



May 2022 Monthly
Project Report

I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION

Report No. 38

Project No. 0064-M06-032



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Issue Date: June 9, 2022

Prepared by:

Virginia Department of Transportation

www.hrbtextension.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 April 24, 2022 – May 21, 2022. The Design-Builder for the project is Hampton Roads Connector Partners (HRCP), a consortium that includes lead contractors Dragados, Vinci, Flatiron, and Dodin Campenon Bernard, with lead designers HDR and Mott MacDonald.

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

During this reporting period, the following project accomplishments included:

- South Island Progress:
 - Initial TBM assembly operations began.
 - Gantry Crane assembly began.
 - Deep soil mixing for ground improvement along tunnel path completed.
 - Mass excavation of TBM Launch Pit to 89%.
 - Launch Pit Cell 3 base slab waterproofing to 17%.
 - Jet Grouting at tunnel approach plug to 14%.
- North Island Progress:
 - Slurry walls to 40%.
- Landside Progress:
 - Pile cap placement for Evans St Bridge westbound widened section completed.
 - Wick drain installation on I-64 EB adjacent to 4th View St Bridge completed.
 - Gravity retaining wall Bay Ave and Evans St eastbound widening completed.
- Marine Progress:
 - North Trestle WB piles to 9%.
 - South Trestle piles to 63%.

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 26 (data date: September 19, 2021), and the schedule information in this report reflects this update. HRCP is developing a revised baseline schedule.

- HRCP is reporting Substantial Completion in accordance with the contract milestone of September 1, 2025.
- HRCP is reporting Final Completion in accordance with the contract milestone of November 1, 2025.

Project Budget

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

Project budget overview:

Current total project budget:	\$ 3,935,451,641
Total costs to date:	\$ 1,360,678,447
Remaining project budget:	\$ 2,574,773,194

- Design-build contract overview:

Design-build contract original amount:	\$ 3,299,997,227
Net change orders:	\$ 2,183,729
Exercised Options:	\$ 73,454,414
Design-build contract sum to date:	\$ 3,375,635,370
Expenditures to date:	\$ 1,297,208,868
Remaining design-build contract amount:	\$ 2,078,426,502

- Design-build progress to date:

Project Management:	42.4%
Design:	86.6%
Physical Construction Progress:	22.1%
Overall:	38.2%

Environmental

During this reporting period, HRCP took the following steps in support of environmental management:

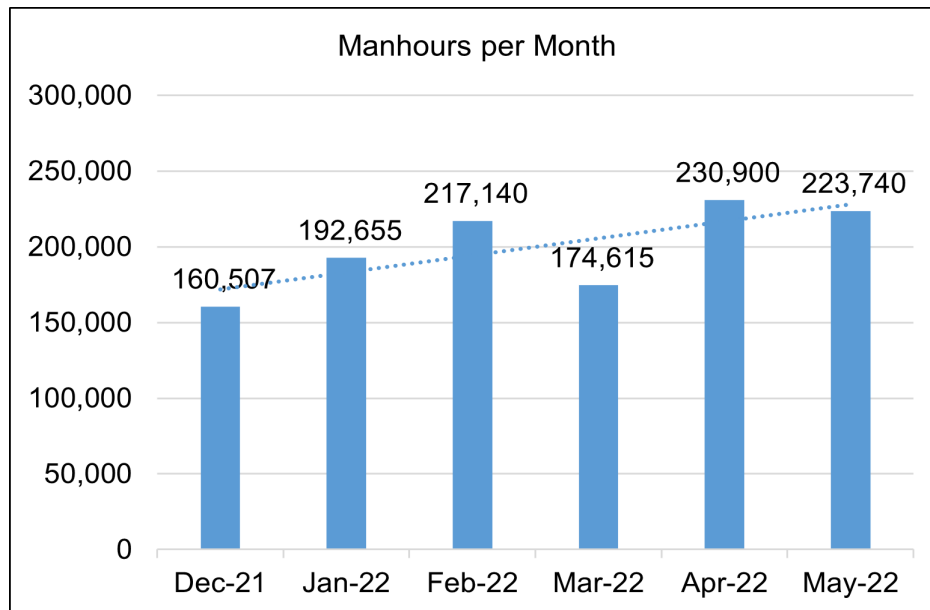
- HRCP submitted the final mixing model report to Department of Environment Quality on April 29, 2022 addressing the discharge pipe configurations covered under the Virginia Pollutant Discharge Elimination System permit.
- HRCP submitted JPA permit modification #7 to the agencies on May 3, 2022.
- Project has returned to green status for VDOT Environmental Compliance rating.

Construction

Progress updates for this reporting period include:

- Landside Roadways
 - Ground improvement installed along I-64 eastbound between 15th View St and 13th View St and adjacent to 4th View St Bridge Abutment A.
 - Drainage installed along I-64 median between Willoughby Bay and 4th View St.
 - Embankment and retaining wall installed along I-64 EB between Bay Ave. and Evans St.
- Marine Works
 - Caps placed at the North eastbound MOT trestle (3 installed).
 - Caps placed at the North eastbound permanent trestle (4 installed).
 - Beams placed at the North eastbound permanent trestle (7 installed).
 - Piles driven at the North westbound permanent trestle (5 installed).
 - Caps placed at the North westbound permanent trestle (1 installed).
 - Piles driven at the South eastbound MOT trestle (10 installed).
 - Beams placed at the South eastbound MOT trestle (4 installed).
 - Piles driven at the South westbound MOT trestle (5 installed).
 - Piles driven at the South permanent trestle (18 installed).
 - Caps placed at the South permanent trestle (1 installed).
- Tunnels and Islands
 - Waterproofing installation began for Cell 3 base slab.
 - TBM tail skin welding began.
 - Assembly of spoils treatment plant to support jet grouting operation completed.
- Landside Bridges
 - Pile driving at Mallory St Phase 1 Bridge Replacement completed.
 - Cap placed at Willoughby Bay Bridge widening westbound (1 installed).
 - Piles driven at Bay Ave Bridge widening (4 installed).
 - Cap placement at Evans St Bridge widening westbound completed.

