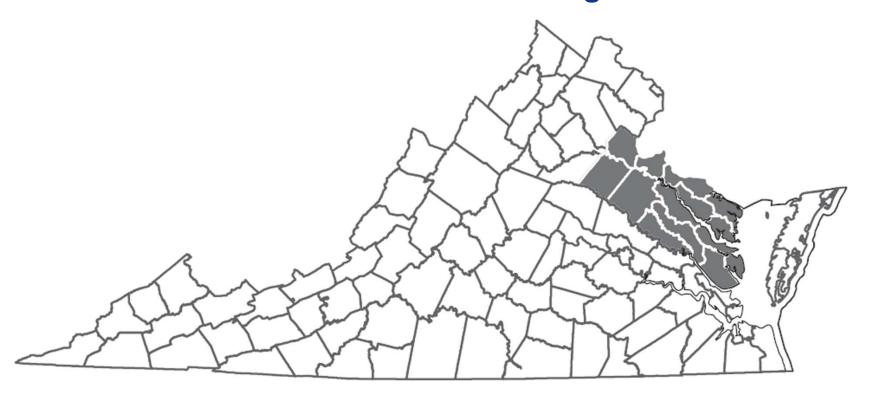


Welcome to VDOT Fredericksburg District







Fredericksburg District

By the numbers

People 500,000 residents

(approximately)

Commuters
42 percent in Fredericksburg area
53 percent in Middle Peninsula

Employees 534 people

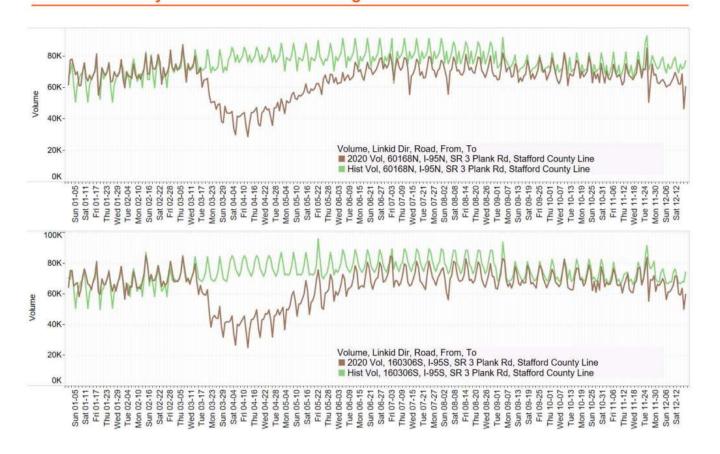
Ferry Service
2 ferries
Merry Point Ferry
Sunnybank Ferry

Lane Miles
11,967
299 – interstate
2,190 – primary
9,455 – secondary
23 – frontage

Bridges
800+ bridges
2 movable structures
Eltham Bridge
Gwynn's Island Bridge

Volume Trends

All Vehicles Daily Volume in Fredericksburg



Traffic dropped sharply in March-May ...

but has returned nearly to pre-pandemic levels.

The congestion that existed before will be back.



Interstate 95 Projects Fredericksburg Area



Building a Better Ride



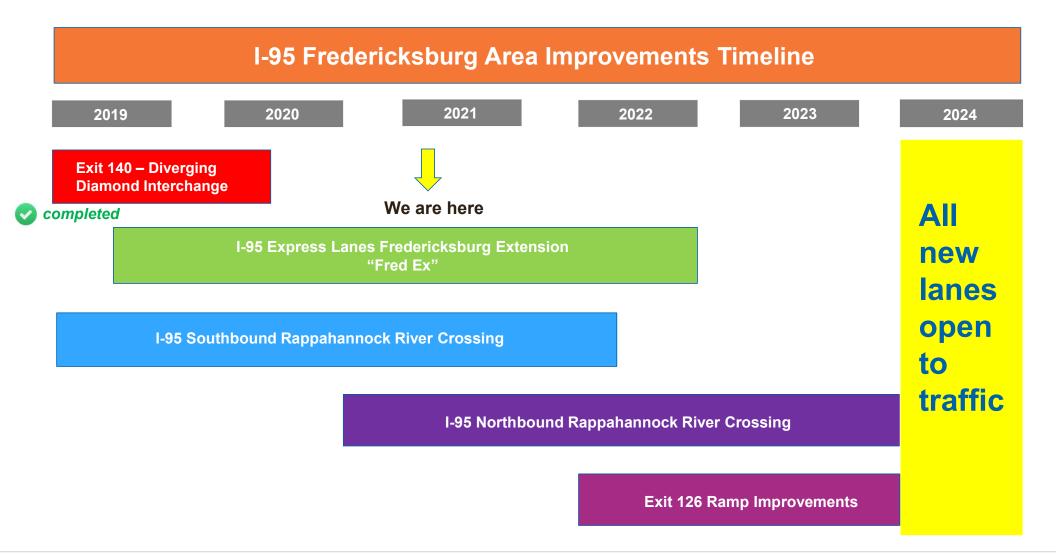


Major I-95 construction continues!



