

I-81 CORRIDOR IMPROVEMENT PLAN PROJECT PRIORITIZATION PROCESS

I-81 Committee Briefing

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Proposed Implementation Plan

Following the adoption of the I-81 Corridor Improvement Plan, VDOT began development of a draft implementation plan based upon:

- **Evaluating projects based on project readiness**
- **Evaluating projects based on environmental readiness**
- **Scope of Project**
- **Project Delivery Method**

Step 1. Evaluate Project Readiness

Identify and evaluate schedule risk

- Constructibility
- Right-of-way
- Utilities
- Maintenance of traffic
- Soil/rock conditions
- Interchange impacts
- Structures (bridges, walls, etc.)



Step 2. Evaluate Environmental Readiness

Identify and evaluate environmental schedule risk

- Cultural resources
- Water quality (streams, wetlands, permits, etc.)
- Threatened and endangered (T&E) species



Step 3. Internal Discussions

Individual Meetings

- Evaluate project readiness and environmental readiness
- Identify steps for further due diligence with scope, cost, and schedule
- Discuss program delivery effects
 - Length of work zones
 - Efficient widening strategies
 - Timeline of construction
 - Potential delivery methods



Step 4. Develop a Schedule

- **Account for readiness and availability of funding**
 - Additional factors from Committee
- **Develop draft project schedules and spend plan**
- **Goal is to balance project efforts (PE, RW and Construction) with revenue forecast and develop a spend plan**
- **Look at options for project delivery**

GOAL

Balance project efforts (PE, RW and Construction) with revenue forecast and develop a spend plan

Typical Project Development Timeframes

Depending on project scope, project development timeframes can vary significantly:

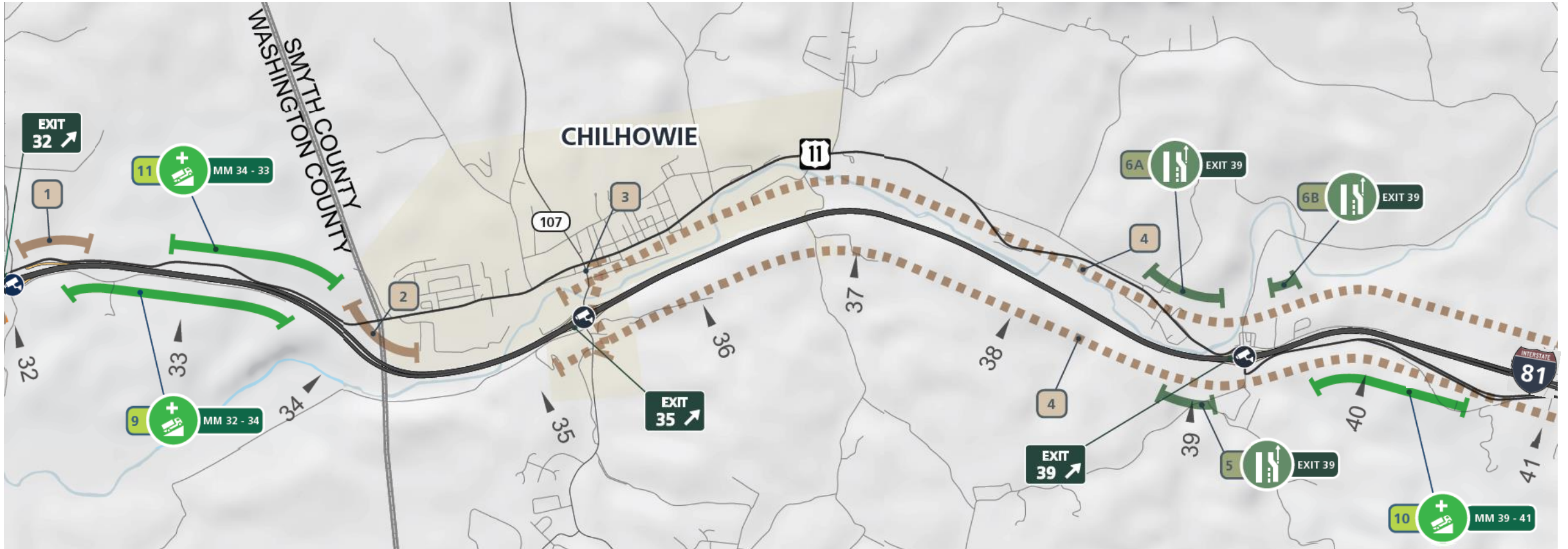
- **Preliminary Engineering/NEPA: 6-24 months**
- **Right of Way: 0-24 months**
- **Construction: 6-36 months**