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



Project Manhours to Date:
3,955,791

Operations

The following operations activities took place during this reporting period:

- Short-term lane closure near I-64 at Willoughby Bridge and Willoughby Shore.
- Long-term lane closures at Bay Avenue, Bayview Blvd, and Mallory St.
- Nightly detours on the West Bay Ave on-ramps.

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 has completed and closed audits of 8 material book record volumes.
- VDOT continues to engage HRCP in discussions on HRCP's implementation of their Quality Management System Procedures (QMSP) and the effectiveness of the plan.

Safety

Safety procedures and activities during this reporting period include:

- VDOT continued to conduct routine visits to promote safe work practices throughout the project.
- The following safety performance indicator information is provided by HRCP and is current as of May 31, 2022:
 - Total Recordable Incidence Rate: 1.72 (National Average: 2.5)
 - Lost Time Incidence Rate: 0.20 (National Average 1.6)

Civil Rights & DBE/SWaM Business Opportunities

To date, HRCP has awarded **305** subcontracts, subconsultant agreements, and purchase orders to certified DBE/SWaM firms on the project. These contract awards represent a total of **\$423 million** to certified DBE/SWaM firms.

- HRCP continued to make progress towards the 80 participant On-the-Job Training (OJT) contract goal. To date, 13 have graduated with 17 currently active in the program.
- VDOT and HRCP met on May 17, 2022 to discuss compliance with state and federal requirements.
- VDOT and HRCP participated in several business outreach events during the reporting period, which included the VA Asian Chamber of Commerce's 757 Connecting Success and the Asian American Entrepreneurship Networking events.

Public Outreach & Media

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

- HRBT Project Team presented to Old Point Comfort Yacht Club.
- HRBT Project Team presented to the Greater Williamsburg African American Business Owners.
- HRBT Project Team hosted local news media for a tour of the Cape Charles Precast Plant.
- HRBT Project featured in Virginia Business Magazine.

2. Project Schedule

2.1 Schedule Status

The following table depicts key milestone dates outlined in the contract requirements. This table will be used as a benchmark to track milestone achievements and has been updated as of the current approved schedule. HRCP and VDOT have collaborated and determined that a Revised Baseline schedule is appropriate, with the design of the project nearing completion and construction sequencing becoming more finalized. HRCP is currently in the process of developing a Revised Baseline schedule. The last approved schedule for the project is Update 26 (data date: September 19, 2021), and the schedule information in this report reflects this update.

	Contract Requirement	Schedule of Record Dates	September 2021 (Update 26)	Actual
NTP		Sep 9, 2020	Sep 11, 2020	Sep 11, 2020
Substantial Completion	Sep 1, 2025	Aug 27, 2025	Sep 1, 2025	
Final Completion	Nov 1, 2025	Nov 1, 2025	Nov 1, 2025	

2.2 Longest Path

The longest path in Project Schedule Update 26 is driven by the following activities:

- South Portal Launching Pit Capping Beam Cell 1,2,3
- South Portal Launching Pit Excavation Part 2,3,4
- South Portal Cell 1 Place Lean Concrete
- South Portal Temporary Headwall Cell 1
- Assembly of the Tunnel Boring Machine (TBM) in launching pit
- TBM drive in High Occupancy Toll (HOT) Tunnel
- TBM U-Turn
- TBM drive in General Purpose (GP) Tunnel
- TBM Disassembly in south pit
- South Portal Cut & Cover Structures Phase 4 Cell 1
- South Portal Mechanical, Electrical, and Plumbing (MEP)
- GP Tunnel Site Integration Acceptance
- Tunnel Systems Integration-ITS
- Commissioning and Testing of all Systems (Roadway, Bridges, Structures, Tunnels)
- 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 critical or near critical, meaning there is less than one month of float in the Schedule Update 26:

Design

- Design Segment 3 Roadway

Procurement

- North EB MOT Trestle procurement
- South WB MOT Trestle procurement

Construction

South Portal

- Dewatering-Testing & Commissioning
- Launch Pit Excavation Part 1
- Launch Pit Temporary Headwall-Partial Excavation
- Launch Pit Demolish Abandoned Slurry Wall
- Launch Pit Stiffening Columns & Struts
- Base Slab Concrete Works Phase 1
- Rectilinear section on-shore U-Wall
- Jet Grout Break-in/out Phase 2

North Portal

- Receiving Pit Slurry Walls
- North Ground Improvement-Bore Proximity slurry walls

North Trestle

- EB Zone 1 (Pier Caps, Beams Deck)
- EB Zone 2 (Pier Caps)
- EB Zone 3 (Piles, Pier Caps, Abutment)
- EB MOT Zone 5 (Piles)
- WB Zone 6 (Piles)

