



Hampton Roads Bridge-Tunnel

VDOT



December 2019 Project Report

I-64 HAMPTON ROADS BRIDGE-TUNNEL EXPANSION

Proj. No. 0064-M06-032
Report #9



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Issue date: January 16, 2019

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 November 24, 2019 – December 14, 2019. 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, with the current period adjusted for HRCP's fiscal year-end close.

1.2 Project Accomplishments

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

- HRCP met with the regulatory agencies on December 11, 2019 to review various proposed revisions to the Joint Permit Application (JPA) and to discuss HRCP responses to key questions provided by the agencies.
- The JPA appendices are being revised to address agency comments. HRCP is working towards a formal resubmission of documents.

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:

- Limited Notice to Proceed 1 (LNTP1) completion milestone was achieved on September 24, 2019.
- LNTP2 and LNTP3 were issued to HRCP on September 25, 2019.
- Notice to Proceed (NTP) will be issued following receipt of the project's Corps of Engineers, Virginia DEQ, and VMRC permits.

- Final completion remains as scheduled for November 1, 2025.
- Approximately 10.6% 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 December 2019 payment application):

Total project budget:	\$3,861,997,227
Total charges for efforts to date:	\$170,664,566
Remaining project budget:	\$3,691,332,661

- Design-build contract overview (through December 2019 payment application):

Total contract amount:	\$3,299,997,227
Total charges for efforts to date:	\$155,170,180
Total work orders:	\$0

- Design-build progress to date (through December 2019 payment application):

Overall:	4.70%
Mobilization:	10.81%
General Requirements (incl. Project Management):	3.94%
Design:	34.16%
Physical Progress:	0%

1.6 Environmental Management

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

- HRCP revised and resubmitted the Nesting Bird Construction Hazing Plan for the South Island. This document was forwarded to the Department of Game and Inland Fisheries for their review and comment.
- HRCP met with the regulatory agencies on December 11, 2019 to review various proposed revisions to the Joint Permit Application (JPA) and to discuss HRCP responses to key questions provided by the agencies.
- Landside and marine geotechnical exploration work continues, as well as geotechnical work within wetland areas.

1.7 Quality

Quality updates for this reporting period include:

- HRCP's Design Quality Management Plan has been reviewed and conditionally approved. HRCP's updated Quality Management System Plan has been reviewed and conditionally accepted. HRCP's updated Construction Quality Management Plan resubmittal is expected by December 17, 2019.
- VDOT conducted an audit of two design submissions. A letter with audit comments was sent to HRCP on November 15, 2019. A meeting was held on December 6, 2019 with HRCP to review the audit comments and discuss HRCP's responses and corrective actions.

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 drainage structure cleanouts.
- Marine geotechnical explorations continued.
- Geotechnical borings and survey were completed near Hampton University property.

1.9 Safety

Safety procedures and activities during this reporting period include:

- Daily field safety meetings are held on site with all staff working on site present.
- 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 November 26, 2019, a janitorial subcontractor employee was assaulted by two fellow workers during work hours in the HRCP office building. The injured self-treated his contusions and the employees committing the assault were terminated.
- On December 5, 2019, a third-party vehicle struck a DJV subcontractor Truck-Mounted Attenuator (TMA) during a mobile traffic operation on I-64 Eastbound lane for soil boring operations. No injuries were reported.
- On December 6, 2019, a third-party vehicle struck a DJV subcontractor TMA while a road closure was being set up for soil boring operations on I-64 Westbound. No injuries were reported.

1.10 DBE & SWAM Business Activities

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

- HRCP and the HRBT Expansion Project highlighted in *The Virginian-Pilot's Inside Business* dated November 25, 2019
- Preparation for the upcoming Bonding Education Program (BEP) in January 2020
- Preparation for the first Workforce Development Transportation Opportunity Event in April 2020

1.11 Public Outreach

Public outreach updates for this reporting period are as follows:

- Members of VDOT's HRBT Expansion Team have participated in more than 50 outreach events to date.
- Of specific note in this period, the following project updates were provided:
 - STIHL Corporation Project Presentation

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.

