



Hampton Roads Bridge-Tunnel

VDOT



## January 2020 Project Report

### I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION

Proj. No. 0064-M06-032  
Report #10



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Issue date: February 18, 2020

# 1. Executive Summary

## 1.1 Reporting Period

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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 December 15, 2019 – January 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

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

- HRCP submitted the revised Joint Permit Application (JPA) and associated appendices on December 23, 2019, to the Virginia Marine Resources Commission (VMRC), U.S. Army Corps of Engineers (USACE), and Virginia Department of Environmental Quality (DEQ).
- HRCP submitted the Virginia Pollutant Discharge Elimination System (VPDES) permit application to DEQ on December 20, 2019.
- HRCP provided the documentation required for Section 408 approval to USACE on January 6, 2020.

## 1.3 Priorities

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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

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Schedule updates for this reporting period include:

- No significant changes to the critical path were made this period.
- 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 12.1% of the contract time has progressed to date.

## 1.5 Budget and Cost

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

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

Total project budget:	\$3,861,997,227
Total charges for efforts to date:	\$183,746,884
Remaining project budget:	\$3,678,250,343

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

Total contract amount:	\$3,299,997,227
Total charges for efforts to date:	\$167,210,260
Total work orders:	\$0

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

Overall:	5.07%
Mobilization:	10.81%
General Requirements (incl. Project Management):	4.42%
Design:	37.10%
Physical Progress:	0%

## 1.6 Environmental Management

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During this reporting period, HRCP took the following steps covering the roadway, bridge, and tunnel construction for permit acquisition for the project:

- HRCP revised and resubmitted the JPA and associated appendices to USACE on December 23, 2019.
- HRCP submitted the VPDES application to DEQ on December 20, 2019.
- HRCP submitted the required documentation for Section 408 approval on January 6, 2020.
- On January 9, 2020, HRCP held a meeting with regulators to review and discuss the changes to the dredging footprint included in the revised JPA submission.
- Landside and marine geotechnical exploration work continues, as well as geotechnical work within wetland areas.

## 1.7 Quality

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Quality updates for this reporting period include:

- HRCP's Design Quality Management Plan has been reviewed and conditionally accepted. HRCP's updated Quality Management System Plan has been reviewed and conditionally accepted. HRCP's updated Construction Quality Management Plan has been reviewed and conditionally accepted.
- VDOT conducted audit DQ-01 which covered two design submissions. HRCP responded to the audit comments in December 16, 2019 with corrections/corrective actions. VDOT closed this audit on January 14, 2020.

## 1.8 Operations

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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 drainage structure cleanouts.
- Marine geotechnical explorations continued.
- Demolition and removal of old concrete girders and piles on the South Island.

## 1.9 Safety

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Safety procedures and activities during this reporting period include:

- Daily field safety meetings are held on site with all staff working in the field.
- 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.
- Safety orientations and trainings are ongoing.
- On December 27, 2019, a CJV subcontractor dump trailer brushed against a light pole on the South Island, dislodging the light ballast. There were no injuries.

## 1.10 DBE & SWAM Business Activities

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The following DBE & SWAM Business Activities occurred during this reporting period:

- USDOT's Small Business Transportation Resource Center Bonding Education Program (BEP) Kick-off Event on January 14, 2020
- Joint Base Langley-Fort Eustis's Small Business Conference on January 15, 2020
- Workforce Development Meeting with the City of Newport News, Hampton University, and the Peninsula Workforce Council on January 16, 2020
- Preparation for the first Workforce Development Transportation Opportunity Event in May 2020

## 1.11 Public Outreach

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Public outreach updates for this reporting period are as follows:

- Members of VDOT's HRBT Expansion Team have participated in more than 100 outreach events to date.
- Of specific note in this period, the following project updates were provided:
  - LEAD Hampton Roads Class of 2020
  - The Hampton Roads Committee of 200+Men in Hampton
  - Hampton Yacht Club

## 2. Project Accomplishments

### 2.1 Overview and Look Ahead

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#### Milestones

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

#### Project Management Plans

HRCP developed both a Project Management Plan and a Risk Management Plan to support a timely, quality project delivery.