3 megaprojects 16-mile work zone 3 localities







Interstate 95 Projects Fredericksburg Area



More than \$1 billion invested to unlock I-95 gridlock

I-95 Express Lanes Fredericksburg Extension

(\$565 million)

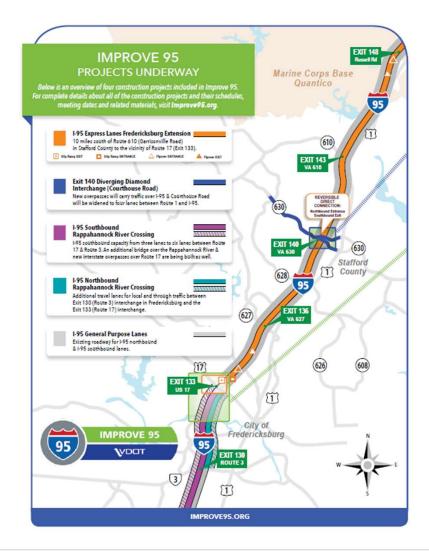
I-95 Exit 140 Diverging Diamond Interchange and Widening completed

(\$195 million)

I-95 Rappahannock River Crossing – NB and SB (\$132 million + \$132 million)

I-95 Exit 126 Southbound Ramp Improvement

(\$14.5 million)







Beyond I-95 highway expansion

- Passenger rail service
- Operational upgrades
- Clearing incidents faster







I-95 Variable Speed Limits

- Coming in fall 2021
- I-95 northbound, mm 115-130
- Targets zone with chronic congestion and higher crash rate approaching Fredericksburg



Variable speed limits:

Enhance safety

Promote traffic flow and throughput in congested, stop-and-go conditions Empower drivers with information on conditions on road ahead



Agenda: Fredericksburg District

Project Development

Michelle Shropshire, P.E., DBIA
Assistant District Administrator for
Project Development

Maintenance

Robbie Prezioso, P.E. Assistant District Administrator for Maintenance

Structure & Bridge

Annette Adams, P.E.

District Structure and Bridge Engineer

Construction

Michael T. Coffey, P.E.
Assistant District Administrator for Construction

Robert G. Ridgell, P.E., DBIA, CCM District MegaProjects Engineer









VTCA DISTRICT DIALOGUE 2021 FREDERICKSBURG PROJECT DEVELOPMENT PROGRAM UPDATES

MICHELLE A. SHROPSHIRE, P.E., DBIA

ADE - PROJECT DEVELOPMENT

Route 639 - Ladysmith Road - Widening







- Advertisement September 2021
- CN Budget \$ 17 million

Route 738 / 639 Intersection Safety Improvements



- Advertisement October 2021
- CN Budget \$1.3 million



I-95 Exit 126 / Route 1 / Southpoint Pkwy Improvements





Route 654 - Berea Church Road - Reconstruction



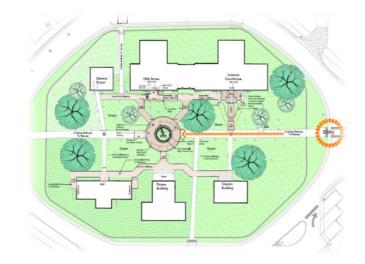
Route 1 / Route 630 Area Corridor Improvements





Saluda Residency

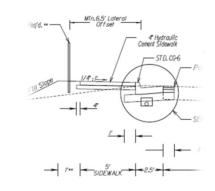
Project	Advertisement Date	CN Budget
Sharon Road Park & Ride Improvements	5/11/2021	\$ 580,225
Route 17 / Loretto Park & Ride Improvements	5/11/2021	\$ 492,814
King & Queen County Business/ Telework Center	6/30/2021	\$ 652,350
Gloucester Courthouse Pedestrian Facility - TAP	10/4/2021	\$ 241,813

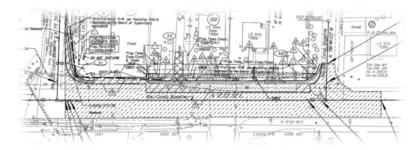


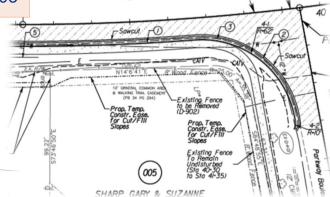


Fredericksburg Residency

Project	Advertisement Date	CN Budget
FYA Conversion 25 Traffic Signals (City of Fredericksburg)	3/26/2021	\$ 335,930
Lafayette Blvd. and Harrison Road Intersection Improvements	5/11/2021	\$ 748,093
Route 610 / Ashleigh Channelize Offset Right Turn Lane	11/9/2021	\$ 500,744
Route 709 / Flatford Road Sidewalk - TAP	11/10/2021	\$ 632,347
Onville Road Sidewalk - TAP	1/13/2022	\$ 848,303









PROJECT UPDATENice Bridge

- NTP March 2020
- Design 98% complete
- VA Approach
 - Surcharge in place
 - Clearing for utility relocation
 - Haul road for trestle access in place
- Bridge opening Early 2023
- Final completion Winter 2024







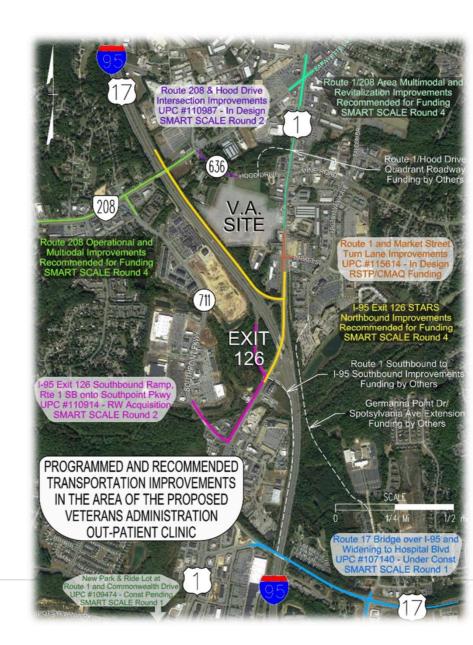




PROJECT UPDATE

Spotsylvania County Veteran's Administration Clinic Support Projects

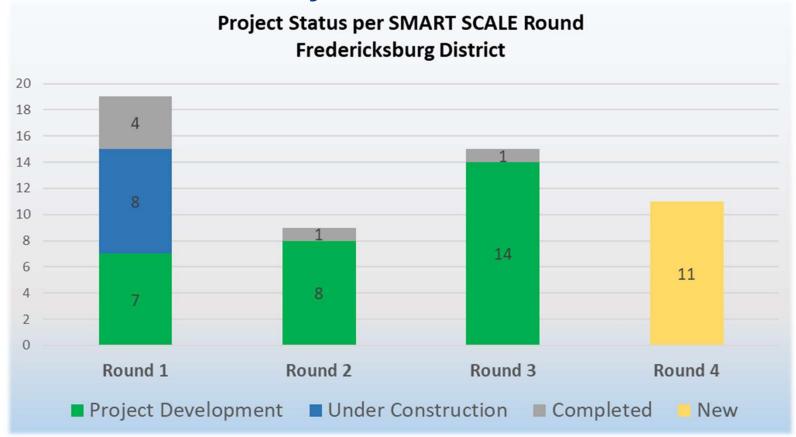
- VA Clinic site selected September 2020
- 5 projects underway (SMART SCALE & HSIP)
- 3 SMART SCALE Round 4 projects in recommended funding scenario
- 3 projects to be funded by others





