

Overview of HB-2 and Salem District I-81 Potential Candidate Projects

Salem District Auditorium

August 27, 2015

Agenda

- **HB-2 and HB 1887 Overview**
- **Discussion of I-81 corridor-wide projects**
 - Background Information
 - Projects in design or R/W
 - Projects under construction
 - Potential high candidate projects
 - ❑ Capacity/interchange projects
 - ❑ Safety
 - ❑ Pavement/bridges
- **Closing**
 - Legislators Remarks
 - Question and Answer Period

Life Cycle of a Candidate Project

How it's planned.



Long-range, statewide multimodal policy plan.

- Serves two functions and produces two independent, but connected documents:
- VTrans2040- 25 year vision document
 - VTrans2040- Multimodal Transportation Plan (VMTP)

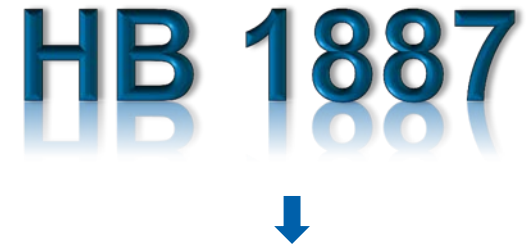
How it's scored.



Must meet a need in VTrans 2040 to be scored.

- Project located within one of following areas:
- Corridors of Statewide Significance
 - Regional Networks
 - Improvements to promote urban development areas
 - Or addresses an identified safety need

How it's funded.

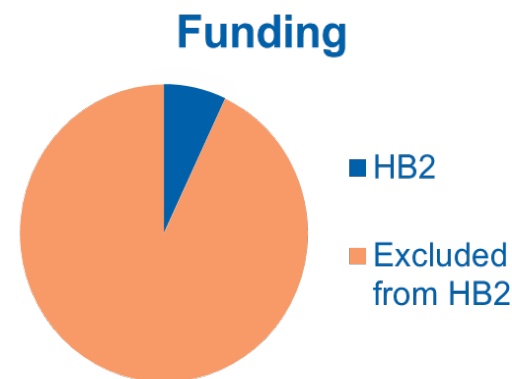


Removes the 40-30-30 formula put in place in by the 1986 Special Session legislation.

- FY17-20 (funds not programmed to projects distributed to
- High Priority Projects statewide – 50%
 - District Grant Program – 50% Effective FY 21
 - State of Good Repair – 45%
 - High-Priority Projects Program (Statewide) – 27.5%
 - District Grant Programs – 27.5%

What funds are subject to HB2?

- Funds that are subject to HB2 include state and federal highway funds (small proportion of total funding over 6 years)
- Legislation excluded the following projects and types of funding from the prioritization process:
 - Asset management
 - Revenue sharing
 - Regional revenues
 - CMAQ federal funds
 - Highway Safety federal funds
 - Transportation Alternatives funding



Funding Available for HB2 and State of Good Repair (SGR) (in millions)

	HB2 Percentage	Available for HB 2	SGR Percentage	Available for SGR
District Grant Programs		\$500.1		\$332.7
<i>Bristol</i>	7.1%	35.3	11.7%	38.9
<i>Culpeper</i>	6.2%	31.1	6.0%	19.9
<i>Fredericksburg</i>	6.9%	34.3	12.1%	40.2
<i>Hampton Roads</i>	20.2%	100.8	14.8%	49.1
<i>Lynchburg</i>	7.1%	35.7	7.6%	25.3
<i>NOVA</i>	20.7%	103.7	10.6%	35.1
<i>Richmond</i>	14.4%	72.2	17.4%	58.0
<i>Salem</i>	9.6%	48.1	12.1%	40.2
<i>Staunton</i>	7.8%	39.0	7.9%	26.1
High Priority Projects Program (Statewide)		\$500.1		
Total	100.0%	\$1,000.2	100.0%	\$332.7

* Amounts Subject to Revision

Eligible Project Types:

- Highway improvements
 - Widening projects
 - Operational improvements
 - Access management
- Transit and rail capacity expansion projects
- Transportation demand management
 - Van Pools
 - Park & Ride facilities
 - Telecommuting
- Passenger Rail

Project Types Excluded:

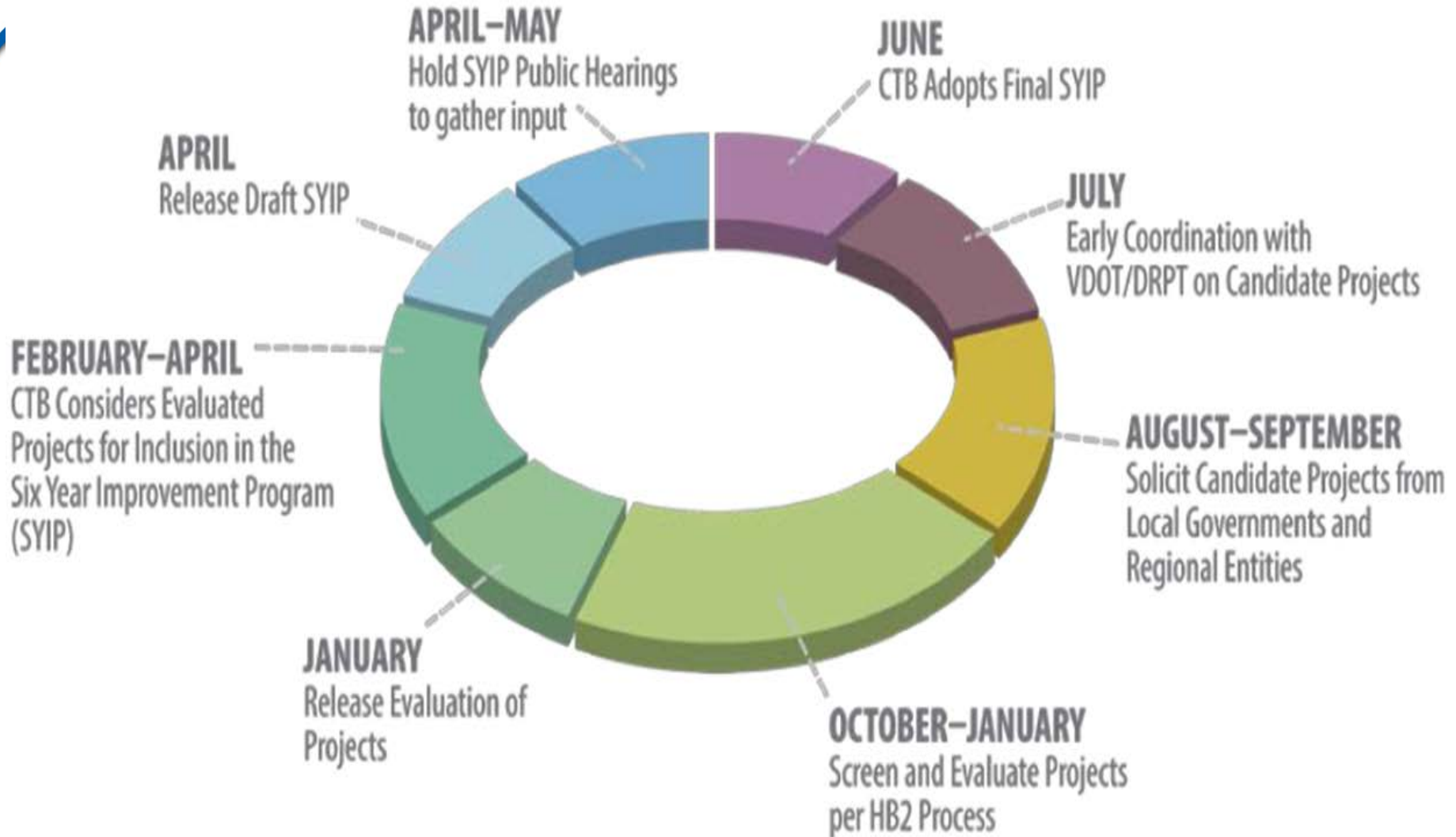
- Asset Management
 - Structurally deficient bridges
 - Reconstructive paving
 - Routine maintenance
 - Transit and Rail State of Good Repair projects

