



Broadway Subway Project

Media Briefing - Construction Update

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Project Overview

Broadway at a Glance

- More than 125,000 people living in the corridor
- Second largest employment centre in the province, with more than 105,000 jobs along the Broadway corridor
- 110,000 transit trips each day
- One of the busiest routes for goods movement in City of Vancouver
- Largest hospital (VGH) in Western Canada
- High-tech clusters drawing commuters for work and to centres for research, innovation and education

Project Benefits

Travel Time Savings VCC-Clark to Arbutus – 11 minutes

Capacity Moves three times as many people as 99 B-Line

Better Transit Network Direct connections to Canada Line and SkyTrain

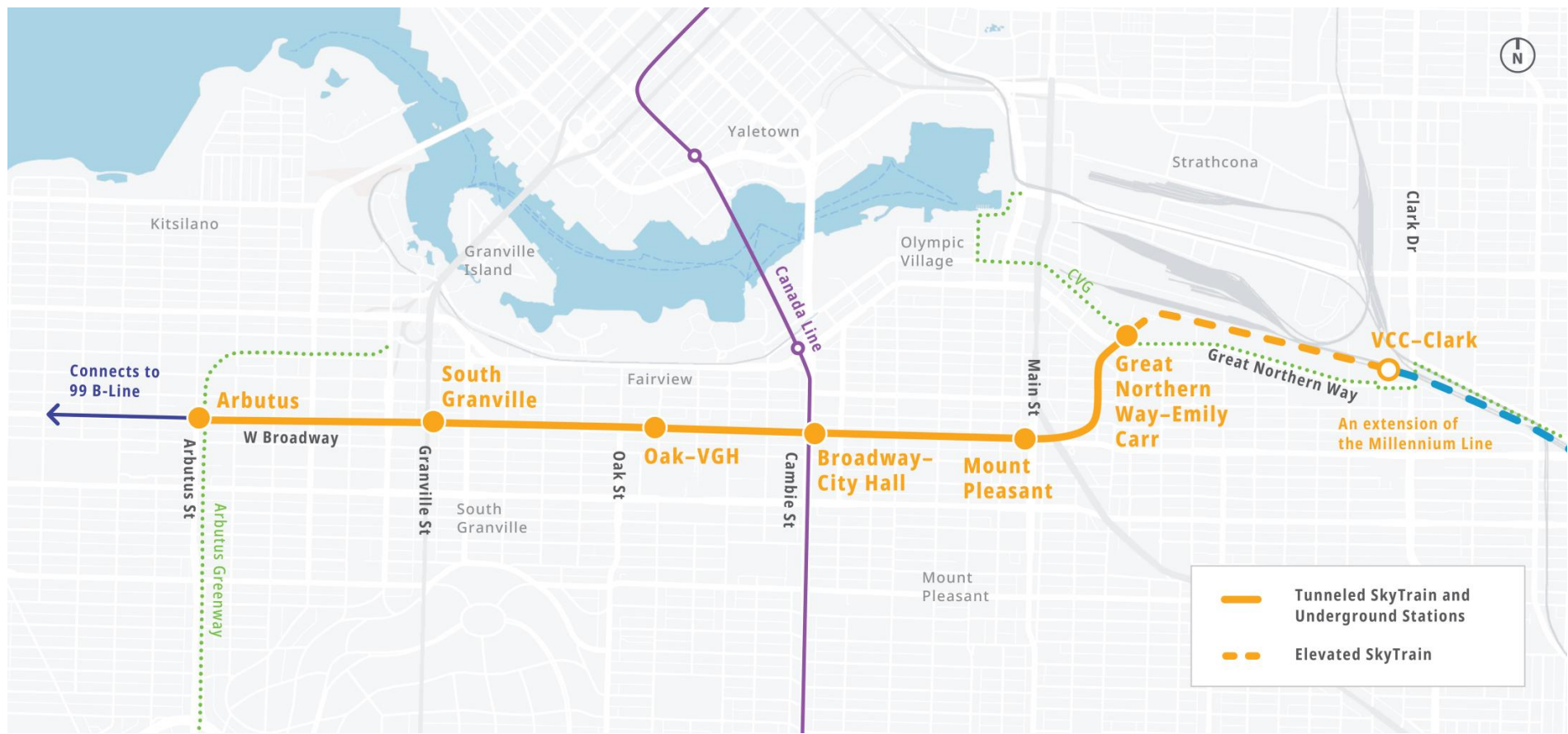
Reduce Congestion Removes ~13,000 vehicle km per year

Transit Mode Share Increases to >40% in corridor by 2045

Support **Environment Net GHG Reductions** – 164,000 T Co2 (to 2054)

Job Creation ~13,000 direct and indirect jobs generated

Alignment – 6 New Stations



Objectives – Major Construction Project

Safety: Keep the public and workers safe

Mobility: Keep pedestrians, cyclists, buses, vehicles, and emergency vehicles moving

Access: Ensure all-ability access to businesses, residences, educational institutions and health services

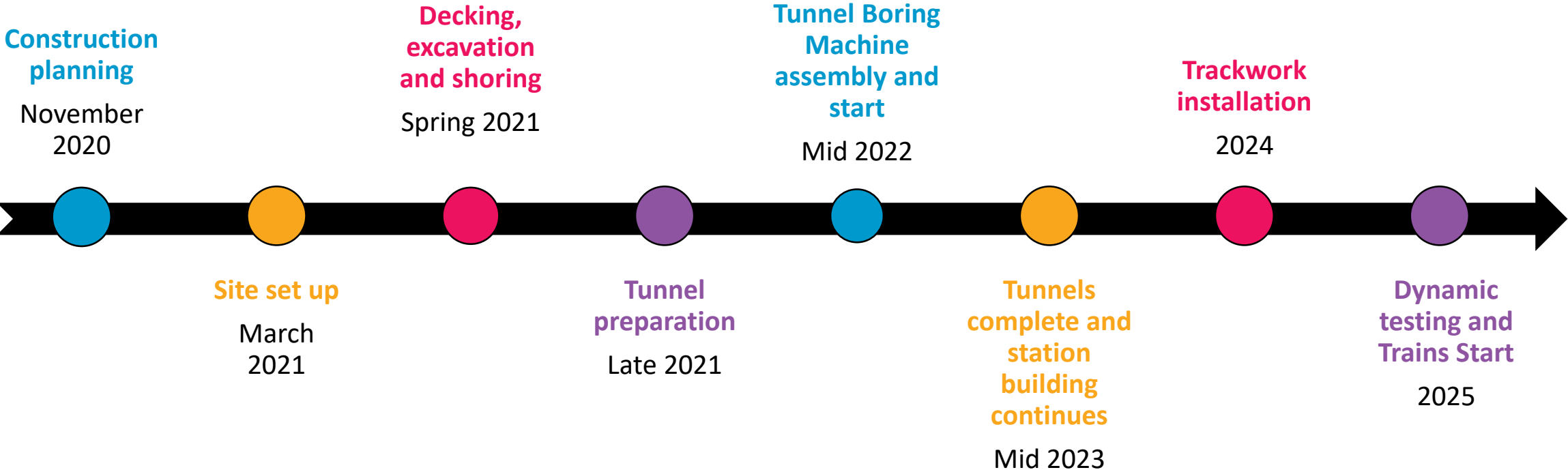
Engagement: Communicate transparently, clearly and consistently with the public, residents, businesses and stakeholders

