TSM&O Strategic Plan; STAMP Action Plan: Implementation Focus

Florida Section ITE & ITS Florida Annual Meeting, November 1-3, 2017
Agenda

1. TSM&O Strategic Plan Implementation

2. Statewide Arterial Management Program Action Plan

3. Florida Design Manual Updates Chapter 233
TSM&O Strategic Plan Timeline

- First Draft ➔ Dec 2016
- Second Draft, Executive Leadership Presentation ➔ Jan 2017
- Industry Review Draft ➔ Feb 2017
- Pre-Final Draft ➔ Apr 2017
- Draft Final ➔ Jun 2017
- Statewide Directors Meeting Presentation ➔ Jul 31, 2017
- Executive Leadership Team ~ Plan Adoption ➔ Aug 16, 2017

We are Here

FDOT
Strategic Plan – Final Outline

Executive Summary
I. Vision, Mission, and Goals
II. Strategic Plan Development and Background
III. TSM&O Snapshot – Where We Are Today
IV. Challenges and Opportunities
V. Roadmap to Achieving TSM&O Goals
VI. TSM&O Resources
VII. Next Steps and Action Plans
Appendix A. TSM&O Strategy Toolbox
Appendix B. RITIS Performance Measurement Tools
Appendix C. Acronyms
Appendix D. Strategic Plan Development Process
TSM&O Vision and Mission

A. TSM&O Vision and Mission
The vision and mission for the Florida statewide TSM&O Strategic Plan are:

**VISION:** to increase the delivery rate of fatality-free and congestion-free transportation systems supporting the FDOT vision and Florida Transportation Plan goals.

**MISSION:** to identify, prioritize, develop, implement, operate, maintain, and update TSM&O strategies and measure their effectiveness for improved safety and mobility.
Goals and Performance Measures

Goals
Districts and the Central Office TSM&O Division will use a process to establish Goals within two years for the following outcome-based performance measures:

- **Mobility**
  - Improve travel time reliability
  - Reduce all lanes cleared time
  - Throughput increase
  - Delay reduction

- **Safety**
  - Secondary crash rates

- **ITS/communication network maintenance**
  - District uptime availability
  - Statewide uptime availability
Goals and Performance Measurement Time Line

**FY 17/18 to FY 18/19**
- Identify priority corridors
- Identify priority segments
- Identify real-time data sources
- Begin outcome-based assessment
- Real-time data sources
- Begin performance assessment
- Define performance baselines
- Set Goals and Performance Enhancement Goals

**FY 19/20 and Beyond**
- Assess performance relative to Goals
- Identify tools to improve outcomes
- Set Project-Performance Enhancement Goals
- Implement tools to improve outcomes
Goals and Performance Measurement Status to Date

- **Identify Priority Routes/Corridors**
  - All Interstate and Toll Highways - Done
  - Priority arterials, Routes of Significance, coordination with Locals and planning organizations → Significant progress by Districts

- **Identify Priority Route Segments**
  → In progress by Districts

- **Identify Data Sources**
  - Freeways: Detectors, HERE probe data, Regional Integrated Traffic Information System (RITIS), SunGuide® → Mature
  - Arterials: Detectors, BlueTooth® devices, Automated Traffic Signal Performance Measures → Significant progress by Districts and signal maintaining agencies

- **Begin Performance Assessment**
  - Freeways → Significant progress; Arterials → Gaining momentum
Priority Focus Areas

- Six TSM&O Priority Focus Areas
  - Mainstreaming
  - Freeway management
  - Arterial management
  - Express lanes
  - Connected vehicles
  - Information systems

Active Traffic Management
Integrated Corridor Management
Priority Focus Areas – Mainstreaming Progress

• Significant on-going progress
• Integration of TSM&O within transportation project development
  – Planning, PD&E, Design, Construction, Maintenance, Work Program
• Continue cross functional area coordination and collaboration
• Develop TSM&O manuals and guides
• Update guides, standards and specifications with TSM&O content
• Supports the Executive Innovators Team Idea 653
  – TSM&O Mainstreaming
  – Suggested by Districts
• TSM&O program outreach
Priority Focus Areas – Freeway/Arterial Management Progress

• Statewide freeway management systems
• Arterial management
  → Gaining momentum, major growth area statewide
  → ATSPM
  → Adaptive traffic signal control
  → See STAMP slides for more
• Express lanes → Significant on-going progress, Districts 2, 4, 5, 6, 7 and FTE
Priority Focus Areas – Connected Vehicles Progress

- Connected vehicles (CV) ➔
  - 16 CV projects in development and planned statewide, to date
  - Signal Phase and Timing (SPaT),
  - Dedicated short-range communication (DSRC)
  - Pedestrian safety systems

Connected Vehicle Website:
http://www.fdot.gov/traffic/ITS/Projects_Deploy/CV/Connected_Vehicles.shtm
Priority Focus Areas – Information Systems Progress

