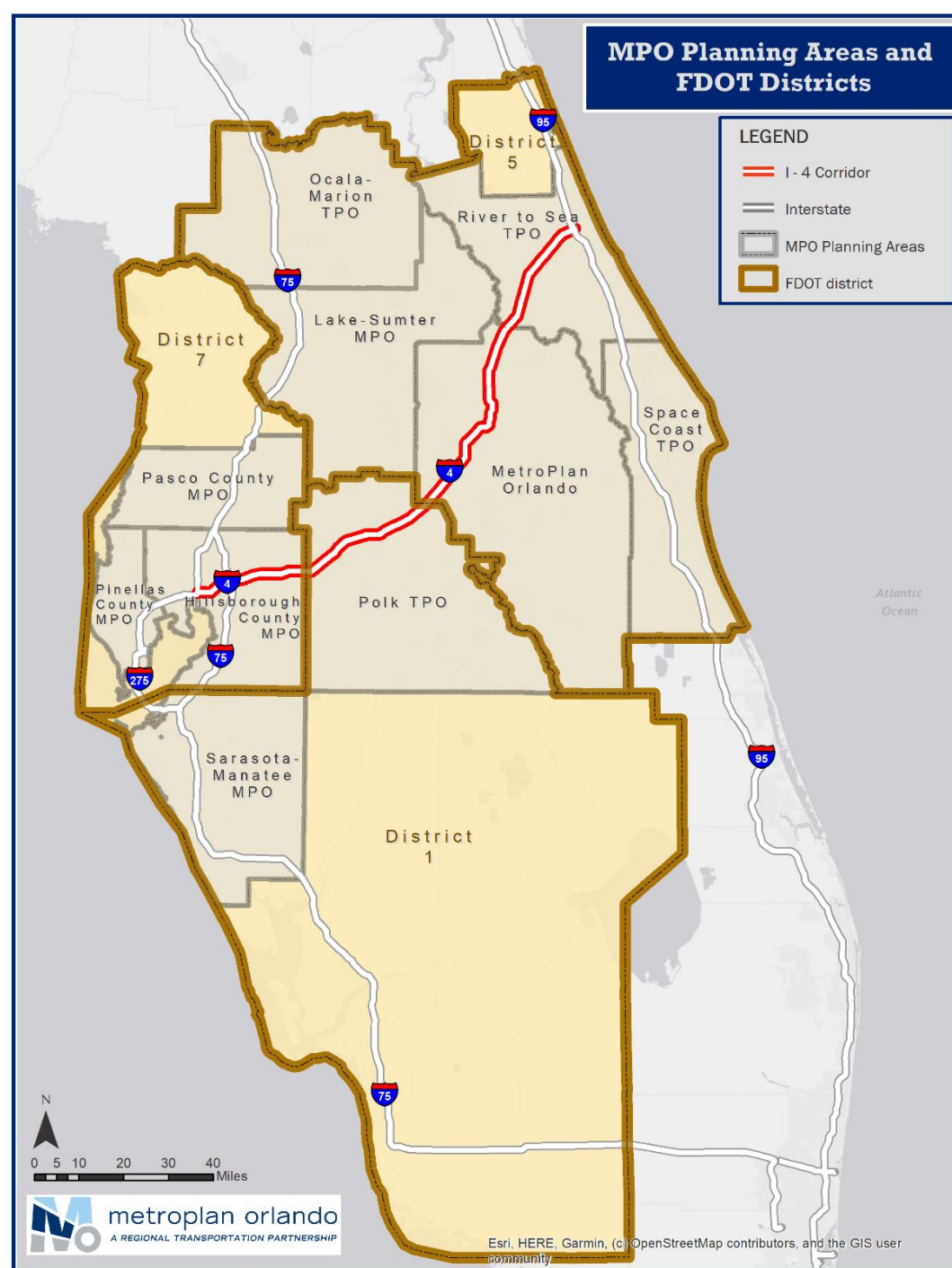
Strategic Plan Overview
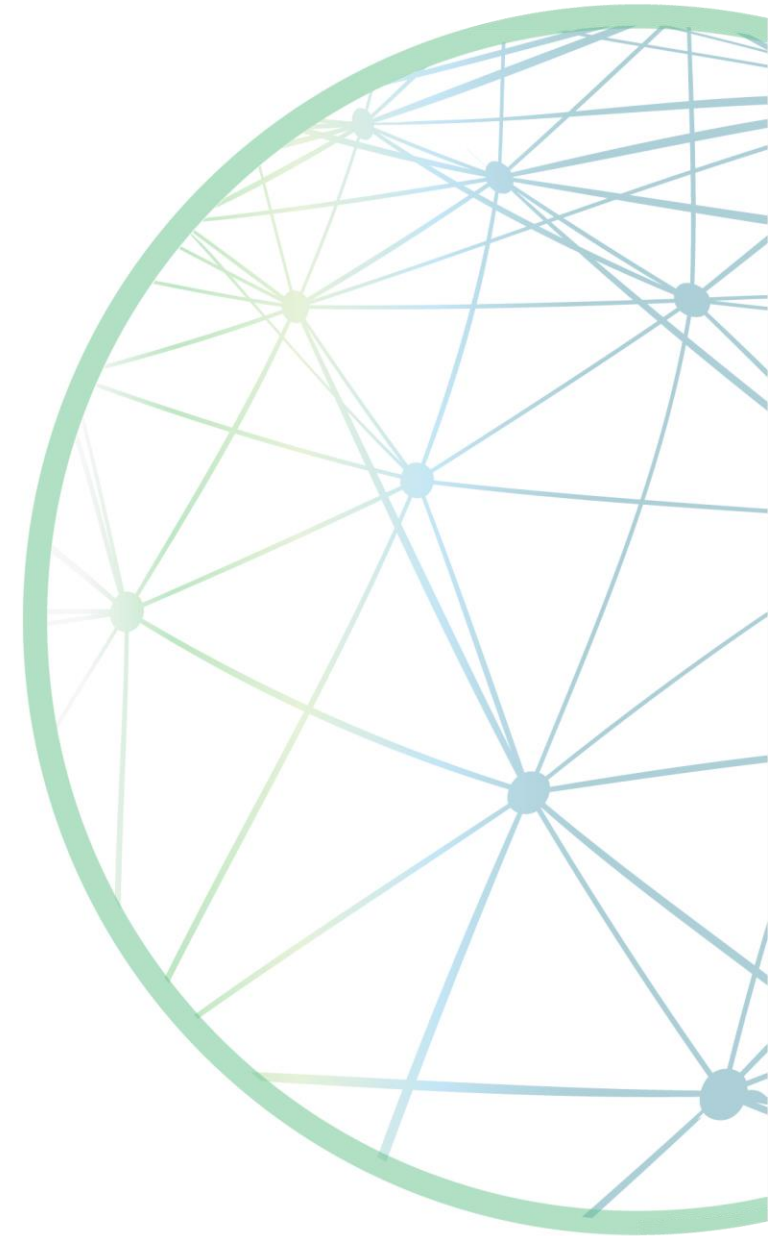
RTSMO Strategic Plan Scope

Task 1 – Develop Organizational Vision and Refine RTMSOP Goals and Objectives

Task 2 – Assessment of Regional Strengths and Opportunities

Task 3 – Strategic Framework, Initiatives, and Actions

Task 4 – RTSMOP Organizational Structure
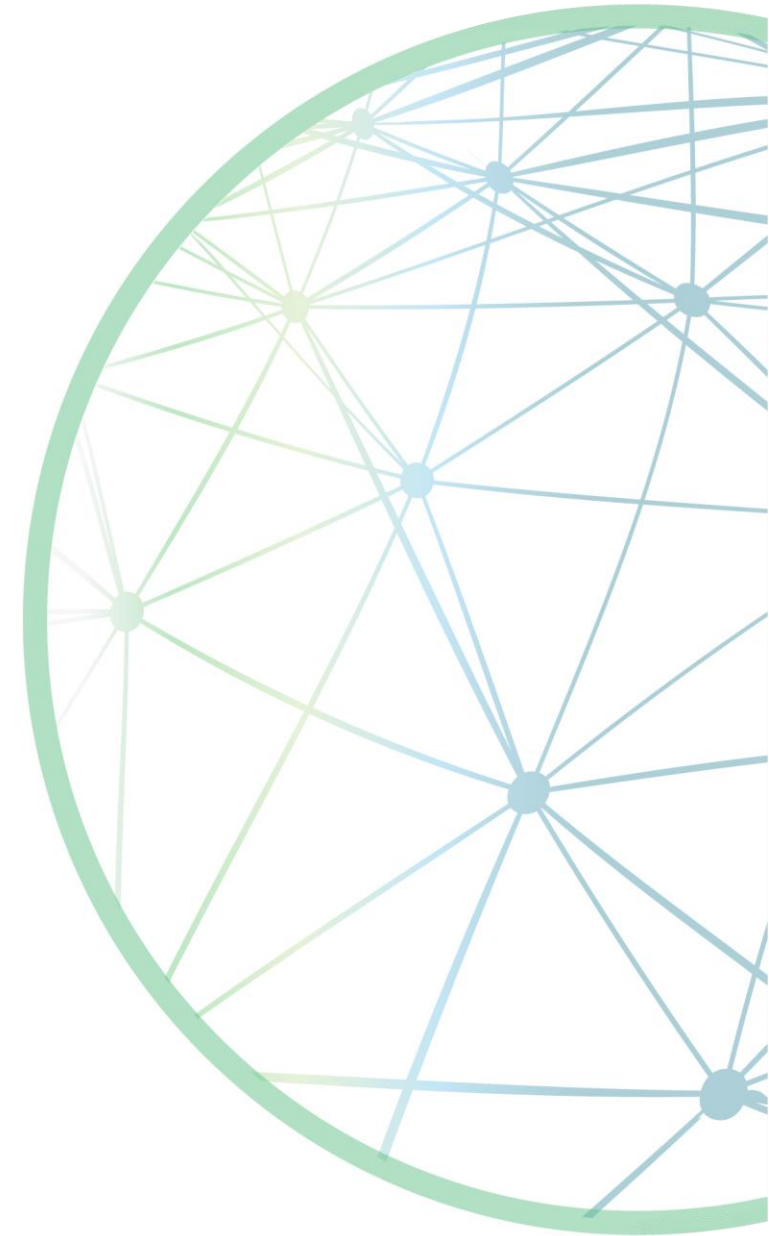
Task 5 – RTSMO Strategic Plan

Schedule

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Task 1 Develop Organizational Vision and Refine RTMSOP Goals and Objectives	■	★	★									
Task 2 Assessment of Regional Strengths and Opportunities			■	■	■							
Task 3 Strategic Framework, Initiatives, and Actions				■	■	■	■					
Task 4 RTSMOP Organizational Structure						■	■	★	■			
Task 5 RTSMO Strategic Plan								■	■	★	■	■

★ Working Group Participation

Organizational Vision and Goals and Objectives

Organizational Vision

"Why does the RTSMO Program exist?"

Vision to be developed based upon:

1. Input from Working Group and Stakeholders
2. Summary of Related Documents

39 Documents Reviewed
for Summary of Related Documents Technical Memorandum

Preliminary Works & Component Documents 4

- *TSMO Peer Exchange Summary Report*
- *Feasibility of a Regional TSMO Program Research Report*
- *RTSMOP and Working Group, Goals and Objectives*
- *Central Florida MPO Alliance TSMO Framework*

MPO Long Range Transportation Plans 10

- *From all 10 T/MPOs*

MPO TSMO/ITS Plans or Equivalent 8

- *Forward Pinellas Congestion Management Process*
- *Hillsborough TPO Smart Mobility Plan*
- *Sarasota/Manatee MPO TSM&O Master Plan: Manatee County*
- *Sarasota/Manatee MPO TSM&O Master Plan: Sarasota County*
- *River to Sea TPO ITS Master Plan*
- *River to Sea TPO TSM&O Master Plan*
- *Polk County TPO TSM&O Master Plan*
- *Elements of the MetroPlan Orlando TSM&O Master Plan- In development*

Expressway Authority & Turnpike TSMO/ITS Plans 3

- *Tampa Hillsborough Expressway Authority (THEA) ITS Master Plan*
- *Central Florida Expressway Authority (CFX) ITS Master Plan*
- *Florida's Turnpike Enterprise TSM&O Strategic Plan*

FDOT District 5 & 7 TSMO Plans 4

- *District 5 TSM&O Implementation Plan*
- *District 5 TSM&O Methodology*
- *District 5 TSM&O Strategy Guide – User Manual (Draft)*
- *District 7 TSM&O Master Plan (Draft)*

MPO Unified Planning Work Programs (UPWPs) 10

- *From all 10 T/MPOs*

Key Findings
in Summary of Related Documents Technical Memorandum

LRTP/MTP

TSMO in LRTP vision, mission, goals, or objectives

TSMO is not explicitly named in the vision, mission, goals, or objectives of the ten Central Florida M/TPOs.

All Central Florida M/TPO LRTP strategic frameworks include at least one of the following core TSMO concept:

- **Safety Enhancements**
- **Technology and Innovation**
- **Optimized Infrastructure**
- **Traffic Management Strategies**
- **Real-Time Management**
- **Integrated Systems**

Funding and prioritization of TSMO

*Of the ten M/TPOs, six include TSMO concepts or language in their **project prioritization process** descriptions that may aid in furthering TSMO projects. Many M/TPOs also **prioritize TSMO and ITS through "boxed" or "set aside"** funds specifically earmarked for TSMO or ITS projects.*

- ***MetroPlan Orlando:** allocates 21% of Urbanized Area funds to TSMO, safety, and technology improvements off the state highway system.*
- ***River to Sea TPO scoring criteria**: TSMO concepts in project scoring criteria.*
- ***Ocala Marion TPO:** ITS projects boxed fund program; TSMO concepts in project scoring criteria.*
- ***Sarasota/Manatee MPO:** $72 million is set aside for technology projects; TSMO concepts in project prioritization process.*
- ***Forward Pinellas:** $1 million of funding is set aside annually for enhanced technological solutions to improve mobility.*
- ***Space Coast TPO:** ITS Boxed Funds utilized for projects from the ITS Master Plan*

TSMO oriented performance metrics

TSMO was not referenced directly in any of the LRTPs as far as performance metrics.

Only four of the ten M/TPO's performance metrics included TSMO concepts. Common language related to TSMO in performance metric sections include operations improvements, cost effectiveness, technology improvements, ITS, ACES, and multimodal considerations.

