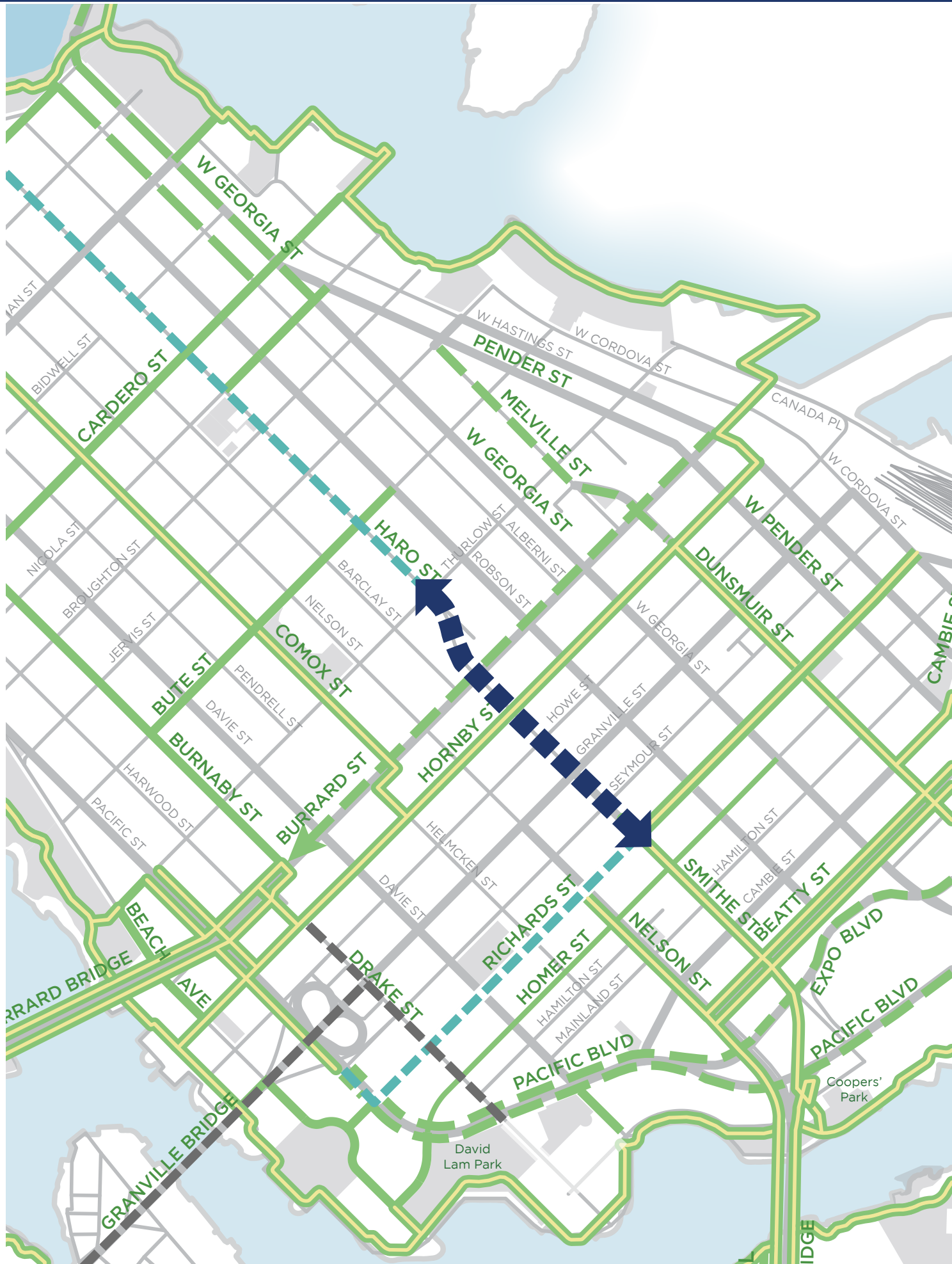


Smithe Street Upgrades

(Richards Street to Thurlow Street)



Share your feedback!

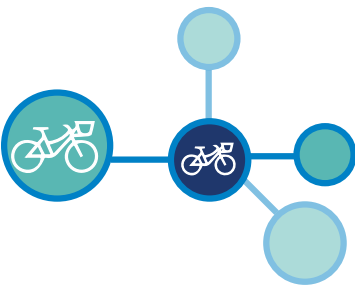
Read the informational material and share your input by taking an **online survey**. The survey will remain open **until June 7, 2021**.

Webpage and Survey: vancouver.ca/smithe-street-upgrades

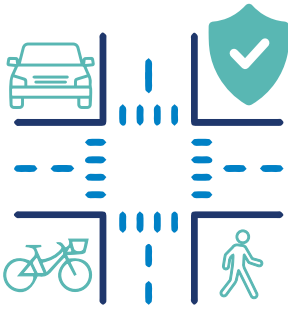
Project Email: smithestreetupgrades@vancouver.ca

Overview

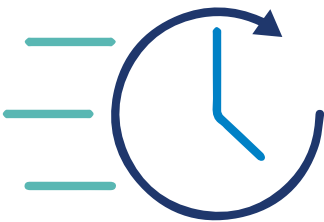
The City of Vancouver is planning to improve active transportation along Smithe Street (Richards Street to Thurlow Street). The proposed upgrades will:



1. Close **major gaps** in the existing bike network by providing **an east-west connection** between the West End and Cambie Bridge.



2. Create safer intersections for everybody through **protected intersections**.

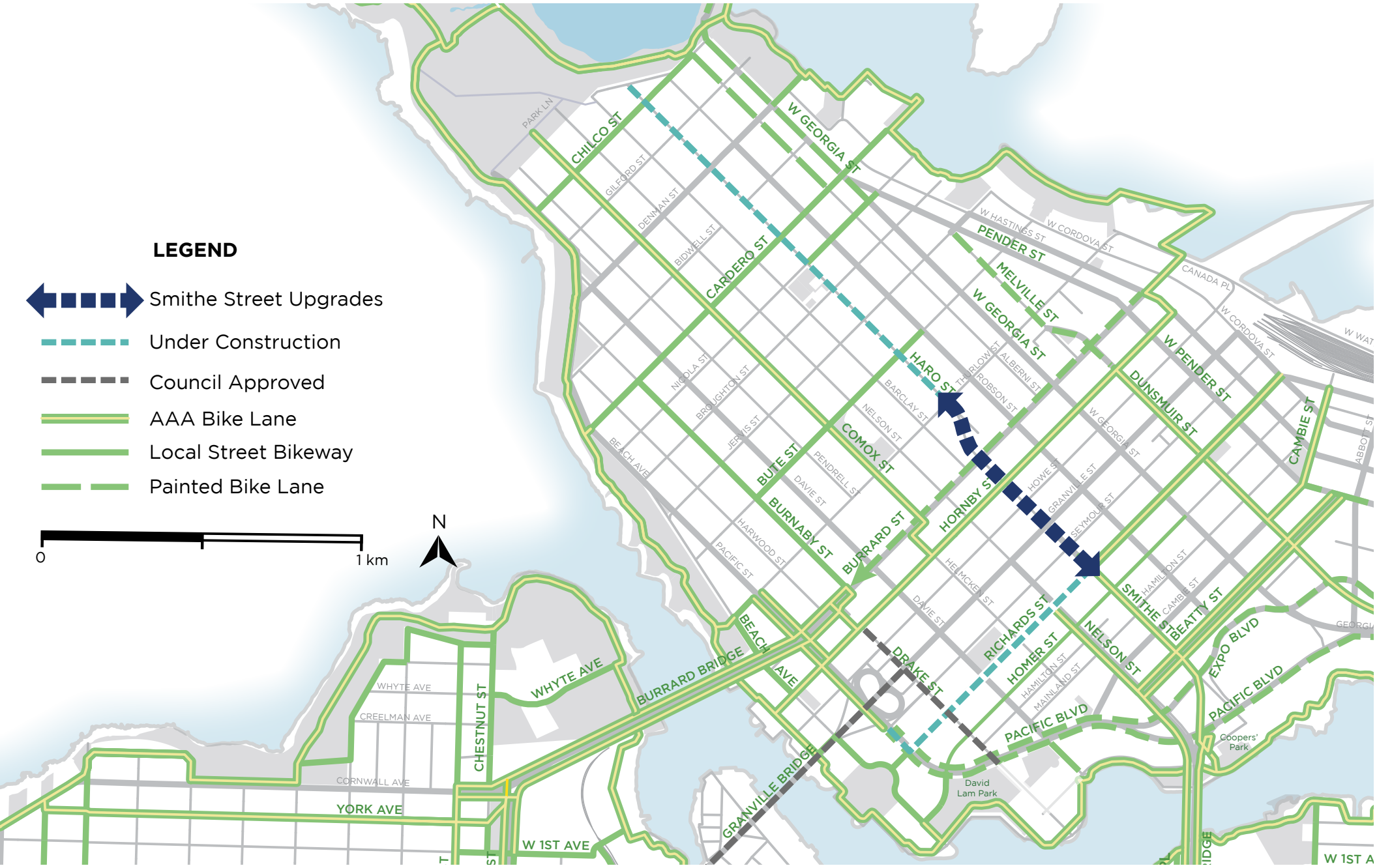


3. Be delivered using **a quick-build** approach to minimize impacts.

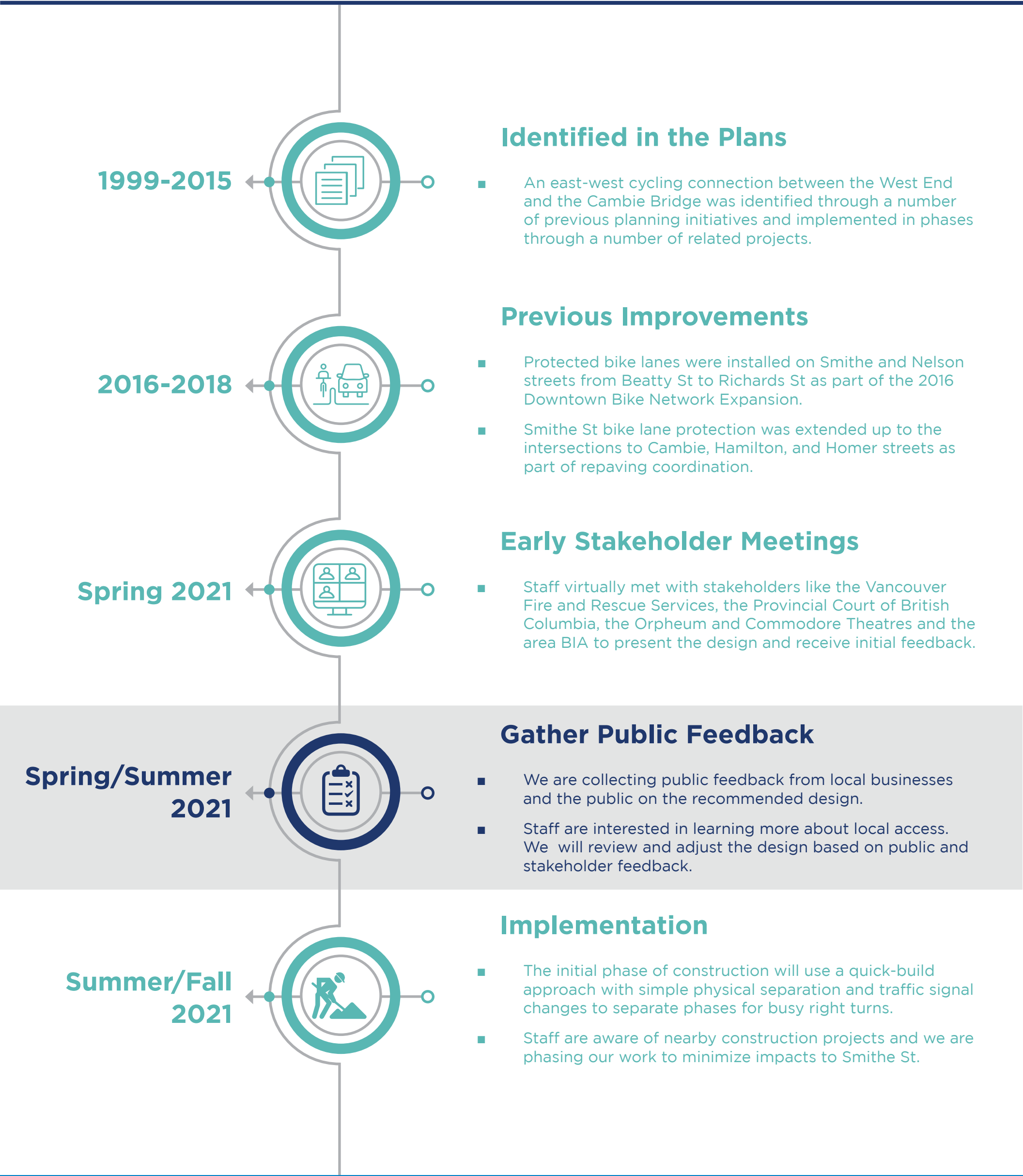


4. Maintain **sufficient vehicle capacity** for pre-COVID volumes.

Site Map



Timeline



Read **Appendix - A** for a detailed project history.

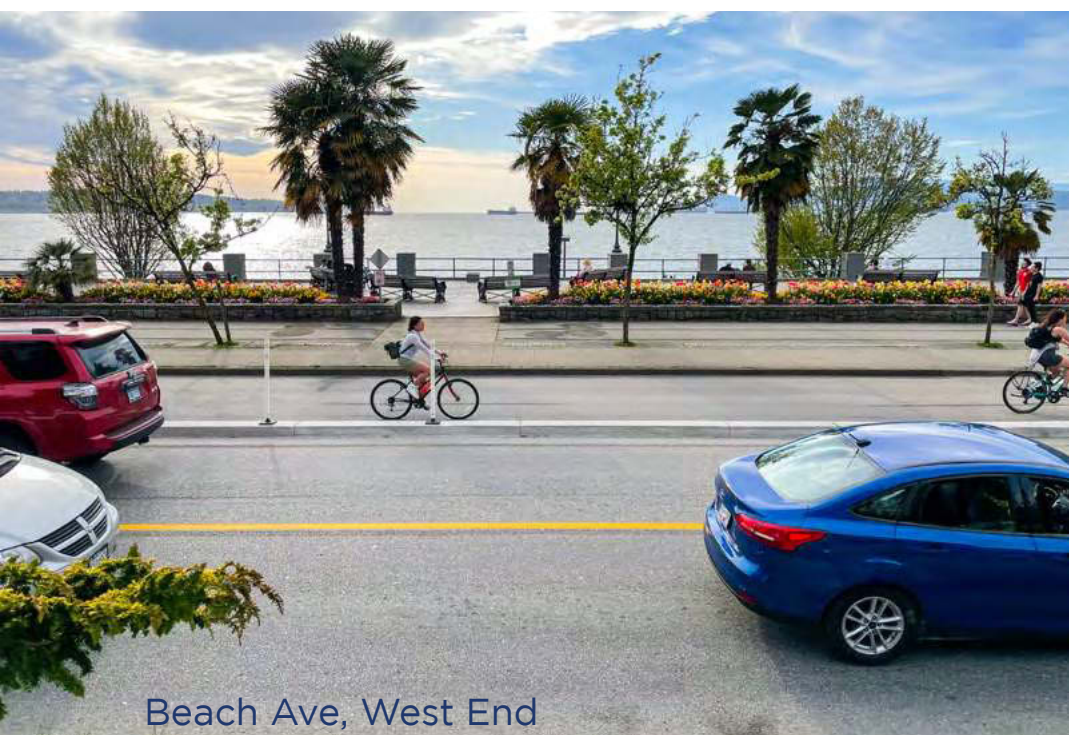
Related Plans & Policies

Context

COVID-19 Mobility Response and Recovery

In response to the COVID-19 pandemic and Council’s ‘Reallocation of Road Space to Support Shared Use During Pandemic’ direction in May 2020, staff have been re-shaping how we use our streets and public spaces to help residents physically distance and provide opportunities to exercise and travel more comfortably.

