



**October 2022
Monthly Project Report
I-64 HAMPTON ROADS
BRIDGE-TUNNEL
EXPANSION**

Report No. 43
Project No. 0064-M06-032



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Prepared by:

Virginia Department of Transportation
www.hrbexpansion.org

1. Executive Summary

1.1 Overview

This report provides an overview of accomplishments and activities for the Hampton Roads Bridge-Tunnel Expansion Project from September 25, 2022 – October 22, 2022. The Design-Builder for the project is Hampton Roads Connector Partners (HRCP), a consortium that includes lead contractors Dragados, Vinci, Flatiron, and Dodin Campenon Bernard, with lead designers HDR and Mott MacDonald.

The current reporting period is aligned with HRCP's fiscal-month structure, on which the project's design-build schedule updates and invoiced construction progress are based. Reporting periods typically close on the Saturday on or preceding the 24th of each month.

During this reporting period, project accomplishments included the following:

- South Island Progress:
 - Jet grouting at tunnel approach plug to 73%.
 - Headwall installation at Cell 1 launch pit to 61%.
 - Launching pit base slab to 55%.
- Tunnel Progress:
 - Precast tunnel segment liner production to 33%.
 - Completed TBM cutterhead assembly and welding.
 - Slurry treatment plant assembly to 70%.
- North Island Progress:
 - Capping beams to 18%.
- Landside Progress:
 - Completed deck concrete placements for Spans 24, 25, and 26 for Bay Avenue Bridge to facilitate eastbound widening.
- Marine Progress:
 - North Trestle eastbound piles to 74%.
 - North Trestle eastbound caps to 67%.
 - North Trestle eastbound beams to 42%.
 - North Trestle eastbound decks to 15%.
 - Permanent South Trestle caps to 9%.

1.2 Priorities

VDOT's priorities for the Project are to achieve the following objectives:

- To provide mobility enhancements and travel-time reliability along the Project corridor.
- To minimize Project impacts on adjacent communities.
- To improve transportation operations and safety throughout the Project corridor.
- To develop public infrastructure in a financially responsible manner.

1.3 Key Updates

Project Schedule

The last approved schedule for the project is Update 38 (data date: September 25, 2022), and the schedule information in this report reflects this update.

- Contractual Substantial and Final Completion Dates remain unchanged.
- HRCP's Schedule Update 38 is reporting Substantial Completion date of August 25, 2026.
- HRCP's Schedule Update 38 is reporting Final Completion date of October 24, 2026.

Project Budget

The project budget summary below now includes all incurred to date costs through October 22, 2022 and does not include forecasted cost outside of the reporting period.

- Project budget overview:

Current total project budget:	\$ 3,935,451,641
Total costs to date:	\$ 1,559,686,554
Remaining project budget:	\$ 2,375,765,087

- Design-build contract overview:

Design-build contract original amount:	\$ 3,299,997,227
Net change orders:	\$ 1,752,944
Exercised Options:	\$ 73,454,414
Design-build contract sum to date:	\$ 3,375,204,585
Expenditures to date:	\$ 1,486,194,633
Remaining design-build contract amount:	\$ 1,889,009,951

- Design-build progress to date:

Project Management:	49.9%
Design:	89.3%
Physical Construction Progress:	26.9%
Overall:	44.0%

Environmental

Environmental updates for this reporting period include:

- DEQ issued their 30-day public notice on September 28, 2022 for the VPDES permit modification request.
- DEQ issued air permits for the South Island Slurry Treatment Plant and Bi-component Plant on October 4, 2022.

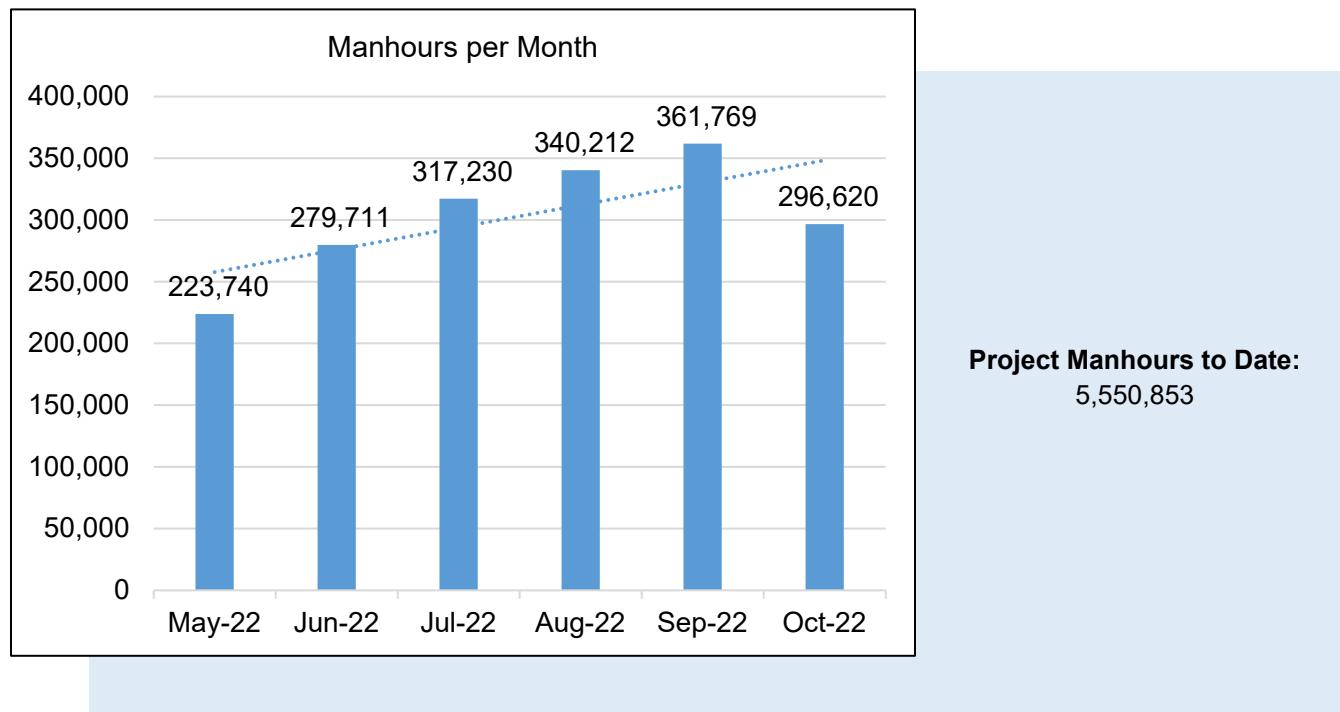
Construction

Progress updates for this reporting period include:

- Landside Roadways
 - Completed barrier installation for Phase 1 traffic shift along I-64 westbound between Willoughby Bridge and South Trestle.
 - Completed installation of drainage structure in I-64 median between 15th View St. and 13th View St.
 - Completed drainage jack and bore at I-64 eastbound off ramp at 4th View St.
 - Began installation of embankment between 4th View St. and Mason Creek Rd. for eastbound widening.
 - Began installation of retaining wall between Mason Creek Rd. and 1st View St. for eastbound widening
- Marine Works
 - Piles driven at the North eastbound permanent trestle (4 installed this period).
 - Caps placed at the North eastbound permanent trestle (1 installed this period).
 - Beams placed at the North eastbound permanent trestle (24 installed this period).
 - Decks placed at the North eastbound permanent trestle (2 installed this period).
 - Piles driven at the South eastbound MOT trestle (8 installed this period).
 - Caps placed at the South eastbound MOT trestle (3 installed this period).
 - Beams placed at the South eastbound MOT trestle (4 installed this period).
 - Piles driven at the South westbound MOT trestle (5 installed this period).
 - Caps placed at the South permanent trestle (1.5 installed this period).
 - Beams placed at the South permanent trestle (3 installed this period).
- Tunnels and Islands
 - Completed TBM cutterhead assembly and welding on surface TBM slab.
 - Completed South Portal High Occupancy Toll headwall concrete placements 6 and 7.
 - Completed South Portal base slab concrete placements 1 and 3.
- Landside Bridges
 - Completed Abutment A footing and backwall for Willoughby Bay Bridge to facilitate eastbound widening.
 - Completed pier cap construction at Piers 1 and 2 for Mason Creek Rd. Bridge to facilitate westbound widening.