TSMO committees or working groups

- ***MetroPlan Orlando**—TSMO Advisory Committee.*
- ***Hillsborough TPO**—Intelligent Transportation Systems (ITS) Committee.*
- ***Sarasota/Manatee MPO**—mentions plans to establish a Transform 2045 TSMO Committee. (Note: Sarasota/Manatee MPO has a standing TSMO Advisory Group.)*
- ***River to Sea TPO**—mentions plans to establish an ACES (automated, connected, electric and shared-use vehicles) committee or working group.*

Key Findings
in Summary of Related Documents Technical Memorandum

TSMO/ITS Master Plans

Key Elements of TSMO/ITS Master Plans

1. A link between the TSMO plan and an overarching plan (e.g., LRTP)
2. Goals, objectives, and performance indicators/measures (frequently nested or compared to higher level goals and objectives)
3. An evaluation of the system (i.e., gap analysis, needs assessment).
4. A list and/or description of possible solutions / TSMO strategies
5. Prioritization Framework and Recommendations
6. Financial considerations

Goals (from most to least common)

1. Safety and Security
2. System Performance
3. Multimodal Connections
4. Informed Travelers
5. Health and Environment
6. Economic Prosperity
7. Data monitoring and reporting
8. Project Prioritization

Funding and prioritization of TSMO

Some M/TPOs included information about financial considerations in their TSMO Master Plans to describe how the MPO plans to finance, manage, and sustain the proposed TSMO initiatives. Items in these sections include:

1. **Current and future funding sources**
2. **Financial sustainability** (i.e., sustainability of funding sources over the long term, discussion of cost and benefits, and/or a return on Investment (ROI) assessment)
3. **Budgeting and resource allocation**

Expressway, Turnpike, and District Plans

Similar to "Key Elements of M/TPO TSMO/ITS Master Plans." Key differences include:

1. Broader focus
2. Dedicate space to "regional partner needs" and "stakeholder coordination"
3. Identification of M/TPOs that share their operations space as stakeholders and collaborators
4. Focus on customer service/satisfaction

TSMO in UPWPs

TSMO content in UPWP

Of the ten MPOs in the Central Florida planning area, eight included content that addressed TSMO.

TSMO content range from simply identifying TSMO as a transportation strategy, to identifying TSMO as an element of broader planning approaches, to allocating funding for TSMO-specific planning activities.

Examples of more involved TSMO content in the UPWPs:

1. **Developing a TSMO Master Plan**
2. **Continuing TSMO training**
3. **Engaging in regional TSMO coordination**
4. **Supporting a TSMO committee**
5. **Collecting TSMO data**
6. **Integrating TSMO activities/projects into broader planning activities and/or documents (LRTP, CMP, etc.)**
7. **Prioritizing projects with TSMO as criteria or an indicator.**

Goals and Objectives

Refine RTSMOP Goals and Objectives to:

- Align with Organizational Vision

- Reflect emerging TSMO strategies and best practices

- Apply to a regional TSMO planning and decision-making organization

Stakeholder Interviews

Virtual 1-hour interviews to:

- Obtain input on how an RTSMO program would support implementing agencies
- Inform the Vision, Goals, and Objectives

Discussion
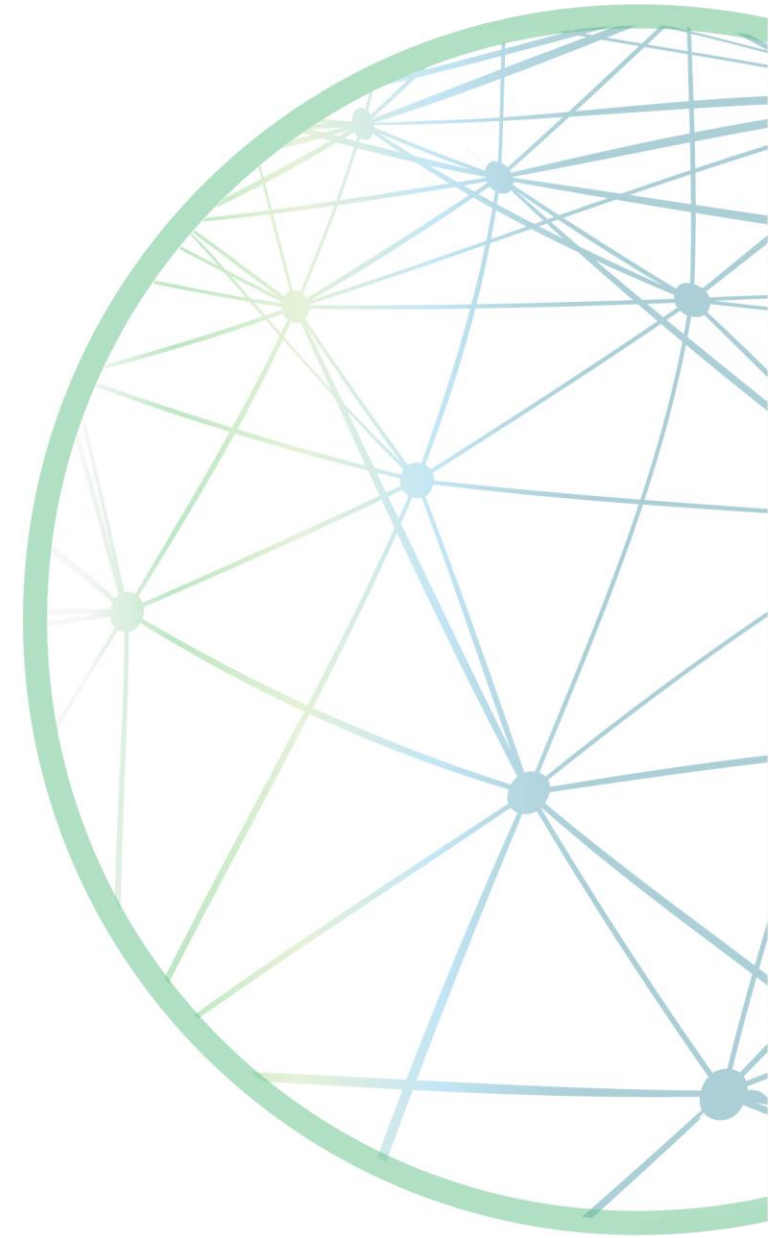
What is the role of your agency in advancing TSMO?

What would be the role of a Regional TSMO program in advancing TSMO?
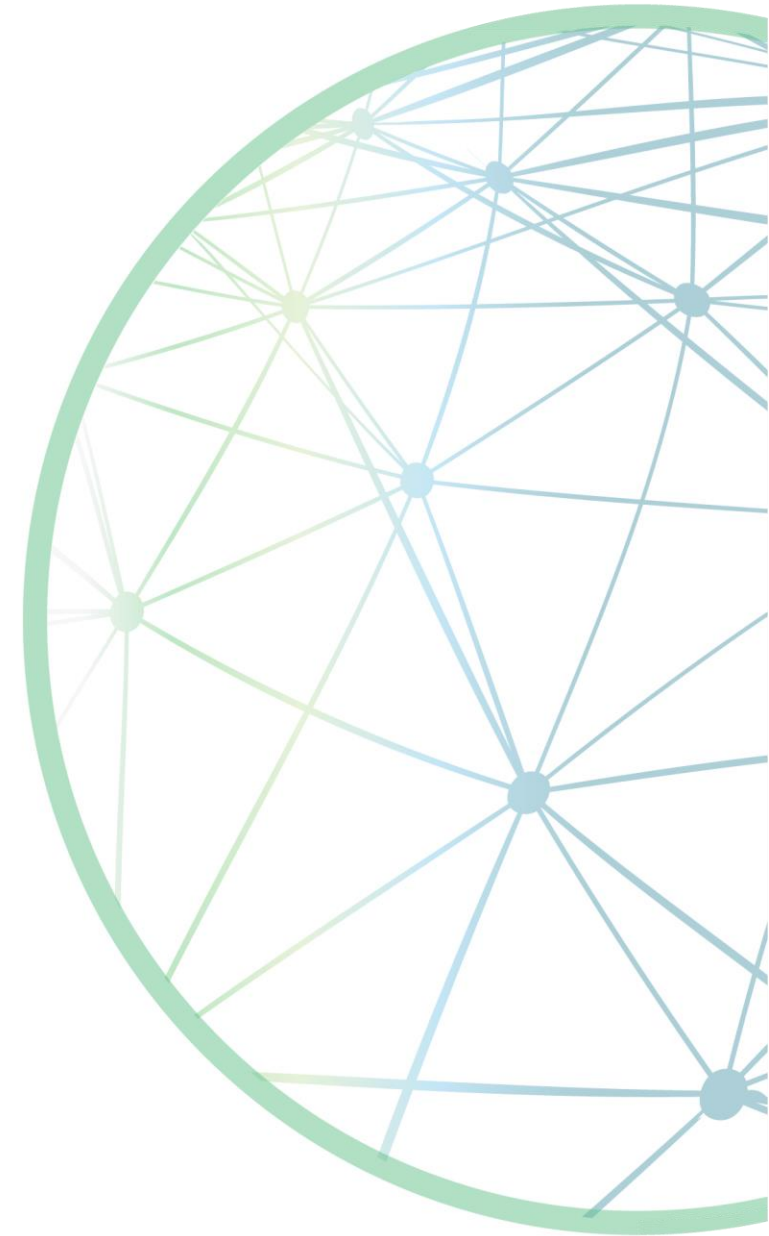
What do you believe will be important characteristics of an effective Regional TSMO Program?

What questions are critical to answer during development of this strategic plan?
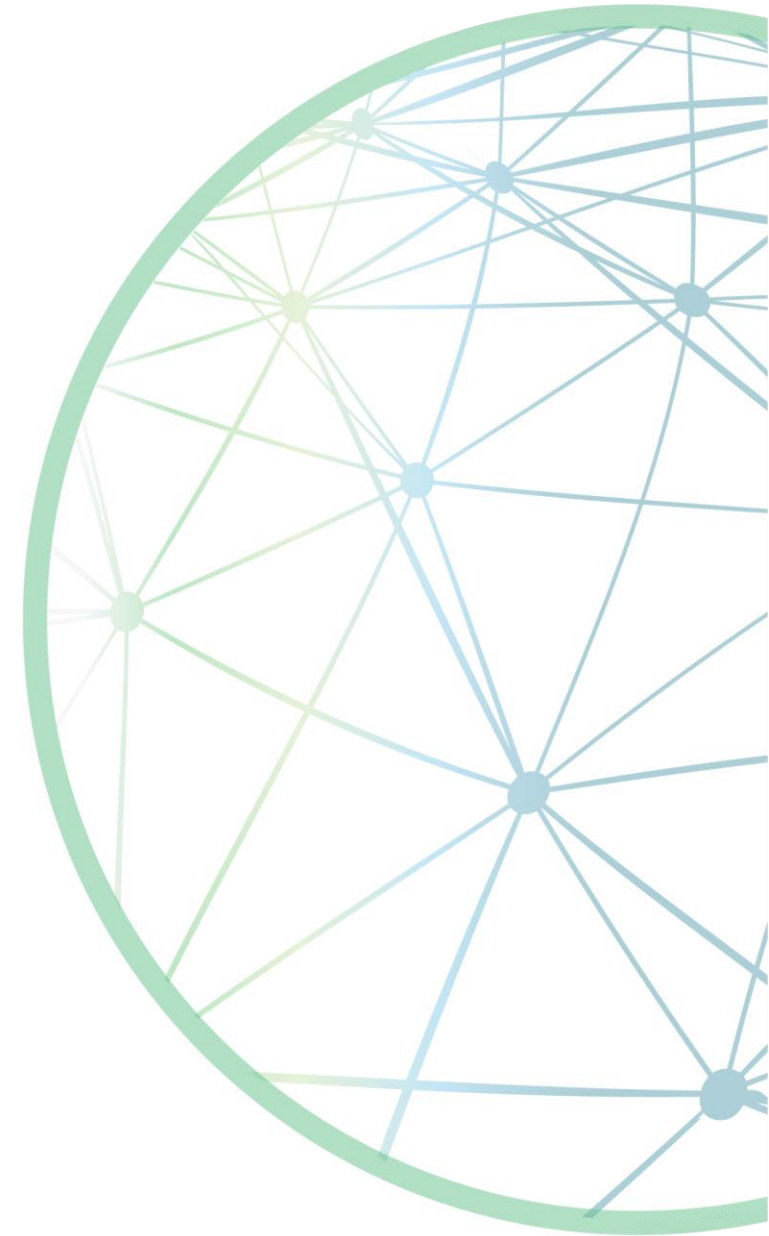
Do you have suggestions for stakeholders who should be included in the interview process?
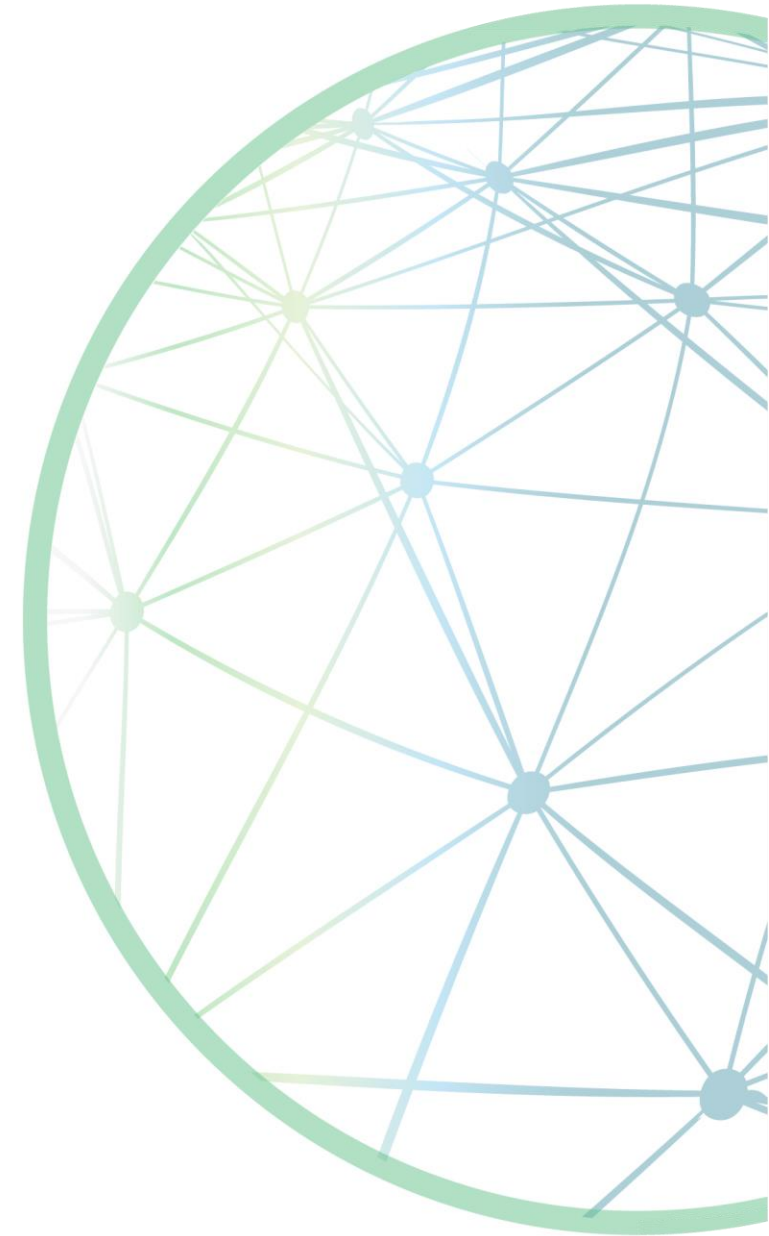
Next Steps & Action Items

Thank You!

