



TSM&O Consortium Meeting

MEETING AGENDA

D5 Urban Office
133 S. Semoran Blvd.
Orlando, FL
Lake Apopka B Conference Room

April 7, 2016; 10:00 AM-12:00 PM

- 1) INTRODUCTIONS AND BUSINESS PROCESS DIMENSION OVERVIEW
 - Heather Garcia, FDOT Planning
- 2) PLANNING GUIDANCE DOCUMENT
 - Heather Garcia, FDOT Planning
- 3) D5 ITS MASTER PLAN UPDATE
 - Dale Cody, Metric
- 4) D5 Software/O&M Staffing Proposal
 - Jeremy Dilmore, D5 ITS
- 5) TSM&O – PROJECT UPDATE
 - Jeremy Dilmore, D5 ITS

Welcome to the TSM&O Consortium Meeting April 7, 2016



Transportation Systems Management & Operations



Meeting Agenda

1. Introduction and Planning for TSM&O Guidebook Update
 - **Heather Garcia**, FDOT Planning and Corridor Development
2. D5 ITS Master Plan Update
 - **Dale Cody**, Metric
3. D5 Software/O&M Staffing Proposal and Project Update
 - **Jeremy Dilmore**, Metric



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TSM&O in D5 Today

D5 TSM&O Implementation Plan

- Summer 2016

Planning for TSM&O Guidebook

- Summer 2016

D5 ITS Master Plan

- Fall 2016

D5 DW TSM&O Continuing Services

- TEDS

Big Data Research Pilot

- UF



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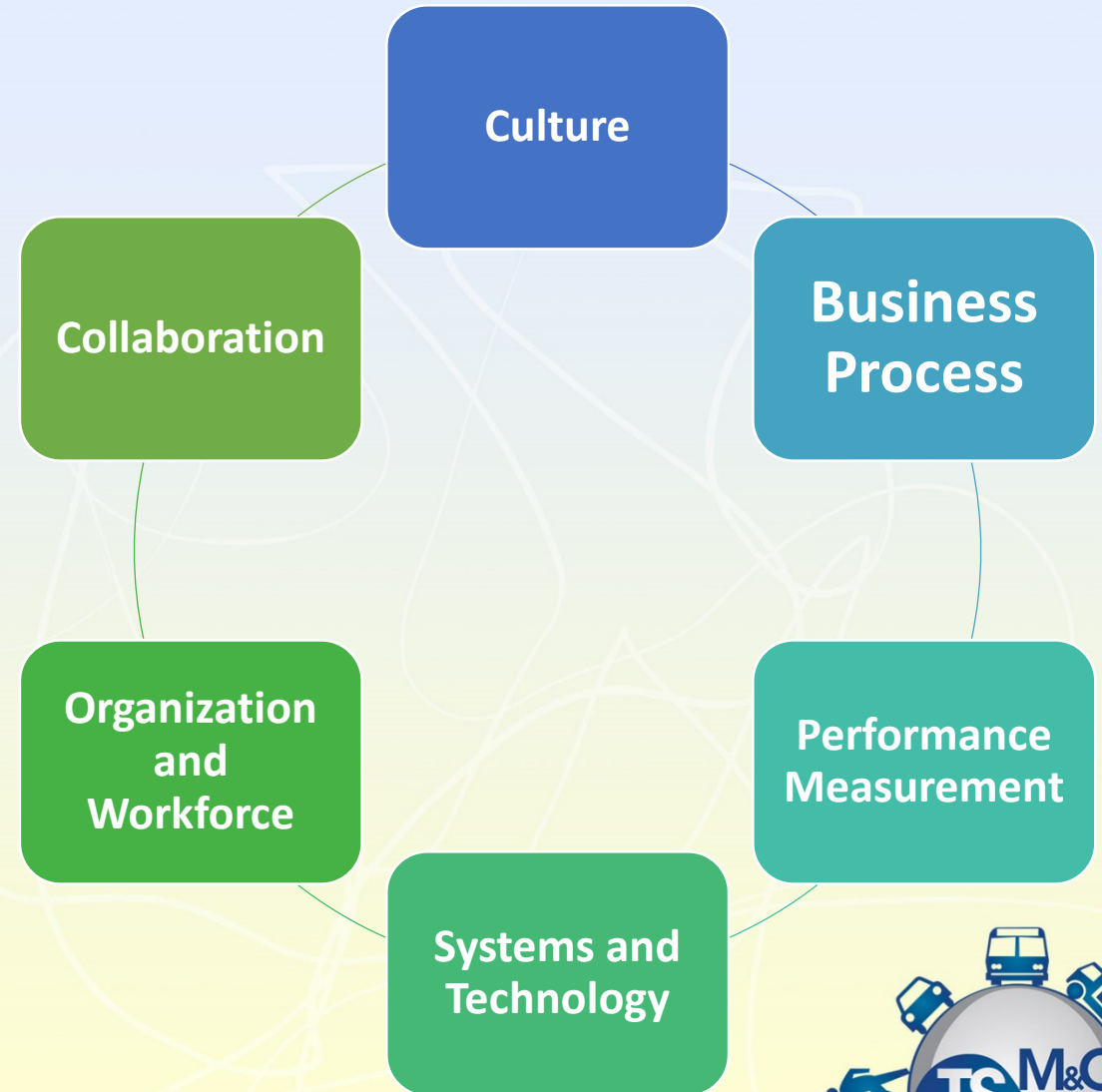
Capability Maturity Framework (CMF)

