



Hampton Roads Bridge-Tunnel

VDOT



April 2020 Project Report

I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION

Proj. No. 0064-M06-032
Report #13



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Issue date: May 15, 2020

1. Executive Summary

1.1 Reporting Period

This report, prepared by the Virginia Department of Transportation (the Department), provides an overview of accomplishments and activities for the Hampton Roads Bridge-Tunnel Expansion project (the Project) from March 22, 2020 – April 18, 2020. The Design-Builder for the Project is Hampton Roads Connector Partners (HRCP), a consortium that includes Dragados, Vinci, Flatiron, and Dodin Campenon Bernard.

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.

1.2 Project Accomplishments

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

- HRCP conducted a Maritime Stakeholder meeting on April 1, 2020, to solicit comments from stakeholders as part of the Section 408 approval process with the US Army Corps of Engineers (USACE).
- HRCP conducted an interagency meeting on April 8, 2020, to identify any additional information required by the Agencies for the permit development process.
- The revised Section 7 consultation package was submitted to the US Fish and Wildlife Service (USFWS) on April 14, 2020.
- HRCP provided responses to comments received by the USACE and the Virginia Marine Resources Commission (VMRC) during their respective public comment periods.
- HRCP conducted a conference call with the National Oceanic and Atmospheric Administration (NOAA) to receive comments on the Letter of Authorization (LOA) request.
- HRCP completed the assessment of the Emancipation Oak condition.
- HRCP completed the installation of all passive bird management features on the South Island.
- HRCP has begun work on utility relocations on the South Island and the installation of a field office facility.

1.3 Priorities

The Department'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

1.4 Schedule

Schedule updates for this reporting period include:

- No significant changes to the critical path were made this period.
- HRCP's Targeted Substantial Completion has changed from July 18, 2025 to August 8, 2025; HRCP remains on track to achieve Substantial Completion in advance of the contract milestone of September 1, 2025.
- Final Completion remains as scheduled for November 1, 2025.
- Approximately 15.85% of the contract time has progressed to date.

1.5 Budget and Cost

The budget and cost updates for this reporting period are as follows:

- Project budget overview (through April 2020 payment application):

Total project budget:	\$3,858,997,227
Total charges for efforts to date:	\$238,607,903
Remaining project budget:	\$3,620,389,324

- Design-build contract overview (through April 2020 payment application):

Total contract amount:	\$3,296,997,227
Total charges for efforts to date:	\$219,230,659
Total work orders:	(\$3,000,000)

- Design-build progress to date (through April 2020 payment application):

Overall:	6.65%
Mobilization:	10.81%
General Requirements (incl. Project Management):	5.87%
Design:	42.36%
Physical Progress:	1.53%

1.6 Environmental Management

During this reporting period, HRCP took the following steps in support of permit acquisition for the project:

- HRCP conducted a Maritime Stakeholder meeting on April 1, 2020, to solicit comments from stakeholders as part of the Section 408 approval process with the USACE.
- HRCP conducted an interagency meeting on April 8, 2020, to identify any additional information required by the Agencies for the permit development process.
- The revised Section 7 consultation package was submitted to the USFWS on April 14, 2020.
- HRCP provided responses to comments received by the USACE and the VMRC during their respective public comment periods.
- HRCP has continued consultation with the Virginia Department of Environmental Quality (DEQ) to determine the need for an Air Permit for the permanent generators and ventilation system required for the planned tunnels.
- HRCP conducted a conference call with the National Oceanic and Atmospheric Administration (NOAA) to receive comments on the Letter of Authorization (LOA) request.
- HRCP submitted an artificial reef placement plan for VDOT review.
- HRCP continued to submit requested additional material to DEQ to support the Virginia Pollution Discharge Elimination System (VPDES) permit process.

