

IMPROVE 81

Fall 2024

81 INSIDER



Bridge replacements in the exit 143-150 project include both spans over Route 220

Contract Awarded for Major Widening Project

One of the largest and most complex projects in the I-81 Corridor Improvement Program (CIP) has taken a giant leap forward. In mid-July the Commonwealth Transportation Board awarded a \$362 million design-build contract to Branch Civil Inc. of Roanoke for the widening of I-81 in Roanoke and Botetourt counties.

The seven-mile project adds a third northbound and southbound lane between exit 143 (I-581 interchange) and exit 150 (Route 220). It also replaces eight bridges on the interstate and installs more than 8,500 feet of sound barrier along the northbound lanes.

“The Branch team is developing the final

design and working to acquire the necessary environmental permits,” explains Craig Moore, Assistant Salem District Location & Design Engineer. “VDOT is excited to work with them to finish design work and move toward construction.”

Right of way and utility-relocation work is scheduled to begin in fall 2024 and continue through the end of 2025. Preliminary construction activities such as tree-clearing and installation of erosion and sediment controls are expected to start in early 2025.

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Contract Awarded for Major Widening Project (continued)

In summer 2025, crews begin widening and strengthening the interstate shoulders throughout the project area. These operations will require traffic restrictions, most likely overnight lane closures. The shoulder work provides room for travel-lane shifts before I-81 widening begins in spring 2026.

The additional travel lanes should open to traffic in fall 2030, with final completion of the project scheduled for spring 2031.

“VDOT and Branch will be working together for close to seven years on design and construction,” says I-81 Program Delivery Director Dave Covington. “That shows the magnitude of this project as well as our commitment to improving this vital corridor.”

In order to minimize environmental impacts and right of way acquisition, most of the widening will take place toward the median.

At exit 150, the ramp from northbound Route 220 (Roanoke Road) onto southbound I-81 will be realigned and the southbound I-81 off ramp will be modified to connect with Route 220 at a new signal at Tinker Mountain Road. Interchange lighting will be installed at exits 141, 143 and 150.



I-81 southbound traffic approaching exit 146



The People Behind the Projects: Scott Alexander, Staunton District Assistant Location & Design Engineer

Meet some of the VDOT team members who offer expertise, dedication, and innovative thinking to the I-81 Corridor Improvement Program (CIP). Our fall 2024 profile is Scott Alexander, Assistant Location & Design (L&D) Engineer for the 11-county Staunton District. Scott serves as VDOT project manager for the I-81 widening project in the Harrisonburg area. He also supervises all design-phase work for CIP and other major projects in the Staunton District.

Tell us about your professional experience and how it has helped prepare you for your work with the CIP.

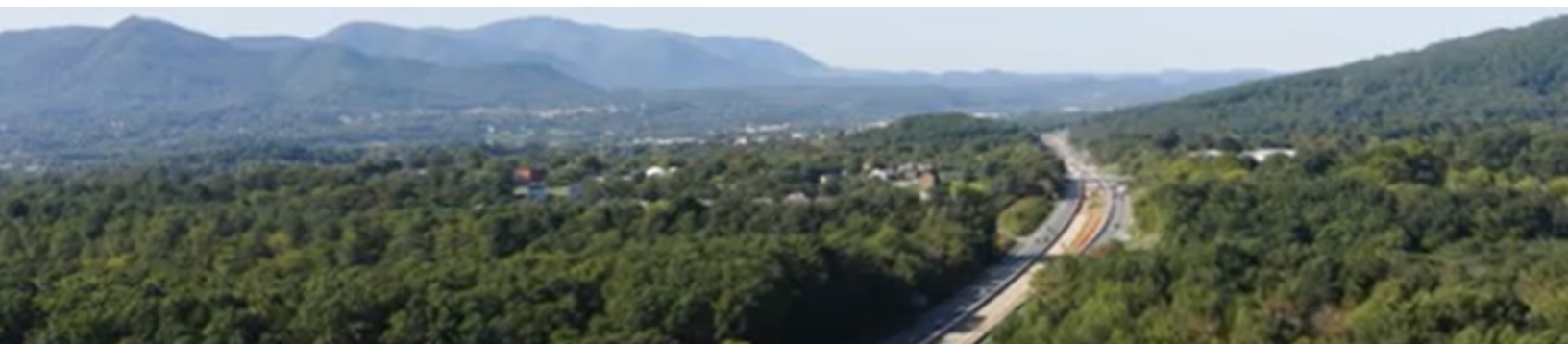
I've been fortunate to have worked in several different facets of engineering: inspections, land development, utilities, traffic, residency administration and, of course, roadway design. When I lived in Maryland, I also managed many special taxing district projects for shore erosion control, channel dredging and road construction, working directly with customers (homeowners) who had an immediate financial stake in the success of the projects.

