

# Vancouver-UBC Local Committee

June 18<sup>th</sup>, 2019

# Topics

- BC Active Transportation Announcements
- Jersey
- Deep Dive – Drake St Bikeway
- Consultations
  - 10<sup>th</sup> Ave Phase IV (Post Construction) Evaluation

# BC Government Releases this week:

- BC Active Transportation Strategy
  - All forms of Active Transportation
  - Linked to public health
  - Upcoming changes to the Motor Vehicle Act
  - Document [here](#)
- BC Active Transportation Design Guide
  - Best Practices for walking and cycling infrastructure
  - Applicable to all levels of government
  - Not regulated, but promoted with grant programs
  - Document [here](#)

CJ52M-55

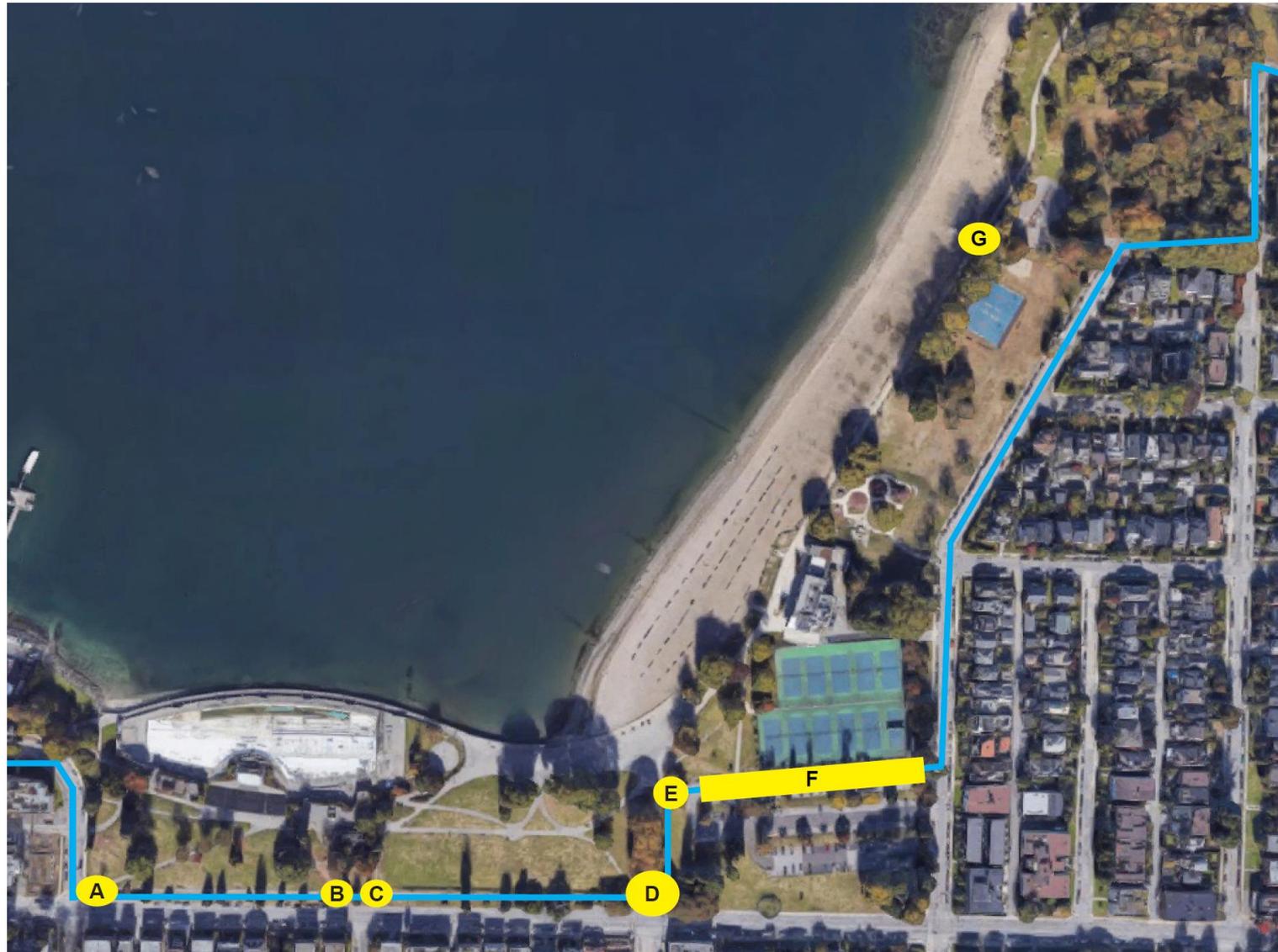
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# Park Board Working Group (Lisa)

