Vancouver-UBC Local Committee

July 16th, 2019

Your Cycling Connection

Topics

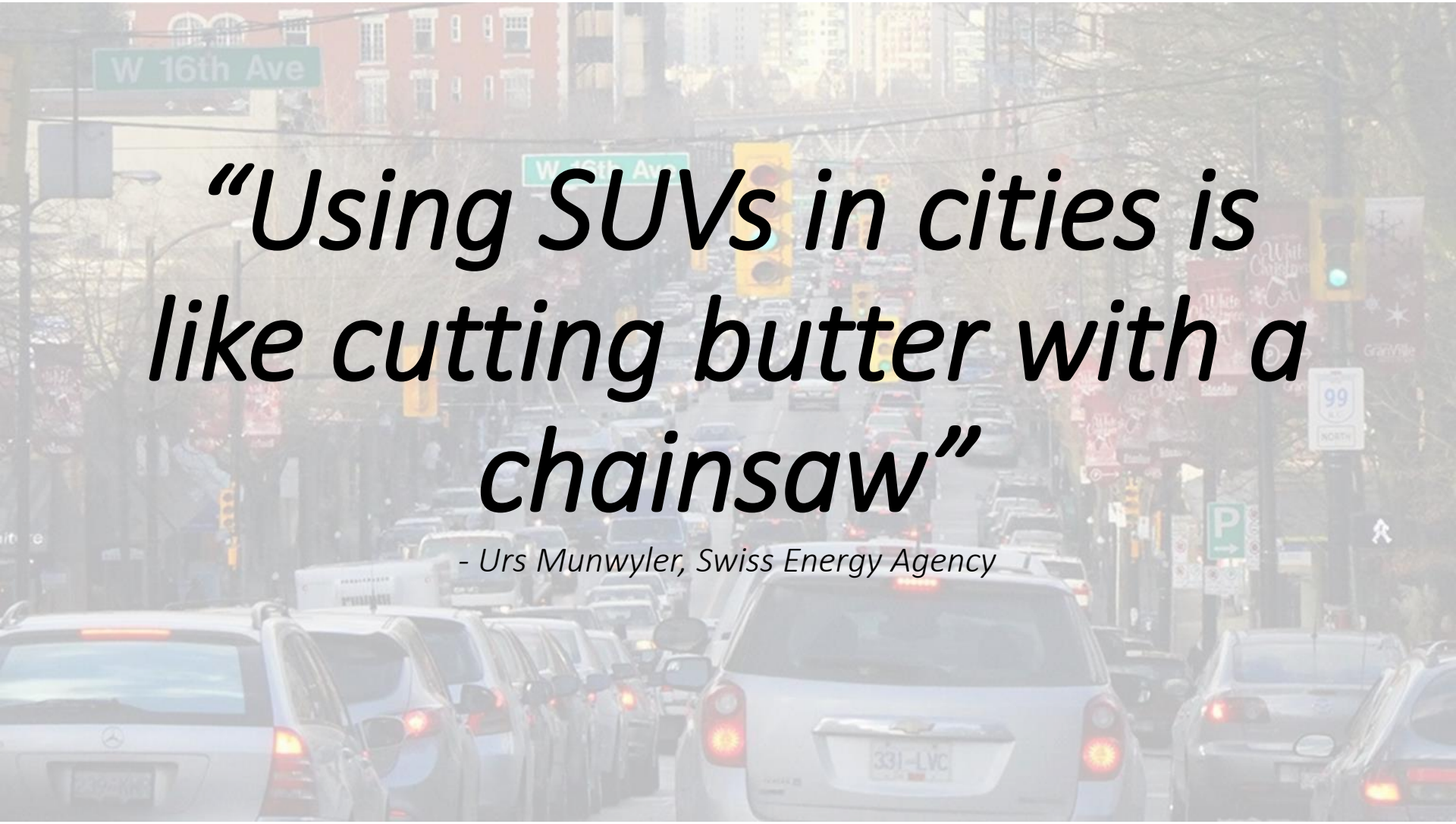
- Cycling Logistics – Working Group update
- Deep Dive – Great Blue Heron Way
- Consultations
  - Drake St Bikeway
  - Pandora Bikeway

Cargo Bikes & Cycle Logistics

The solution to many, but not all, urban mobility problems

Lessons from my European travels

Sam S. Starr
HUB Cycling
July 16, 2019



“Using SUVs in cities is like cutting butter with a chainsaw”

