VIRGINIA TRANSPORTATION CONSTRUCTION ALLIANCE

Annual Meeting

VDOT Commissioner Stephen Brich, P.E.

July 11, 2019
Leadership updates

Key leadership roles filled:

- Chief Engineer
- Chief of Administration
- Chief of Technology and Business Strategy
- Safety, Security & Emergency Management Division Administrator

- Garrett Moore will continue to serve as a special assistant to the commissioner
Initiatives

Consultants

- Rates negotiation

Contractors

- Environmental compliance
- Tablet-based inspection
## Commonwealth Transportation Fund: Revenue Distribution FY 2020-25

<table>
<thead>
<tr>
<th>(in millions)</th>
<th>FY20</th>
<th>FY21</th>
<th>FY22</th>
<th>FY23</th>
<th>FY24</th>
<th>FY25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate 81 Corridor Improvement Fund</td>
<td>$103.5</td>
<td>$132.0</td>
<td>$162.1</td>
<td>$163.4</td>
<td>$161.9</td>
<td>$163.4</td>
</tr>
<tr>
<td>Interstate 95 Corridor</td>
<td>19.3</td>
<td>28.4</td>
<td>40.1</td>
<td>40.7</td>
<td>40.1</td>
<td>40.4</td>
</tr>
<tr>
<td>Interstate 64 Corridor</td>
<td>13.1</td>
<td>19.2</td>
<td>27.1</td>
<td>27.5</td>
<td>27.1</td>
<td>27.4</td>
</tr>
<tr>
<td>NVTA Fund</td>
<td>9.4</td>
<td>13.8</td>
<td>19.5</td>
<td>19.7</td>
<td>19.4</td>
<td>19.6</td>
</tr>
<tr>
<td>Interstate Improvements</td>
<td>21.5</td>
<td>31.7</td>
<td>44.8</td>
<td>45.4</td>
<td>44.7</td>
<td>45.1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$166.8</td>
<td>$225.0</td>
<td>$293.5</td>
<td>$296.7</td>
<td>$293.2</td>
<td>$296.0</td>
</tr>
</tbody>
</table>
**Interstate 81 Improvement Plan**

- **Legislation:**
  - Increased truck registration fees
  - Increased diesel + road tax
  - 2.1% increase motor fuels tax along 81

- **Internal prioritization of projects**

- **Operations solutions first out-of-the-gate**

- **I-81 Advisory Committee**
### Six-Year Improvement Program

<table>
<thead>
<tr>
<th></th>
<th>Draft FY 2020-25</th>
<th>Proposed Final FY 2020-25</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Highways</strong></td>
<td>$16.4 billion</td>
<td>$18.3 billion</td>
<td>$1.9 billion</td>
</tr>
<tr>
<td><strong>Rail &amp; Public Transportation</strong></td>
<td>$4.6 billion</td>
<td>$4.6 billion</td>
<td>none</td>
</tr>
<tr>
<td><strong>Total SYIP</strong></td>
<td>$21.0 billion</td>
<td>$22.9 billion</td>
<td>$1.9 billion</td>
</tr>
</tbody>
</table>

*excludes debt service

**Highway Construction Program (FY 2020-25) - $18.3 billion**
- Additionally includes $904 million in debt service
- Provides funding to more than 3,800 projects
- Current program includes $6.9 billion to be provided by others
## Six-Year Improvement Program Highlights

<table>
<thead>
<tr>
<th>Program</th>
<th>FY 2020-25 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>State of Good Repair Program (SGR)</td>
<td>$1.5 billion</td>
</tr>
<tr>
<td>Regional Surface Transportation Program (RSTP)</td>
<td>$0.6 billion</td>
</tr>
<tr>
<td>Congestion Mitigation Air Quality (CMAQ)</td>
<td>$0.3 billion</td>
</tr>
<tr>
<td>Highway Safety Improvement Program</td>
<td>$0.3 billion</td>
</tr>
<tr>
<td>Unpaved Roads</td>
<td>$0.1 billion</td>
</tr>
<tr>
<td>Innovation and Technology Transportation (ITTF)</td>
<td>$0.1 billion</td>
</tr>
<tr>
<td>SMART SCALE</td>
<td>$2.5 billion</td>
</tr>
</tbody>
</table>
Current Market

