

# **I-490 Integrated Corridor Management (ICM) Plan**



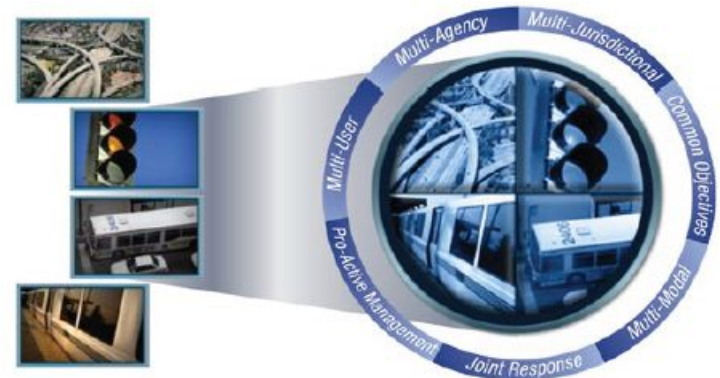
**Joseph M. Bovenzi, AICP**

**ITS NY Annual Meeting – Saratoga Springs, New York**

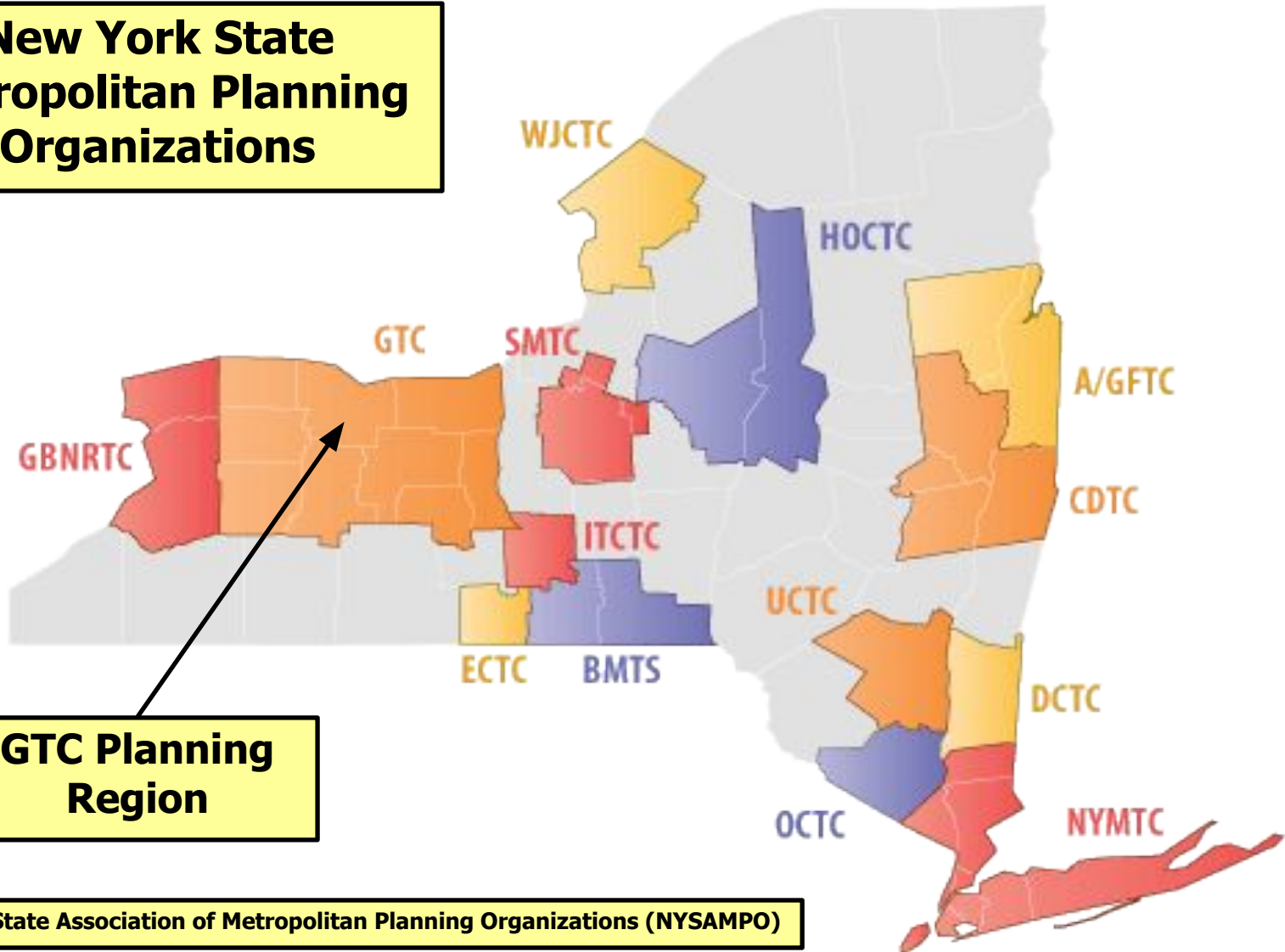
**June 17, 2022**

## 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 travel efficiency**
    - **Asset management strategy for maintaining existing ITS capabilities along the corridor**
    - **Guide for future ITS deployments and operations along the corridor**