FREDERICKSBURG DISTRICT

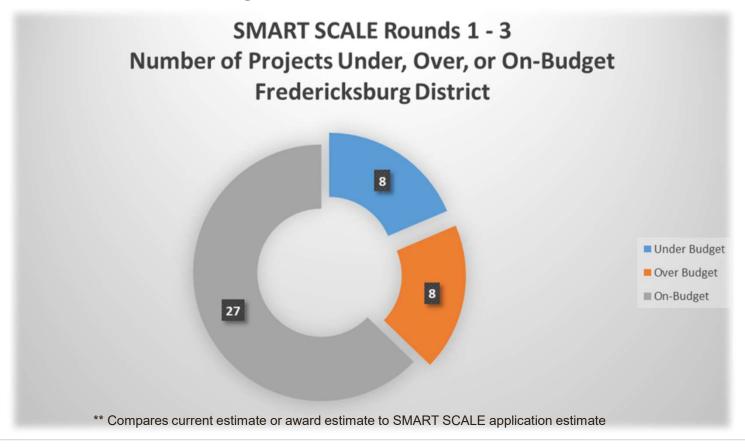
SMART SCALE Summary





FREDERICKSBURG DISTRICT

SMART SCALE Summary





FREDERICKSBURG DISTRICT **Round 1 SMART SCALE Projects**



- Rappahannock Comm. College **Access Improvements**
- Rte. 1/Potomac Creek Turn Lane
- I-95/630 Commuter Parking Lot Expansion
- Rte. 301 SB Turn Lane Extension

PH/ Design Approval Rte. 639 Widening - Ladysmith

King & Queen Telework Center

Authorize Right of Way Advertised

Under Construction

VCR Trail Bridge

Commonwealth Drive

Commuter Parking Lot

CN Complete

- Rte. 1 Courthouse Area Corridor Improvements
- Rte. 1 at Woodstock Lane/Telegraph Rd
- Rte. 606 West Mudd Tavern

- Rte. 17B/14/3 Intersection Improvements
- Rtes. 30/360 Intersection Improvements
- Rte. 17/17B Pedestrian Improvements
- Rte.17 Ped. SB Improvements
- Rte. 17/I-95 Bridge to Hospital Blvd.
- Rappahannock River Crossing SB
- Rte. 17 Corridor Improvements (Tappahannock)
- Rte. 3 Passing Lanes (Potomac Mills-Flat Iron)

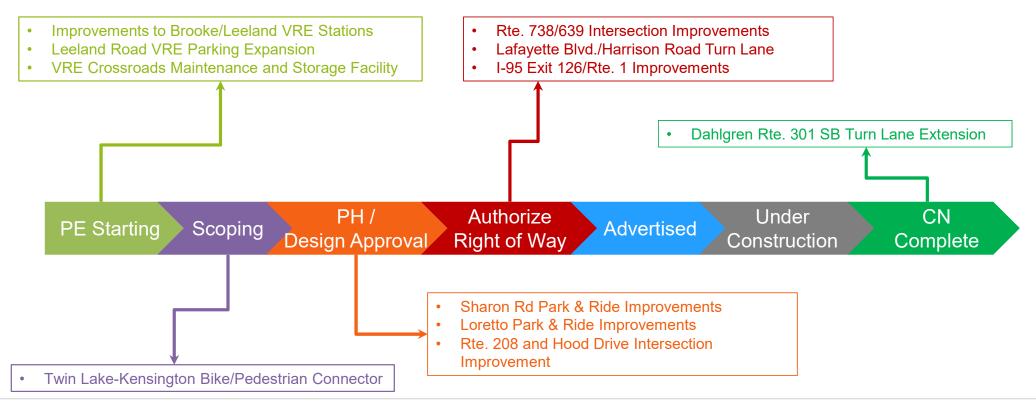


Virginia Department of Transportation

24

FREDERICKSBURG DISTRICTRound 2 SMART SCALE Projects



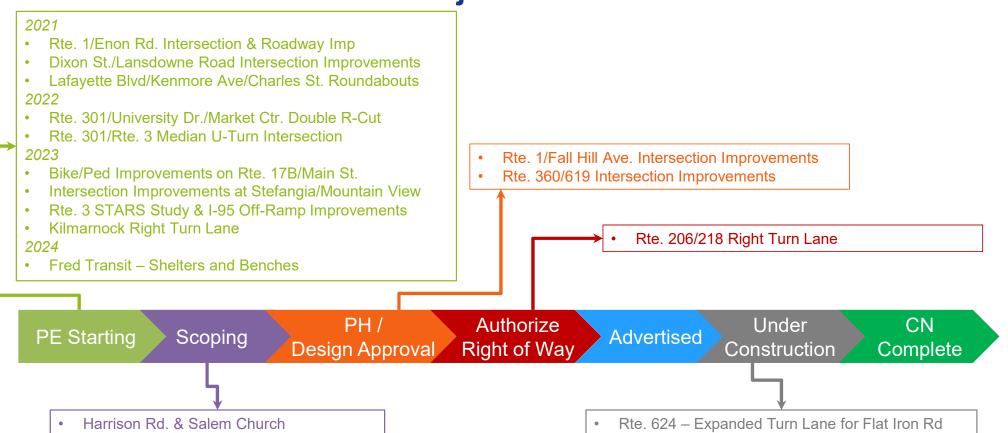




Virginia Department of Transportation

FREDERICKSBURG DISTRICT Round 3 SMART SCALE Projects







Virginia Department of Transportation

FREDERICKSBURG DISTRICT Opportunities & Challenges

- Improving Dashboard performance
- Strengthening the estimating process
- Supporting the locally administered program
 - Stafford County &
 City of Fredericksburg issuing
 RFP's for professional services











VTCA DISTRICT DIALOGUE 2021 ROBBIE PREZIOSO, P.E.