- Cost estimating
- Labor
- Industry
- Design Build vs. Design-Bid-Build
Performance Measures

2019 - HB 2784:
The Robert O. Norris Bridge and Statewide Special Structures Fund

- Comprehensive review
  - Current conditions and performance targets of pavements and bridges
  - Current investment strategies of the Highway Maintenance and Operations Fund and State of Good Repair Program
  - Recommend sustainable performance over 20-year period
  - Develop an investment strategy, including a plan to fund Special Structures

Maintenance and Operations Program

Sustainability

- Pavements
- Bridges
- Special Structures
- Routine maintenance (best practices)
- Operations
# Performance Measures: Tentative Timeline

<table>
<thead>
<tr>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pavement Overview</td>
<td>June 2019</td>
</tr>
<tr>
<td>• Findings</td>
<td></td>
</tr>
<tr>
<td>• Potential Performance Target Recommendation</td>
<td></td>
</tr>
<tr>
<td>• Bridge Overview</td>
<td>July 2019</td>
</tr>
<tr>
<td>• Findings</td>
<td></td>
</tr>
<tr>
<td>• Potential Performance Target Recommendation</td>
<td></td>
</tr>
<tr>
<td>• Special Structures, Routine Maintenance and Operations Overview</td>
<td>September 2019</td>
</tr>
<tr>
<td>• Findings</td>
<td></td>
</tr>
<tr>
<td>• Potential Performance Target Recommendation</td>
<td></td>
</tr>
<tr>
<td>• Comprehensive Review Overview</td>
<td>October 2019</td>
</tr>
<tr>
<td>• Pavement, Bridges, Special Structure and Operations Performance Measure Approval (state)</td>
<td></td>
</tr>
<tr>
<td>• Recommended investment strategies for State of Good Repair Program and Maintenance and Operations Program</td>
<td></td>
</tr>
<tr>
<td>• Comprehensive Review Approval</td>
<td>November 2019</td>
</tr>
</tbody>
</table>
VDOT Driving Forward

- Program Delivery
- Sustainable project pipeline
- Maintenance of assets
- Operations
Safety is always VDOT’s number one priority.

In 2018:

• 2,523 work zone crashes
  • 1,256 injuries
  • nine fatalities
Organizational Changes

Chief Engineer
- Plan
- Design
- Build
- Any activities prior to project acceptance

Chief of Maintenance and Operations
- Operate
- Maintain
- Any activities following project acceptance

![Diagram showing the transition from Chief Engineer to Chief of Maintenance and Operations at project acceptance]
Locally Administered Projects

• Thank you for your partnership
• Consultants and contractors are key
  • Design, environmental, contract requirements
  • Uniform Relocation Assistance and Real Property Acquisition Act
  • On time, on budget

• LAPs make up a significant portion of Virginia’s transportation program
Projects in Development by the Numbers: VDOT & Locally Administered Projects in SYIP

VDOT Administered

Locally Administered

Development typically refers to the planning, design, and procurement necessary for a project.

<table>
<thead>
<tr>
<th>VDOT Administered</th>
<th>Locally Administered</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ON-TIME</strong></td>
<td><strong>ON-TIME</strong></td>
</tr>
<tr>
<td>75%</td>
<td>64%</td>
</tr>
<tr>
<td>104 of 138</td>
<td>164 of 254</td>
</tr>
<tr>
<td>On-Time (Green + Yellow)</td>
<td>On-Time (Green + Yellow)</td>
</tr>
<tr>
<td><strong>ON-BUDGET</strong></td>
<td><strong>ON-BUDGET</strong></td>
</tr>
<tr>
<td>71%</td>
<td>69%</td>
</tr>
<tr>
<td>99 of 138</td>
<td>176 of 254</td>
</tr>
<tr>
<td>On-Budget (Green)</td>
<td>On-Budget (Green)</td>
</tr>
</tbody>
</table>
Project Delivery by the Numbers: VDOT & Locally Administered Projects in SYIP

VDOT Administered

Deliver typically refers to the construction of a project, or delivery of products or services to finish the project.

