COMMONWEALTH of VIRGINIA

Commonwealth Transportation Board

Shannon Valentine
Chairperson

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COMMONWEALTH TRANSPORTATION BOARD
WORKSHOP AGENDA

VDOT Central Auditorium
1221 East Broad Street
Richmond, Virginia 23219

December 4, 2018
10:00 a.m.

1. 2018 Report on the Performance and Condition of the Washington Metropolitan Area Transit Authority
   Kate Mattice, Executive Director, NVTC

2. I-95 Express Lanes Fredericksburg Extension
   Marcie Parker, Virginia Department of Transportation

3. I-81 Update
   Nick Donohue, Deputy Secretary of Transportation

4. SMART SCALE Round 3 Screening Decisions
   Chad Tucker, Office of Intermodal Planning and Investment

5. Transit Funding and Reform Updates
   Jennifer DeBruhl, Virginia Department of Rail & Public Transportation

6. Vital Infrastructure Report Overview
   Garrett Moore, Virginia Department of Transportation
   John Lawson, Virginia Department of Transportation

7. Director's Items
   Jennifer Mitchell, Virginia Department of Rail & Public Transportation

8. Commissioner's Items
   Stephen Brich, Virginia Department of Transportation

9. Secretary's Items
   Shannon Valentine, Secretary of Transportation

# # #

2018 Report on the Performance and Condition of the Washington Metropolitan Area Transit Authority

Presentation to the Commonwealth Transportation Board

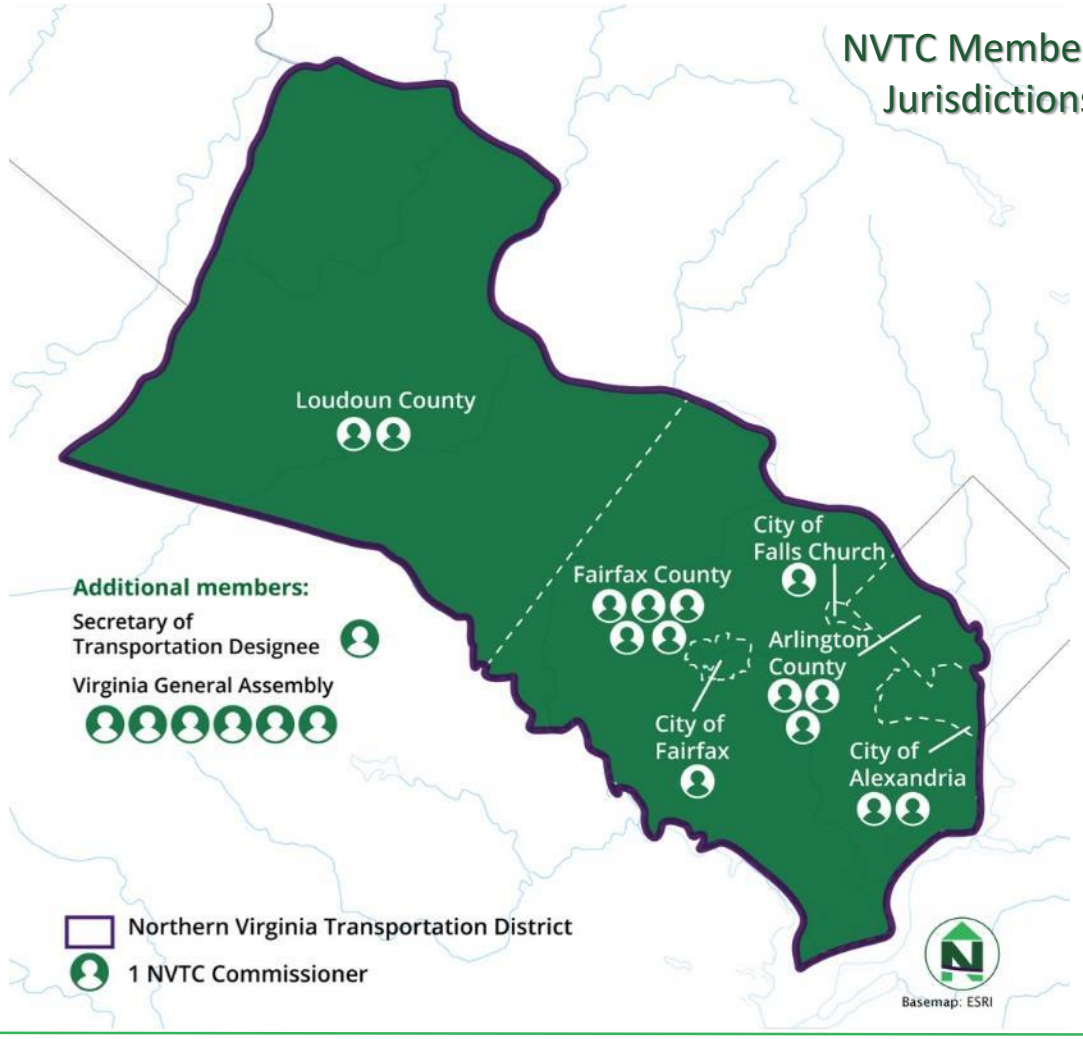
December 4, 2018

Kate Mattice, Executive Director
Northern Virginia Transportation Commission

NORTHERN VIRGINIA TRANSPORTATION COMMISSION

About the Northern Virginia Transportation Commission

- Over 50 year history of representing Northern Virginia on the WMATA Board
- Manages >$250m/year in state and regional funding for six bus systems, Metrorail and VRE
- Co-owns VRE, Virginia's only commuter rail system
- Administers I-66 Commuter Choice
- Home of regional transit research and technical expertise



NVTC Jurisdictions' Transit Systems

CUE · DASH · VRE · ART arlington transit · metro · Fairfax Connector · LC Transit

NVTC represents VA's WMATA Compact Members






- NVTC's jurisdictions are the signatories of the WMATA Compact in Virginia
  - Arlington County, Alexandria, Fairfax City, Fairfax County, Falls Church City, and Loudoun County
- Each jurisdiction has ultimate responsibility to meet WMATA obligations for Virginia (Loudoun in 2020)
- Funding for WMATA in Virginia comes from local revenues, regional sales tax, regional gas tax, DRPT and, now, the new WMATA Capital Fund
- If any of these funds fall short, the local jurisdictions still maintain the obligation to pay WMATA

Requirements of HB1539 (2018)

The establishment of the WMATA Capital Fund included a number of oversight and reporting requirements of NVTC

- NVTC is to report on the performance and condition of WMATA annually to the Governor and the General Assembly.
  - First report was delivered on November 1, 2018
- NVTC must receive the following documents
  1. WMATA's annual capital budget;
  2. WMATA's annual independent financial audit;
  3. WMATA's National Transit Data annual profile; and
  4. Single audit reports
- NVTC continues to manage DRPT funding to WMATA

Per statute, the report addresses six elements:

- The **safety** and **reliability** of the **rapid heavy rail** mass transportation system and **bus** network
- The **financial performance** of WMATA related to the operations of the **rapid heavy rail** mass transportation system, including farebox recovery, service per rider, and cost per service hour
- The **financial performance** of WMATA related to the operations of the **bus** mass transportation system, including farebox recovery, service per rider, and cost per service hour
- **Potential strategies to reduce the growth in such costs** and **to improve the efficiency** of **WMATA operations**
- **Use of the funds** authorized by the legislation to improve the safety and condition of the **rapid heavy rail** mass transportation system
- **Ridership** of the **rapid heavy rail** mass transportation system and the **bus** mass transportation system

Data Sources from Audited Public Information

Report Category	Data Reported	Data Source
Safety	Safety Event Frequency	National Transit Database
Reliability	On-time performance Vehicle reliability	Metro Performance Report
Financial Performance	Farebox recovery Service provided per rider	National Transit Database
Cost Reduction Strategies	Developed and approved by NVTC	
Use of Funds	*To be reported in future years*	
Ridership	Unlinked Passenger Trips Unlinked Passenger Miles	National Transit Database

NVTC Cost Control Strategies

Crosscutting Strategies

1. Align WMATA's business model to reflect shifts in urban/suburban mobility and define its role within the concept of mobility as a service
2. Encourage the development and use of innovation and technology within the WMATA workforce and in procurement actions and operational processes

Other Strategies

1. Rebuild Rail and Bus Ridership
2. Enhance Efficiency of Metrorail and Metrobus Operations
3. Control Cost Escalation for Labor and Contracted Services
4. Optimize Revenue Collection
5. Increase Non-Fare Revenues
6. Enhance Efficiency of the Workforce and Contractors

Use of Dedicated Capital Funds

- No expenditures were incurred during this reporting period
  - Virginia's legislation became effective on July 1, 2018
  - The Commonwealth authorized the use of $121.3 million to be disbursed to WMATA in FY2019
- NVTC will document the uses of these funds in future reports

Other WMATA-Related NVTC Efforts

Oversight and engagement with WMATA continues to be a top priority of NVTC

- Ongoing support to NVTC's WMATA Board Members
- Ongoing coordination with NVTC jurisdictions
- Continuous engagement on WMATA FY 2020 Budget development
- Administration of DRPT and Regional Gas Tax funds for WMATA
- Coordination with DPRT on withholding provisions
  - Participation by alternate directors
  - 3% cap on operating subsidy growth
  - Failure to provide key budget and planning documents
- Development of 2019 Report on WMATA Performance and Condition

For more information, contact

Kate Mattice, Executive Director

Northern Virginia Transportation Commission

www.novatransit.org

703-524-3224

I-95 EXPRESS LANES FREDERICKSBURG EXTENSION (FRED EX)

Project Update

Marcie Parker, P.E.
Fredericksburg District Engineer

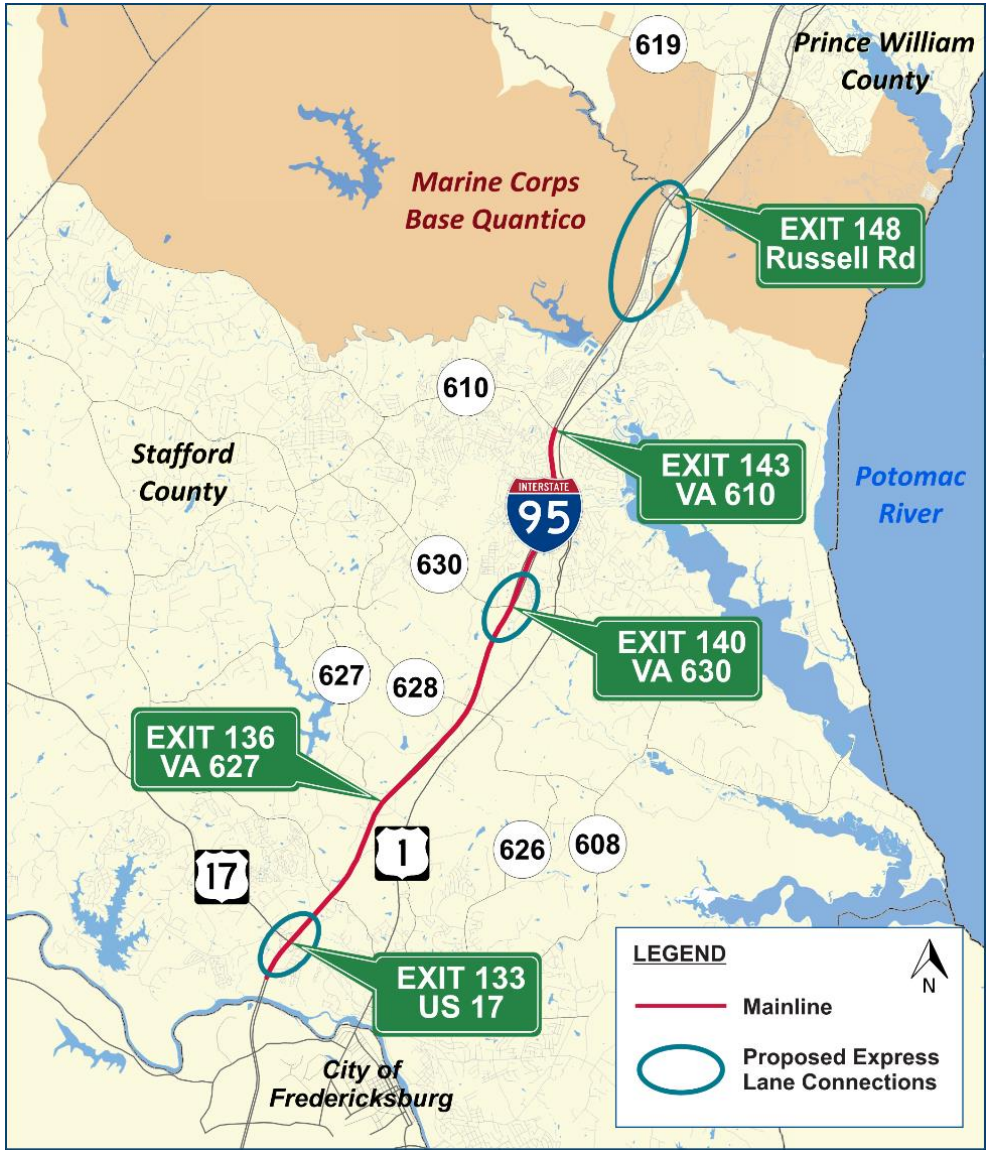
December 4, 2018

Fred Ex Project Scope

- **Extends I-95 Express Lanes 10 miles south of Route 610 Garrisonville Road (Exit 143) to Route 17 (Exit 133)**

