This Baseline Report Summary is a condensed version of the background research and baseline analysis report completed during Phase One of the 22<sup>nd</sup> Street Station Area Detailed Transportation Study. The Summary provides an overview of the project and identifies key transportation issues and opportunities that will be addressed as the Study progresses.
1.0 ABOUT THE PROJECT

The 22nd Street Station Area Detailed Transportation Study (Detailed Transportation Study) is the first phase of the 22nd Street SkyTrain Station Area Master Plan. The Study will identify multi-modal transportation improvements and related land use and streetscape design changes required to support future development in New Westminster’s Connaught Heights Area.

The Master Plan and this first phase Detailed Transportation Study are informed by considerable public engagement already undertaken to-date by the City for its 2017 Official Community Plan (OCP) and the 2018 Connaught Heights Traffic Calming Plan. The Study is being led by Watt Consulting Group in collaboration with and on behalf of the City of New Westminster.

Once the Detailed Transportation Study is complete, subsequent phases of the Master Plan will then define community amenity needs, priorities and financing mechanisms, followed by development of the full draft Master Plan and creation of public and private realm design guidelines.

Each phase will be supported by community engagement. In the final phase, the Master Plan will be presented for Council endorsement. City staff will also bring forward amendments to the OCP to formalize the final Land Use Designations for the 22nd Street Station Area and incorporate a new Development Permit Area and any guidelines.

The 22nd Street Station Area Detailed Transportation Study is expected to be completed by spring 2019, with public engagement occurring during winter 2018/19.

More information on the 22nd Street SkyTrain Station Area Master Plan: www.newwestcity.ca/22streetplan

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### Project Objectives

Consistent with the City’s established policies and plans, the following are the objectives for the 22nd Street Station Area Detailed Transportation Study:

1. **Livable Community** | With the 22nd Street SkyTrain Station at its core, enhance neighbourhood access and amenities to support the City’s land use and community plans and create an even more compact, sustainable, and prosperous community.

2. **Access** | Create a neighbourhood that is accessible and offers connection for people of all ages and abilities, with specific consideration of the needs of children, families, seniors, and individuals with physical and cognitive disabilities.

3. **Active Transportation** | Improve the pedestrian and cycling experience and facilitate safer and more active transportation trips.

4. **Transit and New Mobility** | Increase the attractiveness and use of transit and its integration with other modes of travel.

5. **Traffic Management** | Manage vehicular traffic volume and speed on neighbourhood streets, while respecting the regional importance of major roads.

6. **Parking Management** | Plan for and manage all parking, stopping, loading and servicing in a manner that best supports adjacent and nearby land uses, livability, access, active transportation and transit.

7. **Integration and Connection** | Create a model “mobility hub” to enhance neighbourhood mobility and facilitate multi-modal trips between the neighbourhood and key New Westminster and regional destinations.
Maps 1 | Study Area Context

Key Destinations in Burnaby
- Byrne Creek Community School: Travel Time (minutes) Walk 23, Bike 11, Transit 9, Drive 8
- Future Arena (10th Ave & 8th St): Travel Time (minutes) Walk 19, Bike 10, Transit 15, Drive 7
- Market Crossing: Travel Time (minutes) Walk 40, Bike 10, Transit 17, Drive 6

Key Destinations in New Westminster
- Douglas College: Travel Time (minutes) Walk 44, Bike 18, Transit 9, Drive 8
- New Westminster Secondary School: Travel Time (minutes) Walk 37, Bike 15, Transit 15, Drive 7
- Massey Theatre: Travel Time (minutes) Walk 37, Bike 15, Transit 13, Drive 6
- Uptown Centre: Travel Time (minutes) Walk 37, Bike 16, Transit 11, Drive 7
- Centennial Community Centre: Travel Time (minutes) Walk 55, Bike 21, Transit 17, Drive 8
- Queensborough Community Centre: Travel Time (minutes) Walk 33, Bike 11, Transit 15, Drive 7

Points of Interest
1. Willard Park
2. Connaught Heights Elementary School
3. Connaught Heights Park
4. Connaught Heights Pentecostal Assembly
5. West Side Off-Leash Dog Area
6. Grimson Park
7. Lord Tweedsmuir Elementary School

Driving estimates are provided for ideal (non-congested) conditions only. Actual travel time will vary.
2.0 ABOUT THE NEIGHBOURHOOD

The redevelopment area is located within the larger Connaught Heights neighbourhood of New Westminster, as shown on the preceding page (Map 1). Located on the western edge of the city, the study area is within a seven-minute SkyTrain ride to Burnaby (Metrotown Station), a five-minute ride to Downtown New Westminster (Columbia Station), and a 12-minute ride to Surrey Central Station.