Goals that guided measure development:

- **Safety** – reduce the number and rate of fatalities and severe injuries
- **Congestion** – reduce person hours of delay and increase person throughput
- **Accessibility** – increase access to jobs and travel options
- **Economic Development** – support economic development, improve goods movement and improve travel time reliability
- **Environmental Quality** – improve air quality and avoid impacts to the natural environment
- **Land Use** – support transportation efficient land development patterns

Anticipated **HB2** Yearly Cycle

Funding the Right
Transportation Projects

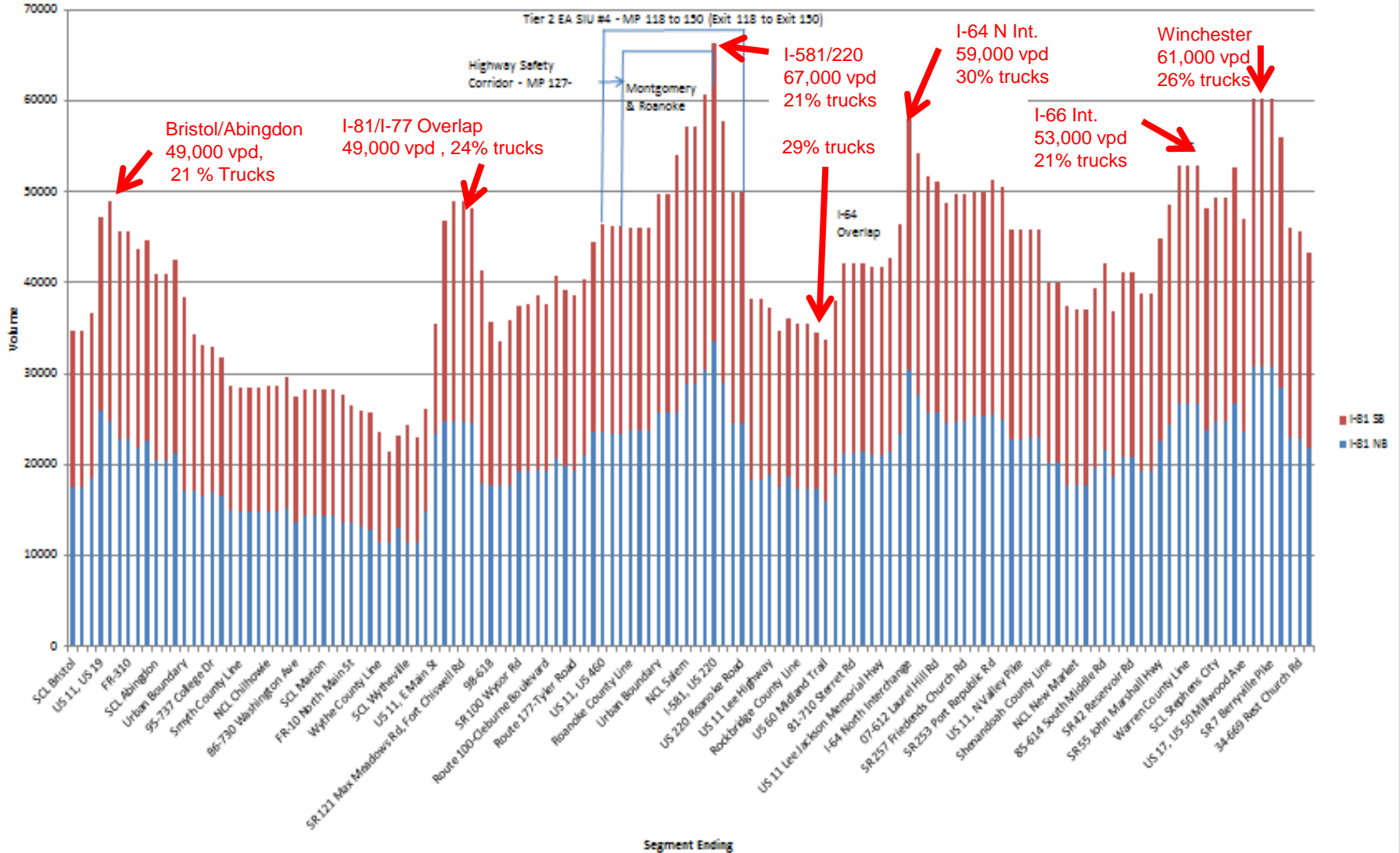


I-81 Background Information

- **I-81 Corridor Mileage: 325 miles total – TN to WVA**
 - Bristol: 86.6 miles
 - Salem: 86.8 miles
 - Staunton: 151.6 miles
- **90 interchanges**
- **In top eight truck routes in the United States**
 - Designed for 15% trucks, now carrying 18-33% trucks
 - Mountainous and rolling terrain – up to 6% grades
- **Provides access to 39 institutions of higher education.**
- **Traffic volume ranges (AADT) – 2014**
 - Bristol: 24,000 – 50,000 vehicles per day
 - Salem: 35,000 – 67,000 vehicles per day
 - Staunton: 32,000 – 62,000 vehicles per day
- **Average Annual Vehicle Miles of Travel (AVMT), all segments – 2010-2014: 4.8 billion vehicle miles per year**