Emphasizes need to start design work early on larger projects

\$2 billion in I-81 Plan Capital Improvements

| District | Number of Projects by Type | | | | | | | Total Number of Projects | Total Cost (millions \$) |
|---|----------------------------|----------------|---------------------|-----------------------------|-----------------------------|-------------------|-------------------|--------------------------|--------------------------|
| | Widening | Auxiliary Lane | Truck Climbing Lane | Acceleration Lane Extension | Deceleration Lane Extension | Curve Improvement | Shoulder Widening | | |
| 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 Improvement Locations



Truck Climbing Lanes Near Chilhowie

Proposed improvements represented by solid green lines

Salem District Improvement Locations



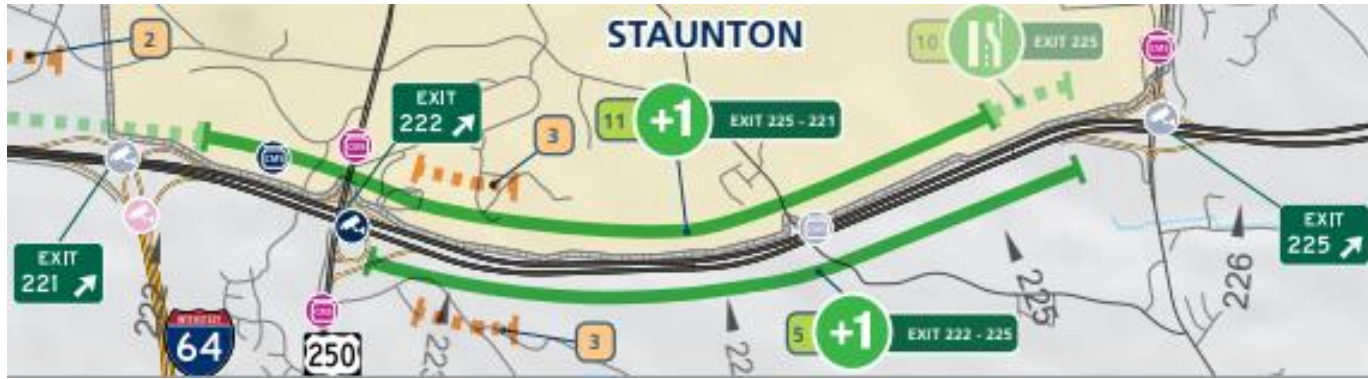
MM 119 to 141 northbound widening

Proposed improvements represented by solid green lines



**MM 144 to 150 northbound and southbound widening
Exit 141 to Exit 137 southbound widening**

Staunton District Improvement Locations - South



Exit 222-225 northbound widening
Exit 225-221 southbound widening



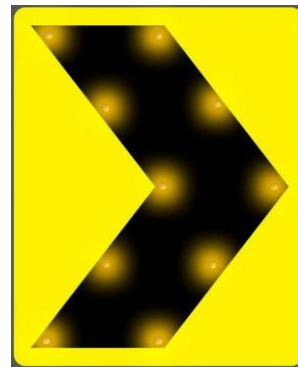
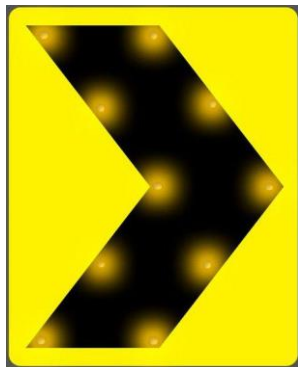
Weyers Cave (Exit 235)
northbound and southbound truck climbing lanes