#### Geotechnical Investigation

The marine geotechnical investigations are on-going, as are landside drilling and laboratory testing for soil classification in Norfolk and Hampton. VDOT is evaluating HRCP's Scope Validation documents related to geotechnical investigations.

#### Environmental Permitting

Due to refinements in roadway design, some boring locations have been added to the geotechnical survey design provided in the Nationwide Permit (NWP) 6 and NWP 33 applications. The additional boring locations were submitted to the USACE. USACE is currently reviewing the application and will provide approval as a new NWP 6 and NWP 33 when the review is complete.

As HRCP advanced the project design, the overall footprint and configuration of environmental impacts originally presented in the August 2019 JPA submission were adjusted. The updated JPA and associated appendices were submitted to VMRC, USACE & DEQ on December 23, 2019 for review. On January 9, 2020, HRCP held a meeting with agency reviewers to discuss dredging updates included in the revised JPA materials. Subsequently USACE determined that a reissue of the public notice with a new public comment period would be appropriate. VMRC provided the comments from their public comment period to HRCP for response. HRCP is currently drafting responses to these comments.

HRCP completed and hand delivered the VPDES application and supplemental materials to DEQ on December 20, 2019. After the application was submitted, HRCP received the additional results of bench scale testing from its geotechnical investigations. A meeting with DEQ is scheduled for January 22, 2020, during which HRCP will review and provide the final results to DEQ and answer questions about the results.

HRCP completed the documents required for USACE Section 408 approval and provided them to VDOT for review. The final document package was submitted to the USACE on January 6, 2020.

The National Marine Fisheries Service (NMFS) completed their initial review of the Incidental Harassment Authorization (IHA) for construction work in the vicinity of marine mammals and provided comments to HRCP. HRCP is currently drafting responses and revising the IHA for review by VDOT and submittal to NMFS.

### **Third Party Coordination**

Post-award coordination with the U.S. Navy and the Federal Highway Administration (FHWA) started in April and is 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 consist of multiple administrative documents, including the Coastal Zone Management (CZM) consistency determination, the USACE Section 404/10 permit, USACE Section 408 Permission Letter, the VDEQ water protection permit, and the VMRC subaqueous land permit.

Following submission of the final JPA documents in August, and supplemental information in early September, USACE issued their public notice on September 24, 2019. The USACE public comment period concluded on October 24, 2019. VMRC issued their public notice on November 29, 2019, and the public comment period ended December 14, 2019. A revised JPA and appendices were submitted on December 23, 2019, to address required additional dredging and to respond to a formal USACE request for information. USACE indicated the change in the dredge footprint will involve the reissue of public notice for the project and a new public comment period. Section 408 approval is being pursued concurrently, and HRCP submitted the documentation required for approval on January 6, 2020. HRCP is continuing to work to support their goal of obtaining USACE, DEQ, and VMRC permits by mid-2020.

The VPDES permit application was provided to DEQ on December 20, 2019. Subsequent to the application submittal, HRCP received the results of bench scale testing which have been provided to DEQ and will be reviewed during a meeting at DEQ scheduled for January 22, 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	January 2020 Update	Actual
<b>LNTP1</b>		April 12, 2019	April 12, 2019	April 12, 2019
<b>LNTP1 Completion Milestone</b>		September 25, 2019	September 24, 2019	September 24, 2019
<b>LNTP2</b>		September 29, 2019	September 25, 2019	September 25, 2019
<b>LNTP3</b>		October 9, 2019	September 25, 2019	September 25, 2019
<b>NTP</b>		October 10, 2020	October 4, 2020	
<b>Substantial Completion</b>	September 1, 2025	July 18, 2025	July 18, 2025	
<b>Final Completion</b>	November 1, 2025	November 1, 2025	November 1, 2025	

### 3.2 Longest Path

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The longest-path activities for the Project schedule include:

- Design of the South Portal Launching Pit Package 1 for Early Works and Utility Relocations
- Installation activities for slurry and water treatment plans 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**

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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:

- JPA Process
- Design and construction of permit-dependent structures at Oastes Creek and Bay Avenue
- Space proofing report for the TBM procurement
- Utility relocations

Achieving the 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 Corps of Engineers, DEQ and VMRC permits will allow full NTP for the Project.

