



transportation
investment
corporation

Monthly Status Report

Reporting Period
August 2024

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:

- 700m 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 new line is expected to go into service in fall 2027.

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.		The Project is being delivered within scope. The Project includes a primarily tunnelled extension of the existing Millennium Line SkyTrain system from VCC-Clark Station to a new station at Arbutus Street.
	Schedule	Project delivered within the approved schedule.		- Revised schedule announced May 24, 2024. The new line is expected to go into service in fall 2027. - Thorough schedule analysis is undertaken each month, including review of performance.
	Budget	Project delivered within the approved budget of \$2.827 billion.		- The Project spending for the month of August 2024 was \$19.2 million. - Total Project spending to date is \$1.59 billion. - Total Federal Recoveries to date are \$511.1 million and City of Vancouver contribution is \$100.3 million. - The Project is forecast to be delivered within budget. - The budget pressures associated with the extended schedule are being managed within the current 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.		- The Project team monitored the implementation of the health and safety program and performed site visits. - There have been 40 lost time injuries on the Project to date. - The Lost Time Injury Frequency Rate (LTIFR) for the Project is 1.42 which is less than the WorkSafeBC 2023 rate of 2.4* for heavy construction and less than 4.6* for mechanized tunnel. <i>*Injury rate data reflects Large Employer 100+ Person Years employer size.</i>
	Quality	Implement and maintain an effective Quality Management System.		- Quality monitoring and auditing of select work activities and processes continue. - Review of quality documentation submittals continues.
	Environmental	Ensure work is performed in an environmentally responsible manner.		- Site-specific environmental workplans are being implemented. - Weekly environmental monitoring is being completed with reports submitted by BSPC. - Work to mitigate construction noise at all stations is ongoing. - Province-led monthly monitoring of environmental programs continues, with ad-hoc site visits as required.
	Design and Construction	Provide design and technical oversight, coordinate and manage activities on site, and conduct compliance reviews.		- Continued finalizing stations design and progressing systems design. - Continued progress on remaining excavation, and utility work. - Ongoing construction of permanent works along the Elevated Guideway and at all six stations.

		Objectives	Project Status	Comments
	Community Benefits	Work collaboratively with BC Infrastructure Benefits Inc. (BCIB) to successfully implement the Community Benefits Agreement (CBA).	●	- Ongoing coordination and collaboration with BCIB and BSPC to implement the CBA. - Ongoing discussions regarding current and future Project workforce.
Partners / Stakeholders	First Nations	Continue to build and maintain a positive collaborative working relationship.	●	- Targets for Indigenous contracting opportunities have all been achieved and engagement continues with First Nations on further opportunities. - Continued engagement with First Nations in relation to the Project and cultural recognition. - Project-specific agreements with First Nations have been finalized.
	Third Parties	Continue to build and maintain positive relationships with Project Partners and other third parties.	●	- Ongoing third-party engagement for successful Project implementation and integration. - Ongoing discussions with TransLink regarding Operations and Control Centre (OCC2) and SkyTrain systems integration. - Ongoing discussions with Canada Line regarding integration with Broadway-City Hall Station.
	Public and Stakeholder Engagement	Continue to build and maintain relationships with the community, provide information about Project activities and respond to stakeholder concerns related to construction.	●	Ongoing engagement with local businesses, stakeholders, residents, and the public.