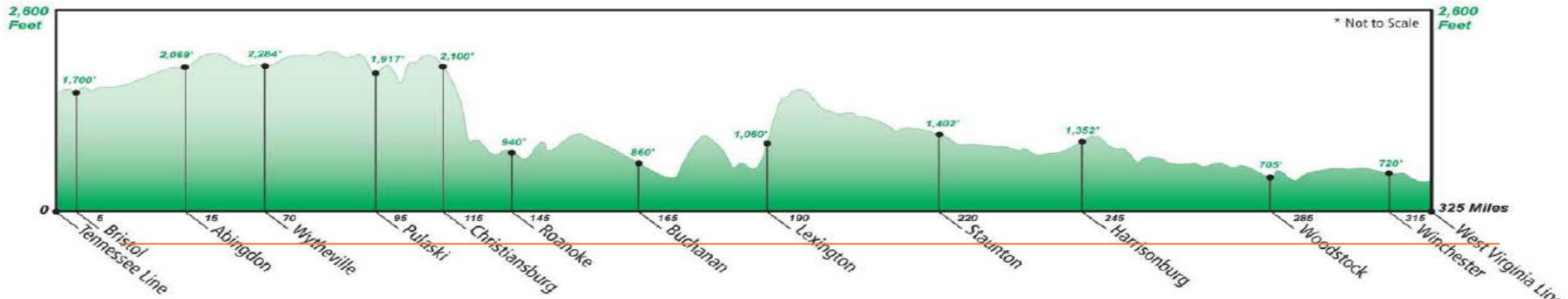
I-81 Background Information

2014 AADT by Link – Combined NB & SB






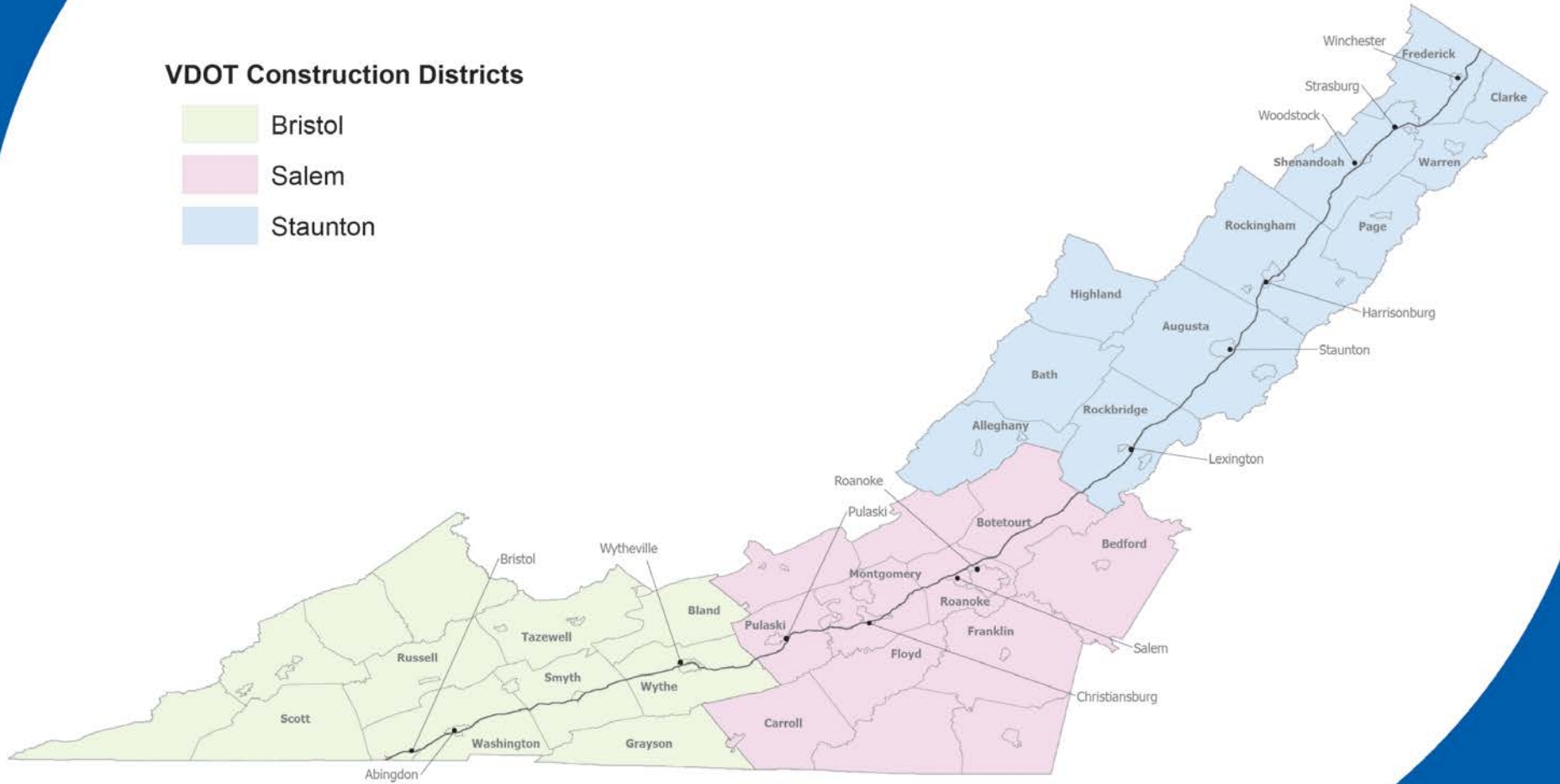
I-81 Terrain Information

Tennessee to West Virginia

