Overview

Organization
Inventory
Goals
Bridge Programs
Maintenance
Organization

Roles & Responsibilities

Structures Management Unit
- Statewide Policies
- Inspection
- Complex Project Delivery*
- Statewide Project Prioritization
- Technical Assistance
- PS&E Preparation
Organization

Roles & Responsibilities:

Highway Divisions
- Maintenance
- Local Prioritization
- Project Delivery
- Construction oversight
Inventory – 19,162 Structures

18,245 State Owned Structures

<table>
<thead>
<tr>
<th>Structure Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bridges, State</td>
<td>13,585*</td>
</tr>
<tr>
<td>Culverts, State</td>
<td>4,660</td>
</tr>
<tr>
<td>Culverts, Municipal</td>
<td>477</td>
</tr>
<tr>
<td>Bridges, Municipal</td>
<td>440</td>
</tr>
</tbody>
</table>

917 Municipally Owned

*Includes bridges less than 20 feet in length
State Maintained: Interstate, US & NC Highways

1,005
Interstate Bridges

33 SD
(3.3%)

339 SD
(7.9%)

4,282
Primary Bridges
State Maintained: NC State Roads

MODERN:
4,160 Bridges
220 SD (5.2%)

LEGACY:
4,138 Legacy
1,020 SD (24.6%)

8,298 Secondary Bridges
“Legacy” State Road Bridges
In 2015, 3,600 Miles Unpaved State Roads
Goals

10% Deficient
Statewide (13,561 Bridges)

<table>
<thead>
<tr>
<th>Interstate</th>
<th>Primary</th>
<th>Secondary</th>
</tr>
</thead>
<tbody>
<tr>
<td>2%</td>
<td>6%</td>
<td>15%</td>
</tr>
</tbody>
</table>

2014

<table>
<thead>
<tr>
<th>State</th>
<th>% Deficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>0.9</td>
</tr>
<tr>
<td>Ohio</td>
<td>3.9</td>
</tr>
<tr>
<td>California</td>
<td>7.7</td>
</tr>
<tr>
<td>Illinois</td>
<td>7.9</td>
</tr>
<tr>
<td>Virginia</td>
<td>9.1</td>
</tr>
<tr>
<td>New York</td>
<td>10.4</td>
</tr>
<tr>
<td>S. Carolina</td>
<td>11.4</td>
</tr>
<tr>
<td>Missouri</td>
<td>14.3</td>
</tr>
<tr>
<td>N. Carolina</td>
<td>16.4</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>23.8</td>
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</tbody>
</table>
New SD Bridges Annually

- **Avg SD Per Year**: 250
- 80% are secondary
- 63% are legacy type

Data for years 2013 to 2017:
- 2013: 225
- 2014: 260
- 2015: 275
- 2016: 230
- 2017: 300
Bridge Replacement Program

State $272M
Federal $65M
Total $337M

Apportioned as
Follows:
Primary & Interstate $197M
Secondary $135M
SD Progress

<table>
<thead>
<tr>
<th>2014</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate</td>
<td>42 Bridges</td>
</tr>
<tr>
<td>4%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Primary</td>
<td>390 Bridges</td>
</tr>
<tr>
<td>9%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Secondary</td>
<td>1,750 Bridges</td>
</tr>
<tr>
<td>21%</td>
<td>15%</td>
</tr>
<tr>
<td>State Funds</td>
<td>$150M</td>
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</tbody>
</table>
Bridge Preservation Programs

Interstate Maintenance:
$10M Federal

Bridge Preservation:
$ 82M State
Interstate Maintenance

Pavement Driven

Minimize Disruption

Silanes, Sealers, Polymer Concrete, Latex Modified, Painting, Shotcrete, Joints.
Bridge Preservation

Initial Program: High Value Bridges

Mitigate Financial Risk

44 Bridge Projects to be let in the next 12 months
Challenge: High Value Bridges

Replacement Costs between $20M & $439M.

204 Bridges.

Total Replacement Cost: $9B.

Total Preservation Needs: $300M.

Provide key connectivity in our transportation system.
High Value Bridge—Wright Memorial Bridge

Wright Memorial Bridge
US 158 over the Currituck Sound
2.8 Mile long connector to the Northern Outer Banks
Average Daily Traffic: 12,500
Current Condition: Structurally Deficient
High Value Bridge: Wright Memorial Bridge

**Wright Memorial Bridge**
Built 1966

Estimated Replacement Value: $170M

**Preservation Needs:**
- Bridge Deck Overlay
- Repair of Bridge Joints
- Extensive Concrete Repairs
- Foundation Repairs

Cost of Rehabilitation: $21M

**Outcome:**
- Restored to Good Condition

Life Extension: 35 years
Division Bridge Maintenance

14 Highway Divisions

~ 70 Bridge Crews
Statewide
- Large Culverts
- Emergency Response and Repair
- Routine Maintenance
- Timber Rebuilds
- Much, Much, More
Questions