



**March 2024
Monthly Project Report
I-64 HAMPTON ROADS
BRIDGE-TUNNEL
EXPANSION**

Report No. 60
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	24
8. Safety.....	25
9. Civil Rights & DBE/SWaM Business Opportunities	26
10. Public Outreach & Media.....	27

Issue Date: April 5, 2024

Prepared by:

Virginia Department of Transportation

www.hrbtexpansion.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 February 25, 2024 – March 23, 2024. 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:
 - Installation of south portal external walls 32% complete.
- Tunnel Progress:
 - Excavated 926 ft this period (7,185 ft total excavation) for High Occupancy Toll (HT) tunnel.
- North Island Progress:
 - Began installation of waterproofing for Cell 2 base slab.
- Landside Progress:
 - Began installation of girders at Spans 14 – 16 at Willoughby Bay Bridge.
 - Completed placement of deck at Spans 1 – 2 at Bay Avenue Bridge.
- Marine Progress:
 - South Trestle HOT bridge piles 67% complete.
 - South Trestle MOT westbound bridge caps 96% 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 Revised Baseline Schedule (RB07) was approved by the Department on February 7, 2024. Current Substantial and Final Completion milestones are shown below:

- Project Substantial Completion: February 26, 2027
- Project Final Completion: August 27, 2027

Project Budget

The project budget summary below now includes all incurred to date costs through March 23, 2024 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:	\$ 2,349,366,654
Remaining project budget:	\$ 1,586,084,987

- Design-build contract overview:

Design-build contract original amount:	\$ 3,299,997,227
Net change orders:	\$ 394,163
Exercised Options:	\$ 73,454,414
Material Price Adjustments to Date:	\$ 76,448,489
Assessed Liquidated Damages (LD):	\$ (939,000)
Design-build contract sum to date:	\$ 3,449,355,294
Expenditures to date:	\$ 2,235,373,391
Remaining design-build contract amount:	\$ 1,213,981,903

- Design-build progress to date:

Project Management:	77.9%
Design:	93.8%
Physical Construction Progress:	46.8%
Overall:	64.8%*

* The decrease in the overall percentage for Design-build progress to date is due to an increase in Design-build contract amount that was greater than the increase in the progress to date amount for the period.

Environmental

Environmental updates for this reporting period include:

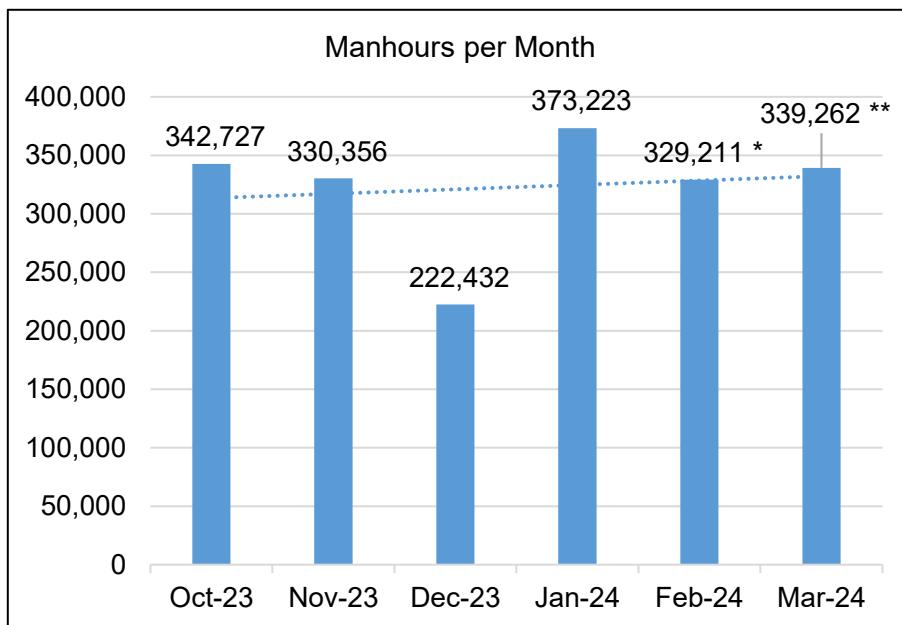
- With the approaching start of bird-migration season, HRCP reinstalled passive bird-deterrent measures and has begun dog patrols to deter nesting at North Island, South Island, and Willoughby Spit.

Construction

Summary progress updates for this reporting period include:

- Landside Roadways
 - Began installation of panels at retaining wall 302 on Bayville Street between 13th View and the eastbound off ramp.
 - Began placement of concrete slab at top of retaining wall 108 adjacent to North Trestle Abutment A at the Hampton shoreline.
- Marine Works
 - Placed decks at South eastbound permanent trestle (2 installed this period).
 - Placed beams at South MOT westbound trestle (8 installed this period).
 - Drove piles at South Trestle Ramp B Abutment A for island access (4 installed this period).
- Tunnels and Islands
 - Excavated 926 ft this period (7,185 ft total excavation) for High Occupancy Toll (HT) tunnel.
 - 10% complete for stage 1 ballast placement for the High Occupancy Toll (HT) tunnel.
 - 75% complete for rectilinear approach capping beams at South Island.
- Landside Bridges
 - Completed placement of closure diaphragm at Mallory St. Bridge.
 - Began installation of stay-in-place (SIP) deck formwork at Spans 2 – 4 at Willoughby Bay Bridge for eastbound widening.
 - Began Abutment B backfill at 4th View Street Bridge for westbound widening.
 - Began installation of SIP deck formwork at Mason Creek Bridge eastbound and westbound.
 - Completed formwork for backwall and beam seats at Abutment B at Oastes Creek Bridge for eastbound widening.
 - Completed jacking phase of rehabilitation at Patrol Road Bridge for eastbound widening.

