



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

Report No. 61
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: May 7, 2024

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 March 24, 2024 – April 20, 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 43% complete.
 - Installation of south portal internal walls 6% complete.
- Tunnel Progress:
 - Completed excavation for High Occupancy Toll (HT) tunnel including tunnel breakout at the North Island.
- North Island Progress:
 - Began initial preparations for the TBM U-Turn operation.
- Landside Progress:
 - Began roadway widening at Entrance Ramp at Mallory Street Bridge.
 - Began installation of asphalt in median in Hampton.
- Marine Progress:
 - Completed commissioning of beam launcher at North Trestle.

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 56 (data date: March 24, 2024), and the schedule information in this report reflects this update. Schedule 56 was returned Approved as Noted on April 24, 2024.

- Contractual Substantial and Final Completion Dates remain unchanged.
- Substantial Completion on February 26, 2027
- Final Completion on August 27, 2027

Project Budget

The project budget summary below now includes all incurred to date costs through April 20, 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:	\$ 2,398,538,245
Remaining project budget:	\$ 1,536,913,396

- Design-build contract overview:

Design-build contract original amount:	\$ 3,299,997,227
Net change orders:	\$ 1,529,677
Exercised Options:	\$ 73,454,414
Material Price Adjustments to Date:	\$ 86,765,785
Assessed Liquidated Damages (LD):	\$ (939,000)
Design-build contract sum to date:	\$ 3,460,808,103
Expenditures to date:	\$ 2,283,849,345
Remaining design-build contract amount:	\$ 1,176,958,759

- Design-build progress to date:

Project Management:	79.4%
Design:	93.9%
Physical Construction Progress:	48.1%
Overall:	66.0%

Environmental

Environmental updates for this reporting period include:

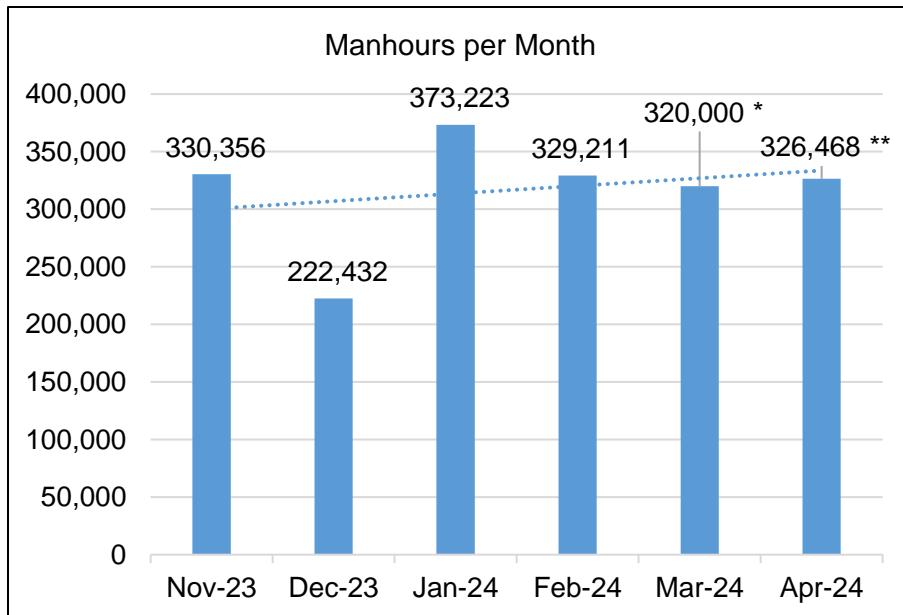
- Modifications of the North Island wastewater treatment plan to allow for treatment of TBM slurry were discussed by HRCP with the Department of Environmental Quality.

Construction

Summary progress updates for this reporting period include:

- Landside Roadways
 - Completed placement and grading of fill material at retaining wall adjacent to North Trestle Abutment A at Hampton shoreline.
 - Began roadway widening at Entrance Ramp at Mallory Street Bridge.
 - Began trench drain installation in I-64 median south of Mallory Street Bridge.
 - Began formwork at retaining wall eastbound between Willoughby Bay Bridge and 4th View.
- Marine Works
 - Placed deck at South eastbound permanent trestle (1 installed this period).
 - Placed beam at North westbound permanent trestle (1 installed this period).
 - North Trestle westbound beam launcher commissioned.
- Tunnels and Islands
 - Completed all excavation (7,940 ft) for High Occupancy Toll (HT) tunnel on April 17, 2024.
 - 18% complete for stage 1 ballast placement for HT tunnel.
 - 82% complete for rectilinear approach capping beams at South Island.
- Landside Bridges
 - Began lead abatement at Abutment A at 4th View Street Bridge for westbound widening.
 - Began driving piles at Piers 18 and 19 at Bay Avenue Bridge for eastbound widening.
 - Completed installation of girders for Span 20 at Bay Avenue Bridge for eastbound widening.
 - Completed slope protection for Abutment B at Oastes Creek Bridge for eastbound widening.
 - Completed installation of girders at Spans 1 and 18 at Oastes Creek Bridge for eastbound widening.

The number of construction manhours worked each month is provided by HRCP and is current as of April 30, 2024:



Project Manhours to Date:
11,189,179

* ** HRCP Actual for March and April 2024

Operations

The following operations activities took place during this reporting period:

- Temporary lighting installation at Willoughby Bay Bridge.
- Traffic stops for ITS device installation on I-64 at Mallory St. eastbound.
- Traffic shift to opposite side of 4th View Street to facilitate continued bridge rehabilitation in Norfolk.
- Overnight detour of westbound off ramp to W Bay Ave. for equipment demobilization.