Orlando
**Orange County
Convention Center**
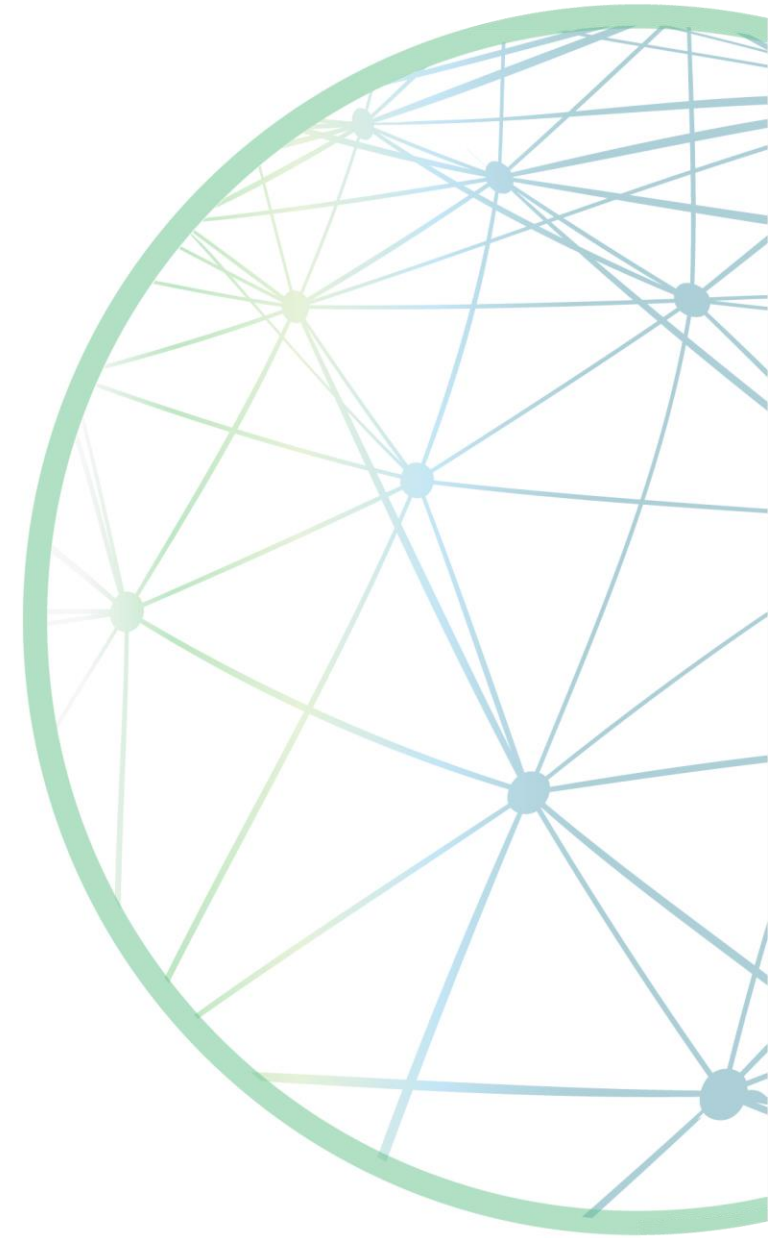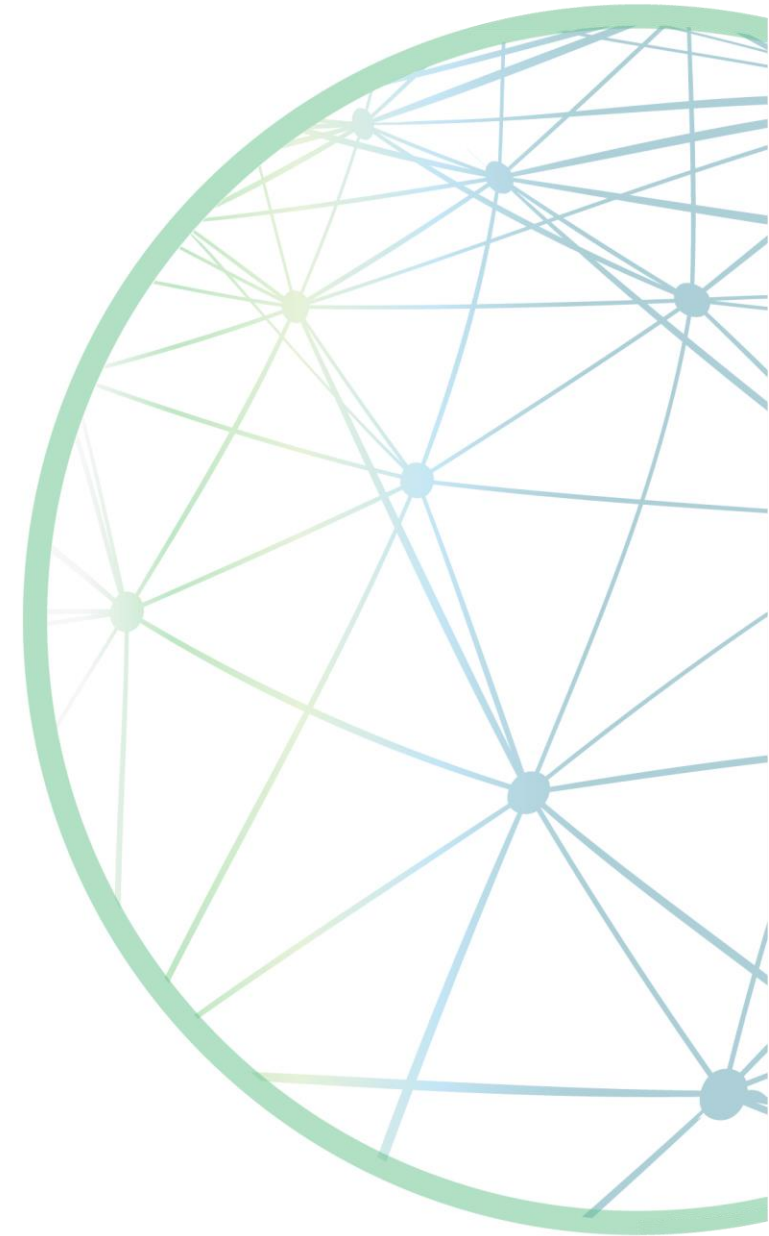
MEGACON 2023 and 2024 |
Observations and Applied Learning From a
Multi-Year Coordinated Planning Effort

February 22, 2024

ORANGE COUNTY CONVENTION CENTER

Luis Hernandez

Transportation Supervisor

What is MEGACON?

- Major showcase of popular culture

- Includes video games, TV, movies, anime, comics, etc.

- Celebrity appearances

- A publicly ticketed, 4-day event, held Thursday-Sunday

- Well represented by nearly all demographics.

Attendance

MEGACON Orlando | Historic Attendance
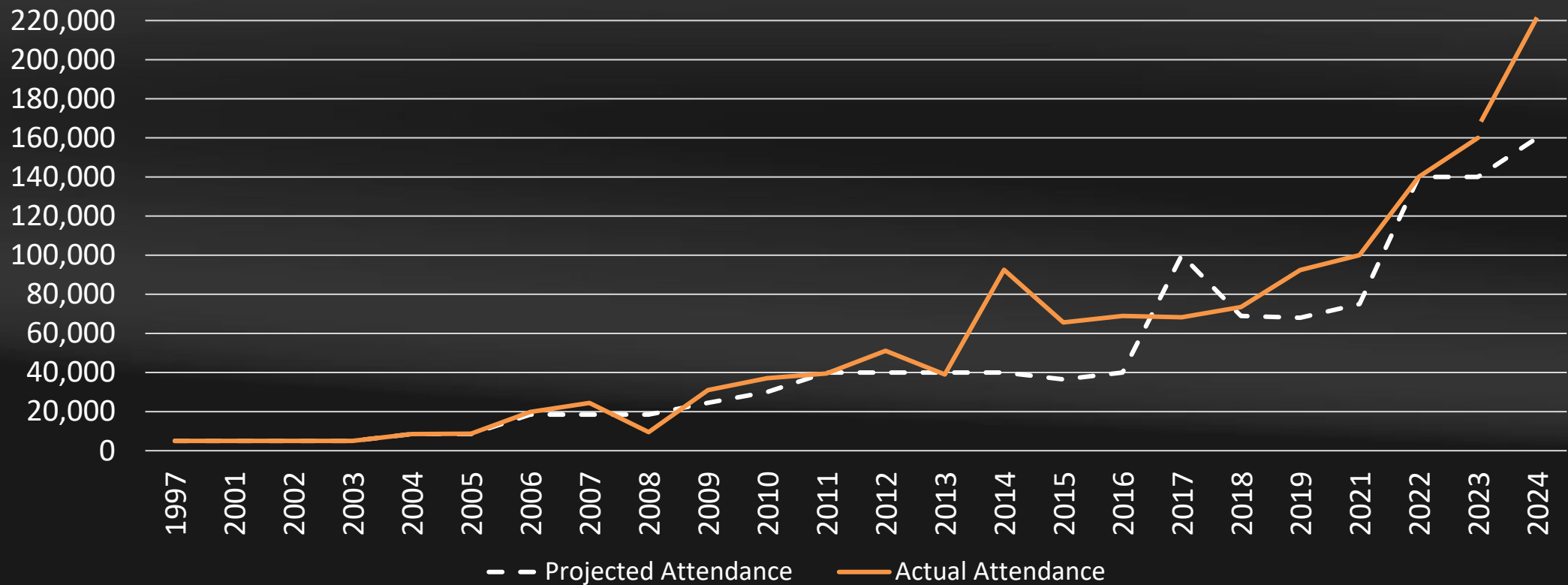
2022 Issues

A Lack of:

- Parking inventory
- Strategic planning (routing plan, messaging, external coordination, etc.)

Resulted In:

- Stagnant, gridlocked traffic circling in search of parking opportunities.
- Rampant illegal parking
- Frustration!

Parking Distribution

2023
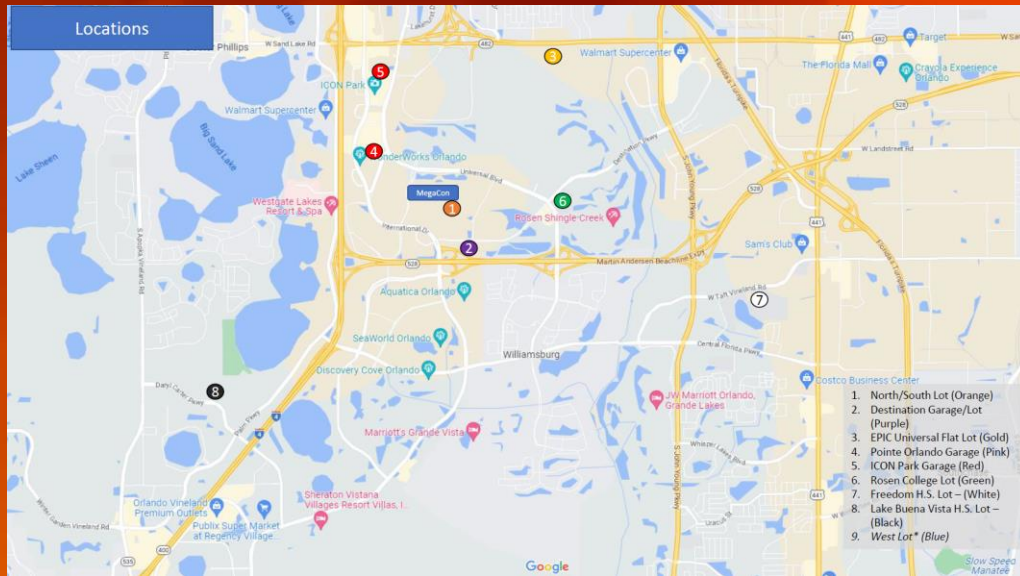
2024
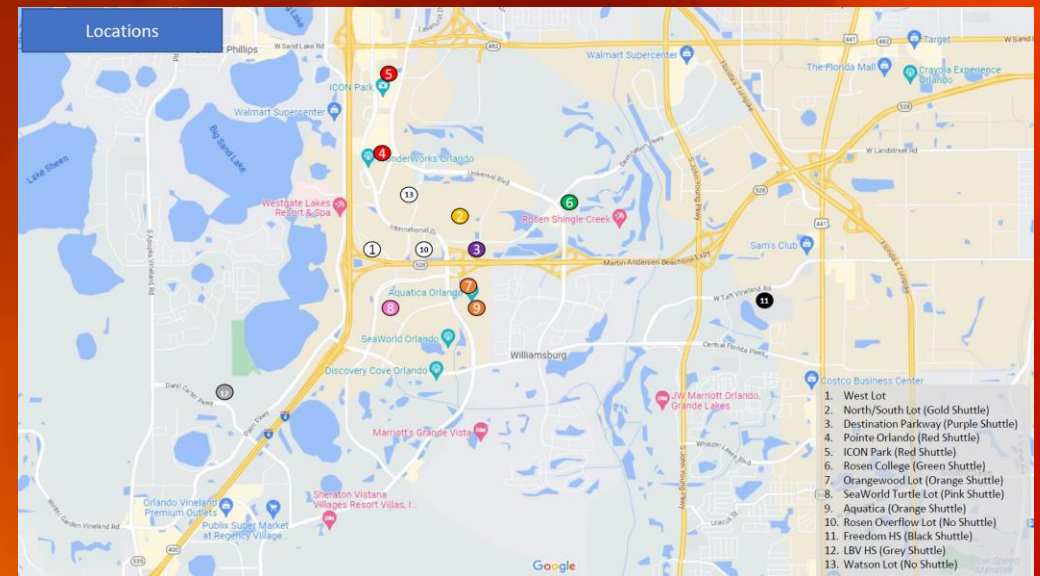
Inbound Routing Strategy

2023

2024

Exit Strategy

2023

2024

Command Center

2024 Results and Learning Opportunities

- New adaptive signal control worked well with minimal intervention.

