FHWA Research Perspective and Policy Update

SHRP2 R26 Workshop for the Preservation of High-Traffic-Volume Roadways

Michael Trentacoste
Associate Administrator
FHWA Office of Research, Development & Technology
Other SHRP2 Pavement Implementation Activities

- Guidelines for the Preservation of High-Traffic-Volume Roadways (R26)
- Tools to Improve PCC Pavement Smoothness During Construction (R06E)
- Precast Concrete Pavements (R05)
- Performance Specifications for Rapid Renewal (R07)
- New Composite Pavement Systems (R21)
Regulation, Policy, Guidance

• Rule Making  - Contact: stephen.gaj@dot.gov or 202 366 1336
  – Asset Management
  – Pavement Performance Measures

• Clarification Memo: Preservation and Preventive Maintenance  - Contact: bryan.cawley@dot.gov or 202 366 1333)
Accelerated Implementation and Deployment of Pavement Technologies – Selected Activities

• Pavement Sustainability Reference Guide
  – gina.ahlstrom@dot.gov or 202 366 4612

• Rubber - Asphalt Best Practices Guide
  – matthew.corrigan@dot.gov or 202 366 1549

• Optimization of Pavement Overlays for Preservation

• Highway Materials Engineering Course
  – michael.rafalowski@dot.gov or 202-366-1571
Every Day Counts

• Latest Accelerated Innovation Deployment Demonstration Grants
  – Alabama
  – Iowa
  – Oklahoma
  – Vermont
  – Washington

• Announcement of EDC Round 3 Innovations
EDC-3 Innovations – A Sample

- Locally Administered Federal-Aid Projects: Stakeholder Partnering
- 3D Engineered Models: Schedule, Cost, and Post-Construction
- Improving DOT and Railroad Coordination (SHRP2 R16)
- Geosynthetic Reinforced Soil – Integrated Bridge System
- e-Construction
- Smarter Work Zones
- Ultra-High Performance Concrete Connections for Prefabricated Bridge Elements

http://www.fhwa.dot.gov/everydaycounts/
Research

• Sustainable Pavement Solutions for Utility Cuts
  – Contact: morgan.kessler@dot.gov, 202-493-3187

• Snowplow Guidance Systems
  – Contact: morgan.kessler@dot.gov, 202-493-3187

• Integrating 3D Models into Asset Management
  – Contact: morgan.kessler@dot.gov, 202-493-3187

• Potential LTPP Preservation Experiment
  – Contact: jack.springer@dot.gov, 202-493-3144
FHWA’s R&T Agenda

- In SAFETEA-LU, Congress designated funding, structure and earmarks to certain external entities
- MAP-21 provides FHWA with flexibility to structure a comprehensive R&T program that aligns with highway transportation needs and supports performance goals
- The new FHWA R&T Agenda website shows how the R&T program is aligned to address six major national highway challenges
The website is designed to:

- Tell the FHWA R&T story – what we do & why
- Provide high-level overview & context of FHWA R&T
- Show the cross-cutting work of FHWA offices
- Improve transparency of the FHWA R&T portfolio to stakeholders
- Provide a web-based mechanism for stakeholder input
Major, national-level challenges:

- Advancing Safety
- Enhancing System Performance
- Improving the Mobility of People and Goods
- Maintaining Infrastructure Integrity
- Promoting Environmental Sustainability
- Preparing for the Future

Program areas:

- Safety
- Policy
- Operations
- Innovative Program Delivery
- Infrastructure
- Planning and Environmental
- Federal Lands
- Exploratory Advanced Research
Welcome to the FHWA Research and Technology Agenda. Discover how FHWA’s offices and programs are addressing six of the Nation’s key highway challenges.

- Infrastructure
- Operations
- Safety
- Federal Lands
- Planning, Environment, and Realty
- Policy
- Exploratory Advanced Research
- Innovative Program Delivery

You can help shape the agenda by providing feedback about highway challenges as well as the objectives and strategies FHWA is using to address them. Look for opportunities to contribute throughout the site.
Infrastructure Challenges

Meeting the Challenge: Infrastructure

Environmental Sustainability

Advanced materials and processes reduce our impact on the environment.
Learn more >>

The United States has one of the most extensive transportation systems in the world, representing trillions of dollars of public and private investment. To fulfill its role as the guardian of this critical highway infrastructure, FHWA is engaged in forward-looking research that supports safety and environmental sustainability while modernizing bridges and roads through better materials, new construction techniques, and consistent quality control. This research increases the highway system’s productivity and performance, reduces operational and replacement costs, and ensures a world-class highway system long into the future.

The strength of the infrastructure in the United States depends on quality
We want your feedback!

R&T Agenda Questions:

• What do you see as the key highway transportation problems facing the nation?

• Is FHWA addressing the right (nationally critical) challenges? If not, what other national challenges should FHWA address?

• Does FHWA’s overall research strategy align with the most critical challenges? If not, what areas are missing?

• Are you engaged in research that may contribute to FHWA’s research strategies? If so, please explain.
R&T Agenda Website

www.fhwa.dot.gov/research/fhwaresearch/agenda