



**PATTULLO BRIDGE
REPLACEMENT**



transportation
investment
corporation

Monthly Status Report

Reporting Period
November 2021

1. Introduction

1.1 Project Overview

The Pattullo Bridge is a key connection between the communities of Surrey and New Westminster.

The new toll-free four-lane bridge will provide important improvements for everyone using the bridge, including people who are driving, cycling, or walking, as well as communities on either side of the bridge.

The new bridge will provide:

- A safer crossing for all bridge users with modern, wider lanes, separated by a centre median barrier
- Dedicated walking and cycling lanes, separated from traffic by a barrier on both sides of the bridge
- Better connections to, from and near the bridge

The new bridge is scheduled to open in 2024. The existing bridge will remain in use until the new bridge is open to traffic. Once the new bridge is open, the existing bridge will be removed.

Additional information and updates about the Project can be found on the Project's website <https://www.pattullobridgereplacement.ca>.

1.2 Project Delivery

Transportation Investment Corporation, a provincial Crown corporation, is delivering and overseeing this \$1.377 billion Project. The Project is being delivered under B.C.'s Community Benefits Agreement and the Project workforce is being provided by B.C. Infrastructure Benefits Inc.

The Fraser Crossing Project Corporation (Contractor) has been selected to design and build the new bridge. The Province will own and maintain the new bridge when complete.

The Project represents a significant investment in multi-modal transportation mobility improvements and supports provincial and regional strategies, environmental objectives, and the economic development of transportation services in the region.

1.3 Project Goals

Measure specific data to confirm the following Project goals and objectives are being met in accordance with the Project's **Performance Measurement Plan**:





1. Provide a **structurally sound bridge crossing** to maintain a critical local and regional connection;
2. **Improve safety for all users** with modern lane widths, road curvature, centre median barrier and separated pedestrian and cycling lanes; and
3. **Improve connectivity, reliability and modal choice** while supporting environmental objectives.




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2. Project Update

2.1 Project Dashboard

		Objectives	Project Status	Comments
Project Delivery	Scope	Project delivered within the approved scope.	●	- The Project includes a new four-lane bridge, improved connections to, from and near the bridge and dedicated walking and cycling lanes and is on track to be delivered within the approved scope.
	Schedule	Project delivered within the approved schedule.	●	- Schedule related risks and issues are being monitored, particularly in relation to regulatory authorizations required for in-river works and on-site investigative work.
	Budget	Project delivered within the approved budget of \$1.377 billion.	●	- Project spending for the month of November 2021 was \$15.2 million. - Total Project spending to date is \$407 million; the Project is forecast to be delivered within budget.
	Safety	Ensure that Project work is performed safely and in compliance with all applicable safety regulations, and in accordance with government policy.	●	- The health and safety plan for the Project work is in place. The plan includes specific COVID-19 protocols. - Five Site Safety Inspections were conducted in the month. - Lost Time Injury Frequency Rate (LTIFR) for the Project is 0.38. The average Injury Rate for Heavy Construction from 2011 to 2020 is 2.98 per WorkSafeBC .
	Quality	Implement an effective Quality Management System.	●	- Continued testing of Structural Steel coupon samples. Results have indicated the steel is of acceptable quality.
	Environmental	Ensure our work is performed in an environmentally responsible manner.	●	- Amendment application for the Fisheries Act Authorization (FAA) was submitted to the Department of Fisheries and Oceans Canada (DFO) for proposed north bank works (New Westminster).
	Archaeology	Ensure the work is performed in a manner that meets the standards of the Heritage Conservation Act.	●	- Continued to advance the archaeological field program in collaboration with Indigenous groups. - Pier S3 handed over to the Contractor to allow for piling to begin.
	Design and Construction	Provide design and technical oversight, coordinate and manage activities on site and conduct compliance reviews.	●	- Piling work continued in-river at Pier S1 and at the Pier S1 Trestle and on-land at Piers S2 and S7. - Project Team reviewed a revised Design Management Plan submitted by the Contractor. - Completed an additional hydraulic model test. - Completed wind tunnel testing of the main bridge design.