Improving sustainable mobility options will **support Vancouver’s economic recovery** and having a range of travel options will help our transition back to normal.



Beach Ave, West End



Climate Emergency Response

In November 2020, Council **approved the Climate Emergency Action Plan** to increase our efforts to address climate change.

One of the six ‘big moves’ to reduce Vancouver’s carbon pollution is to accelerate the target of making **two-thirds** of trips by **active transportation and transit to 2030**, advancing the Transportation 2040 mode share target by 10 years.



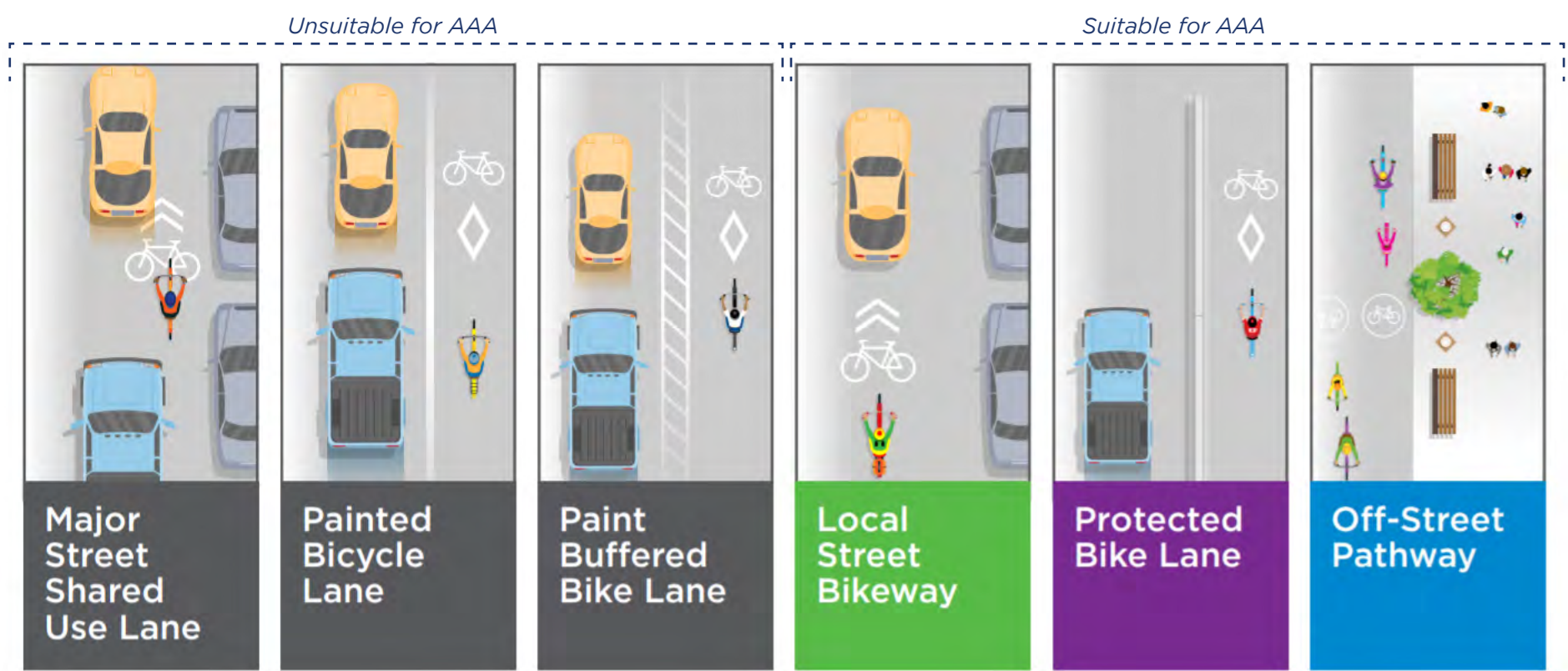
Related Plans & Policies

Context

Improve Downtown Connections

Approved by Council in 2012, Transportation 2040 is a long-term strategic vision for the city that helps guide transportation and land use decisions and public investments for the years ahead.

The Transportation 2040 identified Cambie Bridge connectivity, but Smithe Street west of Beatty was later identified as a critical gap in the All Ages and Abilities (AAA) cycling network to be prioritized for upgrades. The Smithe St connection was also identified on the 5-Year Cycling Network: Additions & Upgrades (2018-2022) Map.



On busy streets, the All Ages and Abilities cycling network improves comfort and safety with protected bike lanes and thoughtfully designed intersections.

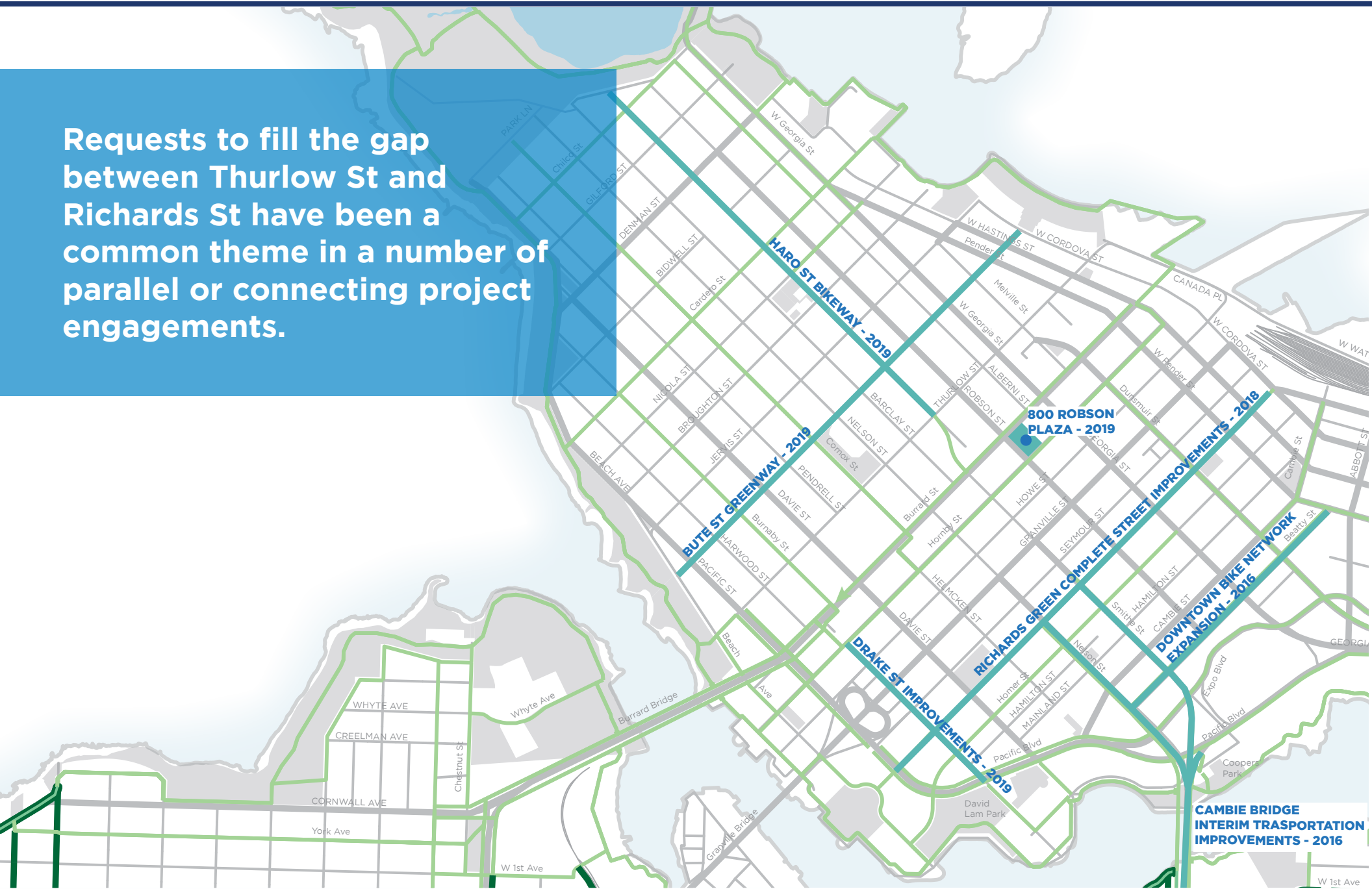
Filling the gaps between existing All Ages and Abilities cycling routes is an effective way to improve comfort, convenience and safety for people cycling and rolling to progress towards our Climate Emergency targets.



Previous Engagements

Background

Requests to fill the gap between Thurlow St and Richards St have been a common theme in a number of parallel or connecting project engagements.



What we have heard so far

Staff have heard feedback about this gap over a number of years and during seven related project engagements since 2016, including the 2016 Smithe Street Upgrades, 800 Robson Plaza Upgrades, the Cambie Bridge Interim Improvements, and through other downtown bike network upgrades such as Richards Street, Drake Street, Haro Street, and Bute Street.

“The section between Howe and Hornby is so treacherous with vehicles lining up to make a right turn onto Hornby that riders are essentially forced to go onto the sidewalk, which is less than ideal”

“I look forward to future upgrades that would close some of the obvious “gaps” remaining in the network (Smithe/Nelson between Richards and Hornby)”

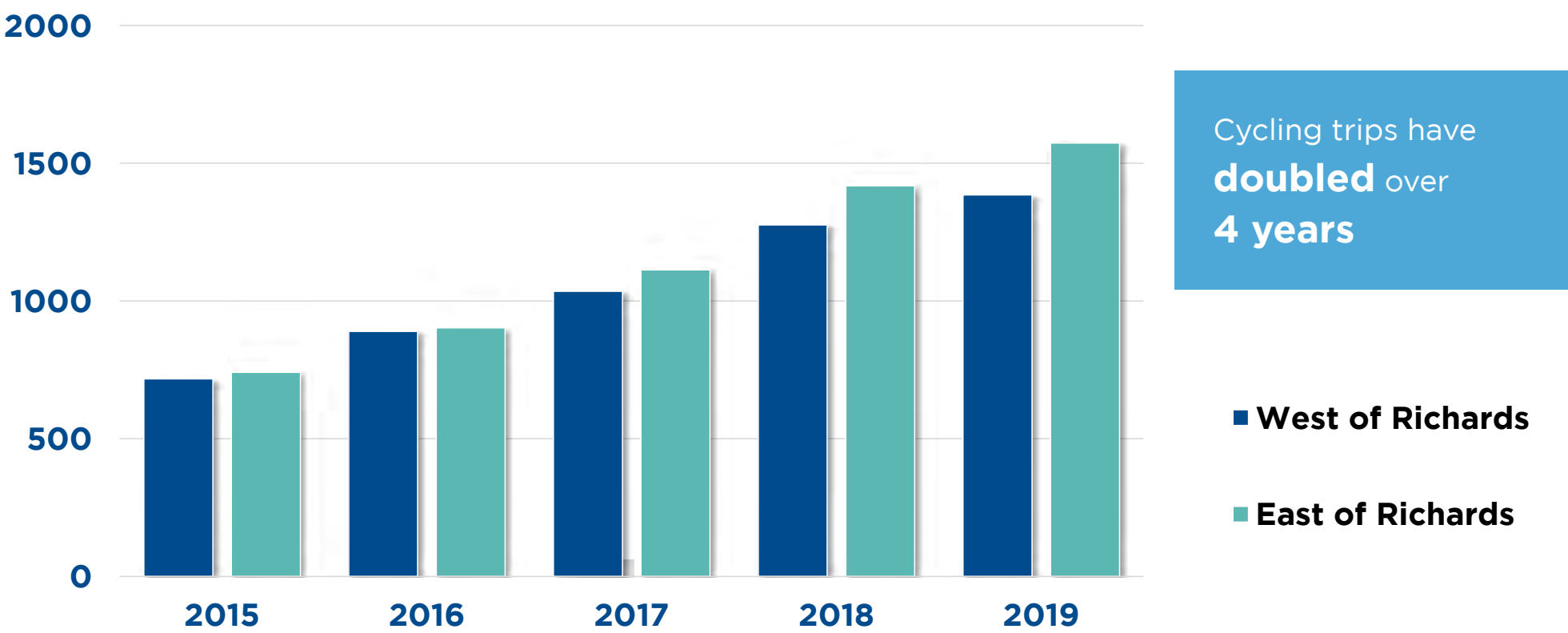
“There are currently not many good routes that connect through from False Creek to the West End, other than Dunsmuir”.

Ridership

Background

Due in part to upgrades through nearby projects, cycling trips along Smithe and Nelson St have doubled in four years, including west of Richards where people cycling remain exposed to motor vehicle traffic.

Daily bicycle trips (midweek) on Smithe St and Nelson St at Richards St

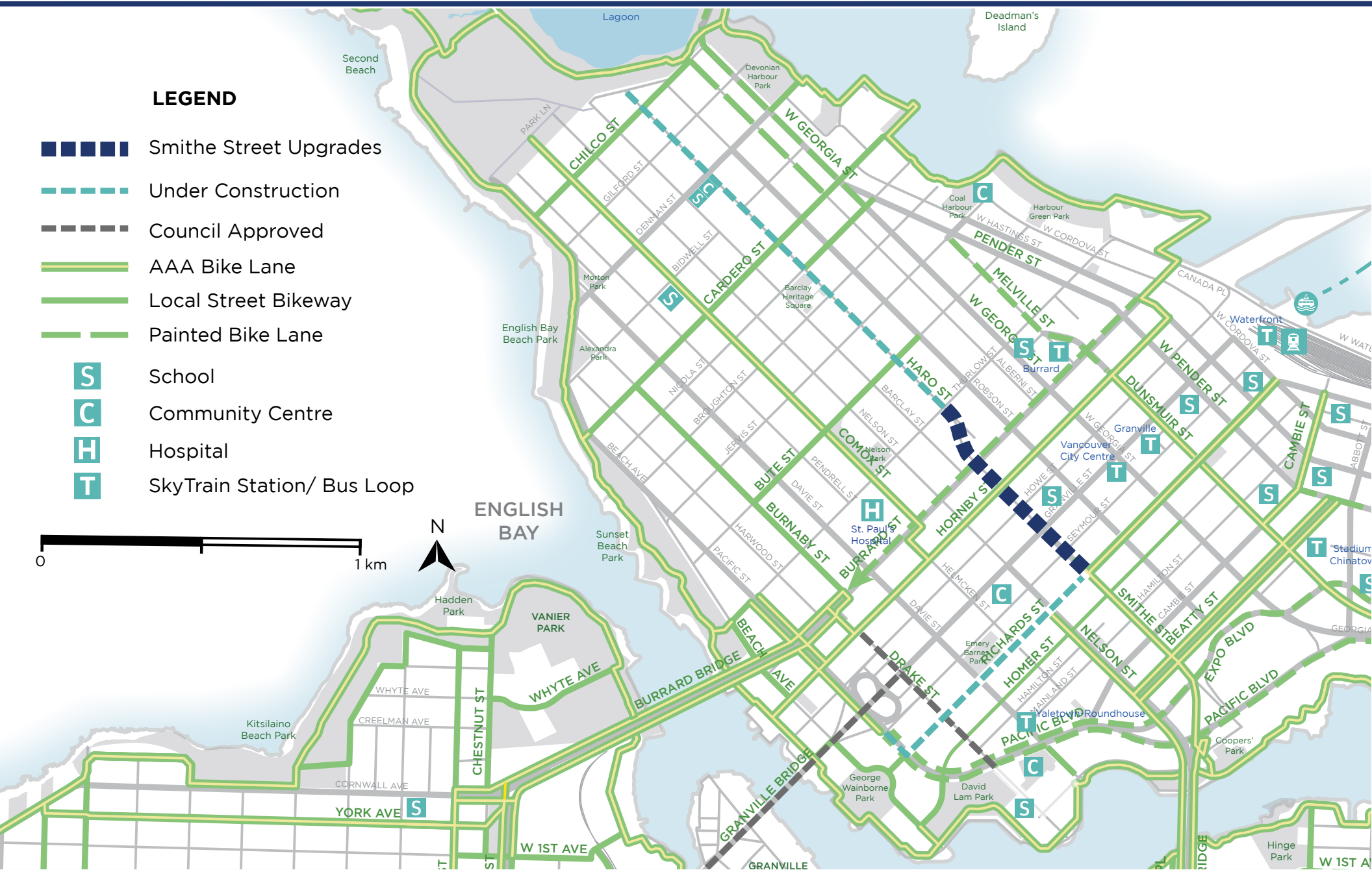


An improved cycling connection on Smithe St will serve many people living and working nearby.

