



transportation
investment
corporation

Monthly Status Report

Reporting Period: May 2023

1. Introduction

1.1 Project Overview

The Broadway Subway Project (“BSP” or “the Project”) is a 5.7-kilometre Advanced Light Rapid Transit (ALRT or SkyTrain) extension to the existing Millennium Line SkyTrain system from its current terminus at VCC-Clark Station to a new western terminus station at Arbutus Street and West Broadway. The Project scope includes:

- 700 m of elevated guideway extending west from the existing VCC-Clark Station
- 5 km of underground tunnel
- 6 new underground stations:
 - Great Northern Way-Emily Carr Station;
 - Mount Pleasant Station;
 - Broadway-City Hall Station – designed to integrate with the Canada Line Broadway-City Hall Station;
 - Oak-VGH Station;
 - South Granville Station;
 - Arbutus Station – designed to allow for a future phase of investment to connect rapid transit to UBC.

The Broadway Subway is scheduled to open in 2026.

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

1.2 Project Delivery

Transportation Investment Corporation, a provincial Crown corporation, is delivering and overseeing this \$2.827 billion project. The Project is being delivered under B.C.’s Community Benefits Agreement and the skilled trades workforce will be provided by B.C. Infrastructure Benefits Inc.

Broadway Subway Project Corporation (BSPC) has been selected as the design-build contractor.









The Broadway Subway Project is a key part of the rapid transit program in Metro Vancouver’s Mayors’ Council 10-Year Vision. The Vision is funded by the governments of B.C. and Canada, TransLink, and City of Vancouver. Once constructed, the Broadway Subway will be integrated with the regional transit network and operated and maintained by TransLink.

1.3 Project Goals

Based on the mandate and results of consultation, seven primary goals have been identified for the Project:

- **Transportation:** Fast, reliable, and efficient service that meets current and future capacity needs and integrates with the regional transit network and other modes of transportation.
- **Financial:** Affordable and cost-effective.
- **Environment:** Attracts new riders and reduces vehicle kilometres travelled.
- **Urban Development:** Supports current and future land use development along the Broadway Corridor and integrates with the surrounding neighbourhoods through high-quality urban design.
- **Economic Development:** Creates jobs and facilitates the efficient movement of goods and services during operation.
- **Social and Community:** Safe, secure, and accessible service that improves access to rapid transit for all, while managing impacts on heritage and archaeology.
- **Deliverability:** Constructible and operable.

2. Project Dashboard

		Objectives	Project Status	Comments
Project Delivery	Scope	Project delivered within the approved scope.		<ul style="list-style-type: none"> The delivery is within scope. The Project includes the delivery of a primarily tunneled extension to the existing Millennium Line SkyTrain system from VCC-Clark Station to a new station at Arbutus Street.
	Schedule	Project delivered within the approved schedule.		<ul style="list-style-type: none"> The start of piling activities was delayed at some construction locations. Recovery measures have been implemented by Broadway Subway Project Corporation and are being monitored closely. A five-week concrete supplier strike in June 2022 delayed the completion of the base slab at Great Northern Way, which impacted the start of tunnel boring. As a result, Project completion moved from late 2025 to early 2026.
	Budget	Project delivered within the approved budget of \$2.827 billion.		<ul style="list-style-type: none"> The Project spending for the month of May 2023 was \$30.4 million and total Project spending to date is \$1.15 billion. Total Federal Recoveries to date are \$369.7 million and City of Vancouver contribution is \$100.3 million. The Project is forecast to be delivered within budget.
	Safety	Take every reasonable step to ensure that work is performed safely and in compliance with all applicable safety regulations, and in accordance with government policy.		<ul style="list-style-type: none"> Monitored the implementation of the health and safety program and performed site visits. There have been three (3) lost time injuries on the Project to date. The Lost Time Injury Frequency Rate (LTIFR) for the Project is 0.23 which is less than the WorkSafeBC 2021 rate of 0.90 for heavy construction.
	Quality	Implement and maintain an effective Quality Management System.		<ul style="list-style-type: none"> Quality monitoring and auditing of select work activities and processes continues. Review of quality documents submittals, as they are received, continues.
	Environmental	Ensure work is performed in an environmentally responsible manner.		<ul style="list-style-type: none"> Site-specific environmental workplans are being followed. Weekly environmental monitoring reports are being submitted. Ongoing work to mitigate/monitor construction noise at all stations. Monthly Province-led audits of environmental program.
	Design and Construction	Provide design and technical oversight, coordinate and manage activities on site, and conduct compliance reviews.		<ul style="list-style-type: none"> Continued progress on excavation, piling, utility work and traffic decking. Inbound TBM broke through at Broadway-City Hall Station site. Permanent works being constructed along the Elevated Guideway, at Great Northern Way-Emily Carr Station, Mount
	Community Benefits	Work collaboratively with BC Infrastructure Benefits Inc. (BCIB) to successfully implement the		<ul style="list-style-type: none"> Ongoing coordination with BCIB on permitting requirements. Discussions regarding current and future Project workforce requirements continue to progress.