	Community Benefits	Work collaboratively with BC Infrastructure Benefits Inc. (BCIB) to successfully implement the Community Benefits Agreement (CBA).		- Continued collaboration with BCIB on labour force requirements
Partners/Stakeholders	Indigenous Groups	Continue to build and maintain a positive collaborative working relationship.		- Project Team continues to engage with the Identified Indigenous Groups in relation to Project permitting and opportunities.
	Third Parties	Continue to build and maintain positive relationships and secure agreements with Project partners and other third parties.		- Continued handover/transfer agreement discussions regarding the existing bridge with TransLink. - Continued agreement discussions with TELUS and railway companies.
	Public and Stakeholder Engagement	Continue to build and maintain positive relationships with the community and other stakeholders.		- Work hour variance request was approved by both the City of New Westminster and the City of Surrey to allow for pile driving on Sundays.

Status	Description
	Managing critical issues, negotiating resolution; action required immediately
	Managing some issues, negotiating resolution; action required in the near term
	Stay the Course – no action required

3. Project Documents and Achievements to Date

Project Delivery	Project Planning and Development	<ul style="list-style-type: none"> - Completion of three phases of public consultation (2013-2016) - Executed Design-Build-Finance Agreement (February 2020) - Project Overview Report (May 2020) - Project Report (July 2020)
	Environmental	<ul style="list-style-type: none"> - EAO Environmental Assessment Certificate (EAC) (April 2019) - Port and Environmental Review (PER) Permit (May 2019) - Canadian Navigable Waters Act Approval (November 2020) - Water Sustainability Act (WSA) Change Approval (November 2020) - Water Sustainability Act Short Term Use Approval (December 2020) - Fisheries Act Authorization (February 2021)
	Community Benefits	<ul style="list-style-type: none"> - Community Benefits Agreement (July 2018) - BCIB Health and Safety Program (May 2019) - BCIB-AIRCC Enabling Agreement Executed (May 2019) - BCIB-Contractor Agreement Executed (February 2020) - BCIB-Subcontractor Agreement Executed (February 2020)
Partners/Stakeholders	Third Parties	<ul style="list-style-type: none"> - CN Master Use Agreement (May 2019) - City of Surrey Municipal Agreement (September 2019) - City of New Westminister Municipal Agreement (September 2019) - Metro Vancouver Accommodation Agreement (December 2019) - Construction and land licenses acquired from Vancouver Fraser Port Authority (VFPA); VFPA demolition license finalized (December 2019) - CP Grade Separation Construction Agreement (January 2020) - Shaw Telecommunications Facilities Relocation Agreement (March 2020) - Zayo Telecommunications Facilities Relocation Agreement (March 2020) - CP Overpass Crossing and Maintenance Agreement (December 2020) - TransLink Consent Agreement for in-river works (December 2020)

4. November Highlights and Three Month Lookahead

4.1 Safety

Scope:	<ul style="list-style-type: none">- Establish Occupational Health and Safety (OH&S) Project delivery objectives and performance measures.- Manage Project OH&S activities.- Monitor relevant OH&S performance metrics.- Ensure the Project complies with relevant WorkSafeBC regulations and government requirements.
Monthly Highlights:	<ul style="list-style-type: none">- Continued to receive health and safety updates and incident reports from BCIB and the Contractor.- 16 incidents were documented in the health and safety log for the month. All of the incidents were deemed minor, and none resulted in lost time due to injury. Lost Time Injury Frequency Rate (LTIFR) for the Project is 0.38 which is less than the WorkSafeBC average of 2.98 for <u>heavy construction</u>.
Three Month Lookahead:	<ul style="list-style-type: none">- Update Safe Work Plans and Safe Job Procedures as required.- Deliver training on the Job Hazard Assessment and Risk Mitigation Plan for all Project Team members.- Conduct OH&S audits as and when required.

4.2 Quality

Scope:	<ul style="list-style-type: none">- Establish quality management Project objectives and performance measures.- Manage Project quality management activities.- Monitor relevant quality management performance metrics.
Monthly Highlights:	<ul style="list-style-type: none">- Continued structural steel pre-fabrication activities, including steel coupon cutting and testing.- Conducted four Quality Audits focusing on traffic management.- Initiated six new Non-Compliance Reports (NCR). Three relate to process and procedure and three to environmental issues.
Three Month Lookahead:	<ul style="list-style-type: none">- Structural steel milling to commence following verification tests and finalization of shop drawings.- Continue steel fabrication quality monitoring, and surveillance auditing and initiate inspections as required.- Ongoing planning for upcoming structural steel fabrication.- Ongoing review of quality-related submittals.