- Began Abutment A footing construction for Mason Creek Rd. Bridge for eastbound widening.
- Completed pile driving operations at Pier 2 for 1st View St. Bridge for eastbound widening.
- Completed installation of stay-in-place deck forms at Spans 34-42 Bay Ave. Bridge for eastbound widening.
- Completed deck concrete placements for Spans 24, 25, and 26 Bay Ave. Bridge for eastbound widening
- Began removal of existing pile jackets for rehabilitation of existing Oastes Creek eastbound and westbound bridges.

The number of construction manhours worked each month is provided by HRCP and is current as of October 31, 2022:



Operations

The following operations activities took place during this reporting period:

- New short-term lane closures at Willoughby Bay Bridge, North Trestle, and South Trestle for beam placements.
- New short-term lane closure at South Trestle for parapet demolition.
- New short-term lane closure at 1st View St. westbound for traffic camera relocation.
- New short-term lane closure along I-64 westbound near Willoughby inspection station for slow rolls to support shifting lane use signals associated with traffic shift.

- New short-term lane closure near 4th View St. westbound to support temporary lighting aerial cable installation.
- New short-term lane closure to support temporary stoppages along I-64 eastbound in Hampton for equipment movements.
- Implemented lane shift along I-64 westbound near Willoughby inspection station.

Quality

Quality updates for this reporting period include:

- VDOT reviewed Construction Quality Management Plan (CQMP) updates for two Notice of Design Change (NDC) packages this period.
- VDOT reviewed 35 Non-Conformance Reports (NCRs) for concurrence.
- VDOT continues to monitor HRCP's QA and QC material testing. VDOT also performed Independent Testing and Verification Testing on materials in accordance with VDOT requirements and coordinated with VDOT Materials Division for shop inspections as required.
- VDOT continues to engage HRCP in discussions on HRCP's implementation of their Quality Management System Plan (QMSP) and the effectiveness of the plan.

Safety

Safety procedures and activities during this reporting period include:

- VDOT and HRCP continue to follow latest CDC guidelines regarding COVID-19.
- VDOT and HRCP continue collaboration on emergency response planning.
- An emergency rescue drill was conducted at South Island on September 25, 2022.

The following safety performance indicator information is provided by HRCP and is current as of October 31, 2022:

- Total Recordable Incidence Rate: 1.59 (National Average: 2.5)
- Lost Time Incidence Rate: 0.18 (National Average 1.6)



Civil Rights & DBE/SWaM Business Opportunities

HRCP has awarded **320** subcontracts, subconsultant agreements, and purchase orders to certified DBE/SWaM firms on the project. These contract awards represent a total of **\$480.9 million** to certified DBE/SWaM firms.

- HRCP continued to make progress towards the 80 participant On-the-Job Training (OJT) contract goal. To date, 21 participants have graduated with 14 currently active in the program.
- VDOT and HRCP participated in outreach events including the Virginia Asian Chamber of Commerce presentation and USDOT Mentors event.
- Publications including the 2nd Edition of the DBE/SWaM Success Stories and Hampton Roads Business Magazine 2022 Fall Edition continued to promote the HRBT Expansion Project and feature subcontractors achieving success on the project.

Public Outreach & Media

Public outreach and project media updates provided by VDOT and HRCP for this reporting period include:

- HRBT Expansion Team presented to Five Star Senior Living, Hampton City Leaders, East Ocean View Civic League, American Legion Post 35, Roland Park Civic League, and the Poquoson Lions Club.

2. Project Schedule

2.1 Schedule Status

The following table depicts key milestone dates for the project and has been updated as of the current approved schedule. The last approved schedule for the project is Update 38 (data date: September 25, 2022), and the schedule information in this report reflects this update. Update 38 projects substantial completion on August 25, 2026, and final completion on October 24, 2026. Contractual Substantial and Final Completion dates remain unchanged.

	Contract Requirement	September 2022 Schedule	Actual
NTP		Sep 11, 2020	Sep 11, 2020
Substantial Completion	Sep 1, 2025	Aug 25, 2026	
Final Completion	Nov 1, 2025	Oct 24, 2026	

2.2 Longest Path

The longest path/critical path in Project Schedule Update 38 is driven by the following activities:

- South Portal Launch Pit Headwall Construction
- Assembly of the Tunnel Boring Machine (TBM) in launching pit
- TBM Commissioning
- TBM drive in High Occupancy Toll Tunnel
- TBM U-Turn on North Island
- TBM drive in General-Purpose Tunnel
- TBM Disassembly in south pit
- South Portal Cut & Cover Structures Phase 4 Cell 1
- South Island Ventilation Building & Gate House – Phase 2
- South Ventilation Building Commissioning
- South Island Buildings Integrated Functional Testing
- Tunnel Systems Integration – ITS
- Commissioning – High Occupancy Toll & General-Purpose Operational Testing
- Commissioning – Tunnel + Buildings + Roadways + Trestles Integration Testing
- ITT Reversal
- Substantial Completion

2.3 Impact Analysis

Several elements of work are near-critical and could affect schedule performance if they are not addressed diligently. VDOT and HRCP are closely monitoring these activities. The following work elements have been identified as near critical, meaning there is less than one month of float in Schedule Update 38:

South Portal

- South Portal Tri-Cell – Base Slabs
- South Portal Cut & Cover Structures – Phase 2
- South Portal Cut & Cover Structures – Phase 4
- South Portal Cut & Cover Structures – Phase 5
- South Portal Cut & Cover Structures – Phase 6
- General Purpose Tunnel – Interior Structures Construction

South Island

- South Island – Slurry Treatment Plant – Filter Press Walls
- South Island – Slurry Treatment Plant – Filter Press and Buildings – Construction & Commissioning
- South Island – Additional Conveyor and Quay Mooring Piles and Fenders
- North Side South Island Expansion – Clear Cluster 109
- South Island – Rectilinear Approach – Jet Grouting
- South Island – Rectilinear Approach – Support of Excavation – Capping Beams
- South Island - Rectilinear Approach – Construction
- South Island Vent Building Construction Phase 1

Tunneling

- Tunnel Boring Machine – Cell 3 Gantry Assembly
- South Portal Tri-Cell – TBM Pe-Assembly
- South Portal Tri-Cell – Thrust Frame Spreader Beam
- South Portal Tri-Cell – TBM Seal Assembly

North Island

- North Island – Soil Treatment – Field Test Program
- North Island – Break-in/Break-out Phase 1 & 2 – Jet Grout
- North Island – Rectilinear Section – Jet Grout
- North Island – Rectilinear Section – Support of Excavation
- North Island – Rectilinear Section – Construction
- North Portal Construction
- North Island – Ventilation Building – Phase 2 Cell 1 – Construction