ADE - MAINTENANCE



FREDERICKSBURG DISTRICT MAINTENANCE – Resurfacing Program



- Fredericksburg District:
- Comprised of Fourteen Counties, Spanning 11,926 Lane Miles
- Divided Between Three Residencies
 - Fredericksburg Residency 39.27% of primary and secondary LM's
 - Saluda Residency 32.37% of primary and secondary LM's
 - Northern Neck Residency 28.35% of primary and secondary LM's
 - Total District Lane Miles 11,926
 - Interstate System Lane Miles 280
 - Primary System Lane Miles 2,191
 - Secondary System Lane Miles 9,455



- Interstate System, 281 lane miles
 - 85% of lane miles are composite structures (asphalt over concrete)
 - 15% of lane miles are full depth asphalt structures
 - Existing surfaces consist of SMA, 12.5E and THMACO



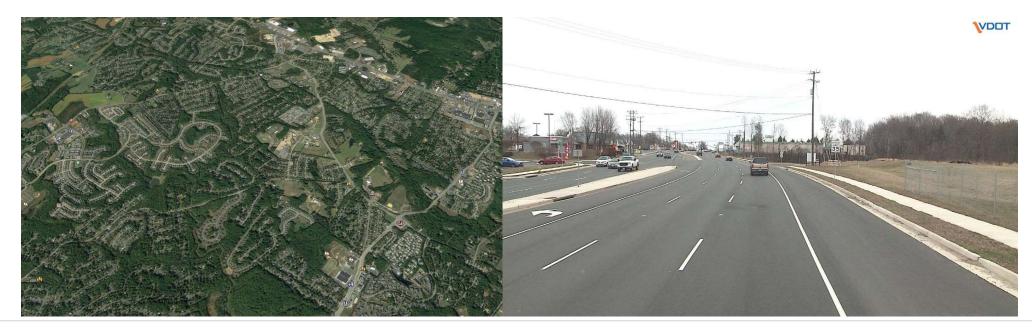


- Primary System, 2,190 lane miles
 - 90% of lane miles are composite and 10% flexible structures
 - 82% of lane miles are asphalt structures, 18% non-plant mix



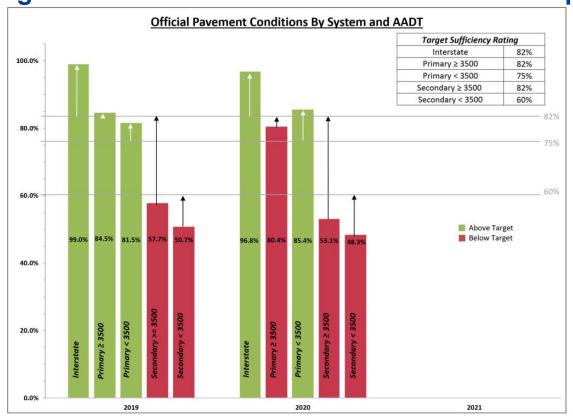


- Secondary System, 9,454 lane miles
 - 95% of lane miles are treated, 5% are gravel
 - 29% of lane miles are asphalt structures, 66% are non-plant mx



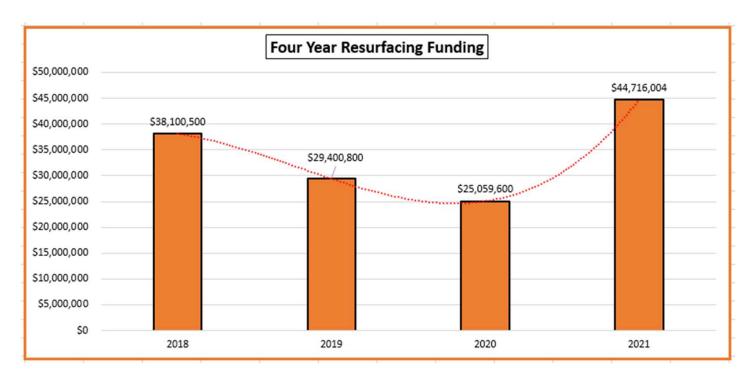


Fredericksburg District's Pavement Conditions – Tiered Approach Metrics





Resurfacing Funding Trend



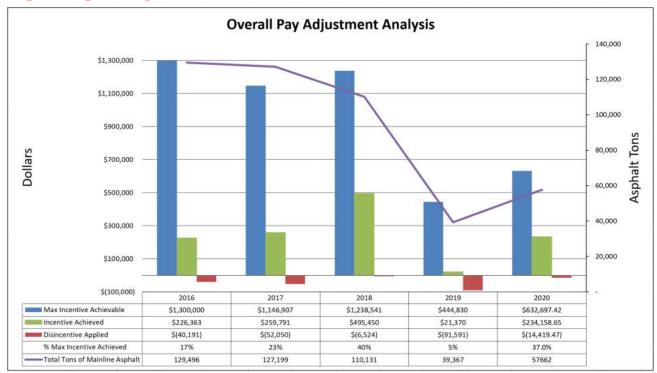


2021 Fredericksburg District Resurfacing Planned Contracts

Treatment	# of Contracts	Approximate Quantities	Approx. Contract Value
Plant Mix	13	280,000 Tons	\$31.3M
Slurry Seal	3	1,800,000 SY (Total of ST/SS combined SY)	\$6.7M
Latex	1	2,400 Tons	\$1.0M
Surface Treatment	3	2,400,000 SY	\$5.7M
Total	20		\$44.7M