The number of construction manhours worked each month is provided by HRCP and is current as of March 31, 2024:



Project Manhours to Date:
10,871,922

* HRCP Actual for February 2024

** HRCP Estimated for March 2024

Operations

The following operations activities took place during this reporting period:

- Minor traffic shift on I-64 EB to facilitate sign structure foundation construction.
- Relocation of overheight vehicle detectors on Mallory ramp.
- On-ground assembly of overhead sign structure #12 in preparation for installation.

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 March 31, 2024:

- Total Recordable Incidence Rate: 1.58 (National Average: 2.5)
- Lost Time Incidence Rate: 0.24 (National Average 1.6)

Civil Rights & DBE/SWaM Business Opportunities

HRCP has awarded **356** subcontracts, subconsultant agreements, and purchase orders to certified DBE/SWaM firms on the project. These contract awards represent a total of **\$555 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:

- VDOT hosted a site visit for the family of TBM namesake Mary Jackson.
- VDOT published the Spring 2024 edition of the project magazine.

2. Project Schedule

2.1 Schedule Status

The following table lists key milestone dates for the Project based on the Revised Baseline schedule approved on February 7, 2024.

	Contract Requirement	Revised Baseline Schedule	Actual
NTP		Sep 11, 2020	Sep 11, 2020
Substantial Completion	Feb 26, 2027	Feb 26, 2027	
Final Completion	Aug 27, 2027	Aug 27, 2027	

2.2 Longest Path

The longest path/critical path in Revised Baseline Schedule (RB07) 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 the current schedule.

South Portal

- None

South Island

- None

Tunneling

- Tunneling U-Turn – Preparation in Cell 1
- General Purpose Tunnel – Interior Structures Construction

North Portal

- North Portal – Cell 2 Excavation
- North Portal – Cell 2 Base Slab

North Island

- None

Roadway and Land Bridges

- Segment 3 – ITS – Pole Mounted Cabinet
- Segment 3b – ITS – Underground Ductbank and Fiber, Temporary WB Aerial Power Poles
- Segment 4 – ITS – Temporary ITS Cabinet, Temporary WB CCTV
- Segment 3b Phase 2 – I-64 Willoughby Spit PV Drains/Ground Improvement, Retaining Wall 313
- Segment 3b Phase 2b – I-64 Willoughby Spit Permanent Barrier Wall, Roadway Widening & Asphalt
- Segment 3d Phase 4 – Willoughby Bridge to Mason Creek – WB Widening, Storm Drainage, 4th View Ramp H
- Segment 4 Phase 2 – Norfolk to Navy – Retaining Wall 409
- Segment 4 Phase 3 – Norfolk to Navy – Storm Drainage
- Segment 4 Phase 3A – Norfolk to Navy – Roadway Widening
- Segment 4 Phase 4 - Norfolk to Navy – Storm Drainage and Permanent Barrier Wall
- 13th View Bridge – Eastbound & Westbound Rehabilitation
- Willoughby Bay Bridge – Westbound Substructure, Superstructure Construction & Rehabilitation
- 4th View Bridge – Eastbound Rehabilitation
- Bay Avenue Bridge – Westbound Rehabilitation
- Oastes Creek Bridge – Eastbound Substructure, Superstructure Construction
- Patrol Road Bridge – Eastbound Substructure, Superstructure Construction, Eastbound Rehabilitation

Trestles

- South Trestle Temporary Work Trestle S5 – Construct and Demolition
- South Trestle – Zone 2 Finishes

- South Trestle – Zone 5 Girders
- South Trestle – Zone 8 Substructure
- South Trestle – Existing Trestle Demolition

