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December 5, 2018

Paul Storer, Manager of Transportation Design
Kati Tamashiro, Senior Program Coordination Engineer
Engineering Services, City of Vancouver
(By Email)

Re: Traffic Signal Issues at King Edward Ave. and Arbutus St.

Dear Paul and Kati;

HUB Cycling is a charitable organization that works to make cycling better through education, events and collaboration. We are Metro Vancouver's leader in making cycling an attractive choice for everyone. We are writing with follow up comments on the traffic signal and intersection at King Edward and Arbutus, further to our meeting on November 14th, 2018. We have received multiple reports of near misses of users of the Arbutus Greenway at this intersection, and request that the intersection and signal operation issues which lead to these near misses be addressed.

Background

The Arbutus Greenway temporary paths are exceeding initial usage estimates. We have been pleased to see the response of the City to address critical safety issues at key intersections. Burrard, Broadway, 12th, 41st, and SE Marine have been improved to higher standard. Thus, all arterial intersections except the King Edward crossing have been upgraded. We understand that the public are currently using the original pedestrian crosswalk, and that the final design will likely include realignment of the Arbutus Greenway to parallel the intersection, and not require users to jog to the original Arbutus St. crosswalk to cross King Edward. Since the temporary path opened, increasing numbers of active transportation users crossing the original east King Edward crosswalk have reported frequent near misses with vehicles. We propose that the frequency of misses could be reduced with improved signage and signal timing changes. All users are looking forward to the construction of a redesigned crossing when the final design of the permanent Greenway path is approved by council.

Identified Issues

- 1) Vehicles travelling south on Arbutus and turning left onto King Edward present conflicts with users of the east crosswalk and cross bike. (Conflict 1, blue line on Figure 1)
- 2) Vehicles travelling west on King Edward and turning right onto Arbutus present conflicts with users of the east crosswalk and cross bike (Conflict 2, red line on Figure 1)

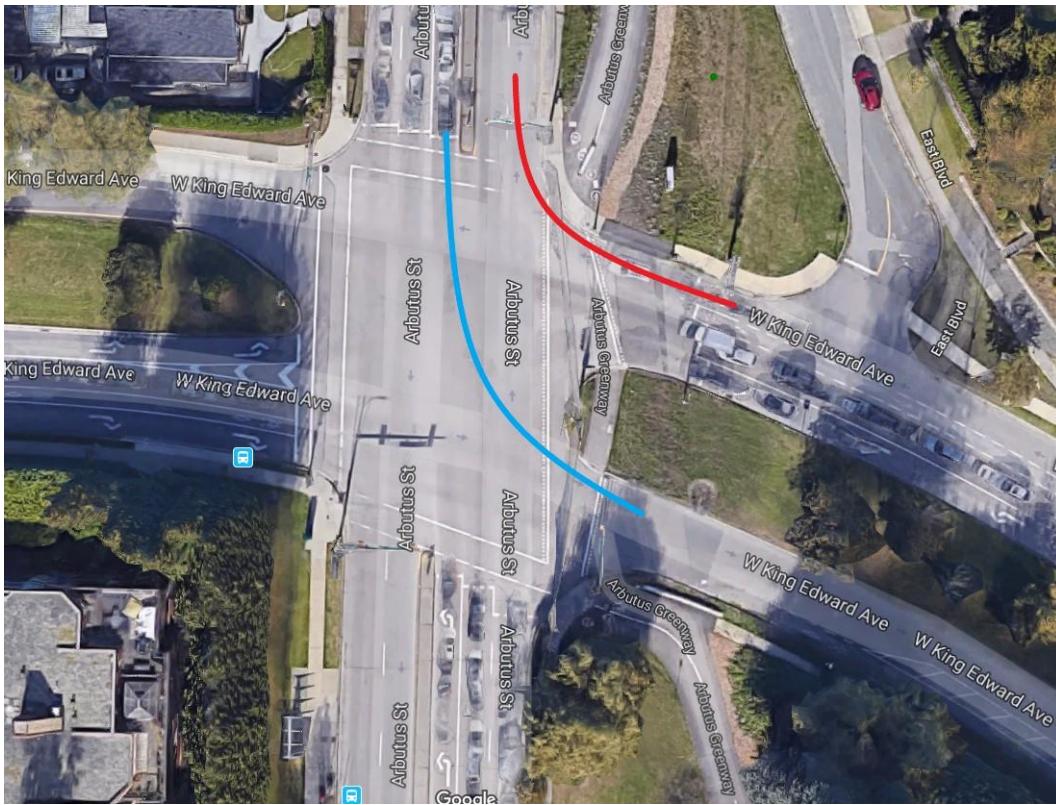


Figure 1 - Arbutus St and King Edward Avenue showing conflict paths with east crosswalk

Conflict 1

Vehicle operators travelling south on Arbutus and turning left onto King Edward have an advance green. This signal remains solid green (for straight through traffic, not turning movements) when the crosswalk signal changes to permit people walking and people on bikes to cross King Edward. Drivers have on numerous occasions narrowly missed people in the east crosswalk, seemingly being focused more on looking for breaks in oncoming vehicle traffic to complete their turns. We note that Arbutus descends south of King Edward, so oncoming vehicles may not be as visible to left turning vehicles as if Arbutus was level. We recommend consideration of phased protection, with a red left turn arrow after the advance green arrow.

Conflict 2

Vehicle operators travelling west on King Edward and turning right onto Arbutus are permitted to turn right on red, across the east crosswalk. They are often seemingly focused on southbound vehicle traffic on Arbutus, and are looking for an opening, instead of focusing on people in the east crosswalk. Vehicles are frequently observed making this turn without first stopping at the red light. In addition, the turn lane being positioned to the right of the bike lane makes this very uncomfortable for people on bikes stopped waiting to cross Arbutus. We recommend a no right turn on red rule here, and a clearer stop line set well back from the intersection.

Contributing Factors

We understand that the intersection geometry is not ideal here for the safety and comfort of greenway path users. However, the steps noted above could alleviate the conflicts in the short term. Contributing causes to this dangerous situation are as follows:

- a) The crosswalk markings and stop lines are faded.
- b) The intersection is very wide.
- c) King Edward does not intersect Arbutus at a right angle, meaning that the two vehicle turning movements highlighted permit higher vehicle speeds. Conflicts have not been noted to the same extent for vehicles northbound on Arbutus and turning right across the crosswalk, possibly due to the slower speeds resulting from the acute angle of the two streets.
- d) The east crosswalk is not straight, but rather runs both east and west of the signal pole. This could lead to confusion because drivers may not expect pedestrians on the east section, where pedestrians and bikes can emerge from behind the signal pole.
- e) The push button for users to activate the east crosswalk signal, located on the north east corner of the intersection, is not positioned near the bike path. It is inconvenient to reach, and results in people waiting to cross being partially hidden by the curbside signal pole, for drivers in the curbside turning lane. It also means that some path users are not aware of the need to push the button, and so end up crossing without a crosswalk signal.

Thank you for your consideration of these issues. We look forward to an interim resolution in advance of any intersection redesign associated with the permanent greenway path. We would be pleased to meet and discuss the above at your convenience.

Sincerely,

Jeff Leigh
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