Mitigation: Minimize traffic and construction impacts wherever possible and manage the transmission of dust, light, noise and vibration

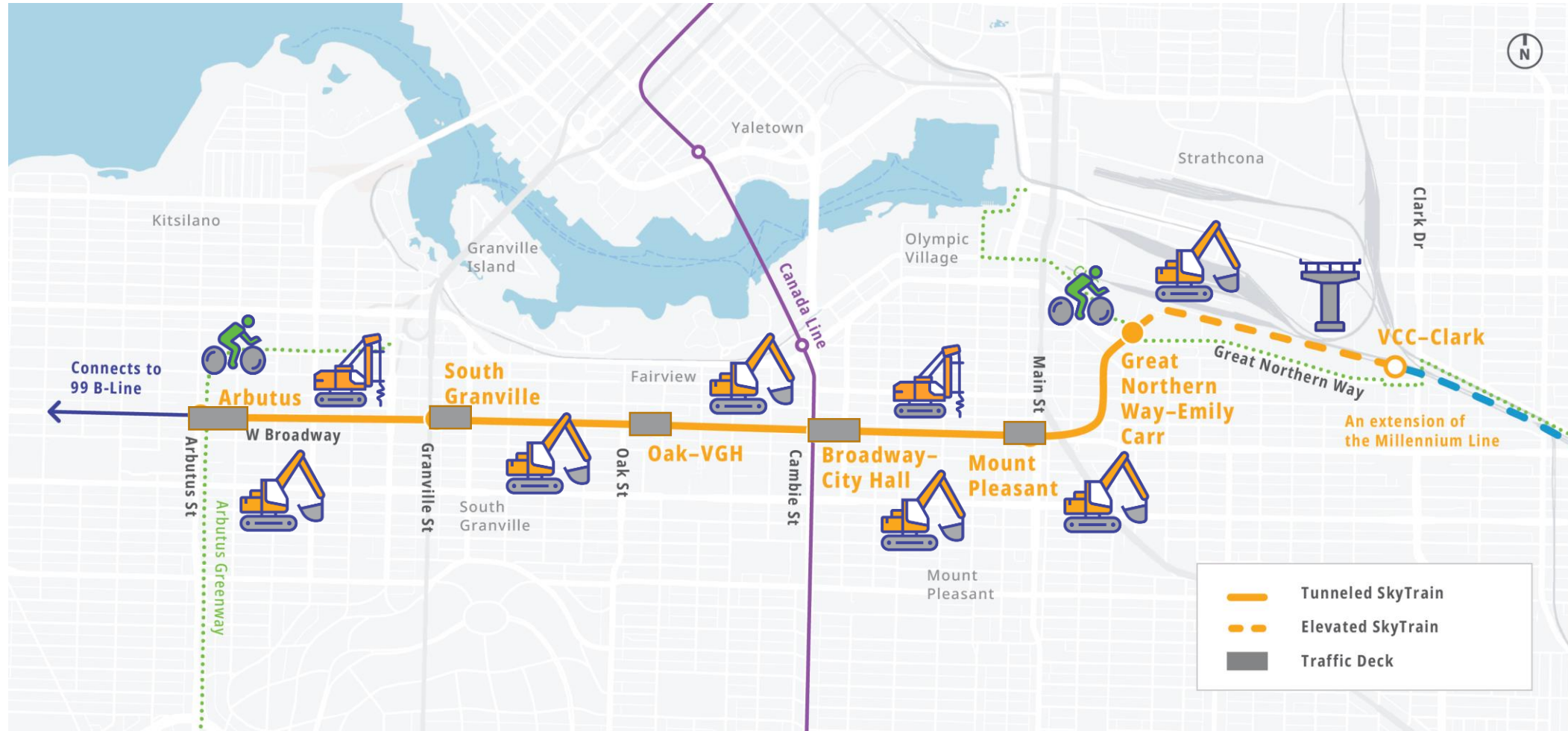


Construction Sequence

