

# Highway Maintenance Research

AASHTO Subcommittee on Maintenance  
Monterey, CA

July 17th, 2008

Chris Christopher  
WSDOT State Maintenance Engineer  
Research Focus Group Chair



**Washington State  
Department of Transportation**

A quick recap of the past...

Last Year in Madison:

10 proposals developed  
7 were funded

Overall, we're doing pretty well

## Successful Subcommittee on Maintenance NCHRP Projects

| NCHRP Year       |      | Project Number | Project Title  | Status  | Estimated Completion Date |
|------------------|------|----------------|--|---|---------------------------|
| Duluth ('03)     | 2005 | 9-40           | Optimization of Tack Coat for HMA Placement  | Phase 1 complete; Phase 2 underway              | Jan 2008                  |
|                  | 2005 | 9-41           | Performance and Maintenance of Permeable Friction Courses  | Draft report complete; publication in late 2008 | June 2007                 |
|                  | 2005 | 6-17           | Performance Measures for Snow and Ice Control Operations   | Phase 1 complete; Phase 2 underway              | July 2007                 |
|                  | 2005 | 10-68          | Guidelines for the Use of Highway Pavement Warranties  | Phase 1 complete; Phase 2 underway              | Mar 2008                  |
|                  | 2005 | 14-15          | Developing a National Database System for Maintenance Actions on Highway Bridges                       | Phase 1 complete; Phase 2 underway              | July 2008                 |
| Bismarck ('04)   | 2006 | 14-16          | Guidelines for Vegetation Management   | Project underway                                | July 2008                 |
|                  | 2006 | 14-17          | Manual for Emulsion-Based Chip Seals for Pavements   | Phase 1 complete; Phase 2 underway              | Feb 2009                  |
| Lincoln ('05)    | 2007 | 13-03          | Decision Making for Outsourcing and Privatization of Vehicle and Equipment Fleet Maintenance           | Underway  | May 2009                  |
| Charleston ('06) | 2008 | 14-18          | Determining Actual Cost of Performing Routine and Preventive Maintenance Operations on Highway Systems | Pending   | 2010                      |
|                  | 2008 | 14-19          | Culvert Rehabilitation to Maximize Service Life While Minimizing Direct Costs and Traffic Disruption   | Pending   | 2010                      |
|                  | 2008 | 20-74A         | Development of National Level of Service Criteria for the Interstate Highway System                    | Underway  | Sept 2010                 |
| Madison ('07)    | 2009 | 08-71          | Optimum Life-Cycle Analysis of Maintainable Assets [2 projects combined]                               | Anticipated                                     | 2011                      |
|                  | 2009 | 20-81          | Challenges and Successes in Attracting and Retaining a Skilled Transportation Workforce                | Anticipated                                     | 2011                      |

## Successful Subcommittee on Maintenance NCHRP 20-7 Projects

| NCHRP Year       |      | Task Number | Project Title   | Status                                   |
|------------------|------|-------------|---|--|
| Duluth ('03)     | 2004 | 181         | Multi-State Transportation Operations Program: Status and Critical Issues                                     | Complete                                 |
|                  | 2004 | 184         | Development of a Pavement Preservation Synthesis, Research Plans, and Initiatives                             | Complete                                 |
| Bismarck ('04)   | 2005 | 195         | Development and Performance of Web Based Joint Salary Survey  | Web survey should have been done in 2007 |
|                  | 2005 | 200         | Synthesis of Vehicle Based Winter Maintenance Technologies – included FAST Systems                            | Complete                                 |
| Lincoln ('05)    | 2006 | 206         | A Model Guide for Condition Assessment Systems  | Completion expected July 2007            |
|                  | 2006 | 210         | Development of AASHTO Guidelines for Median Cable Barrier Systems   | Draft final report submitted             |
|                  | 2006 | 218         | Performance-Based Maintenance Contracting   | Waiting on NCHRP Synthesis               |
| Charleston ('06) | 2007 | 234         | Guidelines for Selection of Bridge Deck Overlays, Sealers, and Treatments                                     | Completion expected in July 2008         |
| Madison ('07)    | 2008 | 250         | Update AASHTO Guide for Snow and Ice Control  | Completion expected in December 2008     |
|                  | 2008 | 251         | Development of a Pavement Preservation Chapter for the AASHTO MEPDG   | Completion expected in July 2008         |
|                  | 2008 | 252         | Guideline for Implementing Quality Control and Quality Assurance for Bridge Inspection                        | Completion listed as April 2008          |
|                  | 2008 | 260         | Development of Guidelines for Conducting Effective Customer Surveys Related to Highway Maintenance Operations | Anticipated                              |

It's all on the AASHTO web site

<http://maintenance.transportation.org/>

This year in Monterey...  
(Summer 2008)

FY 10 Potential Problem Statements  
AASHTO Subcommittee On Maintenance – Monterey, CA  
July 17, 2008

State: \_\_\_\_\_

| Potential Problem Statement   | TF/FG                          | Rank<br>(Importance<br>to you)<br>1=low to<br>5=high |
|---|--------------------------------|--|
|   |                                |  |
| 1. Blueprint for Effectively Selling the Pavement Preservation Need<br>(20-7) | Pavements<br>E. Pitts          |  |
|   |                                |  |
| 2. Effects of Flooding on Highway Infrastructure<br>(NCHRP)                   | Roadside/Envir<br>M. McConnell |  |
| 3. Graffiti Prevention and Abatement<br>(NCHRP)                               | Roadside/Envir<br>M. McConnell |  |
|   |                                |  |

1. The TFs and FGs have developed a number of concepts .  
You have them in front of you.

2. As they are discussed by the various TF and FG chairs,  
please score them in terms of priority to you.

1 = low

5 = high

3. Put your state name at the top and turn them in to me  
before you leave.

Thank You!

Chris Christopher  
WSDOT State Maintenance Engineer  
(360) 705-7851