



September 9, 2019

To: Mayor and Council <mayorandcouncil@mapleridge.ca>

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Re: Council meeting Sept. 10, 2019;  
2017-061-RZ; 22255, 22289, 22295, 22323, 22337, 22351, 22359 Dewdney Trunk Road; 12021, 12026, 12027, 12034, 12042, 12043, 12052 Garden Street; 12002, 12032, 12038, 12051, 12061-223 Street; and 12011 224 Street; AND Second Reading Maple Ridge Land Use Contract Termination Bylaw No. 7337-2017; 12051 and 12061- 223 Street

Dear Mayor and Council,

Our HUB Committee wishes to provide further feedback with regard to this development.

With reference to our [letter](#) dated September 2, 2019, we would like to make the following additional comments regarding this large master-planned development in our downtown.

More detailed information is needed with regard to the types of cycling infrastructure proposed. During the presentation by the developer at Committee of the Whole on September 3, the following image on one of the slides showed the 'cycling routes' (in blue). It is difficult to see exactly where they are.



It appears that these cycling routes are all along the periphery of the development, as well as along 223 Street and Garden Street.

'Cycling routes' can mean many things. It's possible that the only treatment for cycling simply consists of bike symbols or sharrows. It's also possible that bike lanes are planned. These bike lanes could be separated by just a white line (conventional bike lane), or there could be some type of physical separation (protected bike lane). They could be uni-directional on both sides of the road, or bi-directional on one side of the road.

The developer did indicate that 3 meters are set aside along Brown Ave. for cycling facilities. No specifics were given for any of the other streets, nor were details given on the design of the intersections.

It's important to get it right. The road lay-out that's being planned as part of this development will set the stage for further development down the road.

According to the [2014 Strategic Transportation Plan](#), among the city's goals are:

- to ensure the transportation system is accessible to individuals of all ages and physical abilities (1.2);
- develop networks of streets, trails and pathways suited to each mode of travel and for people of all abilities (1.3);
- expand the network of cycling routes within the city (2.3);
- to minimize impact on the air quality by supporting alternative modes including cycling (3.4);
- to promote walking and cycling to enhance overall quality of urban areas and to support healthy living (3.6).

This development provides an opportunity to work towards these goals.

### **Brown Avenue**

We suspect that what is proposed for Brown Avenue is a bi-directional protected bike lane, and we assume that this would be on the south side as this is where the development in question is located, and where there are more potential destinations.

Our HUB Cycling Committee is of the opinion that a bi-directional protected bike lane is not the best solution in this location for the following reasons:

- There will be a dramatic increase in car traffic on Brown Ave. and the surrounding streets in the coming years/decades due to this and other planned high density development south of Brown Ave. as well as further medium density development north of Brown Ave.
- If turning movements across the protected bike lane are not going to be restricted, there will be a significant number of both left- and right turning car movements across a bi-directional protected bike lane on the south side of Brown at the intersections, including by residents and visitors entering and exiting the underground residential and commercial parking accessible from Plaza Street, 223 Street, Garden Street and Brown Ave.

- Studies have shown that bi-directional protected bike lanes along two-way streets tend to lead to an increase in car-cyclist collisions.<sup>1</sup> The Harris study (see footnote<sup>2</sup>) showed that **the risk is about 8 times higher when a cyclist is coming in the direction opposite to what people driving are expecting**, compared to the expected direction. It's challenging for people driving to look out for bicycle traffic coming from both directions as well as car traffic from both directions before turning.
- According to *NACTO (National Association of City Transportation Officials)*, bi-directional protected bike lanes would be appropriate "on streets with few conflicts such as driveways or cross-streets on one side of the street". This situation doesn't fit that description.

For the above reasons, we believe that uni-directional protected bike lanes would be more appropriate for Brown Avenue.

Note that according to the Transportation Association of Canada (TAC) guidelines, 1.8 metres is the practical lower limit for a uni-directional separated protected bike lane. As 3 meters has presently been allocated, presumably for bi-directional travel on one side only, additional space would need to be set aside for the extra needed travel width plus an additional physical barrier.

To reduce the risk of cyclist-car crashes, raised rather than road-level protected bike lanes would be much preferred. These would force people driving to slow down when crossing the protected bike lane.

We would like to see tight turn radii of Plaza Street, 223rd Street and Garden Street, to reduce car speeds when turning, in order to further reduce the danger of crashes between cars and pedestrians/people with mobility devices/cyclists.

We would also appreciate to see the facilities extended to 222nd Street to complete the gap.

## 224 Street

224 Street is an important designated bike route that takes people on bikes right into the downtown core.

No details have been provided so far with regard to the design of 224 Street along this development.

With the re-alignment of 224 Street and the re-design of the intersection at 224 Street and Dewdney comes a great opportunity to provide a section of separated, uni-directional protected bike lanes.

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<sup>1</sup> Article Insurance Institute for Highway Safety IIHS: [Some protected bike lanes leave cyclists vulnerable to injury](https://www.iihs.org/topics/bibliography/ref/2193). Study IIHS: <https://www.iihs.org/topics/bibliography/ref/2193>

<sup>2</sup> Study [Comparing the effects of infrastructure on bicycling injury at intersections and non-intersections using a case-crossover design](#), Harris et al.

It would be prudent to design both the intersections at Brown Ave. and 224 Street and Dewdney Trunk Road and 224 Street as some form of protected intersection to ensure safe crossing of all vulnerable road users (see Intersections Design below).

A bike box on the north side of the intersection for southbound cycling traffic would help give people on bikes a head start. Green paint across the intersection from the bike box into the travel lane on the south side of the intersection, as well as from the travel lane south of the intersection to the bike lane on the north side, would alert drivers to the predominant path of travel of people on bikes.