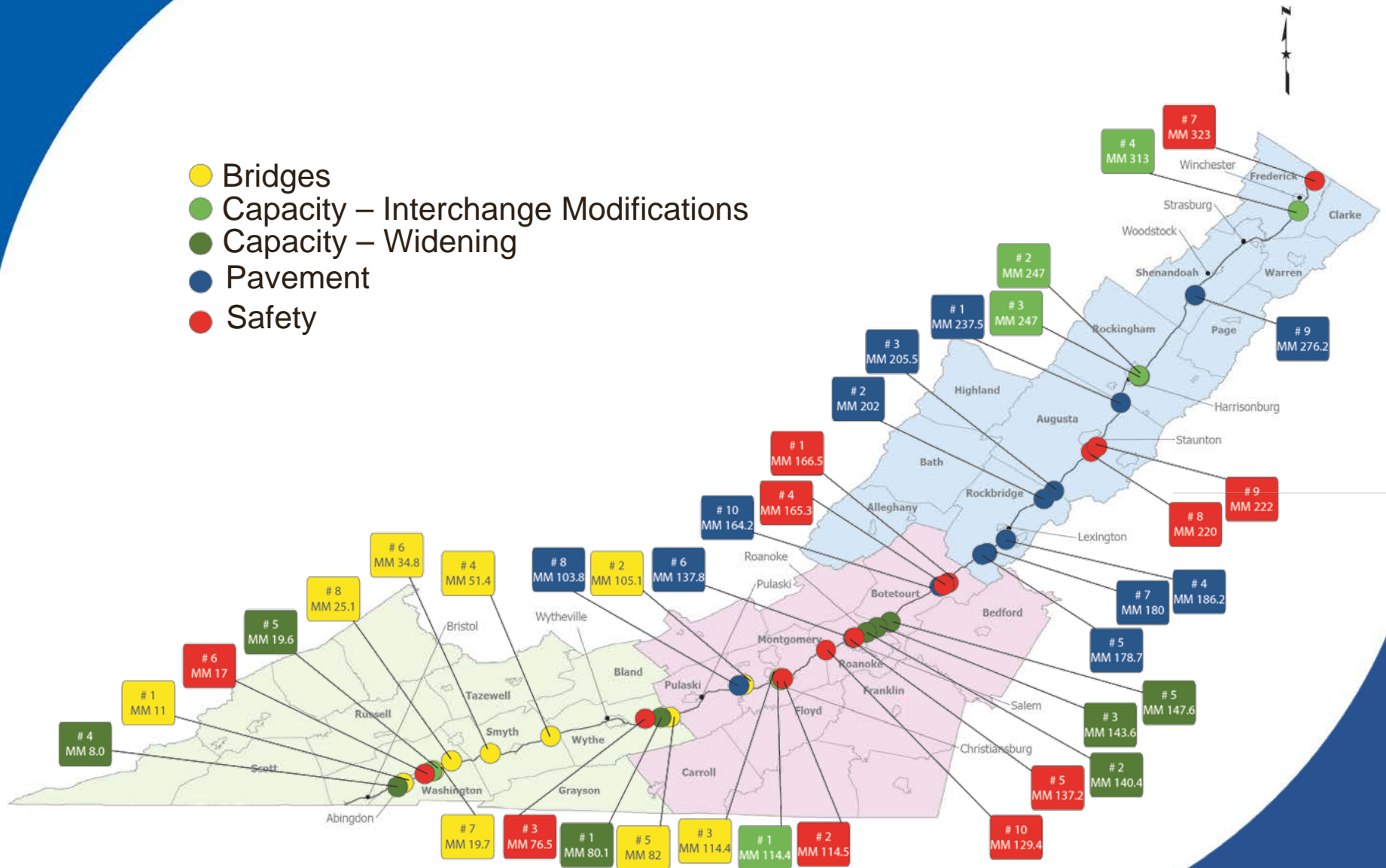


VDOT Construction Districts

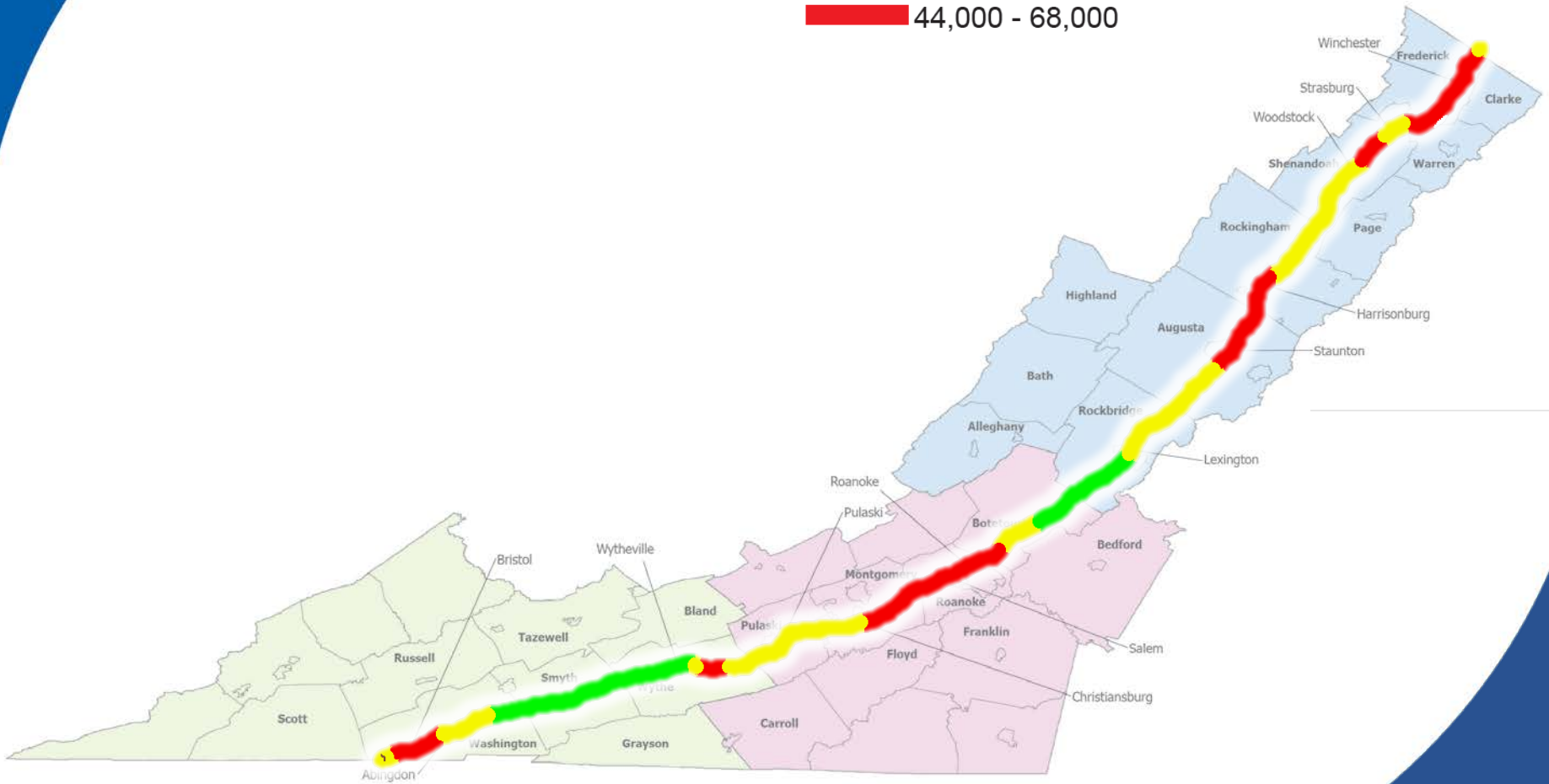
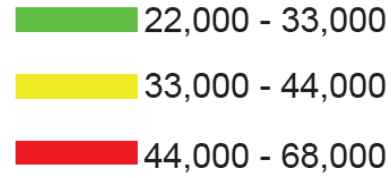
-  Bristol
-  Salem
-  Staunton



