ESQUIMALT ACTIVE TRANSPORTATION NETWORK PLAN

Plan Summary Report

Prepared For: Township of Esquimalt
Date: 2021-08-18
Our File No: 2925.B01

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1.0 OVERVIEW

The Township of Esquimalt is an active and recreational community owing to its proximity to the ocean, access to regional trails and parks, and its compact geography. Its compact geography and short distances between origin and destinations help explain why the community has one of the highest walking mode shares in the Capital Region. Despite this, the Township recognizes that there are significant gaps in its active transportation network and has undertaken several technical studies and plans over the last 15 years to better document its barriers and the specific opportunities for improvement. However, these studies have largely been completed on an ad hoc basis and the Township has not yet holistically examined the overall quality of its active transportation network.

To this end, Esquimalt is developing its first Active Transportation Network Plan (ATNP). Its purpose is to [a] identify deficiencies in the pedestrian and cycling network, [b] identify gaps in the pedestrian and cycling network, [c] develop the vision and goals for the network to address the deficiencies and gaps, and [d] create an implementation plan to identify the critical projects needed in the short-term (1-5 years) and the long-term to increase the share of trips completed by an active mode and more broadly reach the greenhouse gas (GHG) targets set out in the Official Community Plan.

This document illustrates some of the key highlights of the process to develop the ATNP.

2.0 PUBLIC ENGAGEMENT

2.1 OVERVIEW

The public engagement process includes two distinct rounds of feedback, as follows:

- **Round 1** – the Esquimalt community was invited to share their thoughts and feedback on current concerns, challenges, and opportunities surrounding the active transportation network. The first round of engagement was also intended to inform the community about the Esquimalt Active Transportation Network Plan process and obtain specific feedback from the community about barriers and challenges they currently face when using active transportation in Esquimalt.
- **Round 2** – the Esquimalt community will be invited to share their feedback on the draft pedestrian and cycling networks along with the draft vision and goals for the ATNP.

Due to the COVID-19 pandemic, all of the engagement for the ATNP has taken place virtually on the Township's *Engaging Esquimalt* website.[1]

2.2 WHAT WAS DONE

The following tools were utilized on the Engaging Esquimalt website to generate feedback.

Online Survey No.1 – Feedback on Barriers and Opportunities

The first online survey was intended for Esquimalt residents and those who work in the Township; however, other members of Greater Victoria were able to provide feedback, as well. The survey was available from Thursday March 18 to April 19, 2021. It included several closed-ended questions intended to better understand the existing barriers, issues, and opportunities surrounding the community's existing active transportation network.

[1] https://engagingesquimalt.ca.engagementhq.com/

Interactive Online Mapping Tool

There were two interactive maps available on the *Engaging Esquimalt* website. The first map asked participants to share their experience as a pedestrian and the second map asked for feedback about their cycling experience. Participants were able to drop pins on the map to identify specific barriers they face as a pedestrian and/or as a person cycling. For pedestrians, this included missing sidewalks, unsafe crosswalks, and accessibility issues, for example. For people cycling, this included the lack of bike facilities, unsafe intersections, and the lack of bicycle parking, among other pins.

Ideas Tool

The ideas tool is open-ended activity that allowed residents to share a specific idea about what they would like to see in the ATNP. This included specific areas of the Township that could be better designed for active transportation and examples from other communities that could be applicable to Esquimalt. See an example below.

Online Survey No.2 – Feedback on Options, Vision & Goals

The second online survey is anticipated to take place in the fall of 2021.

2.3 WHAT WE HEARD

A high-level summary of what we heard so far is presented below. A more detailed summary is available in the *Round 1 Engagement What We Heard Report*.

2.3.1 WALKING & ROLLING

The top five barriers to walking and rolling in Esquimalt are summarized as follows:

- Lack of sidewalks and pathways
- Speed of motor vehicle traffic
- Sidewalks and pathways are too narrow
- Lack of space / buffer between sidewalk and motor vehicle traffic
- Lack of safe crossings

Examples of narrow sidewalk (left) and gap in sidewalk network (right), which were the top walking/rolling related barriers identified in the online survey and mapping tool.

Example of pedestrian walking along Lampson Street with no buffer between sidewalk and motor vehicle traffic. Lampson Street is a Major Road signed at 50 km/h and this section of the road sees approximately, 11,350 vehicles per day, making it uncomfortable to walk on for most pedestrians.

The top desired improvements to the pedestrian network are summarized as follows:

- Filling in gaps in the network to improve connections to destinations
- More separation from motor vehicle traffic
- Improve sidewalk condition (e.g., fixing cracks, trip hazards)
- Improve crossings (e.g., signalized crossings)
- Improve accessibility of sidewalks (e.g., fixing deficient curb ramps)

> *"I enjoy walking to the library and rec centre but don't enjoy having to walk on a busy road. like Admirals to get there."* – Comment from Online Survey No.1

2.3.2 CYCLING

The top five barriers to walking in Esquimalt are summarized as follows:

- Lack of comfort cycling on major roads without painted bike lanes
- Lack of comfort cycling on major roads with painted bike lanes
- Bike lanes on corridors that end before an intersection
- Speed of motor vehicle traffic
- Lack of protection at intersections (e.g., conflicts with rails or turning vehicles)

Example of bike lane ending before intersection (top) and cyclist forced to share a lane with no separation from motor vehicle traffic even (bottom). These are the types of barriers to cycling that were reported in the engagement.

The top desired improvements to the cycling network are summarized as follows:

- More separation from conflicts (e.g., rails, turning vehicles, parked vehicles)
- Bike lanes that are physically protected from motor vehicle traffic on major roads
- Lower the posted speed limit on major roads

We cycle daily with our children and want to make sure there is infrastructure in place for them to ride safely along with us once they are old enough. this plan should include all levels and abilities." – Comment from Online Survey No.1

Existing bicycle lane on Esquimalt Road at Fernhill Road. Bike lanes that are physically protected from motor vehicle traffic was among the top desired improvements identified by the community. Section 6.0 identifies improvements to cycling corridors such as Esquimalt Road to make them more suitable for all ages and abilities.