- 25 Year Master Plan going to Commissioners July 17
- Currently reviewing draft final reports to see how cycling has been included IN parks – at first glance, a big improvement, although high level
- Waiting to see the implementation plan for details
- Kits Park interim quick fixes for this summer
  - City Transportation Engineer involved
  - Primarily signs and stencils
- Stanley Park improvements
  - First project – path to Ceperley Field from Beach Ave

# Kits Beach Park Interim Quick Fixes



# Stanley Park Cycling Plan Update

## STANLEY PARK CYCLING & PEDESTRIAN IMPROVEMENTS CONTEXT MAP

### PURPOSE:

- IMPROVE SAFETY FOR CYCLISTS AND PEDESTRIANS
- PROVIDE FOR GREATER ACCESSIBILITY
- REDUCE IMPACTS TO PARK ECOLOGY CAUSED BY OFF-TRAIL CYCLING/PEDESTRIAN ACTIVITY BY PROVIDING FORMAL PATHS AT DESIRED ROUTES

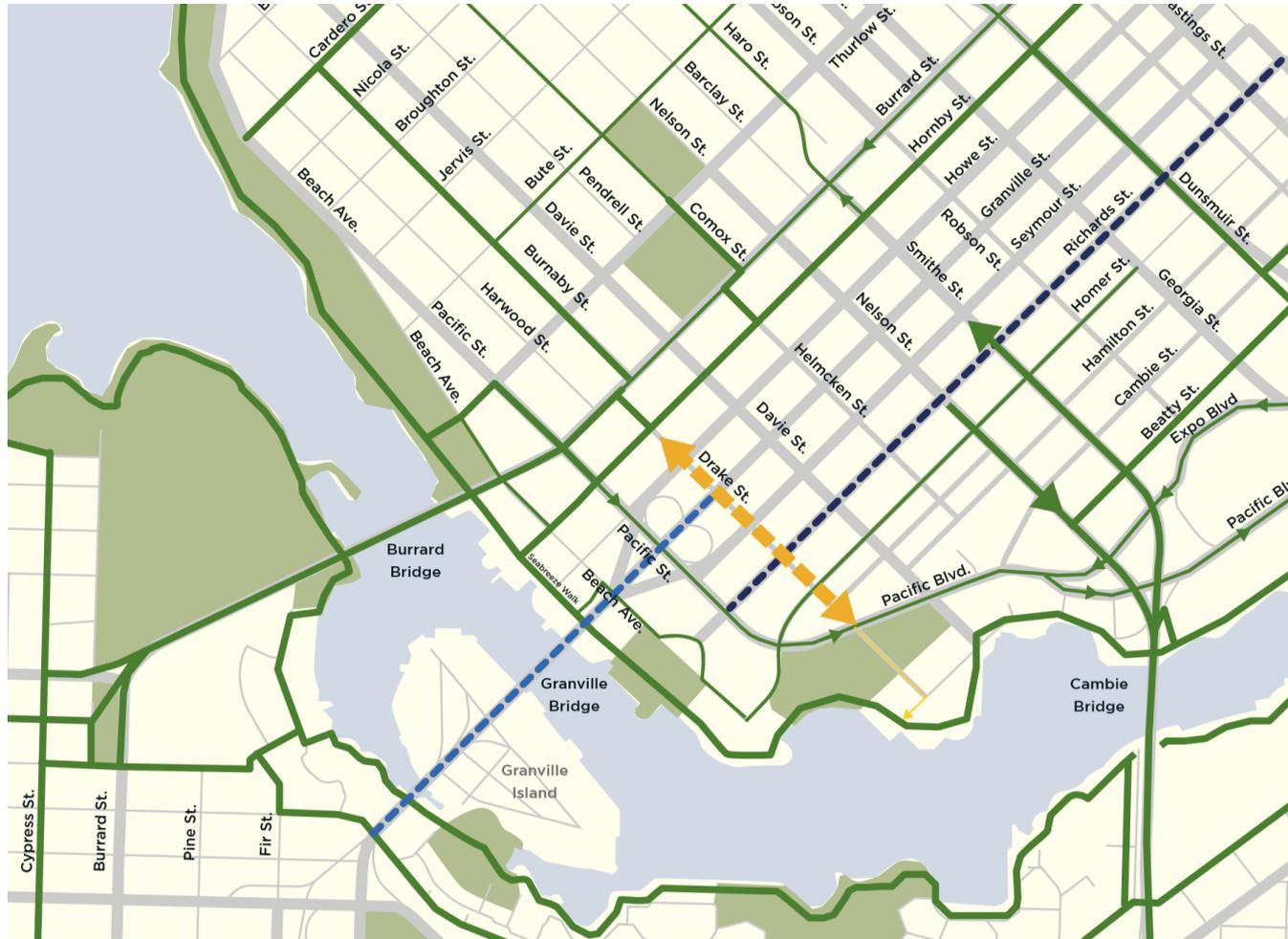
1. CYCLING ACCESS TO NORTH LAGOON DR. FROM CAUSEWAY (WEST SIDE)
2. ACCESSIBLE ROUTE FROM ROSE GARDEN TO CAUSEWAY (EAST SIDE)
3. PEDESTRIAN ACCESS TO PARK TRAILS FROM CAUSEWAY (WEST SIDE) AT PEDESTRIAN OVERPASS
4. ACCESSIBLE CYCLING/PEDESTRIAN ROUTE FROM HANSON TRAIL TO CAUSEWAY (EAST SIDE)
5. PEDESTRIAN ACCESS TO CAUSEWAY (EAST SIDE) FROM STANLEY PARK DRIVE
6. CYCLING/PEDESTRIAN CONNECTION BETWEEN CAUSEWAY (WEST SIDE) AND STANLEY PARK DRIVE AT PROSPECT POINT ALONG EXISTING OFF-RAMP
7. IMPROVED CYCLING/PEDESTRIAN PATHS FROM ENGLISH BAY TO CEPERLEY FIELD
8. IMPROVED CYCLING/PEDESTRIAN PATHS AT CEPERLEY FIELD (WEST SIDE OF STANLEY PARK DRIVE)
9. IMPROVED CYCLING/PEDESTRIAN PATHS AT CEPERLEY MEADOW (EAST SIDE OF STANLEY PARK DRIVE)
10. SAFE CYCLING/PEDESTRIAN CROSSING OF PARKING AREA ACCESS ROAD AT SECOND BEACH CONCESSION
11. ACCESSIBLE ROUTE FROM SEAWALL TO TUNNEL TRAIL



