

Operations Planning for Results

Developing an Objectives-Driven, Performance-Based Approach: Lessons Learned



January 25, 2010

GENESEE TRANSPORTATION COUNCIL

Background

- The Genesee Transportation Council (GTC) is the MPO for the Genesee-Finger Lakes Region, including Greater Rochester, New York
- Population and employment are stable, growth in both is minimal
- Congestion and associated delay are not major issues
- Primary challenge is maintaining existing infrastructure and improving operations through cost-effective improvements



Need for Objectives-Driven, Performance-Based Approach

- Strengthen linkage between Long Range Transportation Plan (LRTP) goals and Transportation Improvement Program (TIP) project selection
- Integrate Congestion Management Process with other objectives and priorities
- Allow for more equitable comparison between operations projects and preservation/maintenance projects
- Demonstrate to decision makers and the public what they're likely going to get (or could get) for their money

Will result in improved project prioritization and utilization of limited financial resources

Issues & Opportunities

- Current commitment to operations
- New LRTP being developed
- Varying availability of necessary data
- Stakeholder discussions regarding performance measures and accountability standards
- Limited funding for transportation from all sources
- Aging highway and bridge infrastructure



Role in Operations

- GTC does not own, maintain, or operate any infrastructure or services
- Coordinates transportation system management and operations (TSMO) planning and federal funding for related activities across the region
 - Lead agency for Intelligent Transportation Systems (ITS) Strategic Plan Update
 - Convenes and facilitates the multi-jurisdictional Transportation Management Committee
- Incorporates TSMO into Long Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP)

Planning for Operations

- One of three categories of recommendations in the current LRTP
- Congestion Management Process fully incorporated into the current LRTP
- TSMO-specific plans & studies funded for highways and transit
 - ITS Strategic Plan Update
 - TSMO Organizational Study
 - Transit Signal Prioritization
 - Traffic Signal Coordination



Funding for Operations

- Funding for Regional Traffic Operations Center staffing taken “off the top”
- ITS projects are solicited directly but inclusion in highway reconstruction/rehabilitation proposals improves scores for those projects
- Projects that improve safety, mobility, efficiency, reliability, and/or air quality without adding physical capacity rank the highest



Framework of Current LRTP

- Goals → Objectives → Policies → Actions
- **Goal: Increase Accessibility and Mobility Options**
- **Objective: Provide the capacity, coverage, and coordination necessary to provide mobility that supports the economic vitality of the metropolitan area**
- **Policy: Increase the use of ITS technologies and TSMO practices to enhance safety, efficiency, and reliability**
- **Action: Implement planned ITS improvements including but not limited to CCTV cameras, vehicle detection, highway advisory radio systems, etc.**
- **Action: Continue fiscal practices that place an emphasis on and support ITS and TSMO activities**

Proposed Framework for Next LRTP

- Goals → Objectives → Actions → Measures
- Goal: Increase accessibility and mobility options by providing the capacity, coverage, and coordination necessary to support the economic vitality of the area
- Objective: *Desired* - Reduce the average travel time index on Principal Arterials by five (5) percent by 2020
Realistic - Ensure the average travel time index on Principal Arterials does not increase by more than five (5) percent by 2020
- Action: Implement active signal management on all expressway ramps by 2015
- Measure: *Outcome* - Change in average travel time index on Principal Arterials in 2020
Activity - Percent of expressway ramps served by active signal management in 2015

Objectives & Performance Measures

Outcome-based

- Data availability should not be primary determinant
 - Even when collection is costly and time consuming
- Must be meaningful to customers
- Choose quality over quantity
- System-wide and corridor-based

Activity-based

- Simpler: Did it happen? If not, why not?
- Requires working closely with project sponsors

Transportation Stakeholder Discussions

- Performance measures and targets
- Will focus on national interests
 - Safety
 - Mobility/Delay (including freight)
 - Preservation/Structural Adequacy
 - Environment
- Who will set and how are yet to be determined



GENESEE TRANSPORTATION COUNCIL

Proposed Performance Measures for LRTP

Safety

- Crash rate
- Number of fatalities

Mobility/Delay

- Travel Time Index
- Freight Travel Time Index
- Transit on-time performance
- Transit load factor

Environment

- Criteria pollutant emissions
- Energy Usage

System Preservation

- Percent pavement "fair" or better
- Number of "condition critical" bridges

Incident Management

- Average clearance time

Parking Management

- Parking Occupancy

Many if not all could be combined to be measured
Corridor system-wide approach

TIP Project Prioritization and Selection

- Allows for more precise estimation of potential benefits
 - Some inference necessary – caution in applying others' results
 - Conservative approach needed to manage expectations
- Alternative investment scenarios consisting of competing proposals can be conducted based on LRTP objectives
 - Levels playing field between preservation/maintenance, operations, and expansion projects across modes
- Post-implementation project evaluation will be necessary
 - Sampling of representative projects anticipated to refine future estimation of benefits for similar projects
- Need to assess external factors that may have affected project results

GENESEE TRANSPORTATION COUNCIL

Richard Perrin, AICP
Executive Director
50 W. Main St, 8112
Rochester, NY 14614

www.gtcmppo.org