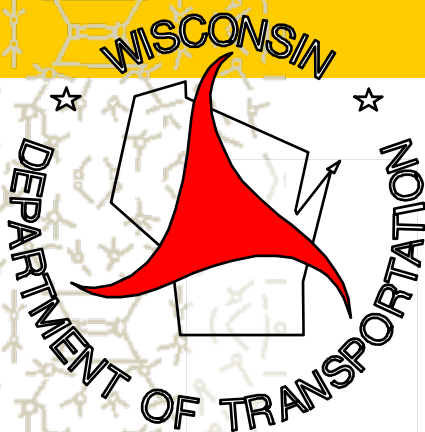


HMA Technical Team

Current Issues



*U.S. Department of
Transportation*

*51st Annual WAPA Convention
November 30th – December 1st
2010*

“Every Day Counts”

✦ FHWA Innovation Initiatives

EDC is designed to identify and deploy innovation aimed at shortening project delivery, enhancing the safety of our roadways, and protecting the environment.

✦ 2 Main Categories

– Shortening Project Delivery:

The sooner that we can deliver projects, the sooner the public can enjoy their benefits.

– Accelerating Technology and Innovation Deployment:

EDC is not about inventing the next “*big thing*.” It’s about taking effective, proven and market ready technologies and getting them into widespread use.

<http://www.fhwa.dot.gov/everydaycounts>

“Every Day Counts”

- ✚ Accelerating Technology and Innovation Deployment
 - Two technologies related to Asphalt Paving
- ✚ Safety Edge
- ✚ Warm Mix Asphalt

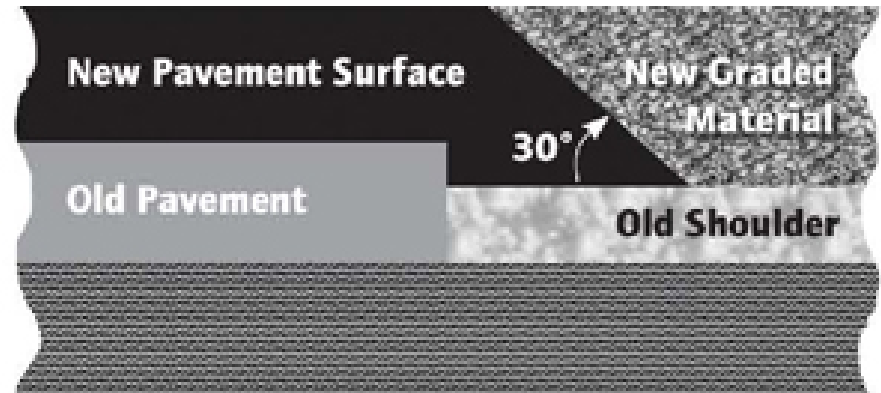


Safety Edge

- The Safety Edge is a paving detail that consolidates the pavement edge into a 30-degree angle to mitigate pavement-edge dropoffs.
- The Safety Edge can help decrease highway fatalities and serious injuries on our Nation's highways.
- The Safety Edge involves minimal time and cost to implement. It is installed during paving, using a special commercially available shoe that attaches to existing equipment in just a few minutes. Typically, less than 1% additional asphalt is needed.
- As with any paving project, FHWA recommends grading the material that is adjacent to the pavement edge flush with the top of the pavement. The Safety Edge takes effect as that graded material settles, erodes, or is worn down.

Safety Edge

- Because the Safety Edge provides an additional level of consolidation on the edge, edge raveling is decreased. This contributes to longer pavement life.



Safety Edge

✦ Status

- Implementation lead by Jerry Zogg, WisDOT Bureau of Project Development
- Demo project done during 2010
- Wisconsin asphalt pavers have placed safety edge on demo projects in other states

✦ Questions????

- Effect on pavement ride (IRI)
- Maintenance of shoulder

✦ More demos planned

Warm Mix Asphalt

- WMA technologies allow asphalt mixtures to be produced, transported, placed, and compacted at lower temperatures.
- WMA technologies allow for production and placement of asphalt mixtures at temperatures 30 to 75° F lower than conventional HMA technologies.
- WMA technologies fall broadly into one of five general categories: materials processing, organic additives, chemical additives, foaming processes, and hybrid systems that combine multiple technologies.
- WMA technologies improve compaction which leads to improved pavement performance.

Warm Mix Asphalt





Warm Mix Asphalt

I.C. = I.P.

Improved Compaction = Improved Performance

F.E.W.

Fuel

Emissions

Worker Comfort

Warm Mix Asphalt

✦ Status

- Development of specification, along with needed guidance, currently being addressed by HMA Technical Team
- Ready in spring for inclusion in 2012 Standard Specifications
- May be implemented sooner through use of ASP-6

✦ Questions????

- Changes to mix design procedures (recommendation from NCHRP 9-43)
- QMP requirements (reheat factor)
- Approval of additives/systems
- Training (HTCP, project manager, etc.)

Longitudinal Construction Joint

- ✦ Issue Identified by WisDOT and Asphalt Pavers about Longitudinal Joints Showing Early Distress
- ✦ Project Currently Underway with Gary Whited of the CMSC
 - Data collected from Regions/contractors on projects with good and poor performing joints.
 - Projects reviewed using WisDOT's pavement performance vans videos
 - Small workgroup formed consisting of WisDOT and contractor staff to work with Gary reviewing/analyzing data.
 - Project expected to lead to specification/guidance changes

Electronic Data Collection

- ✚ WisDOT to Continue to Expand Use of Electronic Data Collection based on FHWA and LAB Recommendations
- ✚ IRI and Nuclear Density Data are Currently being Collected
 - Still undergoing modifications/revisions due to user input
 - Meeting planned to be held annually to obtain user input
- ✚ New Areas Planned for Collection Include Asphalt Mix Designs and Qc Data
 - WisDot will have an initial draft input screen for user comment
 - Meetings will be held with users to obtain input for final product

HMA Technical Team

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B.R. Amon & Sons

❖ **Tom Brokaw - Chair**

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Stark Asphalt

