

IMPROVE **81**

Fall 2023

81 INSIDER

Striving for "No Surprises"

Interstate 81 drivers will certainly pass through multiple work zones along the 325-mile corridor, ranging from truck-climbing lanes in Smyth County to northbound and southbound widening near Salem and a new auxiliary lane near Staunton.

The I-81 Corridor Improvement Program (CIP) team is working to ensure that these widely varying projects have similar impacts on drivers. Consistency is vital to safety.

"Motorists should know what to expect from work zone to work zone – the same traffic taper, same design, same basic components," explains Chris McDonald, Salem District Operations Director. "That's the key. No surprises."

The I-81 CIP includes five separate widening projects in the Salem District, between exit 118 in Montgomery County and Exit 150 in Botetourt County. These work zones may have different schedules and contractors, but VDOT and its partners can still help drivers know what's around the bend.

"We certainly want the drivers to see the same thing from one work zone to the next," Salem District Construction Engineer Rob Griffith says. "For example, we can maintain a reasonable speed throughout multiple work zones so drivers are not having to slow down, then increase, then slow down again."





Striving for "No Surprises" (continued)

"Confusion can sometimes lead to crashes," adds Dave Covington, I-81 Program Delivery Director. "If motorists don't realize they're leaving one work zone and entering another, that's a good thing."

That is why the I-81 CIP has a corridor-wide Traffic Management Plan (TMP) guidance document. The 122-page guide helps project-design teams enhance work-zone safety and consistency. It offers dozens of resources and strategies for keeping traffic moving, fostering communication among contractors, and keeping the public informed of lane closures or temporary detours.

The TMP strives for corridor-wide consistency but allows room for flexibility. For example, two nearby work zones may have different emergency detour plans, based on the location and capabilities of surrounding roadways. Communication strategies may vary throughout the corridor due to local variations in the public's use of traditional and social media.

Covington says step one to creating an effective TMP is gathering baseline performance data. Just before a widening project starts in the Staunton area, for example, VDOT can gather information about existing traffic speed, congestion and crashes. "Then we monitor that data throughout construction," he explains. "If you start getting spikes, we can identify areas for improvement during the project – and adjust our strategies going forward."

To view the entire TMP guidance document, visit Improve81.org and click on the Resources & Documents page.

TMP toolbox of innovation and technology

CONSTRUCTION ACCESS POINTS:

Provide a visual warning when slowmoving equipment is entering or exiting the highway.

QUEUE MANAGEMENT SENSORS:

Trigger digital signs when there is slowed or stopped traffic ahead.

GPS GEOFENCING:

Give drivers an audible alert when they enter an active construction zone or approach a speed-limit change.







The People Behind the Projects: Joe Duquette, Construction Manager

Meet some of the VDOT team members who offer expertise, dedication, and innovative thinking to the I-81 CIP. Our Fall 2023 profile is Construction Manager Joe Duquette from the VDOT Staunton District. Joe is a University of Virginia graduate with about 30 years of experience in residential, commercial, and heavy civil construction testing, inspection and management.

What is the role of a construction manager?

A construction manager for VDOT plans, schedules, budgets, coordinates, communicates and supervises a project from contract award to completion. We look out for stakeholders' interests and undertake a fair amount of partnering and compromise. In the end, there is a tremendous sense of accomplishment in the finished work.

I've worked with numerous federal, state, and local stakeholders over the years and it never ceases to amaze me the importance of a project to them – even the small ones. It's all about perspective for them and, in the end, for me as well. I like to see a project go from design to construction and implementation, knowing I was a part of it.

Tell us about the I-81 CIP construction projects you're involved with.

I'm currently administering the I-81 designbuild project from mile marker 221 to 225 in Augusta County, which widens the northbound and southbound interstate to three travel lanes. We are nearing completion on the Route 720 bridge over I-81 (a non-CIP project) in Rockingham County as well as getting ready to start the I-81 auxiliary lane and Route 635 bridge replacement over I-81 in Augusta County. Both projects facilitate future I-81 widening.