Business Process Dimension:

- Planning
- Programming
- Implementation

Business Process Dimension Product:

The Planning for TSM&O Guidebook



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The Planning for TSM&O Guidebook Update

1. TSM&O – What’s the problem?

- What?
- Why? (Safety, Congestion, Reliability)
- How?

2. Fundamentals of TSM&O

- Goals (Improve capacity, security, safety, and reliability)
- Solutions and Strategies
- Key Concepts
 - Stakeholder Coordination
 - Benefit Cost Evaluation
 - Performance Management
 - Data Management



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The Planning for TSM&O Guidebook Update



3. TSM&O at the System Level

- Congestion Management & CMP

4. TSM&O at the Project Level

- Project Planning Process
- Project Development Process

5. TSM&O In-Depth

- Systems Engineering Process
- References and Resources



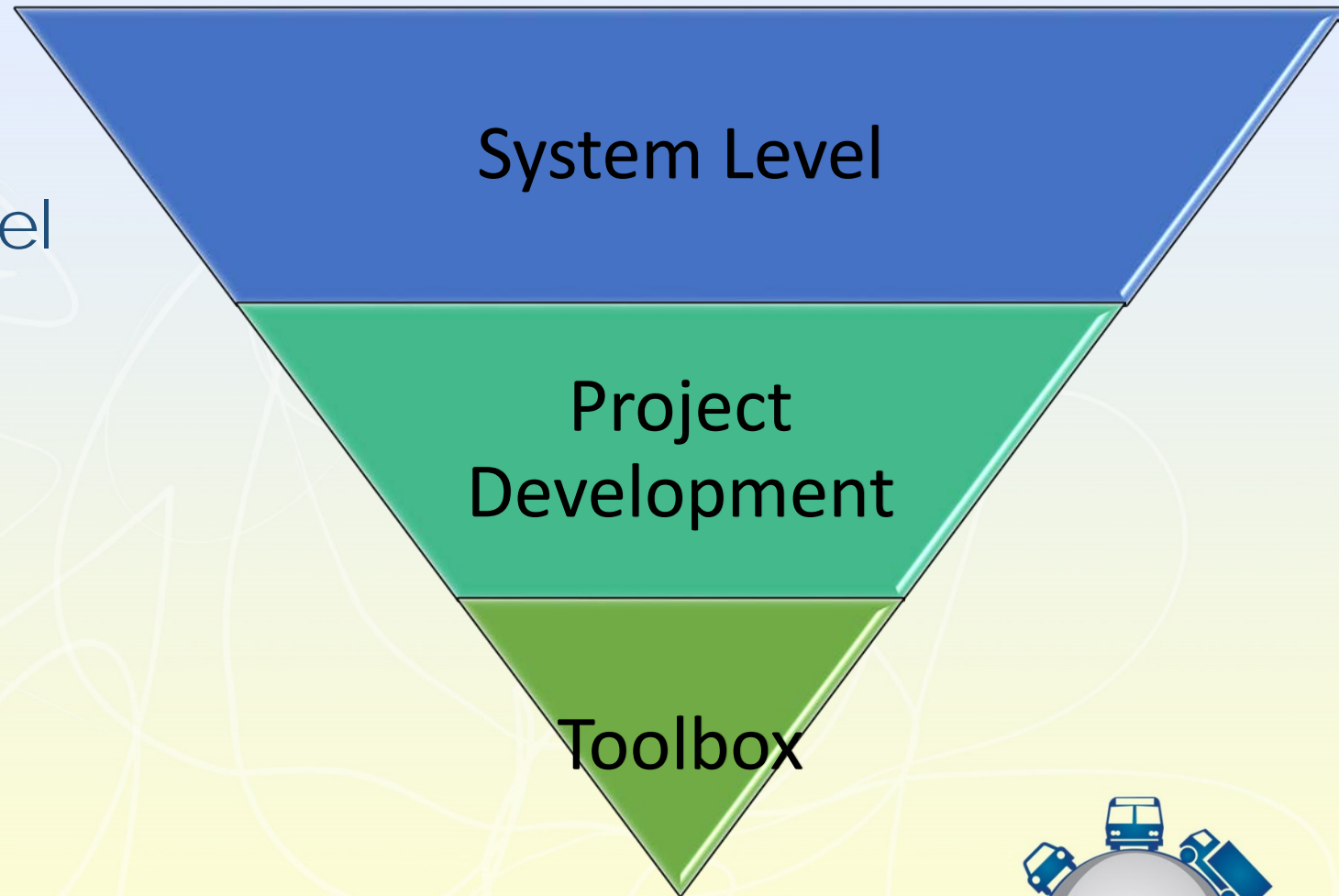
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The Planning for TSM&O Guidebook