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 April 30, 2024:

- Total Recordable Incidence Rate: 1.58 (National Average: 2.5)
- Lost Time Incidence Rate: 0.23 (National Average 1.6)

Civil Rights & DBE/SWaM Business Opportunities

HRCP has awarded **358** subcontracts, subconsultant agreements, and purchase orders to certified DBE/SWaM firms on the project. These contract awards represent a total of **\$556 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 celebrated TBM Mary's completion of the HT tunnel on April 17, 2024 following nearly one year and 1.5 miles of tunneling under the Hampton Roads waterway.
- VDOT hosted a site visit on April 9, 2024 for the General Manager and staff of Santa Clara Valley Transportation Authority, the public owner of the \$12 billion BART Silicon Valley Phase II project, which will include a 5-mile, 54-ft diameter TBM transit tunnel in San Jose, California.

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 56 (data date: March 24, 2024), and the schedule information in this report reflects this update. Contractual Substantial and Final Completion dates remain unchanged from the Contract Amendment; February 26, 2027 and August 27, 2027 respectively.

	Contract Requirement	March 2024 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 Project Schedule Update 56 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
- South Island Tri-Cell Permanent Structures
- South Island Ventilation Building and Commissioning
- 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

- South Portal Cell 1 Permanent Structures – Interior Walls & Slabs
- South Portal - East External Walls – Permanent Headwall and Roadway Slab

South Island

- None

Tunneling

- High Occupancy Tunnel – Installation final rings
- Tunneling U-Turn – Cell 1 Thrust Frame Installation, Gantry 4 Lift out and Reassembly
- General Purpose Tunnel – Interior Structures – Stage I & II Ballast

North Portal

- North Portal – Temporary Structures - High Occupancy Tunnel TBM Shield Receiving Cradle, General Purpose Tunnel TBM Launch Cradle
- North Portal – Rectilinear Approach Excavation
- North Portal – Base Slab Cell 2

North Island

- North Island – Temporary Structures – TBM Slab, Crane Slabs North & South

Roadway and Land Bridges

- Segment 1 Phase 1 – I-64 North Shore Roadway Widening, RW108, Temporary Lighting
- Segment 3b Phase 1, 2, 2A, 2B, 3, 3A, 4 – I-64 Willoughby Spit – Widening, Drainage, PV Drains/Ground Improvement, Retaining Wall 302, 306, 307, 312, 313, Lighting.
- Segment 4 Phase 2, 2A, 3, 3A, 4 – Norfolk to Navy – Storm Drainage, Roadway Widening, Retaining Wall 406, 407, 409, 501
- ITS Segment 1 Phases 1 & 1A – Installation
- ITS Segment 3 Phases 2, 3 & 4 - Installation
- ITS Segment 3B Phases 3A & 4 - Installation
- ITS Segment 3C Phases 2 - Installation
- ITS Segment 4 Phases 2, 3 & 4 - Installation
- 13th View Bridge – Eastbound Widening & Rehabilitation, Westbound Rehabilitation
- Willoughby Bay Bridge – Eastbound Superstructure & Rehabilitation, Westbound Substructure & Rehabilitation
- 4th View Bridge – Eastbound Rehabilitation
- Mason Creek Bridge - Eastbound Rehabilitation
- 1st View Bridge - Eastbound Rehabilitation
- Bay Avenue Bridge – Eastbound Widening & Rehabilitation, Westbound Rehabilitation
- Evans Street Bridge - Eastbound Widening & Rehabilitation
- Bayview Blvd. Bridge - Eastbound Widening & Rehabilitation
- Oastes Creek Bridge – Eastbound Widening, Westbound Widening
- Patrol Road Bridge – Eastbound Widening & Rehabilitation

Trestles

- North Trestle Temporary Work Trestle N3 – Construction & Demolition

- North Trestle Temporary Work Trestle N4 & N2 – Demolition
- North Trestle – Eastbound Zone 4 Construction, Westbound Zone 8 & 10 Construction
- North Trestle Utilities – Eastbound Phase 2 & 3A, Westbound Phase 7
- North Trestle Demolition Existing Eastbound Trestle
- South Trestle Temporary Work Trestle S2 – Demolition
- South Trestle Temporary Work Trestle S3 – Construct
- South Trestle Temporary Work Trestle S4 – Construct
- South Trestle Temporary Work Trestle S5 – Construct and Demolition
- South Trestle – Zone 2 Deck Construction & Finishes
- South Trestle – Zone 5 Construction & Finishes
- South Trestle – Zone 7 Construction & Finishes
- South Trestle – Zone 8 Construction & Finishes
- South Trestle – Zone 9 Construction & Finishes
- 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