3.0 PROPOSED NETWORKS & IMPROVEMENTS

The ATNP offers a number of recommendations in terms of the proposed networks for both pedestrians and cyclists, but also provides an innovation compared to other similar plans where intersections are also recommended for improvements. The following section provides an overview of the recommendations that entail an intersection review. The intersection reviews have been broken down to major and minor, depending on the type of road network that intersects.

Major Intersection Review

A few intersections ***where two major roadways meet*** have been identified as part of the Active Transportation Network Plan development. These intersections could use a technical review to ensure that people walking and cycling have been accommodated safely and comfortably. One of the best times to perform this review is at the same time as corridor improvements are being considered. If a corridor is being considered during the short-term that is the best time for a review, otherwise, the Township should look to perform a review within five years of the plan's adoption. The context of each location and possible remedies will vary, however a general list of possible considerations for each review includes:

- Reviewing collision history
- Consider geometric changes to slow turning vehicles and shorten pedestrian crossings
- Consider reducing the width of travel lanes
- Ensure that curb ramps are improved (double preferred with zero lip)
- Review site lines and street lighting
- Consider use of high visibility crosswalk pavement markings
- Consider conversion of all-way stop control to traffic circle with all-way yield control
- Consider leading pedestrian intervals/count down timers
- Consider installing pedestrian detection devices that can detect a pedestrian and determine if the phase should be extended or canceled
- Consider automatic pedestrian walk phase near major destinations or where demand is high
- Provide protected cycling infrastructure up to the edge of the intersection

- Consider if cyclists need unique signal phasing
- Consider if motorists need unique signal phasing
- Consider closing driveways too close to the intersection
- Adjusting the location of transit stops or on-street parking
- Consider right turn on red prohibition (NTOR)

Minor Intersection Review

Several intersections ***where a local road meets and crosses a major road*** have been identified as part of the Active Transportation Network Plan development. These intersections could use a thorough review to ensure that people walking and cycling have been accommodated safely and comfortably. Many of these locations have been identified to help people cross a busy road to access a transit stop. One of the best times to perform this review is at the same time as corridor improvements are being considered. If a corridor is being considered during the short-term that is the best time for a review, otherwise, the Township should look to perform a review within five years of the plan's adoption. The context of each location and possible remedies will vary, however a general list of possible considerations for each review includes:

- Review collision history
- Consider geometric changes to slow turning vehicles and shorten pedestrian crossings
- Consider reducing the width of travel lanes
- Ensure that curb ramps are improved (double preferred with zero lip)
- Consider use of high visibility crosswalk pavement markings
- Install sidewalk on all approaches to guide people to the crossing
- Consider adding pedestrian crossing on each leg of the intersection
- Consider leading pedestrian intervals/count down timers
- Consider installing pedestrian detection devices that can detect a pedestrian and determine if the phase should be extended or canceled
- Consider vertical traffic calming features such as pedestrian refuges or protected bike lanes on the major corridor
- Consider closing driveways too close to the intersection
- Adjust the location of transit stops or on-street parking
- Review site lines and street lighting

