



**November 2023
Monthly Project Report
I-64 HAMPTON ROADS
BRIDGE-TUNNEL
EXPANSION**

Report No. 56
Project No. 0064-M06-032



Table of Contents

1. Executive Summary.....	1
1.1 Overview.....	1
1.2 Priorities.....	1
1.3 Key Updates	2
2. Project Schedule.....	6
2.1 Schedule Status.....	6
2.2 Longest Path	6
2.3 Impact Analysis.....	6
3. Project Budget	9
3.1 Overall Budget.....	9
3.2 Design-Build Contract Cost Status	11
3.3 Budget by Funding Source	12
3.4 Contingency.....	13
4. Environmental.....	16
5. Construction	17
5.1 Construction Area 1: Landside Roadways.....	18
5.2 Construction Area 2: Marine Trestle Work.....	19
5.3 Construction Area 3: Tunnels and Islands	20
5.4 Construction Area 4: Landside Bridges	21
6. Operations.....	23
7. Quality	25
8. Safety.....	26
9. Civil Rights & DBE/SWaM Business Opportunities	27
10. Public Outreach & Media.....	28

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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 October 22, 2023 – November 18, 2023. 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:
 - Completed ballast delivery system installation at the headwall in Cell 1.
- Tunnel Progress:
 - Excavated 920 ft this period (3,466 ft total excavation) for High Occupancy Toll (HT) tunnel.
- North Island Progress:
 - Jet grout approach plug at 91% complete.
 - Installation of concrete for headwall 54% complete.
 - Completed installation of rebar and concrete installation for Cell 1 base slab.
- Landside Progress:
 - Completed Segment 3 Phase 2 traffic shift between 4th View St. and South Trestle for westbound widening.
- Marine Progress:
 - North Trestle eastbound decks 74% complete.
 - North Trestle westbound piles 52% complete.
 - South Trestle eastbound beams 61% complete.
 - South Trestle westbound piles 17% complete.

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 50 (data date: September 24, 2023), and the schedule information in this report reflects this update. Schedule 50 was returned Approved as Noted on October 16, 2023.

- Contractual Substantial and Final Completion Dates remain unchanged.
- HRCP's Schedule Update 50 is reporting Substantial Completion on September 24, 2026.
- HRCP's Schedule Update 50 is reporting Final Completion on November 23, 2026.

Project Budget

The project budget summary below now includes all incurred to date costs through November 18, 2023 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:	\$ 2,101,083,353
Remaining project budget:	\$ 1,834,368,288

- Design-build contract overview:

Design-build contract original amount:	\$ 3,299,997,227
Net change orders:	\$ (10,951,121)
Exercised Options:	\$ 73,454,414
Material Price Adjustments to Date:	\$ 3,170,291
Assessed Liquidated Damages (LD):	\$ (939,000)
Design-build contract sum to date:	\$ 3,364,731,811
Expenditures to date:	\$ 2,000,170,676
Remaining design-build contract amount:	\$ 1,364,561,135

- Design-build progress to date:

Project Management:	71.4%
Design:	91.6%
Physical Construction Progress:	41.9%
Overall:	59.4%

Environmental

Environmental updates for this reporting period include:

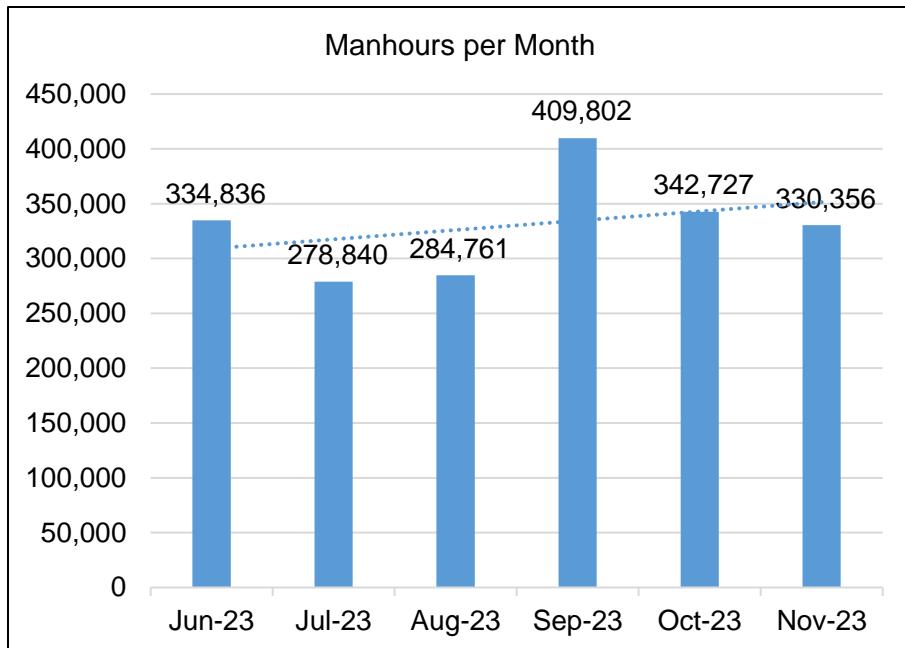
- VDOT requested that HRCP provide an investigation, analysis, and corrective or preventative actions concerning the release from the lime silos on the South Island. HRCP sent a response letter to VDOT on November 10, 2023, and notification to the agencies on November 17, 2023 that all corrective actions had been completed, and lime deliveries could now be reinitiated.
- HRCP issued final permit impact plates on October 24, 2023, to the resource agencies covering the JPA Permit Modification Request #10.
- HRCP received all necessary approvals from the Virginia Department of Environmental Quality (DEQ), U.S. Army Corps of Engineers, and the VMRC for the JPA Permit Modification Request #10.