# Drake St Bikeway

- Public Open House June 18<sup>th</sup> (today)
- Online survey open until July 8<sup>th</sup>
- Please send in your comments and support
- Our messages:
  - We support this as it is a critical gap
  - We prefer the bi-directional option
  - We request that a transition zone be included on Drake east of Pacific

# Drake St Bikeway



# Drake St Bikeway – Two Options

## Uni-directional Bike Lane Option

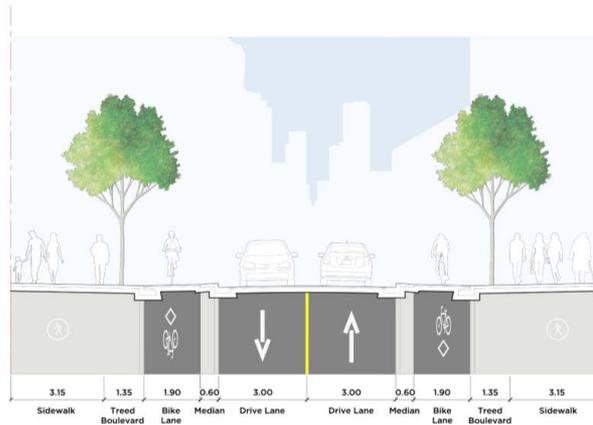


Figure 2: Drake Street Facing West

## Bi-directional Bike Lane Option

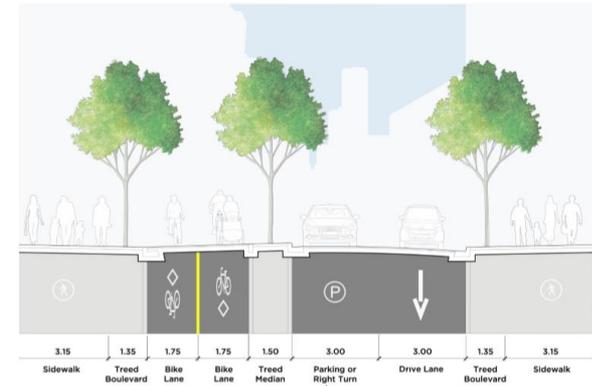


Figure 3: Drake Street Facing West



# Drake St - Current Situation

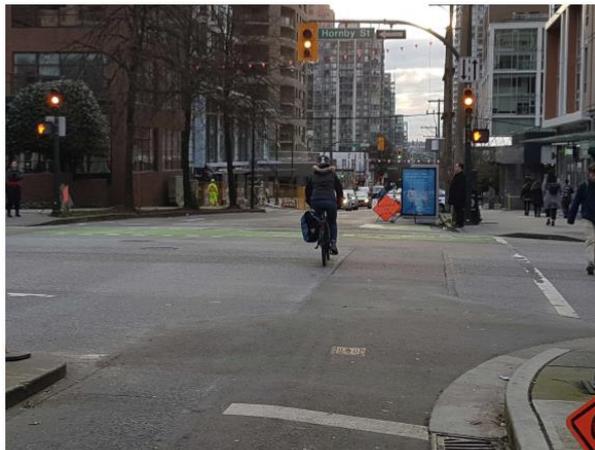
Uncomfortable  
Mixed Traffic



Confusing Turns



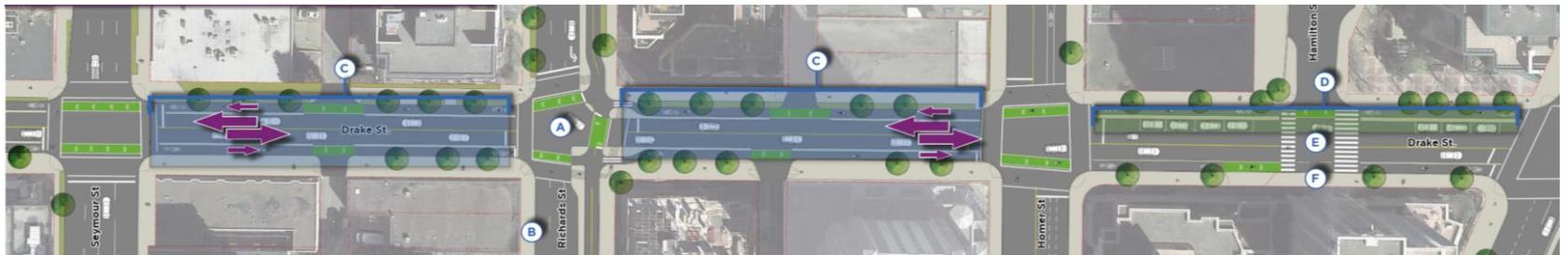
Discontinuous Routes



Difficult Connections to  
Granville Bridge



# Drake St - Uni-directional Option



# Drake St - Bi-directional Option



10<sup>th</sup> Ave  
Hospital Zone  
Street  
Improvements

# Project Update



10<sup>th</sup> Ave  
Hospital Zone  
Street  
Improvements

# Project Update



# 10<sup>th</sup> Ave Phase IV Engagement

- Committed to by the City as part of project approval
- City study of conditions before and after
  - Counts
  - Speeds
  - Conflicts, including crash data
- Research Project
  - Focused on interactions between people using different modes

# 10<sup>th</sup> Ave Evaluation Committee Research Study

## Objectives

-  Determine concerns for **pedestrians** in navigating the rebuilt portion of 10<sup>th</sup> Ave (**Interviews, Survey**)
-  Determine frequency & types of road user interactions (**Video data**)
-  Determine frequency of uncomfortable and unsafe interactions (**Survey**)
-  Examine differences in the perceptions of interactions among stakeholders: general public, evaluation committee, and traffic safety professionals (**Interviews, Survey**)

# 10<sup>th</sup> Ave Evaluation Committee Research Study

## Observations of Yielding, Comfort, and Safety

- Importance of **eye contact/non-verbal** communication in negotiating complex road user environment
- Many pedestrians **giving way** to bikes and cars at crossings
- Virtually all the interactions we saw were **considerate**
- Very **slow travel speeds** at mid-day time periods
- **Pick up/drop** off zones seemed to be working well
- **Driveways** are interaction zones (in addition to the intersections)