There are about 16,500 residents and over 33,300 jobs within 300m distance from Smithe St.

Network Planning

How does this fit within the larger cycling network?



In the current bike network, protected bike lanes from the Cambie Bridge on Smithe St and Nelson St end at Richards St, while the Haro local street bikeway ends at Thurlow St. In the middle lies Hornby St protected bike lane. An extension of the Smithe St protected bike lane would connect all these facilities.

Other streets considered

Preliminary Assessment						
	Walking	Cycling (Directness)	Cycling (Convenience)	Motor Vehicles (Parking)	Motor Vehicles (Circulation)	Additional considerations
Smithe St	<ul style="list-style-type: none">A buffer between sidewalk and motor vehicle traffic.Some protected turn phases.Shorter crosswalks at Hornby.	Direct connection from Cambie Bridge and Haro Bikeway, Financial District	Quickest westbound option for most trips (up to 4 minutes faster than Hornby when connecting from Cambie Bridge at Richards)	Smithe has limited parking, most could be retained	Smithe primarily serves to distribute traffic west of Richards and has sufficient capacity	Can serve two-way cycling, section between Hornby and Thurlow already required to connect Haro Bikeway
Nelson St	<ul style="list-style-type: none">Provides a buffer between sidewalk and motor vehicle traffic.One protected turn phases.Shorter crosswalks at Richards	Direct connection to Cambie Bridge from all points west	Quickest westbound option for most trips (1-3 minutes faster than Hornby when connecting to Cambie Bridge from Haro or Comox)	Nelson has limited parking, most could be retained	Nelson has higher through volumes, the Howe turn and adjacent driveway may be difficult	Also requires one of Smithe or Helmcken for westbound trips
Helmcken St	Potential opportunities for landscaping, may include Greenway treatments	Most direct connection to Comox Bikeway	Competitive with Smithe and Nelson for trips that start and end south of Nelson	Helmcken currently has parking on both sides, similar to Drake, up to 50% could be retained	Helmcken has low traffic volumes, similar to Drake, turn restrictions or one-way are likely required	Can serve two-way cycling, Greenway treatments would require more time and cost

As part of the evaluation process to provide an east-west cycling connection, Smithe, Nelson and Helmcken streets were considered. To view the assessment table, please see Appendix - B.

To view the detailed assessment for Smithe, Nelson and Helmcken streets, please see **Appendix - B.**

Project Objectives



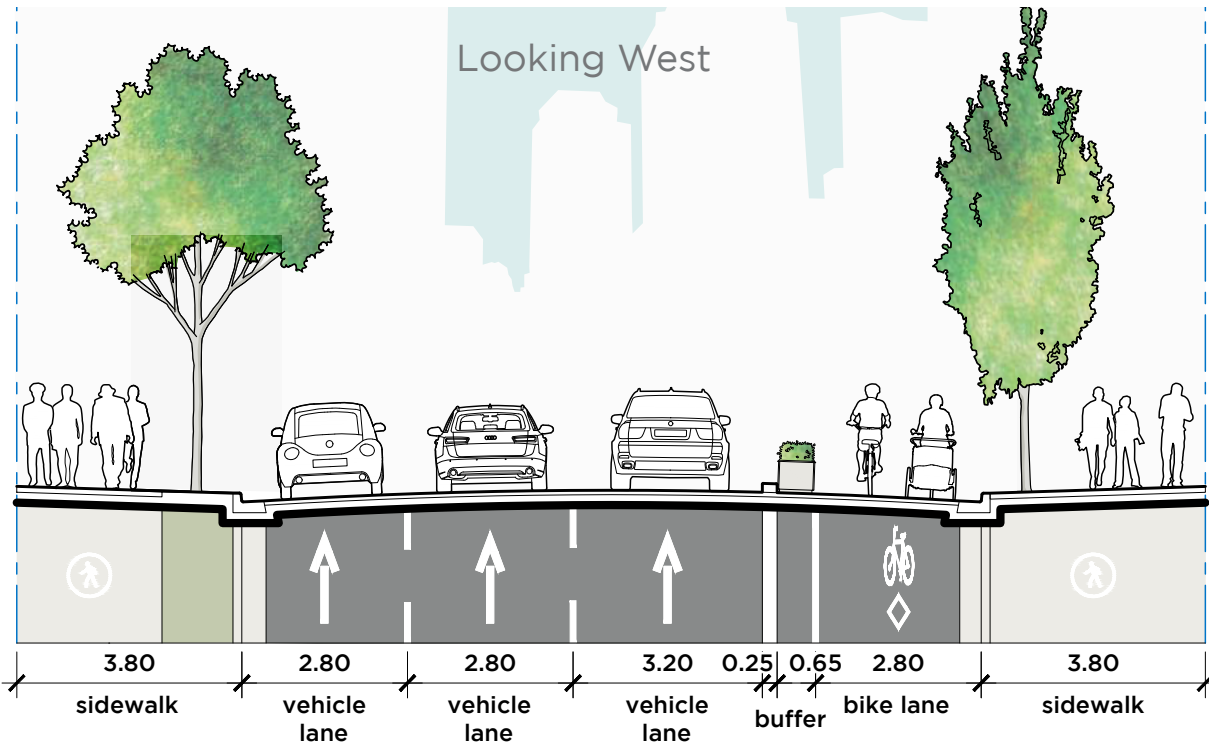
- **Create all ages and ability cycling connection between the Cambie Bridge and the West End by upgrading Smithe Street.**
- **Improve safety by providing a protected bike lane, protected intersections and addressing conflicts with turning vehicles.**
- **Maintain motor vehicle capacity and parking with active transportation upgrades.**

Existing Cross-sections

Smithe St provides a westbound connection from the Cambie Bridge and connects various neighbourhoods - Yaletown, Downtown and West End.

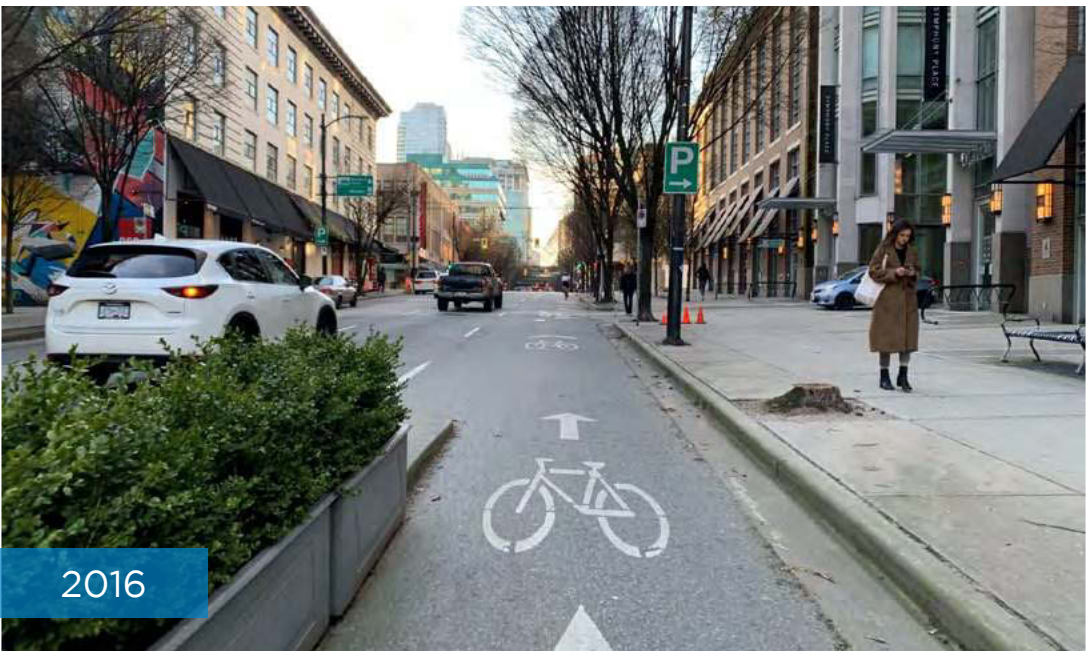


1. Beatty St to Richards St



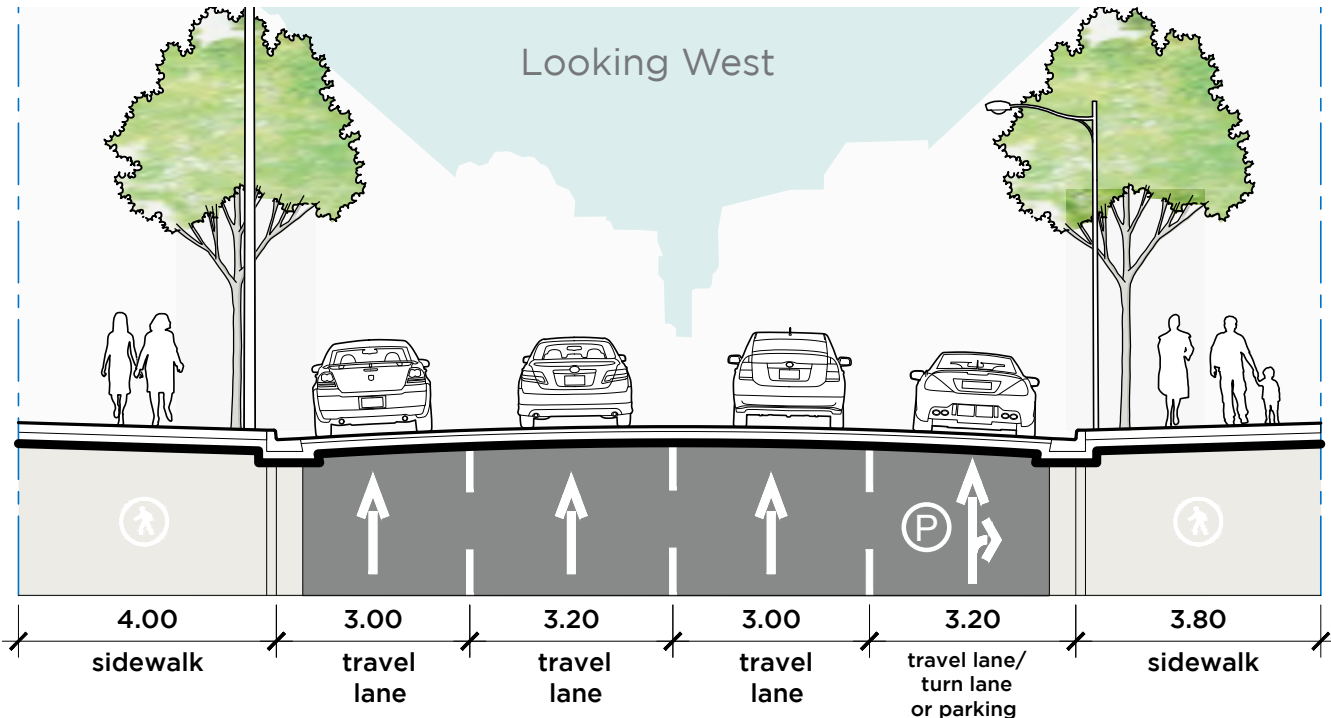
The current street design includes:

- Three to four vehicle travel lanes; fourth lane is for designated right turns at the intersections
- A westbound protected bike lane separated from traffic with a buffer of planters or concrete.



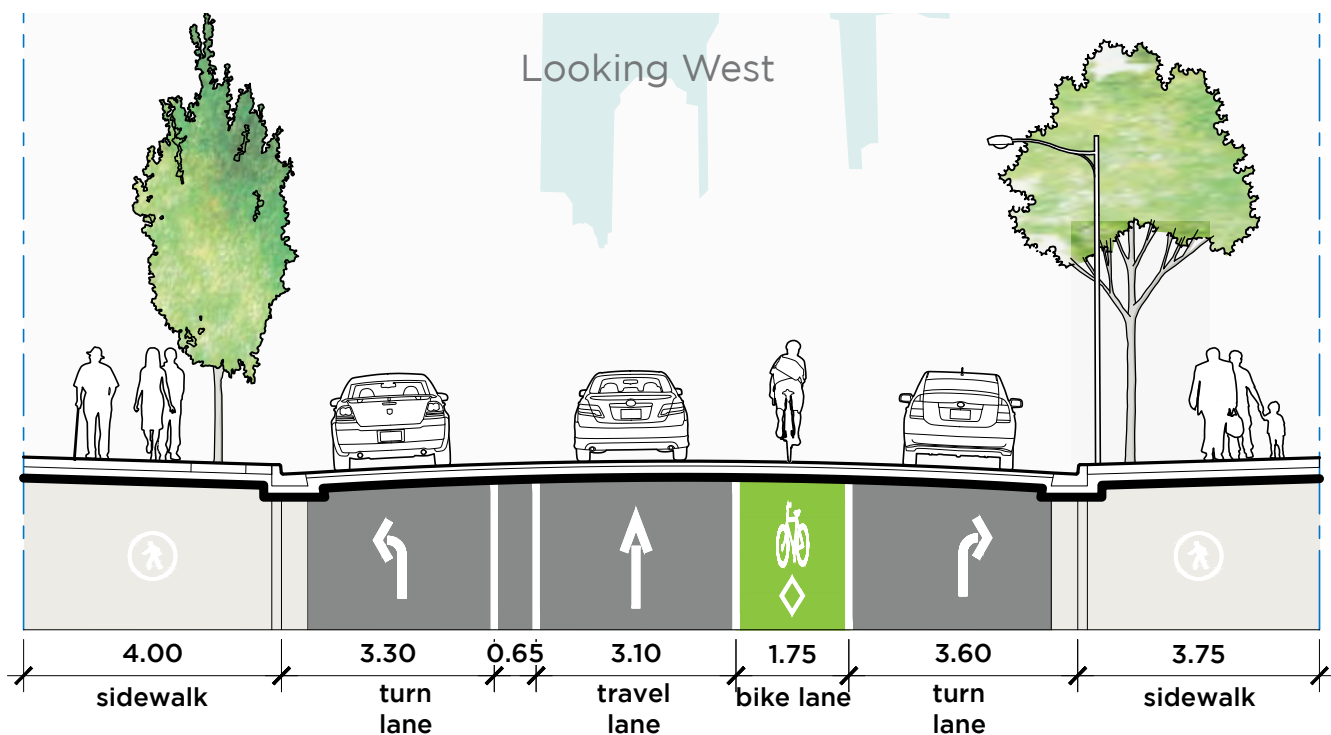
Existing Cross-sections

2. Richards St to Hornby St



These blocks of Smithe St generally include three westbound travel lanes and a fourth lane, beside the north curb, that is either a through travel lane, a turning lane or parking/loading.