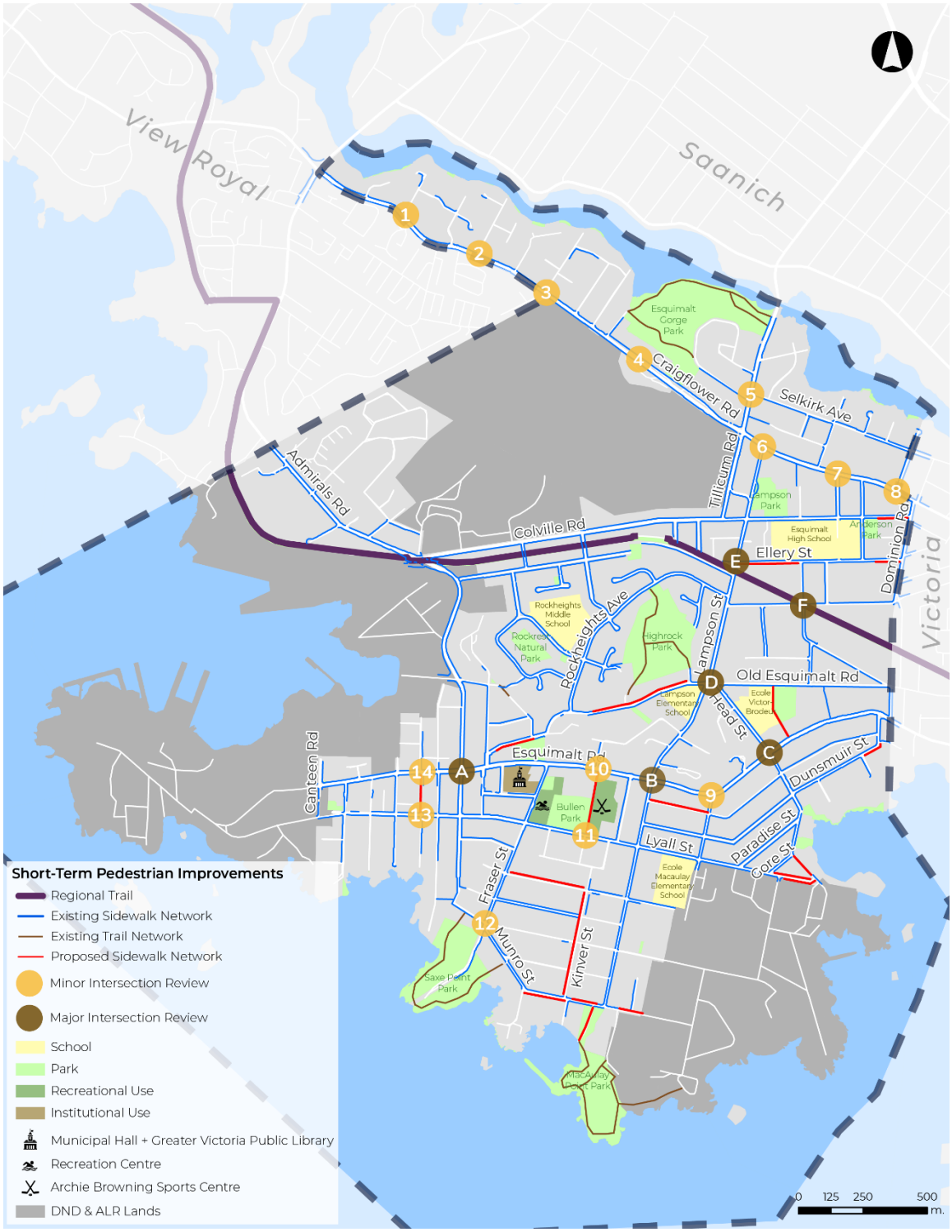
3.1 PEDESTRIAN IMPROVEMENTS

The proposed pedestrian network reflects a detailed analysis of the Township and evaluation of the existing infrastructure, in conjunction with feedback received from residents and stakeholders within Esquimalt. According to ICBC[2], almost four out of five (78%) pedestrian accidents take place at intersections. Based on the fact, it is paramount that intersections are being reviewed to ensure that are safe, comfortable, and accessible for everyone in Esquimalt. The Township should conduct two to three intersection reviews per year over the next five years to determine if changes should be made to improve conditions for people walking and people accessing transit stops.

The short-term pedestrian network identifies the priority sidewalk segments that are missing from Esquimalt's sidewalk network and the intersections that would benefit from a review to ensure that walking and rolling is comfortable, safe and accessible for everyone. The Township should prioritize these improvements over the next five years.

The Township should require buffered sidewalks with redevelopment and capital projects. Sidewalks and ramps should meet or exceed the BC Active Transportation Design Guide recommendations. The long-term (ultimate) pedestrian network, although not presented on a map, is expected to offer sidewalks at least on one side on all roads within Esquimalt.

[2] ICBC (2020). *Facts behind pedestrian crashes infographic*. Available online at: https://www.icbc.com/road-safety/sharing/pedestrian-safety/Pages/pedestrian-infographic.aspx


View Royal
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Lyall St
Dunsmuir St
Paradise St
Gore St
Canteen Rd
Fraser St
Munro St
Kinver St
Rockheights Ave
Lampson St
Head St
Esquimalt Gorge Park
Lampson Park
Esquimalt High School
Anderson Park
Rockheights Middle School
Rockheights Natural Park
Highrock Park
Lampson Elementary School
Ecole Victor-Brodeur
Bullen Park
Ecole Macaulay Elementary School
Saxe Point Park
Macaulay Point Park
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F
Short-Term Pedestrian Improvements
Regional Trail
Existing Sidewalk Network
Existing Trail Network
Proposed Sidewalk Network
Minor Intersection Review
Major Intersection Review
School
Park
Recreational Use
Institutional Use
Municipal Hall + Greater Victoria Public Library
Recreation Centre
Archie Browning Sports Centre
DND & ALR Lands
0 125 250 500
m.

Table 1. Summary of Short-term Pedestrian Intersection Reviews

Map Symbol	Location	Type of Intersection Review	Description
1	Craigflower Rd & Aral Rd	Minor	Many of these locations have been identified to help people cross a busy road to access a transit stop. A minor intersection review could lead to changes related to signage, pavement markings, intersection geometry, vehicle speeds, or a RRFB being installed.
2	Craigflower Rd & Dellwood Rd	Minor	
3	Craigflower Rd & Garthland Rd	Minor	
4	1100 Block @ Craigflower Rd	Minor	
5	Tillicum Rd & Selkirk Ave	Minor	
6	Craigflower Rd & Lampson St	Minor	
7	Craigflower Rd & Phoenix St	Minor	
8	Craigflower Rd & Dominion Rd	Minor	
9	Esquimalt Rd & Macaulay St	Minor	
10	Esquimalt Rd & Esquimalt Plaza	Minor	
11	Lyall St & Heald Ave	Minor	
12	Fraser St & Munro St	Minor	
13	Lyall St & Nelson St	Minor	
14	Esquimalt Rd & Nelson St	Minor	
A	Esquimalt Rd & Admirals Rd	Major	Many of these locations have been identified to help improve comfort, accessibility, and safety of people at major intersections. A major intersection review could lead to changes related to signage, pavement markings, intersection geometry, vehicle speeds, signal phasing, and the elimination of conflicts with other roadway users.
B	Esquimalt Rd & Lampson St	Major	
C	Esquimalt Rd & Head St	Major	
D	Old Esquimalt Rd & Lampson St	Major	
E	Lampson St & Ellery St	Major	
F	Fairview Rd & Devonshire Rd	Major	

3.2 CYCLING IMPROVEMENTS

The proposed cycling network reflects a detailed analysis of the Township and evaluation of the existing infrastructure, in conjunction to feedback received from residents and stakeholders within Esquimalt. The short-term cycling network identifies the priority cycling infrastructure improvements within Esquimalt and the intersections that would benefit from a review to ensure that cycling is comfortable, safe and accessible for everyone.

Much progress has been made in Victoria and Saanich to improve conditions for people cycling in recent years, however gaps remain when people enter Esquimalt. The Township should install a quick-build protected cycling network that aims to connect people on a north-south and an east-west roadway that are already being used and have a high likelihood of even greater ridership when each corridor is improved and connecting to Tillicum Road and Lampson Street is the ideal north-south candidate. This corridor is important as it connects people using the popular E&N Rail Trail to Saanich to the north and to Macaulay Point Park to the south.