**New York State  
Metropolitan Planning  
Organizations**

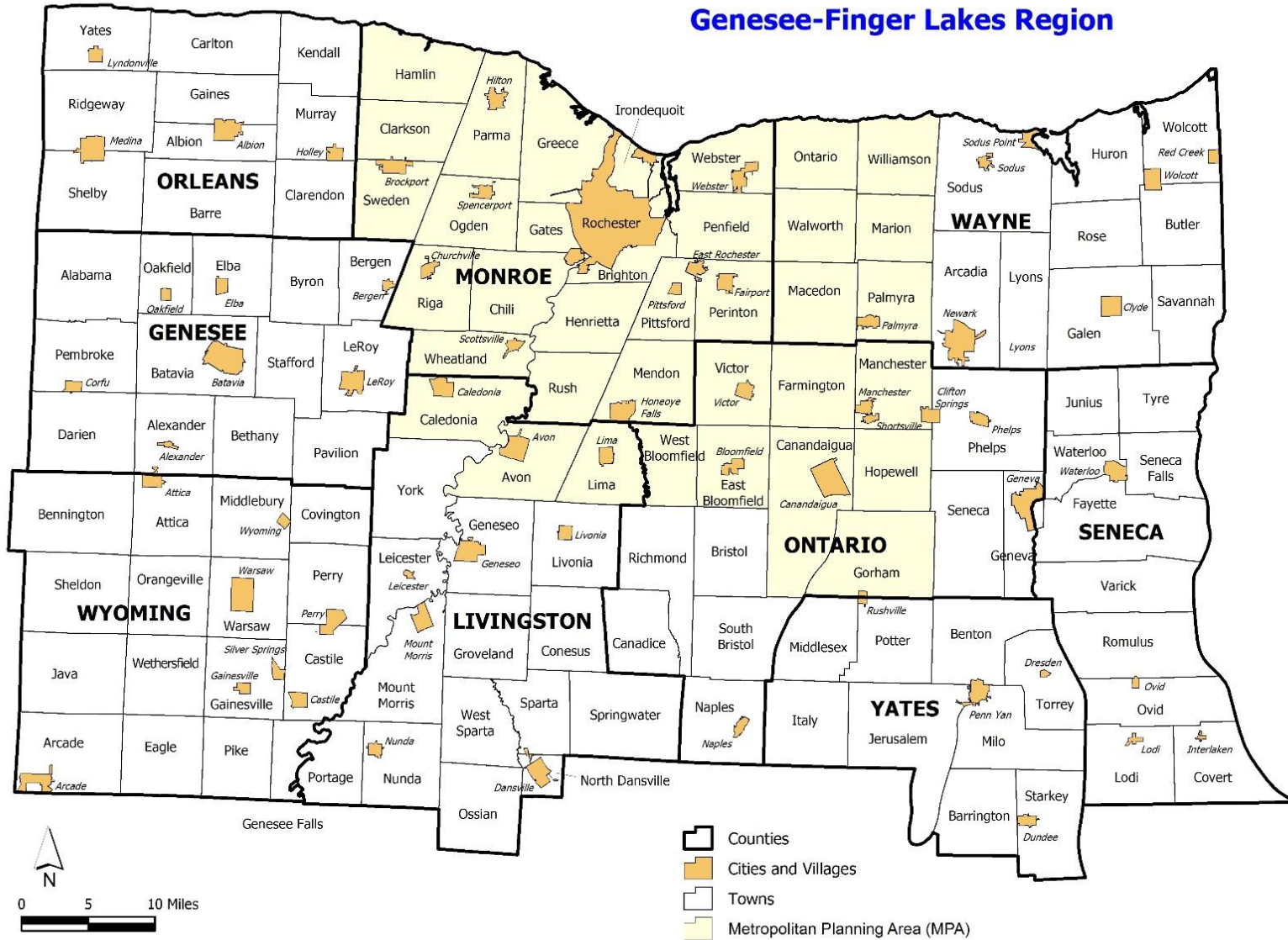


**GTC Planning  
Region**

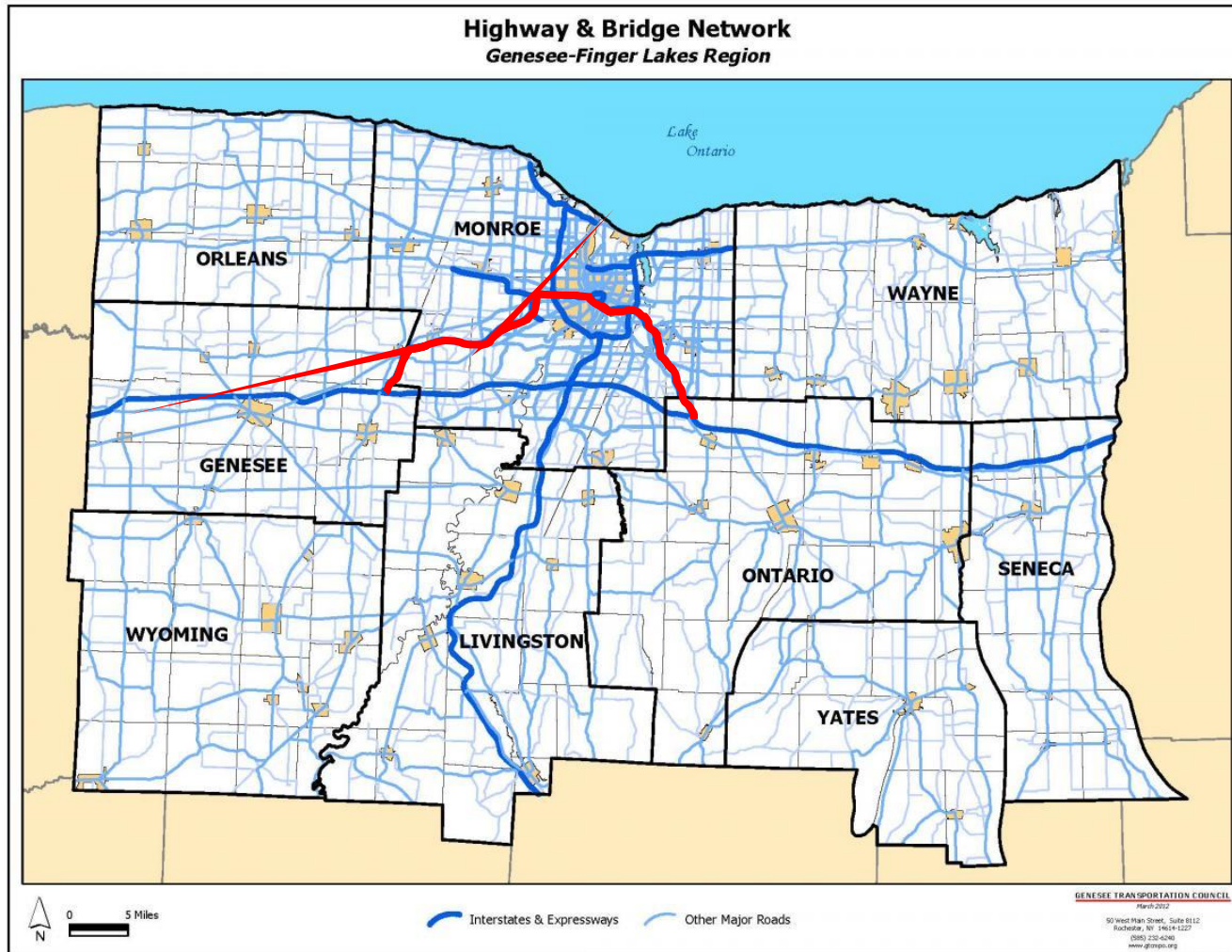
Source: New York State Association of Metropolitan Planning Organizations (NYSAMPO)