The net benefit of living these experiences was gaining appreciation, and responsibility, for carefully listening to the varied perspectives that all stakeholders, both internal and external, bring to a project. Large projects such as those in the CIP have many layers of underlying goals and perspectives that need to be addressed and managed, many often contradictory; it's about finding the sweet spot on the spider chart of expectations.

What is involved with overseeing numerous projects along the I-81 corridor?

I wouldn't necessarily claim it's too much different from other programs, though admittedly the numbers are a little bit bigger (laughs). We are blessed with a great team in Staunton, and all are passionate about what they do. I-81 is a major transportation corridor not only for Virginia, but the country, and the gravity of that fact is never lost on the team. Maximizing the benefit-to-cost of each project is the most important aspect for each team member. I spend part of my time refereeing discussions on short-term and/or long-term benefits in relation to scope, schedule and budget of the project. But I welcome those discussions. When the project is complete, I want VDOT to be proud of the project we delivered.

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People Behind the Projects (continued)

The Harrisonburg and Winchester projects are among the largest ever seen in the VDOT Staunton District. What do people need to know about them?

From a near-term perspective people need to be prepared for the sheer magnitude of construction that the Shenandoah Valley is about to see. And it's not just these two projects, or even others in the CIP, but also the large number of SMART SCALE, State of Good Repair and local assistance projects that will be going on at the same time. We are working at all levels within L&D, Traffic engineering, and our local partners to mitigate much of the traffic impacts among projects in the region. But "getting around" will require some patience in the coming years while these projects are under construction.

I hope to foster a better understanding of the lengths we go to manage and mitigate those impacts during construction. The cliché about rebuilding an aircraft while in flight has been used in many fields for years, but it seems applicable to what our structures folks can do, stage-constructing the bridges to maintain interstate-level traffic.

How do you think the CIP will change the I-81 corridor?

I do think we will achieve our goal of making these segments safer and less congested. There has been some concern voiced about changing the feel or appearance of I-81 through the Valley, but I think the concern over volume growth and incident numbers outweigh

that sentiment for most. This may be a bigger factor if construction was instantaneous, going from a two-lane rural section to barrier-separated three lanes overnight, but after several years of construction I think the motorists will be overwhelmingly ready for the improved roadway.

I am glad that legislators set up the CIP as an ongoing funding mechanism. Beyond many residents commenting that the projects don't extend far enough, each of our projects necessarily transitions from the new 3-lane section back to two. It won't be too long in the future when growth dictates that our current projects are extended in certain areas.

In the end, I think we will deliver a good product that the residents will be happy with, and we'll be ready to continue with additional improvements as needs dictate.

What motivates your efforts on the I-81 CIP?

Like most, it's the sense of accomplishment one feels, both when a construction contract is awarded and then again at project completion. My most immediate customer is the construction team, and I strive to ensure that our team has provided the best set of plans possible, and their feedback is invaluable. Of course, when the project is complete it's a unique feeling to drive through it and think about all the people who came together to pull it off.

Projects Moving Forward

A widening project, truck-climbing lanes and several ramp extensions all reached key milestones in summer 2024.

In July VDOT advertised two new projects for contractor bids. One is for the widening of southbound Interstate 81 in Shenandoah and Warren counties. The project extends from about mile marker 299.6 to 295.4 in the

Strasburg area. It includes replacement of the southbound bridge over Cedar Creek, widening of the southbound bridge over the CSX railway, and construction of about one mile of sound-barrier wall along northbound I-81. The total project estimate is \$98 million, and construction is scheduled to start by early 2025.

I-81 southbound widening in the Strasburg area should start in early 2025



The second CIP project advertised in July will improve the interchange of I-81 and I-77 at exit 81 in Wythe County. The project will lengthen the deceleration lane from southbound I-81 onto southbound I-77. It includes installation of a bridge-pier protection system and replacement of an overhead sign structure.

W-L Construction & Paving Inc. was awarded a \$3.4 million contract in September 2024. The improvements should be complete by late 2025.

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Southbound ramp extension will enhance safety at I-81 exit 81

Projects Moving Forward (continued)

A \$77 million project in the Weyers Cave area was advertised for contractor bids in August 2024. The project will provide northbound and southbound truck-climbing lanes between mile marker 234.1 in Augusta County and mile marker 237.9 in Rockingham County. Like the Strasburg-area widening, the additional lanes will be constructed toward the median in order to minimize right of way impacts. This project includes three ramp extensions at exit 235 and widening of both bridges over Naked Creek. Construction is expected to begin in early 2025.

In early September 2024, VDOT shared plans for three ramp extensions at the I-81 Mount Sidney Safety Rest Areas near mile marker 232 in Augusta County. A citizen information meeting offered details of the project, which will lengthen the deceleration and acceleration lanes for the southbound rest area, as well as the acceleration lane for the northbound rest area. The adjacent Route 775 bridge over I-81 will be replaced in order to accommodate the extended merge lanes.