1.7 Quality

Quality updates for this reporting period include:

- HRCP submitted updates to their Design Quality Management Plan (DQMP) and the Quality Management System Plan (QMSP). The QMSP update was conditionally accepted but the DQMP update was returned for revisions. The next scheduled update of all plans will be in May.
- VDOT quality and inspection staff participated in HRCP preparatory inspection meetings held for the utility relocation and early works for the South Island.
- Other Quality activities included reviews of Material Book Documentation and QA/QC Daily reports and conducting weekly Quality Status meetings.

1.8 Operations

The following operations activities took place during this reporting period:

- Shoulder closures and lane closures were conducted for geotechnical exploration and survey work.
- Corridor-wide field work was performed for the inspection of drainage structures.

- Marine geotechnical explorations and landside geotechnical explorations continue.
- 28 modular office trailers were delivered to the South Island.
- Safety Fencing was installed along the eastbound tunnel open approach walls on the South Island.
- HRCP completed the installation of all passive bird management features on the South Island.
- Utility relocation items have begun on the South Island.

1.9 Safety

Safety procedures and activities during this reporting period include:

- Daily Risk Assessments (DRA's) are completed on site with all field staff groups.
- All personnel are urged to use caution entering/exiting the tunnel islands, be aware of traffic conditions, and have an adequate gap in traffic to accelerate safely into the travel lane.
- Due to the outbreak of COVID-19, all gatherings of 10 people or more have been discontinued. Large meetings, including Safety Orientation Training, are being held with audio or video formats.
- In compliance with Commonwealth of Virginia guidance, office and field personnel are adhering to COVID-19 health and safety measures, including social distancing and additional equipment as appropriate for the workplace situation.
- On March 24, 2020, a tragic accident resulted in the fatality of an HRCP subcontract employee. While a crew was performing utility locating services on W. Evans Street in Norfolk, a vehicle traveling above on EB I-64 left the roadway and launched over the embankment between the bridge structures landing on the roadway below. The contractor initiated a safety stand down in the wake of this incident to fully review it and to identify future means to minimize similar risks.

1.10 DBE & SWAM Business Activities

Several in-person DBE & SWAM outreach activities and events were postponed this period due to the COVID-19 situation. However, virtual meetings and introductory conference calls continued.

1.11 Public Outreach

In-person public outreach events were suspended for this period due to the COVID-19 situation. However, the Team will begin implementing Virtual Meetings to maintain project public outreach until restrictions are lifted.

2. Project Accomplishments

2.1 Overview and Look Ahead

Milestones

The LNTP1 completion milestone was achieved on September 24, 2019. LNTP2 and LNTP3 were issued to HRCP on September 25, 2019.

Geotechnical Investigation

The marine geotechnical investigations are on-going, as are landside drilling and laboratory testing for soil classification in Norfolk and Hampton. Completion of the marine geotechnical program is expected in May 2020. Landside geotechnical borings are approximately 95% complete.

Environmental Permitting

To further advance environmental reviews, HRCP provided responses to public comments for several applications including the JPA from the USACE and the submerged lands permit from the VMRC, as well as multiple informal requests for information from NOAA, DEQ, and VMRC. HRCP also submitted a complete toxicity report in support of the VPDES application and a revised Section 7 consultation package to USFWS.

HRCP conducted a virtual maritime stakeholder meeting on April 1, 2020. HRCP also conducted an interagency meeting on April 8, 2020, to identify any additional information required by the Agencies for the permit development process. This coordination was completed by HRCP to further advance the JPA, Section 408 approval, VPDES application, and Submerged Lands Permit development process. In addition, coordination is underway with the Cities of Norfolk and Hampton to determine the potential beneficial use of sandy dredged materials.

The Notice of Proposed IHA was published in the Federal Register on March 20, 2020, and the public comment period ended on April 20, 2020. Coordination with USACE, VMRC, DEQ, NOAA, and USFWS is ongoing and will continue as appropriate through the life of the project.

Construction Operations

Utility relocations are underway on the South Island, to support the installation of the slurry walls for the TBM launch pit.

Third Party Coordination

Post-award coordination with the cities of Norfolk and Hampton, the U.S. Navy and the Federal Highway Administration (FHWA) started in April 2019 and are ongoing. FHWA participates in weekly coordination meetings with VDOT and HRCP.