Guidebook Learning Objective:

- TSM&O at the System Level
- TSM&O in the Project Development Process
- TSM&O Toolbox
- TSM&O Resources

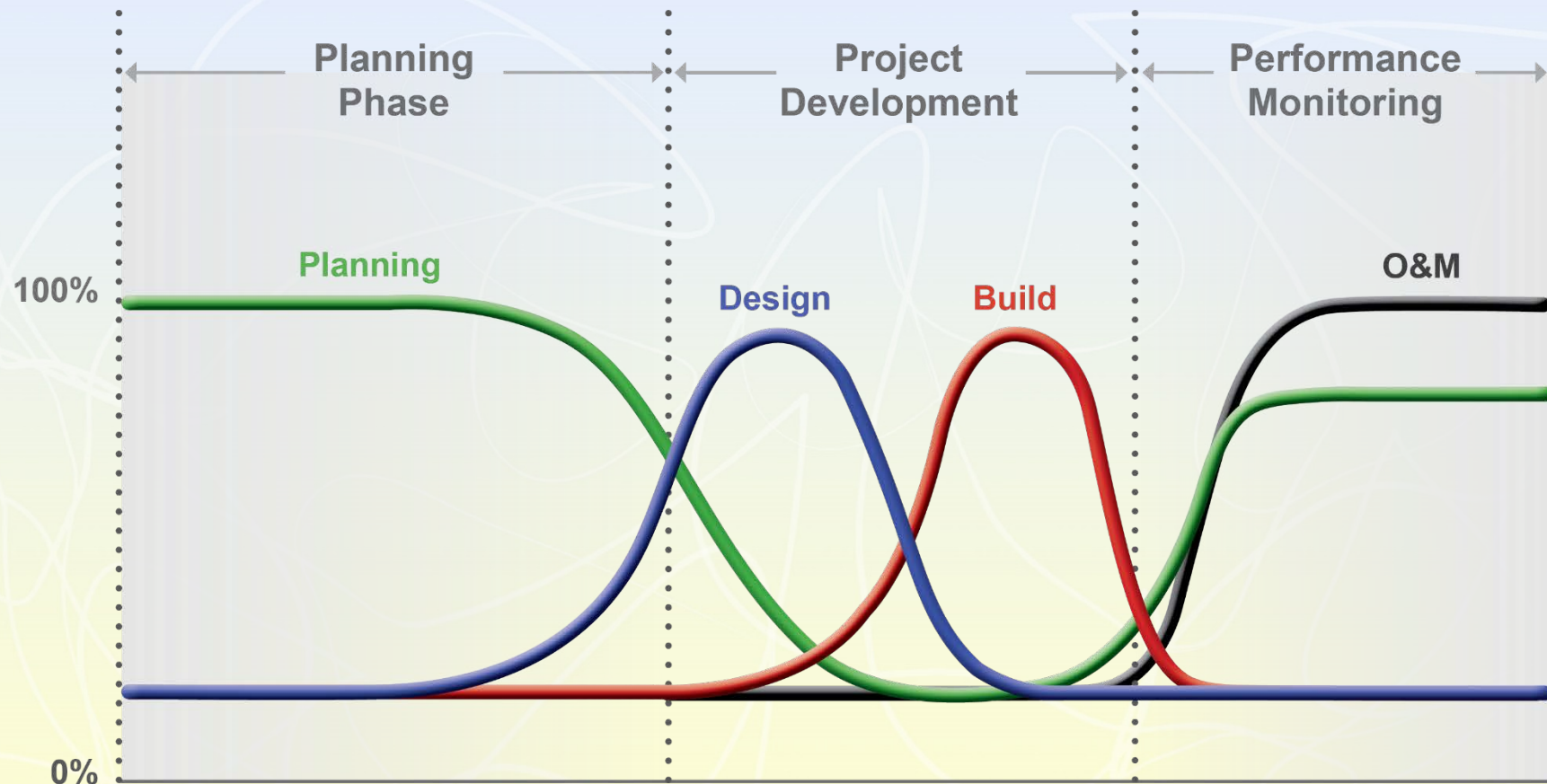


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The Planning for TSM&O Guidebook

TSM&O Roles and Responsibilities



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Welcome to the TSM&O Consortium Meeting June 2, 2016



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Final Document

5/20

Final Document Review

6/17

Presentation

6/30

Finalize Effort



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ITS MASTER PLAN UPDATE

Florida Department of Transportation, District 5
April 7, 2016



ITS Master Plan for District 5

- 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

ITS Master Plan for District 5

- 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)

ITS Master Plan for District 5

- Metroplan
 - Strategies: AAM, ICM, Dynamic Routing, Incident Management
 - Two Existing AAM Contracts (Tri-County) with I-4 (ICM)
 - Strategies: Adaptive Signal Control
 - Existing/Proposed Adaptive Systems (Orange, Orlando and Seminole)
 - Future Adaptive Systems (Osceola/Kissimmee – US 192)
 - Strategy: Transit Signal Priority (TSP)
 - Existing Projects: Phases 1 & 2 (Tri-County)
 - Strategy: Adaptive Ramp Metering
 - Existing Project: I-4 Ultimate
 - Strategies: Travel Demand Management (Mode Choice), Dynamic Wayfinding
 - Proposed Project: Tie-in Altamonte (Uber), Sunrail, Lynx, etc.
 - Strategies: Dynamic Transit Capacity Assignment, Personalized Public Transit, Electronic Transit Ticketing
 - Lynx (TBD)

ITS Master Plan for District 5