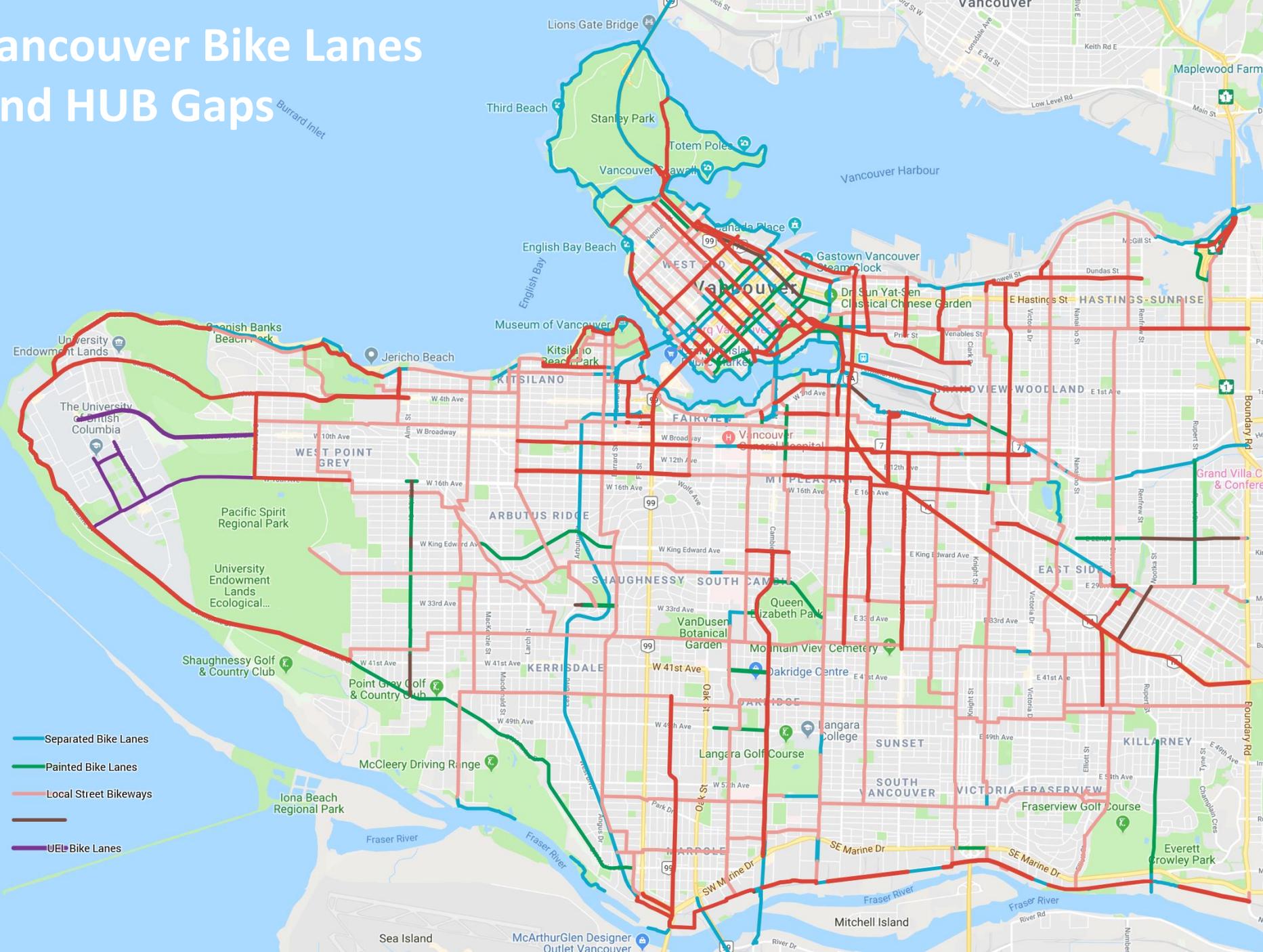
# Appendices

# Vancouver Bike Lanes (Van Map)



- Separated Bike Lanes
- Painted Bike Lanes
- Local Street Bikeways
- UEL Bike Lanes