		Community Benefits Agreement (CBA).		
Partners / Stakeholders	Indigenous Groups	Continue to build and maintain a positive collaborative working relationship.	●	<ul style="list-style-type: none"> • Targets for Indigenous contracting opportunities have all been achieved but continue to work with Indigenous Groups for further opportunities. • Continued engagement with Indigenous Groups in relation to the Project and cultural recognition. • Continued Project-specific agreement discussions with Indigenous Groups.
	Third Parties	Continue to build and maintain positive relationships with Project Partners and other third parties.	●	<ul style="list-style-type: none"> • Ongoing third-party engagement for successful implementation. • Discussions with TransLink regarding Operations and Control Centre (OCC2) integration. • Discussions with PCI regarding Total Completion deferred scope of work timeline.
	Public and Stakeholder Engagement	Continue to build and maintain positive relationships with the community and other stakeholders.	●	<ul style="list-style-type: none"> • Ongoing engagement with local businesses, stakeholders, residents, and the public. • Continue engagement relating to parking availability.

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"> • Business Case released (2018). • Cost Report released (2018). • Project Overview released (2018). • Risk Report released (2018). • Strategic Options Whitepaper released (2018). • Executed Design-Build-Finance Agreement (August 2020).
	Environmental	<ul style="list-style-type: none"> • Environmental technical studies complete (2017-2018). • Environmental Socio-Economic Report complete (2020). • BSPC Construction Environmental Management Plan finalized (2021). • Environmental Workplans complete (2022). • 2022 annual environmental report submitted (January 2023).
	Design and Construction	<ul style="list-style-type: none"> • Geotechnical studies complete (2016-2017). • Reference concept design complete (2018). • Traffic modelling complete (2017-2019). • Geotechnical Subsurface Baseline Report complete (2019). • Geotechnical investigations commenced (2020). • Building abatement complete (2021). • Building demolitions at station sites complete (2021). • Piling complete at Mount Pleasant and Broadway-City Hall stations (2021). • Piling complete at Oak-VGH, Granville, and Arbutus stations (2022). • Traffic deck installation complete at Mount Pleasant, Broadway-City Hall, Oak-VGH, South Granville (2022) and Arbutus (2023) stations. • Excavation at Great Northern Way and Mount Pleasant complete (2022). • Station base slab at Great-Northern Way and Mount Pleasant stations complete (2022), excluding Headhouses. • Both Tunnel Boring Machines (TBM) launched (2022).
	Province/Other Works	<ul style="list-style-type: none"> • TBM power – BC Hydro (2019). • Propulsion Power Substations including upgrade to dedicated power at VCC-Clark Station – BC Hydro (2019). • Utility relocate at Main Street – TELUS (2019). • Utility relocate at Great Northern Way – TELUS/FortisBC/BC Hydro (2019).

