MEETING AGENDA
D5 Urban Office
133 S. Semoran Blvd.
Orlando, FL

JUNE 30, 2016; 10:30 AM-12:30 PM

ITS Master Plan for District 5 - TSM&O Consortium Workshop

• Workshop Goals
  – What should operations input be during planning?
  – What does conceptual planning need from operations?
  – Determine How Planning and Operations Can be Integrated on the FDOT Project Development Timeline
  – Review the FDOT Project Development Timeline
    • Determine where TSM&O considerations should occur on the timeline
    • Determine where maintaining agency/partner coordination should occur on the timeline
    • Determine where additional steps should be added
  – Go Over the Project Development Timeline for Maintaining Agency/Partner Organizations
    • Determine where TSM&O considerations should occur on the timeline
    • Determine where FDOT and other regional partners should be incorporated on the timeline
    • Determine where additional steps should be added

• Maintaining Agency/Partner Organizations
  – Draw Out a Couple of Timelines Based on Agency Input
    • Determine where TSM&O considerations should occur on the timeline
    • Determine where FDOT and other regional partners should be incorporated on the timeline
    • Determine where additional steps should be added

• Other Points for Discussion
  – How much money is being saved by Seminole for data collection by the Purdue System
  – Major Waves – Transfuture
  – Desire of the MPO/TPO as it relates to shifting from constant widening to livability using better data
    • What tools do we need?
  – Roles and Responsibilities
• Purpose
  – Create an overarching ITS Master Plan for the Region
  – Create a consensus on what items need to be integrated between agencies
  – Determine what standards need to be met (security, maintenance, staffing, etc.)
  – Develop an overall assessment
    • What is in place and goals for the future
    • What are the road blocks and how do we overcome them
  – High level goals the region should be working towards
    • Types of investment that could work toward these goals
  – Conform with National, Statewide and Regional Architecture
• Overall Process
  – Task 1 - Document Existing Plans
  – Task 2 - Document Deployments
  – Task 3 - Identify Staffing Guidance
  – Task 4 - Applicable ITS Strategies
  – Task 5 - Applicable ITS Strategies for Connected Vehicle
  – Task 6 - ITS Standards
  – Task 7 - Configuration Assessment and Functions (TSM&O)

  – Important Elements throughout the Process:
    • Incorporate all stakeholders – Cities, Counties, CFX, SunRail, Airport, Seaport, MPO/TPO, Fire/Rescue, Transit
    • Discuss Roles and Responsibilities (FDOT/Maintaining Agency)
      – Cooperative Approach through Communication
Workshop Goals

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ITS Master Plan for District 5

Problem Definition

Level of Involvement

High

Low

Project Timeline

Planning

Design

Construction

Maintenance
ITSC Master Plan for District 5
PLANNING WORK TASKS

**COMPREHENSIVE PLANNING**

- **LAND USE**
  - Existing Land Use
  - Future Land Use
  - DRRs
  - Other Planned Developments

- **MOBILITY**
  - Roads/Bridges
  - Drainage
  - Surveys
  - R/W
  - Aerial photos
  - Transit
  - Air/Space/Sea
  - Traffic
  - Crashes
  - Utilities & Railroads
  - Bike/Ped
  - Air
  - Noise
  - Floodplans
  - Storm (VE)
  - Zoning
  - Archaeological & Historical Sites
  - Endangered Species
  - Storm Area
  - Coastal Zone
  - Consistency Determination

- **ENVIRONMENTAL**
  - Relocation
  - Land Use
  - Cultural/Community
  - Contamination
  - Wildlife/Habitat
  - Endangered Species
  - Socio-Economic Issues
  - Permit Conditions
  - Air
  - Noise
  - Floodplains
  - Storm (VE)
  - Habitat Analysis
  - Water Quality Impacts
  - Floodplan Impacts
  - Construction Impacts
  - Economic Impacts