ON-TIME

85%

234 of 275
On-Time
(Green + Yellow)

77%

100%

ON-BUDGET

97%

268 of 275
On-Budget
(Green)

85%

100%

Locally Administered

Deliver typically refers to the construction of a project, or delivery of products or services to finish the project.

ON-TIME

54%

29 of 53
On-Time
(Green + Yellow)

77%

100%

ON-BUDGET

84%

45 of 53
On-Budget
(Green)

85%

100%
CHIEF ENGINEER’S UPDATE
Vision for the Future

Bart Thrasher, P.E.

July 11, 2019
Chief Engineer: Mission and Vision

• The mission has not changed.
• The vision is simple: be the best.
• We will continue to plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life.
Chief Engineer: Objectives Moving Forward

- Efficient and effective delivery of SYIP
- Continued environmental stewardship
- Improved cost estimation process
- Carry the ball across the goal line
  - I-66
  - HRBT
  - I-81 Corridor Improvement Plan
  - High Rise Bridge
  - FredEx
Be Ready for the Unexpected.

It Will Happen.
Teamwork

- The success of both VDOT and the industry is based on how well we work together as a team.
- Teams win and lose together. Each member of the team has a job and they are expected to do it, and do it well.

Winning is a habit. Unfortunately, so is losing.

Expect to WIN!
FORMER CHIEF ENGINEER
Outgoing Review and Discussion

Garrett Moore, P.E.
Special Assistant to the Commissioner

July 11, 2019
Discussion items

• Thank you
• Good and Strong Industry in Virginia! – not enough?
• Communication – value
  • Great people in the industry
  • Great people in the department
• Mutual Benefit – take it to the next level
  • Level the playing field to get the right outcomes
• Environmental
• Get to the next level
  • 6 ½ years ago – possibly most work since interstates with 2313
  • Continued to ramp up and – today, ramping it up again
• Confidence
Construction Division – Upcoming Work

• **VDOT’s 24 month Advertisement calendar anticipates:**
  • 174 projects to be advertised between 7/1/2019 and 12/31/2019
  • Total value of these projects is over $460 million
• **Notable projects include:**
  • Hampton Roads District: Replace Drive Systems on Berkley Bridge - $79.9 million
  • Northern Virginia District: Rte 7 Interchange at Battlefield Pkwy - $65.9 million
  • Hampton Roads District: Skiffes Creek Connector $42.9 million
  • Hampton Roads District: Wythe Creek Road - Widen to 3 Lanes - $29.6 million
Construction Division – Market Trends

• No recognizable increases in commodity costs, however we are seeing labor market increases in some sectors and in specific areas

• Smaller bridge replacement jobs (less than ~$3M) are seeing limited competition with higher bid costs

• Buy America – No recognizable impacts at this time, however we are working with FHWA and other DOTs to look at potential impacts
Construction Division – Technology Focus

• Increased use of technology to include:
  • PlanGrid
  • ProjectWise Deliverables Management
  • AASHTOWare products
  • HeadLight
  • Other (drones, e-ticketing, RFID, etc.)

• Pilot projects in all 9 Districts

• Full implementation of PlanGrid and iPads in 2020
Construction Division – Environmental Performance

- VDOT & VTCA: No Room For Error – *We Must Do Things Right!*
- Associated schedule & financial impacts of not being environmentally compliant hurt all of us
- 122 active projects with CGP and/or Environmental Commitments
  - 108 Green projects
  - 12 Yellow projects
  - 1 Orange project
  - 1 Red project
- Two DEQ Warning Letters were issued within the last month
- Environmental Performance on Design-Bid-Build is better than Design-Build
Construction Division – Environmental Performance

• **Top Common Issues:**
  - Lack of stabilization within the allowable timeframe
  - Sequencing issues
  - Inadequate dewatering operations

• **Design-Build Issues & Concerns**
  - Design-Builder not following their SOQ/Technical Proposal Plan and/or Commitments
  - Design-Builder not following their approved plans
  - Design-Builder Quality Assurance does not appear to be working
  