Partners / Stakeholders		<ul style="list-style-type: none"> • Civil construction and utility relocate at Arbutus and Cambie – TELUS (2020). • Trolley overhead relocations of bus routes 14, 16, and 17 – Coast Mountain Bus Company (2020). • Trolley overhead removals of trolley infrastructure on Broadway – Coast Mountain Bus Company (2020). • Utility relocate at Cambie – FortisBC (2020). • Electrical duct utility relocate at South Granville and Arbutus – City of Vancouver (2021). • 901 Great Northern Way building modification completed (2021).
	Community Benefits	<ul style="list-style-type: none"> • Community Benefits Agreement (July 2018) • BCIB-AIRCC Enabling Agreement (July 2019) • Project Definition: Broadway Subway Project (July 2019) • BCIB Health and Safety Program (March 2020) • BCIB-Contractor Agreement (August 2020) • BCIB-Subcontractor Agreement (August 2020)
	Third Parties	<ul style="list-style-type: none"> • Memorandum of Understanding – City of Vancouver (2017). • Memorandum of Understanding – TransLink (2018). • Canada–British Columbia Integrated Bilateral Agreement for the Investing in Canada Infrastructure Program – Government of Canada (2018) • Canada Line Amending Agreement – InTransit BC Phase 1 (2019). • South Granville Station Integration Agreement – PCI (2019). • Vancouver Municipal Agreement – City of Vancouver (2020). • Metro Vancouver Accommodation Agreement (2020). • Broadway Subway Project Support Agreement – TransLink (2020). • Canada Line Amending Agreement – InTransit BC Phase 2 (2020). • Integration Agreement – TransLink (2020). • Great Northern Way Station Integration Agreement – PCI (2020).
	Indigenous Groups	<ul style="list-style-type: none"> • Capacity Agreement for the Environmental and Socio-Economic Review (2018). • Contracting and employment requirements finalized (2020). • Cultural recognition opportunities selected by Indigenous Groups (2021).

	Public and Stakeholder Engagement	<ul style="list-style-type: none"> Phase 1 and 2 engagements (led by TransLink and City of Vancouver) <ul style="list-style-type: none"> Phase 1 engagement (December 2016 – February 2017). Phase 2 engagement (May 2017 – July 2017). Broadway Subway Project Engagement (Province-led) <ul style="list-style-type: none"> Local business survey (July 2019 – December 2019). Community engagement (October 2019 – December 2019). Opened Community Office (Fall 2019). Established 24/7 construction information line (December 2019). Station Design Advisory Process (BSPC-led) <ul style="list-style-type: none"> First engagement occurred (November-December 2020). First engagement summary report released (2021). Second engagement (April 29-May 12, 2021).
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4. May Highlights and Three Month Lookahead

4.1 Safety

Scope:	<ul style="list-style-type: none">• Oversee and monitor health and safety:<ul style="list-style-type: none">○ Management plans and systems.○ Goals, objectives, and performance metrics.○ Roles and responsibilities.○ Planning and coordination of major Project activities.○ Compliance with WorkSafeBC, municipalities, and government agencies.○ Continual improvement process.○ Risk management.○ Statistics and trends.
Monthly Highlights:	<ul style="list-style-type: none">• Performed weekly site visits to observe compliance and areas of improvement.• Focused on monitoring the management of public safety.• Monitored compliance with the tunnelling work activities.• Received the reported Lost Time Injury Frequency Rate (LTIFR):<ul style="list-style-type: none">○ The Project to date LTIFR is 0.23, which is less than the 2021 WorkSafe BC rate of 0.90 for heavy construction.
Three Month Lookahead:	<ul style="list-style-type: none">• Continue to:<ul style="list-style-type: none">○ provide health and safety support to involved parties.○ perform regular health and safety inspections at Project sites.○ oversee the health and safety planning and performance for tunnelling.○ monitor the management of public safety.

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.• Outline relevant quality management processes and activities.
Monthly Highlights:	<ul style="list-style-type: none">• Completed quality audit of BSPC's activities related to instrumentation and monitoring.• 8 Non-conformity Reports (NCR) were initiated this month related to traffic, environmental, construction, and health and safety. To date there have been a total of 313 NCRs (30 open and 283 closed).
Three Month Lookahead:	<ul style="list-style-type: none">• Continue regular monitoring of quality activities by means of discipline specific field visits, meetings, and other review and communication processes.• Continue scheduled quality system audits and surveillances.• Continue to review quality documentation submissions.

