Transportation Asset Management Plan (TAMP)

MARCH 13, 2018
Asset Management

Definition from 23 U.S.C. 101(a)(2), MAP-21:

- A **strategic and systematic process** of operating, maintaining, and improving physical assets, with a focus on engineering and economic analysis based upon quality information, to identify a structured sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will **achieve and sustain a desired state of good repair** over the life cycle of the assets at **minimum practicable cost**.
Requirements

• Each state is required to develop a risk-based TAMP for the National Highway System (NHS) and must address the assets of NHS pavements and bridges covering a 10-year period.

• The TAMP should include strategies that lead to a program of projects that would make progress toward achievement of the state targets for asset condition and performance.
Plan must include:

<table>
<thead>
<tr>
<th>Inventory and condition of the NHS pavements and bridges</th>
<th>Objectives and measures</th>
<th>Performance gap analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life cycle cost and risk management analysis</td>
<td>Financial plan</td>
<td>Investment strategies</td>
</tr>
</tbody>
</table>
TAMP

Deadlines

Draft TAMP – 4/30/18

Final TAMP – 6/30/19

FHWA will certify plan and check annually for consistency

States must update their plan every 4 years
IDOT – Current Situation

- Large system inventory/declining condition

Roads
- 15,919 state miles out of 146,958 miles
  - 2,185 Interstate miles – 3rd largest

Bridges
- 7,835 state bridges out of 26,770 bridges
  - 84M of 141M total square feet
  - 3rd largest inventory
IDOT – Current Situation

- Limited resources
- Focusing on existing system/limited expansion
- Major Bridges – service life ending/need replaced
- Priority – NHS and NHS SD bridges
- Performance-based initiatives
  - Project Prioritization Model
  - Expedited Project Delivery
TAMP - Life Cycle Planning

- Managing assets over their life cycle
  - Similar to taking care of your car or home

- Picking the right treatment at the right time
  - Key to managing assets is knowing the condition and tracking the rate of deterioration so the right treatment is identified timely
Life Cycle Planning Timeline

- Do Nothing
- Proactive Maintenance
- Preventative Maintenance
- Preservation
- Rehabilitation
- Major Rehabilitation

Timeline: 1 to 25
IDOT – Moving Forward

- TAMP is mandatory but it’s the right thing to do
- Executive Management – leading the effort
- Collaborative effort of staff – committees
- Concentrate on entire state system (NHS and non-NHS)
- Assets - pavements and bridges
New Philosophy

- Moving from worst-first approach to achieving a desired state of acceptable condition for all NHS & other state roads

- Optimal mix of projects to improve and preserve the existing system

- New measurements for calculating acceptable condition
  - Backlog – 90/93% goals going away

- Raising the bar – evaluate all roads and bridges the same (except for Interstates will be held to a higher standard)
The Pavement Preservation Concept

- Original Pavement
- Major Rehabilitation Trigger
Standard for Acceptable Condition

- Pavements - Condition Rating Survey (CRS)
  - Interstates – CRS of 5.5 or higher
  - Other Roads – CRS of 5.0 or higher

- Bridges – Bridge element ratings of 5 or higher
TAMP Goals

- **% Goals for pavements**
  - Interstates 90%
  - Non-Interstates NHS 90%
  - Non-NHS Marked 75%
  - Non-NHS Unmarked 50%

- **% Goals for bridges**
  - Interstates 93%
  - Non-Interstates NHS 93%
  - Non-NHS Marked 90%
  - Non-NHS Unmarked 90%
Opportunities

Better decision making tools for optimizing the available funding
  • Enterprise Asset Management System

Best practices and innovation

Continuous business improvements
  • Decision Trees
  • Policies and Guidance
  • Consistency among districts
Challenges

Public perception
• Explain why the department is working on this road vs another road that is in worse condition

Measurement and data integration

Limited funding
• It will get worse before it gets better
Future Program

The department is working towards developing a multi-year program under the TAMP philosophy that includes:

- 80% rehabilitation/reconstruction projects
- 20% preservation projects
- Limited expansion projects
- Continued focus on NHS pavements and bridges
Thank you!