Commissioning and Integration

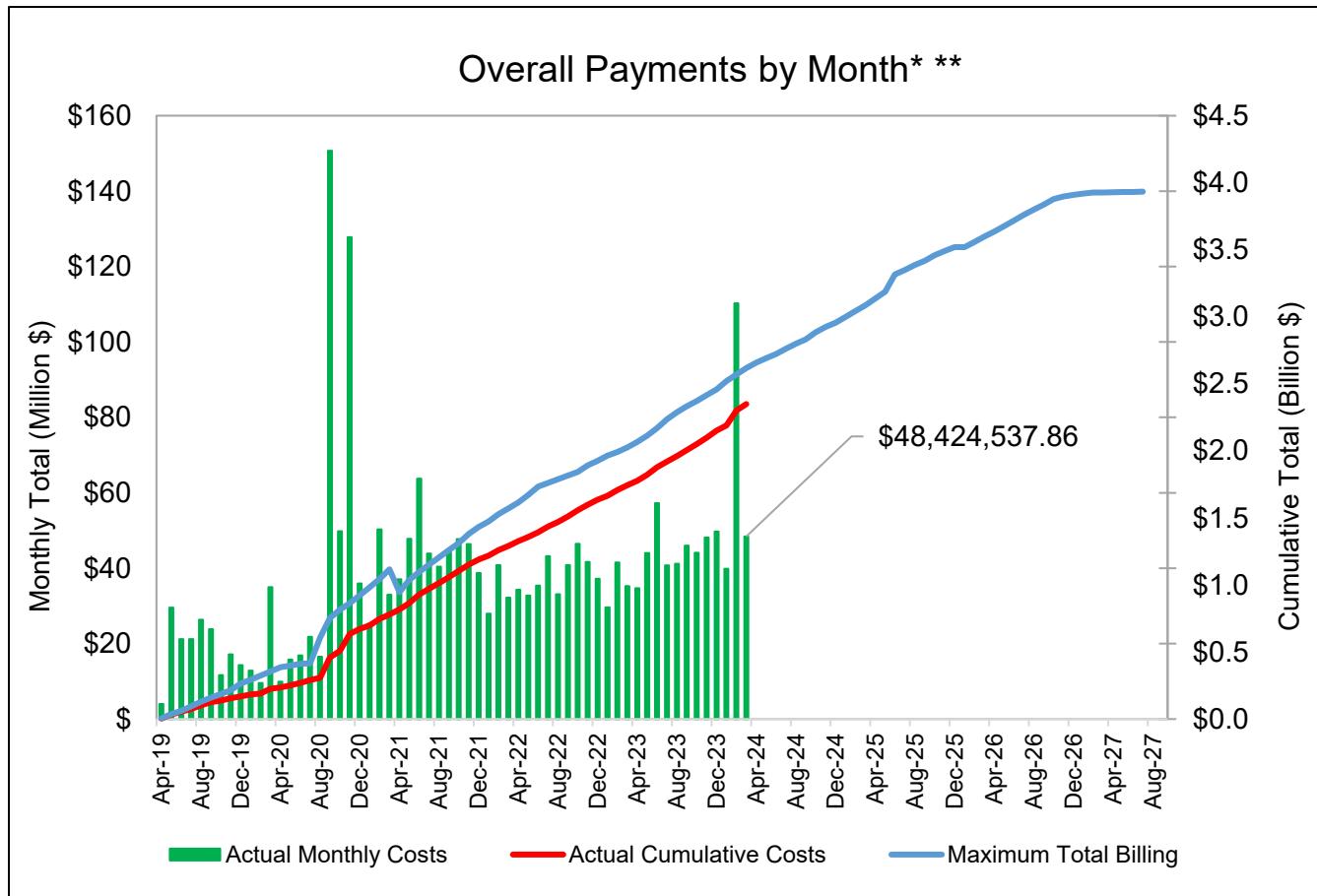
- Operational Testing – General Purpose Tunnel – Egress Corridor Pressurization System
- Commissioning Integration – Existing Westbound Tunnel, Existing Eastbound Tunnel, General Purpose Tunnel
- ITT Reversal – Preparation Work for Eastbound Tunnel Traffic Direction Change, Roadway Median Barrier Walls after EB ITT Reversal

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>	\$38,643,824.48	\$2,126,866,323.35	\$3,299,997,227.00	\$1,173,130,903.65	64.45%
<u>Owner Costs</u>					
<i>Administration</i>	\$1,950,082.54	\$100,490,564.84	\$122,000,000.00	\$21,509,435.16	82.37%
<i>Right of Way</i>	\$3,874.87	\$9,502,698.36	\$15,000,000.00	\$5,497,301.64	63.35%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$7,569,131.72	\$106,817,683.46	\$335,000,000.00	\$228,182,316.54	31.89%
<i>Bridge Repair Work Option</i>	\$257,624.25	\$5,689,383.98	\$73,454,413.96	\$67,765,029.98	7.75%
<u>Total</u>	\$48,424,537.86	\$2,349,366,653.99	\$3,935,451,640.96	\$1,586,084,986.97	59.70%