4.3 Environmental

Scope:	<ul style="list-style-type: none"> Oversee delivery of measures to manage risk identified in the Environmental and Socio-Economic Review (ESR). Review environmental submissions including the Construction Environmental Management Plan (CEMP) and Environmental Work Plans (EWPs). Monitor CEMP implementation through review of weekly environmental monitoring. Support engagement with Indigenous Groups on CEMP implementation.
Monthly Highlights:	<ul style="list-style-type: none"> Weekly/monthly reporting to support implementation of Construction Environmental Management Plan. Continued enhanced focus on monitoring and mitigation of construction noise. Monitoring implementation of recommendations from Quality Audit which focused on noise management.
Three Month Lookahead:	<ul style="list-style-type: none"> Continue monthly on-site environmental surveillance during construction. Finalize contaminated site removal and remediation plans. Continue focus on noise mitigation/monitoring to address construction noise.

4.4 Design and Construction

Scope:	<ul style="list-style-type: none"> Provide technical input to the procurement processes. Develop a design concept, technical requirements/specifications, and related technical studies for the Project. Conduct Project related traffic operations modelling, data collection, and other related engineering services. Conduct compliance reviews of work by BSPC. BSPC Design and Construction Activities include: <ul style="list-style-type: none"> Non-Design Systems Design Enabling Works including site preparation, building demolitions and utility relocations Construction of 6 Stations Elevated Guideway Construction Underground Guideway Construction by tunnel boring machine Systems Installation Testing and Commissioning
Monthly Highlights:	<ul style="list-style-type: none"> Continued Non-Systems and Systems Design. Continued to implement numerous traffic diversions throughout the corridor to accommodate construction. Commenced abutment foundation construction at the Elevated Guideway. Continued pier cap construction at the Elevated Guideway. Continued girder installation along Elevated Guideway. Continued erection of precast decks along Elevated Guideway. Continued construction of walls in transition box at Great Northern Way. Commenced roof slab construction in the transition box.

	<ul style="list-style-type: none"> Continued station wall construction at Great Northern Way. Continued column construction at Mount Pleasant station. Continued wall construction at Mount Pleasant station including headhouse. Continued slab construction at Broadway-City Hall station. Continued excavation of the circulation shaft (escalator box) at Broadway-City Hall station. Ongoing excavation at Oak-VGH station. Ongoing excavation at South Granville station. Continued utility work at Arbutus station. Completed traffic deck installation at Arbutus station. Ongoing excavation and strut installation at Arbutus Station. Inbound TBM broke through at Broadway-City Hall station.
Three Month Lookahead:	<p><u>Design:</u></p> <ul style="list-style-type: none"> Continue monitoring Non-Systems and Systems design. <p><u>Elevated Guideway:</u></p> <ul style="list-style-type: none"> Complete construction of the abutment for the Elevated Guideway. Complete construction of pier caps for Elevated Guideway. Complete erection of concrete girders. Commence and continue with cast-in-place concrete deck. <p><u>Great Northern Way-Emily Carr:</u></p> <ul style="list-style-type: none"> Resume piling for U-Channel at Great Northern Way. Continue wall construction in the transition box. Continue roof construction in the transition box. Continue wall construction in the station. Commence concourse slab construction in the station. Complete excavation of the headhouse. <p><u>Mount Pleasant:</u></p> <ul style="list-style-type: none"> Continue column construction. Continue wall construction. Commence concourse slab construction in the station. <p><u>Broadway-City Hall:</u></p> <ul style="list-style-type: none"> Continue slab construction. Commence west headwall construction. Complete excavation of the circulation shaft (escalator box). Commence construction of the escalator box. Commence excavation for the Broadway-City Hall headhouse underpasses. <p><u>Oak-VGH:</u></p> <ul style="list-style-type: none"> Continue bulk excavation. Commence slab construction. <p><u>South Granville:</u></p> <ul style="list-style-type: none"> Continue bulk excavation. Commence slab construction. <p><u>Arbutus:</u></p> <ul style="list-style-type: none"> Install remaining struts. Continue bulk excavation. Commence slab construction.

