I-490 Integrated Corridor Management (ICM) Plan

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NYSAMPO Webinar - Planning for Reliability
July 27, 2021
Project Purpose

➢ To develop an Integrated Corridor Management (ICM) Plan for the I-490 corridor

□ Identify strategies to improve safety, minimize delay, and enhance overall efficiency
  - Asset management strategy for maintaining existing ITS capabilities along the corridor
  - Guide for future ITS deployments and operations along the corridor
Regional Highway Network - I-490 Corridor
I-490 Corridor Description
I-490 Corridor Description - Traffic Volumes
I-490 Corridor Description - Incidents

I-490 Integrated Corridor Management Plan
2015-2019 Crash Events
Transportation System Management and Operations (TSMO) Strategic Plan

- Objectives
  - Rationale for investments in operations (“Why?”)
  - Roles & responsibilities (“Who?”)
  - Ten-year timeframe (“When?”)
Regional TSMO Corridors - Tier I

- Interstates and urban expressways
- New York State Thruway
- Selected New York State and Monroe County urban arterials

Tier I Corridors:

- Greatest values and impacts
- Reflect emphasis on reinvestment and enhancement of existing corridors
Regional TSMO Corridors - Tier I
Integrated Corridor Management (ICM)

- ICM Goal: Improve safety, minimize delay, and enhance efficiency

Integration:
- Institutions
- Operations
- Technology
Integrated Corridor Management (ICM)

➢ Potential Strategies:
  □ Adaptive Traffic Signal Control
  □ Decision Support System
  □ Dynamic Rerouting
  □ Incident Confirmation
  □ Maintenance/Construction Planning
  □ Real-Time Predictions for Freight
  □ Smart Parking
  □ Speed Harmonization
  □ Transit Signal Priority
Project Development

- Request for Proposals (RFP)
  - Three proposals

- Consultant Team:
  - Prime: WSP USA, Inc.
  - Subs: Bergmann, ConSysTec, and Drive Engineering

- Timeline:
  - Project Start: September 2020
  - Completion: September 2021
Steering Committee

- Federal Highway Administration
- New York State Department of Transportation
- New York State Thruway Authority
- New York State Police
- Monroe County Department of Transportation
- Monroe County Fire Bureau
- Monroe County Sheriff
- City of Rochester
- Rochester Genesee Regional Transportation Authority
- Genesee Transportation Council Staff
ICM Planning Process

- **Inventory**
- **Operations Strategy/ Needs Assessment**
  - Stakeholder needs
- **Alternatives/ Recommendations**
  - ITS deployments
  - Asset management
  - Interagency coordination
  - Personnel
  - Regional ITS Architecture
Inventory

- Map ITS field elements
- Regional Traffic Operations Center (RTOC)
  - Incident and Emergency Management
  - Special Event Management
  - Work Zone Management
- Data and Information
Operations Strategy/ Needs Assessment

- Review current plans and policies
- Identify stakeholder needs
  - Coordination
  - Communications
  - Technology
- Data and Information
Alternatives/ Recommendations

- Assess current ITS deployments
- Identify future ITS deployments
- Maps and descriptions
- Asset Management Strategy
- Interagency Coordination and Agreements
- Regional ITS Architecture
Recommendations - Maps

Task 4 Recommendations
Section 12: Exit 27 to Interchange 45

Device Locations are for Planning Level Only. Detailed Device Locations Will Be Determined Based on Further Engineering Analysis.
Alternatives/ Recommendations

- Communications infrastructure
- CCTV, DMS, RWIS deployments
- Traffic signal coordination
- Queue warning
- Ramp metering
- Transit
- Diversion Routes

INTEGRATED CORRIDOR MANAGEMENT PROGRAM BENEFITS
- Travel Time Reliability
- Reduced Congestion
- Systems Integrate to Work Together

Source: USDOT
Regional ITS Architecture

- Review Regional ITS Architecture
Regional ITS Architecture

- Service Package Updates:
  - VS 08 – Queue Warning
  - PT 08 – Transit Traveler Information
  - PM 02 – Smart Park and Ride System
  - TM 01 – Infrastructure Based Traffic Surveillance
  - TM 03 – Traffic Signal Control
  - TM 05 – Traffic Metering
  - TM 06 – Traffic Information Dissemination
  - TM 07 – Regional Traffic Management
  - MC 04/ WX 01 – Winter Maintenance/ Weather Data
GENESEE TRANSPORTATION COUNCIL

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