- **Direct connection to the I-95 Southbound *(under construction)* and Northbound (*future*) Rappahannock River Crossing projects**

- **New access points**
  - Quantico / Russell Road in Prince William County
  - Courthouse Road in Stafford County
  - Route 17 in Stafford County



Fred Ex Project Schedule

VDOT / 95 Express Lanes LLC sign Advanced Development Framework Agreement	*June 2017*
Public Hearing	*September 2017*
95 Express Lanes LLC proposal for FredEx accepted	*January 2018*
Final NEPA Decision (FONSI) issued	*March 2018*
Design Build Procurement	*Ongoing*
Commercial Close	**Winter 2019**
Financial Close	**Spring 2019**
Begin Construction	**Summer 2019**
Service Commencement	**Fall 2022**

Action Items for January

HOT/HOV Designation

- Designate the I-95 Express Lanes Fredericksburg Extension as HOT Lanes
- Specify the high-occupancy requirement for the I-95 Express Lanes Fredericksburg Extension as HOV-3
- Authorize the Commissioner of Highways to establish the conditions for use of the I-95 Express Lanes Fredericksburg Extension

Tolling Memorandum Of Understanding Approval

- Approve and authorize the Commissioner to execute a Tolling MOU with FHWA/USDOT relating to tolling on I-95 Express Lanes Fredericksburg Extension.

COMMONWEALTH *of* VIRGINIA

Office of the

SECRETARY *of* TRANSPORTATION

I-81 Corridor Improvement Plan

Nick Donohue

Deputy Secretary of Transportation

December 4, 2018

I-81 Corridor Overview – Critical to Movement of Goods in Eastern U.S.

11.7
MILLION TRUCKS PER YEAR

$312
BILLION IN GOODS PER YEAR

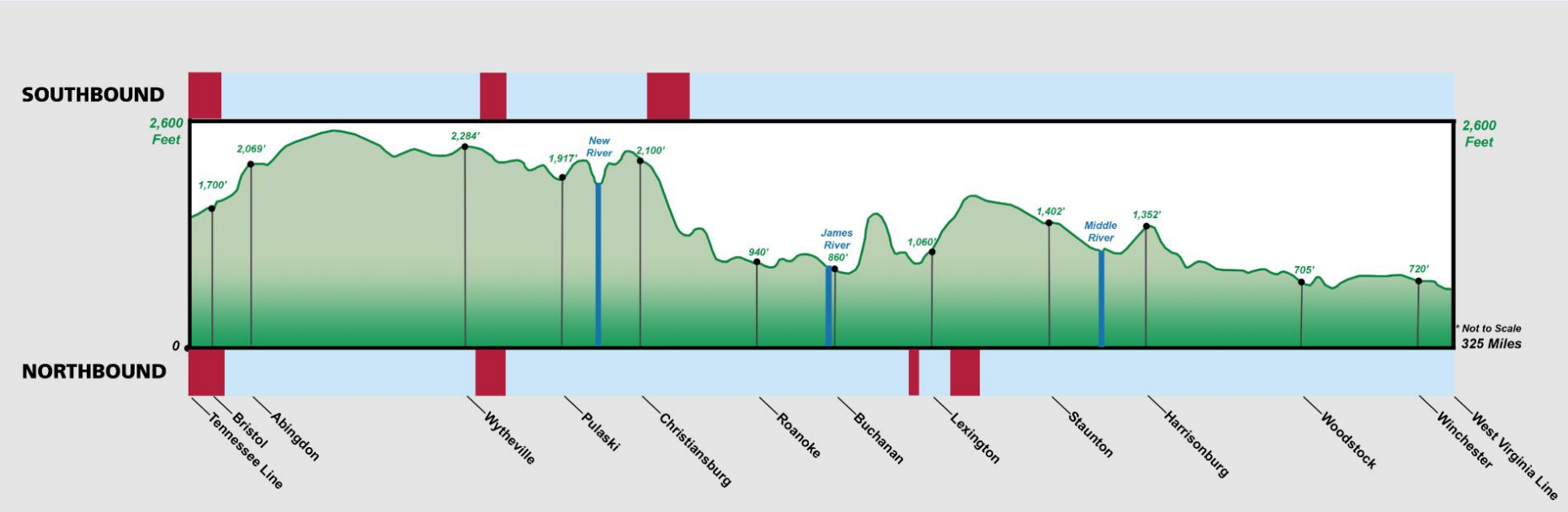
42%
OF STATEWIDE INTERSTATE TRUCK VMT

45+
CRASHES PER YEAR
(WITH CLEARANCE TIMES GREATER THAN 4 HOURS)

~11,000
CRASHES OVER 5 YEARS

Includes TRANSEARCH INSIGHT and VDOT data 2012-2016

I-81 Corridor Overview – Terrain has an Impact

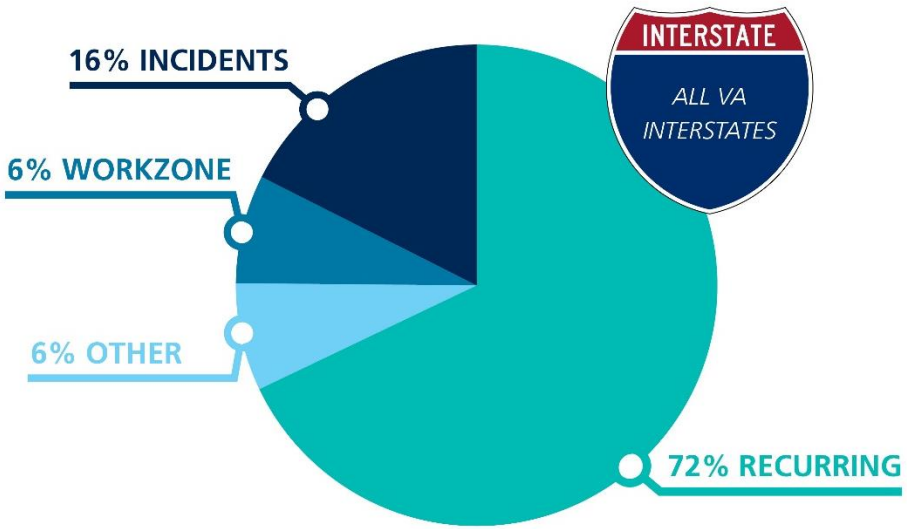


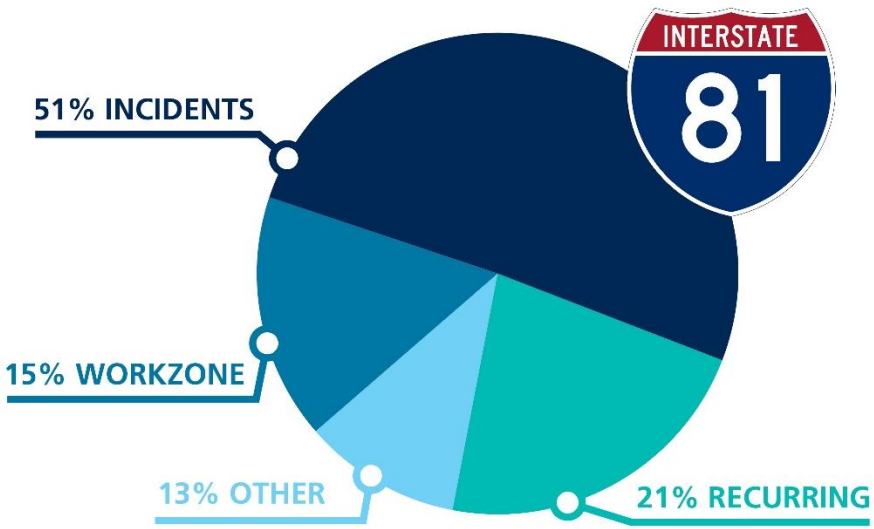
LEGEND: 3-LANE SECTION

2-LANE SECTION

I-81 Corridor Operations Plan

Delay Makes I-81 Unique





Major Interstate Corridor Funding
SMART SCALE vs. Other Resources

Interstate	SMART SCALE	Regional/Tolls/Other
I-64	$397	$1,179
I-66	0	$2,680
I-77	$5	0
I-81	$168	0
I-85	0	0
I-95/I-395	$220	$940

Figures in millions

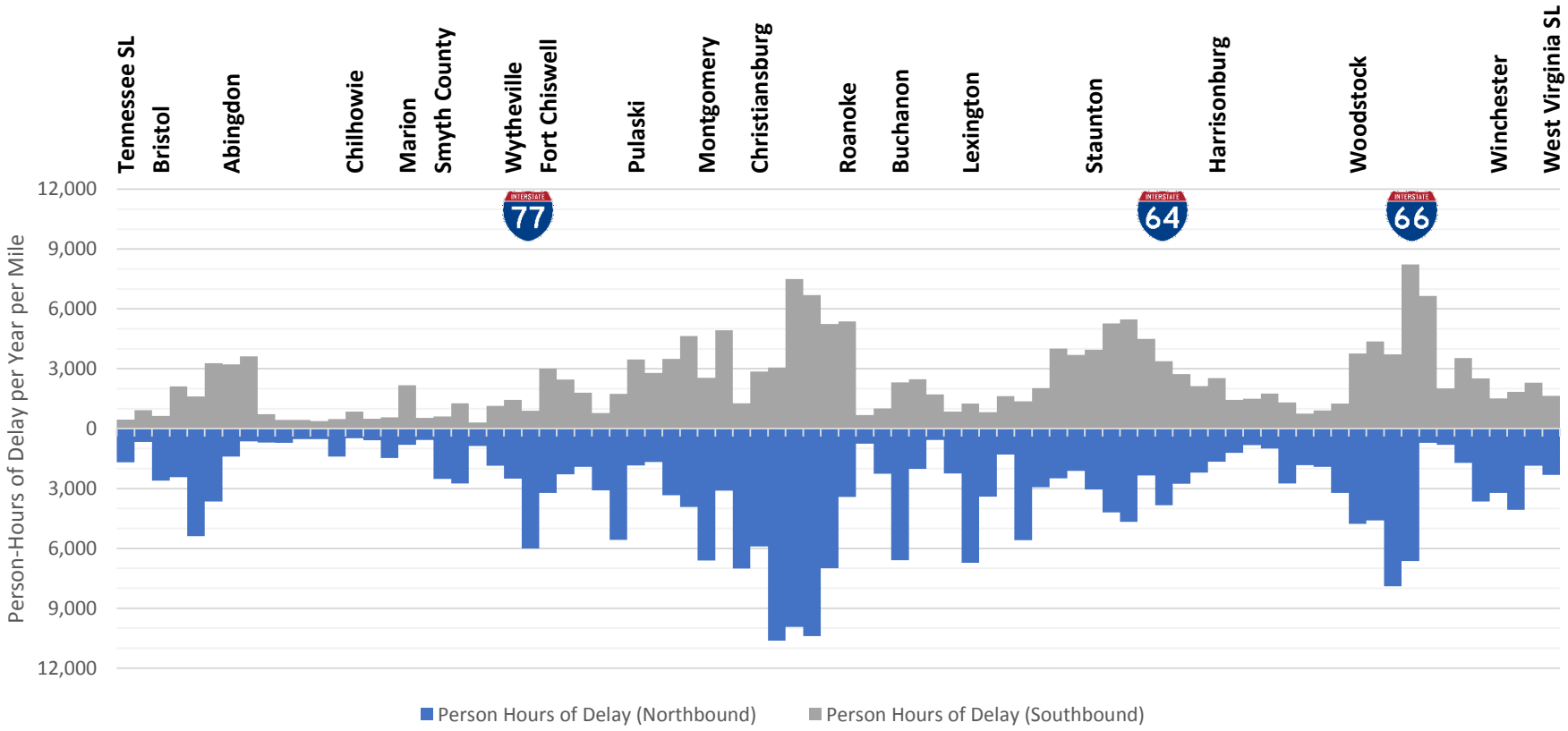
I-81 Corridor Improvement Plan

- Review of top problem areas
- Identification of potential solutions for each problem area and operations plan
- Prioritization of potential solutions and recommended improvement plan
- Development of potential financing options
- Economic impact analysis of tolling