	<u>Tunnel:</u> <ul style="list-style-type: none"> Departure of Inbound and Outbound TBMs from Broadway-City Hall station and continue boring.
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4.5 Indigenous Groups

Scope:	<ul style="list-style-type: none"> Consultation and engagement with Indigenous Groups on Project materials as well as cultural recognition at stations.
Monthly Highlights:	<ul style="list-style-type: none"> Shared Project updates and materials with Indigenous Groups, including environmental management plans and reports, archaeological reports, and construction updates. Discussions with Indigenous Groups on art and cultural recognition, including calls for artists and confirmation of selected opportunities.
Three Month Lookahead:	<ul style="list-style-type: none"> Continue sharing information, identifying and resolving issues, and identifying Project-related opportunities for Indigenous Groups. Continue engagement with Indigenous Groups related to art and cultural recognition at stations, including supporting the selection of artists by Indigenous Groups. Work with Indigenous Groups to identify training programs that support Project employment and update labour forecasting.

4.6 Third Parties

Scope:	<ul style="list-style-type: none"> Engage with TransLink, the City of Vancouver, PCI, InTransit BC, and other third parties during the Project implementation phase. TransLink Agreement. <ul style="list-style-type: none"> Broadway Subway Project Support Agreement. Municipal Agreement. <ul style="list-style-type: none"> Vancouver Municipal Agreement with the City of Vancouver. Agreements with InTransit BC and TransLink for technical integration of the new Millennium Line Broadway-City Hall Station with the existing Canada Line Broadway-City Hall Station. <ul style="list-style-type: none"> Canada Line Amending Agreement – InTransit BC Phase 1 (between TransLink and InTransit BC). Canada Line Amending Agreement - InTransit BC Phase 2 (between TransLink and InTransit BC). Integration Agreement with TransLink. PCI Agreements. <ul style="list-style-type: none"> South Granville station Integration Agreement with PCI. Great Northern Way station Integration Agreement with PCI. Accommodation Agreement with Metro Vancouver.
Monthly Highlights:	<ul style="list-style-type: none"> Continued to engage third parties to ensure successful implementation of executed agreements. Ongoing discussions with TransLink regarding OCC2 implementation.

