

District of Hope

Integrated Transportation Master Plan

February 2025



Territorial Acknowledgement

The District of Hope (District) is located on the eastern end of the Fraser Valley and the southern end of the Fraser Canyon and is a natural gateway between the Lower Mainland and the Okanagan / Interior regions of the province, which is the traditional, ancestral and unceded territories of the Stó:lō people, particularly the Chawathil, Union Bar and Yale First Nations.

Report for

District of Hope

325 Wallace Street
Hope, BC V0X 1L0

Prepared by



TRUE Consulting

2089 Falcon Road
Kamloops BC, V2C 4J2



Liam Baker, P. Eng.
Project Engineer

A handwritten signature in black ink that reads "Sydney Emerson".

Sydney Emerson, P. Eng.
Project Engineer

Table of Contents

1.0 Introduction 1

- 1.1 Purpose of the Plan 2
- 1.2 ITMP Roadmap 2
- 1.3 Community Engagement 4

2.0 Community Context 5

- 2.1 Transportation Overview 6
- 2.2 Community Demographics 7
- 2.3 Geography and Land Use 9
- 2.4 Policy Context 10
- 2.5 Plan and Policy Integration 10

3.0 Vision and Goals 12

- 3.1 Vision 13
- 3.2 Goals and Objectives 14
- 3.3 Mobility Targets 17

4.0 Existing Road Network 19

- 4.1 Road Network Classification 20
- 4.2 Road Cross Sections 25
- 4.3 Urban vs Rural Road Forms 27
- 4.4 Network Capacity 27
- 4.5 Road Safety 30

5.0 Future Road Network 35

- 5.1 Forecast and Modelling 36
- 5.2 Network Capacity 36
- 5.3 Recommended Actions 40

6.0 Active Transportation and Transit 58

- 6.1 Existing Active Transportation Network 59
- 6.2 Existing Public Transit 67

6.3 Future Active Transportation Network 69

6.4 Future Transit Network 79

7.0 Plan Implementation 80

7.1 Previous Transportation Initiatives 81

7.2 Active Transportation Improvements Prioritization 81

7.3 Recommended Projects and Studies 82

7.4 Recommended Network Wide Considerations 85

7.5 Cost Estimates 87

7.6 Funding Strategy 87

7.7 Progress Tracking Strategy 90

Appendices

Appendix A: What We Heard

Appendix B: Reference Document Overview

Appendix C: Project Priority and Cost Tables

Appendix D: Road Network Analysis Study (Watt)

Appendix E: Land Use Maps (From IOCP)

List of Tables

Table 3-1 ITMP Goals and Objectives.....	15
Table 4-1 Level of Service Criteria.....	28
Table 4-2 Highest Collision Frequency Locations in Hope.....	34
Table 5-1 Proposed Road Classification Changes.....	45
Table 5-2 Wallace Street and 6 th Ave Corridor Safety Reviews	53
Table 7-1 Neighbourhood Road Extension and Intersection Improvement Projects	83
Table 7-2 Recommended Safety Studies	84
Table 7-3 Active Transportation Infrastructure Cost Estimates Guidance.....	87
Table 7-4 ITMP Project Funding Sources.....	88

List of Figures

Figure 1-1 ITMP Development Process	3
Figure 2-1 Age Distribution, 2021 Census.....	7
Figure 2-2 Commuting Duration, 2021 Census	8
Figure 2-3 Mode Share, 2021 Census	8
Figure 3-1 ITMP Vision Statement.....	13
Figure 3-2 2040 Mobility Target.....	17
Figure 4-1 Existing Road Network Classifications	22
Figure 4-2 Existing Road Network Classification - Downtown	23
Figure 4-3 Existing Road Network Classification - Silver Creek	24
Figure 4-4 Urban Cul-de-Sac or 'P' Loop Road (SDR-1).....	25
Figure 4-5 Urban Limited Local (SDR-2).....	26
Figure 4-6 Urban Through Local (SDR-3).....	26
Figure 4-7 Urban Collector (SDR-4).....	27
Figure 4-8 Existing Average Daily Traffic in Hope.....	29
Figure 4-9 Collision Analysis.....	31
Figure 4-10 Collision Analysis - Downtown.....	32
Figure 4-11 Collision Analysis - Silver Creek	33
Figure 5-1 2028 Average Daily Traffic in Hope.....	37
Figure 5-2 2038 Average Daily Traffic in Hope.....	38
Figure 5-3 Future Road Network Classifications	42
Figure 5-4 Future Road Classifications - Downtown	43
Figure 5-5 Future Road Classifications	44
Figure 5-6 Urban/Rural Standard	47
Figure 5-7 Urban/Rural Standard - Downtown.....	48
Figure 5-8 Urban/Rural Standard - Silver Creek.....	49

Figure 5-9 Rural Local Cross Section.....	50
Figure 5-10 Urban Local Cross Section.....	51
Figure 5-11 Rural Collector Cross Section.....	51
Figure 5-12 Urban Collector Cross Section.....	52
Figure 5-13 Arterial Cross Section.....	52
Figure 5-14 Road Network Improvements and Extensions.....	55
Figure 5-15 Road Network Improvements - Downtown.....	56
Figure 5-16 Road Network Improvements - Silver Creek.....	57
Figure 6-1 Lack of Pedestrian Crossings in Kawkawa Lake Area.....	60
Figure 6-2 Inadequate Width of Pedestrian Shoulder.....	60
Figure 6-3 Lack of Delineation for Cyclists.....	61
Figure 6-4 Lack of Trail Integration and Connection.....	62
Figure 6-5 Existing Pedestrian Network.....	64
Figure 6-6 Existing Pedestrian Network - Downtown.....	65
Figure 6-7 Existing Pedestrian Network - Silver Creek.....	66
Figure 6-8 BC Transit Map for Hope.....	68
Figure 6-9: Future Pedestrian Network.....	70
Figure 6-10 Future Pedestrian Network - Downtown.....	71
Figure 6-11 Future Pedestrian Network - Silver Creek.....	72
Figure 6-12 Future Cycling Network.....	73
Figure 6-13 Future Cycling Network - Downtown.....	74
Figure 6-14 Future Cycling Network - Silver Creek.....	75
Figure 6-15 Trails and Pathways.....	76
Figure 6-16 Trails and Pathways - Downtown.....	77
Figure 6-17 Trails and Pathways - Silver Creek.....	78



Executive Summary

The District of Hope has undertaken the development of an Integrated Transportation Master Plan (ITMP) as a part of their overall master planning process. This ITMP creates the framework for a balanced mobility network by reviewing the existing transportation network and establishing long-term goals. Through the development and implementation of the ITMP, the District of Hope will be able to achieve or supplement the transportation related goals that are outlined in the Integrated Official Community Plan (IOCP).

The ITMP formulates two mobility targets:

1. To increase the number of trips made via sustainable transportation by 50% before 2040; and
2. To provide a sustainable transportation network that fully connects the community through walkable and bikeable infrastructure by 2040.

The ITMP reviews the road network with respect to overall capacity to accommodate growth in the medium and long-term, and existing active transportation networks to identify gaps and opportunities for the implementation of pedestrian and cycling facilities.

The road network capacity evaluation identified that the District's network currently performs well, with suitable levels-of-service throughout and limited traffic delays. Similarly, under future conditions based on current growth projections, no significant road network improvements are expected to be required. One intersection, at 6th Avenue and Corbett Street / Kawawa Lake Road, will see an incremental reduction in level-of-service over time, and will merit consideration for an intersection improvement close to the 15-year horizon.

Transportation safety throughout the District was evaluated through detailed reviews of intersections, roadways and ICBC collision data collected from the last ten years. The six intersections with the highest number of collisions are along the 6th Avenue and Wallace Street corridors, and as such two corridor safety studies are recommended to determine the overall scope of safety improvements required.

The existing and intended functionality of the District's road network was reviewed in the context of the following parameters, which were used to inform proposed road classification changes.

- Expected traffic volume;
- Traffic service and land access function;
- Predominant vehicle type (heavy vehicles and trucks vs. passenger vehicle);
- Operation and maintenance priority;
- On-street parking needs;
- Future active transportation needs.

Some roadways have been reclassified accordingly and will be brought up to their new standard as opportunities allow.

Given the overall resiliency of the road network, there is an opportunity for the District to focus on active transportation and transit improvements to meet the identified targets. Outside of the downtown core of the District, which features pedestrian infrastructure, much of the municipality is made up of rural road forms that lack active transportation infrastructure. Given that active transportation has historically not been a focus, many areas do not have pedestrian or cycling facilities.

In line with the objectives set out in the IOCP and the ITMP, there is a need to improve overall active transportation infrastructure to facilitate walking and cycling as a primary travel mode.

Projects have been proposed and prioritized to improve connectivity, gaps in the network and provide infrastructure where there is a strong potential for pedestrians and cyclists. In total, 48 active transportation projects were identified with a total length of 21 kilometres. The projects range from approximately \$100,000 to \$3 million, and have been ranked low, medium or high priority. The overall intent of the project list is to facilitate intentional and structured planning of capital works, as well as prioritize developer-led offsite upgrades to continually build the active transportation network in Hope. The addition of infrastructure will contribute to meeting the overall targets in the ITMP.

General intersection and road upgrade needs have also been identified at 15 locations. Studies have been identified to further scope transportation improvements. These include:

- Pedestrian Crossing Control Program and Study;
- Intersection Improvement and Safety Assessment Study;
- Wallace Street Corridor Safety Assessment;
- 6th Avenue Corridor Safety Assessment;
- Ministry of Transportation - District of Hope Interface Transportation Needs Study.

Implementation of proposed upgrades requires funding and intentional focus. Potential funding sources have been identified, and include:

- Capital Funding from Taxation;
- Development Cost Charges (DCCs);
- Developer Contributions and Latecomers Agreements;
- Grant Funding;
- MoTI Cost Sharing.

The overall project list will enable the District to prioritize projects based on the above available funding, as well as target grant funding programs. Given MoTI's overall importance as a District partner, continual communication with MoTI staff will be important for project efficiency.

Finally, the projects and targets outlined in the ITMP will be monitored to determine overall success. The following items are recommended to be reviewed annually in coordination with updates to the 5-year capital plan:

- Update overall list with completed projects and synchronize asset management GIS data;
- Cross-reference recent development with the population assumptions in the ITMP and actual density increases;

- Review study efforts currently underway or recently completed, and update project list with new projects and priorities;
- Grant funding applied for and received;
- Engagement with other interest groups such as MoTI to determine their priorities and needs.
- Review BC Transit ridership trends and rides/hour data.

Data collection can assist the District in understanding how the goals and objectives of the ITMP are being met. It is recommended that tracking mode share via surveys and in-field counts be completed regularly and that every 5 years the following be undertaken:

- Complete traffic counts at the key intersections identified herein;
- Update MoTI traffic volumes via access to their count data;
- Update the District-wide model with the above counts such that any capacity upgrade needs can be refined, and the assumptions and results of the ITMP confirmed;
- Complete pedestrian and cyclist counts at key areas around the municipality as active transportation projects are completed, to quantify overall mode shifts. This will help track progress towards the District's overall goal of increasing sustainable travel modes by 50% by 2040;
- Re-issue public engagement surveys to update overall mode shift trends;
- Engage in BC Transit's Transit Future Action Plan updates as they occur.



1.0 Introduction

The District of Hope is committed to establishing a safer and more connected transportation network. The Integrated Transportation Master Plan (ITMP) considers the transportation network and active transportation network together to provide a complete assessment of transportation in Hope. The ITMP will provide guidance for future planning documents and assist in capital planning.

1.1 Purpose of the Plan

The District of Hope has undertaken the development of an Integrated Transportation Master Plan as a part of their overall master planning process. This ITMP creates the framework for a balanced mobility network by reviewing the existing transportation network and establishing long-term goals.

The ITMP is being undertaken to assess and develop the strong internal and regional links that will connect people to jobs, shops, services, healthcare, and education by providing a strong transportation network for people of all ages, abilities, and incomes with safe, accessible, and convenient travel choices. These links will provide options for active and shared transportation which can benefit community health and well-being by supporting physical activity, improving access to services and amenities, and reducing social isolation.

Through the development and implementation of the ITMP, the District of Hope will be able to achieve or supplement the transportation related goals that are outlined in the Integrated Official Community Plan (IOCP).

1.2 ITMP Roadmap

Over the past 18 months, the District has worked through a three phase technical, planning, and engagement process to facilitate the development of a comprehensive plan that will serve as an overall guide for the planning and implementation of transportation infrastructure improvements in the District of Hope for the next 15 to 20 years. The three phases, described further herein, include defining the plan goals and vision, development of the plan itself, and identifying an implementation strategy.

Phase 1 – Defining Goals and Vision

Phase 1 involved developing the goals and vision for the plan that was built on the direction outlined by the Integrated Official Community Plan, as well as direction from key interest groups regarding the barriers and challenges that were faced within the existing network.

Phase 2 – Plan Development

Phase 2 involved evaluating the community growth scenario as outlined by the IOCP through traffic analyses, data collection, network gap analysis, and user needs. These findings were then refined and the draft ITMP was developed outlining the future infrastructure needs, priorities, and costs.

Phase 3 – Plan Finalization and Implementation

The final phase involved reviewing the plan with Mayor and Council and soliciting feedback on proposed network improvements, network priorities and budget. The implementation strategy identifies the process for prioritizing and moving forward with recommendations arising from the plan.

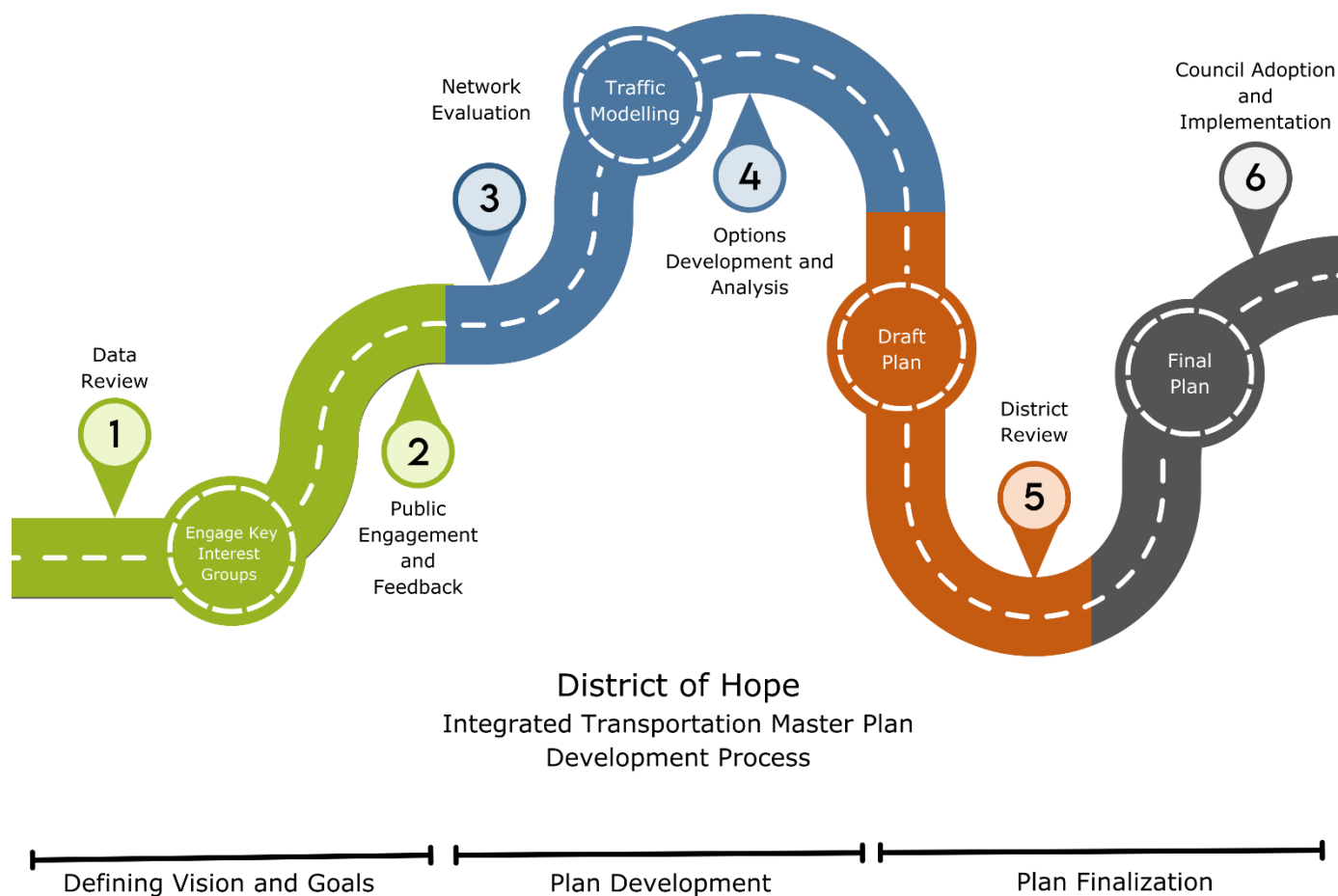


Figure 1-1 ITMP Development Process

1.3 Community Engagement

Throughout the development of the ITMP, the municipal staff and consulting team undertook strategic public and key interest group engagement to provide an overview of existing conditions, as well as identify any challenges or barriers with the transportation network. The purpose of the first phase of consultation was to help identify barriers, gaps and/or issues within the District of Hope transportation network.

Initial community engagement for the ITMP was split into two groups:

1. General Public (Residents)
2. Key Interest Groups

The public was consulted at an information session and invited to contribute to an online survey. The results are included in the *What We Heard* report found in Appendix A.

In addition to the public, the following key interest groups were contacted:

- BC Ministry of Transportation and Infrastructure (BC MoTI)
- ICBC
- CNIB
- Fraser Health Authority
- Fraser Valley Regional District
- School District No. 78
- CN Rail
- CP Rail
- BC Transit
- Fortis
- BC Hydro
- Enbridge
- Trans Mountain Canada Inc.
- Advantage Hope
- Hope Chamber of Commerce
- Hope Mountain Center for Outdoor Learning
- Hope & Area Transition Society

In addition, the following First Nations communities were contacted:

- Yale First Nation
- Chawathil First Nation
- Union Bar First Nation
- Shxw'ow'hamel First Nation
- Skawahlook First Nation
- Peters First Nation

Finally, District Mayor and Council and staff were invited to provide feedback, including emergency services, the Fire Chief, and planning staff.



2.0 Community Context

The District of Hope has historically operated as a resource-focused community relying on forestry, transportation and mining and is transitioning its focus to a service-based economy. Hope aims to be an inviting place for young families and retirees, with opportunities for outdoor recreation and tourism.

The community is comprised of five regions including the Hope Townsite and the surrounding areas of Kawkawa Lake, Silver Creek, Floods, and Schkam Lake (Lake of the Woods). The transportation networks (both vehicular and active modes) have developed and evolved organically as amalgamation and development of new areas has occurred over time. The roads, trails and pathways that connect destinations within Hope and elsewhere in the region are critical to the District's social and economic success.

2.1 Transportation Overview

The community of Hope is a vital economic link and is located at a junction of four major highways; BC highways 1, 3, 5 and 7. Both the Canadian Pacific (CP) and Canadian National (CN) railways are routed through Hope and play an important role in the transportation network. These road and rail corridors are important for goods movement and are critical economic linkages that support local business.

Beyond the importance of the highways travelling through the community, several District roadways serve as important transportation connections, including:

- Flood Hope Road, connecting central Hope to both Silver Creek and the Floods industrial area;
- Kawkawa Lake Road, connecting central Hope to Kawkawa Lake;
- 6th Avenue;
- 3rd Avenue;
- Wallace Street;
- Coquihalla Street.

2.2 Community Demographics

Hope is a member of the Fraser Valley Regional District (FVRD), along with Abbotsford, Mission, Chilliwack, Kent, Harrison Hot Springs, and eight unincorporated electoral areas. The FVRD is one of the fastest growing regional districts in BC with 337,000 residents recorded in the 2021 Census. The FVRD anticipates a population increase of 60% to 444,000 by the year 2041.

While Abbotsford, Mission, and Chilliwack have experienced rapid population growth and development pressure, Hope has experienced very little population growth in recent years. After adjusting for the District's boundary expansion in 1992, Hope's population showed little overall change for over 30 years. Between 2016 and 2021, the community's population grew by 8.1%, the 2021 census recorded 6,686 residents in Hope. The Fraser Valley Future 2050 Plan estimates that Hope will reach a population of 7,939 people by 2040. As a result, the IOCP assumes a small amount of population growth for Hope over the next ten to fifteen years. Anecdotally, there has been population growth pressure in Hope over the last several years, with increasing population migration from the Lower Mainland.

The District of Hope, like much of BC, is experiencing changing age demographics. The community has an aging population, with 31% of the residents being aged 45 to 64 and 31% aged 65 and over.

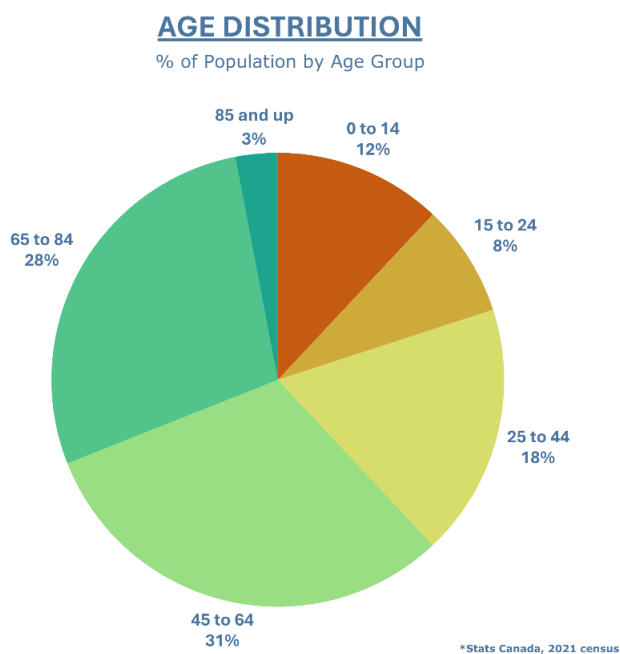


Figure 2-1 Age Distribution, 2021 Census

Despite most residents indicating that their main commuting method is by car, more than half of the residents indicated that their regular commute takes less than 15 minutes and remain within the District of Hope.

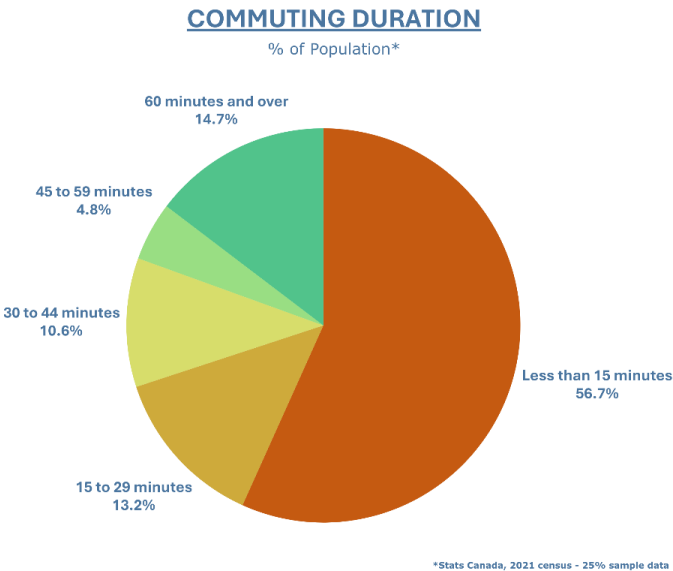


Figure 2-2 Commuting Duration, 2021 Census

Given that most trips are short in duration and remain within Hope, there is an opportunity to shift the mode share from vehicular travel towards walking and cycling, should there be suitable infrastructure in place to facilitate active transportation. The approximate current mode-share in Hope is illustrated in the following figure.

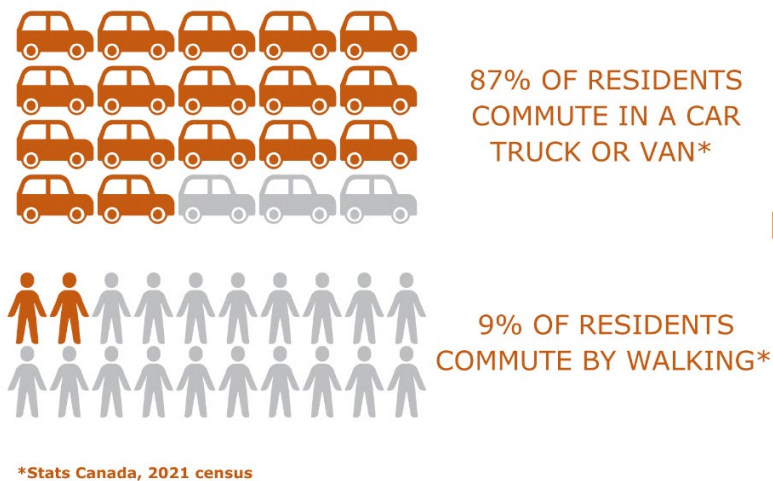


Figure 2-3 Mode Share, 2021 Census

2.3 Geography and Land Use

Hope is situated at the confluence of the Fraser and Coquihalla rivers, and at the eastern end of the Fraser Valley. The Fraser Canyon extends to the north, and the town itself is surrounded by the coastal mountains. The physical growth of the municipality is limited by the steep surrounding mountains, and as such development has occurred in the flatter valley bottom, adjacent to the Fraser River. The Hope townsite, Silver Creek, and Kawkawa Lake areas are generally characterized by flatter topography. Areas outside the flat valley can be extremely topographically challenging and are often not suitable for development.

The climate is generally temperate coastal / rainforest in nature, with reasonably warm summers, and mildly cold and wet winters. Hope occasionally and irregularly experiences large snowfall events in the winter and is increasingly experiencing summertime heat waves and dry spells.

As discussed in detail in the IOCP, the District commercial and industrial / service areas are centred around the downtown area (townsite) and the Old Hope Princeton Way corridor. Much of the commercial activity is supported by through traffic from the various provincial highways connecting at Hope. Residential development is spread between central Hope, near the downtown area, in the Kawkawa Lake area, and in Silver Creek. Some rural residential areas exist near Schkam Lake (Lake of the Woods), and northeast of the Fraser River on Landstrom Road. Industrial areas are also present toward the western extent of Flood Hope Road and between the Old Hope Princeton Way area and downtown. The complete land use map set from the IOCP is included in Appendix E.

2.4 Policy Context

The development of an ITMP document for the District of Hope is closely linked to various municipal, regional and provincial plans and policies, as well as with connections to First Nations communities. These guiding documents outline the goals, visions and objectives for transportation and land use that influence long-term planning considerations for the District. Applicable guiding documents referenced during preparation of the ITMP include:

- Integrated Official Community Plan (2018)
- Subdivision and Development Servicing Bylaw (2024)
- Zoning Bylaw (Consolidated to July 1, 2024)
- Traffic Bylaw C020
- Hope Downtown Action Plan (2023)
- Fraser Valley Future 2050 (2024)
- Move. Commute. Connect. – CleanBC - 2019
- Vision Zero BC
- BC Transit Future Action Plan

A summary of key policy items relating to the ITMP from these are included in Appendix B.

2.5 Plan and Policy Integration

Integrating the goals and objectives of the ITMP with the various plans and policies of the District is critical. This integration ensures that the District is taking a cohesive and effective approach to transportation within the community.

Some key aspects of the plan and policy integration that need to be considered as part of the ITMP implementation, in coordination with existing policies as listed in Section 2.4, as well as future policies or revisions, include:

Land Use and Zoning Bylaws / Policies	Transportation and land use are closely interconnected. Integrating these policies through the ITMP helps to create a connected community and a more effective transportation network.
Regional Coordination Policies	Transportation crosses jurisdictional boundaries. Coordination with the FVRD is important to address regional transportation needs such as transit connectivity.

Environmental and Sustainability Policies	Transportation plans need to incorporate environmental and sustainability goals. These policies outline goals related to greenhouse gas emissions and protection of natural resources.
Safety Policies	Safety is a critical aspect of transportation planning. The ITMP integrates traffic calming, existing traffic bylaws and emergency response plans.
Economic Development Policies	The transportation network is directly tied to the economic development of a community. Investments in transportation infrastructure should align with community economic and development strategies.
Budget and Finance Policies	Integration of funding and finance policies is essential to ensure that the transportation master plan is realistically implementable. This involves determining funding sources, cost estimates, and financial mechanisms such as grant funding opportunities.



3.0 Vision and Goals

The ITMP's goals have been developed to be long-range and cohesive with the overall goals of the District of Hope and the larger region. The goals and objectives were developed based on existing plans, policies and guiding documentation, along with feedback from City staff, Mayor and Council, key interest groups and the general public.

3.1 Vision

The District of Hope adopted its current Integrated Official Community Plan (IOCP) in 2018 which provides guidance and a vision to make Hope “a progressive mountain community offering a high quality of life, connecting people to nature, each other, and themselves.”

To achieve this vision, the IOCP outlines various goals, objectives and policies surrounding Land Use, Mobility, Infrastructure, Community Health and Safety, and Energy and Greenhouse Gas Emissions.

In developing the vision statement for the ITMP, the overall goals of the IOCP were adapted to focus on transportation needs. The vision is intended to guide the goals and objectives of the ITMP and progress in implementing the actions and projects that arise from the plan.

Empowered through sustainable and efficient transportation solutions, the ITMP envisions a future where equitable mobility enhances quality of life.

Hope prioritizes accessibility, safety, and environmental stewardship, creating a connected and thriving community for all. Our vision is to be a catalyst for a vibrant, accessible, and environmentally friendly urban landscape through innovative transportation planning.

Figure 3-1 ITMP Vision Statement

3.2 Goals and Objectives

The goals and objectives of the ITMP follow guidance from the IOCP at a higher level and are intended to better define how transportation initiatives can support the overall goals of the municipality. In essence, almost all the IOCP goals can be supported by transportation initiatives, given the overall impact that transportation has on livability, sustainability, accessibility, affordability, health, and community.



The goals and objectives listed below are in support of the vision and assist in furthering the objectives of the IOCP in a more specific way.

Table 3-1 ITMP Goals and Objectives

Goals	Objectives
Improve Travel Affordability	1. Develop a network of affordable, safe, and well-maintained pedestrian and cycling infrastructure to promote active transportation.
	2. Invest in the creation of walkable and bike-friendly neighborhoods with improved sidewalks, pathways, and crossings.
	3. Collaborate with key interest groups to promote active transportation as a viable and affordable commuting option.
Improved Accessibility / Equity	1. Ensure that transportation infrastructure and services are accessible to individuals of all ages and abilities.
	2. Promote affordable and accessible transportation options for seniors and individuals with limited mobility.
	3. Encourage diverse and inclusive public input in transportation planning and decision-making processes to ensure equitable outcomes.
Improved Safety for Users	1. Reduce collisions through targeted road safety improvements and education programs.
	2. Enhance pedestrian safety by implementing crosswalks, traffic calming measures, and well-lit pathways in high-risk areas.
	3. Educate the community on safe transportation practices, including distracted driving awareness and pedestrian safety campaigns.
Improved Health and Sustainability for the Environment & Users	1. Promote sustainable transportation modes such as walking, cycling, and the use of electric or low-emission vehicles to reduce environmental impact.
	2. Reduce greenhouse gas emissions by transitioning to electric or alternative fuel transportation fleets and promoting the use of electric vehicles.
	3. Promote educational campaigns and programs encouraging residents to adopt walking and cycling as cost-effective and healthy transportation choices.

Enhanced Travel Choices & Diversity	1. Expand the coverage and frequency of active transit routes to provide more accessible options to a wider range of destinations.
	2. Develop and maintain a connected network of multi-modal transportation hubs to facilitate seamless transfers between various modes of transportation.
	3. Promote the development of last-mile solutions, such as micro-mobility options (e-scooters, e-bikes), to improve accessibility to each community hub.
Enhance Community Connectivity	1. Develop and maintain a well-connected network of roads and highways to improve access to various parts of the community.
	2. Expand and improve public transit services to connect different neighborhoods and business districts within the community.
	3. Foster community engagement in transportation planning to ensure that connectivity improvements align with the needs and desires of residents.
Embrace Changing Technologies	1. Promote the adoption of electric and alternative-fuel vehicles to reduce emissions and dependence on fossil fuels.
	2. Encourage the inclusion of electric vehicle charging stations within the community, specifically new developments.
	3. Promote the integration and expansion of micro-mobility options, such as e-scooters and e-bikes, as sustainable and efficient modes of transportation within the community.
Develop Key Network Priorities for Investment	1. Align investment priorities with sustainability and environmental goals, focusing on reducing the environmental impact of transportation infrastructure.
	2. Prioritize the maintenance and improvement of critical transportation infrastructure to ensure long-term safety and functionality.
	3. Continuously monitor and evaluate the progress and impact of investments to ensure that they align with the established priorities and adapt as necessary.

Setting a measurable mobility target through the implementation of the ITMP provides a way for the District to monitor its progress towards achieving the goals and objectives set out in the plan. Tracking the progress of the policies and actions

outlined in the ITMP will help ensure that the plan is implemented as intended, and that the District is achieving its transportation goals as outlined in the IOCP.

3.3 Mobility Targets

The ITMP includes two mobility targets related to promoting a mode shift towards sustainable transportation and enhancing community connectivity. This is a measurable way of tracking progress on the goals of the ITMP.

Mobility Target 1:

Increase the proportion of trips made by sustainable transportation by 50% by 2040.

Sustainable transportation includes walking, biking, public transit and other forms of active movement, but does not include electric vehicles. Currently, 87% of residents commute within the community by vehicle, while 13% utilize other modes of transportation (walking, biking, or transit). This target would result in an increase of sustainable transportation mode share within the community from 13% to 20% by 2040.

As the population ages and additional development occurs, this target provides the District with a long term vision that will help shape the communities transportation priorities and investments



Figure 3-2 2040 Mobility Target

Mobility Target 2:

Provide a fully connected community through a sustainable transportation network of walkable and bikeable infrastructure by 2040.

Currently, the District of Hope does not have sufficient active transportation to fully connect the community through sustainable transportation, with many neighborhoods disconnected from the downtown Hope Townsite area.

This target will result in a fully connected sustainable transportation network developed through Silver Creek and Floods industrial areas, Schkam Lake (Lake of the Woods), Kawkawa Lake and Hope Townsite.



4.0 Existing Road Network

The District of Hope's transportation network consists of approximately 80 kilometers of roads, both rural and urban, from major collector corridors to low volume residential local roads.

As the District has developed, these road corridors have adapted to suit the needs of the community. Some corridors are designed to allow for the movement of people and goods throughout the community, while others support local businesses and residents.

By appropriately classifying and defining the role of a corridor, the transportation network can be evaluated based on overall function and level of service requirements and best inform the capital planning and management process.

The existing road classifications and traffic volumes are outlined below to provide context for a review of the need for road classification changes.

4.1 Road Network Classification

The existing roadway system is comprised of different road classifications, each serving specific functions within the overall network. This hierarchical road system allows the District to manage its transportation network via differences in traffic volumes, traffic speeds, road cross sections, and transportation facilities, which when combined, allow for prioritizing maintenance and improvement projects as well as managing access to and from the roadways.

Major Road Network

- Highways:** Major road corridors that connect the District of Hope to other communities and regional centers. Although Highways are typically under Provincial jurisdiction, the District of Hope is arranged in such a way that the highway network provides a significant amount of mobility through and around the community.
- Arterials:** Major road corridors that are designed to move people and goods throughout the community. These corridors are meant to carry a diverse mix of traffic including industrial, commercial, transit, active transportation, and personal vehicles. Arterials should include limited or controlled driveway accesses and no on street parking to allow for efficient movement of vehicles.

Minor Road Network

- Collectors:** Minor road corridors that are designed to provide connections between arterial and local roads, as well as access to homes and businesses. These corridors are meant to carry a diverse mix of traffic including industrial, commercial, transit, active transportation, and personal vehicles.
- Locals:** Road corridors that are designed to provide direct access to residences and businesses within the community and typically experience much lower traffic volumes.

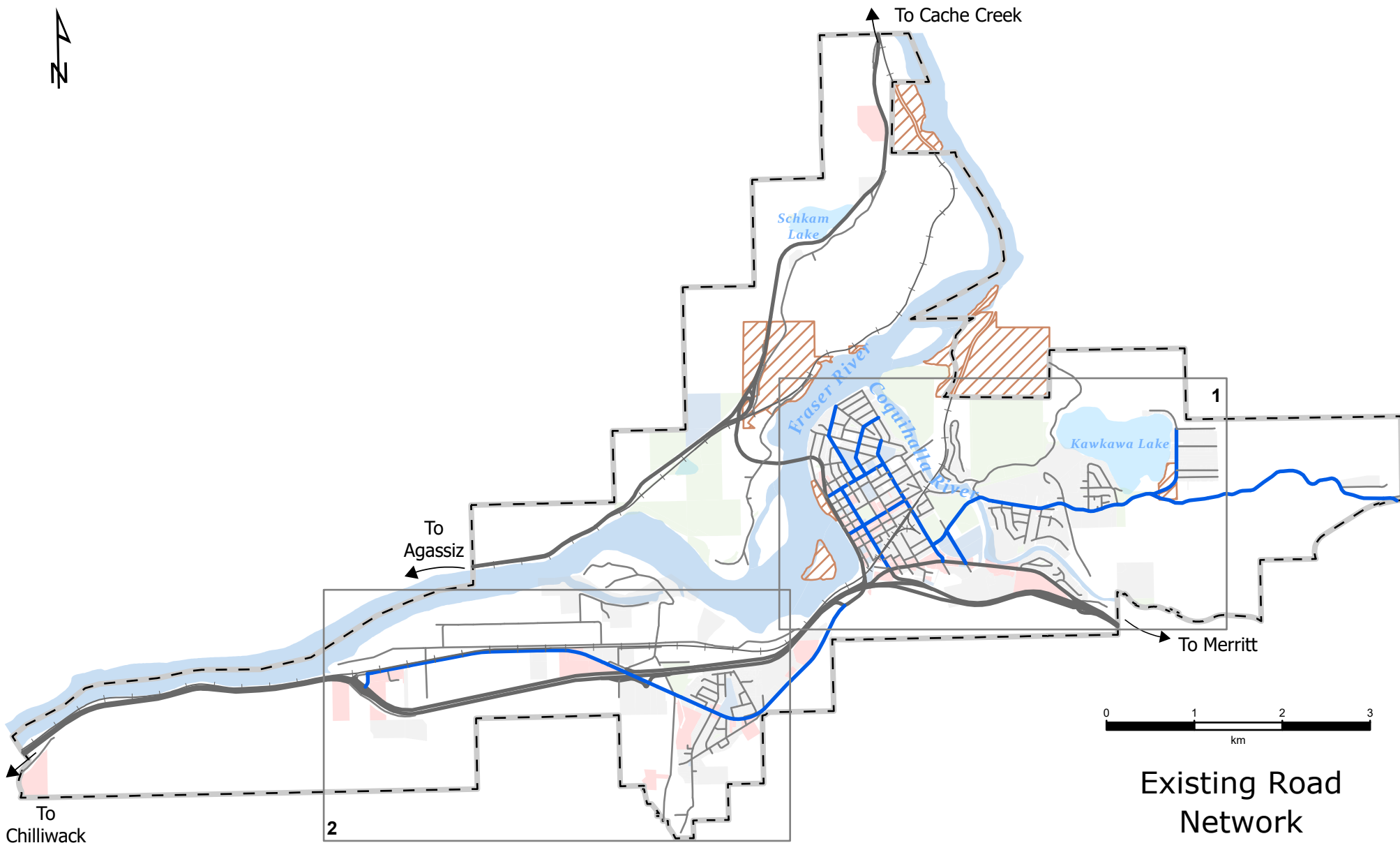
Additional Network Types

- Urban Center:** Road corridors located within the downtown core of the District. These corridors typically overlap with both arterials or collectors and are designed for the highest levels of activity within the corridor. These corridors support local businesses with spaces for parking and active transportation, as well as street furniture such as trees, benches, and other amenities.

**Rural
/Industrial:**

Road corridors that are designed to support low volume, low density development or agricultural land uses. These corridors are primarily meant to carry industrial or agricultural traffic.

Mapping is included below that shows the existing road network classifications in Hope.

