



April 2022 Monthly  
Project Report

## I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION

Report No. 37

Project No. 0064-M06-032



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**Issue Date: May 19, 2022**  
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## 1. Executive Summary

### 1.1 Overview

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This report provides an overview of accomplishments and activities for the Hampton Roads Bridge-Tunnel Expansion Project from March 20, 2022 – April 23, 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 24<sup>th</sup> of each month.

During this reporting period, the following project accomplishments were achieved:

- South Island Progress:
  - TBM assembly Slab complete and first TBM pieces have arrived.
  - Mass excavation of TBM Launch Pit to 69%.
  - Ground Improvement along tunnel path to 92%.
  - Completion of TBM Quay dock superstructure.
  - Jet Grouting at tunnel approach plug to 10%.
- North Island Progress:
  - Completion of guide walls at Receiving Pit.
  - Slurry walls to 34% complete overall.
- Landside Progress:
  - Mallory St Bridge – completed drainage installation phase at southwest quadrant.
  - I-64 EB – began wick drain installation between 15<sup>th</sup> View St and 13<sup>th</sup> View St.
- Marine Progress:
  - North Trestle EB – 73% piles driven.
  - South Trestle – 61% piles driven.

### 1.2 Priorities

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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 April 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:	\$ 1,327,930,761
<b>Remaining project budget:</b>	<b>\$ 2,607,520,880</b>

- 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:	\$ 1,264,808,913
<b>Remaining design-build contract amount:</b>	<b>\$ 2,110,826,456</b>

- Design-build progress to date:

Project Management:	40.9%
Design:	85.9%
Physical Construction Progress:	21.0%
<b>Overall:</b>	<b>37.1%</b>

## Environmental

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

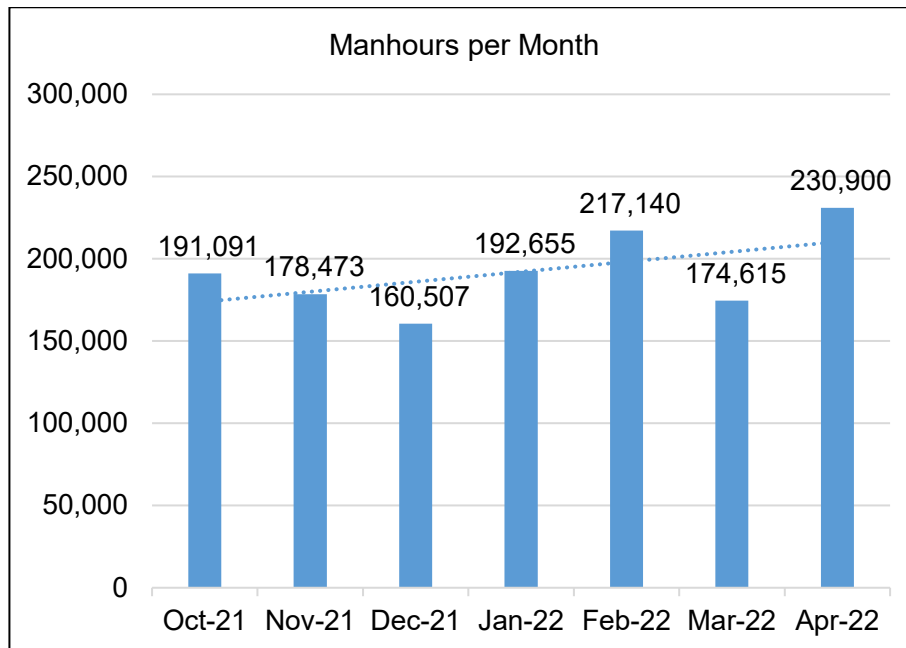
- HRCP presented new water quality modeling results to the Department of Environment Quality on April 6, 2022 to enable finalizing discharge pipe configurations on the islands.
- HRCP received and is reviewing a draft air permit from DEQ covering the temporary generators at the South Island.

## Construction

Progress updates for this reporting period include:

- Landside Roadways
  - Drainage installed at Mallory St Interchange.
  - Ground improvement installed along I-64 eastbound between 15<sup>th</sup> View St and 13<sup>th</sup> View St.
  - Drainage installed along I-64 median between Willoughby Bay and 4<sup>th</sup> View St.
  - Drainage, embankment, and retaining wall installed along I-64 eastbound between Bay Ave. and Evans St.
- Marine Works
  - Piles installed at the westbound permanent North Trestle (5 installed).
  - Piles installed on eastbound permanent North Trestle (4 installed).
  - Girders installed on eastbound permanent North Trestle (14 installed).
  - Piles installed at permanent South Trestle (20 installed).
  - Piles installed at eastbound MOT Trestle (5 installed).
  - Caps installed at the eastbound MOT Trestle (2 installed).
  - Piles installed at westbound MOT Trestle (25 installed).
- Tunnels and Islands
  - Installed both lower chord strut in cell 2 and continued shaft excavation.
  - Began shotcrete for launching pit walls in Cell 3.
  - Began assembly of TBM tail shield components.
- Landside Bridges
  - Mallory St Phase 1 Bridge Replacement; pile driving.
  - Willoughby Bay Bridge widening; eastbound cap and girder setting.
  - Willoughby Bay Bridge rehabilitation; eastbound bearing replacement.
  - Mason Creek Road Bridge widening; eastbound pile driving.
  - Bay Ave Bridge widening; eastbound demolition, pile driving, cap and girder setting.
  - Evans St Bridge widening; completed eastbound piers caps, westbound pier caps
  - Bayview Boulevard Bridge rehabilitation; began sounding for concrete repairs.
  - Oastes Creek Bridge widening; eastbound cap and girder setting.

The number of construction manhours worked each month is provided by HRCP and is current as of April 30, 2022:



**Project Manhours to Date:**  
3,732,051

## Operations

The following operations activities took place during this reporting period:

- Completed striping maintenance throughout project corridor.
- Short-term lane closure near I-64 at Oastes Creek.
- Long-term lane closures at Bay Avenue, Bayview Blvd, and Mallory St.
- Daily temporary 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 continues to monitor and audit HRCP's material book records for compliance.
- 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 April 30, 2022:
  - Total Recordable Incidence Rate: 1.88 (National Average: 2.5)
  - Lost Time Incidence Rate: 0.21 (National Average 1.6)

## Civil Rights & DBE/SWaM Business Opportunities

To date, HRCP has awarded **301** subcontracts, subconsultant agreements, and purchase orders. Contract awards represent a total of **\$421 million** to certified DBE/SWaM firms on the project.

- 80% of the DBE/SWaM firms are Virginia-based.
- HRCP continued to make progress towards the 80 participant On-the-Job Training (OJT) contract goal. To date, 10 have graduated with 20 currently active in the program.

## 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 Dominion University's civil engineering senior class.
- HRBT Project Team presented to the Hampton Roads Chamber LEAD 757 class.
- HRBT Expansion Project was the feature project for the National Work Zone Awareness Week kickoff event.
- HRBT Expansion Project exhibit at the Virginia Transportation Construction Alliance (VTCA) Spring Conference.



## 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
<b>NTP</b>		Sep 9, 2020	Sep 11, 2020	Sep 11, 2020
<b>Substantial Completion</b>	Sep 1, 2025	Aug 27, 2025	Sep 1, 2025	
<b>Final Completion</b>	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

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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

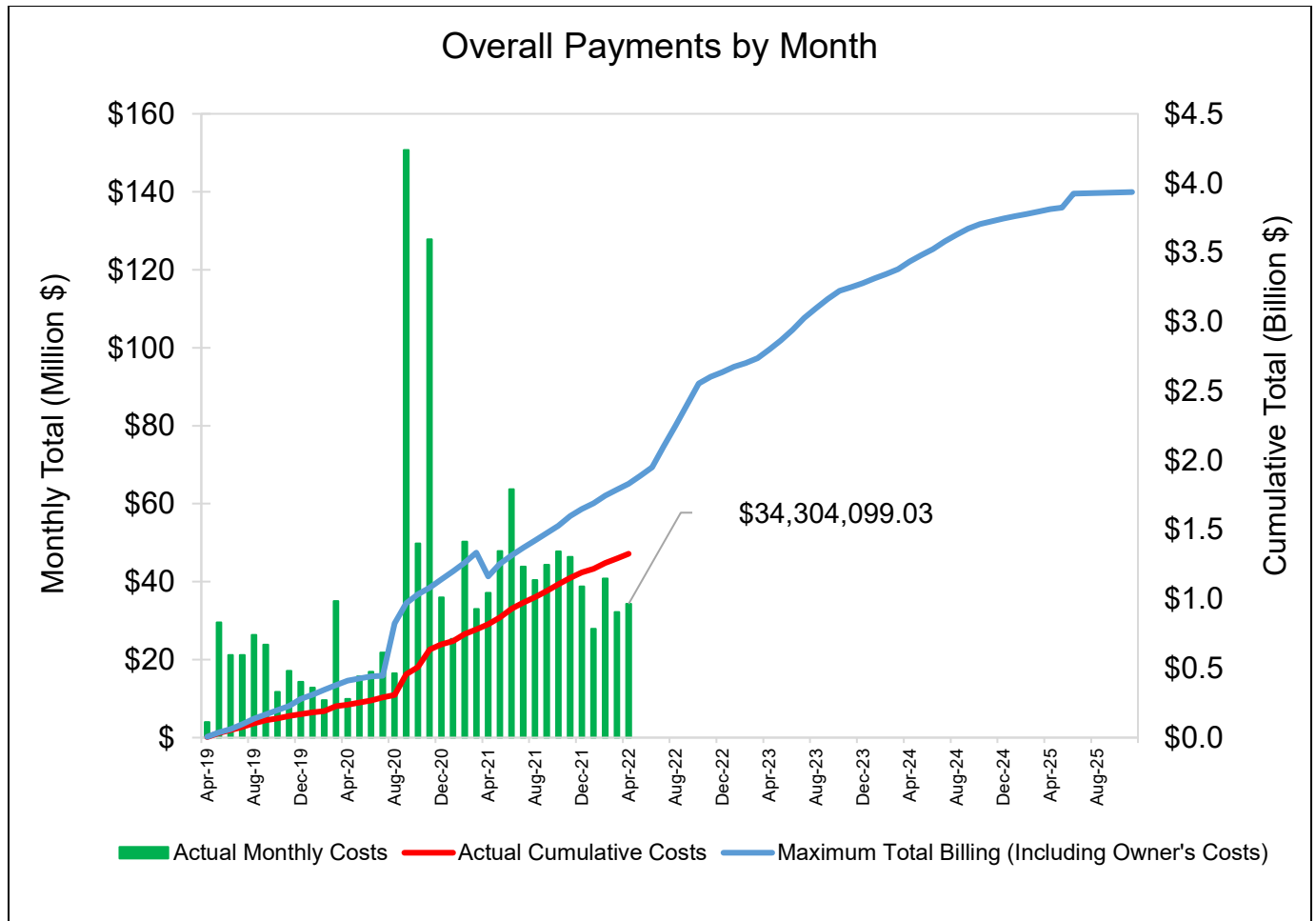
- Segment 3 Roadway from South Trestle to Mason Creek Rd

