Managed Lanes Workshop Summary

presented to
Florida Model Task Force

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Overview

• Managed Lanes Workshop Held May 22-23, 2013
  – State and National Experts
  – Topics
    • Current Florida Policy
    • Current Modeling Practice in Florida
    • National Practice
  – Technical Breakout Sessions
    • Planning
    • Operations
  – Identify Key Features of a Consistent Managed Lane Modeling Approach
What Are Managed Lanes?

• Types of Managed Lanes:
  – HOV Lanes
  – Truck Only Lanes
  – Bus Rapid Transit Lanes
  – Ramp Metering
  – Express/HOT/Toll Lanes
  – Reversible Lanes
• Dependent on Business Rules Attached To Them
• Various Operational Strategies and Goals
• In Florida, Focus is on Express Lanes

Why Managed Lanes?

• Offer Travel Choices
  – Enhance Mobility
  – Improve Travel Time Reliability
• Decline in Traditional Transportation Funding
• Congestion Management Tool
• May Help Accelerate Projects That Have Been Delayed
95 Express Impact

- First Express Lane Project in Florida
- Awarded $63 M in Federal Funds in 2007
- Converted 7 Miles of HOV Lanes to HOT in December 2008
- Highly Successful
  - 50,000 Daily Users
  - Increased Peak Hour Speeds in General Purpose Lanes
  - Improved Overall Corridor Performance
  - Enhanced Transit Ridership

Florida Express Lanes Projects

- Current Projects
  - 95 Express
  - I-595
  - Palmetto Express
  - I-75
  - I-4
  - Florida’s Turnpike
  - Veterans Expressway

- Many Others Under Study
State Managed Lanes Policy

- Managed Lanes are a Transportation Systems Management and Operation Strategy (TSM&O)
- Draft Managed Lane Policy Statements
  Developed For:
  - Feasibility
  - Finance and Tolling
  - Concept of Operations
  - TSM&O Strategies
  - Design
- floridamanagedlanes.com

Current Florida Practice

- 95 Express Lessons Learned
- SERPM Enhancements
  - 95 Express
  - I-95 Corridor Study
  - I-95 PD&E Study
- Operational Analysis
  - Micro-Simulation
  - Necessary to Show the Interaction of GUL and Express Lane Traffic
  - Assists in Design Considerations
### Current Florida Practice

- MTF Express Lane Modeling Work Plan
- FSUTMS Model Updates
- Toll Modeling Performance Goals
- Concept Plan
  - Phase I – Assignment Based Integrated Toll Choice (2012)
  - Phase II – Mode Choice and Assignment (2013)

### Current Florida Practice

- **Current Approach to Express Lanes T&R Studies**
  - Sketch Level
  - Planning Level
  - Investment Grade
- **Schedule, Resources and Data Needs Increase with Each Level**
- **Risk Analysis**
  - Uncertainty Inherent to Travel Demand Forecasts
  - Quantifying Risks Important to Toll Projects
  - Response Surface Method
National Approach

• Various Managed Lanes Implemented Nationally
  – Initially HOV to HOT Conversions
  – Multi-Lane Capacity Systems
  – Regional Systems
• NCHRP Report #722
• Managed Lanes Projects
  – C470 & US 36 Corridor
  – I-405

Resources

• NCHRP Report 722, Volumes 1 and 2
  – http://www.trb.org/Main/Blurbs/168012.aspx
• MTF and FDOT Documents
  – Focused on Managed Lanes and Toll Modeling
  – http://www.fsutmsonline.net/index.php/?model_task_f/subcommittee/toll_modeling_subcommittee