- Additional city-wide and in-house events created new challenges.

- The smaller operating footprint led to much heavier volumes.

- Much more pedestrian activity than 2023 will be a new element to plan for.

THANK YOU!
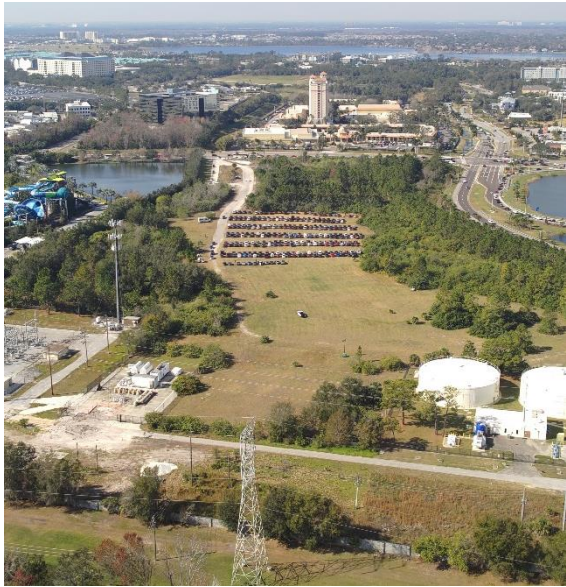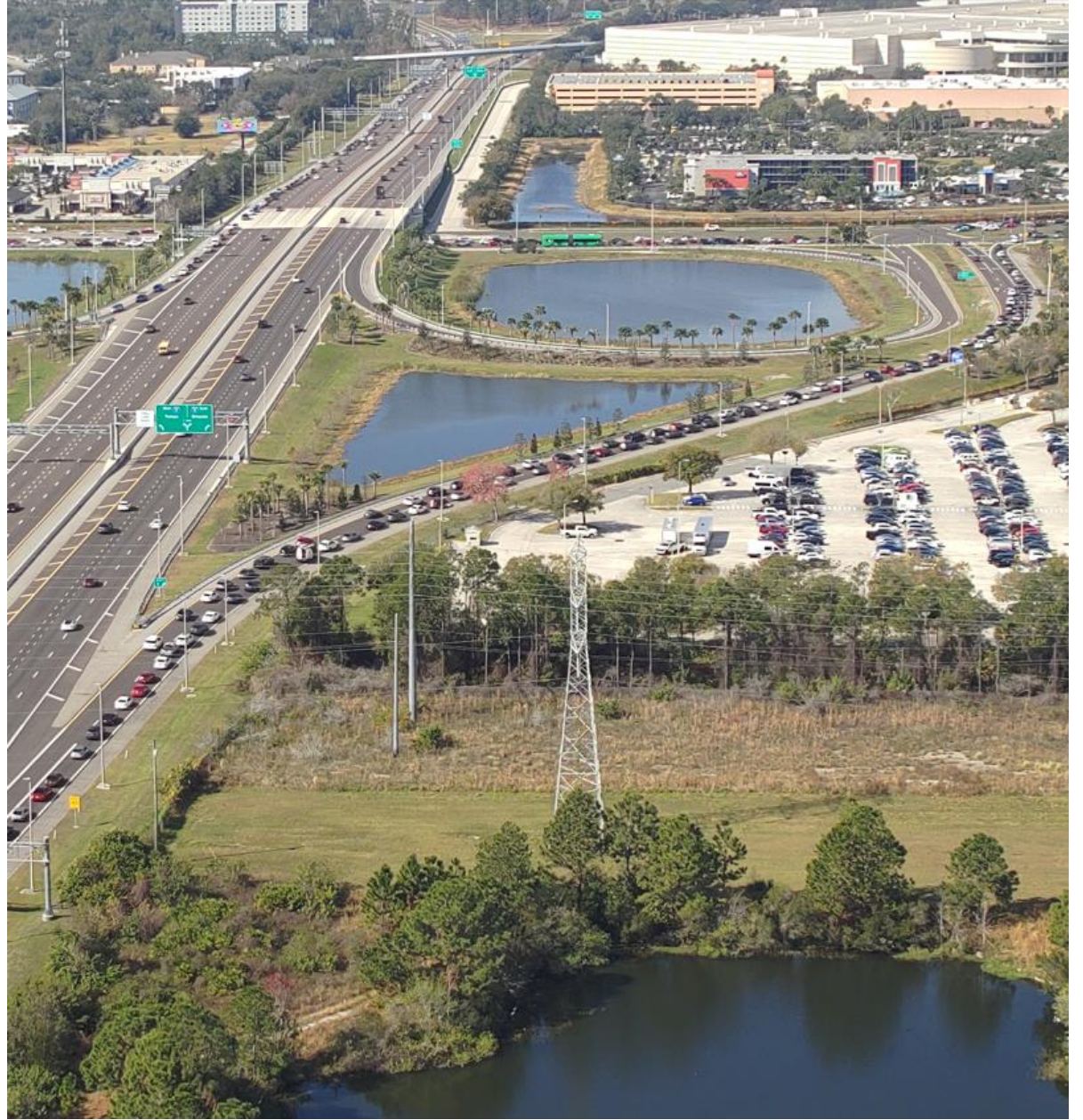
Agenda

- FTE Overview
- TSMO/Traffic Services
- ITS/Infrastructure
- Technology Projects
- Other Initiatives

FTE Overview

- User Financed System
- Safety and Mobility Focus
- Fully Instrumented ITS

Garcon Point Bridge (inset map)

TWO-WAY TOLLS

	SunPass	Cash	
2 - Axles	$2.30	$2.75	
Each Additional Axle	$2.30	$2.75	

FIRST COAST EXPRESSWAY — TOLL 23

SEMINOLE EXPRESSWAY — TOLL 417

BEACHLINE WEST EXPRESSWAY — TOLL 528

BEACHLINE EAST EXPRESSWAY — TOLL 528

SOUTHERN CONNECTOR EXTENSION — TOLL 417

SUNCOAST PARKWAY — TOLL 589

DANIEL WEBSTER WESTERN BELTWAY — 429

VETERANS EXPRESSWAY — TOLL 589

I-4 CONNECTOR

POLK PARKWAY — TOLL 570

FLORIDA'S TURNPIKE

SAWGRASS EXPRESSWAY — TOLL 869

TURNPIKE EXTENSION

FLORIDA'S TURNPIKE

Major Projects

- Widening MP 273+ (Lake/Sumter)
  - North of Orlando/SR-50 (toward I-75)

- Widen Turnpike (Osceola)
  - Widen TPK (MP 239-242) and New Nolte Road Interchange

- Widening SR 417 MP 38+ (Seminole)
  - North of Aloma

- ITS Beachline East

091-274_0-NB-IPV
091-274_0-NB-IPV

Toll 417 MP 38.3 SB

Looking North

FLORIDA'S TURNPIKE
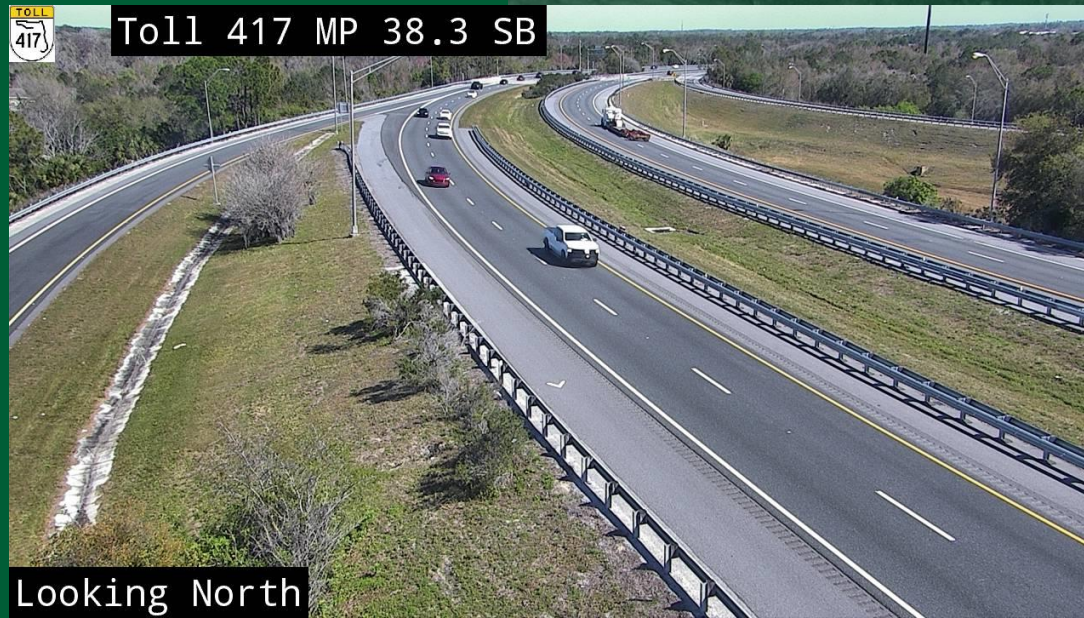
TSMO/Traffic Services

- Traffic Signals
  - Replacements
  - Interchanges with Non-State Roadways
  - End-of-Life
- Examples:
  - SR-589 at Eisenhower Boulevard
  - SR-417 at Celebration Avenue

TSMO/Traffic Services

- TSMO Continuing Services
  - 3rd contract
  - VHB
  - TSMO Analysis
  - Traffic Signal Warrants, Speed Studies
  - Safety Dashboard
  - WheelRight Tire Pressure Stations (Service Plazas)
- TSMO Program
  - Steering Committee Meetings
  - Strategic Plan (2024+)

Florida Turnpike Enterprise Crash Dashboard

To Begin, select a roadway and click the "Search" button. All other filters are optional.
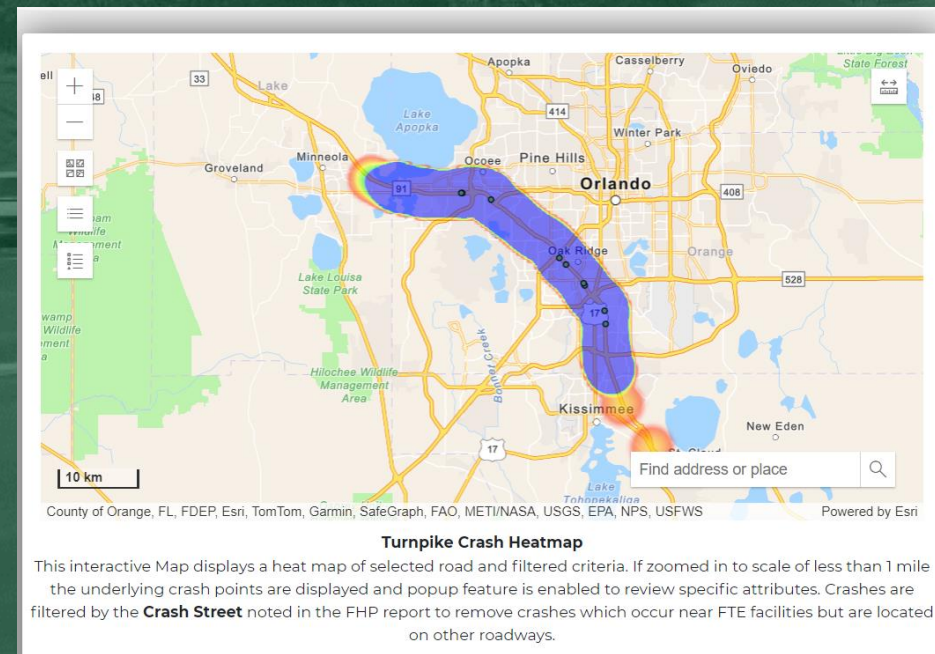
Select Ramp or Mainline: Mainline
Select a Roadway: FLORIDA'S TURNPIKE
County: Orange
Direction: Select Direction
Start: 12/21/2020
End: 12/23/2023
BMP: 0
EMP: 0

To update Map and Charts, users MUST click "SEARCH" to update the below infographics and map. Please refer to Signal4 Analytics for complete crash records.
If you wish to change the RoadWay in your selection, Please hit the 'CLEAR' button first to start a new selection.

Turnpike Crash Heatmap
This interactive Map displays a heat map of selected road and filtered criteria. If zoomed in to scale of less than 1 mile the underlying crash points are displayed and popup feature is enabled to review specific attributes. Crashes are filtered by the **Crash Street** noted in the FHP report to remove crashes which occur near FTE facilities but are located on other roadways.

