Pavement Preservation
Techniques Used in Virginia

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“a program employing a network level, long-term strategy that enhances pavement performance by using an integrated, cost-effective set of practices that extend pavement life, improve safety and meet motorist expectations."

Source: FHWA Pavement Preservation Expert Task Group
Components of Pavement Preservation?

- Pavement Preservation
  - Proactive
    - Minor Rehabilitation
    - Preventative Maintenance
    - Routine Maintenance
What Techniques Are Used?

- **Traditional Approaches**
  - Chip Seals
  - Slurry Seal
  - Microsurfacing
  - Crack Sealing

- **Emerging Approaches**
  - Cape Seals
  - Fiber Modified Microsurfacing
  - Fibermat
  - THMACO
  - SM-4.75
Chip Seals

- Types In VDOT Specs
  - Surface Seal
  - Modified Single Seal
  - Modified Double Seal
- Commonly used on low-volume secondary roads and sub-divisions
Slurry Seals

- Types in VDOT Specs
  - Type A
  - Type B
  - Type C

- Predominately used on lower volume primary and secondary routes

- Type used is function of traffic levels
Latex Modified Emulsion Treatment or Microsurfacing

- Types in VDOT Specs
  - Type B
  - Type C
- Predominately used on higher volume routes including interstates
Crack Sealing

- Types in VDOT Specs
  - Type A
  - Type B
  - Type C
- Used alone or with overlay
Cape Seals

- Combination of a Chip Seal foundation and Slurry Seal surface
- Normally used on higher volume primary and secondary routes
Fiber Modified Microsurfacing

- Similar process as traditional microsurfacing
- Combines polyester fibers in the microsurfacing process
- Used on selected routes to combat cracking
Fibermat

- Similar to Chip Seal process
- Introduces a fiber material interlayer between tack coat and chips
- Normally overlaid like a Cape Seal with another asphalt-based material
- Asphalt concrete material
- Similar to fine SMA, but with smaller percentage of fines
- Laid at 1” or less
- Used on existing concrete and asphalt surfaces
- Typically on higher volume routes and interstates
SM-4.75

- Asphalt concrete material
- Laid at 0.75” – 1.25”
- Been used on sub-division streets, secondary and primary routes
Why Do We Care About Preservation?

- VDOT spending increasing amounts on pavement preservation
- Important to be good stewards of our transportation system
- Preservation system is part of VDOT’s pavement management plan
- State and federal dollars are used to fund many projects
## VDOT Spending Over Time

<table>
<thead>
<tr>
<th>Year</th>
<th>Chips Seals</th>
<th>Slurry/Micro</th>
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<tr>
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What Are The Inspection Points and Reminders?
Questions