# GENESEE TRANSPORTATION COUNCIL

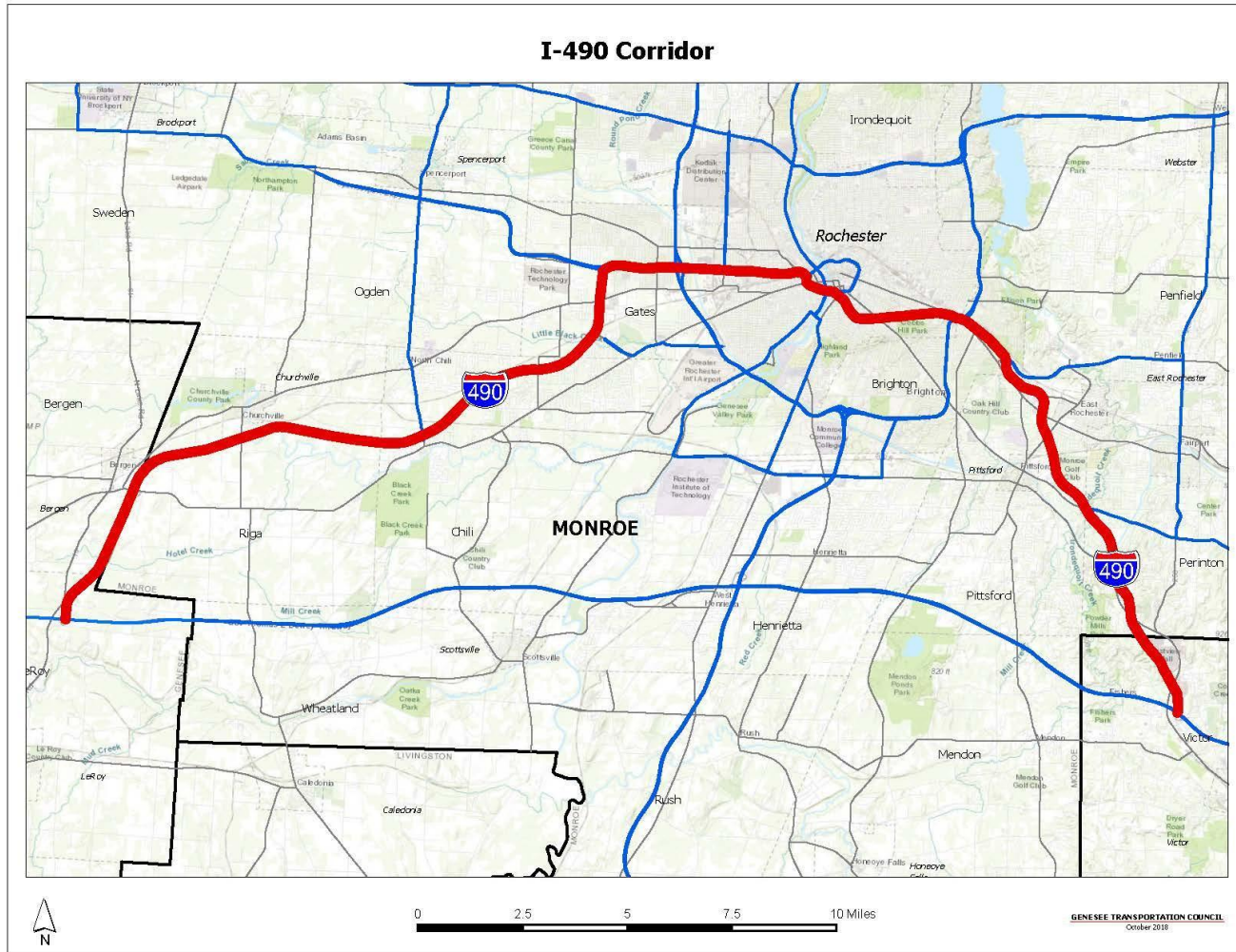
## Genesee-Finger Lakes Region



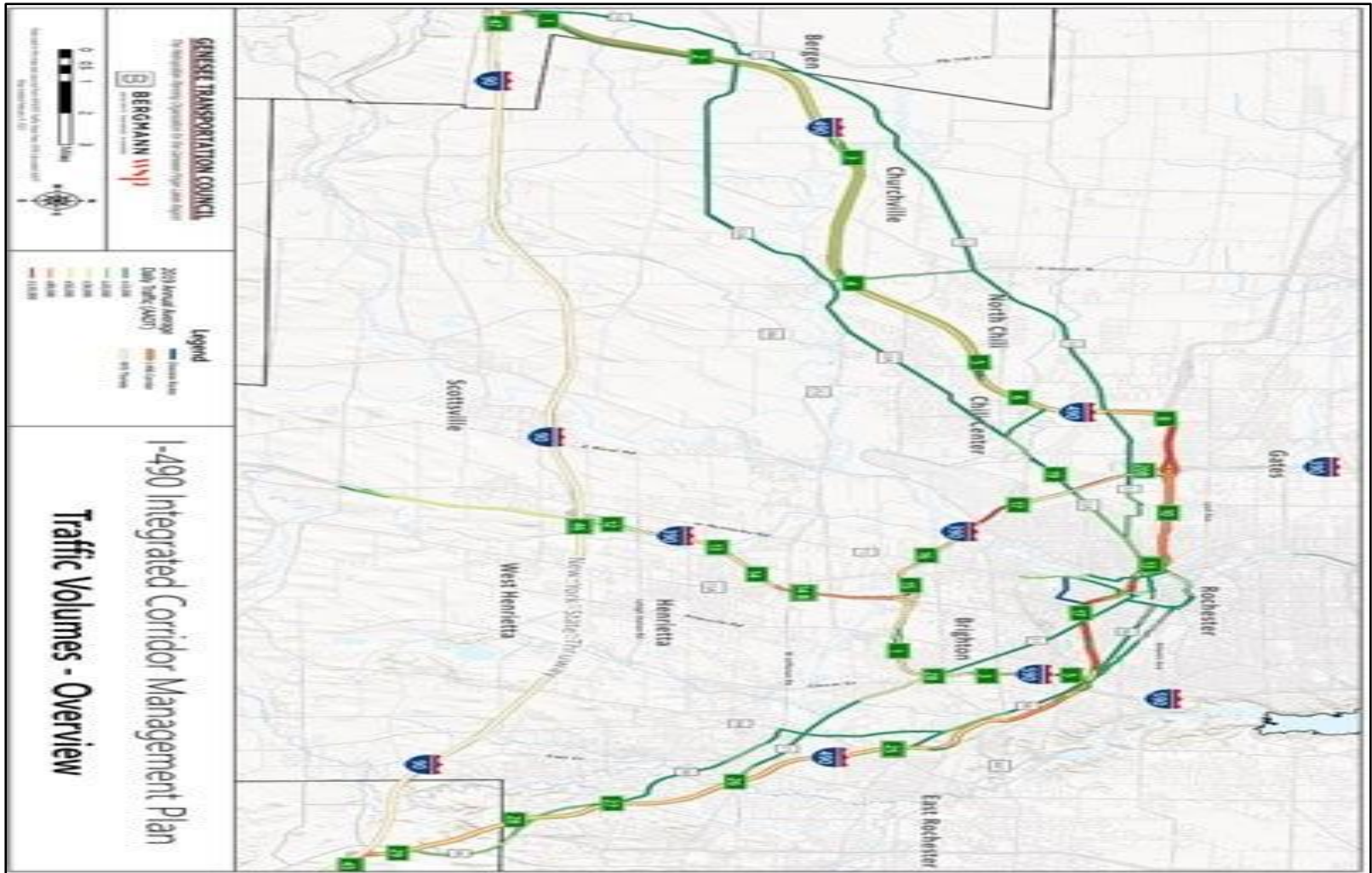
# Regional Highway Network – I-490 Corridor