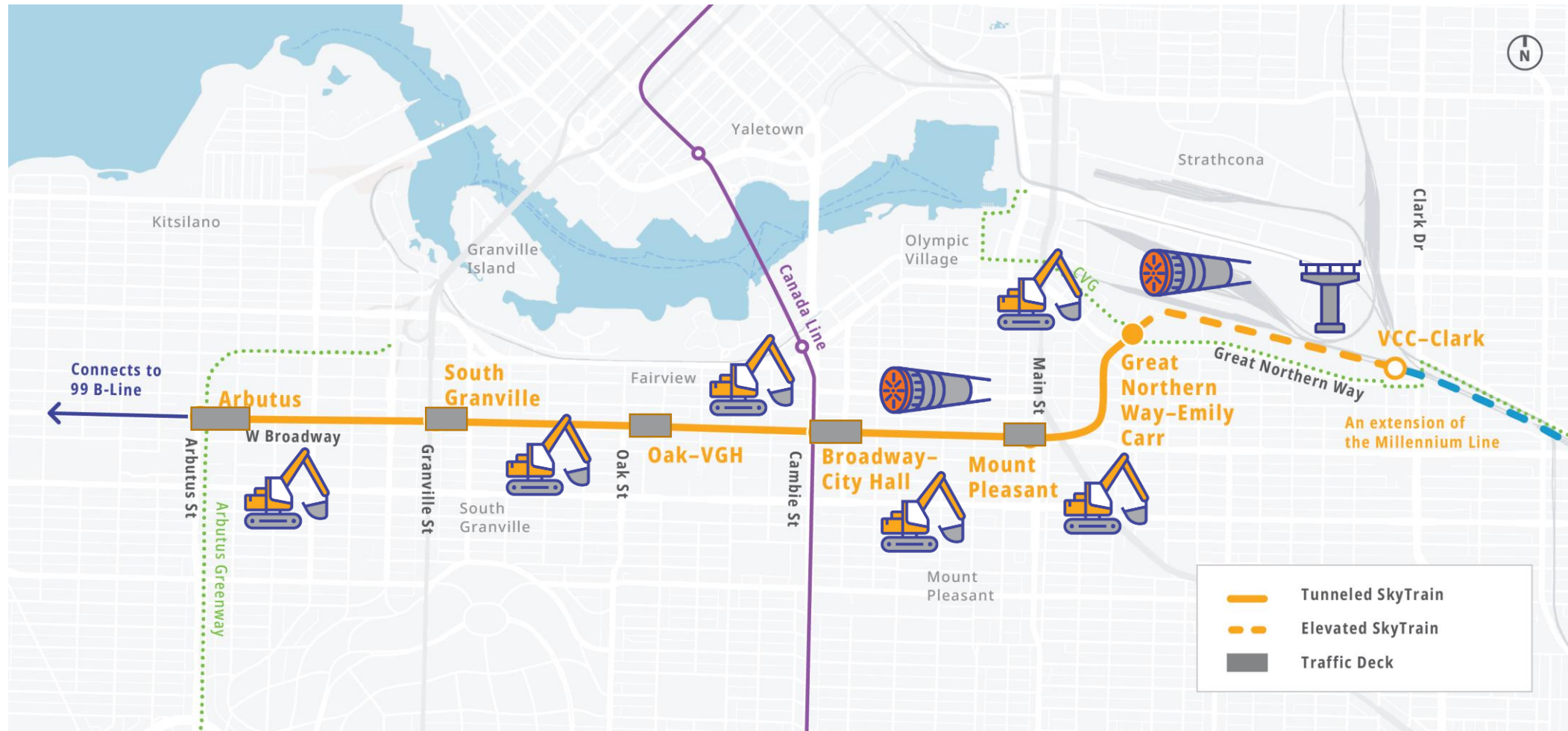
Broadway Subway Project Construction Sequence



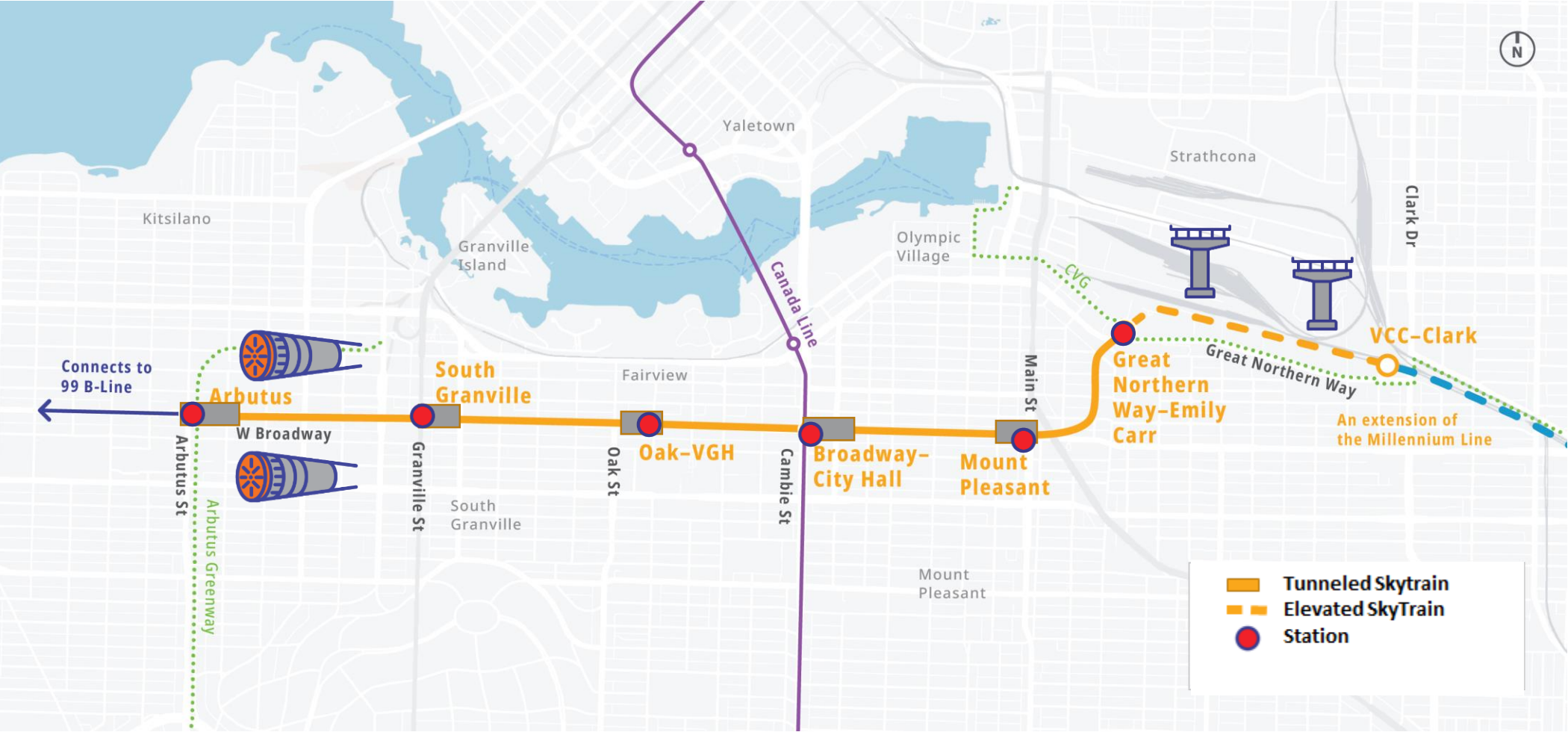
Work in 2021: Geotech, Building Demo, Utilities, Cycling Detours, Traffic Decks, Excavation