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 Scope Validation General Notice for the geotechnical investigations in the Norfolk area was submitted on November 4, 2019 and HRCP submitted the Supporting Documentation on November 25, 2019. The marine geotechnical investigations are on-going and HRCP is collecting the information for the General Notice due on December 26, 2019. Landside drilling and laboratory testing for soil classification in Norfolk and Hampton is ongoing.

Environmental Permitting

As HRCP advanced the project design, this resulted in adjustments to the overall footprint and configuration of environmental impacts originally presented in the August 2019 JPA submission. These revisions, along with key responses to additional information requests made by the resource agencies, were presented to the agencies on December 11, 2019. HRCP is working towards a resubmission of the JPA package that addresses the additional information requests and conveys all recent project changes so that the agencies can complete their review/documentation and initiate permit issuance by April 2020.

The Virginia Marine Resources Commission (VMRC) public notice was posted in the Daily Press on November 29, 2019. The notice requested comments/inquiries be submitted to the VMRC within 15 days.

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 include 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 a late August submission of the final JPA documents, 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. HRCP is continuing to work to support their goal of obtaining USACE, DEQ, and VMRC permits by April 2020. The USCG permit(s) for bridge construction are being pursued concurrently.

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	December 2019 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 4, 2020	
Substantial Completion	September 1, 2025	July 18, 2025	July 18, 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 Package 1 for Early Works and Utilities
- Completion of the utilities on the South Island
- Site installation activities
- 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:

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

Achieving the public-notice milestone for the project's joint permit application 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, Virginia DEQ and VMRC permits will allow full NTP for the Project.