Construction

Summary progress updates for this reporting period include:

- Landside Roadways
 - Completed drainage along retaining wall 108 adjacent to North Trestle Abutment A for eastbound widening.
- Marine Works
 - Placed deck at North eastbound permanent trestle (1 installed this period).
 - Placed beams at North westbound permanent trestle (6 installed this period).
 - Placed beams at South eastbound permanent trestle (20 installed this period).
 - Placed beams at South westbound permanent trestle (2 installed this period).
- Tunnels and Islands
 - Excavated 920 ft this period (3,466 ft total excavation) for High Occupancy Toll (HT) tunnel.
 - Jet grout approach plug at 91% complete at the North Island.
 - Installation of concrete for headwall at 54% complete at the North Island.
 - Completed concrete installation for Cell 1 base slab at the North Island.
- Landside Bridges
 - Completed first phase of lead abatement and bridge coatings for repair/rehabilitation of existing 13th View St. eastbound and westbound bridges.
 - Completed pile driving at Bents 25 – 26 at Willoughby Bay Bridge for westbound widening.
 - Completed concrete installation for beam seats at Abutment B at Bayview Blvd. Bridge for eastbound widening.
 - Completed concrete installation for footing at Abutment A at Oastes Creek Bridge for eastbound widening.
 - Completed concrete installation for footing and beam seats at Abutment B at Patrol Rd. Bridge for eastbound widening.

The number of construction manhours worked each month is provided by HRCP and is current as of November 30, 2023:



Project Manhours to Date:
9,607,794

Operations

The following operations activities took place during this reporting period:

- Slow rolls and all stops on I-64 at Willoughby for temporary lighting installation.
- Lane shift on westbound I-64 at Willoughby Spit in Norfolk.

Quality

Quality updates for this reporting period include:

- 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

The following safety performance indicator information is provided by HRCP and is current as of November 30, 2023:

- Total Recordable Incidence Rate: 1.60 (National Average: 2.5)
- Lost Time Incidence Rate: 0.25 (National Average 1.6)

Civil Rights & DBE/SWaM Business Opportunities

HRCP has awarded **346** subcontracts, subconsultant agreements, and purchase orders to certified DBE/SWaM firms on the project. These contract awards represent a total of **\$545.3 million** to certified DBE/SWaM firms.

Public Outreach & Media

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

- HRBT Expansion Project team hosted a site visit for Rear Admiral Wesley McCall, Regional Commander Navy Region Mid-Atlantic, and members of his leadership team.
- The HRBT Expansion Project was awarded the 2023 PRSA Pinnacle Award, Excellence Award for Digital Platform (HRBT Interactive Tool).

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 50 (data date: September 24, 2023), and the schedule information in this report reflects this update. Contractual Substantial and Final Completion dates remain unchanged.

	Contract Requirement	October 2023 Schedule	Actual
NTP		Sep 11, 2020	Sep 11, 2020
Substantial Completion	Sep 1, 2025	Sep 24, 2026	
Final Completion	Nov 1, 2025	Nov 23, 2026	

2.2 Longest Path

The longest path/critical path in Project Schedule Update 50 is driven by the following activities:

- TBM drive in High Occupancy Toll Tunnel
- TBM U-Turn on North Island
- TBM drive in General Purpose Tunnel
- TBM disassembly in south pit
- General Purpose Tunnel Interior Fit Out – Section 8
- General Purpose Egress Corridor – Fire Life Safety System
- Commissioning – General Purpose Tunnel – Functional Testing
- Commissioning – High Occupancy Toll and General Purpose Operational Testing
- Commissioning – Tunnel, Buildings, Roadways, and 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 50.

South Portal

- South Island Expansion – Rectilinear Approach Construction – Cell 1 Mud Slab, Cell 2 Mud Slab, Base Slab, Ballast Concrete, & Exterior Walls
- South Portal – Rectilinear Approach Permanent Structures
- South Portal Cell 1 & 2 Permanent Structures – Exterior Walls, Interior Walls & Slabs, Roof Slabs

South Island

- South Island – Temporary Private Utilities (Verizon & VDOT/Cox)
- Slurry Treatment Plant Disassembly & Demobilization
- South Island Buildings – Ventilation Building, Flood Gate House Building, Inspection Booths, Generator Building, and Fuel & Water Tanks

Tunneling

- Tunneling U-Turn – Preparation, Gantry 3 & 4
- General Purpose Tunnel – Interior Structures Construction

North Portal

- North Portal – Temporary Headwall Construction
- North Portal – Cell 2 Excavation & Strut Installation
- North Portal Cell 1 & 2 Permanent Structures – Cell 2 Mud Slab & Base Slab, Cell 1 & 2 Exterior Walls, Interior Walls & Slabs
- North Portal – Rectilinear Approach Permanent Structures

North Island

- North Island – Temporary Structures – TBM Slab
- North Island Buildings – Generator, Fuel & Water Tanks, Inspection Booth, Garage Building, Ventilation Building, and Flood Gate House Building
- North Island Restoration – Utilities, Paving, Civil Finishes, Signage and Pavement Markings

Roadway and Land Bridges

- Segment 1 Phase 1 – I-64 North Shore Roadway, Waterline Relocation, Drainage, and RW108
- Segment 1 – Shore Feeder Medium Voltage Cable Relocation
- Segment 1, 3, 3b, 3d, & 4 – ITS – Lane Use Signals, Overhead Sign Structure, Dynamic Messaging Sign, and Overheight Detector
- Segment 3b Phase 1, 2, 2A, 3A, 4 – I-64 Willoughby Spit PV Drains/Ground Improvement, Retaining Walls, Drainage, Roadway, and Temporary Lighting
- Segment 3b – Rockfish Substation
- Segment 3b Phase 4 – 13th Avenue Ramp C & F Construction
- Segment 3d Phase 1, 2, 2A, 3 & 4 – Willoughby Bridge to Mason Creek – Median Widening, Retaining Walls, Storm Drainage and Roadway
- Segment 3d 4th View Ramp H & I – Surcharge and Ramp Construction

