Outline

• Purpose
• Goal
• Objective
• Scope Tasks
• Schedule
• Discussion/Questions
Purpose

Offer guidance regarding potential Automated, Connected, Electric and Shared-use Vehicles (ACES) impacts on long-range transportation planning to:

• Metropolitan Planning Organizations (MPOs)
• Transportation Planning Organizations (TPOs)
• Local governments
Goal

To develop a common understanding and approach for Florida MPOs/TPOS and local governments in regards to ACES for their upcoming LRTP updates.
Objective

Development of MPO Planning Guidance to assist MPOs/TPOs and local governments during LRTP updates on potential considerations of ACES in the future years.
Scope Tasks

• Task 1: Conduct Literature Search & Industry Coordination

• Task 2: Provide MPOAC & MTF Coordination & Guidance

• Task 3: Develop FDOT MPO ACES Planning Guidance
• 1.1 Literature Search
  – Methods currently employed by regional transportation planning organizations with regards to ACES activities
  • US
  • International
  – Results presented in Task Report

• 1.2 Industry Coordination
  – Identify/coordinate with leading ACES technology providers (Lyft, Uber, MegaBus, Zip Car, etc.) on identifying transportation service trends
Task 2: MPOAC/MTF Coordination & Guidance

• 2.1 MPOAC & MTF Kick-Off Presentations
  – MPOAC (June 1, 2017)
  – Florida Model Task Force
    • Model Advancement Committee (June 27, 2017)
2.2 Model Component Analysis

- Process for integrating ACES into modeling stream
- 2 Scenarios
  - Activity Based Model (ABM) – North Florida TPO
  - Traditional 4-Step model - Gainesville MPO
- Identify facility types most affected by ACES
- Task report
• 2.2 Model Component Analysis (cont.)
  – % Penetration by Facility Type
  – Implications to Fixed Route Transit
  – Ownership of ACES/Market Sectors
    • On Demand
    • Land Use Changes
  – Age Groups
• 2.3 Infrastructure Needs
  – Supporting infrastructure based on penetration rates
    • VMT
    • Electric charging demand
    • Infrastructure utilization
  – Task report
• 2.4 LRTP Goals & Objectives Development
  – Develop sample LRTP goals and objectives
    • Used for different ACES integration scenarios
    • Best realize potential efficiencies, safety improvements
    • Results included in Planning Guidance described in Task 3
Develop planning guidance to assist MPO/TPOs and local governments in considering potential future ACES impacts as part of LRTP updates.
Task 3: FDOT MPO AV Planning Guidance

- Introduction and Purpose
- Legislative Reference
- Study Goals and Objectives
- Literature Review
- Executive Summary
- Methodology
- ACES Vehicle Technology Overview
  - Levels of Automation
  - Implementation Timeframe
  - Regulatory Framework
- ACES Vehicle Operating Characteristics
  - Personal Vehicles
  - On Demand and Shared Taxi
  - Transit
  - Freight
  - Local Delivery
- Safety Impacts
  - Crash Rates
  - Crash Costs
  - Enforcement Costs
• Potential Travel Demand Impacts
  – Trip Generation
    • Cost of Travel
    • Mobility
  – Suburban and Exurban Development
  – Urban and Suburban Activity Centers
  – Multimodal Corridors
  – Mode Choice
• Highway System Impacts
  – Freeway Lane Capacity
  – Dedicated Freeway Lanes
  – Arterial Intersection Capacity
  – Dedicated Arterial Lanes
  – Parking
• Transit System Impacts
  – Fixed Route Service Competitiveness
    • First-Mile / Last-Mile Connections
    • Night and Weekend Service
    • Underserved Areas
  – Paratransit
  – Integrated Payment
  – Transit Priority Corridors
  – Intercity Rail and Bus
• Funding Impacts
  – Motor Fuel Taxes
  – Vehicle Sales Taxes
  – Vehicle Registration Fees
  – Parking Revenues
  – Traffic Fines
Task 3: FDOT MPO AV Planning Guidance

• Strategies for Addressing ACES
  – Transportation System Planning Process
    • Travel Demand Modeling
    • Performance Measures
    • Project Prioritization
    • Scenario Analysis
    • Policies
    • Stakeholder Involvement
    • Public Education
  – Best Practices in Planning Products
    • Transportation Improvement Programs
    • LRTPs
2017 Schedule - Completed

- **May** Notice to Proceed

- **May/June** Initial discussions
  Literature review
  Issues identification

- **June** Kick-off presentation
  Task 2 Report Development

- **June** Presentation to MTF Model
  Advancement Committee
2017 Schedule - Future

• October     Full MTF presentation

• Nov. 14     Presentation to Florida Automated Vehicle Summit

• November    Submit Task 1 Final Report
               Submit Task 3 Draft Report

• December    Submit Task 3 Final Report
Discussion/Questions?

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Looking for agencies and consultants to respond to questions relating to Managed Lanes use of:

- Origin/Destination Analysis - https://www.surveymonkey.com/r/QJQBFNZ
- Traffic Analysis - https://www.surveymonkey.com/r/QVCL5ND

Reply due by November 20, 2017

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