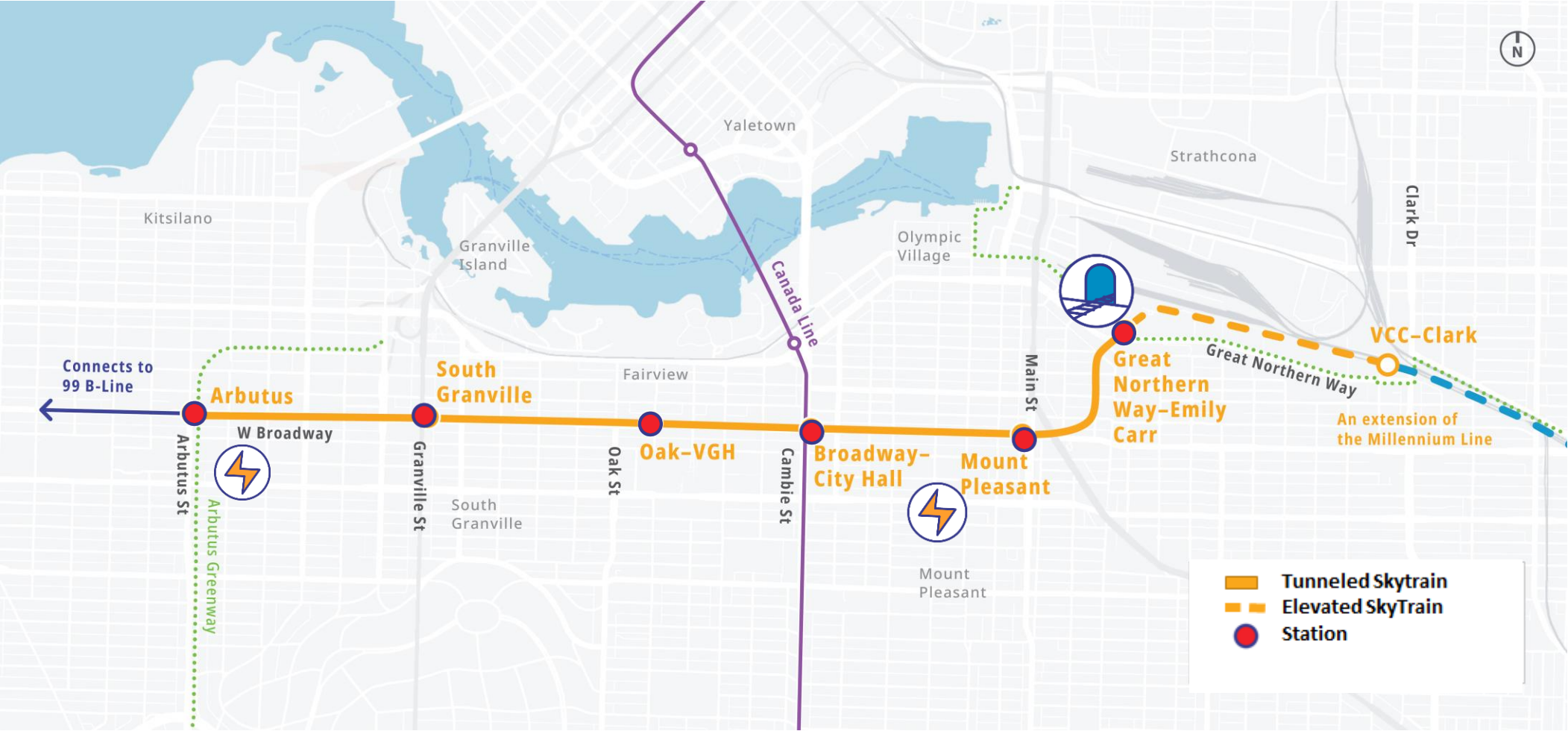
Work in 2022: Excavation, Tunnel Boring, Elevated Guideway



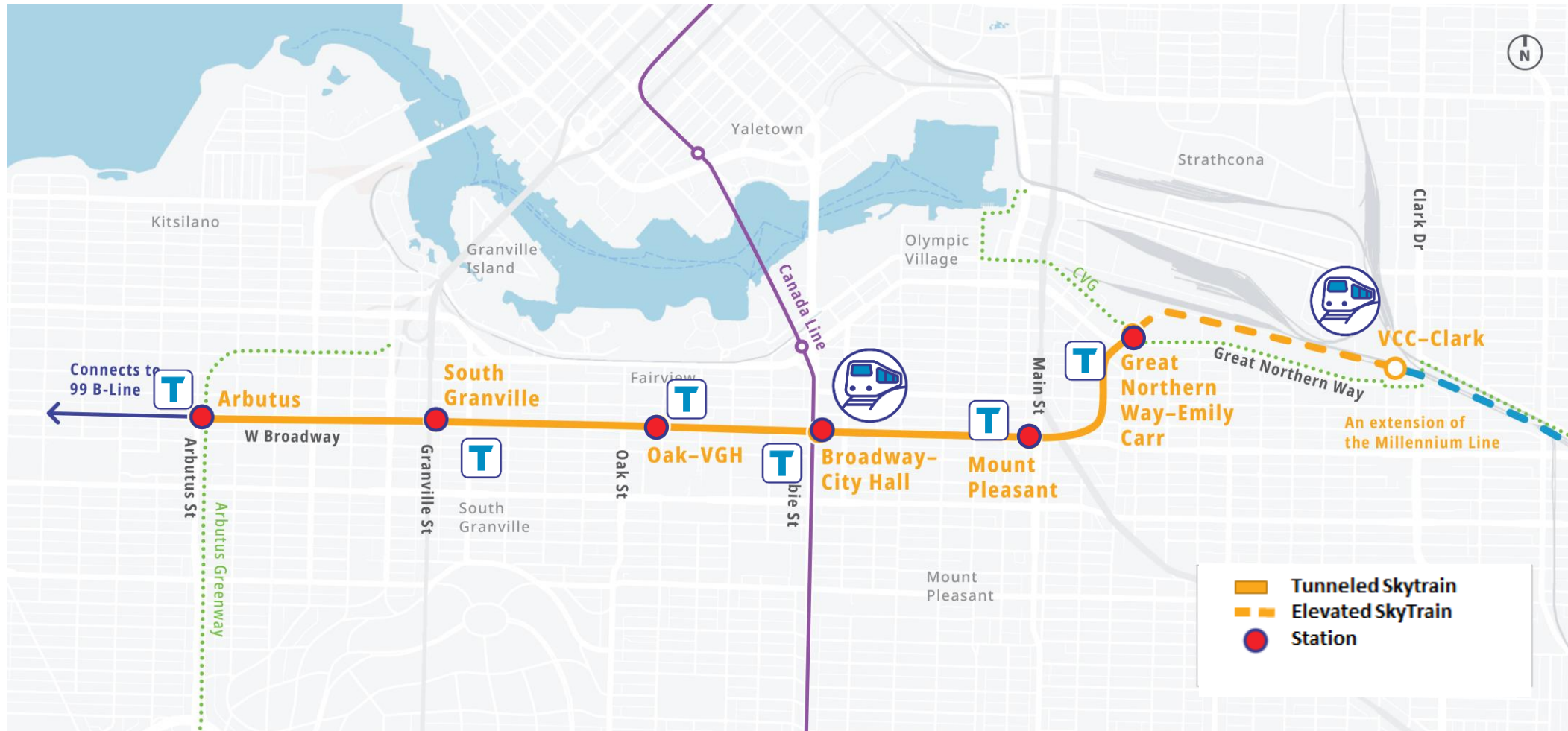
Work in 2023: Tunnel Boring, Elevated Guideway, Stations