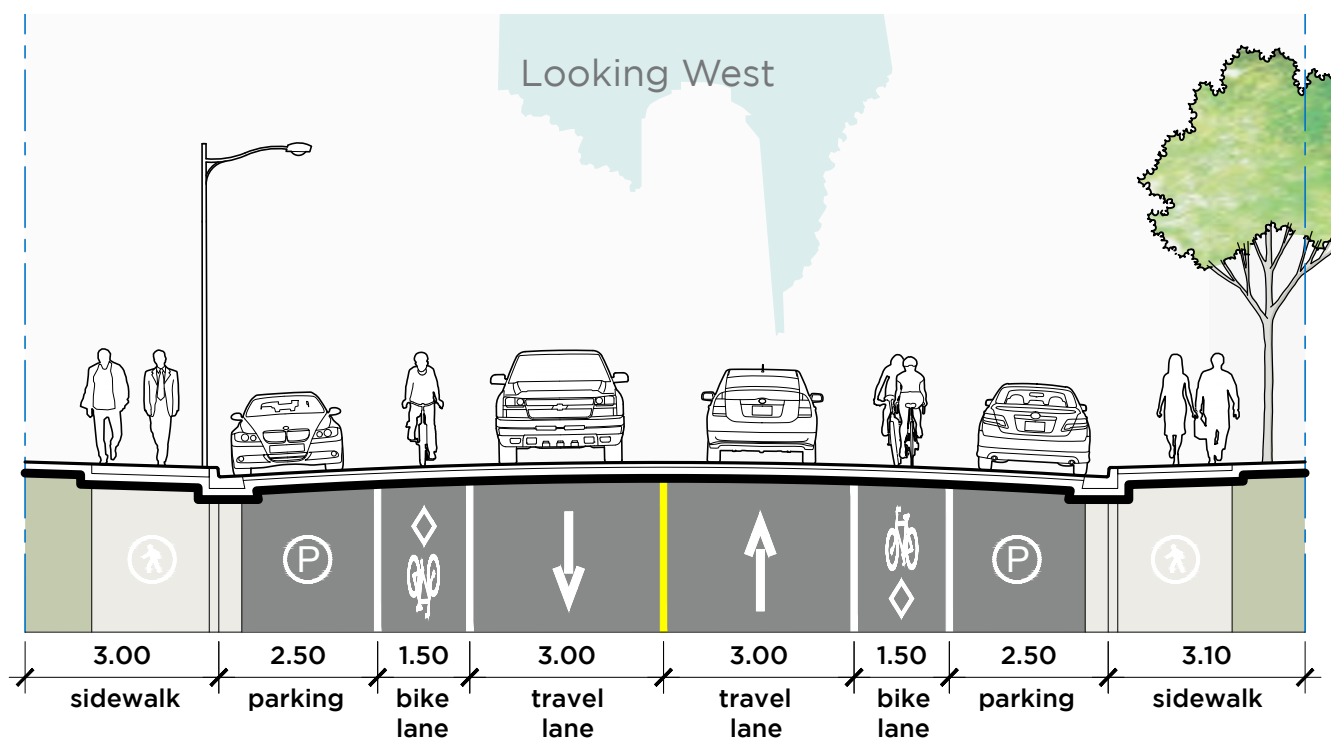
3. Hornby St to Burrard St



This is the last block of Smithe St with one-way travel.

- The current design has a left turning lane, a through lane, a painted bike lane and a right turn lane.
- A few parking stalls are provided just west of Hornby Street.

4. Burrard St to Thurlow St



This block transitions into a two-way street with:

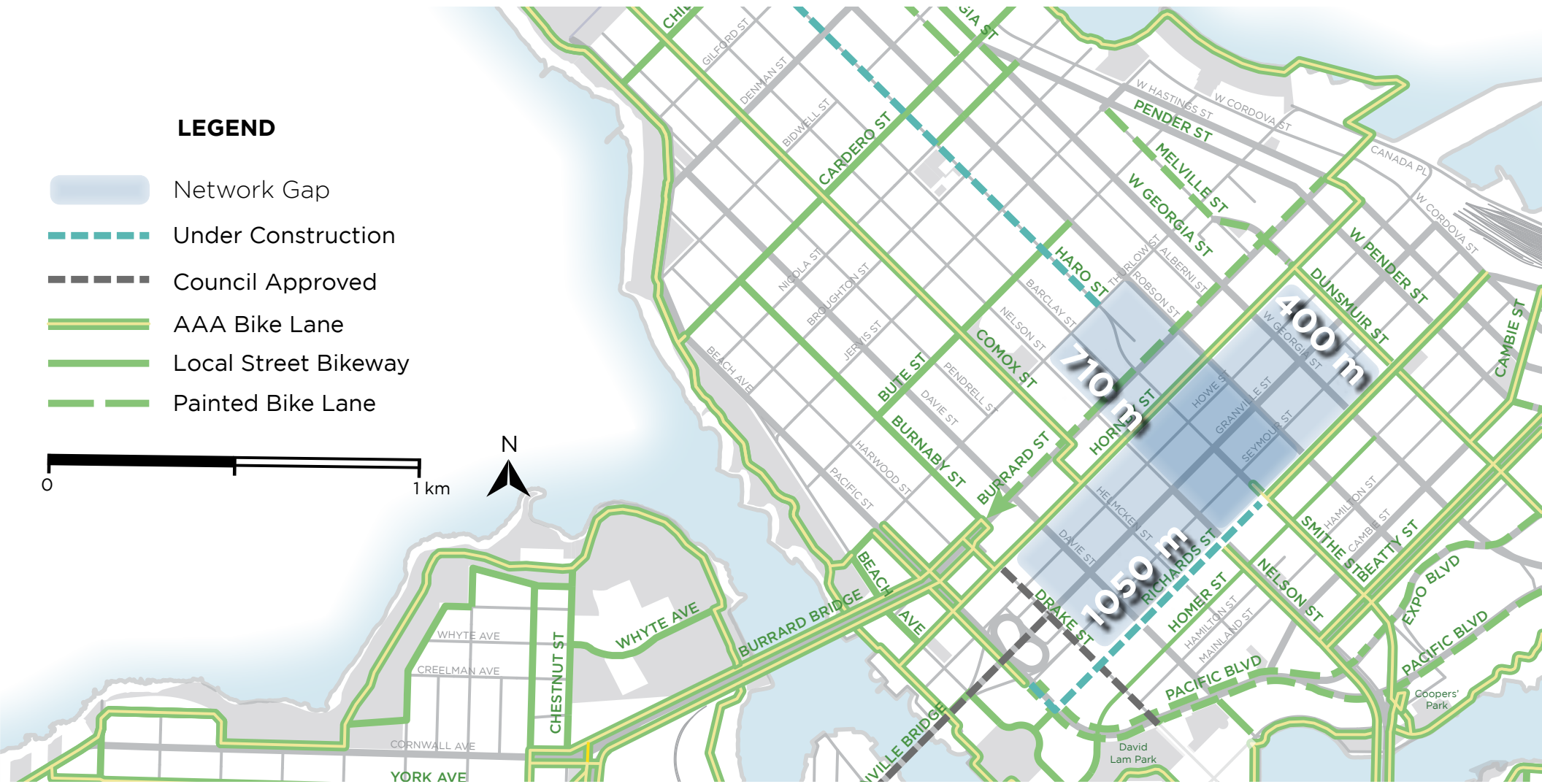
- Two travel lanes - one in each direction
- Painted bike lanes on both sides of the streets and
- Parking lanes along the curb which include two passenger zones and nine metered parking stalls.

Challenges

Between Richards St and Thurlow St

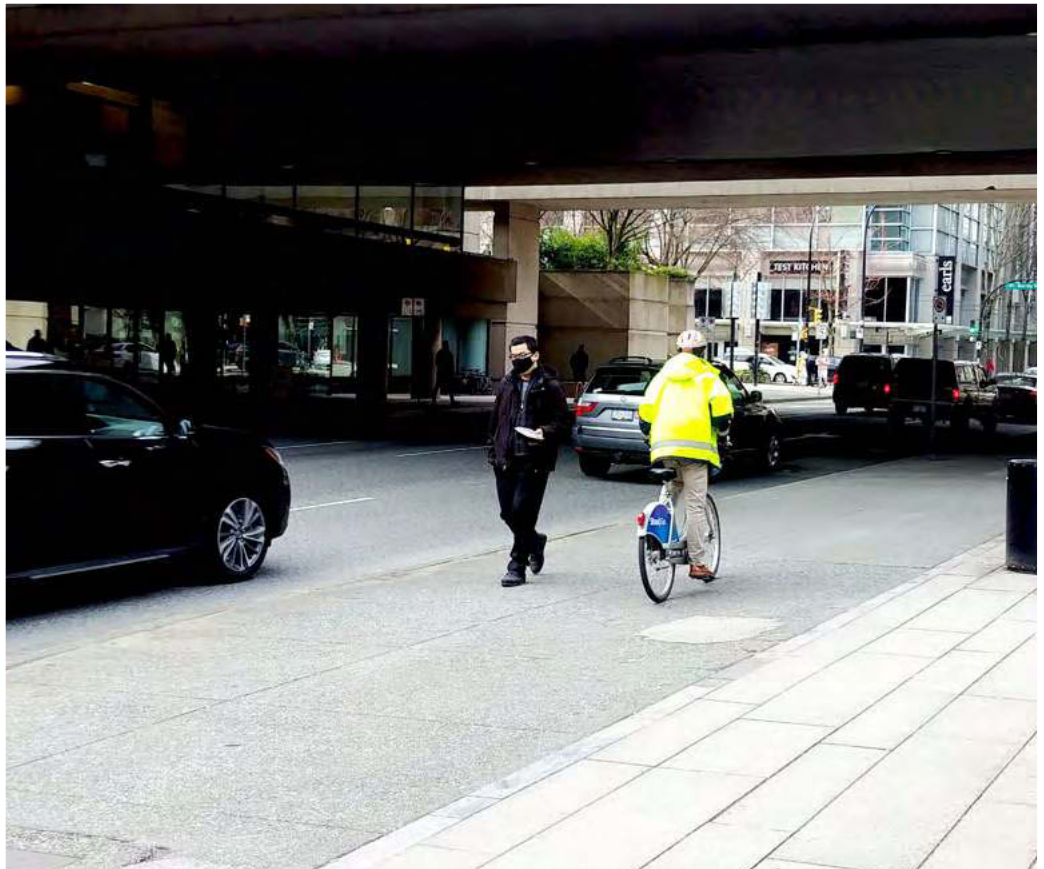
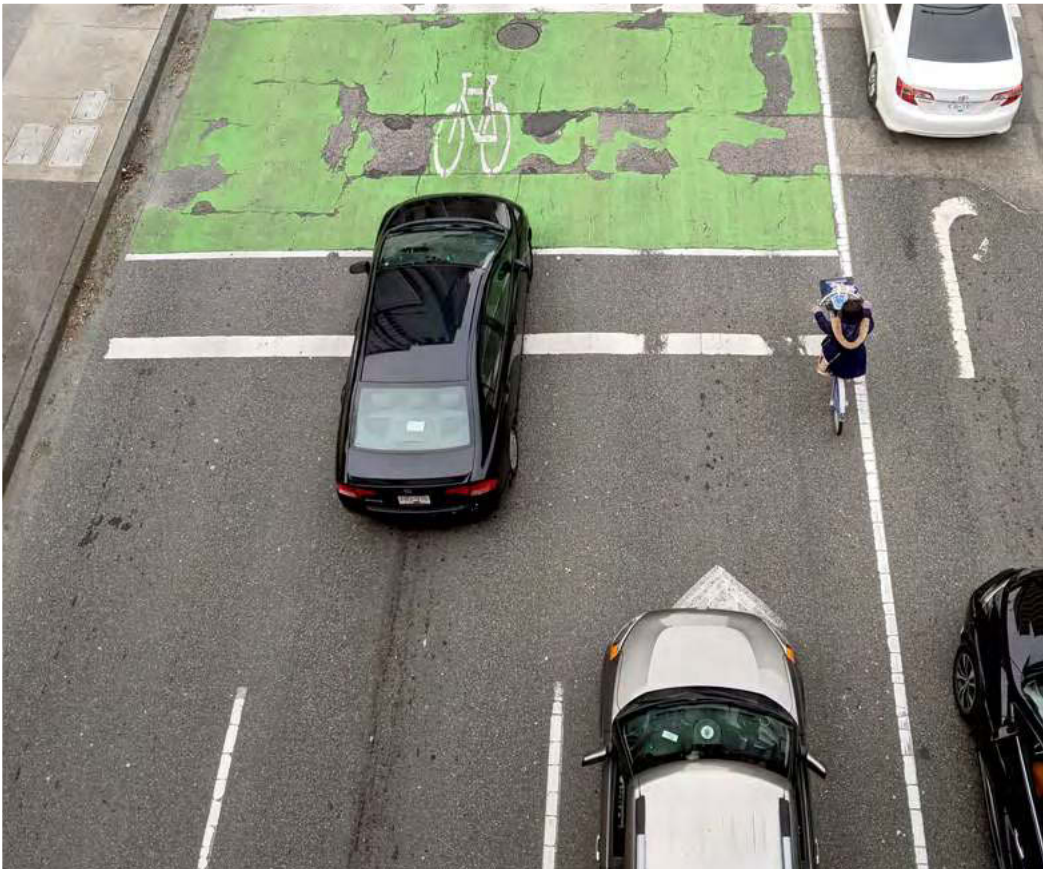
Major gap in the Downtown Bike Network

There is a major east-west gap between a number of existing and future routes in the Downtown Bike Network. There are only two east-west connecting routes - the existing Dunsmuir St protected bike lane and the future Drake Street route. The distance between these two routes is more than 1000m.



No All Ages and Abilities cycling facilities

People cycling either share a travel lane with motor traffic, or mix with pedestrians on the sidewalk.



Challenges

Between Richards St and Thurlow St

Conflicts at turning intersections

Unprotected intersections feel unsafe and contribute to conflicts between road users especially while turning.



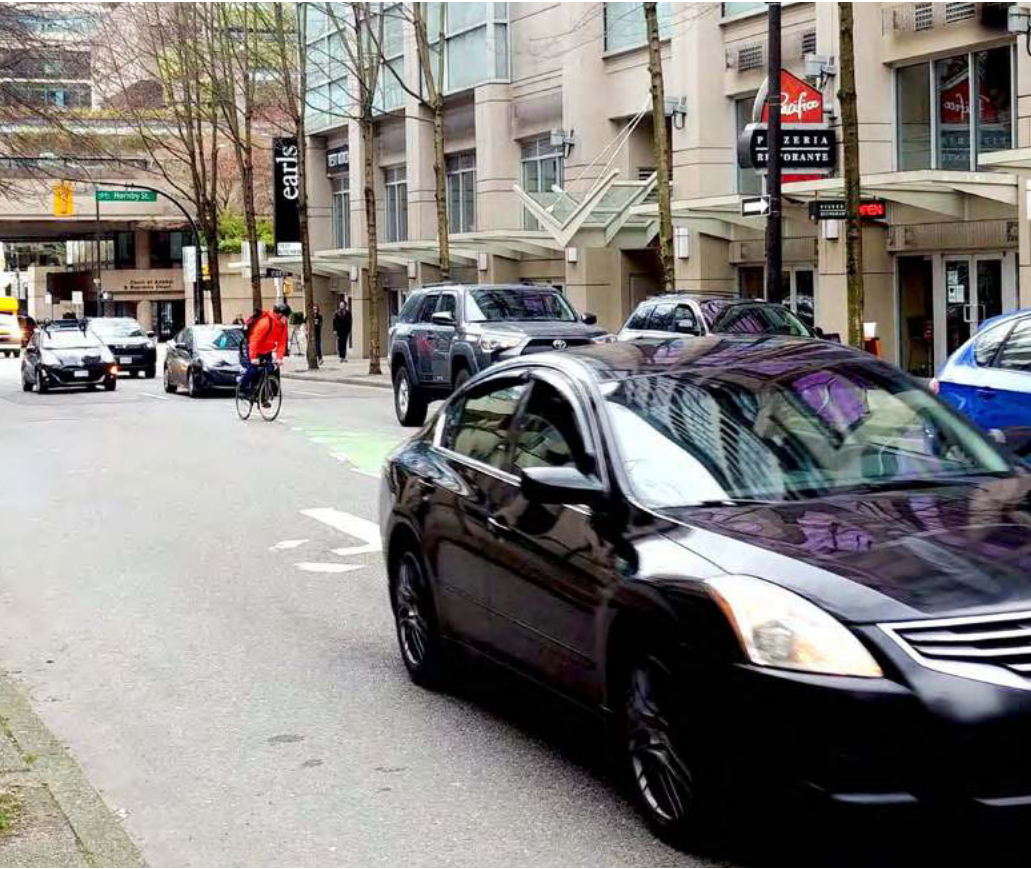
Conflicts while changing lanes

The current street design can make it challenging for people cycling to change lanes which they may need to do to get out of a turning lane or to access a painted bike lane.