### 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).

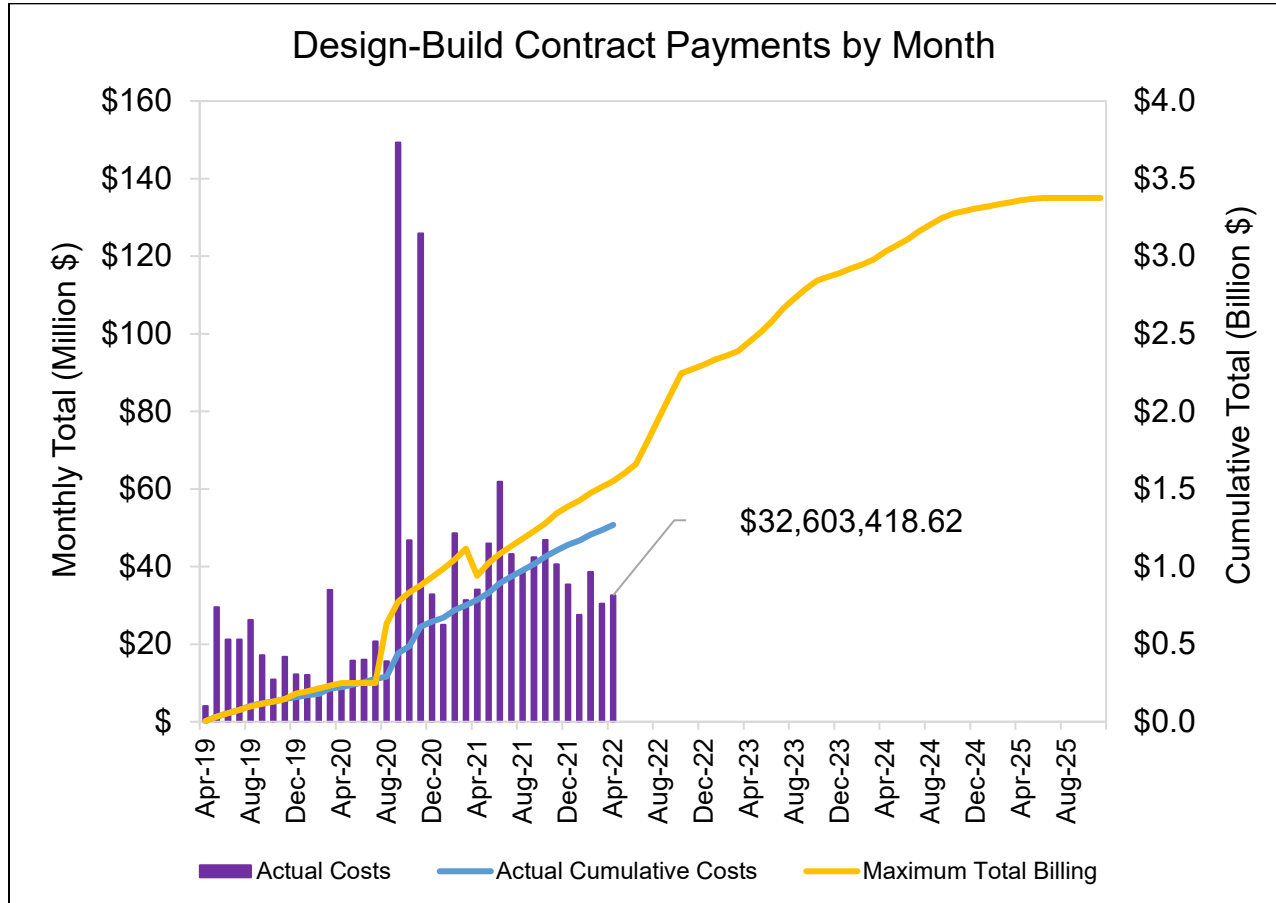
	Amount this Period:	Total to Date:	Original Total Budget:	Total Remaining Budget:	Percent To-date:
<b><u>Comprehensive Agreement</u></b>					
<i>Construction</i>	\$32,317,919.68	\$1,252,770,473.17	\$3,299,997,227.00	\$2,047,226,753.83	37.96%
<b><u>Owner Costs</u></b>					
<i>Administration</i>	\$1,685,138.48	\$50,558,634.66	\$122,000,000.00	\$71,441,365.34	41.44%
<i>Right of Way</i>	\$15,541.93	\$8,563,211.86	\$15,000,000.00	\$6,436,788.14	57.09%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$124,792.36	\$15,646,580.74	\$335,000,000.00	\$319,353,419.26	4.67%
<i>Bridge Repair Work Option</i>	\$160,706.58	\$391,859.88	\$73,454,413.96	\$73,062,554.08	0.53%
<b><u>Total</u></b>	<b>\$34,304,099.03</b>	<b>\$1,327,930,760.31</b>	<b>\$3,935,451,640.96</b>	<b>\$2,607,520,880.65</b>	<b>33.74%</b>



