


## FHWA Update

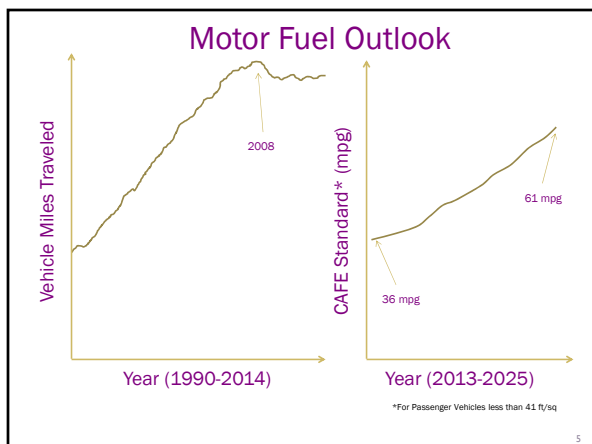
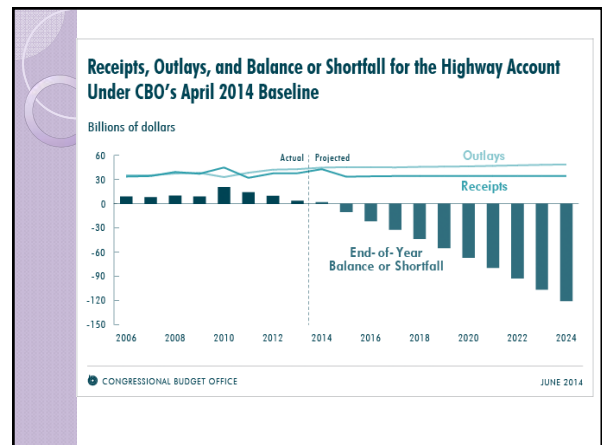
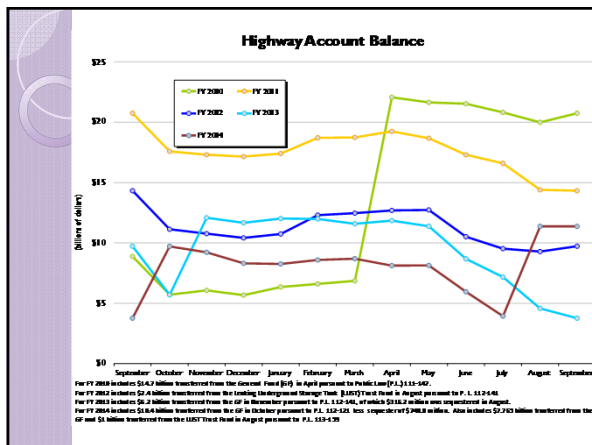
South East Asphalt Users Producers Group  
Nashville, TN  
November 17, 2014



Chris Wagner, PE.  
FHWA Resource Center  
Pavement & Materials Technical Service Team  
Christopher.wagner@dot.gov

## Our Visit

- 1 • The next few months
- 2 • MAP 21- Pavement Related Rule Making Status
- 4 • FHWA Pavement Activities 2015



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### National Legislation:

- Moving Ahead for Progress in the Twenty First Century (MAP-21)
- July 6, 2012: President signed into law PL 112-141
- October 1<sup>st</sup> 2012
- Highway Trust Fund Act extended Funding through May 31<sup>st</sup>, 2015

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### MAP-21

DIVISION A—FEDERAL-AID HIGHWAYS AND HIGHWAY SAFETY CONSTRUCTION PROGRAMS  
 TITLE I—FEDERAL-AID HIGHWAYS  
 Subtitle A—Authorizations and Programs


- Asset Management Plan Requirements
- Performance Management (Measures/Metrics)

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### What's a...

1. Measure → A. Miles of Good Fair Poor

2. Metric → B. IRI (inches/mile)



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### Rulemaking Process

The Regulatory Process (Regulation, aka Rule)

...In simple terms, a FHWA document that may require the members of the public to do something, or prohibit them from doing something, is a **regulation**... FHWA authority to issue regulations comes from a number of different laws, and the FHWA issues regulations in a number of areas. However, to be valid, a regulation must not only be consistent with its underlying statute, but also **must be promulgated in a procedurally correct manner**...

