Department of Highways and Public Works,
c/o Alaska Highway Whitehorse Corridor Project Office
CH2M Hill
309 Strickland St. Suite 301
Whitehorse, Yukon
Y1A 2J9

To Whom It May Concern:

Re: Whitehorse Urban Cycling Coalition Stakeholder Contribution to Alaska Highway Whitehorse Corridor Project

This letter constitutes the Whitehorse Urban Cycling Coalition's (WUCC) summary stakeholder feedback to Yukon Government's "Alaska Highway Whitehorse Corridor" as proposed in the recent public consultation (the Project).

WUCC is sincerely appreciative that Yukon Government is interested in making large infrastructure investments in our community. We believe the Project, as currently proposed, will have significant negative impacts on Whitehorse in general and specifically on sustainable transportation opportunities in our community. Herein WUCC identifies problem areas and recommendations for how Yukon Government can meaningfully redirect its desire to invest in transportation infrastructure and transform the Project into a long-term asset that serves a broader cross-section of Yukoners.

WUCC understands that Whitehorse is growing and that investments in upgrading the Alaska Highway will be needed. The sole objective of the Project, as currently proposed, is to facilitate automobile usage: move higher volumes of private motor vehicles at higher speeds, which represents a problem to other, specifically non-motorized forms of transportation.

Erroneous Design Basis

Sustainable community planning now recognizes that auto oriented development increases sprawl and reduces both quality of life and community sustainability. This sustainable community direction is established in planning policy such as Whitehorse's Official Community Plan, the Strategic Sustainability Plan, and the Transportation Demand Management Plan. The Project makes an initial assumption of increasing automobile usage, from which flows a number of critical flaws in the design basis for the project:

1. **Need for the Project**: The need for increasing the highway size has not been demonstrated through *capacity* of the highway. The highway between the airport and Two-Mile Hill still has significant carrying capacity before additional capacity is warranted. The use of the remainder of the highway is far below capacity and there is no need for four lanes (or equivalent of when extensive turning lanes are added) in any reasonably foreseeable future.

2. **Higher Speed** Increasing speed is intrinsically less safe and creates greater barriers to the community. Higher speeds divide the community, create an uninhabitable zone in their proximity and make the road intimidating and unsafe for users such as pedestrians and cyclists. The highway will be increasingly difficult, dangerous and scary to cross as a pedestrian or cyclist as a result of this project.

3. **Increasing Automobile Usage** This is undesirable from a community development perspective on many levels. Firstly, only a portion of the population has the privilege of operating private automobiles. Secondly, it promotes sprawl which is fundamentally unsustainable and leads to community decay, both socially and economically. Lastly, promoting private automobile usage is environmentally a dead-end.

4. **Level of Service (LOS**) The design uses LOS for automobiles only and neglects multi-modal LOS (Highway Capacity Manual,2010) . The design does not include other roadway users. The "Green Transportation Hierarchy" (Victoria Transportation Policy Institute) should be the design basis through the City of Whitehorse:

Green Transportation Hierarchy (Transportation Alternatives 2001)

1. Pedestrians
2. Bicycles
3. Public Transportation
4. Service and Freight Vehicles
5. Taxis
6. Multiple Occupant Vehicles
7. Single Occupant Vehicles

5. **Costs** – private automobile usage is a net COST to society, whereas other modes of transportation are lower cost. Non-motorized transportation SAVES society money. For example, every 5km trip by bicycle saves society $0.75 per trip whereas every equivalent motor vehicle trip costs society $2.78 per trip—a difference of $3.53 for every single trip (Stewart-Wilson et. al., 2015). This creates a clear business case multi-modal re-development of the Alaska Highway.

Specific Design Problems

The bias in the design basis leads to a number of specific problems for cycle usage of the Alaska Highway:

1. Higher speeds – increasing speeds make the roadway more dangerous, more intimidating and unpleasant environment for cyclists and other non-motorized users.
2. Right-hand turn/merge/diverge lanes – these are extremely problematic for cyclists because they create a dangerous conflict where motorists need to cross over the cyclists travel lane (Oregon

Department of Transportation 2011). Contemporary transportation design states that right-hand turn lanes and right lane merge/diverge lanes should always be avoided unless it can be demonstrated they are absolutely warranted. In the case of the Alaska Highway, the need has not been demonstrated.

3. Lack of engineered cycle infrastructure – the proposed Project does not integrate any genuine cycle infrastructure. The plan purports a "multi-use trail" whose design details are not specified in project literature and there is no opportunity for public input on the detailed design of such facilities. It is reasonable to expect that genuine cycle infrastructure is included beginning with the conceptual design of the corridor project For a fraction of the proposed expenditure the Yukon Government could build best-in-class cycle infrastructure as part of the Project for the entire length of the Alaska Highway through the City of Whitehorse.

Recommendations for Redesign

The WUCC is sympathetic that significant expenditure and human effort has been made to date on this concept. We encourage and support Yukon Government to demonstrate leadership in sustainable transportation, community development and help genuinely rebuild its relationship with Whitehorse by implementing the following recommendations:

1. The engineering design is re-started based on the multi-modal, integrated community design at lower speeds.
2. The design of the Alaska Highway transportation corridor is redesigned in an integrated fashion with the City of Whitehorse's land use planning and sustainable transportation plans.
3. Multi-modal Level of Service serve as the basis for design, following the Green Transportation Hierarchy, through the City of Whitehorse. The priority in the near-term should be for Class-A LOS for pedestrians, cyclists and transit from Kopper King to Hillcrest/airport at minimum with engineered cycle (on-road or paved separated) facilities for the remainder of the project area.
4. If Yukon Government wishes to make a flagship infrastructure investment, consider development of a fully segregated bikeway or "cycle highway" from south of Robert Service Way to Kopper King.
5. The highway be redesigned to have a speed of 60 km/hr continuously from Robert Service Way to Crestview.
6. All right hand turn lanes and right-hand merge/diverge lanes and associated islands be eliminated from the design and conventional orthogonal right-hand turns be retained complete with engineered cycle facilities. This is viable on a lower-speed roadway as recommended.
7. A capacity-based approach (as opposed to private motor vehicle level-of-service approach) is used to determine when additional motor vehicle lanes are needed.
8. The priority focus be on fixing "problem spots" on the highway for community-based sustainable transportation, with a multi-modal LOS approach. Well known issues are the Two-Mile Hill/Range Road and Two-Mile Hill/Alaska Highway intersections and making them convenient and safe for all users, not just motorists.

Conclusion

The Alaska Highway Whitehorse Corridor project as proposed will exacerbate conflict between different kinds of users and as such will negatively impact the community of Whitehorse. There is great opportunity with careful and inspired design to transform the Project into something that will be a long-term asset to the community and serve anticipated motorized as well as non-motorized capacity of the corridor. WUCC looks forward to being your partner in helping build sustainable communities to meet the needs of Yukoners.

CC: Mayor and Council, City of Whitehorse;
Hon. Scott Kent, Minister of Highways and Public Works