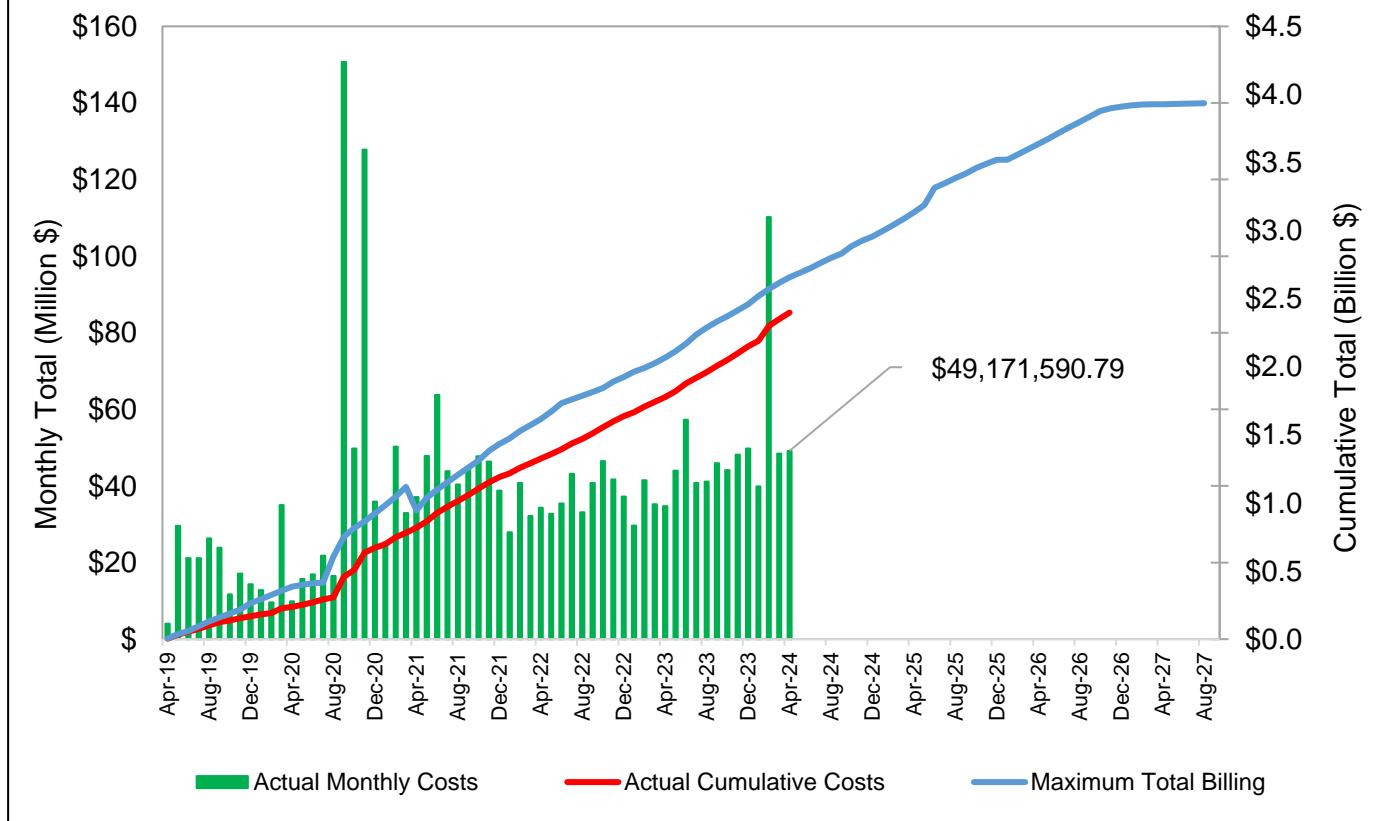
3. Project Budget

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>	\$28,146,928.08	\$2,155,013,251.43	\$3,299,997,227.00	\$1,144,983,975.57	65.30%
<u>Owner Costs</u>					
<i>Administration</i>	\$693,013.54	\$101,183,578.38	\$122,000,000.00	\$20,816,421.62	82.94%
<i>Right of Way</i>	\$2,623.32	\$9,505,321.68	\$15,000,000.00	\$5,494,678.32	63.37%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$20,214,127.45	\$127,031,810.91	\$335,000,000.00	\$207,968,189.09	37.92%
<i>Bridge Repair Work Option</i>	\$114,898.40	\$5,804,282.38	\$73,454,413.96	\$67,650,131.58	7.90%
Total	\$49,171,590.79	\$2,398,538,244.78	\$3,935,451,640.96	\$1,536,913,396.18	60.95%