4.3 Environmental

Scope:	<ul style="list-style-type: none"> - Manage follow-up and compliance actions required under the Environmental Assessment Certificate (EAC) and the Port and Environmental Review (PER) permit. - Liaise with regulators on matters related to EAC and PER permit conditions and commitments made through the environmental assessment process. - Oversee outstanding environmental permits and associated environmental studies, monitoring, and compliance processes. - Support the Technical Heritage Committee and archaeology investigation program.
Monthly Highlights:	<ul style="list-style-type: none"> - WSA permit amendment for short term use is under review by the Ministry of Forests, Lands, Natural Resource Operations & Rural Development. - Ongoing discussions between the Contractor, VFPA, EAO and the Province on the Independent Environmental Monitor. - FAA amendment for proposed north bank was submitted to the DFO and is under review. - 17 Environmental Incident Reports were issued in November of which eight were deemed minor. Four of the incidents were in relation to exceedances of the underwater noise threshold requirements. In all cases, work was immediately halted and a scan of the area was undertaken to look for evidence of fish or marine mammals in distress (none were observed. Four incidents were in relation to the release of turbid or high pH water after prolonged heavy rain. In response enhanced mitigation measures were implemented including installing rock to help stabilize the bank and the building of a containment pond. One additional incident was in relation to a fluid sheen observed on the surface of the Fraser River. Absorbent booms were immediately deployed to contain and clean up any potential fluid spill.
Three Month Lookahead:	<ul style="list-style-type: none"> - Continue to liaise with regulators on follow-up actions and commitments arising from the required Project permits and approvals. - Continue working with the Contractor and third-party experts to monitor underwater noise during in-river works. - Receive executed WSA Short Term Use permit. - Receive FAA amendment.

4.4 Archaeology

Scope:	<ul style="list-style-type: none"> - Managing, directing, and undertaking all archaeological work, including Archaeology Impact Assessment (AIA), Systematic Data Recovery (SDR), and archaeological monitoring. - Support the Technical Heritage Committee and archaeology investigation program. - Responding to chance archaeological or heritage finds.
Monthly Highlights:	<ul style="list-style-type: none"> - Continued archaeological investigations at pier locations in Surrey and New Westminster. - Pier S3 was released to the Contractor to allow piling to begin. - An Amendment to the Heritage Inspection Permit to increase the current land boundary has been approved.

Three Month Lookahead:	<ul style="list-style-type: none"> - Continue archeological monitoring and archaeological investigations. - Continue to liaise with regulators on follow-up actions and commitments from required Project permits and approvals.
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4.5 Design and Construction

Scope:	<ul style="list-style-type: none"> - Travel demand forecasting, traffic operations modelling, traffic data collection, and other related engineering services in support of the Project. - Review the final bridge design including roadways, associated structures, drainage, and utilities. - Compliance reviews during construction. - Provide oversight of Contractor on-site activities throughout the Project's lifecycle. - Management of the Project's schedule, scope and progress.
Monthly Highlights:	<ul style="list-style-type: none"> - Project team reviewed the design for the Hwy 17 exit ramp superstructure, Royal Avenue underpass, Old Yale Road overpass and an updated memo on the refusal criteria. Additionally, a revised Design Management Plan was submitted and reviewed. - Completed an additional hydraulic model test. Results being reviewed. - Completed wind tunnel testing of the main bridge design. Results being reviewed. - Discussions are ongoing re: proposed ground improvements and additional scour protection in the Project area. - Continued In-river piling work at Pier S1 and on-land at Piers S2 and S7. - Continued Site preparation work at Pier N3 in New Westminster. - Continued daily site monitoring and reporting.
Three Month Lookahead:	<ul style="list-style-type: none"> - Complete monthly riverbed monitoring surveys. - Complete additional physical hydraulic model test runs as required. - Complete in-river piling. - Finalize review of wind tunnel testing results.

4.6 Indigenous Groups

Scope:	<ul style="list-style-type: none"> - Consultation and engagement with the Identified Indigenous Groups (IIGs) as set out in the EAC. - Engagement with Indigenous groups on Project opportunities and benefits including project benefit agreements and contracting opportunities.
Monthly Highlights:	<ul style="list-style-type: none"> - Two Technical Heritage Committee (THC) meetings were held in November with Indigenous Groups. - 9 out of 10 project agreements signed with IIGs. - Indigenous Art and Cultural Recognition (IACR) art and artist selection process underway.
Three Month Lookahead:	<ul style="list-style-type: none"> - Continue meetings with the THC. - Continue meetings with the Indigenous Marine Users Group. - Continue to facilitate meetings between Indigenous groups and the Project.