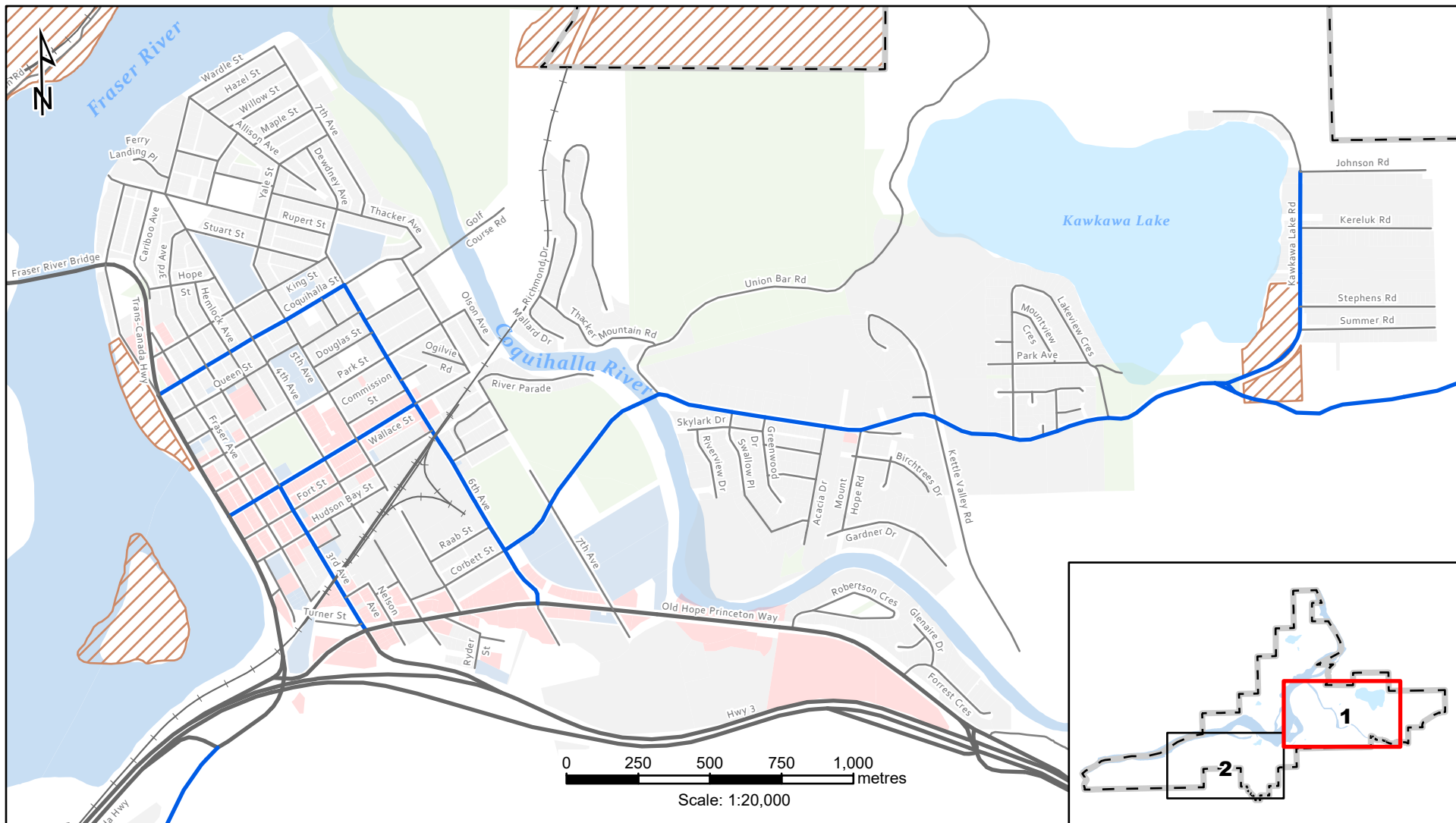


Existing Road Network Classifications

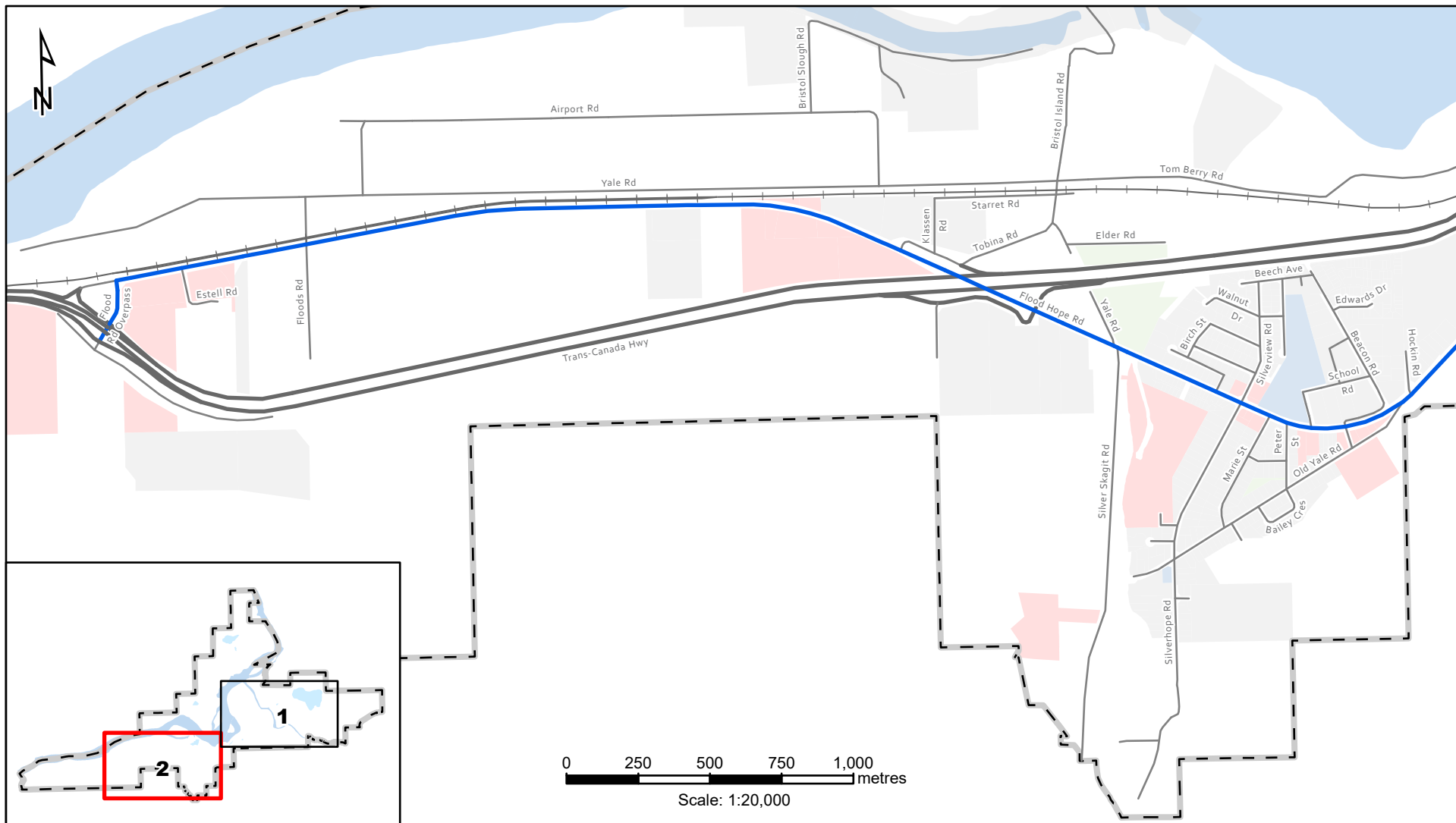
- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space

- Residential
- Railway Tracks

- Highway (BC MoTI)
- Collector
- Local



Existing Road Network Classification Downtown



- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space
- Residential
- Railway Tracks

- Highway (BC MoTI)
- Collector
- Local

Existing Road Network Classification Silver Creek

4.2 Road Cross Sections

Cross Sections for various road types are included in the District of Hope's *Subdivision and Development Servicing Bylaw No.1058 – Section R – Roads*. All four of the cross sections propose an urban standard with sidewalks, curb and gutter. Travel lanes are also wide, varying from 3.75 to 5.5m. Changes to the road cross section standards have been proposed in Section 5.0 and include both urban and rural standards as well as narrower lane widths and wider active transportation features.

The below cross sections represent those currently included in the subdivision and development bylaw.

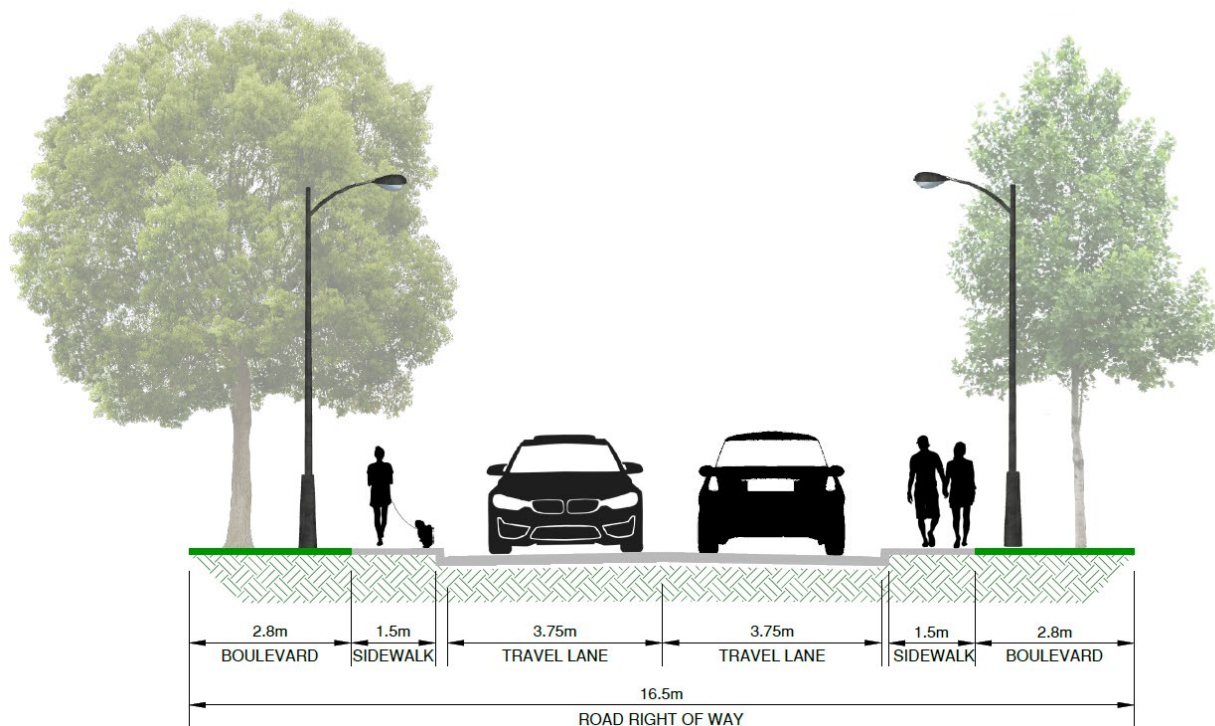


Figure 4-4 Urban Cul-de-Sac or 'P' Loop Road (SDR-1)

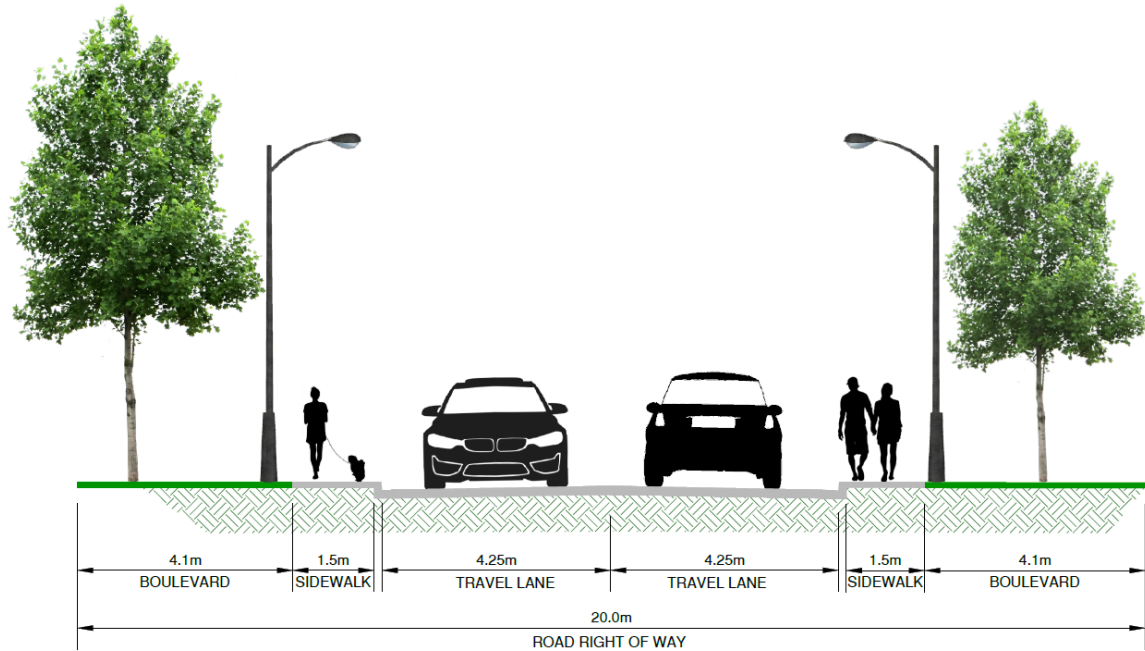


Figure 4-5 Urban Limited Local (SDR-2)

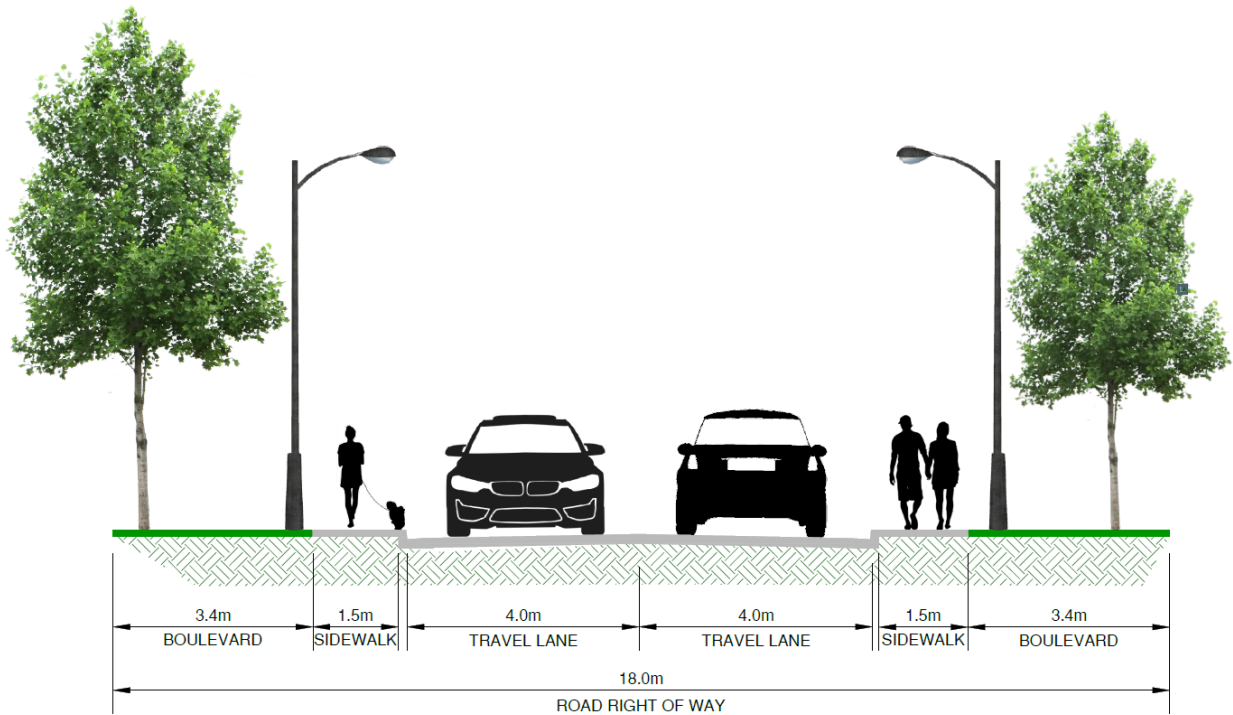


Figure 4-6 Urban Through Local (SDR-3)

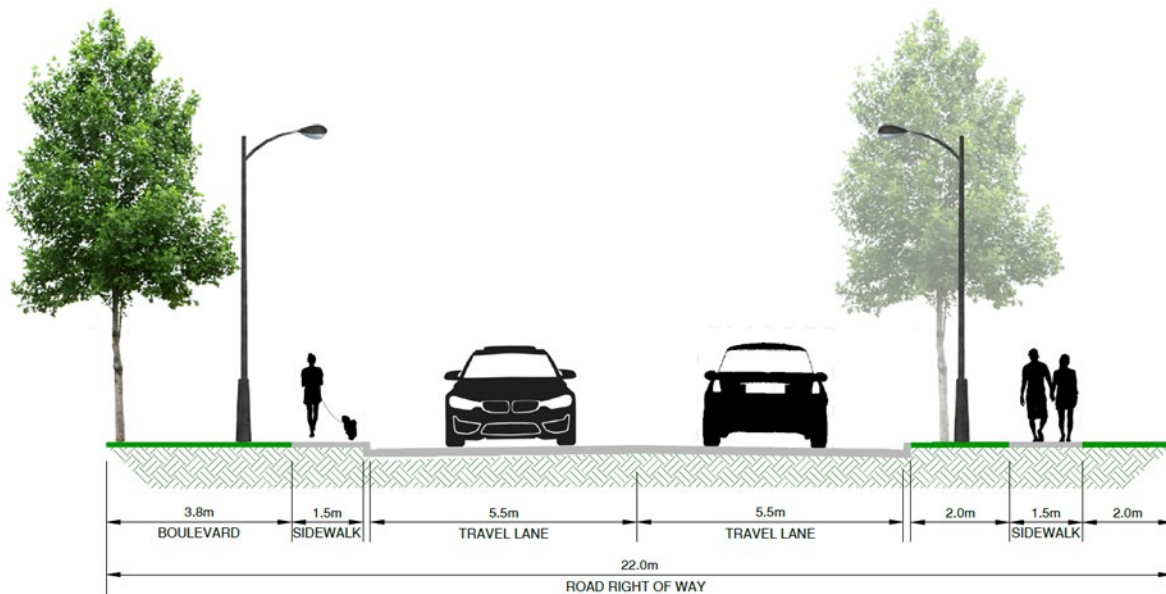


Figure 4-7 Urban Collector (SDR-4)

4.3 Urban vs Rural Road Forms

The transportation network within the District of Hope consists of a varying cross section of urban and rural roads. The community has seen an increase in the number of urban road corridors as development and rehabilitation have occurred throughout the community in line with the District's existing guiding documentation.

As the community develops into the future, the District has stated that it is important to maintain the balance between urban and rural roads within the community. The decision to maintain a rural standard, upgrade roads to an urban standard or return them to a rural standard is discussed further in Section 5.

4.4 Network Capacity

The ITMP includes a review of the existing and future capacity of the District's network. As per the Road Network Study completed by Watt Consulting included in Appendix D, the objective of the network analysis is to evaluate the potential impacts of growth and land use changes on the road network within the municipality. While growth impacts are discussed further in the following section, the analysis includes an evaluation of existing traffic volumes and the capacity of the network to accommodate current traffic loads. The collected traffic volume data was also used to calibrate the District-wide traffic model. Of particular note, the modeling exercise does not include the MoTI infrastructure, other than the intersection at Exit 170 and

Flood Hope Road. As below, the study found suitable capacity and no concerns were identified at this location.

4.4.1 Level of Service

The level of service (LOS) for road networks is evaluated based on the delay experienced by road users, rated from LOS A, being excellent or negligible delay, to LOS F being a functional failure of the intersection. The analysis depends on the type of intersection control, typically either signalized or unsignalized. The following table illustrates the LOS criteria used in the network analysis.

Table 4-1 Level of Service Criteria

Level of Service	Unsignalized - Average Movement Delay	Signalized - Average Movement Delay
A	<10 Seconds	<10 Seconds
B	10-15 Seconds	10-20 Seconds
C	15-25 Seconds	20-35 Seconds
D	25-35 Seconds	35-55 Seconds
E	35-50 Seconds	55-80 Seconds
F	>50 Seconds	>80 Seconds

The District of Hope does not publish LOS criteria. In general, a LOS of C or better is considered acceptable by most jurisdictions, with a LOS D being marginal. LOS E or F is typically considered a failure, which often triggers a need for intersection upgrades or road network changes. Results are reported both for each individual vehicle movement (i.e. "northbound thru") and for the overall intersection. These criteria have been adopted for the analysis of the District's network.

4.4.2 Data Collection and Average Traffic Volumes

The existing road network was modeled by first collecting background traffic data at thirteen locations in the municipality and by using available BC MoTI vehicle count stations. Intersection counts were completed during AM peak hours (7:00am to 10:00am) and PM peak hours (2:00pm to 5:00pm) to suitably capture the highest use periods. The volumes were used to calibrate the existing conditions VISUM District-wide traffic model. The ITE Trip Generation Manual combined with land use throughout the District was then used to identify vehicle trips expected in different directions. The VISUM model then produce Average Daily Traffic (ADT) for all roads in the District's network, which can be used to ensure appropriate road classification and prioritize both road and active transportation improvements. The resulting existing ADT in Hope is presented in the following figure.

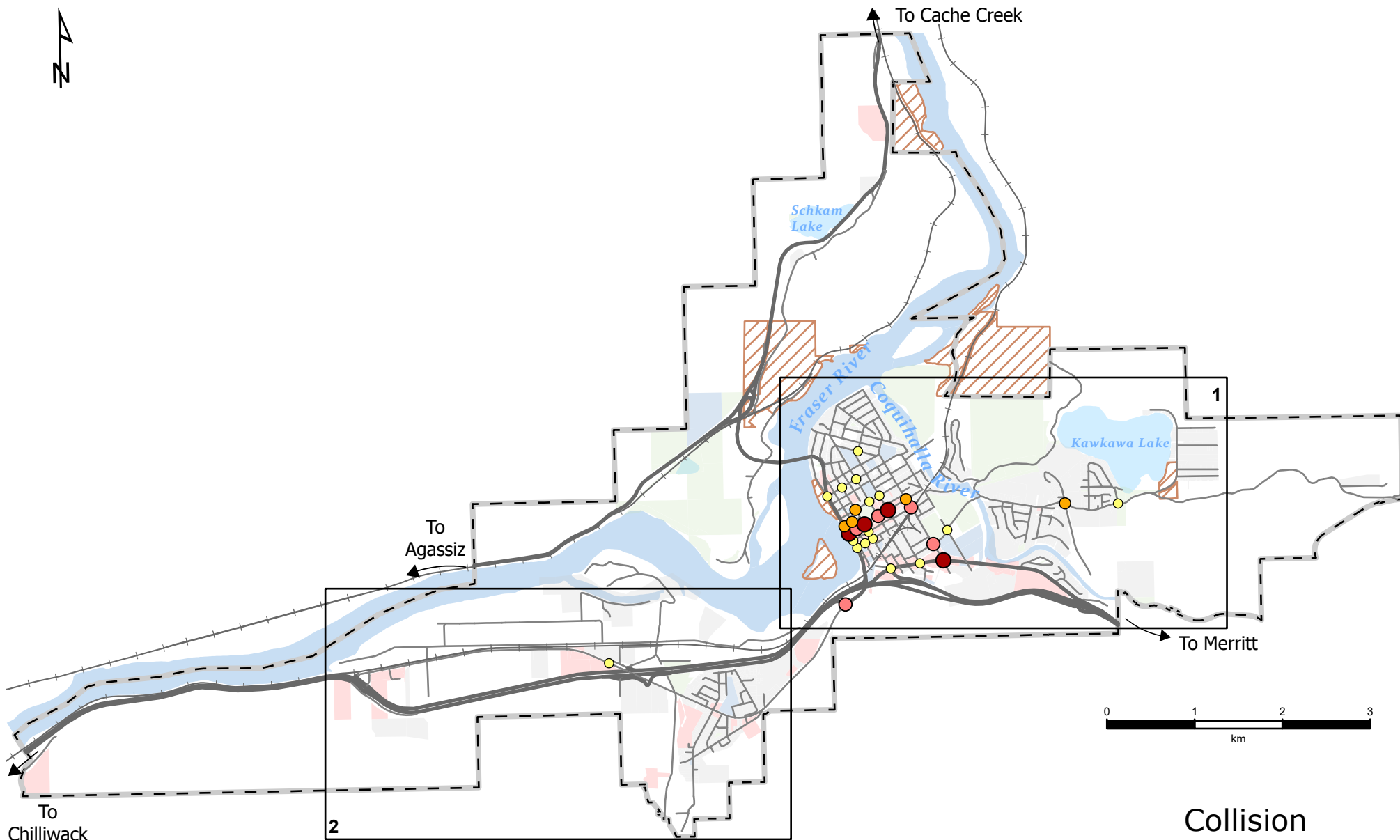
Under existing conditions, all intersections reviewed provide an excellent overall LOS A), except for 3rd Avenue & Wallace Street, which is operating at LOS B (delay of 10 to 20 seconds / vehicle). No queueing issues are expected to occur with current traffic volumes. Only one vehicle movement in the analysis is currently below a LOS of B, with the westbound left-turn movement at 6th Avenue and Kawkawa Lake Road found to be a LOS C with a 16 second delay. The road network in Hope is currently found to be performing admirably with very little delay at any location. No intersections currently require upgrades for vehicle capacity.

It is noted that the modelling does not account for alternative modes of transportation and the results should be considered conservative as the appropriate trip reductions for transit, pedestrian and bicycle trips are not reflected.

4.5 Road Safety

While road network capacity is one component of the overall network management strategy, safety of the network is also critical to the suitable functioning and appropriate management of the infrastructure. A review of ICBC collision data was completed to better understand and identify locations with greater collision frequency and opportunities for safety improvements within the District's network.

Intersections with the highest collision frequency during the data sample period of 2013 – 2022 are listed in Table 4-2 and shown in the figures following.

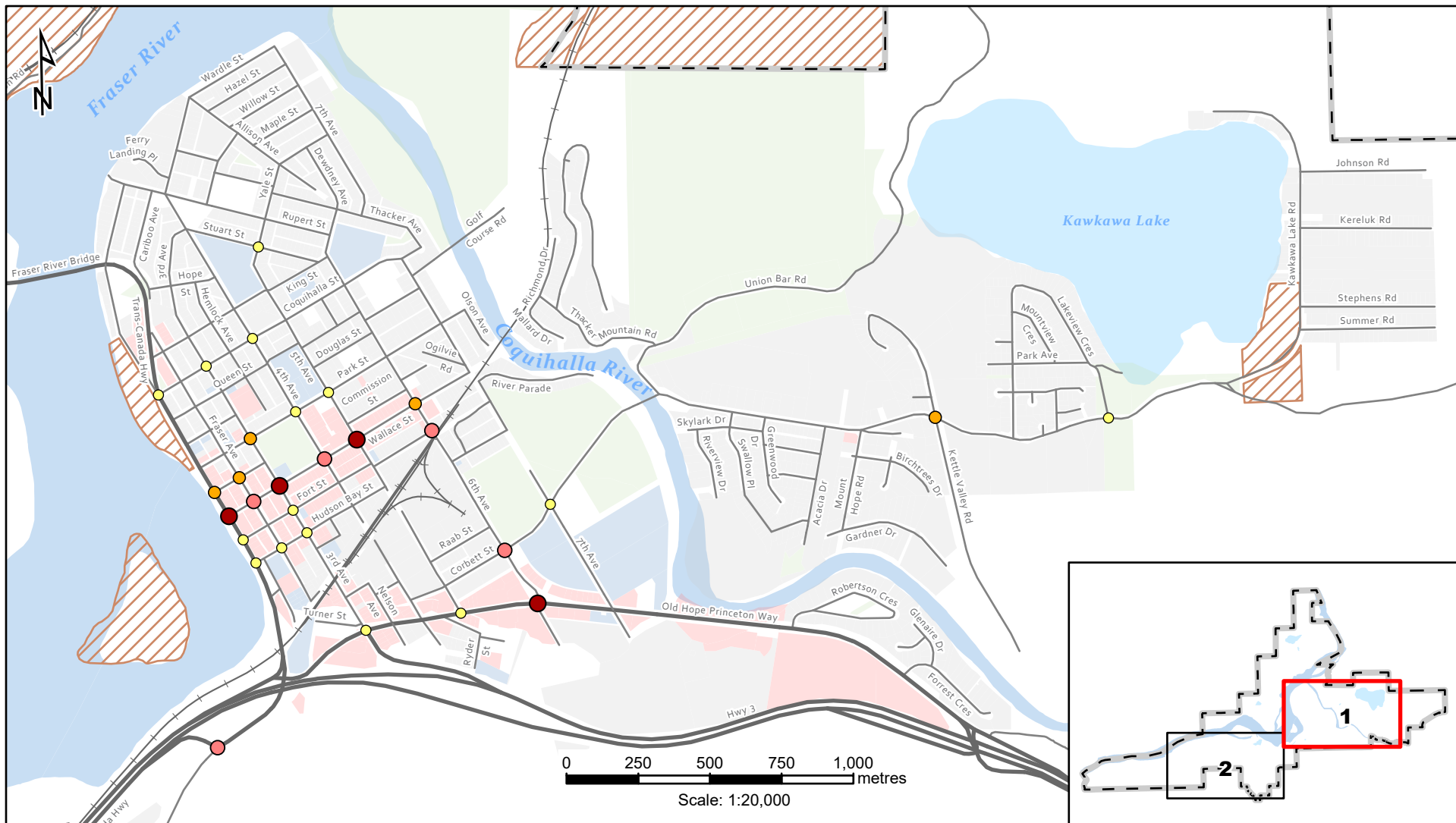


- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space

- Residential
- Highway (BC MoTI)
- Road
- Railway Tracks

- ICBC 2013 - 2022
Overall Crashes
- 5 - 9
 - 10 - 14
 - 15 - 19
 - 20+

Collision Analysis



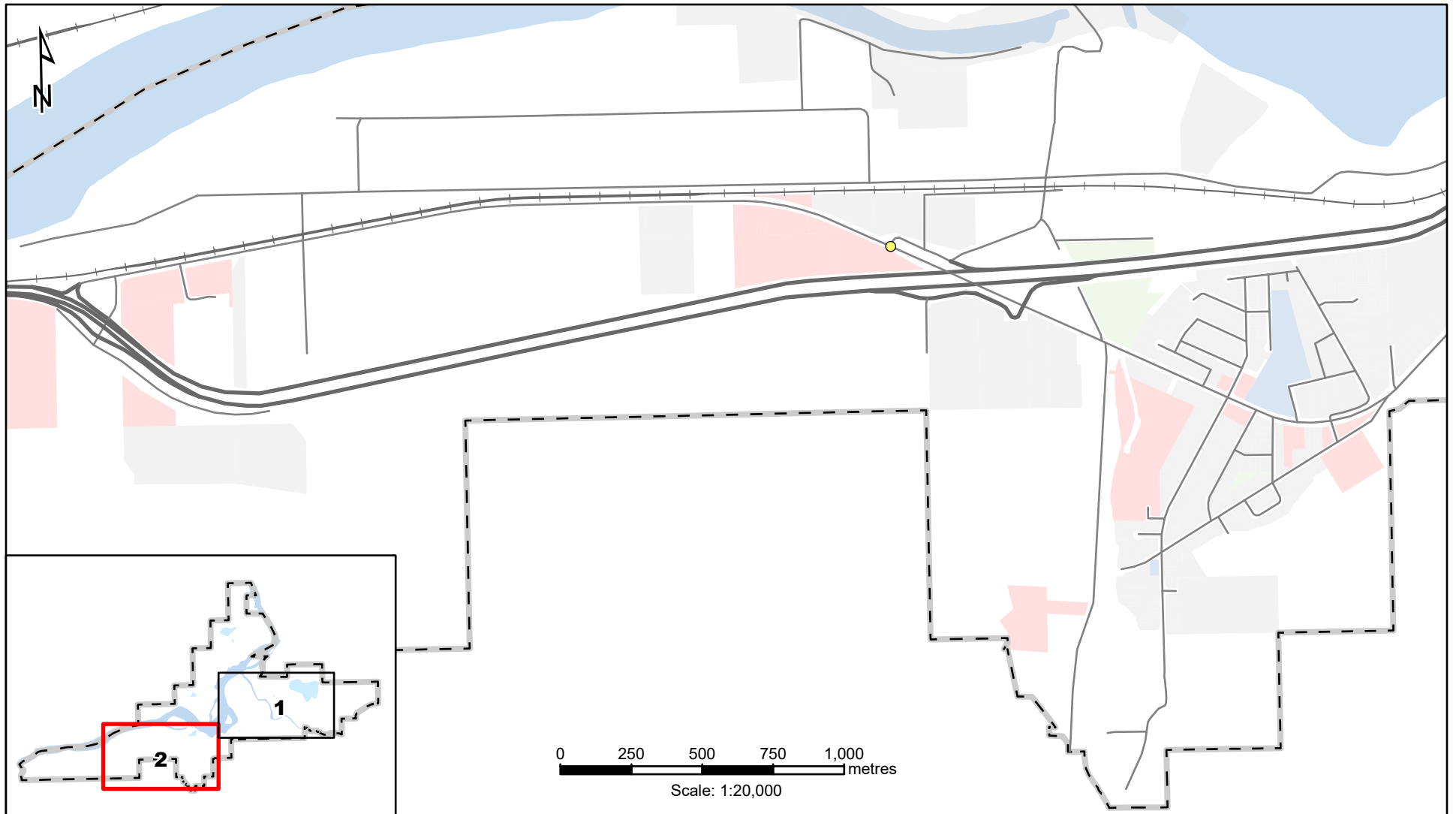
- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space






- Residential
- Highway (BC MoTI)
- Road
- Railway Tracks





- ICBC 2013 - 2022
Overall Crashes
- 5 - 9
 - 10 - 14
 - 15 - 19
 - 20+





Collision Analysis Downtown

DISTRICT OF
HOPE



-  Municipal Boundary
-  First Nation Reserve Land
-  Commercial
-  School and Institutional
-  Parks and Open Space

-  Residential
-  Highway (BC MoTI)
-  Road
-  Railway Tracks

- ICBC 2013 - 2022
Overall Crashes
-  5 - 9
 -  10 - 14
 -  15 - 19
 -  20+

Collision Analysis Silver Creek

DISTRICT OF
HOPE

Table 4-2 Highest Collision Frequency Locations in Hope

Top Intersections for Reported Collisions	
1.	Wallace Street and Water Ave (BC MoTI)
2.	Wallace Street and 3 rd Ave
3.	Wallace Street and 5 th Ave
4.	6 th Ave and Old Hope Princeton Way (BC MoTI)
5.	6 th Ave and Fort Street
6.	6 th Ave / Kawkawa Lake Road

The above can be used to prioritize intersection safety review works, and best inform proposed safety improvements. As discussed in future sections, the ICBC collision data will be further reviewed at each location during intersection and corridor-specific safety reviews, including for:

- Frequency calibrated to overall traffic and pedestrian volumes;
- Collision frequency for individual vehicle movements;
- Collision severity;
- Collision type (rear-end, head-on, side-swipe, single vehicle, etc.);
- Time of year;
- Time of day and lighting conditions;
- Road conditions at the time of the incident;
- Other known contributing factors.

The above will inform specific improvements that can be targeted at each location.



5.0 Future Road Network

The Road Network Analysis Study reviewed the District of Hope's road network through the lens of anticipated growth to the 2038 planning horizon and found the network to be resilient, requiring only minimal upgrades.

The network road classification requires updating to ensure appropriate connectivity and targeted road use, with several roads recommended for classification upgrades. Similarly, the District's typical road cross-sections are being updated to reflect safety, road use, and active transportation needs.

Notwithstanding the network resilience, improvements to intersections may be warranted based on safety and intended use. Six intersections have been prioritized for further study and improvements based on a review of ICBC collision data.

5.1 Forecast and Modelling

The traffic forecasting model was developed based on existing traffic volumes and land use data. It also factors in future growth of traffic and reflected potential new developments and changes in land use. The future scenarios were evaluated at the 5-year and 15-year horizons. The analysis includes a 1.25% background growth rate.

These future design horizons were used to test and confirm new network connection scenarios which included new road connections, complete street conversion and cross-sectional changes, and roadway closures or diversions. As part of these scenarios the impact and enhancement of different future mode shifts could also be reviewed.

5.2 Network Capacity

The overall District-wide traffic volumes were projected for the two analysis horizons. The results are used to inform decisions related to road upgrades, changes to road classifications, and the possible need for active transportation or other improvements along various corridors.

The same intersections identified in section 4.4 were analyzed to determine performance in 2028 and 2038. The capacity of the subject intersections at each horizon are able to inform the need or lack thereof of capacity-related upgrades throughout the network.

5.2.1 2028 Analysis Horizon

The below figure illustrates expected District-wide traffic volumes at the 2028 horizon. Typical thresholds are shown in the figure, correlating with typical volumes that can be accommodated by different road classifications (local, collector, arterial, highway).

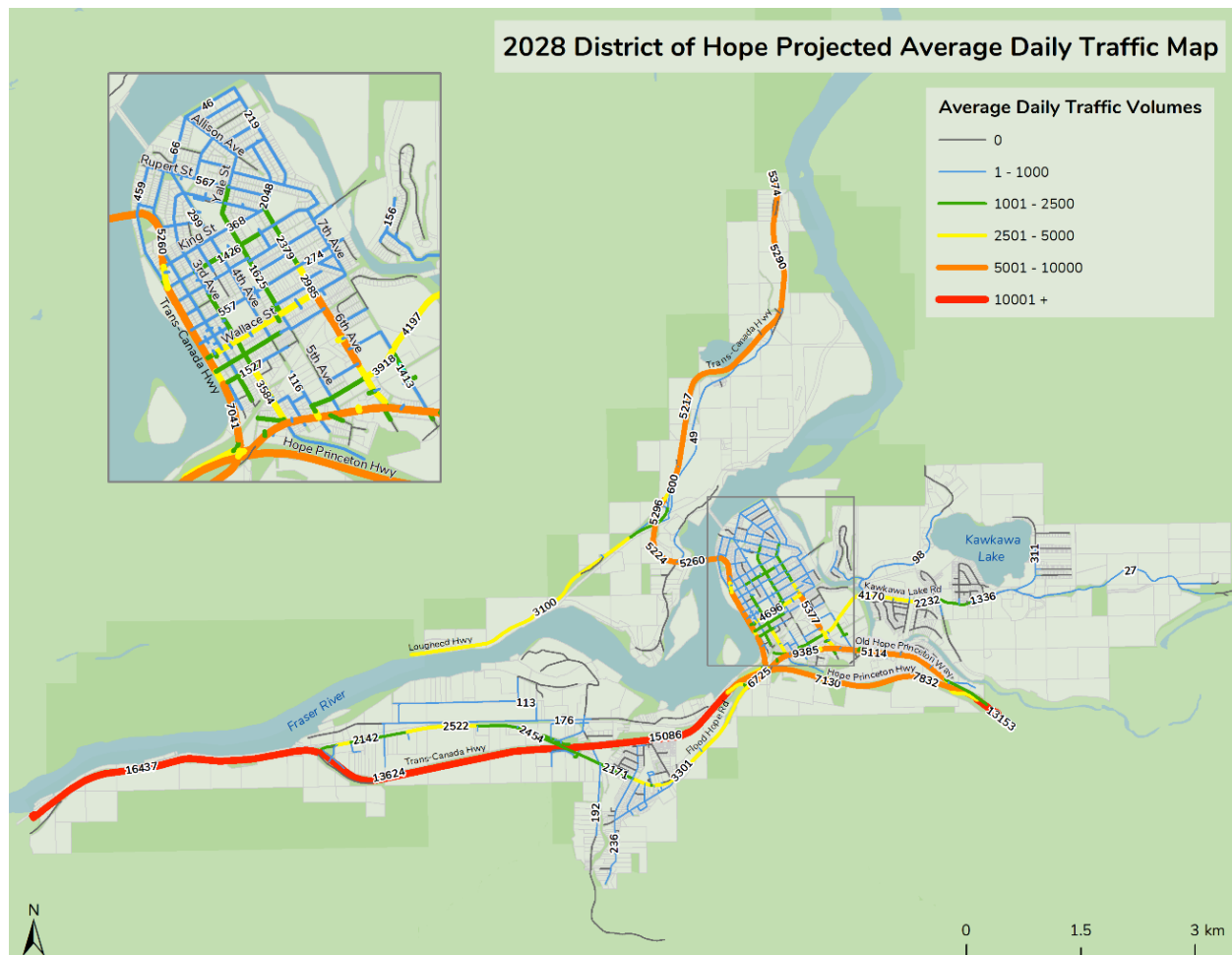


Figure 5-1 2028 Average Daily Traffic in Hope

Traffic volumes will continue to increase in Hope as growth continues. There are relatively few corridors that are expected to see a large increase that will require a change in road classification or cause capacity issues. Only two sections of roadway are identified as increasing to a higher volume threshold by 2028:

- Flood Hope Road (west) increasing to > 2500 vehicles/day in some areas;
- Trans-Canada Highway / Water Avenue increasing to > 5000 vehicles/day north of the Highway 3 interchange.

same LOS criteria to determine whether or which intersections are projected to be negatively impacted by traffic volume increases. Overall, there is very little change to the operation of the subject intersections at the 2028 horizon. While there are incremental increases in delays throughout, the LOS does not change in most intersections, and does not worsen beyond a level C in any case. Intersection operations throughout the District are therefore considered acceptable at the 2028 horizon, and no intersection capacity upgrades are recommended.

It is noted that the two-way stop control at 6th Ave & Kawkawa Lake Road / Corbett Street is characterized by individual movements operating at a LOS C for the minor leg movements in the east and westbound directions. This is still deemed acceptable and should be monitored in the case traffic volumes continue to grow along this future designated east-west arterial roadway.

5.2.2 2038 Analysis Horizon

The below figure illustrates expected District-wide traffic volumes at the 2028 horizon.