Overall Payments by Month* **

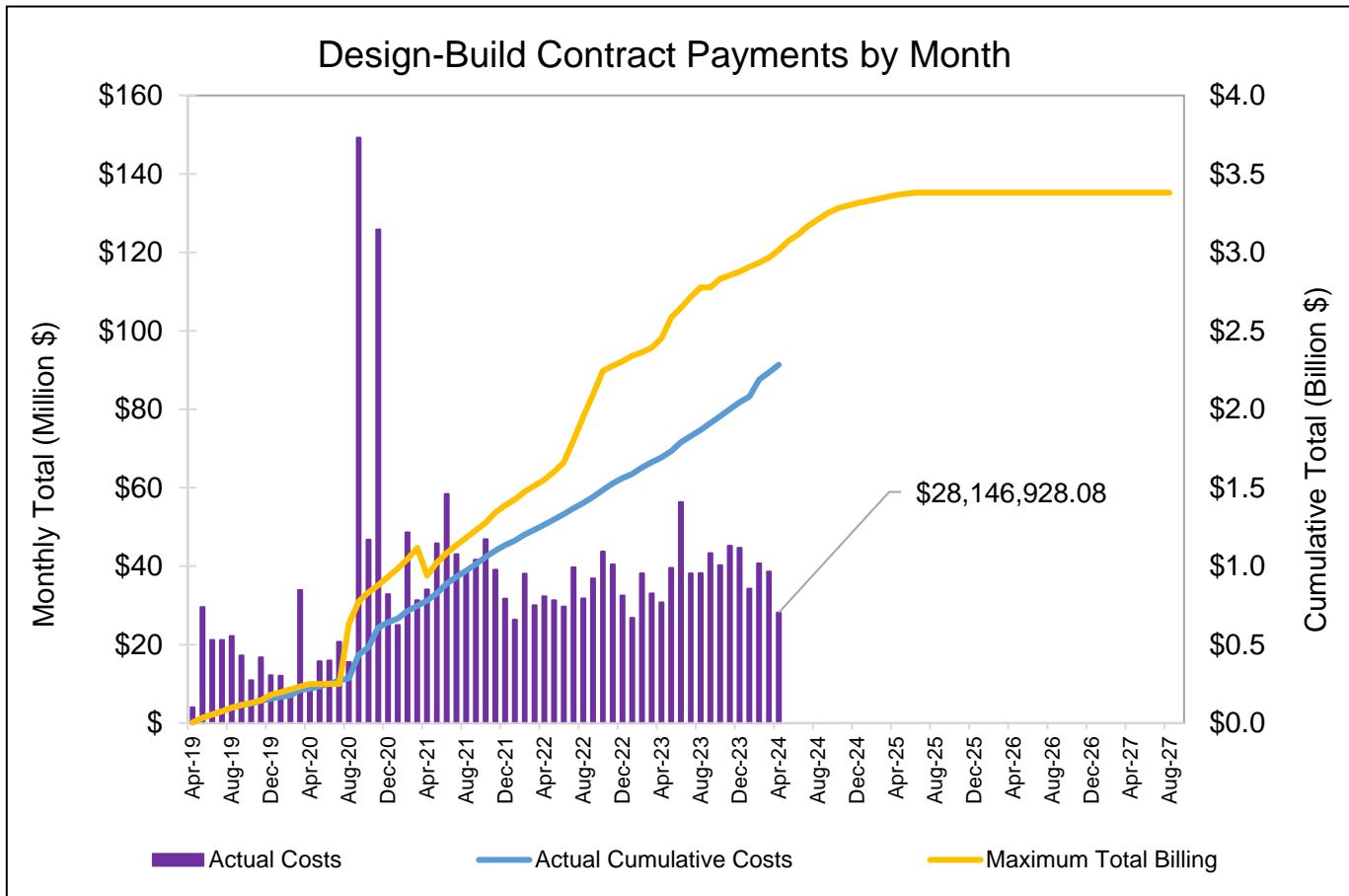


*The Maximum Total Billing showed an adjustment in May 2021 due to the executed Change Order #40 – Update Maximum Cumulative Cost Curve.

** The increase to monthly costs during February 2024 is primarily 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.



*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

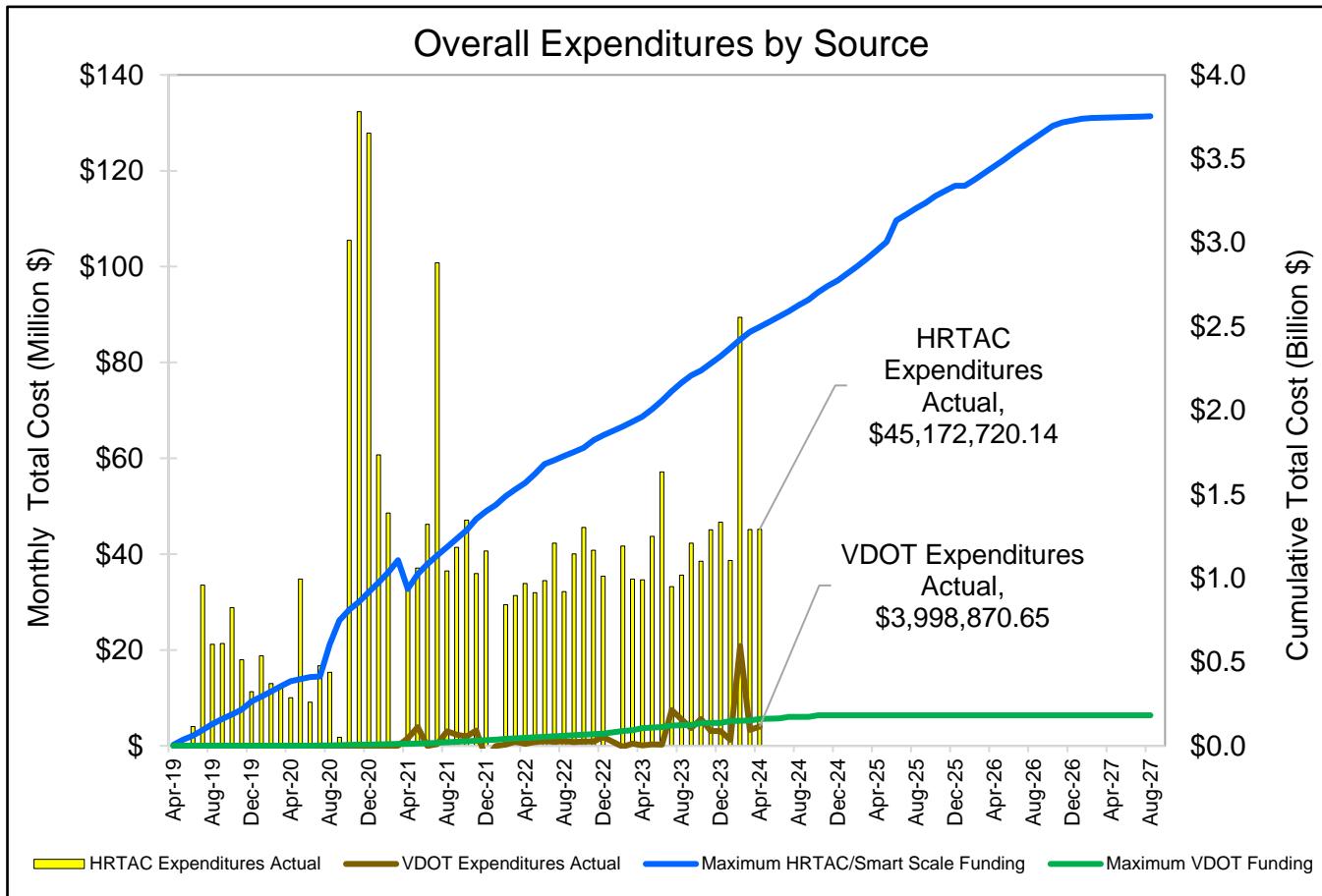
	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<u>Comprehensive Agreement</u>					
Construction	\$26,254,446.61	\$2,109,015,916.23	\$3,204,569,251.00	\$1,095,553,334.77	65.81%
<u>Owner Costs</u>					
Administration	\$674,042.33	\$97,055,412.38	\$118,472,054.00	\$21,416,641.62	81.92%
Right of Way	\$2,623.32	\$9,505,321.68	\$15,000,000.00	\$5,494,678.32	63.37%
No-Excuses Incentive	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
Contingency	\$18,241,607.88	\$100,970,938.09	\$325,428,276.00	\$224,457,337.91	31.03%
Total	\$45,172,720.14	\$2,316,547,588.38	\$3,753,469,581.00	\$1,436,921,992.62	61.72%