Status	Description
●	Managing critical issues, negotiating resolution; action required immediately
●	Managing some issues, negotiating resolution; action required in the near term
●	Managing day to day operations

3. Project Documents and Achievements to Date

Project Delivery	Project Planning and Development	• 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	• Environmental technical studies complete (2017-2018). • Environmental Socio-Economic Report complete (2020). • Environmental Workplans complete (2022). • 2023 annual environmental report submitted (January 2024). • BSPC Construction Environmental Management Plan update finalized (June 2024).
	Design and Construction	• 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 for traffic decks complete at Mount Pleasant (2021), Broadway-City Hall (2021), Oak-VGH (2022), South Granville (2022), and Arbutus stations (2022). • Traffic deck installation complete at Mount Pleasant (2022), Broadway-City Hall (2022), Oak-VGH (2022), South Granville (2022) and Arbutus (2023) stations. • Station box excavation complete at all stations: Great Northern Way-Emily Carr (2022), Mount Pleasant (2022), Broadway-City Hall (2023), Oak-VGH (2023), South Granville (2023) and Arbutus (2023). • Station box base slab complete at all stations: Great-Northern Way-Emily Carr (2022), Mount Pleasant (2022), Broadway-City Hall – including crossover box (2023), Oak-VGH (2023), South

Partners / Stakeholders		Granville (2023) and Arbutus – including crossover box (2024). - Elevated guideway pier and girder installation complete (2023). - Both TBMs launched (2022) and completed boring (2024).
	Province/Other Works	- 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). - 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	- Community Benefits Agreement (July 2018) – amended and restated March 2022. - 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	- 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-Emily Carr Station Integration Agreement – PCI (2020).
	First Nations	• Capacity Agreement for the Environmental and Socio-Economic Review (2018). • Contracting and employment requirements finalized (2020). • Cultural recognition opportunities selected by First Nations (2021).
	Public and Stakeholder Engagement	• Phase 1 and 2 engagements (led by TransLink and City of Vancouver) ○ Phase 1 engagement (December 2016 – February 2017). ○ Phase 2 engagement (May 2017 – July 2017). • Broadway Subway Project Engagement (Province-led) ○ 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) ○ First engagement occurred (November – December 2020). ○ First engagement summary report released (2021). ○ Second engagement (April – May 2021).

4. Monthly Highlights and Three Month Lookahead

4.1 Safety

Scope:	- Oversee and monitor health and safety: - 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:	- 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): - The Project to date LTIFR is 1.42, which less than the 2023 WorkSafeBC rate of 2.4* for heavy construction and 4.6* for mechanized tunnel. <i>*Injury rate data reflects Large Employer 100+ Person Years employer size.</i> - Monitored compliance of the Safety Management Plan. - Reviewed updates to the Safety Management Plan to align with the WorkSafeBC legislation changes.
Three Month Lookahead:	- Continue to: - 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. - Perform regular health and safety spot audits on specific activities or elements of BSPC's safety plan.

4.2 Quality

Scope:	- 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:	- Completed one (1) quality audit of BSPC's maintenance of pavement markings. - Completed six (6) quality observation field visits related to BSPC's quality activities: one each at the Arbutus and Mount Pleasant stations, and two each at the South Granville and Broadway-City Hall stations.

	Initiated three (3) Non-Conformity Reports (NCRs) this month related to environmental, electrical, and structural processes. To date there have been a total of 430 NCRs (41 open and 389 closed).
Three Month Lookahead:	- 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, surveillance audits, and observation field visits. - Continue to review quality documentation submissions.

4.3 Environmental

Scope:	- Oversee BSPC's measures to manage and mitigate risks identified in the Environmental and Socio-Economic Review (ESR). - Review environmental submissions and reports. - Monitor Construction Environmental Management Plan (CEMP) implementation through review of weekly environmental monitoring reports, monthly audits and ad-hoc site inspections. - Support engagement with First Nations on environment-related items.
Monthly Highlights:	- Completed review of BSPC's weekly and monthly reporting to monitor compliance with the CEMP. - Identified opportunities for improvement and successes from monthly audit and ad-hoc site inspections. - Continued focus on monitoring and mitigation of construction noise, especially as it relates to night and shoulder work.
Three Month Lookahead:	- Continue monthly and ad-hoc on-site environmental inspections at all sites. - Continue monitoring refinements to noise mitigation/monitoring programs at all sites, especially as it relates to night and shoulder work. - Focus fall and winter monitoring and inspections on erosion and sediment control and water management.

