

Performance Engineered Concrete Mixtures Specification



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Team Leader

FHWA-Office of Asset Management, Pavements, and Construction



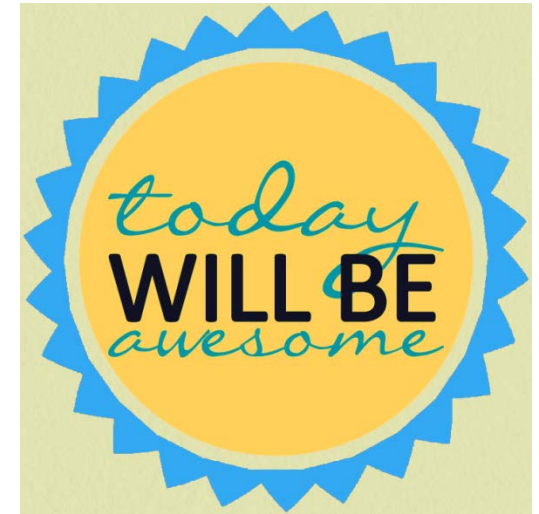
Why Move to a Performance Approach

- MAP-21
 - Greater federal emphasis on performance
 - Linking investments to outcomes
- Public agency and industry desire
 - Optimized mixture design
 - Improved durability
 - Sustainability
- Demographics in “Our World”
- Completed research and new tests



Performance Engineered Concrete Mixture Specification

- 2013 FHWA initiated an Expert Task Group (State DOTs, Industry, Academia)
- Leaders in this area agreed on the following elements need to be included in the specification:
 - Strength
 - Cracking
 - Free-Thaw resistance
 - Aggregate Stability
 - Workability



Long-Term Implementation

**Standard Specification for
Performance Engineered Concrete Pavement
Mixtures**

AASHTO Designation: MP XX-17

AASHTO

American Association of State Highway and
444 North Capitol Street N.W., Suite 249
Washington, D.C. 20001

TS-Yy

MP XX

**Standard Specification for
Performance Engineered Concrete Pavement
Mixtures - Commentary**

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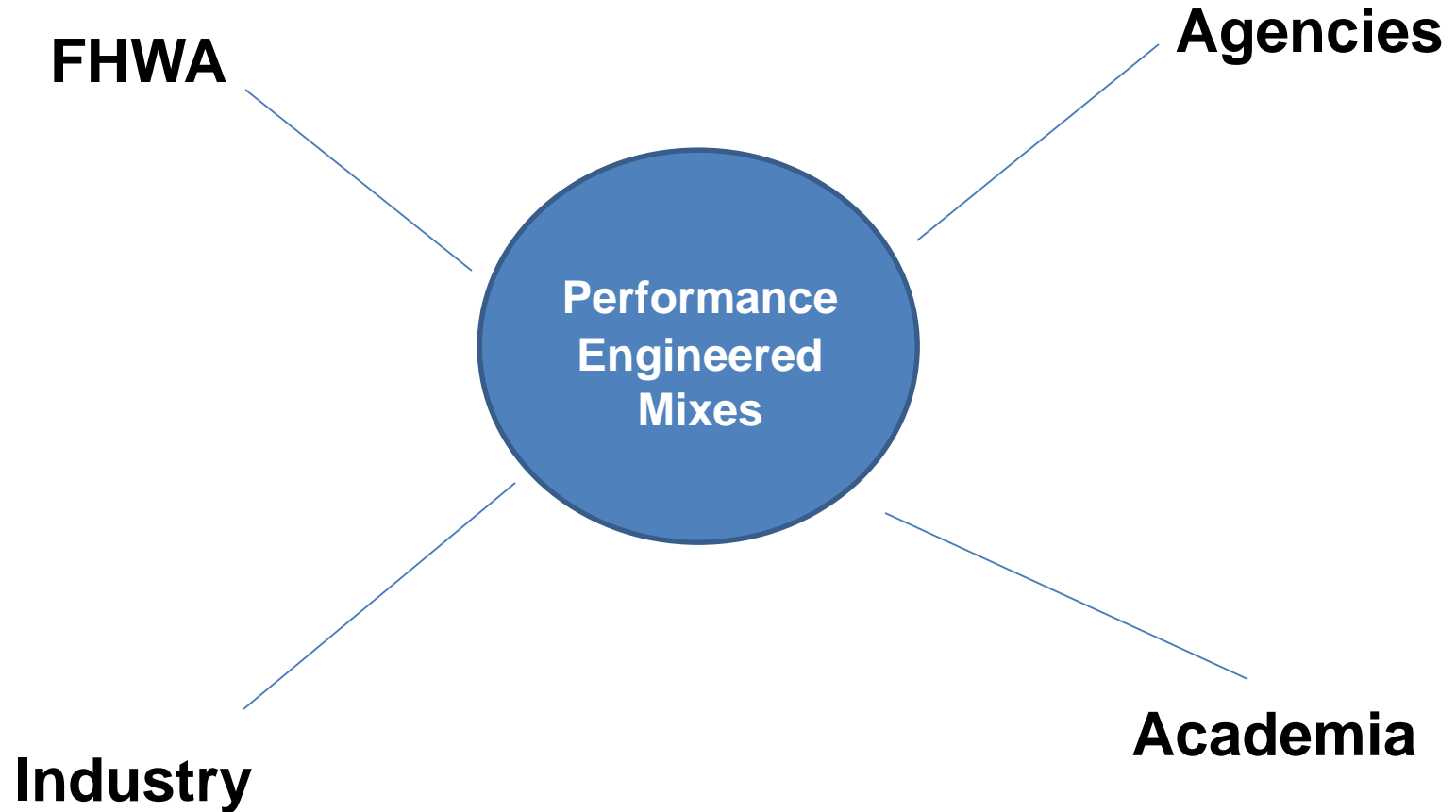
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AASHTO

- Demonstration through shadow specification
- Guidance on specification and tests
- Guidance on quality control
- Fill in research gaps



A Coordinated Approach to Implementation



FHWA Proposed Activities

“Concrete Pavement Performance System”

Coordinated effort to provide guidance and tools to states and industry to advance concrete Quality Assurance programs in the direction of performance

- Mobile Concrete Trailer
 - Workshops
 - Video clips
 - QA Toolkit
- QC framework



Additional Activities

- **Champion States**
 - IN, IA, MI, MN, NR, SD, WI, IL Tollway, Manitoba (ACPA chapters participating)

- **Pooled Fund**
 - Support by States, FHWA, and Industry

- **Identification of Research Needs**



What's Next

- Come to Tech Section 3c on Wednesday at 10:15
 - Mike Praul will run through the specification
 - Ask questions
 - Provide comments
 - Consider for balloting as a provisional standard
- Ask Gina for more info about the FHWA activities or the proposed pooled fund



Thank You!