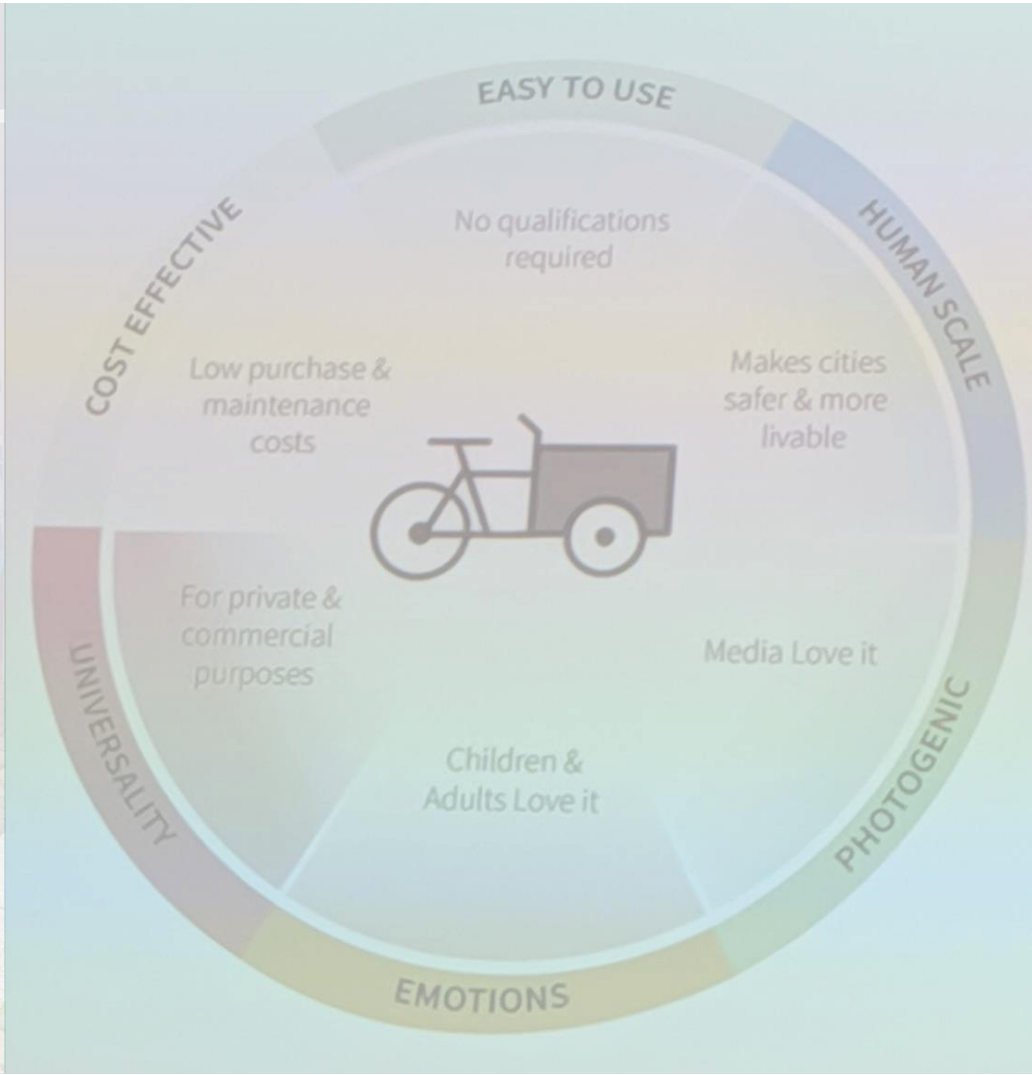
- Urs Munwyler, Swiss Energy Agency

International Cargo Bike Festival

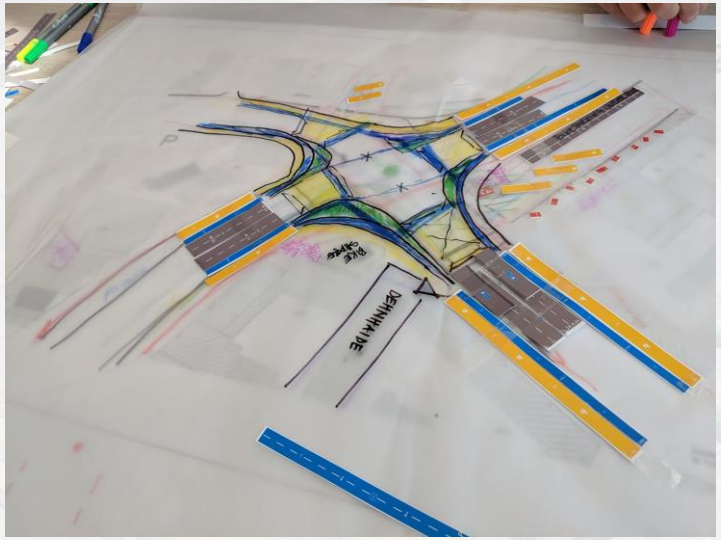
1. There is **no single solution** or vehicle that does it all
2. The North American market is **tough** for European OEMs
3. **Collaboration and healthy competition** are needed to succeed!

European Cycle Logistics Conference, Dublin

1. We are at a **tipping point** in the industry, in Europe
2. The cargo bike is **only the vehicle**
3. The cycling industry needs to **adapt to succeed** in this space
4. **Municipalities need to step up** to the plate to address eCommerce, and NOW!