Proposed improvements represented by solid green lines

Mainline Safety Capital Improvements Underway

Curve Improvements (Static and/or Flashing Chevrons)

| District | Number of Locations | Planned Installation Date |
|-------------------|---------------------|---------------------------|
| Bristol District | 4 | Fall 2019 |
| Salem District | 3 | Fall 2019 |
| Staunton District | 1 | Fall 2019 |
| Total | 8 | |



I-81 Operational Improvements Plan

Components currently underway include:

- Expanded Safety Service Patrols in July 2019
- 30 changeable message signs and 45 camera installations starting in Fall 2019

Components coming as the plan develops

- Upgrades to detour routes and improvements to parallel facilities
- Contract emergency clearance

Total Estimated Implementation Cost **\$46 million**

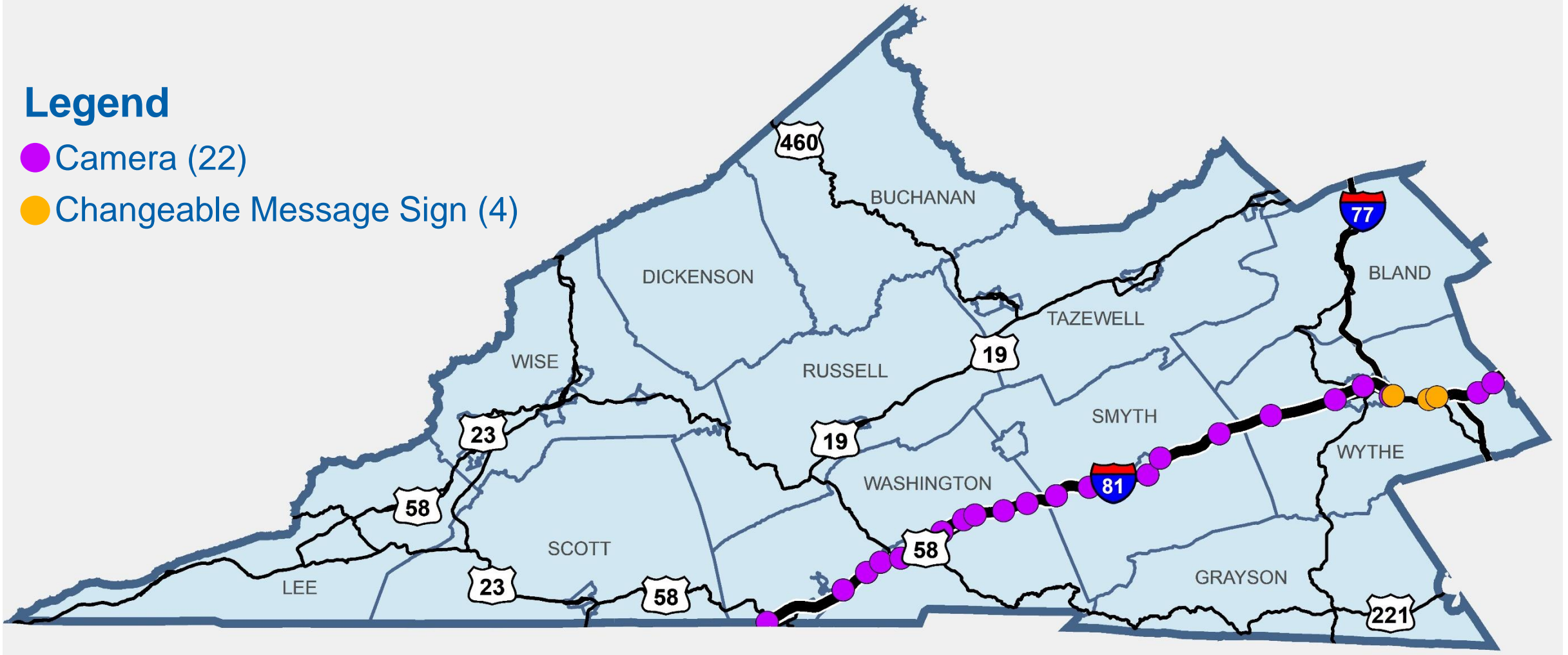


Bristol District ITS Device Locations

Legend

● Camera (22)

● Changeable Message Sign (4)

