Performance Engineered Pavements for Safe, Durable, and Cost Effective Pavements

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JULY 16-17, 2019

Acronyms

- AMPT: Asphalt Mixture Performance Tester
- AQCs: Acceptance Quality Characteristics
- BMD: Balanced Mix Design
- HMA: Hot mix asphalt
- PEMD: Performance-Engineered Mixture Design
- PBS: Performance Based Specifications
- PRS: Performance-Related Specifications
- PVR: Performance Volumetric Relationship
- QA: Quality Assurance
- RAP: Reclaimed asphalt pavement
- RAS: Reclaimed asphalt shingles
- SHRP 2: Strategic Highway Research Program 2
- TFHRC: Turner-Fairbank Highway Research Center
- VFA: voids filled with asphalt
- VMA: voids in mineral aggregate
**PEP, PEMD, BMD, & PRS Elevator Speech**

Performance Engineered Pavements (PEP) initiative unifies several existing performance focused programs under a single strategic program vision. The PEP vision seeks to incorporate the goal of long term performance into the design, construction and materials acceptance of our nation’s pavement infrastructure.

Performance Engineered Mixture Design (PEMD) and acceptance is a process that that optimizes pavement performance goals and environmental conditions while allowing for contractor innovation and properly assigned risk and reward.

Balance Mixture Design (BMD) defined as asphalt mix design using performance tests on appropriately conditioned specimens that address multiple modes of distress taking into consideration mix aging, traffic, climate and location within the pavement structure.

Performance Related Specifications (PRS) compare design expectations to what was constructed and pay for the product accordingly.
ASPHALT Performance Engineered Pavements (PEP)

Design & Construction

Structural Pavement Design

Balance Mixture Design (BMD)

Performance Engineered Mixture Design (PEMD)

Quality Assurance (QA)

Performance Based Acceptance

30,000 ft. Altitude

15,000 ft. Altitude

5,000 ft. Altitude

Asphalt Mixture Design, Construction Verification, and Acceptance Performance Approaches

Pavement Design

PEMD Mix Design Verification (Go / no Go Index PEMD Tests)

QA Construction Verification and Acceptance (Go / no Go Index & Predictive PEMD Tests)

PRS Determination of Pavement Life for Pay (Predictive PEMD Tests)

Predictive PEMD Tests >> PRS

Index PL-MD(UMU) Tests

Performance + Field Density + Volumetrics

Class II Performance + Volumetrics

Quality Assurance (QA) Continuum
THANK YOU

QUESTIONS?