The path forward on this side of the Atlantic



- Classification, Regulation, Incentives & Policy
- Infrastructure & Mini-hubs
- Market Adaptation for B2B
- SMB & Municipal Approach

VELOLOGISTICS

“The bicycle can get you to work, absolutely. What needs to be part of the discussion is how the bicycle can do everything else as well.”

- Mikael Colville-Andersen, Copenhagenize

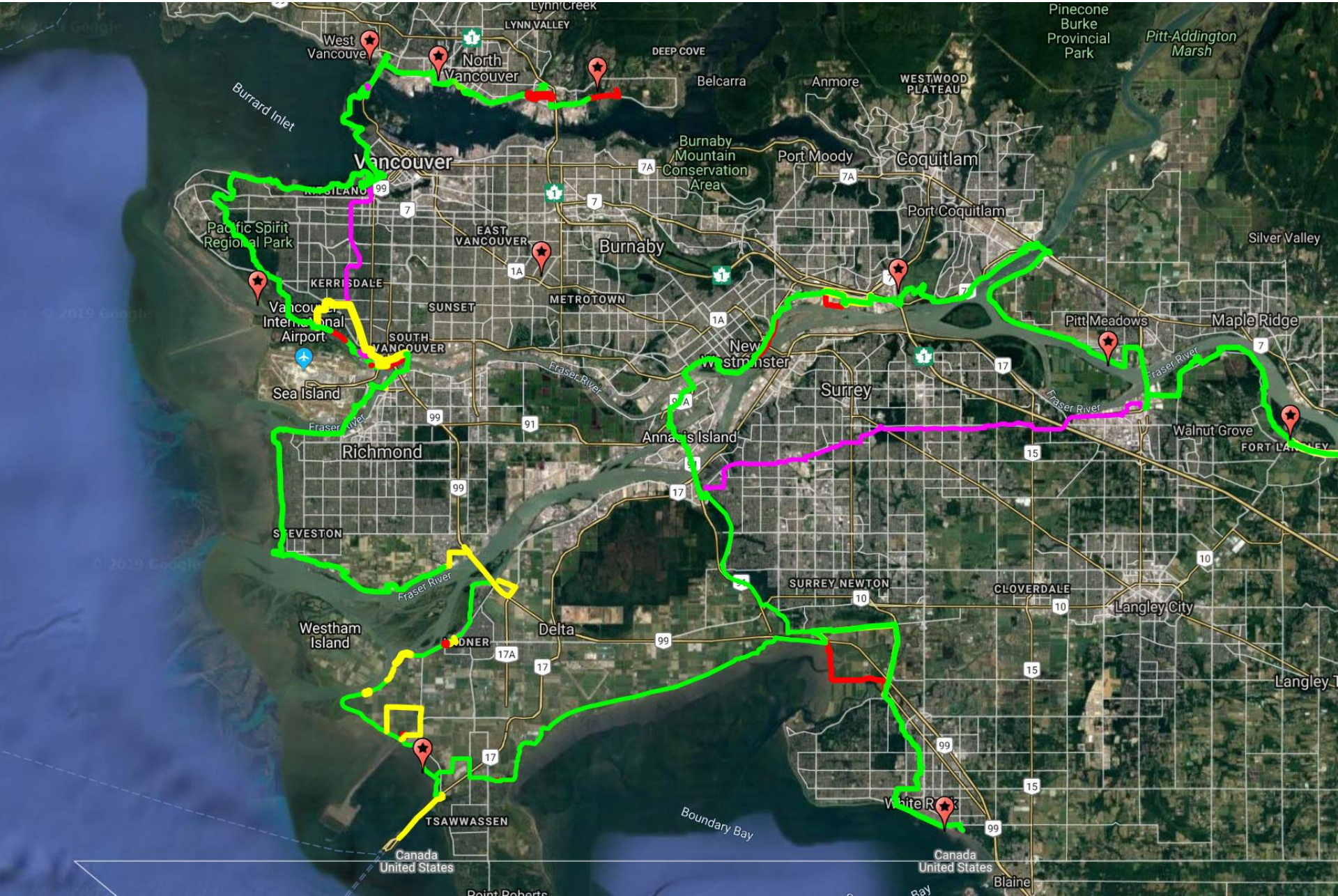
Great Blue Heron Way

- A project led by Elder Ruth Adams of the Tsawwassen First Nation
- Connecting land and water, and traditional First Nations territories
- The Galloping Goose Trail, Victoria, was the inspiration.
- The Great Blue Heron Way intends to connect along the Salish Sea between Semiahmoo First Nation at the USA border and Squamish First Nation in North Vancouver, Vancouver Island First Nations via BC Ferries and, along the Fraser River via Sto:lo First Nation into the BC interior