The best roadway(s) to improve for people cycling east-west is Esquimalt Road and/or Lyall Street. Both streets are popular with people cycling but lack the width to have protected bike lanes without removing on-street parking or travel lanes. Given these challenges, a few viable options are possible, including:

- **Protected Cycling Couplet on Esquimalt Road and Lyall Street** - This option seeks to balance the needs of cyclists, residents, businesses along both corridors by consolidating on-street parking onto one side of each roadway. If parking can be consolidated on Lyall Street, an eastbound protected bike lane could be installed where the parking used to be without having to widen the roadway. To accommodate a westbound protected bike lane, the existing westbound bike lane on Esquimalt Road could become protected if parking is consolidated onto the south side. This option otherwise maintains vehicle access and operations.
- **Protected Bike Lanes on Esquimalt Road** – This option aims to improve the existing bike lanes by making them protected, while maintaining travel lanes in each direction for vehicles. Removal of on-street parking on both sides or

removal of the median/left turn lane would be required to make this option feasible.

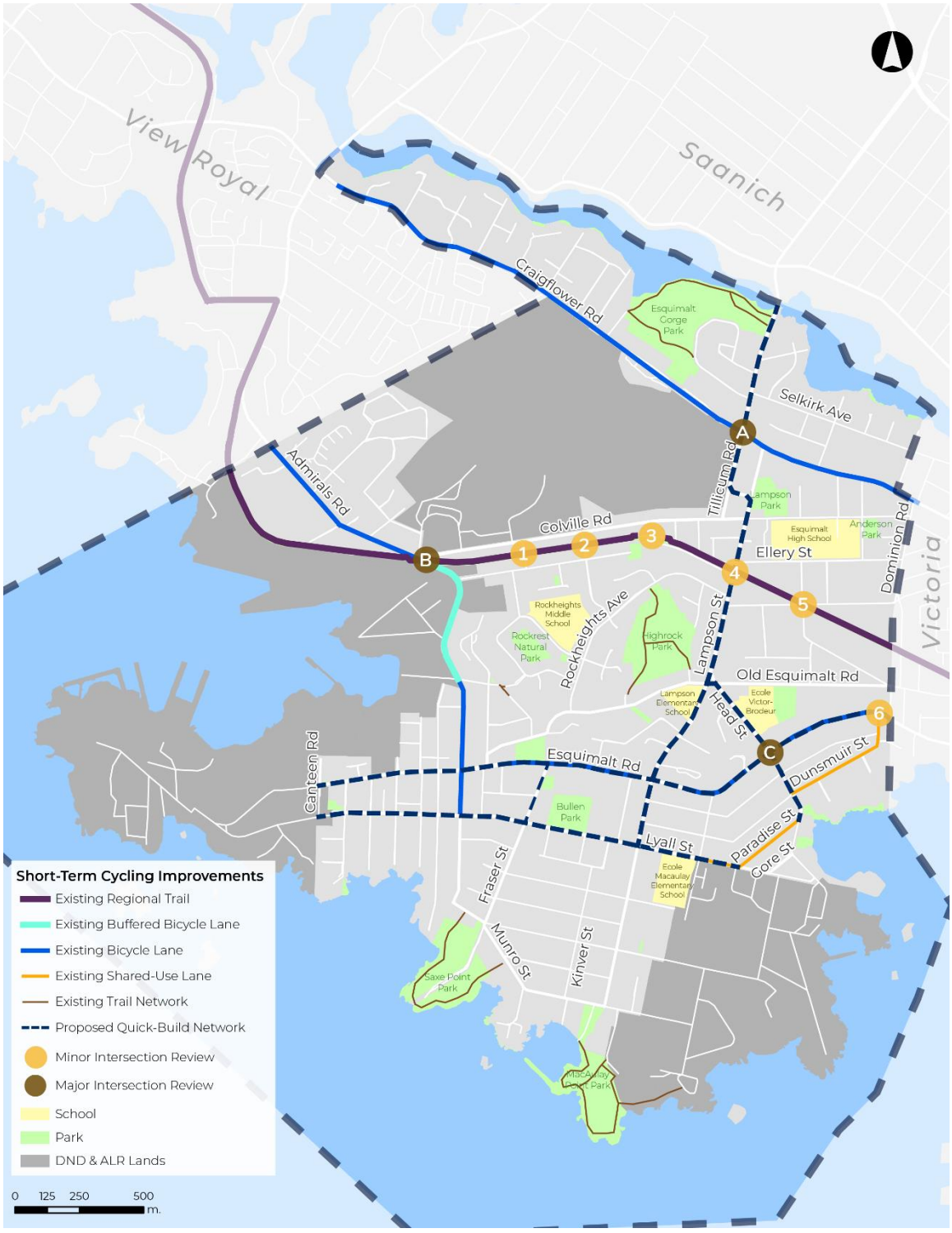
- **Convert Lyall Street to a Local Street Bikeway** – This option maintains on-street parking on both sides and requires people cycling to share the road with people driving. Portions of Lyall Street has more than 4,000 cars per day on it and generally it is not acceptable to have people cycling share lanes with people driving. To make this an All Ages and Abilities route for people cycling several changes are required. First, Lyall Street should be reclassified from Residential Collector to Local Street. Second, the posted speed limit should be lowered to 30 km/h to ensure that people driving are not traveling much faster than someone cycling. Third, through moving traffic including goods movement and transit should be diverted to other corridors. The BC Active Transportation Guide recommends vehicle volumes be between 500 and 1,000 per day for local street bikeways. Therefore, a host of traffic calming devices and diverters would have to be installed that allow local traffic but detour through movements.

It should be noted that the Township has previously considered cycling accommodation on Lyall Street and was hesitant to remove on-street parking. However, parking demand or utilization is understood to be low to moderate given the presence of many driveways. Side streets could also be used for additional parking. Piloting the first or third option with temporary treatments may be a way to move forward without locking into to a permanent solution. The second survey for this plan could be used to gauge community interest on any of the options.