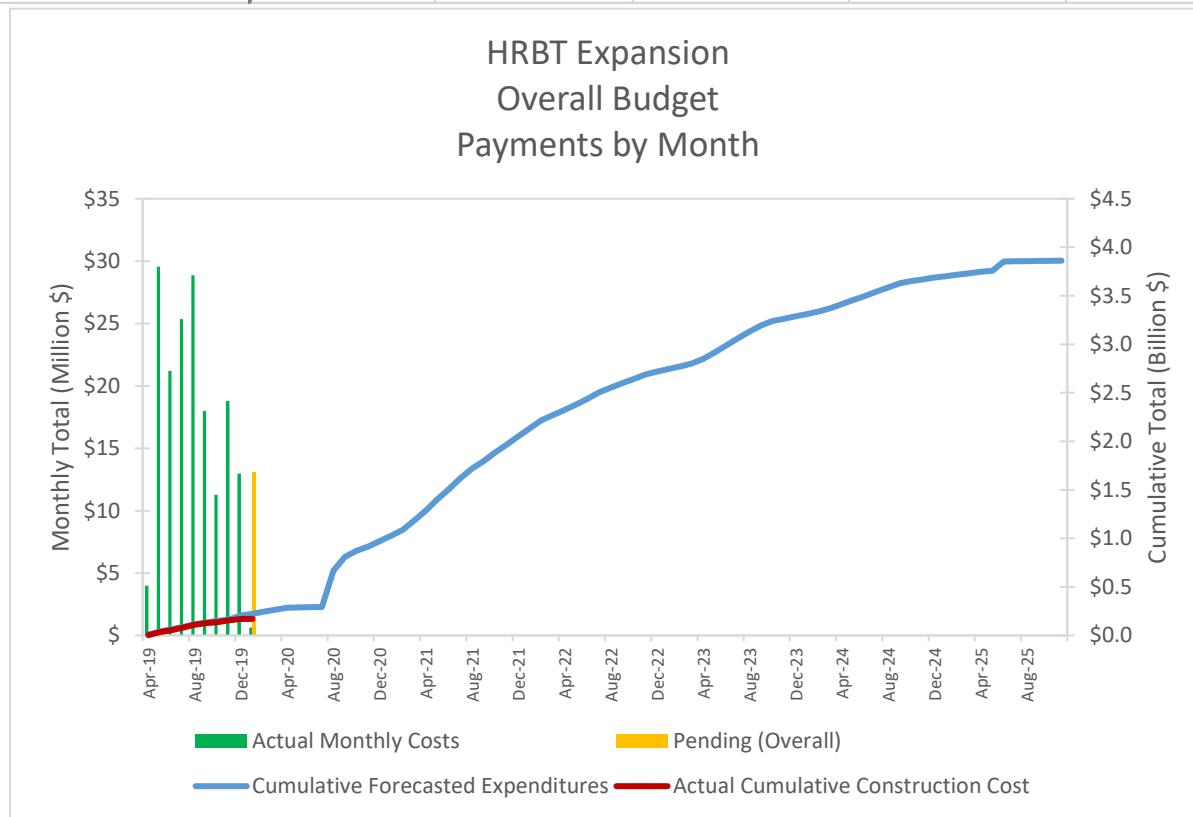
## 4. Budget and Cost

### 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 December 15, 2019 – January 18, 2020.

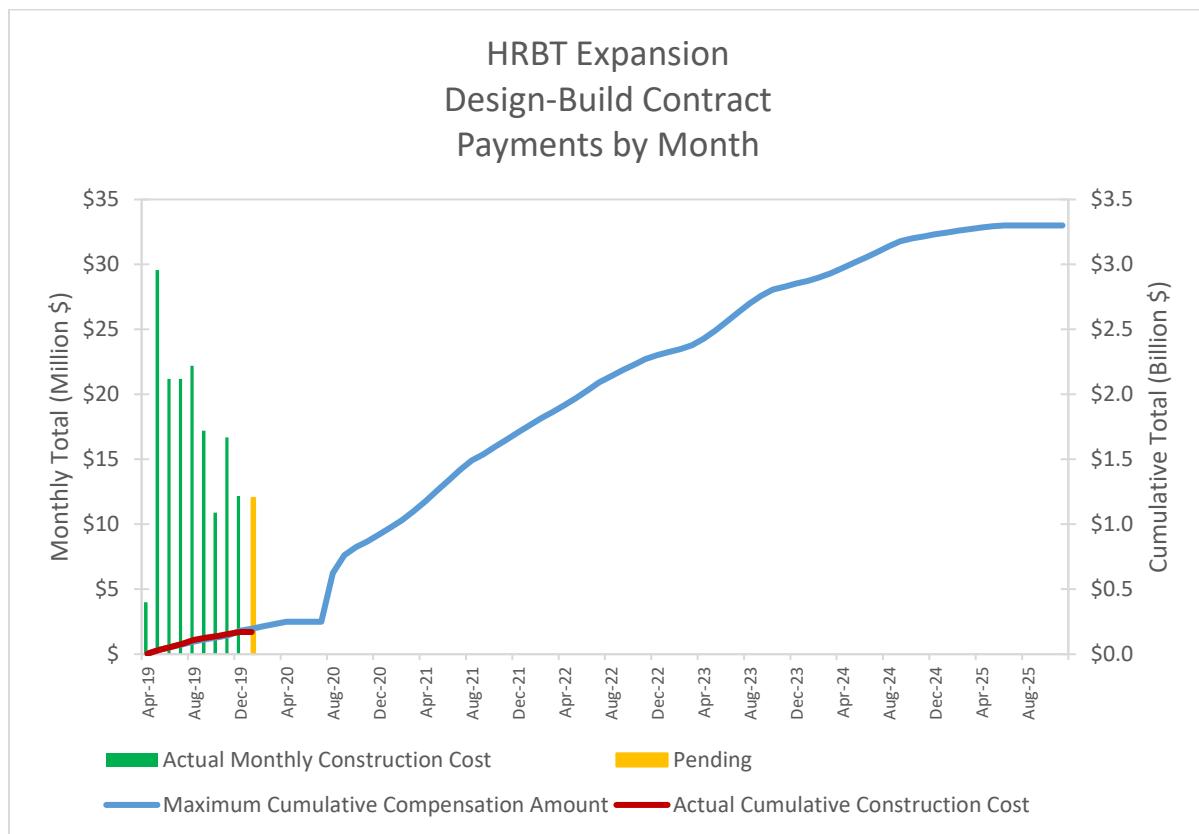
	Amount this period:	Total to Date:	Total Budget:	Total Remaining Budget:	Percent Spent To-date:
<b>Comprehensive Agreement</b>					
Construction	\$12,188,877.77	\$155,094,180.30	\$3,299,997,227.19	\$3,144,903,046.89	4.70%
<b>Owner Costs</b>					
Administration	\$624,334.81	\$5,145,046.92	\$122,000,000.00	\$116,854,953.08	4.22%
Right of Way	\$2,691.31	\$6,349,338.56	\$15,000,000.00	\$8,650,661.44	42.33%
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%
<b>Total</b>	<b>\$12,815,903.89</b>	<b>\$170,588,565.78</b>	<b>\$3,861,997,227.19</b>	<b>\$3,691,408,661.41</b>	<b>4.42%</b>



