VIRGINIA ASPHALT CONFERENCE & EXPO

Commissioner Stephen C. Brich, P.E.
Asphalt and Paving
### More Paving Than Ever Before

<table>
<thead>
<tr>
<th>Year</th>
<th>BM</th>
<th>IM</th>
<th>SM</th>
<th>SMA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>820,642</td>
<td>585,901</td>
<td>3,918,489</td>
<td>297,467</td>
<td>5,622,499</td>
</tr>
<tr>
<td>2016</td>
<td>878,533</td>
<td>711,441</td>
<td>3,598,924</td>
<td>351,262</td>
<td>5,540,160</td>
</tr>
</tbody>
</table>

*Estimated tons of asphalt plant mix produced for VDOT*
Lane Miles Of Paving And Resurfacing

*2019 Planned Lane Miles as of Nov. 13, 2018
Improving Quality
Tack Coat Application
Compaction And Density

Enhanced Durability of Asphalt Pavements through Increased In-Place Pavement Density

Demonstration projects (10)
## Incentivizing For Quality - 2017

<table>
<thead>
<tr>
<th></th>
<th>AC Standard Deviation Bonus</th>
<th>AC Field Density Bonus</th>
<th>Rideability Bonus</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>$6,039,275.80</td>
<td>$2,168,748.86</td>
<td>$2,806,350.83</td>
</tr>
</tbody>
</table>

Total = ~ $11 million
Innovation
Full Depth Reclamation on Interstate 64, Segment II
Cold Central Plant Recycling on I-64, Segment II
Performance Measures
# Pavement Statewide Performance Measures

<table>
<thead>
<tr>
<th>Performance Measure Description</th>
<th>Current Policy (Percent Sufficient)*</th>
<th>Updated Policy (Percent Sufficient)</th>
<th>Current Performance 2018 (Rounded) (Percent Sufficient)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate</td>
<td>82% No Section CCI less than 30</td>
<td>82% *No Section CCI less than 35</td>
<td>91%</td>
</tr>
<tr>
<td>Primary</td>
<td>82%</td>
<td>82%</td>
<td>85%</td>
</tr>
<tr>
<td>Secondary</td>
<td>65%</td>
<td>65%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Current funding sustains interstate and primary condition</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional funding required to achieve secondary target</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Sufficient means “Fair” or better

**NOTE:** Objective is to sustain or improve current performance on the interstate and primary and achieve target on the secondary

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Virginia Department of Transportation
# Bridge Statewide Performance Measures

<table>
<thead>
<tr>
<th>Performance Measure Description</th>
<th>Current Policy (Percentage Not Structurally Deficient)*</th>
<th>Updated Policy (Percentage Not Structurally Deficient)</th>
<th>Current Performance (VDOT and Localities) (Percentage Not Structurally Deficient)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide</td>
<td>92%</td>
<td>95.5%</td>
<td>96.0%</td>
</tr>
<tr>
<td>Interstate</td>
<td>97%</td>
<td>99%</td>
<td>98.8%</td>
</tr>
<tr>
<td>Primary</td>
<td>94%</td>
<td>96%</td>
<td>96.7%</td>
</tr>
<tr>
<td>Secondary</td>
<td>89%</td>
<td>94%</td>
<td>95.4%</td>
</tr>
</tbody>
</table>

*Updated Performance Goals are Predicted to be Attained with Current Funding by the End of FY18

*Bridges that are not Structurally Deficient are in a “Fair” or “Good” Condition

**NOTE:** Objective is to *sustain or improve* current performance on the interstate and primary and achieve target on the secondary
Despite the improvement with Structurally Deficient (SD) Bridges, there is a wave of Bridges in Fair Condition at risk of becoming SD in the coming years if not addressed in the near term.

- 24% (5,151) of all Bridges are "cusp" (on the verge of becoming SD)
- 214 on Urban System
- 79% of Interstate Bridges are in Fair Condition
- 61% of all Bridges are in Fair Condition
- Average age of Bridges in Fair Condition is 57 years

<table>
<thead>
<tr>
<th>Category</th>
<th>Condition</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate</td>
<td>Poor</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Fair (5)*</td>
<td>747</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
<td>1,907</td>
</tr>
<tr>
<td></td>
<td>1,680</td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>Poor</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Fair (5)*</td>
<td>1,471</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
<td>1,917</td>
</tr>
<tr>
<td></td>
<td>1,680</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>Poor</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Fair (5)*</td>
<td>543</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
<td>2,719</td>
</tr>
<tr>
<td></td>
<td>4,779</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>Poor</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Fair (5)*</td>
<td>529</td>
</tr>
<tr>
<td></td>
<td>Fair</td>
<td>558</td>
</tr>
<tr>
<td></td>
<td>81</td>
<td></td>
</tr>
</tbody>
</table>

* Cusp Bridges
Fair (5)

Based on July 1, 2018 Data
VA Responsible Structures
Bridge Inventory - Age

- 10,837 Structures (≈ 51% of the Inventory) has Exceeded it's Anticipated 50 Year Service Life
- In 10 Years ≈ 67% of the Inventory will have Exceeded it's Anticipated 50 Year Service Life

Based on July 1, 2018 Data
VA Responsible Structures
Budget
Hurricane and Tropical Storm Expenditures

Hurricane Florence
• 721 roads closed
• Estimated $11 million

Tropical Storm Michael
• 1,200 roads closed
• Estimated $35 million

Snow Budget - $205 million includes $50 million reserve
Organizational Changes
Chief Engineer Garrett Moore to retire in fall 2019

• Has tirelessly served for more than 19 years
• Will leave a lasting legacy

Creation of Chief of Maintenance and Operations

• Will lead our multibillion-dollar maintenance and operations programs
  ▪ Maintenance
  ▪ Operations and Emergency Management
  ▪ Land Use
  ▪ Asset Management
  ▪ Traffic Engineering
• Continue to focus on project delivery
• Same devoted emphasis on maintaining and operating our transportation infrastructure
Workforce of Tomorrow
Core Questions

Path to the future

THINKING DIFFERENTLY

What is the future of transportation?

What are the impacts on VDOT?

SEEING DIFFERENTLY

DOING DIFFERENTLY

How does VDOT navigate into the future?

Workplace

Workforce
**VDOT’s Path**

**WORK**
The fundamental nature of the work performed to achieve mission outcomes

- **HOW** is the nature of the work performed changing to achieve new business goals?
- **WHAT** work may be augmented by digital technologies and what are the workforce implications?

**WORKFORCE**
The portfolio of talent and skills tapped to perform the work

- **WHO** is best to perform the current and future work and what skills are necessary?
- **HOW** do you close the gap between current and future skills by tapping into alternative talent pools or upskilling the current workforce?

**WORKPLACE**
The environment and policies – not just the physical structures or location – utilized to maximize collaboration, productivity, and consistency of the talent experience

- **WHERE** is best to perform the work to maximize return on investment (e.g., HQ vs. virtual)?
- **WHAT** physical design and technology maximizes productivity?
The Evolution of VDOT’s Work

- **START?**
  - New work to drive desired outcomes

- **STOP?**
  - Work that is no longer relevant to achieve outcomes

- **CHANGE?**
  - Work that is still critical, yet disrupted by new technology and different delivery mechanisms

- **CONTINUE?**
  - Work that remains the same