- Segment 4 Phase 2, 2A, 3, 4, 4A – Norfolk to Navy – Median Widening, Retaining Walls, Storm Drainage, and Roadway
- Mallory Bridge – Phase 1 & 2
- 13th Avenue Bridge – Eastbound Substructure & Superstructure
- 13th Avenue Bridge – Westbound Median Pier 1 & 2, West Bound Rehabilitation – Expansion Joints & Decks
- Willoughby Bay Bridge – Eastbound Superstructure Construction & Rehabilitation, Westbound Substructure, Superstructure Construction & Rehabilitation
- 4th View Bridge – West Bound Rehabilitation
- Mason Creek – East Bound Substructure Construction, West Bound Rehabilitation
- 1st View Bridge – East Bound Substructure Construction, West Bound Rehabilitation
- Bay Avenue Bridge – West Bound Rehabilitation
- Evans Street Bridge – East Bound Substructure Construction & Rehabilitation, West Bound Rehabilitation
- Bay View Bridge – East Bound Substructure & Superstructure Construction, West Bound Rehabilitation
- Oastes Creek Bridge – Westbound Substructure, Superstructure Construction & Rehabilitation

Trestles

- North Trestle Utilities – Eastbound Temporary MV/ITS Utility and Permanent ITS/SCADA/Fire Alarm, Westbound Conduits & Hangers and Permanent Wet Utilities
- North Trestle Eastbound – Zone 1 – Abutment A, Zone 5 Finishes
- North Trestle Westbound – Zone 7, 8, 9, and 10 – Substructure/Superstructure Construction
- North Trestle – Eastbound and Westbound Demolition
- South Island Expansion – Marine Trestle Works, Land Ramp Works, and Island Expansion
- South Trestle Utilities – Eastbound Private Utility Relocation and Westbound Private Utilities and ITS/SCADA/Fire Alarm System
- South Trestle – Eastbound Zone 1, 2, and 5 Superstructure Construction
- South Trestle – Westbound Zone 7, 8, and 9 – Abutment D, Substructure and Superstructure Construction
- South Trestle – Existing Trestle Demolition

Commissioning and Integration

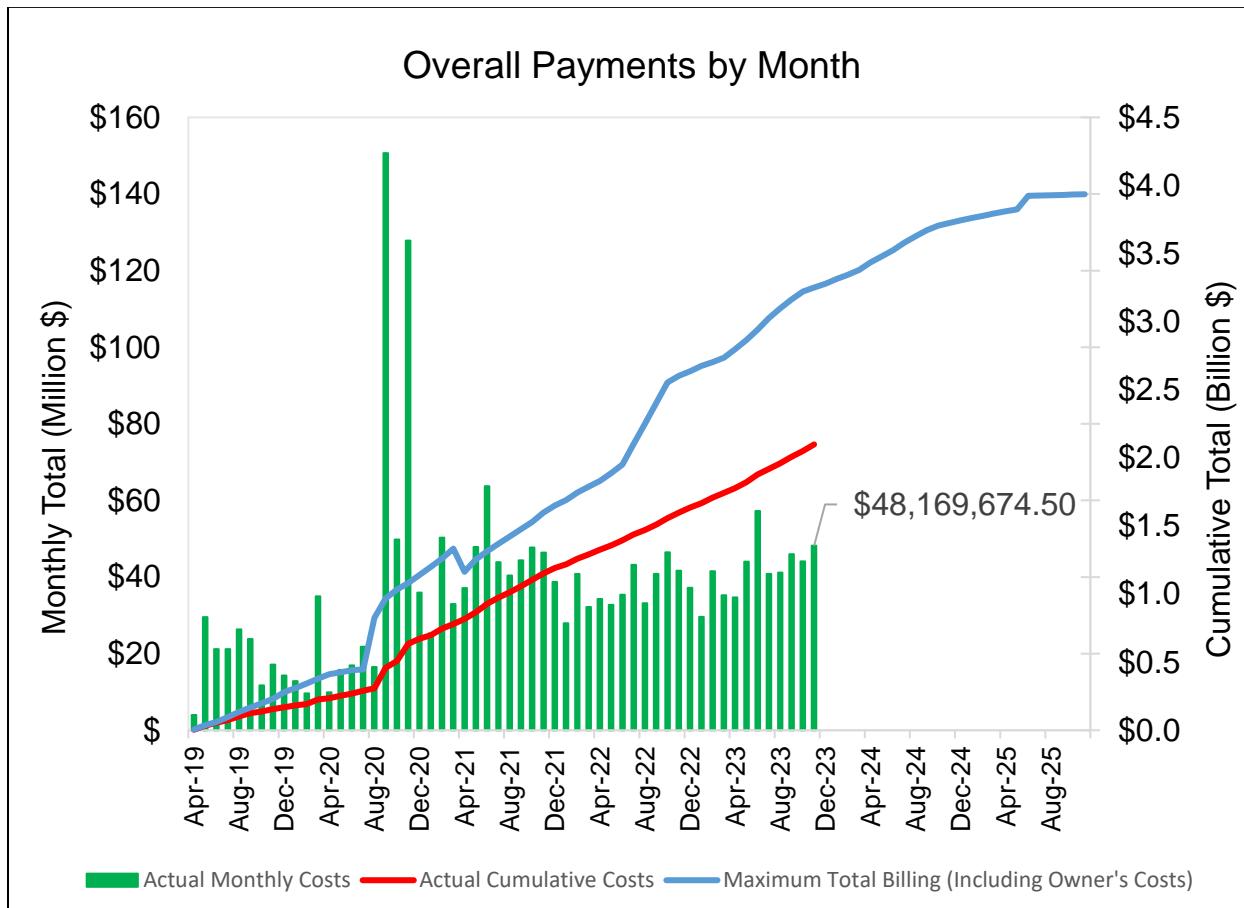
- General Purpose Tunnel – Functional Testing – Low Point Pump Station Drainage, Fire Suppression and Detection, Booster Fans, Lighting
- North Island Buildings – Functional Testing – Mechanical Pressurization
- South Island Buildings – Functional Testing – Electrical Medium Voltage/Low Voltage
- Commissioning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