South Trestle

- EB MOT Zone 3 (Piles, Pier Caps, Beams, Deck, Abutment, Finishes)
- WB MOT Zone 4 (Piles, Pier Caps, Beams)

Roadway

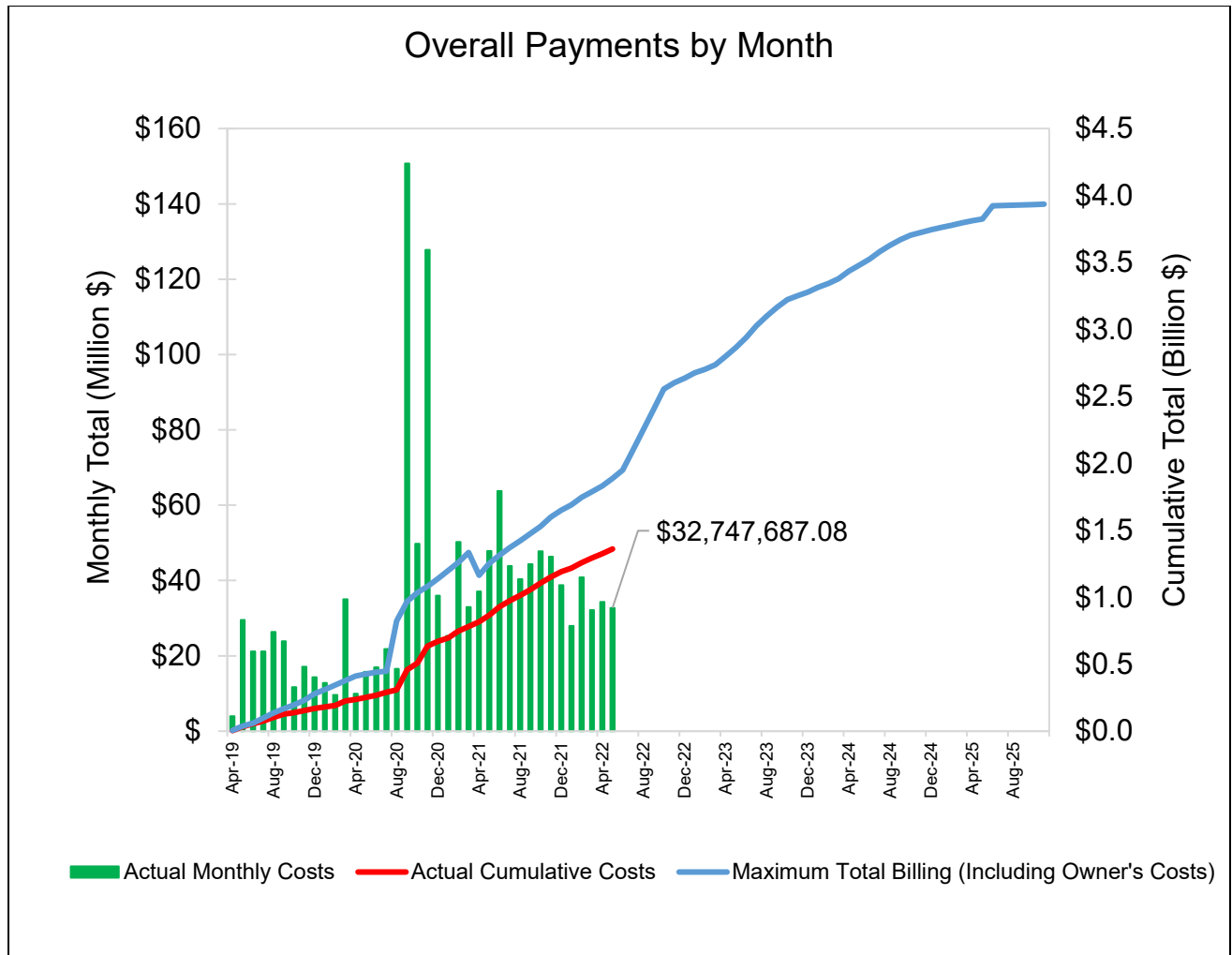
- Segment 3 Roadway from South Trestle to Mason Creek Rd

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).