- Success Stories
- Rideability Pay Adjustment Results





- Challenges
- Maintenance of Traffic
 - Day work or night work. Disrupt daytime traffic and commerce flow or the ability for folks to sleep at night.....
- Resurfacing Material Performance
 - Premature rutting
 - End load segregation
 - Longitudinal joint straightness
 - Availability of Flaggers





VTCA DISTRICT DIALOGUE 2021 ANNETTE ADAMS, P.E. DISTRICT BRIDGE ENGINEER



INTERSTATE

Performance Measure Target – 97% non-Structurally Deficient *AND* no Load Postings



- 100% non-SD
- No Load Postings



PRIMARY

Performance Measure Target – 93% non-Structurally Deficient

- 91.7% non-SD
- 21 SD bridges and culverts
 - 8 in CN
 - 6 in SYP design
 - 4 in MN design
 - 2 in pre-scoping
 - 1 currently not in plan





SECONDARY

Performance Measure Target – 90% non-Structurally Deficient

96.8% non-SD

19 SD bridges and culverts

- 3 in CN
- 4 in SYP design
- 8 in MN design
- 1 to be abandoned
- 3 are permanently closed

608	Dorrell Creek
	King William County

677	Herring Creek
	Caroline County





GENERAL CONDITION RATING Performance Measure Target – Minimum 5.6

- Currently 6.1
- Average of all components
- Bridges 3 components: Deck, Superstructure, Substructure
- Culvert 1 component



FREDERICKSBURG DISTRICT MAINTENANCE WEST POINT BRIDGES



Route	Description
30	Eltham Bridge Pamunkey River
33	Lord Delaware Bridge Mattaponi River

PT Acoustic Emission
Monitoring Installed

NDE Inspection – all PT Girders

Concrete Superstructure

Repair



Post-Tensioning Update



FREDERICKSBURG DISTRICT MAINTENANCE UPCOMING PROJECTS (BRIDGES - MN)

Route	Description	Ad Date	CN Estimate
223 UPC 116216 *Special Structure	Center Bearing, Mechanical Rehabilitation Gwynn Island Bridge Mathews County	AD 11/4/2020 LET 3/24/2021	\$10.7 million
301 UPC 117775	Scour Repair Bridge – NB Peumonsend, Caroline Culvert – Pine Hill Creek, King George	Fall 2021	\$2.8 million
Various UPC 118262	District Wide Scour Repair 9 Locations – Bridges and Culverts	Winter 2021	\$3 million
207, 603, 626, 628 UPC 117968 SGR UPC TBD	District Wide Beam End Repair over CSX Steel Girders Caroline, King George, Stafford	Winter 2021	\$6.4 million
Various UPC TBD	District Wide Bridge Maintenance On-Call Term Contract	Winter 2021	\$3 million Per Term



FREDERICKSBURG DISTRICT MAINTENANCE UPCOMING PROJECTS (BRIDGES)





State of Good Repair Bridge Program 2021 Advertisements

FREDERICKSBURG DISTRICT MAINTENANCE UPCOMING PROJECTS (BRIDGES)

UPC	Route	Description	CN Est
113853	652	Polecat Creek – Bridge Replacement Caroline County, July 2022	\$1.9 million
111406	1	Chopawamsic Creek – Bridge Replacement Stafford County, December 2023	\$7.8 million
113806	3	Lick Run – Bridge to Culvert Replacement Spotsylvania County, December 2023	\$3.7 million
111391	3	Burke Mill Stream – Bridge Super Replacement Mathews County, December 2023	\$4.5 million
111390	14	Northend Branch – Bridge Super Replacement Mathews County, February 2024	\$2.5 million
113851	644	Aquia Creek – Bridge Replacement Stafford County, June 2024	\$4.6 million

State of Good Repair Bridge Program 2022-2026 Advertisements



FREDERICKSBURG DISTRICT MAINTENANCE UPCOMING PROJECTS (BRIDGES)

UPC	Route	Description	CN Est
113850	607	Dragon Run – Bridge Replacement Essex County, July 2024	\$2.1 million
113852	638	South River – Bridge Replacement Caroline County, May 2025	\$3.2 million
118287	695	Oyster Creek – Bridge Replacement Lancaster County, October 2026	\$6.3 million
118289	207 EBL/NBL	Mattaponi River – Bridge Superstructure Replacement Caroline County, November 2026	\$7 million
118288	17 NBL	Dragon Run – Bridge Replacement Middlesex County, April 2028	\$11.6 million

State of Good Repair Bridge Program 2022-2026 Advertisements



FREDERICKSBURG DISTRICT MAINTENANCE CONSULTANT SERVICES (BRIDGES)

> Statewide Bridge Professional Services (SB20180111)

HDR

AECOM

WRA

HNTB

Moffatt Nichol

Term 2 (Term 3 begins July 2021 by term limit)

Statewide Complex Structures Engineering Services (SB20191025)

Parsons Transportation Group

Term 1 began April 2020

Statewide Structure Load Rating (SB20171003)

Al Engineers

WSP

Term 3



FREDERICKSBURG DISTRICT MAINTENANCE CONSULTANT SERVICES (BRIDGES)

Statewide Underwater Structure Inspection (SB20170817)
Collins

Term 3

- Statewide Structure Safety Inspection (SB20200720)
 Al Engineers, Alpha Corporation, Collins Engineers
 Clark Nexsen, RK&K, Schwartz, Volkert
 Term 1 began February 2021
- Statewide Movable Bridge Engineering Services (SB20170523)
 HDR Engineering

Term 3 (SB20201102 Under procurement now, 2 consultants)





