

City of Whitehorse
2121 Second Ave.
Whitehorse, Y1A 2J9

Re: Whitehorse Urban Cycling Coalition Input to Two Mile Hill & Range Road Intersection

Please find the following input from the cycling community on the initial concepts suggested for making one of Whitehorse's most difficult intersections better for active transportation. We are pleased to see that the project team has correctly identified that the primary issue to be addressed at this intersection is to make it more hospitable and safer for people walking or biking. And the City should be commended for committing to taking the time to make sure that "we get this intersection right" for vulnerable road users. WUCC is pleased to provide recommendations, from a cross-section of people using bikes, as the options as presented currently fall significantly short of the stated project goal.

Whitehorse is a winter city. Solutions need to be robust and work under winter conditions, providing the greatest physical protection and separation possible, minimizing reliance on fallible humans. Of the three options as currently presented, only option 1 has the potential of being acceptable to cyclists with the objective of reducing barriers to choosing to travel by bicycle through this intersection. Option 2 increases the already too-wide crossing width unnecessarily and relies on complex signalization which attempts to manage drivers. In addition to creating a wider roadway, Option 3 introduces "pork chops" which are dangerous, difficult and create barriers to cycling. The recent BC Active Transportation Design Guide recommends against the use of porkchops, so we are disappointed that such antiquated design would even be suggested.

The major concern is that design options presented do not fully understand or incorporate the City's Bicycle Network Plan. Range Road is to be an All Ages and Abilities (AAA) cycle route crossing 2 Mile Hill. This means physically separated (a.k.a. protected) cycle facilities, and that physical protection *must* be carried through an intersection as a standard part of a AAA design. We are aware that the exact design of the protected cycle facilities on Range Road have not been determined yet, but we do know that it will not be a painted bike lane. Thus, proposing a painted bike lane through this intersection is inconsistent with the Bicycle Network Plan. To overcome this patchwork approach that has plagued cycle infrastructure development in Whitehorse to date, we recommend that the scope of this project be expanded to include conceptual design of the AAA cycle infrastructure on Range Road north and south of this intersection. At the conclusion of this letter, we offer a solution for this intersection that would be flexible and create a safe, convenient and comfortable way to accommodate north-south cycle movement through the intersection.

Some specific comments are as follows:

- Reliance on paint for protecting and designating space for cycling does not work in Whitehorse. Although Two Mile Hill does get plowed regularly, residents know all too well that snow obscures the lines and the markings get removed for much of the season due to plowing and sanding. Solutions to create safe, comfortable spaces for people walking and riding bikes in Yukon context must have physical separation.

- The east-west protected crossings as proposed are good and provide a contemporary way to make crossing Range Road safer and more accessible to vulnerable road users.
- If space is an issue, a cross-bike (combined cross walk and cycle crossing) would be acceptable, especially since multi-use paths (ie. shared facilities) are found on both sides of Range Road.
- Relocated push buttons for crossing to convenient locations for people biking is strongly supported.
- For the crossing of Two Mile Hill where there is a median, a crossing refuge should be created by having the crossing pass through the median. For large crossing distances such as Two Mile Hill, having a “safe space” part way is important for two reasons:
 1. It makes the crossing feel safer and more accessible for less confident cyclists compared with a long, exposed crossing; and
 2. Children may not have the cognitive ability to keep track of traffic from two directions. A mid-crossing refuge allows them to watch vehicles from one direction at time. This is relevant for cars turning across the crosswalk, even if the intersection is “no-right-on-red” because we cannot rely solely on all drivers following all the rules all the time. Thus we need to provide additional physical measures to accommodate and protect children.
- Consider advancing the pedestrian/cyclists crossing signal shortly before vehicle movements. This is commonly done in progressive cycle-friendly cities to give cyclists and pedestrians a bit of extra time to clear the intersection before motor vehicles start turning.

To “get it right” for cyclists and pedestrians at this intersection, a protected crossing design is needed for north-south crossings, similar to what has been proposed for the east-west crossing of this intersection. This will bring a contemporary design that has been proven to be safer and more accessible to cyclists. Because the design of the AAA infrastructure on Range Road is not yet known, using a protected crossing of Two Mile Hill will “future proof” the intersection as it will accommodate any protected design north and south of Two Mile Hill. In the interim, the current “bike lanes” on Range Road north can be transitioned with a curb extension and mounting ramp north of Two Mile Hill that will convey cyclists on Range Road north on to (or from) the protected crossing of Two Mile Hill. A sketch of this accompanies this letter.

An additional advantage of a protected design is it creates a convenient, logical and safe way to make the two-stage left down Two Mile Hill. The preferred route for cyclists travelling from Takhini is to cross Two Mile Hill and take the multi-use path downtown on the south side of the road during summer months. A protected design provides a convenient and safe place to wait out of the roadway, something that the suggested on-street turning box does not do.

Thank you for incorporating cyclists’ knowledge to make this a better, safer and more sustainable piece of infrastructure for all road users. Going forward, we strongly encourage the project team to engage with cycling community directly so that at the conclusion, we have a project that can be supported and is a state of the art design that all can be proud of.