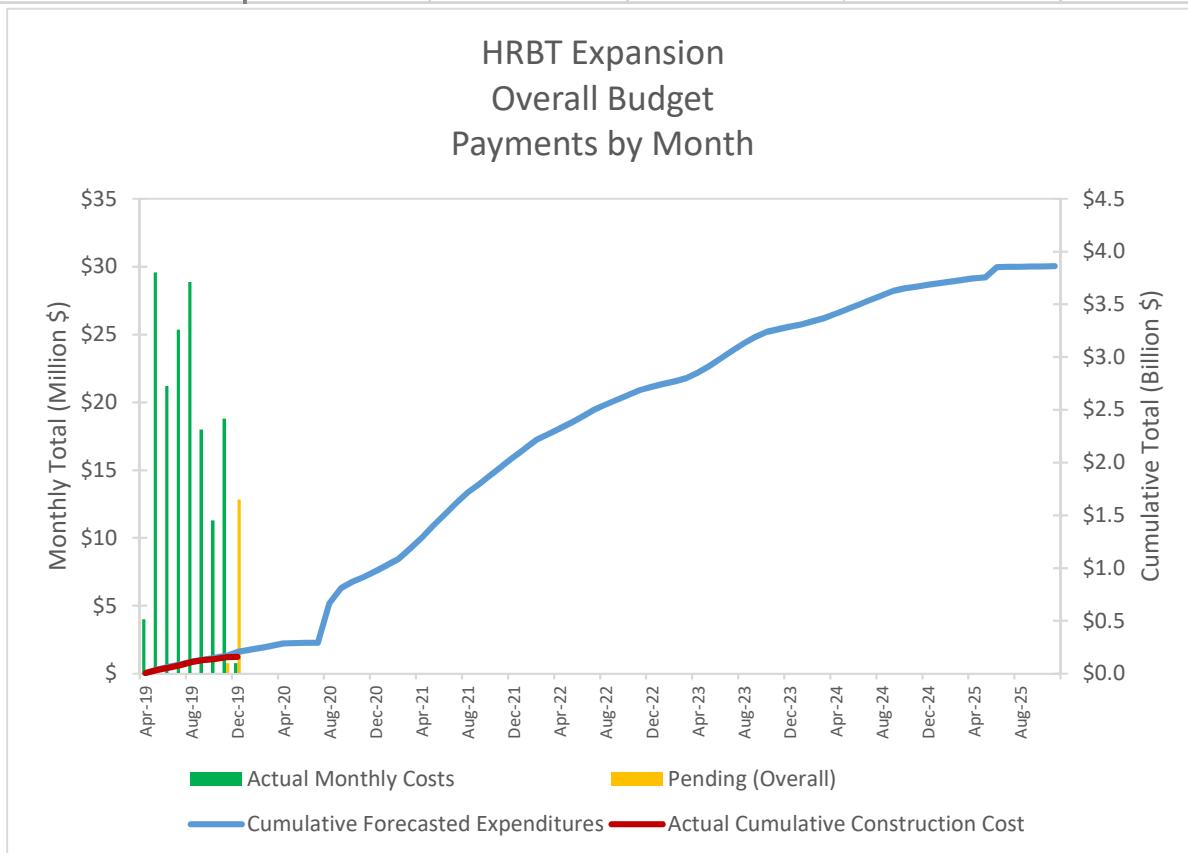
4. Budget and Cost

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 November 24, 2019 – December 14, 2019.

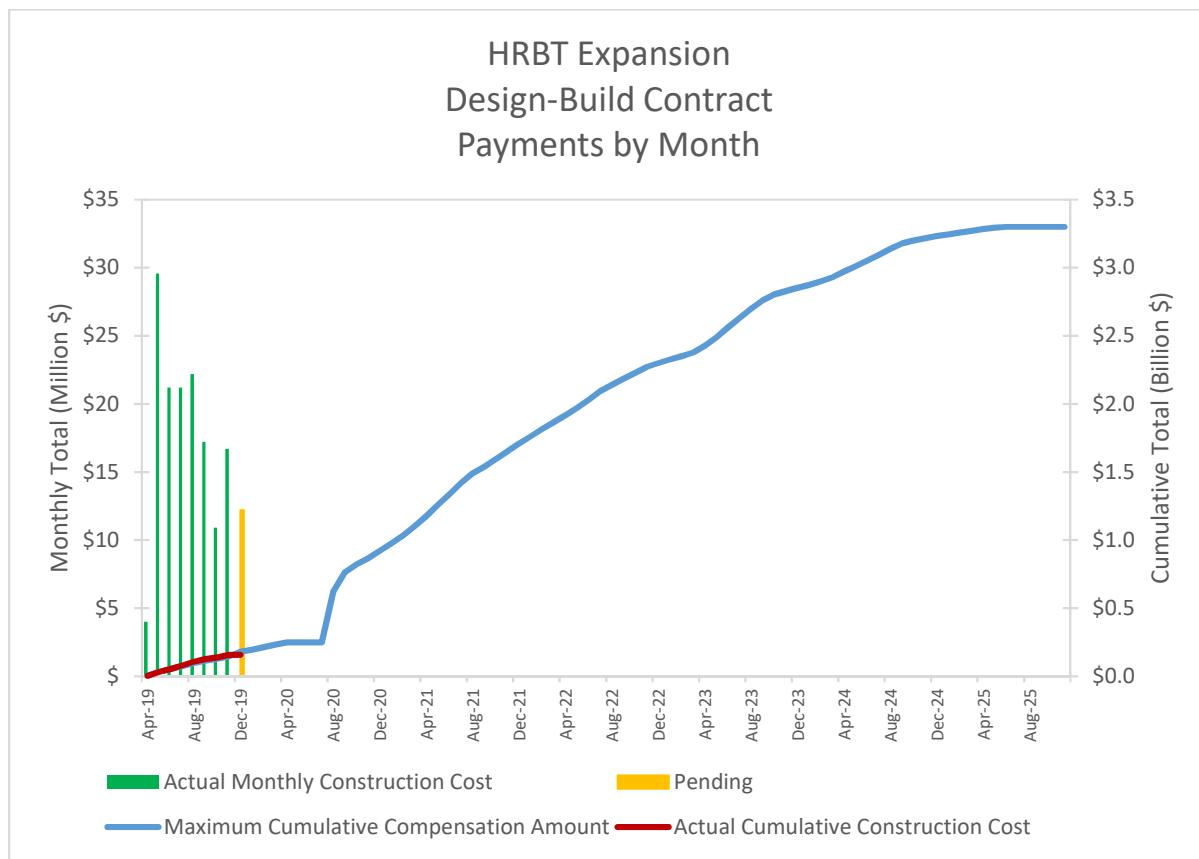
	Amount this period:	Total to Date:	Total Budget:	Total Remaining Budget:	Percent Spent To-date:
Comprehensive Agreement					
Construction	\$16,675,178.66	\$142,905,302.53	\$3,299,997,227.19	\$3,157,091,924.66	4.33%
Owner Costs					
Administration	\$758,859.68	\$4,520,712.11	\$122,000,000.00	\$117,479,287.89	3.71%
Right of Way	\$12,663.47	\$6,346,647.25	\$15,000,000.00	\$8,653,352.75	42.31%
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	\$17,446,701.81	\$157,772,661.89	\$3,861,997,227.19	\$3,704,224,565.30	4.09%



