Pavement Preservation Achievements, 2008-2009

Connecticut Department of Transportation

Overview

- Pavement Preservation Working Group
- Reaching out to Local and Regional Partners
- DOT Leadership Initiatives
- Impact of American Recovery and Reinvestment Act of 2009

Pavement Preservation Working Group

- Completed first preservation project
 - Administered through Construction
 - **\$1.8**M
 - Four locations, two treatments
 - Ultra-thin hot-mix asphalt (Novachip)
 - Single-lift mill-and-fill (fine milling)
 - August 2009 execution

Pavement Preservation Working Group

- Developed project-selection treatment matrix
 - Uses PMS distress data
 - Cracking
 - Rutting
 - Roughness
 - Traffic level considered
 - ADT cutoff for some treatments

Pavement Preservation Working Group

- Working on 2010 program
 - "Interim program"
 - Crack sealing
 - Thin-surface project
- Integrated Business Process for 2011

Reaching out to Local and Regional Partners

- Annual Pavement Preservation and Pavement Management class for municipalities (Conn. Transportation Institute – James Mahoney)
 - Audience: Public Works managers
 - One-day course focusing on treatments and preservation concepts
 - Sharing of best practices

Reaching out to Local and Regional Partners

- Using ARRA to kick-start pavement preservation approach
 - On a regional and municipal basis

DOT Leadership Initiatives

- 2009 Pavement Management Program Review
 - Built on 2003 PM review and 2006
 Pavement Preservation Technical
 Assessment
 - Focused on steps for moving forward
 - Provided forum for executive-level discussion

DOT Leadership Initiatives

- 2009 Pavement Management Program Review
 - Official Pavement Management Policy
 - DOT management instituting PM-driven programming business process
 - It is clear that executives are behind this approach
 - 2010 development of 2011 program

DOT Leadership Initiatives

- Integrated Pavement Business Process
 - PMS to provide needs and candidate project lists
 - Financial decisions based on needs, program assignment
 - Engineering, Maintenance, Planning participation
 - Timelines and program performance measurement

- \$18M out of \$200 stimulus funds allotted for pavement preservation
 - \$1.5M crack sealing
 - \$16.5M for HMA preservation projects

- Crack Sealing and Filling Project
 - 4 expressways
 - Two treatments, two materials
 - Joint & crack sealing
 - Joint & crack filling
 - 1.5M s.y. of roadbed (170 lane-mi)
 - Bid as lump sum (price / s.y. on fixed square yard amount in contract)

- HMA Pavement Preservation Projects
 - Field review Spring 2009
 - Structurally sound expressways
 - Initially two locations
 - Grew to five locations based on prices
 - Milling to remove top lift
 - Apply joint adhesive to vertical faces, inlay with HMA

- Project Selection
 - Constraints given for the ARRA funds
 - Treatments were given
 - Must fit pavement preservation criteria
 - Project selection to fit preservation criteria
 - Multi-disciplinary field review (pavement management/design, highway design, FHWA representative, safety expert)

- Regional and Local Agencies
 - Two regions selected pavement preservation strategies
 - Prelim. Engineering simpler
 - Quick achievement of shovel-readiness
 - Allowed distribution of funds to many towns
 - One rural, one urban region

- Regional and Local Agencies
 - Urban region (\$9M)
 - All towns had PMS's
 - Selected mill-and-inlay functional overlays
 - CT-DOT scoped and estimated project costs