The I-81 Staunton-area widening is a design-build project. How does that affect the job you do?

With design-build, VDOT essentially receives a fast-paced turnkey project with scaled back involvement. The design-builder is responsible for engineering design services, construction services, quality assurance/quality control inspection services, and maintenance services all into one contract. I'll be administering the project, but from a different approach because of the increased contractor responsibilities. There will be increased efforts on coordination and communication, while striving to deliver a quality project.

How has your previous experience prepared you for large projects along the corridor?

Before coming to VDOT, I worked in the private sector on numerous large commercial and infrastructure projects, a VDOT design-build project, and managed a materials lab. Those experiences and what I have encountered at VDOT through administering projects as well as training have allowed me to be well-rounded and suited for challenging projects. I've learned from mistakes as well as successes. There will undoubtedly be conflicts that will involve considerable coordination, communication, and partnering, but my time at VDOT has afforded me the opportunity to build relationships and utilize them to meet the common goal.



The People Behind the Projects: Joe Duquette (continued)

Within the next year or two, I-81 in the Staunton District will have multiple work zones - some of them right next to each other. How do you manage that?

Most of our projects require coordination with other current and planned construction. It comes down to good communication through project Traffic Management Plans (TMP), a corridor TMP Guidance Document, and the Lane Closure Advisory Management System (LCAMS).

The corridor TMP Guidance Document gives us the framework for ensuring that work zones along I-81 are consistent, coordinated and as safe as possible. Planned lane closures are entered into LCAMS, and contractors can resolve any conflicts that may occur. There will also be detours within some projects. Proper traffic planning helps alleviate issues, whether they be from a planned detour or from an unanticipated incident.

Looking to the future, how do you think the I-81 CIP will change this interstate?

Aging structures along the corridor are being replaced to accommodate the widening and improvements. Having those additional travel lanes, enhanced shoulders, and dynamic messaging also allows for faster incident management. All of these projects will reduce congestion, traffic slowdowns and crashes, keeping us moving. Fortunately, the projects are spaced apart over the duration of the CIP to reduce the impacts to motorists and to set up future projects.

When you gather with family or friends, how do you explain the importance of the CIP?

I give them a canned response: The number of motorists and the volume of commercial trucks transporting goods has increased considerably over the past few decades and is expected to double by 2040. The CIP allows for safety improvements and growth with those demands, but with all of the work, it will take time.

What's the Latest? I-81 Project Updates

Salem District

Contractors are about 40 percent complete with a nearly five-mile widening in Salem and Roanoke County. Archer Western Construction is adding a third lane northbound and southbound between exit 137 (Route 112) and exit 141 (Route 419). To accommodate the additional travel lanes, work is under way to replace six bridges and widen two more. Final completion of the \$179 million project is expected in early 2026. Until then, drivers should be alert for shoulder closures, trafficlane shifts and overnight single-lane closures.

YUNDAI Bridge replacement and widening work are

taking place near exit 137 at Salem.



What's the Latest? I-81 Project Updates (continued)

In September 2023, the public got a close look at the largest single project in the I-81 CIP. Plans call for adding a third lane in each direction between exit 143 (I-581 junction) in Roanoke County and exit 150 (Route 220) in Botetourt County. The \$479 million project includes replacement of eight bridges and modifying the ramps to and from southbound I-81 at exit 150. More than 150 people attended the public hearing, and their comments will help shape the final design of the project. Construction is expected to begin in late 2025.

A

Bristol District

Construction is well under way on one truckclimbing lane, while two similar projects are about to start.

W-L Construction & Paving is building a 1.3-mile truck-climbing lane in Smyth County along northbound I-81 just past exit 39 near Seven Mile Ford. Over the spring and summer, the contractor completed excavation work and constructed a permanent stormwater basin. This fall crews began building the new roadway and installing an underdrain system, which carries water away from the road surface. The Smyth County truck-climbing lane is scheduled for completion in spring 2024. Until then, a concrete barrier blocks the right shoulder and protects highway workers.

