Tailoring Federal Transportation Planning Requirements & Products To Meet Your Region’s Needs

2019 AMPO Planning Tools & Training Symposium
Richard Perrin, AICP

TY·LIN INTERNATIONAL
engineers | planners | scientists

May 7, 2019
Agenda

- Purpose: Why we’re here
- Introductions: Who you are and what you want to get out of today
- Federal Planning Requirements: What they are & what they mean
- Going Forward: How we can think differently
- Evolution: Future of MPOs
- Closing Thoughts: What are the next steps for you
Purpose

- To provide a pragmatic approach for developing metropolitan/long range plans and transportation improvement programs so that federally-required MPO processes and activities most effectively address regional opportunities and issues.

What we will be doing
- Reviewing Federal requirements \textit{in practice}
- Discussing your individual situation

What we won’t be doing
- Conducting role-playing exercises
- Using specific MPOs as examples
Introductions

- Name
- MPO
- What You Do There
- How Long You’ve Been at the MPO
- What You Did Before (if anything)
- What You Most Want to Get Out of Today
Introductions

- Richard Perrin, AICP
- T.Y. Lin International
- Director of Planning Services
- 12 Years as an MPO Executive Director
- Program Manager at MPO & Regional Planning Council
- How to make our time together most useful to you
Introductions

- Name
- MPO
- What You Do There
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Federal Metropolitan Transportation Planning Requirements

- Purpose (§ 450.300)
- Scope of the process (§ 450.306)
- Interested Parties, Participation, Consultation (§ 450.316)
- Planning studies (§ 450.318)
- Programmatic mitigation plans (§ 450.320)
- Congestion management process (§ 450.322)
- Metropolitan Transportation Plan (§ 450.324)
- Transportation Improvement Program (§ 450.326 - § 450.332)
- Annual listing of obligated projects (§ 450.334)
Federal Metropolitan Transportation Planning Requirements

- Purpose (§ 450.300)
- Scope of the process (§ 450.306)
- Interested Parties, Participation, Consultation (§ 450.316)
- **Metropolitan Transportation Plan (§ 450.324)**
  - Planning studies (§ 450.318)
  - Programmatic mitigation plans (§ 450.320)
  - Congestion management process (§ 450.322)
- **Transportation Improvement Program (§ 450.326 - § 450.332)**
- Annual listing of obligated projects (§ 450.334)
“(a) Set forth the national policy that the MPO designated for each urbanized area is to carry out a continuing, cooperative, and comprehensive performance-based multimodal transportation planning process, including the development of a metropolitan transportation plan and a TIP, that encourages and promotes the safe and efficient development, management, and operation of surface transportation systems to serve the mobility needs of people and freight (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities that support intercity transportation, including intercity buses and intercity bus facilities and commuter vanpool providers) fosters economic growth and development, and takes into consideration resiliency needs, while minimizing transportation-related fuel consumption and air pollution; and (b) Encourages continued development and improvement of metropolitan transportation planning processes guided by the planning factors set forth in 23 U.S.C. 134(h) and 49 U.S.C. 5303(h).”

- Continuing, cooperative, and comprehensive
- Performance-based
- Multimodal
Scope of the process (§ 450.306)

- 10 Planning Factors
  1. Economic vitality
  2. Safety
  3. Security
  4. Accessibility & Mobility
  5. Environment, Energy, Quality of Life
  6. Integration & Connectivity
  7. Efficient Management & Operation
  8. Preservation of Existing System
  9. Resiliency & Reliability/Stormwater Management
  10. Travel & Tourism
Scope of the process (§ 450.306)

- Performance-Based Approach
  - Support seven national goals by setting targets for established measures and tracking progress in critical outcomes via management
  - Coordinate with State DOT(s) and public transportation provider(s) to the maximum extent practicable
  - Set targets within 180 days of State DOT and public transportation providers setting theirs
  - Integrate goals, objectives, measures, and targets from essentially all other plans and processes
According to FHWA, Transportation Performance Management (TPM):

- Is systematically applied, a regular ongoing process.
- Provides key information to help decision makers allowing them to understand the consequences of investment decisions across transportation assets or modes.
- Improving communications between decision makers, stakeholders and the traveling public.
- Ensuring targets and measures are developed in cooperative partnerships and based on data and objective information.
Initial legislative action was in the Moving Ahead for Progress in the 21st Century Act (MAP-21)

Established performance- and outcome-based planning and programming processes via measures, targets, and accountability standards for state departments of transportation and metropolitan planning organizations.