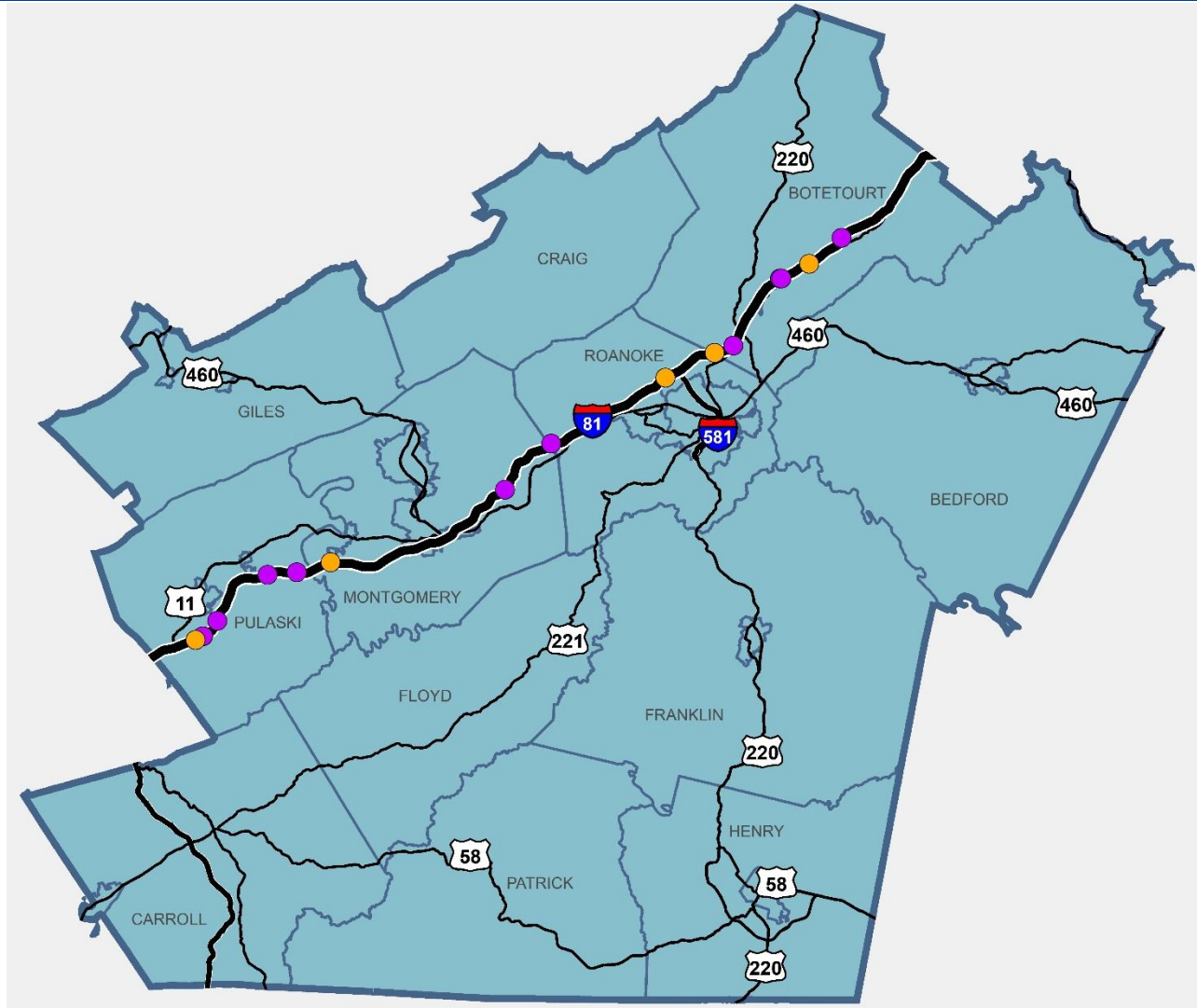


Salem District ITS Device Locations

Legend