Construction

Michael T. Coffey, P.E. Assistant District Administrator for Construction

MichaelT.Coffey@vdot.virginia.gov



Route 1 Bridge over Potomac Creek, Stafford County, Fredericksburg Residency





Contractor: Archer Western Construction, Inc

Completion Date: 07/15/2022 Construction Award: \$4,641,022



Rte 17 Bridge Over I-95 and Hospital Boulevard Widening, Spotsylvania County, Fredericksburg Residency





Contractor: Fielders Choice Enterprise, Inc

Completion Date: 02/24/2024

Construction Award: \$15,279,152.80



Rte 743 Bridge over South River, Caroline County, Fredericksburg Residency





Contractor: Burleigh Construction Company, Inc

Completion Date: 10/12/2021 Construction Award: \$990,042



Rte 3 and Rte 17 Bridges over CSX Railroad Tracks, Stafford and Spotsylvania Counties, Fredericksburg Residency





Contractor: OTB Contracting Completion Date: 10/21/2022 Construction Award: \$1,884,930



Rte 3 Passing Lanes, Westmoreland County, Northern Neck Residency



Contractor: J.L. Kent and Sons, Inc

Completion Date: 12/30/2021 Construction Award: \$4,404,726



Route 207 Bridge over Mattaponi River, Caroline County Fredericksburg Residency



Contractor: Corman Kokosing Construction

Completion Date: 11/19/2021 Construction Award: \$5,713,540



Route 17 Bridge over Dragon Run, Middlesex County Saluda Residency



Contractor: J. Saunders Construction Company

Completion Date: 08/15/2021 Construction Award: \$2,769,687



Rte 30/360 (Central Garage), King William County, Saluda Residency







Contractor: Howard Brothers Completion Date: 06/07/2021 Construction Award: \$1,399,908



Rte 17 Pedestrian Improvements, Gloucester, Saluda Residency



Contractor: Howard Brothers

Completion Date: 02/17/2021 Time extension due to plan errors.

Construction Award: \$1,067,062



Consultant Services

District-wide CEI:





2021 Est. Peak Staffing	VDOT	Consultant
Inspectors Trainees included	14	25-30
Construction Managers/ Office Engineer	5	2-3
Project Controls	2	1
Total	21	28-34



Consultant Services

Fredericksburg District CEI Services (FRED-20151201) \$4,000,000 per term

A. Morton Thomas, Inc.

Term 1

Expires 04/2022

Fredericksburg District CEI Services (FRED-20180607) \$3,000,000 per term

ATCS, PLC

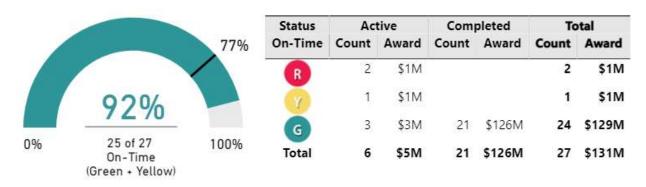
Term 2

Expires 11/2022



Construction

ON-TIME PERFORMANCE

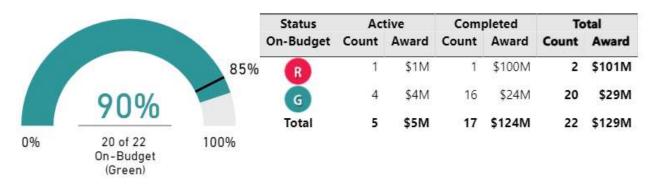


(Target: 77% of Projects Complete Delivery Phase On-Time)



FREDERICKSBURG DISTRICT Construction – VDOT Administered

ON-BUDGET PERFORMANCE

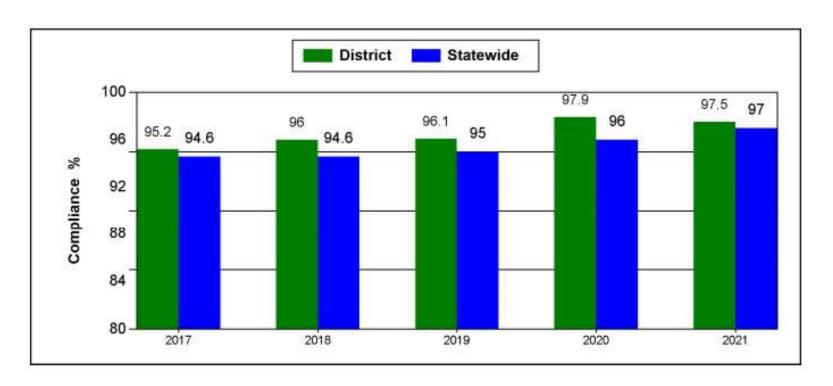


(Target: 85% of Projects Complete Delivery Phase On-Budget)