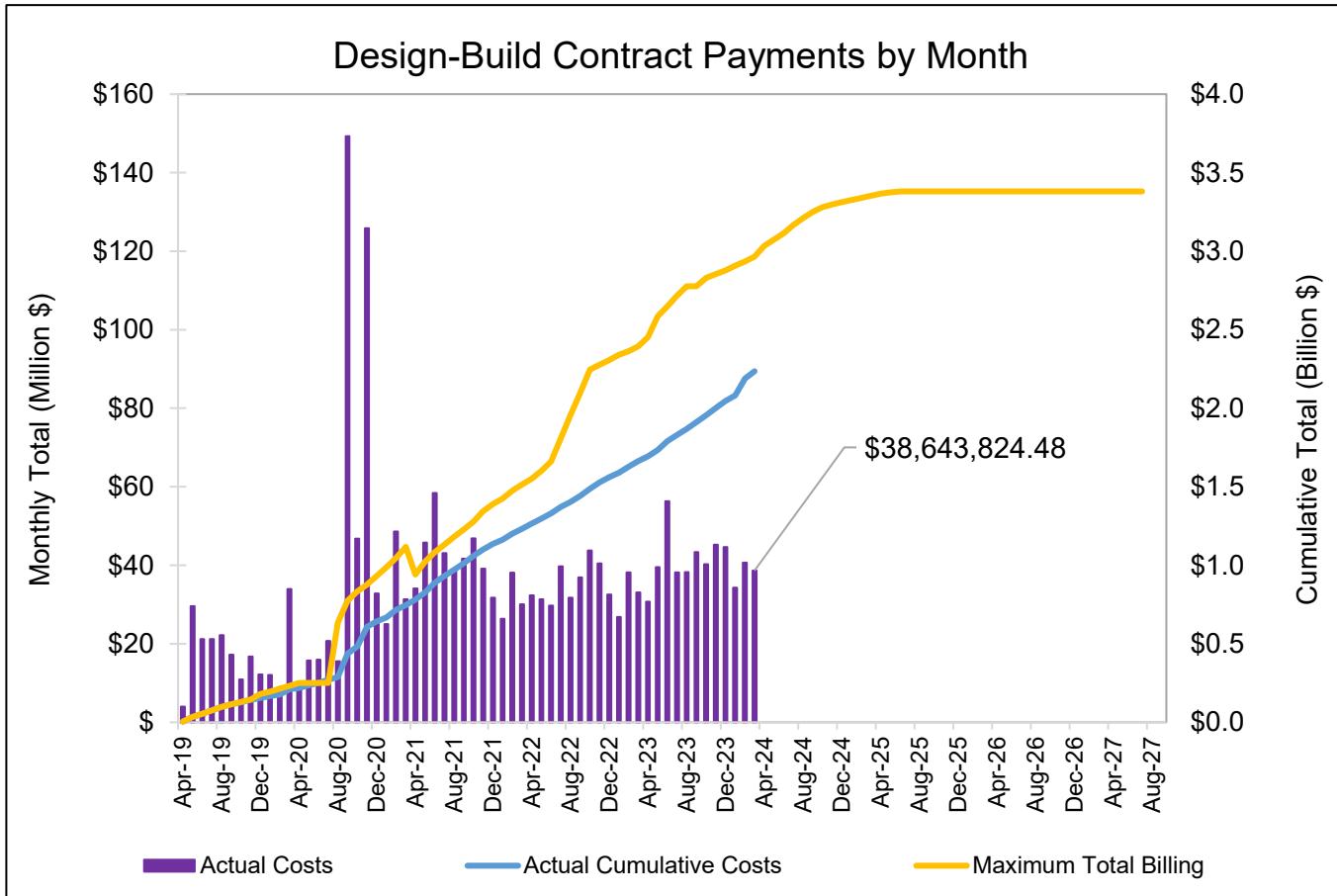


*The Maximum Total Billing showed an adjustment in May 2021 due to the executed Change Order #40 – Update Maximum Cumulative Cost Curve.

** The increase to monthly costs during the period is due to initial Material Price Adjustments associated with CA Amendment #1.

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.