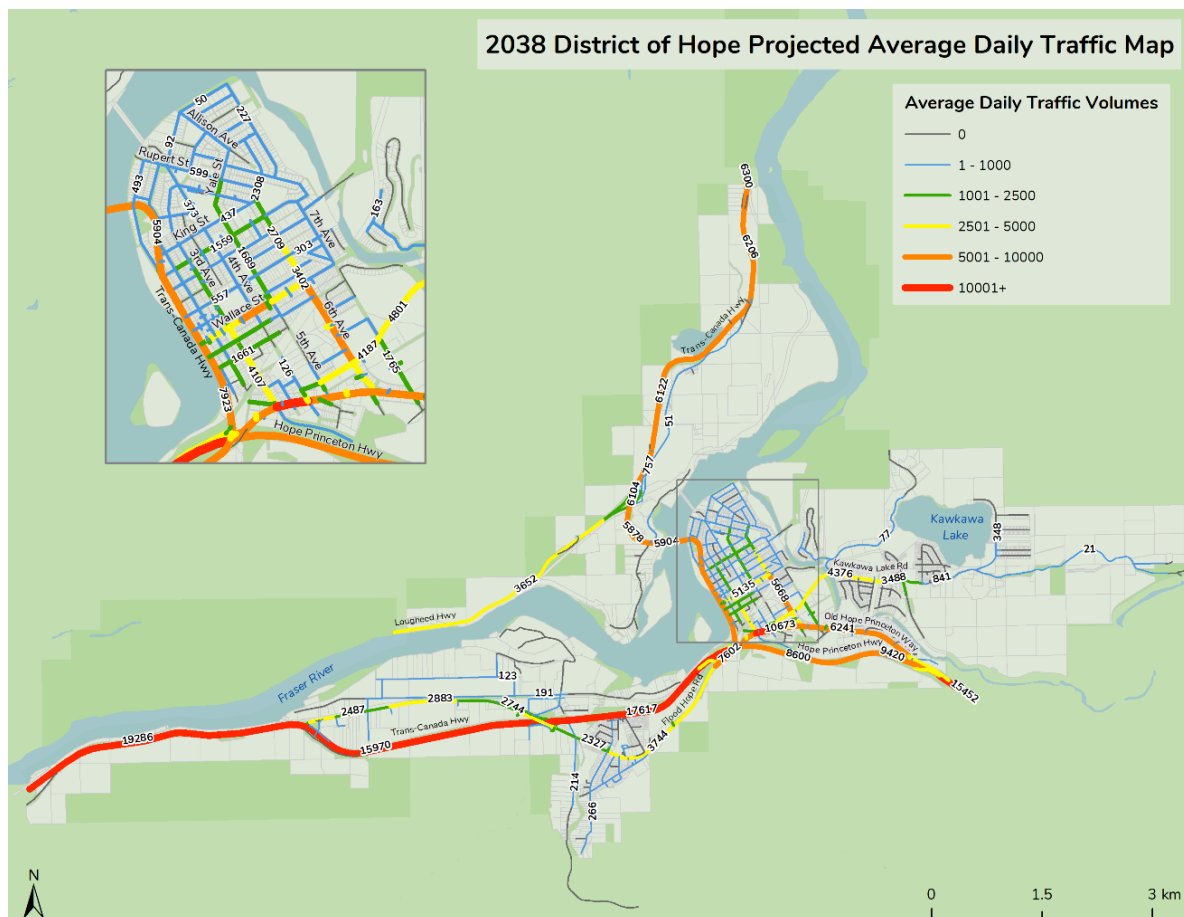


Figure 5-2 2038 Average Daily Traffic in Hope

Traffic volumes will continue to increase in Hope as growth continues between 2028 and 2038, however the increase is expected to be incremental. There are relatively few corridors that are expected to see a large increase that will require a change in road classification or cause capacity issues. Only one section of roadway is identified as increasing to a higher volume threshold between 2028 and 2038:

- Wallace Street increasing to > 5000 vehicles/day through the downtown area;

Wallace Street is classified as a collector currently and the traffic increase is not expected to warrant a change in road classification.

5.2.2.1 2038 Intersection Capacity

Similar to the 2028 horizon, the results of the analysis for the 2038 horizon indicate that all intersections continue to be operating at an overall LOS B or better. There are expected minor deterioration in operation for some movements, but all movements continue to be operating at an acceptable LOS C or better. This is expected, given the overall capacity resiliency of the existing network and the incremental traffic volume increase.

Over the next 20 years, additional development may require strategic infill and road connections throughout various parts of the community. Due to the proximity of BC MoTI Hwy 1, Hwy 3 and Hwy 5, as well as the existing major roads network within the community, it is expected that most of these connections will be smaller local road connections. Many of these connections are expected to be developer-led initiatives that will be constructed as development progresses within the community.

Consistent with the 2028 results, the east and west-bound legs of the Kawkawa Lake Road / Corbett Street & 6th Avenue intersection will experience incremental worsening of capacity and mild increases in delays. While still expected to be at a LOS C, the District may wish to consider capacity improvements to reduce delays.

The proposed 2038 horizon improvements may include the introduction of four-way stop or roundabout with the results of both options as follows:

- A four-way stop will improve the operation for eastbound and westbound movements to LOS B, with reduced v/c ratio and delays. The trade-off is that it would add additional delay to the main north and southbound movements along 6th Avenue, with an increased delay of approximately 12-13 seconds
- A roundabout would improve the operation for eastbound and westbound movements to LOS A, with reduced v/c ratio and delays. The trade-off is that it would require a higher cost of construction as roundabouts require a larger area, the intersection geometry may need to be reconfigured, and private land

acquisition may be necessary. Strictly from a traffic operations perspective the roundabout may be preferred.

A review of the upgrade needs of this intersection will be completed as part of an intersection improvement feasibility study, as recommended in the implementation section.

5.3 Recommended Actions

5.3.1 Road Network Improvements

The Road Network Analysis Study (Appendix D), which included both future scenario horizon traffic forecasts and operational and capacity analyses of key intersections, has underscored the resilience of the District's existing road network. Despite anticipated growth and land use changes, the network is poised to support the District's development over the next 15 years without significant degradation in service levels.

This robustness is particularly evident from the operational assessments, which predict that most intersections will continue to operate at acceptable levels of service through to 2038, even as traffic volumes increase.

Proposed upgrades, such as reclassifications and the introduction of active transportation facilities aim to not only address vehicular traffic efficiency but also encourage a shift towards more sustainable modes of transportation, such as walking, cycling, and public transit.

With minimal adjustments required for vehicular operations, the District has a unique opportunity to invest in active transportation infrastructure. Enhancing facilities for non-motorized transportation can induce a modal shift, reducing reliance on vehicles and, consequently, traffic volumes. This shift not only aligns with environmental sustainability goals but also contributes to the overall well-being of the community by promoting healthier, more active lifestyles.

As the District moves forward, it will be essential to revisit and update the road network model periodically, ensuring that transportation planning remains responsive to changing conditions and continues to support the District's vision for a vibrant, accessible, and sustainable community.

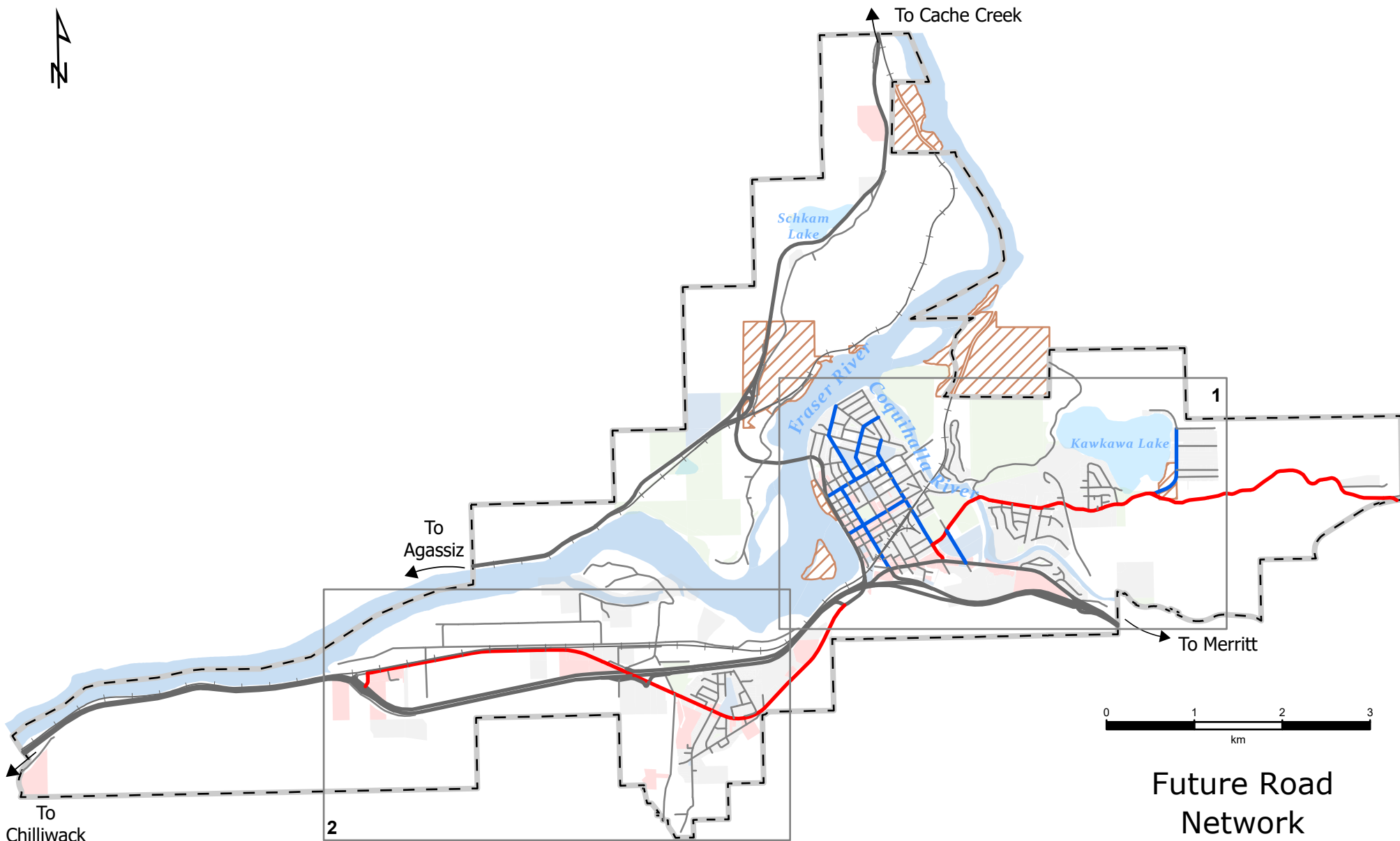
5.3.2 Updated Road Classifications

The existing and intended functionality of the District's road network was reviewed in the context of the following parameters, which were used to inform proposed road classification changes. The cross-sectional elements of each classification are shown in section 5.3.4 below.

- Expected traffic volume;
- Traffic service and land access function;
- Predominant vehicle type (heavy vehicles and trucks vs. passenger vehicle);
- Operation and maintenance priority;
- On-street parking needs;
- Future active transportation needs.

The District of Hope *Subdivision and Development Servicing Bylaw No.1058 – Section R - Road* outlines that the appropriate classification shall be consistent with the *Official Community Plan*. The updated IOCP does not refer to the road classifications within the community. As part of the ITMP, the existing road network was reviewed, and the road classification system was updated. Please refer to the figures below for the updated road classifications within the community.

To help achieve the goals and objectives outlined in the ITMP, the following changes are proposed to the District of Hope road classification system.

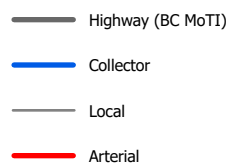
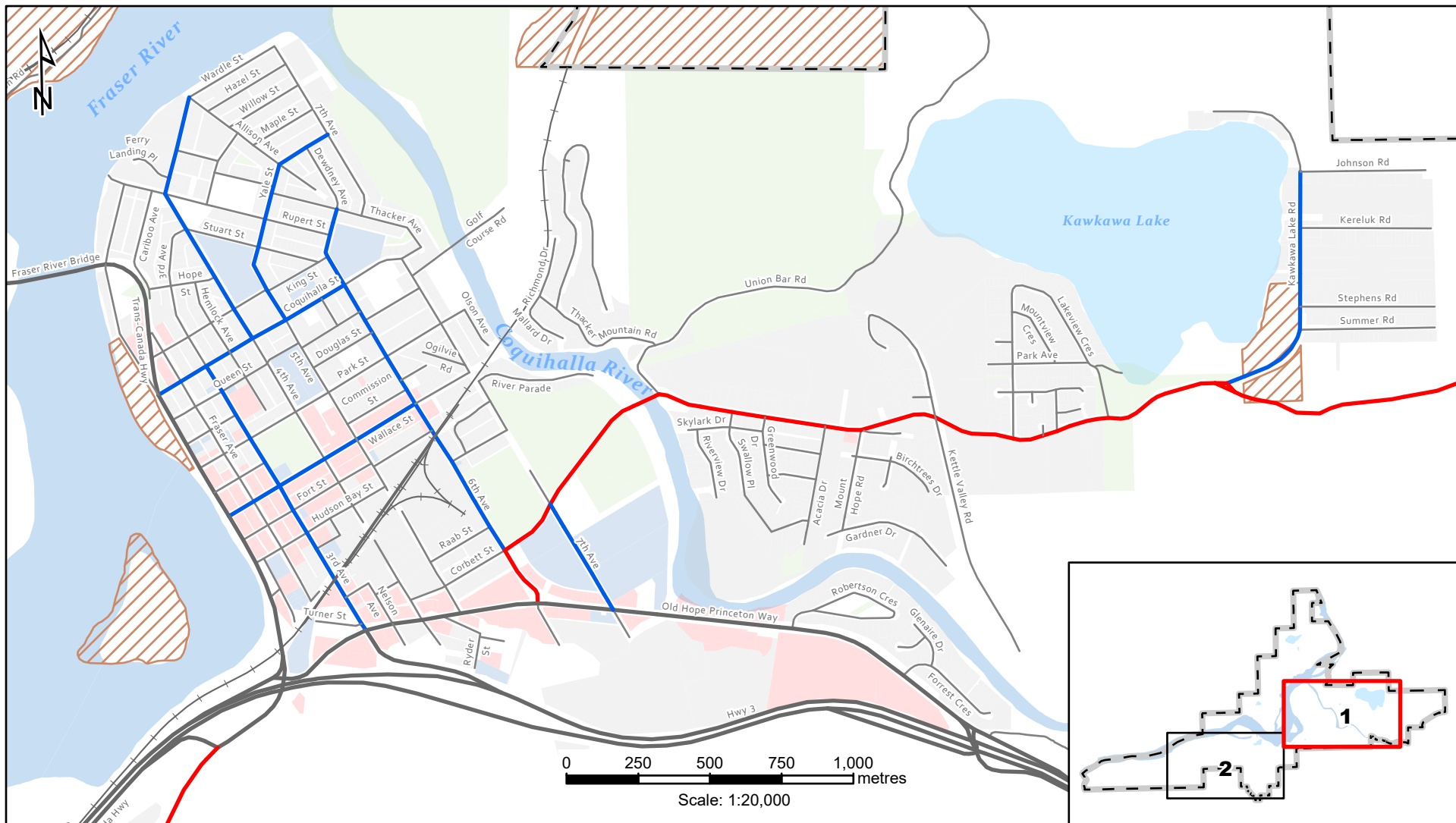


Future Road Network Classification

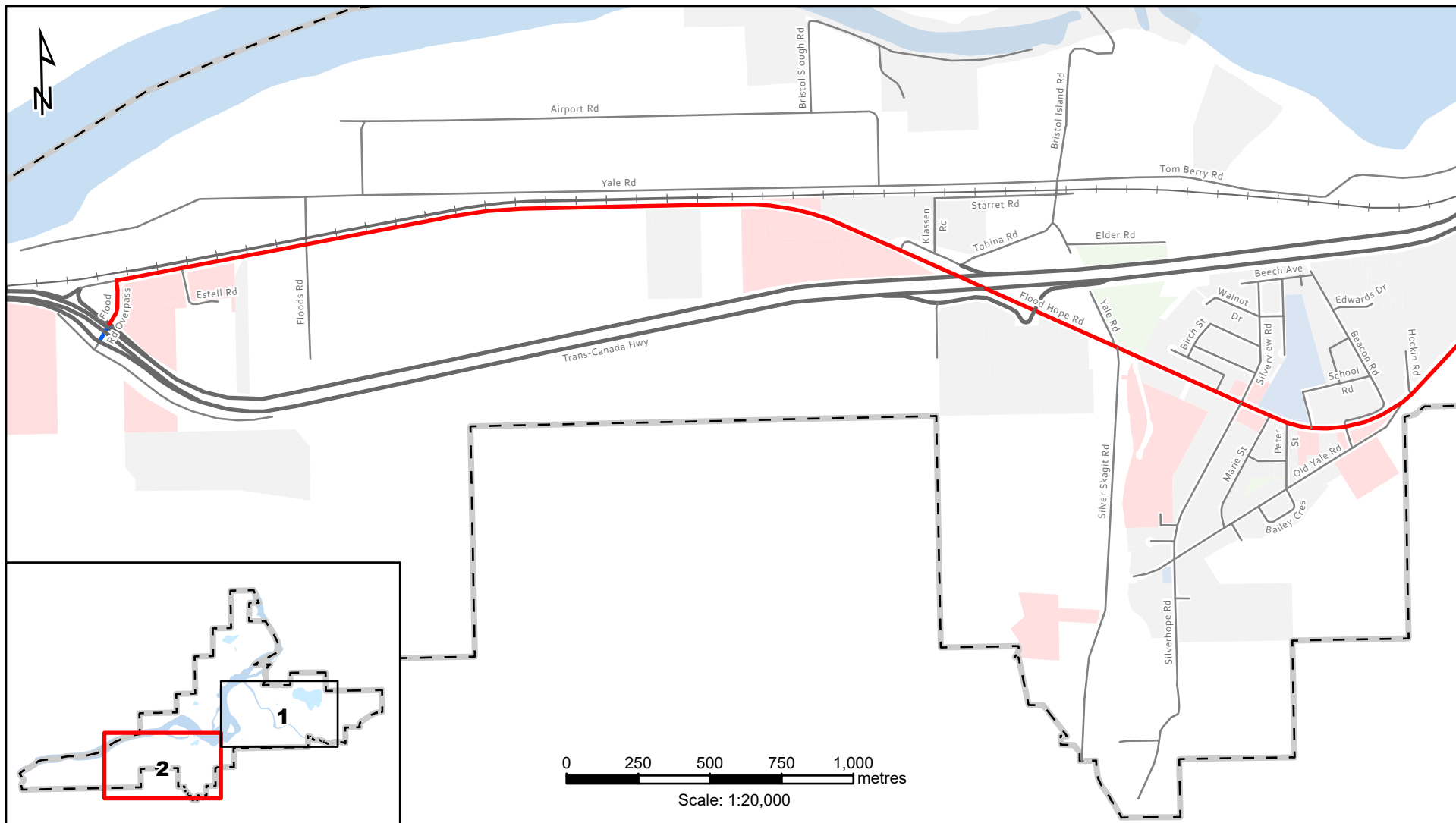
- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space

- Residential
- Railway Tracks

- Highway (BC MoTI)
- Collector
- Local
- Arterial



Future Road Network Classifications - Downtown



Future Road Network Classifications - Silver Creek

DISTRICT OF
HOPE

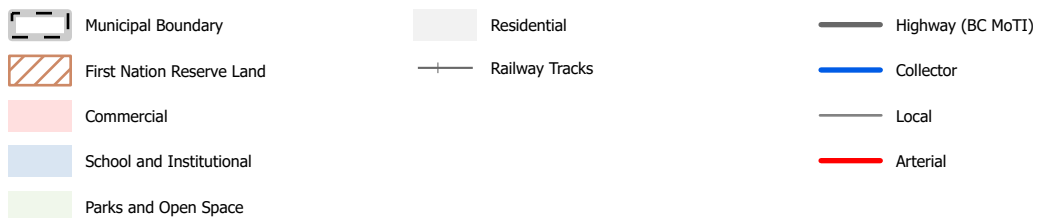


Table 5-1 Proposed Road Classification Changes

Road	From	To	New Classification	Previous Classification
Kawkawa Lake Road	6 th Ave	Othello Road	Arterial	Local
Kawkawa Lake Road	Othello Rd	Johnson Road	Collector	Local
Othello Road	Kawkawa Lake Rd	End	Arterial	Local
3 rd Ave	Wallace St	Coquihalla St	Collector	Local
4 th Ave	Coquihalla St	Rupert St	Collector	Local
5 th Ave	Coquihalla St	Stuart St	Collector	Local
6 th Ave	Coquihalla St	Dewdney Ave	Collector	Local
6 th Ave	Old Hope Princeton Way	Kawkawa Lake Rd	Arterial	Collector
7 th Ave	Old Hope Princeton Way	Kawkawa Lake Road	Collector	Local
Flood Hope Road	Exit 165	Exit 170	Arterial	Collector
Wardle St	Rupert St	Allison Ave	Collector	Local
Yale St	Stuart St	7 th Ave	Collector	Local

Changing the classification is a recognition of the shift in intended function of each road, however in practice the infrastructure improvements will be phased in as appropriate and in conjunction with the District's capital planning efforts. In some cases, the change is intentional to manage the intended need for specific roads. For example, Othello Road will be upgraded to an arterial classification, as during Highway 5 closures, it is used as the only northbound egress from the community.

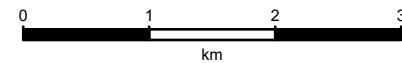
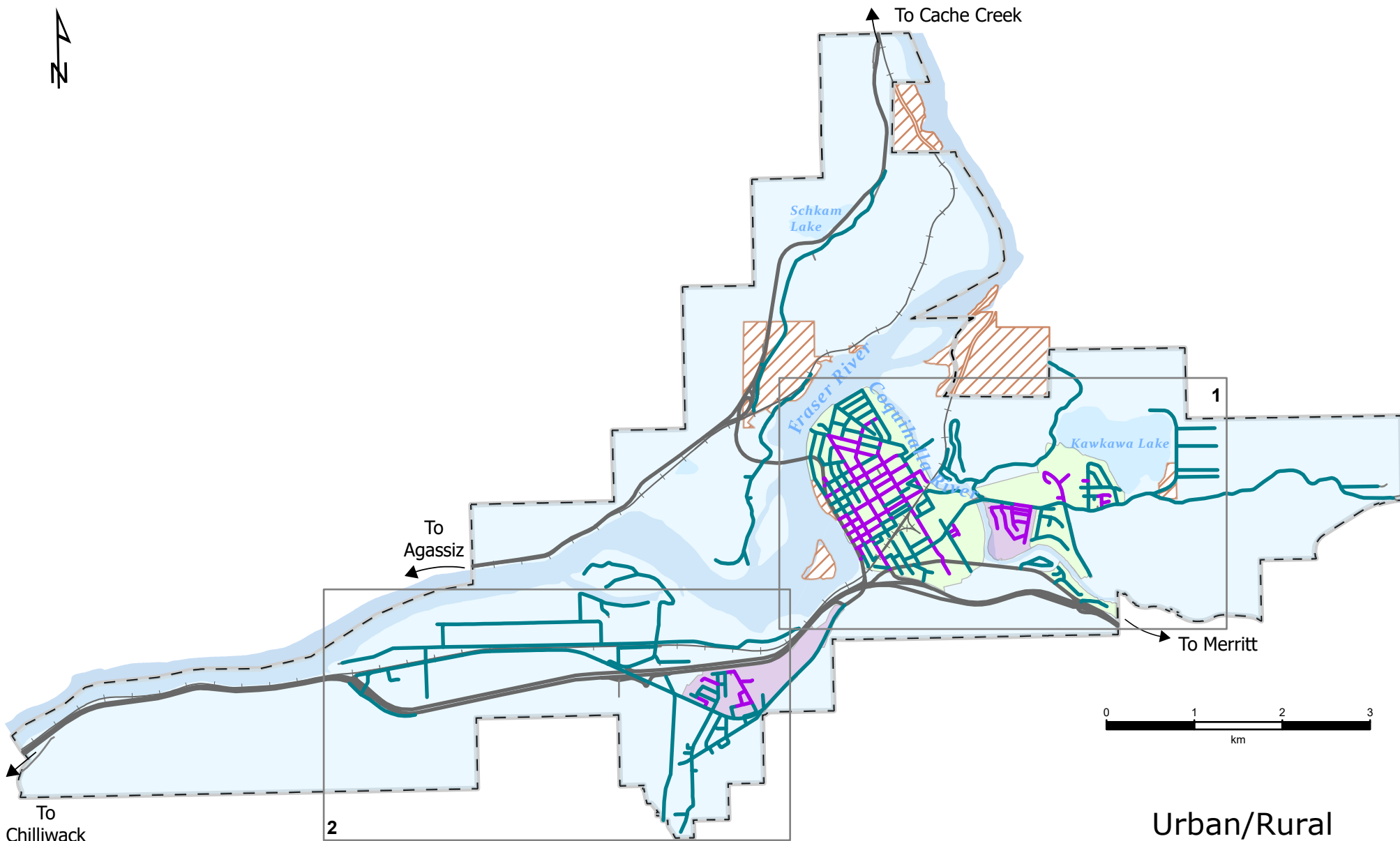
5.3.3 Urban and Rural Road Standards

The District recognizes that there is an importance in maintaining a mix of both urban and rural road standards throughout the community. Utilizing both standard aids in balancing the unique characteristics and requirements of different areas. Additionally, safety is a top priority and the District should consider the impact of road standards on the safety of all road users.

To help achieve the goals and objectives of the ITMP, the existing urban and rural context of the community was reviewed with District staff, and mapping was created to aid in future development and renewal projects. The following factors were taken into consideration when determining the road standard:

1. Safety Considerations
2. Environmental Impact / Drainage Considerations
3. Cost Effectiveness / Existing Conditions
4. Maintenance and Renewal
5. Preservation of Rural Character

The proposed Urban and Rural areas of the community core are shown in the mapping below.



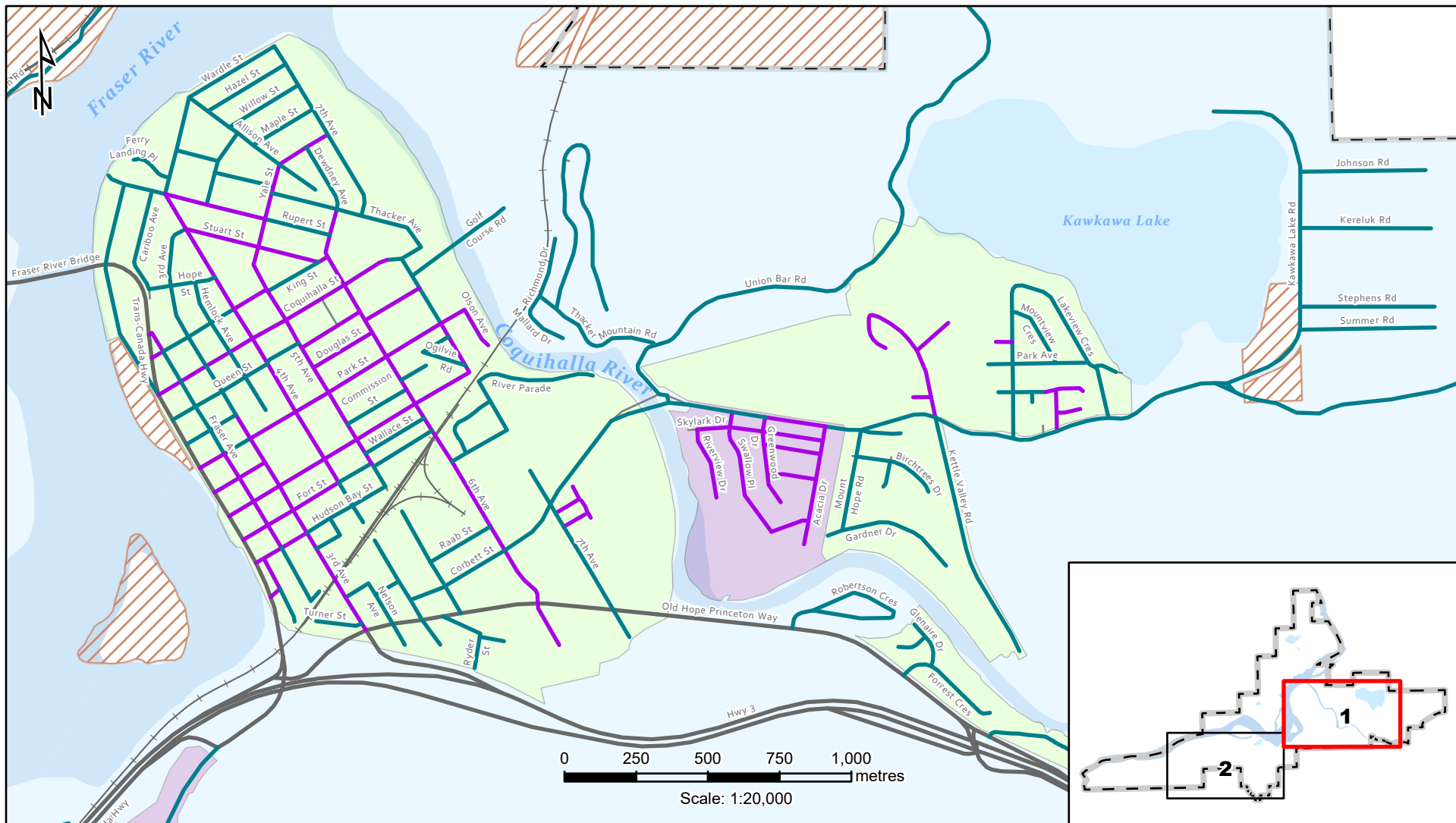
- Municipal Boundary
- First Nation Reserve Land
- Highway (BC MoTI)
- Road
- Railway Tracks

- Existing Network Classification
- Urban
 - Rural

- Future Network Development Classification
- Circumstance Based Standard (Urban or Rural)
 - Rural Standard
 - Urban Standard

Urban/Rural
Standard





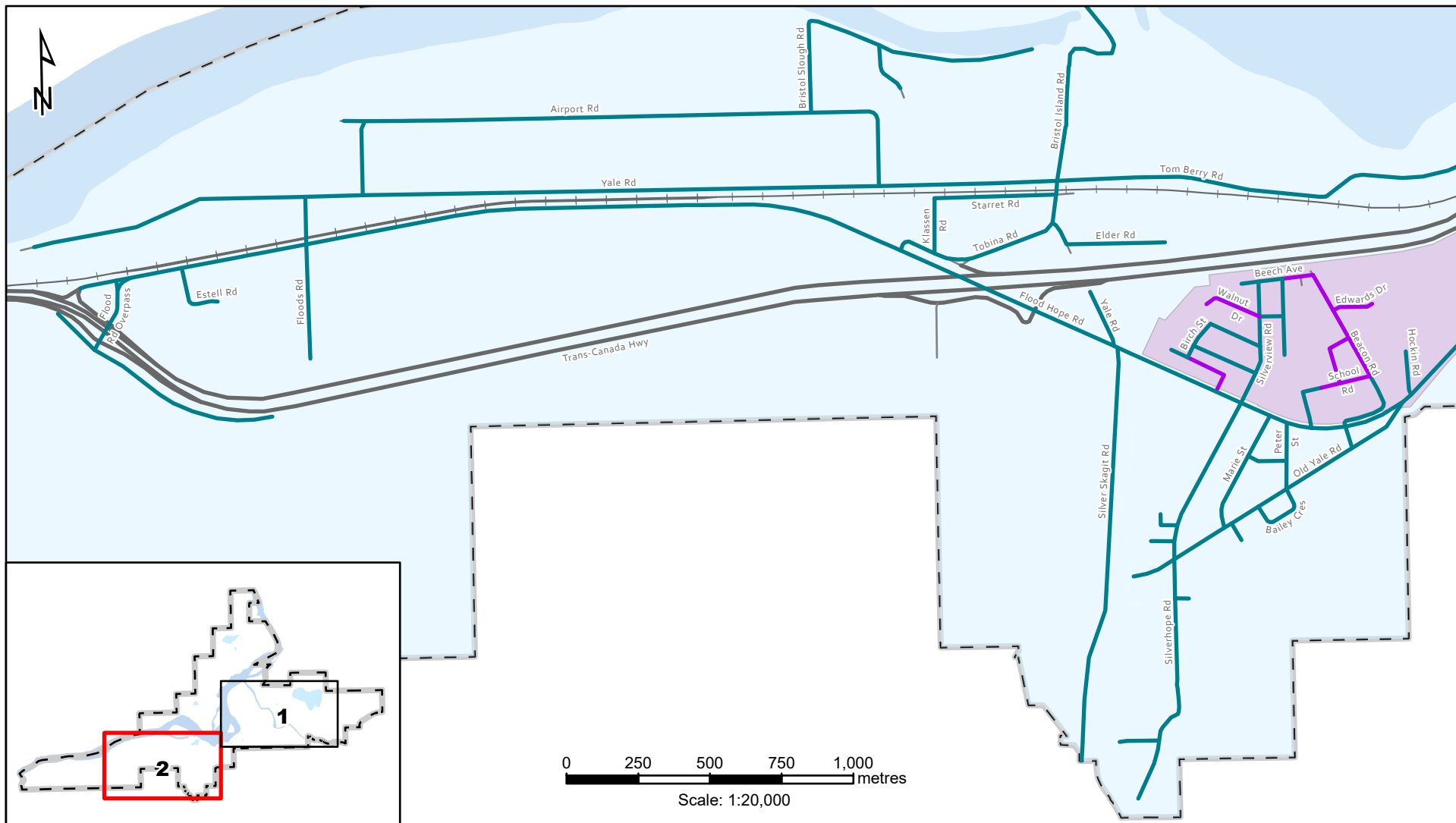
- Municipal Boundary
- First Nation Reserve Land
- Highway (BC MoTI)
- Road
- Railway Tracks

- Existing Network Classification
- Urban
 - Rural

- Future Network Development Classification
- Circumstance Based Standard (Urban or Rural)
 - Rural Standard
 - Urban Standard

Rural/Urban
Standard
Downtown

DISTRICT OF
HOPE



Rural/Urban Standard Silver Creek

5.3.4 Typical Cross Section Updates

The District is proposing to refine and update the typical road cross sections in an effort to modernize and ensure suitable infrastructure will be implemented in recognition of the IOCP and ITMP priorities. In general, the following changes are recommended:

- Narrowing of lane widths where appropriate;
- Updating the sidewalk width standard to 2.0m;
- Incorporation of separated sidewalks and multi-use paths where needed.

Typical sections have been proposed for Local and Collector roads in both Urban and Rural areas. Only one section for Arterial Roads has been proposed, as these are mostly in Rural Areas. The District may choose to require curb, gutter and sidewalk on the segments of arterial road located near the town core. The figures below illustrate the intended standards, however, they may be further refined when the Subdivision and Development Servicing Bylaw is updated.

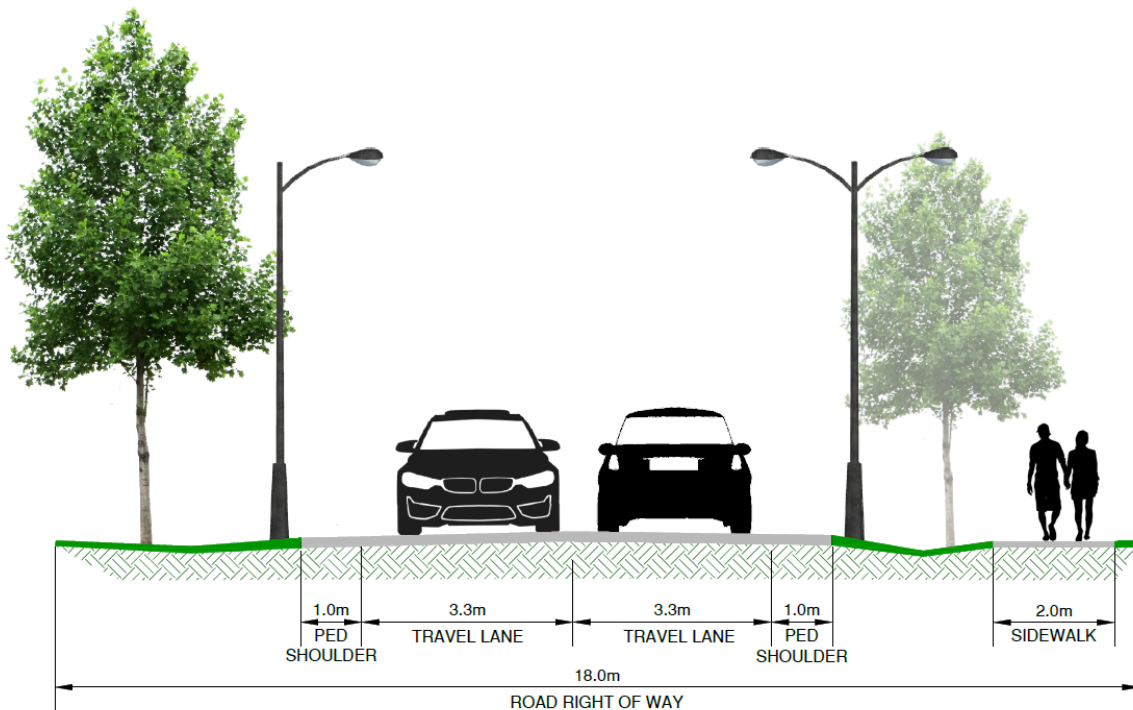


Figure 5-9 Rural Local Cross Section

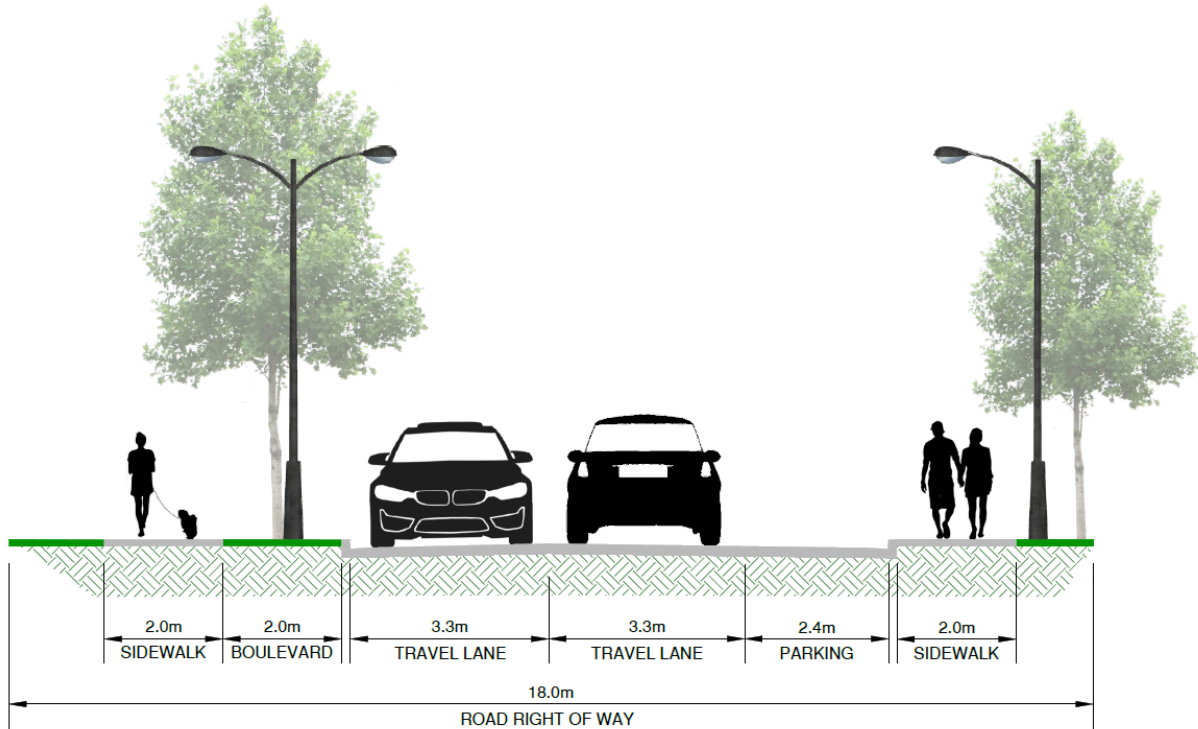


Figure 5-10 Urban Local Cross Section

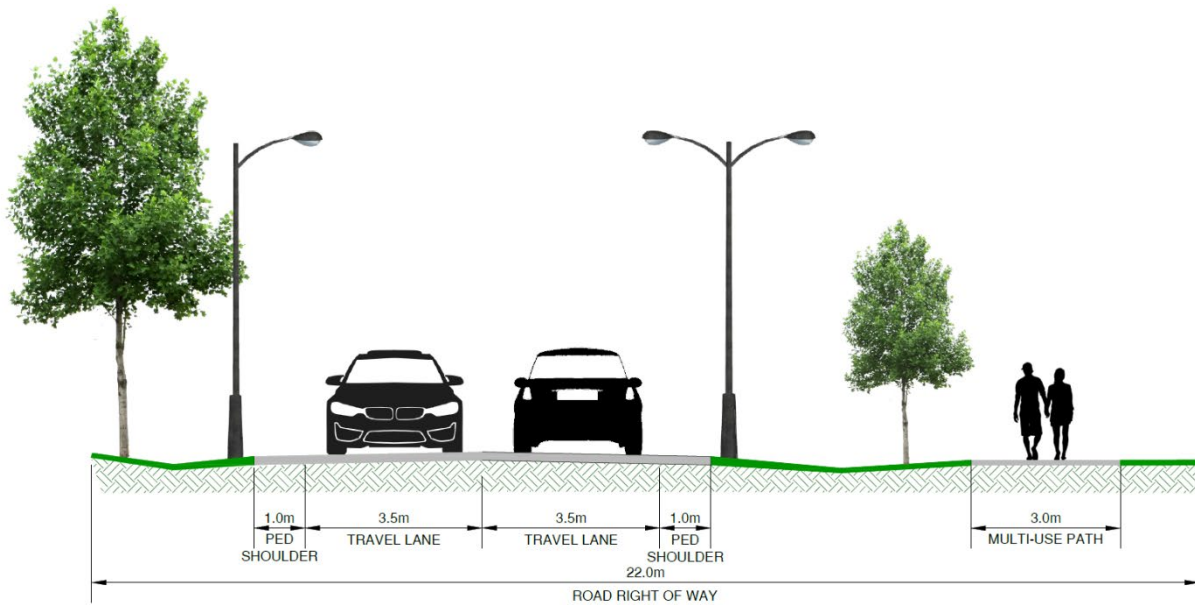


Figure 5-11 Rural Collector Cross Section

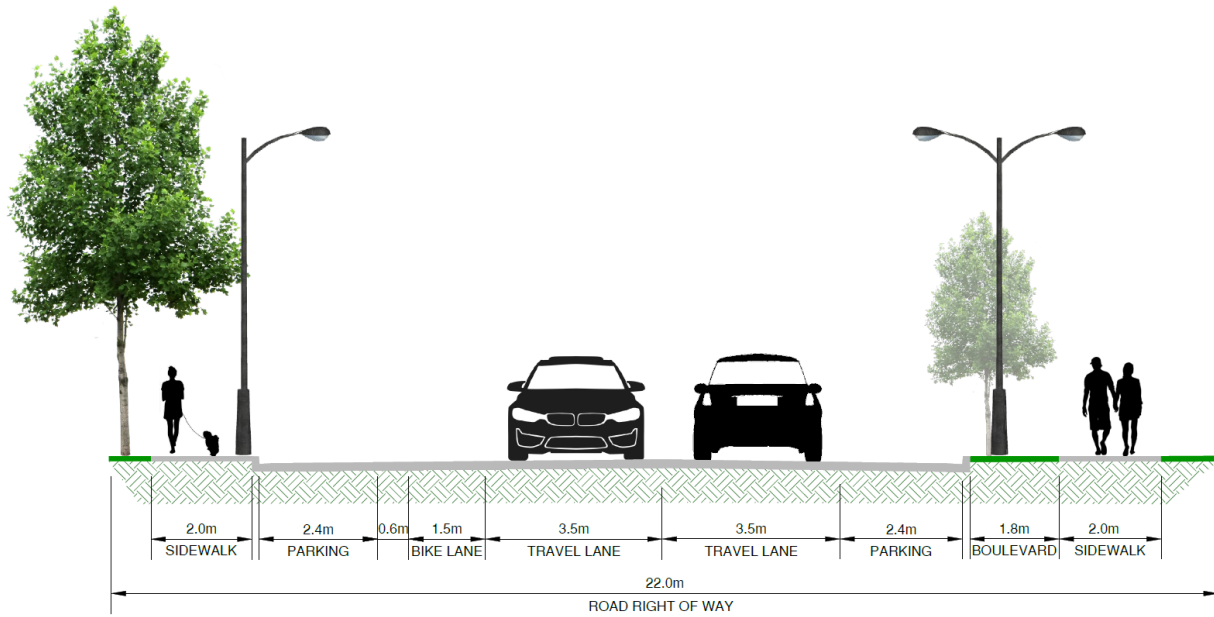


Figure 5-12 Urban Collector Cross Section

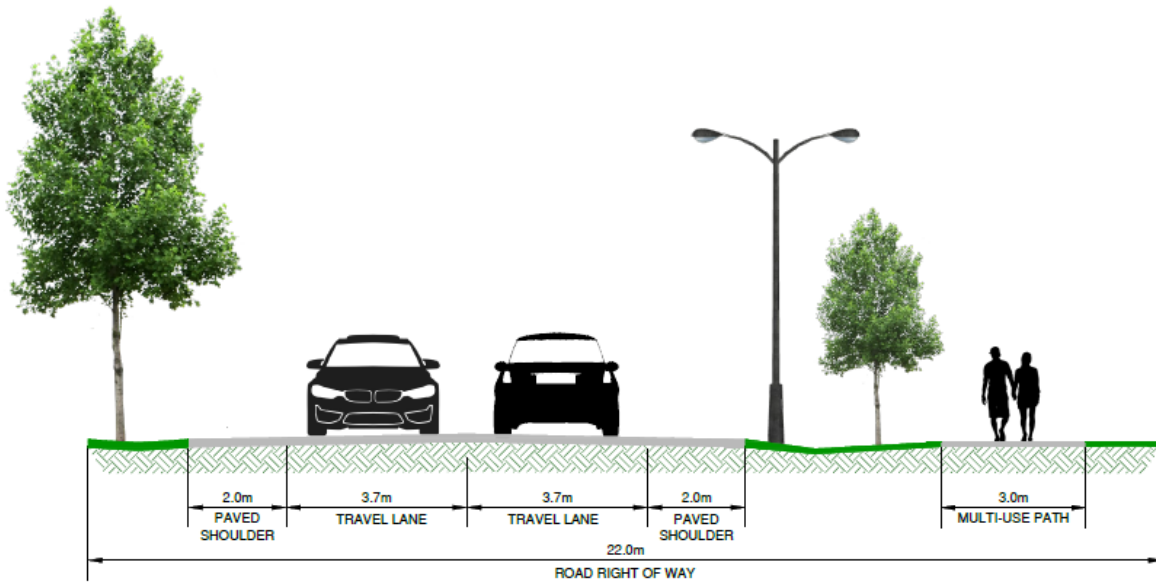


Figure 5-13 Arterial Cross Section

5.3.1 Intersection Improvements

The Road Network Analysis Study did not identify the need for capacity related intersection upgrades. In general, the District's road network and intersections are resilient and can manage the expected growth to the 2038 horizon. The study found only one intersection, at Kawkawa Lake Road / Corbett Street & 6th Avenue, with movements that may worsen to a LOS C. While this LOS is considered acceptable, delays will continue to increase incrementally, and the District may wish to plan for intersection improvements.