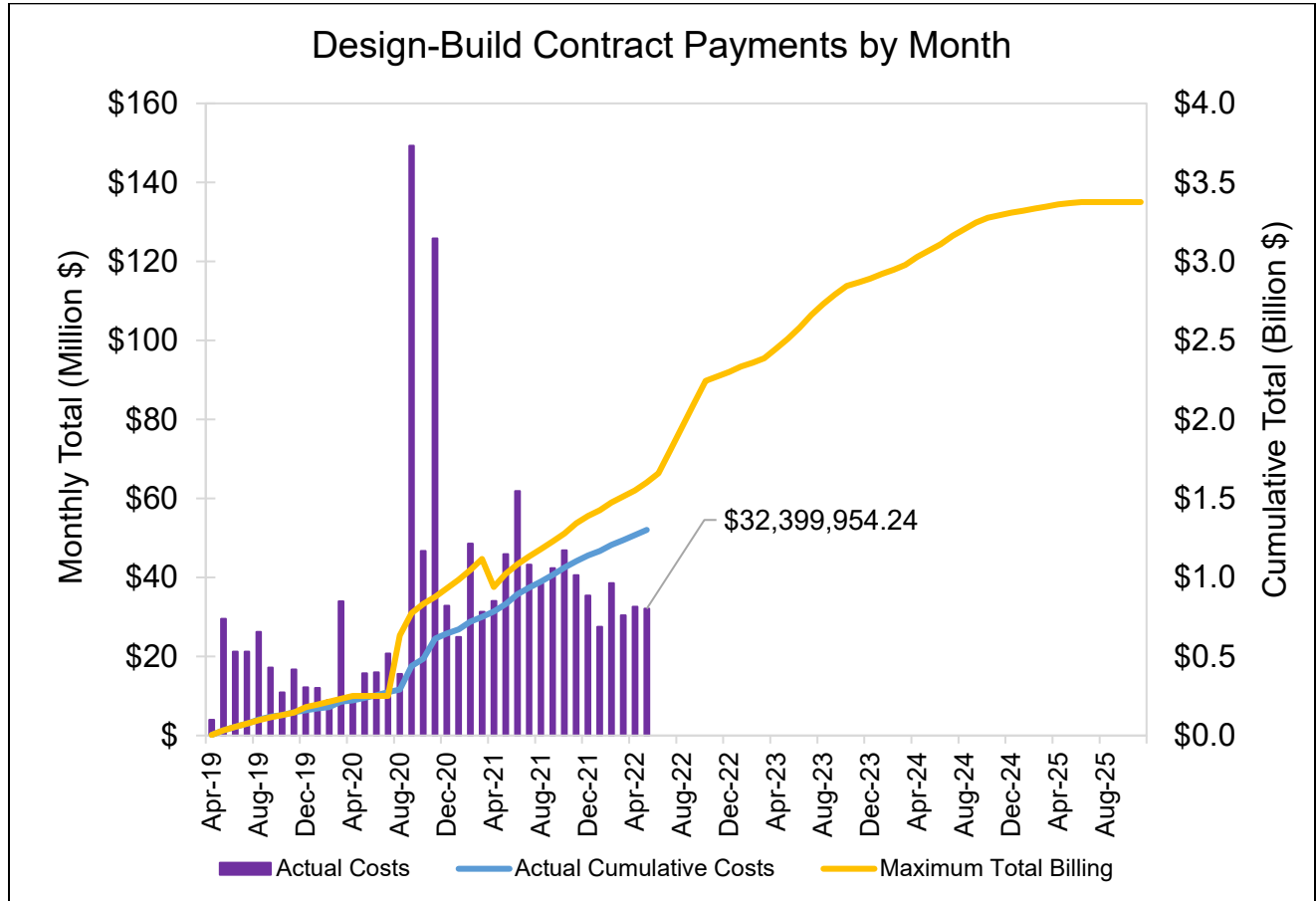
	Amount this Period:	Total to Date:	Original Total Budget:	Total Remaining Budget:	Percent To-date:
<u>Comprehensive Agreement</u>					
<i>Construction</i>	\$31,339,773.49	\$1,284,110,246.66	\$3,299,997,227.00	\$2,015,886,980.34	38.91%
<u>Owner Costs</u>					
<i>Administration</i>	\$336,318.45	\$50,894,953.11	\$122,000,000.00	\$71,105,046.89	41.72%
<i>Right of Way</i>	\$11,414.39	\$8,574,626.25	\$15,000,000.00	\$6,425,373.75	57.16%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$767,072.07	\$16,413,652.81	\$335,000,000.00	\$318,586,347.19	4.90%
<i>Bridge Repair Work Option</i>	\$293,108.68	\$684,968.56	\$73,454,413.96	\$72,769,445.40	0.93%
<u>Total</u>	\$32,747,687.08	\$1,360,678,447.39	\$3,935,451,640.96	\$2,574,773,193.57	34.57%



**The Maximum Total Billing (Including Owner's Costs) is now showing an adjustment in May 2021 due to the executed Change Order #40 – Update Maximum Cumulative Cost Curve*