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

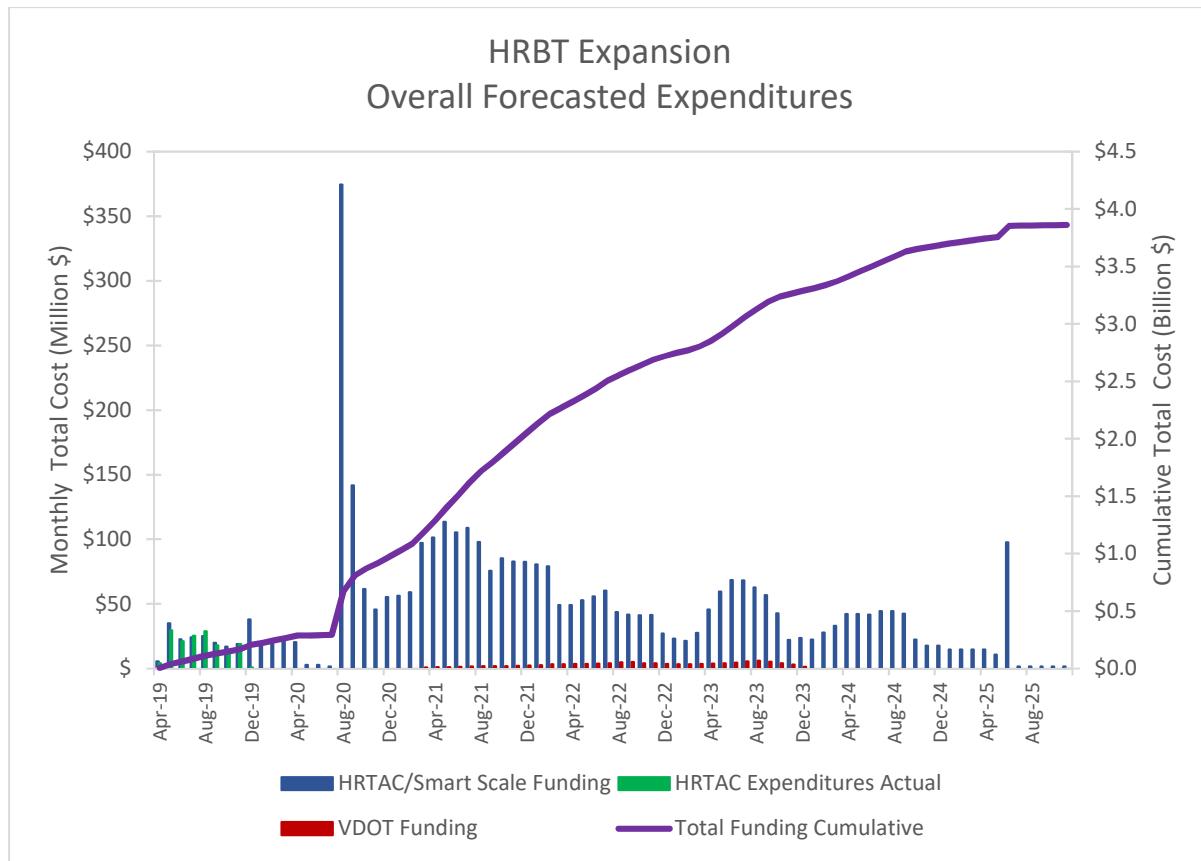
The budget for expenditures by funding source is based on the terms and conditions of Article 3 (Project Funding) and Exhibit 5 of the PAFA. This section outlines planned expenditures by both HRTAC and VDOT. The cost curve has been developed based on the monthly maximum cumulative compensation amount 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:
Comprehensive Agreement					
Construction	\$16,675,178.66	\$142,905,302.53	\$3,204,569,251.14	\$3,061,663,948.61	4.46%
Owner Costs					
Administration	\$758,859.68	\$4,520,712.11	\$118,472,054.00	\$113,951,341.89	3.82%
Right of Way	\$12,663.47	\$6,346,647.25	\$15,000,000.00	\$8,653,352.75	42.31%
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%
Total	\$17,446,701.81	\$157,772,661.89	\$3,753,469,581.14	\$3,595,696,919.25	4.20%