In September W-L Construction was awarded a \$17.2 million contract to build two additional truck-climbing lanes. One will be located on



northbound I-81 just past exit 32 (Chilhowie) in Washington County. The other is on southbound I-81 near the Smyth-Washington county line. Both projects are about a mile long, and will improve traffic flow and safety on steep grades where commercial vehicles may struggle to maintain interstate speeds.





What's the Latest? I-81 Project Updates (continued)

A construction contract is expected to be awarded in late 2023 for widening I-81 southbound between exit 10 and exit 7 near the city of Bristol. This project also extends the three-lane section of northbound I-81 by about one mile. Construction is scheduled to start in early 2024.



Adding a third travel lane requires widening the I-81 southbound bridge over Old Dominion Road.

Staunton District

A design-build contractor, Kokosing Construction, is finishing design work and utility relocation for a four-mile widening project in Augusta County near Staunton. The \$101 million project includes a third lane in each direction between exit 221 (I-64 junction) and exit 225 (Route 262 north), and widening of five bridges. Preliminary construction activities are scheduled to start in late 2023, with full-scale widening work getting under way in spring 2024.

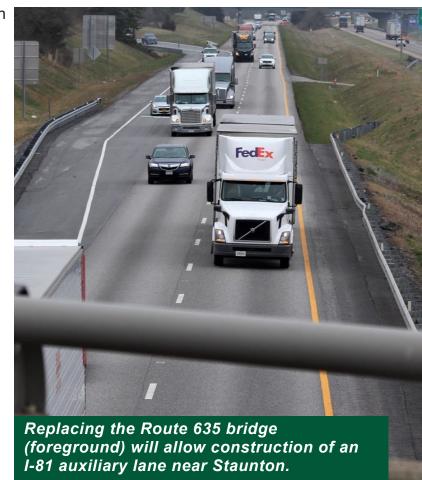




What's the Latest? I-81 Project Updates (continued)

Also in spring 2024, expect to see construction on an I-81 southbound auxiliary lane connecting exit 221 (I-64 junction) and exit 220 (Route 262 south). The project requires replacement of the Route 635 (Barterbrook Road) overpass bridge to accommodate the additional southbound lane. Traffic using Route 635 will be detoured for up to 15 months. A construction contract is expected to be awarded in fall 2023. This project is adjacent to the Staunton-area widening, and the two projects will be closely coordinated.

VDOT shared details of a major I-81 widening project with Harrisonburg City Council in September 2023. Harrisonburg and neighboring Rockingham County will see a third lane on I-81 northbound and southbound from about mile marker 242 to 248. The project includes replacement of nine bridges, extensive stormwater protection work, and installation of more than four miles of sound barrier walls. Construction is scheduled to begin in 2025.







Steady Growth of Virginia Breeze Intercity Bus Service BY DIRECTOR JENNIFER DEBRUHL, DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION

A resident needed to travel from Washington, D.C., to Southwest Virginia to visit friends. Rather than make the journey on his own in a car along the congested Interstate 81, he wanted to take public transportation. That's when he discovered that the Virginia Breeze intercity bus service could take him from Union Station in D.C. to Wytheville and then back.

He had never ridden a public bus before, and he was pleased with the affordable ticket prices, helpful bus driver, and smooth journey. "Thank you very much for offering this convenient transportation service to the public!" he told the Virginia Department of Rail and Public Transportation (DRPT). He plans to take the Virginia Breeze on trips to Southwest Virginia again in the future.

Hearing stories like this reaffirm for me why DRPT launched the Virginia Breeze in 2017 — to provide a critical transportation connection between rural Virginia communities and urban centers as well as other forms of transportation. The Virginia Breeze began with one route in December 2017 and has grown to four. Our first route, the Valley Flyer, operates along the I-81 corridor between Blacksburg and Washington. The Highlands Rhythm is the newest route of the Virginia Breeze, providing residents who live in Bristol and in communities along Western Virginia a public transportation link to Washington.