3.2 Design-Build Contract Cost Status

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



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

3.3 Budget by Funding Source

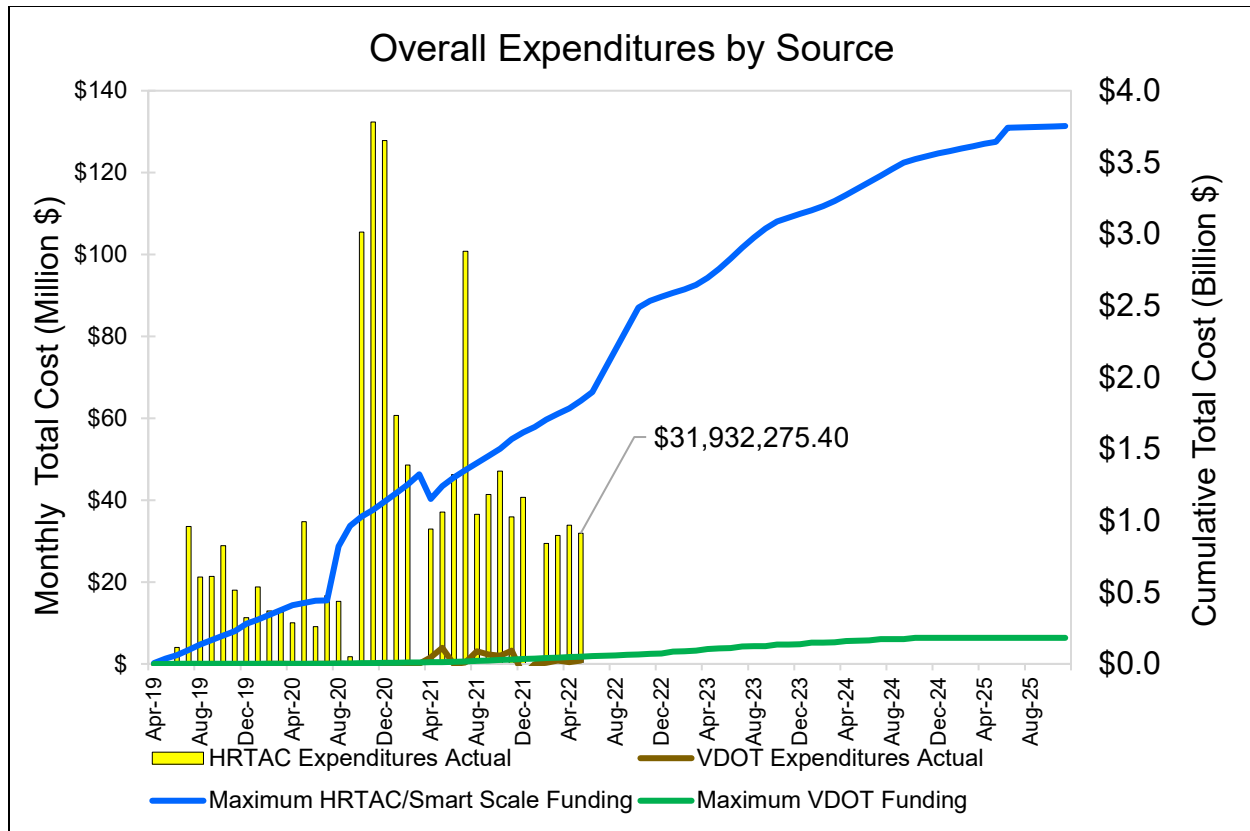
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures of both HRTAC and VDOT funds. The cost curve has been developed based on the monthly maximum cumulative compensation amount in the Comprehensive Agreement and will be updated as HRCF 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>	\$30,858,773.49	\$1,271,999,251.90	\$3,204,569,251.00	\$1,932,569,999.10	39.69%
<u>Owner Costs</u>					
<i>Administration</i>	\$295,015.45	\$49,783,758.32	\$118,472,054.00	\$68,688,295.68	42.02%
<i>Right of Way</i>	\$11,414.39	\$8,574,626.25	\$15,000,000.00	\$6,425,373.75	57.16%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$767,072.07	\$15,428,686.68	\$325,428,276.00	\$309,999,589.32	4.74%
<u>Total</u>	\$31,932,275.40	\$1,345,786,323.15	\$3,753,469,581.00	\$2,407,683,257.85	35.85%

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>	\$481,000.00	\$12,110,994.76	\$95,427,976.00	\$83,316,981.24	12.69%
<u>Owner Costs</u>					
<i>Administration</i>	\$41,303.00	\$1,111,194.79	\$3,527,946.00	\$2,416,751.21	31.50%
<i>Right of Way</i>	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
<i>Contingency</i>	\$0.00	\$984,966.13	\$9,571,724.00	\$8,586,757.87	10.29%
<i>Bridge Repair Work Option</i>	\$293,108.68	\$684,968.56	\$73,454,413.96	\$72,769,445.40	0.93%
<u>Total</u>	\$815,411.68	\$14,892,124.24	\$181,982,059.96	\$167,089,935.72	8.18%



3.4 Contingency

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-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-49	HRCP Senior Representative Change	7/2/2021	\$ -	0 days
CO-50	Change in Precast Form Tolerance & Change in Curing Methods	1/10/2022	\$ -	0 days
CO-53	Sound Wall Quantity Reconciliation	12/6/2021	\$ (16,561,217.63)	0 days
CO-57	Design-Builder's Senior and Representative Changes	1/11/2022	\$ -	0 days
TOTAL			\$ 75,638,143.47	0 days

Material Price Adjustments

This progress period included the following material price adjustments through August 2021:

Material	Amount Invoiced this Period	Total to Date
Asphalt	\$ -	\$ 11,896.42
Fuel	\$ -	\$ 2,804.76
Steel	\$ -	\$ 16,749.84

4. Environmental

HRCP has completed or is performing several compliance tasks included in permit conditions:

Permits:

- HRCP submitted the final mixing model report to DEQ on April 29, 2022, addressing the discharge pipe configurations covered under the Virginia Pollutant Discharge Elimination System permit.
- HRCP submitted JPA permit modification #7 to the agencies on May 3, 2022. This modification includes changes to configuration of the water treatment plant discharge pipes located on the North and South Islands.
- HRCP received and is reviewing a draft air permit from DEQ covering the temporary generators at the South Island and plans to hold a meeting with DEQ to review the permit.

Marine Mammal Protection:

- Dolphin sightings have occurred during the reporting period but did not result in any project delays.

Bird Mitigation:

- HRCP continued use of patrol dogs and handlers on the North Island, South Island, and Willoughby Spit to deter birds from nesting within the project.

Programmatic Agreement:

- No new activities during the reporting period.