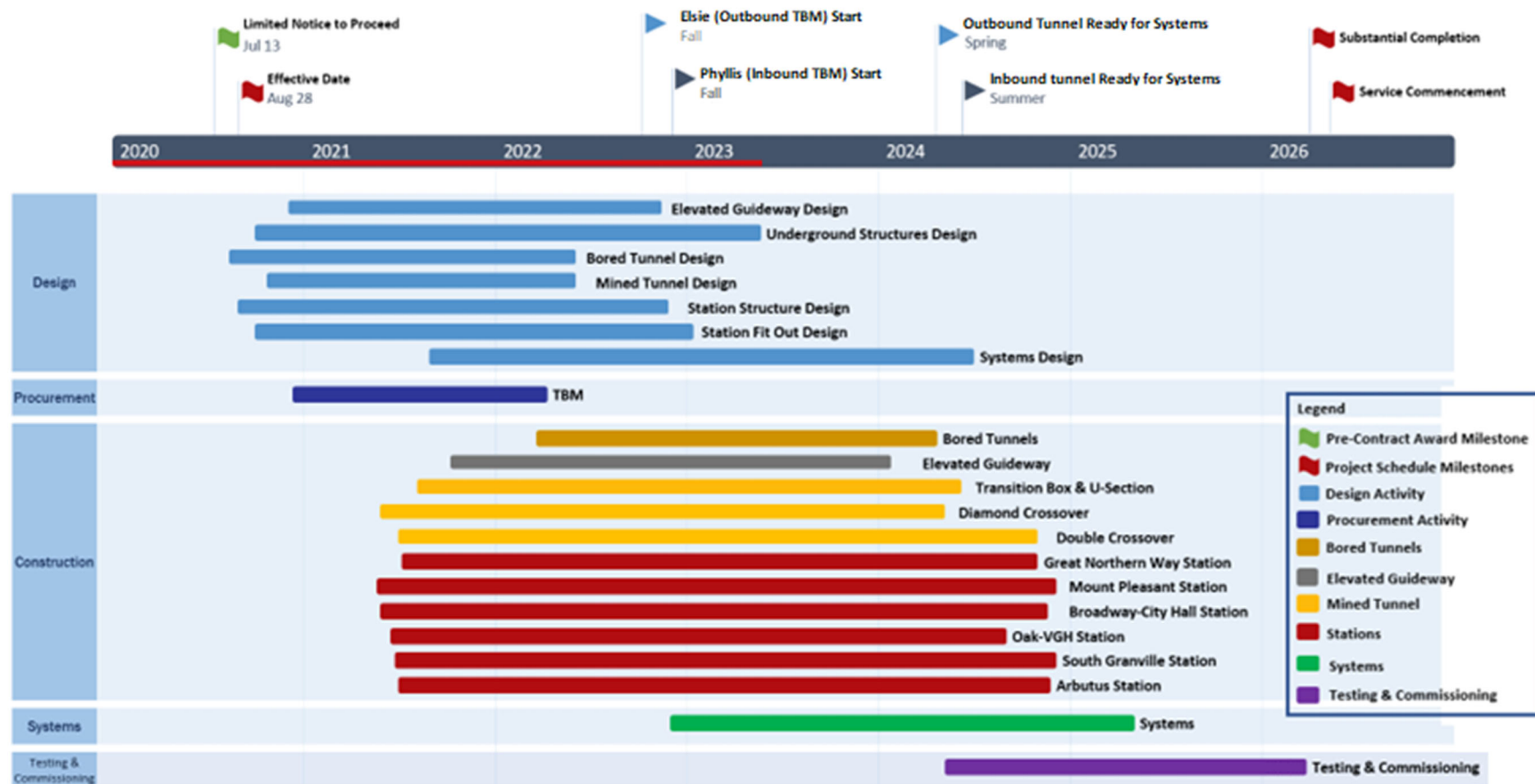
Three Month Lookahead:	<ul style="list-style-type: none"> • Oversee implementation phase of executed agreements. • Coordinate design and construction interface between BSPC and third parties.
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4.7 Public and Stakeholder Engagement

Scope:	<ul style="list-style-type: none"> • Manage ongoing public and stakeholder communications, and community and business relations.
Monthly Highlights:	<ul style="list-style-type: none"> • Announced the breakthrough of Phyllis (Inbound TBM) at Broadway-City Hall station. • Distributed construction notifications (available on website), shared Project information and updates on social channels, responded to public and stakeholder enquiries, and met with businesses and stakeholders. • Responded to 38 public inquiries.
Three Month Lookahead:	<ul style="list-style-type: none"> • Communicate completion of final traffic deck at Arbutus and departure of TBMs from Broadway-City Hall station. • Install murals on construction fencing at Broadway-City Hall and Arbutus sites. • Continue weekly business outreach walks and other frequent direct contact with businesses. • Ongoing regular meetings with the Business Improvement Associations, Traffic Advisory and Arbutus Schools Traffic Liaison groups. • Continue regular outreach with residents and key stakeholders, and engagement with the community via pop-up neighbourhood information kiosks. • Provide progress updates on the elevated guideway, tunneling, and excavation and construction of stations. • Continue to distribute construction notifications and respond to public enquiries. • Continue engagement relating to parking availability.

5. Schedule

The following schedule depicts the estimated deliverables, milestones, and timelines from the design to commissioning phase of the Project.



6. Project Photos



Figure 1: Elevated Guideway: Installing the girders to connect the guideway to the existing track at VCC-Clark Station.