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>					
Construction	\$1,892,481.47	\$45,997,335.20	\$95,427,976.00	\$49,430,640.80	48.20%
<u>Owner Costs</u>					
Administration	\$18,971.21	\$4,128,166.00	\$3,527,946.00	(\$600,220.00)*	117.01%
Right of Way	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
No-Excuses Incentive	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Contingency	\$1,972,519.57	\$26,060,872.82	\$9,571,724.00	(\$16,489,148.82)**	272.27%
Bridge Repair Work Option	\$114,898.40	\$5,804,282.38	\$73,454,413.96	\$67,650,131.58	7.90%
Total	\$3,998,870.65	\$81,990,656.40	\$181,982,059.96	\$99,991,403.56	45.05%

* 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 primarily 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-85	DRBISC #08 SMOT WB Rock Removal	4/3/2024	\$ 1,135,513.87	0 days
CO-86	OHSS No. 36 Foundation – Archaeologist Assessment	2/20/2024	\$ 14,641.81	0 days
		TOTAL	\$ 74,984,091.05	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	February 2024
Exhibit 10 - Fuel	\$5,808.95	\$470,876.41	February 2024
Exhibit 11 - Steel	\$584,026.30	\$5,857,216.31	October 2023
Total	\$589,835.25	\$6,488,911.81	
Per CA Amendment Adjustments (Not Federally Eligible Costs)			
Exhibit 9 - Asphalt	\$0.00	\$0.00	February 2024
Exhibit 10 - Fuel	\$3,255.34	\$31,252.76	February 2024
Exhibit 11 - Steel	\$633,820.08	\$7,960,686.25	October 2023
Exhibit 10A - Fuel (Atypical Items)	\$14,037.11	\$1,459,531.48	February 2024
Exhibit 15A - Index-Adjusted Commodities	\$5,451,433.50	\$53,611,135.55	October 2023
Exhibit 15B - Escrow-Adjusted Commodities	\$3,624,914.80	\$17,214,267.35	February 2024
Total	\$9,727,460.83	\$80,276,873.39	

* Steel price adjustments are based on Federal index data finalized 4 months after each period.

4. Environmental

The following environmental management activities occurred during this reporting period:

Permits:

- HRCP provided weekly inspection report summaries to the U.S. Army Corps of Engineers (USACE).
- The permit for the North Island wastewater treatment plant did not cover the TBM process water pumped to and discharged from that facility following the TBM breakout on April 17, 2024. HRCP notified the Department of Environmental Quality (DEQ) and USACE accordingly of the operational error.
- HRCP initiated discussions with DEQ regarding modification of the North Island wastewater treatment plant and discharge permit to allow for inclusion of TBM process water.

Marine Mammal Protection:

- No new activities.

Bird Mitigation:

- HRCP completed repairs to bird deterrent measures and continues the dog patrolling of North Island, South Island, and Willoughby Spit.

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 I-64 median barrier wall between Mallory Street Bridge and North Trestle.
- Began trench drain installation in the I-64 median south of Mallory Street Bridge.
- Continued placement of concrete slab at top of retaining wall 108 adjacent to North Trestle Abutment A.
- Completed backfill grading at retaining wall 108 adjacent to North Trestle Abutment A.
- Began and completed placement of cement-treated aggregate at retaining wall 108 eastbound at the Hampton shoreline.
- Began roadway widening at Entrance Ramp H at Mallory Bridge.

I-64 (Segment 3):

- Continued installation of base leveling pads and wall panels at retaining wall 302 on Bayville Street between 13th View and eastbound off ramp.
- Continued drainage work at 13th View Street.
- Began formwork at retaining wall 308 EB between Willoughby Bay Bridge and 4th View.

I-64 (Segment 4):

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



► **Bayville Street**
Installation of
retaining wall 302

5.2 Construction Area 2: Marine Trestle Work

North Trestle:

- **Westbound Trestle**
 - 1 beam placed during this period (52 out of 281 total beams placed).
 - North Trestle westbound beam launcher commissioned.

South Trestle:

- **Eastbound Trestle**
 - 1 deck placed during this period (26.2 out of 53 total decks placed).
- **HOT Lanes Trestle**
 - 15 piles driven during this period (59 out of 66 total piles driven).

All Areas:

- Work across all Marine areas focused on routine tasks necessary for production. These tasks included installing precast drainage troughs under expansion-joint locations, deck expansion joints, and parapet reinforcement.



◀ **North Trestle**
Westbound
Beam Launcher
commissioning

5.3 Construction Area 3: Tunnels and Islands

South Island:

- 43% complete for south portal external walls.
- 6% complete for south portal internal walls.
- 18% complete for rectilinear approach permanent struts.
- 82% complete for rectilinear approach capping beams.

North Island:

- Completed placement of mud slab for Cell 2 base slab.
- Completed installation of waterproofing for Cell 2 base slab.
- Began installation of reinforcing steel for Cell 2 base slab.
- 12% complete for rectilinear approach permanent struts.
- 15% complete for rectilinear approach temporary struts.

Tunnel:

- Completed excavation for High Occupancy Toll (HT) tunnel (7,940 ft out of 7,940 ft).
- 113 concrete tunnel rings installed this period (1,184 out of 1,191 total rings installed).
- 18% complete for stage 1 installation of cement-treated base (CTB) ballast for tunnel roadway.
- Completed casting of additional 358 precast tunnel liner segments.
- A new record was set for TBM production on April 8, 2024 with 113.2 ft excavated and 17 concrete tunnel rings installed in one day. This represents approximately 7,000 cy of excavation.



◀ HT Tunnel
TBM break-out at North Island on April 17, 2024

5.4 Construction Area 4: Landside Bridges

Mallory Street Bridge:

- 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.
- Continued installation of stay-in-place (SIP) deck formwork for eastbound widening.
- Continued installation of girders at Spans 14 - 16 for westbound widening.

