Maryland – Current Stats

Area – 42nd largest state
Population - 5.93 million
  [Maryland is the 19th]
Population Density – 5th
Mobility/Congestion – 48th*
Cost/Mile – High😊

*2013 Hartgen Report – Reasons Foundation
Featuring Appalachian Mountains, the Chesapeake Bay Watershed, Piedmont soils, and the Atlantic Coastal plain.

-7 Engineering Districts
Seven Engineering Districts
## Pavement Treatments By Type and Lane Miles

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconstruction</td>
<td>6</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Major Rehab</td>
<td>12</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Structural Overlay</td>
<td>144</td>
<td>101</td>
<td>112</td>
</tr>
<tr>
<td>Minor Rehab</td>
<td>1,516</td>
<td>1,363</td>
<td>1,295</td>
</tr>
<tr>
<td>Preventive Maint</td>
<td>2,044</td>
<td>1,811</td>
<td>2,815</td>
</tr>
</tbody>
</table>

**Graph Legend:**
- Reconstruction
- Major Rehab
- Structural Overlay
- Minor Rehab
- Preventive Maint

**Source:** MD SHA
Structural Overlay
(Grade Increase >1.5”)

Lane Miles

- Grind & Asphalt Overlay
- Grind & Overlay Gap SMA
- Asphalt Overlay
- Asphalt Overlay Gap SMA

MD SHA
Minor Rehabilitation

Lane Miles

- Grind and Asphalt Overlay
- Grind and Asphalt Overlay Gap
- SMA
- 1.5" Asphalt Overlay
- 1.5" Asphalt Overlay Gap

MD SHA
Pavement Preservation in MD

• Prior to 2011, there was no strategic program or focus on preservation treatments

• Rehabilitation focus with limited preservation
  – Preservation treatments were not detailed out in our budget allocation optimization process

• Limited direction provided to or even definitions for preservation treatments
MDSHA Preservation Guide

• MDSHA published its 1st **Guide to Pavement Preservation** – March 2011
  – Came from lessons learned with the Northeast Pavement Preservation Partnership (NEPPPP).
  – Started our philosophy change journey

• Worked closely with Larry Galehouse (Director, National Center for Pavement Preservation)
MDSHA Preservation Guide

• Available on the TSP·2 website at:

• Revised version embedded within the MDSHA Pavement Design Guide, at:
Recent Improvements

• New SHA Business Plan Measures

  • Overall of Remaining Service Life >= 20 years.

  • Lane Mile Years of Pavement Construction Benefit = Lane Miles of pavement owned.
New Special Provisions

• We have new revised specs for the following:
  – High Friction Surface Treatment
  – Slurry Seal and Micro-Surfacing
  – Dowel Bar Retrofit, Diamond Grinding
  – Surface Abrasion
  – Cold-In-Place Recycling
  – Full-Depth Reclamation
  – Open-Graded Friction Course
  – Fog Seal
  – Ultrathin Bonded Wearing Course
  – several others in the works!
Update Performance Models

- IRI, Rutting, Friction
- Functional Cracking, Structural Cracking
Current Challenges

• Educating MDSHA staff for implementation
  – Recent slurry seal/micro-surfacing workshop

• Including Industry partners in specification development

• Continuing to change the culture
  – Industry support through quality products and services
In the next couple years...

- Microsurfacing – 60 to 80 lane miles per year
- Crack Sealing – About 500 lane miles per year
- UTBWC – 3-4 projects
- ARGG – 1 Project
- High Friction Surface – 10 Projects
- Surface Abrasion – 35 lane miles
- Cold-In-Place Recycling – 8 lane miles
- Full Depth Reclamation – 1 lane mile
- Parking Lot Treatments
  - Rejuvenator, Fog Seal, Chip Seal