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Truck-climbing lanes are coming soon to the Weyers Cave area



The Mount Sidney project includes three ramp extensions and bridge replacement

Improve81 Construction Updates

Bristol District

Exit 1 to Exit 86

VDOT contractors are nearly halfway through an I-81 widening in Washington County near the City of Bristol. The project includes a third southbound lane from exit 10 to exit 7, and an extension of the third northbound lane for about one mile starting at exit 7. A new, wider bridge over Old Dominion Road is being constructed in order to accommodate the additional I-81 southbound lane. W-L Construction & Paving Inc. was awarded a \$30.7 million contract in fall 2023.

Since that time, crews have been excavating for the new travel lanes and installing stormwater-management facilities. Completed bridge work includes partial demolition of the existing structure and the early stages of new bridge construction. This will continue through the rest of 2024, along with roadway-widening and installation of a concrete barrier between the northbound and southbound travel lanes. Final completion of the project is scheduled for November 2025.

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The Bristol-area widening includes replacement of the I-81 southbound bridge over Old Dominion Road



Improve81 Construction Updates (continued)

Near the Smyth-Washington county line, construction continues on northbound and southbound truck-climbing lanes. W-L Construction & Paving has a \$17.2 million contract to build the new lanes, located on northbound I-81 just past exit 32 (Chilhowie) and on southbound I-81 starting at mile marker 34.

Over the past several months, contractors have been working on stormwater drainage systems and excavation of soil and rock. This fall crews plan to begin constructing the new roadbed with aggregate followed by the base layer of asphalt. Project completion is expected in November 2025.

The early stages of construction are under way in the Wytheville area, where Branch Civil Inc. was awarded a \$53.6 million contract for three separate projects. Two of them are CIP improvements: a new southbound I-81 auxiliary lane between exit 73 and exit 72, and improvements at nearby I-77 exit 41. This interchange will receive a deceleration-lane extension and a reconfigured loop ramp to enhance safety.

Crews are in the process of moving 320,000 cubic yards of fill material to accommodate the new ramp. Shoulder-strengthening work along the interstate is expected to start in fall 2024. The three-project “bundle” is scheduled for completion in late 2027.

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Truck-climbing lanes construction requires extensive earth-moving and stormwater drainage work



Contractors are in the early stages of two I-81 CIP projects near Wytheville

Improve81 Construction Updates (continued)

Salem District

Exit 89 to Exit 168

Design-build contractor Archer Western LLC is about two-thirds of the way through an I-81 widening in the Salem area. The \$179 million project adds a third lane northbound and southbound between exit 137 and exit 141.

Through most of the project limits, traffic in both directions has been shifted toward the median, allowing crews to focus their work on the outside lanes. Bridge construction continues at Route 112 (exit 137), Route 635 (Goodwin Avenue), Route 619 (Wildwood Road/Academy Street) and Route 311 (exit 140). Noise barrier walls are also under construction at various locations.

By the end of 2024 contractors plan to finish widening between mile marker 140.5 and the northern limits of the project, and complete the new exit 137 loop ramp from southbound I-81 to Route 112. Final completion of the project is scheduled for early 2026.

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The second stage of bridge replacement is under way at I-81 exit 137



Construction of noise-barrier walls near mile marker 138

Improve81 Construction Updates (continued)

Staunton District

Exit 175 to Exit 323

During summer 2024, contractor Fairfield-Echols LLC set steel beams for the new Route 635 bridge over the interstate just south of Staunton. The design of the new bridge allows construction of an I-81 southbound auxiliary lane between exit 221 (I-64 interchange) and exit 220 (Route 262 south). This fall crews will finish placing fill material along roadside slopes, and start constructing the bridge deck and railings. The construction contract is valued at \$7.7 million, and completion is expected in spring 2025.

Directly north of the auxiliary lane project is a four-mile widening, which has been under construction for about a year. A \$101 million design-build contract was awarded in 2023 to Kokosing Construction Company Inc. The Staunton-area project adds a third lane northbound and southbound between exit 221



Contractors working in the median along I-81 in the Staunton area



and exit 225 (Route 262 north), and includes the widening of five bridges.

Crews spent the spring and summer excavating soil and rock in the median, installing pipes and culvert extensions, and building construction-access points that minimize disruption to I-81 traffic. During fall 2024 they will be working on all five bridges, starting with those over Lewis Creek and Augusta Woods Drive. Pavement work will also take place along southbound I-81 between Route 250 and the southern limits of the project. Final completion of the project is scheduled for summer 2027.



Steel beams are in place for the new Route 635 bridge over I-81



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:
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-  vdotinfo@vdot.virginia.gov
-  800-FOR ROAD
 (800-367-7623)

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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