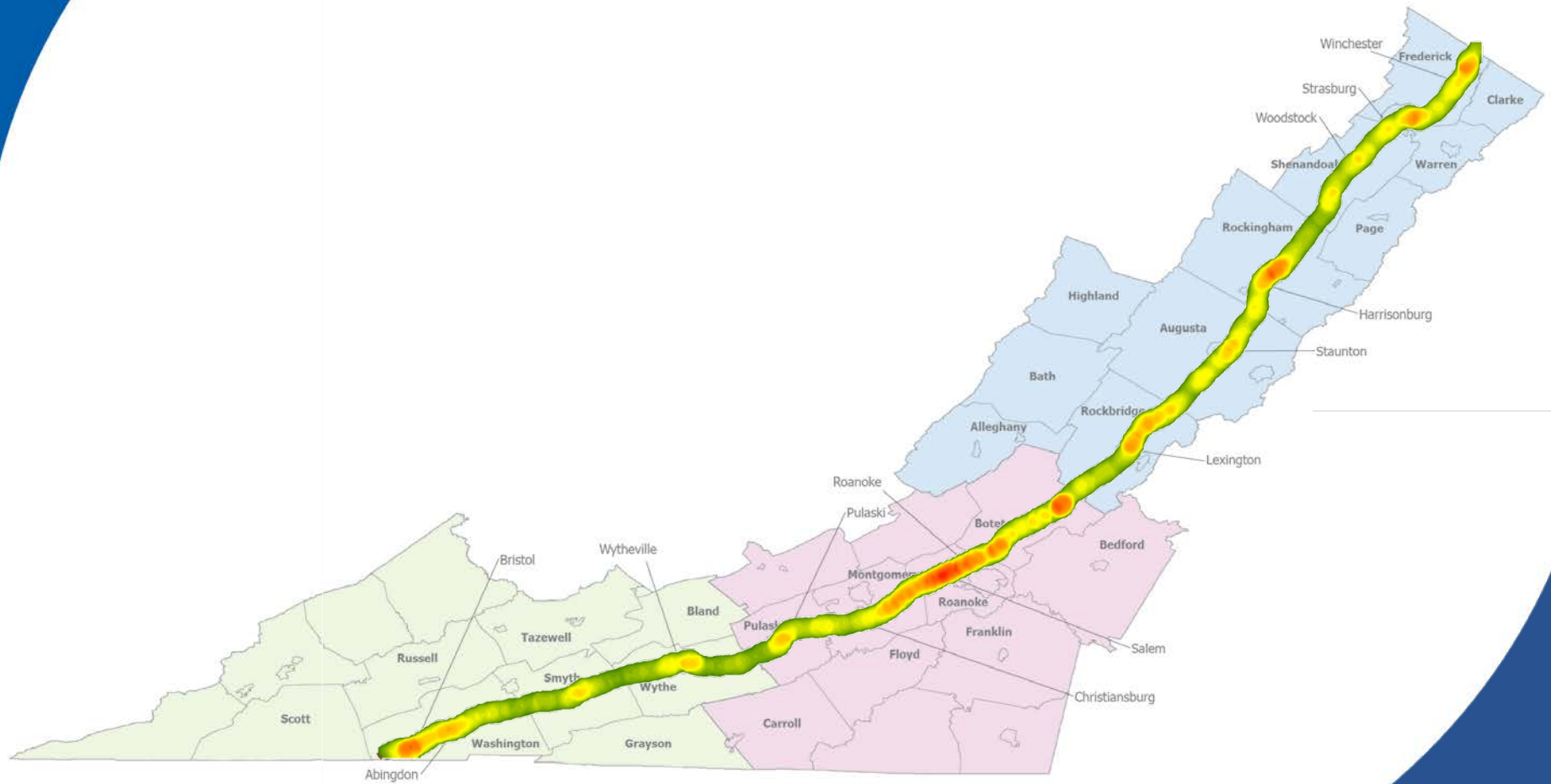
- Bridges
- Capacity – Interchange Modifications
- Capacity – Widening
- Pavement
- Safety



