Your Cycling Connection

604.558.2002
info@bikehub.ca
bikehub.ca

November 20, 2017

To: Mayor and Council
David Pollock, P.Eng., Director of Engineering <dpollock@mapleridge.ca>
Tom Gordon, Engineering Department <tgordon@mapleridge.ca>

Re: **Public Hearing November 21, 2017**
2017-291-RZ; 24093 and 24137 104 Avenue
New Albion Elementary School and Community Centre

Mayor and Council,

Our HUB Cycling committee is pleased to see the application for rezoning for the long awaited elementary school and community centre on the agenda for the upcoming Public Hearing.

104 Ave. is part of the designated cycling network according to the 2014 Transportation Plan, which outlines the planned improvements to our cycling network for the next twenty years. This road is an important route to Samuel Robertson Technical School, and soon this new elementary school and community centre will be two important destinations for the wider neighbourhood. The road connects to 240th Street, which is a major arterial in our road network and connects to further destinations.

The Transportation Plan shows shoulders along 104 Ave. However, according to the staff report the developer is required to install a 3-meter-wide multi-use pathway on the north side of the road in front of the school.

We have not been able to get clarity from the Engineering Department at this point, but we assume that this multi-use path will eventually continue all along 104 Ave. from 240 Street up to Jackson Road, and that street parking will be allowed on both sides of the road, while no shoulders or bike lanes will be provided.

Bi-directional facilities on one side of the road

We have in previous submissions expressed our concern with regard to bi-directional bike facilities on one side of urbanized roads with frequent side street- and driveway access crossings. **Perceived** safety may be improved as better separation from car traffic is achieved, however **actual** safety is not necessarily better.

Your Cycling Connection

604.558.2002
info@bikehub.ca
bikehub.ca

Research by Harris et al (figure 1) has shown that the risk is about **8 times higher** when a cyclist is coming from the direction opposite to expectation, compared to the expected direction.

Cyclists traveling in both directions will have the right of way over turning car traffic. However, drivers tend to focus more on faster moving, and more dangerous objects on the road, i.e. other cars and trucks and, when turning, often do not watch for people on bikes coming from the unexpected direction. As the area gets further developed and traffic in the area increases, traffic volumes will further add to the complexity for drivers to deal with this type of bi-directional cycling infrastructure.

We should try to avoid ending up with infrastructure that necessitates the installation of signs as the one shown below, warning cyclists to only "cross here when safe", while they do actually have the right of way.

As the road is hilly, cyclists will be moving faster on the downhill sections, adding to the danger of cars crossing the facility.

If street parking is allowed along the north side of the road, this will further reduce visibility of people on bikes to drivers turning into side streets and driveways.

Your Cycling Connection

604.558.2002
info@bikehub.ca
bikehub.ca

Safe System Approach

We would like to point to the Province's Moving to Vision Zero: Road Safety Strategy document. It explains that our Province's ultimate goal is to achieve zero traffic fatalities and serious injuries, and that we want to have the safest roads in North America by 2020.

According to the document, road safety outcomes in general have improved over the past decade, however vulnerable road users - such as cyclists and pedestrians - have not experienced better road safety outcomes. From the report: *"Cyclists constitute an increasingly greater share [of serious injuries] on our roads; while in 2005 cyclists had 5% of serious injuries caused by motor vehicle crashes, these road users sustained over 6% of total serious injuries in 2013, and almost 7% in 2014.".* The average of cyclist fatalities as a percentage of the total of fatal crashes is about 4%.

A cornerstone of Vision Zero is the Safe *System Approach*. Apart from a number of components that make up our road system, of which driver and cyclist education and awareness is of course an important one, road design is another critical one. **Our roads need to be designed to reduce harm caused by human error.** In our opinion, a bi-directional multi-use path does not satisfy this requirement in this location.

All ages all abilities requirements

It's encouraging that our City is becoming more aware of the needs and wants of those who are presently concerned about having to ride their bikes in close proximity to higher volumes and/or faster moving motor vehicles. When designing separated facilities, however, we need to ensure that it not only makes people **feel** safer, but that **actual safety** is improved.

Also, it makes sense to make these designs truly inclusive of **all ages and abilities**. We don't want to end up with facilities that don't appeal to the *strong and fearless* and *enthused and confident* [1] types of cyclists, if that means that they will still end up riding in the roadway, possibly having to obstruct car traffic due to insufficient passing room and/or parked cars.

Preferred road design

Cycling facilities on both sides of the road, physically separated from car traffic, would be preferable for this location. This would put cyclists where drivers expect them to be, and where they're consequently going to be safest.

[1] *Strong and fearless* and *enthused and confident* cyclists together account for about 8% of the cycling market (Translink's Regional Cycling Strategy Background Study - Setting the Context)

Your Cycling Connection

604.558.2002
info@bikehub.ca
bikehub.ca

Street parking should ideally not be provided where driveway access is already available in order to improve visibility of cyclists. Preferably, any new subdivisions along major collector and arterial roads, and any collector road along a designated bike route, should have parking available on driveways and in garages as well as visitor parking accessible via back lanes of properties.

If the City does decide to opt for the multi-use path on one side of the road, we strongly recommend raised, painted crossings at side streets as well as raised, level driveway crossings. The commonly used slanted driveway aprons with grooves parallel to the roadway should be avoided. The grooves can destabilize people on bikes, especially those with thinner tires.

Looking to the future

It should be our goal to design a road system that will comfortably, conveniently, safely and efficiently accommodate the various transportation modes of past and future that are more sustainable, healthy, and less space-consuming and costly to accommodate than the presently dominant private automobile, and that together make an equitable transportation system.

We have to take into account the urgent need to change the way we get around for a multitude of reasons (e.g. inactive lifestyles, climate change/ever rising Greenhouse Gas Emissions, need to curb continued sprawl, challenges with regard to expansion of existing road system and ever increasing need to, and cost of, satisfying parking demand - which also contributes to the housing affordability crisis).

Cycling is quite feasible for many trips under 8 kms. There is no reason why cycling can not be part of the future even in more topographically challenging areas such as Albion/Thornhill, as long as quality infrastructure is provided.

Cycling on hills should no longer be considered an impediment to growth in cycling participation. The use of e-bikes is growing quite dramatically in other parts of the world, and this shows what is possible. Most of this growth has been in China, where already over 30,000,000 e-bikes are being used for transportation. Northern Europe has seen a 15-fold increase in e-bike usage in ten years (98,000 in 2006 to 1.5 million in 2016). [Experts that were interviewed] emphasised the increasing popularity of E-bikes among all groups and for various trip purposes. (data from Cycling towards a more sustainable transport future in Transport Reviews, John Pucher and Ralph Buehler, June 2017).

Thank you for your consideration.

Kind regards,

Ivan Chow, Co-Chair
HUB Cycling
Maple Ridge/Pitt Meadows Chapter

JC/IC/BB/AC/JL