Evaluating the suitability of roadway projects for pavement preservation
Factors to look for in selecting project and treatment selections
West Virginia: Following its pilot project, West Virginia Department of Highways (WVDOH) is developing new specifications to expand the use of a variety of preservation techniques. In places where formerly only hot-mix asphalt might be specified, WVDOH is adding options such as cape seals or microsurfacing.
Kentucky: Facing sharply rising asphalt prices, the Kentucky Transportation Cabinet (KYTC) is using the guidelines to broaden its use of pavement preservation, help them keep good roads in good condition longer, and "catch more miles for less money." Using the guidelines, KYTC built a small-scale "test track" with separate treatments in 1,500-foot segments on a four-lane rural arterial with average daily traffic of 12,800 vehicles. By monitoring the roadway for rutting, cracking, raveling, pitting, and International Roughness Index (IRI), KYTC officials can identify the best treatments that work for certain conditions. KYTC also uses the site for training its staff and local governments, as well as executive leadership.
Rhode Island: The Rhode Island Department of Transportation (RIDOT) already has considerable experience using preservation on its high-volume roads; however, it is using the guidelines to broaden the range of successful treatments being used. RIDOT is testing a stress-absorbing membrane interlayer (SAMII) chip seal on a five-lane rural collector with average daily traffic of 16,200 vehicles, including 2.8 percent truck traffic. The goal is to broaden the preservation options beyond the "usual suspects."

Just-In-Time Training
Just-In-Time Training Modules will address 19 topics from pavement preservation 101 to very specific details on the types of treatments available for high-traffic-volume roadways. The modules will include project and treatment selection options, will be accessible online, and will be available for on-demand viewing in the field.

What the Guidelines Contain
Preservation Analysis Tool and Instructions
Four modules enable the user to identify the right project and the right technique for the conditions of the project.
- Application Pave
- Performance Measures
- Treatment Toolkit Setup and Management Project Analysis
- Resources

Data Collection Guide
The guide helps agencies identify the data needed for a number of decisions and analyses, including the following:
- Evaluating the suitability of roadway projects for pavement preservation and the feasibility of different treatments for a selected project
- Designing the selected project to accommodate a selected treatment and constructing the treatment according to specifications
- Monitoring the performance of the constructed treatment and evaluating its cost-effectiveness in a high-traffic-volume scenario

Other Guidance Documents to help agencies address:
- Factors to look for in selecting project and treatment selections
- Examples of scenarios for identifying feasible treatments

Pavement Preservation Solutions in Action
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Your guide to the best options for extending pavement life and reducing life-cycle costs

The Challenge — Knowing when, what, and how to apply smart preservation techniques for slowing pavement deterioration
Stretching the time between major rehabilitation projects can save transportation agencies money, reduce congestion, and improve safety. For years, the life of lower-volume roadways has been extended by applying pavement preservation techniques. Achieving the same results on high-traffic roadways requires a systematic approach that considers a variety of road conditions and proper timing of treatments to reduce traffic impacts.

The Solution — Strategies and techniques to make the right decision at the right time
Guidelines for the Preservation of High-Traffic-Volume Roadways (R26) offers easily accessible information and tools that will help transportation agencies determine the right preservation techniques that will extend the life of high-traffic roadways without major reconstruction and traffic disruption. Developed through the second Strategic Highway Research Program (SHRP2), the Guidelines are aimed at those involved in asset management, pavement design and engineering, pavement management, and maintenance.

The Data Collection Guide helps agencies identify the data needed to evaluate the performance and benefits of their pavement preservation treatments while improving their implementation processes.

The Preservation Analysis Tool identifies feasible pavement preservation projects and enables the selection of the preferred treatment based on the conditions and characteristics of the project, the cost effectiveness of the treatment, and other selection factors.
The Guidelines are Being Used on Projects Across the Country

- **Minnesota DOT**
  - Projects: 5 mill and thin HMA overlays, 1 microsurfacing
  - Roads: SR 10 (4-lane rural collector, 16,100 ADT with 5% trucks)
  - Climate Zone: Wet/no freeze
  - Contacts: Halley Cole: halley.cole@dot.mn.gov

- **Arizona DOT**
  - Projects: 2 crack seals, 2 microsurfacing
  - Roads: SR 89A and SR 89 (4-lane rural interstate, 15,500 ADT with 7% trucks)
  - Climate Zone: Wet/no freeze
  - Contacts: Kevin Robertson: krobertson@azdot.gov

- **Georgia DOT**
  - Projects: 1 project with multiple treatments, including crack sealing, ultra-thin bonded wearing course, microsurfacing, and double microsurfacing
  - Roads: I-75 / I-75B Interchange (4-lane urban arterial, 27,000 ADT with 8% trucks)
  - Climate Zone: Wet/no freeze
  - Contacts: Jennifer Pinkerton: jennifer.pinkerton@dot.georgia.gov

- **Massachusetts DOT**
  - Projects: 1 project with multiple treatments using ultra-thin bonded wearing course and fog seal
  - Roads: US 202 Lennon and Sanford Co. (2-lane rural arterial, 23,100 ADT with 8% trucks)
  - Climate Zone: Wet/no freeze
  - Contacts: Brian Lucas: bllucas@mldot.mass.gov

- **New Jersey DOT**
  - Projects: 3 crack seals, 2 chip seals, 1 stress-absorbing membrane interlayer (SAMI) chip seal, and 1 thin HMA overlay
  - Roads: CR 520 (5-lane rural collector, 12,100 ADT with 2% trucks)
  - Climate Zone: Wet/no freeze
  - Contacts: Robert Blight: robert.blight@njdot.gov

- **Maine DOT**
  - Projects: 1 mill and thin HMA overlay
  - Roads: US 191 (5-lane rural collector, 15,000 ADT with 9% trucks)
  - Climate Zone: Wet/no freeze
  - Contacts: myungook.kang@dot.maine.gov

- **Rhode Island DOT**
  - Projects: 1 crack seal, 1 chip seal, 1 stress-absorbing membrane interlayer (SAMI) chip seal, and 1 thin HMA overlay
  - Roads: CR 520 (5-lane rural collector, 12,100 ADT with 2% trucks)
  - Climate Zone: Wet/no freeze
  - Contacts: Cole Francis: cole.francis@ri.gov

“...the long-term financial impact of investing in pavement preservation is very exciting. The guidelines provide useful information that motivated the state to move toward newer approaches to use on their higher-traffic roads as well as those states that are new to pavement preservation.”

—GREG GARNER, KENTUCKY TRANSPORTATION CABINET