Additional segments on Head Street and Fraser Street should have protected bike lanes to further connect people cycling. The Township should prioritize these improvements over the next five years and consider installing the east-west and north-south corridors at the same time for maximum benefit and to reduce costs.

The Township should require protected bike lanes or paths with redevelopment and capital projects on all Major Roads and separation from traffic on Local Collectors. Cycling infrastructure should meet or exceed the BC Active Transportation Design Guide recommendations which uses vehicle speed and volumes as the main determining factor.

Examples of quick-build cycling facilities in Vancouver (above) and in Calgary (below).


View Royal
Saanich
Victoria
Craigflower Rd
Esquimalt Gorge Park
Selkirk Ave
Admirals Rd
Tillicum Rd
Lampson Park
Colville Rd
Esquimalt High School
Anderson Park
Dominion Rd
Ellery St
Rockheights Middle School
Rockrest Natural Park
Rockheights Ave
Highrock Park
Lampson St
Old Esquimalt Rd
Lampson Elementary School
Ecole Victor-Brodeur
Head St
Canteen Rd
Esquimalt Rd
Dunsmuir St
Bullen Park
Lyall St
Paradise St
Gore St
Ecole Macaulay Elementary School
Fraser St
Munro St
Kinver St
Saxe Point Park
Macaulay Point Park
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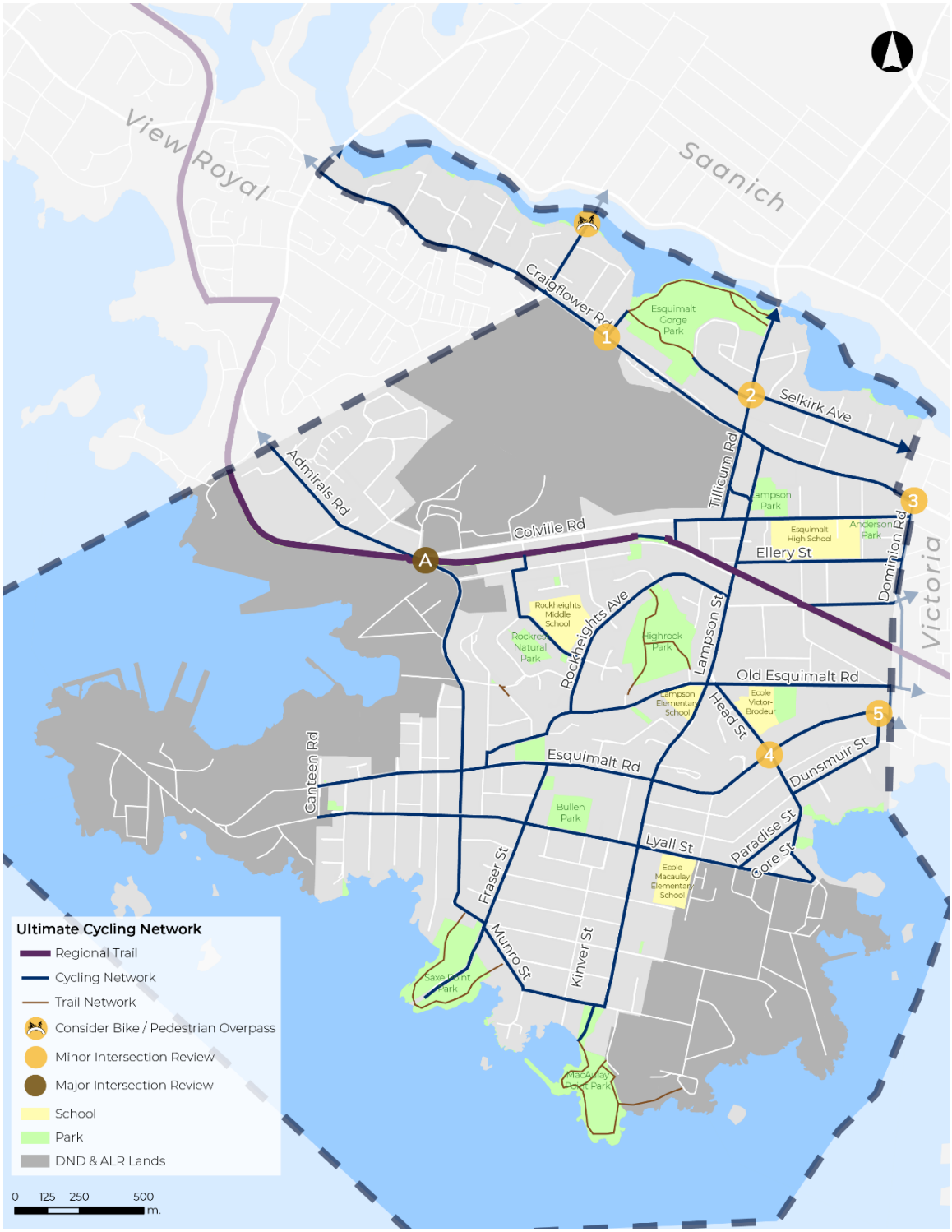
Short-Term Cycling Improvements
Existing Regional Trail
Existing Buffered Bicycle Lane
Existing Bicycle Lane
Existing Shared-Use Lane
Existing Trail Network
Proposed Quick-Build Network
Minor Intersection Review
Major Intersection Review
School
Park
DND & ALR Lands
0 125 250 500
m.