Archeological Discoveries:

- No new discoveries during the reporting period.

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 and bridge 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 bridge work.



5.1 Construction Area 1: Landside Roadways

I-64 (Segment 3):

- Completed temporary wire wall and surcharge installation between the South Trestle and 15th View St for eastbound widening.
- Completed wick drain installation adjacent to 4th View St Bridge Abutment A for eastbound widening.
- Continued drainage installation along I-64 median between Willoughby Bay and 4th View St for westbound widening.
- Completed drainage jack and bore at I-64 eastbound on-ramp from 4th View St.
- Began undercut for gravity retaining wall between 4th View St and Mason Creek Rd for eastbound widening.

I-64 (Segment 4):

- Continued fill placement for embankment between Bay Avenue and Evans St for eastbound widening.
- Completed gravity retaining wall between Bay Ave and Evans St. for eastbound widening.
- Began existing sound wall demolition between Evans St. and Oastes Creek for eastbound widening.



◀ I-64 EB
Abutment A foundation
excavation at Mason
Creek Rd

5.2 Construction Area 2: Marine Trestle Work

North Trestle:

- **Eastbound MOT Trestle**
 - No piles driven during this period (16 out of 21 total piles driven).
 - 3 caps placed during this period (4 out of 5 total caps/footers placed).
- **Eastbound Trestle**
 - No piles driven during this period (185 out of 254 total piles driven).
 - 4 caps placed during this period (18.5 out of 37 total caps/footers placed).
 - 7 beams placed during this period (25 out of 296 total beams placed).
- **Westbound Trestle**
 - 5 piles installed during this period (24 out of 261 total piles driven).
 - 1 cap placed during this period (2.5 out of 46 total caps/footers placed).

South Trestle:

- **Eastbound MOT Trestle**
 - 10 piles driven during this period (65 out of 122 total piles driven).
 - No caps placed during this period (8 out of 28 total caps/footers placed).
 - 4 beams placed during this period (20 out of 98 total beams placed).
- **Westbound MOT Trestle**
 - 5 piles driven during this period (35 out of 109 total piles driven).
- **Permanent Trestle**
 - 18 piles driven during this period (302 out of 531 total piles driven).
 - 1 cap placed during this period (2 out of 70 total caps placed).

5.3 Construction Area 3: Tunnels and Islands

South Island:

- Completed deep soil mixing for ground improvement along tunnel path.
- 14% complete for jet grouting operations at tunnel approach plug.
- 89% complete for mass excavation of TBM launch pit.
- Began gantry crane assembly at the TBM quay.
- Drove sheet pile wall to support Cell 2 step wall installation.
- Prepared slurry wall surfaces for waterproofing installation.
- Began waterproofing installation for the base slab.
- Completed assembly of spoils treatment plant and began processing spoils to assist jet grouting operation.
- Continued work on the slurry treatment plant slab.

North Island:

- 40% complete for slurry wall installation at North Island receiving pit and approach section.
- Began field trial program for jet grouting operation.
- Resumed work on circulation dock.

Tunnel:

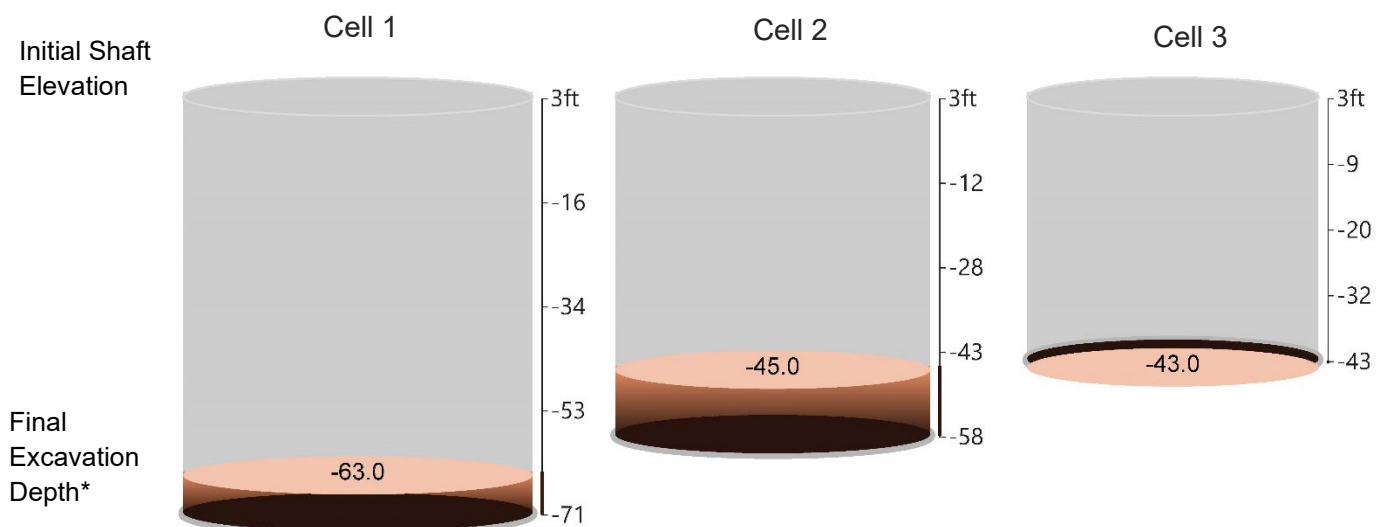
- 12.4% complete for precast tunnel segment liner production.
- Began assembly of TBM components.