Roadway and Land Bridges

- Segment 3b Phase 3A – Willoughby Spit Roadway and Storm Drainage
- Segment 3b Phase 4 – Willoughby Spit Roadway and Storm Drainage
- Segment 3d Phase 2A – Willoughby Bridge to Mason Creek Roadway

- Segment 3d Phase 3 – Willoughby Bridge to Mason Creek Roadway and Storm Drainage
- Segment 3d 4th View Ramp H – On-Ramp Construction
- Willoughby Bridge – Construction – Lighting & EB Superstructure

Trestles

- South Island Expansion – Marine Works and Island Expansion
- South Island Expansion – Land Works and Island Expansion
- South Trestle – MOT Traffic Shift - EB 1
- South Trestle – Zone 3 Substructure and Superstructure Completion
- South Trestle – Zone 5 Substructure and Superstructure Completion
- South Trestle – Existing Trestle Demolition

Commissioning and Integration

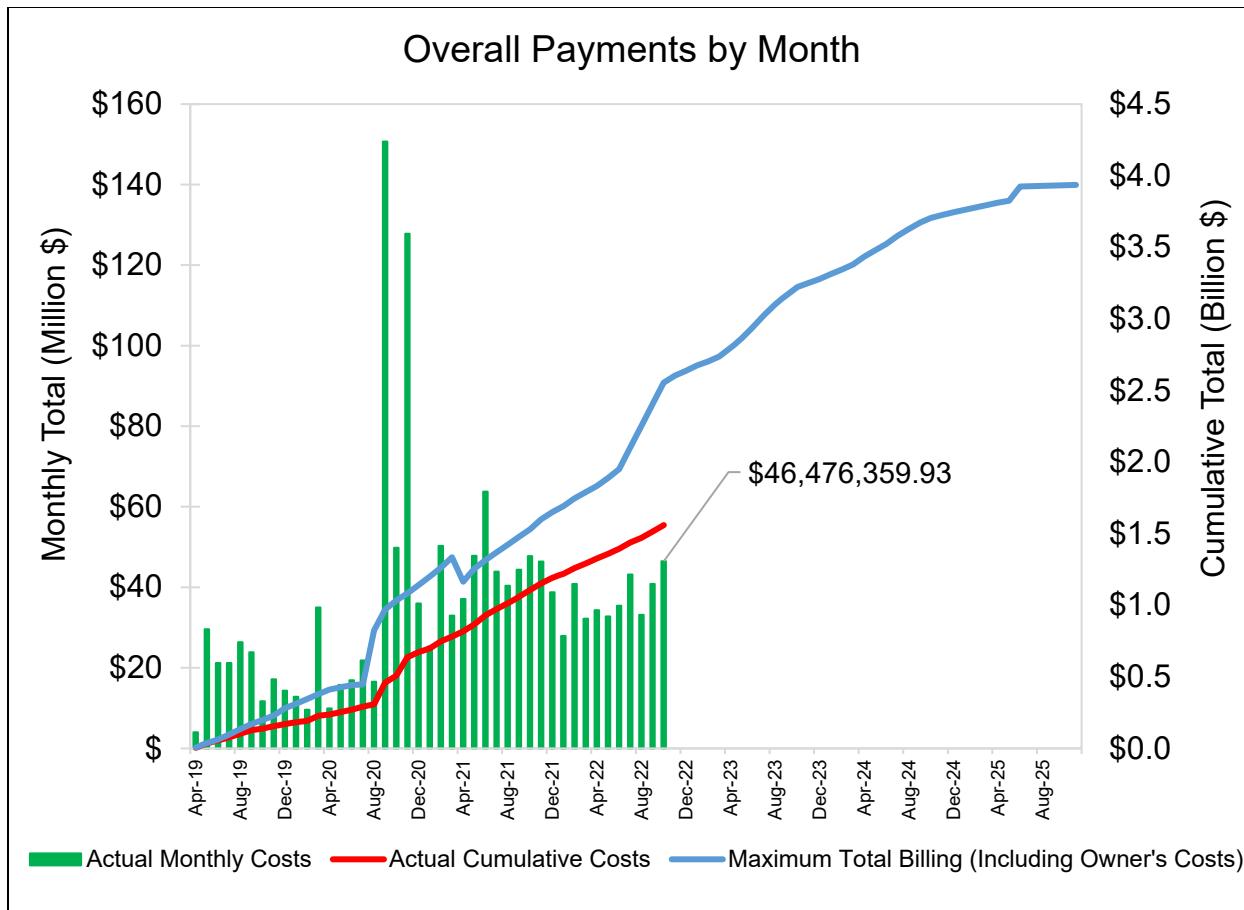
- General Purpose Tunnel – Low Point Pump Station (LPPS) Drainage
- General Purpose Tunnel – Fire Suppression and Detection
- General Purpose Tunnel – Booster Fans
- General Purpose Tunnel – Lighting
- North Island Buildings – Functional Testing – Mechanical Pressurization
- South Island Buildings – Functional Testing – Electrical Medium Voltage/Low Voltage
- Commissioning – Operational Testing – General Purpose Fire System
- Commissioning – Operational Testing – General Purpose Medium Voltage/Low Voltage
- Commissioning – Operational Testing – General Purpose Drainage System

3. Project Budget

3.1 Overall Budget

The overall budget outlined in this report is based on the terms and conditions of Article 3 (Project Funding) in the Project Agreement for Funding and Administration (PAFA). The cost curve is based on Exhibit 6 of the Comprehensive Agreement (monthly maximum cumulative compensation amount).