Table 2. Summary of Short-term Cycling Intersection Reviews

Map Symbol	Location	Type of Intersection Review	Description
1	E&N Rail Trail & Intervale Ave	Minor	Review the on-street segment of the E&N Rail Trail to improve access, visibility, and wayfinding
2	E&N Rail Trail & Hutchinson Ave	Minor	
3	E&N Rail Trail & Macleod Ave	Minor	
4	E&N Rail Trail & Lampson St	Minor	Review intersection to improve the transition for cyclists connecting between two bikeways
5	Fairview Rd & Devonshire Rd	Minor	
6	Esquimalt Rd & Dunsmuir St	Minor	
A	Craigflower Rd & Tillicum Rd	Major	Review the intersection to improve the transition for cyclists connecting between the existing bikeway on Craigflower Rd with the planned one on Tillicum Rd. A protected intersection should be considered.
B	Admirals Rd & Colville Rd	Major	Review the intersection and consider cross-ride and conflict green pavement markings, and wayfinding to assist with people crossing a complicated intersection with freight rails running diagonal across it.
C	Esquimalt Rd & Head St	Major	Review the intersection to improve the transition for cyclists connecting between the existing bikeway on Esquimalt Rd with the planned one on Head Street.


View Royal
Saanich
Victoria
Craigflower Rd
Admirals Rd
Colville Rd
Selkirk Ave
Tillicum Rd
Dominion Rd
Ellery St
Old Esquimalt Rd
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Lyall St
Rockheights Ave
Lampson St
Head St
Dunsmuir St
Paradise St
Gore St
Fraser St
Munro St
Kinver St
Canteen Rd
Esquimalt Gorge Park
Lampson Park
Esquimalt High School
Anderson Park
Rockheights Middle School
Rockrest Natural Park
Highrock Park
Lampson Elementary School
Ecole Victor-Brodeur
Bullen Park
Ecole Macaulay Elementary School
Saxe Point Park
Macaulay Point Park
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A
Ultimate Cycling Network
Regional Trail
Cycling Network
Trail Network
Consider Bike / Pedestrian Overpass
Minor Intersection Review
Major Intersection Review
School
Park
DND & ALR Lands
0 125 250 500
m.

Table 3. Summary of Long-term Cycling Intersection Reviews

Map Symbol	Location	Type of Intersection Review	Description
1	Craigflower Rd & Sioux Pl	Minor	Many of these locations have been identified to help people cross a busy road on the existing E&N Rail Trail or to transition from one bikeway to another. An intersection review could lead to changes related to signage, pavement markings (installation of cross-ride pavement markings), signalization, geometry, vehicle speeds, or signal phasing changes.
2	Tillicum Rd & Selkirk Ave	Minor	
3	Craigflower Rd & Dominion Rd	Minor	
4	Esquimalt Rd & Head St	Minor	
5	Esquimalt Rd & Dunsmuir St	Minor	
A	Admirals Rd & Colville Rd	Major	Monitor short-term improvements to see if crashes or conflicts with the rails are still occurring.

4.0 KEY RECOMMENDATIONS

4.1 QUICK-BUILD CYCLING NETWORK WITH EAST-WEST & NORTH-SOUTH SPINES

One of the big moves that will form the backbone of this plan is the introduction of a quick-build cycling network. Quick-build networks have many advantages over longer term full buildouts, one of them being that they do not need to remove existing infrastructure or change the current layout of the streetscape, but rather adapt it to a new cross section. As an example, the City of Calgary constructed 6.5 km of quick-build cycling facilities in 2015 as part of a two year pilot project. The pilot enabled the Calgary to move quickly to install inexpensive, comfortable, protected facilities on three corridors to encourage more people to cycle, adjust elements of the design on the fly based on feedback, and prove their worth before deciding if each corridor holistically worked. Calgary's network led to a doubling of cycling trips into the downtown and inspired many other communities to quick-build networks at once.

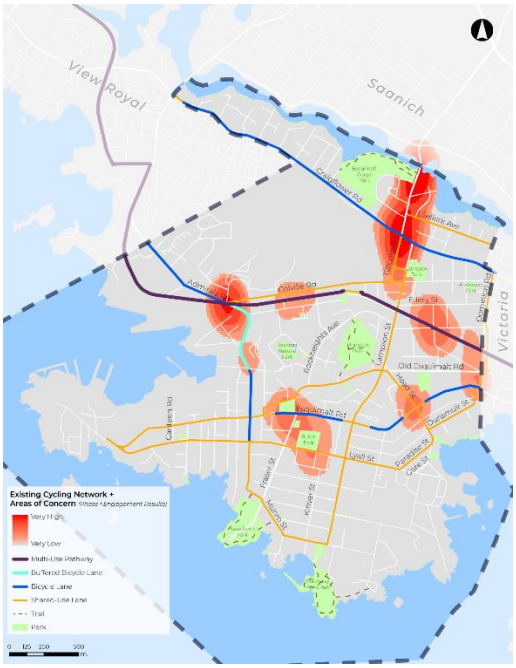
Example of a quick-build cycling facility in Agnes street (New Westminster, BC). This is one of the many projects that have been implemented in the last couple years offering flexibility and adaptability to municipalities and ultimately a cost-effective way to test the appropriate streetscape configuration.

4.1.1 NORTH-SOUTH SPINE

One thing became clear from engaging with the public, Esquimalt residents and visitors, broadly speaking, do not feel comfortable riding in bike facilities next to motor vehicle traffic, especially on Major Roads. Tillicum was referenced the most when it comes to lack of comfort while cycling. An upgrade to the Tillicum-Lampson corridor would offer a great option for north-south traveling connecting major key destinations across the Township. This is also aligned with the recent upgrade along the Tillicum bridge, where

during construction, a quick-build installation provided a sidewalk in lieu of a vehicle lane on the southbound side.

The type of infrastructure would change along the corridor as there are significant changes in character and context that take place. One of the key aspects of this corridor is to provide a seamless and safe transition from the Tillicum bridge, which will allow connections to Saanich. The type of infrastructure would be protected bicycle lanes (either uni-directional or bi-directional facilities). The provision of protected bike lanes until Lyall Street are considered appropriate. Given that Lampson Street has sections with a narrow right of way, alternatives such as lowering vehicle speeds and traffic calming/diversion may need to be considered between Lyall Street and MacAulay Point Park.