◀ **South Island**
Excavation at north end of
Cell 1

Total Segments Required:	Conforming Segments Cast To-Date:	Percentage Complete:
21,492	2,655	12.4%

South Island Launching Pit – Mass Excavation Progress
Progress of Shaft Excavation by Average Elevation



**Final excavation depth in each cell increases with proximity to tunnel opening.*

5.4 Construction Area 4: Landside Bridges

Mallory Street Bridge:

- Completed pile driving at Abutment B for Phase 1 Replacement (18 out of 18 total piles installed).

Oastes Creek Bridge:

- Continued removal of temporary trestle.

Bayview Boulevard Bridge:

- Repair/rehabilitation of existing eastbound and westbound bridges.

Evans St Bridge:

- Mobilized for eastbound abutment pile driving.
- Completed pier caps for westbound widened section (2 out of 2 total piers completed).

Bay Avenue Bridge:

- Continued setting girders for eastbound widening (3 out of 37 total girder spans installed).
- Continued setting precast caps for eastbound widening (5 out of 34 total precast caps installed).
- Began installing formwork for cast-in-place bent caps for eastbound widening.
- Continued pile driving for eastbound widening (39 out of 108 total piles installed).
- Continued existing deck and bent cap partial demolition on existing eastbound on-ramp exterior.

Mason Creek Road Bridge:

- Continued pile driving for eastbound widening (35 out of 38 total piles installed).
- Installed both pier footings and one set of pier columns for eastbound widening,

Willoughby Bay Bridge:

- Continued setting girders for eastbound widening (9 out of 80 total girder spans installed).
- Continued setting precast caps for eastbound widening (57 out of 79 total caps installed).
- Repair/rehabilitation for existing eastbound bridge.
- Continued removal of temporary trestle at eastbound south side.
- Continued installation of temporary trestle at eastbound north side.



◀ **Mason Creek Rd Bridge**
Placing concrete for Pier 2
footing for eastbound
widening



◀ **Bay Avenue Bridge**
Installing formwork for cast-in-
place cap for eastbound
widening

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 eastbound bridge and the North eastbound trestle to facilitate concrete pile and cap placement ongoing.
- I-64 near Oastes Creek in Norfolk for temporary lighting installation.
- Willoughby Bridge and Willoughby Shore for temporary lighting installation.
- Striping maintenance throughout the project corridor.
- Mallory St short term stoppages to move a crane in the median.

Long-Term Lane Closures:

- Bay Avenue in Norfolk to facilitate access to a staging area for the widening of the Oastes Creek Bridge.
- Bayview Blvd in Norfolk and Mallory St in Hampton to facilitate bridge widening.

Hampton Lane Shifts:

- No new activities this period.

Norfolk Lane Shifts:

- No new activities this period.

Detours:

- Long-term detour at West Evans St to facilitate bridge widening.
- Continued nightly detours on the West Bay Ave on-ramps for bridge widening work.
- Long-term detour at Mason Creek Rd in Norfolk to facilitate bridge widening.

Intelligent Transportation System (ITS):

- Began preparation for relocation of ITS devices.

Routine Maintenance:

- HRCP performed routine incident management and maintenance operations within the corridor.
- VDOT continues to monitor HRCP's performance with respect to the approved maintenance management plan.
- Quarterly Concept of Operations Meeting occurred on May 10, 2022.

7. Quality

Quality updates for this reporting period include:

Construction Quality Management Plan (CQMP) Updates:

- VDOT reviews these updates as part of final “Released for Construction” (RFC) design packages and “Notice of Design Change” (NDC) packages. There were 4 updates reviewed this period, including the CQMP updates for NDC packages received. These updates included specific testing and inspection plans for the work shown in the corresponding RFC plans and a staffing matrix showing quality assurance and quality control staffing for the work.

Independent Assurance (IA) Testing Activities:

- VDOT continues to monitor HRCP’s QA and QC material testing. VDOT also performed Independent Testing and Verification Testing on materials in accordance with VDOT requirements and coordinates with VDOT Materials Department for shop inspections as required. This testing includes oversight of the HRCP Precast Yard in Chesapeake and Technopref’s Precast Yard in Cape Charles producing the tunnel lining segments. VDOT is also monitoring HRCP’s progress in obtaining a PCI certification for their planned prestressed girder production. VDOT also reviews HRCP’s Frequency of Testing data to confirm that QA and QC are performing the required tests.

Quality Management System Plan (QMSP):

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

Quarterly Updates of Quality Plans:

- HRCP submitted the quarterly updates of the Quality Management System Plan, Construction Quality Management Plan, and the Design Quality Management Plan for the second quarter of 2022. VDOT completed the review of these submitted plans and returned them to HRCP as approved as noted.

Tunnel Quality Plan (TQP):

- HRCP continues to update its Tunnel Quality Plan and address VDOT’s comments. VDOT reviewed Revision 3 and returned the plan to HRCP with comments.

Material Book Records:

- VDOT to date completed and closed audits of 8 Material Book record volumes. HRCP continues to submit records for subsequent volumes of material books according to the established audit schedule.
- 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.