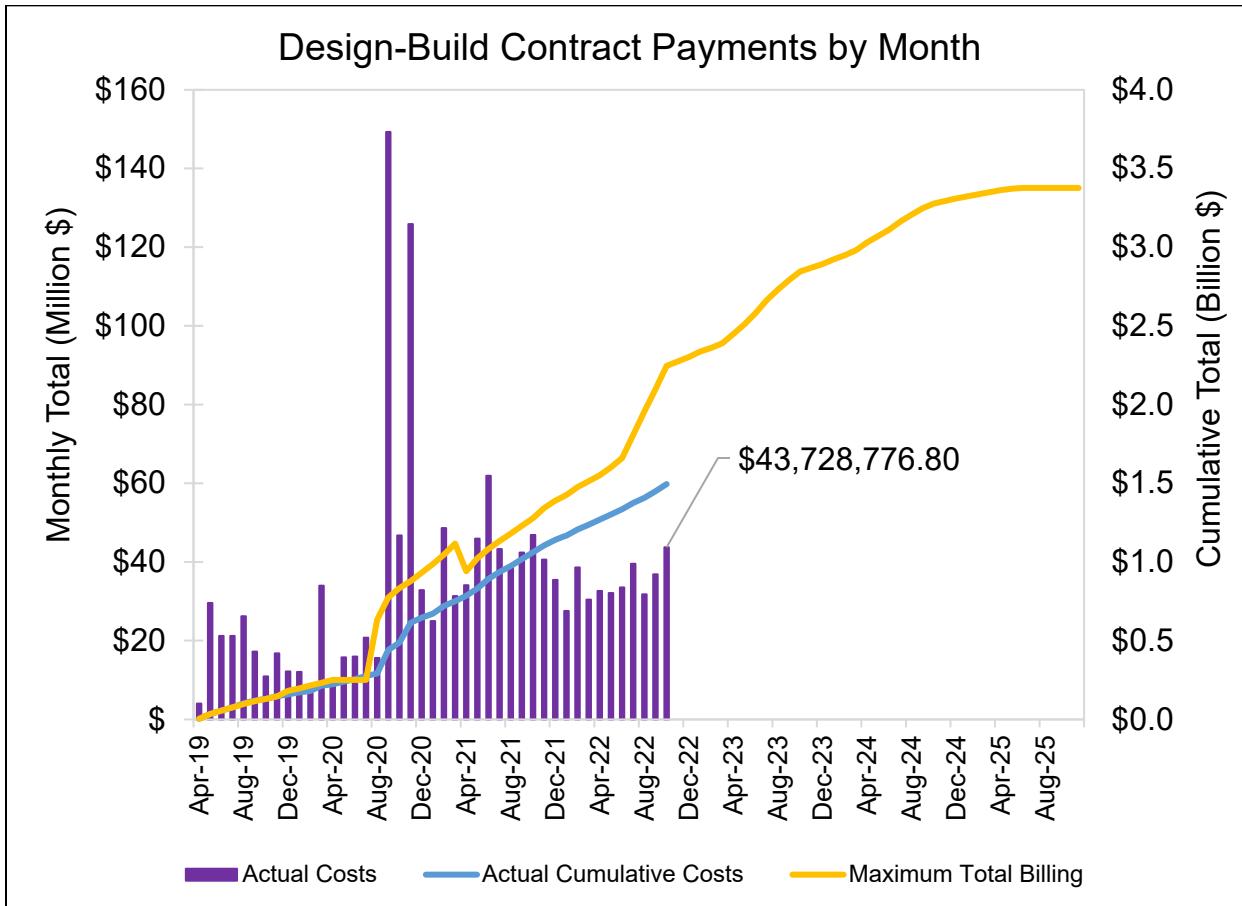
	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<u>Comprehensive Agreement</u>					
<i>Construction</i>	\$43,728,776.80	\$1,465,863,802.00	\$3,299,997,227.00	\$1,834,133,425.00	44.42%
<i>Owner Costs</i>					
<i>Administration</i>	\$2,108,785.53	\$60,839,515.61	\$122,000,000.00	\$61,160,484.39	49.87%
<i>Right of Way</i>	\$8,318.32	\$8,652,404.72	\$15,000,000.00	\$6,347,595.28	57.68%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$424,528.72	\$22,168,783.96	\$335,000,000.00	\$312,831,216.04	6.62%
<i>Bridge Repair Work Option</i>	\$205,950.56	\$2,162,047.23	\$73,454,413.96	\$71,292,366.73	2.94%
<u>Total</u>	\$46,476,359.93	\$1,559,686,553.52	\$3,935,451,640.96	\$2,375,765,087.44	39.63%



*The Maximum Total Billing is now showing an adjustment in May 2021 due to the executed Change Order #40 – Update Maximum Cumulative Cost Curve

3.2 Design-Build Contract Cost Status

The budget and planned cost have been established based on the maximum cumulative compensation amount. For this period, the invoiced expenditures cover the activities noted in this report.



**The Maximum Total Billing is now showing an adjustment in May 2021 due to the executed Change Order #40 – Update Maximum Cumulative Cost Curve*

3.3 Budget by Funding Source

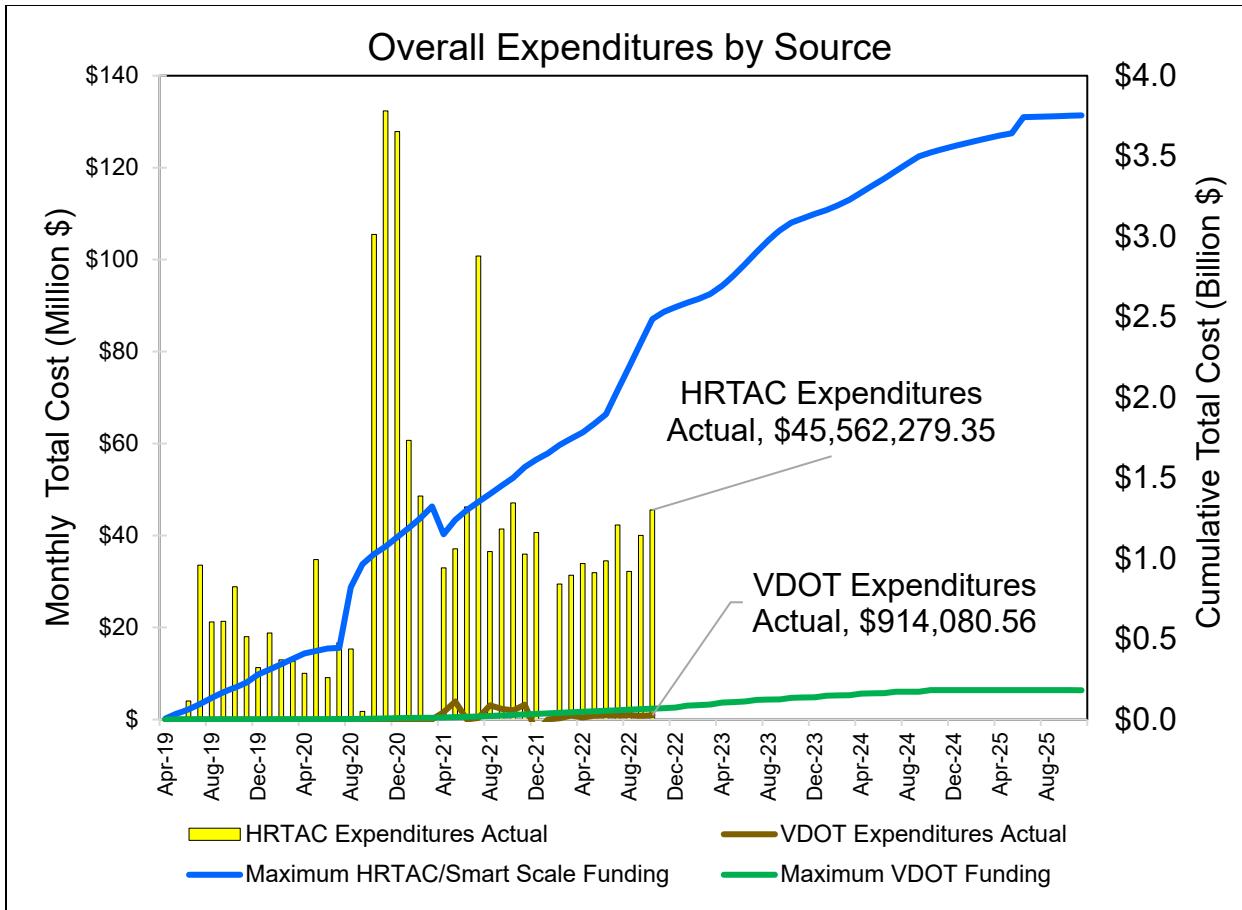
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures of both HRTAC and VDOT funds. The cost curve has been developed based on the monthly maximum cumulative compensation amount in the Comprehensive Agreement and will be updated as HRCP refines its design, construction means-and-methods, activity sequences, and project resourcing.