No eastbound cycling connection

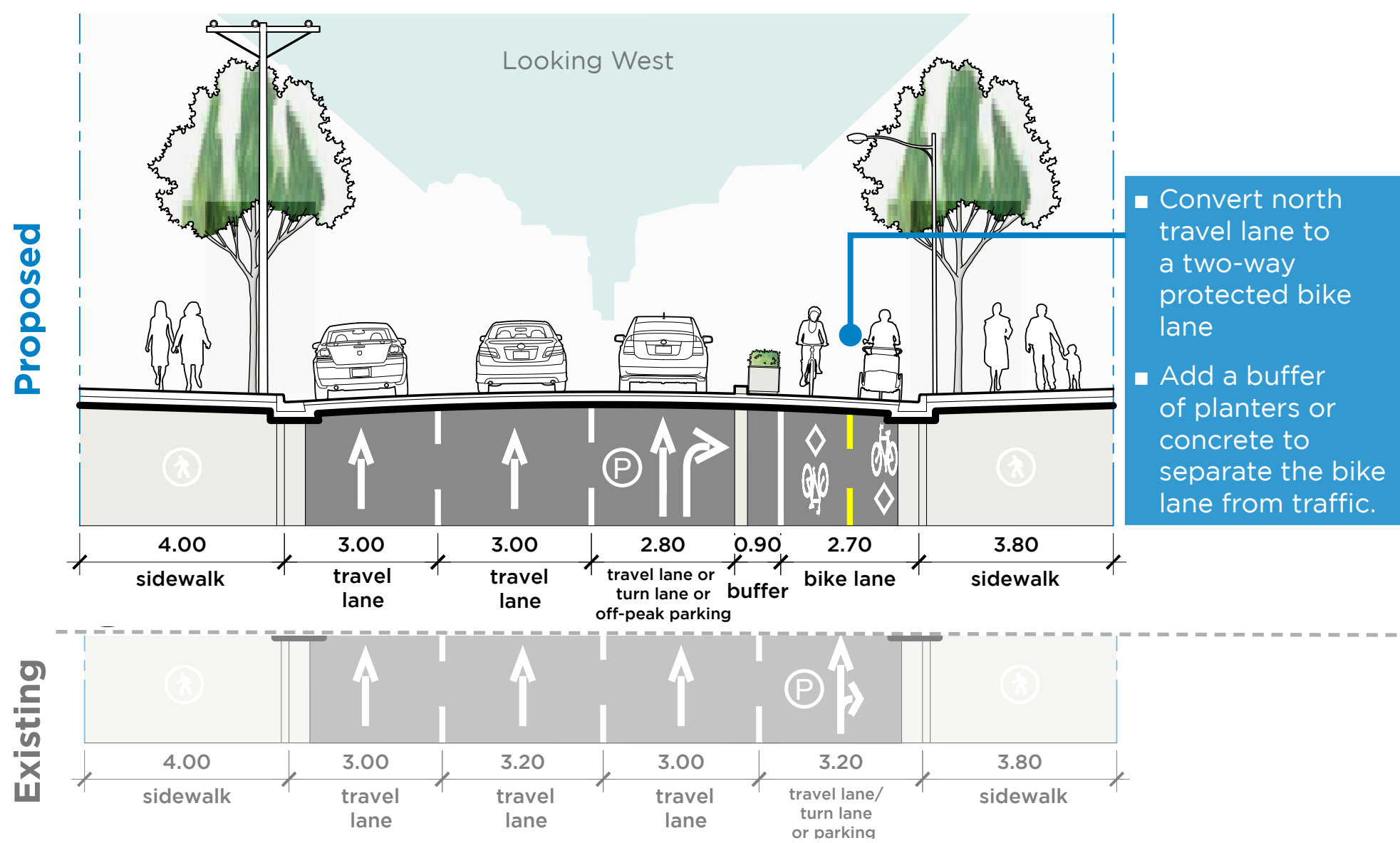
People cycling westbound on Smithe St from Haro St need to turn at Burrard St (a painted bike lane southbound) to to avoid riding against traffic. Eastbound cycling is currently allowed only until Smithe St at Burrard St, 1 block short of Hornby St.



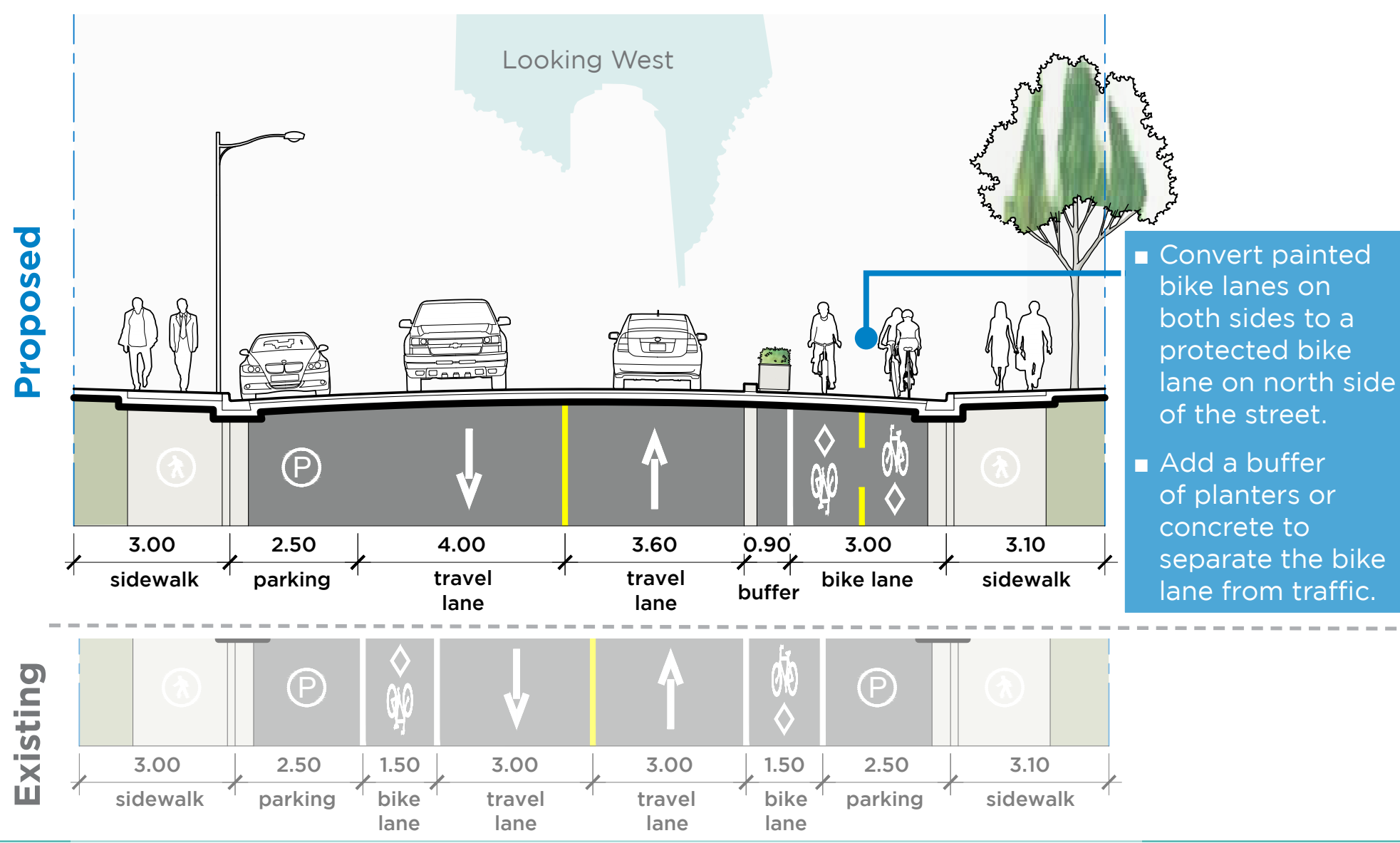
Proposed Design

Smithe St (Richards St to Thurlow St)

Richards St to Hornby St



Burrard St to Thurlow St



Key Design Features

Interim Design

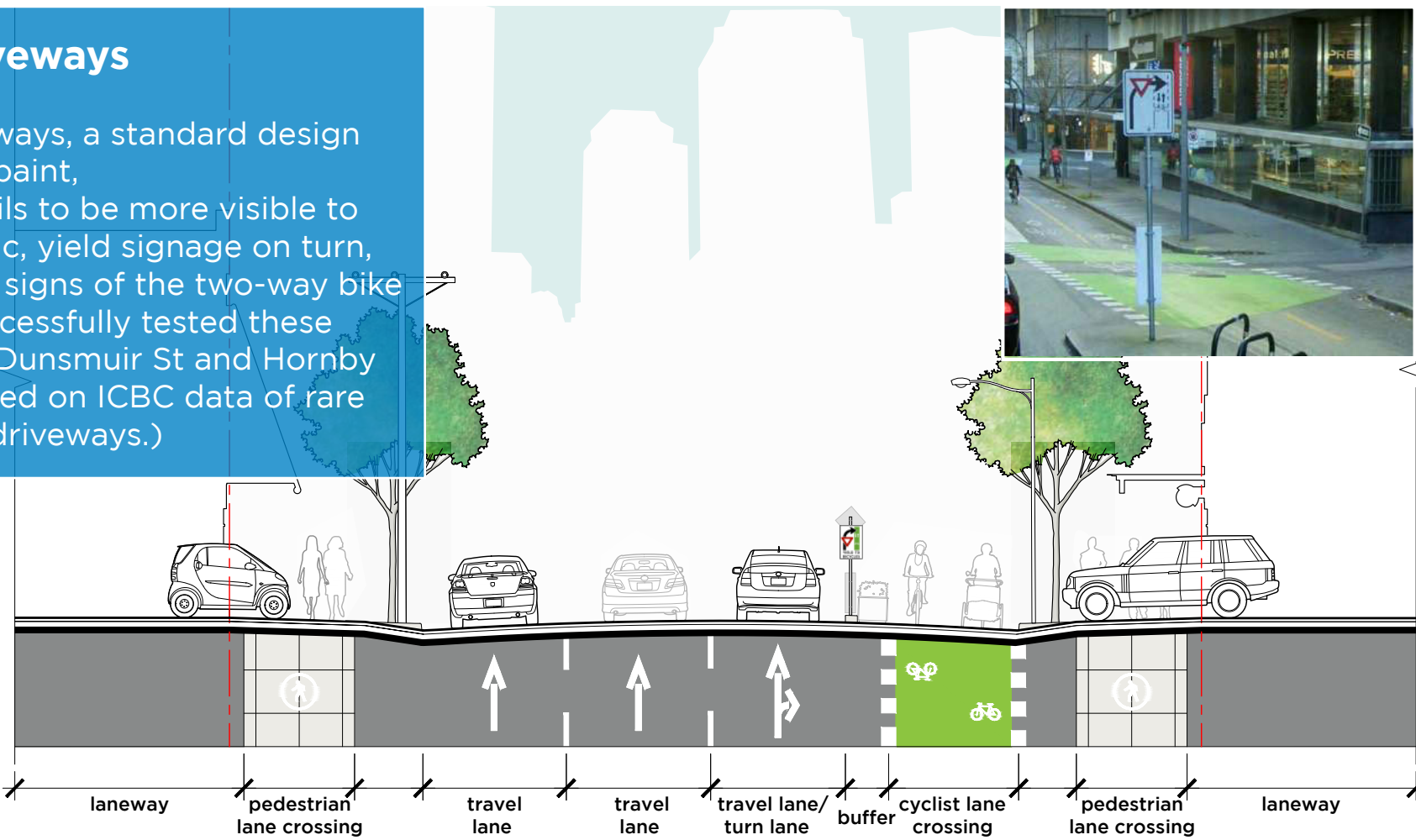


Two-way cycling route

A two-way protected bike lane separated by planters and concrete barriers will help minimize conflicts between road users and provide an AAA (All-Ages-and-Abilities) connection to the rest of the downtown bike network.

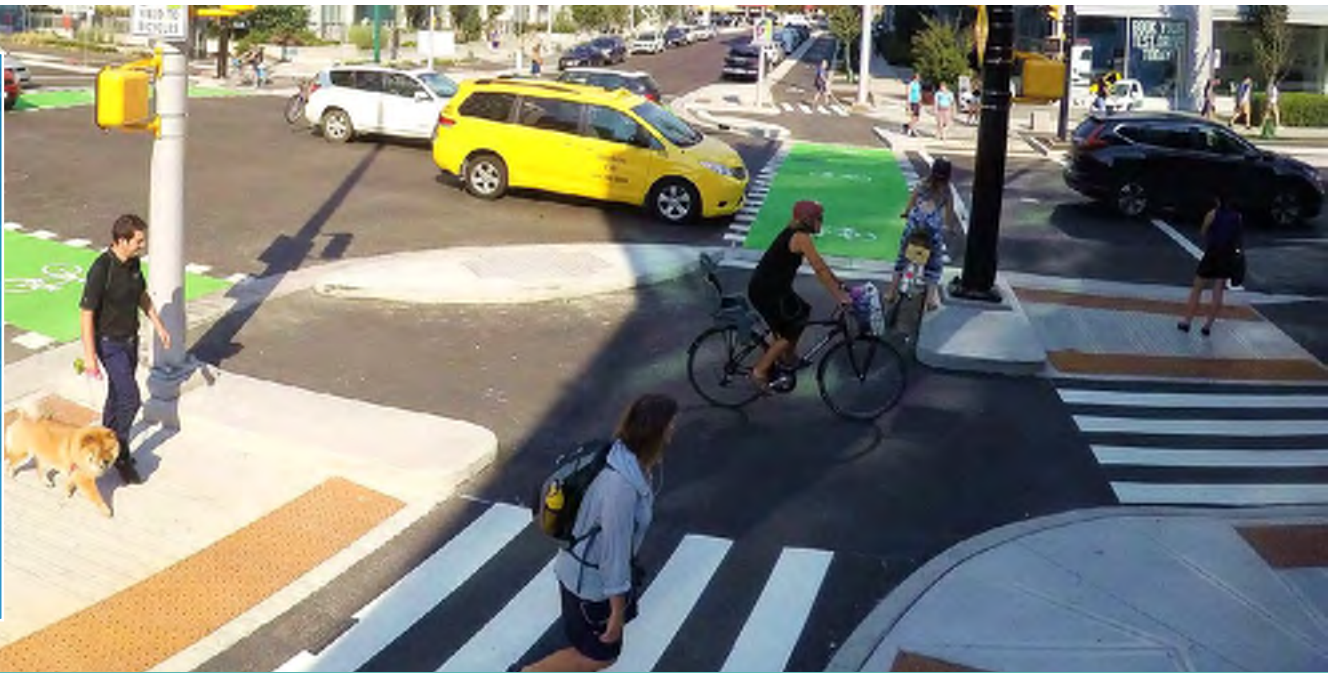
Alleys and driveways

At alleys and driveways, a standard design will include: green paint, redrawn bike stencils to be more visible to perpendicular traffic, yield signage on turn, and driver warning signs of the two-way bike path. We have *successfully tested these features along the Dunsmuir St and Hornby St bike lanes. (*Based on ICBC data of rare collisions at these driveways.)