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

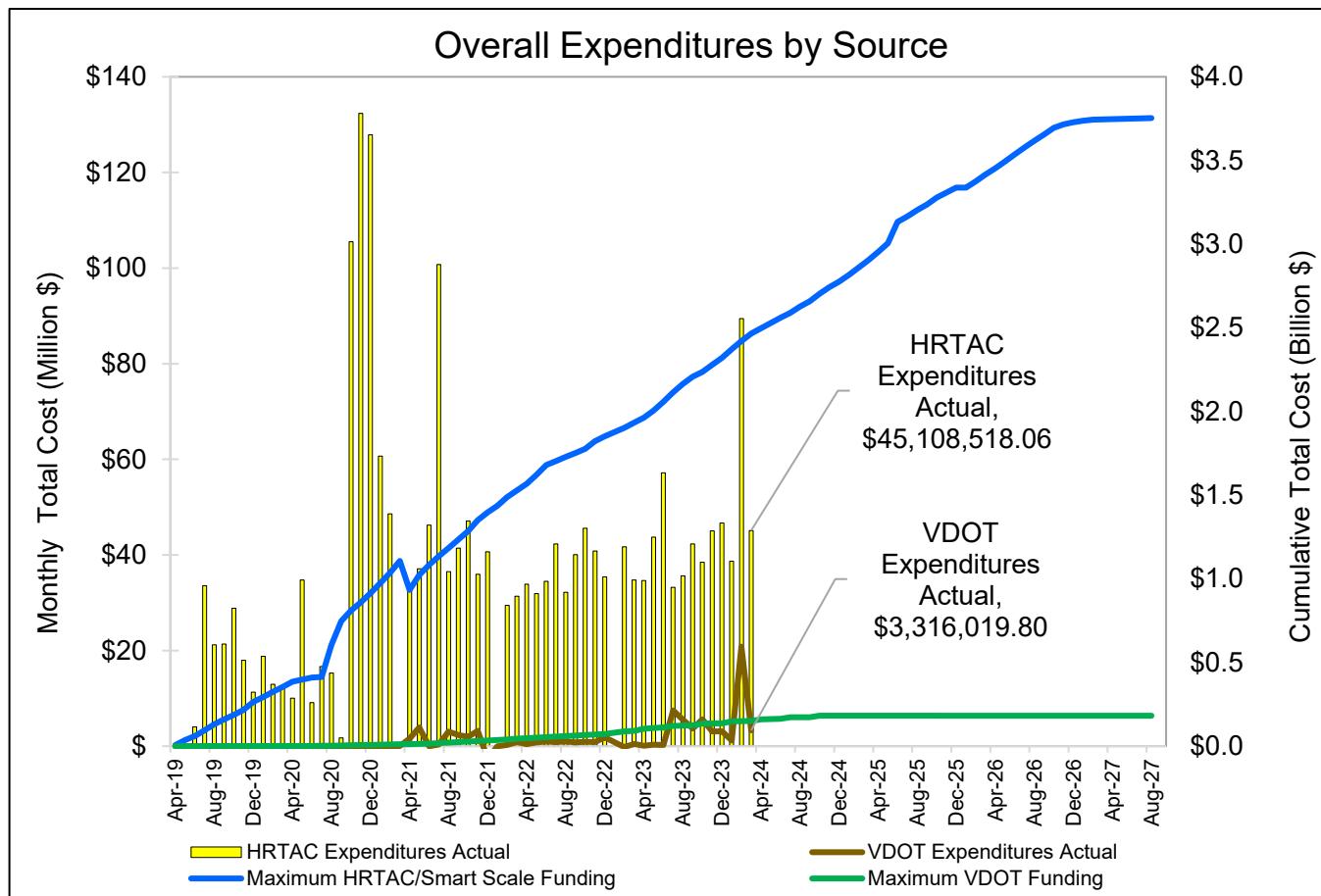
	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<u>Comprehensive Agreement</u>					
<i>Construction</i>	\$36,741,827.76	\$2,082,761,469.62	\$3,204,569,251.00	\$1,121,807,781.38	64.99%
<u>Owner Costs</u>					
<i>Administration</i>	\$1,784,956.75	\$96,381,370.05	\$118,472,054.00	\$22,090,683.95	81.35%
<i>Right of Way</i>	\$3,874.87	\$9,502,698.36	\$15,000,000.00	\$5,497,301.64	63.35%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$6,577,858.68	\$82,729,330.21	\$325,428,276.00	\$242,698,945.79	25.42%
<u>Total</u>	\$45,108,518.06	\$2,271,374,868.24	\$3,753,469,581.00	\$1,482,094,712.76	60.51%

3.3.2 VDOT

	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>	\$1,901,996.72	\$44,104,853.73	\$95,427,976.00	\$51,323,122.27	46.22%
<u>Owner Costs</u>					
<i>Administration</i>	\$165,125.79	\$4,109,194.79	\$3,527,946.00	(\$581,248.79)*	116.48%
<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>	\$991,273.04	\$24,088,353.25	\$9,571,724.00	(\$14,516,629.25)**	251.66%
<i>Bridge Repair Work Option</i>	\$257,624.25	\$5,689,383.98	\$73,454,413.96	\$67,765,029.98	7.75%
<u>Total</u>	\$3,316,019.80	\$77,991,785.75	\$181,982,059.96	\$103,990,274.21	42.86%

* The VDOT Administration costs are due to higher Owners Costs for South Trestle work oversight, bird management, bridge repair oversight, and Visitor Center Costs.

** The VDOT Contingency costs are due to the VDOT portion of the CA Amendment material price adjustments.



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-73	Pile Jackets – Additional Chloride Sampling/Testing	1/10/2024	\$ 118,665.12	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
CO-79	WB Willoughby Bay Bridge Obstructions	1/10/2024	\$ 50,682.44	0 days
CO-80	Marine Fleet Safe Harbor – Hurricane Ian	1/10/2024	\$ 452,075.00	0 days
CO-81	3-Coat Paint System for Steel on Applicable Bridges	1/10/2024	\$ 140,000.00	0 days
CO-82	CA Amendment Disputed Items Resolution	3/21/2024	\$ 9,910,582.34	0 days
CO-83	Marine Fleet Safe Harbor – Tropical Storms Idalia/Ophelia	1/11/2024	\$ 200,262.16	0 days
CO-84	Bird Management Outside of South Island 2023	2/29/2024	\$ 458,375.51	0 days
CO-86	OHSS No. 36 Foundation – Archaeologist Assessment	2/20/2024	\$ 14,641.81	0 days
		TOTAL	\$ 73,848,577.18	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*
Per Contract Adjustments (Federally Eligible Costs)			
Exhibit 9 - Asphalt	\$0.00	\$160,819.09	January 2024
Exhibit 10 - Fuel	\$11,171.43	\$465,067.46	January 2024
Exhibit 11 - Steel	\$1,979,350.89	\$5,273,190.01	September 2023
Total	\$1,990,522.32	\$5,899,076.56	
Per CA Amendment Adjustments (Not Federally Eligible Costs)			
Exhibit 9 - Asphalt	\$0.00	\$0.00	January 2024
Exhibit 10 - Fuel	\$(102.26)**	\$27,997.42	January 2024
Exhibit 11 - Steel	\$1,581,978.45	\$7,326,866.17	September 2023
Exhibit 10A - Fuel (Atypical Items)	\$15,021.78	\$1,445,494.37	January 2024
Exhibit 15A - Index-Adjusted Commodities	\$3,469,871.61	\$48,159,702.05	September 2023
Exhibit 15B - Escrow-Adjusted Commodities	\$0.00	\$13,589,352.55	January 2024
Total	\$5,066,769.58	\$70,549,412.56	

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

** The fuel index went down during the period of the CA Amendment Adjustment, resulting in a credit back to VDOT for Exhibit 10 – Fuel.