3.3.1 HRTAC and Smart Scale

	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
Comprehensive Agreement					
<i>Construction</i>	\$43,063,586.80	\$1,451,181,150.24	\$3,204,569,251.00	\$1,753,388,100.76	45.28%
Owner Costs					
<i>Administration</i>	\$2,065,845.53	\$59,333,003.61	\$118,472,054.00	\$59,139,050.39	50.08%
<i>Right of Way</i>	\$8,318.30	\$8,652,404.72	\$15,000,000.00	\$6,347,595.28	57.68%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$424,528.72	\$21,183,817.83	\$325,428,276.00	\$304,244,458.17	6.51%
Total	\$45,562,279.35	\$1,540,350,376.40	\$3,753,469,581.00	\$2,213,119,204.60	41.04%

3.3.2 VDOT

	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
Comprehensive Agreement					
<i>Construction</i>	\$665,190.00	\$14,682,651.76	\$95,427,976.00	\$80,745,324.24	15.39%
Owner Costs					
<i>Administration</i>	\$42,940.00	\$1,506,512.00	\$3,527,946.00	\$2,021,434.00	42.70%
<i>Right of Way</i>	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
<i>Contingency</i>	\$0.00	\$984,966.13	\$9,571,724.00	\$8,586,757.87	10.29%
<i>Bridge Repair Work Option</i>	\$205,950.56	\$2,162,047.23	\$73,454,413.96	\$71,292,366.73	2.94%
Total	\$914,080.56	\$19,336,177.12	\$181,982,059.96	\$162,645,882.84	10.63%



3.4 Contingency

3.4.1 Contract Changes

	Description	Date	Value	Time
CO-1	VDOT's Acquisition of Willoughby Staging Area	2/11/2020	\$ (3,000,000.00)	0 days
CO-2	Minor Revisions to Technical Requirements	3/18/2020	\$ -	0 days
CO-3	Tunnel Approach Structure Support of Excavation Requirements Refinement	4/28/2020	\$ -	0 days
CO-4	Dispute Resolution Board (DRB) Allowance	5/12/2020	\$ 200,000.00	0 days
CO-5	North Island Armor Stone Value Engineering Change Proposal (VECP)	4/28/2020	\$ (2,011,117.50)	0 days
CO-6	Exit Ramp at Bayville Avenue	5/29/2020	\$ 46,906.29	0 days
CO-7	Minor revisions to the Technical Requirements	7/16/2020	\$ -	0 days
CO-8	Zero Spread Drainage	9/16/2020	\$ 3,239,212.24	0 days
CO-9	Roadway and Bridge Scope Validation Issues	9/4/2020	\$ 15,516,248.00	0 days
CO-10	Slurry Walls as Permanent Structures	8/28/2020	\$ -	0 days
CO-12	Road and Bridge Lighting Requirements	8/27/2020	\$ 2,495,000.00	0 days
CO-13	Bridge Repair Work-Exercise Option	10/9/2020	\$ 73,454,413.96	0 days
CO-14	Trestle Barrier Form Liner Elimination	7/29/2020	\$ (99,571.80)	0 days
CO-15	South Island Ground Improvement Value Engineering Change Proposal (VECP)	9/17/2020	\$ (5,338,000.00)	0 days

CO-16	Navy Security Fencing Design	7/15/2021	\$ 150,000.00	0 days
CO-17	Westbound ITT Reduced Instrumentation	10/30/2020	\$ (184,277.50)	0 days
CO-18	Willoughby Bay Bridge Barriers	9/10/2020	\$ -	0 days
CO-19	GeoPak Version Software Updates	8/3/2020	\$ -	0 days
CO-21	Material Price Adjustment for Asphalt Materials	2/26/2021	\$ -	0 days
CO-22	South Island Asbestos Conduits	9/16/2020	\$ 81,973.93	0 days
CO-23	Island & Tunnel Baseline Monitoring Requirements	7/22/2020	\$ -	0 days
CO-24	Construction Water Supply	9/10/2020	\$ (609,157.27)	0 days
CO-25	Solids Handling Pumps Requirements	11/12/2020	\$ -	0 days
CO-26	Mass Notification Independent System Requirements	11/12/2020	\$ -	0 days
CO-27	Fixed Fire Fighting System Requirements	11/16/2020	\$ -	0 days
CO-28	HOT Lane Shoulder Width	3/29/2021	\$ 2,950,000.00	0 days
CO-30	Willoughby Bay Bridges Fender & Lighting Replacement	2/12/2021	\$ 1,495,000.00	0 days
CO-31	Builder's Risk Insurance	10/21/2021	\$ 1,500,000.00	0 days
CO-32	VCU Fisheries and SAV Mitigation Plan	4/16/2021	\$ (1,042,144.00)	0 days
CO-33	Tunnel Finishes Height	12/18/2020	\$ -	0 days
CO-38	H-Piles in Aggressive Soils	12/18/2020	\$ (47,541.00)	0 days
CO-39	Re-use of existing drainage pipes	4/20/2021	\$ (100,984.25)	0 days
CO-40	Update Maximum Cumulative Cost Curve	7/15/2021	\$ -	0 days
CO-41	Wetland Mitigation Costs	4/26/2021	\$ 3,503,400.00	0 days
CO-42	Navy Gate 22 Drainage Design and Construction	8/19/2022	\$ 1,524,940.16	0 days
CO-43	Hybrid Trestle Beam Design	7/2/2021	\$ -	0 days
CO-44	SCADA Control of Deluge Valves	7/27/2021	\$ -	0 days
CO-45	HRCP Project Executive/Representative Change	5/24/2021	\$ -	0 days
CO-46	Tunnel Sprinkler Heads Material Change	7/28/2021	\$ -	0 days
CO-47	Evans Street Approach Slab Settlement Repair	6/22/2022	\$ 34,082.83	0 days
CO-48	Scope Reduction – City of Hampton	8/24/2022	\$ (6,072,941.31)	0 days
CO-49	HRCP Senior Representative Change	7/2/2021	\$ -	0 days
CO-50	Change in Precast Form Tolerance & Change in Curing Methods	1/10/2022	\$ -	0 days
CO-53	Sound Wall Quantity Reconciliation	12/6/2021	\$ (16,561,217.63)	0 days
CO-54	4th View Interchange Design and Construction Drainage	8/17/2022	\$ 984,598.45	0 days
CO-55	HREL Overlap Scope Change in Norfolk-Proposal Costs	8/12/2022	\$ 157,237.34	0 days
CO-56	Building Code Changes - Design	10/21/2022	\$ 2,186,150.00	0 days
CO-57	Design-Builder's Senior and Representative Changes	1/11/2022	\$ -	0 days
CO-59	Fisheries and SAV Mitigation Plan - VCU	6/16/2022	\$ (70,238.22)	0 days
CO-60	Navy Fence (remaining design costs)	8/17/2022	\$ 180,142.36	0 days
CO-62	SIP Forms for Marine Bridges	6/28/2022	\$ -	0 days
CO-64	Tolling Infrastructure Proposal Costs	10/21/2022	\$ 645,242.40	0 days
		TOTAL	\$ 75,207,357.48	0 days

3.4.2 Material Price Adjustments

This progress period included the following material price adjustments:

Material	Current Amount	Total to Date	Material Price Adjustment Through
Asphalt	\$ 4,158.73	\$ 22,171.01	August 2022
Fuel	\$ 8,235.89	\$ 111,248.51	August 2022
Steel	\$ 297,432.53	\$ 1,224,727.46	April 2022

4. Environmental

The following environmental management activities occurred during this reporting period:

Permits:

- HRCP's request for JPA permit modification #8 (submitted on August 31, 2022) and is under review by the Virginia Department of Environmental Quality and U.S. Army Corps of Engineers.
- DEQ previously drafted approval of HRCP's requested modification to the Virginia Pollutant Discharge Elimination System (VPDES) permit, and the 30-day public notice period began on September 28, 2022.
- DEQ issued air permits for the South Island Slurry Treatment Plant and Bi-component Plant on October 4, 2022. DEQ is continuing to review the air permit application for the South Island concrete plant.