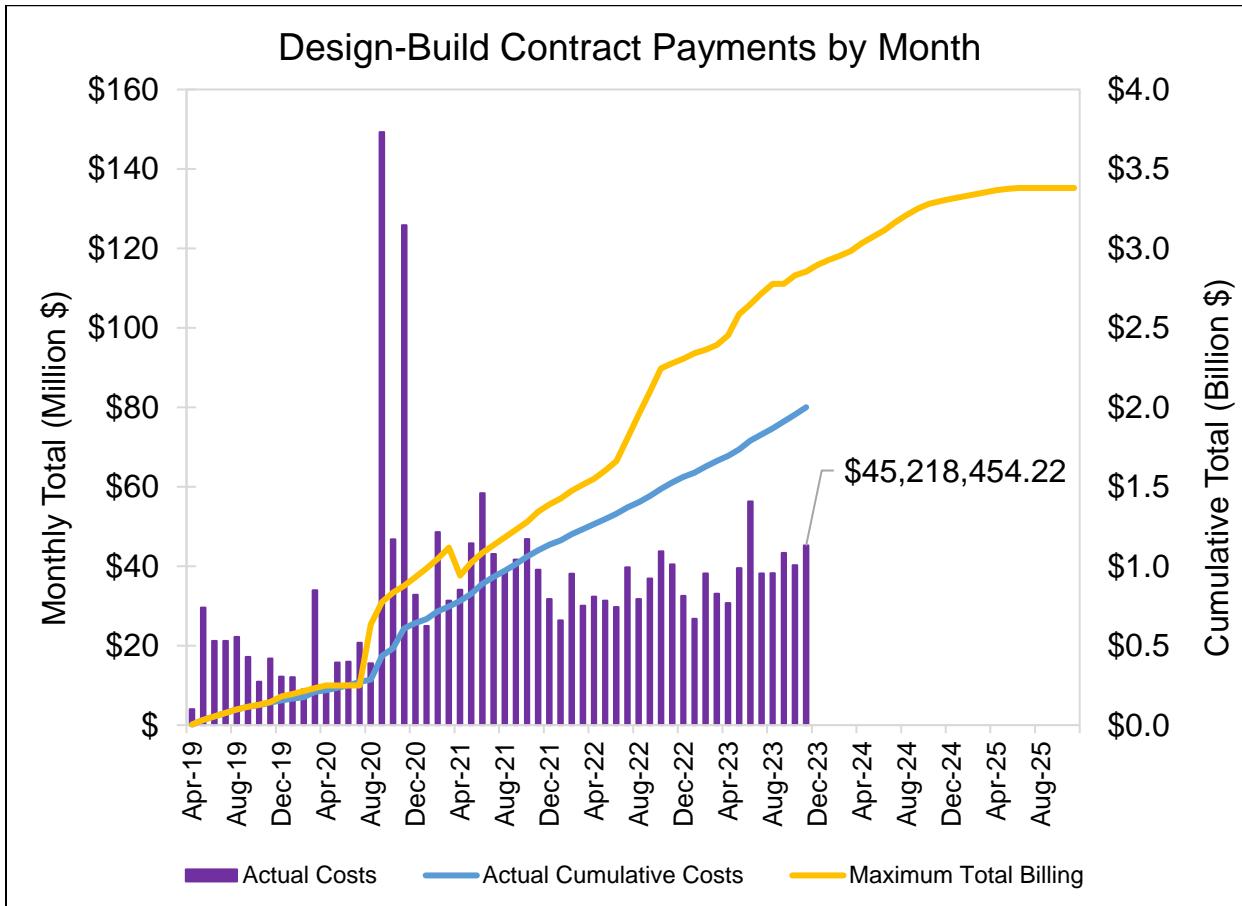
	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<u>Comprehensive Agreement</u>					
<i>Construction</i>	\$45,218,454.22	\$1,968,595,019.28	\$3,299,997,227.00	\$1,331,402,207.72	59.65%
<u>Owner Costs</u>					
<i>Administration</i>	\$2,669,074.41	\$87,998,101.20	\$122,000,000.00	\$34,001,898.80	72.13%
<i>Right of Way</i>	\$29,477.49	\$8,914,576.36	\$15,000,000.00	\$6,085,423.64	59.43%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$83,740.81	\$30,315,330.30	\$335,000,000.00	\$304,684,669.70	9.05%
<i>Bridge Repair Work Option</i>	\$168,927.57	\$5,260,326.26	\$73,454,413.96	\$68,194,087.70	7.16%
<u>Total</u>	\$48,169,674.50	\$2,101,083,353.40	\$3,935,451,640.96	\$1,834,368,287.56	53.39%