4.4 Design and Construction

Scope:	- 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: - Non-design - Systems design - Enabling works including site preparation, building demolitions and utility relocations - Construction of six (6) stations
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	○ Elevated Guideway construction ○ Underground guideway construction by TBM ○ Systems installation ○ Testing and commissioning
Monthly Highlights:	<u>Design:</u> • Finalizing mechanical, electrical, and architectural designs for all stations. • Finalizing tunnel fit-out (mechanical) design. • Continued systems design. <u>Traffic:</u> • Continued to monitor temporary parking reinstatement trial at select locations on Broadway outside of peak periods together with the City of Vancouver and TransLink. • Continued to implement temporary traffic diversions throughout the corridor to accommodate construction. • Routine traffic deck inspections and maintenance. <u>Tunnel:</u> • Continued tunnel fit-out, including lights and fire protection. • Continued invert slab and track slab installation. <u>Elevated Guideway:</u> • Continued track slab construction. • Continued work at VCC-Clark Station tail track tie-in. • Continued utilities work. • Continued trackwork installation. <u>Great Northern Way-Emily Carr:</u> • Continued roof slab construction in the station box. • Continued wall construction in headhouse, station box, and transition box. • Continued concourse slab construction in the station box. • Continued construction of the transition box and track slab. <u>Mount Pleasant:</u> • Continued roof slab construction in the headhouse. • Continued column and wall construction in the station box and headhouse. • Continued concourse slab construction in the station box. • Continued construction of the vent shafts. <u>Broadway-City Hall:</u> • Continued preparations for constructing lower walls and invert slab in circulation shaft (west side of Cambie Street). • Continued construction of both underpass structures for the passenger connections between the Millennium Line and the Canada Line platforms. • Continued construction of lower walls and columns in station box. • Continued construction of concourse slabs in station box. • Continued excavation of headhouse. <u>Oak-VGH:</u> • Continued construction of station lower walls, columns, and preparations for platform level. • Continued construction of headhouse upper-level walls. • Continued construction of concourse slab in station box. • Continued track slab construction in station box.

	<u>South Granville:</u> • Commenced construction of concourse slab in the station box. • Completed platform and track slab construction in station box. • Received trusses for the top half of the headhouse escalators. • Continued construction of station lower walls and columns. <u>Arbutus:</u> • Commenced roof slab construction at station box. • Continued concourse slab and wall construction at the headhouse. • Continued wall construction at station box. • Continued roof slab and wall construction at the crossover box. • Continued tail track tunnel mining.
Three Month Lookahead:	<u>Design:</u> • Continue finalizing Non-systems design. • Progressing systems design. <u>Traffic:</u> • Continue to implement temporary traffic diversions throughout the corridor to accommodate construction. • Together with the City of Vancouver and TransLink, continue monitoring temporary parking reinstatement trial at select locations on Broadway outside of peak periods. • Routine traffic deck inspections and maintenance. <u>Tunnel:</u> • Commence cast-in-place walls (for tunnel walkways) installation. • Commence trackwork installation. • Continue invert slab and track slab installation. • Continue tunnel fit-out, including lights and fire protection. <u>Elevated Guideway:</u> • Complete track slab construction. • Complete construction of the abutment. • Complete work at VCC-Clark Station tail track tie-in. • Continue trackwork installation. <u>Great Northern Way-Emily Carr:</u> • Commence construction of access for high-rail vehicle at U-Section. • Complete lower wall construction in the station box. • Continue construction of the transition box. • Continue construction of columns in the station box. • Continue concourse slab construction in the station box. • Continue roof slab construction in the station box. <u>Mount Pleasant:</u> • Continue roof slab construction in the headhouse. • Continue column and wall construction in the station box and headhouse. • Continue concourse slab construction in the station box. • Continue construction of vent shafts. <u>Broadway-City Hall:</u> • Complete excavation of the headhouse. • Complete construction of northern underpass structure for the passenger connection between the Millennium Line and Canada Line platforms.