Land ownership in the study area is predominantly private, with other land owners including the City of New Westminster, BC Hydro, BC Transit/TransLink, and the BC Ministry of Transportation and Infrastructure (see Map 2 on the following page).

Land Use Today and Tomorrow

Based on the 2016 Statistics Canada Census, approximately 1,750 people currently reside in the neighbourhood, primarily in single detached dwellings. There is currently only one apartment building in the study area and limited commercial space. Due to this building mix, Connaught Heights has a higher proportion of family households than New Westminster at large, and substantially fewer people living alone.

As past work by the City of New Westminster notes, “Metro 2040, the regional growth strategy, anticipates that New Westminster will grow to a population of 102,000 people by 2041 – 3.4% of the total population growth projected for the region. The 22nd Street Station Area is well-positioned to accommodate some of that growth, which would bring greater residential density and more diverse commercial amenities to the neighbourhood.”

Map 3 presents proposed future land use designations (2041) as developed for the 2017 City of New Westminster Official Community Plan (OCP). The 22nd Street Station Area is envisioned as a higher density, mixed use node, with shops and commercial services on Seventh Avenue, east of the station. Higher density residential development would locate near the SkyTrain station, while low rise residential buildings and infill townhouses would “step down” into the surrounding neighbourhood of Connaught Heights. However, before development proceeds, there is a need to determine the transportation improvements and amenities required to accommodate future growth, as described in Section 3.0 Summary of Key Issues and Opportunities.
Map 2 | Jurisdiction and Land Ownership
Map 3 | Proposed Land Uses (2041)
3.0 SUMMARY OF KEY ISSUES AND OPPORTUNITIES

The following tables and maps provide an overview of key issues and opportunities by topic area / mode of travel. Overarching these, the following key themes have emerged from past New Westminster community engagement.

Desired Neighbourhood Changes Identified to Date

- **Improved integration of the SkyTrain Station into the neighbourhood.** Currently the 22nd Street Station faces away from the neighbourhood and there is opportunity to improve connection to it for pedestrians, cyclists and vehicles.

- **Development of a neighbourhood “heart” that would include a hub of services and gathering space.** Currently it is envisioned that Seventh Avenue between the Station and Twentieth Street could be the potential location of this future hub.

- **Improved connection within the neighbourhood and to other city and regional destinations.** This includes improving connection to regional pedestrian and cycling facilities such as the BC Parkway and the Rotary Crosstown Greenway. It also means considering how major roads surrounding the neighbourhood act as barriers to that connection, in particular the traffic congestion and off-set street grid on Twentieth Street.

Transit and 22nd Street SkyTrain Station

With the 22nd Street SkyTrain Station located within its boundaries, transit is central to the neighbourhood. **Map 4** presents an overview of the Station and the many other bus routes and modes of transportation that converge within its proximity.

<table>
<thead>
<tr>
<th>Capacity and Function</th>
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<tbody>
<tr>
<td><strong>TransLink has identified the need for changes to some bus infrastructure to support future service needs,</strong> including adding one bus bay and converting one bay to an electric charging position. A project to include upgrades to shelters, landscaping, and lighting is being planned in coordination with infrastructure for fast-charging electric bus trial on the #100 (Marpole Loop) route, currently planned for implementation in early 2019.</td>
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<tr>
<td><strong>The surrounding road network impacts transit vehicle access to and from the 22nd Street Station,</strong> particularly at the intersection of Seventh Avenue at Twentieth Street (due to vehicle queuing on Twentieth Street). Bus loop access configuration and nearby stop signs also do not clearly convey rights-of-way for vehicles and crossing pedestrians.</td>
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<tr>
<td><strong>Ideally the transit drop-off zone on Seventh Avenue should be extended and/or restructured as there is only enough space for two buses and its location on a curve makes it harder for transit vehicles to fully access the zone.</strong></td>
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<tr>
<td><strong>There is insufficient passenger capacity at bus bays within the station,</strong> with waiting passengers also congregating up nearby stairs and lining up into other bay areas.</td>
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**Pedestrian Connection**
- The station entrance opens westward only, meaning that it turns its back on the neighbourhood to the north and east.
- Existing crosswalks in the vicinity of the station do not align with primary pedestrian flows from the neighbourhood.
- Sidewalks are narrow (meeting the minimum standard only) and do not have buffer space between sidewalks and passing buses.
- The topography of the station area makes it challenging from an accessibility perspective, with the route into the main entrance indirect for people using mobility aids or parents with strollers.

