Federal Highway Administration

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FHWA Update

- Innovation Initiatives
- MAP-21 Performance Measurement
- Quality Assurance Program
Innovation

Every Day Counts (EDC) initiative
Every Day Counts

What is Every Day Counts?
Accelerating Innovation

Goals of the EDC:
- Implementing Market Ready Technologies
- Shorten Project Delivery Time
Why the EDC Initiative?

How long does it take to deploy innovation in the transportation industry?

• Change a business practice
• Replace a design system
• Replace a construction process...

2 YEARS?
5 YEARS?
10 YEARS?
20+ YEARS?
Rumble Strip Deployment

- Rumble strips used since the 1950’s
  - New Jersey’s Garden State Parkway in 1952
- In 2001, FHWA included rumble strips on the list of market-ready technologies
- In 2008, FHWA removed rumble strips from list because they were sufficiently adopted as general practice.
Innovation

How can we accelerate innovation?

- A desire to improve upon status quo
- Leadership
- Willingness to try new ideas
- Encourage and reward ingenuity
- Provide resources
Innovation

Other Examples....
Innovation

- EDC initiatives
  - Intelligent Compaction
  - E-Construction

- SHRP2 initiatives
  - Infrared Thermography
  - Ground Penetrating Radar
Innovation

New Technologies & More Efficient Processes

- Project Development
- Shorten Project Delivery
- Federal Regulations
- State Laws
EDC & SHRP2 promote an Innovation Culture within Wisconsin
“Innovation Review Committee”
FHWA Update

- Innovation Initiatives
- MAP-21 Performance Measurement
- Quality Assurance Program
MAP-21 Performance Measures

MAP-21 performance measure provisions required in several areas:

Planning
- Metropolitan & Statewide Planning

Highway Safety
- Safety Performance
- Highway Safety Improvement Program
- Highway Safety Program Grants

Highway Conditions
- Pavement & Bridge Performance Measure
- Asset Management Plan

Congestion/System Performance
- System Performance Measure

Transit Performance
MAP-21 Performance Measures

- Infrastructure Condition:
  “To maintain the highway infrastructure asset system in a state of good repair.”

- Highway Conditions
  Pavement & Bridge Performance Measure
  Asset Management Plan

- Rulemaking Process
  Develop implementing regulations
# MAP-21 Performance Measures

## USDOT Implementation of MAP-21 Performance Provisions:
**Ten Interrelated Rules**

<table>
<thead>
<tr>
<th>Planning</th>
<th>2014</th>
<th>2015</th>
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</thead>
<tbody>
<tr>
<td>Metropolitan and Statewide Planning Rule</td>
<td>Q1</td>
<td>Q2</td>
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<tr>
<td>- Establish a performance-based planning process at metropolitan and state level.</td>
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<td>- Define coordination in the selection of targets, linking planning and programming to performance targets.</td>
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## Highways Safety

<table>
<thead>
<tr>
<th>Safety Performance Measure Rule</th>
<th>2014</th>
<th>2015</th>
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<tr>
<td>- Propose and define fatalities and serious injuries measures, along with target establishment, progress assessment and reporting requirements.</td>
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<tr>
<td>- Discuss the implementation of MAP-21 performance requirements.</td>
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**Highway Safety Improvement Program (HSIP) Rule**

| Integration of performance measures, targets, and reporting requirements into the HSIP. | 2014 | 2015 |
| Strategic Highway Safety Plan updates. | | |

**Highway Safety Program Grants Rule**

| State target establishment and reporting requirements. | 2014 | 2015 |
| Highway safety plan content, reporting requirements, and approval. | | |

## Highway Conditions

| Pavement and Bridge Performance Measure Rule | 2014 | 2015 |
| Propose and define pavement and bridge condition measures, along with minimum condition standards, target establishment, progress assessment and reporting requirements. | | |

**Asset Management Plan Rule**

| Contents and development process for asset management plan. | 2014 | 2015 |
| Minimum standards for pavement and bridge management systems. | | |

## Congestion/System Performance

| System Performance Measure Rule | 2014 | 2015 |
| Define performance of the interstate system, non-interstate national highway system, and freight movement on the interstate system. | | |
| Finalize interpretation of scope of CMAC performance requirements including congestion and on-road mobile source emissions. | | |
| Summarize MAP-21 highway performance measure rules | | |

## Transit Performance

| Transit Asset Management Rule | 2014 | 2015 |
| - Define state of good repair and establish state of good repair performance measures. | | |
| - Require transit providers to set targets and report on progress on transit asset management plans. | | |

**National Transit Safety Program Rule**

| Define transit safety criteria and standards. | 2014 | 2015 |
| Include definition of state of good repair. | | |

**Transit Agency Safety Plan Rule**

| Transit safety plan content and reporting requirements. | 2014 | 2015 |
| Target setting requirements for transit agencies and States. | | |

*Indicates the comment periods*

*Interim Final Rule issued by FHWA in January 2013.*

## Diagram

- Indicates the comment period

*Amended 2015 Final Rule Publication*
MAP-21 Performance Measures

Notice of Proposed Rulemaking (NPRM) - Highway Conditions

1) Pavement & Bridge Performance Measure - December 2014

2) Asset Management Plan – January 2015

www.fhwa.dot.gov/tpm/rule.cfm
MAP-21 Performance Measures

- Infrastructure Condition:
  “To maintain the highway infrastructure asset system in a state of good repair.”

- Pavement Performance will be measured

- Results in transparency and accountability
FHWA Update

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- Quality Assurance Program
Quality Assurance Program

Definition:

1) All those planned and systematic actions necessary to provide confidence that a product or facility will perform satisfactorily in service

2) Making sure the quality of a product is what it should be
Quality Assurance Program

Regulatory requirement, but why is materials testing important?

Assures that materials meet specifications

Approximately 50% of the construction dollar is spent for the PURCHASE of materials

Reduces risk of fraud
Acceptance Procedures

- Once the material is in place it stays in place
  - Price adjustments
  - Rejection removal and replacement is difficult

- Performance risk when we accept and pay for marginally acceptable material
Quality Assurance Program

- FHWA regularly reviews QA Program

- Continual improvement
  - QV sampling frequency
  - Validation of QC test results
  - PWL specifications

- Adequate, qualified staff required to administer
Summary

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FHWA
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