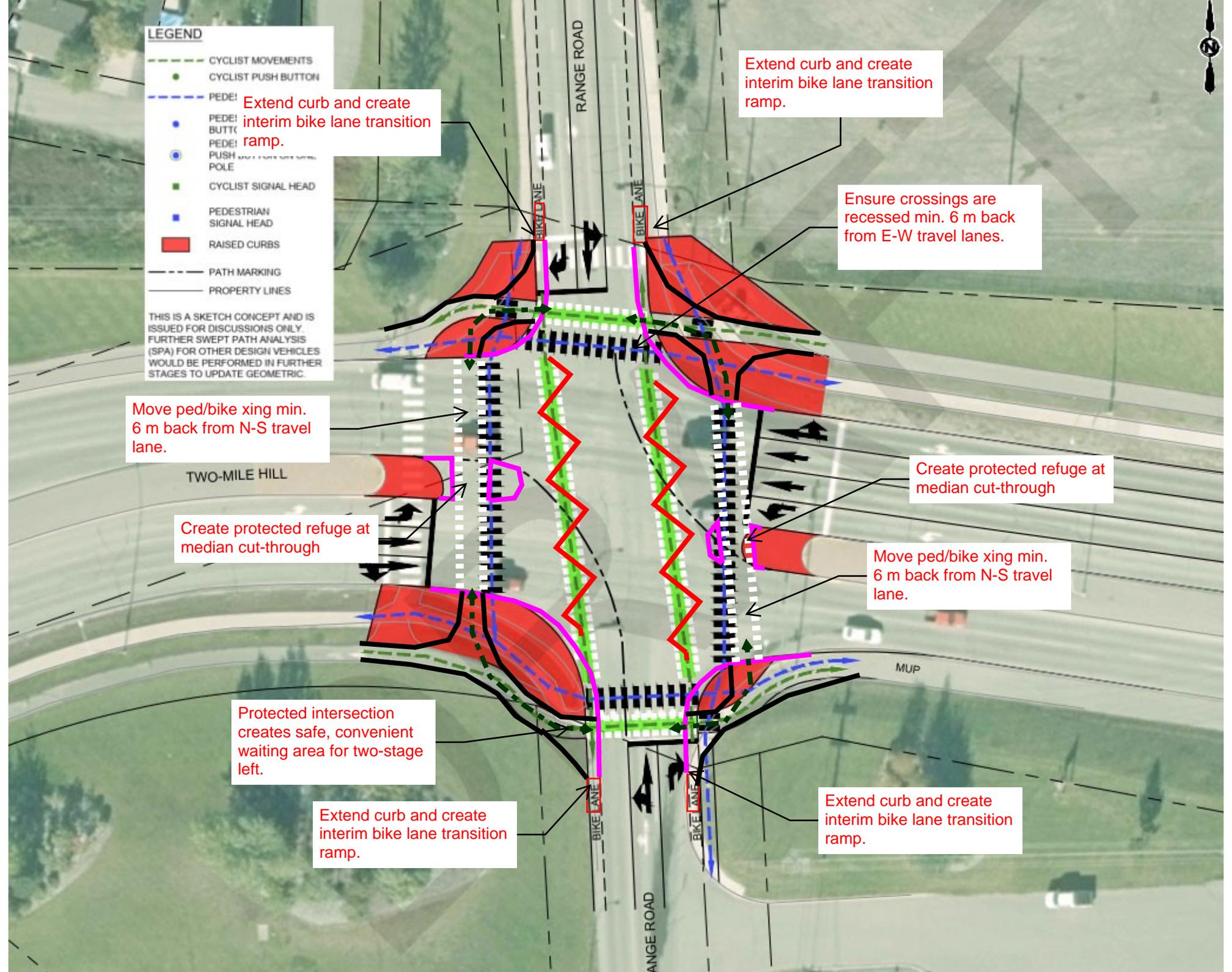
-Whitehorse Urban Cycling Coalition



LEGEND

- CYCLIST MOVEMENTS
- CYCLIST PUSH BUTTON
- PEDE!
- PEDE! BUTTC
- PEDE! PUSH
- PEDE! POLE
- CYCLIST SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- RAISED CURBS
- PATH MARKING
- PROPERTY LINES

THIS IS A SKETCH CONCEPT AND IS ISSUED FOR DISCUSSIONS ONLY. FURTHER SWEPT PATH ANALYSIS (SPA) FOR OTHER DESIGN VEHICLES WOULD BE PERFORMED IN FURTHER STAGES TO UPDATE GEOMETRIC.



Extend curb and create interim bike lane transition ramp.

Ensure crossings are recessed min. 6 m back from E-W travel lanes.

Move ped/bike xing min. 6 m back from N-S travel lane.

Create protected refuge at median cut-through

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Protected intersection creates safe, convenient waiting area for two-stage left.

Extend curb and create interim bike lane transition ramp.

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