*\*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

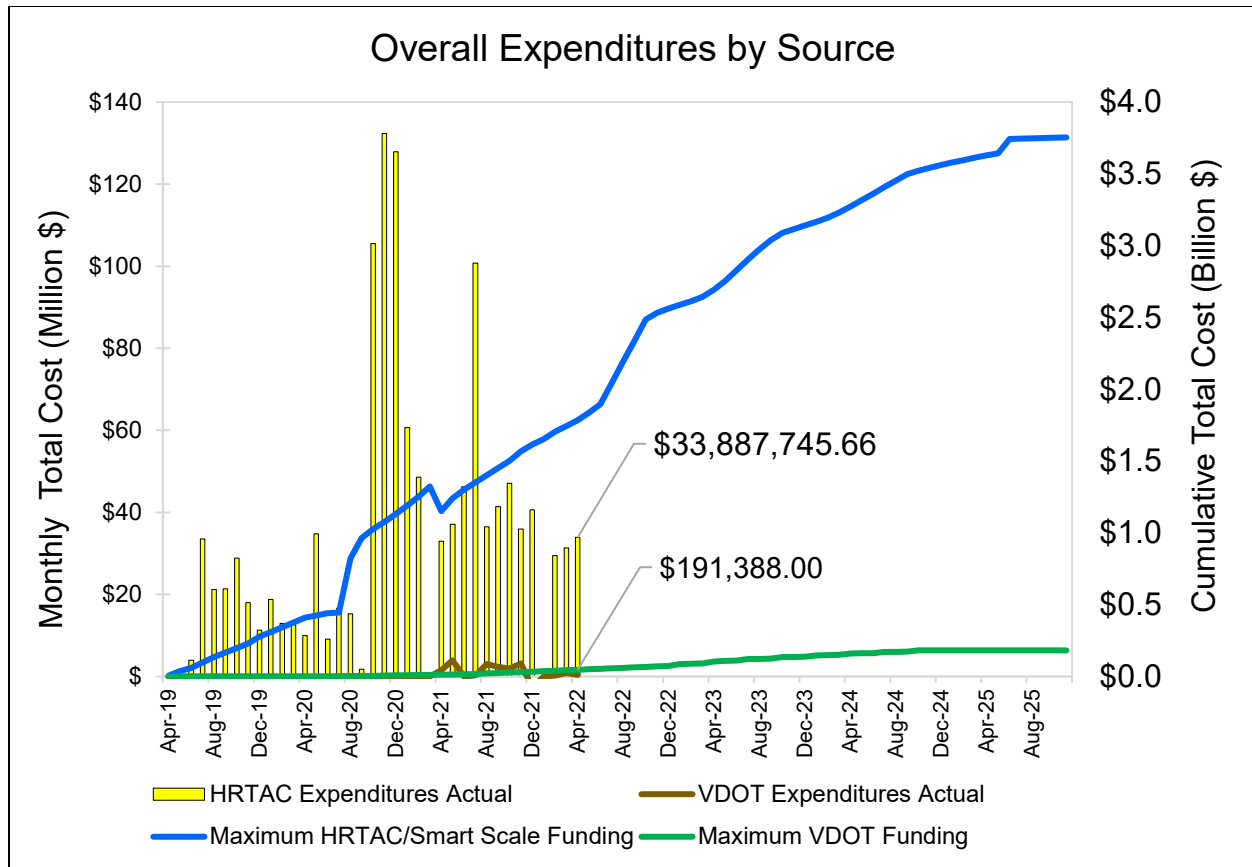
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures of both HRTAC and VDOT funds. The cost curve has been developed based on the monthly maximum cumulative compensation 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:
<b><u>Comprehensive Agreement</u></b>					
<i>Construction</i>	\$32,126,531.68	\$1,241,140,478.41	\$3,204,569,251.00	\$1,963,428,772.59	38.73%
<b><u>Owner Costs</u></b>					
<i>Administration</i>	\$1,620,879.69	\$49,488,742.87	\$118,472,054.00	\$68,983,311.13	41.77%
<i>Right of Way</i>	\$15,541.93	\$8,563,211.86	\$15,000,000.00	\$6,436,788.14	57.09%
<i>No-Excuses Incentive</i>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
<i>Contingency</i>	\$124,792.36	\$14,661,614.61	\$325,428,276.00	\$310,766,661.39	4.51%
<b><u>Total</u></b>	<b>\$33,887,745.66</b>	<b>\$1,313,854,047.75</b>	<b>\$3,753,469,581.00</b>	<b>\$2,439,615,533.25</b>	<b>35.00%</b>