Routine Quality Activities:

- VDOT's quality team conducted reviews of written deficiency notices (WDNs) and nonconformance reports (NCRs) and coordinated with VDOT's resident engineers for acceptance of root cause analyses and dispositions of deficiencies. VDOT also conducted reviews of QA and QC records for accuracy and quality issues and coordinated documentation reviews through VDOT's Material Department. VDOT also continues a review of current construction quality by performing inspections based on VDOT's Construction Quality Improvement Program (CQIP).

8. Safety

Safety procedures and activities during this reporting period include:

COVID-19 Update:

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

Safety Site Visits:

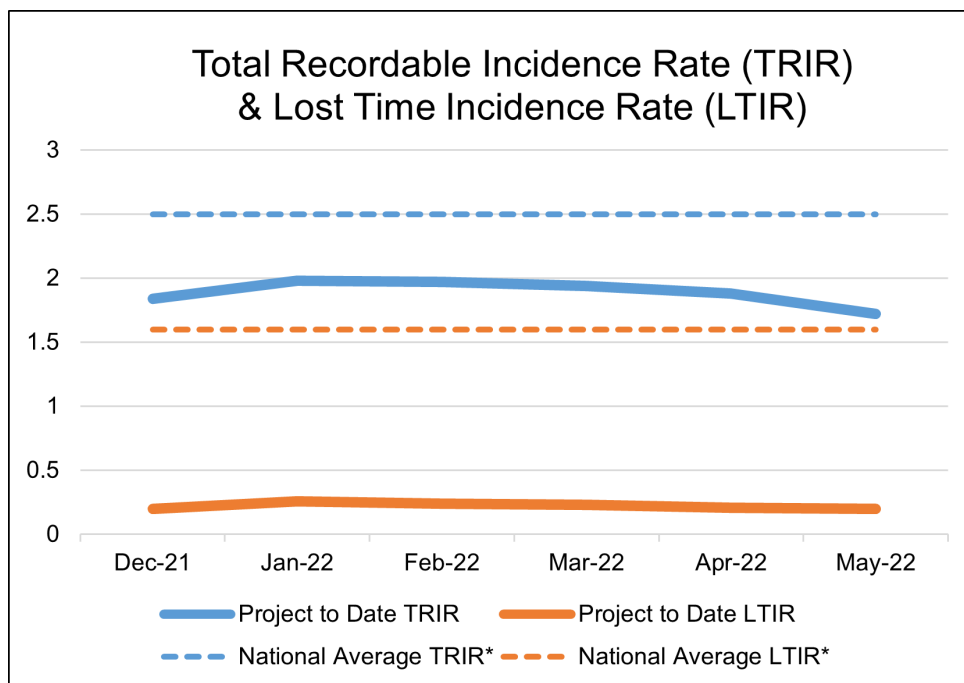
- VDOT continued to conduct routine visits to promote safe work practices throughout the project.

Emergency Response Planning (Rescue Drill):

- VDOT and HRCP continue collaboration on Emergency Response Planning.
- Emergency Rescue Drill conducted on the South Island.

Safety Performance Indicators:

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



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

9. Civil Rights & DBE/SWaM Business Opportunities

To date, HRCP awarded **305** subcontracts, subconsultant agreements and purchase orders to certified DBE/SWaM firms. There was a slight increase in contract awards for a total of **\$423 million** due to change orders issued to active DBE/SWaM firms on the project. Currently, 80% of the DBE/SWaM firms are Virginia-based.

Compliance Activities:

- VDOT and HRCP met on May 17, 2022 to discuss civil rights compliance matters. Discussions continued to focus on procurement opportunities, prompt payments to subcontractors, supply chain challenges and material cost escalation affecting small businesses on the project, and compliance document submissions.

Workforce Development Activities:

- HRCP continued to progress towards the 80 participant On-the-Job Training (OJT) contract goal. To date, 13 have graduated with 17 currently active in the program.
- Project workforce participation represents: 52% minority and 13% women.
- During the reporting period, HRCP participated in the following workforce development events:
 - April 27, 2022 – HRCP EEO Compliance Training (Managers & Staff)

Business Development Activities:

- During this reporting period, other business development and outreach activities included:
 - April 25-26, 2022 – Ohio Civil Rights & DBE Symposium
 - April 28, 2022 – Virginia Asian Chamber of Commerce, 757 Connecting Success Networking Event
 - May 12, 2022 – Virginia Beach Minority Business Council Contractor Roundtable
 - May 18, 2022 – District Department of Transportation DBE Virtual Networking Event
 - May 19, 2022 – Asian American Entrepreneurship Celebration & Networking

10. Public Outreach & Media

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

Public Outreach

- May 7, 2022 – HRBT Project Team presented to Old Point Comfort Yacht Club
- May 17, 2022 – HRBT Project Team presented to the Greater Williamsburg African American Business Owners
- May 18, 2022 – HRBT Project Team hosted local news media for a tour of the Cape Charles Precast Plant to view the tunnel segments



◀ May 18, 2022

HRBT Project Team and local news media tour the Cape Charles Precast Plant

Media

- April 28, 2022, Virginia Business Magazine – [Digging In](#)
- May 18, 2022, WTKR TV – [Crews hard at work to create segments that will form new tunnels at HRBT](#)
- May 18, 2022, WAVY TV – [An inside look at the HRBT Expansion Project](#)
- May 18, 2022, WVEC TV – [VDOT gives inside look at tunnel production for massive HRBT Expansion Project](#)

Visit our website to view more information:
www.hrbtexpansion.org