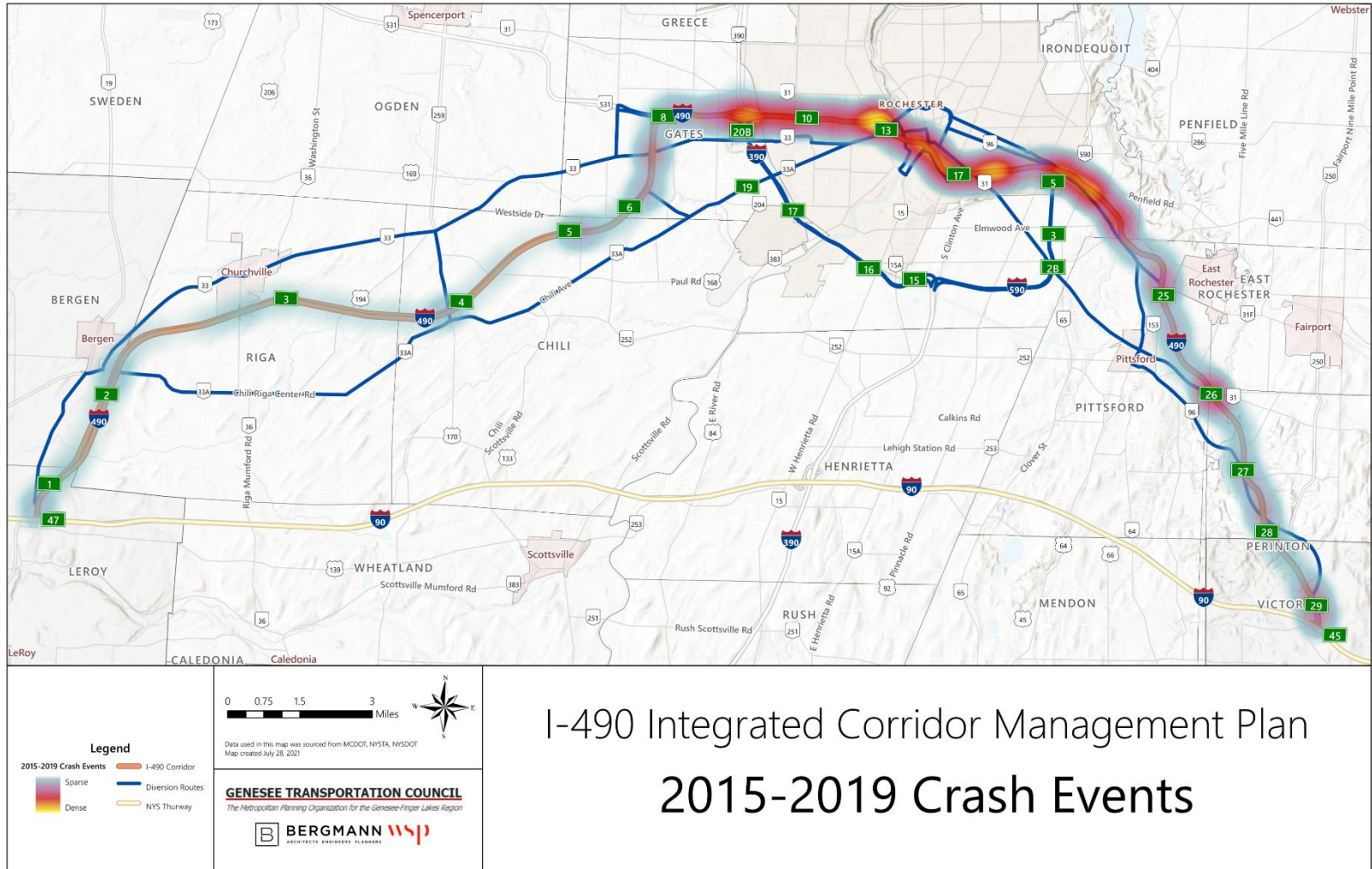
# I-490 Corridor Description



# I-490 Corridor Description – Traffic Volumes



## I-490 Corridor Description – Incidents

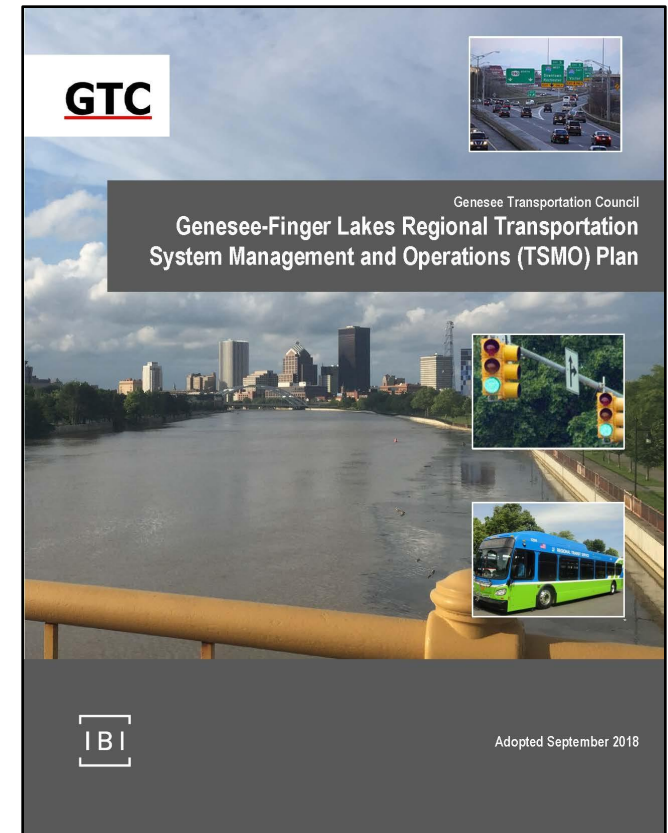




# Transportation System Management and Operations (TSMO) Strategic Plan

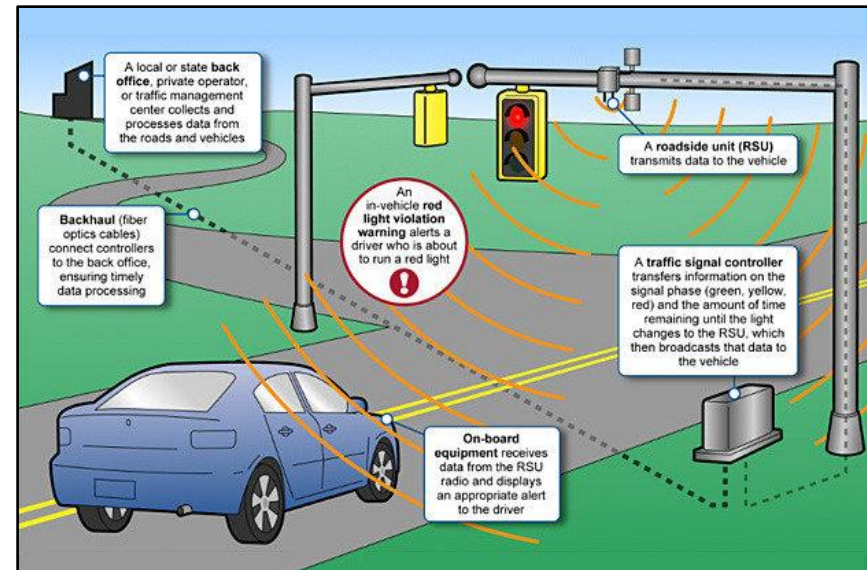
## □ Objectives

- Rationale for investments in operations (“Why?”)
- Roles & responsibilities
- Operations strategies (“What?” and “How?”)
- Ten-year timeframe (“When?”)