Other intersection improvements in the District's network are likely to be related to safety, the incorporation of active transportation infrastructure, and/or beautification. It is recommended that the District complete an intersection safety and upgrade feasibility review for the six intersections previously identified as having the highest collision rates, to better define the improvement needs and estimate capital costs for each. These are shown on the overall project lists as the Wallace Street and 6th Avenue corridor safety reviews, respectively. For the purposes of the ITMP, the potential considerations at these intersections are identified in the following table.

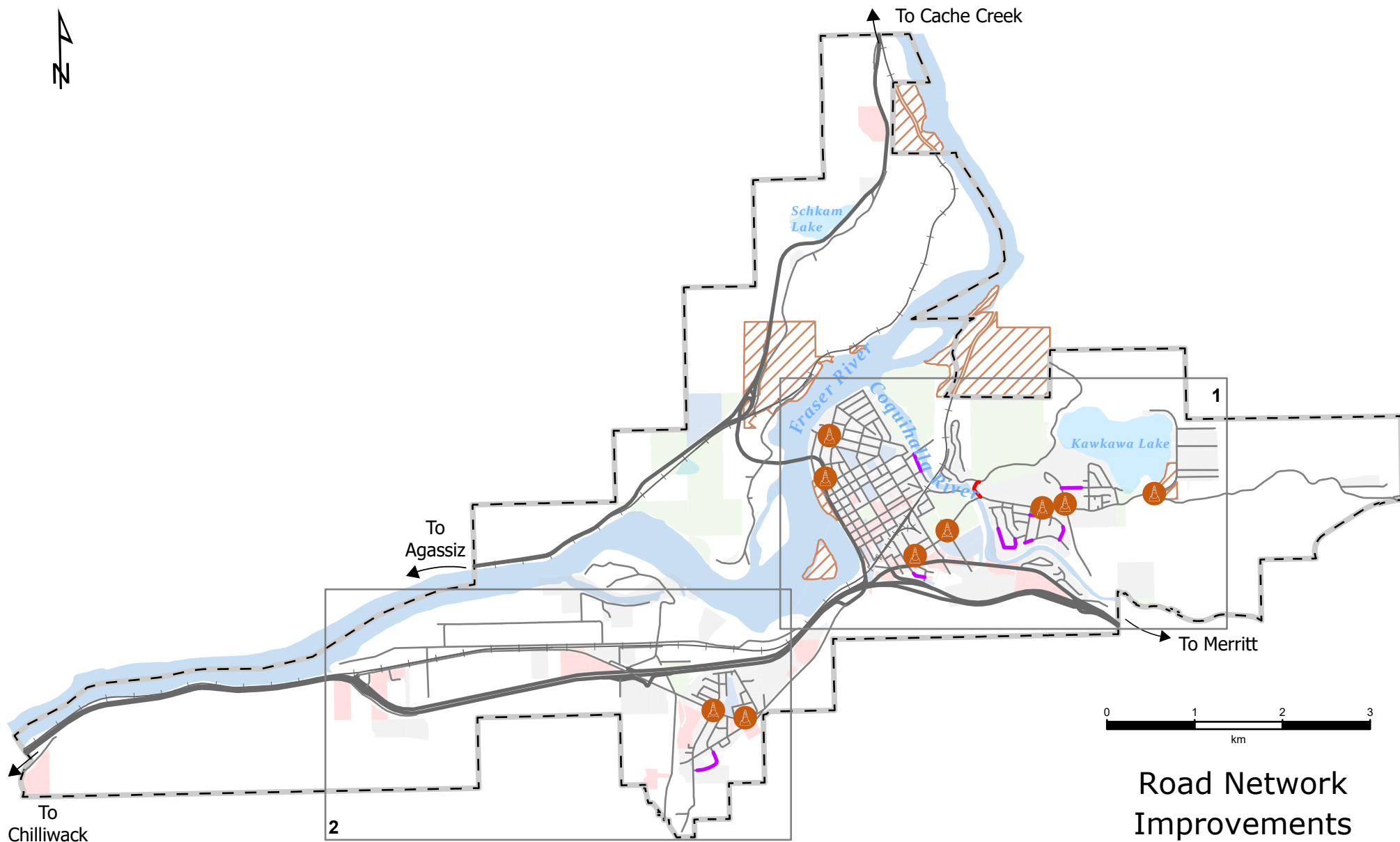
Table 5-2 Wallace Street and 6th Ave Corridor Safety Reviews

Location	Trigger	Consideration
Wallace Street and Water Ave (BC MoTI)	Safety	Vehicle movements, pedestrian crossing distance, overall width
Wallace Street and 3 rd Ave	Safety	Pedestrian crossing distance, traffic volumes, overall width
Wallace Street and 5 th Ave	Safety	Pedestrian crossing distance, E-W sightlines
6 th Ave and Old Hope Princeton Way (BC MoTI)	Safety	Traffic volumes, overall safety
6 th Ave and Fort Street	Safety	Railway crossing safety / queuing, active transportation needs, access definition
6 th Ave / Kawkawa Lake Road	Safety and Capacity	Roundabout or 4-way stop, access definition

Improvements may be warranted at several other intersections within the District's road network, however these should be appropriately identified and prioritized, along with the above, via a network intersection screening study. In the interim, several other intersections are noted in the project lists in Appendix C and in the figures below.

5.3.2 Neighbourhood Connections and Road Extensions

The ITMP review process also identified several roads that will require extension in the future. These are typically required in conjunction with future development projects, and as such are likely to be funded by the developers. A list of these roads is included in Appendix C and shown on the figures below.



Road Network Improvements and Extensions

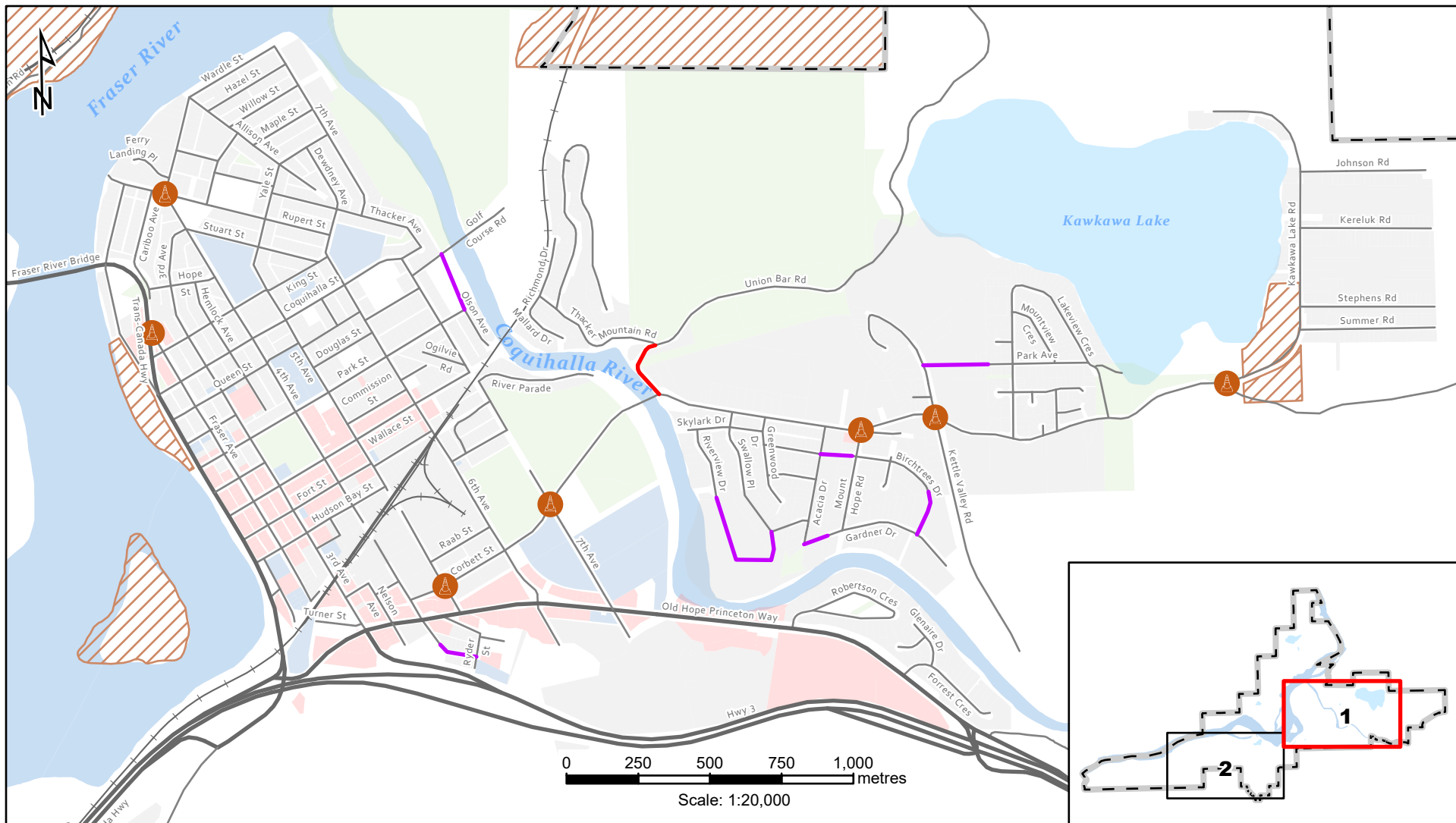
DISTRICT OF



- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space
- Residential

- Highway (BC MoTI)
- Road
- Railway Tracks

- Proposed Intersection Improvements
- Future Connection
- Proposed Network Improvements



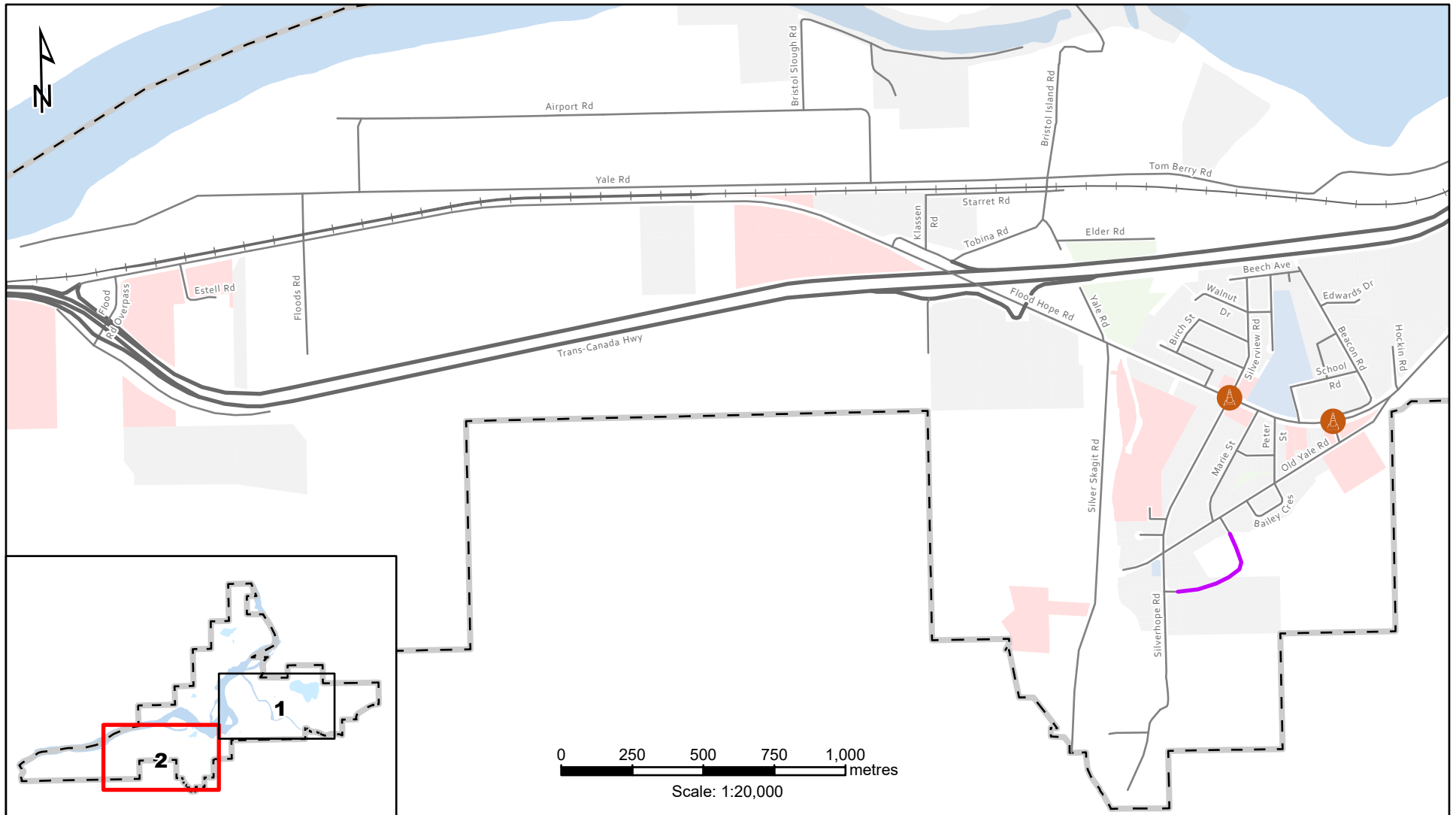
- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space










- Residential
- Highway (BC MoTI)
- Road
- Railway Tracks




- Proposed Intersection Improvements
- Future Connection
- Proposed Network Improvements

Road Network Improvements Downtown

DISTRICT OF
HOPE



-  Municipal Boundary
-  First Nation Reserve Land
-  Commercial
-  School and Institutional
-  Parks and Open Space
-  Residential
-  Highway (BC MoTI)
-  Road
-  Railway Tracks

-  Proposed Intersection Improvements
-  Future Connection
-  Proposed Network Improvements

Road Network Improvements - Silver Creek

DISTRICT OF
HOPE



6.0 Active Transportation and Transit

The goals of the IOCP have been reviewed and translated into goals, objectives, and targets related to the District's transportation infrastructure. Given the overall road network resiliency for vehicular capacity, and the focus on goals relating to sustainability, livability, health, affordability, and community, most of the proposed infrastructure improvements are related to active transportation. The District has a unique opportunity to realize major improvements to the active transportation network, which would be expected to result in a shift towards active modes and transit and away from travel by vehicle. This will help achieve the target of increasing travel with sustainable modes by 50% by 2040.

6.1 Existing Active Transportation Network

The District of Hope is characterized by pedestrian infrastructure within the downtown core, and by rural road forms lacking in active transportation infrastructure in much of the rest of the municipality. Given that active transportation has historically not been a focus, many areas do not have pedestrian or cycling facilities.

In line with the objectives set out in the IOCP and section 3 of the ITMP, there is a need to improve overall active transportation infrastructure in order to facilitate walking and cycling as a primary travel mode. In general, issues related to pedestrian, cycling, and trails/pathway infrastructure are outlined herein, with gaps in the networks and corresponding infrastructure needs identified.

6.1.1 Pedestrian Network

The District of Hope has constructed pedestrian infrastructure primarily within the Hope townsite area of the community. This provides suitable pedestrian infrastructure in the downtown, but pedestrians face the following barriers when travelling outside the established walkable areas:

- Lack of connectivity (system and corridor gaps) throughout the community including:
 - No connectivity to Kawkawa Lake area
 - No connectivity to the Silver Creek and Floods industrial area
 - No connectivity to Schkam Lake (Lake of the Woods) area
- Spot gaps within key areas of the community core
- Lack of crossing control at key intersections / road crossings and at some railway crossings



Figure 6-1 Lack of Pedestrian Crossings in Kawkawa Lake Area



Figure 6-2 Inadequate Width of Pedestrian Shoulder

6.1.2 Cycling Network

The District of Hope has designated a circular cycling route throughout the townsite area of the community. This route was established to provide users with a signed (for information purposes) route around the community. Notwithstanding this route, the community does not contain dedicated cycling facilities within the community, other than small sections of MUP infrastructure.

The barriers facing the District's cycling community include:

- Inadequate cycling facilities that do not meet the needs of all ages and abilities;
- Lack of connectivity (system and corridor gaps) throughout the community, including:
 - No connectivity to Kawkawa Lake area
 - No connectivity to the Silver Creek and Floods industrial area
 - No connectivity to Schkam Lake (Lake of the Woods) area
- No delineation or guidance for cyclists at intersections / road crossings.



Figure 6-3 Lack of Delineation for Cyclists

6.1.3 Trail / Pathway Network

The District's trail network is sporadic and intertwined through many parts of the community but faces barriers including:

- Trails that traverse private land;

- Lack of connections from trailheads to existing active transportation facilities;
- Lack of integration with regional / provincial sustainable transportation networks, including the Experience the Fraser Trail Plan and the Trans Canada Trail.



Figure 6-4 Lack of Trail Integration and Connection

6.1.4 Active Transportation Gap Analysis

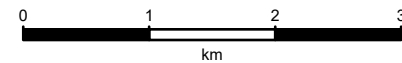
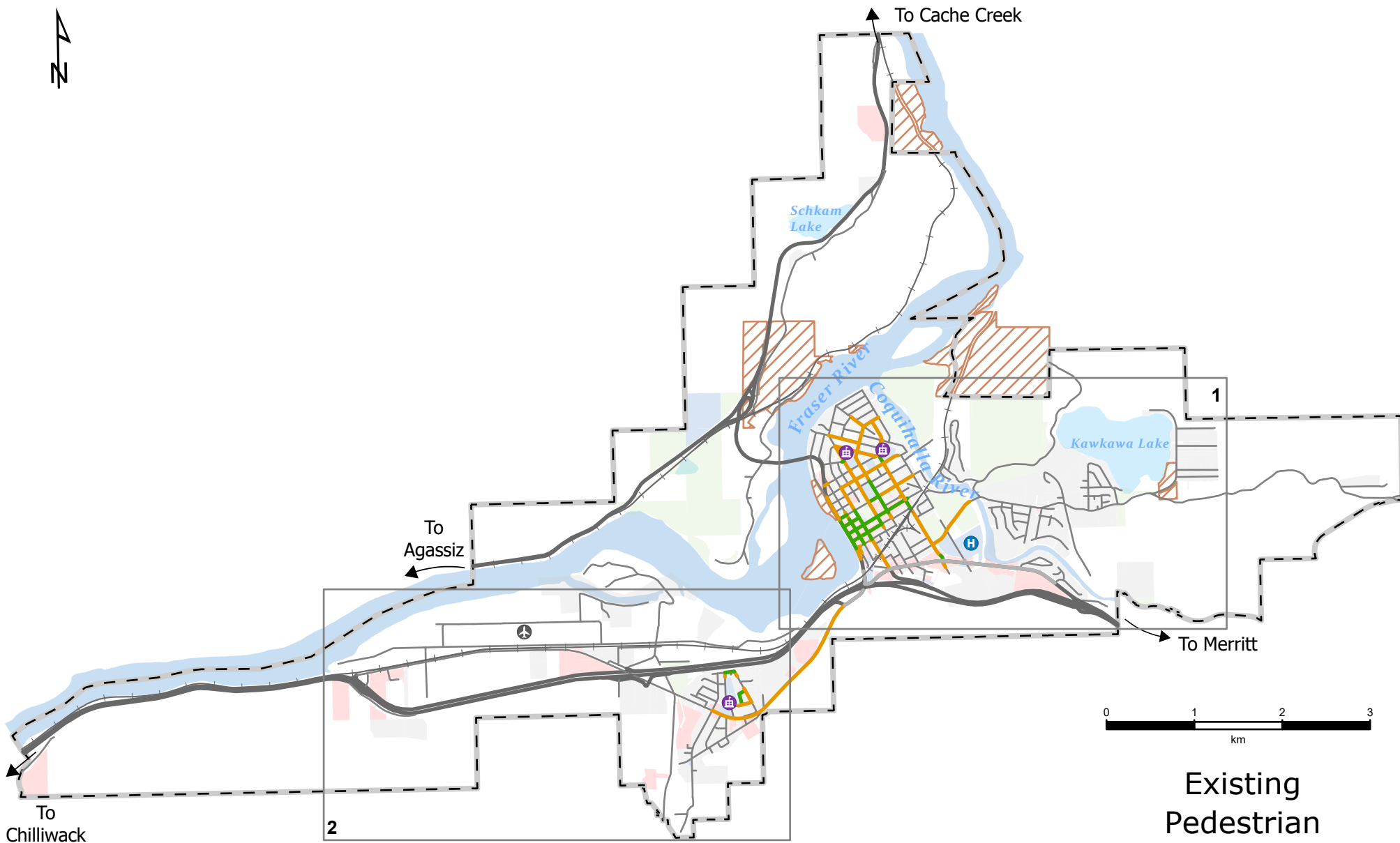
One of the primary goals of the ITMP is to facilitate and promote an increased active transportation mode share, in large part via improvements to pedestrian and cycling infrastructure. In order to identify necessary infrastructure, an active transportation gap analysis was completed.

From a review of the existing conditions, the infrastructure was reviewed to assess the ability of the network to meet the needs of all network users. This analysis identified the following types of gaps in the network:

1. Spot Gaps: Specific locations with missing infrastructure
2. Connection Gaps: Missing connection between routes / different land uses
3. Lineal Gaps: Missing links / barriers along a connected route
4. Corridor Gaps: Missing connections between routes / land uses that span a longer distance along a desired active transportation path
5. System Gaps: Larger areas (i.e. neighborhoods) where no active transportation infrastructure is present

The findings of the gap analysis were used to identify active mode infrastructure needs, as outlined in the below sections. This report does not necessarily identify all future connections and gaps. As the District of Hope grows and densifies, development may take place in areas where future active transportation facilities have not yet been identified. Where opportunities for connections exist as development occurs in the community, the District will look to developers to cost share and build out active transportation facilities to ensure that network connectivity is improved and that the additional population can access suitable infrastructure.

The map of the existing pedestrian network included below shows some of the gaps between infrastructure that can make it difficult to move around in the community.



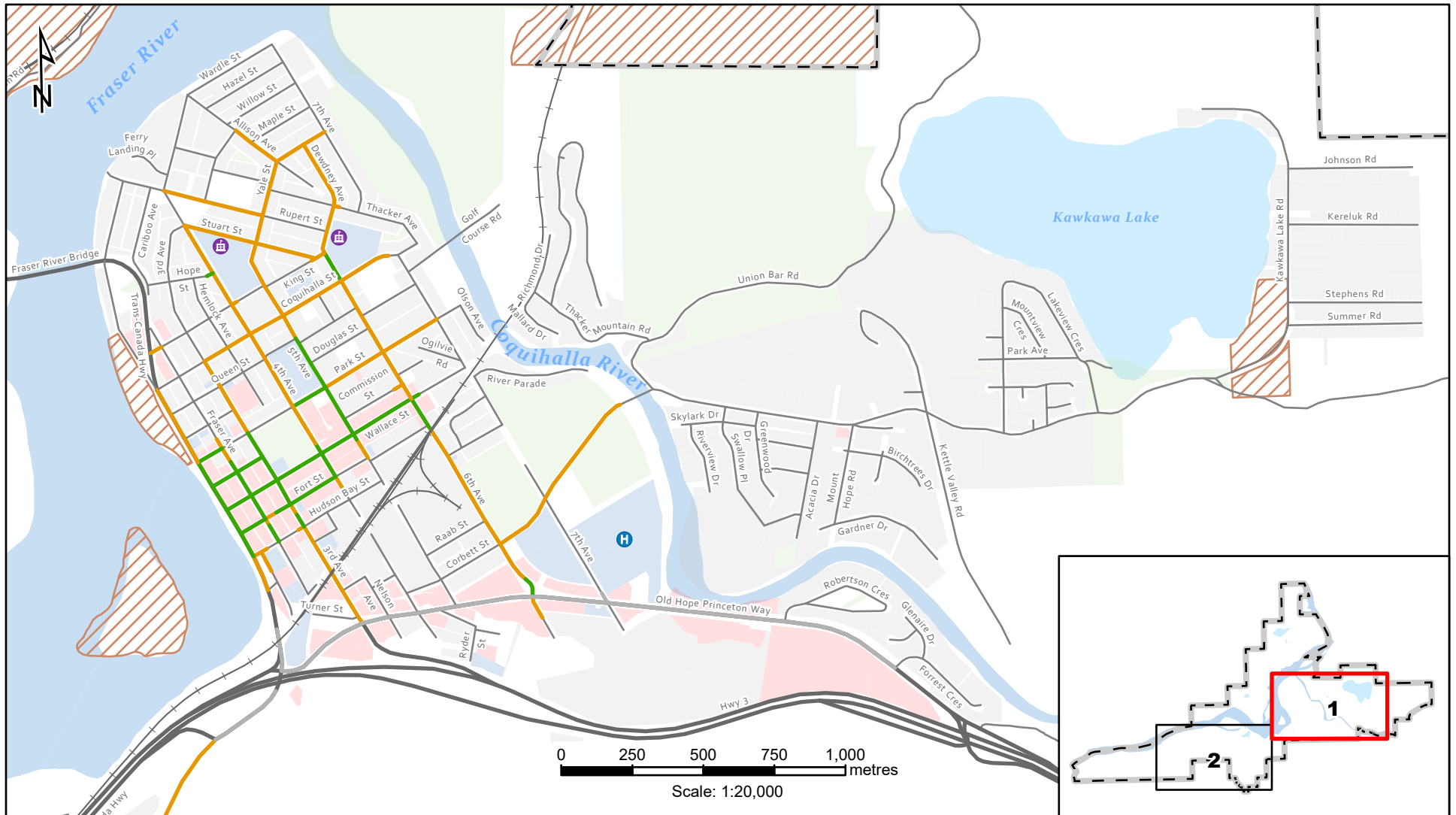
Existing Pedestrian Network



- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space
- Residential

- Highway (BC MoTI)
- Road
- Railway Tracks

- Existing Pedestrian Network**
- 1 Side
- 2 Sides
- MOTI Pedestrian Network



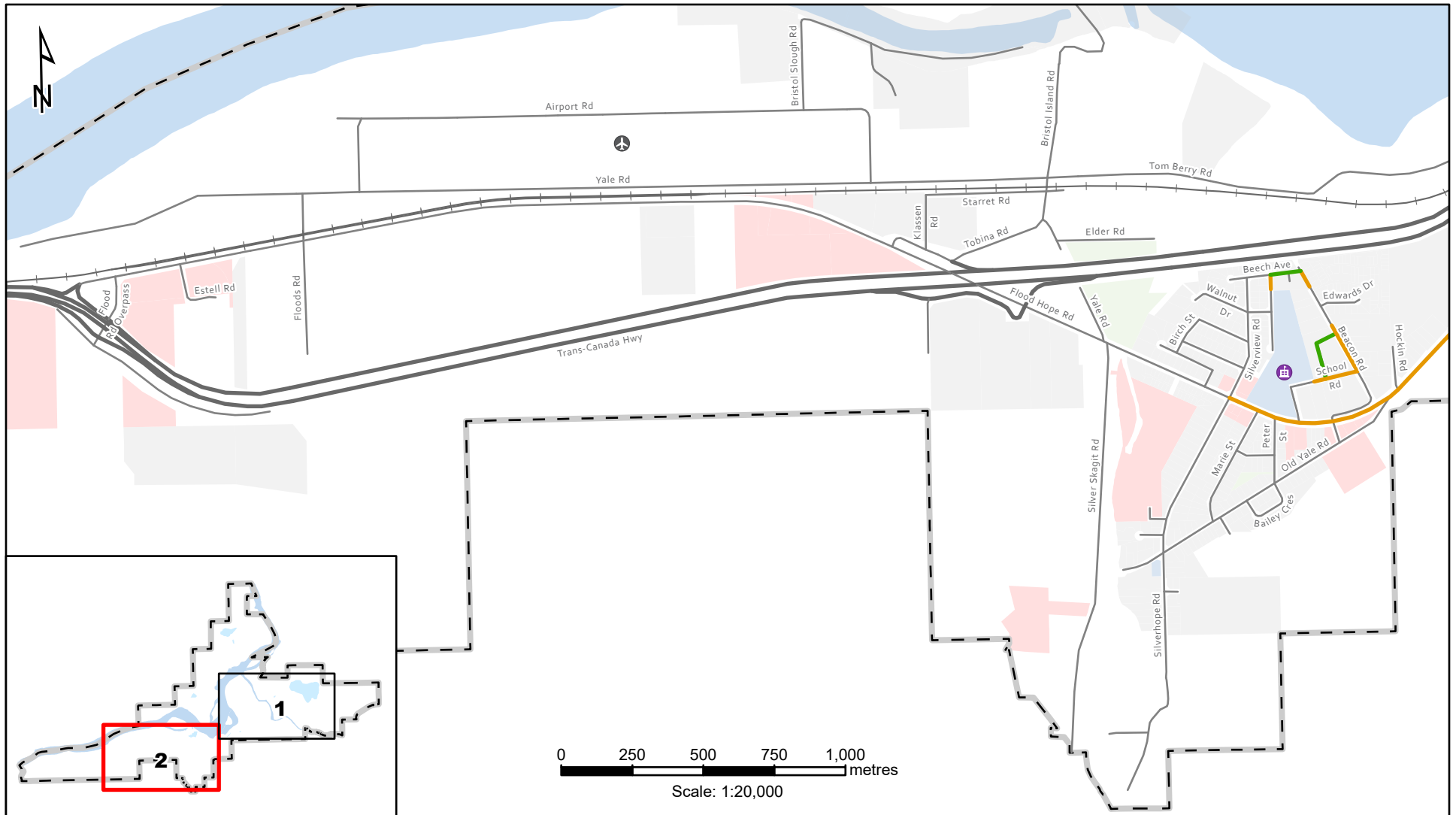
- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space

- Residential
- Highway (BC MoTI)
- Road
- Railway Tracks

- Existing Pedestrian Network
- 1 Side
- 2 Sides
- MOTI Pedestrian Network

Existing Pedestrian Network - Downtown

DISTRICT OF
HOPE



- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space

- Residential
- Highway (BC MoTI)
- Road
- Railway Tracks

- Existing Pedestrian Network
- 1 Side
- 2 Sides
- MOTI Pedestrian Network

Existing Pedestrian Network - Silver Creek

6.2 Existing Public Transit

The District of Hope is serviced by BC Transit through the Route 72 connection from Hope to the community of Agassiz, located approximately 35 km away. The route was implemented in 2017 in order to improve the connectivity in and around Hope. Route 72 provides the residents of Hope with connections to the Chilliwack Transit System and the Fraser Valley Express, via Route 71 Agassiz-Harrison, which connects the community to Abbotsford, Langley and the rest of the lower mainland.

Route 72 consists of eight stops within the District of Hope, and runs four times a day (two times in the morning between 6:30 am – 8:30am and two times in the afternoon between 4:00pm – 6:00pm) and six days a week. The stops are spread throughout the community, including in the town center, the Kawkawa Lake area, Silver Creek, on 6th Avenue, and on Old Hope Princeton Way.

The District of Hope is without transit service during the day between the hours of 8:30am to 4:00pm. While a small system in the context of BC Transit services, the District of Hope system does see slightly higher than average utilization when compared to other paratransit systems in the province, with 4.87 rides/hour as compared to the average of 3.80 rides/hour. The transit system routing is shown in the following figure. Of note, not all of the stops are shown explicitly.

72 Hope

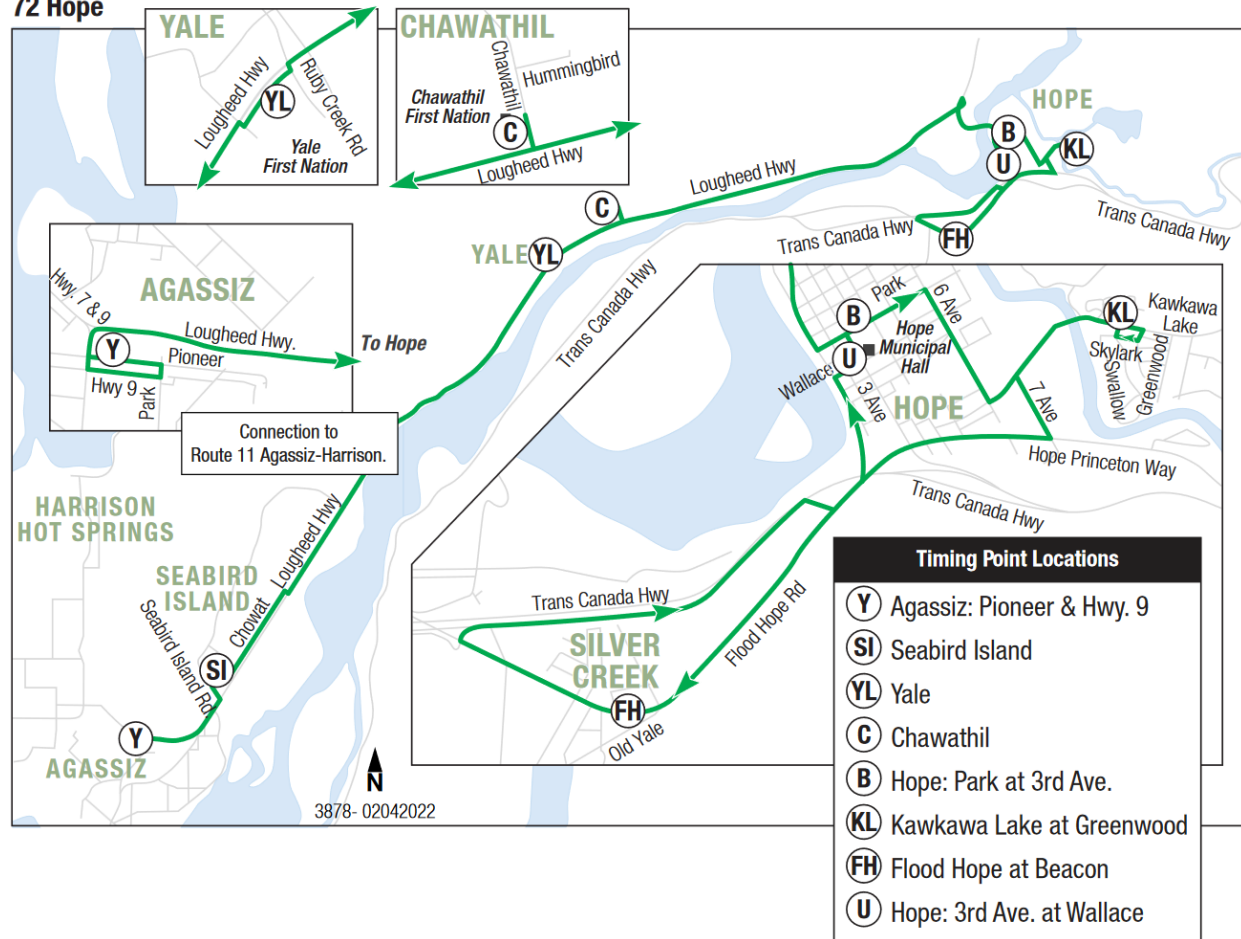


Figure 6-8 BC Transit Map for Hope

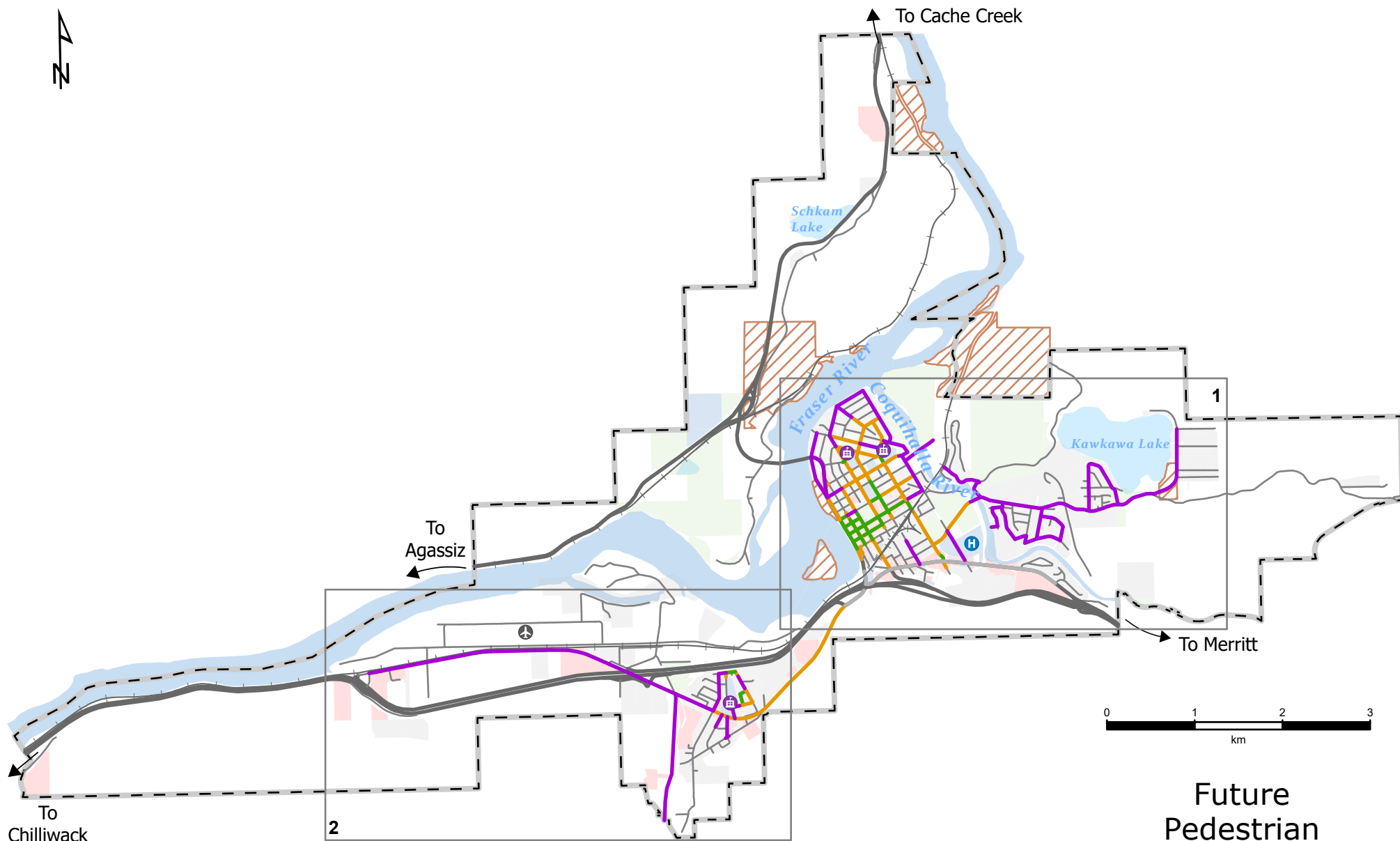
6.3 Future Active Transportation Network

The ITMP outlines several goals that will be accomplished via the addition of suitable active transportation infrastructure. The proposed active transportation network was developed through a review of existing network infrastructure facilities and deficiencies. An evaluation of public feedback, relevant guidance documents and input from District of Hope staff has also been considered.