## 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

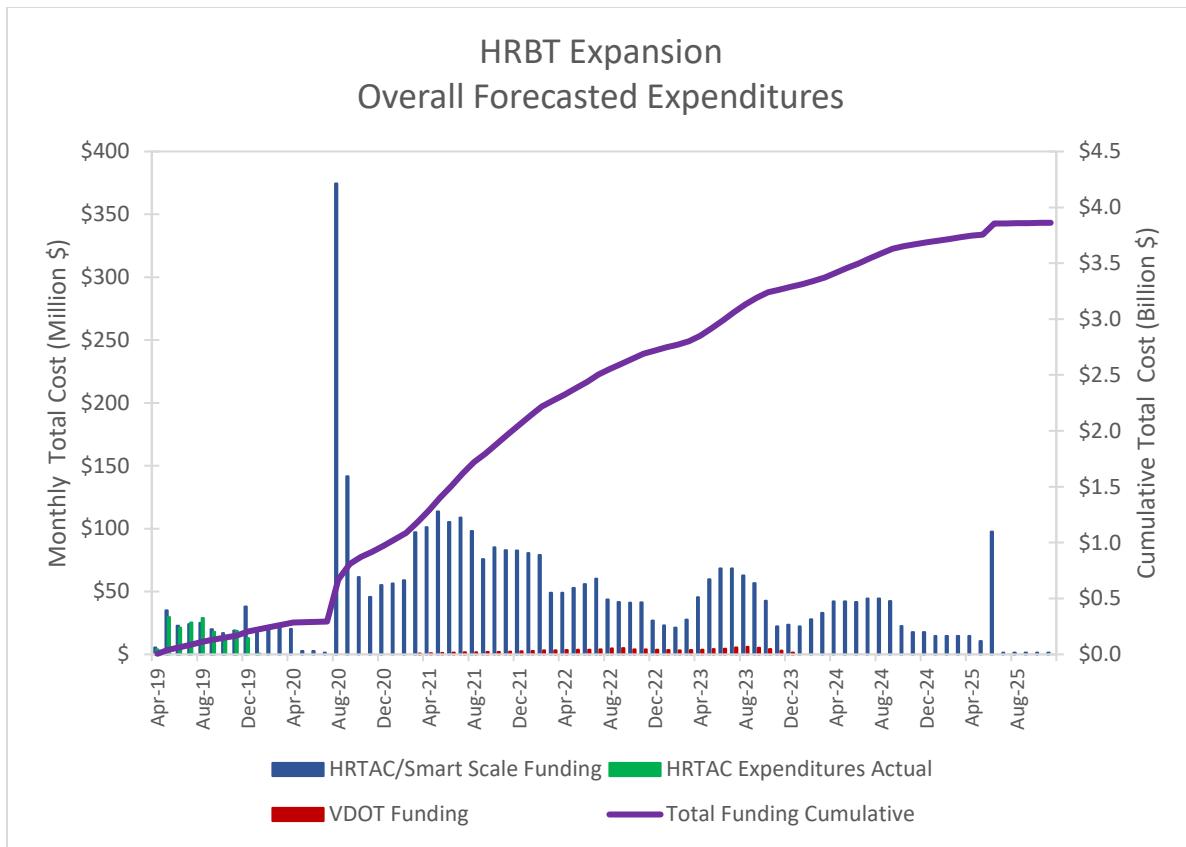
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures by both HRTAC and VDOT. The cost curve has been developed based on the monthly maximum cumulative compensation amount 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:
<b><u>Comprehensive Agreement</u></b>					
Construction	\$12,188,877.77	\$155,094,180.30	\$3,204,569,251.14	\$3,049,475,070.84	4.84%
<b><u>Owner Costs</u></b>					
Administration	\$624,334.81	\$5,145,046.92	\$118,472,054.00	\$113,327,007.08	4.34%
Right of Way	\$2,691.31	\$6,349,338.56	\$15,000,000.00	\$8,650,661.44	42.33%
No-Excuses Incentive	\$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%
<b>Total</b>	<b>\$12,815,903.89</b>	<b>\$170,588,565.78</b>	<b>\$3,753,469,581.14</b>	<b>\$3,582,881,015.36</b>	<b>4.54%</b>

### 4.3.2 VDOT

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



#### 4.4 Contingency

- 0 work orders to date
- \$0 material price adjustments (asphalt, steel, & fuel) to date

## 5. Environmental Management

HRCP revised components of the JPA package to reflect design changes and to address formal agency comments. The revised JPA documents were submitted to the VMRC, which distributed them to USACE and DEQ, on December 23, 2019. On January 9, 2020, HRCP held a meeting with agency representatives to discuss the design and dredging impact revisions included in the revised JPA submission. Currently HRCP is drafting responses to the comments received by VMRC during the public comment period. HRCP also submitted the documents required for Section 408 approval from USACE on December 23, 2019.