● Camera (10)

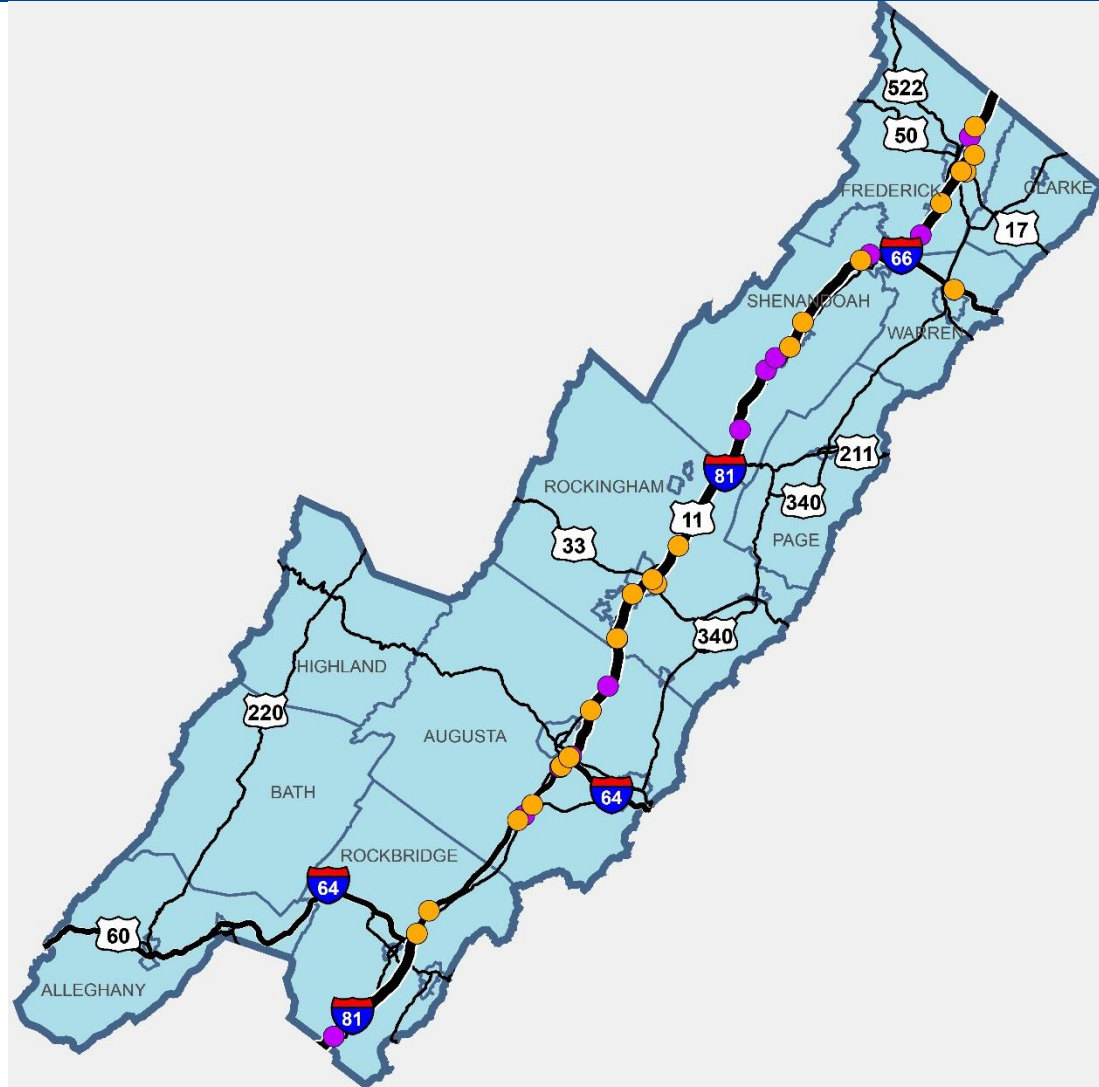
● Changeable Message Sign (5)