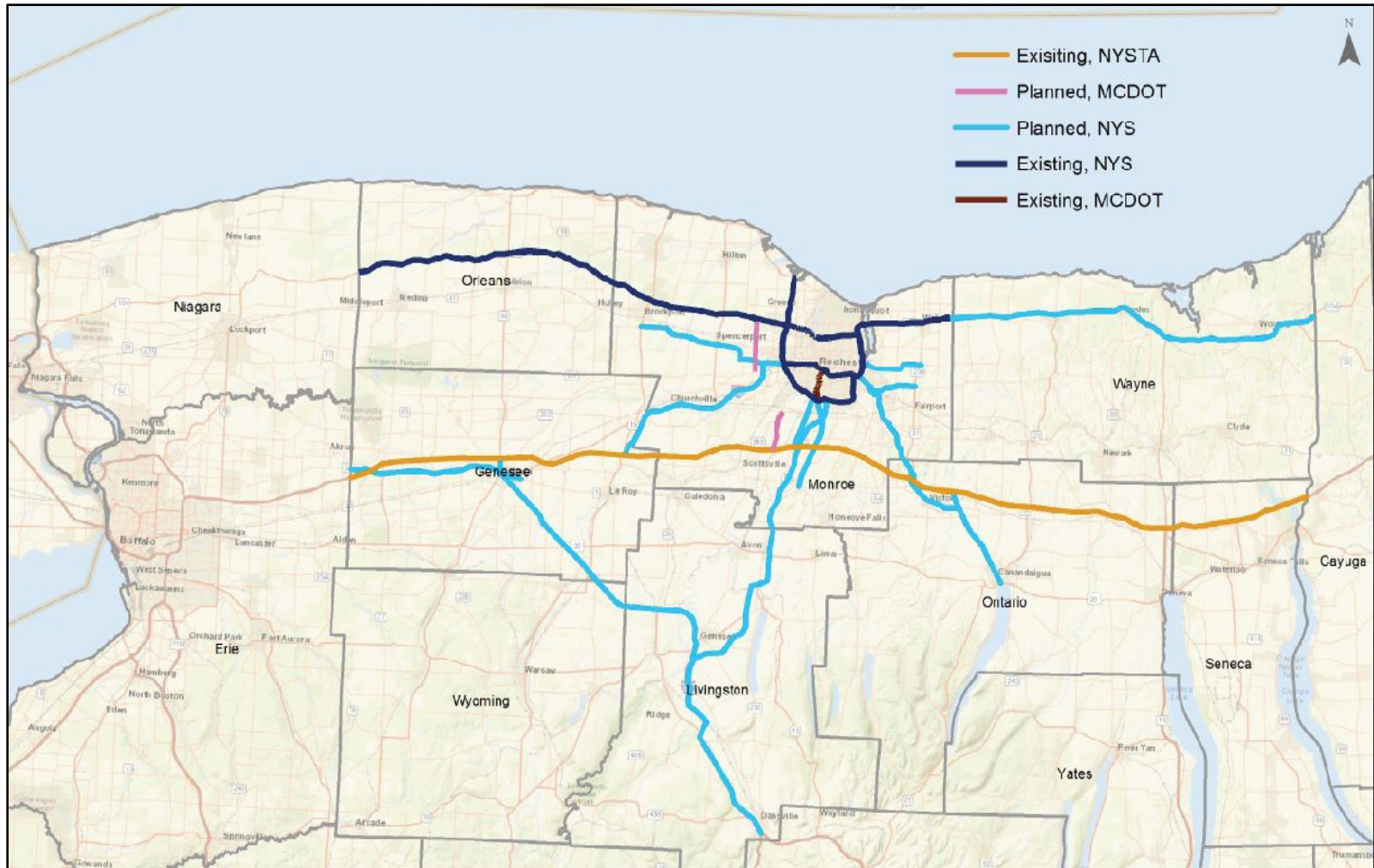


## Regional TSMO Corridors – Tier I

- 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



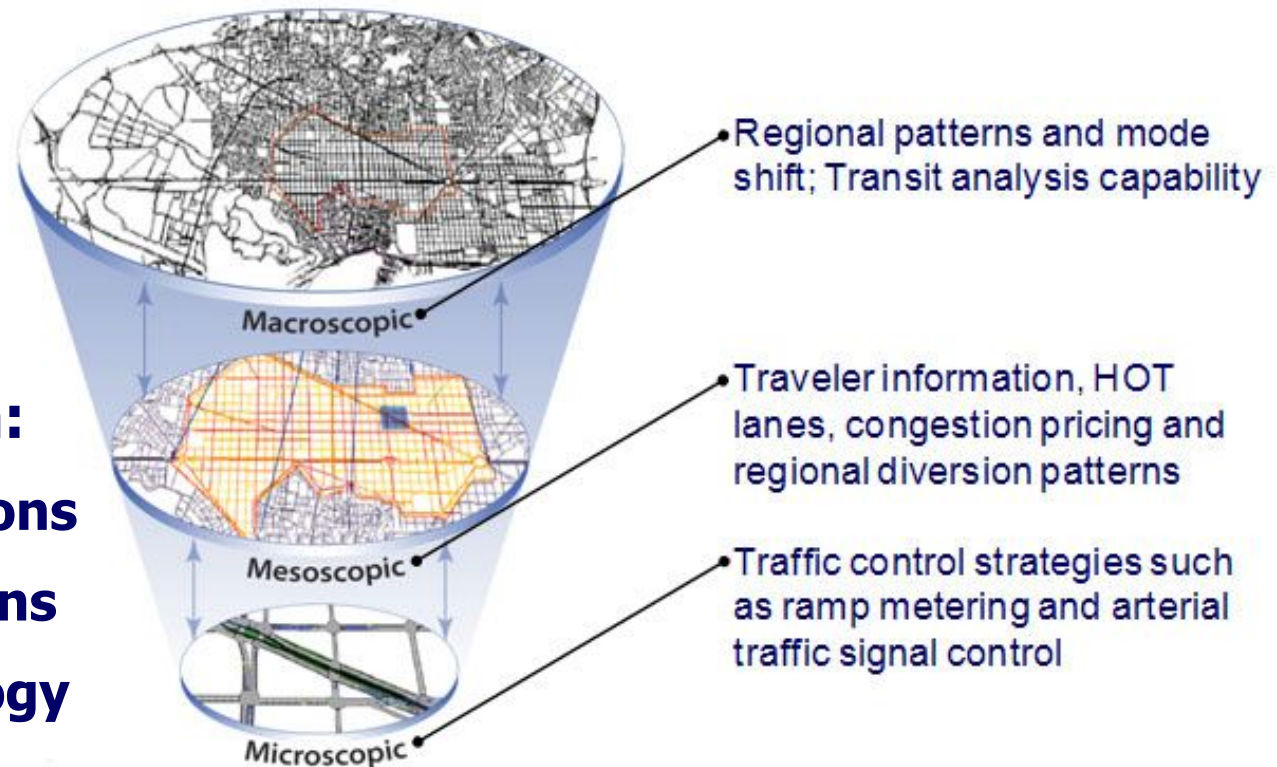
## Regional TSMO Corridors – Tier I



## **Integrated Corridor Management (ICM)**