3. Project Schedule

3.1 Schedule Status

Baseline Schedule

The Baseline Schedule has been accepted as the Schedule of Record. The current longest path for the project remains through the boring of the two new tunnels beginning with the design, permitting, and construction of the South Island Portal.

Permitting Schedule

The Project's USACE, Virginia Department of Environmental Quality (DEQ) and Virginia Marine Resources Commission (VMRC) permits include multiple administrative documents, including the Coastal Zone Management (CZM) consistency determination, the USACE Section 404/10 permit, USACE Section 408 Permission Letter, the DEQ water protection permit, and the VMRC subaqueous land permit.

The VMRC permit was scheduled to be heard before the VMRC Commission during the last week of March but the meeting was cancelled due to Covid-19. Rescheduling of the Commission Hearing to address the HRBT project is anticipated in May as a virtual meeting. The DEQ Virginia Water Protection (VWP) permit is scheduled for public notification in May with a projected permit issuance in June. The USACE has completed their public notification period (ended February 20, 2020) and continues to evaluate all comments received. HRCP is now targeting a May/June time-period to have the USACE permit, provided the Section 408 review is completed concurrently. HRCP continues to work with the USCG through the necessary processes and now anticipates having bridge permits in place by late summer/early fall 2020.

Key Dates

The following table depicts key milestone dates outlined in the contract requirements. HRCP's submitted Baseline Schedule reflects the early stages of HRCP's planning sequence and will be substantially refined and further detailed as the design advances. This table will be updated to reflect these dates and used as a benchmark to track milestone achievements.

Key Dates	Contract Requirement	Schedule of Record Dates	April 2020 Update	Actual
LNTP1		April 12, 2019	April 12, 2019	April 12, 2019
LNTP1 Completion Milestone		September 25, 2019	September 24, 2019	September 24, 2019
LNTP2		September 29, 2019	September 25, 2019	September 25, 2019
LNTP3		October 9, 2019	September 25, 2019	September 25, 2019
NTP		October 10, 2020	October 9, 2020	
Substantial Completion	September 1, 2025	July 18, 2025	August 8, 2025	
Final Completion	November 1, 2025	November 1, 2025	November 1, 2025	

3.2 Longest Path

The longest-path activities for the Project schedule include:

- Design of the South Portal Launching Pit - Early Works, Utility Relocations, and Slurry Walls Release for Construction (RFC) Plan Authorization
- Installation activities for slurry and water treatment plants on site
- Completion of the Slurry Walls for Cell 1 of the launching pit
- Completion of the South Portal launching pit
- Assembly of the Tunnel Boring Machine (TBM) in the launching pit
- TBM drive in the HOT tunnel, U-Turn then drive in GP tunnel
- Finishing works and MEP works in HOT tunnel
- Commissioning and integration tests

3.3 Impact Analysis

Several elements of work are near-critical and could affect Project progress if they are not addressed diligently. The Department 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 Baseline Schedule:

- Design and construction of permit-dependent structures at Oastes Creek and Bay Avenue
- Space proofing report for the TBM fabrication
- TBM Design, Fabrication, and Delivery
- Utility relocations
- North Island Reclamation*

Achieving the initial public-notice milestone for the project's JPA allowed LNTP2 and LNTP3 to be issued. LNTP2 enables procurement of the TBM, while LNTP3 allows commencement of construction work for the launching pit and ground improvement on South Island. Receipt of the project's USACE, DEQ and VMRC permits will allow full NTP for the Project.

* While this activity is not currently shown within 30 days of the critical path, the project team recognizes it as a high priority for the project schedule and it is listed for close monitoring.

