

# **Pavement Preservation**

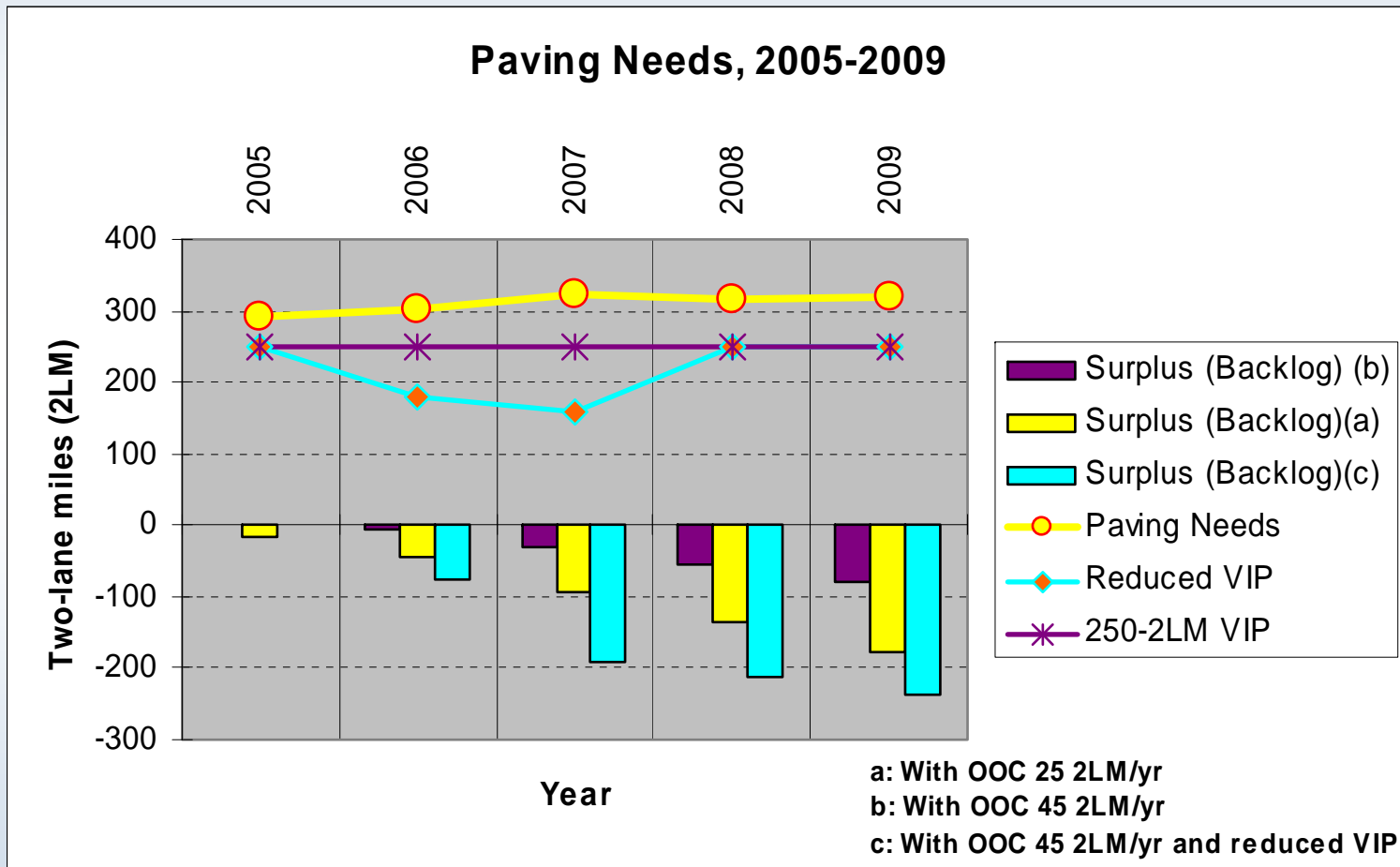
**at the Connecticut Department of  
Transportation  
2006-2007**

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# Overview

- ❖ 2006 Pavement Preservation Technical Assessment Visit (FHWA)
- ❖ ConnDOT initiatives since visit
- ❖ Current status

# Connecticut Paving Needs (worst-first analysis)



# Technical Assessment (FHWA)

## ❖ July 2006

- Business process review through interviews
  - Executives
  - Managers
  - Districts

## ❖ Closeout meeting December 2006

- Final report

# ConnDOT Activities since Technical Assessment

- ❖ Working group formed
  - Maintenance, Asset Management, Pavement Management, FHWA
- ❖ Activities:
  - Develop an implementation strategy
  - Identify eligible treatments
  - Develop a programmatic approach

# ConnDOT Activities (cont'd)

## ❖ Activities:

- Begin with one treatment
- Add treatments over time

## ❖ First treatment:

- Ultra-thin HMA overlay

# ConnDOT Activities (cont'd)

- ❖ Project Selection Process:
  - Analyze pavement condition data
  - Find distress threshold
  - Filter candidates using Photolog
  - Conduct field review
- ❖ Estimate cost-benefit relationship
- ❖ Eventually, use PMS software to guide program

# ConnDOT Activities 2006

## ❖ Treatment:

- Ultra-thin Hot-Mix Asphalt (HMA) – 0.1875" Superpave, 1" thick

## ❖ Project Selection Process:

- "Secondary" highways, speed limit < 50 mph
- Used cracking "threshold" and age (7+ yrs)
  - If greater than threshold, eliminate from consideration
  - Age was modified to 6+
- Filtered candidates using HD Photolog images
- Conducted field review

## ❖ Cost-benefit relationship used to guide prioritization

- Ranked by age (older=higher) and cracking (less=higher)



# ConnDOT Activities 2007

## ❖ Treatment:

- Thin Hot-Mix Asphalt (HMA) – 0.375" Superpave, 1.5" thick

## ❖ Project Selection Process:

- Interstate and Expressways
- Used cracking, roughness, rutting, pavement type
  - If greater than threshold, eliminate from consideration
- Filtered candidates using HD Photolog images (PM, AM)

## ❖ Cost-benefit relationship used to guide prioritization

- Ranked by age (older=higher) and cracking (less=higher)

# ConnDOT Activities 2007

- ❖ Pavement Preservation Roadmap Document
  - Outlines program guiding principles, roles and responsibilities
  - Included in recommendation memo from Policy and Planning
  - Awaiting implementation
- ❖ Safety Assessment
  - FHWA developed guidance for safety review guidelines that comply with FHWA memorandum
- ❖ Project Execution
  - 9 projects forwarded to Engineering for preliminary design
- ❖ Crack Sealing Specifications
- ❖ Rubberized Chip Seal Specifications

# Status

- ❖ Awaiting formalization of program
- ❖ Moving forward with thin HMA projects
- ❖ Developing full pavement-preservation “matrix” for selecting treatment
- ❖ Have taken delivery of PMS software (analysis modules)

# ConnDOT Activities 2008

- ❖ Develop pavement-preservation “matrix”
- ❖ Complete the formalization of the program
- ❖ Re-evaluate implementation strategy
- ❖ Execute projects in Engineering
- ❖ Refine project-selection criteria

# Lessons Learned

- ❖ Pavement Preservation should be part of an *integrated, holistic approach to network management*
  - Structural rehabilitation
  - Major rehabilitation
  - Reconstruction
- ❖ Timing of preservation projects places premium on data collection:
  - Distress needs to be detected in early stages

# Pavement Preservation

Questions?