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

3.3 Budget by Funding Source

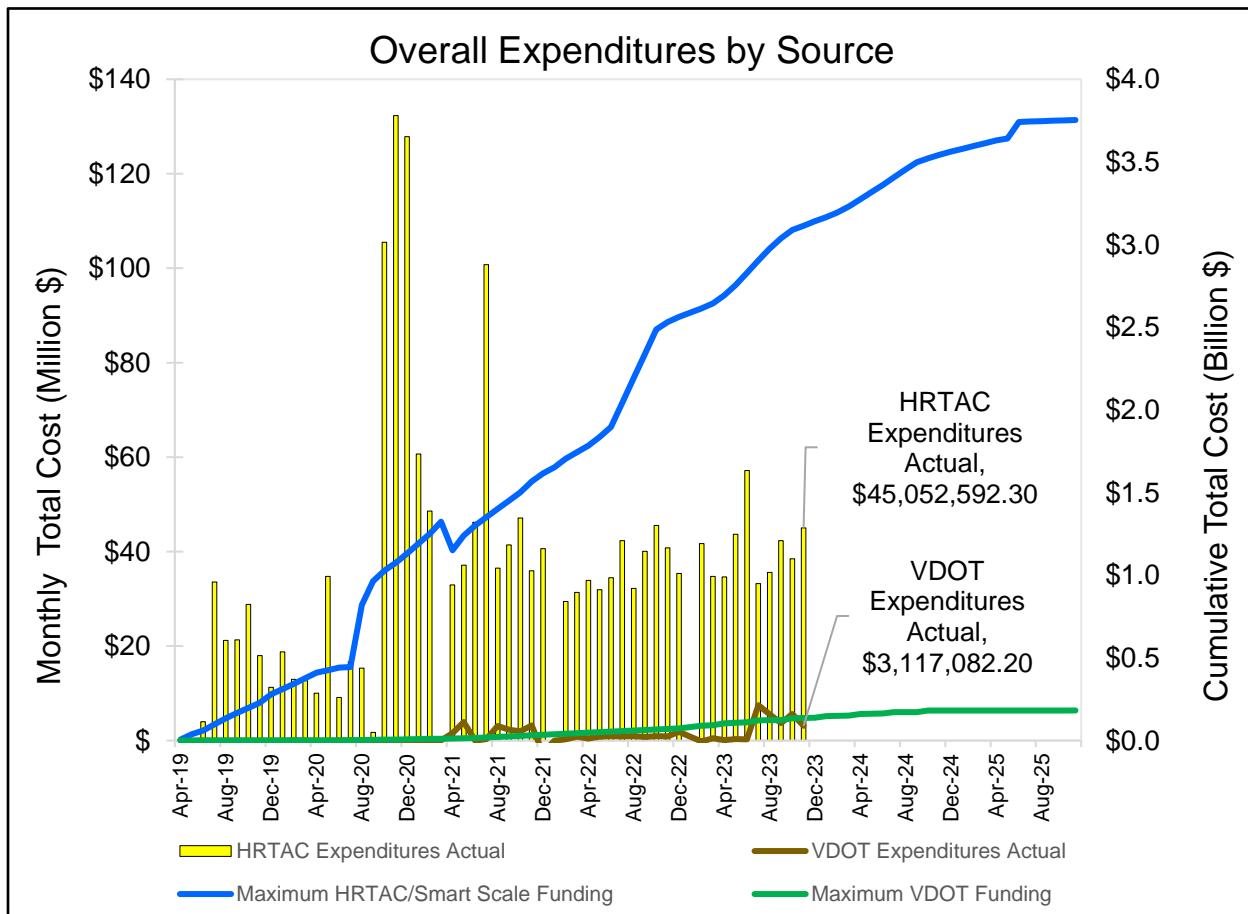
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures of both HRTAC and VDOT funds. The cost curve has been developed based on the monthly maximum cumulative compensation 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>	\$42,646,777.59	\$1,931,660,521.98	\$3,204,569,251.00	\$1,272,908,729.02	60.28%
Owner Costs					
<i>Administration</i>	\$2,292,596.41	\$84,727,755.74	\$118,472,054.00	\$33,744,298.26	71.52%
<i>Right of Way</i>	\$29,477.49	\$8,914,576.36	\$15,000,000.00	\$6,085,423.64	59.43%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$83,740.81	\$26,226,692.52	\$325,428,276.00	\$299,201,583.48	8.06%
Total	\$45,052,592.30	\$2,051,529,546.60	\$3,753,469,581.00	\$1,701,940,034.40	54.66%

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>	\$2,571,676.63	\$36,934,497.30	\$95,427,976.00	\$58,493,478.70	38.70%
Owner Costs					
<i>Administration</i>	\$376,478.00	\$3,270,345.46	\$3,527,946.00	\$257,600.54	92.70%
<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	\$4,088,637.78	\$9,571,724.00	\$5,483,086.22	42.72%
<i>Bridge Repair Work Option</i>	\$168,927.57	\$5,260,326.26	\$73,454,413.96	\$68,194,087.70	7.16%
Total	\$3,117,082.20	\$49,553,806.80	\$181,982,059.96	\$132,428,253.16	27.23%



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 & 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-58	Scope Reduction – City of Norfolk	5/16/2023	\$ (18,739,670.82)	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-61	HRELN Tie-In Zero Drainage Spread	11/29/2022	\$ 2,965,469.69	0 days
CO-62	SIP Forms for Marine Bridges	6/28/2022	\$ -	0 days
CO-63	Bridge Repair Item – Insert Plates - New Unit Prices	8/30/2023	\$ -	0 days

CO-64	Tolling Infrastructure Proposal Costs	10/21/2022	\$ 645,242.40	0 days
CO-65	Snowplowable Raised Pavement Markers (SRPMs)	3/3/2023	\$ 256,174.09	0 days
CO-68	Buoyancy Calculations	3/3/2023	\$ -	0 days
CO-69	Change of Department's Senior Representative	4/6/2023	\$ -	0 days
CO-70	Reuse of Existing Pipe 29-26 to 29-31	7/26/2023	\$ (117,734.20)	0 days
CO-71	Addendum to WO-24 Water Supply Line	4/25/2023	\$ -	0 days
CO-72	Bay Avenue Approach Ramp	6/29/2023	\$ 120,053.43	0 days
CO-74	South Island – Asbestos Pipes	7/7/2023	\$ 128,883.51	0 days
CO-77	Scope Reduction – Segment 5 ITS Trunk Line	11/12/2023	\$ (153,079.38)	0 days
CO-78	Steel Escalation Price Adjustments	9/19/2023	\$ 2,835,839.00	0 days
		TOTAL	\$ 62,503,292.80	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	\$ 31,991.68	\$ 140,174.66	September 2023
Fuel	\$ 33,517.23	\$ 397,353.89	September 2023
Steel	\$ (38,884.01)	\$ 2,632,762.61	May 2023
Total	\$ 26,624.90	\$ 3,170,291.16	

* The current amount for steel is negative because the index for steel went down for the period. VDOT is entitled to a credit for the lower steel cost compared to the price at bid time for steel produced during the period.