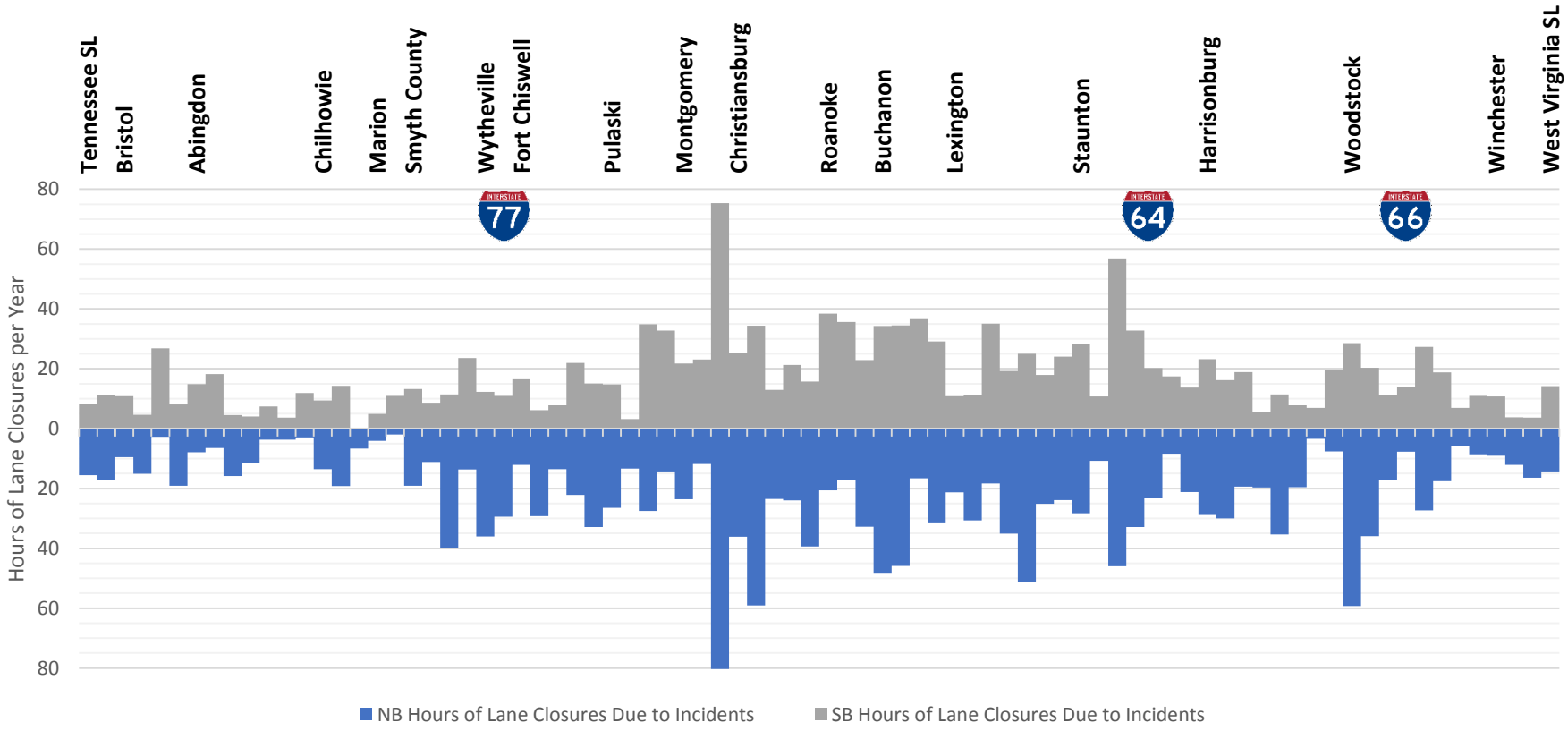
Public Engagement

- 12 public input meetings
  - 950+ attendees
- 5 Commonwealth Transportation Board briefings
- 2000+ comments received from the public

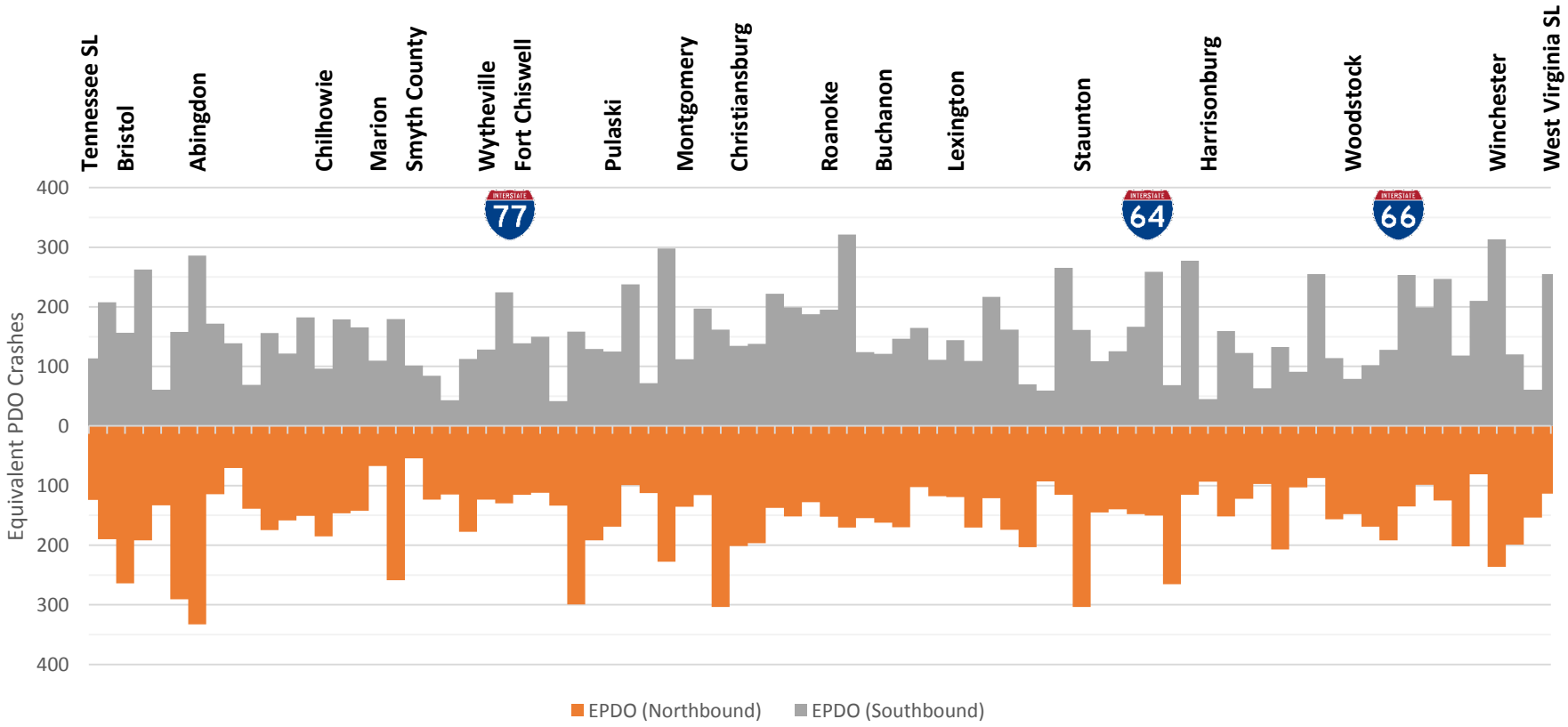
Person Hours of Delay between Interchanges - Average per One Mile Segment



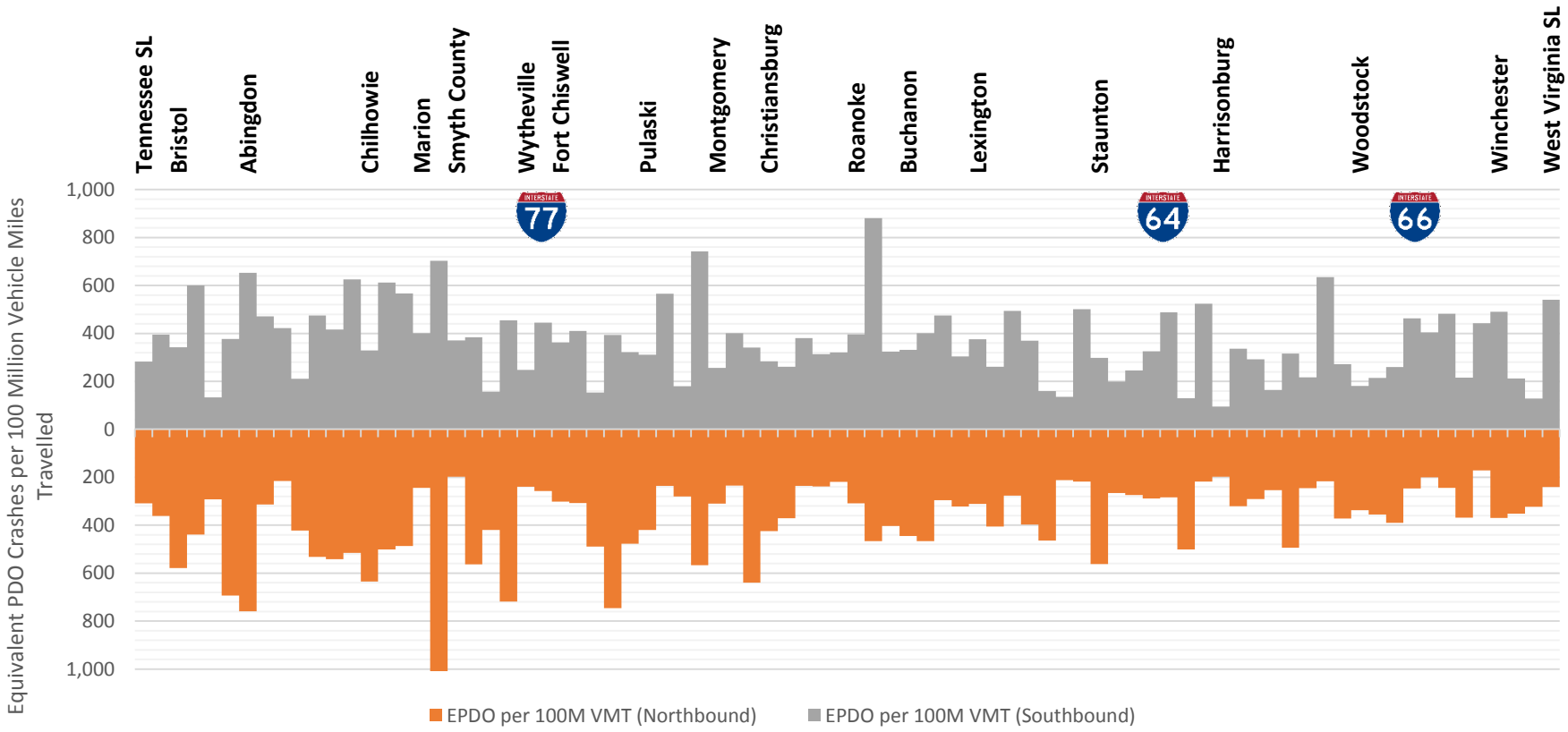
Duration of Incident - Related Lane Closures between Interchanges