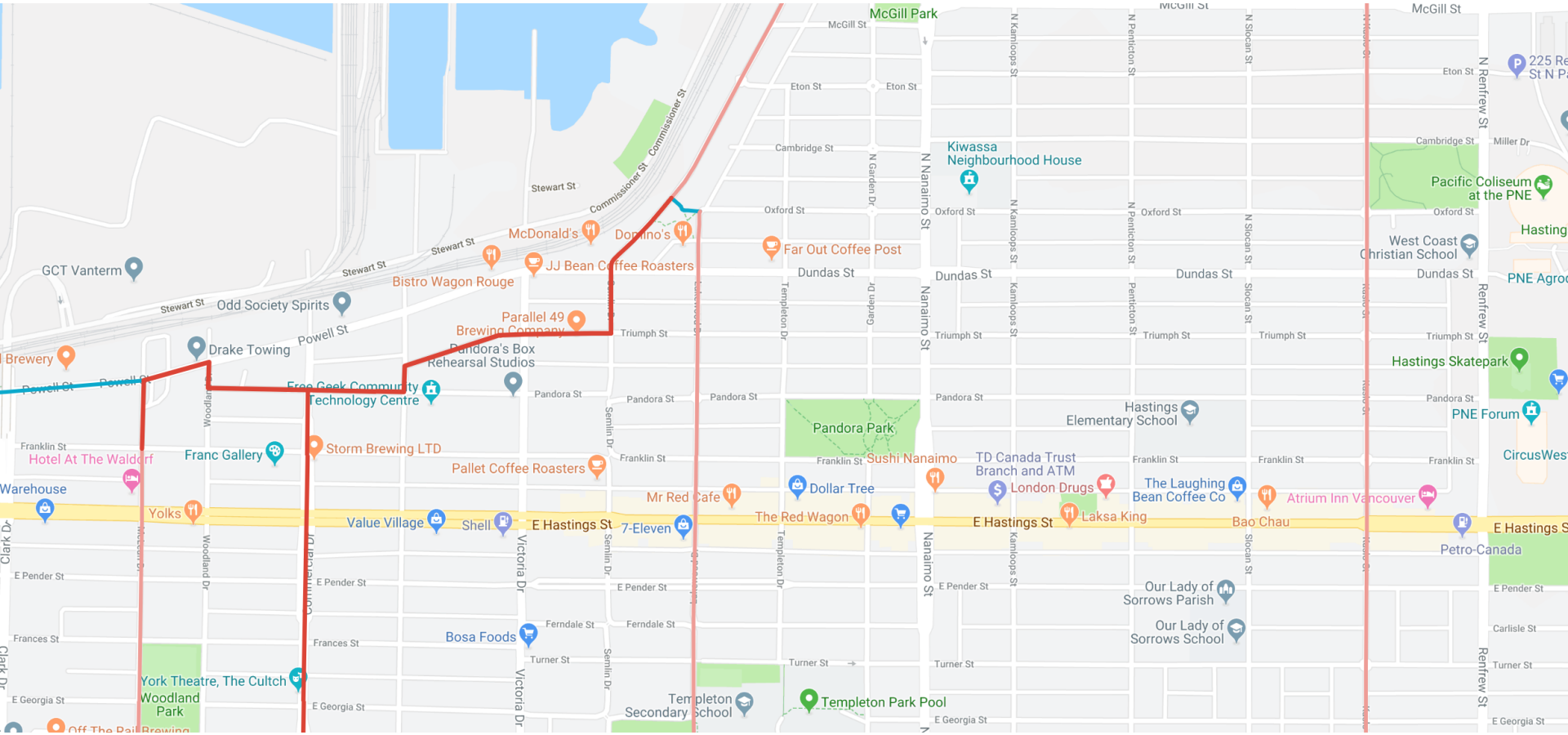
Great Blue Heron Way

- The first section of Great Blue Heron Way was completed in 2016. The Tsawwassen First Nation Breakwater Multi-use Path Project connects from Highway 17/Tsawwassen BC Ferry causeway to Tsawwassen FN Village via path and a new boardwalk.
- Funders:
  - BC Ministry of Transportation and Infrastructure
  - TransLink
  - Tsawwassen First Nation
  - Aquilini
- Additional supporting partners 2007 – 2019:
  - BC Cycling Coalition; B.E.S.T.; Safe Routes Tsawwassen; FVRL; BC Ferries; Trails BC/Trans Canada Trail; Experience The Fraser; Arbutus Greenway Improvement Society; Fraser Health; City of Delta; HUB Cycling Delta local committee.