# Vancouver Bike Lanes And HUB Gaps



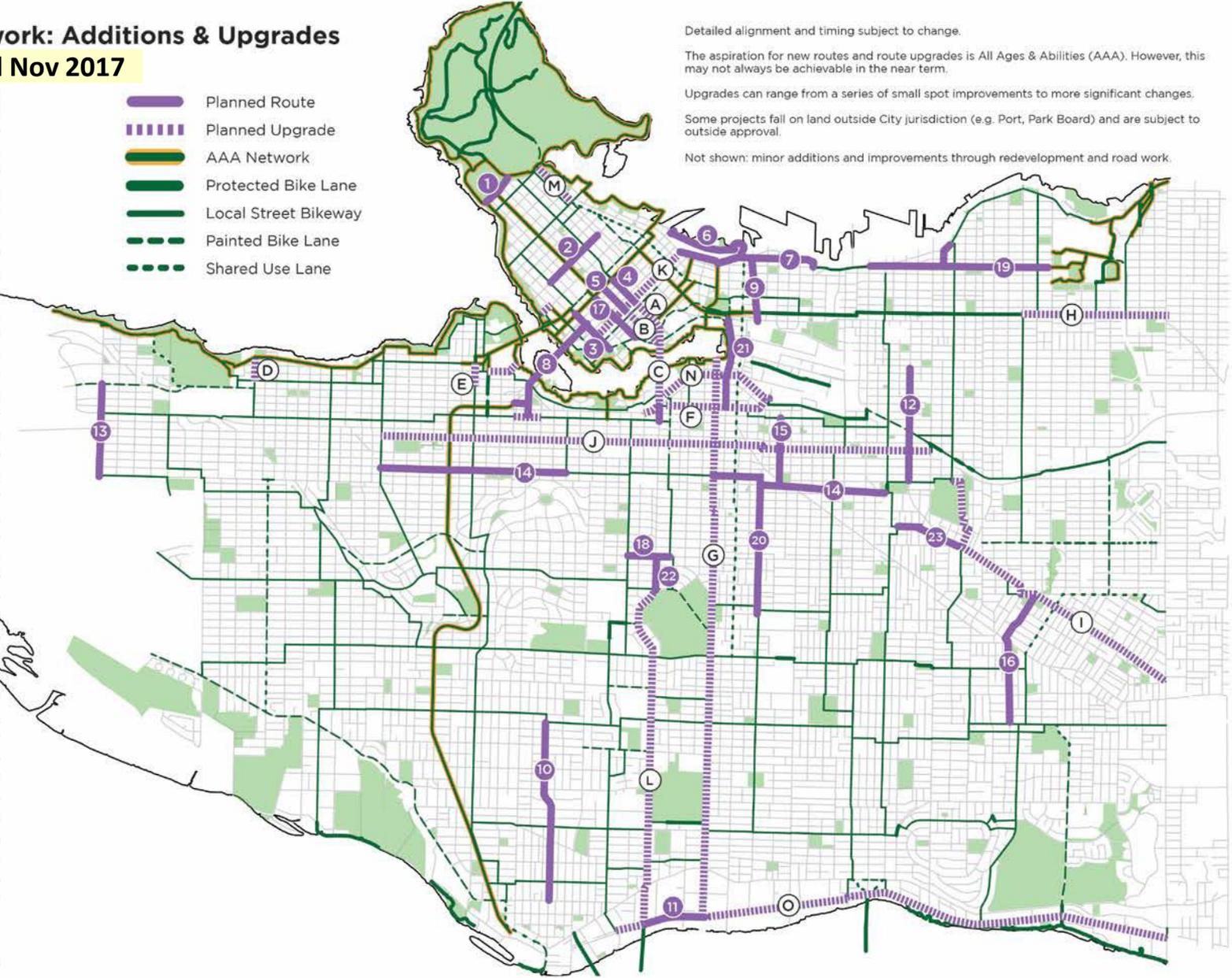
# 5-Year Cycling Network: Additions & Upgrades 2018-2022

Added Nov 2017

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.