Areas of concern as they were highlighted by participants of the online interactive mapping tool. Tillicum Road received the most pins.

4.1.2 EAST-WEST SPINE

Esquimalt Road is undoubtedly one of the key east-west spines in Esquimalt and attracts a significant number of bicycle trips. Based on what we heard from the public, Esquimalt Road and Lyall Street are one of the most uncomfortable corridors to ride a bicycle. Given that Esquimalt Road and Lyall Street have a significant demand for both active transportation and vehicular traffic, a number of options were reviewed taking into consideration the constraints on these corridors (e.g., limited right of way, constraints with parking and loading demand for businesses, traffic operations). As mentioned earlier (Section 3.2) some of the options being recommended are:

- Protected Cycling Couplet on Esquimalt Road and Lyall Street
- Protected Bike Lanes on Esquimalt Road
- Convert Lyall Street to a Local Street Bikeway

The first and second option are best suited to be installed with temporary quick-build infrastructure. The Township could pilot these options and adjust before constructing more permanent infrastructure.

4.2 ULTIMATE CYCLING NETWORK

The ultimate cycling network is intended to provide more separation and protection from motor vehicles. Taking a holistic approach in designing this network, it is anticipated that cycling will become significantly more comfortable and safer for people living in Esquimalt but also visiting the Township. The ultimate network takes into account various factors (i.e., traffic volumes, motor vehicle speeds, right of way, cycling incidents, engagement feedback, access to key destinations) to ensure its success and receive the most uptake. This network is intended to attract not only people already riding a bicycle, but also residents who are interested but have safety concerns. In addition, consideration has been given to allow a variety of micromobility vehicles to reach all destinations within Esquimalt and beyond. Micromobility is an emerging trend in British Columbia. Expanding the use of these vehicles such as e-scooters, e-bikes and cargo bikes is part of the Provinces Active Transportation Strategy. Several jurisdictions are participating in a pilot to allow e-scooters on street. While this network is aspirational and sets the foundation for a long-term plan for the Township. Esquimalt can leverage on that and start building the network as opportunities arise, for instance requiring from future developments to contribute to the implementation of this network or whenever grants become available to help fund some of these corridors.

Vancouver's cycling infrastructure is used by many types of micromobility vehicles

4.3 PEDESTRIAN IMPROVEMENTS

Esquimalt has been making progress towards becoming a highly walkable community with extensive sidewalk coverage and a number of RRFB crossing beacons. All of the Major Roads have sidewalks on both sides including Esquimalt Road, Lampson Street, and Admirals Road, among others. Most of the Residential Collectors have a sidewalk on at least one side including Colville Road and Ellery Street, for example. However, the Township should aim to provide, at minimum, sidewalks at least on one side on all roads within Esquimalt.

In addition, based on feedback received from the community, technical analysis on the existing infrastructure, and relevant research outlined in Section 3.1, it is paramount that intersections are being reviewed to ensure that are safe, comfortable, and accessible for everyone in Esquimalt. A total of 14 minor and 6 major intersection reviews are identified for the Township. These reviews aim to determine if changes should be made to improve conditions for people walking and people accessing transit stops and should be completed within the next five years.

4.4 IMPROVEMENTS WITH NEW DEVELOPMENTS

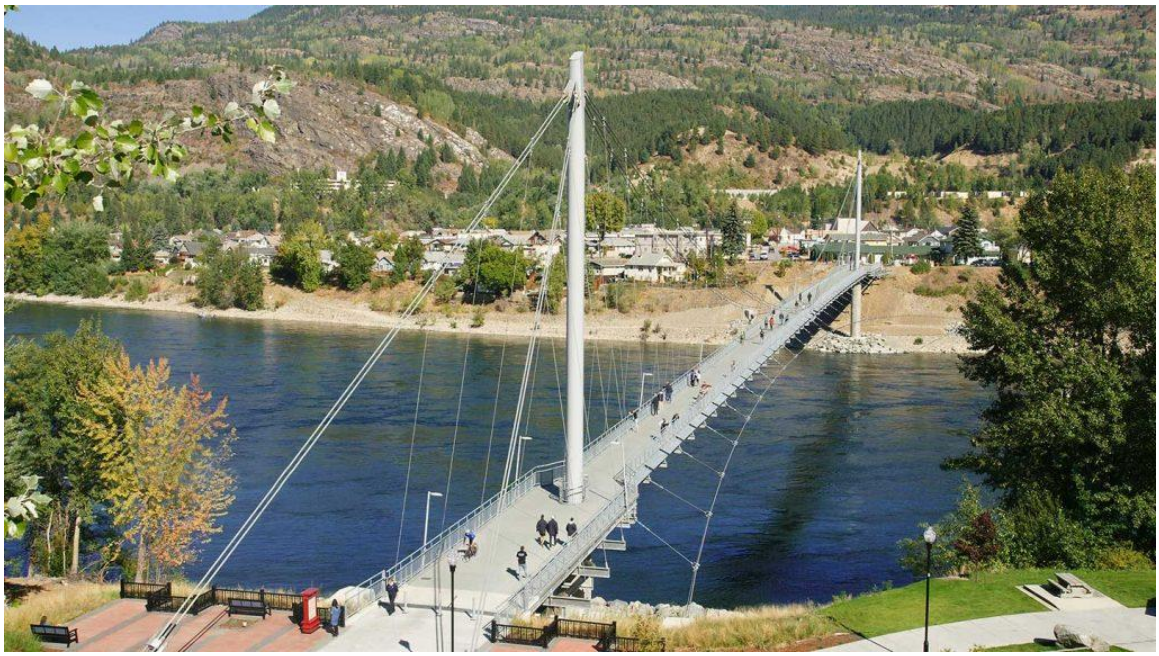
The Township should require buffered sidewalks, and protected bike lanes or paths with redevelopment and capital projects on all Major Roads and Local Collectors. Pedestrian and cycling infrastructure should meet or exceed the BC Active Transportation Design Guide recommendations which uses vehicle speed and volumes as the main determining factor.