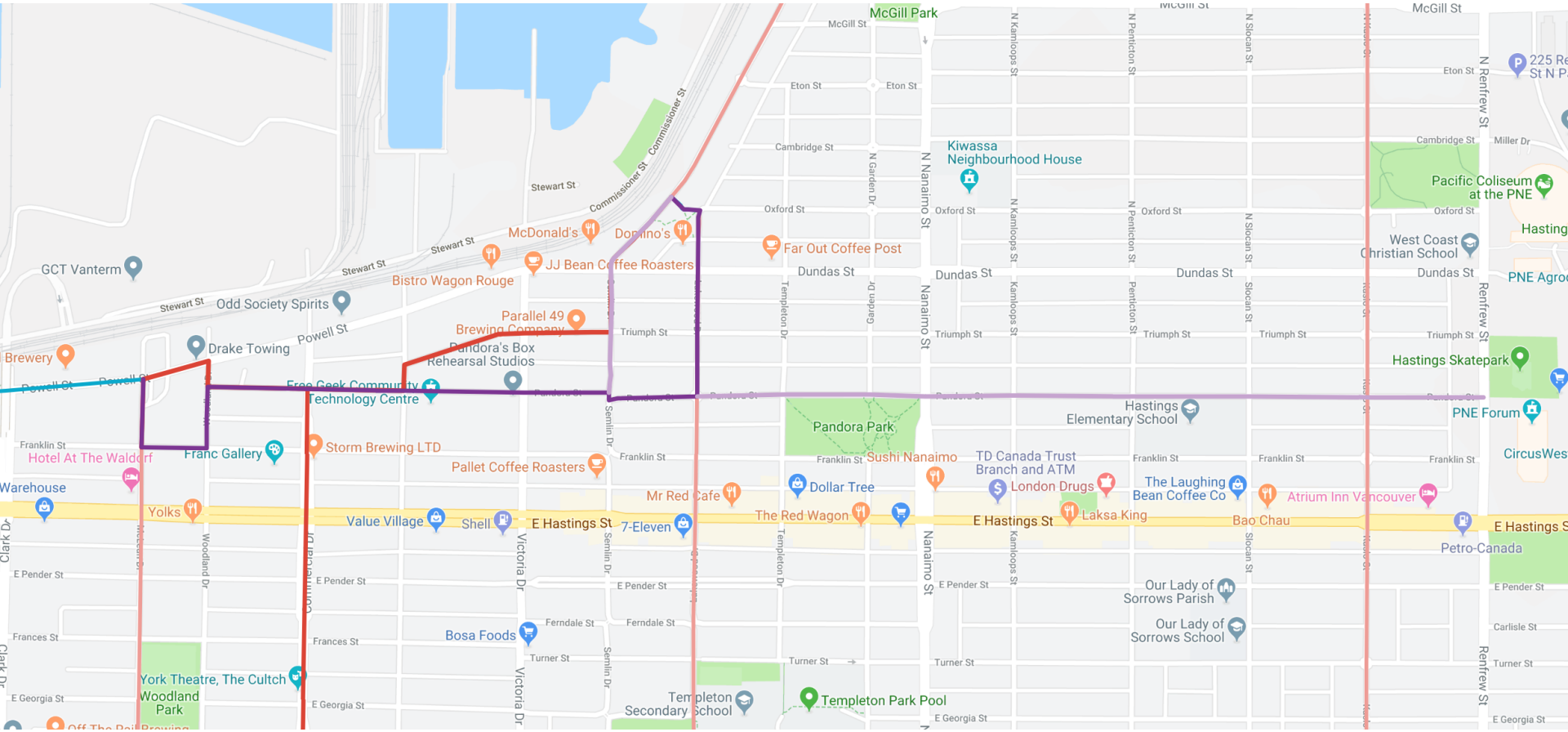
Great Blue Heron Way



Powell Connector Gap

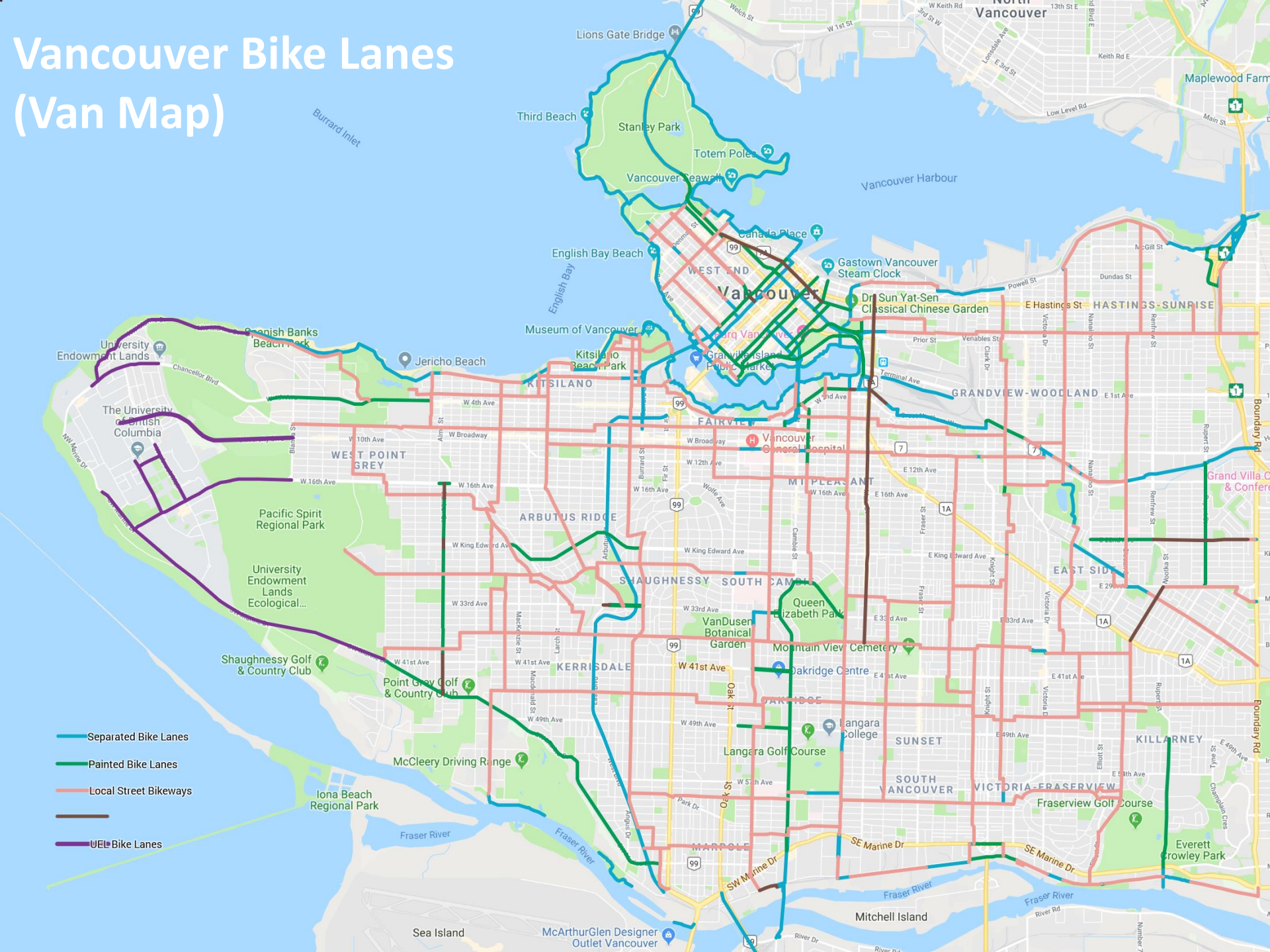


Powell Connector Phases 1 and 2

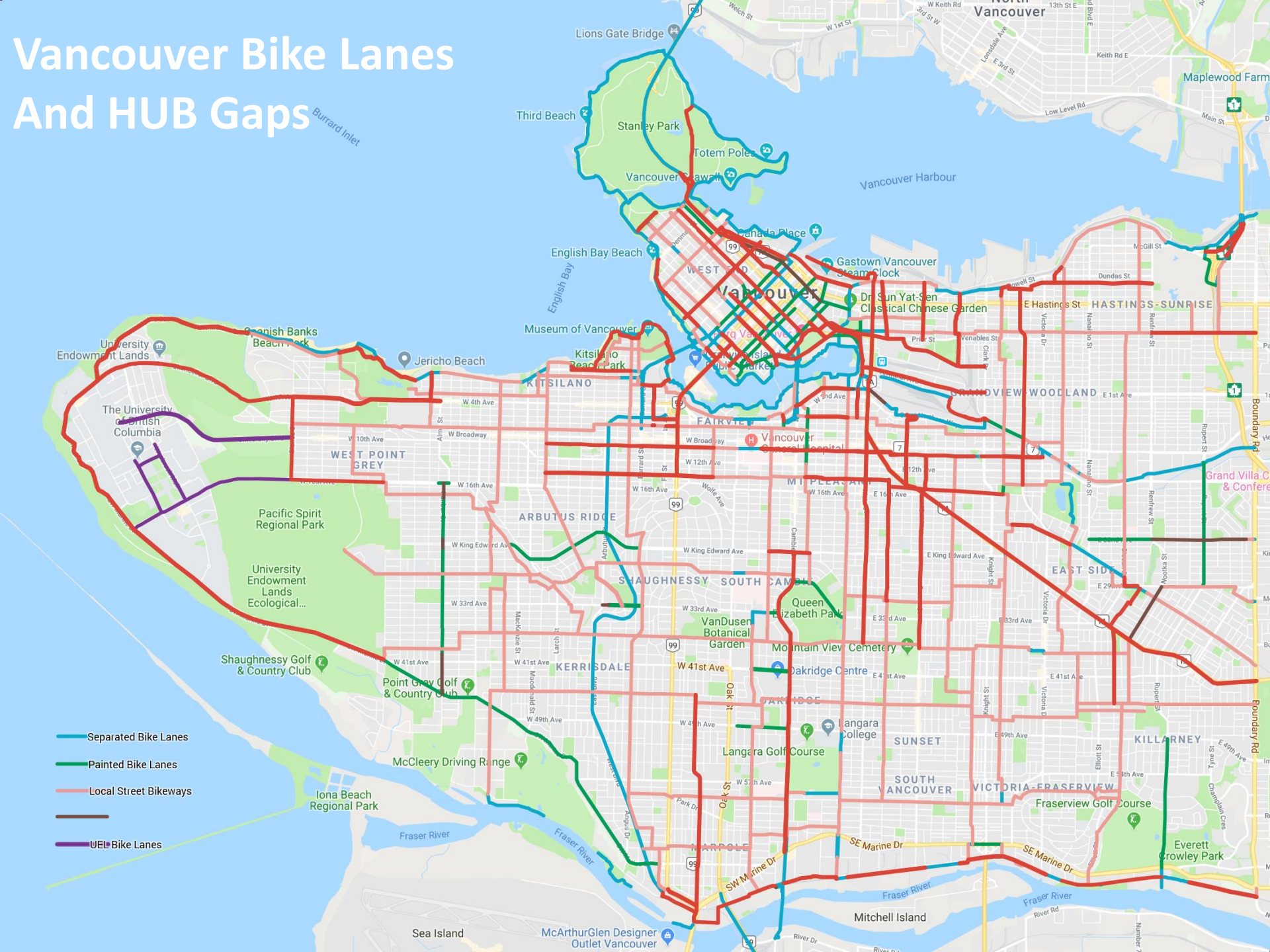