4.3.2 VDOT

	Amount this period:	Total to Date:	Total Budget:	Total Remaining Budget:	Percent Spent To-date:
Comprehensive Agreement					
Construction	\$0.00	\$0.00	\$95,427,976.00	\$95,427,976.00	0.00%
Owner Costs					
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%
Total	\$0.00	\$0.00	\$108,527,646.00	\$108,527,646.00	0.00%



4.4 Contingency

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

5. Environmental Management

During this reporting period HRCP revised components of the JPA package to reflect design changes and to address formal comments received from the agencies. Updated supporting documents, impact figures and tables, and comment response documents are under preparation for submission. HRCP met with the agencies on December 11, 2019 to present some of the more significant revisions and to discuss key issues/responses being prepared for the agencies. The VMRC posted their public notice on November 29, 2019 and requested that public comments/inquiries be submitted within 15 days.

HRCP worked closely with the Environmental Team to revise the Nesting Bird Construction Hazing Plan for the South Island. The revised plan was submitted to the VDGIF for final review and comment. HRCP continues to coordinate with VDOT concerning revisions 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 (VAR10L793).

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 work was also performed for drainage structures. Landside geotechnical borings are approaching 50% completion.

Marine geotechnical explorations continued. Two self-propelled lift boats and three additional smaller barges 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 February 2020.

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

Access to Hampton University was granted during this period under the terms of the Memorandum of Understanding (MOU). Contractors completed geotechnical borings and survey from Hampton University property.



Geotechnical boring at Hampton University

A preparatory meeting was held on December 5, 2019 to plan for the upcoming removal of the old concrete girders and piles on the southwest corner of the South Island that are in conflict with upcoming Work. This work is expected to be initiated and completed by the end of December.

A South Island pre-construction survey was completed the week of December 9, 2019. This survey will establish photo documentation of the condition of the assets on the South Island prior to construction commencing.

An Incident Management Meeting was held on December 12, 2019 with Norfolk first responders to review the current status of the design and begin coordination of incident response during construction.