4. Environmental

The following environmental management activities occurred during this reporting period:

Permits:

- HRCP coordinated with the Department of Environmental Quality regarding the modification of the generator air permits for the North and South Islands.
- HRCP provided weekly inspection report summaries to the U.S. Army Corps of Engineers (Corps).
- HRCP provided all sediment sampling testing results from the Federal Navigation Channels to the Corps.

Marine Mammal Protection:

- No new activities.

Bird Mitigation:

- HRCP increased the number of dogs and handlers for the 2024 bird nesting season and started patrolling the North Island, South Island, and Willoughby Spit. Inspections and repairs to bird deterrent measures were ongoing during the period with a target completion date of April 1, 2024.

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 construction of permanent median barrier wall between Mallory St. and N. Trestle.
- Began placement of concrete moment slab at top of retaining wall 108 adjacent to North Trestle Abutment A.

I-64 (Segment 3):

- Began installation of base leveling pads and wall panels at retaining wall 302 on Bayville Street between 13th View and eastbound off ramp.
- Completed installation of wick drains for soil consolidation at retaining wall 312 at I-64 westbound between 15th View and 13th View.
- Continued drainage work at 13th View Street.

I-64 (Segment 4):

- Continued fill for embankment at I-64 eastbound between 1st View and Bay Avenue.



► **Retaining Wall 108**
Moment slab formwork
and reinforcement at
Hampton shoreline

5.2 Construction Area 2: Marine Trestle Work

North Trestle:

- **Westbound Trestle**
 - 1 cap placed during this period (11.5 out of 46 total caps placed).
 - 1 beam placed during this period (51 out of 283 total beams placed).

South Trestle:

- **Eastbound Trestle**
 - 2 decks placed during this period (25.2 out of 53 total decks placed).
 - 1 cap placed during this period (37 out of 54 total caps placed).
- **Westbound MOT Trestle**
 - 2 caps placed during this period (23 out of 24 total caps placed).
 - 8 beams placed during this period (77 out of 81 total beams placed).
- **HOT Lanes Trestle**
 - 9 piles driven during this period (44 out of 66 total piles driven).
- **Ramp A**
 - 2 caps placed during this period (3 out of 8 total caps placed).
- **Ramp B**
 - 4 piles driven during this period (19 out of 28 total piles driven).



◀ **South Trestle Ramp A**
Bent 7 cap placed

5.3 Construction Area 3: Tunnels and Islands

South Island:

- 32% complete for south portal external walls.
- Continued installation of reinforcing steel for south portal internal walls.
- 4% complete for rectilinear approach permanent struts.
- 75% complete for rectilinear approach capping beams.

North Island:

- 65% complete for placement of mud slab for Cell 2 base slab.
- Began installation of waterproofing for Cell 2 base slab.
- Began installation of rectilinear approach permanent strut.

Tunnel:

- 90.5% complete for High Occupancy Toll (HT) tunnel excavation (7,185 ft out of 7,940 total ft excavated).
- 139 concrete tunnel rings installed this period (1,071 out of 1,194 total rings installed).
- 10% complete for stage 1 installation of cement-treated base (CTB) ballast for tunnel roadway.



► HT Tunnel

Ballast placement from Ring 1 to Ring 30

5.4 Construction Area 4: Landside Bridges

Mallory Street Bridge:

- Completed placement of diaphragms between girders.
- Continued backfilling soil into area behind bridge abutments.

Willoughby Bay Bridge:

- Continued repair/rehabilitation of existing westbound bridge.
- Continued installation of precast caps for westbound widening.
- Continued chipping existing deck edge to prepare Spans 2 - 13 for eastbound widening.
- Began installation of stay-in-place (SIP) deck formwork at Spans 2 - 4 for eastbound widening.
- Began installation of girders at Spans 14 - 16 for eastbound widening.

4th View Street Bridge:

- Began and completed prime coating for painting girders at Abutment B for eastbound and westbound widening.
- Began Abutment B backfill for eastbound widening.

Mason Creek Bridge:

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

1st View Street Bridge:

- Continued repair/rehabilitation of existing eastbound bridge.

Bay Avenue Bridge:

- Continued installation of mainline SIP deck forms and overhangs for eastbound widening.
- Completed placement of deck at Spans 1 - 2 for eastbound widening.