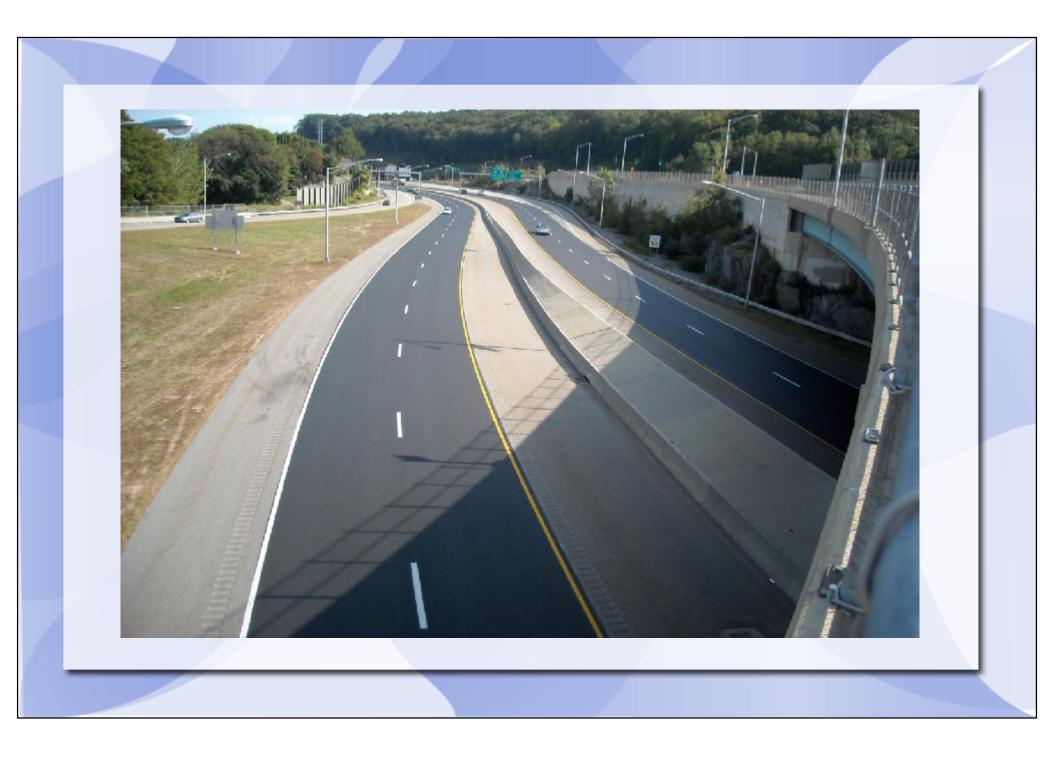
- Regional and Local Agencies
 - Rural Region (\$2M)
 - No towns had PMS's
 - Pavement Preservation projectselection criteria communicated to towns via web-site and in meetings
 - Selected variety of surface treatments

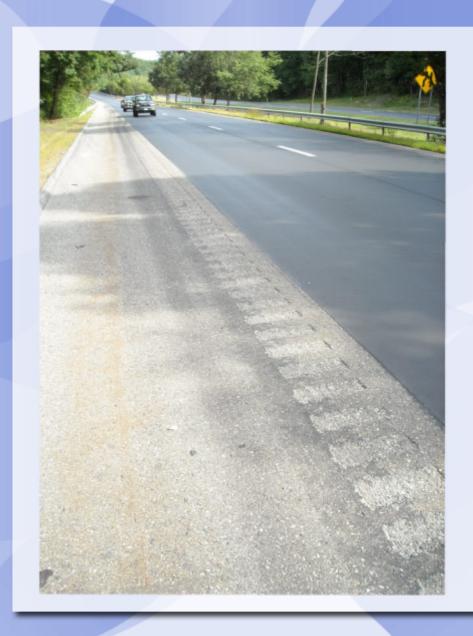
- Regional and Local Agencies
 - Other Regions
 - Some larger regions had projects ready
 - Other individual municipalities selected preservation projects (simpler PS&E, more pavement bang for buck)

Summary

- Rapid progress built on continued effort
 - Pavement Preservation Working Group
 - Partnership with FHWA Division Office
 - DOT Leadership buy-in
 - Communication and outreach
- Moving Forward:
 - Measurement of Progress
 - Integration with Agency's Business Process







(before lane striping)