** The finalization of the steel index takes the Federal government about 4 months to complete.

4. Environmental

The following environmental management activities occurred during this reporting period:

Permits:

- HRCP held a quarterly agency update meeting on November 8, 2023, to discuss project compliance issues and construction progress with the agencies.
- HRCP received a letter from VDOT on October 27, 2023, concerning the releases of lime from the lime silos on the South Island.
- HRCP provided notification to the agencies on November 17, 2023, that all corrective actions had been completed to the lime silos on the South Island and lime deliveries could now be reinitiated.
- HRCP issued final permit impact plates on October 24, 2023, to the resource agencies covering the JPA Permit Modification Request #10
- HRCP hosted a site visit on November 1, 2023, for agency staff from the Virginia Marine Resources Commission (VMRC) and the Virginia Institute of Marine Sciences.
- HRCP received all necessary approvals from the Virginia Department of Environmental Quality (DEQ), U.S. Army Corps of Engineers, and the VMRC for the JPA Permit Modification Request #10.
- HRCP received on October 23, 2023, DEQ's Termination of Consent Order dated September 1, 2023, NOV No. W2023-05-T-003.

Marine Mammal Protection:

- No new activities.

Bird Mitigation:

- No new activities.

Programmatic Agreement:

- No new activities.

Archeological Discoveries:

- No new activities.

Protected Species:

- No new activities.

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):

- Continued panel installation for retaining wall 108 at Hampton shoreline for eastbound widening.
- Completed drainage along retaining wall 108 adjacent to North Trestle Abutment A.

I-64 (Segment 3):

- Completed Segment 3 Phase 2 traffic shift between 4th View St. and South Trestle for westbound widening.
- Began installation of wick drain working platform between 15th View St. and 13th View St. for eastbound widening.
- Continued drainage work for sound wall 3-3 along I-64 eastbound between 4th View St. and Mason Creek Rd. for eastbound widening.

I-64 (Segment 4):

- Continued grading for embankment between Mason Creek and 1st View bridges for eastbound widening.
- Continued grading for embankment adjacent to Evans St. Abutment A for eastbound widening.
- Continued drainage work at Patrol Rd.



◀ Retaining Wall 108

Drainage installation along Retaining Wall 108 at North Trestle Abutment A

5.2 Construction Area 2: Marine Trestle Work

North Trestle:

- **Eastbound Trestle**
 - Partial cap placed during this period (30.7 out of 36 total caps).
 - 1 deck placed during this period (26.5 out of 36 total decks placed).
- **Westbound Trestle**
 - 2 piles driven during this period (135 out of 261 total piles driven).
 - 1 cap placed during this period (8.5 out of 46 total caps placed).
 - 6 beams placed during this period (38 of 281 total beams placed).

South Trestle:

- **Eastbound Trestle**
 - 20 beams placed during this period (424 out of 698 total beams placed).
- **Westbound Trestle**
 - 3 piles driven during this period (16 out of 92 total piles driven).
 - 2 beams placed during this period (2 of 110 total beams placed).
- **HOT Lanes Trestle**
 - 2 piles driven during this period (16 out of 66 total piles driven).



◀ **North Trestle**
Westbound
Span 1 beam erection

5.3 Construction Area 3: Tunnels and Islands

South Island:

- Completed installation of ballast delivery system at headwall in Cell 1 for upcoming placement of roadway ballast material within tunnel.
- 86% complete for installation of additional shear keys for slurry wall.
- 46% complete for installation of temporary struts at rectilinear approach section leading into Cell 3.

North Island:

- 91% complete for jet grout plug at approach section (1,148 of 1,259 total columns).
- 54% complete for headwall concrete placement at Cell 1 of receiving shaft.
- Completed installation of rebar and concrete installation for Cell 1 base slab of receiving shaft.
- 90% complete for installation of level 2 struts in Cell 2.

Tunnel:

- 44% complete for High Occupancy Toll (HT) tunnel excavation (3,466 ft out of 7940 total ft excavated).
- 137 concrete tunnel rings installed this period (513 out of 1,194 total rings installed).
- 95% complete for precast tunnel segment liner production.



◀ **North Island**
Installing temporary struts in Cell 2

Total Segments Required:	Conforming Segments Cast To-Date:	Percentage Complete:
21,492	20,417	95%

5.4 Construction Area 4: Landside Bridges

Mallory Street Bridge:

- Continued installation of deck overhangs and formwork for eastbound widening.

Bayville/13th View Bridge:

- Completed first phase of lead abatement and coatings for repair/rehabilitation of existing eastbound and westbound bridges.

Willoughby Bay Bridge:

- Continued repair/rehabilitation of existing westbound bridge.
- Completed installation of temporary trestle at south end for westbound widening.
- Completed pile driving at Bents 25 - 26 for westbound widening.
- Began milling and hydro-demolition of bridge deck at the tie-in for eastbound widening.

4th View Street Bridge:

- Completed slope protection installation at both abutments for eastbound widening.
- Began demolition of parapet/overhang.

Mason Creek Bridge:

- Completed slope protection installation at both abutments for eastbound widening.
- Continued repair/rehabilitation of existing eastbound and westbound bridges.

1st View Street Bridge:

- Continued installation of deck overhangs and formwork for eastbound widening.
- Continued repair/rehabilitation of existing eastbound bridge.

Bay Avenue Bridge:

- Began grading for slope protection at Abutment A for eastbound widening.
- Continued installation of mainline stay-in-place (SIP) deck forms and overhangs for eastbound widening.
- Continued installation of formwork, reinforcing, and concrete for mainline diaphragms for eastbound widening.
- Continued demolition of mainline parapet and deck overhang for eastbound widening.
- Began installation of mainline deck reinforcement for eastbound widening.

Evans Street Bridge:

- Continued repair/rehabilitation of existing eastbound bridge.
- Began grading for slope protection at Abutment A for eastbound widening.

Bayview Boulevard Bridge:

- Continued repair/rehabilitation of existing eastbound and westbound bridges.
- Completed concrete installation for beam seats at Abutment B for eastbound widening.