Equivalent Property Damage Only – One-Mile Segments

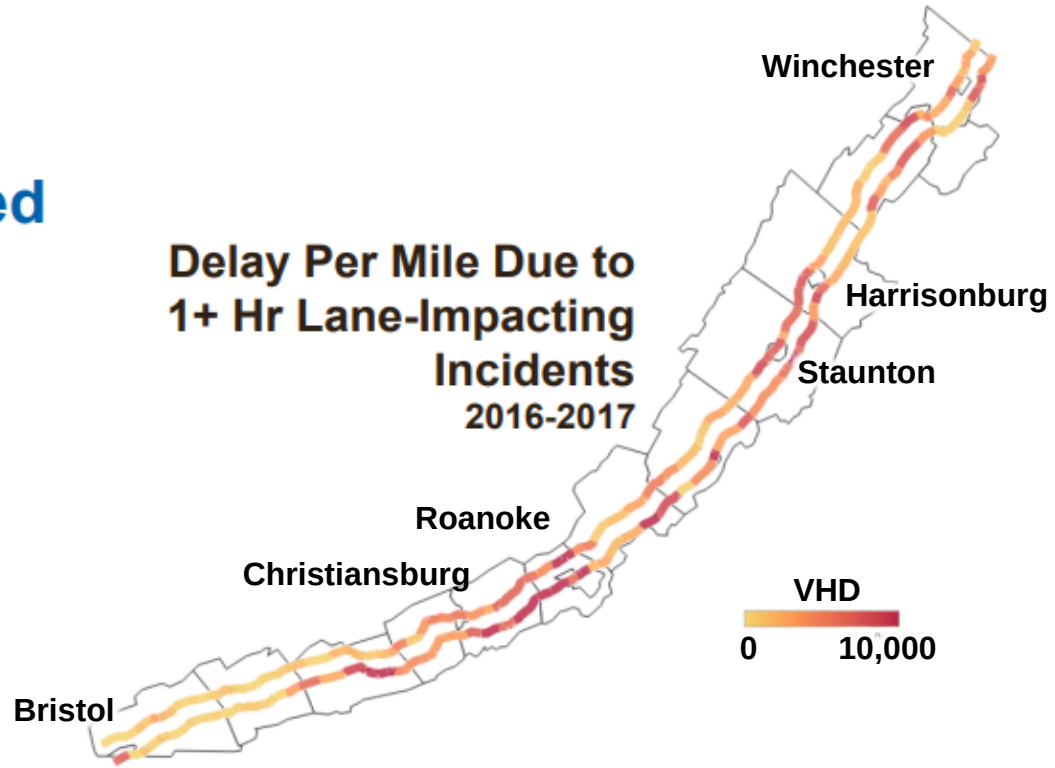


EPDO per 100M VMT – One Mile Segments



I-81 Operational Improvements

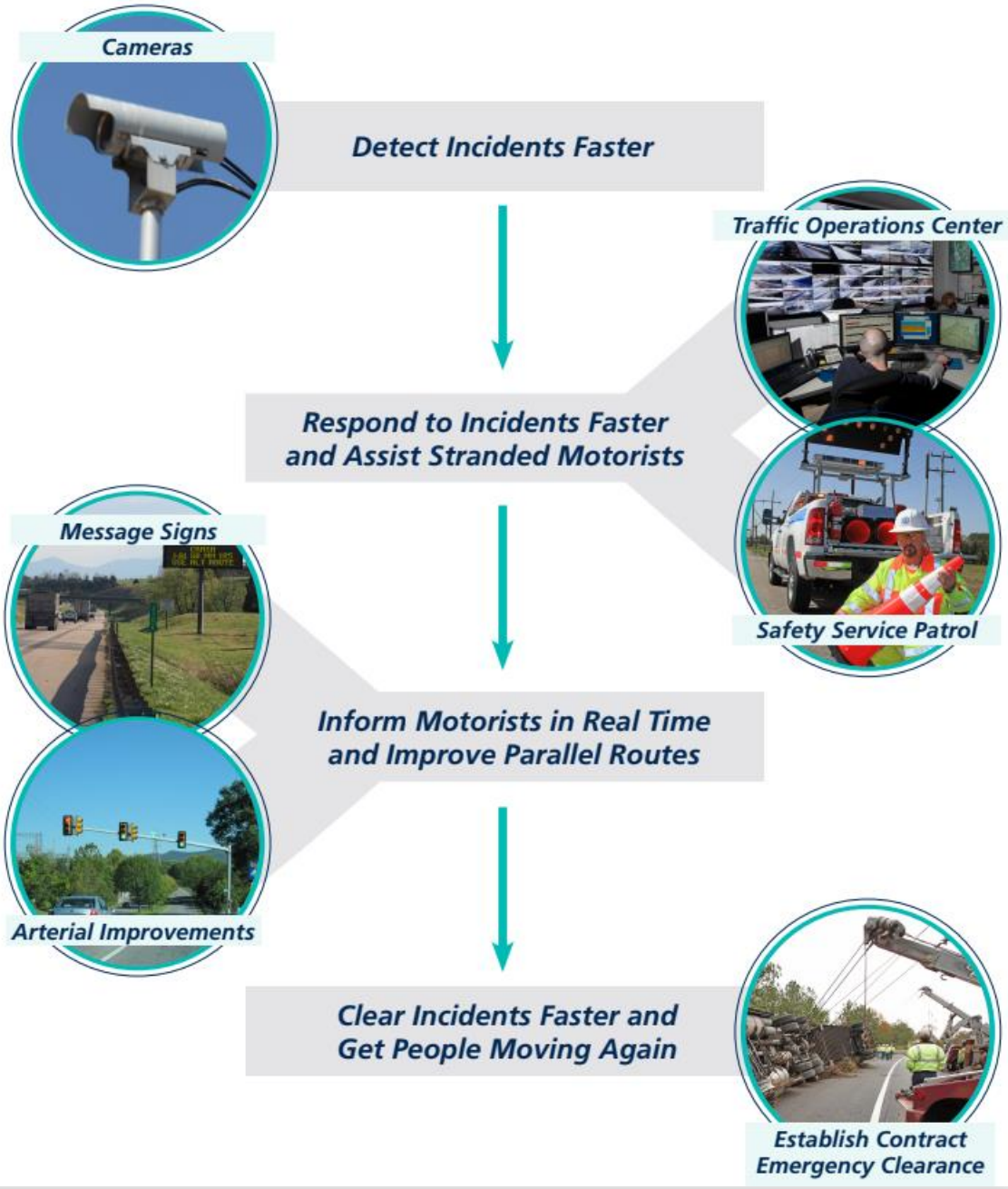
- Focused on corridor segments with the highest incident-related delay
- Identified crash hotspots
- Developed corridor-wide operations and incident management upgrade plan



I-81 Operational Improvements Plan

Key components include—

- Changeable message signs and cameras
- Expanded safety service patrols
- Detour routes and improvements to parallel facilities
- Contract emergency clearance
- Truck parking enhancements



I-81 Operational Improvements Plan
Summary Recommendations

Improvement	Estimated Implementation Cost	Estimated Annual O&M Cost
Expand Traffic Cameras & CMS	$10,750,000	$ 615,600
Enhanced Safety Service Patrols	$1,663,000	$1,744,200
Contract Emergency Clearance	$3,500,000	$3,591,000
Parallel facilities Improvements	$27,100,000	
TOTAL	$43,000,000	**$5,950,800**

Recommendations:

- Place 24 new CMS on the mainline
- Place 10 new CMS on feeder routes
- Place 37 new cameras at interchanges
- Place 8 new cameras at high incident locations
- Upgrades to parallel routes in key locations

Identifying I-81 Capital Improvements

- **Reviewed each problem area identified by performance measures**

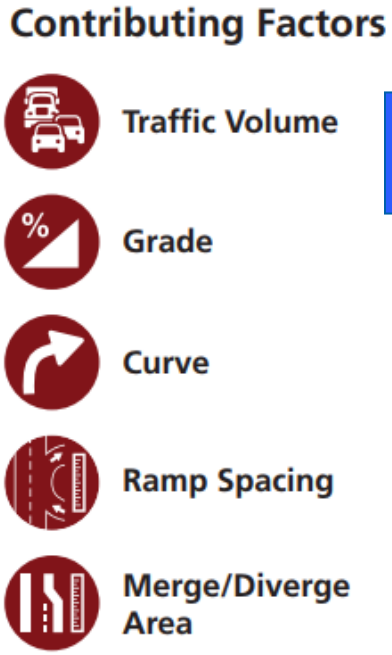
Crash Frequency

Crash Severity

Person-Hours of Delay

Incident/Crash Lane Closure > 1 Hour

- **Determined contributing factors**



- **Developed potential solutions based identified contributing factors – a total cost of $4 billion**

Prioritization of Potential Capital Improvements

- **Focused on capital improvements package of $2 billion based on industry capacity feedback – approximately ½ of cost of all improvements**

- **Evaluated all potential capital improvements using SMART SCALE-like process with benefits determined as follows:**
  - **40% based on person hours of delay**
  - **40% based on change in crash frequency**
  - **20% based on change in access to jobs**

$2 billion in I-81 Plan Capital Improvements

District	Number of Projects by Type								
	Widening	Auxiliary Lane	Truck Climbing Lane	Acceleration Lane Extension	Deceleration Lane Extension	Curve Improvement	Shoulder Widening	Total Number of Projects	Total Cost (millions $)
Bristol District	1	3	3	6	10	4	0	27	**$285.2**
Salem District	4	0	0	4	2	3	0	13	**$875.3**
Staunton District	4	1	2	10	4	1	1	23	**$838.1**
Total I-81 Corridor Number of Improvements	**9**	**4**	**5**	**20**	**16**	**8**	**1**	**63**	**$1,998.8**

Bristol District Recommendations Highlights

- Widen southbound to three lanes between Exit 10 and Exit 7
- Add northbound truck climbing lane from Exit 32
- Add a southbound truck climbing lane between MM 34 and MM 33
- Add northbound truck climbing lane from Exit 39
- Add SB auxiliary lane between Exit 54 and Smyth Safety Rest Area
- Add SB auxiliary lane between Exit 40 on I-77 and Exit 72 on I-81 and extend acceleration lane
- Add SB auxiliary lane between Exit 73 and Exit 72

Salem District Recommendations Highlights

- **Widen northbound to three lanes from MM 119 to Exit 128**
- **Widen northbound to three lanes from Exit 128 to Exit 137**
- **Widen northbound and southbound to three lanes from Exit 137 to Exit 141**
  - Links up with SMART SCALE funded improvements from 141 to 143
- **Widen northbound and southbound from MM 144 to Exit 150**

Staunton District Recommendations Highlights

- Add southbound auxiliary lane between Exit 221 and Exit 220
- Widen northbound and southbound to three lanes between Exit 225 and Exit 221
- Add northbound truck climbing lane between MM 234 & 237.9
- Add southbound truck climbing lane between MM 238 & 235.6
- Widen northbound and southbound to three lanes between Exit 243 and Exit 248
- Widen southbound to three lanes between MM 300.1 and 296.7
- Widen northbound and southbound to three lanes between Exit 313 & Exit 317

Summary Benefit Results from Prioritized Capital Improvements

- **By deploying $2 billion of capital improvements along the I-81 corridor*:**
  - **Annual vehicle hours of delay will be reduced, on average, by more than 6 million**
    - Trucks will capture more than 3.6 million vehicle hours of annual delay reductions
    - Reductions related to construction of capital improvements responsible for more than 90% of these benefits
  - **Annual statistical crashes are anticipated to be reduced, on average, by almost 450 across the entire corridor**
    - Approximately 29% of the reduction in annual statistical crashes (representing almost 130 crashes) involve an injury

* Estimated based on the share of vehicle delays generated by projects included in list of $2 B improvements compared to total vehicle delays generated by all improvements considered in the corridor. Estimate includes benefits related to Operational Improvements