- Metroplan
 - Strategy: Dynamic Ridesharing
 - Existing Project: Partially funding the ride share for Sunrail (Altamonte Springs)
 - Strategy: Public Travel/Infrastructure Security
 - Existing Project: Bridge Security Project (St. John's)
 - Strategy: Connected Vehicles/Bike & Ped ITS Solutions
 - Proposed Project: SR 50 from Mills Road to SR 436 and SR 436 from SR 408 to Grant Street (22 pedestrian fatalities over the last 5 years)
 - Strategy: Event Management
 - Existing Project Perhaps Expand: Amway Center & Fine Arts (Orlando)
 - Strategies: Dynamic Parking Guidance and Reservation
 - Proposed Projects: Public Garages (Orlando), Metered Parking (Orlando)

ITS Master Plan for District 5

- Metroplan (Local Strategies)
 - Strategy: Bike & Ped ITS Solutions
 - Proposed Project: Downtown Area (Winter Park)
 - Strategy: Highway Rail Intersections
 - Proposed Project: SR 434 & CR 427 (Seminole)
 - Proposed Project: SR 436 & CR 427 (Seminole)
 - Strategy: Intersection Collision Avoidance
 - Proposed Project: SR 436 & Old Cheney Hwy (Orlando)
 - Proposed Project: US 192 & Vista Largo (Kissimmee)
 - Strategy: Wrong Way Countermeasures
 - Existing Multiple Projects: Wrong Way Countermeasure (CFX)

ITS Master Plan for District 5

- River to Sea TPO
 - Strategies: AAM, ICM, Dynamic Routing, Incident Management
 - Existing Project/Perhaps Expand (Daytona Beach – During Events)
 - Strategies: Adaptive Signal Control
 - Existing Projects (Volusia and Daytona Beach)
 - Strategy: TSP
 - Existing Project: Phase 3 (Volusia)
 - Strategies: Dynamic Transit Capacity Assignment, Personalized Public Transit, Electronic Transit Ticketing
 - VOTRAN (TBD)