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### Transportation Performance Management

#### MAP-21 FHWA TPM Rulemaking Schedule


Performance Area	NPRM	Comments due
<b>FHWA:</b>		
Safety Performance Measures	March 11, 2014	Closed June 30, 2014
Highway Safety Improvement Program	March 28, 2014	Closed June 30, 2014
Statewide and Metro Planning; Non-Metro Planning	June 2, 2014	Closed October 2, 2014
Pavement and Bridge Performance Measures	November 2014	90 days
Highway Asset Management Plan	January 2015	60 days
System Performance Measures	March 2015	90 days

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### Outreach

**Theory vs. Practice: Linking Performance Measures to Improved Performance Outcomes**


Webinar  
 December 9, 2014  
 2:00-3:30 PM EST



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

### Building a foundation for MAP-21 Rules

- Updated AASHTO Ride Standards to include Network level
- Developed/ maintain ProVAL™



**HOT ISSUES:**

- Urban IRI (low speed measurement)
- QA requirements, standardized collection,
  - HPMS / TMP
- Re-evaluation of potential reference devices

TPF-5(063) Bob-Improving Profiler Measurement (20 States, \$2M)

TPF-5(299) Andy-Improving Surface Distress Measurement (23 States, \$1.2M+)

**Pavement & Materials T8T**

### GROW AMERICA Act Obama Administration



- Generating Renewal, Opportunity, and Work (GROW) with Accelerated Mobility, Efficiency, and Rebuilding of Infrastructure and Communities throughout America (AMERICA)**



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### GROW AMERICA Act



- President Obama and Secretary Foxx
- Proposal to Congress with a multi-year surface transportation reauthorization
- \$199.2 billion for highway system and road safety over 4 years
- <http://www.dot.gov/briefingroom>



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### Content



- Quality Assurance
- Soils and Foundations
- Steel, Welding, and Coatings
- Aggregates for Transportation Construction
- Mechanistic-Empirical Pavement Design Guide
- Asphalt Materials and Paving
- Portland Cement Concrete
- Evaluating Recycled Materials for Beneficial Use

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### When and Where




- Scheduled for December 4, 2014 to March 20, 2015
  - Two, 2-week sessions in Frederick, Maryland
  - AMRL Facilities
  - 2 weeks in home office




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## Delivery Platforms

- AMRL in Frederick, MD
  - Instructor-led, classroom-based training (ILT)
  - Laboratory of field experiences (LAB)
- Home Office
  - Web-based training (WBT)
  - Independent study (IS)
  - Web-conference training (WCT)



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## More Information

**Access the HMEC webpage at:**  
[www.fhwa.dot.gov/pavement/materials/hmec/](http://www.fhwa.dot.gov/pavement/materials/hmec/)

**HMEC Technical Contact:**  
 Michael Rafalowski  
 E-mail: michael.rafalowski@dot.gov

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## Asphalt Expert Task Groups

- Asphalt Mixture ETG
  - LTRC Baton Rouge, September 17-19, 2014
  - Next meeting ~ March 2015- AZ
- Asphalt Binder ETG
  - LTRC Baton Rouge, September 16-17, 2014
  - Next meeting ~ March 2015
- Pavement Sustainability TWG
  - ASU, November 17-19, 2014



Open Meetings  
All are Welcome!

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## Asphalt Mixture ETG - Activities

- Asphalt Mixture Performance Tester (AMPT)
- RAP & RAS
- WMA
- Provide technical input to AASHTO Subcommittee on Materials (SoM)
- Revise & Update AASHTO Standards

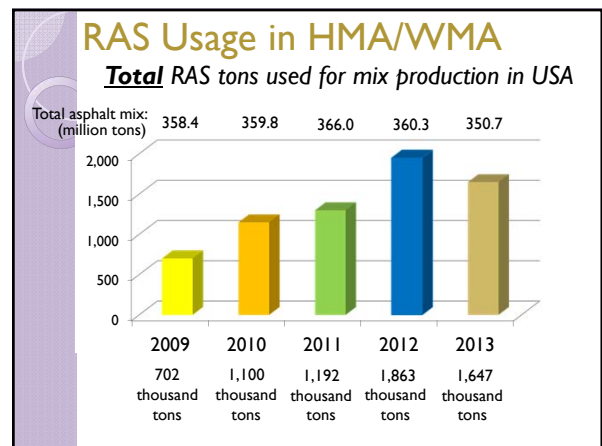
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## Reclaimed Asphalt Shingles (RAS)

- ETG Taskforce recommendations for draft revisions to AASHTO Standards forwarded to AASHTO Subcommittee on Materials (SOM)
- AASHTO balloted and approved two new provisional standards for RAS
- Current AASHTO Standards:
  - PP 78-14 (formerly PP 53)
  - MP 23-14 (formerly MP 15)




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## Asphalt Binder ETG - Activities

- Multiple Stress Creep Recovery (MSCR)
  - T 350-14 (formerly TP 70) MSCR Test of Asphalt Binder Using DSR
  - M 332-14 (formerly MP 19) MSCR Performance Graded Asphalt Binder
- PAV testing temperature
- Ground Tire Rubber (GTR)
- Re-refined Engine Oil Bottoms (REOB)
- Provide technical input to AASHTO Subcommittee on Materials (SOM)
- Revise & update AASHTO standards




## Innovation: EDC2


- Intelligent Compaction
- High-friction Surface Treatments
- Safety Edge
- Warm Mix Asphalt



Andy on a Georgia Installation



Chris on a Rhode Island demonstration project



## Innovation: EDC 1 meets 2

- Intelligent Compaction
- High-friction Surface Treatments
- Safety Edge
- Warm Mix Asphalt



We're talk'n real time!