On-Going Items

- **Establish Truck Parking Task Force**
- **Establish Speed Enforcement Task Force**
- **Develop Multimodal Improvements**
- **Plan sets aside $100M to implement these items**

I-81 Financing Options

I-81 Financing Options

- **Legislation provided direction on the financing options to be considered**
  - **Evaluate feasibility of using toll financing**
  - **Do not consider tolls on commuters**
  - **May consider tolls on heavy commercial vehicles**
  - **May consider High Occupancy Toll Lanes**
  - **Evaluate other financing means**

- **Financing options presented are sufficient to fund the recommendations through a mix of debt financing and pay-as-you-go funding**

Financing Options

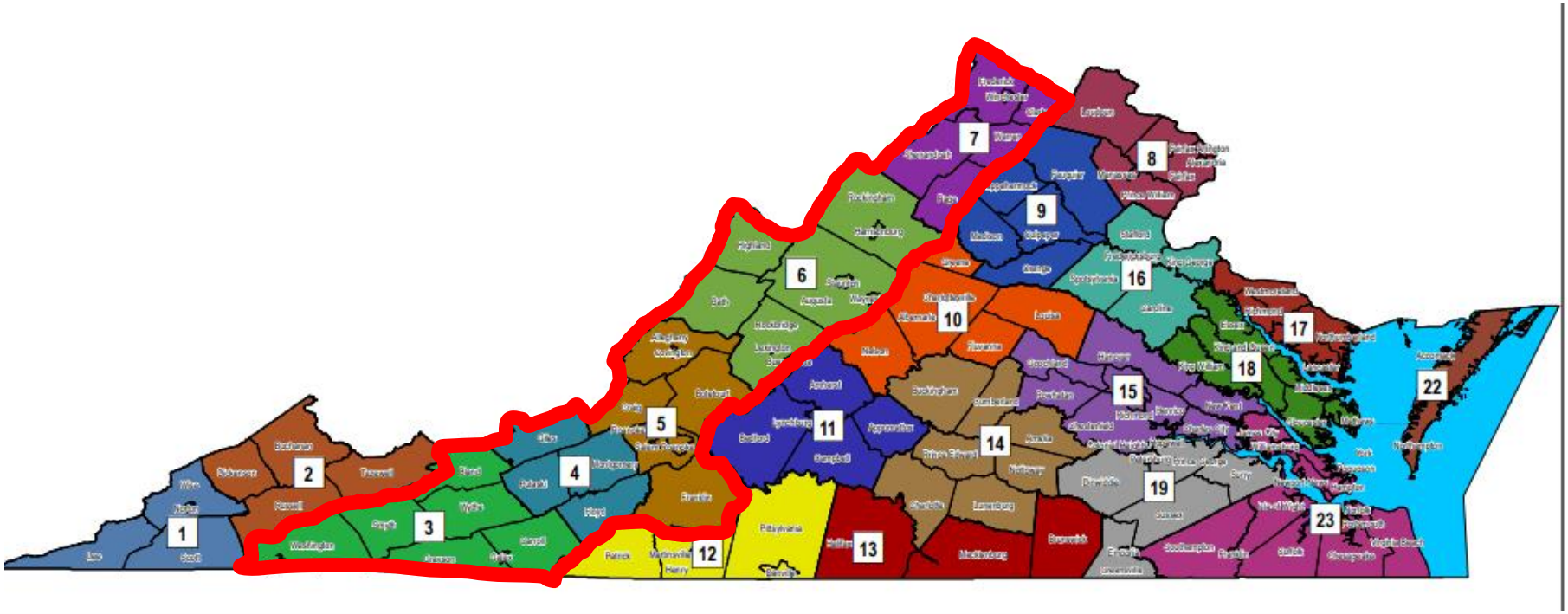
Regional Tax Option	Rate	Revenue Generated
Retail Sales and Use Tax	0.7%	$105
Regional Fuels Tax	2.1%	$60

Tolling Option	Rate	Revenue Generated
Time of Day Tolling with I-81 Auto Annual Pass	Variable	$145

*** Figures in millions and for FY2020**

Key Financial Plan Assumptions
Regional Taxes Like Northern Virginia & Hampton Roads

- Collect motor fuels and/or retail sales & use tax in PDCs 3-7
- Regional authority to manage revenues and financing



Tolling Option Must Meet State Requirements

- **§ 33.2-309 of the *Code of Virginia* requires any imposition of tolls for use of the interstate system to be for the stated purpose of:**
  - **Financing interstate construction and reconstruction;**
  - **Promoting efficiency;**
  - **Reducing traffic congestion; and**
  - **Improving air quality.**

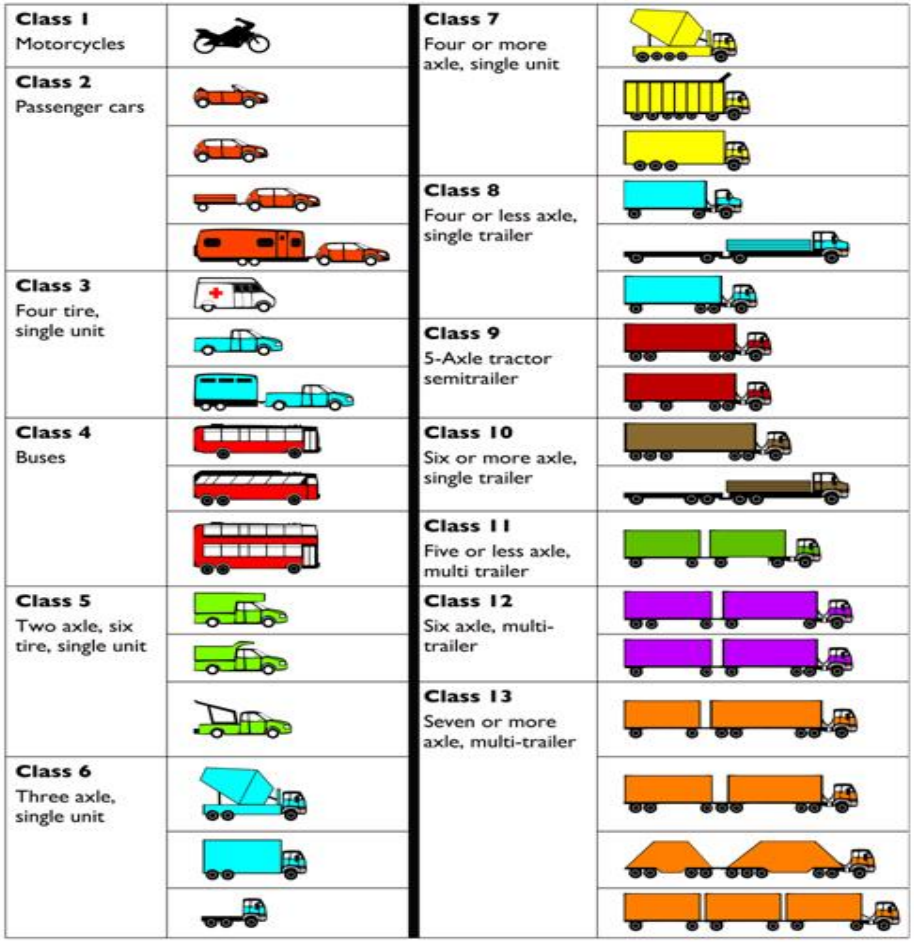
- **For I-81, § 33.2-119 of the *Code* requires General Assembly approval prior to the imposition and collection of any toll for use or all or any portion**

Tolling Option Must Meet Federal Requirements

Program	Key Requirements	I-81 Corridor Qualify?
Value Pricing Pilot Program	Tolls may be imposed on existing toll-free highways, bridges & tunnels so long as variable pricing is used to manage demand. No formal federal approval process other than NEPA	**Yes**, implement nighttime and daytime toll rates
Interstate System Reconstruction & Rehab. Pilot Program	Convert existing interstate system into a toll facility in conjunction with needed reconstruction & rehab that is only possible with the collection of tolls. Requires formal federal approval including NEPA	**Yes**, on 10-2-2018 FHWA issued a call for applications for 3 available slots on a first-come, first serve basis
Section 129 (General Toll Program)	Initial construction of new lanes on highways, bridges, & tunnels and reconstruction, restoration, or rehabilitation as long as number of toll-free lanes are not reduced. Requires formal federal approval including NEPA	**Yes**, as long as toll gantries are near or on reconstructed or rehabilitated bridges
Section 166 (HOV/HOT Lanes)	Allow toll-paying vehicles that do not meet minimum occupancy standards to use HOV lanes. No formal federal approval process other than NEPA	**No**, no existing HOV lanes

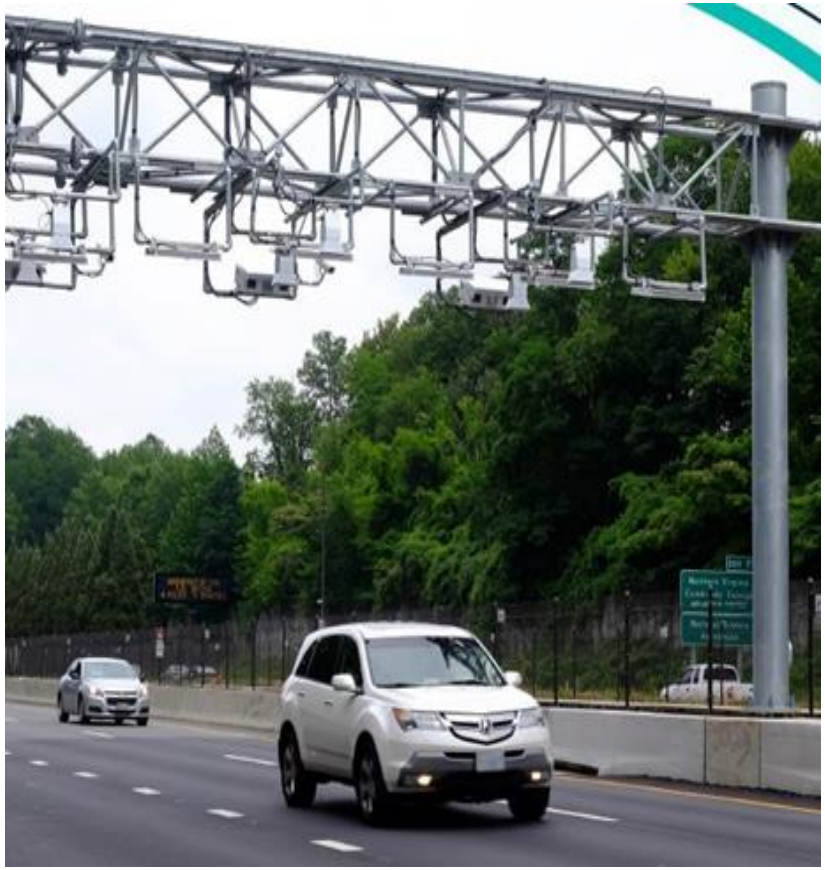
Key Definitions for Financing Options
Heavy commercial vehicle and commuters

- **Heavy Commercial Vehicle or "Trucks"**
  - **No uniform definition of term**
  - **Study assumed FHWA Classes 6 – 13**
  - **Surrounding states define similarly but lower axles (Class 5)**
- **Commuters travel first two gantries free**
- **Auto Annual Pass could eliminate commuter/non-commuter distinction**