ITS / Infrastructure

- Video Management
  - Milestone

- Change Management
  - Wednesday evenings (typical)
  - 11:00pm start time
  - Coordination with TMC
  - IT Change Control Document
  - SunGuide updates, patches

FLORIDA'S TURNPIKE
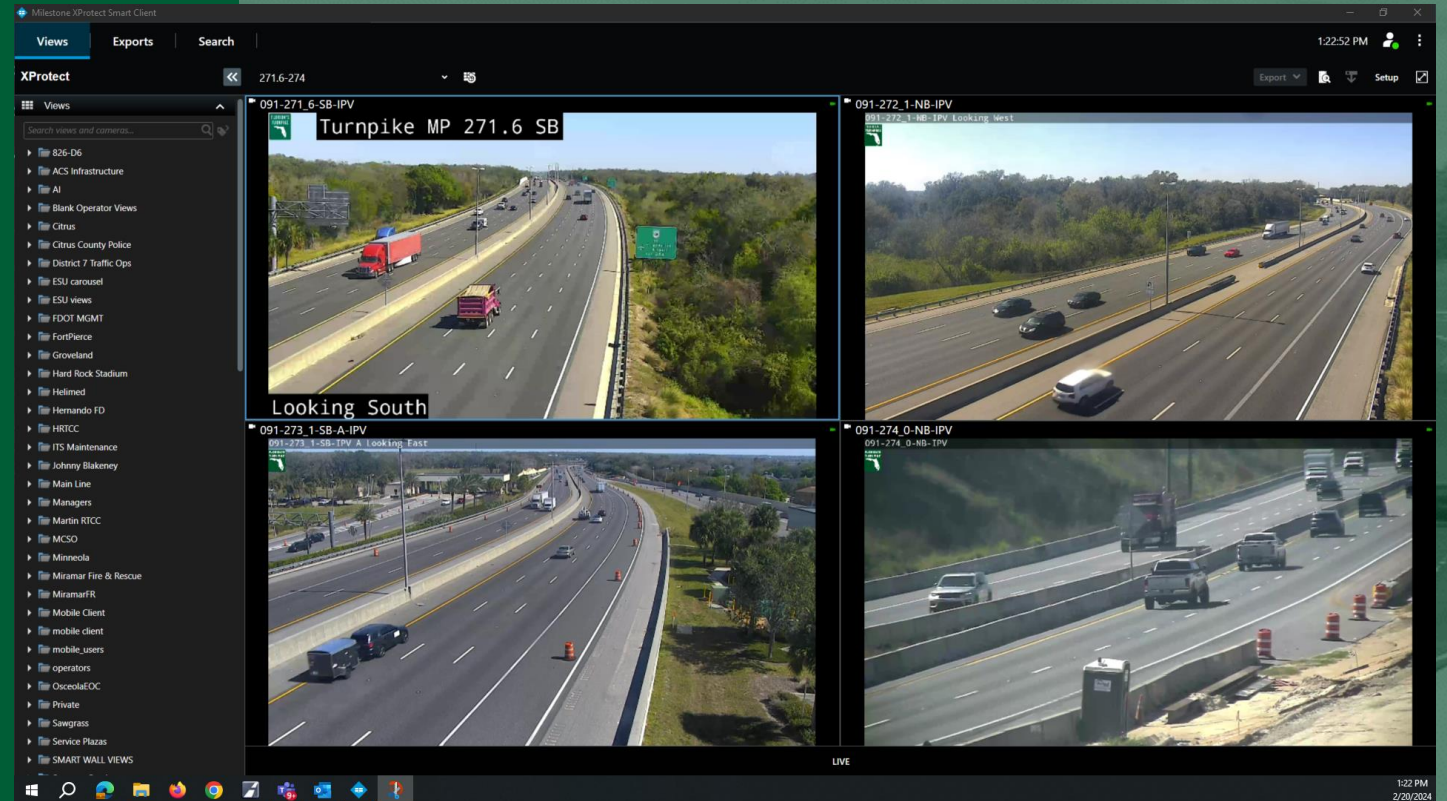
ITS / Infrastructure

- ITS Continuing Services 3
  - Metric Engineering (current)
- ITS Continuing Services 4
  - Pending (under procurement)
- Fiber Sharing
  - Important Network Redundancies
  - Reach All Facilities

- Wrong Way Driving Deployment
- Push Button
  - Candidate projects
- DMS Upgrade and Retrofit on SR 91 and SR 429 (E8U57)
- Queue Warning (next slide)

FLORIDA'S TURNPIKE

ITS / Infrastructure Queue Warning Projects

- Two Phased Projects
  - Northern & Southern QWS E8T77
    - 12 Locations
  - System Wide Queue Warning (SR 91 and SR 429)
- Estimated Queue Lengths
- SunGuide Software Enhancement
- Message Concept:
  - SLOW TRAFFIC – 2 Miles Ahead
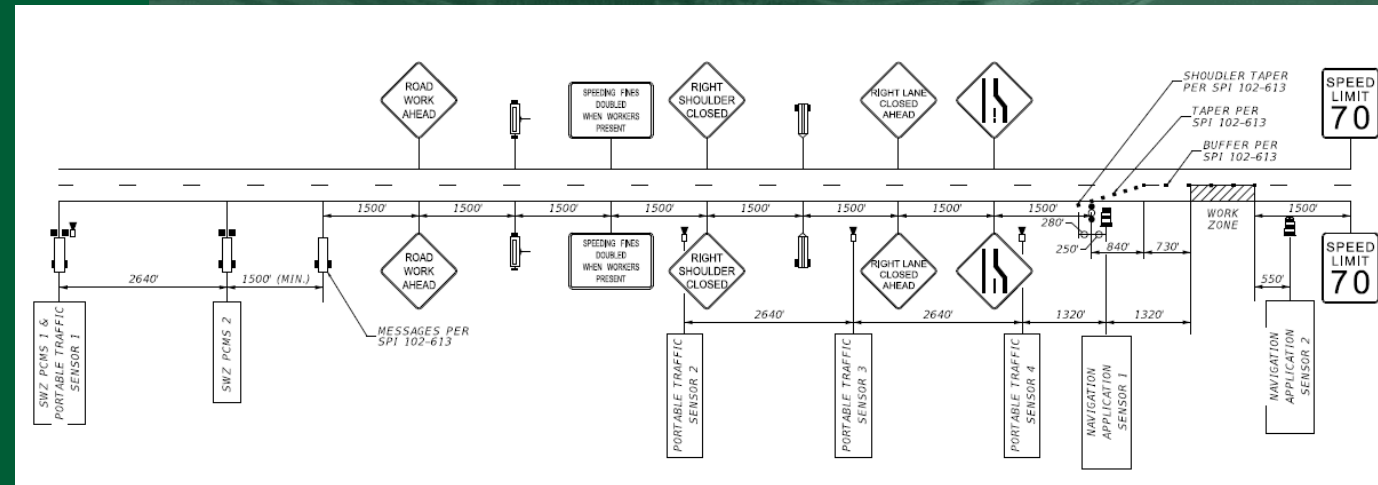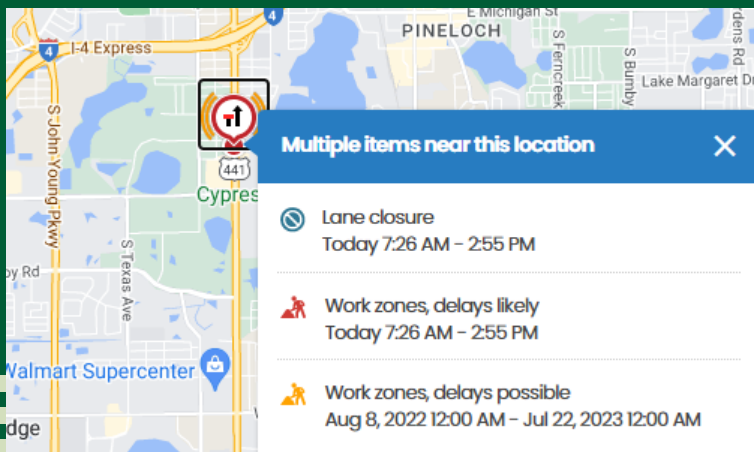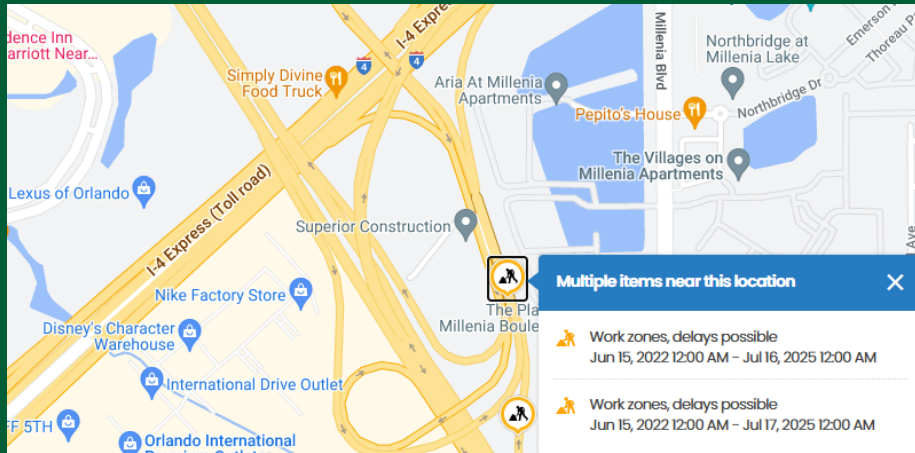 - STOPPED TRAFFIC – 3 Miles Ahead

Lane Management & Smart Work Zones

- Lane Closure Notification System
- Construction Projects

- Multiple SWZ Projects
- Included as a package in most FTE Projects with lane impacts during construction
- Motorist Advisory System Enhancement
- 10 Hour Lane Closure Coordination

Technology Projects

- Connected Vehicle Pilot
  - SR 91 – MP 255-267
  - SR 528 - MP 0-8
- Applications Include:
  - Wrong Way Detection
  - Curve Speed Warning
  - Queue Warning
- Smartphone as a Sensor
  - Cellular Delivery Model
- V2X Data Exchange Platform
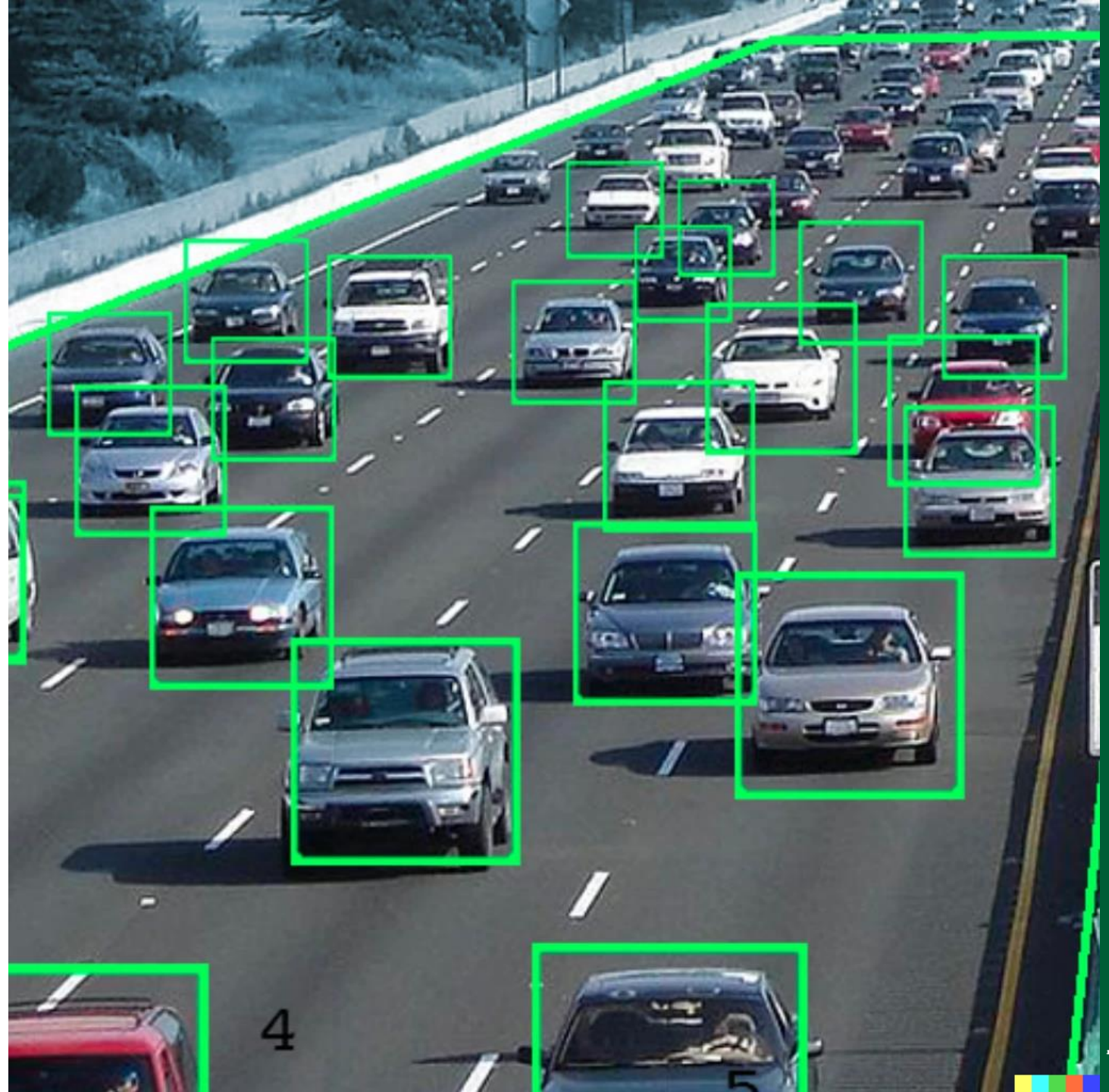 - In Progress
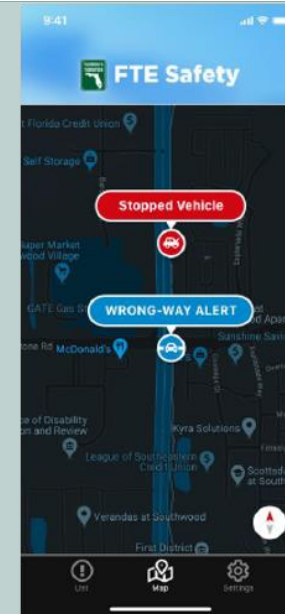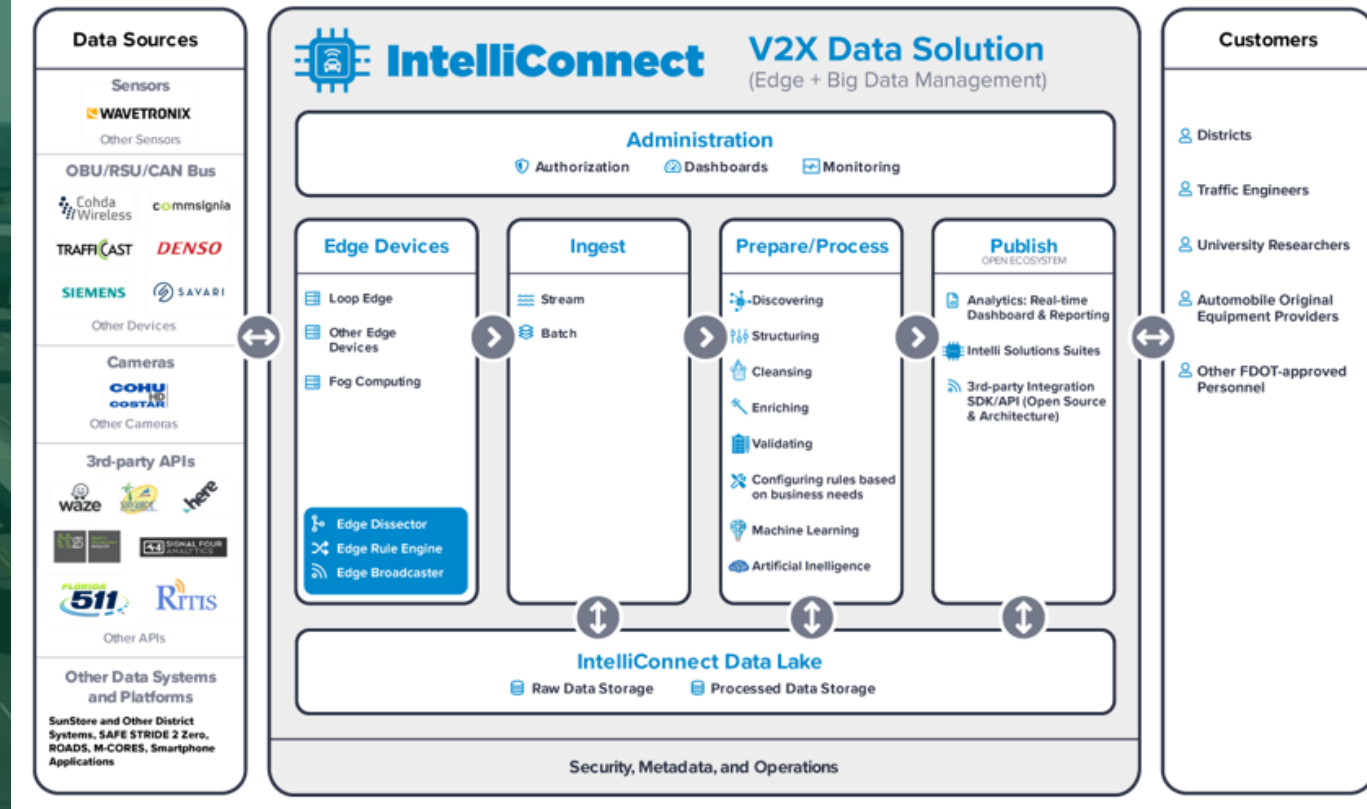
Technology Projects