Work in 2024: Stations, Track, Power, and Systems



Work in 2025: Stations, Train testing





Construction: Great Northern Way to Broadway

Elevated Guideway

- Elevated guideway consists of 21 piers: each 9 meters high, 2 meters wide
- The guideway will be about 9 meters wide
- Consistent with the look of existing guideway on the SkyTrain network
- Tracks will transition smoothly below the surface from elevation

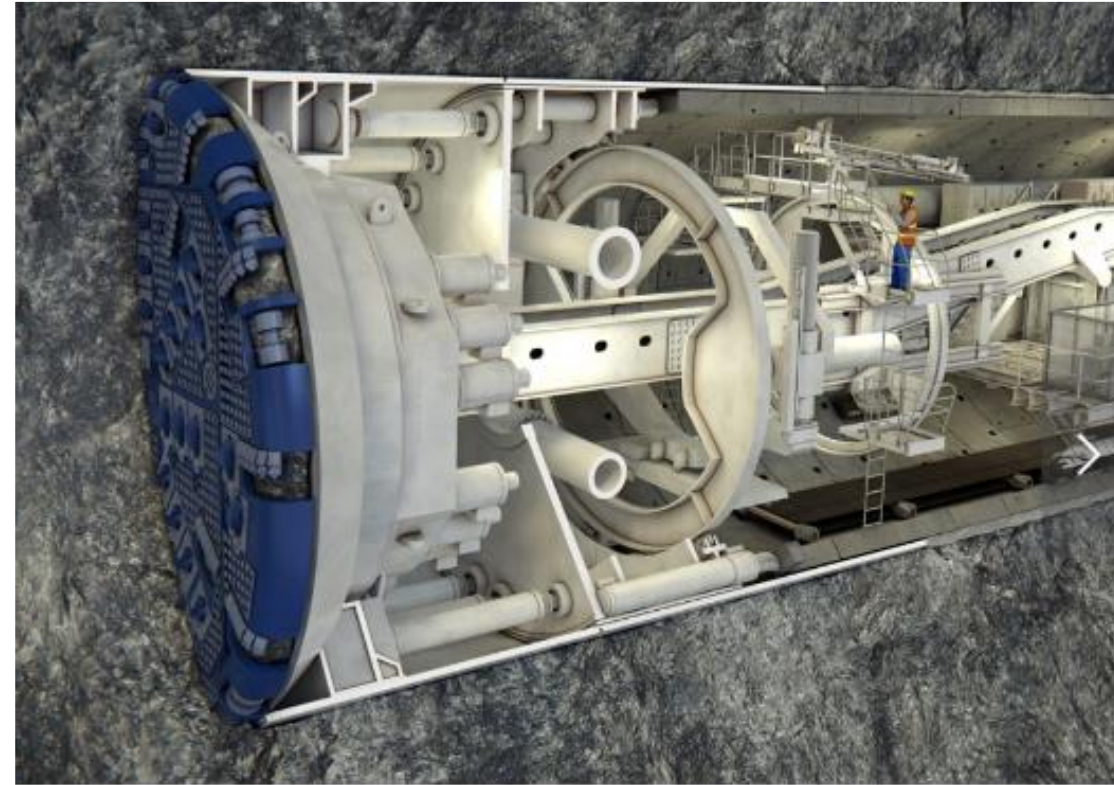


Tunnel Boring Machine (TBM)

TBM launch at Great Northern Way-Emily Carr Station and are disassembled at Cypress Street near Arbutus Station

TBM by the numbers:

- 2 identical 6-metre diameter TBMs
- 3 trained drivers for each machine
- Tunnels approximately 15 meters below ground to a max of 20 meters by Broadway-City Hall Station
- Advancing approximately 18 metres or 60 feet per day
- 100 meters long, about the length of a football field
- 907,185 kilograms, about 333 elephants each