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

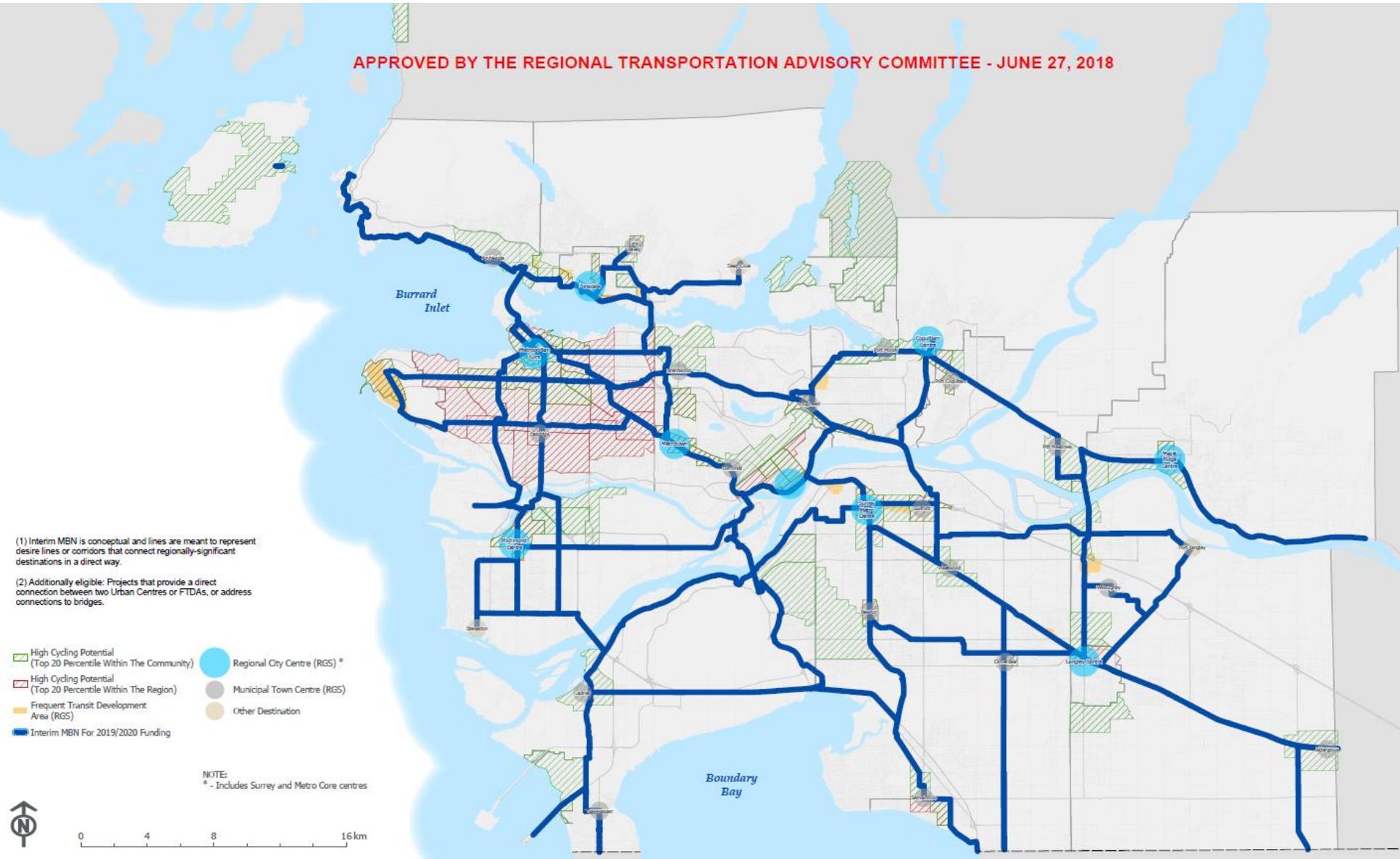
- Planned Route
- Planned Upgrade
- AAA Network
- Protected Bike Lane
- Local Street Bikeway
- Painted Bike Lane
- Shared Use Lane