HRCP submitted the VPDES permit application to DEQ on December 20, 2019. Additional testing was completed after submittal, and the complete results were provided to DEQ and will be discussed at a meeting scheduled for January 22, 2020.

NMFS completed its initial review of the IHA request document and provided formal comments to HRCP. HRCP is currently drafting responses to the comments and revising the IHA request document.

The quarterly update of the Environmental Management Plan was completed and provided to VDOT for formal review.

HRCP worked closely with VDOT's Environmental Team to finalize the Nesting Bird Construction Control Plan for the South Island. Coordination with the construction crew on the South Island has begun, and a formal meeting to start implementation of the Bird Control Plan is scheduled for the first week in February.

HRCP continues to coordinate with VDOT regarding updates to the limits of disturbance, proposed improvements at the Willoughby Spit property that will support project construction, DEQ discharge permitting for the bridge/tunnel construction, updates to the SWPPP, and modification to the Construction General Permit.

## 6. Operations

Field activities continued this period to support Scope Validation and early design 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 61% complete.

Marine geotechnical explorations continued. Two self-propelled lift boats, three smaller barges, and a tug supported spud barge are mobilized to complete the more than 400 marine borings along the HRBT trestle bridges and Willoughby Bay Bridge. This program is expected to last through April 2020.

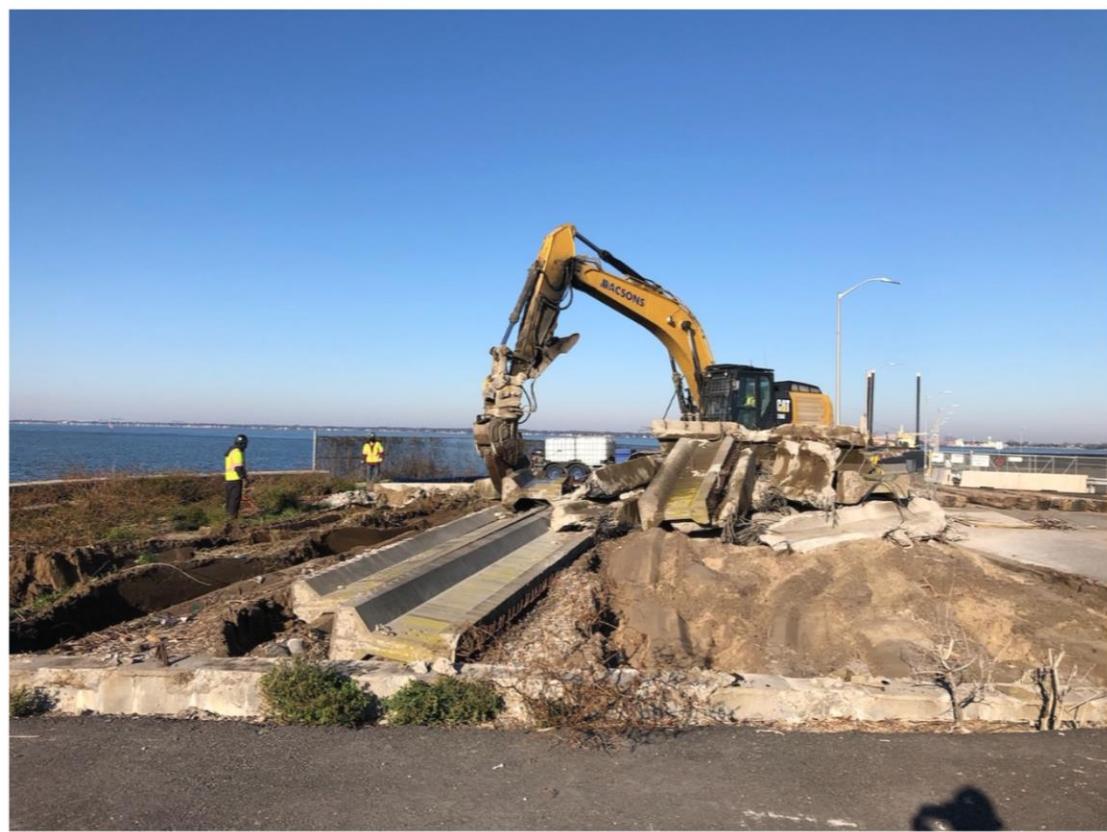


Marine Geotechnical Boring

Other geotechnical investigations in wetlands governed by the NW-6 permit continued during this period. This work requires the use of a mud buggy/track rig to access boring locations located in environmentally sensitive areas.