- SunTrax
- Cybersecurity
  - Vulnerability Scanning
  - Penetration Testing (TBD)
- HAAS Alert
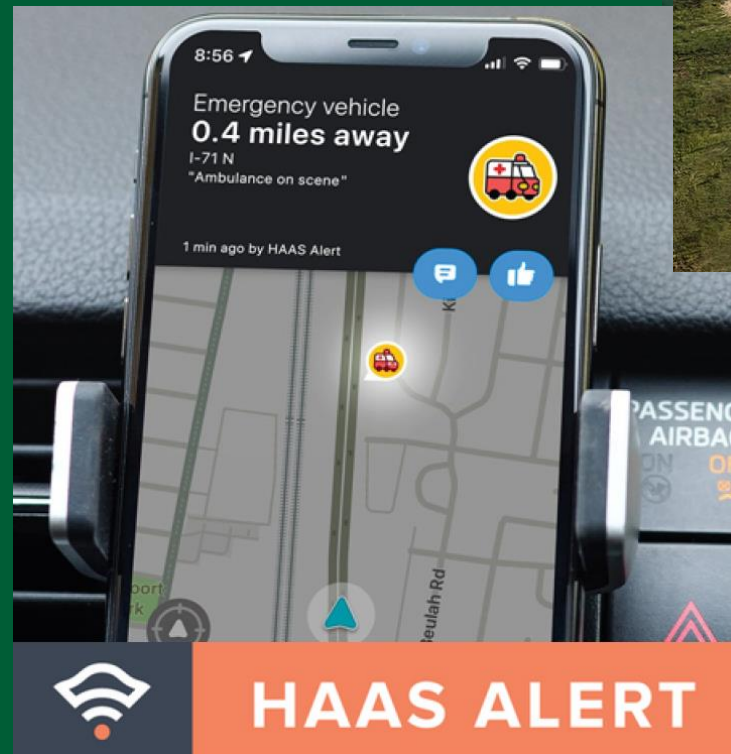
Technology Projects

- Video Analytics
  - Previous Evaluation:
    - Telegra
    - TrafficVision
- Electric Vehicles (EVs)
- Artificial Intelligence (AI)
  - Machine Learning
  - Policy

Other Initiatives

- Active Research Projects
  - Wrong Way Driving
    - BED-29-977-02
    - FIU
    - September 2022 – May 2024
  - TIM Toolbox
    - BED26 TWO 977-11
    - UCF & Enforcement Engineering
    - December 2023 – November 2025
  - Smart Work Zone
    - BED29-977-06
    - FIU
    - March 2023 – January 2025
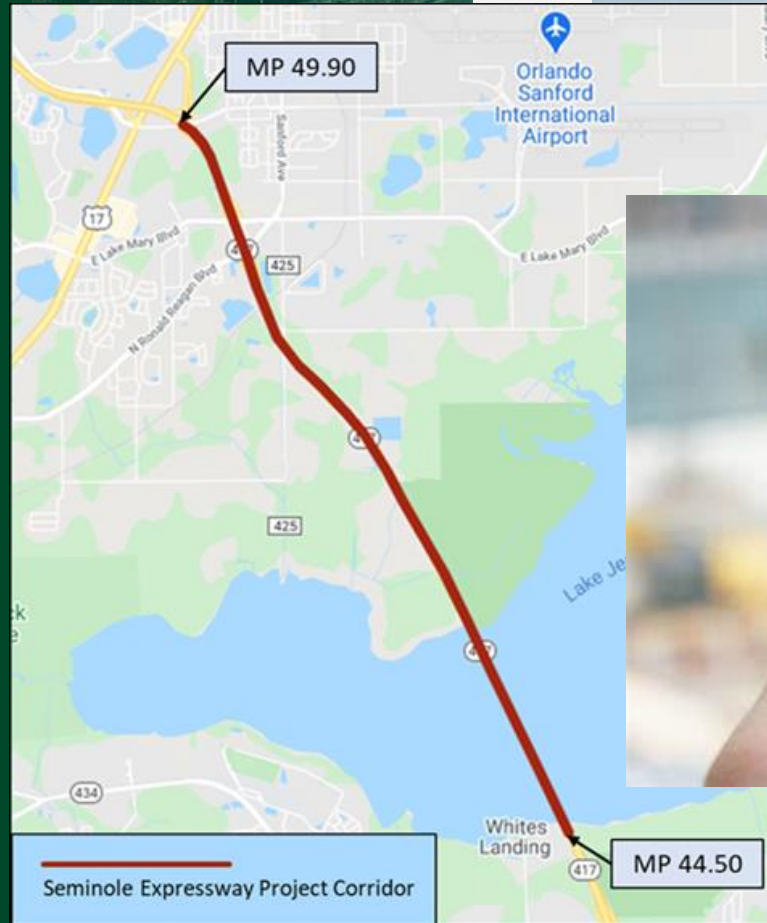
Other Initiatives

- Safety/Outreach
  - CarFit St Cloud
  - February 7

Other Initiatives

- Safety
  - Central Florida Safety Strategic Plan (January 31)
- TSMO Plans/Collaboration
  - MetroPlan Orlando
  - District 5, District 7

TRANSPORTATION PLANNING EXCHANGE
TRANSFORMING TRANSPORTATION TOGETHER

- St Petersburg
- May 7-9, 2024
- Partnership of FLPRITE and FDOT
- 100 FDOT employees
- Registration is open!

DAY 1: Tuesday, May 7, 2024		DAY 2: Wednesday, May 8, 2024		DAY 3: Thursday, May 9, 2024	
11:30 AM - 1:00 PM	Lunch on Your Own	7:30 AM - 8:30 AM	Breakfast	7:30 AM - 9:30 AM	Breakfast: What's Brewing in Transportation?
1:00 PM - 3:00 PM	General Session 1	8:00 AM - 10:00 AM	General Session 2	9:30 AM - 11:30 AM	General Session 4
3:00 PM - 3:30 PM	Networking Break	10:00 AM - 10:30 AM	Networking Break		
3:30 PM - 5:00 PM	Breakout Sessions A	10:30 AM - 12:00 PM	Breakout Sessions B		
Optional Group Activities		12:00 PM - 1:30 PM	Networking Lunch		
5:30 PM	Group Kayaking	1:30 PM - 3:00 PM	General Session 3		
5:30 PM	Pinellas Trail Guided Walk	3:00 PM - 3:30 PM	Networking Break		
6:50 PM	Rays Game	3:30 PM - 5:00 PM	Regional Visioning		
		5:00 PM - 7:00PM	Networking Reception		

Networking   General Session   Breakout Session

FLORIDA PUERTO RICO
DISTRICT

FLORIDA'S TURNPIKE

Transpo 2024

- Orlando
- Save the Date!

August 25-28, Orlando Florida
Signia by Hilton | Orlando Bonnet Creek
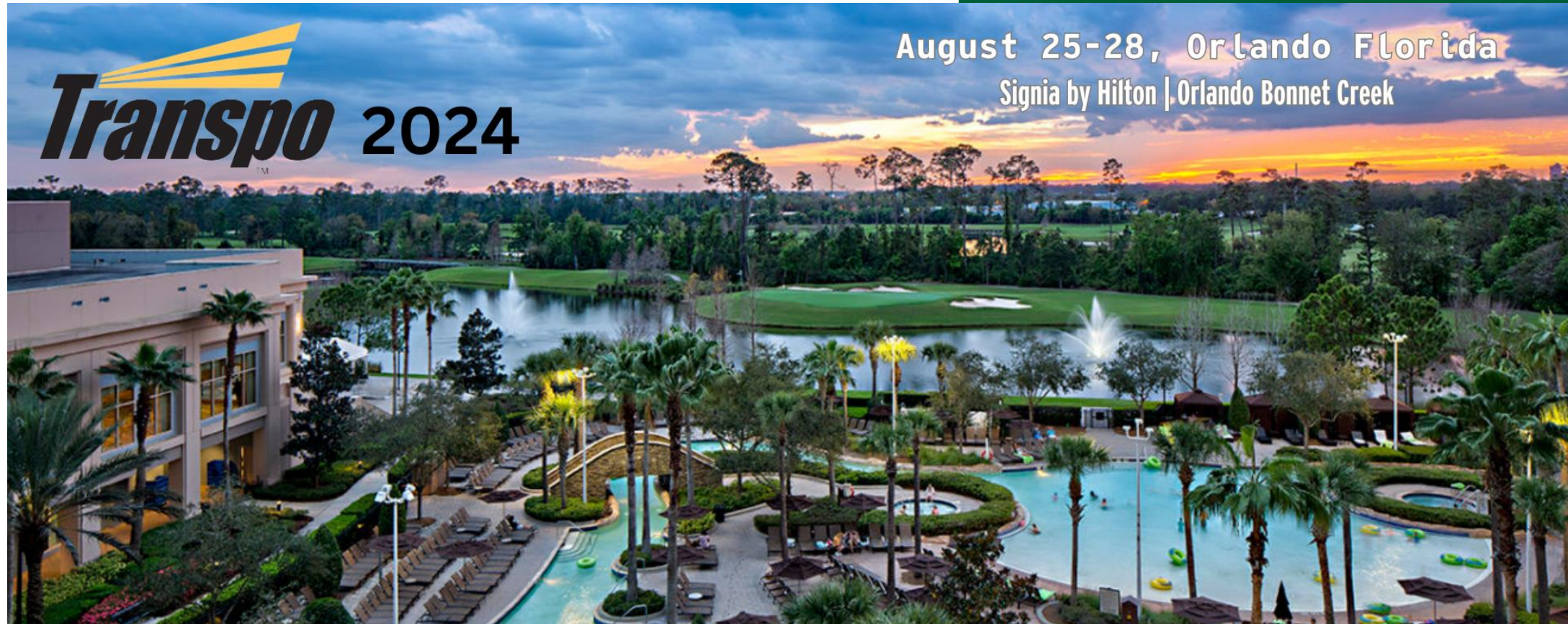
Questions?

Contact:

Eric Gordin, P.E.

(321) 624-8420

eric.gordin@dot.state.fl.us

FDOT

FLORIDA'S TURNPIKE

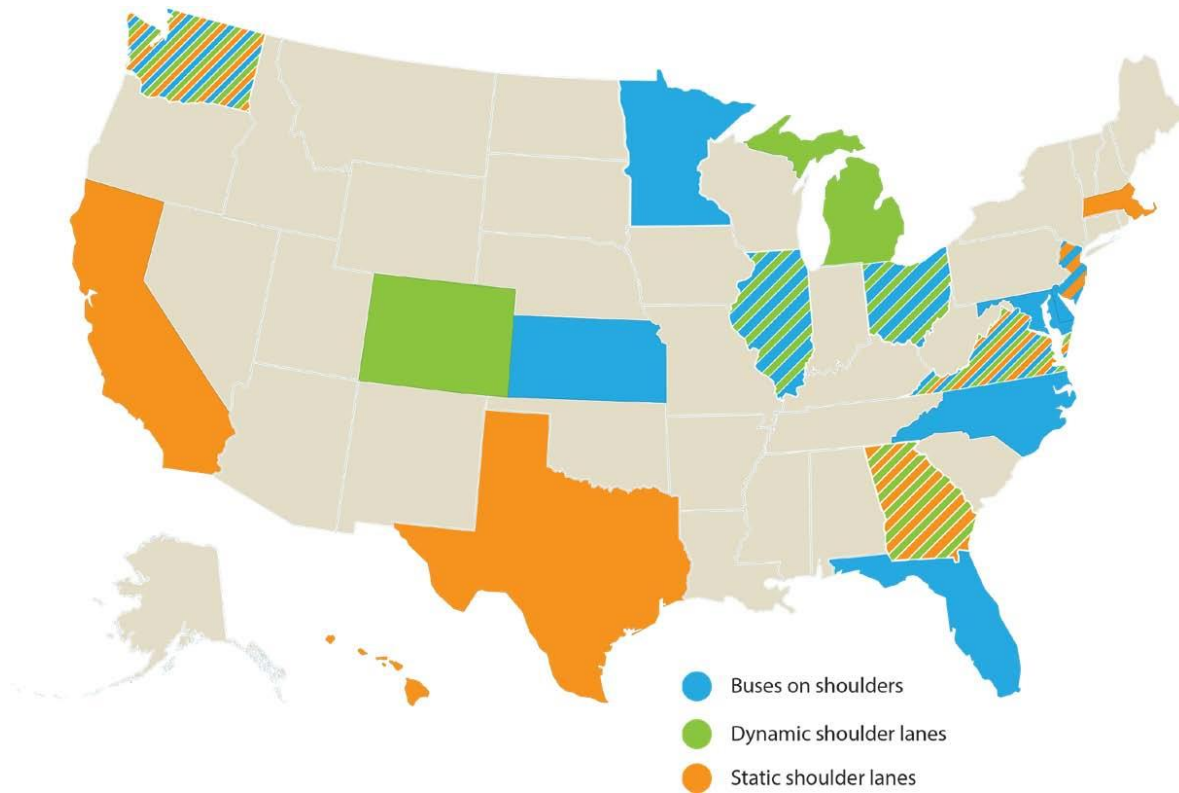# Flex Lanes Update

FDOT District 5
TSM&O Consortium

2/22/24

Agenda

1. **Shoulder Use Applications**

2. **Flex Lanes on SR 417 and SR 429**

3. **Flex Lane System Components**

4. **Discussion**

CENTRAL
FLORIDA
EXPRESSWAY
AUTHORITY

States with Shoulder Use

Buses on shoulders
Dynamic shoulder lanes
Static shoulder lanes

- 18 states have at least one form
- Other names:
  - Hard Shoulder Running
  - Temporary Shoulder Use
  - Part-time Shoulder Use