Oastes Creek Bridge:

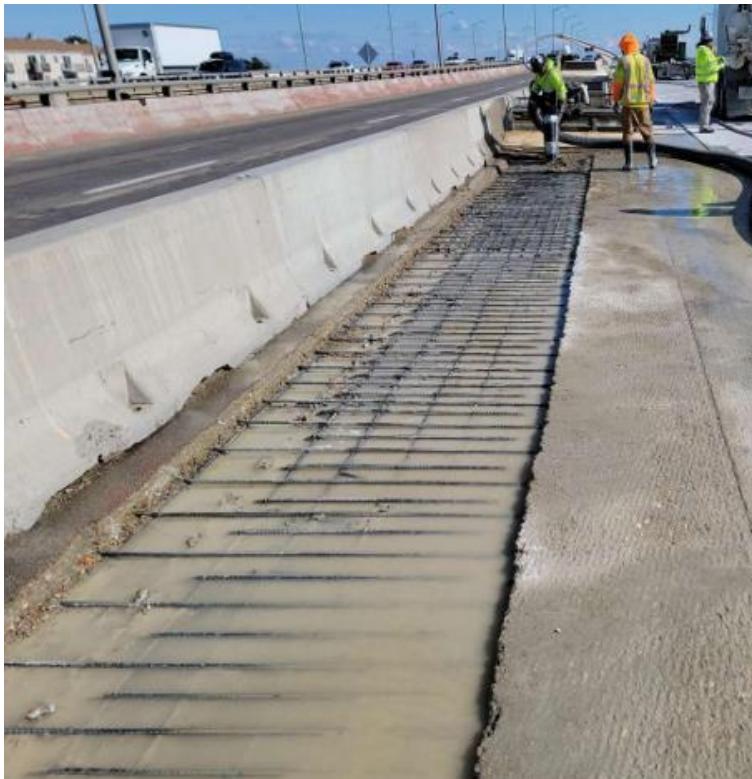
- Completed concrete installation for footing for Abutment A for eastbound widening.

Patrol Road Bridge:

- Completed concrete installation for footing and beam seats at Abutment B for eastbound widening.
- Completed concrete installation for median pier cap for westbound widening.



◀ 4th View St.
Bridge
Concrete slope
protection work



◀ Willoughby Bay Bridge
Eastbound
Hydro-demolition of the bridge
deck along the tie-in

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 beam placement as well as concrete placement for piles, caps, and decks.
- North Trestle and South Trestle westbound for concrete pours.
- Willoughby eastbound and westbound for paving, striping, guardrail, and barrier placement.
- Striping maintenance and pavement marker removal throughout project corridor.
- Mallory westbound for overhead sign structure #12 drilled shaft foundations.
- Slow rolls and all stops on I-64 for Mallory Bridge overhangs and deck pan installation.
- Slow rolls and all stops on I-64 at Willoughby for temporary lighting installation.

Long-Term Lane Closures:

- Bay Ave. in Norfolk to facilitate staging-area access 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.
- 4th View St. in Norfolk traffic shift to facilitate bridge widening.
- Patrol Rd. in Norfolk traffic shift to facilitate bridge rehabilitation and widening.
- 13th View St. underpass beneath I-64 reduced to one lane to facilitate utility work. Traffic is controlled by temporary automatic one-lane, two-way traffic control signal.

Norfolk Lane Shifts:

- Lane shift on westbound I-64 on Willoughby Spit.

Detours:

- Short-term daily detours at W. Bay Avenue on-ramp eastbound to facilitate bridge widening.
- Long-term detour at W. Evans St. to facilitate bridge widening.
- Long-term detour on 1st View St. to facilitate bridge widening.

Intelligent Transportation System (ITS):

- Relocation activities associated with RCU #10 at North Island.
- Relocation activities associated with CCTV 783 at 13th View.
- Installation of ITS and private utility conduit on the North Trestle.
- Completed remediation work on medium voltage power on North Trestle.
- Completed relocation of Land Use Signals at Willoughby westbound associated with lane shift activities.

Overhead Sign Structures:

- Installation of overhead sign structure foundations at various locations through corridor.

Roadway Lighting:

- Continued temporary lighting installation.
- Installation of permanent lighting conduit and junction chambers at Willoughby Bridge and North Trestle.

Routine Maintenance:

- HRCP performed routine incident management / maintenance operations within corridor.
- HRCP continued removing raised pavement markers throughout corridor.

7. Quality

Quality updates for this reporting period include:

Construction Quality Management Plan (CQMP) Updates:

- VDOT reviews CQMP updates as part of final “Released for Construction” (RFC) design packages and “Notice of Design Change” (NDC) packages. There were two packages submitted this period, one is currently under review, and one was returned to HRCP as Revise and Resubmit.
- HRCP submitted 4th Quarter Update V15 of the CQMP for review. The plan was reviewed and returned Approved as Noted.

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.
- HRCP submitted 4th Quarter Update V22 of the QMSP for review. The plan was reviewed and returned to HRSP as Revise and Re-submit.

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 twenty volumes of Material Book records and is currently auditing three volumes of the Material Book records.

Routine Quality Activities:

- VDOT’s quality team conducted reviews of written deficiency notices (WDNs), non-conformance reports (NCRs), root cause analyses and dispositions of deficiencies, with 29 NCRs reviewed 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