#### 3.3.2 VDOT

	Amount Spent this Period:	Total Spent to Date:	Original Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<b><u>Comprehensive Agreement</u></b>					
<i>Construction</i>	\$191,388.00	\$11,629,994.76	\$95,427,976.00	\$83,797,981.24	12.19%
<b><u>Owner Costs</u></b>					
<i>Administration</i>	\$64,258.79	\$1,069,891.79	\$3,527,946.00	\$2,458,054.21	30.33%
<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%
<i>Contingency</i>	\$0.00	\$984,966.13	\$9,571,724.00	\$8,586,757.87	10.29%
<i>Bridge Repair Work Option</i>	\$160,706.58	\$391,859.88	\$73,454,413.96	\$73,062,554.08	0.00%
<b><u>Total</u></b>	<b>\$416,353.37</b>	<b>\$14,076,712.56</b>	<b>\$181,982,059.96</b>	<b>\$167,905,347.40</b>	<b>7.74%</b>



### 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	\$ 73,454,313.00	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
<b>TOTAL</b>			<b>\$ 75,638,143.47</b>	<b>0 days</b>

### 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 met with DEQ on April 6, 2022 to discuss the mixing model report, modeling data, and potential discharge pipe configurations covered under the Virginia Pollutant Discharge Elimination System permit. DEQ requested additional technical clarifications in a memo dated April 18, 2022, which was followed up by another meeting on April 20, 2022. HRCP is preparing a final report and pipe discharge configurations for submission by April 28, 2022.
- HRCP received all agency approvals for JPA permit modification #6. This modification includes changes to the size and configuration of pilings previously authorized by the National Oceanic Atmospheric Administration (NOAA) Letter of Authorization (LOA). NOAA continues their review and processing of this proposed modification.
- HRCP received and is reviewing a draft air permit from DEQ covering the temporary generators at the South Island.

### **Marine Mammal Protection:**

- The project's first sighting of a marine mammal in 2022, a dolphin, occurred on March 21, 2022 in Willoughby Bay. This sighting did not result in any project delays.

### **Bird Mitigation:**

- HRCP is using patrol dogs and handlers on the North Island, South Island, and Willoughby Spit. HRCP completed most repairs to the passive bird deterrent measures on South Island and continues with maintenance activities.

### **Programmatic Agreement:**

- HRCP's proposed change to the project's sound wall posts by utilizing steel in place of concrete was reviewed by VDOT Central Office and was determined to follow the Programmatic Agreement.

### **Archeological Discoveries:**

- A cannonball was discovered on Willoughby Spit in sand that had been transported from the South Island launch pit on April 12, 2022. HRCP notified the necessary authorities, and the unexploded ordnance was safely removed from the project site.

## 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

### Mallory St Interchange:

- Completed drainage installation phase at southwest quadrant of interchange.