The proposed active transportation network was developed to:

- Fill in gaps between existing facilities in the community;
- Provide new connections to neighborhoods and areas without active transportation infrastructure;
- Recommend new facilities to incorporate both cycling and walking throughout the community.

The list of projects and maps shown below include all proposed pedestrian, cycling, and trails/pathway infrastructure identified to resolve the gaps arising from the gap analysis.



- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space
- Residential

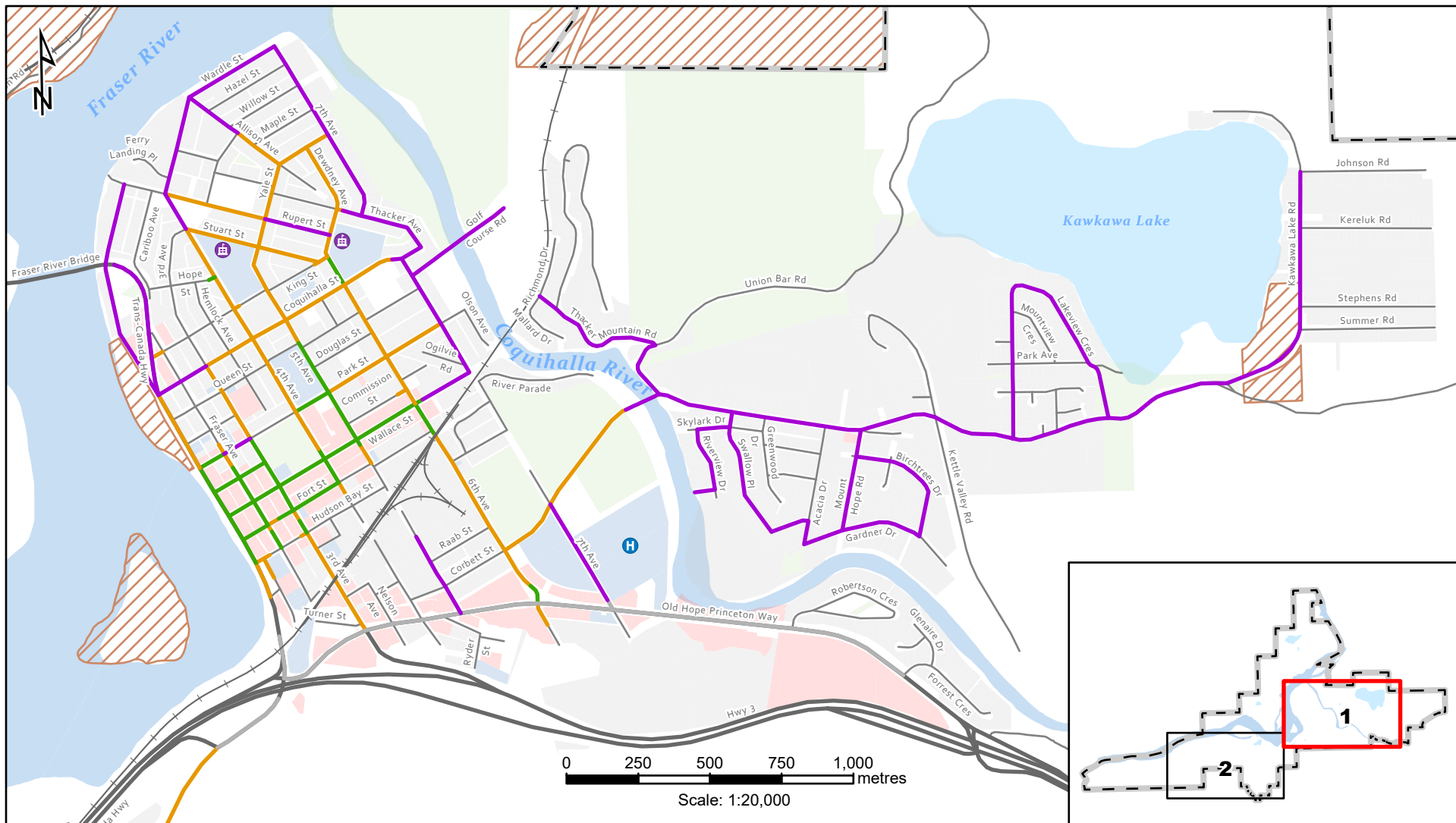
- Highway (BC MoTI)
- Road
- Railway Tracks

- Existing Pedestrian Network
 - 1 Side
 - 2 Sides
 - MOTI Pedestrian Network
 - Future Pedestrian Network

0 1 2 3
km

Future
Pedestrian
Network

DISTRICT OF
HOPE



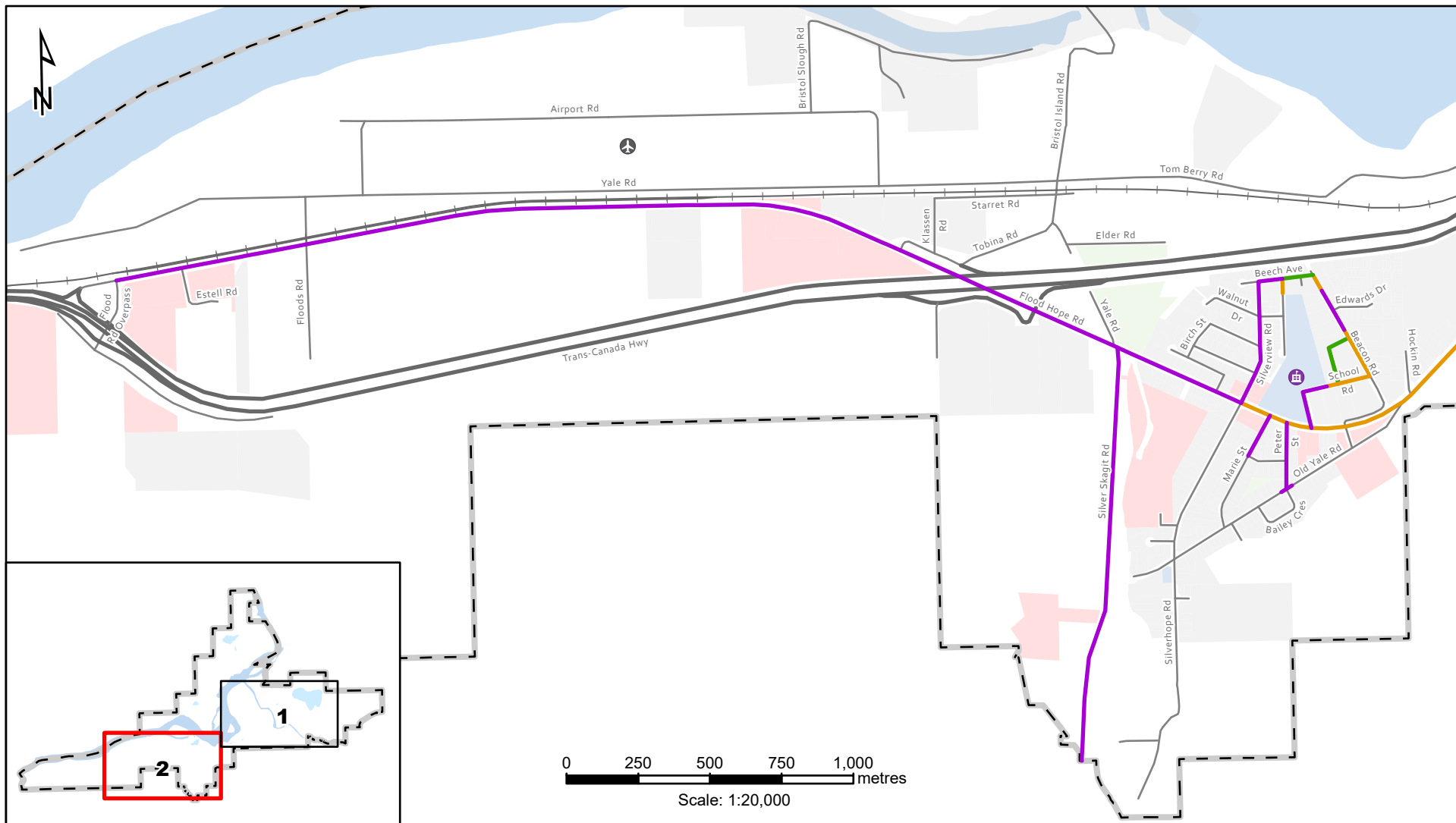
- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space
- Residential

- Highway (BC MoTI)
- Road
- Railway Tracks

- Existing Pedestrian Network
- 1 Side
- 2 Sides
- MOTI Pedestrian Network
- Future Pedestrian Network

Future Pedestrian Network - Downtown

DISTRICT OF
HOPE



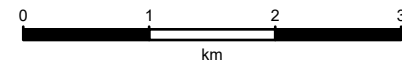
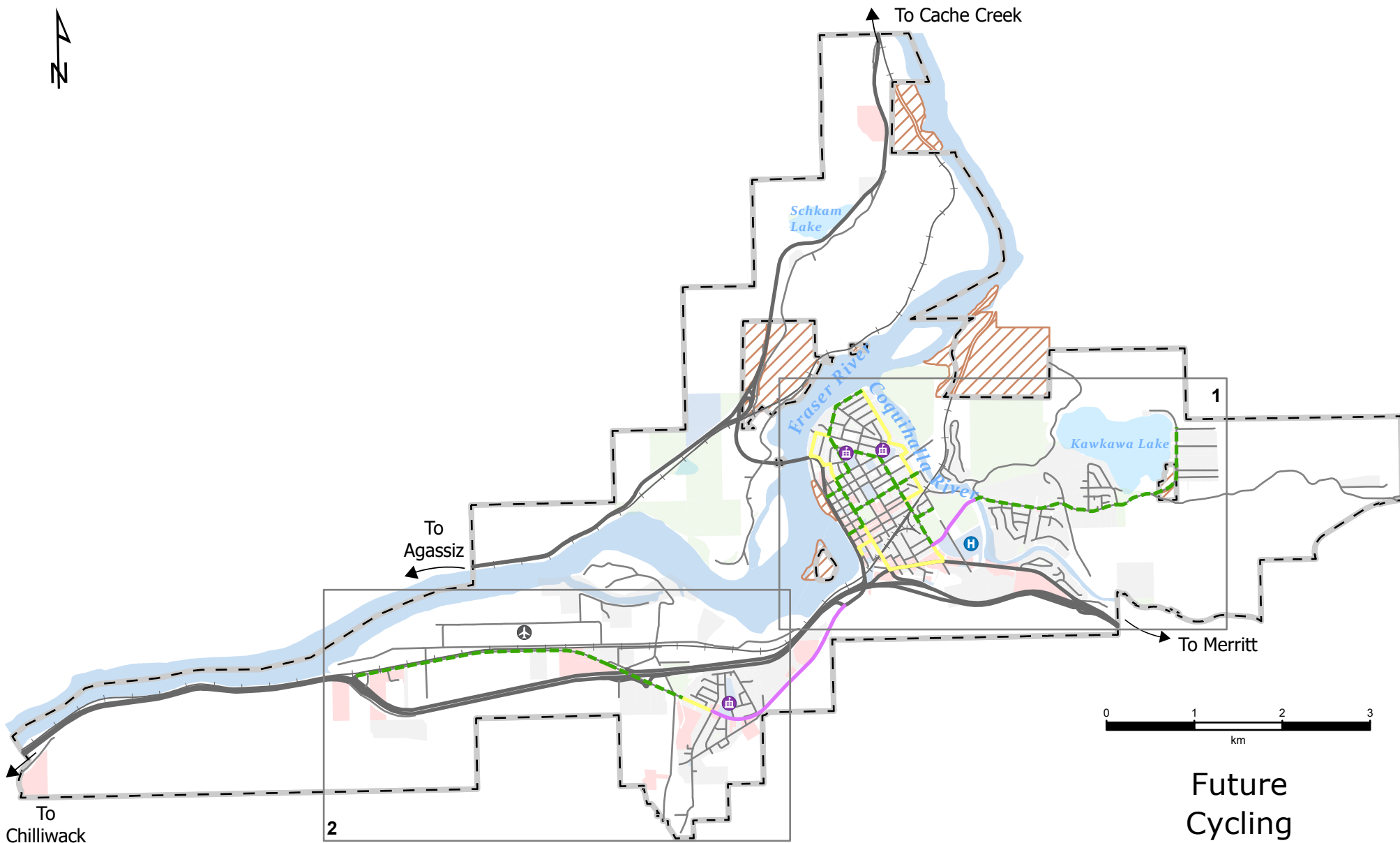
- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space
- Residential

- Highway (BC MoTI)
- Road
- Railway Tracks

- Existing Pedestrian Network
- 1 Side
- 2 Sides
- MOTI Pedestrian Network
- Future Pedestrian Network

Future Pedestrian Network - Silver Creek

DISTRICT OF
HOPE



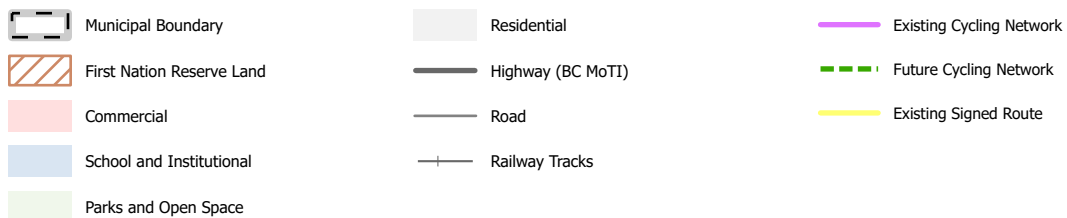
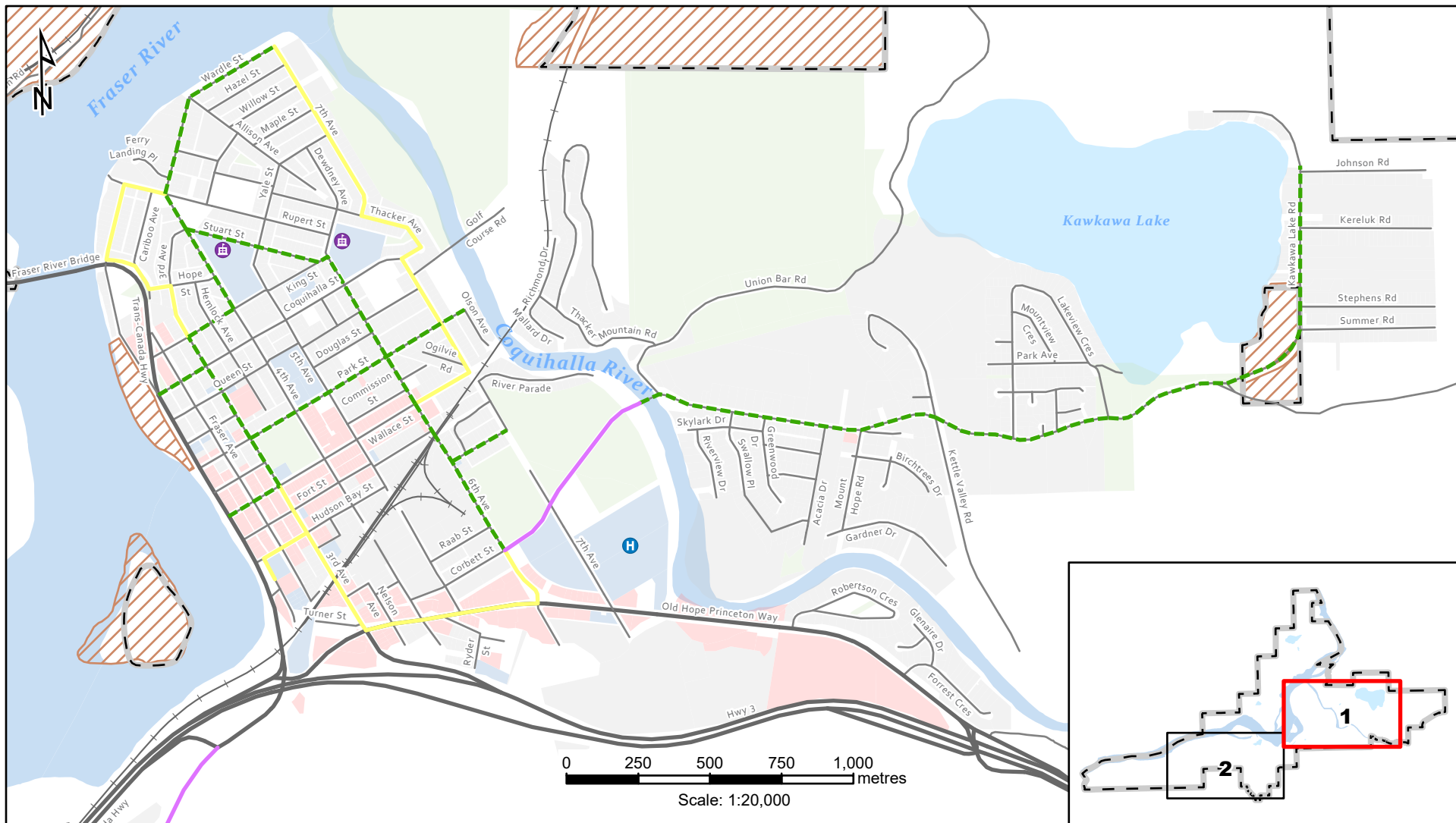
Future Cycling Network

DISTRICT OF
HOPE

- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space

- Residential
- Highway (BC MoTI)
- Road
- Railway Tracks

- Existing Cycling Network
- Future Cycling Network
- Existing Signed Route



Future Cycling Network Downtown

DISTRICT OF
HOPE



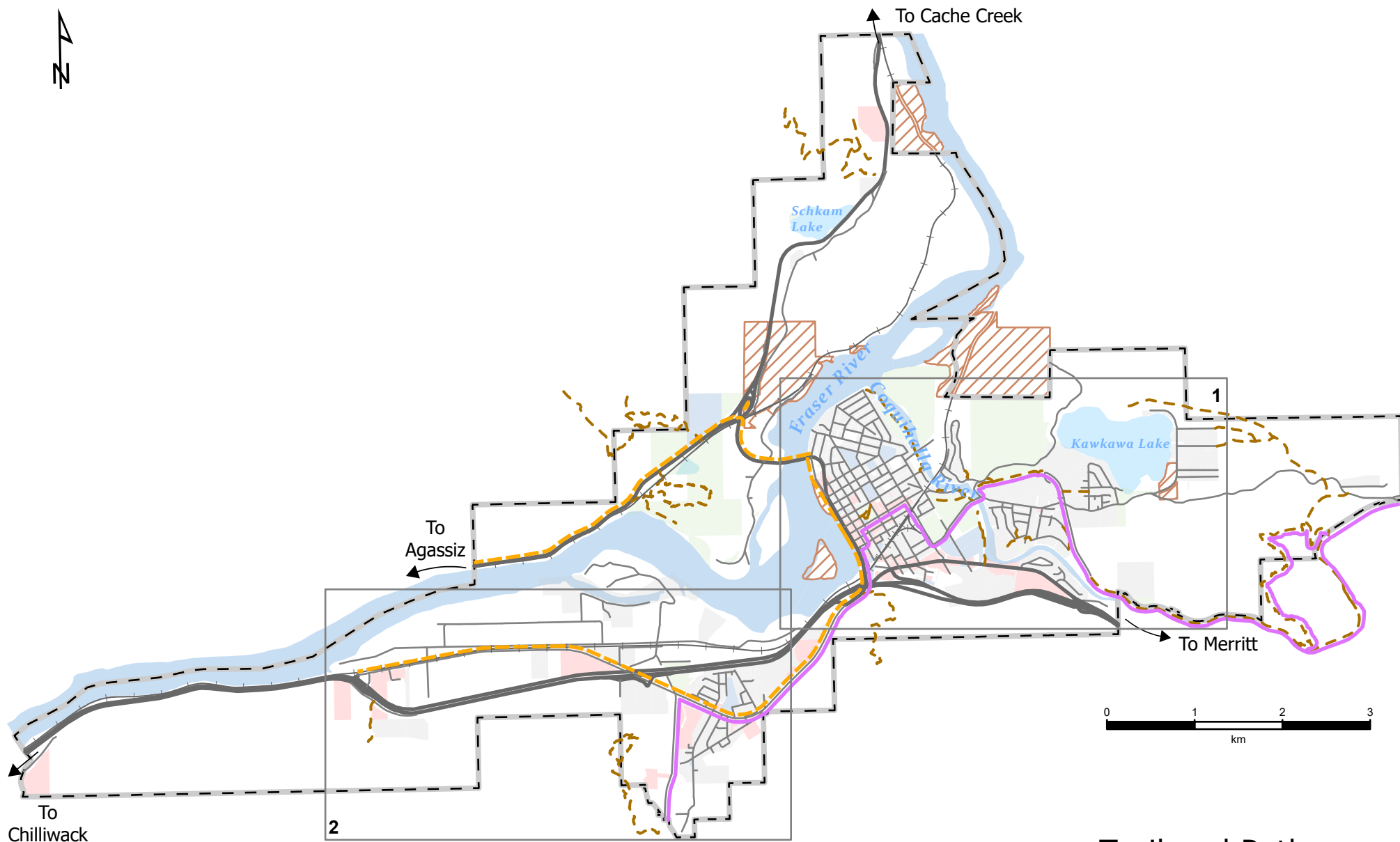
- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space

- Residential
- Highway (BC MoTI)
- Road
- Railway Tracks

- Existing Cycling Network
- Future Cycling Network
- Existing Signed Route

Future Cycling Network Silver Creek

DISTRICT OF
HOPE



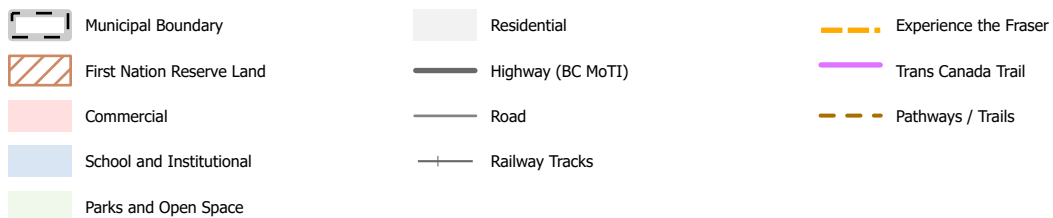
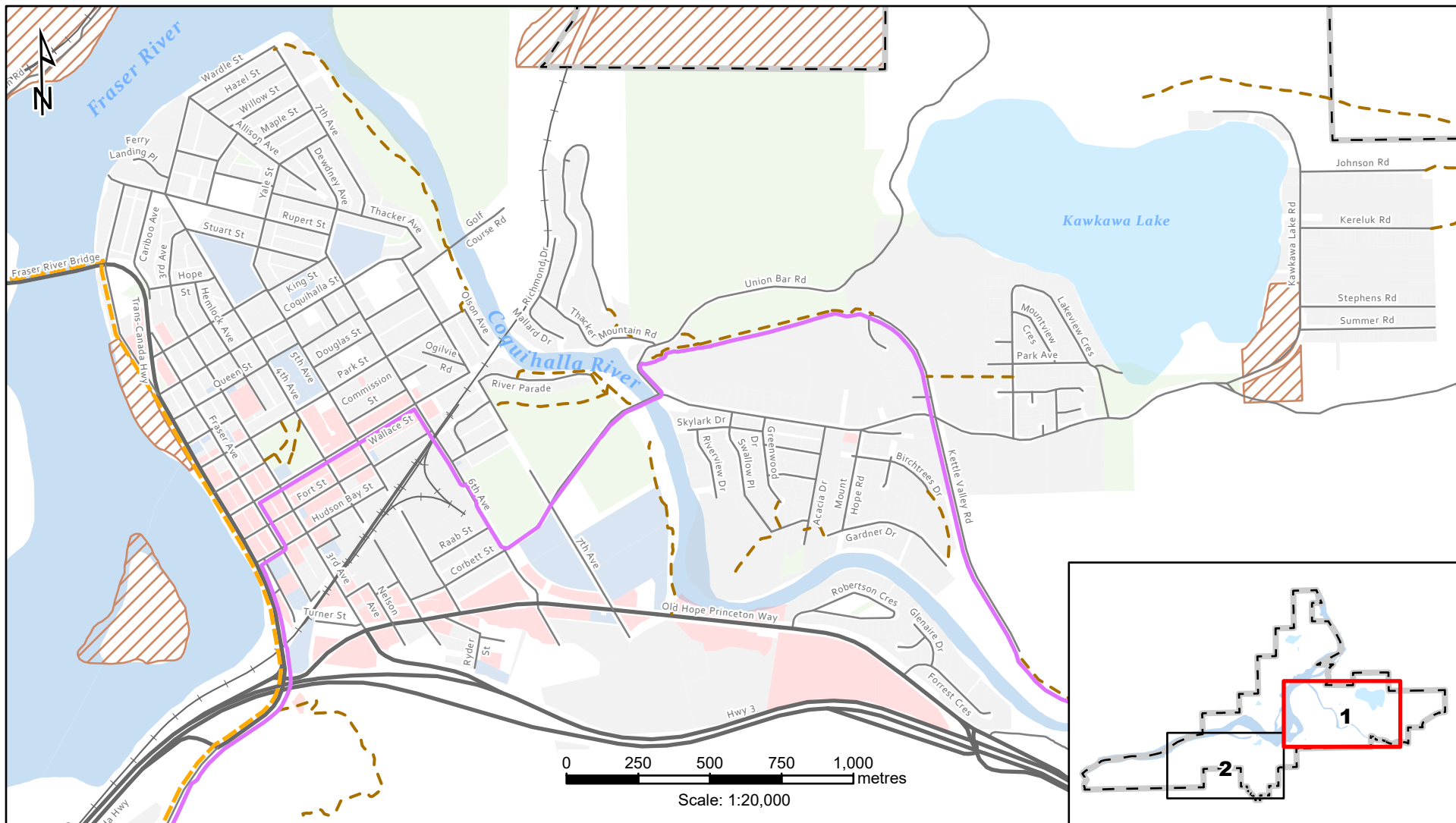
- Municipal Boundary
- First Nation Reserve Land
- Commercial
- School and Institutional
- Parks and Open Space

- Residential
- Highway (BC MoTI)
- Road
- Railway Tracks

- Experience the Fraser
- Trans Canada Trail
- Pathways / Trails

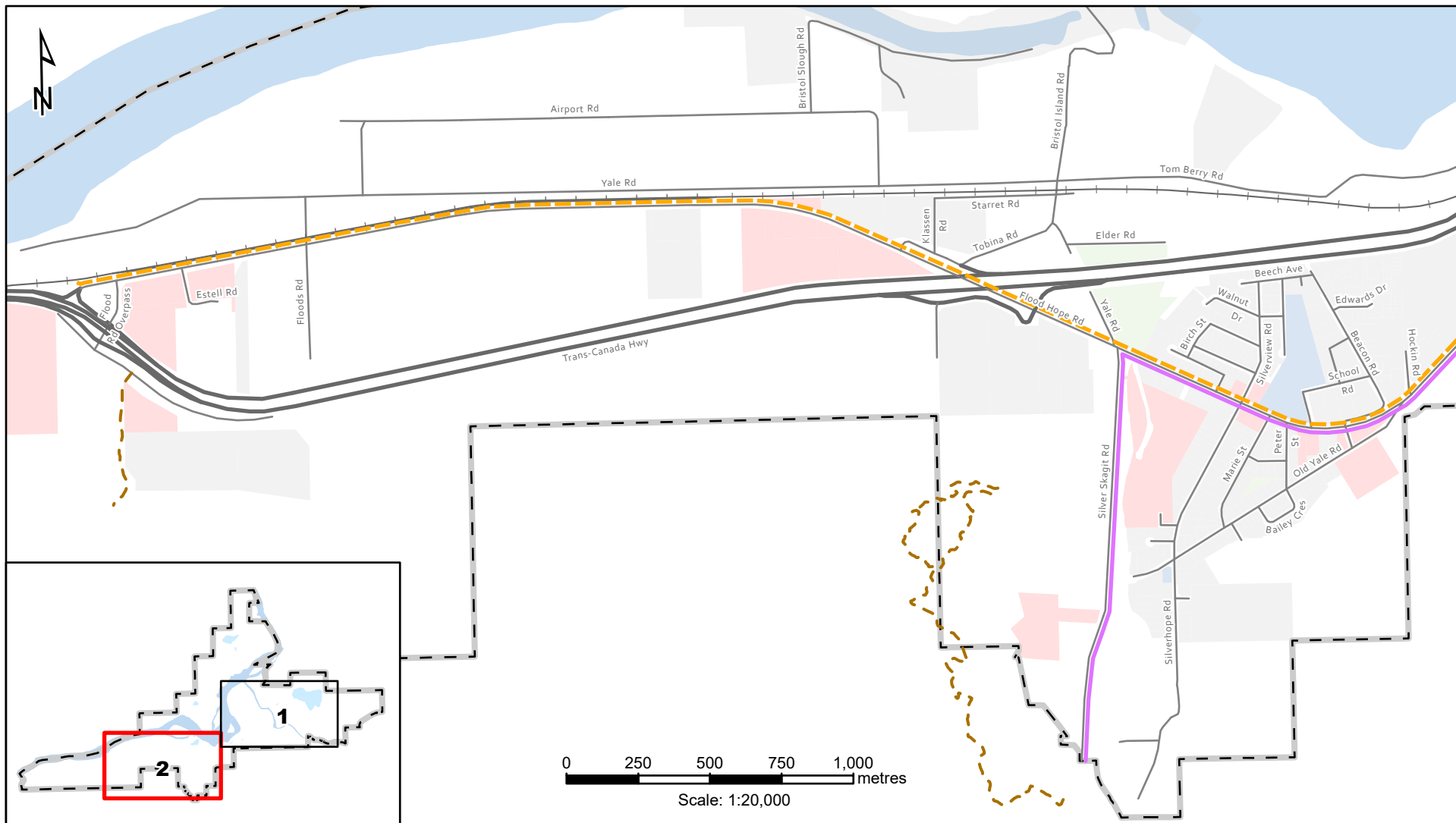
Trail and Pathways

DISTRICT OF
HOPE



Trails and Pathway Network Downtown

DISTRICT OF
HOPE



- | | | | |
|--|---------------------------|--|-------------------|
| | Municipal Boundary | | Residential |
| | First Nation Reserve Land | | Highway (BC MoTI) |
| | Commercial | | Road |
| | School and Institutional | | Railway Tracks |
| | Parks and Open Space | | |

- | | |
|--|-----------------------|
| | Experience the Fraser |
| | Trans Canada Trail |
| | Pathways / Trails |

Trails and Pathway Network Silver Creek

DISTRICT OF
HOPE

6.4 Future Transit Network

The District of Hope partners with BC Transit for the provision of transit service within the municipality. Changes to transit service are planned and implemented via the Chilliwack and Fraser Valley Regional District Transit Future Action Plan. The plan, updated in May of 2024, reviews transit needs for the Chilliwack and FVRD areas, including the municipalities of Hope, Agassiz, Harrison Hot Springs, and Kent. It includes a goal of increasing transit mode-share in Hope to 2% by 2040. To achieve this, the plan outlines the need for a further 2,500 hours of transit service allocated to the Hope and Agassiz-Harrison paratransit systems every four years.

Given the reasonably small service area in Hope as compared to Chilliwack, the plan largely focuses service level increases in the Chilliwack area, however there are items considered that support the ITMP goals, in particular related to travel affordability, improved accessibility, and enhanced travel choices and community connectivity.

Items discussed in the plan relating to service in Hope include:

- Maintaining service in the entire area, and recovering ridership levels that had reduced during the pandemic;
- An additional 2,300 hours of Hope Paratransit service of the medium (3-5 years) and long-term (5+ years). Medium term improvements include:
 - Adding an additional trip to Route 72 to the morning and afternoon peaks;
 - Adding additional trip time to provide more local service within Hope;
 - Consider options for new on-demand service for Hope area neighbourhoods;
 - Further local Hope service improvements.
- Long term improvements include:
 - Introduce Sunday service to Route 72;
 - Later Friday and Saturday Service to Route 72.

Moving forward, the District will continue to engage with BC Transit to ensure that the above priorities are moving forward, and that as new transit plans are prepared that the initiatives within them support the ITMP goals and the IOCP.



7.0 Plan Implementation

The Integrated Transportation Master Plan (ITMP) aims to enhance sustainable mobility in Hope by increasing active transportation mode share from 13% to 19.5% by 2040 and creating a fully connected transportation network.

Prioritized projects focus on road safety, pedestrian and cyclist infrastructure, traffic calming, and improved transit access. Key initiatives include collision data monitoring, intersection upgrades, pedestrian and cycling infrastructure, and transit stop enhancements. A phased implementation approach ranks projects based on economic impact, connectivity, sustainability, and safety, with cost estimates and a progress tracking strategy in place to guide future investments.

7.1 Previous Transportation Initiatives

The District of Hope has implemented several initiatives to support active transportation and that support the overall goals of the ITMP in making the community more accessible and sustainable for pedestrians and cyclists. The region features numerous multipurpose trails that accommodate walking, cycling, and other non-motorized travel. Hope Bike Park provides pump tracks and dirt jumps for all skill levels, promoting cycling as both a sport and a transportation option. Adjacent skateboard and BMX facilities offer additional spaces for non-motorized recreation. For cyclists, the Kettle Valley Railway and Rotary Nature Trails provide accessible routes, while more advanced riders can explore challenging mountain biking trails like Dog Mountain. Additionally, EV charging stations have been installed to encourage sustainable travel. These efforts demonstrate Hope's commitment to fostering active transportation while improving accessibility and environmental sustainability.

Moving forward, projects have been identified to continue the shift towards sustainable transportation modes with the overall goal of meeting the targets identified in the ITMP. This will be accomplished by implementing many of the projects and initiatives outlined herein.

7.2 Active Transportation Improvements Prioritization

The ITMP identifies active transportation projects and investments that are required to meet the District of Hope's transportation goals and objectives. These projects have been identified through a review of the existing conditions, future design horizon requirements, public consultation, and direction from District staff.

Following identification of all proposed active transportation needs, a prioritization exercise was completed to ensure that the highest value projects are targeted for completion first. The prioritization matrix was completed in consultation with District staff. Priority was established based on six overall factors as identified in the table below. Weighting for overall importance was then applied to ensure the District's priorities are reflected.

Factor	Objective	Weighting
Economic Development	Support economic development (serviced based, recreational, tourism)	15%
Community Connectivity	Enhance connectivity for network / intermodal connections	25%

Accessibility and Equity	Increase accessibility and mobility for users of all ages and abilities	15%
Sustainability	Consider the impacts of transportation on land use and overall offsetting of GHGs	10%
Safety	Increase safety of transportation network	30%
Importance to District	Operations and maintenance, local knowledge priority	5%

Based on the above factors, each infrastructure improvement project was given a numerical rating and an overall “High”, “Medium”, or “Low” priority. A more detailed breakdown of the project scoring exercise is located in Appendix C. Note that costs were not included in the prioritization exercise as it does not impact the need for any given piece of infrastructure.

7.3 Recommended Projects and Studies

The ITMP outlines infrastructure needs to support the overall goals and targets moving forward. Given the overall resiliency of the District’s road networks in supporting vehicular traffic, there are very few traffic capacity improvements needed. The network is generally lacking in active transportation infrastructure, in particular outside the Hope townsite area, and as such most proposed improvements are intended to support the overall goal of increasing the proportion of trips made by sustainable transportation by 50% by 2040. Beyond active transportation improvements, a review of transportation network safety elements is recommended to better define the required intersection and corridor safety needs.

A holistic list of proposed improvement projects and studies, including expected costs, is included in Appendix C.

7.3.1 Traffic Capacity Improvements

Only one traffic capacity improvement was identified via the Road Network Study – an intersection capacity upgrade at 6th Avenue and Kawkawa Lake Road / Corbett St. This upgrade is not needed until closer to the 2038 horizon based on expected level of service. It is recommended that the District continue to monitor operation of the intersection, and consider completing upgrades in conjunction with a safety upgrade, pending completion of an intersection safety assessment.

7.3.2 Active Transportation Improvements

As discussed in Sections 6 and 7 of the ITMP, there are extensive active transportation infrastructure needs in Hope. The comprehensive list, including priority and cost, is included in Appendix C

7.3.3 Transit Infrastructure Improvements

The District currently supports BC Transit Route 72, with eight stops in the municipality. Two of the stops (B and U) are in the townsite / downtown core, with suitable infrastructure supporting all transit users' needs. Stops FH, on Flood Hope Road, and KL, on Kawkawa Lake Road, are characterized by a lack of stop infrastructure and may warrant upgrades to ensure all users' needs are supported. Proposed improvements may include:

- Construction of a concrete bus pad with accessible ramps;
- Installation of a bench;
- Construction of shelters where possible;
- Review of overall arrangement, lighting, and safety.

7.3.4 Neighbourhood Road Connections and Intersection Improvement Projects

Beyond the need for specific intersection safety and limited capacity upgrades, there are some overall road connection gaps in the municipality that will be necessary to resolve as development progresses and/or the need for improvements arise. There are also intersections that have been identified for review beyond those with the highest collision rates in the 6th Avenue and Wallace Street Corridors. These are summarized below and prioritized in the overall project list in Appendix C

Table 7-1 Neighbourhood Road Extension and Intersection Improvement Projects

Project	Project Type
Fraser Avenue Connection to Highway 1	Intersection improvement - requires MoTI collaboration
Kettle Valley / Kawkawa Lake Road Improvement	Intersection improvement
Corbett Street / 5th Avenue Improvement	Intersection improvement
Gardner Drive Extension	Road extension
7th Avenue / Kawkawa Lake Road Improvement	Intersection improvement
Othello Road / Kawkawa Lake Road Improvement	Intersection improvement
Kawkawa Lake Road / Mt. Hope Road / Dr. Frost Road	Intersection improvement
Beacon Road at Owl St.	Road improvement
Union Bar Road Upgrade	Road improvement
4th Avenue / Rupert Street Improvement	Intersection improvement
Park Avenue Extension	Neighbourhood connection
Birchtrees Drive Extension	Neighbourhood connection / loop

Riverview Drive Extension	Neighbourhood connection / loop
Birchtrees Drive / Gordon Drive Extension	Neighbourhood connection
Olson Avenue Extension	Road extension

The projects listed as intersections improvements will be prioritized based on an as needed basis, as many are identified to improve safety, resolve ambiguous access locations, and refine vehicle movements. The projects listed as road extensions and neighbourhood connections will be triggered largely by development projects, proceeding as needed to facilitate new subdivisions.

7.3.5 Safety Improvement Assessments

The safety and mobility of the District's transportation network are central to the development of the ITMP. A key focus of the plan is road safety, which the District can directly influence through its infrastructure. Facilities for active transportation, such as sidewalks, separated or buffered pathways, signage improvements, traffic calming measures, and geometric improvements are all tools the District can implement, construct, or mandate as required in order to achieve its community goals and objectives. The following studies are recommended to determine specific safety improvements needed:

Table 7-2 Recommended Safety Studies

Pedestrian Crossing Control Program and Study
Review all intersections with respect to crossing needs, including completing pedestrian counts and recommending upgrades including but not limited to Rapid Rectangular Flashing Beacons, Overhead Flashing Beacons, pedestrian signals, and crosswalks. Rely on the Pedestrian Crossing Control Manual for BC.
Intersection Improvement and Safety Assessment Study
Review all major intersections in the District, beginning with the six identified as having the highest collision rates. The study would identify contributing collision factors and outline intersection-specific safety improvements. Considerations at each intersection may include: <ul style="list-style-type: none"> • Signalization / control (stop signs, signals, roundabouts) • Signage • Sightlines • Geometry • Nearby accesses • Pedestrian and cyclist infrastructure needs
Wallace Street Corridor Safety Assessment
Given the importance of Wallace Street as the primary townsite corridor and the high pedestrian volumes, a corridor safety and needs study will identify improvements that may reduce collisions and improve pedestrian safety. Three of the highest collision rate intersections in Hope are in the Wallace Street corridor.

6th Avenue Corridor Safety Assessment

6th Avenue is one of the primary connections from the highway corridors, including the busy Old Hope Princeton Way area, to the townsite and Kawkawa Lake Road areas. It attracts higher traffic volumes and includes a railway crossing. Safety improvements would benefit both vehicular traffic and active transportation users. Three of the highest collision rate intersections in Hope are in the 6th Avenue corridor.

Ministry of Transportation - District of Hope Interface Transportation Needs Study

MoTI does not have any planned projects interfacing with the District of Hope infrastructure within the 15-year horizon. Notwithstanding this, some District-Ministry intersections are characterized by high traffic volumes, higher collision rates, and substandard pedestrian and cycling infrastructure. A collaborative review of major interfacing intersections is recommended to identify required upgrades, modernization, and improvement timelines, given Hope's critical role as a junction for many of the province's most important highways.

7.4 Recommended Network Wide Considerations

Beyond the identified projects and studies, there are several general considerations that should be incorporated into future infrastructure reviews and capital projects. While these are likely to be incorporated on a case-by-case basis, they should be considered when opportunities for implementation arise.

Pedestrian and Cyclist Safety

- Utilizing curb extensions at intersections and major crossings.
- Reviewing and upgrading street lighting in higher traffic areas throughout the community.

Transit Operations

- Review existing and future bus stops to ensure they are constructed / retrofitted to allow for access to users of all ages and abilities.

Traffic Operations

- Implementing roundabouts and other intersection treatments that lower speeds through intersections within the community. This may be reviewed in conjunction with speed data collection.
- Implementing '*Smart Right Turn Channelization*' at intersections to improve sightlines and traffic operations.

- Reviewing access management along existing and proposed major road corridors.