Seven goal areas:

- Safety
- Infrastructure Condition
- Congestion Reduction
- System Reliability
- Freight Movement & Economic Vitality
- Environmental Sustainability
- Reduced Project Delays
Aggressive timeframe for implementation in MAP-21, which didn’t occur

Provisions were carried over in the Fixing America’s Transportation System (FAST) Act

Measures for each of the goals were created by FHWA and FTA and targets must be set for consideration in the long range planning and programming processes

- MPOs can support their state’s targets or establish their own

The implementation is being rolled out in stages with different effective dates for the measures
## TPM FHWA Performance Measures

### HSIP & Safety
- Number of Fatalities
- Fatality Rate
- Number of Serious Injuries
- Serious Injury Rate
- Number of Non-Motorized Fatalities and Serious Injuries

### Pavement & Bridge Condition
- Percentage of Interstate System in Good Condition
- Percentage of Interstate System in Poor Condition
- Percentage of non-Interstate NHS in Good Condition
- Percentage of non-Interstate NHS in Poor Condition
- Percentage of NHS Bridge Deck Area in Good Condition
- Percentage of NHS Bridge Deck Area in Poor Condition

### Performance of NHS, Freight, & CMAQ
- Level of Travel Time Reliability on Interstate System
- Level of Travel Time Reliability on non-Interstate NHS
- Truck Travel Time Reliability on Interstate System
- Annual Hours of Peak Hour Excessive Delay per Capita
- Modal Share by non-Single Occupancy Vehicle
- On-Road Mobile Source Emissions
<table>
<thead>
<tr>
<th>Asset Management</th>
<th>Safety</th>
</tr>
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<tbody>
<tr>
<td>Percent of revenue vehicles within a particular asset class that have met or exceeded their Useful Life Benchmark (ULB)</td>
<td>Total Number of Reportable Fatalities</td>
</tr>
<tr>
<td>Percent of non-revenue vehicles within a particular asset class that have met or exceeded their ULB</td>
<td>Rate of Reportable Fatalities per Total Vehicle Revenue Miles by Mode</td>
</tr>
<tr>
<td>Percent of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale</td>
<td>Total Number of Reportable Injuries</td>
</tr>
<tr>
<td>Percent of track segments with performance restrictions (as applicable)</td>
<td>Rate of Reportable Injuries per Total Vehicle Revenue Miles by Mode</td>
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<tr>
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<td>Total Number of Reportable Safety Events</td>
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<td></td>
<td>Rate of Reportable Safety Events per Total Vehicle Revenue Miles by Mode</td>
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<td>Mean Distance between Major Mechanical Failures by Mode</td>
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Metro Transportation Plans (MTPs) and Transportation Improvement Programs (TIPs) adopted or amended needed to meet performance based planning and programming requirements on May 27, 2018

- LRTPs must each include a system performance report that include an evaluation of system performance with respect to the performance targets
- TIPs must include an anticipated effects narrative that describes in the TIP how the program of projects contributes to achieving the MPO’s performance targets in the LRTP
- For MPOs that choose to do scenario planning, the LRTP system performance report must include how the preferred scenario will/has improved performance
The dates for the various performance measures to be included in LRTP system performance reports and TIP anticipated effects narratives:

- FHWA Safety: May 27, 2018
- FTA Transit Asset Management: October 1, 2018
- FHWA Pavement & Bridge Condition: May 20, 2019
- FHWA Performance of NHS, Freight, & CMAQ: May 20, 2019
- FTA Safety – July 20, 2021 (with targets set by January 20, 2021)
Thoughts on Performance-Based Planning & Programming

- Identify what’s important to customers
- Work with member agencies to ensure consistency with their priorities
- Make measures meaningful and comprehensible
- Select outcome-based measures instead of activity-based ones
- Clearly define each measure
- Utilize real-world data as opposed to modeled data
- Use measures to articulate results and needs
Interested Parties, Participation, & Consultation (§ 450.316)

- Create a public participation plan in consultation with interested parties and adhere to it
- Provide adequate notice (no surprises)
- Provide reasonable access
  - ADA-accessible locations on public transit routes for meetings
- Go the extra mile for those not typically well-represented
- Build in time for a second review of draft recommendations
- Provide responses to comments
- There’s room for interpretation between (a) and (b) of this section

Always best to engage as many interests as possible
At least a 20-year horizon (can be as far out as you want)
  - Current and projected demand so consider carefully

Consider the 10 Planning Factors

Never put off until tomorrow what you can do today

Latest, greatest data from State DOT(s) and public transportation provider(s)