### I-64 (Segment 3):

- Continued temporary wire wall and surcharge installation between the South Trestle and 15th View St for eastbound widening.
- Began wick drain installation along I-64 Eastbound for between 15th View St and 13th View St.
- Continued drainage installation along I-64 median between Willoughby Bay and 4th View St for the westbound widened section.
- Completed Phase 1A Step 1 MOT traffic shift for eastbound and westbound travel lanes.

### I-64 (Segment 4):

- Drainage installation and fill placement for embankment along I-64 Eastbound between Bay Avenue and Evans St for the eastbound widened section.
- Cast 4 sections of gravity retaining wall between Bay Ave and Evans St. for eastbound widening (4 out of 7 sections complete).



#### ◀ I-64 EB

Gravity wall after concrete placement and form removal

## 5.2 Construction Area 2: Marine Trestle Work

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### North Trestle:

- **Eastbound North Trestle**
  - 4 piles installed during this period (201 out of 275 total piles driven).
  - 16 out of 21 piles driven at MOT trestle.
  - Forming, reinforcing, and placing concrete for Abutment B.
  - 1 cap segment installed during this period (17 out of 47 total precast bent cap segments).
  - 14 girders installed during this period (18 out of 296 total girders).
- **Westbound North Trestle**
  - 5 piles installed during this period (19 out of 261 total piles driven).
  - 2 out of 57 total precast bent cap segments placed.

### South Trestle:

- 20 piles installed during this period (284 out of 465 total piles driven at permanent trestle).
- 1 cap installed during this period (2 out of 65 total phased cap segments).
- 5 piles installed during this period (55 out of 122 piles driven at eastbound MOT trestle).
- 20 piles installed during this period (30 out of 109 piles driven at westbound MOT trestle).

## 5.3 Construction Area 3: Tunnels and Islands

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### South Island:

- Completed TBM Quay dock superstructure.
- 92% complete for ground improvement along tunnel path.
- 10% complete for jet grouting operations at tunnel approach plug.
- Completed TBM assembly slab on island surface.
- 69% complete for mass excavation of TBM launch pit.
- Placed mud slab concrete to prepare for the Cell 3 base slab.
- Prepared slurry wall surfaces for waterproofing installation
- Completed phase 1 of preparing the slurry wall at TBM break-through location.

### North Island:

- Completed slurry walls for Cell 1 of the receiving pit and the bore proximity walls.
- 34% complete for slurry wall installation at North Island receiving pit and approach section.

### Tunnel:

- 8% complete for precast tunnel segment liner production.

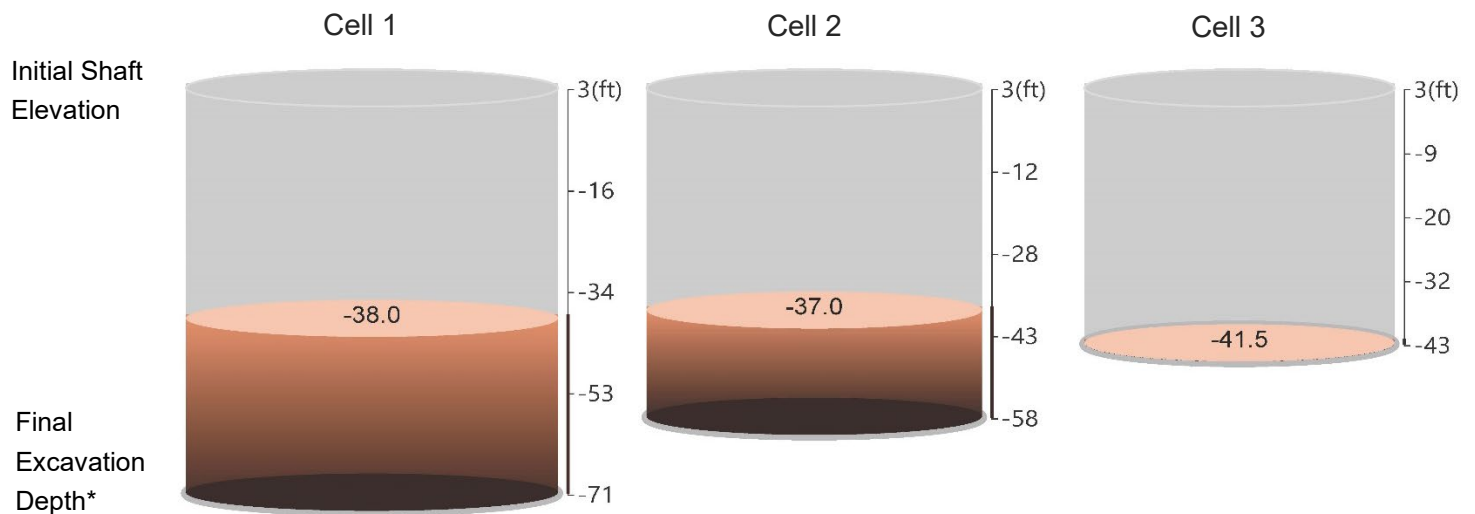




◀ **South Island**  
Cells 3 & 2 including chord  
strut installation

Total Segments Required:	Conforming Segments Cast To-Date:	Percentage Complete:
21,492	1,759	8.2%

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

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### **Mallory Street Bridge:**

- Started and completed pile driving at median pier for Phase 1 Replacement (13 out of 18 total piles installed).