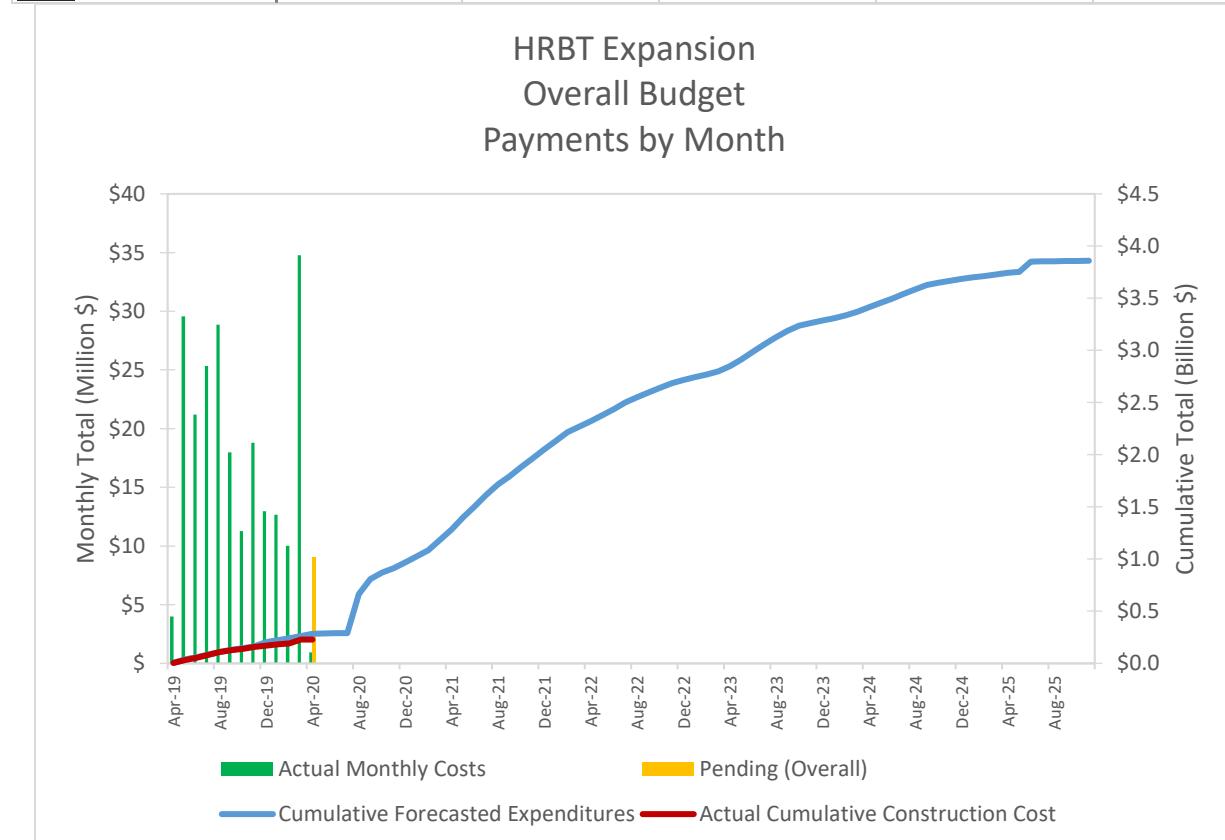
4. Budget and Cost

4.1 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 CA (monthly maximum cumulative compensation amount).

Amounts this period reflects payouts for Construction, Engineering Administration, Right of Way, and Contingency between March 22, 2020 – April 18, 2020.