- In Florida
  - Miami-Dade Transit has operated BOS on portions of SR 874 (Don Shula Expressway) and SR 878 (Snapper Creek Expressway) since 2006
  - Pinellas Suncoast Transit Authority has operated BOS on five miles of I-275 since 2021

CFX Flex Lanes
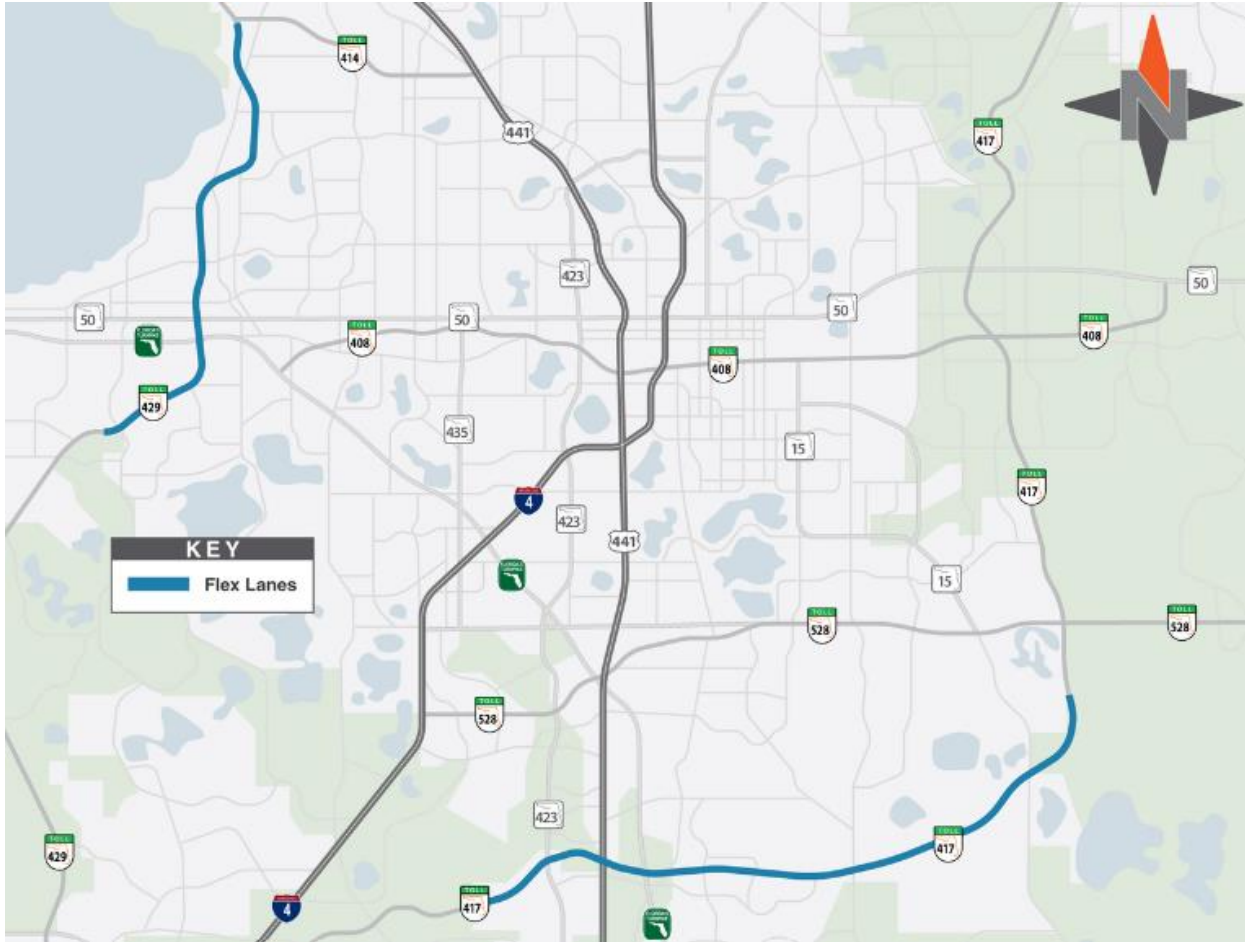
SR 417
- **21 miles**
- **International Drive to SR 528**
- **55 Flex Lane Sign Structures**

SR 429
- **13 miles**
- **Tilden Road to SR 414**
- **31 Flex Lane Sign Structures**

Both facilities being widened to inside:
- **3rd Full-time/Regular Lane**
- **19' Left Shoulder (12' for Flex lane, 7' for full-time shoulder)**
- **Right shoulder remains the same (~10')**
- **Flex Lane Sign Structures every ½ mile**

Flex Lane System Components

- Lane Control Signals (LCS)
- Variable Speed Limit Signs (VSLS)
- Incident Management Dynamic Message Signs (IDMS)
- Travel Time Dynamic Message Signs (DMS)
- SunGuide Software

Also Supported by
- CCTV Cameras
- Traffic Sensors

Lane Control Signals (LCS)

- **Mounted above lanes on gantry structures approximately every half mile along Flex Lane corridors**
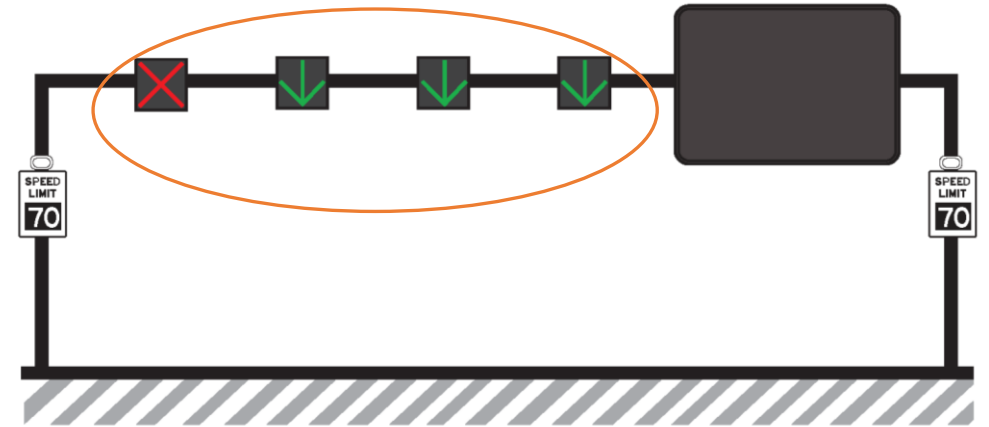
- **Usually displays one of the following messages:**
  - **GREEN ARROW:** Road users are permitted to drive in the lane
  - **YELLOW X:** Road users should prepare to vacate the lane
  - **RED X:** Road users are not permitted to use the lane
- **Other messages used for special situations**

Variable Speed Limit Signs (VSLS)

- **Located generally on the upright supports of gantries but sometimes on freestanding posts**

  - Under normal conditions with shoulder lane closed, the VSLS will display 70 MPH (normal speed limit).

  - When an incident is present, the speed limit will drop to 55 MPH

  - On SR 417, the speed limit will drop to 55, 60, or 65 MPH in a few areas when the shoulder is open due to curves on the road that limit visibility in the shoulder lane

  - On SR 429, the speed limit will always drop to 55 MPH when the shoulder is open (curves are closer together and more frequent than SR 417)
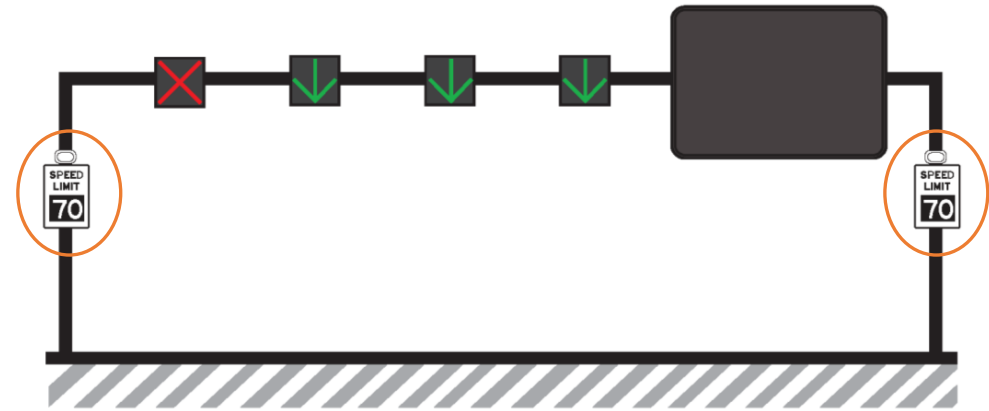
Incident Management Dynamic Message Signs (IDMS)

- **Display messages related to incidents, including notifying drivers that:**
  - A segment of the shoulder or a lane is blocked ahead
  - A work zone is ahead
  - A full closure of the expressway is ahead

- **When there is no incident-related information or other special information to display, sign-specific default messages exist**
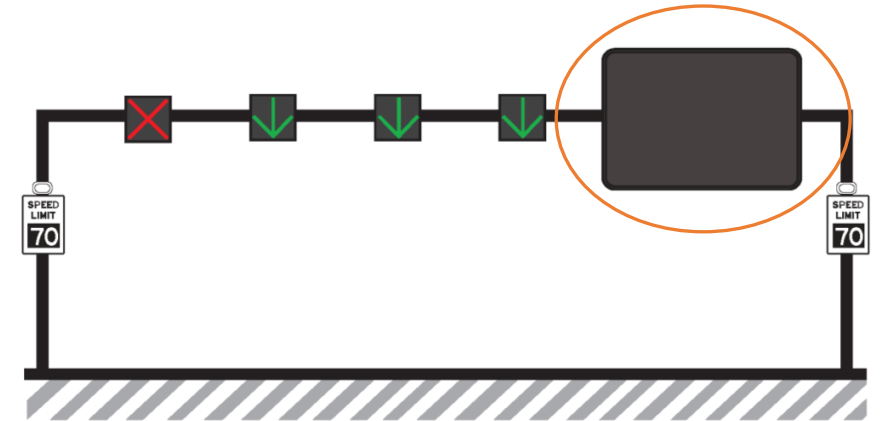
Travel Time
Dynamic Message Signs (DMS)

- Primary mode of communicating to motoring public.

- Typically display the travel time to noteworthy locations on the corridor, but can be used to display information about lane and shoulder openings and closings.

- These are the same type of DMS on CFX expressways today.
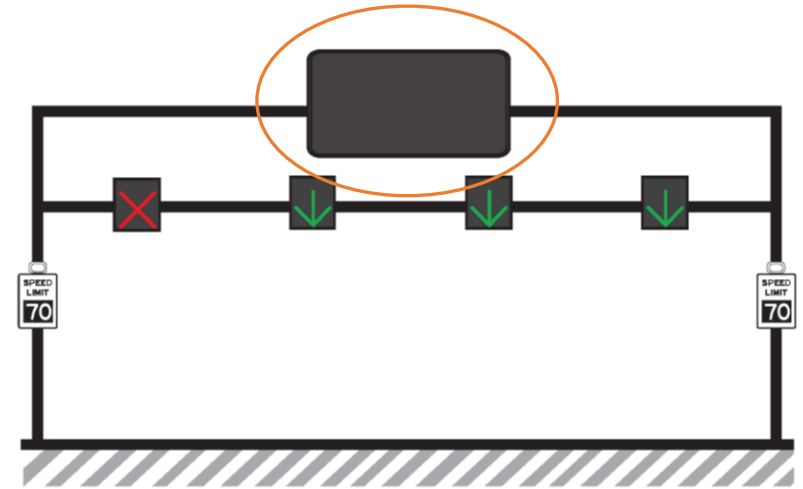
Flex Lane Software

- **New devices described on prior slides will be operated from FDOT District 5 RTMC using the Statewide SunGuide software**
- **Software will log VSLS speeds posted for record purposes**
- **Updates to SunGuide are underway**

Start of Flex Lane Operations

- **SR 417 Flex Lanes beginning mid 2024**

- **SR 429 Flex Lanes beginning mid-end 2025**

- **Initially, Flex Lanes will only be used for incident management on both facilities**

  - Crashes, Debris on Roadway, Work Zones, EMS on-scene, etc.