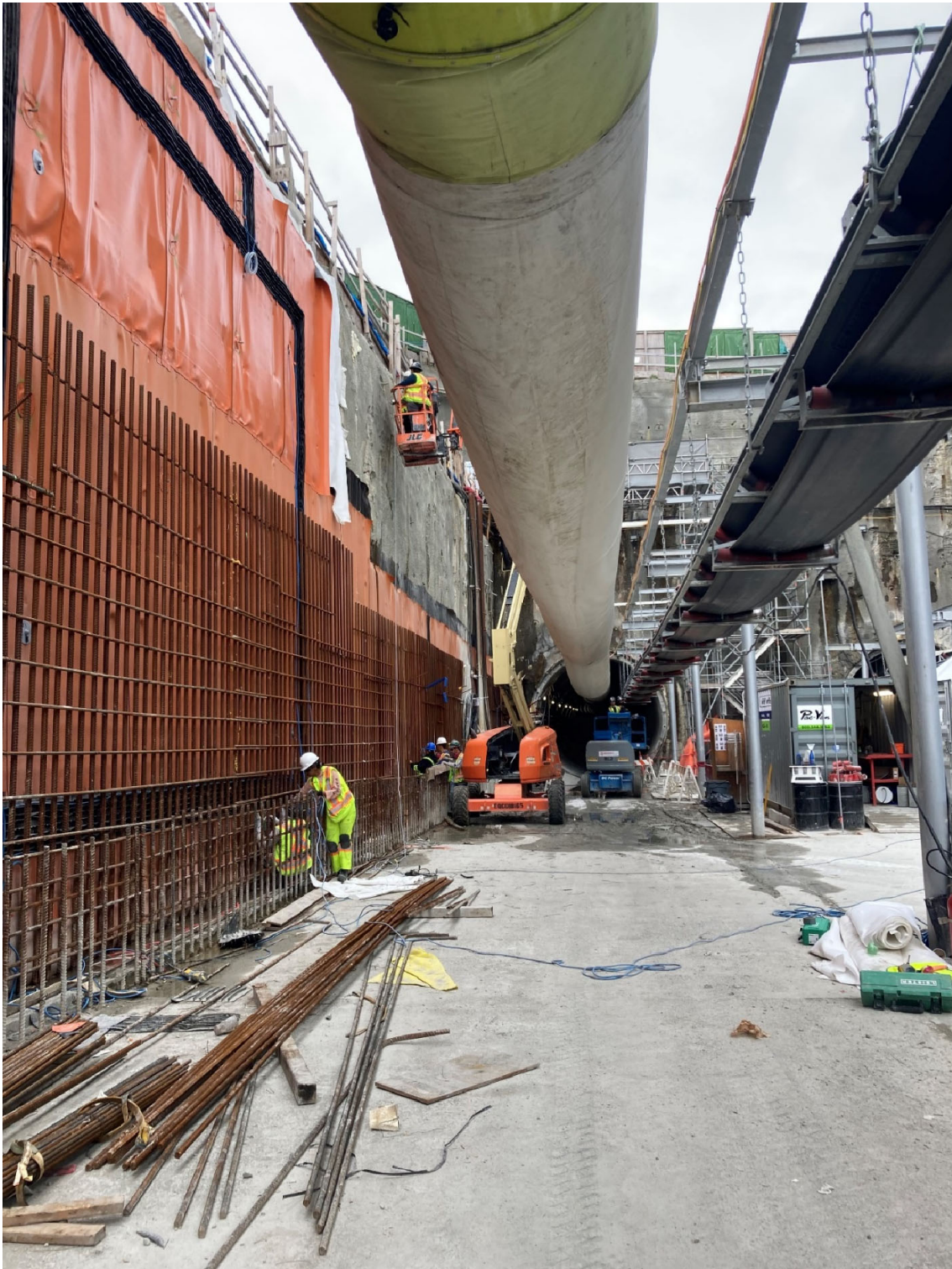


Figure 2: Great Northern Way-Emily Carr Station: Progressing with the installation of rebar to form the walls for the station box.



Figure 3: Mount Pleasant Station: Formwork for concrete pours to construct walls for the headhouse.



Figure 4: Broadway-City Hall Station: Progressing with the installation of waterproof membrane (near) and installation of rebar (far) for the base slabs.



Figure 5: Oak-VGH Station: Progressing with the preparation work prior to installing the waterproof membrane for the base slab and walls.



Figure 6: South Granville Station: Progressing with the excavation and shoring of the station box.



Figure 7: Arbutus Station: Progressing with the excavation of the station box under the traffic deck.