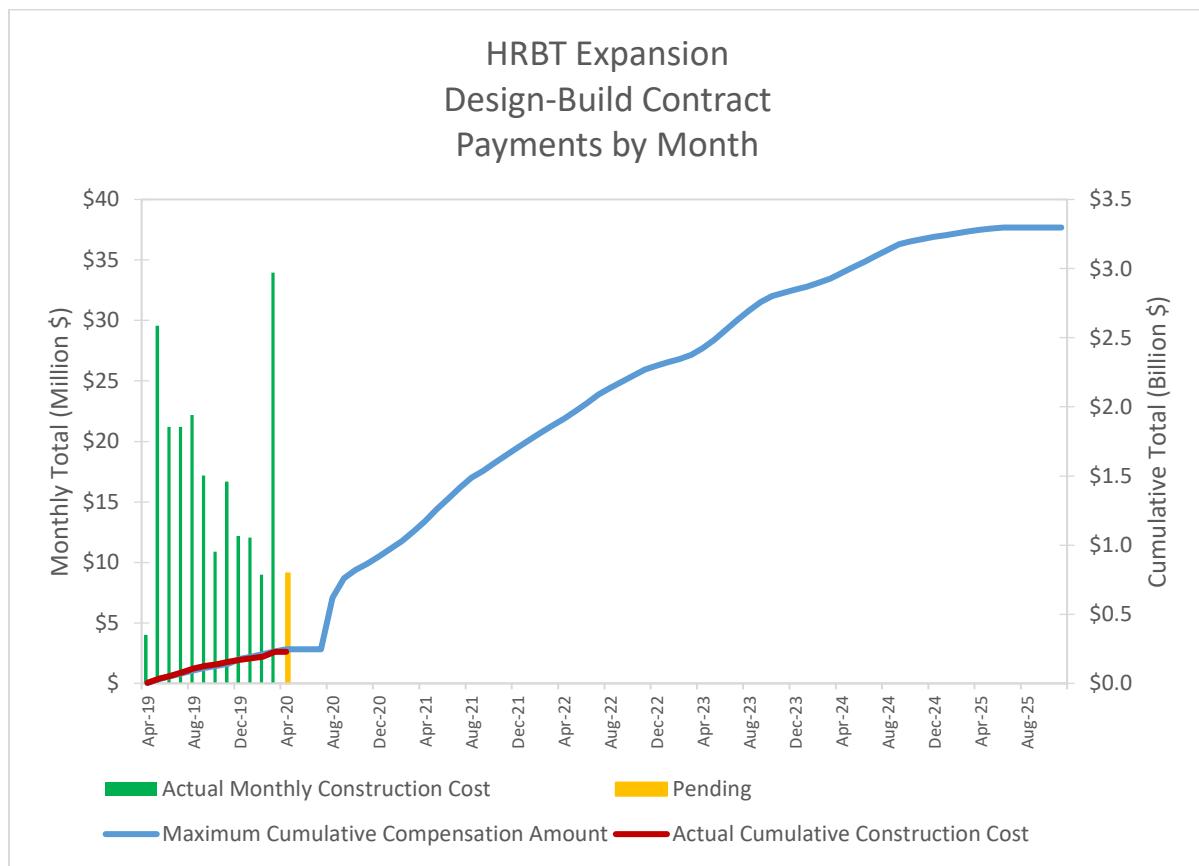
	Amount this period:	Total to Date:	Total Budget:	Total Remaining Budget:	Percent Spent To-date:
Comprehensive Agreement					
Construction	\$33,951,282.78	\$210,135,960.26	\$3,296,997,227.19	\$3,086,861,266.93	6.37%
Owner Costs					
Administration	\$928,369.05	\$7,926,151.64	\$122,000,000.00	\$114,073,848.36	6.50%
Right of Way	\$11,620.19	\$6,372,148.53	\$15,000,000.00	\$8,627,851.47	42.48%
No-Excuses Incentive	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
Contingency	\$0.00	\$4,000,000.00	\$335,000,000.00	\$331,000,000.00	1.19%
Total	\$34,891,272.02	\$228,434,260.43	\$3,858,997,227.19	\$3,630,562,966.76	5.92%



4.2 Design-Build Cost Status

The construction budget and planned cost have been established based on the maximum cumulative compensation amount. For this period, the following tasks are associated with the invoiced expenditures (actual construction cost):

- Project management
- Design surveys
- Environmental permitting
- Geotechnical investigation
- Design work