4th View Street Bridge:

- Began lead abatement at Abutment A for eastbound and westbound widening.
- Continued Abutment B backfill for eastbound widening.

Mason Creek Bridge:

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

1st View Street Bridge:

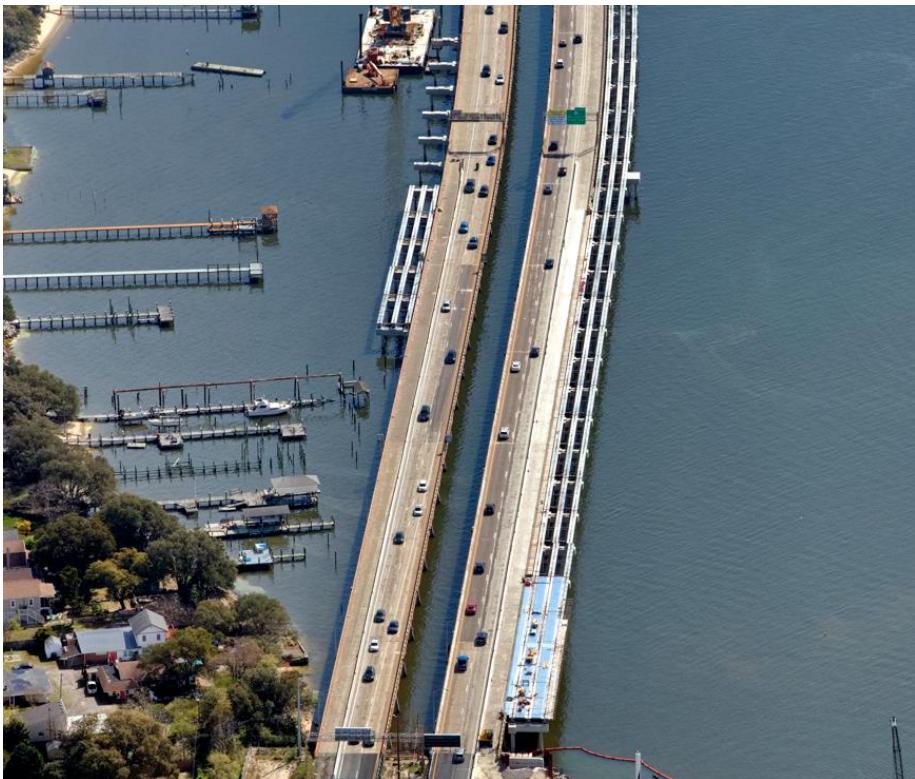
- Continued repair/rehabilitation of existing eastbound bridge.

Bay Avenue Bridge:

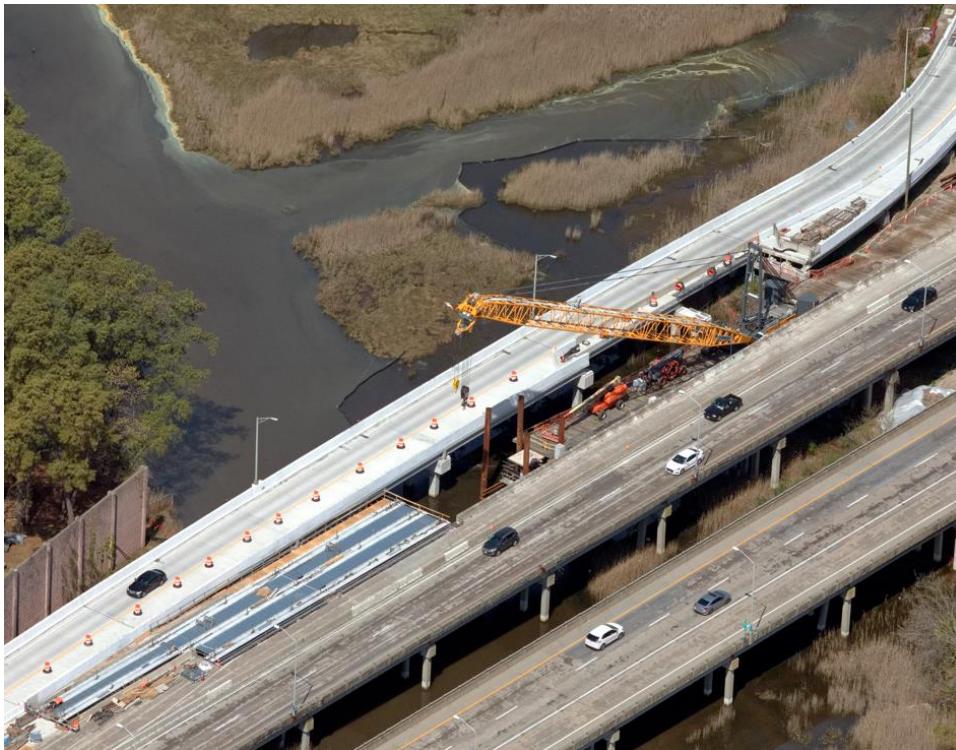
- Continued installation of mainline SIP deck forms and overhangs for eastbound widening.
- Began driving piles at Pier 18 and 19 for eastbound widening.
- Completed installation of girders for Span 20 for eastbound widening.

Oastes Creek Bridge:

- Completed slope protection for Abutment B for eastbound widening.
- Completed installation of girders at Spans 1 and 18 for eastbound widening.



► **Willoughby Bay Bridge Widening**
Eastbound girders nearly complete, progress continuing for Westbound girders



► **Bay Avenue Bridge Eastbound**
Deck formwork installed between existing bridge and 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.
- Temporary lighting installation at Willoughby Bay Bridge.
- Striping maintenance throughout project corridor.
- All stops on I-64 at Mallory both east/westbound for overhead sign structure installation.
- All stops on I-64 at Mallory eastbound for ITS device 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:

- Traffic shifted to opposite side of 4th View St. to facilitate continued bridge rehabilitation.