- **Routine openings for congestion relief will be in future years**

Potential Benefits for TIM

- **Very wide left shoulder**

- **Reinforcement of lane closures through red Xs**

- **Additional flexibility to manage traffic during incidents**

- **Display of symbol or message to support "move over" law**

  - Used hundreds of times per year on similar facility on Illinois Tollway
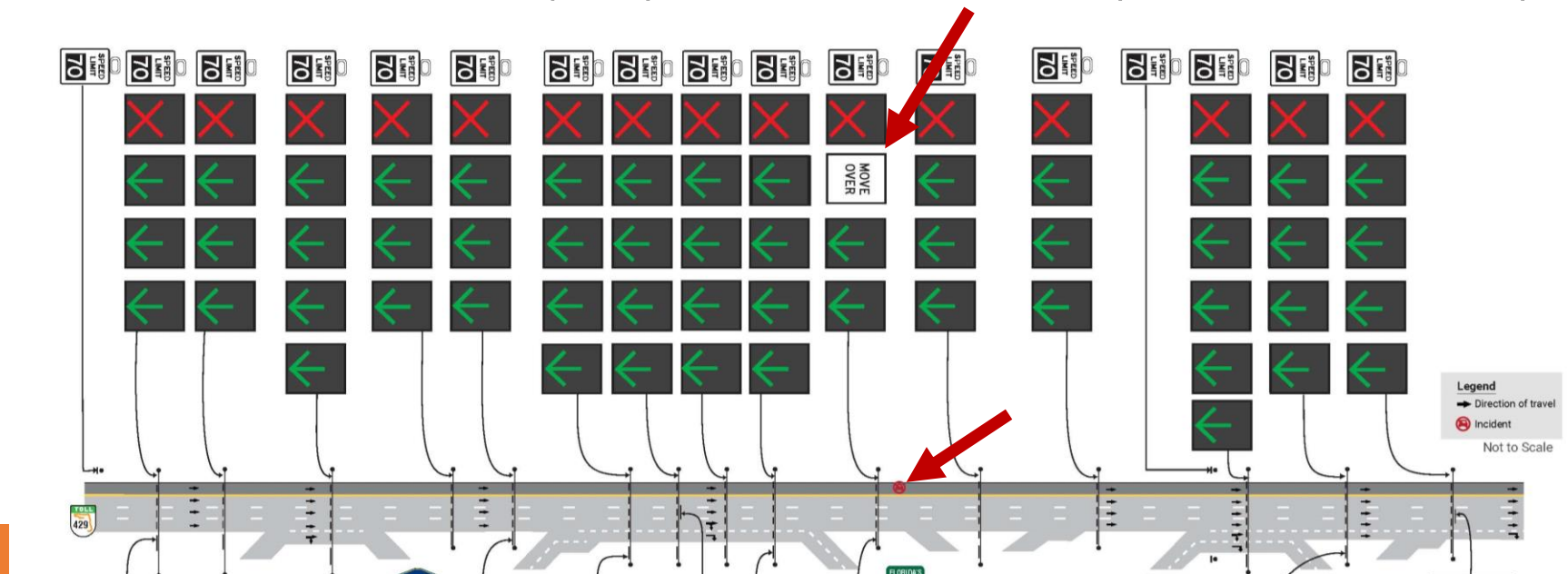
Questions/Discussion

FLASH AWARD

- D5 TSM&O's new recognition program for outstanding maintaining agency response for traffic signal emergencies
- Focuses on showcasing specific efforts throughout D5
- Discuss processes, best practices, lessons learned, etc.

- Crash occurred on August 9th, 2023 at 7:09am
  - Left turn crash: Southbound left turn VS Northbound through, both drivers stated they had yellow traffic signals
  - After initial crash, the Northbound through vehicle was redirected towards NE corner of intersection where he struck the traffic signal concrete pole
  - Concrete pole broke from impact and landed on vehicle
  - SB left turn vehicle, 4 occupants no injuries. Driver cited for failure to yield
  - NB through vehicle, 1 occupant, transported with non-incapacitating injuries

SR 507 at Florida Avenue
City Of Melbourne
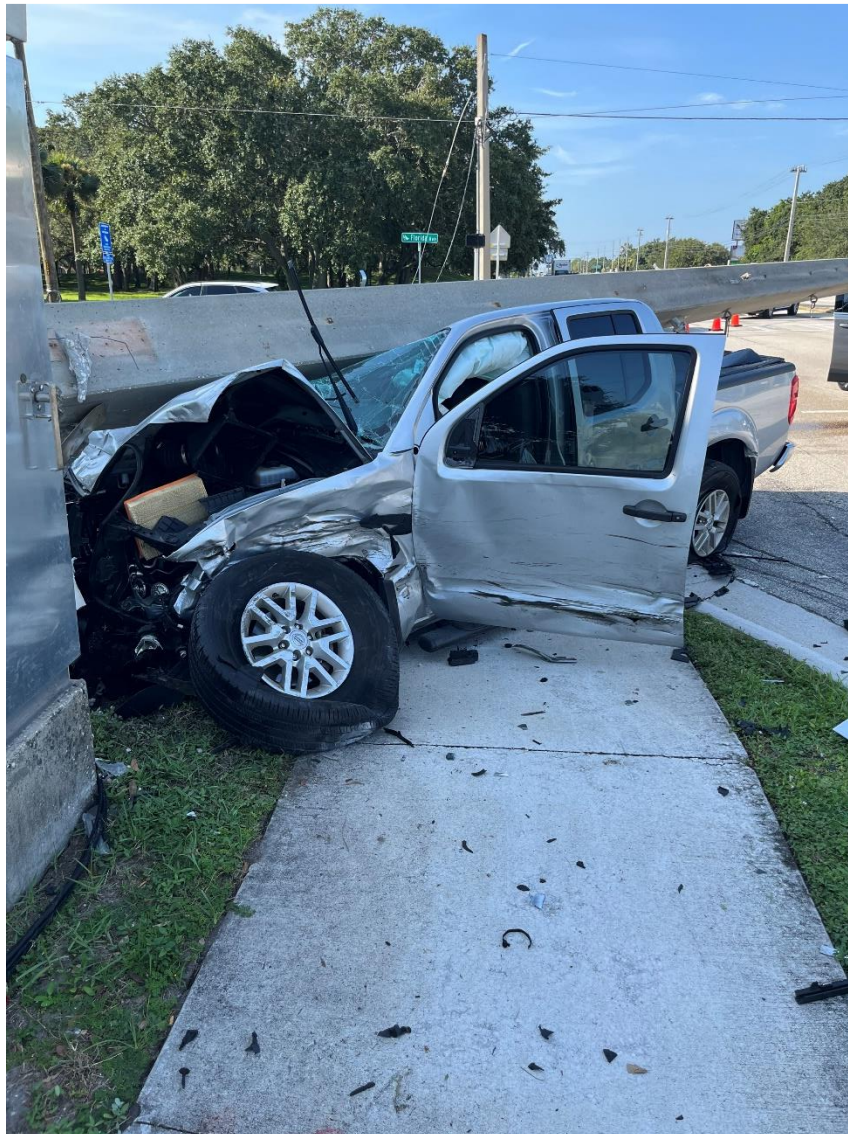
SR 507 at Florida Avenue
City Of Melbourne

- Emergency Response details
  - City of Melbourne staff identified loss of comms the intersection via ATMS, then utilized CCTV from the intersection south of Florida (University) to observe the intersection and detected the damage
  - City of Melbourne contacted their signal contractor at 7:15am to deploy them
    - two contracts that can be used for repairs:
      1. Term Contract - Traffic Signal Construction and System Communications Equipment (annual spend threshold that can be increased by Council approval)
      2. Emergency Contract - Construction Agreement for Traffic Signal Repair for Emergency Work (storm contract)
  - City of Melbourne staff arrived on scene at 7:40am to begin inspections and MOT
  - Contractor was on site at 10:00 am with materials (wood pole)
    - Difficult time placing pole due to utility conflicts

- **Emergency Response details (continued)**
  - Traffic signal was back in operation at 10:00 PM, 15 hours after crash

SR 507 at Florida Avenue
City Of Melbourne

- Key successes
  - City of Melbourne detected signal loss within minutes, and responded to emergency just as fast.
  - City of Melbourne has communication plan, and emergency response plan in place for how to handle these events.
  - City of Melbourne provided MOT during the 15 hours of signal downtime
  - Senior staff available 24/7 to guide if needed.
  - Emergency contractor called had materials for this event, but City of Melbourne also stocks materials in case they need to lend it to contractors.
  - City of Melbourne working with FDOT for reimbursement

SR 507 at Florida Avenue
City Of Melbourne

- Next Steps
  - FDOT Pushbutton group began box span redesign effort August 10th, 2023
  - New concrete strain pole and new spans were designed
  - Design to be negotiated through the City of Melbourne contract and will be eligible for reimbursement.

- Highlights / Best Practices
  - Importance of training in-house staff and having communication plans in place, specially if event occurs after business hours
  - Importance of continuing to expand connectivity to detect these events without waiting for a call from emergency services
    - If signal is not connected, does local emergency teams know who to contact for signal damage in your area?
  - Importance of having materials stocked for emergencies (Agency or Contractor)

SR 507 at Florida Avenue
City Of Melbourne

- Key Staff Involved – City of Melbourne
  - Brandon Collins – Signal Repair
  - Ricky Hensley – Signal Repair
  - William Jessell – Deployment and maintenance of MOT
  - Darrell Schmitt - Deployment and maintenance of MOT

.

Updates from Katie

- Upcoming Trainings

- Upcoming Project

Regional Working Group Training Series Reboot

- VantageARGUS CV – TEAMS Conference Call
  - March 5th, 2024 10:30 AM – 12 Noon
  - March 7th, 2024 1:30 PM – 3 PM

- MMU (MMU2-16LEip) and ATC Cabinets – In Person RTMC
  - March 20th, 2024 8 AM - Noon
  - March 20th, 2024 1 PM – 5 PM

Note

For both topics, the two schedule options are the same session. The presenters are doing duplicate sessions, so you have the option to attend what works best for your schedule and to send signal technician staff and different times.

02/22/2024

Regional Working Group Training Series Reboot

- What's Next?
  - I've reached out to try and schedule one with Wavetronix on their MVDS, Smart Matrix, and Advance detection systems.

  - Any additional suggestions from the group?

02/22/2024

Upcoming Project

DANIEL

Digital Analytics Notification for Incident and Event Localization

Project formerly known as the CAPTIM or CAPTAIN if you heard those

What is the DANIEL?

- This is the video analytics project RFP we've been putting together
  - Documents are being finalized with procurement currently.

- We trying to lock in schedule.
  - Advertisement date March 4th, 2024
  - Posting of Intended Award May 6th, 2024

High Level Project Information

+

- System is required to provide the following minimum real time alerts:
  - Stopped Vehicle on Freeway
  - Pedestrian on Freeway
  - Queue formation on Freeway
    - Queue formation alerts must be configurable by location and time of day to avoid over notification of typically experienced queues.

- System must use existing multicast data feeds supplied by the DEPARTMENT' existing Wowza application.

- Connection of the service directly to CCTV cameras or other edge devices in the field at the <u>shall be prohibited.</u>

- System shall be integrated into SunGuide using the IDS Alert protocol.

Project Information (Continued)

- o This will be a Contractual Services project.

- o Initial Project Setup and Service of 200 streams (6 month setup and 12 month service)
  - o 3 Phases
    - o Initial Configuration and Test Plan
    - o Configuration of System
    - o Verification of Test Plan and approval of Security Plan

- o Scalable up to 500 streams depending on funding availability.

02/22/2024

Questions

Econolite Controller Settings

Aurelio Giovinazzo, TA Labs

Issue

- Signal Controllers going into flash and showing Port 1 failure on MMU
- Signal Controllers were located in different VLANS across different broadcast domains
- Routers were not showing any abnormal logs or spanning tree broadcast storms.

Fix

- Configured Traffic prioritization settings on ITS Express switches
  - 10 Kbps Unicast, Broadcast, and Unknown Frames to switchport
  - 10 Kbps Ingress port policing (Controller to switchport)
  - Make sure Server IP is configured on controller front panel
  - Make sure Centracs has correct Database Type configured based off Firmware installed

- Monitor switchport utilization
  - If switchport utilization is above 10 Kbps the controller was going into flash 1-3 hours after coming back online

Lab

- Set up Lab at RTMC to duplicate SPAM to signal controller
  - Tested EOS firmware 3.2.24 and older

- SPAM settings
  - Create parallel requests for the High Res data from controller

Results

- Older EOS Firmware including Cobalt and ASC3
  - High Res data turned off on controller and controller would go into flash

- EOS Firmware 3.2.24
  - High Res data turned off and controller did not go into flash
  - High Res data turned on and controller went into flash

- EOS 3.2.24 can handle the parallel requests when High Res is turned off. When turned on the controller cannot handle the parallel requests resulting in response time climbing until controller locks up.

- Results sent to Central Office (TERL) and Econolite

Current Initiatives

Jeremy Dilmore, FDOT District Five

FDOT Approved Products List (APL)

- Enables simple purchase of traffic-related equipment and systems
  - Products vetted by Traffic Engineering Research Laboratory (TERL)
- Ensures all listed products comply with Federal/State standards

- Typically renewed on a yearly cycle

Traffic Signal Maintenance and Compensation Agreement

- Department is holding annual one-on-one check-in meetings in February and March

- David is reaching out to maintaining agencies to schedule meeting

Current Initiatives

- I-4 Express Lanes

- I-4 FRAME
  - Coordination with local agencies and device configuration are underway

- OBU Deployment

Current Initiatives

- PedSafe II
  - Featured in Construction Career Days
  - Phase 1 construction complete; awaiting material delivery for Phase 2
  - Developing Operational Manual

Current Initiatives

- AV Shuttle

- Kiosks at UCF
  - Wooden prototype developed for more accessible kiosk

Current Initiatives

- Smart Work Zone
  - Mobilized in late November

THANK YOU!

Next Consortium – April 18, 2024

TSM&O Consortium Meeting

MEETING AGENDA
Teleconference or
FDOT District 5 RTMC (4975 Wilson Rd, Sanford, FL 32771)

February 22, 2024
10:00 AM-12:00 PM

1) DISTRICT FIVE TRAFFIC OPERATIONS – UPDATES

   - Jeremy Dilmore, FDOT District Five Traffic Operations

2) FEDERAL GRANTS AND THE FDOT APPLICATION PROCESS

   - Alice Giuliani, FDOT District Five Grants Coordinator

3) REGIONAL TSM&O UPDATE

   - Eric Hill, MetroPlan Orlando

4) SPECIAL EVENT COORDINATION

   - Luis Hernandez, Orange County Convention Center

   - Mike Hudson, Metric Engineering

5) CENTRAL FLORIDA EXPRESSWAY AUTHORITY PROJECT UPDATES

   - Bryan Homayouni / Brent Poole, CFX

6) FLORIDA'S TURNPIKE ENTERPRISE PROJECT UPDATES

   - Eric Gordin, FTE

7) FLASH AWARD FOR EMERGENCY REPAIRS

   - Kevin Marquez, FDOT District Five Traffic Operations Pushbutton Program

8) CURRENT INITIATIVES

   - Jeremy Dilmore, FDOT District Five Traffic Operations

   - Katie King, Metric Engineering

   - Aurelio Giovinazzo, Technology Assurance Labs