ICBC Collision Data

- Continue to monitor collision data provided by ICBC to identify high collision locations along Wallace Street and 6th Avenue in particular.
- Identify other locations with higher frequency of collisions, and regularize via traffic volume where appropriate.

Consultation with MoTI

The District of Hope is located at one of the most crucial provincial highway junctions in the province, and as such sees high volumes of pass-through traffic and heavy interfacing with the provincial highways system. During the preparation of the ITMP, MoTI was provided an opportunity to contribute to the plan via a survey. MoTI team members were also consulted with to determine whether any highways projects are being planned for through the District of Hope. Ministry staff have indicated that no projects are currently being planned for in the 15-year horizon.

Given the importance of the highway thoroughfares and the impact any changes to highways infrastructure may have on District operations, it is recommended that the District continue to engage with MoTI personnel regularly, and as project needs arise. It is expected that both jurisdictions will have an interest in improvements to interfacing infrastructure, including the potential for safety improvements at the 6th Avenue and Old Hope Princeton Way and the Wallace Street and Water Ave intersections. Any infrastructure upgrade plans near either highway interface should be reviewed with Ministry staff as possible.

Urban and Rural Road Standard

To develop the Active Transportation network within the District of Hope, it is important to utilize industry best practices and ensure the facilities are built to recognized standards while maintaining both the character and feel of the community.

To achieve the goals and objectives of the ITMP, while maintaining the character and feel of the community, the ITMP recognizes that both urban and rural infrastructure facilities, as well as safety specific features, need to be developed to provide an equitable cross section of infrastructure throughout the community.

The District has recognized a need for a future balance of rural and urban road standards. The figures in Section 5 identify proposed standards throughout the municipality. This figure should be referenced when planning road reconstruction

projects or upgrades, in order to define project needs and incrementally update the network to the desired standard.

7.5 Cost Estimates

Estimate costs for all recommended active transportation works as well as proposed studies are included in Appendix C. While high level in nature, costs have been identified by utilizing known unit rates, with additional scope added where ancillary infrastructure is known to be required. A complexity multiplier has been applied in locations with logistical, earthworks, or other challenges are noted. Beyond the base rate, the following have been considered for all projects identified:

- Whether stormwater infrastructure is required – in particular for proposed sidewalk additions;
- Lighting upgrade needs;
- Whether retaining walls are expected to be required;
- Overall complexity as a multiplier on the base cost between 1.0 and 2.0;
- A 50% contingency on all projects.

In general, costs for standard infrastructure are identified in the following table (all in 2025 dollars).

Table 7-3 Active Transportation Infrastructure Cost Estimates Guidance

Infrastructure	Estimated Average Cost
2.0m Concrete Sidewalk - Low Complexity	\$2,000/m
2.0m Concrete Sidewalk - High Complexity	\$2,900/m
3.0m Multi-Use Path - Low Complexity	\$1,000/m
3.0m Multi-Use Path - High Complexity	\$1,000-\$3,000/m
Pedestrian Shoulder or Bike Lane - Paint Only	\$100-\$200/m

Study scopes have been estimated on a case-by-case basis based on expected level of effort. The costs for intersection improvements and road extensions have not been estimated as further scope and constraint definition is required to improve the level of cost certainty.

7.6 Funding Strategy

While the ITMP does not outline specific funding needs or recommendations for the District's capital plan, there are several different funding mechanisms that are available to the District when considering funding of the recommended projects. These are identified in brief in the following table.

Table 7-4 ITMP Project Funding Sources

Capital Funding

The District collects funds via taxation to pay for municipal expenditures via the 5 year operating and capital plan. This will remain a source of funding that can be applied to projects identified in the ITMP that are not related to growth or development. Beyond taxation, other external funding that is regular and predictable falls into the general capital funding category, such as the biannual funding received from the BC Community Works Fund. The vast majority of projects identified in the plan are able to be funded via this program.

Development Cost Charges (DCCs)

DCCs are collected from developers as development progresses to fund growth-related infrastructure improvements, including for roads and to a lesser extent active transportation projects. Where projects are required to support growth, for example an intersection upgrade at 6th Ave and Kawkawa Lake Road, DCCs can fund a portion of the works based on the portion of the project needed for growth. Projects in this plan should be reviewed when the District next updates the DCC bylaw.

Developer Contributions and Latecomers Agreements

The provincial Local Government Act and Community Charter enable municipalities to collect funding from developers as a condition of OCP amendments, rezoning applications, and subdivisions. Developer contributions are used in particular where development is expected to change the population density of an area, and it is expected to have an impact on the District's infrastructure (or the need for improved infrastructure). The project list in the ITMP should be made available for District staff to review as development applications arise. Should there be a link between a development and the potential need for any given upgrade, the District should consider utilizing a developer contribution to offset taxation based or community works funding sources. This mechanism, along with latecomer agreements (similar in nature) are regulated via the District's Subdivision and Development Servicing Bylaw No. 1058.

Of note, developer contributions can be made via either construction of the infrastructure itself, or by contributing cash-in-lieu to the District for future construction. This decision is often made depending on network upgrade sequencing and developer schedules.

Grant Funding

Many of the projects listed in the ITMP may be eligible for higher level government funding programs, as active transportation improvements are often included in sustainability and health based programs. Road and transportation safety improvements can also be funded partially by grants and as road safety continues to be a priority for the provincial and federal governments. Of note, most grant programs will fund 50%, 66%, or 83% of the total project costs, and as such the District will likely need to have the remaining cost available. While an exhaustive list of currently available grants is not provided here at the risk of becoming outdated, grant programs that should be monitored are generally administered by the following organizations:

- ICBC Road Safety;
- Union of BC Municipalities;
- Federation of Canadian Municipalities;
- Provincial Government;
- Federal Government.

MoTI Cost Sharing

Several of the intersections that interact with MoTI infrastructure may be reviewed for safety improvements. Given the shared responsibility of these locations and the likely benefit to safety along provincial highway corridors, there may be an opportunity for cost sharing with MoTI. This should be reviewed with Ministry staff as consultation proceeds.

7.7 Progress Tracking Strategy

It is expected this document will be utilized to assist in the District of Hope's annual capital planning and for grant applications as they arise. The project list has been provided to the District in a format that will allow for it to be a live document. Projects included in the capital plan can be identified as such.

As the District completes the highest priority projects identified by this plan, some aspects of the ITMP may need to be revisited. If there are significant changes to proposed land use or large-scale development that was not identified during ITMP planning and modeling, the District should plan to review traffic and pedestrian counts for the affected areas and re-prioritize the project list as needed. The overall District-wide traffic model remains current and available such that the impact of any large-scale developments on the transportation network can be determined with relative ease.

The following items are recommended to be reviewed annually in coordination with updates to the 5-year capital plan:

- Projects completed and updating of the overall list and asset management GIS data;
- Developments that have contributed to growth, cross-referenced with the population assumptions in the ITMP;
- Study efforts underway or completed, with new projects needed added to the working list or noted elsewhere;
- Grant funding applied for and received;
- Engagement with other stakeholders such as MoTI to determine their priorities and needs.
- Review BC Transit ridership trends and rides/hour data.

The ITMP also outlines specific metrics arising from the overall goals and objectives related to transportation infrastructure. It is recommended that tracking mode share via surveys and in-field counts be undertaken with some regularity. In particular, it is recommended that every 5 years, at a minimum, the following be undertaken:

- Complete traffic counts at the key intersections identified herein;
- Update MoTI traffic volumes via access to their count data;
- Update the District-wide model with the above counts such that any capacity upgrade needs can be refined, and the assumptions and results of the ITMP confirmed;
- Complete pedestrian and cyclist counts at key areas around the municipality as active transportation projects are completed, in an effort to quantify overall

mode shifts. This will help track progress towards the District's overall goal of increasing sustainable travel modes by 50% by 2040;

- Re-issue public engagement surveys to update overall mode shift trends;
- Engage in BC Transit's Transit Future Action Plan updates as they occur.

The above will provide suitable data and information such that the District can track progress against the goals identified in the ITMP, and report results to Mayor and Council and the community as a whole.

Appendix A: What We Heard

What We Heard

As part of the initial public consultation, an online survey was launched on May 29, 2023, in conjunction with an in-person public engagement session to obtain feedback about the transportation network within the District of Hope. The survey consisted of questions for all mobility types including driving, walking, scooters / wheelchairs, cycling, and transit. The objective of the survey was to learn from the residents what is working in the transportation network and what needs improvements.

Driving

The results from the survey revealed the most common mode of transportation for residents around the District of Hope was driving, followed by walking.

Despite being the most common mode of transportation, respondents indicated the top three reasons they felt discomfort when driving within the District were poor road conditions, unsafe intersections and feeling unsafe. To make it easier to drive within and around the District, respondents felt the following actions could be taken:

1. Ensure roads are property maintained;
2. Improve intersection safety;
3. Create physical separation between vehicles and cyclists.

Traffic speed within the District of Hope was addressed in the survey, of which 65% of the responses supported lowering the speed limit in residential areas from 50km/h to 30km/h. Furthermore, respondents indicated it is extremely important for the District to continue investments in infrastructure to address speeding and pedestrian safety.

Transit

Respondents indicated the transit system within the District of Hope could use significant improvements through more frequent service, increased coverage and connectivity, service on evenings and weekends and an increase in transit stops. Recognizing that the regional transit service is largely under the jurisdiction of BC Transit, respondents indicated the District of Hope could assist BC Transit in making it easier to use transit within the District by increasing transit frequency, increasing routes and stops, and increase service on evenings and weekends.

Walking

Walking was shown to be the second most common mode of transportation around town. As such, respondents expressed the dire need for better walking infrastructure such as more continuous sidewalks, better lighting, and improved crosswalks.

The survey results indicated that extending the walking infrastructure to Silver Creek and Kawkawa Lake and through all residential areas will allow residents to safely move around the District of Hope.

Cycling

Respondents implied the lack of safe cycling infrastructure and increased traffic is the principal reason for not cycling more within the District. Creating a bike path that links Hope Townsite to the outlying neighbourhoods will increase the town's connectivity and offer safe trips for those cycling.

General

Respondents indicated their concerns with the current transportation network were primarily with road conditions, followed by traffic volumes, lack of walking / cycling facilities and lack of public transit. To remedy their concerns, the following priorities, ranked by the respondents, for improving Hopes's transportation network (from highest to lowest) are:

1. Traffic safety;
2. Access to transit;
3. Driving and truck traffic;
4. Walking;
5. Cycling.

It was also evident that the investment in intersection improvements, street lighting at crosswalks, sidewalks, multi-use trails and pathways is extremely important to the respondents.

The ideal vision for the transportation network in the District of Hope looks like:

- Additional sidewalks and improved infrastructure;
- Better access to transit and more transit routes;
- Safer active transportation corridors and infrastructure between Hope Townsite and the outlying neighbourhoods (Kawkawa Lake, Silver Creek, Floods areas).

Key Community Interest Groups – Who and Why

Regional First Nations

Regional First Nations were contacted to be notified of the plan and invited to schedule a meeting to address any further comments related to the process and provide any possible barriers or challenges that were present in regard to the existing transportation network. Each First Nations community will also be provided with a draft plan to provide any further comments and concerns.

Regional Utility Providers

Regional utility providers were contacted to determine if there are any large-scale upgrade projects planned in the area within the next 10 - 15 years that may affect the transportation plans or require other transportation or road upgrades.

Community Organizations / Interest groups

Key community organizations were contacted to be notified of the plan and invited to schedule a meeting to address any further comments related to the process and provide any possible barriers or challenges that were present regarding the existing transportation network.

The responses from the key interest groups are incorporated and taken into consideration as part of the final report and capital project prioritization.

Appendix B: Reference Document Overview

Municipal Guiding Documents

Integrated Official Community Plan – 2016

An Integrated Official Community Plan (IOCP) is a document which, when adopted by Council, provides a community vision, and a set of objectives and policies to guide the orderly growth and development of the District of Hope, particularly around the form and character of future land use. The IOCP anticipates changes in the community and determines how best to manage or influence these changes in the interest of the residents of Hope. Through the IOCP, community qualities can be maintained while accommodating growth and the need for appropriate public services and facilities can be anticipated and provided.

The IOCP supports transportation infrastructure development to encourage alternate modes of travel for work and recreation, to promote a healthier community and to work towards meeting the District's greenhouse gas emission reduction targets.

The IOCP outlines land use policies and objectives aim to support a community that:

- Is livable, complete, and compact;
- Has well-planned, cost-effective infrastructure;
- Supports economic development; and
- Is environmentally sustainable and protects natural areas.

In this way, most of the IOCP goals relate to transportation or active transportation in some way. The key IOCP Goals include:

Goal 8: Hope's Transportation system

- Moves people and goods safely and efficiently;
- Enables a shift to healthier modes of transportation, including accessible and age-friendly options; and
- Is transitioning to more sustainable modes with reduced emissions.

Goal 12: Hope provides services and public amenities that meet the health needs of people of all ages and abilities, and that encourage:

- Healthy lifestyle choices;
- Physical activity;
- Mental well-being; and
- Cultural and spiritual expression.

Goal 13: Hope is a safe, welcoming, respectful, and tolerant community where residents feel:

- A strong sense of belonging;
- Engaged in the community;
- Motivated to contribute; and
- A healthy standard of living and good quality of life.

The IOCP also includes objectives and policies that provide measurable steps in reaching these goals. The development of this Integrated Transportation Master Plan is a step towards reaching the IOCP Goals.

Subdivision and Development Servicing Bylaw No. 1058

The *Subdivision and Development Servicing Bylaw* defines the road classifications, levels of service, design criteria and design specifications for public and private development or construction within the community. The bylaw includes a provision for roads which describes all transportation facilities and surface amenities to be included as it relates to the public right of way.

Developing the design criteria, standard details and specifications in the *Subdivision and Development Servicing Bylaw* regarding transportation infrastructure will better allow the District to develop effective and safe transportation facilities.

Zoning Bylaw No. 1324, 2012

The *Zoning Bylaw* is set of regulations and guidelines that govern how land and buildings can be used / developed within the District of Hope. It allows the District to promote efficient and responsible land use, manage growth, and protect the health, safety, and welfare of the community.

The Zoning bylaw plays an important role in the establishment of the transportation network within a community. The specified land uses within the community can heavily influence the needs and priorities of the required transportation infrastructure.

Traffic Bylaw No. C020

The *Traffic Bylaw* provides regulations established by the District of Hope to govern and manage traffic within their jurisdictions. These bylaws are typically designed to ensure the safety and orderly flow of vehicles and pedestrians on local roads and streets.

The Traffic bylaw plays an important part of managing the traffic operations in a community, and has influence on factors such as speed limits, parking regulations, fines and penalties, etc.

Regional Strategic Guiding Documents

Fraser Valley Future 2050

As outlined by the plan:

'The Regional Growth Strategy (RGS) is a strategic plan enabled by the Local Government Act that provides an overarching planning framework for coordinating the activities of local governments and the provincial government. It considers transit, housing, parks, economic development, and environmental issues from a regional perspective with the goal of creating healthy, sustainable communities. As a long-range vision with a 30-year scope, it aims to ensure the region as a whole is working toward a common future.'

Regional growth strategies support the management of issues that affect more than one jurisdiction and can perform the following functions (among others):

- Promote coordination among municipalities and regional districts on issues that cross jurisdictional boundaries;*
- Promote coordination among municipalities, regional districts, and Indigenous communities as a means to establishing and maintaining meaningful and collaborative relationships;*
- Strengthen links between regional districts and the provincial ministries and agencies whose resources are needed to carry out projects and programs; and*
- Communicate the region's strengths to potential investors while demonstrating that local governments, Indigenous governments and stakeholders are proactively addressing the key issues affecting the region's future.'*

Move. Commute. Connect. – CleanBC - 2019

As outlined by the plan:

"Move. Commute. Connect. is B.C.'s strategy for cleaner, more active transportation, part of the Province's CleanBC plan to build a better future for all British Columbians'

'CleanBC identifies clear initiatives and priorities to help grow a low-carbon economy that creates opportunities for all British Columbians while protecting our air, land and water. When it comes to transportation, that means providing cleaner options and helping to reduce gridlock and carbon pollution.'

Our government is focused on protecting the environment and working in partnership with communities to improve our province-wide walking, cycling and other active networks. Together we can work towards creating community-specific active transportation networks that are safe, accessible and convenient for pedestrians, cyclists, transit riders and motorists—of all ages and abilities.

With this Active Transportation Strategy, we will:

- Double the percentage of trips taken with active transportation by 2030.*
- Inspire British Columbians of all ages and abilities to choose active transportation with incentives that encourage active transportation use—like the Scrap-It e-bike rebate, Learn to Ride programs and Active and Safe Routes to School.*
- Build on the success of the BikeBC program, so communities can build integrated and accessible active transportation systems that work for all active transportation users.*
- Work together with communities to create policies and plans that enable and support complete active transportation networks across the province.”*

Vision Zero BC

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. British Columbia Vision Zero has established a grant program to enhance safety for road users.

BC Transit Future Action Plan

As outlined by the plan:

“Transit has tremendous potential to contribute to strong, more sustainable communities. The need to realize this potential in Chilliwack and the FVRD is increasingly important due to factors such as climate change, population growth, increasing traffic congestion and an aging demographic. The Chilliwack and FVRD Transit Services are comprised of a combination of four individual systems: Chilliwack Conventional, Agassiz- Harrison Paratransit, Hope Paratransit and the Fraser Valley Express Connector. The 2020 Chilliwack and FVRD Transit Future Action Plan (TFAP) builds on objectives and priorities identified in the 2012 Chilliwack Area Transit Future Plan.”

“The TFAP is explicitly linked to and informed by broader regional strategies and aspirations that strongly influence transportation movements.

Key local planning documents from the FVRD guiding the development of this TFAP include:

- *FVRD Regional Growth Strategy*
- *FVRD Strategic Plan 2014-2018*
- *FVRD Travel Diary Survey (TransLink 2011)*

Municipal Official Community Plans and transportation plans within the region also provide important objectives and support for transit initiatives."

"The TFAP identifies and prioritizes transit service and infrastructure improvements to improve the transit network over the next five years and beyond. More specifically, this TFAP:

- *Identifies opportunities to support and build upon the Chilliwack 2018 Transportation Master Plan goal to increase transit mode share to 3%*
- *Defines improvements for service and infrastructure over the next one to five years*
- *Provides revised transit routes that more efficiently connect neighbourhoods with key destinations to improve travel times and increase customer convenience.*

TFAPs provide a number of defined service improvements for implementation over the next five years and ensure that transit improvement priorities are consistent with evolving local priorities, emergent transit trends and demands, and BC Transit operational capacity. The Plan is informed by the 2012 Chilliwack Area TFP, multiple forms of public engagement, analysis of existing and future land use and transit use, and feedback from local government partners, operating company staff and key stakeholder groups."

Appendix C: Project Priority and Cost Tables

DISTRICT OF HOPE INTEGRATED TRANSPORTATION MASTER PLAN												
ACTIVE TRANSPORTATION PROJECT LIST												
Project Title	Infrastructure	Length	Cost	Type	Economic Development	Community Connectivity	Accessibility / Equity	Sustainability	Safety	1-5 Importance to District	Total Weighted Score	Priority
Kawkawa Lake Road MUP (Kettle Valley Road to Lakeview Cres)	Paved Multi-Use Path	630	\$2,287,000.00	AT - Shared Network	2	5	3	3	4	5	3.8	High
Kawkawa Lake Road MUP (Union Bar Road to Kettle Valley Road)	Paved Multi-Use Path	846	\$1,802,000.00	AT - Shared Network	2	5	3	3	4	5	3.8	High
4th Ave West Sidewalk (Park Ave to Wallace St)	2.0m wide sidewalk	153	\$462,000.00	AT - Pedestrian Network	3.5	4	3.5	3	4	4	3.8	High
7th Ave Sidewalk (Kawkawa Lake to Old Princeton Hope Way)	2.0m wide sidewalk	389	\$1,158,000.00	AT - Pedestrian Network	2	4	4	3	4	5	3.7	High
School Road Connection (Flood Hope Road to existing sidewalk)	2.0m wide sidewalk	220	\$368,000.00	AT - Pedestrian Network	1	5	4	3	4	1	3.6	High
Kawkawa Lake Road MUP (Lakeview Cres to Othello Rd)	Paved Multi-Use Path	444	\$1,612,000.00	AT - Shared Network	3	4	3	4	3	5	3.5	High
Kawkawa Lake Road MUP (Othello Rd to Johnson Rd)	Paved Multi-Use Path	881	\$3,198,000.00	AT - Shared Network	3	4	3	4	3	5	3.5	High
7th Ave Sidewalk (Park St to Coquihalla St)	2.0m wide sidewalk	263	\$474,000.00	AT - Pedestrian Network	2	4	4	3	3.5	4	3.5	High
Wallace St Bike Lanes (Water Ave to 3rd Ave)	On street, delineated bike lane	208	\$31,000.00	AT - Cycling Network	3	3	2	4	4	4	3.3	High
6th Ave Bike Lanes (Kawkawa Lake Rd to Rail Crossing)	On street, delineated bike lane	467	\$50,000.00	AT - Cycling Network	3	3	2	4	4	4	3.3	High
3rd Ave Bike Lanes (Wallace St to Park St)	On street, delineated bike lane	194	\$30,000.00	AT - Cycling Network	3	3	2	4	4	4	3.3	High
Wardle Street Sidewalk (Ruper St to Thacker Ave)	2.0m wide sidewalk	160	\$362,000.00	AT - Pedestrian Network	2	3	4	3	4	3	3.3	High
Wardle Street Sidewalk (Thacker Ave to Allison Ave)	2.0m wide sidewalk	190	\$459,000.00	AT - Pedestrian Network	2	3	4	3	4	3	3.3	High
Wardle Street Sidewalk (Allison Ave to 7th Ave)	2.0m wide sidewalk	346	\$744,000.00	AT - Pedestrian Network	2	3	4	3	4	3	3.3	High
Rupert Street Sidewalk (Yale St to 6th Ave)	2.0m wide sidewalk	232	\$662,000.00	AT - Pedestrian Network	2	2	4	4	4	5	3.3	Medium
Mt Hope Road Sidewalk (Gardner Dr to Kawkawa Lake Rd)	2.0m wide sidewalk	381	\$706,000.00	AT - Pedestrian Network	2	3	4	3	4	2	3.3	Medium
6th Ave Bike Lanes (Rail Crossing to Park St)	On street, delineated bike lane	325	\$39,000.00	AT - Cycling Network	3	3	2	4	4	1	3.2	Medium
Park St Bike Lanes (6th Ave to 3rd Ave)	On street, delineated bike lane	553	\$56,000.00	AT - Cycling Network	3	3	2	4	4	1	3.2	Medium
Flood Hope Road MUP (Exit 170 to Silverhope Road)	Paved Multi-Use Path	N/A	Currently in Construction	AT - Shared Network	3	2	2	4	4	5	3.1	Medium
Flood Hope Road MUP (Tobena Rd to Exit 165)	Paved Multi-Use Path	2850	\$1,967,000.00	AT - Shared Network	3	1	3	4	5	1	3.1	Medium
Beacon Road Sidewalk	2.0m wide sidewalk	158	\$264,000.00	AT - Pedestrian Network	1	3	3	3	4	4	3.1	Medium
Stuart St Shared Bike Lanes (King St to 4th Ave)	On street bike lane	477	\$0.00	AT - Cycling Network	3	4	1	4	3	2	3.0	Medium
Park St Sidewalk (Fraser Ave to 3rd Ave)	2.0m wide sidewalk	106	\$205,000.00	AT - Pedestrian Network	3	2.5	4	3	3	2	3.0	Medium
7th Ave Pedestrian Shoulder (Yale St to Wardle Street)	Paved Shoulder	360	\$42,000.00	AT - Pedestrian Network	2	3	2	3	3.5	5	3.0	Medium
King St Shared Bike Lanes (3rd Ave to 4th Ave)	On street bike lane	186	\$0.00	AT - Cycling Network	3	4	1	4	3	1	3.0	Medium
Coquihalla St Sidewalk (Water Ave to 3rd Ave)	2.0m wide sidewalk	194	\$359,000.00	AT - Pedestrian Network	2	2.5	4	2.5	3	4	2.9	Medium
Water Ave MUP (Fraser River Bridge to Coquihalla St)	Paved Multi-Use Path	499	\$344,000.00	AT - Shared Network	3	1	3	3	4.5	1	2.9	Medium
Golf Course Road Pedestrian Connection	Paved shoulder	398	\$45,000.00	AT - Pedestrian Network	3	2	1.5	2	4	4	2.8	Medium
Allison Ave Sidewalk (Willow St to Wardle St)	2.0m wide sidewalk	210	\$386,000.00	AT - Pedestrian Network	1	3	4	2	3	3	2.8	Medium
7th Ave (Coquihalla St to Wallace St)	2.0m wide sidewalk	650	\$1,087,000.00	AT - Pedestrian Network	2	3	3	3	3	1	2.8	Medium
Coquihalla St Shared Bike Lanes (Water Ave to 3rd Ave)	On street bike lane	194	\$0.00	AT - Cycling Network	3	3	1	4	3	1	2.7	Medium
Swallow Place Sidewalk (Kawkawa Lake Rd to Mountain Ash Dr)	2.0m wide sidewalk	460	\$965,000.00	AT - Pedestrian Network	2	3	4	2	2	2	2.6	Medium
Mountain Ash Dr Sidewalk (Swallow Pl to Acacia Dr)	2.0m wide sidewalk	362	\$747,000.00	AT - Pedestrian Network	2	3	4	2	2	2	2.6	Medium
Beech Ave Sidewalk (Cyprus St to Silverview Rd)	2.0m wide sidewalk	84	\$304,000.00	AT - Pedestrian Network	1	2	3	3	3	3	2.5	Medium
Silverview Rd Sidewalk (Flood Hope Rd to Beech Ave)	2.0m wide sidewalk	438	\$733,000.00	AT - Pedestrian Network	1	2	3	3	3	3	2.5	Medium
Thacker Ave (Dewdney Ave to Coquihalla St)	2.0m wide sidewalk	430	\$719,000.00	AT - Pedestrian Network	2	3	3	3	2	1	2.5	Medium
7th Ave (Yale St to Thacker Ave)	2.0m wide sidewalk	320	\$535,000.00	AT - Pedestrian Network	2	3	3	3	2	1	2.5	Medium
Lakeview Crescent Sidewalk (Park Ave to Park Ave Loop)	2.0m wide sidewalk	671	\$1,168,000.00	AT - Pedestrian Network	1	2	3.5	4	2	2	2.3	Low
Lakeview Crescent Sidewalk (Kawkawa Lake Rd to Park Ave East)	2.0 m wide sidewalk	214	\$373,000.00	AT - Pedestrian Network	1	2	3.5	4	2	2	2.3	Low
Lakeview Crescent Sidewalk (Kawkawa Lake Rd to Park Ave West)	2.0m wide sidewalk	263	\$458,000.00	AT - Pedestrian Network	1	2	3.5	4	2	2	2.3	Low
Birchtrees to Gardner Loop	2.0m wide sidewalk	745	\$1,246,000.00	AT - Pedestrian Network	1	3	3	2	2	1	2.2	Low
Peter Street Pedestrian Shoulder	Paved Shoulder	231	\$32,000.00	AT - Pedestrian Network	2	2	2	3	2	3	2.2	Low
Riverview and Skylark- Pathway Connection	Sidewalk/Path	410	\$686,000.00	AT - Pedestrian Network	1	3	2	2	2	1	2.1	Low
Marie Street Pedestrian Shoulder	Paved Shoulder	160	\$27,000.00	AT - Pedestrian Network	2	2	1	3	2	3	2.0	Low
Flood Hope Road MUP (Silverview Rd to Exit 168)	Paved Multi-Use Path	1210	\$835,000.00	AT - Pedestrian Network	2	2	1	3	2	1	1.9	Low
Wallace Street Sidewalk (6th Ave to 7th Ave)	2.0 m wide sidewalk	210	\$351,000.00	AT - Pedestrian Network	2	2	2	2	3	2	2.3	Low
Silver Skagit Rd Pathway	Pathway (priced as paved)	1450	\$1,001,000.00	AT - Shared Network	2	2	1	2	3	2	2.2	Low
5th Avenue Sidewalk (Old Hope Princeton Way to End)	2.0m wide sidewalk	310	\$519,000.00	AT - Pedestrian Network	1	2	1	3	3	2	2.1	Low

**DISTRICT OF HOPE INTEGRATED TRANSPORTATION MASTER PLAN
TRANSPORTATION NETWORK PROJECT LIST**

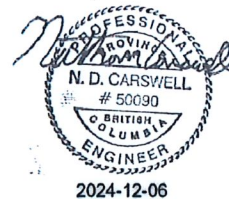
Project Title	Infrastructure	Cost	Economic Development	Community Connectivity	Accessibility / Equity	Sustainability	Safety	Importance to District	Total Weighted Score	Priority
Fraser Ave Connection Improvement	Highway Connection Improvement (with MoTI)	To be determined via scoping study	1	3	2.5	1	5	5	3.5	High
Wallace St Corridor Safety Assessment	None - Planning	\$125,000	1	2	3	1	5	5	3.3	High
6th Ave Corridor Safety Assessment	None - Planning	\$125,000	1	2	2	1	5	4	3.1	High
Kettle Valley Rd / Kawkawa Lake Rd Improvement	Intersection Improvement	To be determined via scoping study	2	3	3	1	3	3	2.8	Medium
Flood Hope Road Bus Stop Improvement	Bus Stop	\$30,000	2	2	3	3	3	3	2.6	Medium
Kawkawa Lake Road Bus Stop Improvement	Bus Stop	\$30,000	2	2	3	3	3	2	2.5	Medium
Corbett St / 5th Ave Improvement	Intersection Improvement	To be determined via scoping study	1	2	2	1	3	4	2.4	Medium
Gardner Drive Extension	New Road, Neighbourhood Connection	Funded by development	1	4	2	2	1	5	2.3	Medium
7th Ave / Kawkawa Lake Road Improvement	Intersection Improvement	To be determined via scoping study	1	2	1	1	3	4	2.3	Medium
Othello Road / Kawkawa Lake Rd Improvement	Intersection Improvement	To be determined via scoping study	1	2	1	1	3	3	2.2	Medium
Union Bar Road Upgrade (Kawkawa Lake Rd to Thacker Mountain Rd)	Road Improvement	To be determined via scoping study	1	2	2	1	2.5	3	2.1	Medium
4th Ave / Rupert Street Improvement	Intersection Improvement	To be determined via scoping study	1	2	1	1	3	2	2.1	Medium
6th Ave / Kawkawa Lake Road Improvement	Intersection Improvement - re-assess based on growth	To be determined via scoping study	1	1	1	1	3	4	2.0	Medium
Park Ave Extension	Neighbourhood Connection	Funded by development	1	2	2.5	1	2	2	1.9	Low
Birchtrees Dr Extension	Neighbourhood Connection/Loop	Funded by development	1	2	3	1	2	1	1.8	Low
Riverview Drive Extension	Neighbourhood Extension/Loop	Funded by development	1	2	2	1	2	2	1.8	Low
Birchtrees Dr / Gordon Dr Extension	Neighbourhood Connection	Funded by development	1	2	2	1	2	1	1.7	Low
Olson Ave Extension	New Road	Funded by development	1	2	2	1	1	1	1.4	Low
Kawkawa Lake/Mt. Hope Road/ Dr. Frost Road	Intersection Improvement	To be determined via scoping study	1	2	2	2	2	2	1.9	Low
Beacon Road at Owl Street	Intersection Improvement	To be determined via scoping study	1	2	2	2	2	2	1.9	Low

Appendix D: Road Network Analysis Study (Watt)



DISTRICT OF HOPE ITMP

Road Network Analysis Study



Jason Yuen, EIT – Transportation
Engineer-In-Training
Author

Nathan Carswell, P.Eng. – Micromobility
Lead & Regional Lead, Transportation
Reviewer



PERMIT TO PRACTICE:
Number 1001432

Prepared For: TRUE Consulting
Date: December 06, 2024
Our File No: 3486.B01

WATT OKANAGAN
305 – 1350 St Paul St
Kelowna, BC V1Y 2E1
778-313-1014

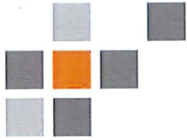


TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Study Objective.....	1
1.2	Scope of the Road Network Study	2
2.0	TRANSPORTATION NETWORK	3
2.1	Existing Road Network	3
2.2	Future Road Network	5
3.0	EXISTING CONDITIONS	6
3.1	Existing Traffic Volumes	7
3.2	Creating the Existing Conditions Visum Model.....	12
3.2.1	Network Construction	12
3.2.2	Trip Generation	12
3.2.3	Trip Distribution and Assignment.....	15
3.3	Intersection Performance and Evaluation Criteria.....	17
3.4	Existing Operating Conditions.....	19
4.0	FUTURE CONDITIONS.....	20
4.1	Traffic Forecast Model, Future Developments and Growth Assumptions.....	20
4.2	Proposed Land Use and Development Phasing.....	21
4.3	Future Conditions – Traffic Analysis	21
4.4	Evaluation Process	21
4.5	2028 Operating Conditions.....	22
4.6	2038 Operating Conditions.....	24
5.0	CONCLUSION	29

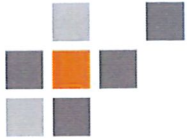


FIGURES

Figure 1 - Existing Road Network.....	4
Figure 2 - Future Road Network.....	6
Figure 3 - Existing Traffic Volumes on Flood Hope Road	9
Figure 4 - Existing Traffic Volumes on Old Hope Princeton Way and 7th Avenue	10
Figure 5 - Existing Traffic Volumes at Kawkawa Lake Road & Othello Road	10
Figure 6 - Existing Traffic Volumes on Wallace Street and Coquihalla Street.....	11
Figure 7 - Zone Map for Visum	13
Figure 8 - Existing Conditions Traffic Volume.....	17
Figure 9 - 2028 Post-Development Traffic Volumes.....	22
Figure 10 – 2038 Post-Development Traffic Volumes.....	25

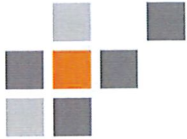
TABLES

Table 1 - Data Collection for Existing Traffic Volumes.....	7
Table 2 - Trip Generation Rates.....	16
Table 3 - Level of Service Criteria	18
Table 4 - Existing Operating Conditions.....	19
Table 5 - 2028 Operating Conditions.....	23
Table 6 – 2038 Operating Conditions.....	25
Table 7 – 2038 Operating Conditions as a Four-way Stop Control.....	27
Table 8 – 2038 Operating Conditions as a Roundabout	28



APPENDICES

- Appendix A – Existing Road Classification
- Appendix B – Future Road Classification
- Appendix C – Data Collection Sheets
- Appendix D – Zone Map for Visum
- Appendix E – Existing Zone Quantities
- Appendix F – Existing Conditions Traffic Volumes
- Appendix G – 2028 Zone Quantities
- Appendix H – 2038 Zone Quantities
- Appendix I – 2028 Post-Development Traffic Volumes
- Appendix J – 2038 Post-Development Traffic Volumes
- Appendix K – Traffic Modelling Reports



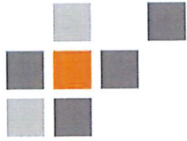
1.0 INTRODUCTION

The District of Hope (District) adopted its current Integrated Official Community Plan (IOCP) in 2018. As part of the master planning process, which will help aid in achieving the IOCP goals, objectives and policies, the District is undertaking the development of an Integrated Transportation Master Plan (ITMP) to review the existing transportation network and its long-term goals and create the framework for a balanced mobility network that optimizes both the existing and proposed future transportation infrastructure.

The Road Network study directly supported the ITMP Project Teams efforts in the development of the ITMP and was used to review and confirm the existing road network and the vision for the future transportation network. By providing a comprehensive framework for balanced mobility, our study assisted in achieving the broader objectives and policies of the ITMP, ensuring that the road network evolved in a manner that is sustainable, efficient, and conducive to the District's overall development strategy and plans for growth.

1.1 Study Objective

The primary objective of the Road Network study was to evaluate the potential impacts of expected land use changes on the road network of the District. The study aimed to identify how District's future road network could support a multi-modal future network. To achieve this, a Visum Macro Traffic Model was utilized, which focused on the evening peak hours when the roads are busiest with people going to other activities or returning home. The study explored and assessed various future network connections and scenarios, defining the future road network configuration to accommodate anticipated development. Additionally, the study determined the timing for required enhancements to support the District's growth over the next 15 years.



1.2 Scope of the Road Network Study

The scope of the Road Network study was split into two elements; The first was understanding the existing conditions and developing and calibrating the traffic model, and the second was to undertake future forecast traffic modelling.

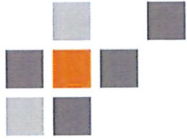
Data Collection and Model Calibration

In order to better understand the current traffic conditions in the District, traffic volume data was collected at strategic locations. The purpose of this work was to evaluate the functionality of the community's infrastructure and identify any gaps or deficiencies. Detailed traffic analysis was conducted using both micro-simulation and macro-simulation traffic modelling software. The modelling process began with the calibration of an existing conditions model for the year 2023, using origin-destination travel data. This provided a foundation for subsequent 5-year (2028) and 15-year (2038) horizon modelling.

Forecast Modelling and Network Assessment

Using agreed-upon future land use data, the study projected traffic volumes for different horizons. It employed the Visum model to assess the impact of land use changes on travel modes and predict the need for new road connections or modifications. The output of this modeling was used to inform the development of future road classifications, lane strategies, and major road network maps. This ensured that additional capacity and connectivity enhancements were taken into consideration.

The study also included a network assessment through Synchro microsimulation analysis of key intersections. The aim was to understand future performance levels within the proposed road network. This analysis covered 10 intersections across different scenarios and guided the integration of transportation planning with land use strategies. It ensured alignment with the ITMP's long-term goals.



2.0 TRANSPORTATION NETWORK

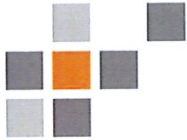
2.1 Existing Road Network

Hope is located at the eastern end of the Fraser Valley and the Lower Mainland, approximately 53 km east of Chilliwack along Trans-Canada Highway (Highway 1).

Hope can be accessed through multiple provincial highways as highways converge nearing the District. The Trans-Canada Highway (Highway 1) passes through Hope, allowing travels to the west towards Chilliwack and north towards Cache Creek. Hope is the western terminus for Crowsnest Highway (Highway 3) for travels from Princeton in the east, the southern terminus for Coquihalla Highway (Highway 5) for travels from Merritt in the north, and the eastern terminus for Lougheed Highway (Highway 7) for travels from Agassiz in the west as they merge with Trans-Canada Highway.

The provincial highways are under the jurisdiction of the Ministry of Transportation of Infrastructure (MOTI). The following are some of the major roads that forms Hope's transportation network:

- Old Hope Princeton Way, an east-west arterial road that acts as a local parallel route to Trans-Canada Highway between Water Avenue in the west and Exit 173 in the east.
- Water Avenue, a north-south arterial road between Exit 170 of Trans-Canada Highway in the south and Coquihalla Street in the north, where it continues north as Trans-Canada Highway. Water Avenue is part of the Trans-Canada Highway.
- 3rd Avenue, a north-south collector road between Old Hope Princeton Way in the south and Wallace Street in the north.
- 6th Avenue, a north-south collector road between Old Hope Princeton Way in the south and Coquihalla Street in the north.
- Coquihalla Street, an east-west collector road between Water Avenue in the west and 6th Avenue in the east.
- Flood Hope Road, an east-west collector road that acts as a local parallel route to the Trans-Canada Highway between Exit 165 in the west and Exit 170 in the east, where it continues as Water Avenue to the north.
- Wallace Street, an east-west collector road between Water Avenue in the west and 6th Avenue in the east.



- Kawkawa Lake Road, an east-west local road between 6th Avenue in the west and Johnson Road in the east.

The road network is shown in Figure 1, which can also be found in Appendix A.