Detours:

- Long-term detour on Mason Creek Road to facilitate bridge widening.
- Overnight detour of westbound off ramp to W Bay Ave. for equipment demobilization.

Intelligent Transportation System (ITS):

- Relocation of ITS devices onto new overhead sign structure #12.
- Installation of ITS and private utility conduit on North Trestle.
- Relocation of overhead vehicle detectors on Mallory ramp.

Overhead Sign Structures:

- Installation of overhead sign structure foundations at various locations through corridor.
- Placement of overhead sign structure #12.

Roadway Lighting:

- Continued temporary lighting installation on Willoughby Bay Bridge.
- Installation of lighting conduit and junction boxes at Willoughby Bridge and North Trestle.
- Permanent lighting installation on new North Trestle.

Routine Maintenance:

- HRCP performed routine incident management / maintenance operations within corridor.

7. Quality

Quality updates for this reporting period include:

Construction Quality Management Plan (CQMP) Updates:

- HRCP submitted quarterly update V17 of the CQMP this period, which is currently under review.
- VDOT reviews CQMP updates as part of final “Released for Construction” (RFC) design packages and “Notice of Design Change” (NDC) packages. One package from last period was returned to HRCP as approved.

Design Quality Management Plan (DQMP) Updates:

- HRCP submitted quarterly update V20 of the DQMP last period, which is currently under review.

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 completed casting the final quantity of tunnel lining segments during this period.

Quality Management System Plan (QMSP):

- HRCP submitted quarterly update of the QMSP this period, which is currently under review.
- 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 37 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

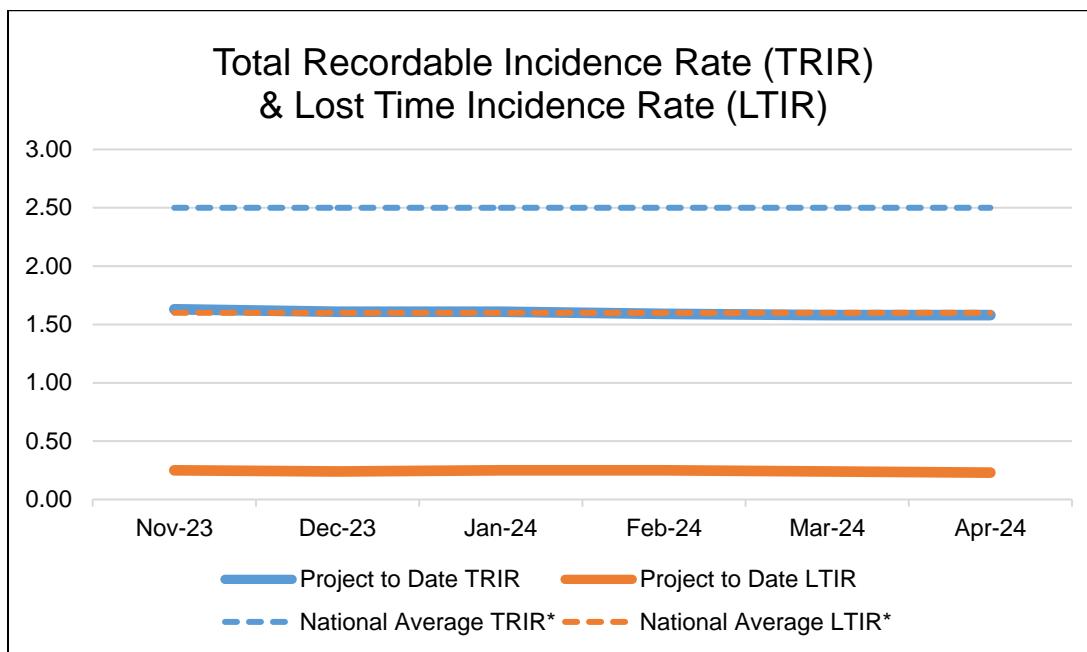
Safety procedures and activities during this reporting period include:

Safety Activities:

- HRCP responded quickly to rescue an employee who fell in the water at the eastbound Willoughby Bay Bridge on April 2, 2024. VOSH conducted an investigation of the incident and VDOT met with HRCP to conduct an After Action Review.
- HRCP completed “Hands Off” training to focus on hand safety for marine activities.
- HRCP completed a fire and rescue drill with the Norfolk and Hampton Fire Departments to simulate a tunnel rescue situation.
- HRCP actively participated in National Work Zone Awareness Week.
- HRCP conducted a Safety Stand Down on North Island to improve safety awareness for events involving heavy equipment.

Safety Performance Indicators:

- The following safety performance indicator information is provided by HRCP and is current as of April 30, 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 **358** subcontracts, subconsultant agreements and purchase orders to certified DBE/SWaM firms. There was a slight increase in contract awards for a total of **\$556 million** due to new change orders issued to active DBE/SWaM firms on the project. A total of **\$408 million** has been paid for work completed by DBE/SWaM firms.

Compliance Activities:

- For this reporting period, HRCP and VDOT met on April 16, 2024, to discuss progress of document submissions and efforts towards meeting the On-the-Job Training (OJT) contract goal. HRCP discussed the proposed changes to reporting data on the C-111/63 forms to capture DBE and SWaM commitments and contract expenditures for VDOT's consideration utilizing a new financial management system.
- HRCP's 1st Quarter DBE/SWaM Good Faith Efforts Report/C-111, DBE/SWaM Utilization Plan, and Workforce Participation Plan were submitted during the reporting period. VDOT will review the submissions and offer recommendations to ensure compliance with the Comprehensive Agreement and program requirements.

Workforce Development Activities:

- HRCP continued to make progress towards the OJT contract goal of 80 graduates. To date, 35 employees have graduated with 13 currently active in the program. The Design-Builder continues to submit a Weekly Trainee Report to VDOT for reporting training information and certifying that the reported hours are accurate. The weekly work hours are reported quarterly and included in VDOT's statewide report submitted to FHWA.