  *Should VDOT consider having the QAM report to VDOT?*
## Construction Division – CQIP Update

### Common Non-Compliant Issues Identified by CQIP in FY 2018

<table>
<thead>
<tr>
<th>Spec Section</th>
<th>CQIP Category</th>
<th>Question</th>
<th>Times Asked in FY18</th>
<th>Times Scored Compliant</th>
<th>Times Scored Non-Compliant</th>
<th>% Compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>512.03(a)</td>
<td>Maintaining Traffic</td>
<td>Does the Contractor furnish and install signs when required, maintain signs and furnish accessory items in accordance with this section?</td>
<td>120</td>
<td>84</td>
<td>36</td>
<td>70%</td>
</tr>
<tr>
<td>512.01(4)</td>
<td>Maintaining Traffic</td>
<td>Are the work area zones in compliance with the guidelines as shown in the Typical Traffic Control figure of the Work Area Protection Manual and contract documents?</td>
<td>131</td>
<td>108</td>
<td>23</td>
<td>82%</td>
</tr>
<tr>
<td>105.03 (1)</td>
<td>Division 1 General Provisions</td>
<td>Are project records being maintained in accordance with the guidelines set forth in Appendix C of the Construction Manual?</td>
<td>146</td>
<td>123</td>
<td>23</td>
<td>84%</td>
</tr>
</tbody>
</table>
Construction Division – CQIP Update

• **M.O.T. remains to be the top common issue**
  • Six out of 10 of the top 10 non-compliances are M.O.T. related
  • CQIP will continue to randomly review work zones on projects including RAAP, Design-Build, LAP, TAMS, or any other road work that requires a work zone

• **Construction survey is an issue**
  • Survey stakeout not being in-place for verification by field staff

• **No Major workers safety violation this year**
Questions?
APD PROGRAM UPDATE
VTCA Annual Meeting

Shailendra Patel, P.E., DBIA
State Alternative Project Delivery Engineer

July 11, 2019
Route 7 over DATR - Wagman/RDA
(Awarded – June 2015; Completed – May 2018)
D-B CONTRACTS ADVERTISED

![Graph showing the total estimated DB contract value and the number of contracts advertised from 2009 to 2019. The values for each year are as follows: 2009 - $243.9M, 2010 - $130.4M, 2011 - $451.7M, 2012 - $219.2M, 2013 - $639.6M, 2014 - $568.0M, 2015 - $344.6M, 2016 - $835.8M, 2017 - $505.5M, 2018 - $43.0M, 2019 - $158.1M.]
DBB vs DB

• **DBB vs DB**
  • Choose right tool for right project
    • DBB, Traditional DB, Progressive DB
    • Low-bid vs Best Value vs Fixed Price
    • Various size projects

• **Market Conditions**

• **Potential Future Projects**
  • Richmond City Bridges over I-95 (five Bridges), Richmond District, $30M
  • Boundary Channel Road Interchange, NOVA District, $40M
  • I-81 Corridor Projects (TBD)
VTCA DESIGN-BUILD COMMITTEE TOPICS

• Stipend Levels
• As-Built Plans
• Design-Build Performance Evaluations
• Alternative Technical Concepts (ATC)
• Right of Way
• Estimating
• Progressive Design-Build
CONSULTANT PROCUREMENT PROGRAM CY 2019

- Advertised six Requests for Proposal (RFP) - $131M
- Awarded four contracts - $89M
- Active procurements - Four contract awards - $42M
- Upcoming Advertisements – approximately $26.5M
  - Six Procurements – 10 Contracts
PROCUREMENT TOPICS

• ACO – Indirect Cost Rate Submittal and Review Process (complete)
• Replacement of SF 330 with VDOT specific forms (under development)
• Payroll Certification for Post-award changes (complete)
• Standard Classification (on-going dialogue for tweaks)
• Rate Negotiations (on-going)
• Pre-Award Instructions for Locally Administered Professional Service procurements. (on-going)
• Bid Express – Implemented Effective July 1, 2019
  • First RFP advertisement this month
ENVIRONMENTAL COMPLIANCE

VTCA Annual Meeting

Angel Deem
Environmental Division Director

July 11, 2019