Marine Mammal Protection:

- No new activities.

Bird Mitigation:

- No new activities.

Programmatic Agreement:

- No new activities.

Archeological Discoveries:

- No new discoveries.

5. Construction

The figure below illustrates a map of the project corridor. The project is further categorized into four construction areas.

- Construction Area 1 is composed of landside road work.
- Construction Area 2 is composed of marine work, including the North Trestle, South Trestle, and island expansions.
- Construction Area 3 is composed of tunnel and island site work.
- Construction Area 4 is composed of landside road and bridge work.



5.1 Construction Area 1: Landside Roadways

I-64 (Segment 1):

- Drainage installation along I-64 median south of Mallory St.
- Drainage installation along I-64 eastbound exterior near Strawberry Banks.
- Drainage installation along I-64 eastbound exterior near Inspection Station.

I-64 (Segment 3):

- Completed barrier installation for Phase 1 traffic shift along I-64 westbound between Willoughby Bridge and South Trestle.
- Completed installation of drainage structure in I-64 median between 15th View St and 13th View St.
- Completed surcharge installation for retaining wall along I-64 eastbound at Bayville St.
- Drainage installation along I-64 eastbound off ramp at 4th View St.
- Completed drainage jack and bore at I-64 eastbound off ramp at 4th View St.
- Began installation of embankment between 4th View St. and Mason Creek Rd. for eastbound widening.

I-64 (Segment 4):

- Began installation of retaining wall between Mason Creek Rd. and 1st View St. for eastbound widening.
- Continued installing wall posts and panels for sound wall 4-6 between Bay Ave. and Evans St. for eastbound widening.



► **I-64 EB (Norfolk)**
 Panel installation for
 retaining wall between
 Mason Creek Rd. and 1st
 View St. to facilitate
 eastbound widening

5.2 Construction Area 2: Marine Trestle Work

North Trestle:

- **Eastbound Trestle**
 - 4 piles driven during this period (189 out of 254 total piles driven).
 - 1 cap placed during this period (25 out of 37 total caps/footers placed).
 - 24 beams placed during this period (123 out of 296 total beams placed).
 - 2 decks placed during this period (5.5 out of 36 total decks placed).

South Trestle:

- **Eastbound MOT Trestle**
 - 8 piles driven during this period (108 out of 118 total piles driven).
 - 3 caps placed during this period (20 out of 26 total caps/footers placed).
 - 4 beams placed during this period (68 out of 95 total beams placed).
 - 17 decks completed though this period (17 out of 25 total decks complete).
- **Westbound MOT Trestle**
 - 5 piles driven during this period (40 out of 109 total piles driven).
- **Permanent Trestle**
 - 1.5 caps placed during this period (6.5 out of 70 total caps placed).
 - 3 beams placed during this period (16 out of 698 total beams placed).



► North Trestle
Beam placement

5.3 Construction Area 3: Tunnels and Islands

South Island:

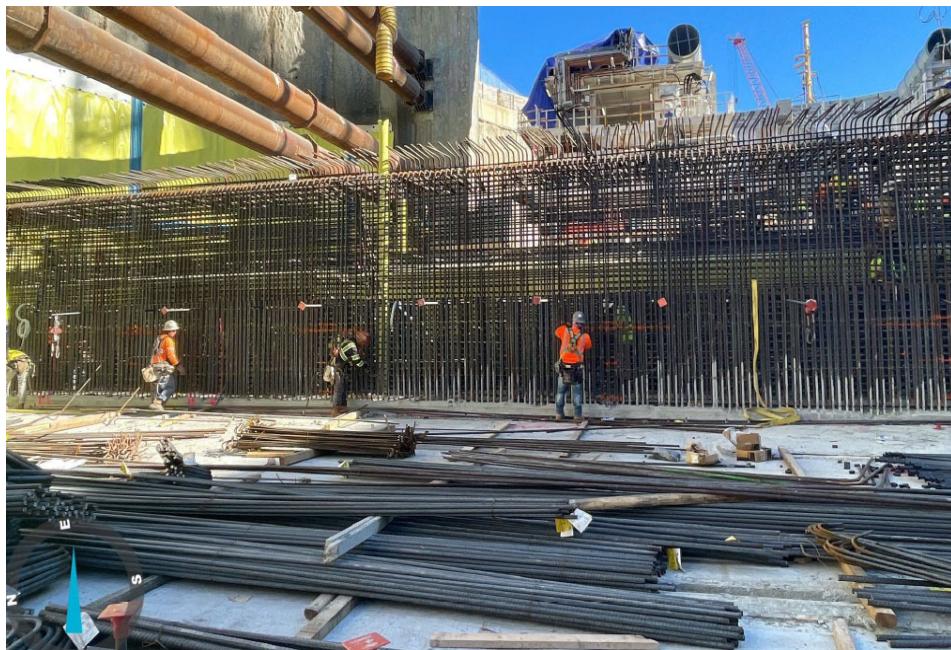
- 73% complete for jet grouting operations at tunnel approach plug.
- 55% complete for launching pit base slab.
- 84% complete for High Occupancy Toll headwall installation.
- 39% complete for General Purpose headwall installation.
- 77% complete for waterproofing installation for launching pit base slab.
- 6% complete for waterproofing on the launching pit walls.

North Island:

- 18% complete for capping beams.
- Continued field trial program for jet grouting.

Tunnel:

- 33% complete for precast tunnel segment liner production.
- 70% complete for assembly of the slurry treatment plant.
- Completed TBM cutterhead assembly and welding on surface TBM slab.
- Assembly of TBM gantries #1 and #3 in Cell 3 of launching pit.
- Installation of thrust frame anchors in Cell 1 of launching pit.



► South Island

Rebar installation for step wall in Cell 2 of launching pit



◀ **South Island**
Assembly of TBM
components (screw
conveyor and crusher box)

Total Segments Required:	Conforming Segments Cast To-Date:	Percentage Complete:
21,492	7,120	33%

5.4 Construction Area 4: Landside Bridges

Willoughby Bay Bridge:

- Completed Abutment A footing and backwall for eastbound widening (2 out of 2 total abutments complete).
- Continued placing cap pedestal concrete for eastbound widening.
- Continued repair/rehabilitation of existing eastbound bridge.

Mason Creek Road Bridge:

- Completed pier cap construction at Piers 1 and 2 for westbound widening (2 out of 2 total piers completed).
- Began Abutment A footing construction for eastbound widening (1 out of 2 total abutments compete).

1st View Street Bridge:

- Completed pile driving operations at Pier 2 for eastbound widening (8 out of 36 total piles driven).

Bay Avenue Bridge:

- Completed installation of stay-in-place deck forms at Spans 34-42 for eastbound widening.

- Completed deck concrete placements at Spans 24, 25, and 26 for eastbound widening (5 out of 37 total decks placed).
- Continued pile driving at Bents 1-11 for eastbound widening (75 out of 108 total piles driven).

Evans Street Bridge:

- Resumed installation of lead abatement containment systems for rehabilitation of existing eastbound and westbound bridges.

Bayview Boulevard Bridge:

- Continued repair/rehabilitation of existing eastbound and westbound bridges.

Oastes Creek Bridge:

- Began removal of existing pile jackets for rehabilitation of existing eastbound and westbound bridges.