- Progress IACR opportunities including finalizing the art and artist selection.

4.7 Third Parties

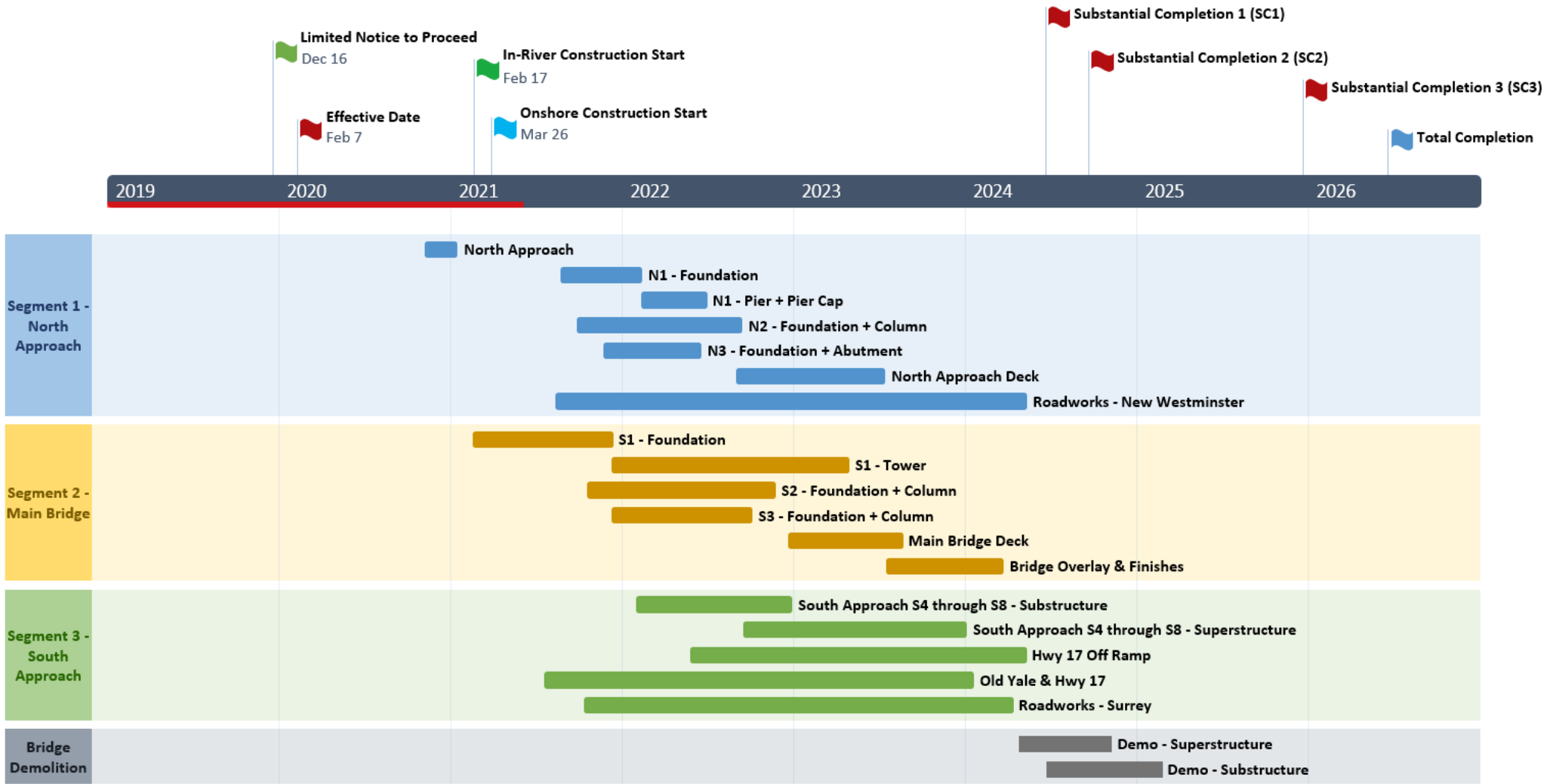
Scope:	<ul style="list-style-type: none"> - Engage with Municipalities (City of New Westminster and City of Surrey) for the Project implementation phase. - Municipal Agreements. - Railway Construction and Crossing Agreements. - Utility Agreements. - TransLink Agreement.
Monthly Highlights:	<ul style="list-style-type: none"> - Continued meeting weekly with the City of Surrey and City of New Westminster. - Coordinated comments from the municipalities back to the Contractor on specific aspects of the Project's design including those on urban integration, traffic management, utility design, and roadway alignments. - Continued agreement discussions with TELUS and railway companies. - Handover/transfer agreement discussions regarding the existing bridge with TransLink continued.
Three Month Lookahead:	<ul style="list-style-type: none"> - Continue to engage with municipalities on the Project's design. - Continue to work with railways, TELUS and TransLink to finalize agreements. - Continue coordination with FortisBC regarding the Pattullo Gas Line Replacement.