### **Oastes Creek Bridge:**

- Set precast cap for eastbound widened section (16 out of 17 total caps installed).
- Setting girders for eastbound widened section (15 out of 18 total girder spans installed).

### **Bayview Boulevard Bridge:**

- Mobilized for repair/rehabilitation of existing eastbound and westbound bridges.

### **Evans St Bridge:**

- Completed pier cap installation for eastbound widened section (2 out of 2 total piers completed).
- Installed one pier cap for westbound widened section (1 out of 2 total piers completed).

### **Bay Avenue Bridge:**

- Set second span of girders for eastbound widened section (2 out of 37 total girder spans installed).
- Set precast cap for eastbound widened section (2 out of 34 total caps installed).
- Continued pile driving for eastbound widened section (35 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 widened section (27 out of 38 total piles installed)

### **Willoughby Bay Bridge:**

- Continued setting girders for eastbound widened section (7 out of 80 total girder spans installed).
- Continued setting precast caps for eastbound widened section (44 out of 79 total caps installed).
- Repair/rehabilitation for existing eastbound bridge.
- Continued removal of temporary trestle at EB south side, began installation of temporary trestle at EB north side.



◀ **Oastes Creek Bridge**  
Setting Bent 4 precast cap  
for eastbound widening



◀ **Mason Creek Road Bridge**  
Pile driving 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.
- North eastbound trestle for girder placements.
- I-64 near Oastes Creek in Norfolk for temporary lighting installation.
- Striping maintenance throughout the project corridor.
- Mallory St short term stoppages to move a crane in the median.
- Hampton North Shore to mobilize for jack & bore operation along I-64.

### 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 for I-64 WB.

### Norfolk Lane Shifts:

- I-64 EB near Bayville on ramp.

### Detours:

- Long-term detour at West Evans St to facilitate bridge widening. Also continued nightly temporary 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.

### 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 First-Responders Meeting took place during the week of April 17, 2022.
- Operations Team participated in National Work Zone Awareness Week on April 11-15, 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 9 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 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. VDOT completed the review of Revision 15 of the QMSP, which addressed VDOT’s comments on the quarterly update.

### **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 is currently reviewing these submissions.

### **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 seven material book record volumes. HRCP continues to submit records for subsequent volumes of material books according to the established audit schedule. VDOT also 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 an inspection based on VDOT's Construction Quality Improvement Program (CQIP).

## 8. Safety

Safety procedures and activities during this reporting period include:

### COVID-19 Update:

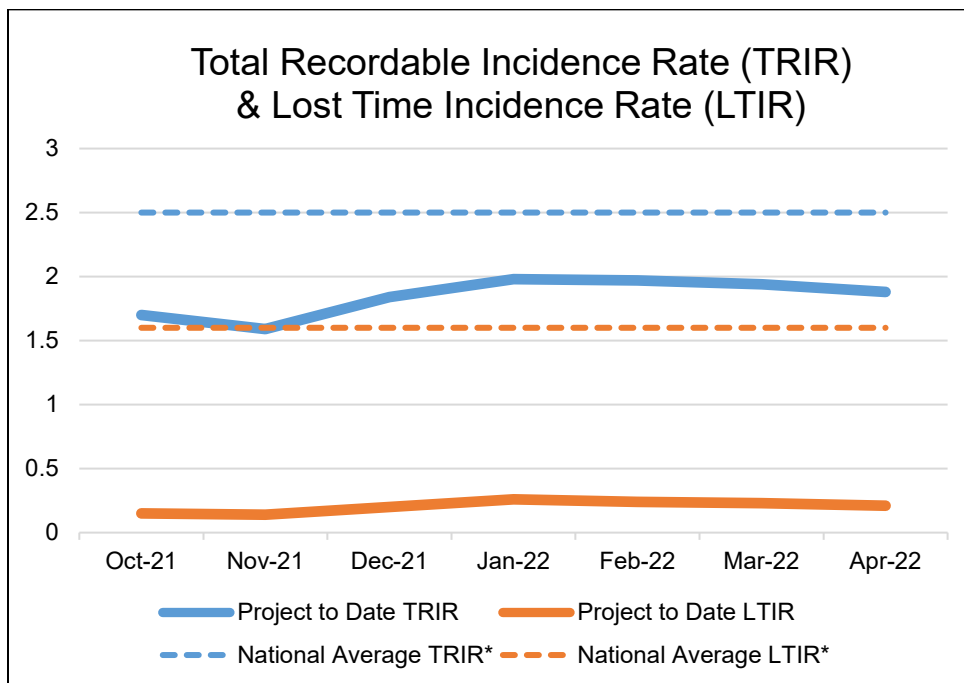
- VDOT and HRCP continue to follow latest CDC Guidelines regarding COVID-19.