Protected Intersection

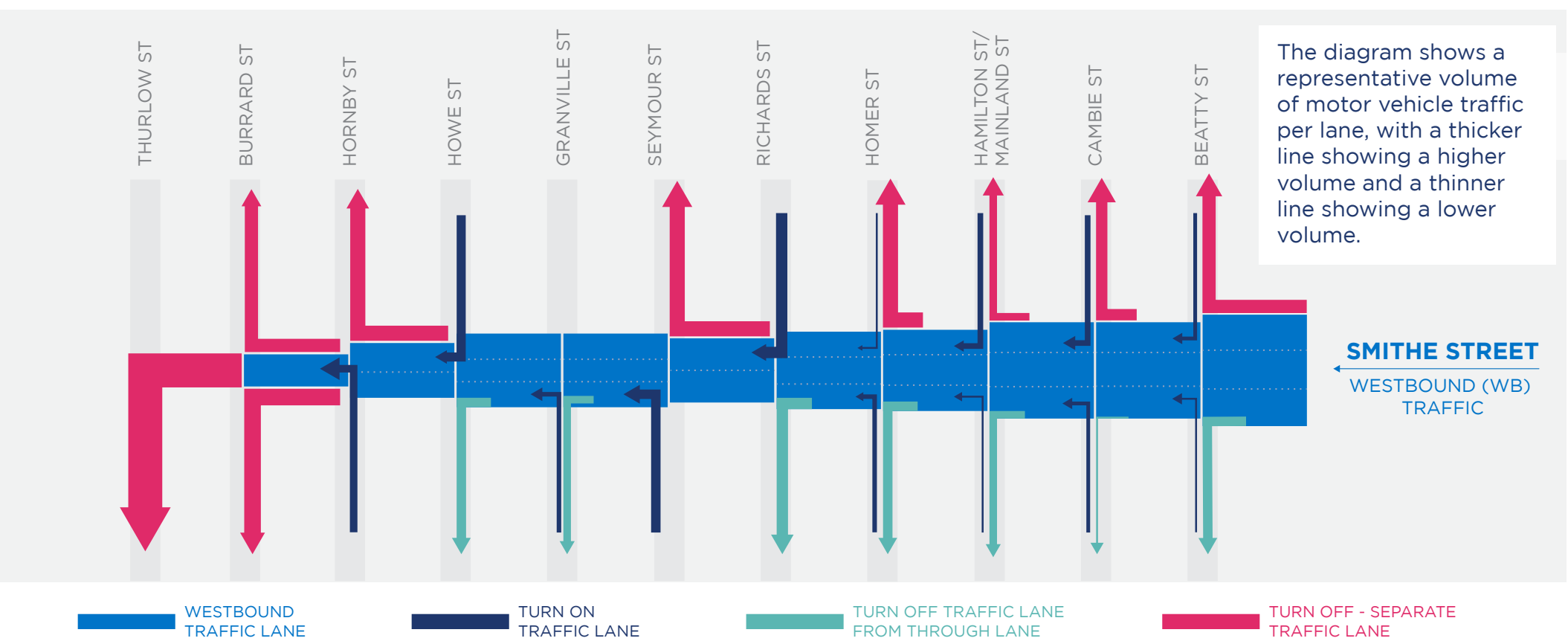
A protected intersection has been built as part of the Richards Green Complete Street Improvements project and an interim protected intersection will be built at Hornby St. In the future, we will return to build a fuller protected intersection at Hornby/ Smithe St, including significantly shorter crosswalks.



Maintain Sufficient Motor Vehicle Capacity

Design Features

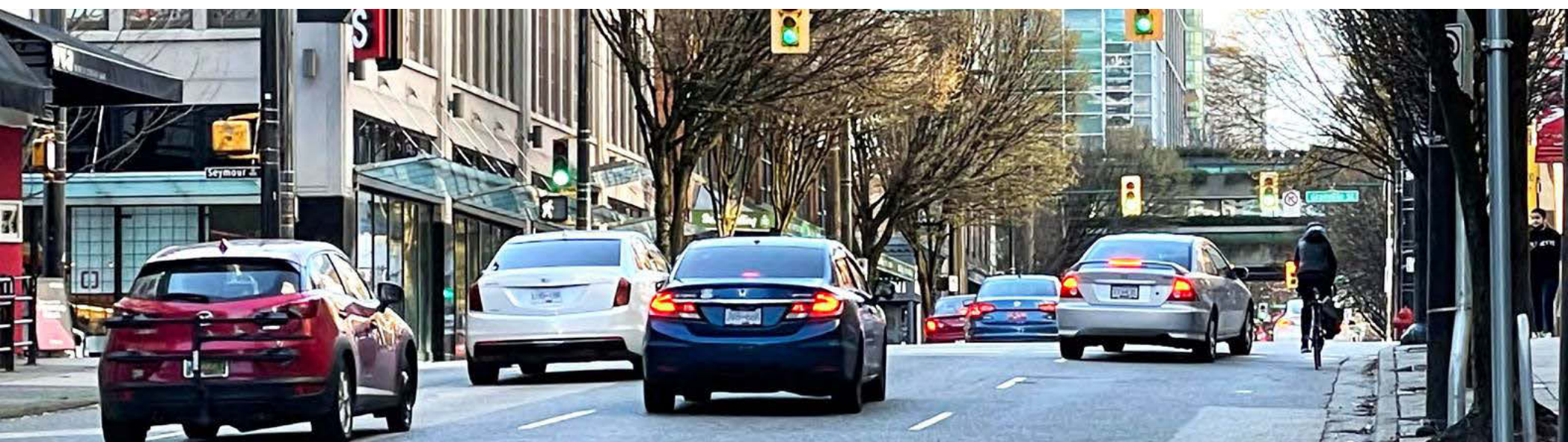
Smithe Street serves as a major westbound vehicular connection for the downtown, servicing many residences, businesses and amenities. From the perspective of motor vehicle travel and capacity, Smithe St serves to distribute traffic (particularly from the Cambie Bridge) onto the downtown grid before ending at Thurlow Street. Smithe motor vehicle volumes are highest at the eastern end near the bridge, where traffic can turn both left and right onto intersecting streets, but reduce towards the west where intersecting streets are generally one-way.



A key constraint on capacity is where traffic fans out onto Hornby, Burrard, and Thurlow streets. The proposed design maintains sufficient motor vehicle capacity by:

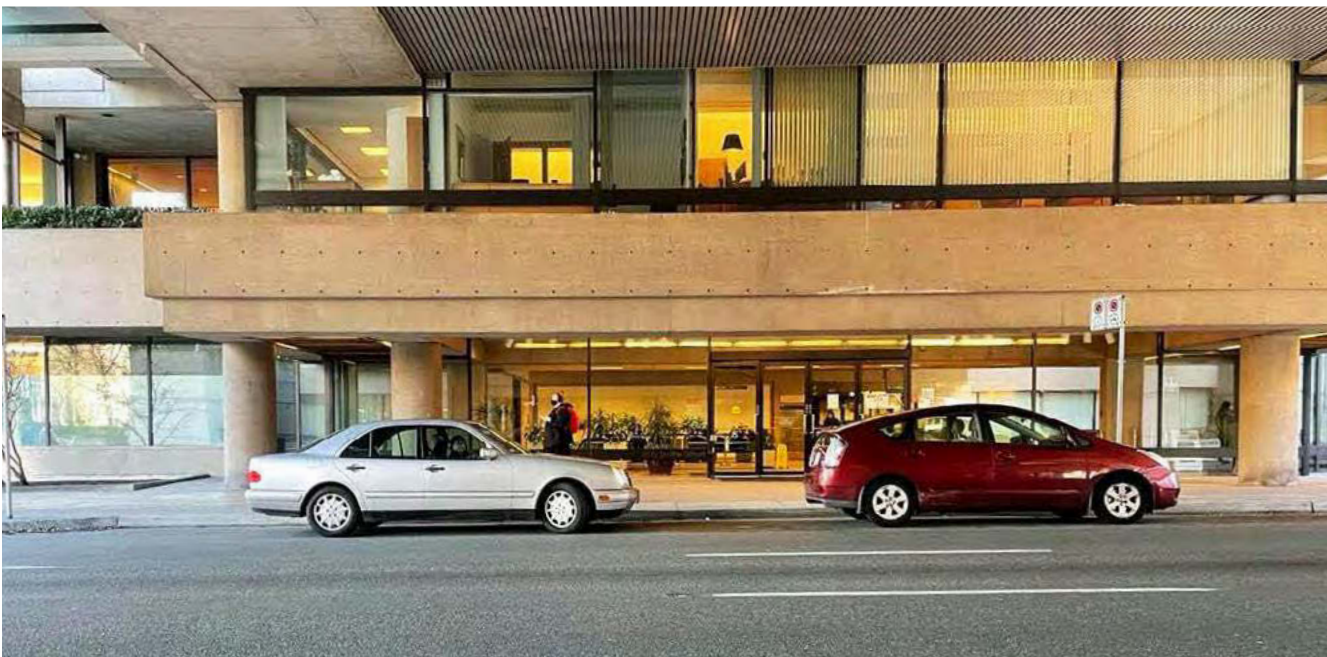
- Including dedicated turn lanes for these busy turns.
- Separating turn phases at Hornby St and Burrard St to reduce conflicts and provide more dedicated time to turn.
- Reducing the current lane changing around Burrard St by having a consistent through lane beside turning lanes.

Smithe Street has been reduced to two lanes on approach to Richards Street for construction, which predates any volume changes due to COVID-19. With the completion of both these projects, through motor vehicle capacity along Smithe St would actually be increased versus what has been provided for more than a year.



Retain Parking & Loading

Design Features



Parking/ Loading

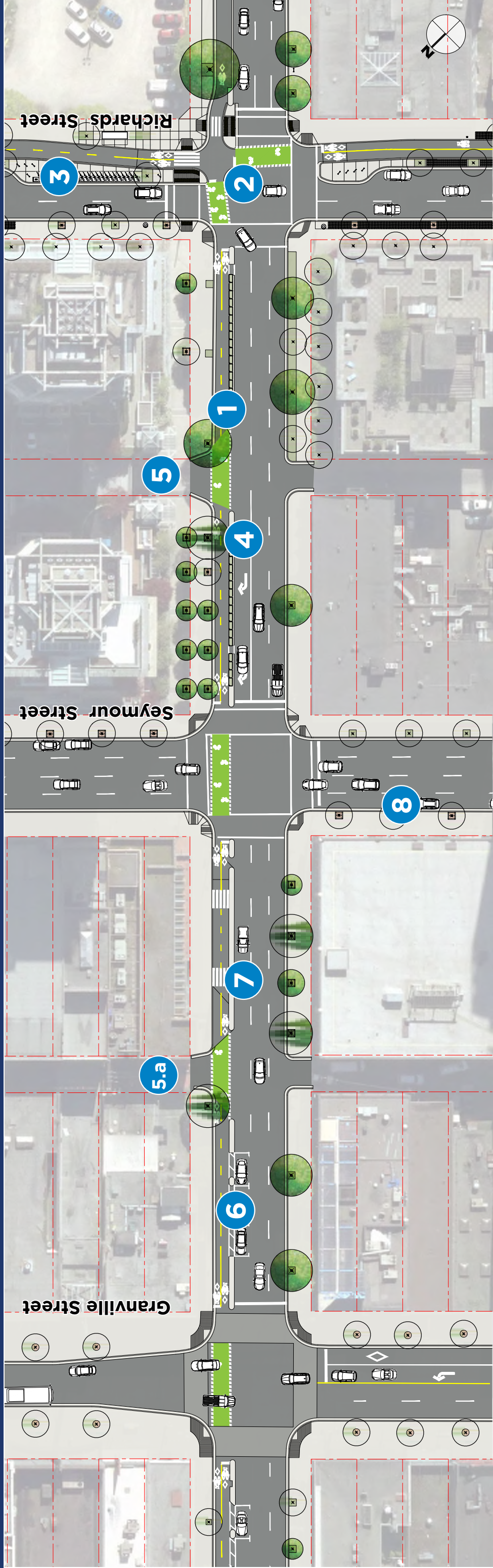
There is a limited amount of parking provided on Smithe Street, both because of existing restrictions and shorter block lengths than intersecting streets. For example, there are no parking spaces on Smithe St between Richards St and Seymour St, but almost 100 on-street metered parking spaces and more than 600 off-street parking spaces on the adjacent blocks of those two streets.

East of Hornby we are planning to maintain existing off-peak parking and loading/passenger zones; for additional detail and for changes west of Hornby, please see the design boards.

Access to Parkade

Access to parkades will be maintained in the proposed design. The proposed design will include green paint, bike stencils (that we have redrawn to be more visible to perpendicular traffic), yield on turn signage, and signs warning exiting drivers of the two-way bike traffic. Close attention will be paid to the width of driveway openings, for example, to have two separate crossings for adjacent driveways rather than one large and unclear crossing.

Smithe St - Richards St to Granville St



1 Convert north lane of Smithe St between Richards St to Hornby St to a two-way protected bike lane

2 Protected intersection on Smithe at Richards was constructed as part of Richards Green Complete Street improvements in 2021.