Oastes Creek Bridge:

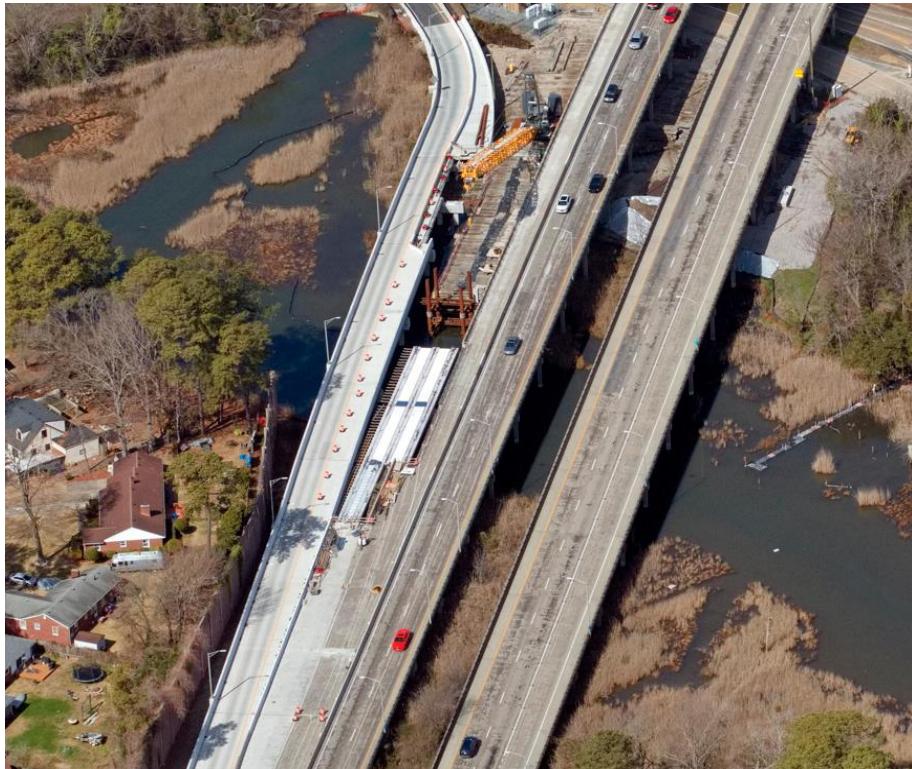
- Completed formwork for backwall and beam seats at Abutment B for eastbound widening.

Patrol Road Bridge:

- Completed jacking phase of rehabilitation for eastbound widening.



► **Willoughby Bay Bridge**
Progress of deck widening on east-bound bridge



► **Bay Avenue Bridge Eastbound**
Progress on mainline widening to meet up with new ramp

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 and westbound to facilitate beam placement as well as concrete placement for piles, caps, and decks.
- Striping maintenance and pavement marker removal throughout project corridor.
- Slow rolls and lane closures on I-64 at Willoughby for temporary lighting installation.
- All stops on I-64 at Mallory for ITS and sign structure foundation 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:

- Minor shift on I-64 EB to facilitate sign structure foundation construction.

Detours:

- Long-term detour on Mason Creek Road to facilitate bridge widening.

Intelligent Transportation System (ITS):

- Installation of ITS devices on new North Trestle eastbound.
- Installation of ITS and private utility conduit on North Trestle.
- Relocation of overheight vehicle detectors on Mallory ramp.

Overhead Sign Structures:

- Installation of overhead sign structure foundations at various locations through corridor.
- On-ground assembly of overhead sign structure #12 in preparation for installation.

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.
- Completed removal of raised pavement markers throughout the corridor.

7. Quality

Quality updates for this reporting period include:

Construction Quality Management Plan (CQMP) Updates:

- HRCP submitted quarterly update V16 of the CQMP last period, which was returned Revise and Resubmit this period.
- VDOT reviews CQMP updates as part of final “Released for Construction” (RFC) design packages and “Notice of Design Change” (NDC) packages. HRCP submitted one NDC package this period which is currently under review. One package from last period was returned to HRCP as approved.

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. Technopref’s precast yard in Cape Charles has resumed casting and is now producing the final 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.

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-three volumes of Material Book records and is currently auditing four additional volumes of 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 40 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