**► Evans St. Bridge**

Installing lead abatement platforms for westbound rehabilitation

6. Operations

Operations activities include shoulder and lane closures, creation and maintenance of Intelligent Transportation System (ITS) architecture, other maintenance within the corridor, coordination with existing VDOT Operations, and communication with the Hampton Roads Harbor Tunnels (HRHT) facility staff. The following operations activities occurred during this reporting period:

Short-Term Lane Closures:

- Willoughby Bay Bridge, North Trestle, and South Trestle eastbound to facilitate ongoing concrete placement for piles, caps, and decks.
- Willoughby Bay Bridge, North Trestle, and South Trestle eastbound for beam placements.
- South Trestle for parapet demolition.
- Willoughby Bay Bridge and South Trestle for temporary lighting installation.
- Striping maintenance throughout the project corridor.
- I-64 westbound near 1st View St. for traffic camera relocation.
- Slow roll of I-64 westbound in Norfolk near the Willoughby inspection station to support shifting lane use signals associated with the traffic shift.
- Slow roll of I-64 westbound in Norfolk near 4th View St. to support temporary lighting aerial cable installation.
- Temporary stoppages along I-64 eastbound in Hampton for equipment movements.

Long-Term Lane Closures:

- Bay Ave. in Norfolk to facilitate access to staging area for widening Oastes Creek Bridge.
- Bayview Blvd. in Norfolk and Mallory St. in Hampton to facilitate bridge widening.
- West Ocean Ave. in Norfolk traffic shift to facilitate bridge widening.

Hampton Lane Shifts:

- No new activities.

Norfolk Lane Shifts:

- I-64 westbound at Willoughby inspection station.

Detours:

- Long-term detour at West Evans St. to facilitate bridge widening.
- Nightly detours on West Bay Ave. eastbound on-ramps for bridge widening work.
- Long-term detour at Mason Creek Rd. to facilitate bridge widening.

Intelligent Transportation System (ITS):

- Completed installation of traffic cameras near 1st View St. and Mallory St.
- Completed relocation of over-height detectors near Mallory St.
- Completed fiber relocation near Mallory St.
- H-Piles along Hampton North Shore to support future dynamic messaging sign relocations.

Routine Maintenance:

- HRCP performed routine incident management and maintenance operations within the corridor, including pavement repairs at several bridge approaches within the corridor.

7. Quality

Quality updates for this reporting period include:

Construction Quality Management Plan (CQMP) Updates:

- VDOT reviews these updates as part of final “Released for Construction” (RFC) design packages and “Notice of Design Change” (NDC) packages. There were 2 NDC updates reviewed this period. These updates included specific testing and inspection plans for the work shown in the corresponding RFC plans and a staffing matrix showing quality assurance and quality control staffing for the work.

Independent Assurance (IA) Testing Activities:

- VDOT continues to monitor HRCP’s QA and QC material testing. VDOT also performed Independent Testing and Verification Testing on materials in accordance with VDOT requirements and coordinated with VDOT Materials Department for shop inspections as required. This testing included oversight of the HRCP precast yard in Chesapeake and Technopref’s precast yard in Cape Charles producing the tunnel lining segments.

Quality Management System Plan (QMSP):

- VDOT continues to engage HRCP in discussions on HRCP’s implementation of their QMSP and the effectiveness of the plan, which is updated quarterly.

Quarterly Updates of Quality Plans:

- HRCP resubmitted the quarterly updates of the Quality Management System Plan, Construction Quality Management Plan, and the Design Quality Management Plan for the third quarter of 2022. VDOT’s review is pending.

Tunnel Quality Plan (TQP):

- HRCP continues to update its Tunnel Quality Plan and address VDOT’s comments. VDOT reviewed Update 4 and returned the plan to HRCP to revise and resubmit.

Material Book Records:

- VDOT conducted a monthly review of the current records, and HRCP is responding to audit comments provided by VDOT. Review of the Material Book records includes confirming that HRCP is completing the proper documentation for Buy America compliance. VDOT has completed the full audit of nine volumes of Material Book records.

Routine Quality Activities:

- VDOT’s quality team conducted reviews of written deficiency notices (WDNs), nonconformance reports (NCRs), root cause analyses and dispositions of deficiencies. The VDOT Team reviewed 30 NCR’s for concurrence during this period. VDOT conducted reviews of QA and QC records for accuracy and quality issues and coordinated documentation reviews through VDOT’s Material Department. VDOT also continues a review of current construction quality by performing inspections based on VDOT’s Construction Quality Improvement Program (CQIP).

8. Safety

Safety procedures and activities during this reporting period include:

COVID-19 Update:

- VDOT and HRCP continue to follow latest CDC guidelines regarding COVID-19.

Safety Site Visits:

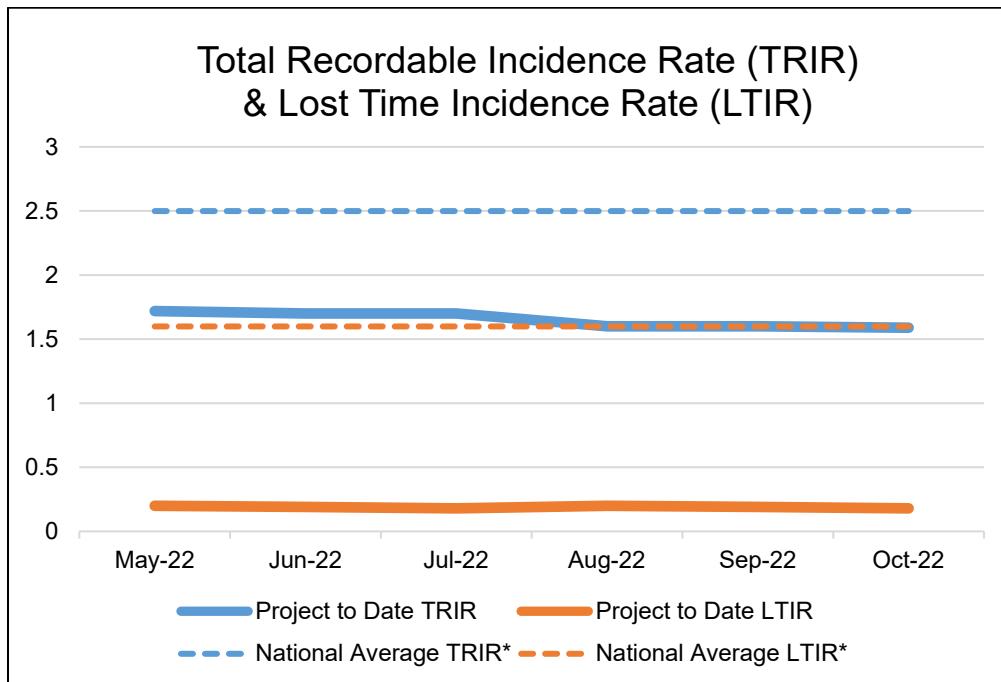
- VDOT continued to conduct routine visits to promote safe work practices throughout the project.

Emergency Response Planning (Rescue Drill):

- VDOT and HRCP continue collaboration on emergency response planning.
- An emergency rescue drill was conducted at South Island on September 25, 2022.

Safety Performance Indicators:

- The following safety performance indicator information is provided by HRCP and is current as of October 31, 2022:



**National averages are from the Bureau of Labor Statistics, US Department of Labor – 2020 Data for Construction Industry, Published November 3, 2021.*

9. Civil Rights & DBE/SWaM Business Opportunities

To date, HRCP awarded **320** subcontracts, subconsultant agreements and purchase orders to certified DBE/SWaM firms. There was a slight increase in contract awards for a total of **\$480.9 million** due to change orders issued to active DBE/SWaM firms on the project.