3 Added new Mobi Public Bike Share on Richards St at Smithe St

4 Add dedicated right turn lane and dedicated turn phase

5 Maintain access to all alleys

5.a Allow entry to the lane from Smithe St, currently do-not-enter

6 Maintain off-peak taxi zone/short-term stopping zone on the north curb

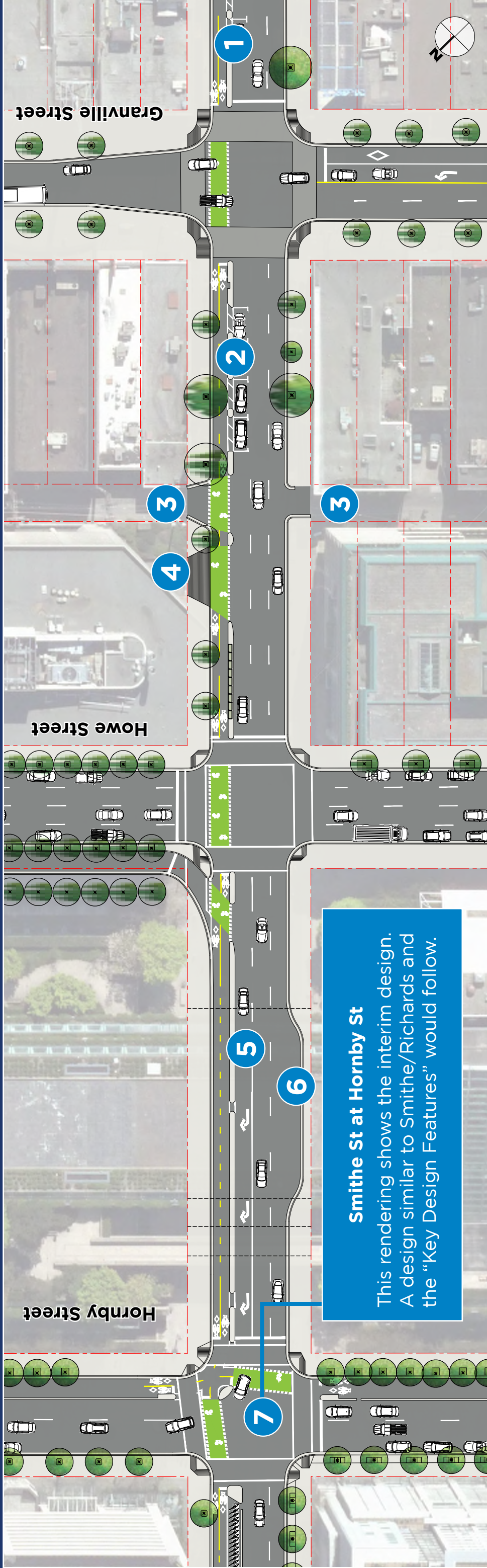
7 Convert to full-time passenger zone

8 Convert an off-peak parking space to a short space for northbound left turns

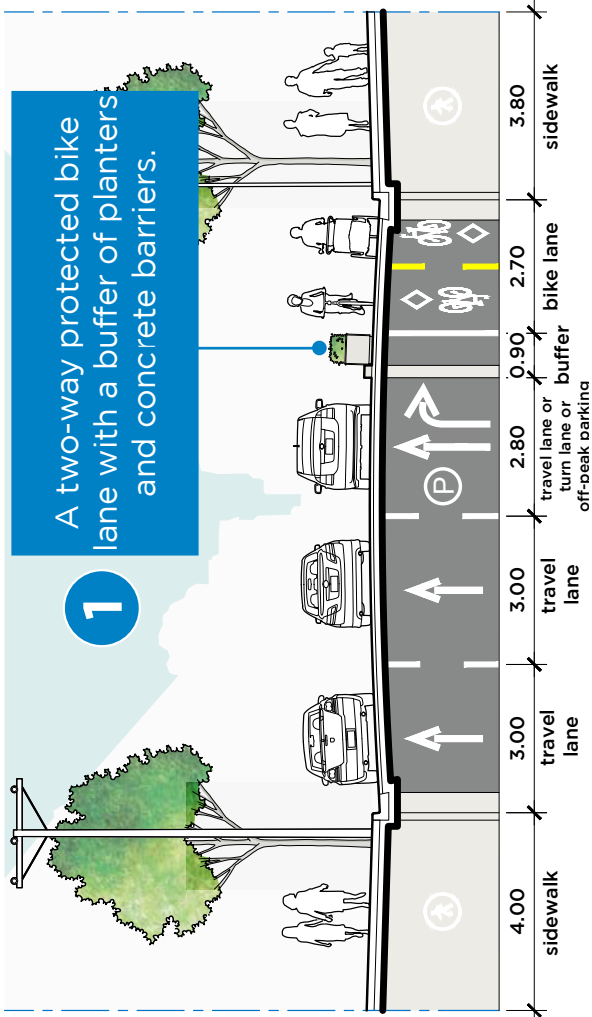


Smithe St at Richards St - Protected Intersection.

Smithe St - Granville St to Hornby St



- 1 Convert north lane of Smithe St between Richards St to Hornby St to a two-way protected bike lane
- 2 Retain 4 off-peak parking spaces
- 3 Maintain access to alleys
- 4 Maintain access to parkades
- 5 Maintain separate right turn lane and add dedicated turn phase
- 6 Retain passenger loading zones and police motorcycle zone
- 7 Add an interim protected intersection at Smithe-Hornby. We will return to build a fuller protected intersection in future.



Convert north lane of Smithe St between Richards St to Hornby St to a two-way protected bike lane

Retain 4 off-peak parking spaces

Maintain access to alleys

Maintain access to parkades

Maintain separate right turn lane and add dedicated turn phase

Retain passenger loading zones and police motorcycle zone

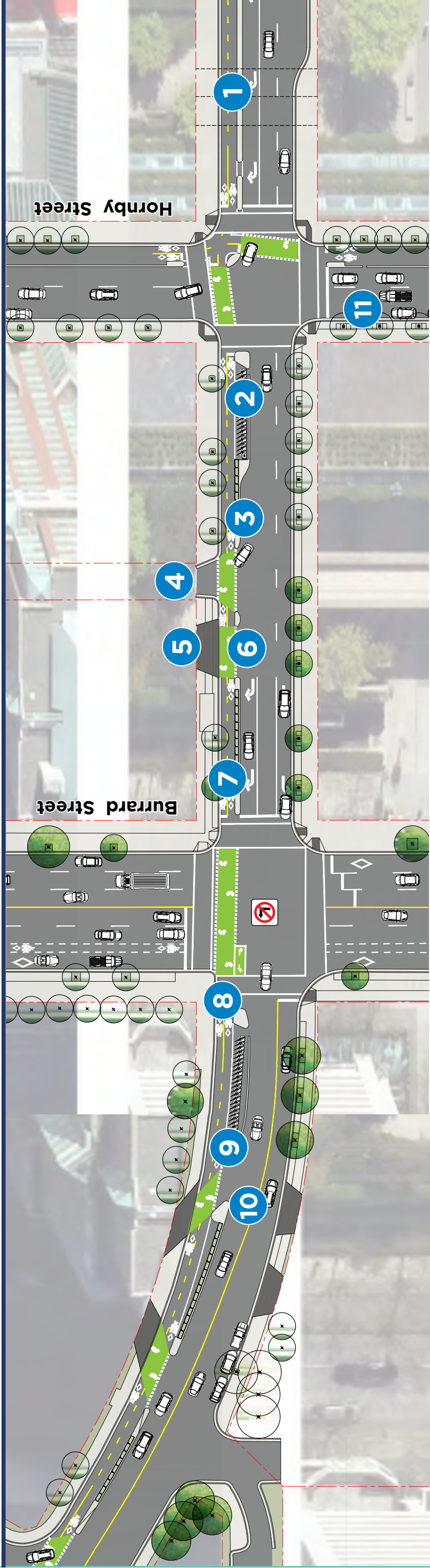
Add an interim protected intersection at Smithe-Hornby. We will return to build a fuller protected intersection in future.

A protected intersection reduces the likelihood of collisions between people driving, cycling and walking by:

- Separating infrastructure for each mode
- Reducing high-speed vehicle turns
- Improving sight lines
- Reducing the distance and time during which people are exposed to potential conflicts.

These provide a higher degree of comfort and safety for people of all ages and abilities.

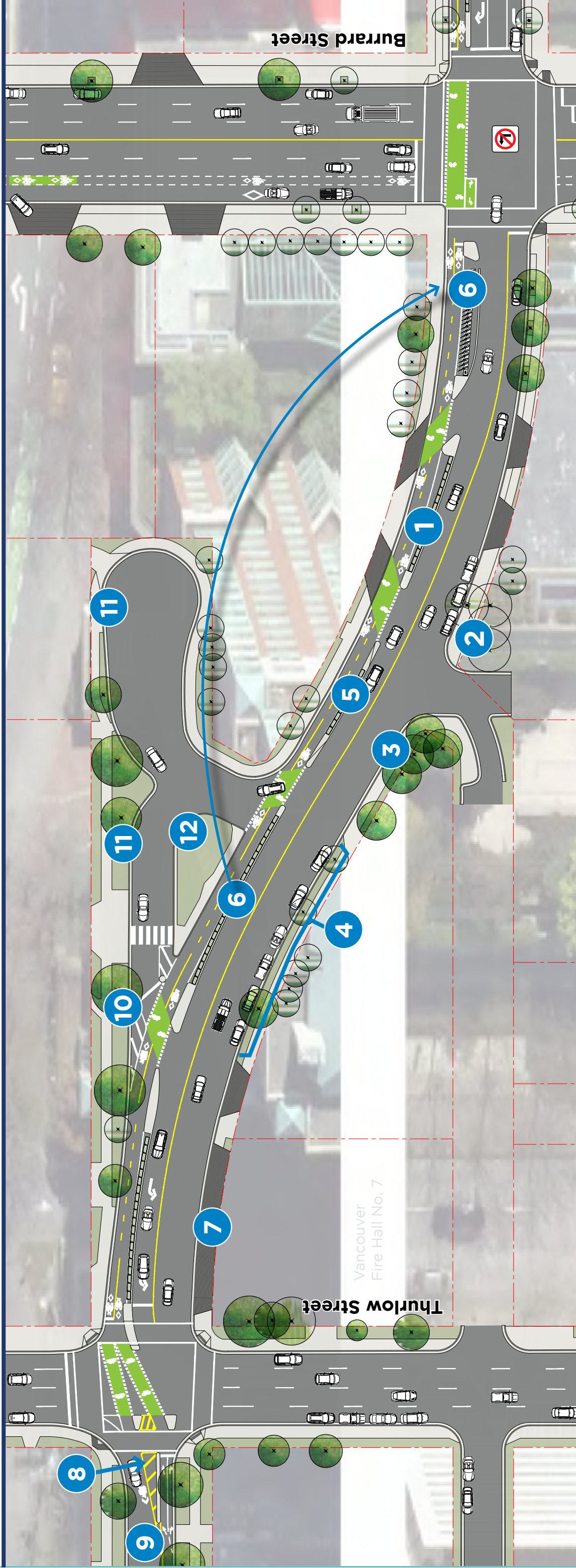
Smithe St - Hornby St to Burrard St



- 1 Convert north lane of Smithe St between Richards St to Hornby St to a two-way protected bike lane
- 2 Potential to add new Mobi Public Bike Share on Smithe St
- 3 Remove 4 metered parking spaces and motorcycle parking space
- 4 Maintain access to all alleys
- 5 Maintain access to all parkades
- 6 Maintain dedicated right turn lane and add dedicated turn phase

- 7 Replace westbound painted bike lane with two-way protected bike lane
- 8 Replace westbound and eastbound painted bike lanes with two-way protected bike lane
- 9 Remove 3 metered parking spaces and 1 passenger zone
- 10 Reduce two eastbound travel lanes to a single eastbound lane while approaching Burrard St; restrict low-volume eastbound left turn
- 11 Convert 2 metered parking spaces to a short space for northbound left turns

Smithe St - Burrard St to Thurlow St



- 1

Replace westbound and eastbound painted bike lanes with two-way protected bike lane

2

Retain the 2 metered parking spaces

3

Retain passenger zone

4

Retain all 7 metered parking spaces

5

Remove 2 metered parking spaces and a passenger zone
- 6

Relocate existing Mobi Public Bike Share on Smithe St at Burrard St

7

Maintain all emergency response movements and keep driveway clear for large Vancouver Fire and Rescue Services apparatus

8

Maintain access for emergency vehicles and connect the protected bike lane to the Haro local street bikeway while reinforcing existing turn restrictions
- 9

Retain one-way westbound only for motor vehicles as per recent Haro St public engagement and implementation

10

Remove the 3 metered parking spaces within the intersection

11

Maintain 7 metered parking and stopping on this portion of Haro Street, consider a passenger zone

12

This area has been identified as a potential plaza through Transportation 2040 and 1045 Haro St rezoning; as an interim measure, convert to right-in/right-out

Smithe Street Upgrades

(Richards Street to Thurlow Street)



Read the informational material and share your input by taking an **online survey**. The survey will remain open **until June 7, 2021**.

Webpage and Survey:
vancouver.ca/smithe-street-upgrades

Project Email:
smithestreetupgrades@vancouver.ca

Smithe Street Upgrades

Appendices

Appendix A - Timeline

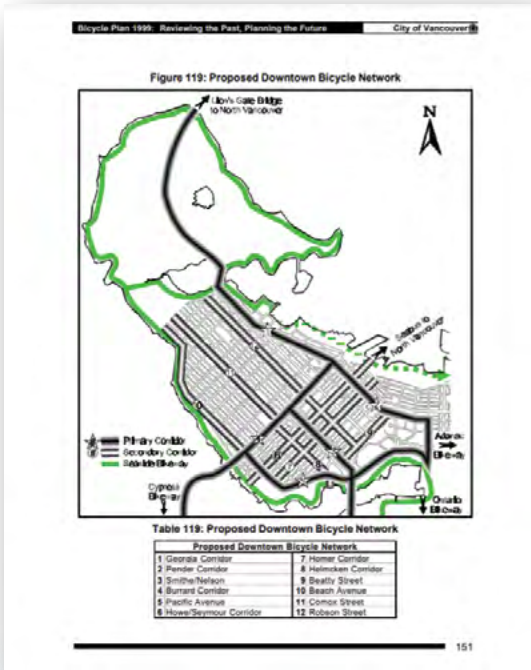
Appendix B - Preliminary Assessment

Appendix - A

Project History

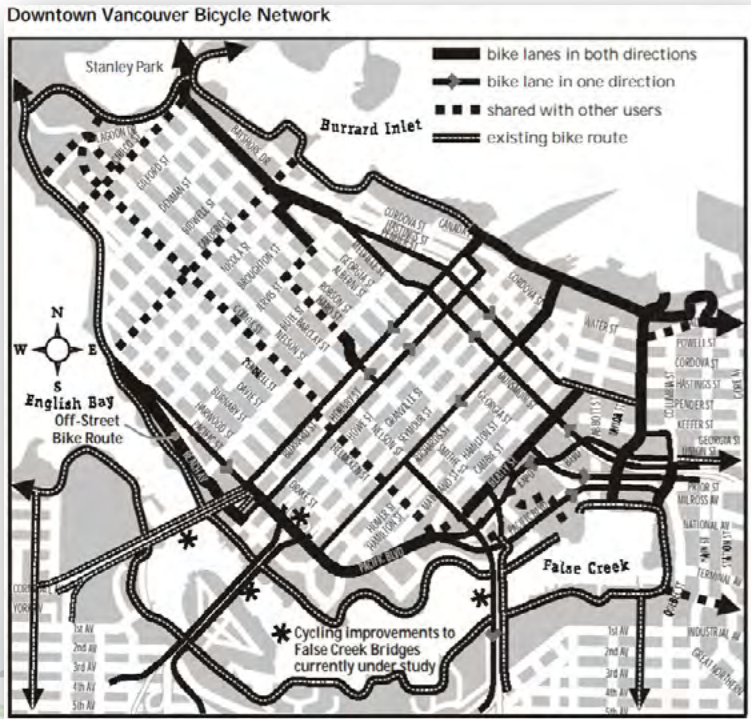
1999

“Smithe/Nelson Corridor”
identified in **Bicycle Plan update**



2002

Smithe/Haro from Hornby St to Jervis St and Nelson St east of Richards St identified in Downtown Transportation Plan.



[Read 2002 Downtown Transportation Plan \(link\).](#)

Appendix - A

Project History

2012

Painted bike lanes installed on Smithe St between Hornby and Thurlow streets.

Transportation 2040 adopted by Council, including identifying Smithe Street east of Beatty St on the five year AAA cycling priority map for upgrades.