Construction

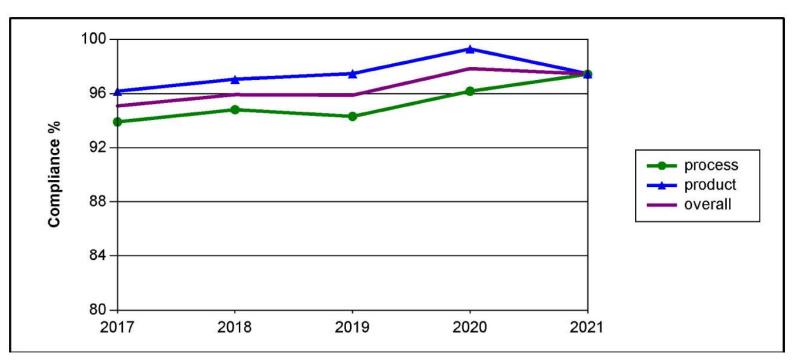
FY '21 CQIP 91% Target





Construction

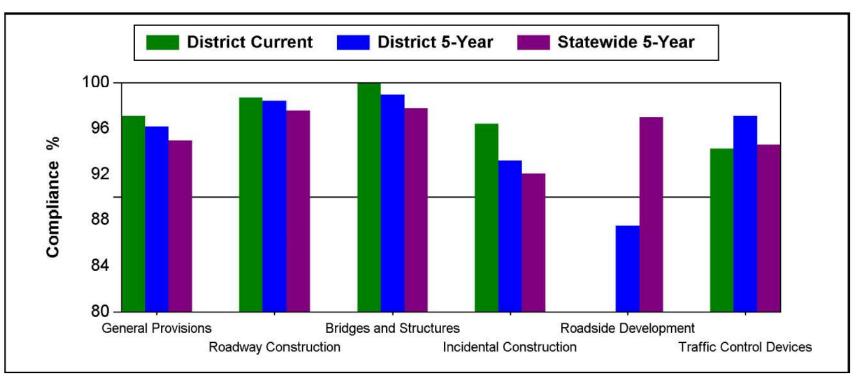
FY '21 CQIP Process vs Product





FREDERICKSBURG DISTRICT Construction FY '21 CQIP

District Compliance By Checklist Section





FREDERICKSBURG DISTRICT Construction – Focus for 2021

- Design Build Quality Control and Quality Assurance
- Resolve issues at the appropriate level.
- Making common sense engineering and construction decisions.
- Paving Schedule Maintenance of Traffic, Portable Rumble Strips
- Working smart through technology (PlanGrid, OxBlue, UAVs)







FREDERICKSBURG MEGA PROJECTS

VTCA District Dialogue - Improve 95 Program Update

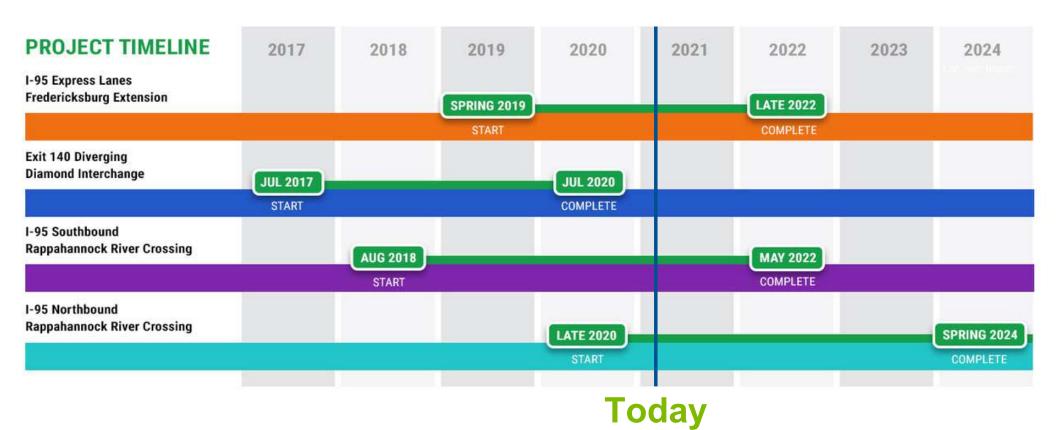
Robert G. Ridgell, P.E., DBIA, CCM District Mega Projects Engineer

February 25, 2021



"More than \$1 billion invested to unlock I-95 gridlock in the Fredericksburg Area"

Program Timeline





95 Express Lanes Fredericksburg Extension

Construction began: Summer 2019

Open to Traffic: Late 2022

Construction Complete: Spring 2023

Project cost: \$565 million Contract

Contractor: Branch Civil & Flatiron Joint Venture

Designer: HNTB

Where: I-95 from approx. Exit 143 to Exit 133

Summary:

To extend HOT Lanes access from the existing Southern Terminus just South of Garrisonville Road to Exit 133, Route 17 Interchange near Falmouth along with the construction a 3 new access points.





95 Express Lanes "Fred Ex" Specifics

Layout: Two new reversible high-occupancy toll (HOT) lanes in the existing median.

New Accesses:

- Exit 133 Route 17 **Warrenton Road**
- Exit 140 Courthouse Road

Exit 148 Russell Road at **MCB Quantico**

Other Features:

- New GP Exit Lanes to Route 17
- **Improved Commuter Parking Access to HOT** Lanes at Exit 140

Project Facts of Interest:

- Variable Tolling to Manage Congestion and Better Maintain Posted Speeds
- Drivers will have the option to use the entire Express Lanes corridor without interruption between the Potomac and Rappahannock Rivers.
- **Project planned to achieve Envision** Silver Sustainability Rating

78





Current Progress Highlights

- Focus on grading work and delivery of Route 17 tie-ins
- Truslow Bridge completion
- Future Reconstruction of American Legion (Stafford)
- I-95 realignment
- Russell Road Access
- ITS construction
- Flyover Bridge Construction



Project Needs

- Actively looking for SWaM vendors in a variety of areas
 - Contact Branch-Flatiron Joint Venture for opportunities



Building a Better Ride

80

I-95 Rappahannock River Crossing SB

Construction began: December 2019

Construction Complete: Spring 2024

Project cost: \$102 Million Contract

Contractor: Wagman Heavy Civil

Designer: JMT

Where: I-95 from approx. Exit 130 to 133

Summary:

To double the capacity of I-95 SB in the area between MM 130 to 133 and separate local and thru traffic in a collector distributor system. Construction requires a new SB crossing of the Rappahannock River in the median of existing I-95. Also will replace existing SD bridges at Route 17 underpass.