ITS Master Plan for District 5

- River to Sea TPO
 - Strategy: Emergency Notification (SOS), Disaster Response & Evacuation
 - Existing Project: I-95 and Arterials – Event Management (Volusia/Daytona Beach)
 - Proposed Project: I-95 and Arterials (Flagler)
 - Strategy: Event Management
 - Existing Project: Event Management (Daytona Beach/Volusia)
 - Strategies: Freight Parking, Automated Roadside Inspection
 - Proposed Project I-95 (FDOT in Volusia and Flagler)
 - Strategy: Connected Vehicles/Ped ITS Solutions
 - Proposed Project: SR A1A from Shepard Drive to Royale Way (Brevard) – 8 Intersections

ITS Master Plan for District 5

- River to Sea TPO (Local Strategies)
 - Strategy: Bike & Ped ITS Solutions
 - TBD
 - Strategy: Dynamic Junction Control
 - TBD
 - Strategy: Dynamic Merge Control
 - TBD
 - Strategy: Queue Warning
 - TBD
 - Strategy: Intersection Collision Avoidance
 - TBD

ITS Master Plan for District 5

- Space Coast TPO
 - Strategies: AAM, ICM, Dynamic Routing, Incident Management
 - Proposed Project: Operations per Space Coast ITS Master Plan (All Four Maintaining Agencies)
 - Strategies: Adaptive Signal Control
 - SR A1A and Exiting East-West Arterials (Brevard/Melbourne/Titusville)
 - Strategy: Emergency Notification (SOS), Disaster Response & Evacuation
 - Proposed Project: I-95 and Arterials (Brevard)
 - Strategy: Event Management
 - Proposed Project: Launches (Titusville/Brevard)
 - Strategies: Freight Parking, Automated Roadside Inspection
 - Proposed Project: I-95 (FDOT)

ITS Master Plan for District 5

- Space Coast TPO (Local Strategies)
 - Strategy: Bike & Ped ITS Solutions
 - TBD
 - Strategy: Dynamic Junction Control
 - TBD
 - Strategy: Dynamic Merge Control
 - TBD
 - Strategy: Queue Warning
 - TBD
 - Strategy: Intersection Collision Avoidance
 - TBD

ITS Master Plan for District 5

- Lake - Sumter MPO
 - Strategy: Adaptive Signal Control
 - US 441 or SR 50 (Lake)
 - Strategy: Freight Parking
 - I-75 & Florida's Turnpike (Sumter)
 - Automated Roadside Inspection
 - I-75 & Florida's Turnpike (Sumter)

ITS Master Plan for District 5

- Lake - Sumter MPO (Local Strategies)
 - Strategy: Bike & Ped ITS Solutions
 - Proposed Project: Mount Dora Downtown (Lake)
 - Strategy: Dynamic Junction Control
 - TBD
 - Strategy: Dynamic Merge Control
 - TBD
 - Strategy: Queue Warning
 - TBD
 - Strategy: Intersection Collision Avoidance
 - SR 40 & SR 19 (Lake)

ITS Master Plan for District 5

- Ocala - Marion TPO
 - Strategies: Adaptive Signal Control
 - SR 40, US 441
 - Strategy: Public Travel Security
 - TBD
 - Strategies: Freight Parking, Automated Roadside Inspection
 - I-75 (FDOT)

ITS Master Plan for District 5

- Ocala - Marion TPO (Local Strategies)
 - Strategy: Bike & Ped ITS Solutions
 - TBD
 - Strategy: Dynamic Junction Control
 - TBD
 - Strategy: Dynamic Merge Control
 - TBD
 - Strategy: Queue Warning
 - TBD
 - Strategy: Intersection Collision Avoidance
 - TBD

ITS Master Plan for District 5

- Regional Efforts/Resource Sharing

SOFTWARE LICENSING

GTT (TSP)
ATMS/Regional Non-Proprietary System
SunGuide
Decision Support Tool (DSS)

OPERATION & MAINTENANCE (FEDERAL)

IT Services
ITS/ATMS Operations
ITS/ATMS Maintenance

COMMON TIME

A Common Clock for the Region

ASSET MANAGEMENT

MIMS
Fiber Management

REGIONAL EFFORTS

Predictive Traveler Information
Hazmat Security/Incident Response

OTHER

Operations, Maintenance and Training
Specifications
Testing/Acceptance

ITS Master Plan for District 5



Questions? Comments?