4.3 Budget by Funding Source

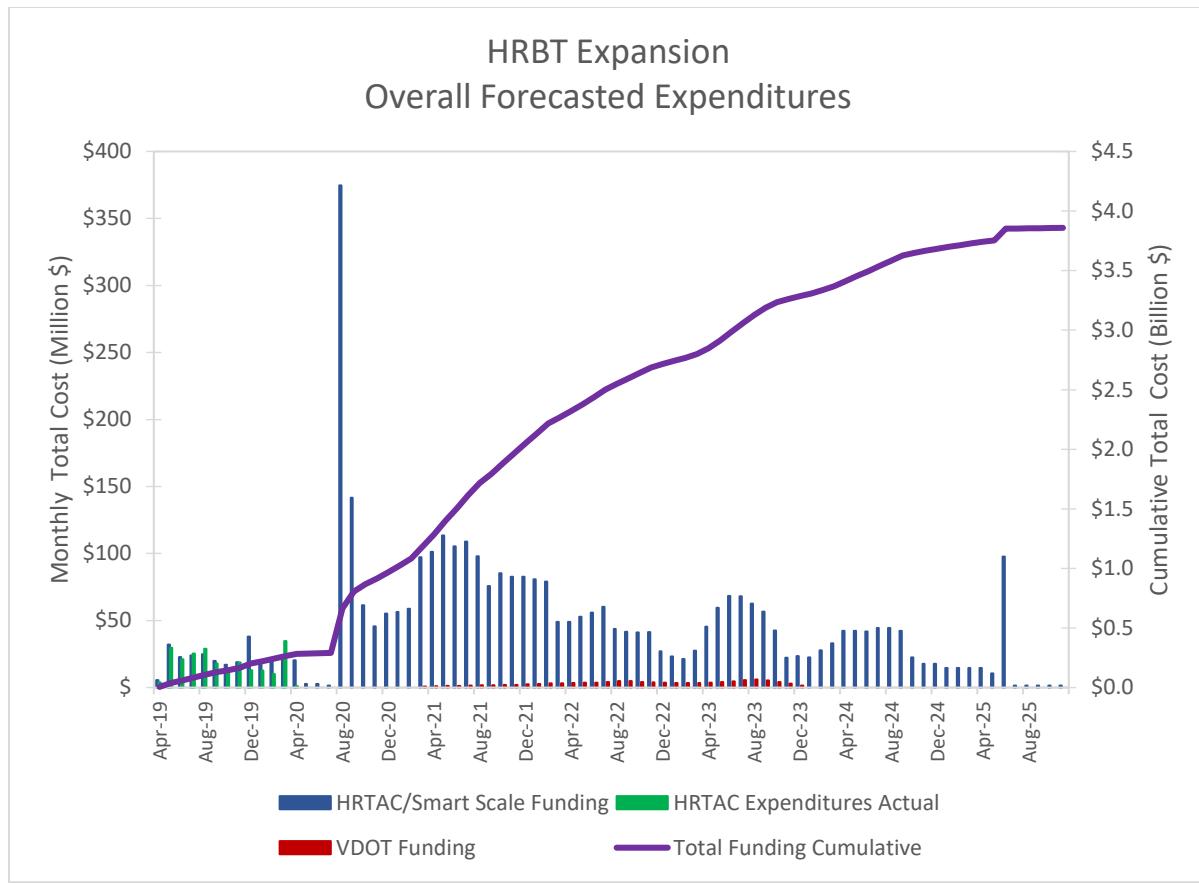
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures by both HRTAC and VDOT. The cost curve has been developed based on the monthly maximum cumulative compensation amount in the CA and will be updated as HRCP refines its design, construction means-and-methods, activity sequences, and project resourcing.