HRBT WB lane closures were performed to support the installation of instrumentation and monitoring equipment within the existing tunnel approaches and first two tunnel segments at the South Island. Following commissioning of these devices, frequent readings will take place to establish baseline tunnel movement prior to start of construction activities.

The demolition and removal of surplus concrete girders and piles on the southwest corner of the South Island was completed during this period, and this area will be paved.



South Island Girder Demolition

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

The weekly coordination meeting between VDOT and HRCP continues to provide a lookahead of upcoming field activities and ensure 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

During the reporting period, both HRCP and VDOT continued to meet with small businesses to discuss opportunities available on the project. In addition, the Design-Builder continued working toward civil rights compliance requirements, reporting a total of \$22.6 million in commitments to DBE and SWaM vendors, and actual payments of \$4.5 million by the end of 2019.

USDOT's Small Business Transportation Resource Center Bonding Education Program (BEP) kick-off event was held on January 14, 2020. Twenty-three (23) small businesses registered for the 4-day training scheduled for February 4, 6, 11 and 13, 2020 at VDOT's Hampton Roads District Office in Suffolk. The HRBT Expansion is the highlighted project with HRCP serving as the sponsoring contractor. The program is held in partnership with the Surety and Fidelity Association of America to help small businesses become bond ready or have an opportunity to expand their bonding capacity. The ability to become bondable helps small businesses grow. DBE and SWaM firms participating on the tunnel project were invited to participate in the training.



Attendees at the USDOT's BEP held at VDOT's Local District Office on January 14, 2020.

Discussions continued for the first Workforce Development Transportation Opportunity Event tentatively scheduled for May 2020. The session will be held as a hiring event to showcase the project and meet with potential candidates interested in employment opportunities on the tunnel project. Meetings have been held with the Virginia Employment Commission at the Peninsula Workforce Development Center in Hampton about workforce services, identifying skilled workers for the project, and supporting the outreach event. One of their corporate programs being discussed includes the Work Opportunity Tax Credit that supports businesses in the region.

HRCP and VDOT were also invited to participate in a Workforce Development Meeting with the City of Newport News, Hampton University, and the Peninsula Workforce Council on January 16, 2020 to discuss possible collaborative efforts to support their talent alignment strategy for employers and job seekers. Discussions will continue as HRCP further identifies employment needs for the project.

VDOT's Hampton Roads District Civil Rights Manager spoke with a group attending the Joint Base Langley-Fort Eustis' Small Business Conference on January 15, 2020 sharing information about *Doing Business with VDOT* and current contracting opportunities. Many of the participants were federal contractors seeking opportunities in other markets. General information was shared about the tunnel project and ways to get engaged.

## 8. Public Outreach

Communication outreach for the HRBT Expansion Project included a January 9, 2020 presentation to the LEAD Hampton Roads Class of 2020. VDOT communications team members Paula Miller and Mike Carosi detailed planned work along the 10-mile project corridor for the class of approximately 50 business leaders. LEAD Hampton Roads is a leadership development organization supported by the Hampton Roads Chamber of Commerce. The theme of the January 9, 2020 session was Transportation.



Mike Carosi of VDOT's communications team points out the project's design-build team to the LEAD class.

On January 11, 2020 a similar project presentation was made to The Hampton Roads Committee of 200+Men in Hampton. VDOT communications team members Delceno Miles and Paula Miller explained plans for the twin tunnels and interstate widening work and answered questions from the more than two dozen men in attendance.

On January 13, 2020 a project presentation was also provided at the request of the Hampton Yacht Club. More than 40 boating enthusiasts learned about the project features. The HRBT Expansion Team's Operations Manager Bradley Weidenhammer led the discussion.