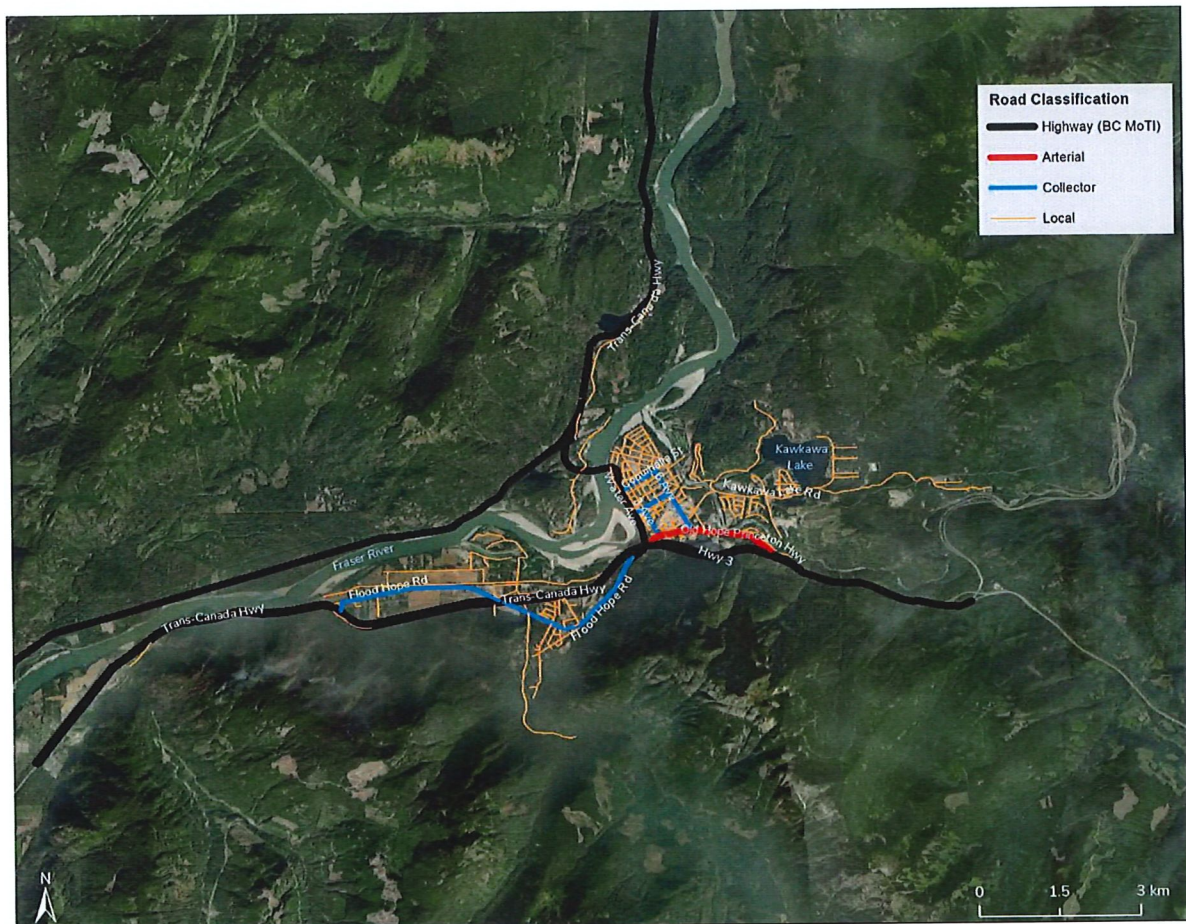
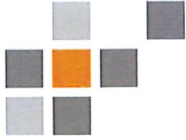


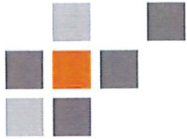
Figure 1 - Existing Road Network



2.2 Future Road Network

The ITMP provides direction on what the future road network will look like, and which re-classifications and cross section changes need to occur on specific roadways. The following lists the planned changes to the roadways:

- 3rd Avenue, between Wallace Street and Coquihalla Street, is planned to be upgraded from a local road to a collector road.
- 4th Avenue, between Coquihalla Street and Rupert Street, is planned to be upgraded from a local road to a collector road.
- 5th Avenue, between Coquihalla Street and Stuart Street, is planned to be upgraded from a local road to a collector road.
- 6th Avenue, between Old Hope Princeton Way and Kawkawa Lake Road / Corbett Street, and between Coquihalla Street and Thacker Avenue, are planned to be upgraded from a collector road to an arterial road. Bike lanes are planned to be constructed along the corridor.
- 7th Avenue, between Old Hope Princeton Way and Kawkawa Lake Road, is planned to be upgraded from a local road to a collector road.
- Flood Hope Road, for the entirety of the corridor, is planned to be upgraded from a collector road to an arterial road and maintain a two-lane cross section with left turn bays at appropriate intersections. A Multi-Use Pathway (MUP) is planned to be constructed along the corridor.
- Kawkawa Lake Road, between 6th Avenue and Othello Road, is planned to be upgraded from a local road to an arterial road. A MUP is planned to be constructed along the corridor.
- Kawkawa Lake Road, between Othello Road and Johnson Road, is planned to be upgraded from a local road to a collector road.
- Othello Road, for the entirety of the corridor, is planned to be upgraded from a local road to an arterial road and maintain a rural cross section.
- Wardle Street, between Rupert Street and Allison Avenue, as a continuation of 4th Avenue to the south, is planned to be upgraded from a local road to a collector road.
- Yale Street, between Stuart Street and 7th Avenue, as a continuation of 5th Avenue to the south, is planned to be upgraded from a local road to a collector road.



These changes have been identified and highlighted in Figure 2, which can also be found in Appendix B. Consequently, these planned improvements were informed and built up by our iterative network analysis.

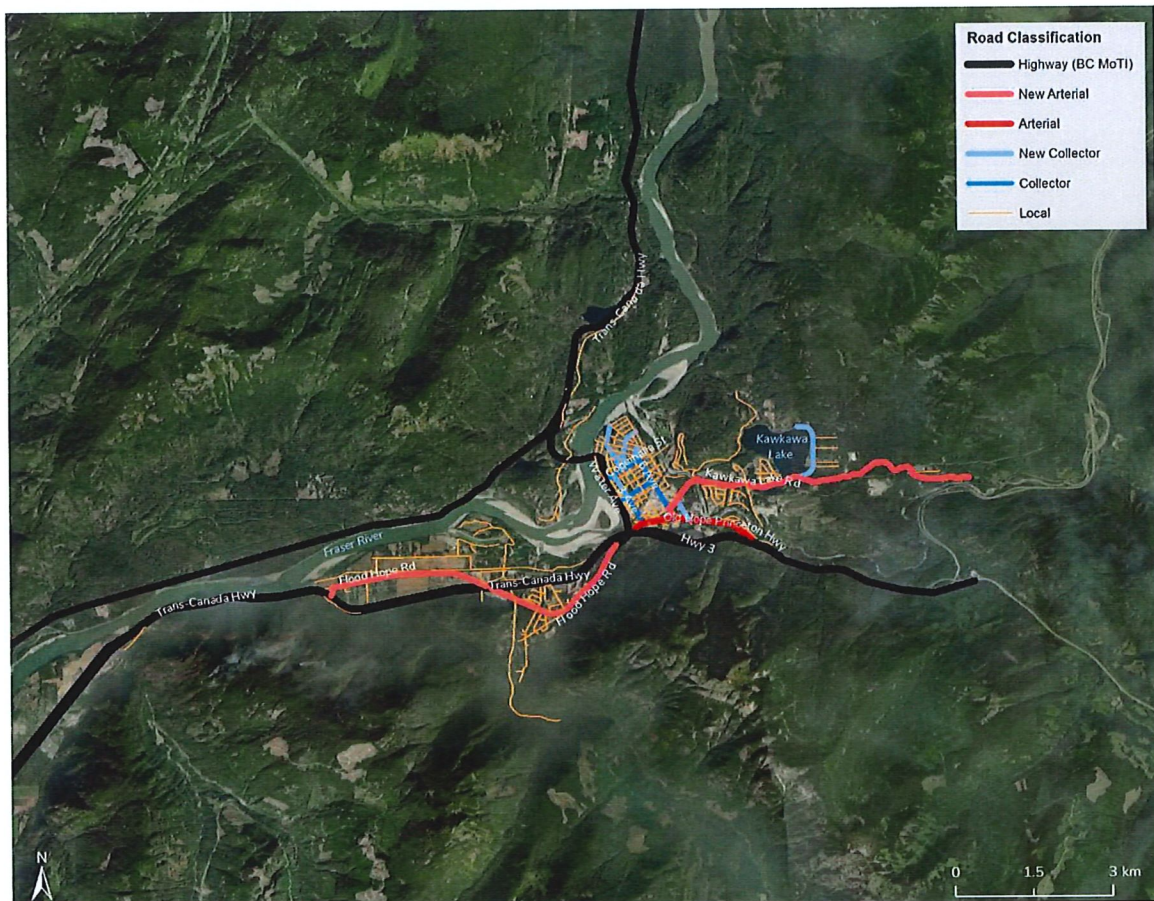


Figure 2 - Future Road Network

3.0 EXISTING CONDITIONS

To understand existing conditions for the purposes of model calibration and future forecasting, traffic data was collected as part of this study. Appendix C provides the raw data collection sheets.

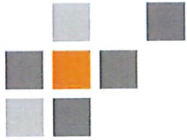


3.1 Existing Traffic Volumes

Turning movement volumes were collected between Tuesday March 14th, 2023 and Thursday March 16th, 2023 across 13 count locations using in combination of video counts and manual counts. Table 1 shows the count locations and the collection dates.

Table 1 - Data Collection for Existing Traffic Volumes

Intersection #	Intersection	Count Method	Count Date
1	Old Hope Princeton Way & 3 rd Avenue	Video Count	Tuesday March 14 th , 2023
2	Old Hope Princeton Way & 6 th Avenue	Video Count	
3	Kawkawa Lake Road & 7 th Avenue	Manual Count	
4	Kawkawa Lake Road & Othello Road	Manual Count	
5	Flood Hope Road & Tobena Road	Video Count	
6	Flood Hope Road & Owl Road / Beacon Road	Video Count	Wednesday March 15 th , 2023
7	Flood Hope Road & Silverhope Road / Silverview Road	Video Count	
8	Flood Hope Road & Trans-Canada Highway EB on-ramp at Exit 168	Manual Count	
9	Old Hope Princeton Way & Water Avenue	Video Count & Manual Count	
10	Trans-Canada Highway & Coquihalla Street	Video Count	Thursday March 16 th , 2023
11	Coquihalla Street & 6 th Avenue	Manual Count	



12	Wallace Street & 3 rd Avenue	Video Count	
13	Wallace Street & 6 th Avenue	Manual Count	

The data collection times focused on the typical peak travel hours and were as follows:

- AM Peak Hour **7:00-10:00 AM**
- PM Peak Hour **2:00-5:00 PM**

The existing traffic volumes for the weekday AM and PM peak hour are illustrated in Figure 3, Figure 4, Figure 5, and Figure 6.

These turning movement volumes were used for calibration when creating the existing conditions model, which will be discussed further in Section 3.2.2 and Section 3.2.3.

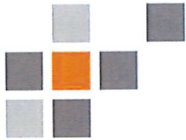


Figure 3 - Existing Traffic Volumes on Flood Hope Road



Figure 4 - Existing Traffic Volumes on Old Hope Princeton Way and 7th Avenue

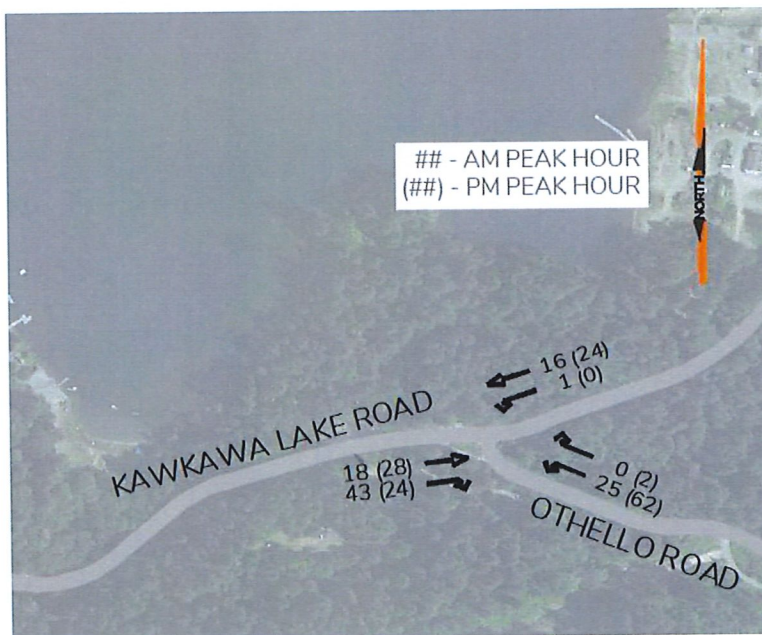


Figure 5 - Existing Traffic Volumes at Kawkawa Lake Road & Othello Road



Figure 6 - Existing Traffic Volumes on Wallace Street and Coquihalla Street



3.2 Creating the Existing Conditions Visum Model

A base traffic model reflecting existing conditions was constructed and calibrated specifically for the evening peak hours, utilizing a combination of current traffic volumes, data from the BC Property Assessment Roll to establish existing land uses, Institute of Transportation Engineers (ITE) Trip Generation rates, and additional data inputs provided by the District and ITMP Project Team.

3.2.1 Network Construction

The first step was to construct the roads through available Geographic Information System (GIS) data. The shapefiles of the District were provided by the client through the GIS database from Fraser Valley Regional District (FVRD). The shapefiles contain the existing road network in the District.

Attributes were then assigned to the roads (or links), including the speed limit, classification, road capacity, and the number of lanes of each road. The delays experienced at the intersection were assumed for left turn, through, and right turn movements. This information is used for trip assignments, which will be discussed further in Section 3.2.3.

3.2.2 Trip Generation

To understand how the population and the employment levels distribute across the District, the model area is broken down into sub-areas (or zones). The zones allow us to input the property information into the respective area that it covers, which is an important information for trip generation purposes. Figure 7 shows the zones within the model, which can also be found in Appendix D.

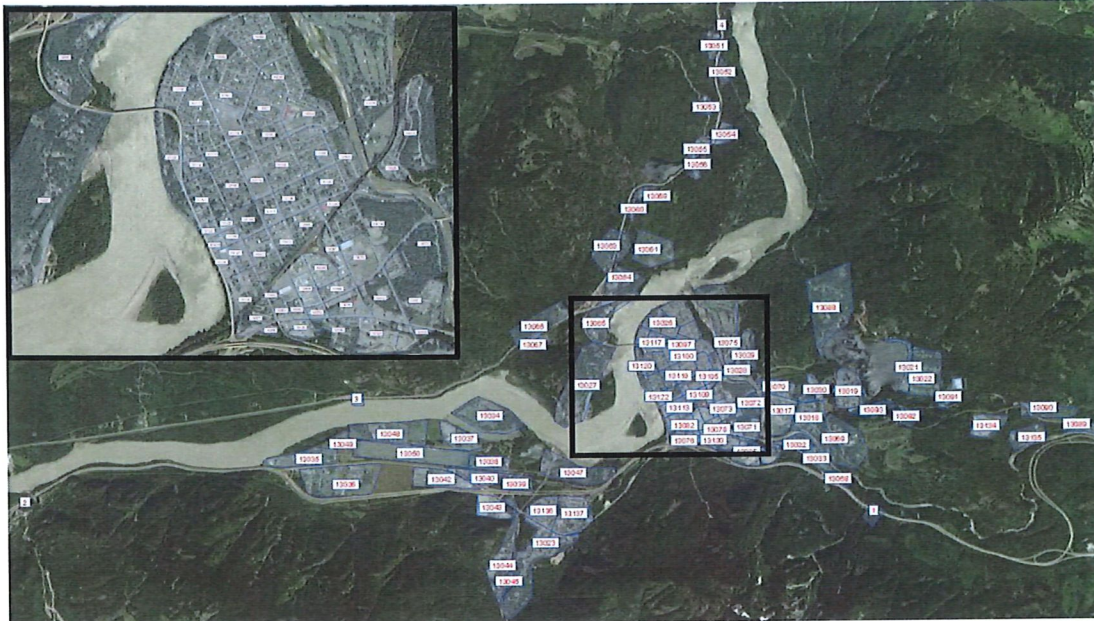
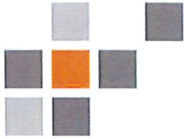


Figure 7 - Zone Map for Visum

Connectors were then established for the zones. Connectors allow the traffic from adjacent zones to access the road network. They are connected to the network through a node, which are placed on the adjacent road network, acting as the access point. Based on the adjacent road network, up to four connectors were created for each zone.

The existing traffic volumes from Section 3.1 were then input into the model. The traffic volumes that were collected for the PM peak hour were entered into the model for all the available intersections. They are used as a reference to calibrate the model for trip assignments that will be described in Section 3.2.3.

The property information was then imported into the model. BC Assessment property roll data was used to understand the properties according to the zones that we created. This data offered insights into the land uses and their quantities within each zone, providing specific metrics like dwelling unit counts for residential areas and square footage for office, commercial, and industrial land uses. However, the data set also includes detailed classifications of all land uses, some of which represent minimal quantities and have negligible impact on trip generation. Consequently, similar or low-quantity land uses were consolidated, merging them into broader land uses with similar uses.



The following lists the resulting 11 land uses which were added into the model:

- Single-Family
- Multi-Family
- Agriculture
- Industrial
- Retail
- Office
- Institutional
- Recreational
- Service
- Hospital
- Hotel

Their respective quantities in each zone, with respect to the units of the trip generation rates, can be found in **Appendix E**.

With the condensed land use quantity of each zone, the weekday PM peak hour trip generation rates and their respective inbound and outbound percentages are obtained from ITE Trip Generation Manual 11th Edition for the respective land uses. The rates are adjusted such that it can represent an average rate of the land uses that were condensed or merged. The rates for each land use are then broken down further three trip types: Home Based Work (HBW), Home Based Other (HBO), and Non-Home Based (NHB). The percentage split of each of these trip types are based on our team's previous experience. With different combinations between these trip types, this yields six trip types:

- Home to Work
- Work to Home
- Home to Other
- Other to Home
- NHB Inbound
- NHB Outbound

The rates for each of these trip types per land uses are calculated by multiplying the ITE trip generation rate with the inbound/outbound percentages and the trip type split between HBW, HBO, and NHB. These rates are then further adjusted as detailed in **Section 3.2.3**. The rates for each trip types are calculated and input into the model according to how trips are generated and attracted by different zones in the model.



Gates are then added at the border of the study area in the model. They are used to input the traffic volumes leading into and out of the District along the provincial highways. MOTI has traffic count stations along each highway, providing hourly two-way traffic data. The traffic data from multiple count stations was pulled, the numbers were then either used directly in the model or combined to suit the model's needs based on the locations of the count stations and how the highway splits. The following count stations are used:

- P-17-1EW: Highway 1 west of Hope
- P-17-3EW: Highway 7 west of Hope
- P-17-6EW: Highway 3 east of Hope
- P-17-9NS: Highway 5 east of Hope
- 17-070EW: Highway 1 north of Hope

3.2.3 Trip Distribution and Assignment

The Visum traffic model software was used to assign the traffic generated by each zone in the study area to the adjacent road network for each analyzed horizon. This software helps to determine the origin and destination matrices, ensuring proper trip distribution on the network. For each model run, the Visum model calculates the fastest possible path for trip assignments. This procedure sequence is recalculated on each iteration as traffic congestion increases.

The trip generation rates generated by ITE in the initial model run might not align with the existing traffic volumes entered for calibration. Hence, the rates for each land use have to be adjusted iteratively to match the existing traffic volumes and the District's context. This is done through an iterative process of reviewing the resulting trip assignments and updating the trip generation rates as described in Section 3.2.2. The multiple runs of the model also ensures consistent results, which indicates that the data is more reliable and repeatable. After several iterations, the final trip generation rates used in the model are confirmed. They have also been provided in Table 2. When the resulting trip assignments best match up with the existing traffic volumes at the local intersections and the traffic data on provincial highways, the Visum model for existing conditions is deemed calibrated. Figure 8 shows the resulting traffic volumes in the calibrated model in terms of Average Daily Traffic (ADT), which can also be found in Appendix F.



Table 2 - Trip Generation Rates

Land Use	Unit	Trip Generation Rate	Split		Trip Type Split			Trip Generation Rates					
								HBW		HBO		NHB	
			In	Out	HBW	HBO	NHB	In	Out	In	Out	In	Out
Single Family	Unit	0.5040	63%	37%	50%	50%	0%	0.15876	0.09324	0.15876	0.09324	0.00000	0.00000
Multi Family	Unit	0.3060	59%	41%	55%	45%	0%	0.09930	0.06900	0.08124	0.05646	0.00000	0.00000
Agriculture	1000 sqft	0.1620	21%	79%	40%	30%	30%	0.01361	0.05119	0.01021	0.03839	0.01021	0.03839
Institutional	1000 sqft	0.4410	44%	56%	35%	50%	15%	0.06791	0.08644	0.09702	0.12348	0.02911	0.03704
Recreational	1000 sqft	0.0126	14%	86%	40%	30%	30%	0.00071	0.00433	0.00053	0.00325	0.00053	0.00325
Service	1000 sqft	7.5240	47%	53%	35%	45%	20%	1.23770	1.39570	1.59133	1.79447	0.70726	0.79754
Industrial	1000 sqft	0.5850	14%	86%	40%	30%	30%	0.03276	0.20124	0.02457	0.15093	0.02457	0.15093
Hospital	1000 sqft	0.7740	35%	65%	35%	55%	10%	0.09482	0.17609	0.14900	0.27671	0.02709	0.05031
Office	1000 sqft	1.1700	34%	66%	40%	40%	20%	0.15912	0.30888	0.15912	0.30888	0.07956	0.15444
Hotel	Room	0.3240	54%	46%	30%	40%	30%	0.05249	0.04471	0.06998	0.05962	0.05249	0.04471
Retail	1000 sqft	4.7430	50%	50%	30%	30%	40%	0.71145	0.71145	0.71145	0.71145	0.94860	0.94860

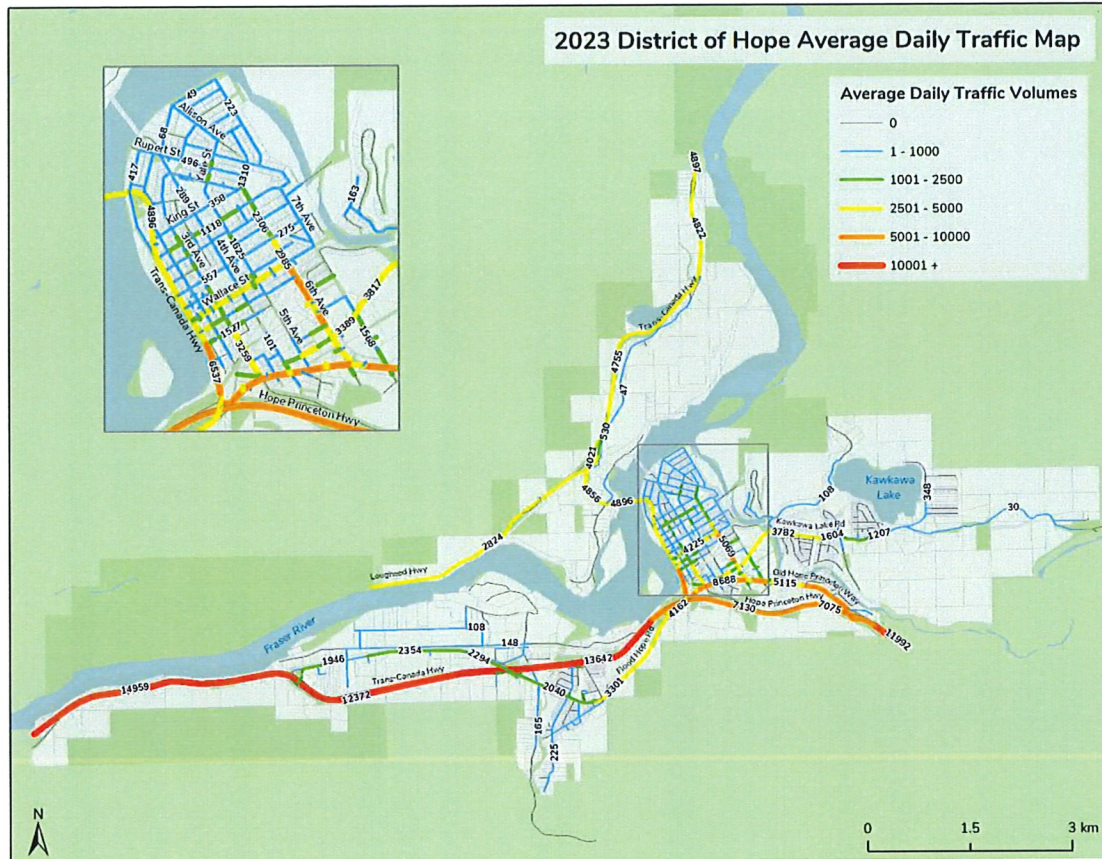


Figure 8 - Existing Conditions Traffic Volume

It should be noted that the District's Visum model does not account for alternative modes of transportation and therefore the results should be considered conservative as they do not reflect reductions associated with transit, bicycle and pedestrian trips.

3.3 Intersection Performance and Evaluation Criteria

Analysis of the traffic conditions at the study area intersections was undertaken using Synchro Version 11 and Sidra Intersection 8.0. Synchro and Sidra provide analysis of traffic conditions based on the Highway Capacity Manual (HCM) evaluation methodology.

The delays and type of traffic control are used to determine the level of service. The levels of service are broken down into six letter grades with LOS A being excellent



operations, and LOS F being unstable / failure operations. LOS C is generally considered to be an acceptable LOS by most municipalities. LOS D is generally considered to be on the threshold between acceptable and unacceptable operations.

Signalized and unsignalized intersection capacity analysis has been completed using Synchro Version 11 and the Highway Capacity Manual (HCM) methodology. For signalized intersections, the volume-to-capacity ratio (v/c) is an indicator of the capacity utilization for the key movements in the intersection. A v/c of 1.0 indicates that certain governing traffic movements through the intersection are operating at maximum capacity. The primary overall Level Of Service (LOS) indicator is delay, both on individual movements and expressed as an average for all vehicles processed. Many busy urban intersections operate at LOS D to E, which reflect average (control) delays in the range of 35 to 80 seconds.

For unsignalized intersections, LOS characterizes operational conditions for key movements in terms of delay within the traffic stream. LOS A represents a good level of service with short delays. LOS F represents a poor level of service with long delays. The v/c ratio is an indicator of the capacity utilization for key movements at the intersection and the resultant residual capacity potential.

LOS criteria for both unsignalized and signalized intersections, as summarized in the Highway Capacity Manual, are illustrated in Table 3.

Table 3 - Level of Service Criteria

Level of Service (LOS)	Average Delay for Unsignalized Intersection Movements	Average Delay for signalized Intersection Movements
A	0 – 10 seconds per vehicle	0 – 10 seconds per vehicle
B	> 10 – 15 seconds per vehicle	> 10 – 20 seconds per vehicle
C	> 15 – 25 seconds per vehicle	> 20 – 35 seconds per vehicle
D	> 25 – 35 seconds per vehicle	> 35 – 55 seconds per vehicle
E	> 35 – 50 seconds per vehicle	> 55 – 80 seconds per vehicle
F	> 50 seconds per vehicle	> 80 seconds per vehicle



3.4 Existing Operating Conditions

The existing traffic volumes were evaluated on the existing road network at 10 intersections. The results of the analysis are summarized in Table 4. All Synchro and SimTraffic microsimulation modelling outputs for this analysis, and all subsequent analysis, can be found in Appendix K of this report.

Table 4 - Existing Operating Conditions

Intersection	Control	Int. LOS	Movement	LOS	V/C	Delay (s)	Queue (m)
Othello Rd & Kawkawa Lake Rd	Two-way stop	A	EBTR	A	0.00	0	0
			WBLT	A	0.00	7.3	2
			NBLR	A	0.01	8.7	7
7th Ave & Kawkawa Lake Rd	All-way stop	A	EBLT	A	0.25	9.3	10
			EBR	A	0.03	7.1	9
			WBLTR	A	0.25	9.1	17
			NBLTR	A	0.12	8.3	10
			SBLTR	A	0.02	7.8	6
6th Ave & Kawkawa Lake Rd	Two-way stop	A	EBLTR	B	0.24	14.7	17
			WBLT	C	0.23	15.9	14
			WBR	A	0.09	9.7	13
			NBL	A	0.00	7.6	1
			NBTR	A	0.00	0	3
			SBL	A	0.04	7.8	7
			SBTR	A	0.00	0	0
5th Ave & Corbett St	Two-way stop	A	EBLTR	B	0.13	10.1	14
			WBLTR	B	0.12	10	14
			NBLTR	A	0.00	7.3	2
			SBLTR	A	0.00	7.3	0
6th Ave & Wallace St	All-way stop	A	EBLT	A	0.06	8.9	13
			EBR	A	0.19	8.8	14
			WBLTR	A	0.07	8.8	15
			NBLTR	B	0.35	10.3	19
			SBLTR	A	0.23	9.1	17
3rd Ave & Wallace St	Signal	B	EBLTR	B	0.25	12	30
			WBLTR	B	0.31	12.8	33
			NBLTR	A	0.19	8.6	23



			SBLTR	B	0.12	10.6	19
6th Ave & Coquihalla St	All-way stop	A	EBLTR	A	0.06	7.6	15
			WBLTR	A	0.05	7.7	14
			NBLTR	A	0.14	7.9	15
			SBLTR	A	0.13	7.8	17
3rd Ave & Coquihalla St	Two-way stop	A	EBLTR	A	0.00	7.3	0
			WBLTR	A	0.00	7.3	2
			NBLTR	A	0.08	9.9	15
			SBLTR	A	0.04	9.8	14
4th Ave & Hope St	All-way stop	A	EBLTR	A	0.01	6.9	5
			NBLTR	A	0.03	7.1	13
			SBLTR	A	0.01	6.7	8
Exit 170 & Flood Hope Rd	Signal	A	EBLR	A	0.33	7.3	20
			NBT	A	0.38	9.6	26
			SBT	A	0.27	8.6	24

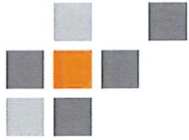
Under existing conditions, all intersections reviewed provide an excellent overall LOS A (delay less than 10 seconds / vehicle), except for 3rd Avenue & Wallace Street, which is operating at LOS B (delay of 10 to 20 seconds / vehicle). Reviewing the v/c ratios, all are within acceptable ranges, with the maximum v/c ratio (0.38) being reported at the Exit 170 & Flood Hope Road in the northbound direction, which currently operates as a single through lane. No queueing issues are expected under existing conditions.

4.0 FUTURE CONDITIONS

4.1 Traffic Forecast Model, Future Developments and Growth Assumptions

The traffic forecasting model was developed based on existing traffic volumes and land use data. It also factors in future growth of traffic and reflected potential new developments and changes in land use. It should be noted that the analysis carried out with the help of the model is fully dependent on the accuracy of the data entered into the model, therefore it is recommended that the model is revisited on an annual / semi-annual basis and provide new data when available such as new traffic counts, changes to the road network and/or proposed changes to land uses.

The new growth assumptions used in this analysis for the traffic volumes was applied at 1.25% annually.



4.2 Proposed Land Use and Development Phasing

Land use scenarios and progression of the associated development were identified by the ITMP Project Team and the District staff. This information was used to estimate future traffic volumes.

The future developments within the District are based on the information provided by the client, which were classified into the list of land uses described in Section 3.2.2. They were added to the future 5-year model and future 15-year model. Unless specified, the future 5-year model assumes partial (35%) build-out of the development area, and the future 15-year model assumes full (100%) build-out of the development area. The future land use quantities in their respective zones can be found in Appendix G and Appendix H for the future 5-year model and the future 15-year model respectively.

4.3 Future Conditions – Traffic Analysis

The methodology adopted for this study included a two-part analysis:

1. Future Scenario Horizon traffic forecast and;
2. Operational and capacity analysis of the key intersections.

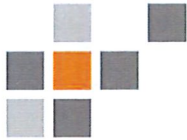
The traffic forecasting was carried out using the traffic model using the Visum software platform, which was updated to reflect the latest land use and proposed growth rate, provided by the ITMP Project team and District staff.

Operational and capacity analysis were evaluated as described in Section 3.3.

The subsequent sections summarize the results of the analysis.

4.4 Evaluation Process

The applicable future network changes, as described in Section 2.2, are incorporated to the operating conditions evaluation for the future horizons. When, applicable, the current intersection configurations were used for the evaluation. If Intersections needed improvement they would be identified and assumed to be upgraded. This upgraded network would be used to evaluate the operating conditions in the following horizon. Subsequently, intersection treatments were identified and applied where needed for each time horizon. Future operating conditions were analyzed for the proposed land development scenario identified in Section 4.2.



4.5 2028 Operating Conditions

Figure 9 shows the forecasted 2028 post-development traffic volumes, which can also be found in Appendix I.

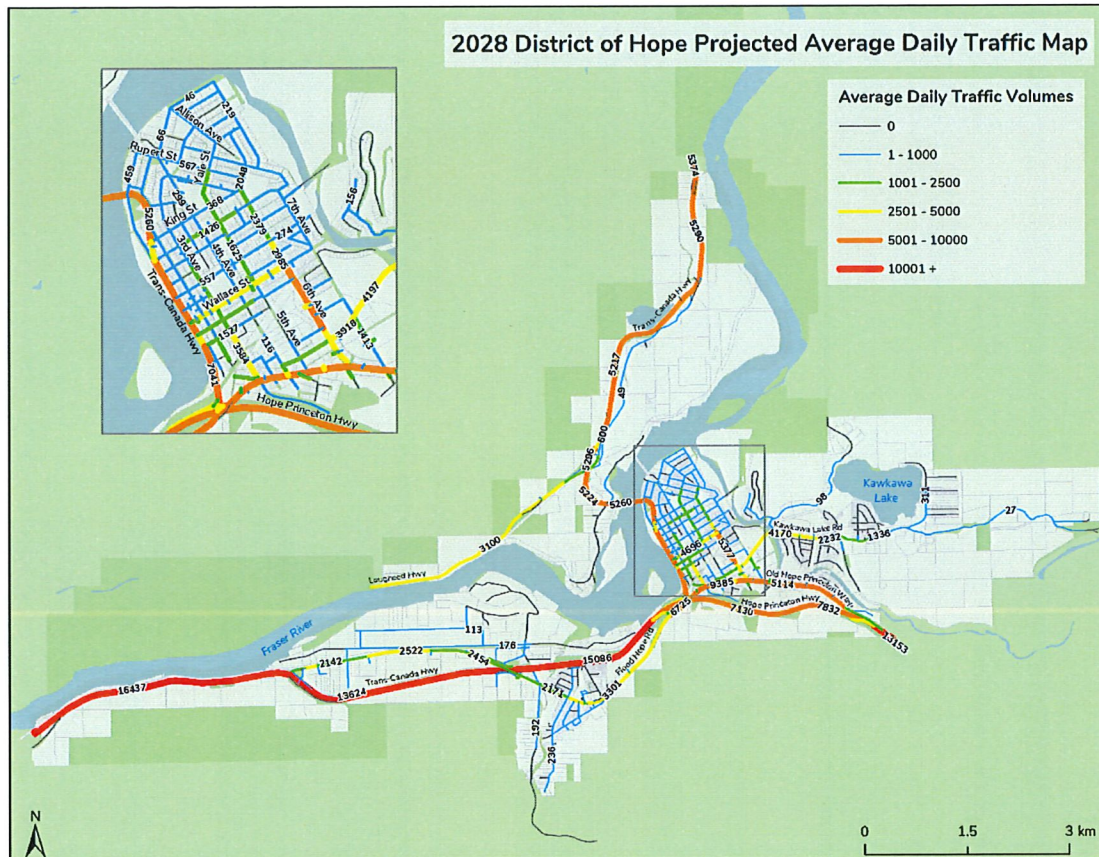


Figure 9 - 2028 Post-Development Traffic Volumes

The forecasted 2028 post-development traffic volumes were evaluated. The resulting operating conditions are shown in Table 5 while detailed Synchro printouts are included in Appendix K.



Table 5 - 2028 Operating Conditions

Intersection	Control	Int. LOS	Movement	LOS	V/C	Delay (s)	Queue (m)
Othello Rd & Kawkawa Lake Rd	Two-way stop	A	EBTR	A	0.00	0.0	0
			WBLT	A	0.00	7.3	2
			NBLR	A	0.01	8.6	6
7th Ave & Kawkawa Lake Rd	All-way stop	A	EBLT	A	0.30	9.8	12
			EBR	A	0.03	7.0	9
			WBLTR	A	0.27	9.3	20
			NBLTR	A	0.10	8.4	8
			SBLTR	A	0.02	7.9	7
6th Ave & Kawkawa Lake Rd / Corbett St	Two-way stop	A	EBLTR	C	0.31	16.7	19
			WBLT	C	0.28	17.8	16
			WBR	A	0.10	9.9	14
			NBL	A	0.00	7.6	1
			NBTR	A	0.00	0.0	3
			SBL	A	0.05	7.9	9
			SBTR	A	0.00	0.0	0
5th Ave & Corbett St	Two-way stop	A	EBLTR	B	0.15	10.3	16
			WBLTR	B	0.13	10.2	14
			NBLTR	A	0.00	7.3	2
			SBLTR	A	0.00	7.3	2
6th Ave & Wallace St	All-way stop	A	EBLT	A	0.07	9.0	14
			EBR	A	0.21	9.0	16
			WBLTR	A	0.07	8.9	15
			NBLTR	B	0.35	10.5	19
			SBLTR	A	0.24	9.3	18
3rd Ave & Wallace St	Signal	B	EBLTR	B	0.26	12.2	29
			WBLTR	B	0.33	13.0	36
			NBLTR	A	0.21	8.4	24
			SBLTR	B	0.13	10.9	21
6th Ave & Coquihalla St	All-way stop	A	EBLTR	A	0.07	7.6	15
			WBLTR	A	0.05	7.7	13
			NBLTR	A	0.14	8.0	16
			SBLTR	A	0.14	7.9	14



3rd Ave & Coquihalla St	Two-way stop	A	EBLTR	A	0.00	7.3	0
			WBLTR	A	0.00	7.3	0
			NBLTR	B	0.09	10.0	14
			SBLTR	B	0.05	10.0	14
4th Ave & Hope St	All-way stop	A	EBLTR	A	0.01	6.9	5
			NBLTR	A	0.03	7.1	13
			SBLTR	A	0.01	6.8	10
Exit 170 & Flood Hope Rd	Signal	A	EBLR	A	0.38	6.7	21
			NBT	B	0.40	10.2	30
			SBT	A	0.31	9.2	25

The results of the analysis under 2028 indicate similar operating conditions, to that of the 2023 existing conditions. All intersections reviewed provide an excellent overall LOS A (delay less than 10 seconds / vehicle), except for 3rd Avenue & Wallace Street, which is still operating at LOS B (delay of 10 to 20 seconds / vehicle).

Reviewing the v/c ratios, all are within acceptable ranges, with the maximum v/c ratio (0.40) being reported at the Exit 170 & Flood Hope Road in the northbound direction. No queueing issues are expected in 2028.

We do note that individual movements at the two-way stop control at 6th Ave & Kawkawa Lake Road / Corbett Street have individual movements operating at a LOS C for the minor leg movements in the east and westbound directions. This is still deemed acceptable, and should be monitored in the case traffic volumes continue to grow along this future designated east-west arterial roadway.

4.6 2038 Operating Conditions

Figure 10 shows the forecasted 2038 post-development traffic volumes, which can also be found in Appendix J.

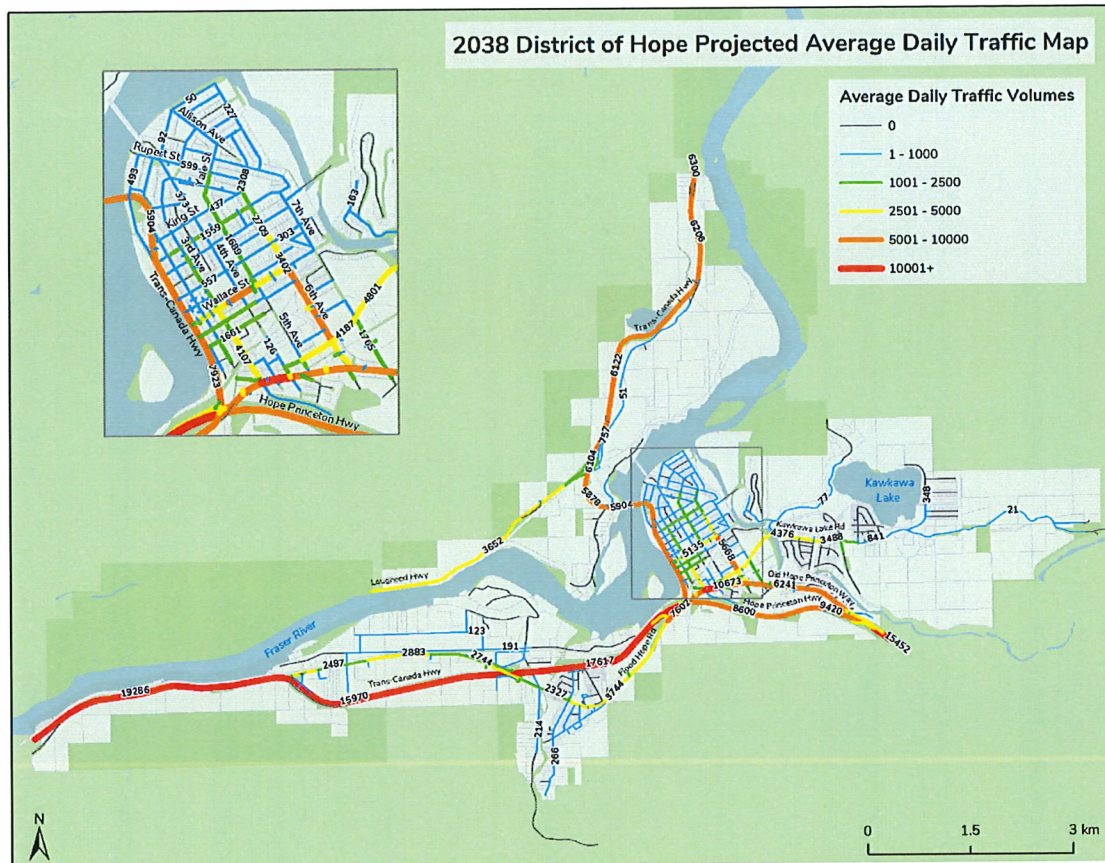


Figure 10 – 2038 Post-Development Traffic Volumes

The forecasted 2038 post-development traffic volumes were evaluated. The resulting operating conditions are shown in Table 6 while detailed capacity analysis is included in Appendix K.

Table 6 – 2038 Operating Conditions

Intersection	Control	Int. LOS	Movement	LOS	V/C	Delay (s)	Queue (m)
Othello Rd & Kawkawa Lake Rd	Two-way stop	A	EBTR	A	0.00	0	0
			WBLT	A	0.00	7.3	0
			NBLR	A	0.01	8.6	6



7 th Ave & Kawkawa Lake Rd	All-way stop	A	EBLT	B	0.32	10.1	12
			EBR	A	0.02	7.1	9
			WBLTR	A	0.31	9.8	20
			NBLTR	A	0.14	8.7	12
			SBLTR	A	0.02	8.1	7
6 th Ave & Kawkawa Lake Rd / Corbett St	Two-way stop	A	EBLTR	C	0.39	18.7	18
			WBLT	C	0.36	20.5	18
			WBR	B	0.10	10	14
			NBL	A	0.00	7.7	2
			NBTR	A	0.00	0	3
			SBL	A	0.05	7.9	8
			SBTR	A	0.00	0	0
5 th Ave & Corbett St	Two-way stop	A	EBLTR	B	0.18	10.6	14
			WBLTR	B	0.16	10.5	15
			NBLTR	A	0.00	0	0
			SBLTR	A	0.00	0	1
6 th Ave & Wallace St	All-way stop	A	EBLT	A	0.08	9.2	14
			EBR	A	0.23	9.3	16
			WBLTR	A	0.08	9.1	15
			NBLTR	B	0.38	11	20
			SBLTR	A	0.27	9.7	19
3 rd Ave & Wallace St	Signal	B	EBLTR	B	0.28	12.4	28
			WBLTR	B	0.36	13.3	36
			NBLTR	A	0.24	8.3	26
			SBLTR	B	0.14	10.9	22
6 th Ave & Coquihalla St	All-way stop	A	EBLTR	A	0.08	7.7	14
			WBLTR	A	0.05	7.8	15
			NBLTR	A	0.15	8.1	16
			SBLTR	A	0.15	8	15
3 rd Ave & Coquihalla St	Two-way stop	A	EBLTR	A	0.00	7.3	2
			WBLTR	A	0.01	7.4	2
			NBLTR	B	0.09	10.1	15
			SBLTR	B	0.05	10.1	15
4 th Ave & Hope St	All-way stop	A	EBLTR	A	0.01	6.9	6
			NBLTR	A	0.04	7.1	13
			SBLTR	A	0.02	6.8	10



Exit 170 & Flood Hope Rd	Signal	A	EBLR	A	0.42	6.8	19
			NBT	B	0.47	10.9	32
			SBT	A	0.34	9.5	26

The results of the analysis under 2038 indicate that all intersections continue to be operating at LOS B or better. Minor deterioration in operation for some movements, but all movements continue to be operating at an acceptable LOS C or better. Reviewing the v/c ratios, all are within acceptable ranges, with the maximum v/c ratio (0.47) being reported at the Exit 170 & Flood Hope Road in the northbound direction. Queueing lengths remain consistent and no additional issues are expected in 2038.