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

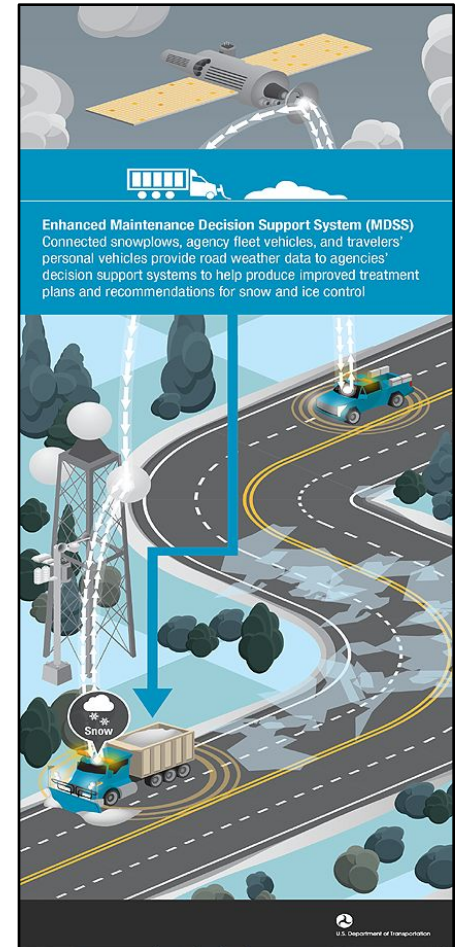
- **Integration:**
  - **Institutions**
  - **Operations**
  - **Technology**



## Integrated Corridor Management (ICM)

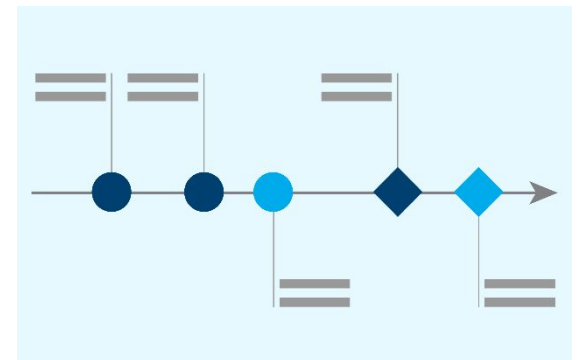
### □ Potential Strategies:

- 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**

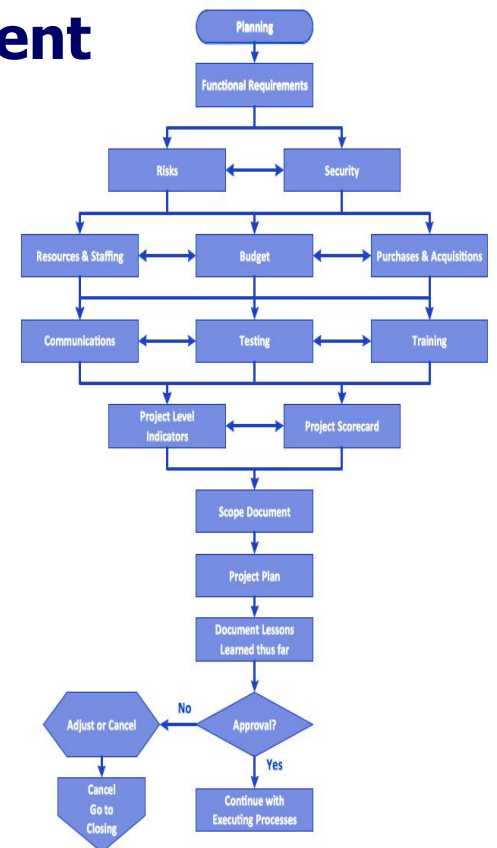


## **Steering Committee**

- 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**





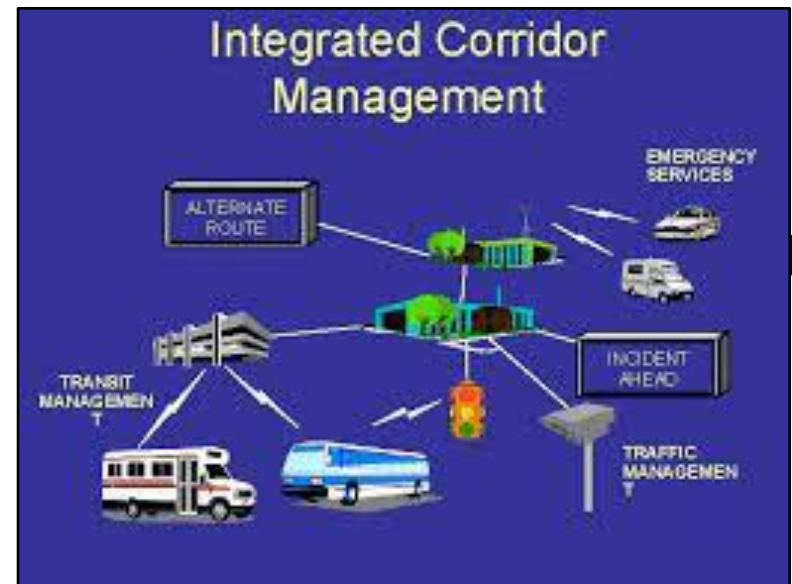
## Inventory

- **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
- Document service gaps
- Identify stakeholder needs
  - Coordination
  - Communications
  - Technology
- Assess available and information



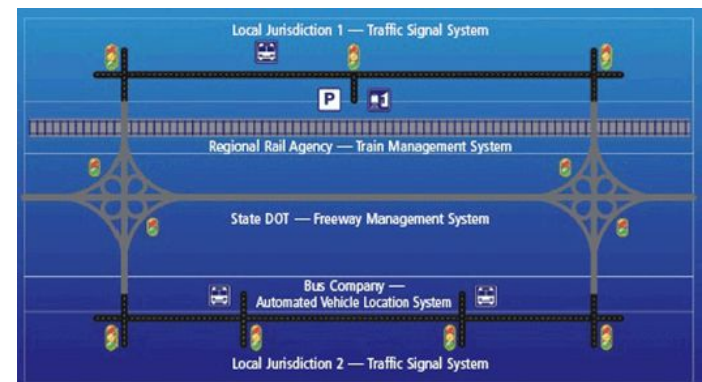
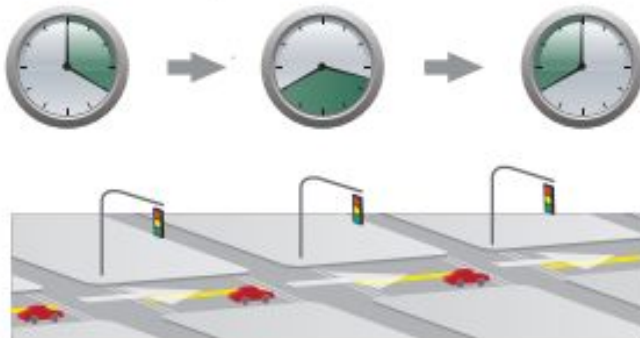
## **Operations Strategy/Needs Assessment**

### **□ Documented Needs:**

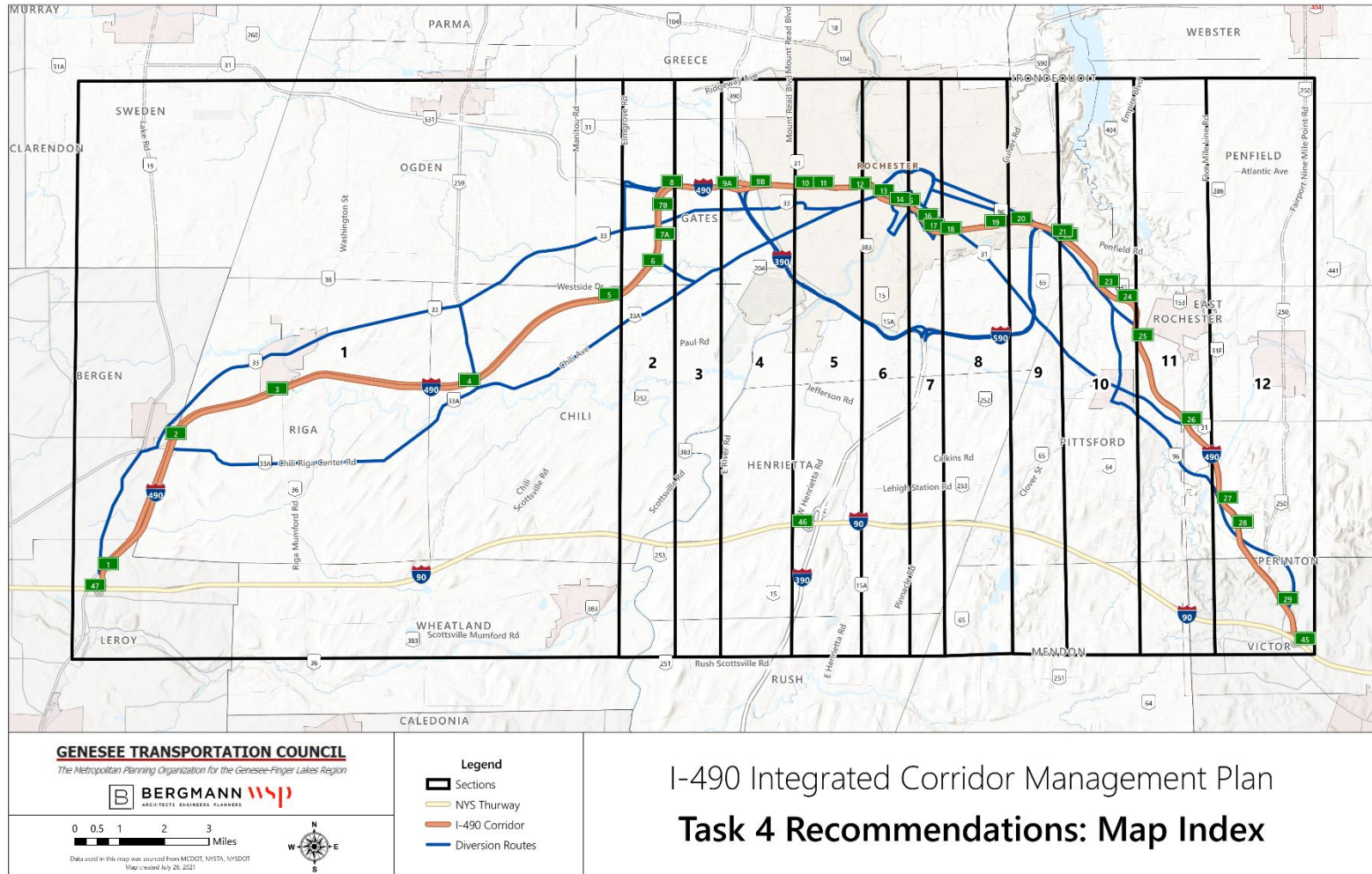
- Improving Traffic Incident Management (TIM) coordination**
- Enhancing interagency signal timing plan coordination and developing special event timing plans**
- Adding travel time information displays**
- Additional traffic cameras and sensors**
- Adding Dynamic Message Signs at key decision points**
- Additional Road Weather Information Stations**
- Improving communications on transit status**