Key Financing Options Assumptions
Tolling

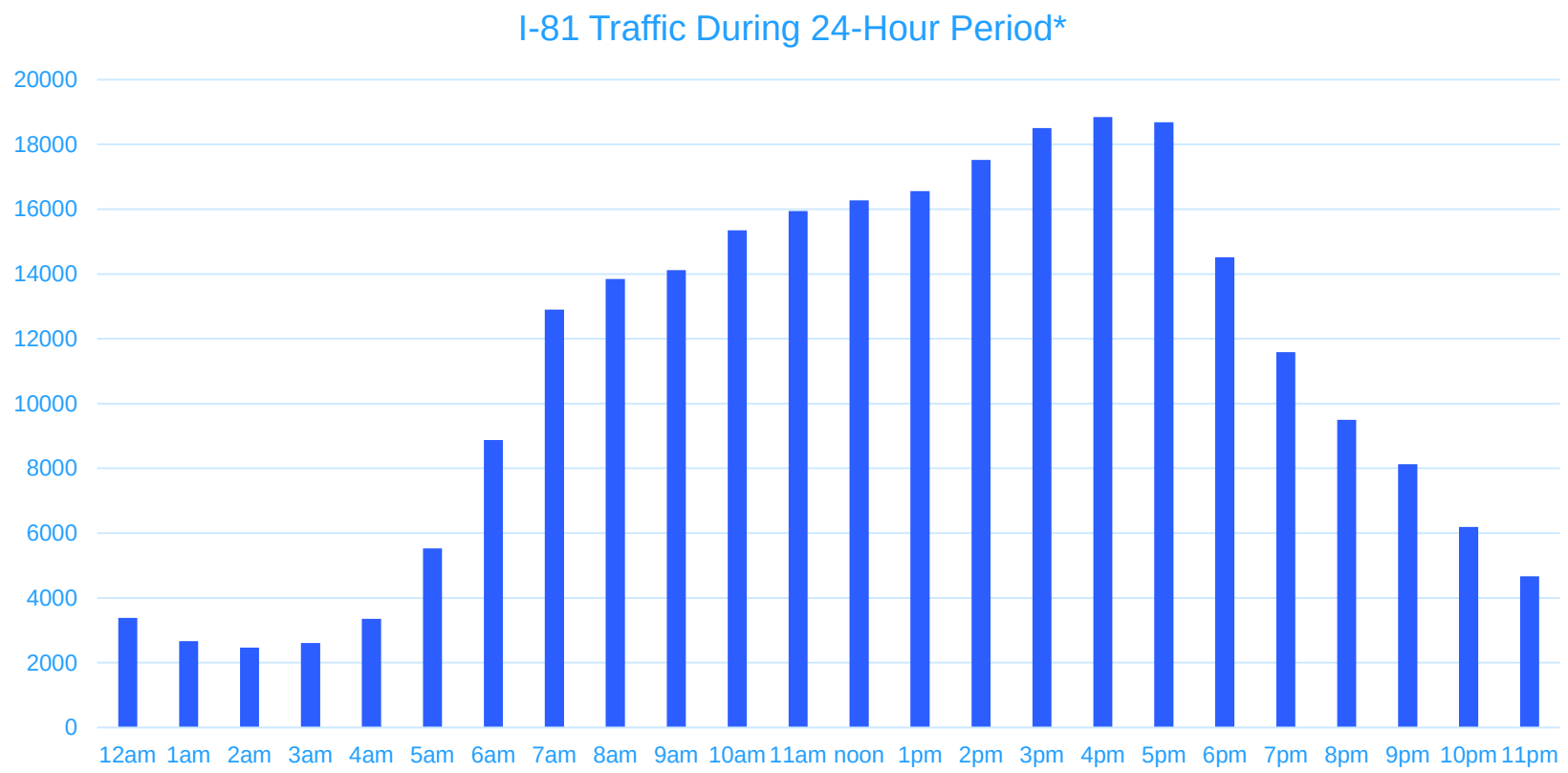
- **Collect per mile tolls without using a toll booth via:**
  - **Transponder (E-ZPass)**
  - **Video (image-based)**
  - **I-81 Auto Annual Pass**
- **6 toll gantries for 325 miles**
  - **Intersections with other interstates**
  - **Near state borders**
  - **Between urbanized areas**
  - **Closest assumed 2 locations are about 40 miles apart**



Toll Financing Option

- **Toll rates will vary between Trucks and Autos**
  - Trucks – 15¢ per mile during daytime; 7.5¢ per mile during nighttime
  - Autos – 7.5¢ per mile during daytime; 5¢ per mile during nighttime
  - All Autos may purchase $30 Annual Pass and gain unlimited access to I-81 for that year
- **Time of Day Tolling**
  - Tolls would be variable with higher during ‘daytime’ – roughly 6:00am to 9:00pm and lower from 9:00pm to 6:00am ‘nighttime’
  - Goal is to encourage more efficient use of the corridor

I-81 Traffic by Time of Day



- ***Time of Day studies at key locations throughout the corridor**

Toll Financing Option
Auto Annual Pass can replace commuter distinction

- **I-81 Auto Annual Pass**
  - $30 annual fee allows ”autos” ability to pay an annual fee for unlimited use of the facility
  - Fee could be collected through DMV
  - Pass would be offered to auto commuters and other auto corridor users
- **Users of the corridor without I-81 Auto Annual Pass would pay full auto per mile toll rate**
- **Similar to toll discount programs in other nearby states**

Toll Financing Option
Goals and Strategies

<table>
<tr><th>Goal</th><th>Implementation Strategy</th></tr>
<tr><td>Financing construction and reconstruction</td><td>Toll rates generate sufficient revenues to finance the I-81 Corridor Improvement Plan; but is not a revenue maximization strategy</td></tr>
<tr><td>Reduce traffic congestion</td><td>Time of Day Variable tolling modifies driver behavior to encourage Truck off-hour usage; Establish toll rates and other programs that discourage diversion</td></tr>
<tr><td>Promote efficiency</td><td>Time of Day Variable tolling modifies driver behavior; toll collection is through multiple methods that require no stopping</td></tr>
<tr><td>Equity</td><td>Toll rates will be the same no matter how toll is paid (transponder or video toll); Use of video tolling will result in a processing fee because of higher collection costs</td></tr>
<tr><td>Federal approval</td><td>Toll rate setting and implementation with comply with federal requirements</td></tr>
<tr><td>Consider current toll rates of peers/ surrounding entities – per mile toll rate</td><td>
<table>
<tr><th>State</th><th>Truck Toll (4-axle)</th><th>Auto Toll</th></tr>
<tr><td>West Virginia Turnpike</td><td>18¢</td><td>4.4¢</td></tr>
<tr><td>North Carolina Triangle Expressway</td><td>69¢</td><td>17¢</td></tr>
<tr><td>Pennsylvania Turnpike</td><td>22¢</td><td>10¢</td></tr>
<tr><td>Maryland I-95</td><td>73¢</td><td>11¢</td></tr>
</table>
These states vary toll rates based on method of payment; rates shown are for transponders – the lowest toll rate available.
</td></tr>
</table>

Economic Impact Analysis

Economic Impact Analysis

- **Analyzed reduced transportation costs due to implementation of the Plan and tolling costs for Virginia Trucks**
- **Reduced transportation costs include**
  - **Reduced travel times**
  - **Reduced fuel and labor costs due to travel time savings**
  - **Reduced monetary costs due to less crashes**

Economic Impact Analysis - Virginia Trucks

Share of Transportation Costs Reduction	Share of Tolls	Net Reduction in Transportation Costs
$3,419	$2,303	$1,116

1.49 ratio of transportation cost reduction to toll cost

*** Figures in millions and 2017 dollars**

Economic Impact Analysis –
Agriculture, Logistics and Manufacturing

Net transportation cost reductions were converted into direct economic impacts

	Output	Value Added	Labor Income	TOTAL
All Sectors	$968.1	$582.6	$360.0	$1,910.7
Agriculture	$12.9	$4.4	$2.4	$19.6
Logistics	$7.5	$3.3	$2.7	$13.6
Manufacturing	$218.8	$78.3	$33.1	$330.2

Next Steps

- **Board consideration of report at December 5, 2018 Action Meeting**
- **Report will be finalized and posted on public website**
- **Report will be submitted to the General Assembly by January 9, 2019**

COMMONWEALTH *of* VIRGINIA

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DMV Now
Virginia Department of Motor Vehicles

VIRGINIA DEPARTMENT OF AVIATION

DRPT
Virginia Department of Rail and Public Transportation

MVDB
Motor Vehicle Dealer Board
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SMART SCALE Update

Chad Tucker

December 4, 2018

Overview

SMART SCALE
Funding the Right Transportation Projects in Virginia

- Round Three Stats
- Validation and Screening Summary
- Round Three Observations
- Next Steps

Round Three Requests

SMART SCALE
Funding the Right Transportation Projects in Virginia

District	# of Apps	SMART SCALE Request ($M)	Total $
Bristol	50	$656	$656
Culpeper	43	$696	$746
Fredericksburg	35	$439	$493
Hampton Roads	58	$822	$4,524
Lynchburg	30	$244	$270
Northern Virginia	47	$1,721	$3,104
Richmond	85	$1,171	$1,240
Salem	49	$731	$804
Staunton	71	$477	$553
GRAND TOTAL	**468**	**$6,956**	**$12,389**

~$800M estimated to be available for Round 3

Screen Out Decisions by Round

SMART SCALE
Funding the Right Transportation Projects in Virginia

District	Screen Out Decisions by Round		
	1st	2nd	3rd
Bristol	10	5	4
Culpeper	0	0	0
Fredericksburg	0	3	1
Hampton Roads	5	9	2
Lynchburg	2	0	2
Northern Virginia	1	3	4
Richmond	14	7	6
Salem	2	3	4
Staunton	0	3	0
Grand Total	***34 of 321 (10.6%)***	***33 of 437 (7.6%)***	***23 of 468 (4.9%)***

Round Three Screening Decisions

SMART SCALE
Funding the Right Transportation Projects in Virginia

District	# of Apps	Screened Out	Reason to Screen Out		
			VTrans Need*	Project Eligibility*	Project Readiness*
Bristol	50	4	4	0	1
Culpeper	43	0	0	0	0
Fredericksburg	35	1	0	0	1
Hampton Roads	58	2	0	0	2
Lynchburg	30	2	2	0	0
Northern Virginia**	47	4	1	0	3
Richmond	85	6	1	2	4
Salem	49	4	1	0	2
Staunton	71	0	0	0	0
Grand Total	***468***	***23***	***9***	***3***	***13***

* Some projects screened out for multiple reasons
** Two projects final screening decision pending

Round 3 Observations
Project Readiness

SMART SCALE
Funding the Right Transportation Projects in Virginia

- **Round 3 project readiness policy**
  - Major widening and new location projects
    - Demonstrate alternatives to improve existing network considered
  - New interchanges and traffic signals
    - Interchange Justification Request (IJR) or signal warrant/justification completed
- 56% of project screened out because of project readiness concerns
- Project readiness is critical to minimize risks for major project changes and cost overruns

Next steps

SMART SCALE
Funding the Right Transportation Projects in Virginia

- January 15 : Scores to CTB and public
- February - April: Development of Draft SYIP
- June CTB Meeting : Adoption of SYIP