4.5 REGIONAL CONNECTIONS

Building on the recent successful partnership of Esquimalt and Saanich to improve the active transportation infrastructure along the Tillicum Bridge, the two municipalities should consider an additional active transportation connection between the Tillicum Bridge and the Craigflower Bridge. Currently, the two bridges are 1.8 km apart as the crow flies, which is too far based on best practice. The CROW Design Manual recommends network spacing of 300 to 500m for cycling to flourish in built-up areas.

To encourage more active transportation trips and recreational trips by foot, a new pedestrian (and cycling) crossing of the Gorge should connect Esquimalt to Saanich. The introduction of a bridge that will be accessible to people walking, rolling, and cycling will boost active transportation connections, improve regional connections, enhance walkability for the community, and ultimately support recreation and a more active lifestyle. Saanich first identified a crossing in their 2018 Active Transportation Plan that is halfway between the existing bridges between Dysart Road in Saanich and Garthland Road in Esquimalt.

The recommended north-south cycling spine will connect to improvements that Saanich has made on Tillicum Road at the Gorge Bridge. The recommended east-west cycling spine will connect to improvements that the City of Victoria is making that connect with Esquimalt Road.

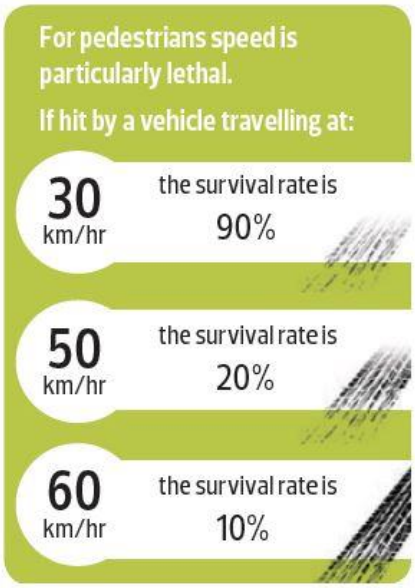


The Columbia River Skywalk links the communities of East and West Trail, BC and is one of the longest suspension bridges of its kind in North America. A 3.6m-wide walkway is accessed by two landscaped approaches featuring benches, information kiosks and viewing points. It is illuminated and intended for pedestrians, cyclists, scooters and others.

4.6 SPEED REDUCTION

Vehicle speeds provide valuable context for active transportation planning. Speeds are a major factor in creating a pedestrian and bike friendly environment. Even though vehicle speed does not always cause crashes, it usually determines the severity of a crash. A small difference in speed can mean the difference between life and death, especially for pedestrians, motorcyclists, and cyclists.[3]

[3] City of Edmonton. (No date). Safe Roads. Available online at: https://tinyurl.com/yyvpb6dd



Source: City of Edmonton

Several jurisdictions across Canada are considering lowering their posted speed limits as part of their 'Vision Zero' initiatives and active transportation planning. Locally, the District of Saanich is leading a regional initiative with several other Capital Region municipalities (including the Township) that would set the default speed limit to 30 km/h on streets without a continuous yellow centreline. If the application for a 3-year pilot project is successful, this initiative would be implemented in Summer/Fall of 2021.[4] Reducing default speed limits can lower vehicle operating speeds, improve road safety, and improve neighbourhood livability.

The BC Active Transportation Design Guide indicates that motor vehicle speeds and volumes are the most important considerations in selecting the appropriate bicycle facility type. Vehicles speed also impact the pedestrian experience including safety issues when crossing a road along with general discomfort if there is little buffer separating the sidewalk from the road.

The Township collected vehicle speed data in 2020 as part of its traffic count program. Data were collected at 33 locations in the municipality. The recorded speed for most of the locations was observed to be in compliance with the posted speed limit. **Table 4** presents a summary of the locations where the 85th percentile speed was greater than the posted speed limit. As the data show, vehicles are travelling only slightly higher than the posted speed limit on the Major Roads; however, the exception is Craigflower Road where the 85th percentile speed is 56-60 km/h, well above the 40 km/h posted speed

[4] District of Saanich. (No date). Speed Limit Reduction Pilot. Available online at: https://tinyurl.com/yxf9vqul

limit. Further, some of the Residential Collectors including Colville Road and Lyall Street also see vehicles not complying with the posted speed limit.

Table 4. Summary of Vehicle Speeding in the Township[5]

Road Segment	Posted Speed Limit	Average Daily Traffic	Recorded Speed	
			Average	85th Percentile
Major Roads				
Craigflower Road *(West of Tillicum Rd)*	40 km/h	15,531	46-50 km/h	51-55 km/h
Esquimalt Road *(East of Macauley St)*	50 km/h	13,212	36-40 km/h	46-50 km/h
Lampson Street *(South of Devonshire Rd)*	50 km/h	12,604	36-40 km/h	46-50km/h
Tillicum Road *(North of Transfer St)*	50 km/h	18,092	46-50 km/h	51-55 km/h
Residential Collectors				
Colville Road *(East of Naden St)*	40 km/h	3,927	46-50 km/h	51-55 km/h
Lyall Street *(West of Swinford St)*	30 km/h	3,272	31-35 km/h	36-40 km/h
Local Roads				
Viewfield Road *(West of Old Esquimalt Rd)*	50 km/h	3.947	36-40 km/h	46-50 km/h

[5] This includes 2018 and 2020 data.

5.0 NEXT STEPS

The ATNP's next steps will be shaped by Council's feedback and the community engagement scheduled in Fall 2021. In the meantime, the project team will continue to draft the plan and prepare the engagement materials for Round 2 of the engagement process. Once the engagement feedback is summarized and incorporated in the report, the final plan will be presented to Council. Based on the feedback received at that time, the ATNP will be finalized and will identify priority actions for achieving the vision and goals by establishing specific action steps for implementation.