\* Park Board jurisdiction  
 \*\* Port Authority jurisdiction  
 Number/Letter sequence does not imply priority

# Translink Major Bikeway Network (MBN)

APPROVED BY THE REGIONAL TRANSPORTATION ADVISORY COMMITTEE - JUNE 27, 2018



(1) Interim MBN is conceptual and lines are meant to represent desire lines or corridors that connect regionally-significant destinations in a direct way.  
 (2) Additionally eligible: Projects that provide a direct connection between two Urban Centres or FTDA's, or address connections to bridges.

- High Cycling Potential (Top 20 Percentile Within The Community)
- High Cycling Potential (Top 20 Percentile Within The Region)
- Frequent Transit Development Area (RGS)
- Interim MBN For 2019/2020 Funding
- Regional City Centre (RGS) \*
- Municipal Town Centre (RGS)
- Other Destination

NOTE:  
 \* - Includes Surrey and Metro Core centres



Type *	Class A** (Comfortable for most people)	Class B (Comfortable for some people)	Class C (Comfortable for few people)	Notes
<b>Separated from vehicle traffic</b>				
1 Bike Path: Off-road facility for the exclusive use of people cycling, may be unidirectional or bidirectional. Separate from both motorists and pedestrians, but designed based on bicycles operating in parallel with pedestrians, especially at intersections.	Width: Bidirectional 3.1-4.8 m, Unidirectional 2.1-3.0 m Posted Speed: N/A Volume: N/A	Width: Bidirectional 2.4-3.0 m, Unidirectional 1.5-2.0 m Posted Speed: N/A Volume: N/A	More narrow widths and unpaved facilities would be unclassified but may be shown on a regional cycling map	When in a road right of way (ROW): A bike path should fall outside of the Clear Zone (>1.2 m on roadways with posted speeds of <60 km/h - see Transportation Association of Canada Geometric Design Guide (TAC GDG), Table 7.3.1 for higher speed roads). Further, designs of bike paths should avoid obstacles in the pathway, include adequate sight lines and lighting, be direct, and avoid the use of rigid bollards. If cyclist volumes exceed 1,500 per day then recommended facility widths shall be >3.6 m bidirectional, and >2.4 m unidirectional. Bike Path's are generally appropriate near higher speed roads.
2 Protected Bike Lane: Exclusive on-road facility delineated by a vertical barrier element/physical separation from motor vehicles, as well as separation from pedestrians. Can be unidirectional or bidirectional	Width: Bidirectional 3.1-4.8 m, Unidirectional 2.1-3.0 m Posted Speed: ≤60 km/h Volume: N/A	Width: Bidirectional 2.4-3.0 m, Unidirectional 1.5-2.0 m Posted Speed: ≤80 km/h Volume: N/A	More narrow widths would be unclassified but may be shown on a regional cycling map	Separation from vehicles by delineator (curbs, bollards, concrete barriers, etc.) is required. Type of delineator dependent on speed and volume of traffic (for specific details see TAC GDG Chapter 5, section 5.7.5). Parking may provide additional barrier beyond the delineator - at a minimum curbstops over 100 mm high are necessary with periodic gaps for drainage and wheelchair access. Width of delineator is 0.30-1.0 m. If adjacent to parking, min separation is >0.80 m (Class A), >0.60 m (Class B). Volume: If motor vehicle ADT is greater than 4,000, this facility is more acceptable than others. If cyclist volumes exceed 1,500 per day then recommended facility widths shall be >3.6 m bidirectional, and >2.4 m unidirectional.