**DEVELOPMENT OF COST FEASIBLE PLAN**

- **SIS PROJECTS**
  - Consistency with Florida Transportation Goals and Objectives
  - Cost Feasible
  - Deficient Bridge List
  - Master Plans
  - Capital Improvement Plans

- **OTHER STATE AND FEDERALLY FUNDED PROJECTS**
  - LRT/STIP
  - TIP
  - Rural County Programs
  - FDOT Statewide
  - 5 Year TIP (Convened)
  - Outer Years Approved Projects

**PLANNING SCREEN**

- **ENVIRONMENTAL TECHNICAL ADVISORY TEAM REVIEW**
  - Preliminary Environmental Discussion
  - Direct and Indirect Effects
  - Socio-Economic Impact
  - Relocation Potential
  - Cultural Resources
  - Visual / Aesthetic Analysis
  - Permit Conditions
  - Land Use
  - Biological Assessment
  - Habitat Analysis
  - Water Quality Impacts
  - Floodplan Impacts
  - Construction Impacts
  - Economic Impacts

**QUALIFYING PRIORITY PROJECTS**

- Advance Notification
- Initial Comments
- GIS Analysis

**FEDERAL CONSISTENCY DETERMINATION**

- For Federally Funded Projects
- Jurisdictional Requirements
- Local Government Planning

**PROGRAMMING SCREEN**

- **DEVELOP/PUBLISH PRELIMINARY PROGRAMMING SCREEN SUMMARY REPORT**
  - Scope
  - Comments
  - Purpose and Need Review
  - Degree of Effect
  - COA

- **PUBLISH FINAL PROGRAMMING SCREEN SUMMARY REPORT**
  - Local Agency
  - State Agency
  - Authority
  - Private
  - Other

**COST FEASIBLE TRANSPORTATION PLANS**

- **SIS PLAN**
  - Adopted 5 Year Plan
  - Approved 2nd 5 Year Plan
  - Cost Feasible Plan

- **MPO LRTP**
  - 5 Year TIP (Convened)
  - Outer Years Approved Projects

**MOVE TO PD&E PHASE OR AS APPROPRIATE**
Public Participation

Kick-off Meeting

Unscheduled Public Meetings

Alternatives Public Meetings

Public Hearing

Public Participation Wrap-up

Study Work Tasks

Data Collection

Engineering Inputs
- Roads
- Bridges
- Drainage
- Surveys
- R/W
- Aerial photos
- Facilities
- Traffic
- Crashes
- Utilities & Railroads

Other Information
- FDOT
- Literature
- Field Observation
- Personal Interviews
- Financial

Environmental Inputs
- Land Use
- Cultural/Community
- Contamination
- Wildlife/Habitat
- Endangered Species
- Socio-Economic Issues
- Permit Conditions
- Floodplains
- Storm (VE)
- Zones
- Archaeological & Historical Sites
- 4(f) Impacts
- Coastal Zone Planning
- Consistency Determination

Needs Analysis
- Geometric Deficiencies
- Corridor Capacity
- Aesthetics
- Safety
- TSM&B
- Potential Evacuation Route
- Systems Connectivity & Linkage
- Rights-of-Way Costs
- Maintenance
- Constructability
- MOT

Initial Concept Development
- Project Segmentation
- Socio-Economic Consideration
- Right-of-Way Issues
- Drainage
- Alignment
- Structural
- Environmental Issues

Comparative Analysis and Evaluation Matrices
- Sensitivity Analysis

Preliminary Concept Screening
- Comparative Analysis and Evaluation Matrices

Preliminary Concept Analysis

Engineering Analysis and Design

Engineering Design
- No-Build
- TSM&B Improvements
- Build Alternatives
- Exceptions & Variances
- Corridor Analysis
- Construction
- Phasing
- Consideration
- Financial
- Structural Concepts
- Concept Plans
- MOT
- Intelligent Transportation Systems (ITS)