**Cycling Connection**
- There is opportunity to increase the number of bike racks at the station, with three unsecured bike racks at the front of the station with space for 18 bikes.
- There are three sets of secure bike lockers at the back of the site with space for 24 bikes. However, the pedestrian path to these lockers is unpaved.

**Passenger Amenities**
- As part of TransLink’s planned upgrades to the station, the shelters are proposed to be refreshed, which would be a “quick win” improvement to the facility. In general, there is opportunity to improve overall weather protection for waiting passengers.
- Many waiting passengers at the bus bays sit on the adjacent low concrete wall. Adding seating to this wall could also be considered as part of the planned landscaping improvements.
- While electronic next bus information is not available at the bus bay positions, it is available inside the station for the Expo Line. Any station reconfiguration or upgrades should consider the placement of conduits to enable the placement of electronic displays in the future. (Bus bays currently have printed schedule and map information at each bay.)

**Wayfinding**
- Lack of internal wayfinding within the station directing passengers to the neighbourhood or bus bays.
- Signage by the main exit would be helpful showing a schematic of bus bays and where to stand for each route.

**Passenger Drop-off / Pick-up Area**
- There is only capacity for two vehicles in the drop-off zone in front of the station and there is no adjoining bench or shelter in the area for passengers waiting for pick-up (but it is covered by the SkyTrain guideway).
- HandyDART vehicles use this area but it is not marked as such with signage, meaning that separate drop-off area for HandyDART is lacking at the station.
- A separate area for taxis and ride-hailing vehicles should be considered. An informal and undesignated taxi waiting area is located on Twenty-Second Street at Seventh Avenue.
- There is a lot of signage on nearby streets that inform drivers how they *should not* access the station (to drop off or pick up passengers), but none saying how they *should*. This means that many drivers ignore the no U-turn signs on Seventh Avenue to access the pick-up / drop-off area.
Pedestrian and Cycling Network
Map 5 presents an overview of existing pedestrian and cycling amenities in the neighbourhood, as well as the location of transit stops.

<table>
<thead>
<tr>
<th>Pedestrian and Cycling Network Gaps</th>
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<tr>
<td>• The network is incomplete, with missing sidewalks and uncomfortable and poorly aligned pedestrian crossings.</td>
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<tr>
<td>• Many of the existing sidewalks are in substandard condition and/or are narrow since they comply with old standards for sidewalk widths. There is also a lack of buffer (street trees, boulevard, etc.) to improve comfort.</td>
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<tr>
<td>• Pedestrian improvements in the near future include a new sidewalk on Eighth Avenue and a new curb extension on the north and south sides at the intersection of Eight Avenue and Twenty-Second Street. There has been discussion of a potential greenway on Twenty-First Street.</td>
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<tr>
<td>• While outside the project area, a new Ministry of Transportation and Infrastructure multi-use Stewardson Way overpass located near Grimston Park offers opportunities for improved safety and connectivity to the broader network.</td>
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<td>• The existing off-street path connecting cyclists from BC Parkway to Queensborough Bridge has poor visibility and legibility. This connection to south of the Fraser is regionally important as the only connection/route between Pattullo and Knight Street Bridges.</td>
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<tr>
<th>BC Parkway and Crosstown Greenway</th>
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<tr>
<td>• Existing major bicycle facilities provide good west-east options (including the London-Dublin Greenway and Rotary Crosstown Greenway), but improvements to streetscape and/or to increase cyclist safety would likely attract additional riders and should be considered.</td>
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<tr>
<td>• BC Parkway connections are confusing and incomplete east of 22nd Street Station: access routes beneath the SkyTrain guideway can be mistaken for the Parkway, while the alignment on the south side of Stewardson Way leads to an unpleasant pedestrian environment.</td>
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<tr>
<td>• The City has a goal of working towards providing “AAA” bike facilities on all greenways, which ideally are separated from pedestrians to reduce conflicts and which are built for all ages and abilities.</td>
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<thead>
<tr>
<th>Topography, Lighting and Amenities</th>
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<tr>
<td>• Steep topography and poor lighting reduce pedestrian and cyclist comfort, and limits accessibility.</td>
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<td>• The significant grade change south of Seventh Avenue to Sixth Avenue means that pedestrian connections within proposed high-rise developments will need to consider the steep topography and offer connection that is both fully accessible and intuitive.</td>
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<tr>
<td>• There is opportunity to increase seating/resting opportunities on level grades, as well as work towards the goal of having pedestrian-level lighting on greenways and in commercial areas.</td>
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<td>• Electric bikes—especially electric bike share opportunities—may be a future game changer to “battle the grades.”</td>
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<tr>
<td>• Additional facilities are also required to support active modes, such as additional bike parking, repair stations, drinking water fountains and other amenities that support active transportation.</td>
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### Crossings and Vehicle Exposure
- Long vehicle queues on Twentieth Street sometimes result in blocked intersections, making pedestrian and cyclist crossings challenging.
- Improved crossings for major north-south streets could be provided. (Twenty-Third to Twentieth Street). The Connaught Heights Traffic Calming Plan identified the need for improved pedestrian connections and crossings along Eighth Avenue and recommended that the 22nd Street Master Plan consider similar improvements to Seventh Avenue and around the Station.
- Taxis in the informal loading area near Twenty-Second Street and Seventh Avenue block cyclists crossing Seventh Avenue.