Include all surface transportation modes up to and including access to airports and seaports

Performance measures, targets, and associated report

Scenario planning is voluntary
Development and Content of the MTP (§ 450.324)

- System management and operations
  - Closely tied to the congestion management process in TMAs
- The “kitchen sink” clause (7)
  - Capital investment and other strategies to preserve infrastructure, allow for multimodal capacity increases, and reduce vulnerability to natural disasters
- Transit including intercity buses and private providers
- Design concepts and scopes for existing and proposed facilities if in nonattainment or maintenance
  - All others (i.e., attainment) must have enough detail to estimate costs
- Discussion of types of environmental mitigation activities and areas to apply them
Development and Content of the MTP (§ 450.324)

It was all easy until now... along comes the dreaded financial plan

- “Reasonably expected” is as much art as science
  - The same goes for “year of expenditure dollars”
- You find out who your true friends are
  - Roles of state DOTs and public transportation operators are defined in the metropolitan planning agreements
- Don’t confuse funding and financing
- Be careful with illustrative projects
  - They can become the ultimate placation tool
It is always wise to look ahead, but difficult to look further than you can see.

-- Winston Churchill
Long Range Transportation Planning Pyramid of Success

- **Bold Strategies & Actions**
  - Linked to Investments
  - Integrated with Operations

- **Information Rich**
  - Multi-Regional Perspective
  - Customer Responsive

- **Institutional Awareness**
  - Relationship Driven
  - Entrepreneurial Nature
  - Risk-Comfortable

- **Cooperative Regional Vision for Social, Economic, and Environmental Vitality**
Long Range Transportation Planning Pyramid of Success

Cooperative Regional Vision for Social, Economic, and Environmental Vitality

- Grounded in quality of life, economic development, and sustainability
  - What we say versus what we do
  - Where we are going versus where we want to go
  - What we can and should do differently
  - How we can measure what we are doing

Source: Shepherdstown, WV
Long Range Transportation Planning Pyramid of Success

Institutional Awareness

- What we can influence
- What is exogenous
  - Monitored and incorporated
- What functions and associated structures will be needed

Gray shaded areas represent U.S. recessions
Rates remain historically low
Long Range Transportation Planning Pyramid of Success

- **Elected & Appointed Leaders**
- **Peers at Relevant Agencies**
- **Involved in Long Range Transportation Planning Process and vice versa**
Entrepreneurial Nature

- We live in an era of disruption and that is not going to change any time soon
  - Disruptive has a negative connotation for a reason
- New ways of viewing current and future SWOTs
Neither Risk-Friendly nor Risk-Averse

- Simply part of doing business in an environment of rapid change
- Key is managing it cost-effectively

Long Range Transportation Planning Planning Pyramid of Success

1. Identify Risks
2. Screen Risks Qualitatively
3. Analyze Risks Quantitatively
4. Develop and Implement Responses
5. Monitor Outcomes
Big data is meaningless
- Requires ability to not only manipulate it but also interpret it
- Analysis can never replace planning
- Must not become “Action Poor”
Long Range Transportation Planning Pyramid of Success

Multi-Regional Perspective

- Agglomeration Economies
  - Availability of Customers
  - Requisite Labor Force
  - Clusters/Connected Industries
Long Range Transportation Planning Pyramid of Success

Customer Responsive

- Nearly 90 percent of Americans are online
  - Almost 80 percent own smartphones
- Completely new set of expectations
  - Communicate with and involve differently
Long Range Transportation Planning Pyramid of Success

- Put your money where your mouth plan is
- Diminishes the relevancy of the plan if not accomplished
- The most important element of performance management
Long Range Transportation Planning Pyramid of Success

- Emphasize the “what” not the “how”
- Move beyond the “Golden Hammer”
- Increase exposure to decision makers
- Pay attention to the Regional ITS Architecture
If you limit your choice only to what seems possible or reasonable, you disconnect yourself from what you truly want, and all that is left is a compromise. The human spirit will not invest itself in a compromise.

-- Robert Fritz
Bold Strategies & Actions

Make no little plans; they have no magic to stir men’s blood...Make big plans; aim high in hope and work.