I-95 Rappahannock River Crossing NB

Construction began: May 2020

Construction Complete: Spring 2024

Project cost: \$108 Million Contract

Contractor: Wagman Heavy Civil

Designer: JMT

Where: I-95 from approx. Exit 130 to 133

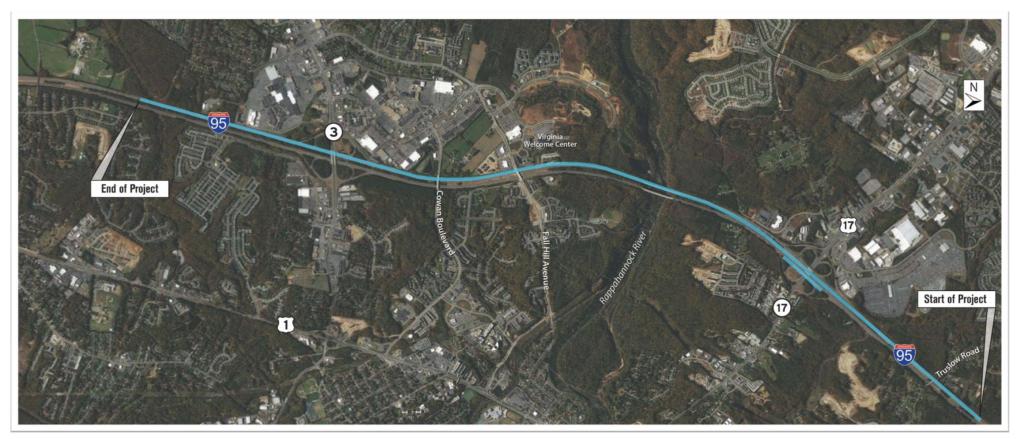
Summary:

To double the capacity of I-95 NB in the area between MM 130 to 133 and separate local and thru traffic in a collector distributor system. Construction requires a new NB crossing of the Rappahannock River in the median of existing I-95. Also will replace existing CD Bridge at Route 17 underpass.





Project Location





Building a Better Ride

83

Project Fast Facts

- The project seeks to reduce I-95 congestion by:
 - doubling I-95 capacity in the Fredericksburg area
 - dividing traffic into separate lanes for the Route 3 and Route 17 interchanges, and general purpose lanes
- Adds three additional lanes of I-95 in the existing I-95 median generally between 130 and 133, including new Rappahannock River Crossing bridges.
- Replaces existing structurally deficient SB and NB I-95 bridges over Route 17 and improves height restrictions on Route 17 under I-95
- Contract Value: \$102 Million and 108 Million, respectively





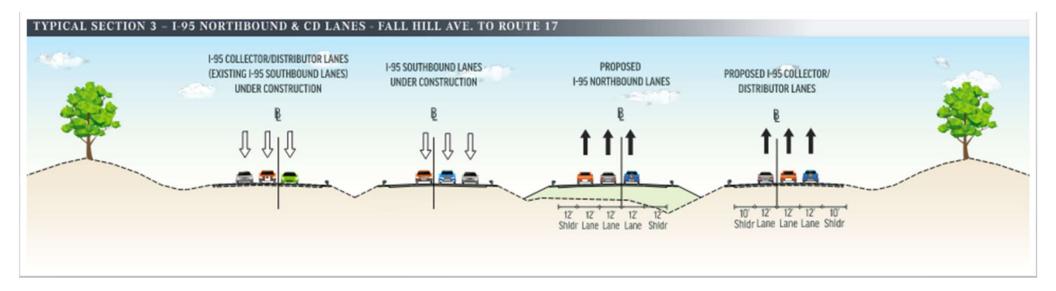
85







Final Configuration



Current Progress Highlights

- Steel girder placement on Southbound Bridge completion
- Deck underway
- Causeway reconfiguration
- Route 17 SB CD Lane Bridge
- GP Lane Grading
- FredEx Overlap Area Ramp from Rt 17 to HOT Lanes (HWN)





Chatham Bridge Rehabilitation

Construction began: April 2020

Open to Traffic: September 2021

Construction Complete: April 2022

Project cost: \$17.8 Million Contract

Contractor: Joseph B. Faye

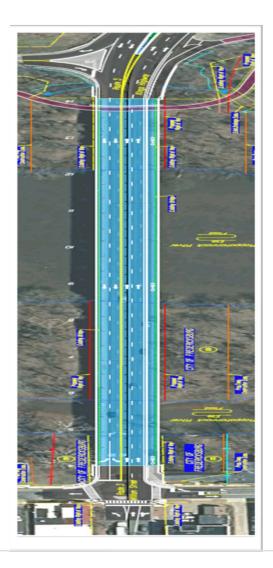
Designer: VDOT / WRA

Where: Route 3 over the Rappahannock River at

the City of Fredericksburg

Summary:

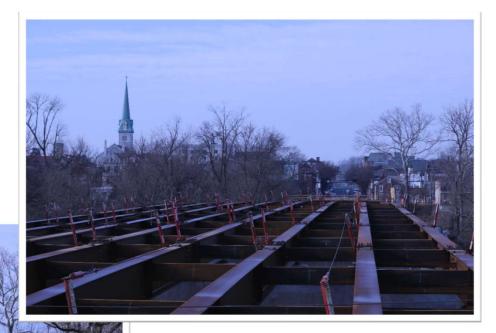
Accelerated closure and reconstruction of the superstructure w/ widening and substructure rehabilitation.



Chatham Before and After









Current Progress Highlights

- Steel girders placed on Unit 3
- Pier Cap Widening Completed for all Units
- Abutment Widenings Complete



Building a Better Ride

94

Program Contact Information Improve95.org

Robert G. Ridgell, P.E., DBIA, CCM, VDOT

Robert.ridgell@vdot.virginia.gov (540) 903-8692



Darragh.frye@vdot.virginia.gov (540) 899-4119

FredEx Richard Prezioso rprezioso@transurban.com (571) 480-3775

Kenny Haynes Kenny.Haynes@branchcivil.com rhayzlett@jmt.com (540) 613-7202

Rappahannock River Crossing Glen Mays, Wagman gmays@wagman.com (804) 481-0174

Rodney Hayzlett, P.E., JMT (804) 267-1269





Chatham Bridge Rehab Jeff Lawson, P.E., J.B. Fay jlawson@jbfayco.com (724) 265-4600