Compliance Activities:

- HRCP and VDOT Civil Rights Work Group met on October 18, 2022 for the monthly project and compliance update, which provided an opportunity to discuss equal employment opportunity, prompt payment compliance, and upcoming business development activities.
- Submission of required contract and compliance documents continued as required by active subcontractors and subconsultants on the project, along with the Design-Builder responding to other document requests as needed.
- During the reporting period, HRCP submitted the Good Faith Effort Activities Report, DBE/SWaM Utilization Plan, and Workforce Participation Plan as required for the third quarter, which VDOT reviewed and determined to be in compliance.

Workforce Development Activities:

- HRCP continued to progress towards the 80 participant On-the-Job Training (OJT) contract goal. To date, 21 participants have graduated with 14 currently active in the program.
- For the construction work, HRCP's affirmative action contract achievement remains at 57% for minorities (contract goal: 27.1%) and 14% for women (contract goal: 6.9%).

Business Development Activities:

- HRCP and VDOT met on October 19, 2022 to discuss upcoming procurement and outreach activities.
- During this reporting period, other business development and outreach activities included:
 - September 27, 2022 – Virginia Asian Chamber of Commerce, “How to Find Your Next Customers” presented by VDOT and DSBSD
 - October 19, 2022 – USDOT Meet the Mentors Event
- The following publications highlighted the HRBT Expansion Project and continued to feature subcontractors achieving success on the project:



DBE/SWaM SUCCESS STORIES 2022

Unique Stories of
Disadvantaged Business Enterprises (DBEs) and
Small, Women and Minority (SWaM) Business Enterprises





IN THIS ISSUE

Measuring Success
A Message from Project Leadership

Bridging Connections
Success Overhead

Memorizing Moments
Defying Gravity

Businesses Helping Build the HRBT Expansion Project








HAMPTON ROADS BUSINESS

Sharing the wealth

TRANSPORTATION

Sharing the wealth

Entrepreneurs get slice of HRBT expansion work

by Carl Finske

Virginia small businesses are getting a piece of the biggest highway construction project ever taken on by the Virginia Department of Transportation. The \$1.5 billion Hampton Roads Bridge-Tunnel expansion project will award 31 contracts worth a collective \$455 million to small, women- and minority-owned Disadvantaged Business Enterprise (DBE) and Small, Women-owned, and Minority-owned (SWaM) businesses. The program is designed to encourage participation in government contracts.

"Thank God for this program," says William Gilliam, owner of Gilliam Welding, a Norfolk-based welding company that has for years provided services to the HRBT. "It's a company that has no fear because we are asked \$1.6 million in renewed contracts through DBE, a federal program that is run by the Virginia Department of Transportation. "With I could get more work like this, but unfortunately I only need to do one or two contracts with them there's a requirement for DBE."

The federal Department of Transportation designated Gilliam a DBE business, but certification is fully accepted throughout the state. "I'm not sure if I'm going to be a contractor in a project receiving federal transportation funds. SWaM certification, which is a subset of DBE, is run by the state. The state of Virginia has a Small Business and Supplier Diversity, is needed for state contracts that don't include federal funds."

Then Gov. Ralph Northam directed the state to expand the DBE program to include small, women- and minority-owned businesses, which account for more than 42% of discretionary spending to certified SWaM businesses, a pattern that has not changed under Gov. Glenn Youngkin.

THE ULTIMATE GUIDE

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THE ULTIMATE GUIDE

◀ 2nd Edition of HRBT DBE/SWaM Success Stories

Publication highlighted the firms Majk Steel; Bryant-Ritter Hewitt Electric Corporation; and FCC Consulting Services.

◀ Hampton Roads Business Magazine 2022 Fall Edition

Featuring HRBT Expansion Project. The article "Sharing the Wealth" highlighted Andre Gilliam, owner of Gilliam Welding, and VDOT Civil Rights Manager, Queen Crittenden

to ensure the maximum opportunity for small businesses to bid and participate in the procurement and contracting process. With the awarding of 31 contracts worth a total of \$455 million for highway and bridge improvement, VDOT will need the support of local businesses. "It's important that we support our local owned businesses, to meet the demands of the community," says Queen Crittenden, VDOT's DBE/SWaM manager. "The DBE/SWaM criteria apply for certification, Grow says 80% of the expansion work will be awarded to local and 32% will be awarded to non-local firms.

Andre Gilliam, owner of Gilliam Welding, Bryant-Ritter Hewitt Electric Corp., a 30-employee company founded in 2005, is also involved in the project. "It's important as both majority woman-owned and as a small business," says President of BRI, Ralph Ritter.

"I've been DBE certified for more than 10 years, and its contract is worth around \$1.2 million for work performed over four years.

It's one of the three largest contracts the company has ever won and will involve several tasks, including installing around 1,000 piles, 100,000 cubic yards of earthwork, and 100,000 cubic yards of concrete. "It's a very large project," says Gilliam. "It's a very large project that's been revamped open."

Queen Crittenden says the procurement program for businesses like hers are "critically important. They've allowed our company to grow and expand our business to a larger scope." She adds that it's "an honor" for her company to be working on the HRBT, which connects Norfolk and Portsmouth, and which she says is "a major part of our city."

"Working on big projects isn't a magic bullet for future success," Gilliam says that while the project is a large one, "it's a stone like I was, as I had to get back into the industry after a long time off."

Since Bryant-Ritter Hewitt received its contract, the company has been able to make it possible for the company to expand from mostly local work to larger jobs in the region. "It's been a great opportunity for us to expand our business," says Ritter. "We're working on the Bay Bridge in Maryland assisting with the replacement of the Harry W. Nice Memorial Bridge, which connects the Eastern Shore of Maryland to Northern Neck to southern Maryland."

Gilliam, too, says that DBE contracts have been invaluable to his business, which was started by his father in 1990. In 1999, Gilliam took over the welding company, which now has 12 employees, including Gilliam and his wife, who is also a welder. "It's been great for the HRBT expansion. Metals of Distinction was awarded a contract to do the steelwork for the expansion of the Millwork Tunnel that connects Norfolk and Portsmouth, and which is a major part of our city."

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Queen Crittenden, VDOT's civil rights manager for the Hampton Roads region, says that the DBE and SWaM certified businesses have important roles to play.

Photo by Mark Woods



Queen Crittenden, VDOT's civil rights manager for the Hampton Roads region, stands in front of a bridge under construction.

10. Public Outreach & Media

The following public outreach and project media activities occurred in this period:

Public Outreach

- September 28, 2022 – Presentation to Five Star Senior Living
- September 29, 2022 – Presentation and site tour to Hampton Mayor Donnie Tuck, Hampton City Manager Mary Bunting, and Hampton University President Darrell K. Williams
- October 6, 2022 – Presentation to East Ocean View Civic League
- October 14, 2022 – Presentation to American Legion Post 35
- October 17, 2022 – Presentation to Roland Park Civic League
- October 18, 2022 – Public Relations Society of America Hampton Roads Panel on Regionalism and Public Relations: How Communication Shapes our Region
- October 20, 2022 – Presentation to Poquoson Lions Club

Public Materials

- No new activities.

Lane Closures/Advisories

- September 30, 2022 – Weekly Lane Closure Report
- October 7, 2022 – Weekly Lane Closure Report

Media

- No new activities.



Visit our website to view more information:

www.hrbtexpansion.org