4.8 Public and Stakeholder Engagement

Scope:	<ul style="list-style-type: none"> - Manage ongoing public and stakeholder communications and engagement.
Monthly Highlights:	<ul style="list-style-type: none"> - Continued to provide communication updates regarding site activity work including notification distribution to residents, business and stakeholders. Notifications are being posted to website, emailed to local resident and business associations, and sent to the email subscription list. - Continued to engage with stakeholders on the Project's design. - Work hour variance request was approved by both the City of New Westminster and the City of Surrey to allow for pile driving on Sundays. - Provided responses and updates regarding planned construction activities, including planned road closures, and the Project's design to interested stakeholders.
Three Month Lookahead:	<ul style="list-style-type: none"> - Continue engagement with key stakeholders in New Westminster and Surrey regarding Project designs and construction plans, including with resident groups, HUB Cycling and the Walkers' Caucus. - Ongoing management of Project communications, including incident response, enquiry response, Project information sheets and construction notices. - Continue to provide project construction activity information via social media platforms.

5. Schedule

The following schedule depicts deliverables, milestones and associated dates and timelines for the implementation phase of the Project, as well as anticipated construction timelines.



6. Project Photos

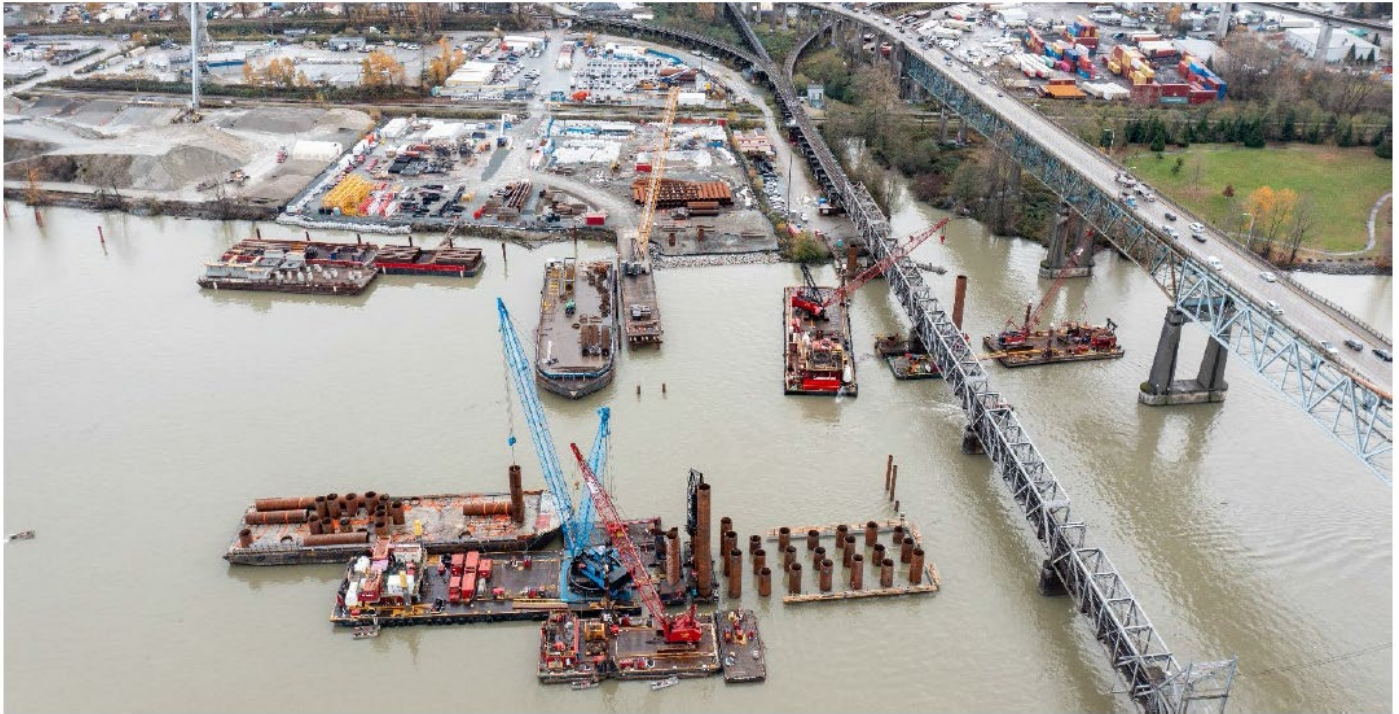


FIGURE 1 – PILE INSTALLATION AT PIERS S1 (FRONT) AND S2 (BACK)

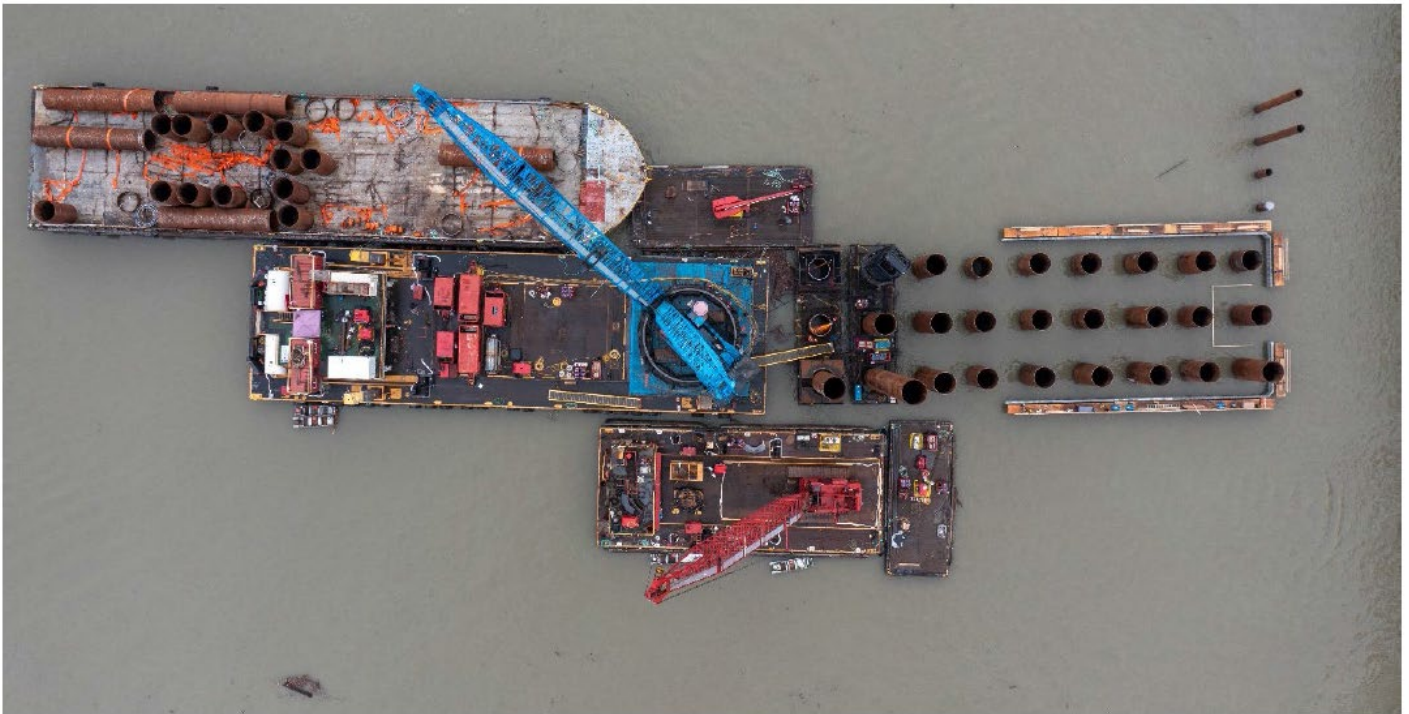


FIGURE 2 – OVERHEAD VIEW OF PILE INSTALLATION PROGRESS AT PIER S1



FIGURE 3 – PILE INSTALLATION AT PIER S2 (BOTTOM LEFT) AND PIER S1 (TOP MIDDLE)



FIGURE 4 – PILE INSTALLATION AT PIER S7