### Station Access
- Existing crosswalks in the vicinity of the station do not line up with primary pedestrian flows from the neighbourhood.
- Pedestrian connectivity could be improved by decreasing crossing distances, especially around the bus loop entrances.

### Street Network
**Map 6** presents an overview of the existing street network.

### Intersection Performance
- Southbound queues are generated on Twentieth Street during the peak weekday hours as vehicles try to access the congested Queensborough Bridge. This can result in blocked intersections and crosswalks and force vehicles to take circuitous and occasionally illegal routes to access the neighbourhood.
- Delays that are considered unstable (i.e. failing) occur at several intersections along Twentieth Street, particularly at Sixth Avenue (Stewardson Way) and at Seventh Avenue.

### Road Safety
- The majority (93 percent) of vehicular crashes in the study area occur on Twentieth Street. Most of the crashes on Twentieth Street involve rear end collisions.
- It is uncomfortable for pedestrians and cyclists to cross at some intersections because vehicles sometimes queue through them.

### Future Planning
- Redevelopment around the 22nd Street Station is expected to generate additional vehicle trips: just over 530 trips in the morning peak hour and about 640 trips in the afternoon peak hour. Additional impacts may also occur from the nearby Southgate development in Burnaby (just north of the New Westminster boundary, in proximity to Edmonds Station).
- Sixth Avenue currently provides an additional feeder route to and from the Queensborough Bridge. The implications of eliminating a direct connection between Sixth Avenue and the Queensborough Bridge need to be better understood.
- The street network is constrained in part by the provincial road network serving the almost 60-year-old Queensborough Bridge. A future replacement of the bridge may present opportunities to change the road network in the area.
## Transportation Demand Management and New Mobility

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<th>Category</th>
<th>Description</th>
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<tr>
<td><strong>Parking Management</strong></td>
<td>- Policies and management of parking for new development will need to consider emerging regional direction on parking as well as proximity of transit; on-street parking priorities and management will also need to be considered.</td>
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<tr>
<td><strong>Carsharing</strong></td>
<td>- Access to carsharing is currently limited in the study area but carsharing as a service is growing in New Westminster and has the potential to expand in the 22nd Street Station Area as development occurs. On-site parking for carsharing services is preferable to on-street parking.</td>
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<tr>
<td><strong>Electric Vehicles</strong></td>
<td>- The City of New Westminster recently endorsed the framework for an EV infrastructure policy to increase the availability of at-home EV charging in new developments citywide. There is also potential for Level 3 charging stations on this side of the city, in association with commercial or institutional land uses.</td>
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<tr>
<td><strong>Ride-hailing Services</strong></td>
<td>- The Province is currently working on developing legislation around ride-hailing services, which may also impact need for passenger loading areas at the station and as part of nearby developments.</td>
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<tr>
<td><strong>Autonomous Vehicles</strong></td>
<td>- The anticipated impacts of autonomous vehicles (AVs) are still unknown at this time; however, once adopted on a larger scale, they have the potential to improve mobility options for residents within the 22nd Street Station Area. AVs also have the potential to negatively impact transit ridership and reduce parking demand. Care must be given to avoid incentivizing further vehicle travel.</td>
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Questions or Comments?

To find out more about the Detailed Transportation Study or the 22nd Street SkyTrain Station Area Master Plan, visit [www.newwestcity.ca/22streetplan](http://www.newwestcity.ca/22streetplan) or email plnpost@newwestcity.ca.