App ID	District	Organization Name	Principal Improvement	Project Title	SMART SCALE Request*	Total Cost*	Reason Screened Out
3777	Bristol	Wise County	Highway	SR 723 from SR 646 to Windswept Boulevard (Phase 1)	$ 7,937,000	$ 7,937,000	Project does not meet a VTrans need.
4005	Bristol	Wise County	Highway	SR 723 from SR 646 to Windswept Boulevard (Phase 2)	$ 9,269,000	$ 9,269,000	Project does not meet a VTrans need.
4281	Bristol	Big Stone Gap Town	Highway	Gilley Ave & Carter St Turn Lanes	$ 2,436,337	$ 2,436,337	Project does not meet a VTrans need. Project readiness - insufficent project development.
4691	Bristol	Bluefield Town	TDM	Huffard Drive TWLTL	$ 6,028,842	$ 6,028,842	Project does not meet a VTrans need.
3618	Fredericksburg	Fredericksburg City	Highway	Gateway Boulevard, extended	$ 18,900,000	$ 35,200,000	Project readiness - insufficent project development.
3464	Hampton Roads	Newport News City	Highway	I-64 Exit 255 (Jefferson Avenue) Ramp C	$ 6,455,554	$ 6,455,554	Project readiness - Insufficent project development.
4939	Hampton Roads	Hampton Roads Transit	Bus Transit	Peninsula Bus Rapid Transit (BRT)	$ 54,410,000	$ 224,820,000	Project readiness - insufficent project development.
3747	Lynchburg	Altavista Town	Highway	Lynch Mill / Clarion Road Intersection Improvements	$ 5,149,697	$ 5,149,697	Project does not meet a VTrans need.
4131	Lynchburg	Pittsylvania County	Highway	Route 40 and McBride Lane Intersection Improvements	$ 7,073,588	$ 7,073,588	Project does not meet a VTrans need.
3501	Northern Virginia	Prince William County	Highway	Rt 28 Corridor Improvements - City of Manassas to Fairfax Co	$ 157,572,770	$ 246,572,770	Final decision on readiness of the project is pending.
3541	Northern Virginia	Loudoun County	Highway	Braddock Road and Trailhead Drive	$ 2,286,612	$ 6,286,612	Project does not meet a VTrans need.
3593	Northern Virginia	Loudoun County	Highway	Route 15 (Montresor Road to Point of Rocks Bridge)	$ 110,681,486	$ 110,681,486	Project readiness - insufficent project development.
3594	Northern Virginia	Loudoun County Transit	Bus Transit	Loudoun ADA Transition Plan	$ 3,800,000	$ 5,800,000	Project readiness - insufficent project development.
3759	Northern Virginia	Fairfax County	Highway	Soapstone Road Extension/Dulles Toll Road Overpass	$ 51,483,714	$ 169,240,000	Final decision on readiness of the project is pending.
3796	Northern Virginia	Fairfax County	Highway	Davis Drive Extension and Dulles Toll Rd Rock Hill Overpass	$ 143,295,330	$ 164,900,000	Project readiness - insufficent project development.
3776	Richmond	Colonial Heights City	Highway	Boulevard at CSX Overpass - Safety Improvement	$ 6,567,086	$ 6,967,086	Project eligibility - majority of project cost is maintenance/state of good repair. Project readiness - insufficent project development.
3781	Richmond	Colonial Heights City	Rail Transit	Tri-Cities Area Multimodal Station	$ 11,000,000	$ 12,000,000	Project eligibility - no MPO resolution of support. Project readiness - insufficent project development.
3882	Richmond	Henrico County	Highway	I-64 @ North Gayton Road Interchange	$ 38,096,000	$ 42,030,000	Project readiness - insufficent project development.
4167	Richmond	South Hill Town	Highway	Raleigh Avenue Extension	$ 6,881,091	$ 6,881,091	Project does not meet a VTrans need.
4259	Richmond	Hopewell City	Bike/Pedestrian	Winston Churchill Dr & Arlington Rd Intersection Improvement	$ 1,229,000	$ 1,229,000	Project eligibility - majority of project cost is maintenance/state of good repair.
5070	Richmond	Petersburg City	Rail Freight	Collier Yard Access	$ 13,150,000	$ 13,150,000	Project readiness - insufficent project development.
3563	Salem	Christiansburg Town	Highway	Parkway Drive Extension to South Franklin Street	$ 10,882,000	$ 10,882,000	Project readiness - insufficent project development.
3603	Salem	Bedford County	Highway	Patriot Place Roundabout	$ 4,253,000	$ 4,253,000	Project does not meet a VTrans need.
3634	Salem	Blacksburg Town	Bus Transit	Blacksburg Multi-Modal Transit Facility	$ 12,466,397	$ 48,466,397	Project eligibility - Not a capital improvement, TDM or safety project.
3838	Salem	New River Valley Metropolitan Planning Organization	Highway	Extension of the Smart Road to I 81	$ 221,698,000	$ 221,698,000	Project readiness - insufficent project development.

*As of November 29, 2018 - final cost validation not complete for some projects

Virginia Department of Rail and Public Transportation

Transit Funding and Reforms

Status Update to the Commonwealth Transportation Board

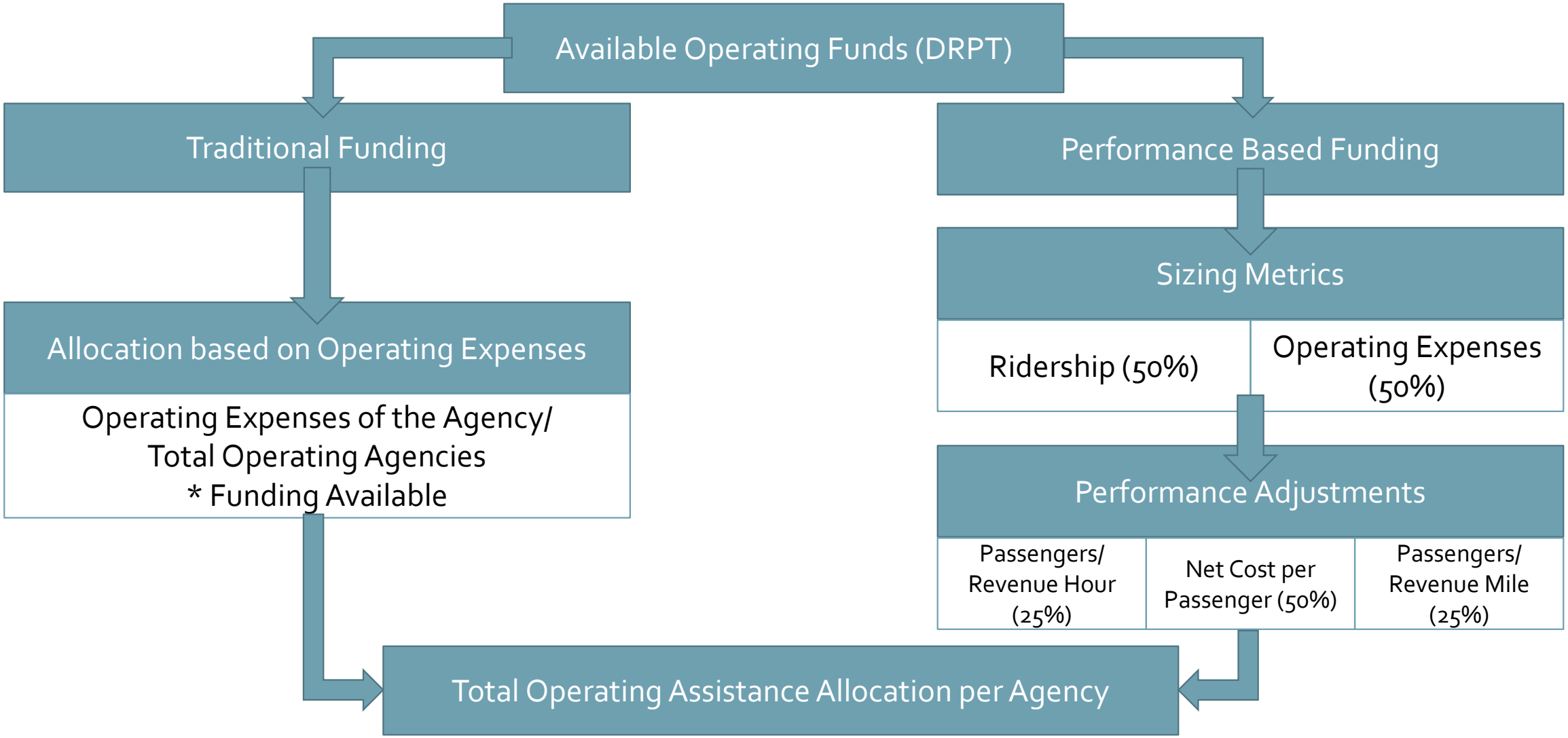
December 4, 2018

Jennifer DeBruhl
Chief of Public Transportation

Statewide Transit Operating Funds

- Effective July 1, 2019
- 100% of Statewide Operating Funds:
  - Allocated on the basis of service delivery factors
  - Made available for public comment at least one year before application
- Current Factors:
  - Passengers Per Revenue Hour
  - Passengers Per Revenue Mile
  - Net Cost Per Passenger
- Builds upon the work that began with TSDAC and legislation dating back to 2011

Current Operating Assistance Allocation Methodology



TSDAC Policy Objectives

- Promote fiscal responsibility
- Incentivize efficient operations
- Support robust transit service
- Reward higher patronage
- Promote mobility
- Support a social safety net
- Data exists for all agencies

Key Data Challenges with Performance Based Allocation

- Data Availability
  - Is the data already collected and reported?
  - If not, where will the data be sourced from?
  - What is the incremental burden of data collection and who bears it?
- Reliability, Consistency, and Timeliness of Data
  - Developing agreed-upon standards for core measures
  - Divergent data collection procedures
  - Obtaining consistent data on a regular basis over time
  - Can data be validated?
- Diversity in System and Service Characteristics

Possible Metrics for Performance Funding Allocation

- Cost Metrics
- Delivered Service Metrics
- Ridership
- Service Area Characteristics
  - Characteristics of an agency's service area, such as total size or population growth could be compared, but are not influenced by to transit service performance

Sizing and Performance

- Sizing Metrics – Designed to account for relative scale and scope of operations of diverse agencies
- Performance Metrics – Adjust allocations to reward agency performance as compared to statewide averages
- Metrics are calculated using a three-year rolling average

Alignment of Potential Sizing Metrics with Policy Objectives

Sizing Metric	Promotes Fiscal Responsibility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Supports Social Safety Net	Data Exists
Cost							✓
Operating Cost	✓	✓					✓
Revenue Hours			✓		✓		✓
Revenue Miles			✓		✓		✓
Peak Vehicles			✓				
Peak Vehicle Seats			✓				
Ridership				✓	✓		✓
Passenger Miles Traveled				✓	✓		Partial

Sizing Metrics for Commuter Rail

- Based on share of commuter rail Passenger Miles Traveled, Revenue Vehicle Hours and Revenue Vehicle Miles relative to statewide totals
- Based on current statistics, commuter rail funding pool would equal 10.9% of total revenue available

	Percentages	Total Revenue	Commuter Rail Share
PMT	33%	$30,198,544	$8,284,370.56
RVH	33%	$30,198,544	$471,680.47
RVM	33%	$30,198,544	$1,097,007.01
Total	100%	$90,595,632	$9,853,058.04
		Percentage Share	10.9%

- VRE allocation in FY19 was 11% of total revenue available
- Performance-adjustment factors would be applied to calculate VRE's final allocation

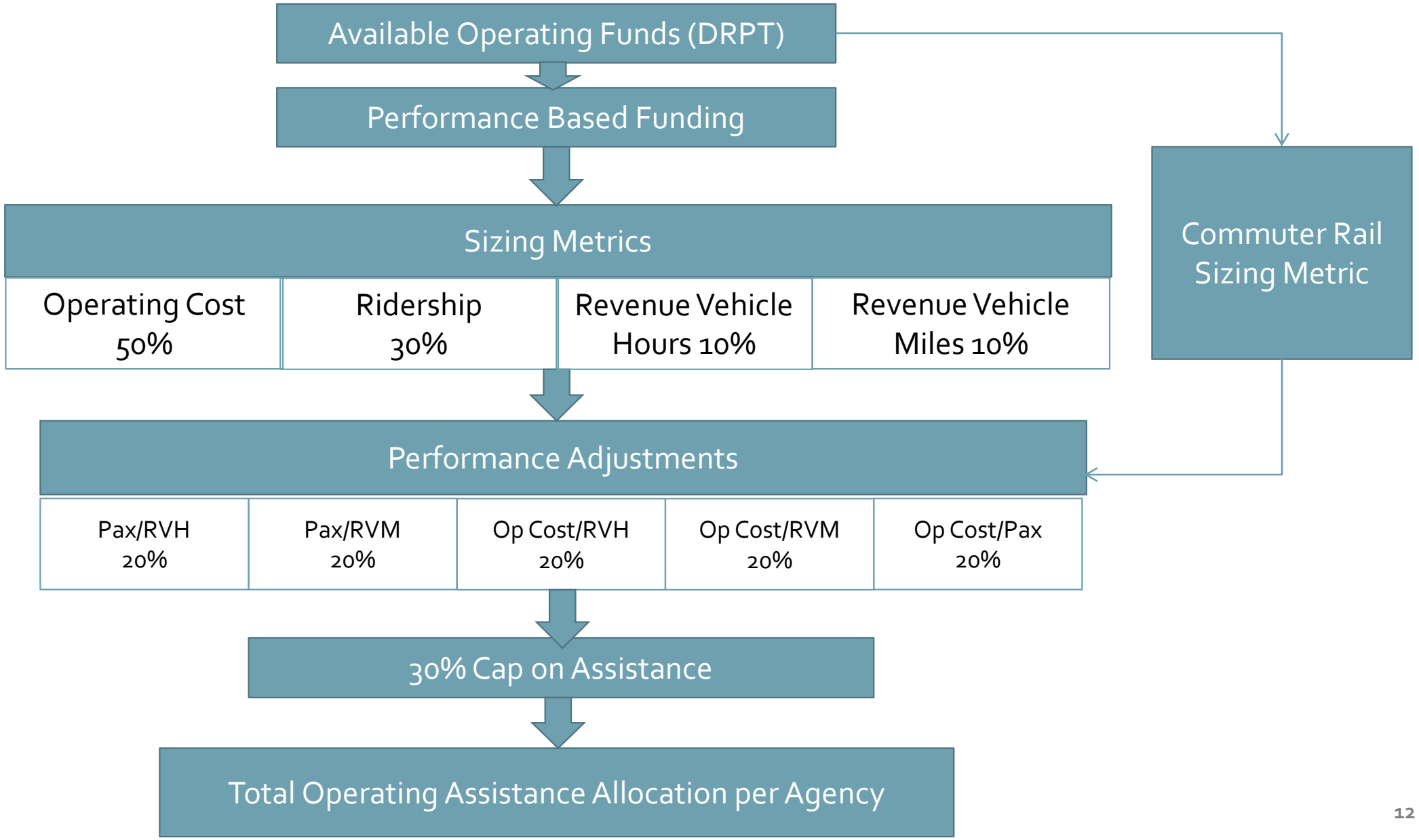
Alignment of Potential Performance Metrics with Policy Objectives

