Pavement Technical Working Group

AASHTO Standing Committee on Highways, Subcommittee on Maintenance
Monday, July 18, 2016 - 1:00 pm to 3:00 pm
Clark County, Nevada

Anita Bush, Nevada DOT – Chair
Scott Capps, North Carolina DOT – Vice Chair
Bart Sweeney, Connecticut DOT – Vice Chair
Marc Hoelscher - FHWA Liaison
Welcome and Opening Remarks
- Overview of the PTWG
- Vision, Mission and Strategic Goals
- Focus Areas
- 2016 Work Plan Goals and Accomplishments
- Past Research Overview

PTWG Annual Business Meeting
- 2017 Work Plan
- 2017 Research Problem Statements
- AASHTO Liaisons to other Committees

Technical Presentations
- Rod Birdsall, FP2
- Indefinite Delivery/Indefinite Quantity Contracting for Preservation Projects
  Jeff Lewis, Construction and Contract Administration Engineer, FHWA
- Indefinite Delivery/Indefinite Quantity Contracting for Bridge and Pavement Preservation
  Jeremy Hunter, Bridge Design Manager, Indiana Department of Transportation

Adjourn at 3:00 pm
Welcome and Opening Remarks

Anita Bush, NDOT, PTWG Chair

Please Sign Attendance Sheet

Self-Introductions
Overview of Pavement TWG

Each State is allowed 3 delegates to AASHTO SCOM

– One delegate per state (minimum) is recommended for PTWG membership.

Pavements account for approximately 50% of every State DOT budget.
SCOM Vision

Support members with guidance for the maintenance operations of the evolving transportation system, and addresses new challenges through leadership and innovation.
SCOM Mission

Provides technical and policy guidance to members and supports the AASHTO organization in preserving and maintaining a safe and reliable highway infrastructure that meets the expectations of its customers.
SCOM Strategic Goals

The products and actions of SCOM will support members in their efforts to promote:

• A safe, reliable highway system in a state of good repair
• Accountability and transparency through performance management
• Environmental stewardship and compliance
• A well-qualified and competent workforce
• The communication of the value and role of maintenance
• Research, innovation and emerging technology
### Focus Areas

#### Strategic Focus Areas*

<table>
<thead>
<tr>
<th>Safety</th>
<th>Asset Management</th>
<th>Environment</th>
<th>Workforce Development</th>
<th>Communication</th>
<th>Research</th>
</tr>
</thead>
</table>

#### Technical Working Groups

<table>
<thead>
<tr>
<th>Pavements</th>
<th>Bridges</th>
<th>Roadway/Roadside</th>
<th>Equipment</th>
<th>Maintenance Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce</td>
<td>Workforce</td>
<td>Workforce</td>
<td>Workforce</td>
<td>Workforce</td>
</tr>
<tr>
<td>Work zone</td>
<td>Work zone</td>
<td>Work zone</td>
<td>Work zone</td>
<td>Work zone</td>
</tr>
<tr>
<td>Equipment operations</td>
<td>Equipment operations</td>
<td>Equipment operations</td>
<td>Equipment operations</td>
<td>Equipment operations</td>
</tr>
<tr>
<td>Public</td>
<td>Public</td>
<td>Public</td>
<td>Public</td>
<td>Public</td>
</tr>
</tbody>
</table>

#### Primary Activities of each Technical Working Group

- Writing Guidelines and Standards
- Updating Manuals
- Identifying and Communicating Emerging Practices
- Project/Program Delivery
- Website maintenance
- Newsletters
- Basic Governance
- Technical Service Program (TSP) Coordination
2016 Work Plan Goals – Top 5

• Support efforts to quantify the contributions of pavement preservation to safety programs.
• Support efforts to quantify the contributions of pavement preservation to risk-based asset management programs.
• Assist in identifying and promoting Performance Measures to support AASHTO members’ pavement preservation program decisions.
• Support the development of Contractor and Agency Pavement Preservation Treatments Certificate Programs.
• Enhance internal communications of the PTWG: expand membership and e-mail list; and conduct conference calls and/or webinars involving roundtable discussions for members and industry.
Additional 2016 Work Plan Goals (1/2)

• Sustain high level of maintenance interest and involvement in Transportation System Preservation (TSP)
• Expand Regional Pavement Preservation Partnerships to include more LPA’s, LTAP Centers, and MPOs
• Review TRB/NCHRP Completed Research for possible publication as AASHTO Manuals or presentations in a series of “Pavement Preservation Book Club” webinars
• Implement SHRP-2 products (R-26 and R-23) that are useful to pavement preservation and maintenance
Additional 2016 Work Plan Goals (2/2)

• Prepare research implementation recommendations associated with 2011 14-24 Communicating the Value of Preservation: A Playbook – NCHRP 742
2016 Work Plan Accomplishments


• PTWG hosted a webinar on “Safety Benefits of Friction – Current Pavement Treatments for Preservation and Safety”

• PTWG hosted a webinar on “INVEST 1.2 – Self-Evaluation Tool Supporting Roadway Sustainability”

• Promoted the development of Contractor and Agency Pavement Preservation Treatments Certificate Programs.