Appendices

Vancouver Bike Lanes (Van Map)



Vancouver Bike Lanes And HUB Gaps



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

Added Nov 2017

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

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

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

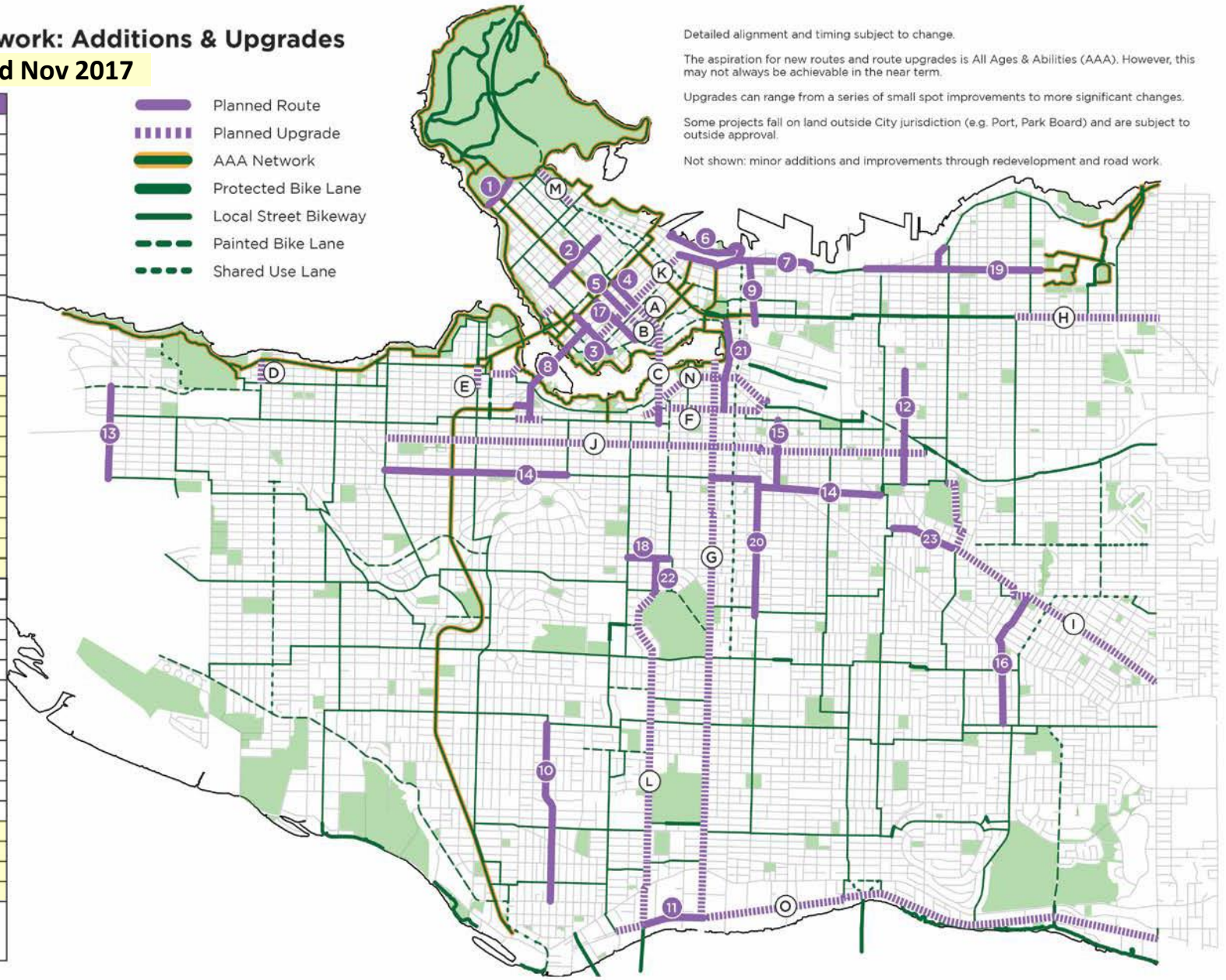
Detailed alignment and timing subject to change.