	- Continue construction of southern underpass structure for the passenger connection between the Millennium Line and Canada Line platforms. - Continue construction of the circulation shaft walls and base slab (west side of Cambie Street). - Continue construction of lower walls and columns in the station box. - Continue construction of concourse slabs in the station box. <u>Oak-VGH:</u> - Continue construction of station lower walls, columns, and preparations for platform level. - Continue construction of concourse slabs in the station box. - Continue headhouse concourse level construction. <u>South Granville:</u> - Complete installation of the headhouse escalator. - Continue construction of station lower walls, columns and platform level. - Continue construction of station concourse slab. <u>Arbutus:</u> - Complete tail track tunnel mining. - Complete concourse slab construction in the headhouse. - Commence roof construction in the headhouse. - Continue roof slab construction in the station and crossover box. - Continue wall construction in the headhouse, station box and crossover box.
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4.5 First Nations

Scope:	Consultation and engagement with First Nations on Project materials and cultural recognition at stations.
Monthly Highlights:	- Shared Project updates and materials with First Nations, including environmental management plans and reports, archaeological reports, and construction updates. - Held discussions with First Nations on art and cultural recognition, including calls for artists and confirmation of selected opportunities. - All Project-specific agreements with First Nations have been finalized.
Three Month Lookahead:	- Continue sharing information, identifying, and resolving issues, and identifying Project-related opportunities for First Nations. - Continue engagement with First Nations related to art and cultural recognition at stations, including supporting the work of artists. - Work with First Nations to identify training programs that support Project employment and update labour forecasting.

4.6 Third Parties

Scope:	- Engage with TransLink, the City of Vancouver, PCI, InTransit BC, and other third parties during the Project implementation phase. - TransLink Agreement. - Broadway Subway Project Support Agreement.
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	• Municipal Agreement. ◦ 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. ◦ 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. ◦ South Granville Station Integration Agreement with PCI. ◦ Great Northern Way-Emily Carr Station Integration Agreement with PCI. • Accommodation Agreement with Metro Vancouver.
Monthly Highlights:	• Held ongoing discussions with TransLink regarding OCC2 implementation. • Preparation for installation of equipment in the OCC2 data centre. • Continued collaboration with Canada Line regarding design and construction integration with Broadway-City Hall Station; including construction activities for both underpasses and advancement of design deliverables and review. • Continued collaboration with PCI regarding design and construction at relevant adjacent development sites.
Three Month Lookahead:	• Continue to engage third parties to ensure successful implementation of executed agreements. • Coordinate design and construction interface between BSPC and third parties.

