



July 25, 2016

Mayor and Council
District of North Vancouver
355 West Queens Road, North Vancouver BC V7N 4N5

Lynn Valley Road protected bike lanes

Dear Mayor and Council,

Thank you for providing additional funds for the Lynn Valley Road bike lane project and other improvements along the street. We appreciate your consideration of our earlier input for this project and value your efforts to provide protected bike lanes on Lynn Valley Road. Given the substantial investment required to move curbs and rebuild the sidewalk and median, we are confident protected bike lanes will provide the greatest return on investment for transportation to and from Lynn Valley Town Centre.

Based on the report provided with the council meeting agenda for July 18, 2016 and the council discussion at that meeting, we would like to provide the following input for your consideration:

1. Protected bike lanes need to be wide enough to allow faster cyclists to pass slower ones. This ensures the bike lanes are usable and safe for all, including young children, slow riders, people on road bikes and ebikes. A minimum width of 2 metres is recommended. More information on recommended widths can be found here under "Recommended Features": <http://nacto.org/publication/urban-bikeway-design-guide/cycle-tracks/one-way-protected-cycle-tracks/>
2. To achieve adequate bike lane width, also consider a further narrowing of the travel lanes in conjunction with or instead of narrower sidewalks.

The City of Surrey successfully reduced the width of travel lanes on high-volume arterials to between 3.3 and 3.0 metres. The measure reduced "both the frequency and severity of collisions" and improved safety for all road users. We have attached the Surrey study summary from the province's Road Safety Strategy Update report released in January 2016.

We understand TransLink recommends 3.5 metres for bus lanes, but with appropriate design the width could perhaps be reduced. In Vancouver lanes used by buses are frequently less than 3.5 metres wide, such as on Powell Street.



3. As delineators for the bike lanes we recommend a low type, such as Tuff Curb, Cyclehoop delineators or short flex posts. Delineators significantly below bike handlebar height make it easier and safer for cyclists to pass each other in a bike lane that is not very wide. The following article includes a summary of various delineator types:
<http://www.peopleforbikes.org/blog/entry/nyc-is-latest-city-to-experiment-with-tuff-curb-for-bike-lanes>
4. Where the bike lanes intersect side streets, provide a safe and convenient way for cyclists to turn left, without having to cross two lanes of moving traffic to reach the left turn bay lane. Consider a protected intersection design and two-stage left turns. More information on two-stage left turns can be found here: <http://nacto.org/publication/urban-bikeway-design-guide/intersection-treatments/two-stage-turn-queue-boxes/>
5. We look forward to seeing the street design at the bus stops. This is where space will likely be the tightest.
6. The intersection of the southwest bound bike lane with the Highway 1 on-ramp should be made safer by increasing the visibility of cyclists for drivers. This could be achieved through a 'jug handle'-type alignment of the bike lane. LED flashers at the crossing may also improve safety for both cyclists and pedestrians. An example can be found along the Stanley Park Causeway where new LED flashers at the slip lanes are motion activated for cyclists, while pedestrians use a push button.
7. The transition to the multi-use path underneath Highway 1 looks difficult in the sketch in the report. It would require two tight turns while sharing the path with pedestrians. The path should be aligned in a more straight line with the bike lane to avoid cyclist falls and possible collisions with pedestrians.

We hope for an opportunity to provide further input when the detailed design of both projects is available. For the multi-use path portion under Highway 1, we are able to provide suggestions based on experience gained working with the Ministry of Transportation and Infrastructure on the Ironworkers Memorial Bridge and the Stanley Park Causeway paths.

Protected bike lanes on Lynn Valley Road would be a major step forward for the District's transportation system and towards achieving OCP goals. The HUB North Shore Committee recognizes the space and cost challenges, but we are optimistic that a pragmatic and safe solution for all road users can be found on a road that will be of increasing importance in the years ahead.

Sincerely,

Antje Wahl
Member, HUB North Shore Committee
antjewahl@yahoo.com

Tony Valente
Chair, HUB North Shore Committee
northshore@bikehub.ca



Attachment: Narrowed Lanes, City of Surrey
Narrowed Lanes, City of Surrey

The City of Surrey successfully reduced motor vehicle collision rates along several segments of its high-volume arterials by reducing the width of travel lanes from 4.3 metres, to between 3.3 and 3.0 metres.

Research studies elsewhere have found that reducing the width of travel lanes causes a decrease in driving speed by lowering drivers' perceived margin for error. As a result, both the frequency and severity of collisions is reduced. One study also found that narrowing lanes to 3.0 metres does not reduce traffic capacity, and therefore has no negative effect on congestion.

A study commissioned by the City of Surrey found a considerable effect of the narrowed lanes on driving speeds. On average, vehicles travelled at 31 km/h over the posted speed limit prior to the lane width reduction and only 11 to 18 km/h over the speed limit after the reduction. Analysis of video footage also revealed that vehicles continued to have proper lane control where lanes had been narrowed. Consequently, cyclists are not placed at greater danger by the risk of vehicles drifting into bicycle lanes.

The lane width reduction translated into a 6% to 12% reduction in collision rates along different roadways, and a 43% reduction in the rate of collision along 168th Street between 60th Avenue and 64th Avenue specifically. These results are consistent with findings from other jurisdictions that have employed this strategy.

Source: Ministry of Public Safety and Solicitor General, RoadSafetyBC. Moving to Vision Zero: Road Safety Strategy Update and Showcase of Innovation in British Columbia. January 2016: p.71
<http://www2.gov.bc.ca/assets/gov/driving-and-transportation/driving/publications/road-safety-strategy-update-vision-zero.pdf>