Performance Metric	Promotes Fiscal Responsibility	Incentivizes Efficient Operations	Supports Robust Transit Service	Rewards Higher Patronage	Promotes Mobility	Supports Social Safety Net	Data Exists for All Agencies
On-Time Performance		✓			✓		
Passenger Load Factor		✓		✓	✓		
Cost per Revenue Vehicle Hour	✓	✓					✓
Passengers per Revenue Hour				✓	✓		✓
Cost per Revenue Vehicle Mile	✓	✓					✓
Passengers per Revenue Mile				✓	✓		✓
Passenger Miles per Vehicle Revenue Mile		✓		✓	✓		
Net Cost Per Passenger	✓	✓					✓
Operating Cost per Passenger	✓	✓					✓

Capped Allocations as a % of Agency Operating Cost

- Current FY 19 allocations range from 18% to 32% of each agency's total Operating Costs with an average of 22%
- A cap limiting state funding as a percentage of O&M costs of an agency provides for:
  - Similar proportions of state funding across agencies
  - Limiting large swings in funding for individual agencies
- 30% cap is proposed, based on high end of FY 19 allocations
  - Only 1 agency above 30% in FY19 (Harrisonburg, 32%)
- Funds above the cap would be reallocated through the formula

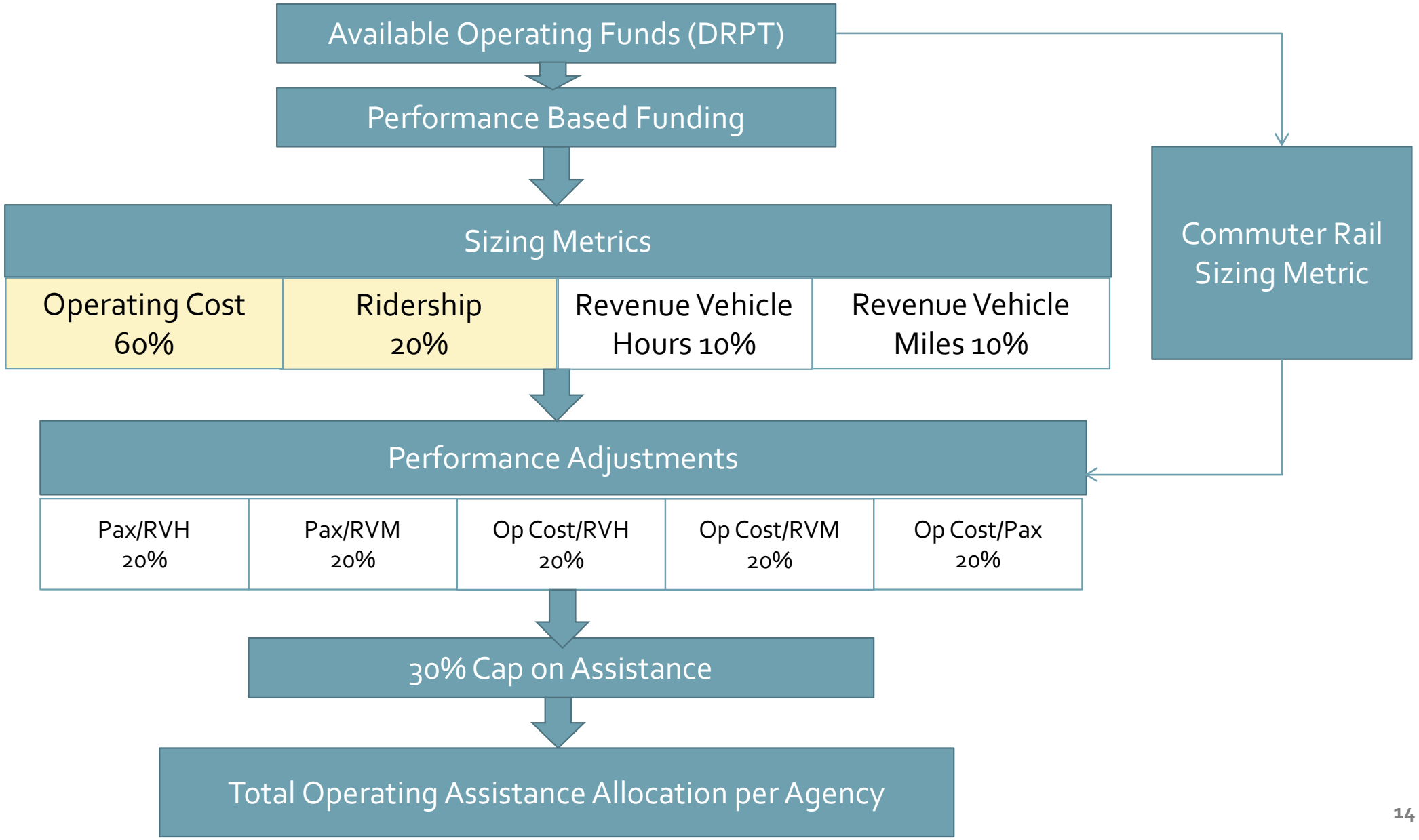
Proposed Operating Assistance Allocation Methodology



Transition Plan for FY20

- § 33.2-1526.1 – Provides for a one year notification prior to implementation of new measures by Board
- Legislative change applies to FY20 funding (exception provided for FY19 only)
- Request to phase implementation to help mitigate potential negative impacts late in the budget cycle
- Modified metrics would apply to FY20 funding only
- TSDAC has requested consideration of an additional transition year in FY2021, with modified metrics

Proposed Operating Assistance Allocation Methodology



Operating Assistance Next Steps

- December 4th — Workshop briefing on operating allocation
- Mid-December — Release draft operating allocation policy for public comment
- December/January — Legislator outreach on draft CTB policy for operating allocation
- January 15th — Workshop briefing on draft CTB policy for operating allocation
- February 20th — Action on CTB policy for operating allocation

Virginia Department of Rail and Public Transportation

Transit Funding and Reforms

Status Update to the Commonwealth Transportation Board

December 4, 2018

Jennifer DeBruhl
Chief of Public Transportation


VDOT
Virginia Department of Transportation

VITAL INFRASTRUCTURE REPORT OVERVIEW

Garrett Moore, Chief Engineer
John Lawson, Chief Financial Officer

December 4, 2018

Topics

General overview

October CTB recap

Report overview

VDOT recommendations

CTB Approval

General Overview

2013 - where we were

- **Recovery of system**
  - Normally highest risk first
- **Initial identification of future risks**
  - Shift from reactive to proactive

2015 – House Bill 1887

- **State of Good Repair Program**

2016 – 2017 – Actions

- **Implementation of State of Good Repair Program**
- **Further refinement of potential future risks**

2018 – language in budget bill

Chapter 2 (2018) Requirements for Virginia's Large & Unique Bridge and Tunnel Structures

CTB Report by December 2018

- Overall condition
- Funding needs
- Recommendations for addressing funding within the State of Good Repair Program

Assess the Impact of

- Establishing a set-aside from the State of Good Repair Program
- Limited use of allowing district minimum cap waiver (§ 33.2-369(B))
- Other options the Board identifies

What makes a structure VITAL

(*VITAL Infrastructure* – Very Large, Indispensable, Transportation Asset List)

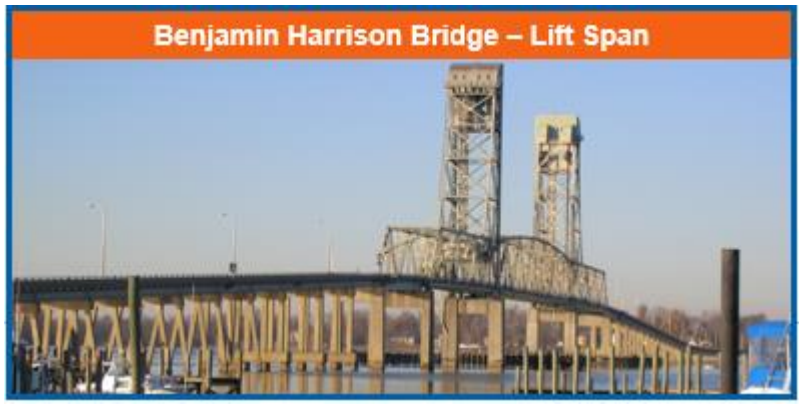
Tunnels

Monitor Merrimac Bridge Tunnel

Unique components and operational needs

Movable Bridges

Benjamin Harrison Bridge – Lift Span



Large, Complex Structures

Varina-Enon Bridge – Richmond District

Reviewed entire inventory for all bridges
All segmental post-tensioned
Complex structures over 2,000 feet in length

Report Overview

Preliminary findings

VITAL Infrastructure 30-Year Plan needs

- Over $3.6 billion in 2018 dollars
- Must be prioritized
- Will severely impact SGR Program

•VDOT must

- Review current investment strategies
- Develop a holistic programmatic approach to investment

VDOT Recommendations

CTB approve the current report as a preliminary report

VDOT will provide a more comprehensive VITAL Infrastructure report in December 2019

Next Steps

VDOT request CTB approval of report

VDOT begin review of current investments and statewide performance measures

Questions

COMMONWEALTH of VIRGINIA

Commonwealth Transportation Board

Shannon Valentine
Chairperson

1401 East Broad Street
Richmond, Virginia 23219

(804) 786-2701
Fax: (804) 786-2940

COMMONWEALTH TRANSPORTATION BOARD
WORKSHOP AGENDA

VDOT Central Auditorium
1221 East Broad Street
Richmond, Virginia 23219

December 4, 2018
10:00 a.m.

7. Director's Items
   Jennifer Mitchell, Virginia Department of Rail & Public Transportation

This item does not have a presentation associated with it, this is a time set aside for the Director to brief the Board on various items.

# # #

COMMONWEALTH of VIRGINIA

Commonwealth Transportation Board

Shannon Valentine
Chairperson

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COMMONWEALTH TRANSPORTATION BOARD
WORKSHOP AGENDA

VDOT Central Auditorium
1221 East Broad Street
Richmond, Virginia 23219

December 4, 2018
10:00 a.m.

8. Commissioner's Items
   Stephen Brich, Virginia Department of Transportation

This item does not have a presentation associated with it, this is a time set aside for the Commissioner to brief the Board on various items.

# # #

COMMONWEALTH of VIRGINIA

Commonwealth Transportation Board

Shannon Valentine
Chairperson

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Richmond, Virginia 23219

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COMMONWEALTH TRANSPORTATION BOARD
WORKSHOP AGENDA

VDOT Central Auditorium
1221 East Broad Street
Richmond, Virginia 23219

December 4, 2018
10:00 a.m.

9. Secretary's Items
   Shannon Valentine, Secretary of Transportation

This item does not have a presentation associated with it, this is a time set aside for the Secretary to brief the Board on various items.

# # #