3 Multi-Use Path (MUP): Off-road facility that allows for shared use by people cycling and pedestrians.	Width: Bidirectional 4.0-6.0 m, Unidirectional bikes 3.0-4.0 m Posted Speed: N/A Volume: N/A Paved	Width: Bidirectional 3.0-3.9 m, Unidirectional bikes 2.4-2.9 m Posted Speed: N/A Volume: N/A Paved	Width: Bidirectional 2.7-2.9 m, Unidirectional bikes 2.1-2.3 m Posted Speed: N/A Volume: N/A Unpaved	MUP's are not intended to replace a sidewalk where there is sufficient motor vehicle or pedestrian and bicycle traffic that may lead to high rates of conflict. As a guide, MUPs are not appropriate when pedestrian and bicycle traffic volumes exceed a total peak hour volume of 200 users or where motor vehicle volumes on the parallel roadway exceed 4,000 ADT. MUPs are generally appropriate near higher speed roads. A MUP should fall outside of the Clear Zone (>1.2 m on roadways with posted speeds of <60 km/h - see TAC GDG, Table 7.3.1 for higher speed roads). Further, designs of MUPs should avoid obstacles in the clear zone, include adequate sight lines and lighting, be direct, and avoid the use of rigid bollards.
<b>Unseparated from vehicle traffic</b>				
4 Neighbourhood Street Bikeway or Shared Roadway: Bikes and motor vehicles share the roadway, which provides a continuous corridor of suitable operating conditions for people cycling, including limiting exposure to motor vehicle traffic. Can include a variety of roadways including local roads, alleys and service roads.	Width: Parking one side 5.5 - 7.5 m, parking both sides 8.0 - 11.0 m Posted Speed: ≤30km/h Volume: ≤1,000 ADT Traffic control at all major intersections designed to be bicycle activated. Traffic diversion and traffic calming preferred.	Width: Parking one side 5.5 - 7.5 m, parking both sides 8.0 - 11.0 m Posted Speed: ≤30km/h Volume: ≤2,000 ADT Traffic control at all major intersections designed to be bicycle activated. Traffic diversion and traffic calming preferred.	Width: varies, depending on road type Posted Speed: ≤50 km/h Volume: ≤3,000 ADT	Traffic diversion can include such treatments as directional and median barriers. Traffic calming can include such treatments as raised crossings, and bicycle permeable humps and chicanes. All such facilities should include shared lane markings to indicate the potential presence and positioning of people cycling. Municipalities are encouraged to limit posted speeds to 30 km/h on all Neighbourhood Street Bikeways and Shared Roadways. Widths: If curb less than 100 mm, or parking along curb, gutter pan can be included in width. Otherwise, width excludes gutter pan.
5 Bike Lane: On-road facility adjacent to a curb or a parking lane and delineated from motor vehicles with paint markings.	Never	Width: 1.8 - 2.4 m Posted Speed: ≤50 km/h Volume: ≤4,000 ADT Absence of curbside parking.	Width: 1.5-1.7 m Posted Speed: <60km/h Volume: N/A Presence of curbside parking permitted. If present, a buffer should be included btwn parking and bike lane. Combined curbside parking & buffer should be >3.0 m.	If parking present or speeds/ volumes might exceed limits or over 1,500 people cycling per day, protected bikeway recommended. Widths: If curb less than 100 mm, or parking along curb, gutter pan can be included in width. Otherwise, width excludes gutter pan.
6 Bike Accessible Shoulder: Signed and marked, paved area with no curb, located to the right of roadway general purpose travel lanes, and separated from general purpose lanes by white edge line or painted buffer. Usually in rural areas. May be shared with pedestrians.	Never	Width: 1.8-2.4 m Posted Speed: <50 km/h Volume: ≤4,000 ADT	Width: 1.5-1.7 m Posted Speed: <90 km/h If speeds >60km/h, buffer required between bicycle and vehicle lanes Volume: N/A	Parking not permitted in bikeway. If speeds/ volumes exceed limits, or over 1,500 people cycling per day protected bikeway recommended Width for buffered facility: 2.4-3.5 m total, bike lane 1.8-2.4 m

\* In all cases pavement markings (bicycle stencils) and signage are necessary at regular intervals and should be placed 20 to 30 metres in advance of, and following each intersection and other decision points, or every 400 m when intersections are not present.

\*\* Those facilities that do not meet the criteria for Classes A, B and C will be considered unclassified bikeway facilities. Such facilities should be upgraded over time to meet criteria for designated bikeways.