Since its inception, the Virginia Breeze has carried nearly 170,000 passengers. The Valley Flyer has carried most of those riders with over 120,000 passengers. The Highlands Rhythm has shown early success with its ridership numbers since it went online in

The Virginia Breeze carries passengers past an I-81 work zone



Steady Growth of Virginia Breeze Intercity Bus Service (continued) BY DIRECTOR JENNIFER DEBRUHL, DRPT

November 2021. Since then, the route has helped more than 20,000 passengers. This is a testament to the value of this service to Virginians.

Intercity bus service tends to be an overlooked form of public transportation. But it is an essential service that moves people across the Commonwealth, many in rural areas where they have no alternatives.

Even if someone does have a car, it can be stressful to drive along Interstate 81 (I-81), where there are about 2,000 crashes a year. People can avoid that anxiety by riding a bus, and taking advantage of free Wi-Fi and power outlets at your seat while someone else takes care of the driving. The service is reliable and operates 365 days of the year.

Funded by the Federal Transit Administration and I-81 Corridor Improvement Program (CIP) funds, the Virginia Breeze is affordable, safe, and convenient. Since 2021, the Virginia Breeze has received nearly \$1 million in I-81 CIP funds that have assisted with operating expenses and to improve safety and accessibility of bus stops along the I-81 corridor.

By bringing the Virginia Breeze to regions that do not have a variety of transportation services, the Department of Rail and Public Transportation (DRPT) is fulfilling its mission of improving the lives of all Virginians through public transportation. The next time you're considering traveling between Southwest Virginia and Washington, D.C., I urge you to take the Virginia Breeze. There are many reasons to take the bus and a lot that awaits you at the end of your journey.

For more information on the Virginia Breeze, visit **www.virginiabreeze.org**. There, you can find information about the different routes, where they stop, and their schedules. You can also purchase tickets, with prices depending on the distance of your trip.





Transforming Rail

BY VPRA COMMUNICATIONS MANAGER KARINA ROMERO

The Virginia Passenger Rail Authority (VPRA) is working to provide high-performance passenger and commuter rail service in the Commonwealth. The initiative, known as Transforming Rail in Virginia, encompasses several rail projects, which include acquiring railroad right-of-way and constructing new infrastructure to increase capacity and improve reliability.

In summer 2022, VPRA increased its Amtrak Virginia service along the I-81 corridor to Southwest Virginia with the launch of a second roundtrip between Washington, D.C., and Roanoke. Over the past year, this service has grown exponentially. In June 2023, approximately 27, 424 passengers traveled on the service, an increase of 27.2% over June 2022.

VPRA continues to plan for the extension of service from Roanoke to the New River Valley (Christiansburg). Through the

Western Rail Agreement in summer 2022, the Commonwealth acquired 28.5 miles of railroad right-of-way from the Salem Crossovers to Christiansburg from Norfolk Southern. Currently, the project is in the planning and development phase, which includes environmental evaluation work and public involvement.

Additional infrastructure improvements currently in the design phase include building a new Long Bridge across the Potomac River between Northern Virginia and Washington, DC. With the construction of the new Long Bridge, VPRA will increase capacity and relieve congestion at a critical passenger and freight rail bottleneck and allow VPRA to operate more trains along its current corridors, including to Roanoke.

For more information on VPRA projects, please visit:

vapassengerrailauthority.org/projects







Keep in Touch

Have a question or comment regarding the I-81 CIP? Connect with VDOT's Improve81 communications team!

CONTACT THE VDOT CUSTOMER SERVICE CENTER (24/7/365)



VDOT Customer Service app: https://my.vdot.virginia.gov/



vdotinfo@vdot.virginia.gov



1-800-367-7623 (1-800-FOR ROAD)

An agent will answer your questions and/or forward your questions and comments with contact information you provide to the appropriate I-81 CIP team member.



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For access to I-81 VDOT district Twitter feeds, regional 511 traffic feeds, overall district news and district traffic alerts, go to Improve81.org, look at the website menu bar then select "Contact Us" and scroll to the bottom of the page.

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