4.3.1 HRTAC and Smart Scale

	Amount this period:	Total to Date:	Total Budget Including Smart Scale:	Total Remaining Budget:	Percent Spent To-date:
<u>Comprehensive Agreement</u>					
Construction	\$33,951,282.78	\$210,135,960.26	\$3,201,569,251.14	\$2,991,433,290.88	6.56%
<u>Owner Costs</u>					
Administration	\$928,369.05	\$7,926,151.64	\$118,472,054.00	\$110,545,902.36	6.69%
Right of Way	\$11,620.19	\$6,372,148.53	\$15,000,000.00	\$8,627,851.47	42.48%
<u>No-Excuses Incentive</u>	\$0.00	\$0.00	\$90,000,000.00	\$90,000,000.00	0.00%
Contingency	\$0.00	\$4,000,000.00	\$325,428,276.00	\$321,428,276.00	1.23%
Total	\$34,891,272.02	\$228,434,260.43	\$3,750,469,581.14	\$3,522,035,320.71	6.09%

4.3.2 VDOT

	Amount this period:	Total to Date:	Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<u>Comprehensive Agreement</u>					
Construction	\$0.00	\$0.00	\$95,427,976.00	\$95,427,976.00	0.00%
<u>Owner Costs</u>					
Administration	\$1,742.00	\$28,789.00	\$3,527,946.00	\$3,527,946.00	0.82%
Right of Way	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
<u>No-Excuses Incentive</u>	\$0.00	\$0.00	\$0.00	\$0.00	0.00%
Contingency	\$0.00	\$0.00	\$9,571,724.00	\$9,571,724.00	0.00%
Total	\$1,742.00	\$28,789.00	\$108,527,646.00	\$108,527,646.00	0.03%



4.4 Contingency

- 2 work orders to date
 - Change Order #1 (executed February 11, 2020): \$3,000,000 reduction in Contract Price due to Department's acquisition of Willoughby Staging Area.
 - Change Order #2 (executed March 18, 2020): no-cost/no-time amendments.
- \$0 material price adjustments (asphalt, steel, & fuel) to date

5. Environmental Management

During this reporting period, HRCP provided responses to informal requests for additional information and public comments for the JPA from the USACE, LOA request from NOAA, Section 7 consultation from USFWS and NOAA, and subaqueous lands permit from VMRC. HRCP has also submitted a complete toxicity report in support of the VPDES application. In addition, the Notice of Proposed IHA was published in the Federal Register on March 20, 2020, and the public response period ended on April 20, 2020. HRCP coordination with USACE, VMRC, DEQ, NOAA, and USFWS is ongoing and will continue until the respective permits or approvals are issued.

HRCP has completed appropriate measures as identified in the approved Nesting Bird Management Plan on the South Island. HRCP continues to coordinate with VDOT concerning revisions to the limits of disturbance, proposed improvements at the Willoughby Spit, DEQ discharge permitting for the bridge/tunnel construction, updates to the Stormwater Pollution Prevention Plan (SWPPP), and modifications to the Construction General Permit (VAR10L793).

6. Operations

Field activities continued this period to support early design and utility location efforts. Shoulder closures and lane closures were conducted for geotechnical exploration and survey work. Corridor-wide field inspections were also performed for existing drainage structures. Landside geotechnical borings are 95% complete.

Marine geotechnical explorations continue. Locations being performed by the self-propelled lift boats were completed, and those vessels have demobilized from the project site. Smaller barges are mobilized to complete the program of more than 400 marine borings along the HRBT trestle bridges and Willoughby Bay Bridge. This program is expected to last through May 2020.

The delivery of 28 modular office trailers to the South Island took place during this reporting period. These units will make up one of the field offices for construction and inspection staff during construction. This will be a two-story complex with units stacked to create the second floor. The first story is fully installed, and the placement of the second story is nearing completion.



South Island Trailer Erection

Fencing was installed along the EB tunnel open approach walls on the South Island. This safety fence eliminates the need for fall protection when working adjacent to the walls. Additionally, site perimeter fencing was installed on the South Island to clearly delineate the HRCP work area from the normal VDOT operational area to further enhance safety on the island.

During this period, HRCP completed the installation of measures on the South Island to deter the roosting of birds during construction.



