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To: Maria Guerra, Project Manager <mguerra@mapleridge.ca>
CC: Mayor and Council <mayorandcouncil@mapleridge.ca>
Michael Eng <meng@mapleridge.ca>
Bradley Romeo <bromeo@mapleridge.ca>

Re: 117 Ave. Corridor Improvements:
117 Ave. from 207 Street to Laity Street;
Laity Street from 117 Ave. to Lougheed Highway

Dear Ms. Guerra,

Our HUB Cycling Maple Ridge-Pitt Meadows Committee offers the following feedback with regard to the proposed 117 Ave. Corridor improvements.

We encourage the City of Maple Ridge to be forward looking. It is obvious that the transportation landscape in our city will change rapidly in the coming years. If motor vehicles (both moving and parked) continue to receive the highest priority even on designated transit and bike routes, we will continue to see ever worsening congestion. We'll fail to take advantage of the significant potential offered through existing alternative transportation- as well as new emerging micromobility options.

We hope that the City will focus on building high quality, convenient and safe active transportation facilities that allow for fast, safe and efficient travel by people on bikes, e-bikes, e-scooters and those with other mobility devices, while keeping everyone on foot safe as well, including moms with strollers, kids and seniors, as well as people with dogs. The micro-mobility options that are rapidly becoming available to residents throughout the region promise to provide affordable, convenient and fast alternatives to many people, but only if we adapt our infrastructure to safely and conveniently accommodate and encourage these modes.

City Council has expressed a strong desire to increase density along the Lougheed corridor. This increased density will make transit, walking and cycling viable options for many more people. It will also result in more shopping- and other destinations along the corridor, at an easy walking and biking distance for residents living along the corridor. This is a great opportunity to get people out of their cars and to reduce the need for highly subsidized parking. We believe an attempt to reserve the road space for motorized commuter traffic by providing a shared, bi-directional facility on the south side of 117 Ave. for all those who are not in a motor vehicle is not a safe solution. It makes a lot of sense to design the corridor first and foremost for those who travel using other modes than the private car.

We do not believe that the chosen solution is the best one to achieve the stated objectives. The reasons for our opposition to a bi-directional shared pathway on the south side of 117 Ave. are:

- **Compromised safety for those riding in the “wrong” direction:**

Studies have shown that bi-directional protected bike lanes (or multi-use paths) along two-way streets tend to lead to an increase in vehicle-bike collisions. The Harris study¹ showed that **the risk is about 8 times higher** when a person cycling is coming in the direction opposite to what people driving are expecting, compared to the expected direction. The BC Active Transportation Design Guide recognizes that bi-directional protected bike lanes increase collision risk at intersections, driveways and laneways². The Transportation Association of Canada recommends uni-directional protected bike lanes because of these additional conflict points³.

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 crossing or turning.

- **Pedestrians and cyclists don't mix very well:**

Not all people cycling wish to ride on a bi-directional pathway on one side of the road, as we have seen with the 203rd Street separated bi-directional bike lanes. In addition to the reason italicized above, on a multi-use path people walking can be unpredictable. Also, some people cycling move at higher speeds than average, and the expected increase in use of e-bikes and other micromobility options will also lead to higher speeds.

The difference in speeds between people walking and wheeled users in both directions increases the danger of collisions on a multi-use pathway.

- **Poor safety for people on bikes sharing the car lanes:**

We do not believe that speeds will be adequately controlled through the proposed measures. In between intersections the width of the road is still very wide (both car lanes combined 9.4 meters), which encourages speeding. The removal of all stop signs on 117 Ave. further allows speeding through and between intersections. It also may lead to the road being used more often as a rat-run, which increases the danger as well.

For those who prefer not to use the bi-directional multi-use pathway for reasons listed above, riding on a roadway that narrows at curb extensions and medians, and with parked cars, presents its own dangers (there is danger on both sides: people cycling risk getting clipped from behind, or can be “doored” by inattentive people driving or passengers opening their car door).

¹ Study Comparing the effects of infrastructure on bicycling injury at intersections and non-intersections using a case-crossover design, Harris et al. link

² Ministry of Transportation and Infrastructure. (2019). British Columbia Active Transportation Design Guide. P. D44

³ Transportation Association of Canada. (2017). Geometric Design Guide for Canadian Roads (3rd edition). P.17

- **Need for multi-use pathway questionable:**

In an urban/suburban context, multi-use pathways are typically not considered adjacent to roads with volumes of less than 4,000 vehicles per day and/or speeds over 50 km/h⁴:

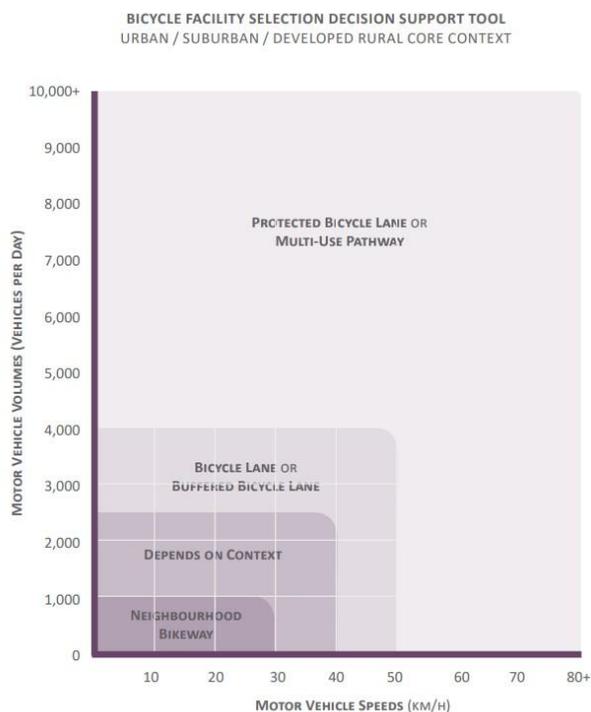


FIGURE D-29 // BICYCLE FACILITY SELECTION DECISION SUPPORT TOOL - URBAN / SUBURBAN / DEVELOPED URBAN CORE CONTEXT

Upon request, we have to date not been able to obtain traffic volume data from the City. Judging from casual observation, we believe that traffic volumes are well below that threshold.

- **Further concerns we have:**

- The removal of all stop signs along 117 Ave. may lead to this corridor becoming a rat-run for commuters.
- As a result of the addition of curb extensions in order to calm car traffic, people on bikes who continue to ride on the road will function as de facto traffic calming devices as they approach the curb extensions. This puts people on bikes in danger.

⁴ Ministry of Transportation and Infrastructure. (2019). British Columbia Active Transportation Design Guide. Fig. D-29

Street parking

We understand that residents have expressed a concern about loss of street parking. This is a street with single family homes with adequate driveway parking. With the present solution, ample street parking is still available on the north side – no change – while parking bays are part of the design on the south side. We understand that a parking study has not been conducted by the City. From casual observation, it appears that presently driveways are often under-used, while present demand for street parking will still be satisfied quite generously if the proposed design is approved.

Our proposal

For traffic calming solutions that will retain adequate street parking while improving safety for all road users we propose:

- 2 meter wide pedestrian sidewalk on south side of the road.
- Raised crossings at cross streets.
- 4-way stops at a few of the intersections. This will help reduce speeding as well as discourage rat-running, while allowing for rolling stops by people on bikes. Realistically, this is how people on bikes navigate these kinds of intersections.
- Street parking alternately provided on north and south side (not on both sides at the same time) in order to reduce road width. This will lead to a somewhat ‘meandering’ design of the road and thus slower car speeds.
- Bike-permeable diverter at Steeves Street
We understand that presently TransLink's bus #744 runs along 117 Ave. This bus could be re-routed along River Road to accommodate a bike-permeable diverter on 117 Ave. at Steeves.

Example of bike-permeable diverter:



Another example:



- Bike-permeable chicanes or curb extensions to reduce car travel speeds.
- Adding street trees with a wide canopy in the boulevards close to the roadway may help to slow down traffic.

Should the design of the multi-use path as proposed by the City be approved, we would strongly encourage:

- Raised crossings at the intersections. This should improve safety of vulnerable road users using the multi-use path.
- Where no raised crossings are provided, smooth transitions at the let-downs.
- No bollards, lamp posts, signs or other dangerous obstacles in the line of travel along the multi-use path.
- Clear warning signs for people driving to expect bi-directional travel by people on bikes, along the corridor as well as on cross streets.

Laity Street

We can agree with the proposed bi-directional multi-use facility along the east side of Laity Street due to limited road right of way.

With regard to the design, we would like to provide the following feedback, in addition to the points of encouragement given immediately above:

- At the north end at Lougheed Highway, the design appears incomplete. Do people on bikes cross at the crosswalk or on the roadway? The drawings are unclear. Probably both options should be made available, unless transitions are very smooth and comfortable, and an elephant feet crossing will allow people on bikes to cross the highway without having to dismount.
- Clarity should be provided to both drivers and people on bikes through design as well as signage.
- Push buttons for pedestrian/cyclist traffic light should be easily accessible on both sides of Lougheed Highway.

Gap in route at 207 Street

According to the proposed design, people on bikes traveling westbound are expected to cross 207 Street from the multi-use path on the south side of 117 Ave. They will then have to continue **on the west side sidewalk** along 207 Street, and cross Thorne Ave. to continue on their way going west. As you know, cycling on the sidewalk is no longer permitted in Maple Ridge. Therefore, a better solution is needed, so that people on bikes are not forced to ride in an illegal manner.

We understand that a future bi-directional cycle track is planned along 207 Street. We do not support a bi-directional cycle track, for the reasons mentioned above.

We propose separated uni-directional cycle tracks on both sides of 207 Street, connecting to Thorne Ave. through a pedestrian/bike crossing at 117 Ave. for eastbound cyclists, and at Thorne Ave. for westbound cyclists.

Yours sincerely,

Ivan Chow, Co-chair
HUB Cycling
Maple Ridge/Pitt Meadows Committee

JC/EH/IC/JW/KG/MN/JL/DW

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.