I-81 Existing Daily Traffic Map



I-81 Crash Density Heat Map

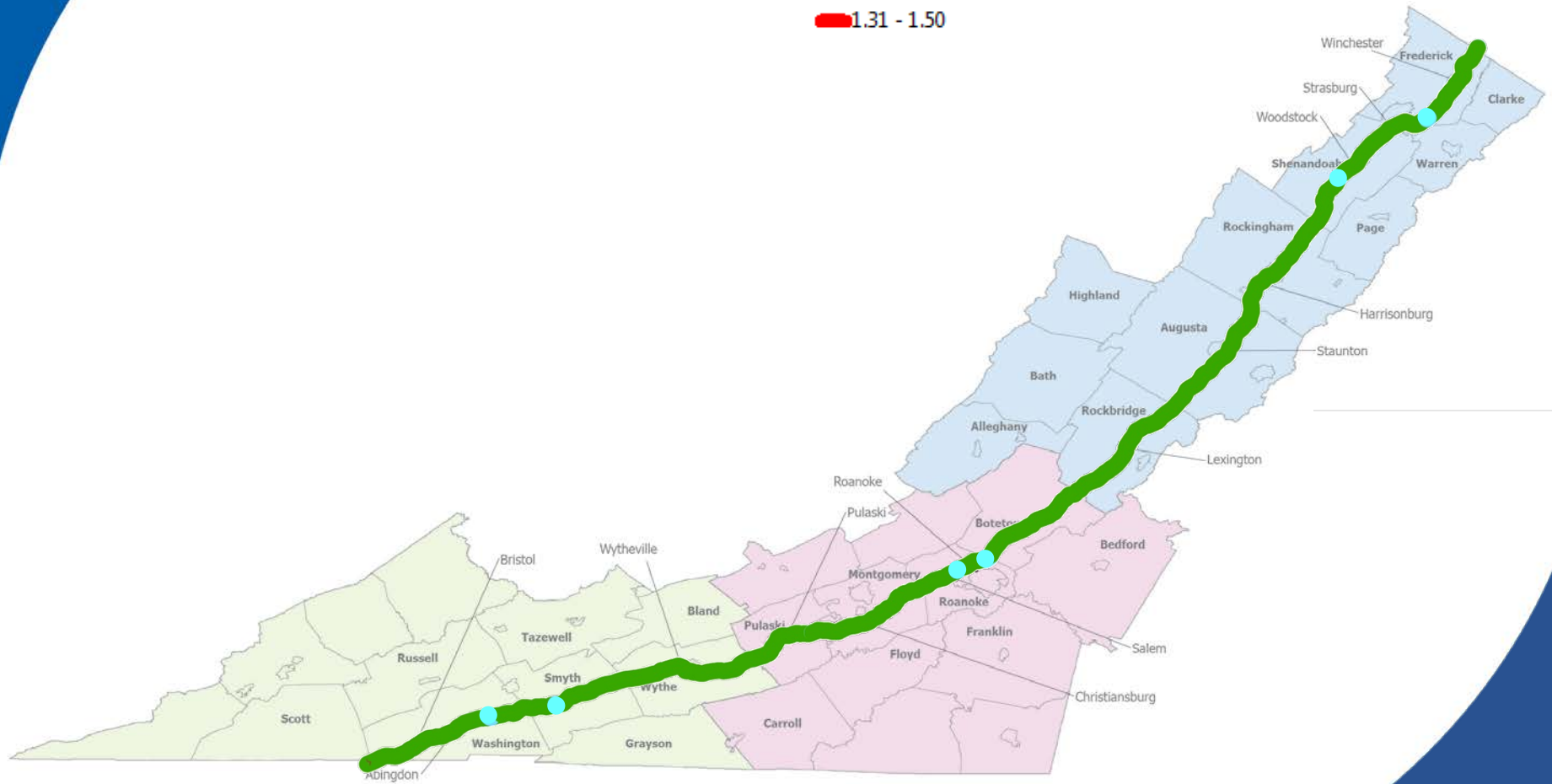


I-81 Travel Time Reliability Index

Map

Average Peak Hour

- 1.00 - 1.05
- 1.06 - 1.10
- 1.11 - 1.20
- 1.21 - 1.30
- 1.31 - 1.50



Large Lot & Mega Site Locations

Source: Virginia Economic Development Partnership

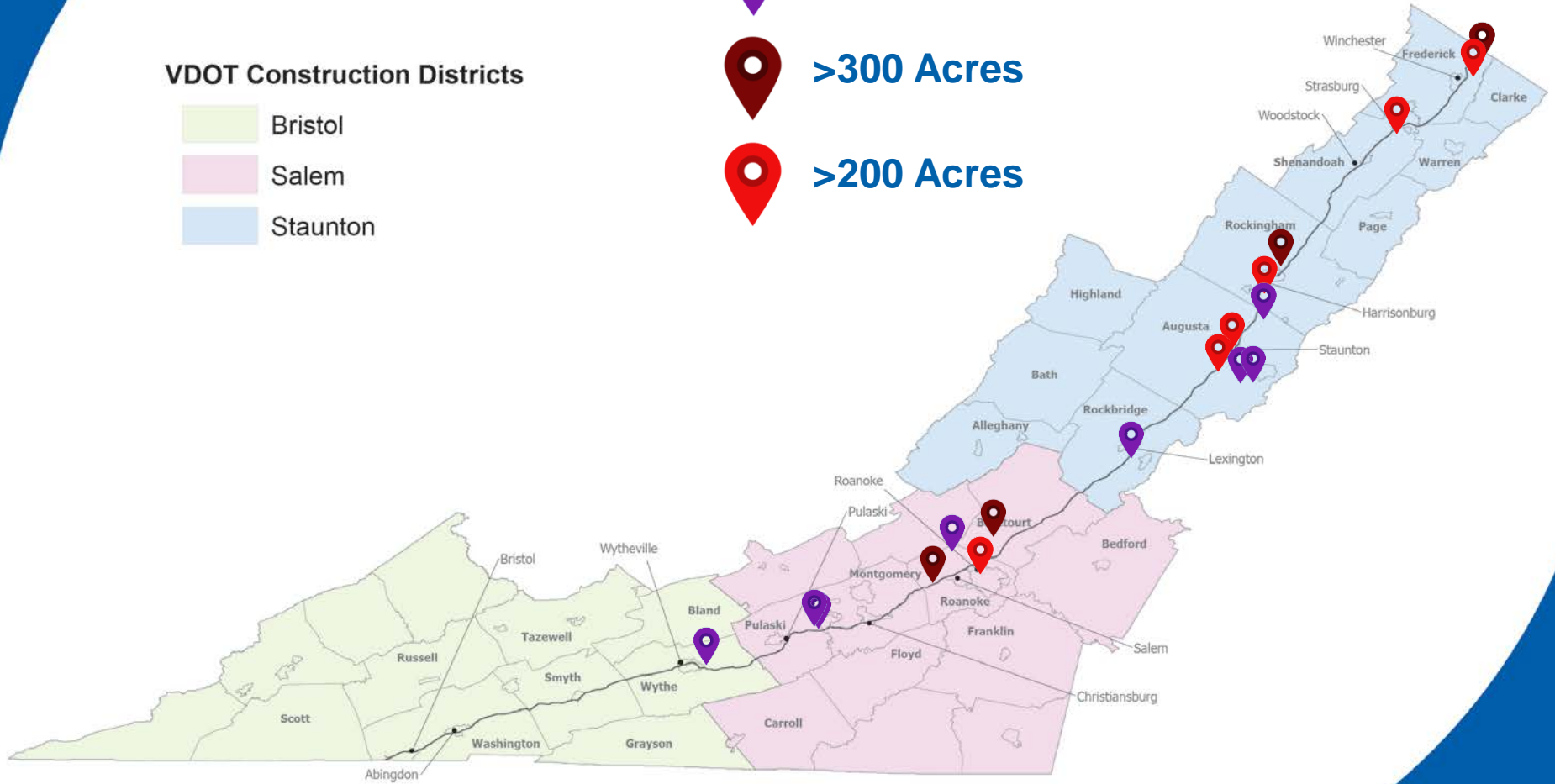
Locations are approximate



VDOT Construction Districts

- Bristol
- Salem
- Staunton

- >500 Acres
- >300 Acres
- >200 Acres



I-81 - Active Studies

Salem District

Category	#	UPC	State Project #	Common Description	Jurisdiction	Milestones	Comments	Cost (Millions)
Active Studies	1	67588	0081-962-116	Development of Tier II NEPA document for segment from Exit 118 to Exit 150	Montgomery, Roanoke & Botetourt	Underway		\$ 3.9
	2	104033	0081-080-842	Northbound Exit 141 to Exit 143 Auxiliary Lane Study	Roanoke County	Underway	Study and Early Preliminary Engineering	\$ 0.3



I-81 – Projects in Design or ROW

Salem District

Category	#	UPC	State Project #	Common Description	Jurisdiction	Milestones	Comments	Cost (Millions)
In Design and RW	1	56899	0081-060-126	I-81 NB Bridge Replacement over the New River	Montgomery/ Pulaski Counties	In design	Replace NB structurally deficient bridge. \$16M underfunded	\$78.1
	2	56900	0081-077-107	I-81 SB Bridge Replacement over the New River	Montgomery/ Pulaski Counties	In design	Replace SB structurally deficient bridge. \$48M underfunded	\$48.0
	3	84471	0081-011-714	I-81 Bridge Rehab over the James River, Route 43, RR, and Route 625	Botetourt County	In design		\$6.2
	4	93074 93075	0081-154-733 0081-060-734	I-81 Approaches and Bridges over Route 8	Town of Christiansburg/ Montgomery County	In design	Replace NB and SB structurally deficient bridges. \$25M underfunded	\$34.9
	5	99542	0081-080-S04	I-81 Exit 140 Park 'n Ride Facility Expansion	Roanoke County	In design	Park and Ride lot expansion in conjunction with County and RVTPO	\$5.5
	6	106838	0081-011-797	I-81 Bridge Rehab over Tinker Creek (Str. 03228)	Botetourt County	In design		\$0.6
	7	104130	0081-011-763	MM 166.7 to MM 169.4 Improvements	Botetourt County	In design	Northbound and southbound safety improvements	\$95M