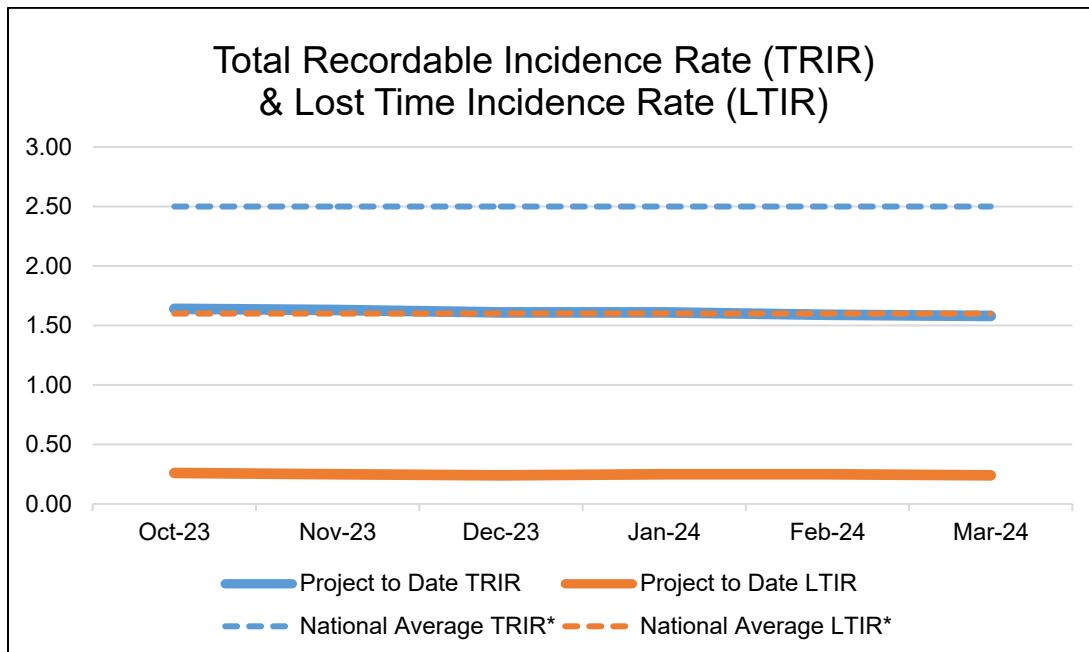
Safety procedures and activities during this reporting period include:

Safety Activities:

- HRCP hired a full-time Safety Trainer.
- HRCP implemented a project-wide safety walk with foremen, supervisors, managers, and engineers.
- HRCP tunnel crews attended Silica Dust Training.
- HRCP conducted focused “Hands Off” training for Area 2 marine crews for additional emphasis on preventing hand injuries.

Safety Performance Indicators:

- The following safety performance indicator information is provided by HRCP and is current as of March 31, 2024:



*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 **356** subcontracts, subconsultant agreements and purchase orders to certified DBE/SWaM firms. There was an increase in contract awards for a total of **\$555 million** due to new change orders issued to active DBE/SWaM firms on the project. A total of **\$398 million** has been paid for work completed by DBE/SWaM firms.

Compliance Activities:

- For this reporting period, HRCP and VDOT met on March 19, 2024, to discuss progress of document submissions and efforts towards meeting the OJT contract goal. HRCP announced the launch of a new system called B2G Now, which is a software platform for capturing and reporting supplier diversity and vendor data. This system will aid in tracking and certifying DBE/SWaM commitments and attainments on the project.
- HRCP recently hired Elonda Mackey as the new DBE Manager with extensive supplier diversity work experience and knowledge of Federal DBE requirements.

Workforce Development Activities:

- Following a recent audit, 34 graduates are recorded as completing the on-the-job training (OJT) program. There are 10 currently enrolled. HRCP continues to seek ways to increase participation by ensuring project-wide promotion of the program and seeking approval for additional classifications that are not currently in the OJT Manual but meet eligibility criteria by VDOT for this project only.
- VDOT and HRCP participated in the Virginia Peninsula Community College's Annual Leadership Development Workshop themed "Celebrating Women Forging our Future" held on March 7, 2024. The event was hosted by President Towuanna Porter Brannon.
- VDOT participated in the Workforce Council of Hampton Roads' Women in Skilled Construction Career Fair held in partnership with Tidewater Tech on March 14, 2024. Participating agencies and businesses met with students enrolled in the technical school's construction program to learn about employment opportunities available upon graduation. The event was held in of Women's Construction Week and History Month.

Business Development Activities:

- February 27, 2024 – United States Department of Labor, I-64 Widening Megaproject Outreach & Community Resource Event (Virtual).
- March 20, 2024 – Virginia Asian Chamber of Commerce, Harnessing Artificial Intelligence and Technology to Supercharge Your Business in Virginia Beach.

10. Public Outreach & Media

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

Public Outreach

- February 26, 2024 – presented project updates to the Wards Corner Civic League.
- February 27, 2024 – hosted a site visit for the Naval Facilities Engineering Systems Command.
- February 29, 2024 – presented project updates to the Norfolk Yacht and Country Club.
- March 8, 2024 – hosted a site visit for Newport News Vice Mayor Curtis Bethany III.
- March 12, 2024 – presented project updates at the Virginia Engineers Conference in Newport News.
- March 14, 2024 – hosted a site visit for the family of TBM namesake Mary Jackson.
- March 16, 2024 – hosted an information booth and live podcast recording at the Nauticus Women in Maritime Day in Norfolk.
- March 19, 2024 – presented project updates to the Greater Hampton Roads Chapter of the American Society of Highway Engineers in Virginia Beach.
- March 20, 2023 – presented project updates at the Hampton Roads Chapter of the U.S. Naval Academy Alumni Association in Norfolk.
- March 21, 2024 – presented project updates to Frank W. Cox High School students at the Falcon Forum event in Virginia Beach.

Lane Closures/Advisories

- March 1, 2024 – Weekly Lane Closure Report
- March 8, 2024 – Weekly Lane Closure Report
- March 15, 2024 – Weekly Lane Closure Report
- March 22, 2024 – Notification of Overnight Closures on I-64 EB/WB at HRBT
- March 22, 2024 – Weekly Lane Closure Report

Visit our website to view more information:

www.hrbtexpansion.org