



Network Level AASHTO Pavement Distress Measurement Standards

National Conference on Pavement
Management

May 8, 2007

Norfolk, Virginia

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FHWA Resource Center/AASHTO
Subcommittee on Materials



Network Level AASHTO Pavement Distress Measurement Standards

- Abbreviated history
- Need
- What has been accomplished
- What needs to be accomplished
- Strategies to accomplish needs
- Milestone activities and dates
- Input desired



Abbreviated History

- 1993 AASHTO Joint Technical Committee on Pavements Identified Need for Network Level Standards
- FHWA facilitated Expert Task Group Formed
 - Rutting
 - Ride
 - Faulting
 - Cracking



Need

- Motherhood, apple pie . . .
- Equipment Manufacturer's
- Pavement System Owner's
- Comparing apples to apples



What has been Accomplished

- Quantifying Roughness – Prov 1999 Full 2007 (R43)
- Faulting – Prov 1999 Full 2004 (R36)
- Rutting – Prov 1999 (PP38)
- Cracking – Prov 2001 (PP44)



What has been Accomplished – Year 2003

- Profiler Equipment Spec – (MP11)
- Profiler System Certification – (PP49)
- Operating Profilers and Evaluating Pvt Profiles – (PP50)
- Pavement Ride Quality Specification – (MP17)
- 2007 AASHTO Materials Manual – Major Revisions
- Significant Ongoing Ride Quality Activities



What Needs to be Accomplished

- AASHTO procedures – Provisional Standards Life is 8 years maximum
- Rutting is at 8 year life in 2007
- Cracking is at 6 year life in 2007



Strategies to Accomplish Needs – Factors to Consider

- November 2004 FHWA Survey:
 - 22 State DOT's use Rutting
 - 12 State DOT's use Cracking
- Equipment Technology Changing
- Define Business Need
 - Network vs Project
 - Today vs Future
- HPMS?



Strategies to Accomplish Needs

- Outcome Based Standard
 - Golden Ruler Concept
 - Facilitates Innovation
 - Can it be done?
- Method Based Standard
 - Technology May Outpace Quickly
 - Rutting Measurement – Laser Configuration
 - Can be done

Pavement Rutting and Cracking Quantification Expert Task Group

- State Highway Agency Members:
Rick Miller - Kansas DOT (ETG Leader)
Cole Mullis - Oregon DOT
John Andrews - Maryland SHA
Jeffrey Seiders – Texas DOT (also AASHTO Subcommittee on Materials)
Brian Michalk - Texas DOT
- Industry Members:
Chuck Larson - Stantec (also Chair TRB AFD10)
Gary Elkins - MACTEC (also Chair TRB AFD20)
Gaylord Cumberledge - Applied Research Associates
Frank Holt - Dynatest (also ASTM E-17)
Richard Fox Ivey - Roadware
- Federal Highway Administration Members:
Jack Springer - TFHRC
Mike Moravec - HQ
Andy Mergenmeier - RC (also AASHTO Subcommittee on Materials)
Thomas Van - HQ
- Contract Secretariat:
Jimmy Brumfield - Burns, Cooley and Dennis



Milestone Activities and Dates

- Rutting – draft revision mid-May
 - Final draft to AASHTO Subcommittee on Materials Technical Section end of May
 - AASHTO action August 2007
- Cracking – work on after Rutting



Input Desired

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