I-81 – Projects under Construction

Salem District

Category	#	UPC	State Project #	Common Description	Jurisdiction	Milestones	Comments	Cost (Millions)
Under Construction	1	75910	0081-011-120	Routes 11, 220, and 220A Access Management at I-81 Exit 150	Botetourt County	Construction started	New roadway, ramp improvements, access management and roundabout	\$50.3

I-81 – Potential Candidate Projects

Capacity/Interchange Project
 M.P. 140.4- 143.6
 City of Roanoke

Description	Cost (\$M)	Notes
Add auxiliary lane to NB I-81 between Exit 141 and Exit 143; will require inside and outside lane widening for MOT.	22-33	Project A
Add auxiliary lane to SB I-81 between Exit 141 and Exit 143; will require inside and outside lane widening for MOT.	25-38	Project B
Add auxiliary lane to NB & SB I-81 between Exit 140 and Exit 141; will require inside and outside lane widening for MOT.	27-42	Project C

Note 1: Replacement cost of Exit 141 (Route 419) bridge over I-81 is not included in the estimate ranges for Project C.

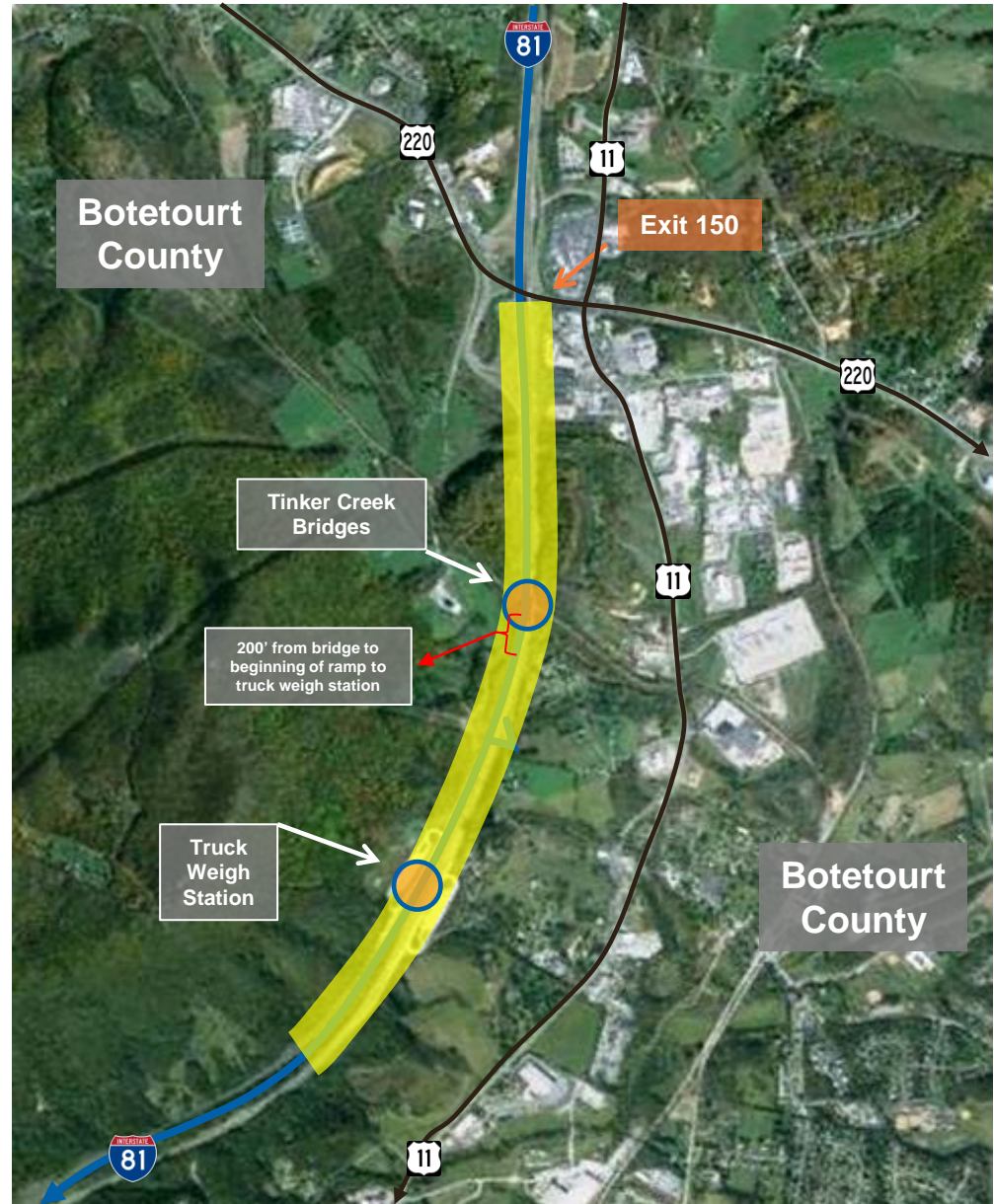
Note 2: Additional engineering is needed to determine if the Exit 141 (Route 419) bridge over I-81 will need replacement as part of Project C.