Staunton District ITS Device Locations

Legend

- Camera (13)
- Changeable Message Sign (21)



47 Remaining Capital Improvements

Bristol District

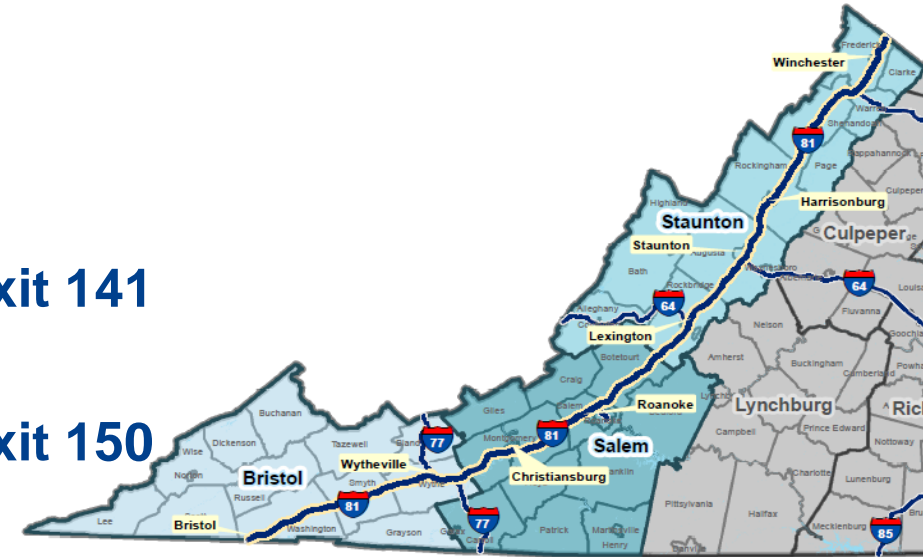
- Add northbound truck climbing lane from Exit 32 and from Exit 39
- Add a southbound truck climbing lane (Chilhowie)
- Improvements at the I-77/I-81 interchange

Salem District

- Widen northbound from Exit 119 to Exit 137
- Widen northbound and southbound from Exit 137 to Exit 141
 - Connects to active widening from Exit 141 to Exit 143
- Widen northbound and southbound from Exit 143 to Exit 150

Staunton District

- Widen northbound and southbound from Exit 222 to Exit 225 (Staunton)
- Add northbound and southbound truck climbing lanes (Weyers Cave)
- Widen northbound and southbound from Exit 243 to 248 (Harrisonburg)
- Widen northbound and southbound from Exit 313 to Exit 317 (Winchester)



Next Steps

- **VDOT will:**
 - **Develop project development and delivery durations based upon constructability and environmental readiness**
 - **Use readiness information along with revenue scenarios to develop preliminary project schedule**
 - **Develop project delivery method options**
 - **Present results at next Committee meeting**
- **What does the committee need from VDOT to help develop and deliver a draft schedule?**