## Ground Tire Rubber

- FHWA Tech Brief
  - Sept 2014
  - [http://www.fhwa.dor.gov/pavement/pub\\_details.cfm?id=930](http://www.fhwa.dor.gov/pavement/pub_details.cfm?id=930)



**The Use of Recycled Tire Rubber to Modify Asphalt Binder and Mixtures**

This Technical Brief provides an overview of the various processes for recycled tire rubber used as a modifier for asphalt binder and as an additive for asphalt mixtures. Considerations for laboratory and field testing, as well as performance, are discussed. Since some aspects of the technology are still evolving, best practices and areas of study that have been included.

**Introduction**

Recycled tire rubber (RTR), from waste tires (WTs) has been used as a rubber in the various mixtures since the 1960s. RTR has been used as an asphalt binder modifier and asphalt mixture additive in a granular and some gneat asphalt mixtures and surface treatments.







Figure 1. Pile of a waste tire pile.

## FHWA Field Support: Mobile Asphalt Testing Trailer


- Mobile Asphalt Testing Trailer (MATT)
  - Site Visit
  - Field Data/Testing (GTR, RAP, RAS)
  - Use/Demo Emerging Test Devices
  - POC: Matthew Corrigan, P.E.







## Pavement Forensic Investigations



at AUBURN UNIVERSITY

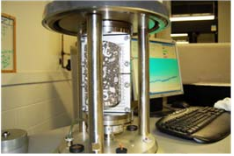
- Independent forensic testing and analysis services to evaluate pavement performance issues
- NCAT engineers are knowledgeable and experienced with the latest laboratory and field testing equipment available

### Pavement Forensic Investigations

**Trenching and Coring**




**Laboratory**



**FWD Testing**

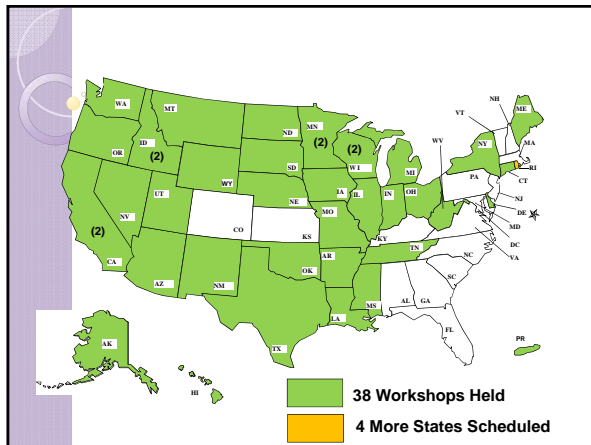


**Friction Testing**



### 4-Hour Longitudinal Joint Workshops

- Requested and hosted by DOTs
- Taught by AI Engineers
- AI Meets with DOT beforehand
- No cost to DOT or attendees
- Audience: mix of agencies, contractors, others

### Project Website

<http://www.asphaltinstitute.org/public/engineering/longitudinal-joint-information>

- Contains:

- Workshop information
- Handout of workshop slides (180+)
- Video of entire 4-hr Workshop in OH, Feb 2013
- 2-hr webinar, Oct 2012
- Project report
- 5-page "Summary of Recommendations"
- Magazine articles on project and findings


### Tack Coat Workshop Coming Soon!

**Subject Areas**

- terminology related to tack
- purpose of tack coats
- materials commonly used
- properties of newer materials relative to those commonly used
- proper handling, storage, and testing
- past and current research findings
- bond testing options
- best practices for construction & inspection




*Pilot TC workshop planned for VDOT*



**ASPHALT INSTITUTE**



### Tack Coat Best Practices Workshop





**Contact :** [Michael.Arasteh@dot.gov](mailto:Michael.Arasteh@dot.gov) or [MBuncher@AsphaltInstitute.org](mailto:MBuncher@AsphaltInstitute.org)

**NAPA COOP Deliverables – FY2014-15**

- Pavement Economics and LCCA for Asphalt Pavements
  - Asphalt Pavement magazine – March/April 2014
  - Webinar – June 4<sup>th</sup>, 2014
- High Binder Replacement (Recycled) Mixtures
  - Webinar
- RAP Management Best Practices Industry Publication
- Recycled Materials and WMA Survey for 2014
- Best Practices for Recycled Tire Rubber in Asphalt Pavements

**QUESTIONS?**



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