Construction: Broadway to Arbutus

Traffic on Broadway

The Challenge

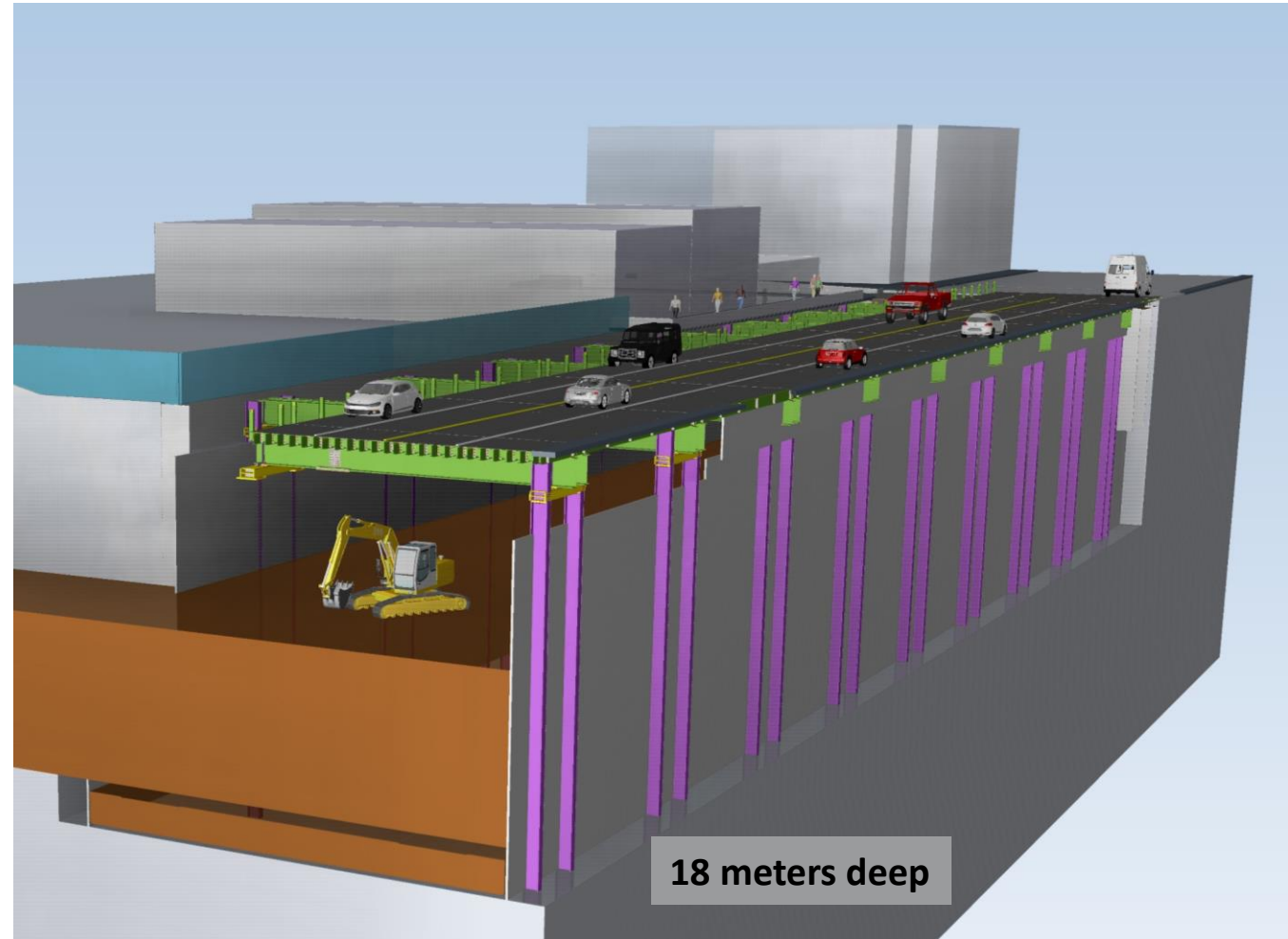
- Manage traffic in one of the busiest transit corridors in North America and busiest routes for goods movement in the City of Vancouver
- Minimize disruption to businesses, services, residents and visitors
- Keep Broadway open at all times for traffic and pedestrian access



Innovative Engineering: Traffic Deck During Excavation

The Solution

- The traffic deck is built first to create an at-grade road above the excavation work
- This innovation ensures that traffic moves safely throughout construction activities on Broadway
- Once the traffic deck is complete, 4 lanes of traffic will be maintained



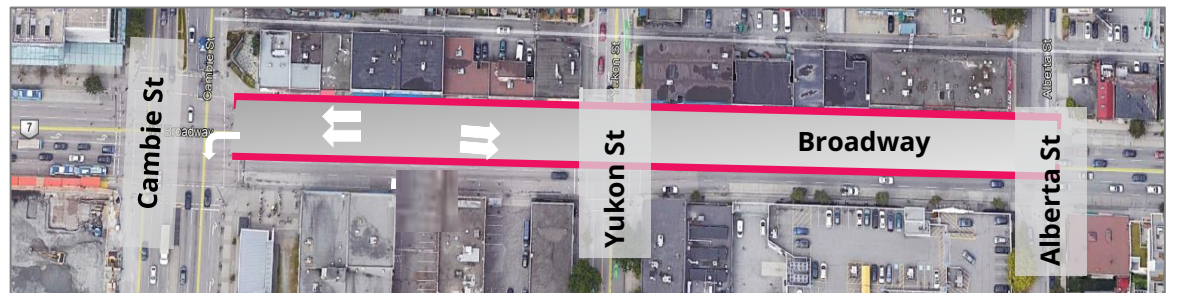
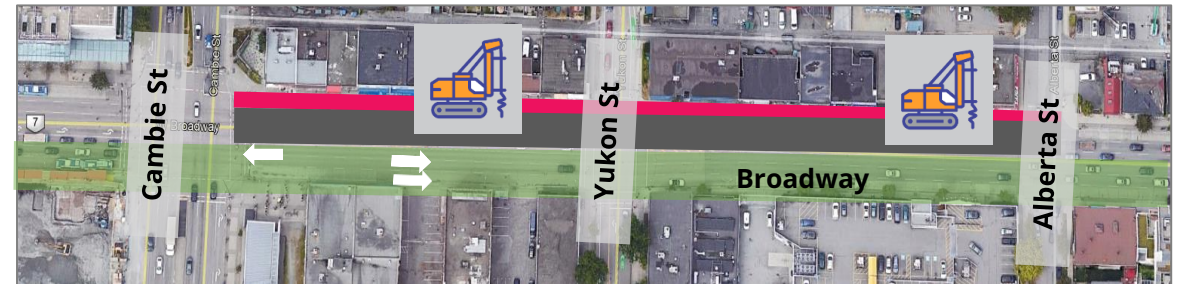
This image is a cross-section of the traffic deck during construction at Mount Pleasant

Building the Traffic Decking at Broadway - City Hall

Phase 1 Three lanes of traffic are open on the north side of Broadway during drilling works on the south side