Environmental Analysis
- Socio-Economic Impact
- Relocation Potential
- Cultural Resources
- Visual / Aesthetic Analysis
- Permit Conditions
- Land Use
- Contamination
- Endangered Species
- Water Quality Impacts
- Noise/Air
- Wetlands
- Floodplain Impacts
- Construction Impacts
- Economic Impacts

Environmental Studies
- Endangered Species Biological Assessment (ESBA)
- Contamination Screening Evaluation Report (CER)
- Wetland Evaluation Report (WER)
- Air Quality Report
- Noise Study Report
- Cultural Resource Assessment Survey (CRAS)
- Categorical Exclusion (Type 2)
- Environmental Assessment (EA) / Finding of No Significant Impact (FONSI)
- Environmental Impact Statement (EIS)
- State Environmental Impact Report (SEIR)

Engineering Final Reports
- Preliminary Engineering Report (PER)
- Typical Section Package
- Drainage/Pond Siting Report
- Location Hydraulics Report (LHR)
- Interchange Access Report (IAR)
- Bridge Hydraulics Report (BHR)
- Conceptual Design Roadway Plan Set
- Access Management Plan

Environmental Documents
- All Engineering Documents
- All Environmental Documents

Quality Assurance/Quality Control QA/QC

FDOT Approves

Move to Design Phase

District 5 ITS Master Plan

PD&E
ITS Master Plan for District 5

CONSTRUCTION WORK TASKS

PROJECT PROCUREMENT
- CEI/BID/LETTING
  - Procure CEI
  - Pre-Bid Q&A
  - Proposal Submittal
  - Bid Submittal
- CONTRACT/NTP
  - Provide Contract
  - Contract Execution
  - NTP

PRECONSTRUCTION
- SUBMITTALS
  - QC Plan
  - Schedule
  - Dispute Review Board
  - Vehicle Registration
  - Shop Drawings
- PROCUREMENT/MOBILIZATION
  - Material Procurement
  - Crew Mobilization
  - Equipment Mobilization
  - Utility Relocation
  - JPA

CONSTRUCTION
- CONSTRUCTION ACTIVITIES
  - MOT
  - Asphalt
  - Concrete
  - Earthwork
  - Structures
  - TSM&O/ITS
- CEI ACTIVITIES
  - Project Dailies
  - Computation Books
  - Field Records
  - Final Measurements
  - Supplemental Agreements
  - Claims
  - Monthly Payments
  - CPPR Rating
  - As-Builts
  - Maintenance Sign-Off
  - Locals Sign-Off as Applicable
  - Semifinal Inspection
  - Final Acceptance

QUALITY ASSURANCE/QUALITY CONTROL
- Asphalt Testing
- Concrete Testing
- Earthwork Testing
- ITS Stand-Alone Testing
- ITS Sub-System Testing
- ITS System Testing
- Punch List Items

MOVE TO OPERATIONS AND MAINTENANCE
- District 5 ITS Master Plan

ENGINEERING FINAL REPORTS
- Information Transmittal
- Final Estimate
- Constructability Grades
- Final CPPR
- Project Closeout
OPERATIONS AND MAINTENANCE WORK TASKS

**OPERATIONS**
- Signal System Monitoring
- ITS Device System Monitoring
- Roadway Monitoring
- Event Management
- Performance Monitoring

**MAINTENANCE**
- Staffing Requirements
- SOPs

**LIFE CYCLE REPLACEMENT/ UPGRADE**
- System Activities
- Problem Clearance
- Notification
- Preventative Maintenance
- Routine Maintenance
- Emergency Response
- Inventory Management

**ACTIVITIES**
- Determine the life cycle of each component
- Obtain funding
- Verify upgrade requirements of components

**REPORTING**
- Performance Measures
- Events
- Travel Time
- Reliability
- Crashes

- ATMS Software Mgmt
- Malfunction and Diagnostics of Devices
- Problem Reporting and Response
- Selection and Notification of appropriate Entity
- Monitor and Track

- Signal Timing Adjustments

**District 5 ITS Master Plan**
• Maintaining Agency/Partner Organizations
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Questions? Comments?