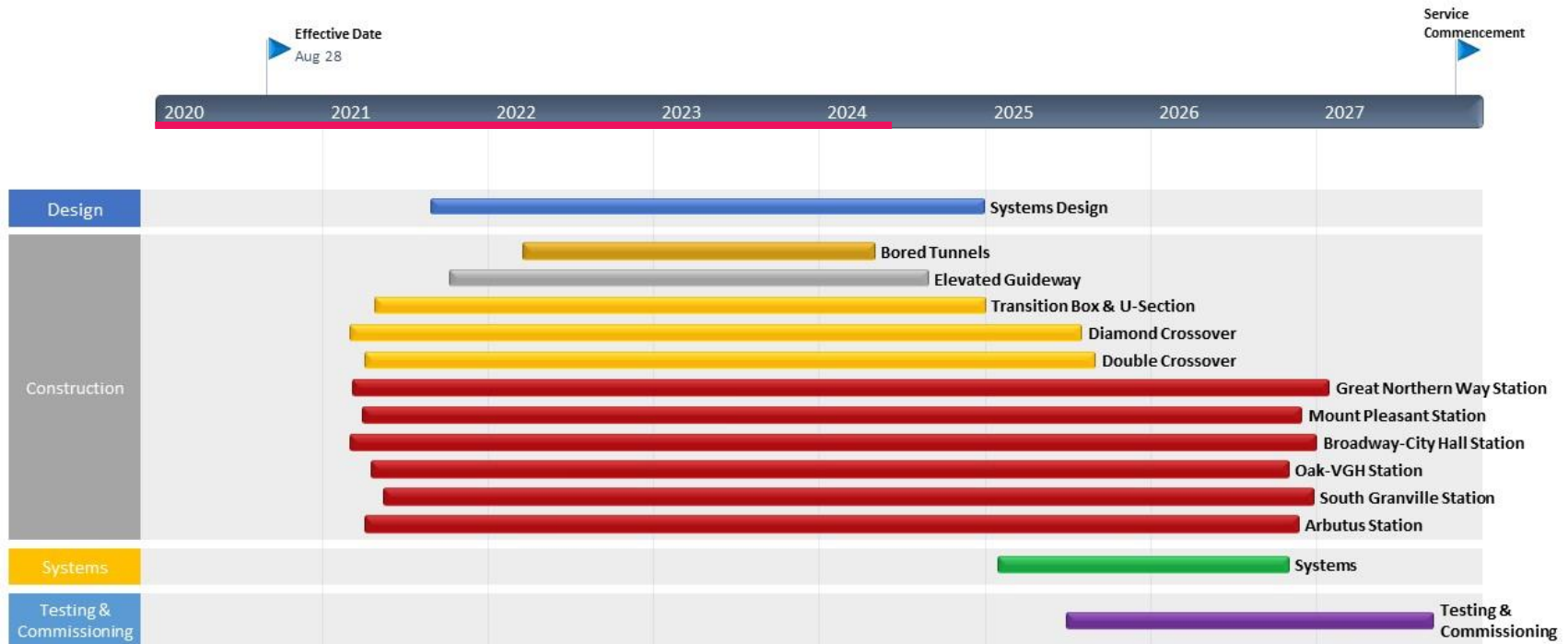
4.7 Public and Stakeholder Engagement

Scope:	• Manage ongoing public and stakeholder communications, and community and business relations.
Monthly Highlights:	• Shared timelapse video of the disassembly and removal of the tunnel boring machines. • Ongoing communications outreach related to station construction and major concrete works. • Distributed notifications regarding construction activities including night work at Broadway-City Hall Station and traffic pattern changes at Arbutus Station.
Three Month Lookahead:	• Continue community outreach activities including hosting information booths at Main Street Car Free Day and the Firehall Library. • Continue weekly business outreach walks and other frequent direct contact with businesses. • Conduct ongoing regular updates and meetings with the Business Improvement Associations, Traffic Advisory and Arbutus Schools Traffic Liaison groups. • Continue regular interactions with residents and key stakeholders. • Provide progress updates on track installation, work inside the tunnels, and construction of stations.

	• Continue to distribute construction notifications and respond to public enquiries.
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5. Schedule

The following schedule depicts estimated timelines from the contract effective date to the new line's in-service date, and reflects the updated schedule announced on May 24, 2024.



6. Project Photos



Figure 1: Elevated Guideway: Progressing with aligning the track switches for the pocket track.



Figure 2: Great Northern Way-Emily Carr Station: Progressing with walls for the station box (shown in the foreground) and transition box (shown in the background).



Figure 3: Mount Pleasant Station: Progressing with the concourse-level walls in the station box.



Figure 4: Broadway-City Hall Station: Progressing with concrete works to construct the tunnelled passenger connections to the Canada Line platforms.



Figure 5: Oak-VGH Station: Progressing with rebar installation for the columns in the station box.



Figure 6: South Granville Station: Completion of the platform slab in the station box.



Figure 7: Arbutus Station: Progressing with excavation of the tail track tunnels west of the station box.