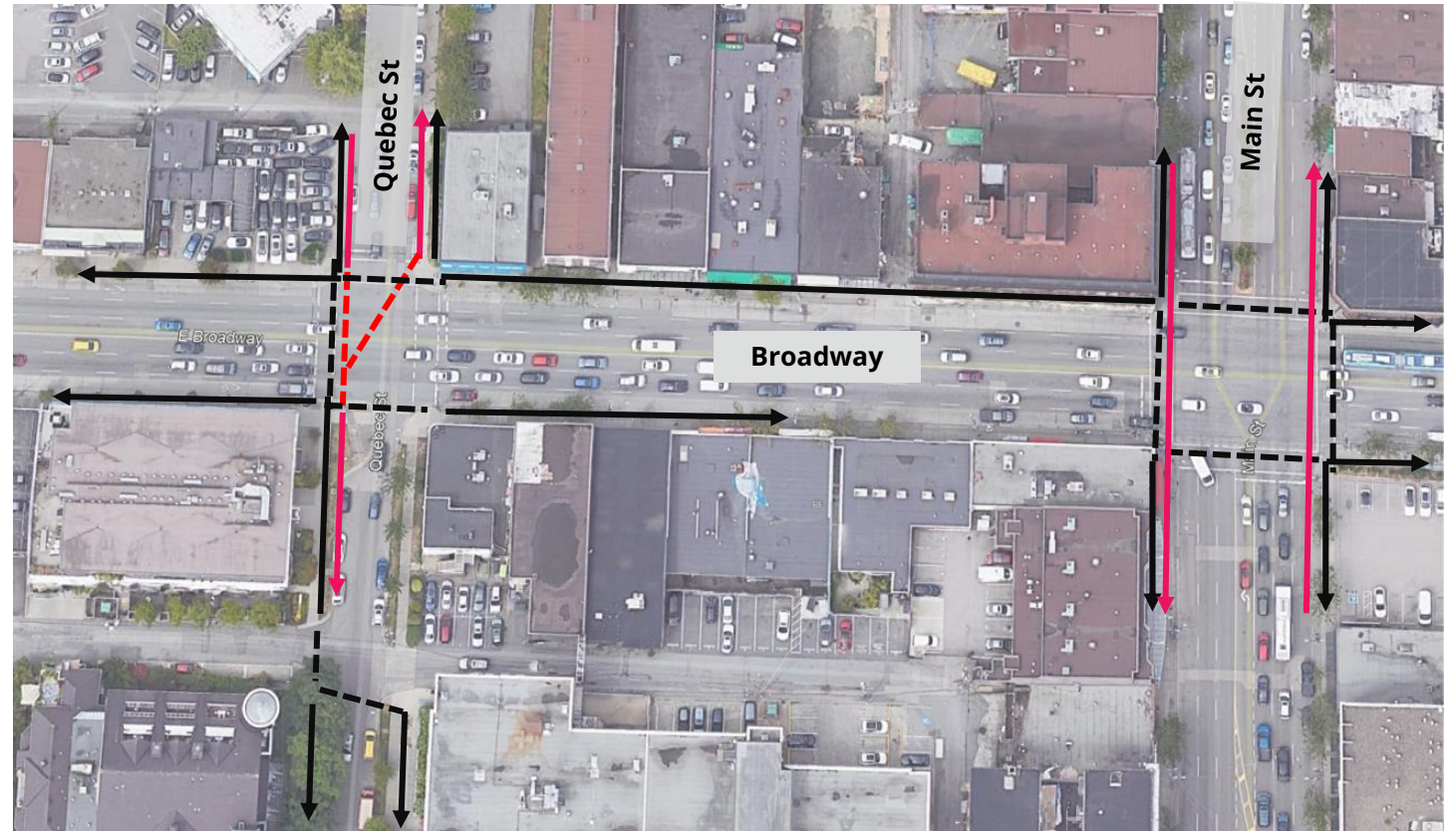
Phase 2 Three lanes of traffic are open on the south side of Broadway during drilling works on the north side

Phase 3 Four lanes of traffic are open, two in each direction while excavation continues below the traffic deck



Pedestrian and Cycling Access – Mount Pleasant

- Sidewalk on the north side of Broadway will be maintained
- Sidewalks at the station entrance site will be closed
- Pedestrians will be detoured around the site with signage
- Flaggers will be available to direct pedestrians
- Business Wayfinding signs to inform pedestrians

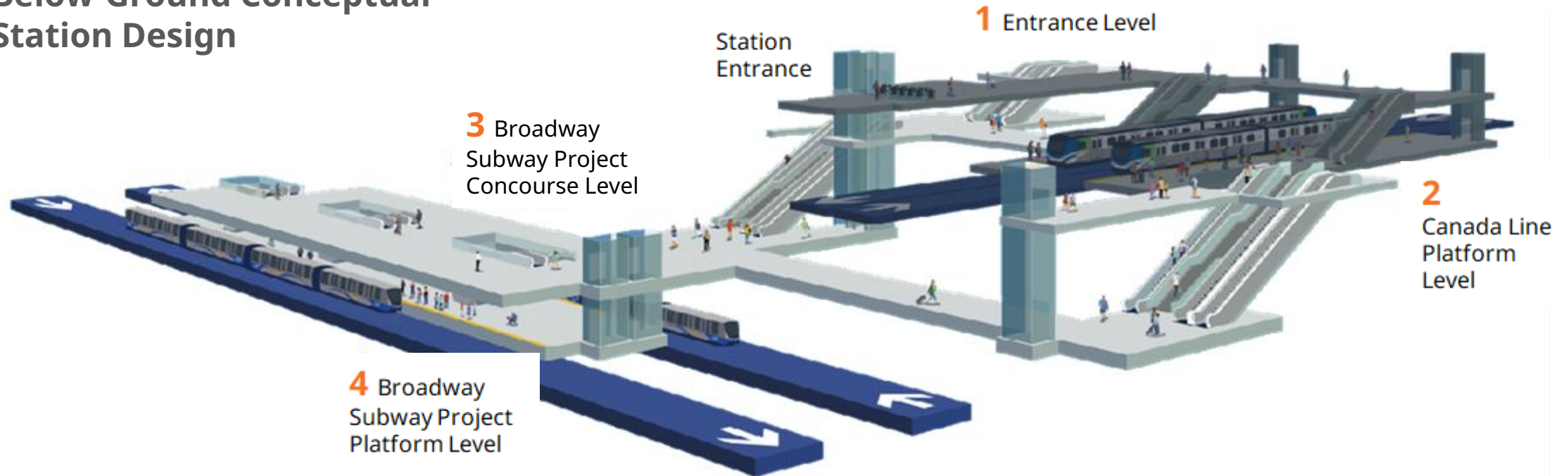


Legend

- | | |
|-----------------------------|---------------------------|
| —→ Pedestrian path | —→ On-road cyclist access |
| - - -→ Pedestrian crosswalk | - - -→ Cyclist crossroad |