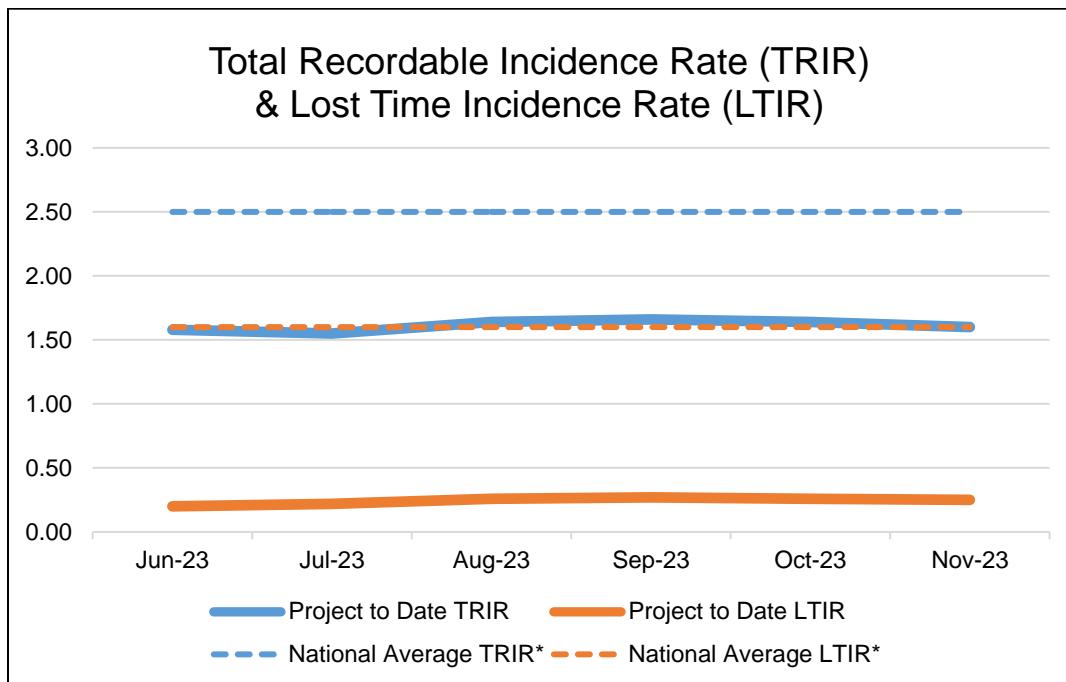
Safety procedures and activities during this reporting period include:

Safety Activities:

- HRCP started a safety incentive program with “Crew of the Month” awards in all areas for crews that follow safety procedures and report as injury free.

Safety Performance Indicators:

- The following safety performance indicator information is provided by HRCP and is current as of November 30, 2023:



**National averages are from the Bureau of Labor Statistics, US Department of Labor – 2021 Data for Construction Industry, Published November 9, 2022.*

9. Civil Rights & DBE/SWaM Business Opportunities

To date, HRCP has awarded **346** subcontracts, subconsultant agreements and purchase orders to certified DBE/SWaM firms. There was an increase in contract awards for a total of **\$545.3 million** due to new change orders issued to active DBE/SWaM firms on the project. A total of **\$355 million** has been paid for work completed by DBE/SWaM firms.

Compliance Activities:

- HRCP conducted DBE/SWaM & EEO Compliance Training for project managers on October 27, 2023, and Navigate HRCP Compliance Orientation Training on November 3, 2023, for subcontractors participating on the project.

Workforce Development Activities:

- For this reporting period, HRCP remained at 32 graduates toward a goal of 80 candidates for VDOT/VTCA's On-the-Job Training (OJT) program. There are currently 14 candidates enrolled.
- HRCP and VDOT hosted the first joint construction hiring expo on October 26, 2023, at the Hampton Roads Workforce Council Resource Center in Norfolk. The event's theme was "Build Your Future in Transportation." Over 45 attendees participated. VDOT District Human Resources personnel provided information on upcoming employment opportunities. With online applications available and onsite interviews conducted, HRCP made employment offers to three (3) candidates in attendance.

Business Development Activities:

- A Kick-off Meeting was held at VDOT's District Office on November 14, 2023 for firms interested in the Bonding Education Program. The program will be hosted by VDOT in partnership with the USDOT Small Business Transportation Resource Center. HRCP will join other contractors, including The Walsh Group and Allan Myers, to facilitate a series of construction management and business development sessions for local businesses.
- During this reporting period, business development and outreach activities included:
 - November 1-2, 2023 – Virginia Association of State Colleges and Universities Purchasing Professionals, SWaM Fest, Richmond
 - November 9, 2023 – City of Virginia Beach, Minority Business Council Fall Conference and Expo
 - November 10, 2023 – Black Brand Chamber of Commerce, Diamond Conference for small businesses, Norfolk
 - November 16, 2023 – Christopher Newport University's SWaM Fair, Newport News

10. Public Outreach & Media

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

Public Outreach

- October 25, 2023 – Project Team presented to Cape Henry Rotary in Virginia Beach.
- October 26, 2023 – Project Team hosted a site visit for the Enbridge Michigan Utility Tunnel Team.
- October 28, 2023: Project Team hosted an information booth at the East Beach Farmers Market in Norfolk.
- November 1, 2023 – Project leadership presented at LEAD Peninsula Transportation Day at Port of Virginia/Virginia International Gateway in Portsmouth.
- November 2, 2023 – Project team presented at Black Diamond Weekend, Black Brand's annual business development conference in Virginia Beach.
- November 2, 2023 – Project team attended the WTS HRC 13th Annual Reception and Silent Auction for the Communications Team to accept the Innovative Transportation Solutions Award.
- November 9, 2023 – Project team presented to Willoughby Civic League in Norfolk.
- November 12 – Project Team hosted an information booth at the Oozlefinch Harvest Market in Hampton.
- November 14, 2023 – The HRBT Expansion Project was awarded the 2023 PRSA Pinnacle Award, Excellence Award for Digital Platform (HRBT Interactive Tool).
- November 15, 2023 – Project team hosted a site visit for two members of Hampton Roads Transportation Planning Organization.
- November 17, 2023 – Project team hosted a site tour for Rear Admiral Wesley McCall, Regional Commander Navy Region Mid-Atlantic, and members of his leadership team.

Lane Closures/Advisories

- October 27, 2023 – Weekly Lane Closure Report
- November 3, 2023 – Weekly Lane Closure Report
- November 10, 2023 – Weekly Lane Closure Report
- November 17, 2023 – Weekly Lane Closure Report
- November 17, 2023 – Traffic Advisory: Closure of I-64 West Off-Ramp W. Bay Ave.

Media

- October 30, 2023 – (Virginia Business) Light at the end of the tunnel <https://www.virginiabusiness.com/article/light-at-the-end-of-the-tunnel>

Visit our website to view more information:

www.hrbtexpansion.org