A weekly coordination call with the Hampton Roads Harbor Tunnels (HRHT) Facility Manager continues 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 provides a method to coordinate traffic operations across the region.

7. DBE & SWaM Business Activities

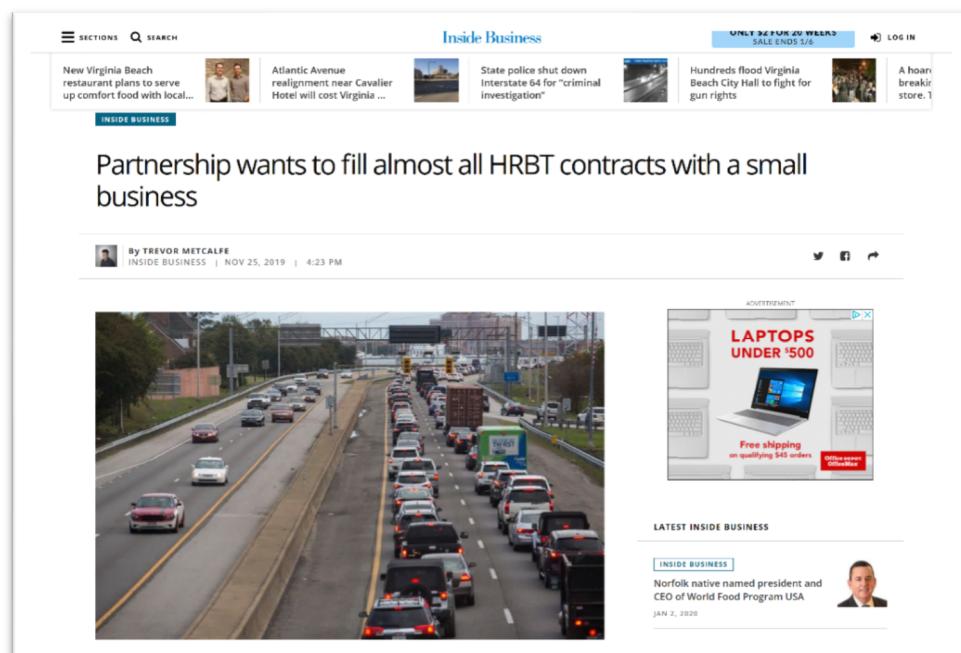
DBE and SWaM business activities continued for this period. Both HRCP and VDOT continued to meet with small businesses one-on-one to make firms aware of opportunities currently available on the project.

In an effort to expand the capacity of small businesses, VDOT and HRCP continued to work in collaboration with the USDOT's Small Business Transportation Resource Center (SBTRC) in making plans for the upcoming Bonding Education Program (BEP). The event kick-off is scheduled for January 14, 2020 with the two-week training held on February 2-6 and February 11-13 at VDOT's Hampton Roads District Office in Suffolk. Currently, 45 firms have registered to participate in the kick-off session.



Bonding Education Program Series Flyer

HRCP and the HRBT Expansion Project were highlighted in a recent article in *The Virginian-Pilot's Inside Business* dated Nov 25 titled "Partnership wants to fill almost all HRBT contracts with a small business". It also highlighted the design-builder's recent partnership with the Virginia Black Chamber of Commerce to further expand small business outreach efforts by identifying other local businesses interested in learning about the project and current opportunities available. The article can be found at <https://www.pilotonline.com/inside-business/vp-ib-tunnel-contracts-1202-20191125-wzpjbjvz5vfif7yvpibmp3n5i-story.html>.