**Bike box northbound Laity Street at Lougheed Highway**

We urge council to follow the recommendations by the Active Transportation Advisory Committee to reduce the maximum speed limit of 30 km/h on 224 Street between Dewdney Trunk Road and Lougheed Highway. According to the survey done in 2015 by the Business Improvement Association among its members, lowering the speed limit to 30 km/h found strong support (25 in favour, 2 opposed). This section of designated bike route needs to be officially confirmed as a “slow zone” for all traffic, to ensure safety of vulnerable road users, and to improve connectivity for people on bikes of all ages and abilities from and to the downtown as well as the east-west Selkirk bike route. Signage and pavement markings will further help to provide clarity to all users.

### **Dewdney Trunk Road**

Despite Dewdney Trunk Road not being a designated bike route, it’s likely that such a thoroughfare will require cycling facilities in the future. Therefore, the necessary road allowance should be secured at this point in time to accommodate that.

## Intersection Design

For major intersections, a protected intersection will provide maximum separation between people on bikes and motor vehicles and will reduce the crossing distance and -time for pedestrians, people with mobility devices as well as cyclists:



Protected intersection concept  
(Alta Planning and Design)



Protected intersection in Vancouver

The corner islands as shown above are a great way to extend the safe zone for people on bikes into the intersection.

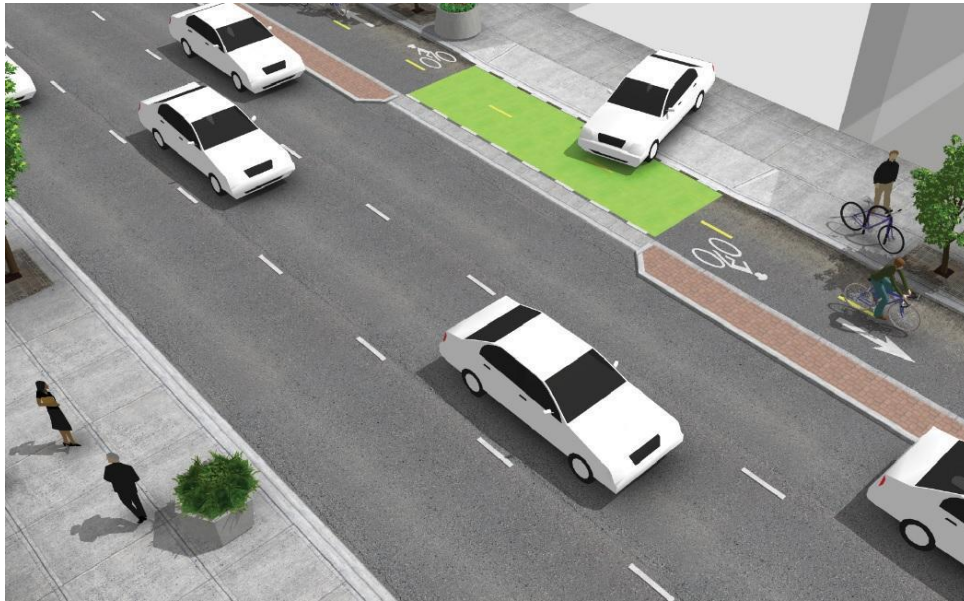
In order to provide maximum safety for vulnerable road users at all intersections, including at minor side streets, it's important to:

- reduce turn speeds
- make people walking, people with mobility devices and people on bikes visible



- all vulnerable road users need to be given clear priority over turning cars

**Raised crossings** are a great way to achieve all three of these goals: they reduce turn speeds, make vulnerable road users more visible and given them clear priority:



Example raised two-way protected bike lane - NACTO Urban Bikeway Design Guide

The use of **corner wedges** at intersections still allows turns of larger vehicles, at lower speeds, and can help improve people driving yielding to people on bikes:



Use of corner wedges helps slow turning speeds

**Clear sight distances** must be provided so that people biking and driving can see each other before the intersection.

NACTO's recently published [\*Don't Give up at the Intersection\*](#) guide provides excellent guidance for the design of all ages and abilities bicycle crossings at intersections.

### **Street parking**

We would appreciate to receive information about the location of street parking, in particular parking in the proximity of intersections, side streets and parking access crossings.

It's important to provide adequate sight lines in order to make people on bikes visible to people driving where they cross the bike facility.

### **E-bike/-scooter charging and -docking stations**

As micromobility is rapidly gaining popularity, it would be wise for the city to do some 'future proofing' and ask the developer to set aside space that could be used for docking/charging stations for e-bikes/e-scooters at some future time.

We strongly suggest you consider our feedback for this large development right in our town core.

Kind regards,

Ivan Chow and Barry Bellamy  
Co-chairs  
*HUB Cycling*  
*Maple Ridge/Pitt Meadows Committee*

JC/IC/JL/TS

### **About HUB Cycling**

HUB Cycling is a charitable not for profit organization that has spent over 20 years removing barriers to cycling in Metro Vancouver, while cultivating the health, environmental, and economic benefits that active transportation can bring. HUB has educated thousands of people, motivated thousands more, and championed improvements that #UnGapTheMap to create a connected cycling network. HUB Cycling's mission is to get more people cycling more often. HUB Cycling have close to 3,000 members and more than 40,000 direct supporters. HUB Cycling has 11 volunteer committees across Metro Vancouver that encourages cycling for all ages and abilities (AAA) in municipalities across Metro Vancouver. For more information, visit [bikehub.ca](https://bikehub.ca).