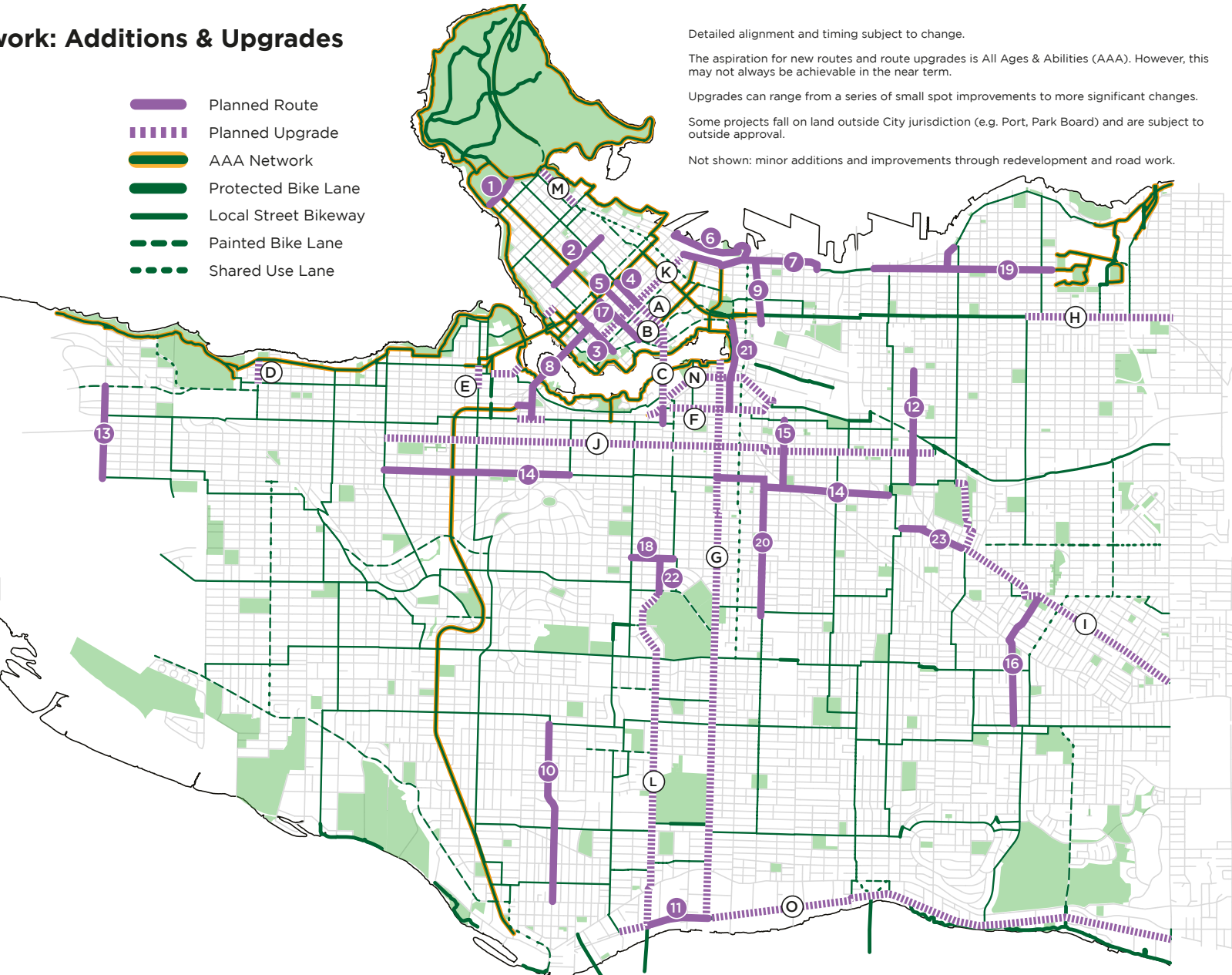


[Read Transportation 2040 plan here.](#)

5-Year Cycling Network: Additions & Upgrades 2018-2022

Planned Routes	
1	Park Lane*
2	Bute
3	Drake
4	Smithe
5	Nelson
6	West Waterfront Road**
7	Water-Alexander-Powell
8	Granville Bridge
9	Gore
10	Hudson
11	Kent
12	Commercial
13	Blanca
14	14th Ave
15	St. George Rainway
16	Duchess-Wales*
17	Helmcken
18	King Edward
19	Pandora-Semlin
20	Prince Edward
21	Quebec
22	Cambie
23	Stainsbury
Planned Upgrades	
A	Smithe
B	Nelson
C	Cambie Bridge
D	Highbury
E	Cypress
F	5th Ave
G	Ontario
H	Adanac
I	BC Parkway
J	10th Ave
K	Richards
L	Cambie
M	Georgia
N	1st Ave
O	Kent

- Planned Route
- Planned Upgrade
- AAA Network
- Protected Bike Lane
- Local Street Bikeway
- Painted Bike Lane
- Shared Use Lane



Detailed alignment and timing subject to change.

The aspiration for new routes and route upgrades is All Ages & Abilities (AAA). However, this may not always be achievable in the near term.

Upgrades can range from a series of small spot improvements to more significant changes.

Some projects fall on land outside City jurisdiction (e.g. Port, Park Board) and are subject to outside approval.

Not shown: minor additions and improvements through redevelopment and road work.

Appendix - A

Project History

2013-14

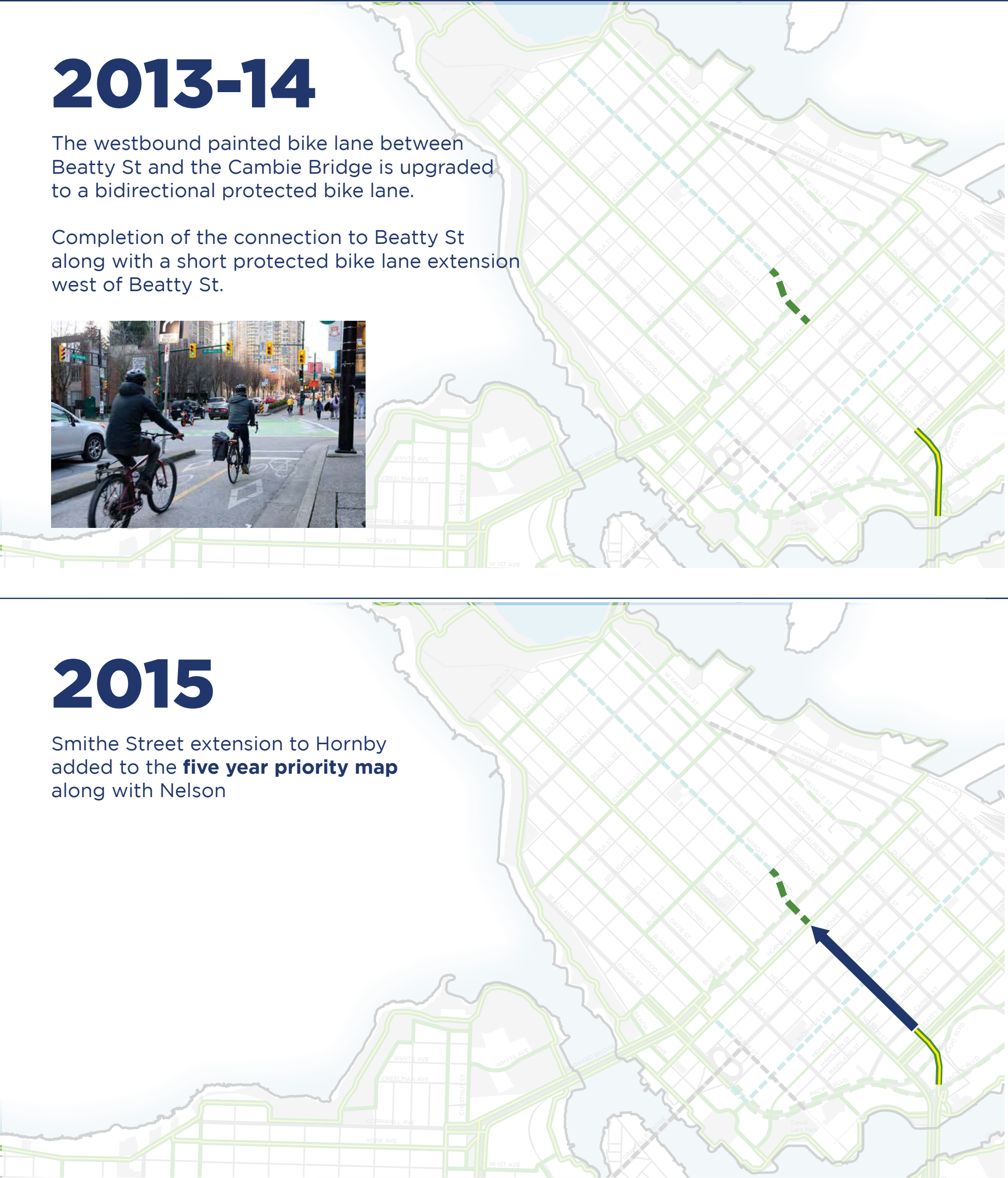
The westbound painted bike lane between Beatty St and the Cambie Bridge is upgraded to a bidirectional protected bike lane.

Completion of the connection to Beatty St along with a short protected bike lane extension west of Beatty St.



2015

Smithe Street extension to Hornby added to the **five year priority map** along with Nelson



Appendix - A

Project History

2016

Protected bike lanes were installed on Smithe St and Nelson St from Beatty St to Richards St as part of the **2016 Downtown Bike Network Expansion**.



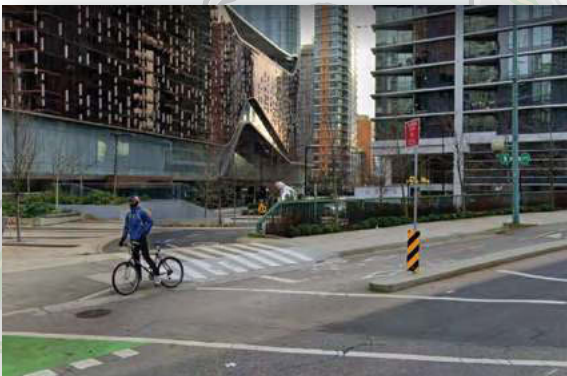
[View detailed designs from 2016 Downtown Bike Network Expansion here.](#)

2018-19

Smithe St bike lane protection is extended up to the intersections with Cambie, Hamilton, and Homer streets as part of repaving coordination.

Southbound protected bike lane added to connect the Nelson St protected bike lane with the east side path on the Cambie Bridge.

First phase of bike path connecting Smithe St toward Seawall opens through adjacent redevelopment.



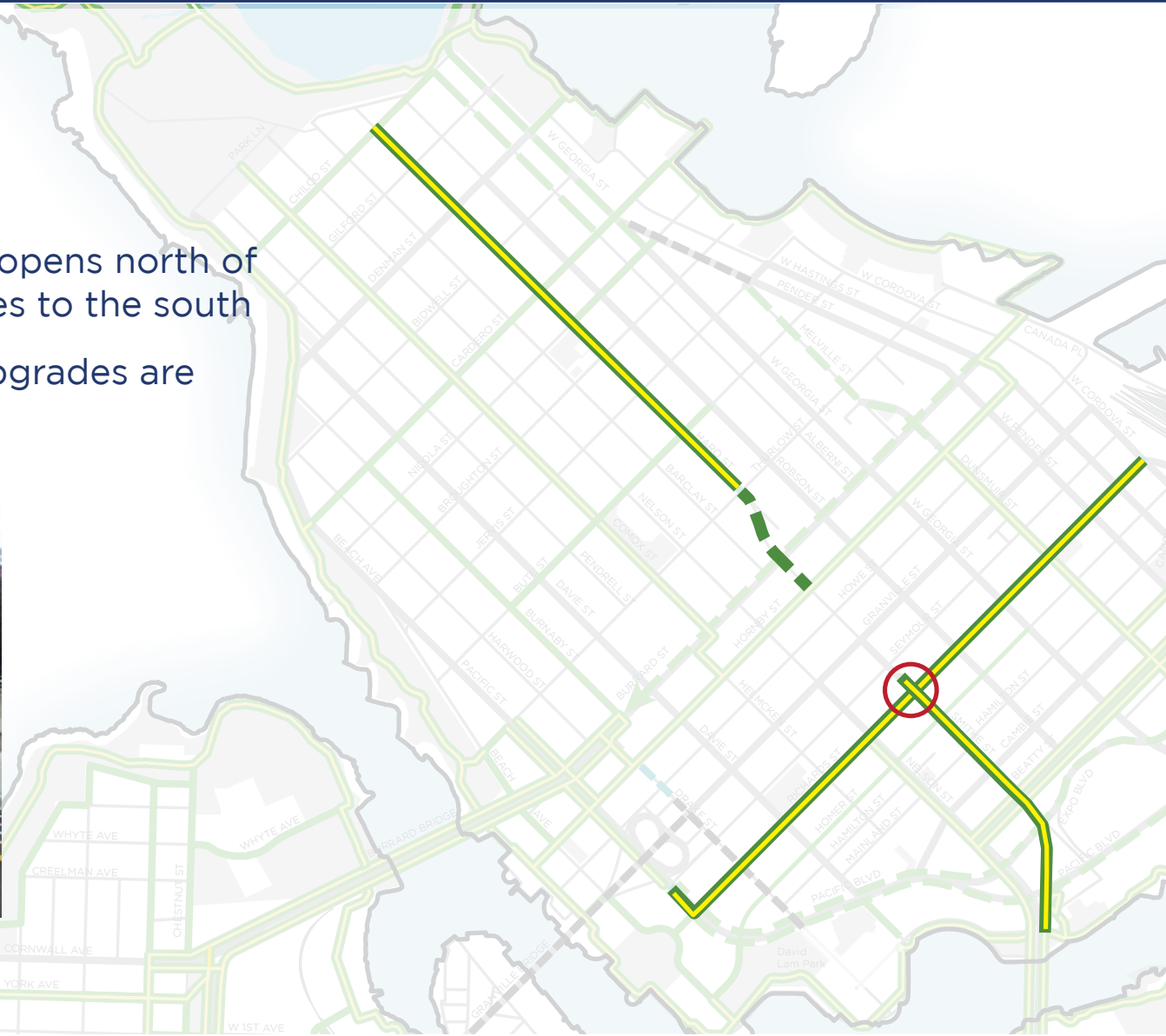
Appendix - A

Project History

2020-21

Richards St protected bike lane opens north of Smithe St, construction continues to the south

Haro St All Ages and Abilities upgrades are expected to be completed



[View detailed designs for Richards Green Complete Street Improvements \(link\).](#)

[View design brief for Haro Street all ages and ability upgrades \(link\).](#)

Appendix - B

Preliminary Assessment						
	Walking	Cycling (Directness)	Cycling (Convenience)	Motor Vehicles (Parking)	Motor Vehicles (Circulation)	Additional Considerations
Smithe St	<ul style="list-style-type: none">A buffer between sidewalk and motor vehicle trafficSome protected turn phasesShorter crosswalks at HornbyCoordinate additional curb ramp and corner improvements	Direct connection from between Cambie Bridge and Haro Bikeway, Financial District	Quickest westbound option for most trips (up to 4 minutes faster than Helmcken when connecting from Cambie Bridge at Richards)	Smithe has limited parking, most could be retained	Smithe primarily serves to distribute traffic west of Richards and has sufficient capacity	Can serve two-way cycling, section between Hornby and Thurlow already required to connect Haro Bikeway
Nelson St	<ul style="list-style-type: none">Provides a buffer between sidewalk and motor vehicle trafficOne protected turn phaseShorter crosswalks at RichardsCoordinate additional curb ramp and corner improvements	Direct connection to Cambie Bridge from all points west	Quickest eastbound option for most trips (1-3 minutes faster than Helmcken or Smithe when connecting to Cambie Bridge from Haro or Comox)	Nelson has limited parking, most could be retained	Nelson has higher through volumes, the Howe turn and adjacent driveway may be difficult	Also requires one of Smithe or Helmcken for westbound trips.
Helmcken St	<ul style="list-style-type: none">Potential opportunities for landscaping, may include Greenway treatmentsCoordinate additional curb ramp and corner improvements	Most direct connection to Comox Bikeway	Competitive with Smithe and Nelson for trips that start and end south of Nelson	Helmcken currently has parking on both sides; similar to Drake, up to 50% could be retained	Helmcken has low traffic volumes; similar to Drake, turn restrictions or one-way are likely required	Can serve two-way cycling, Greenway treatments would require more time and cost

Smithe Street Upgrades

(Richards Street to Thurlow Street)



Read the informational material and share your input by taking an **online survey**. The survey will remain open **until June 7, 2021**.

Webpage and Survey:
vancouver.ca/smithe-street-upgrades

Project Email:
smithestreetupgrades@vancouver.ca