I-81 – Potential Candidate Projects

Capacity/Interchange Project
 M.P. 147.6- 150.5
 County of Botetourt

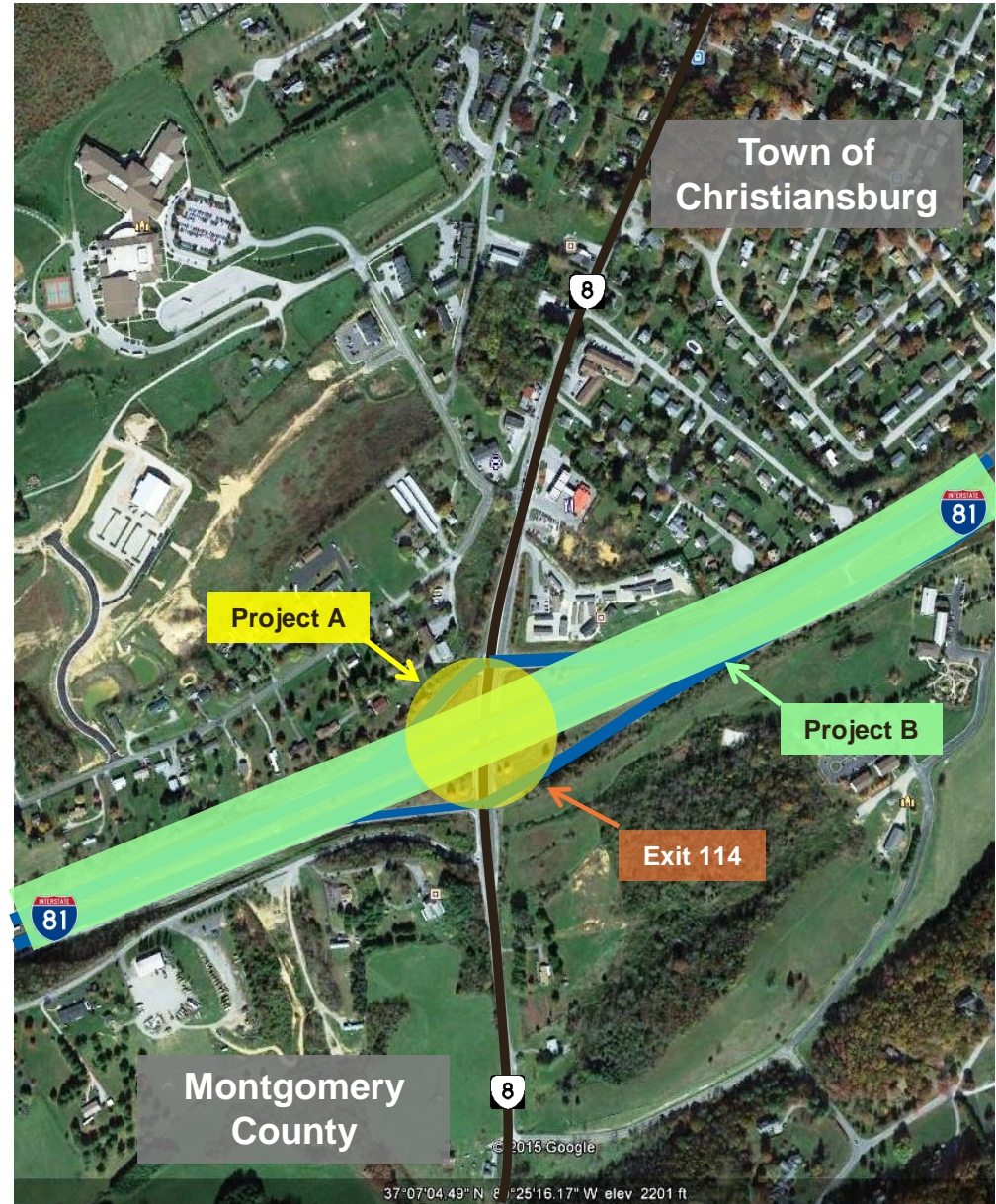
Description	Cost (\$M)	Notes
Add auxiliary lane to NB & SB I-81 between Exit 150 through truck weigh station; will require inside and outside lane widening for MOT; includes bridge replacements over Tinker Creek.	33-50	Project A



I-81 – Potential Candidate Projects

Capacity/Interchange Project
 M.P. 114.4
 County of Montgomery

Description	Cost (\$M)	Notes
Replace SD bridges, southbound and northbound	23-37	Project A
Extend southbound and northbound acceleration / deceleration lanes at Exit 114	4-8	Project B



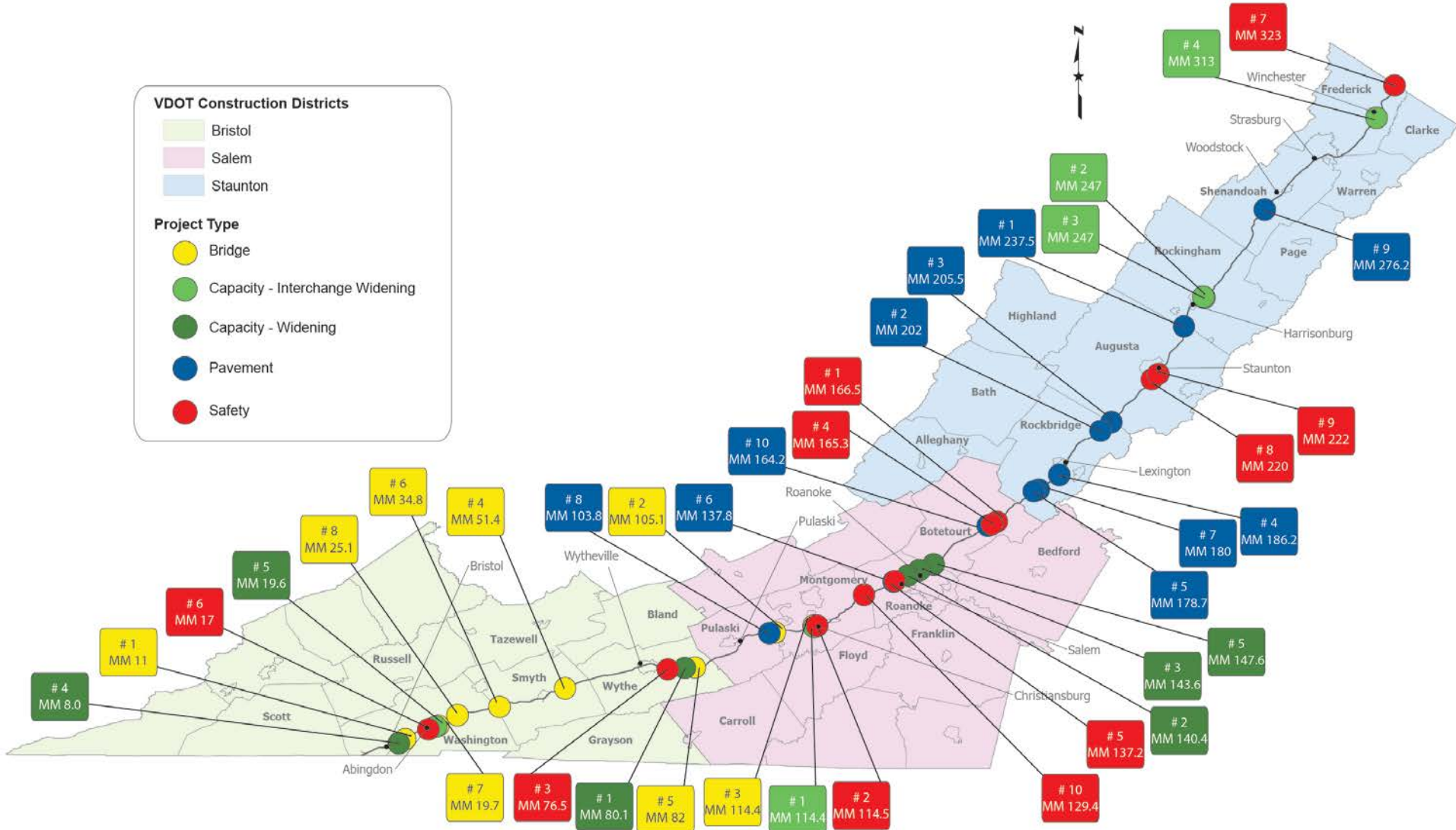
Potential Projects From I-81 Corridor-wide Report

VDOT Construction Districts

- Bristol
- Salem
- Staunton

Project Type

- Bridge
- Capacity - Interchange Widening
- Capacity - Widening
- Pavement
- Safety



- **Legislative Remarks**
- **Q&A**