- Information systems
  - SunGuide® Ver 7.1 in testing
  - Next Generation FL511 implemented
  - Data Integration and Video Aggregation System (DIVAS) in development, beta testing steaming video sharing
Traffic Signals Training

• Developed by FDOT
  • Modules A-F
• Delivered by UF T2 Center
  • Module A: Introduction to Traffic Signals
  • Module B: Traffic Signal Warrants
  • Module C: Traffic Signal Design
• Leveraging Local Technical Assistance Program funds
• Over 90 attendees registered
• Part of the Statewide TSM&O Excellence Program (STEP)
Statewide Arterial Management Program (STAMP)

- Mission: to deliver the TSM&O Strategic Plan’s vision, mission, and goals for arterials
- STAMP Action Plan
  - Builds upon TSM&O Strategic Plan
    - Arterial Management is one of the six priority focus areas of Strat Plan
  - Develops a comprehensive approach to arterial management
  - Focuses on action for the next 3 years
Action Plan Outline

- Focus on **needle movers** – action items that make a noticeable difference in the program to take it to the next level
- Districts and locals providing input
- STAMP Action Plan will be time-bound action with a focus on:
  - Quick results (low-hanging fruits)
  - Short-term goals (focus on needle movers)
  - Mid-term objectives (focus on needle movers)
  - Long-term vision
# Arterial Performance Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
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<tr>
<td>Reduce travel time</td>
<td>16</td>
</tr>
<tr>
<td>Improve travel time reliability</td>
<td>22</td>
</tr>
<tr>
<td>Reduce open-road clearance time</td>
<td>2</td>
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<tr>
<td>Increase throughput</td>
<td>13</td>
</tr>
<tr>
<td>Reduce secondary crashes</td>
<td>3</td>
</tr>
<tr>
<td>Improve uptime availability</td>
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<tr>
<td>Emergency vehicle preemption</td>
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<td>Freight routing</td>
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<td>Incident and evacuation planning</td>
<td>5</td>
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<td>Special event planning</td>
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<td>Inter-agency collaboration</td>
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STAMP Action Plan Schedule

- **Mid July**: Complete District Questionnaire Survey
- **End July**: Present Outline and Focus Areas to TSM&O Leadership Team
- **August**: First Draft to District Review
- **August** - **October**: Present Draft to STAMP and TSM&O Task teams
- **By November**: Present Draft to DTOEs, STAMP and TSM&O Task teams
- **December**: Present Draft to TSM&O Leadership Team

Plan to complete by March of 2018

We Are Here
• ATSPM is a part of FHWA’s Every Day Counts (EDC-4)

• ATSPM deployed in Seminole Co., Tallahassee, and D7

• Planned deployments in D2, D3 and D5
USDOT ATSPM Video
Advanced Signal Control Technology (ASCT)
Florida Design Manual (FDM) Update

• Design updates for Intelligent Transportation Systems (ITS):
  
  – Plans Preparations Manual (PPM) is being reformatted and renamed FDOT Design Manual (FDM)
    • 2017 PPM is the current manual
    • 2018 DRAFT FDM is being developed
    • Chapter 233 updates will be distributed via a bulletin
  
  – Design Standards being renumbered (re-indexed) and renamed Standard Plans
    • Some Standard Indexes for ITS will be updated and/or consolidated
FDM – Upcoming Significant Changes

- 233.1 – General (additional references, content for Express Lanes, FTE, Utility Coordination, NEPA, etc.)
- 233.2 – additional Design Criteria
- 233.3 – ITS Power Design – Substantial addition, including AC, DC, Battery, and Generator Power Systems
- 233.5 – Fiber Optics and Network Design
- 233.6 – ITS Poles and Structures
- 233.8 – Communication and Networking Devices (additional information for MFES and Wireless Communications)
- 233.9 – Vehicle Detection Systems – Substantial addition
- 233.10 – Video Equipment
- 233.11 – Motorist Information Systems
- 233.12 – Other ITS Devices
- 233.13 – Maintenance of Communication (ensuring uptime of existing systems)
Thank you!

Central Office
Trey Tillander
Alan El-Urfali
Derek Vollmer
Elizabeth Birriel
Fred Heery
Jeff Frost
Jennifer Fortunas
Russell Allen

District Traffic Operations Engineers
D1: Keith Slater
D2: Jerry Ausher
D3: Steve Benak
D4: Mark Plass

District Traffic Operations Engineers
D5: Jim Stroz
D6: Omar Meitin
D7: Ron Chin
FTE: John Easterling

District TSM&O Engineers
D1: Mark Mathes
D2: Peter Vega
D3: Vacant
D4: Melissa Ackert

District TSM&O Engineers
D5: Jeremy Dilmore
D6: Javier Rodriguez
D7: Chester Chandler
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