South Island Grid Wire and Eagle Eye
for Bird Implementation Plan

Utility relocation work has begun on the South Island to move existing utilities that conflict with the TBM launch pit. This includes the relocation and removal of fire hydrants, as well as the relocation of VDOT and Cox fiber lines. Upcoming work includes the relocation of a medium and high voltage power duct bank.

VDOT and HRCP held planning meetings to begin discussions of HRCP's highway maintenance responsibilities during construction. An initial Maintenance Management Plan was submitted for review and comment.

VDOT's project team maintains close coordination with the Hampton Roads Harbor Tunnels (HRHT) facility staff in order to communicate ongoing project work as well as coordinate upcoming planned work at the facility.

The weekly operations coordination meeting between VDOT and HRCP continues to provide a forecast of upcoming field activities and ensures concurrent activities are properly coordinated. All field work and traffic impacts are being reported through VDOT's Lane Closure Advisory Management System (LCAMS), which enables coordinating traffic operations across the region.

7. DBE & SWaM Business Activities

The Design-Builder has awarded a total of 95 subcontracts, subconsultant agreements and purchase orders to DBE/SWaM certified firms for a total of over \$27.7 million to date. The work awarded by HRCP to DBE/SWaM firms represent a wide range of trades and professions with many services being unique to transportation infrastructure-type projects:

- Promotional Products
- Custom Pens
- Geotechnical Testing
- Event Production Services
- Office Renovations
- Water and Sewer Relocation
- Design Services
- Diving Services
- Laboratory Testing Support
- Plumbing Services
- 3D Video Services
- Construction Supplies
- Safety Supplies
- Office Furniture
- Temperature Monitoring Boxes
- Accounting Services
- Snowplow Services

In addition, DBE/SWaM Only Packages were created by HRCP identifying opportunities for work that only certified DBE/SWaM firms could bid. This good faith effort strategy creates increased opportunities for various certified firms to participate on the project.

During the reporting period, VDOT and HRCP responded to the pandemic by making adjustments to in-person meetings and planned outreach activities in compliance with social-distancing guidelines. Over ten (10) scheduled outreach activities and events sponsored by VDOT Civil Rights Division, Virginia Peninsula Economic Development Office, Rocky Mount NC Area Chamber of Commerce, Dominion Energy Innovation Center, and the Conference of Minority Transportation Officials were postponed. However, HRCP continued to host DBE and SWaM introductory conference calls with key project decision makers and business owners, while VDOT hosted virtual meetings with firms interested in learning more about business opportunities available on the project.

Dialogue continued with a local community bank and Virginia's Small Business Financing Authority to aid in addressing working capital and short-term financing needs for small businesses contracted in the project.

HRCP is continually collaborating with the VDOT Civil Rights team members to successfully achieve and exceed all project DBE/SWaM goals and initiatives.

8. Public Outreach

Social Distancing calls for additional creativity for the Communications Team to reach the public during COVID-19. Accordingly, the Team will begin implementing Virtual Meetings to maintain project public outreach until restrictions are lifted.

Additionally, a Monthly Newsletter began in February 2020 and will continue throughout the project. It is distributed monthly to citizens, stakeholders, organizations, businesses, project staff, and all interested parties who have signed up to receive emails from the project. The Newsletter is also posted to Nextdoor, so updates are received by anyone who is signed up for Nextdoor notices. The Newsletter has been well received.

9. Communications

Secretary of Transportation Shannon Valentine, accompanied by VDOT Deputy Commissioner Rob Cary, made a special visit to the Hampton Roads Bridge-Tunnel South Island on March 26, 2020 to observe early works on the expansion project.

Secretary Valentine met with VDOT's HRBT Expansion Project Director Jim Utterback, HRCP Project Executive Jose Martin and other VDOT and HRCP Expansion Team members.

Secretary Valentine also got a close-up look at the bird management measures for the South Island, which includes the use of border collies to deter seabirds from nesting in the construction area. She also saw passive bird control measures such as grid wire and Mylar tape that also encourage the birds toward safer roosting areas.



Secretary Valentine gets a look at an Eagle Eye which encourage the birds toward safer roosting areas.