## Alternatives/Recommendations

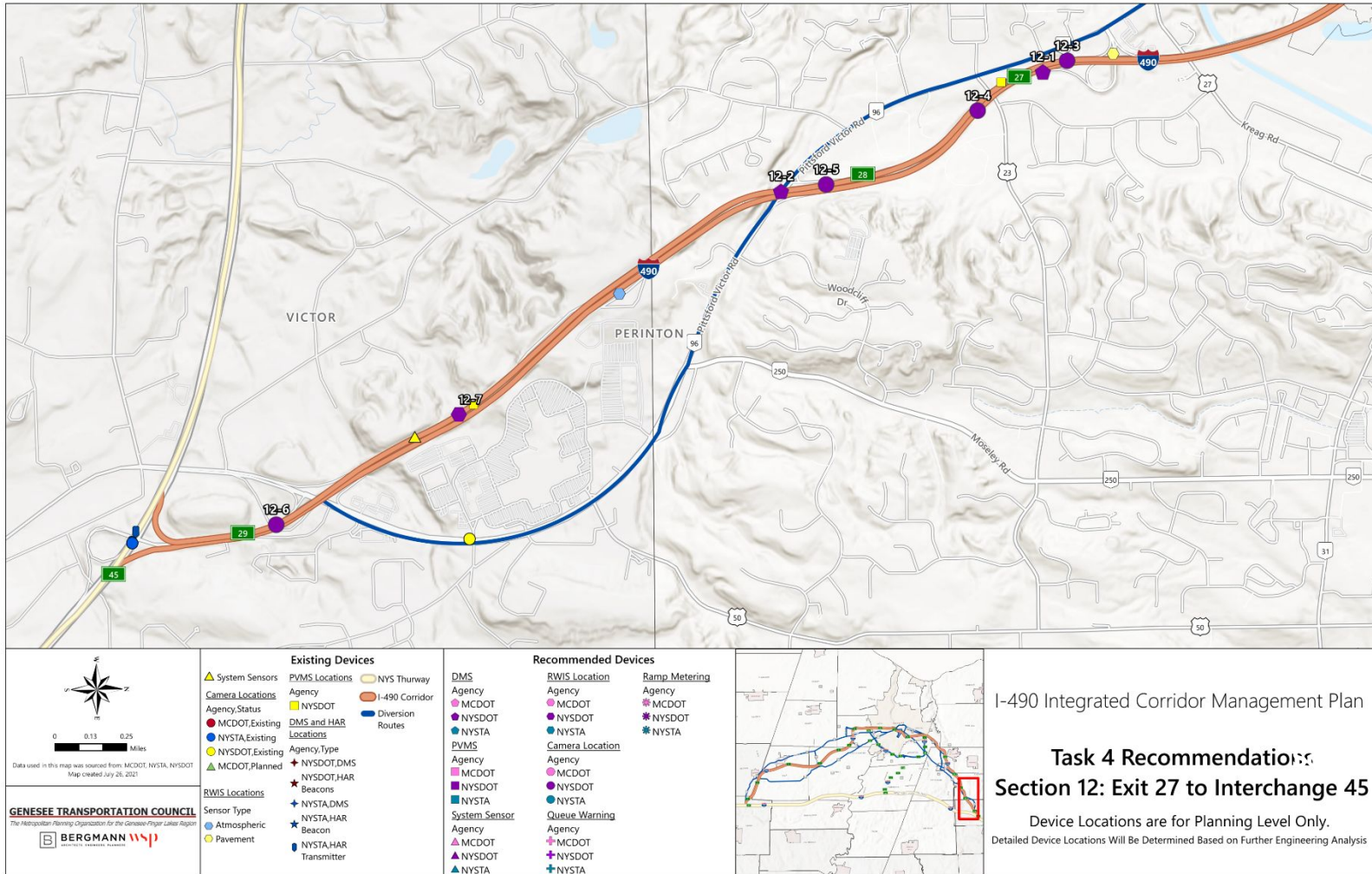
- **Assess current ITS deployments**
- **Identify future ITS deployments**
- **Maps and descriptions**
- **Asset management strategy**
- **Interagency coordination and agreements**
- **Regional ITS Architecture**



## Recommendations – Maps



## Recommendations – Maps



## **Alternatives/Recommendations**

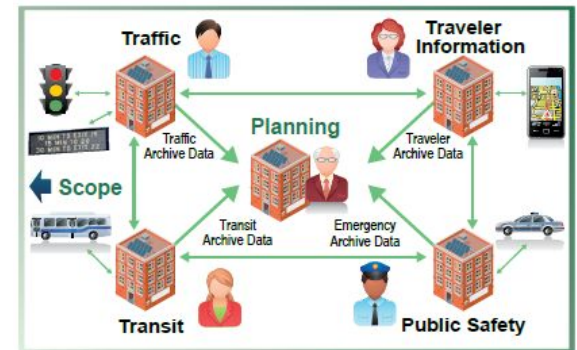
- Communications infrastructure**
- CCTV, DMS, RWIS deployments**
- Traffic signal coordination**
- Queue warning**
- Ramp metering**
- Transit**
- Diversion Routes**



## 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**

50 West Main Street-Suite 8112

Rochester, NY 14614

[www.gtcmpo.org](http://www.gtcmpo.org)

 @gtcmpo