Business Development Activities:

- March 28, 2024 – Virginia Port Authority, How to do Business with the Port
- April 11, 2024 – City of Virginia, Minority Business Council's Spring Contractors Roundtable

10. Public Outreach & Media



On April 17, 2024 history was made when the region witnessed the headwall breakthrough of the first bored tunnel in Virginia.

“Mary,” as the Tunnel Boring Machine (TBM) is named, completed an almost one year excavation of 7,940 ft while placing 1,191 concrete rings behind her to form the first of two twin tunnels being bored along Interstate 64 between Hampton and Norfolk.

The TBM, which is 46 feet in diameter, will be repositioned and this Fall will begin a similar journey Eastbound from the HRBT North Island towards Norfolk to form the second tunnel.

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

Public Outreach

- April 9, 2024 – Project leadership hosted site visit and project briefing for executive management of Santa Clara Valley Transportation Authority.
- April 9, 2024 – Project team presented project updates to Kecoughtan Literary Circle in Hampton.
- April 11, 2024 – Project leadership presented project updates for LEAD757 Infrastructure Day in Virginia Beach.
- April 18, 2024 – Project leadership presented project updates to Hampton Mastermind Group in Norfolk.
- April 19, 2024 – Project leadership presented project updates to 2024 class of LEAD Virginia.

Media

- March 25, 2024 – (13 News Now) HRBT closures in both directions Tuesday night, VDOT encourages motorists to use MMMBT
<https://www.13newsnow.com/article/traffic/hrbt-hampton-roads-bridge-tunnel-closure-vdot-encourages-motorists-to-use-mmmbt/291-4dc6a496-0e67-4aef-b015-a3bf6bf9488f>
- March 25, 2024 – (WAVY) Sign work prompts upcoming HRBT closure
<https://www.wavy.com/news/local-news/sign-work-prompts-upcoming-hrbt-closure/>
- March 25, 2024 (WAVY) I-64 west off-ramp to W. Bay Ave. to close for construction
<https://www.wavy.com/traffic/i-64-west-off-ramp-to-close-for-construction/>
- March 28, 2024 – HRBT Expansion Project Provides Updated Schedule
- April 1, 2024 – (Construction Equipment Guide) Hampton Roads Bridge-Tunnel Expansion Project 18 Months Behind Schedule, Reveals VDOT
<https://www.constructionequipmentguide.com/Hampton-roads-bridge-tunnel-expansion-project-18-months-behind-schedule-reveals-vdot/64632>
- April 3, 2024 – (Daily Press) Editorial: HRBT expansion will be a welcome addition when finally completed <https://dailypress.com/2024/04/02/editorial-hrbt-expansion-will-be-a-welcome-addition-when-finally-completed/>
- April 4, 2024 – (WAVY) PHOTO: Worker falls into water below Willoughby Bay Bridge
<https://www.msn.com/en-us/weather/other/photo-worker-falls-into-water-below-willoughby-bay-bridge/ar-BB1I25zE>
- April 4, 2024 – (WVEC) Man falls from Willoughby Bay Bridge <https://www.msn.com/en-us/news/world/man-falls-from-willoughby-bay-bridge/ar-BB1I2Dqd>
- April 5, 2024 – (WAVY) Woman was ‘close enough to hear him screaming’ with man in water under Willoughby Bay Bridge <https://www.msn.com/en-us/news/us/woman-was-close-enough-to-hear-him-screaming-with-man-in-water-under-willoughby-may-bridge/ar-BB1I67GQ>

- April 17, 2024 – (WAVY) Major milestone: Mary, tunnel boring machine for HRBT expansion, finishes first new tunnel <https://www.wavy.com/news/local-news/hampton/mary-the-tunnel-boring-machine-set-to-emerge-as-a-part-of-the-hrbt-expansion-project/>
- April 17, 2024 – (WTKR) There's nothing boring about the HRBT expansion project's tunnel boring machine <https://www.wtkr.com/transportation/theres-nothing-boring-about-the-hrbt-expansion-projects-tunnel-boring-machine>
- April 17, 2024 – (WHRO) HRBT expansion marks breakthrough as boring machine completes first new tunnel <https://whro.org/news/local-news/46602-hrbt-expansion-marks-breakthrough-as-boring-machine-completes-first-new-tunnel>
- April 17, 2024 – (Virginian Pilot) See the video: Mary the machine completes first tunnel in HRBT expansion <https://www.pilotonline.com/2024/04/17/see-the-video-mary-the-machine-completes-first-tunnel-in-hrbt-expansion/>
- April 17, 2024 – (Virginia Business) HRBT expansion's first tunnel boring is complete <https://www.virginiabusiness.com/article/hrbt-expansions-first-tunnel-boring-is-complete/>
- April 18, 2024 – (Construction Equipment) Tunnel Boring Machine Finishes First Tunnel in Virginia <https://www.constructionequipment.com/industry-news/news/55019344/tunnel-boring-machine-finishes-first-tunnel-in-virginia>
- April 18, 2024 – (WVEC) A major milestone for HRBT expansion <https://www.13newsnow.com/video/news/local/mycity/hampton/a-major-milestone-for-hrbt-expansion/291-105575c5-7957-4967-84de-2977a8cc11e3>

Lane Closures/Advisories

- March 25, 2024 – Closure of I-64 West Off-Ramp W. Bay Ave.
- March 29, 2024 – Weekly Lane Closure Report
- April 2, 2024 – Closure of I-64 West Off-Ramp at Bay Ave. (Exit 274)
- April 5, 2024 – Weekly Lane Closure Report
- April 12, 2024 – Weekly Lane Closure Report
- April 19, 2024 – Weekly Lane Closure Report

Visit our website to view more information:

www.hrbtexpansion.org