• Promoted a webinar on Keyhole Coring and Reinstatement thru the Transportation Learning Network
2016 Work Plan Accomplishments

• New Approaches to Utility Cut Pavement Repair Tech Brief, Review and Comment
• Use of Thin-Lift Asphalt Surfaces for Pavement Preservation, Tech Brief Review and Comment
• Microsurfacing, Slurry Seals and Chip Seal Quality Assurance Best Practices Tech Brief
SCOM 2014 PTWG Research Problem Statements


• Benefit Cost Analysis of Chip Seal Binder Alternatives – To be considered by SCOM, SCOM Priority 6

• Review of Recent Trends in Portland Cement Concrete Pavement (PCCP) Joint-Sealing Practices and Performance – May be re-submitted at another time as a synthesis statement, SCOM Priority 9
SCOM 2015 PTWG Research Problem Statements

- Evaluation and Use of Alternative Aggregates in Chip Seals
- Guidelines for Incorporating Maintenance Costs into a Transportation Asset Management Plan
- Microsurfacing, Slurry Seals and Chip Seal Quality Assurance Best Practices Tech Brief
- Proposed AASHTO Manual for the Maintenance of Roadways and Bridges (All) – Proposal has been selected for award, NCHRP 20-07/Task 380, Extension of 2015 to 2016
Ongoing and New Research

- **2014 NCHRP 14-33** - Pavement Performance Measures that Consider the Contributions of Preservation Treatments.
  - Research in progress
  - Completion date of 11/30/2016

- **2015 NDOT/FHWA** – Microsurfacing, Slurry Seals and Chip Seal Quality Assurance Best Practices Tech Brief
  - ETG Task Group No. 2: Sustainable Infrastructure and Maintenance
  - Review of Tech Brief is complete, awaiting publication

  - A proposal has been selected for award.

  - Proposals have been received in response to the RFP; agency selection and contract processing are underway.
Completed Research (1/7)

NCHRP Projects


Completed Research (2/7)

- **2008 14-18** - Determining Highway Maintenance Costs – NCHRP Report 688. **Standing Committee on Highways Recommends as AASHTO Publication Need PTWG Concurrence.**


- **2009 20-81** – Strategies to Attract and Retain a Capable Transportation Workforce – NCHRP Report 685. **Discuss with TCCC Representative**
Completed Research (3/7)

• **2010 10-82** - Performance-Related Specifications for Pavement Preservation Treatments. Interim Reports – Related work will be conducted under 10-82A, completion date 2/3/16, research in progress

• **2010 14-20** - Consequences of Delayed Maintenance – Phase 1. Interim Reports – Related work will be conducted under 14-20A, Consequences of Delayed Maintenance of Highway Assets, completion date 9/30/16, research in progress


Completed Research (4/7)


• **2011 14-25** – Guide for Selecting Level-of-Service Targets for Maintaining and Operating Highway Assets – Part of the Final deliverable as been summarized in NCHRP Research Results Digest 396: Approach to Level-of-Service Target Setting for Highway Assets.

Completed Research (5/7)

NCHRP 20-07 Projects


• **2006 20-07/206** – A Model Guide for Condition Assessment Systems – Final Report provided to AASHTO

• **2006 20-07/218** – Performance –Based Maintenance Contracting – Cancelled refer to NCHRP Synthesis 389, Performance-Based Contracting for Maintenance.

• **2008 20-07/251** – Development of a Pavement Preservation Chapter for the AASHTO MEPDG.
Completed Research (6/7)

NCHRP 20-07 Projects (cont.)


• **2012 20-07/340** – National Training: Challenges and Opportunities – Report provided to AASHTO

• **2015 20-07/379** – AASHTO Highway Subcommittee on Maintenance Strategic Plan Update.
Completed Research (7/7)

NCHRP 20-05 Projects


2017 Work Plan

• Support efforts to quantify the contributions of pavement preservation to safety programs.
• Support efforts to quantify the contributions of pavement preservation to risk-based asset management programs.
• Assist in identifying and promoting Performance Measures to support AASHTO members’ pavement preservation program decisions.
• Support the development of Contractor and Agency Pavement Preservation Treatments Certificate Programs.
• Enhance internal communications of the PTWG: expand membership and e-mail list; and conduct conference calls and/or webinars involving roundtable discussions for members and industry.
2017 Research Problem Statements

• Highway Network Alternatives to Determining High Stress Pavement Safety Hotspots or Developing Pavement Friction Testing Processes for Network Level Analysis or Improving Pavement Friction Testing through Use of Macrotexture

• Guide Construction Specifications for Cold In-place Recycling (CIR) and Cold Central Plant Recycling (CCPR)

• Utilization of Customer Input to Develop Maintenance Quality Assurance (MQA) Characteristics and Measures for Flexible Pavements

• Developing a Framework for Cost-Effectiveness Measures for Pavement Preservation

• Temporary Work-zone Safety for Pavement Maintenance Activities

• Synthesis on Pavement Grinding and Milling Maintenance

• Development of Pavement Patching Guidelines
2017 Research Problem Statements

- Use of Ground Penetrating Radar to Determine Pavement Condition and Rehabilitation Strategies
- Development of Improved Patching Materials and Procedures for Partial Depth Repairs and Dowel Bar Retrofit Installation
- Development of Pavement Management Triggers Values for Identifying the Proper Timing and Treatment of Concrete Pavements
- Diamond Grinding and Grooving of Asphalt Concrete for Texture and Safety Improvement
- The Use of Penetrating Sealers for Concrete Joint Preservation
- Others

Proposed Topics – From PTWG Membership

Schedule

- Final Problem Statements Due to NCHRP by October 14, 2016
AASHTO Liaisons to other Committees

• AASHTO Liaisons to other Committees
Technical Presentations

- Indefinite Delivery/Indefinite Quantity Contracting for Preservation Projects
  Jeff Lewis, Construction and Contract Administration Engineer
  Federal Highway Administration

- Indefinite Delivery/Indefinite Quantity Contracting for Bridge and Pavement Preservation
  Jeremy Hunter, Bridge Design Manager
  Indiana Department of Transportation
Pavement Technical Working Group

NEXT MEETINGS

Tuesday - 1:00 pm to 2:30 pm

Wednesday - 10:15 am to 12:00 pm

Paramount Room