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

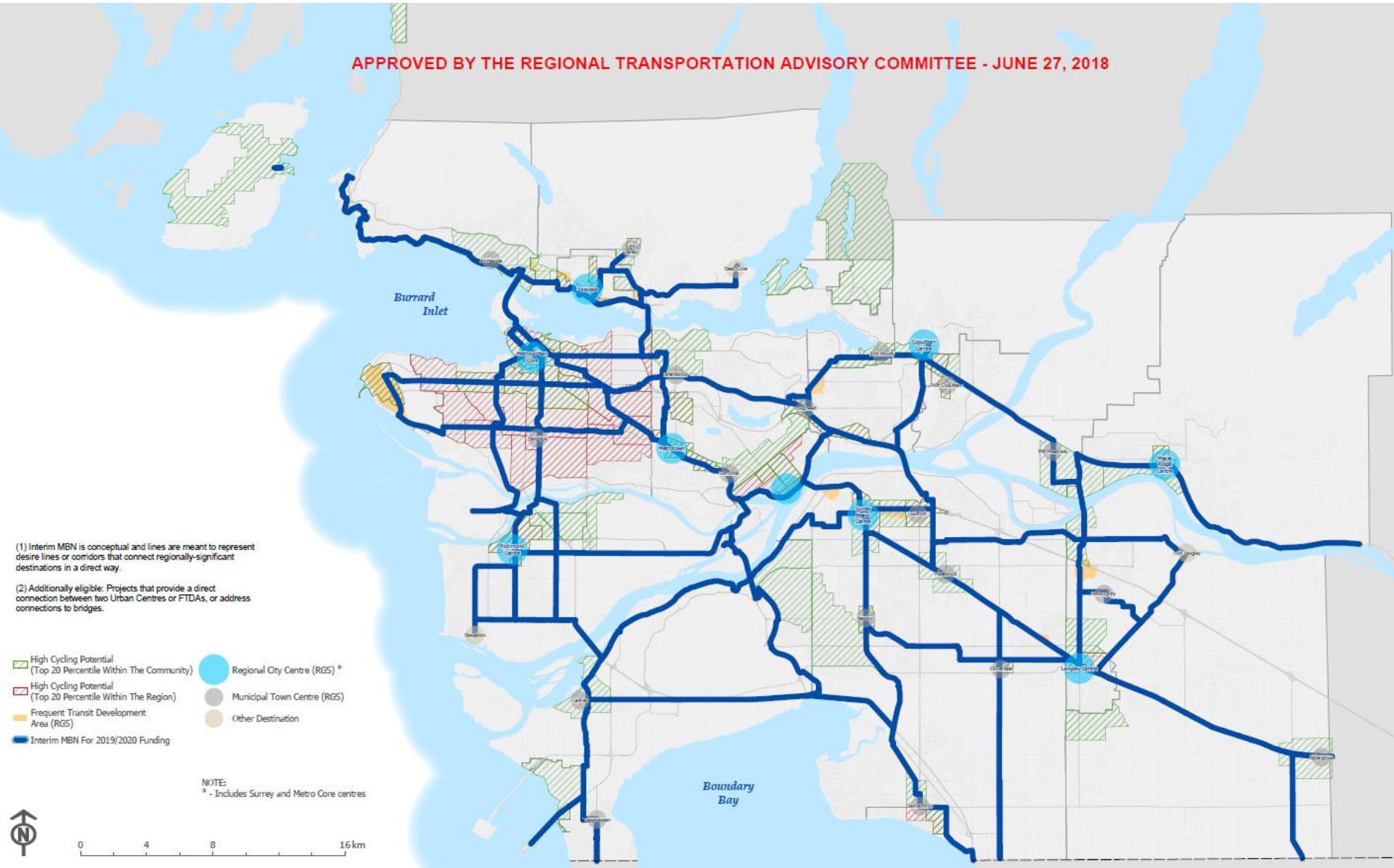
Upgrades can range from a series of small spot improvements to more significant changes.

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.



Translink Major Bikeway Network (MBN)



	Type *	Class A** (Comfortable for most people)	Class B (Comfortable for some people)	Class C (Comfortable for few people)	Notes
	Separated from vehicle traffic				
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.
	Unseparated from vehicle traffic				
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.