The screenshot shows the 'Inside Business' section of the website. At the top, there are several news thumbnails: 'New Virginia Beach restaurant plans to serve up comfort food with local...', 'Atlantic Avenue realignment near Cavalier Hotel will cost Virginia ...', 'State police shut down Interstate 64 for "criminal investigation"', 'Hundreds flood Virginia Beach City Hall to fight for gun rights', and 'A hoari breakin store.1'. Below the thumbnails, the main article title is 'Partnership wants to fill almost all HRBT contracts with a small business'. The article is by Trevor Metcalfe, posted on Nov 25, 2019, at 4:23 PM. The text discusses the partnership between HRCP and the design-builder to fill HRBT contracts. To the right of the article is a sidebar with an advertisement for 'Laptops Under \$500' from Office Depot OfficeMax, featuring a laptop and a keyboard. Below the advertisement, there is a 'LATEST INSIDE BUSINESS' section with a thumbnail for an article about a Norfolk native named president and CEO of World Food Program USA.

Article in *The Virginian-Pilot's Inside Business* dated November 25, 2019

Plans are currently underway for the first Workforce Development Transportation Opportunity Event in April of 2020 at the Tidewater Community College. The event will be held as a hiring event to showcase the project and meet with potential candidates interested in employment opportunities.

VDOT initiated discussions with HRCP regarding its Civil Rights Labor Management System (CRL) for tracking EEO and DBE documents. VDOT's Assistant Civil Rights Division Administrator has been meeting with various contractors throughout the state to introduce the data management system. Several other data management applications are also under consideration for the HRBT project with the capability of meeting full civil rights compliance and reporting requirements.

The Civil Rights Division continues to review required civil rights document submittals from the Design-Builder and VDOT's Program Support Consultant.

8. Public Outreach

The official project team sign is up marking the location of our Hampton Roads Bridge-Tunnel (HRBT) Expansion Office at 240 Corporate Boulevard in Norfolk, Va. The Virginia Department of Transportation's HRBT Expansion Team and Hampton Roads Connector Partners (Design-Build Team) are co-located in the Norfolk office building.



HRBT Expansion Project Team Sign

The Miles Agency represented VDOT at a project presentation to the STIHL Corporation in Virginia Beach on December 12, 2019. Delceno Miles, was joined by HRCP's Communications Manager Stephen Meyers for a lunchtime briefing to the executive leadership team.

Two members of the HRBT Expansion Project Team – Jacob Brown and Philip Casteen – recently sat for the Principles and Practice of Engineering (PE) exam on October 25, 2019 and learned December 12 that they can soon add the letters PE (Professional Engineer) after their names.



HRBT Expansion Project Team Doubly Proud!

Jacob (pictured left) is a native of the Raleigh, N.C. area and has been with VDOT for nearly three years. He received his Bachelor of Science degree in Building Construction from Virginia Tech and is a Certified Construction Manager (CCM). Prior to joining the HRBT Expansion Project Team in early 2017, Jacob worked nearly six years for a construction contractor on heavy civil and marine projects up to \$500 million in value.

Philip Casteen (pictured right) is a native of Chesapeake, Va. and earned both his Bachelor of Science and Master of Civil Engineering degrees from Old Dominion University. In 2014, Philip interned with VDOT on the Midtown Tunnel Project and in the VDOT Hampton Roads District's Location and Design division. In 2016, he entered VDOT's CORE Development Program and upon graduation from the program joined the HRBT Expansion Project Team in 2018.

9. Project Media

The HRBT Expansion Project has completed the third in a series of HRBT Tunnel Talk podcasts that are gaining national and international attention. In the third podcast recorded November 25, Communications Manager Paula Miller interviewed Yvonnick Rescamps about Tunnel Boring technology and how a TBM will be used for the HRBT Expansion Project. Rescamps is HRCP's Tunnel Lead on the project and has worked on bored tunnels around the world.



HRBT Tunnel Talk Podcasts Continue

HRBT Project Director Jim Utterback was interviewed on December 10, 2019 by Northwestern University Civil and Environmental Engineering Professor Dr. Joseph Schofer. Utterback answered questions from Schofer for a future segment on Schofer's podcast - *The Infrastructure Show*.