Canada Line Integration

Below-Ground Conceptual Station Design



Arrive at the Arbutus Station Area

- The Tunnel Boring Machines will arrive at Cypress Street in summer 2023
- TBMs will be disassembled
- Twin tunnels will be mined on the west side of the Arbutus station box to prepare for a future extension

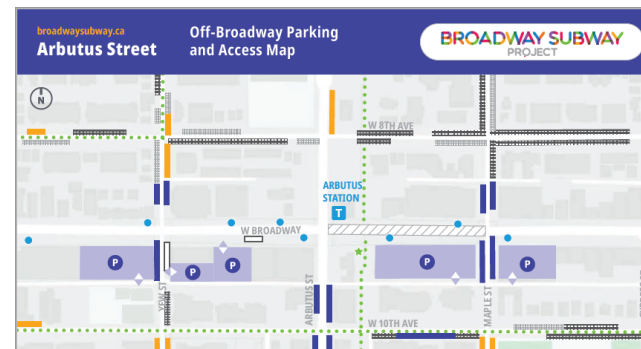
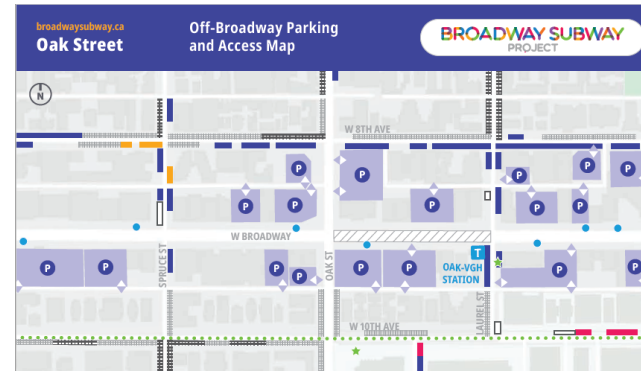
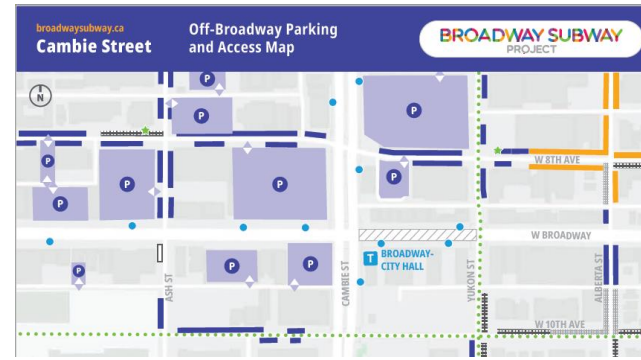




Mitigation Measures

Parking Alternatives

- Removal of on-street parking in Great Northern Way, Mount Pleasant and Broadway City Hall areas has already begun.
- City of Vancouver will install signage and bag parking meters a few days in advance of the removal. Watch for onsite notice.
- Alternative parking and access maps for the Broadway Corridor are available
- The maps highlight potential alternative parking options



Vibration Management

- The Project will adhere to guidelines related to vibration and will monitor vibration levels
- Activities you may expect some vibration:
 - Demolition of structures and pavement
 - Shoring works for future station and tunnel
 - Tunnel boring
 - Building the traffic deck

Noise Management

- The Project will generally adhere to City of Vancouver noise bylaw
- Construction activities that generate the most noise will be carried out during core hours:
 - 7:00 a.m. to 8:00 p.m. Monday-Saturday
 - 9:00 a.m. to 8:00 p.m. Sunday and Statutory Holidays
- Night work may be required for some activities
 - 8:00 p.m. to 5:00 a.m. Monday-Saturday

Dust Control

The Project will work to limit/ manage dust dispersion during construction with plans to implement the following mitigation measures:

- Water spray to reduce generation of dust during dry seasons
- Sweep and clean paved surfaces to remove build up of sand and dirt

Light Management

Overnight lighting may be required at construction sites. The Project will limit light pollution by implementing the following mitigation measures:

- Task-specific lighting will be used, large area lighting will be minimized
- Physical barriers (temporary sound walls and site hoardings) will limit light spill
- Existing street lighting conditions will be maintained for traffic



Stations

Station Construction



Great Northern Way - Emily Carr



Mount Pleasant



Broadway - City Hall



Oak - VGH



South Granville



Arbutus

Overall Station Features

- **Neighbourhood integration** to create a visible and vibrant sense of place
- **Accessible**, differentiated paving treatments to enhance passenger flow
- Flexible, durable and attractive **seating** to provide comfort and station identity
- **Green infrastructure** to integrate tree planting and capture and treat storm water runoff
- **Resilient vegetation** that will be easy to maintain
- **Integrated lighting** features for enhanced safety
- **Art** incorporation in all six stations
- **Cycling amenities** include covered bike racks at some stations
- **Future proofing** for more entrances, elevators, washrooms, and access to future developments



Engagement

Keeping the Public Informed

- Timely and accurate information about construction, traffic and parking
- Notifications by email, newsletter, website and direct contact
- Clear signage at point of construction
- Business visibility to help customers access shops and services



Construction

Find out what's happening with maps, schedules and more.

Construction

Ways to Contact the Broadway Subway Project



24/7 Construction Line: 1-844-815-6114



broadwaysubway@gov.bc.ca



broadwaysubway.ca



Community Office: 1212 West Broadway
778-572-3544



@broadway



@broadway_

Media Resources

www.broadwaysubway.ca/contact/media/

- Videos, Images, Flickr Album
- Document Library
- News Releases



Questions





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