### Safety Site Visits:

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

### Safety Performance Indicators:

- The following safety performance indicator information is provided by HRCP and is current as of April 30, 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 **301** subcontracts, subconsultant agreements and purchase orders to certified DBE/SWaM firms. There was a slight increase in contract awards for a total of **\$421 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-HRCP Civil Rights Compliance Team met on April 19, 2022 to discuss civil rights compliance matters. Discussions focused on procurement opportunities, supply chain challenges and material cost escalation affecting small businesses on the project, compliance document submissions, and workforce development efforts.
- During the reporting period, HRCP submitted the following required 2022 second quarter reports documenting good faith efforts towards meeting assigned contract participation goals. They included:
  - Good Faith Effort Activities
  - DBE/SWaM Utilization Plan (revision 12)
  - Workforce Participation Plan (revision 11)

### Workforce Development Activities:

- HRCP continued to progress towards the 80 participant On-the-Job Training (OJT) contract goal. To date, 10 have graduated with 20 currently active in the program.
- During the reporting period, HRCP participated in the following workforce development events:
  - April 7, 2022 – City of Hampton, Hampton Roads Regional Job Fair
  - April 20, 2022 – Virginia Employment Commission, Workforce Wednesday Virtual Hiring Event

### Business Development Activities:

- VDOT hosted a DBE Symposium on March 31, 2022 to bring the DBE/SWaM community and industry stakeholders together including:
  - Sandra Norman, Civil Rights Division Administrator, moderated the virtual event. Opening remarks were provided by Secretary of Transportation, Sheppard Miller; VDOT Commissioner, Stephen Brich; FHWA VA Division Engineer, Thomas Nelson; and Executive Director for the American Council of Engineering Companies of VA, Nancy Israel.
  - Several contractors affiliated with the HRBT project received recognition awards during the Symposium including:
    - *Rod Busters, Inc.*, DBE Contractor of the Year.
    - *WSP USA*, Prime Consultant of the Year.

During this reporting period, other business development and outreach activities included:

- April 13, 2022 – U.S. Small Business Administration, Building a Better America: A Small Business Resource Community
- April 13-15, 2022 – Virginia Transportation Construction Alliance (VTCA), Spring Transportation Construction Conference
- April 21, 2022 – Norfolk & Hampton Small Business Virtual Procurement Event, Bridging the Connection, held in partnership with VDOT and HRCP

## 10. Public Outreach & Media

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

### Public Outreach

- April 1, 2022 – HRBT Project Team presented to Old Dominion University's civil engineering senior class
- April 7, 2022 – HRBT Project Team presented to the Hampton Roads Chamber LEAD 757 class
- April 12, 2022 – HRBT Expansion Project was the feature project for the National Work Zone Awareness Week kickoff event
- April 13 – 15, 2022 – HRBT Expansion Project exhibit at the Virginia Transportation Construction Alliance (VTCA) Spring Conference



◀ April 13 – 15, 2022  
HRBT Expansion Project  
exhibit at the Virginia  
Transportation  
Construction Alliance  
(VTCA) Spring Conference

### Media

- March 21, 2022, 13NewsNow - [In a male-dominated industry, women help lead massive HRBT expansion project](#)
- March 25, 2022, WAVY-TV 10 - [Lane shifts on Norfolk side of HRBT expected to begin March 28](#)
- April 1, 2022, WAVY-TV 10 - [Traffic Blog April 3-9: Mallory St. Bridge, prepping for Work Zone Awareness Week and more](#)
- April 11, 2022, Roads & Bridges – [It is National Work Zone Awareness Week](#)
- April 11, 2022, Fredericksburg Today – [Virginia commemorates National Work Zone Awareness Week](#)



- April 11, 2022, ForConstructionPros.com – [Have You Made a Plan for National Work Zone Awareness Week?](#)
- April 12, 2022 – WAVY-TV 10 - [‘Work Zones are a Sign to Slow Down’: Do your part to support work zone safety](#)

Visit our website to view more information:  
[www.hrbtexpansion.org](http://www.hrbtexpansion.org)