

Transformation in Transportation



U.S. Department
of Transportation

**Federal Highway
Administration**

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Overview

- Transportation Bills: MAP-21 & FAST Act
- USDOT/FHWA's Key Programs & Initiatives
- Looking Ahead



- Infrastructure condition
- Resource constraints
- Public expectations
- More complex transportation system
- Technology advancements

Transformation in Transportation

- Changing in a way we think about transportation
- Understanding the drivers and trends
- Transformative provisions/programs from the recent transportation bills

MAP-21 Implementation

- Established a Performance-Based Program
 - Asset Management
- Supports USDOT's aggressive safety agenda
- Streamlines Federal Highway Transportation Programs
- Accelerating project delivery and promotes innovation
 - Accelerated Implementation and Deployment of Pavement Technologies (AIDPT) Program

FAST Act

- Signed by President Obama on December 4, 2015
- First long-term authorization act in a decade
- Result of bipartisan cooperation and compromise
- Provides 5 years of funding certainty for infrastructure planning and investment
- Authorizes \$305 B (all modes) over FY 2016-2020
- \$70 B in transfers to keep the Highway Trust Fund solvent; fully “paid for” (offset) by unrelated savings

Key FAST Act Facts

- \$226.3 B for highways over five years (FY 2016-2020)
- Builds on the program structure and reforms of MAP-21
- Continued focus on accelerating project delivery
- Adds a new freight formula and expands freight network
- Adds a new discretionary program for nationally significant freight and highway projects
- Advanced Transportation and Congestion Management Technologies Deployment
- Surface Transportation System Funding Alternatives
- FASTLANE

USDOT/FHWA's Priorities & Initiatives

- Smart City Challenge
- TIGER Grants
- Ladders of Opportunity/Reconnecting Communities
- Administrator's Beyond Traffic "Freight Economy" Roundtables
- Connected Vehicles
- Vehicle to Infrastructure
- Innovation – Every Day Counts

Every Day Counts

- Program to take innovative techniques that are proven by use in one or more agencies and mainstream these across the country.
- Not researching the next thing, but implementing previously researched and implemented “next things.”
- Begun in 2010 by FHWA Administrator and codified in the FAST Act Section 1444.
- Currently round 4 underway with 11 initiatives and regional summits October – December.

EDC-4 Innovations (2017-2018)

- Automated Traffic Signal Performance Measures
- Collaborative Hydraulics: Advancing to the Next Generation of Engineering
- Community Connections
- Data-Driven Safety Analysis
- e-Construction and Partnering: A Vision for the Future
- Integrating NEPA and Permitting
- Pavement Preservation (When, Where, and How)
- Road Weather Management – Weather-Savvy Roads
- Safe Transportation for Every Pedestrian (STEP)
- Ultra-High Performance Concrete Connections for PBES
- Using Data to Improve Traffic Incident Management

Additional Innovation Initiative

- Enhanced Durability though Increased In-Place Pavement Density
- Since “super-pave” was developed, there have been a number of significant changes, including:
 - ✓ Differences in Materials
 - ✓ Differences in Equipment
 - ✓ General improvements in both pavers and MTV’s in last 20 years

What we are doing in Virginia as a part of this initiative?

- Held a one-day “Increased In-place density” workshop on July 13, 2016 in Fredericksburg.
- A project in Culpeper District, on US Rte.522 near Mineral, to try some various approaches to achieving higher in-place density.
- VDOT Central Office Materials staff will assemble the findings from the Rte.522 work and share those with FHWA. In 2017, FHWA will assemble all the information from the 10 participating states and share the “lessons learned”.

National & Emerging Asphalt Issues

- Asphalt Performance Prediction Test(s)
- High RAP & RAS Usage Issues
- Thin Overlays & Preservation Approaches
- Quality Assurance State Practices
- Binder Modifications including REOB
- Improved Field Compaction
- Advance sustainability efforts, LCA systems, as well as all recycled materials

Looking Ahead

- Exciting times of transformations where opportunities exist for making positive impacts.
- Changing in a way we think about transportation – a holistic approach, multi-modal, connecting communities, integrated systems, use of technologies
- Understanding the drivers and trends
- Modernize policies and guidance

FHWA Resources

- FAST ACT website - www.fhwa.dot.gov/fastact/index.cfm
- EDC website – www.fhwa.dot.gov/innovation/everydaycounts/
- Division Office website - www.fhwa.dot.gov/vadiv/
- Federal-Aid Essentials website - www.fhwa.dot.gov/federal-aidessentials/
- FHWA Pavements: <https://www.fhwa.dot.gov/pavement/>
- FHWA Office of Asset Management <http://www.fhwa.dot.gov/asset/index.cfm>

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