-- Daniel Burnham
Long Range Planning Pyramid of Success

Bold Strategies & Actions

Linked to Investments
Integrated with Operations

Information Rich
Mega-Regional Perspective
Customer Responsive

Institutional Awareness
Relationship Driven
Entrepreneurial Nature
Risk-Comfortable

Cooperative Vision for Regional Social, Economic, and Environmental Vitality
Development and Content of the TIP (§ 450.326)

- Cover a period of no less than four years
  - Can have projects in additional years for informational purposes
  - Requires approval by the Governor, be consistent with STIP cycle
- Progress towards performance targets and anticipated impacts
- Includes projects proposed to be advanced with major Federal transportation program funds
  - NHTSA safety, planning, emergency relief, etc. are voluntary
- Regionally significant projects being funded with non-Federal funds must also be included
Development and Content of the TIP (§ 450.326)

- For every project:
  - Description (type of work, termini, length)
    - Good rule of thumb: you should be able to model the project based on it
  - Costs and revenues by phase by fiscal year and total
- Note if they advance ADA required paratransit & key station plans
- There is the ability to block “less intense” projects (those that would be considered “exempt” for conformity processes)
  - Preventive & corrective maintenance projects
- List major projects from last TIP that were implemented
- Describe evaluation and ranking process (including any changes)
Development and Content of the TIP (§ 450.326)

- The dreaded financial plan rears its ugly head again (but not as bad)
- Shorter time frame provides illusion of certainty
- “Reasonably expected” and “year of expenditure” still apply
- Illustrative projects are still an option
- Fiscal constraint must be demonstrated and maintained by year
  - It’s a good idea to do it by fund source as well
  - Show it right up front
- Cannot be based on pre-determined formulas or agreements
Other Key TIP Provisions (§ 450.328, § 450.330, § 450.332)

- TIP revisions and relationship to STIP (§ 450.328)
  - Can make changes at anytime
    - Conformity can complicate things for nonattainment and maintenance areas
    - Amendments require review consistent with public participation plan
    - Administrative modifications do not (but some public review is a good idea)
- TIP action by the FHWA and the FTA (§ 450.330)
  - Keep your MTP up to date
- Project selection from the TIP (§ 450.332)
  - If in current year and fiscally constrained, no problem
  - TMAs select projects in consultation with State DOT except on NHS
  - State DOTs cooperatively select projects with MPOs in non-TMAs
Annual Listing of Obligated Projects (§ 450.334)

- MPO, State DOT(s), and public transportation operators develop a listing of projects to which Federal funds were obligated.
- Key items to be included:
  - Project description
  - Programmed amount in previous year
  - Obligated amount in previous year
  - Programmed amounts in future years
  - Sponsor
  - Good idea to include map as well
- Even better idea to make interactive on web
- Must be made available wherever TIP is made available.
Thoughts on Capital Programming

**Project Selection**
Ensure the TIP includes the most-needed projects and programs

**Project Delivery**
Complete projects in the TIP on-time and on-budget

**Project Addition**
Effectively communicate the need for additional investment

Photo Credits: GTC staff and *Texas Tribune* photo illustration by Todd Wiseman and Corey Leopold
Thoughts on Capital Programming

- **TIP Development**
  1. Select project evaluation criteria directly linked to performance metric and associated targets
  2. Identify and ask the right questions in the project application and interviews with sponsors
  3. Develop a rater’s guide that defines scores for each criterion based on estimated impacts (consistency is essential)

- **TIP Management**
  1. Define amendments and administration modifications
  2. Create a process and schedule for changes
  3. Determine content and timing for project delivery reviews

  **Codify everything in a procedures manual**
Thoughts on Capital Programming

- Cooperation and critical thinking are key
  - Technology and data are not replacements
  - Involve member agencies continuously
- Quantitative does not equal objective
  - Requires improved understanding of what determines system and modal performance
- Reassessment is a requirement
  - Change for the sake of change is not progress…
  - …but there is always room for improvement
Going Forward

Internal Operations

Strategic Direction (LRTP)

Concept Development (UPWP)

Investment Decisions (TIP)

Customer Engagement
Going Forward

- Transportation Planning Capacity Building
  - www.planning.dot.gov
  - Would suggest peer identification and assessment using MPO database
Going Forward

- FHWA Transportation Performance Management
- www.fhwa.dot.gov/tpm/
Going Forward

- Get to know your partners at State DOT(s), public transportation operators, and FHWA and FTA
  - Find common ground; it’s there
  - Say “yes” as often possible
- Make your job easier by making others’ jobs easier
  - Include them early and often (it leaves time for negotiation)
  - Create a checklist for FHWA/FTA/State DOT
- Pick up the phone
  - That thing can do more than email/text/post
  - Complex issues and negotiation are better handled in a conversation
Closing Thoughts: What are the next steps for you