Proposed Improvements:

As noted in the 2028 microsimulation review, the intersection of Kawkawa Lake Road / Corbett Street & 6th Avenue was analyzed with some potential improvements in the case operational improvements were needed for east and westbound travel. The proposed improvements could include the introduction of four-way stop or roundabout. The results of the capacity analysis are summarized in Table 7 and Table 8 for the four-way stop and roundabout, respectively. The detailed capacity analysis is included in Appendix K.

Table 7 – 2038 Operating Conditions as a Four-way Stop Control

Intersection	Control	Int. LOS	Movement	LOS	V/C	Delay (s)	Queue (m)
6 th Ave & Kawkawa Lake Rd / Corbett St	Four-way stop	B	EBLTR	B	0.30	12.2	15
			WBLT	B	0.24	11.3	15
			WBR	A	0.12	9.3	14
			NBL	A	0.00	9.4	3
			NBTR	B	0.44	13.4	23
			SBL	B	0.12	10.2	11
			SBTR	B	0.37	12.4	17



For the four-way stop control, the results of the analysis indicate that it would improve the operation for eastbound and westbound movements to LOS B, with reduced v/c ratio and delays at the 2038 horizon. The trade-off is that it would add additional delay to the main north and southbound movements along 6th Avenue, with an increased delay of approximately 12-13 seconds.

Table 8 – 2038 Operating Conditions as a Roundabout

Intersection	Control	Int. LOS	Movement	LOS	V/C	Delay (s)	Queue (m)
6 th Ave & Kawkawa Lake Rd / Corbett St	Roundabout	A	EBLTR	A	0.17	5.2	6
			WBLTR	A	0.19	5.1	7
			NBLTR	A	0.24	5.5	9
			SBLTR	A	0.24	5.2	9

For the roundabout, the results of the analysis indicate that it would improve the operation for eastbound and westbound movements to LOS A, with reduced v/c ratio and delays at the 2038 horizon. The trade-off is that it would require a higher cost of construction as roundabouts require a larger space, the intersection geometry may need to be reconfigured and acquire additional space on adjacent lots to accommodate the roundabout.



5.0 CONCLUSION

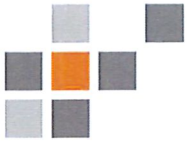
The Road Network Study for the District of Hope has been a foundational element in the development of the Integrated Transportation Master Plan (ITMP), aligning with the goals set out in the Integrated Official Community Plan (IOCP) adopted in 2018. Through analysis utilizing the Visum Macro Traffic Model and focusing on PM peak hours, the study has provided a clear picture of current conditions and future scenarios, guiding the planning for a multi-modal transportation network that meets the District's long-term objectives.

Our comprehensive evaluation, which included both future scenario horizon traffic forecasts and operational and capacity analysis of key intersections, has underscored the resilience of the District's existing road network. Despite anticipated growth and land use changes, the network is poised to support the District's development over the next 15 years without significant degradation in service levels. This robustness is particularly evident from the operational assessments, which predict that the majority of intersections will continue to operate at acceptable levels of service through to 2038, even as traffic volumes increase.

This study has not only confirmed the adequacy of the current road configurations but also highlighted opportunities for strategic enhancements. Proposed upgrades, such as reclassifications and the introduction of active transportation facilities, are informed by our iterative network analysis. These improvements aim to not only address vehicular traffic efficiency but also encourage a shift towards more sustainable modes of transportation, such as walking, cycling, and public transit.

Furthermore, the analysis suggests that, with minimal adjustments required for vehicular operations, the District has a unique opportunity to invest in active transportation infrastructure. Enhancing facilities for non-motorized transportation can induce a modal shift, reducing reliance on automobiles and, consequently, traffic volumes. This shift not only aligns with environmental sustainability goals but also contributes to the overall well-being of the community by promoting healthier, more active lifestyles.

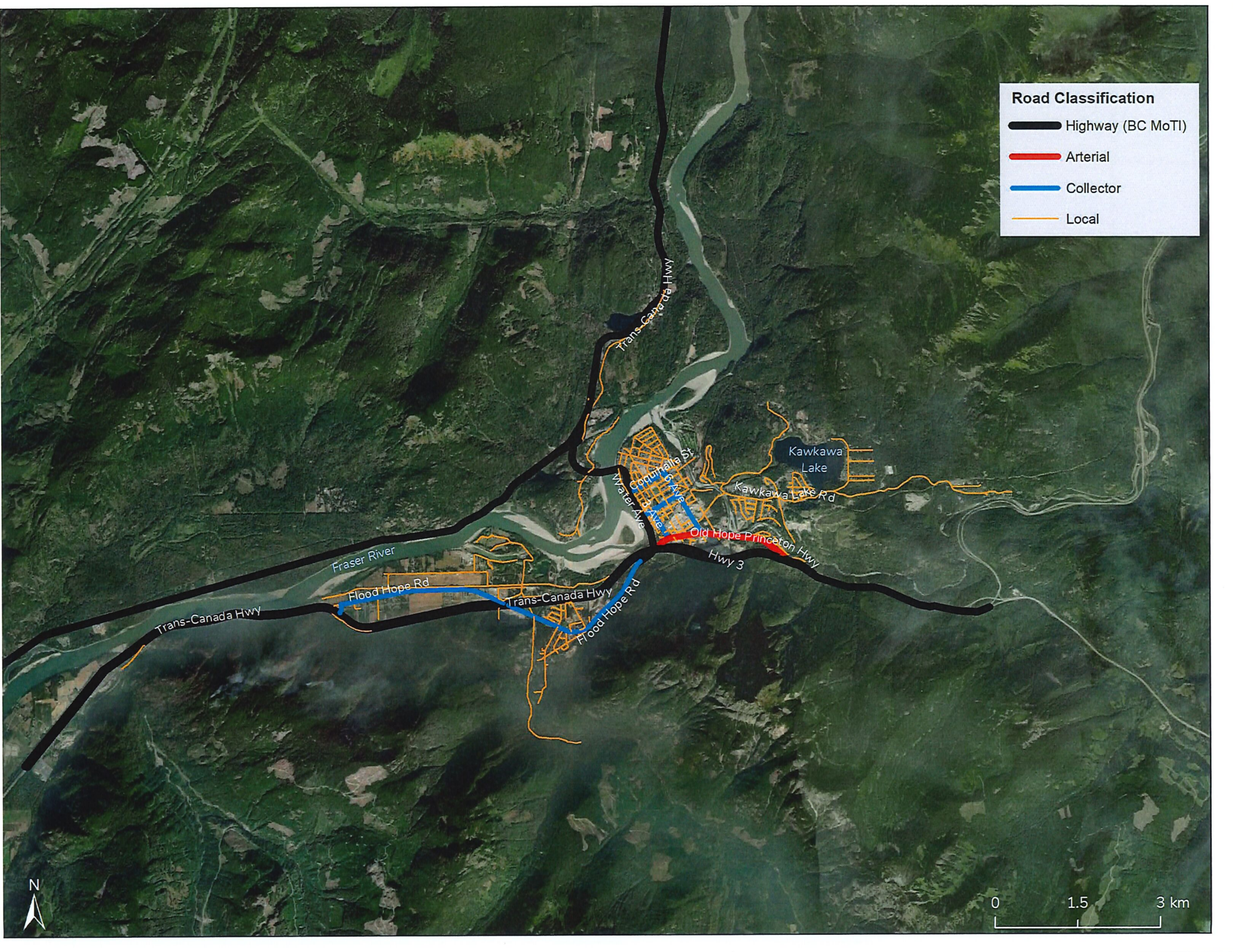
As the District moves forward, it will be essential to revisit and update the road network model periodically, ensuring that transportation planning remains responsive to changing conditions and continues to support the District's vision for a vibrant, accessible, and sustainable community.



Appendix A – Existing Road Classification

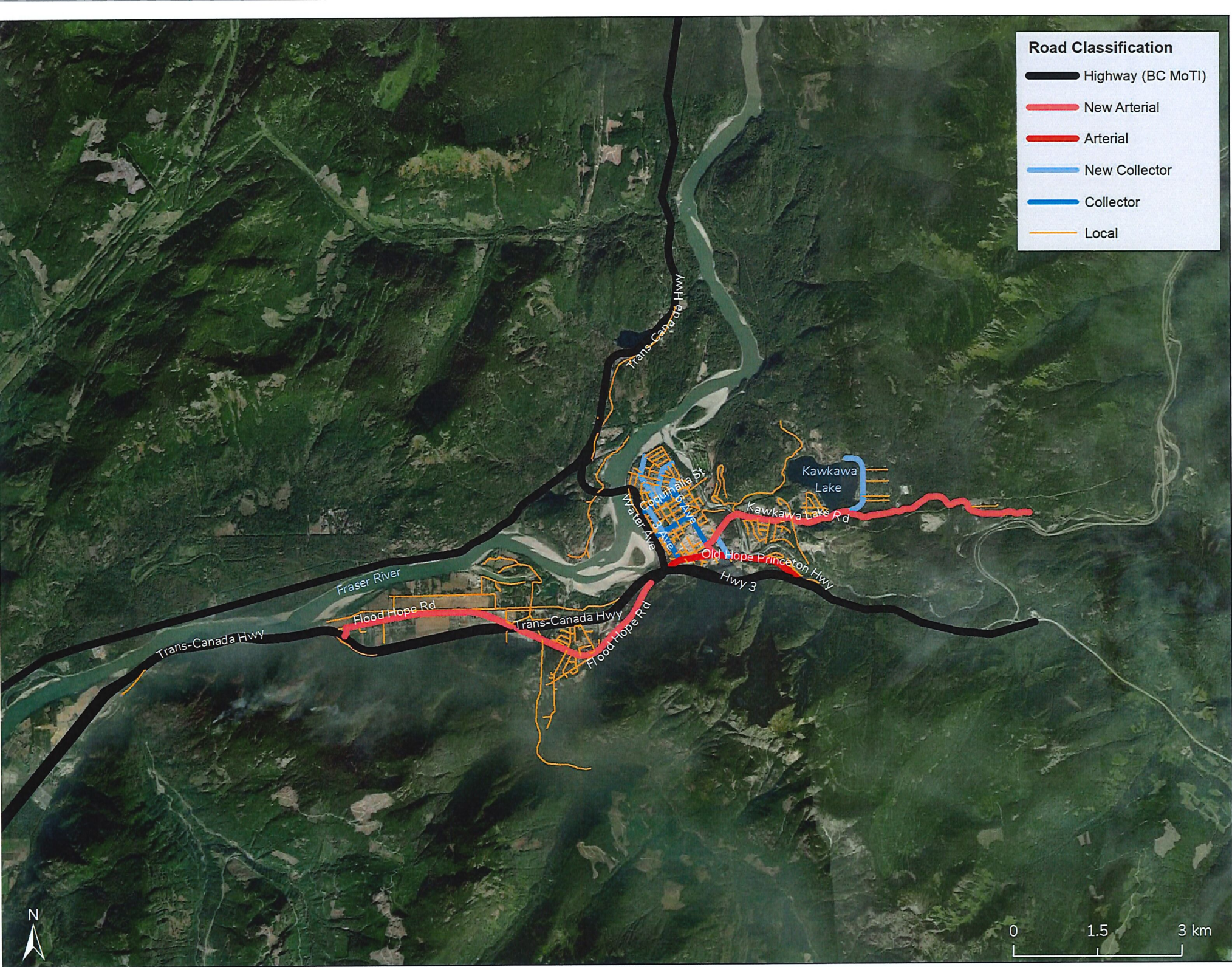
Road Classification

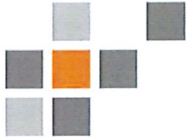
- Highway (BC MoTI)
- Arterial
- Collector
- Local





Appendix B – Future Road Classification





Appendix C – Data Collection Sheets

N/S Street:	8th Ave
E/W Street:	Coquihalla St
LOCATION:	Hope BC
DATE:	16-Mar-23
WEATHER:	Sunny
JOB # :	3486

Notes: _____

Adjacent to Coguihalla Elementary School + school bus route

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

Speed Limit Major Street.	50	MI/HR
---------------------------	----	-------

TOTAL HOURS = 3

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
7:00	7:15	1	1	0	0	7	3	0	1	2	0	0	0	15		1	0	0	2
7:15	7:30	5	12	1	0	11	2	0	1	2	0	0	0	34		1	2	2	4
7:30	7:45	2	9	0	0	11	3	1	1	4	1	0	0	32		0	0	0	0
7:45	8:00	3	11	1	0	7	2	4	0	2	0	1	1	32	113	0	0	0	3
8:00	8:15	3	21	1	1	18	9	12	0	3	1	0	1	70	188	0	5	8	3
8:15	8:30	4	31	1	0	22	6	9	4	7	2	2	1	89	223	15	13	18	16
8:30	8:45	3	35	1	1	44	6	12	1	8	3	5	2	121	312	1	5	5	4
8:45	9:00	1	5	0	0	10	3	0	2	7	1	1	0	30	310	0	1	1	0
9:00	9:15	8	9	0	0	14	3	0	1	2	0	0	0	37	277	0	1	1	1
9:15	9:30	5	4	0	0	9	0	0	1	5	0	0	0	24	212	1	1	1	0
9:30	9:45	4	10	0	0	9	1	1	0	4	1	2	0	32	123	1	0	0	1
9:45	10:00	4	5	0	0	3	1	0	1	4	1	0	0	19	112	1	0	2	0
Total		43	163	6	2	165	39	39	13	59	10	11	6	535		21	28	38	34
Peak Hour		13	98	4	2	91	23	37	5	20	6	8	5			16	23	31	26
DUE		0.64																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

Heavy vehicles													
TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0	0	0	0	1	0	0	0	1	0	0	0
7:15	7:30	0	0	0	0	1	0	0	0	0	0	0	0
7:30	7:45	1	0	0	0	0	0	0	0	0	0	0	0
7:45	8:00	0	0	0	0	0	0	0	0	0	0	0	0
8:00	8:15	1	0	0	0	2	0	0	0	0	0	0	0
8:15	8:30	0	0	0	0	5	0	1	0	1	0	0	0
8:30	8:45	0	0	0	0	0	0	0	0	1	0	1	0
8:45	9:00	0	0	0	0	0	0	0	0	1	0	1	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0
9:15	9:30	1	0	0	0	0	0	0	0	0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0
9:45	10:00	0	1	0	0	0	0	0	0	1	0	0	0
Total		3	1	0	0	9	0	1	0	5	0	2	0
Peak Hour		1	0	0	0	7	0	1	0	2	0	1	0
% Heavy Vehicles		7%	0%	0%	0%	7%	0%	3%	0%	9%	0%	11%	0%

[illegible]

N/S Street:	6th Ave
E/W Street:	Coquihalla St
LOCATION:	Hope BC
DATE:	16-Mar-23
WEATHER:	Sunny
JOB # :	3486

Adjacent to Coquihalla Elementary School + school bus

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

TOTAL HOURS = 3

Light Vehicle		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	5	9	0	0	10	2	3	2	6	0	1	0	38		1	1	1	4
14:15	14:30	6	36	2	0	12	2	16	7	6	0	3	1	91		2	8	8	7
14:30	14:45	7	26	5	1	27	2	3	1	8	5	6	3	94		13	32	33	15
14:45	15:00	3	14	0	1	33	7	6	3	3	1	4	0	75	298	17	23	23	17
15:00	15:15	6	12	0	1	12	3	2	2	6	4	4	0	52	312	2	4	7	4
15:15	15:30	7	15	3	0	15	3	5	2	5	1	6	0	62	283	1	6	9	5
15:30	15:45	6	14	1	0	14	0	3	3	7	0	1	0	49	238	3	0	0	3
15:45	16:00	5	7	3	0	10	6	5	4	8	2	0	1	51	214	2	0	1	1
16:00	16:15	9	16	0	1	11	3	8	6	5	0	1	1	61	223	1	0	2	2
16:15	16:30	10	12	1	1	10	3	4	5	7	2	1	1	57	218	5	1	1	6
16:30	16:45	6	20	2	1	12	4	5	1	5	0	3	0	59	228	0	0	2	2
16:45	17:00	8	15	2	0	15	3	3	3	10	1	4	0	64	241	0	2	2	1
Total		76	196	19	6	181	38	63	39	76	16	34	7	753		47	77	89	67
Peak Hour		22	88	7	3	84	14	27	13	23	10	17	4			34	67	71	43
PHF		0.83																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min interval}) / (\text{Max15min interval} * 4))$

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	1	0	0	0	0	0	0	0	2	0	0	0
14:15	14:30	2	1	0	0	0	0	0	0	1	0	0	0
14:30	14:45	0	3	0	0	0	0	1	0	0	0	1	0
14:45	15:00	0	0	0	0	5	0	0	0	0	0	0	0
15:00	15:15	1	1	0	0	0	0	0	0	1	0	0	0
15:15	15:30	1	1	0	0	0	0	0	0	0	0	0	0
15:30	15:45	1	1	0	0	1	0	0	0	1	0	0	0
15:45	16:00	0	0	0	0	2	0	1	0	1	0	0	0
16:00	16:15	0	0	0	0	1	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	1	0	0	0	1	0	0	0	1	0	0	0
16:45	17:00	1	1	0	0	0	0	0	0	2	0	0	0
Total		8	8	0	0	10	0	2	0	9	0	1	0
Peak Hour		3	5	0	0	5	0	1	0	2	0	1	0
% Heavy Vehicles		12%	5%	0%	0%	6%	0%	4%	0%	8%	0%	6%	0%

[illegible]

N/S Street:	Owl St
E/W Street:	Flood Hope Rd
LOCATION:	Hope, BC
DATE:	15-Mar-23
WEATHER:	Raining
JOB # :	3486,B01

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	30	km/h

TOTAL HOURS = 3

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
7:00	7:15	1	0	1	4	0	1	0	17	0	0	11	0	35		0	0	0	0
7:15	7:30	1	0	2	3	0	2	1	31	0	0	14	2	56		0	0	0	1
7:30	7:45	0	0	0	3	0	1	0	31	0	0	18	1	55		0	0	0	0
7:45	8:00	3	0	1	3	0	1	0	46	0	1	17	0	72	218	0	0	0	0
8:00	8:15	1	0	1	5	0	2	0	37	1	0	20	1	68	251	0	0	0	0
8:15	8:30	0	0	0	5	0	1	0	30	0	1	26	1	64	259	2	0	0	1
8:30	8:45	0	0	1	9	0	0	0	30	0	1	24	3	68	272	1	0	0	1
8:45	9:00	2	0	2	4	0	1	0	28	0	5	15	3	60	260	1	0	0	1
9:00	9:15	0	0	1	3	0	0	0	15	0	2	16	2	39	231	0	0	0	0
9:15	9:30	0	0	1	2	0	0	0	27	0	4	14	1	49	216	0	0	0	0
9:30	9:45	0	0	0	2	0	0	0	22	1	0	18	1	44	192	1	0	0	0
9:45	10:00	0	0	5	1	0	0	0	32	0	1	10	2	51	183	0	0	0	0
Total		8	0	15	44	0	9	1	346	2	16	203	17	661		5	0	0	4
Peak Hour		4	0	3	22	0	4	0	143	1	3	87	5			3	0	0	2
PHF		0.94																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min interval}) / (\text{Max15min interval} * 4))$

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0	0	0	0	0	0	0	0	0	0	3	0
7:15	7:30	0	0	0	0	0	0	0	0	0	0	1	0
7:30	7:45	0	0	0	0	0	0	0	0	0	0	1	0
7:45	8:00	0	0	0	0	0	0	0	4	0	0	1	0
8:00	8:15	0	0	0	0	0	1	0	5	0	0	1	0
8:15	8:30	0	0	0	0	0	1	0	0	0	0	3	0
8:30	8:45	0	0	0	0	0	0	0	1	0	0	4	0
8:45	9:00	0	0	0	0	0	0	0	4	0	0	1	0
9:00	9:15	0	0	0	0	0	0	0	2	0	0	2	0
9:15	9:30	0	0	0	0	0	0	0	1	0	0	1	0
9:30	9:45	0	0	0	0	0	0	0	4	0	0	2	0
9:45	10:00	0	0	0	0	0	0	0	2	0	0	1	0
Total		0	0	0	0	0	2	0	23	0	0	21	0
Peak Hour		0	0	0	0	0	2	0	10	0	0	9	0
% Heavy Vehicles		0%	0%	0%	0%	0%	33%	0%	7%	0%	0%	9%	0%

[illegible]

Intersection Turning Movement Count Summary

N/S Street:	Owl St
E/W Street:	Flood Hope Rd
LOCATION:	Hope, BC
DATE:	15-Mar-23
WEATHER:	Sunny
JOB # :	3486,B01

Observer: Miovision
Notes: _____

TOTAL HOURS = 3

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	30	km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians				
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W	
14:00	14:15	0	0	0	6	0	0	2	30	1	4	26	6	75	949	0	0	0	0	
14:15	14:30	0	1	0	5	0	0	2	23	1	8	34	3	77		0	1	0	1	
14:30	14:45	2	0	2	8	0	3	3	47	1	5	24	5	100		0	0	0	2	
14:45	15:00	0	0	2	4	0	1	1	28	0	8	31	7	82		334	0	0	0	0
15:00	15:15	1	0	3	4	1	3	0	23	2	5	16	3	61		320	1	0	0	0
15:15	15:30	1	0	0	0	0	2	0	28	0	3	30	6	70		313	1	0	0	0
15:30	15:45	1	0	2	6	0	1	1	30	2	7	30	7	87		300	0	0	0	3
15:45	16:00	0	1	0	3	0	1	0	34	0	2	31	5	77		295	0	0	0	0
16:00	16:15	0	0	0	4	0	2	1	24	2	10	17	7	67		301	0	0	0	1
16:15	16:30	1	0	2	6	0	0	1	28	1	8	23	2	72	303	0	0	0	1	
16:30	16:45	2	0	5	2	1	0	2	38	3	2	29	7	91	307	1	0	0	2	
16:45	17:00	1	0	2	4	0	2	0	23	2	3	40	13	90	320	0	0	0	0	
Total		9	2	18	52	2	15	13	356	15	65	331	71	949		3	1	0	10	
Peak Hour		2	1	4	23	0	4	8	128	3	25	115	21			0	1	0	3	
PHF		0.84																		

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min interval}) / (\text{Max15min interval} * 4))$

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	1	0	0	0	0	0	0	1	0	0	1	0
14:15	14:30	0	0	0	0	0	0	0	0	0	0	2	0
14:30	14:45	0	0	1	0	0	0	0	1	0	0	2	0
14:45	15:00	0	0	0	0	0	0	0	2	0	0	3	0
15:00	15:15	0	0	0	0	0	0	0	1	0	0	3	0
15:15	15:30	0	0	0	0	0	0	0	3	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	5	0	0	3	1
15:45	16:00	0	0	0	0	0	0	0	3	0	0	3	0
16:00	16:15	0	0	0	0	0	0	0	4	0	0	2	0
16:15	16:30	0	0	0	0	0	0	0	0	0	1	2	0
16:30	16:45	0	0	0	0	0	0	0	0	0	1	1	0
16:45	17:00	0	0	0	0	0	0	0	2	0	0	0	0
Total		1	0	1	0	0	0	0	22	0	2	22	1
Peak Hour		1	0	1	0	0	0	0	4	0	0	8	0
% Heavy Vehicles		33%	0%	20%	0%	0%	0%	0%	3%	0%	0%	7%	0%

Bicycles

[illegible]

Intersection Turning Movement Count Summary

N/S Street: Silverhope Rd
E/W Street: Flood Hope Rd
LOCATION: Hope, BC
DATE: 15-Mar-23
WEATHER: Rainy
JOB #: 3486.B01

Observer: Miovision
Notes:

TOTAL HOURS = 3

Speed Limit Major Street: 50 km/h
Speed Limit Minor Street: 50 km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
7:00	7:15	0	0	0	2	0	2	1	19	0	0	10	0	34		0	0	0	0
7:15	7:30	2	1	2	3	0	4	1	26	1	0	15	1	56		0	0	0	0
7:30	7:45	1	1	2	4	0	3	0	26	3	0	12	1	53		0	0	0	0
7:45	8:00	0	0	3	2	0	3	2	31	2	2	15	2	62	205	0	0	0	0
8:00	8:15	1	0	4	4	0	1	4	26	0	2	10	3	55	226	0	0	0	1
8:15	8:30	0	0	6	3	0	3	2	24	1	2	8	7	56	226	2	0	0	3
8:30	8:45	0	0	4	3	1	0	2	19	2	5	16	4	56	229	2	0	0	1
8:45	9:00	1	1	2	5	1	2	1	10	4	1	13	3	44	211	0	0	0	0
9:00	9:15	3	0	1	1	0	0	0	9	1	1	15	0	31	187	0	0	0	0
9:15	9:30	1	0	1	6	0	1	0	15	1	2	9	1	37	168	0	0	0	0
9:30	9:45	3	1	2	2	0	4	0	15	0	1	11	4	43	155	0	0	0	0
9:45	10:00	1	0	2	11	0	1	0	15	1	1	12	0	44	155	0	0	0	0
Total		13	4	29	46	2	24	13	235	16	17	146	26	571		4	0	0	5
Peak Hour		1	0	17	12	1	7	10	100	5	11	49	16			4	0	0	5
PHF		0.92																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	((Max60min Interval) / (Max15min Interval *4))

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0	0	0	0	0	0	0	0	0	0	2	0
7:15	7:30	0	0	0	0	0	0	0	0	0	0	2	0
7:30	7:45	0	0	0	0	0	0	0	1	0	0	1	0
7:45	8:00	0	0	0	0	0	0	0	7	0	0	1	0
8:00	8:15	0	0	0	0	0	0	0	4	0	0	2	0
8:15	8:30	0	0	0	0	0	0	0	0	0	0	5	0
8:30	8:45	0	0	0	0	0	0	0	1	0	0	3	0
8:45	9:00	0	0	0	0	0	0	1	3	0	0	2	0
9:00	9:15	0	0	0	0	0	0	0	1	1	0	0	0
9:15	9:30	0	0	1	0	0	0	0	1	0	0	1	0
9:30	9:45	0	0	0	0	0	0	0	3	0	0	1	0
9:45	10:00	0	0	0	0	0	0	0	3	1	0	1	0
Total		0	0	1	0	0	0	1	24	2	0	21	0
Peak Hour		0	0	0	0	0	0	0	12	0	0	11	0
% Heavy Vehicles		0%	0%	0%	0%	0%	0%	0%	11%	0%	0%	18%	0%

Bicycles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0	0	0	0	0	0	0	0	0	0	0	0
7:15	7:30	0	0	0	0	0	0	0	0	0	0	0	0
7:30	7:45	0	0	0	0	0	0	0	0	0	0	0	0
7:45	8:00	0	0	0	0	0	0	0	0	0	0	0	1
8:00	8:15	0	0	0	1	0	0	0	0	0	0	0	0
8:15	8:30	0	0	0	0	0	0	0	0	0	0	0	0
8:30	8:45	0	0	0	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	0	0	0	0	0	0	0	0	0	0
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	0
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	0	0	0	0	0
9:45	10:00	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	1	0	0	0	0	0	0	0	1
Peak Hour		0	0	0	1	0	0	0	0	0	0	0	1

Intersection Turning Movement Count Summary

N/S Street: Silverhope Rd
E/W Street: Flood Hope Rd
LOCATION: Hope, BC
DATE: 15-Mar-23
WEATHER: Cloudy
JOB #: 3486.B01

TOTAL HOURS = 3

Observer: Miovision
Notes:

Speed Limit Major Street: 50 km/h
Speed Limit Minor Street: 50 km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	3	1	1	8	0	2	3	26	1	0	16	10	71		1	0	0	0
14:15	14:30	2	1	5	6	0	1	4	23	3	4	12	7	68		1	0	0	1
14:30	14:45	0	0	4	9	0	7	1	24	4	3	25	7	84		2	1	0	0
14:45	15:00	1	0	1	6	0	0	3	15	0	7	15	7	55	278	2	1	2	2
15:00	15:15	2	0	3	2	0	3	5	14	0	2	17	3	51	258	1	0	0	1
15:15	15:30	2	1	2	5	0	2	6	25	2	3	16	15	79	269	0	1	0	0
15:30	15:45	3	0	3	7	0	1	6	22	4	7	15	6	74	259	0	0	0	0
15:45	16:00	2	0	5	9	0	2	4	19	5	1	22	6	75	279	0	3	0	6
16:00	16:15	2	1	0	3	1	2	8	21	4	5	8	6	61	289	0	0	0	0
16:15	16:30	0	0	6	7	0	1	4	19	1	1	11	10	60	270	0	0	0	0
16:30	16:45	1	0	0	7	0	1	2	32	6	1	17	15	82	278	0	0	0	0
16:45	17:00	1	0	1	10	2	8	9	18	2	2	20	17	90	293	0	0	0	2
Total		19	4	31	79	3	30	55	258	32	36	194	109	850		7	6	2	12
Peak Hour		4	1	7	27	3	12	23	90	13	9	56	48			0	0	0	2
PHF		0.81																	

Peak Hour
PHF Calculation

A consecutive hour (60-mins) with the highest volume of traffic
 $((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	0	0	0	0	0	1	0	0	1	1
14:15	14:30	0	0	0	0	0	0	0	0	0	0	2	0
14:30	14:45	0	0	0	0	0	1	0	1	0	0	2	0
14:45	15:00	0	0	0	0	0	0	1	2	0	0	4	0
15:00	15:15	0	0	0	0	0	0	0	0	0	0	2	1
15:15	15:30	0	0	0	0	0	1	0	3	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	2	0	0	3	0
15:45	16:00	0	0	0	0	0	1	0	3	1	0	2	1
16:00	16:15	0	0	1	0	0	0	0	3	0	0	2	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	2	0
16:30	16:45	0	0	0	0	0	0	0	0	0	0	2	0
16:45	17:00	0	0	0	0	0	0	0	2	0	0	0	0
Total		0	0	1	0	0	3	1	17	1	0	22	3
Peak Hour		0	0	1	0	0	0	0	5	0	0	6	0
% Heavy Vehicles		0%	0%	13%	0%	0%	0%	0%	5%	0%	0%	10%	0%

Bicycles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	0	0	0	0	0	0	0	0	0	0
14:15	14:30	0	0	0	0	0	0	0	0	0	0	0	0
14:30	14:45	0	0	0	0	0	0	0	0	0	0	0	0
14:45	15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0	0	0	0	0	1
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	1
16:30	16:45	0	0	0	0	0	1	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	1	0	0	0	0	0	0	2
Peak Hour		0	0	0	0	1	0	0	0	0	0	0	2

N/S Street:	Tobena Rd
E/W Street:	Flood Hope Rd
LOCATION:	Hope
DATE:	14-Mar-23
WEATHER:	Cloudy
JOB # :	3486,B01

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

TOTAL HOURS = 3

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
7:00	7:15	3	0	7	10	4	2	2	6	3	2	17	2	58		0	0	0	0
7:15	7:30	3	1	4	11	1	0	3	11	0	3	10	1	48		0	0	0	0
7:30	7:45	0	0	9	11	3	3	0	18	6	2	17	5	74		0	0	0	0
7:45	8:00	3	0	2	9	1	3	1	15	3	3	7	1	48	228	0	0	0	0
8:00	8:15	3	0	8	10	3	4	0	9	6	2	7	0	52	222	0	0	0	0
8:15	8:30	4	0	3	11	4	4	0	8	1	2	11	5	53	227	0	0	0	0
8:30	8:45	4	0	3	10	1	5	0	6	2	2	9	3	45	198	0	0	0	0
8:45	9:00	1	0	1	10	0	3	1	7	1	2	9	2	37	187	0	0	0	0
9:00	9:15	2	0	2	7	3	7	2	6	3	1	20	4	57	192	0	0	0	0
9:15	9:30	4	0	3	13	3	7	2	8	3	1	12	5	61	200	0	0	0	0
9:30	9:45	4	0	3	13	3	1	5	9	4	2	17	2	63	218	0	0	0	0
9:45	10:00	5	1	5	13	2	6	0	6	1	1	8	1	49	230	0	0	0	0
Total		36	2	50	128	28	45	16	109	33	23	144	31	645		0	0	0	0
Peak Hour		15	1	13	46	11	21	9	29	11	5	57	12			0	0	0	0
PHF		0.91																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0	0	0	0	0	3	3	7	0	0	8	1
7:15	7:30	0	0	0	1	0	7	0	9	0	0	8	0
7:30	7:45	0	0	0	0	0	4	0	7	0	0	4	0
7:45	8:00	0	0	0	1	0	2	0	8	0	0	3	0
8:00	8:15	0	0	0	1	0	2	0	3	0	0	7	0
8:15	8:30	0	0	0	6	0	1	0	10	0	0	8	0
8:30	8:45	0	1	0	3	1	2	0	4	0	0	8	1
8:45	9:00	0	0	0	2	1	6	1	11	0	0	8	0
9:00	9:15	1	0	0	0	0	6	2	5	0	0	11	1
9:15	9:30	0	0	0	0	0	7	1	9	0	1	5	0
9:30	9:45	0	0	1	4	0	7	2	9	0	1	4	0
9:45	10:00	1	0	0	5	0	7	0	5	0	0	4	0
Total		2	1	1	23	2	54	9	87	0	2	78	3
Peak Hour		2	0	1	9	0	27	5	28	0	2	24	1
% Heavy Vehicles		12%	0%	7%	16%	0%	56%	36%	48%	0%	29%	30%	8%

[illegible]

Intersection Turning Movement Count Summary

N/S Street: Tobena Rd
 EW Street: Flood Hope Rd
 LOCATION: Hope
 DATE: 14-Mar-23
 WEATHER: Cloudy
 JOB #: 3486.B01

Observer: Miovision
 Notes:

TOTAL HOURS = 3

Speed Limit Major Street: 50 km/h
 Speed Limit Minor Street: 50 km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	5	0	4	9	2	8	1	15	3	5	8	4	64		0	0	0	0
14:15	14:30	6	0	8	16	6	6	1	17	4	3	17	3	87		0	0	0	0
14:30	14:45	6	2	5	17	7	7	0	9	2	10	33	2	100		0	0	0	0
14:45	15:00	9	1	5	19	11	14	0	11	1	2	14	6	93	344	0	0	0	0
15:00	15:15	10	1	6	18	7	4	0	13	1	2	15	2	79	359	0	0	0	0
15:15	15:30	4	1	1	14	1	10	1	13	5	0	9	3	62	334	0	0	0	0
15:30	15:45	5	0	3	16	3	11	1	14	2	2	13	2	72	306	0	0	0	0
15:45	16:00	3	0	6	16	2	4	1	22	1	2	14	2	73	286	0	0	0	0
16:00	16:15	6	0	1	9	1	11	2	11	1	4	15	0	61	268	0	0	0	0
16:15	16:30	3	0	3	16	8	16	0	4	1	2	23	2	78	284	0	0	0	0
16:30	16:45	9	3	7	17	5	9	0	12	2	2	34	2	102	314	0	0	0	0
16:45	17:00	3	1	6	23	4	11	0	9	2	6	21	4	90	331	0	0	0	0
Total		69	9	55	190	57	111	7	150	25	40	216	32	961		0	0	0	0
Peak Hour		31	4	24	70	31	31	1	50	8	17	79	13			0	0	0	0
PHF		0.90																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	((Max60min Interval) / (Max15min Interval *4))

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	1	0	0	5	0	7	0	0	6	1
14:15	14:30	0	0	0	2	0	10	0	7	0	1	7	0
14:30	14:45	0	0	1	4	0	4	0	6	0	0	7	0
14:45	15:00	0	0	0	2	0	2	1	6	0	0	7	1
15:00	15:15	1	0	0	5	0	7	0	6	1	0	4	1
15:15	15:30	1	0	0	7	1	6	0	15	0	0	4	1
15:30	15:45	0	0	0	4	0	7	0	2	0	1	2	1
15:45	16:00	0	0	1	5	0	2	1	8	0	0	4	0
16:00	16:15	0	0	0	5	0	2	0	7	0	0	4	0
16:15	16:30	0	0	0	5	0	7	0	2	0	0	3	0
16:30	16:45	0	0	0	2	1	10	0	6	0	0	6	0
16:45	17:00	0	0	0	4	0	5	0	3	0	0	6	1
Total		2	0	3	45	2	67	2	75	1	2	60	6
Peak Hour		1	0	1	13	0	23	1	25	1	1	25	2
% Heavy Vehicles		3%	0%	4%	16%	0%	43%	50%	33%	11%	6%	24%	13%

Bicycles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	0	0	0	0	0	0	0	0	0	0
14:15	14:30	0	0	0	0	0	0	0	0	0	0	0	1
14:30	14:45	0	0	0	1	0	0	0	0	0	0	0	0
14:45	15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	1	0	0	0	0	0	0	0	1
Peak Hour		0	0	0	1	0	0	0	0	0	0	0	1

Intersection Turning Movement Count Summary

N/S Street:	Flood Hope Road
E/W Street:	Trans Canada Hwy (Ramps)
LOCATION:	Hope, BC
DATE:	15-Mar-23
WEATHER:	Raining/overcast
JOB # :	3486

Observer: _____ EW
Notes: _____

Stop control on EB approach. East leg is one way.

Speed	60	km/h
Speed Limit Minor Street:	50	km/h

TOTAL HOURS = 3

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
7:00	7:15	4	7	2	11	6	2	4	10	7				53		0	0	0	
7:15	7:30	2	4	6	6	7	16	5	11	26				83		0	0	0	
7:30	7:45	5	9	5	8	8	8	2	13	15				73		0	0	0	
7:45	8:00	4	6	1	12	14	7	5	11	11				71	280	0	0	0	
8:00	8:15	4	4	3	10	8	5	4	7	8				53	280	0	0	0	
8:15	8:30	1	6	2	12	12	6	9	7	8				63	260	0	0	0	
8:30	8:45	2	10	1	6	7	9	4	5	8				52	239	0	0	0	
8:45	9:00	3	10	5	6	7	10	6	12	9				68	236	0	0	0	
9:00	9:15	2	5	4	9	5	7	8	14	2				56	239	0	0	0	
9:15	9:30	2	10	1	7	8	3	5	10	11				57	233	0	0	0	
9:30	9:45	6	14	2	7	10	5	4	6	5				59	240	0	0	0	
9:45	10:00	3	5	1	12	7	4	7	7	6				52	224	0	0	0	
Total		38	90	33	106	99	82	63	113	116	0	0	0	740		0	0	0	
Peak Hour		15	26	14	37	35	33	16	45	59						0	0	0	
PHF		0.84																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0	2	5	7	2	4	3	7	3			
7:15	7:30	2	4	5	5	1	7	7	12	2			
7:30	7:45	0	3	2	4	1	3	3	18	6			
7:45	8:00	0	2	4	6	3	7	5	15	0			
8:00	8:15	0	1	1	4	2	1	6	7	2			
8:15	8:30	1	2	1	6	1	1	5	9	1			
8:30	8:45	0	1	3	4	3	5	6	7	3			
8:45	9:00	0	0	2	4	1	3	8	9	5			
9:00	9:15	2	3	2	5	2	1	11	10	0			
9:15	9:30	1	1	0	7	4	2	2	2	0			
9:30	9:45	1	1	1	5	0	2	3	9	5			
9:45	10:00	0	2	2	7	2	4	6	3	4			
Total		7	22	28	64	22	40	60	109	31	0	0	0
Peak Hour		2	11	16	22	7	21	33	53	11	0	0	0
% Heavy Vehicles		12%	30%	53%	37%	17%	39%	67%	54%	16%	0%	0%	0%

Bicycles

[illegible]

Intersection Turning Movement Count Summary

N/S Street:	Flood Hope Road
E/W Street:	Trans Canada Hwy (Ramps)
LOCATION:	Hope, BC
DATE:	15-Mar-23
WEATHER:	overcast
JOB # :	3486

Observer: EW

Notes:

Stop control on EB approach. East leg is one way.

Speed	60	km/h
Speed Limit Minor Street:	50	km/h

TOTAL HOURS = 3

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	3	12	1	9	17	9	5	4	11				71		0	0	0	
14:15	14:30	0	8	4	13	10	3	8	6	16				68		0	0	0	
14:30	14:45	1	27	0	9	13	7	12	12	9				90		0	0	0	
14:45	15:00	4	9	2	13	13	7	5	13	4				70	299	0	0	0	
15:00	15:15	6	11	1	8	11	3	9	8	12				69	297	0	0	0	
15:15	15:30	3	13	1	12	15	4	8	9	18				83	312	0	0	0	
15:30	15:45	1	16	3	12	16	1	4	14	15				82	304	0	0	0	
15:45	16:00	6	13	4	9	11	5	6	9	15				78	312	0	0	0	
16:00	16:15	1	9	3	11	17	4	2	11	15				73	316	0	0	0	
16:15	16:30	0	9	1	5	10	1	4	7	8				45	278	0	0	0	
16:30	16:45	3	20	2	15	22	1	7	3	11				84	280	0	0	0	
16:45	17:00	2	21	3	10	19	4	14	4	17				94	296	0	0	0	
Total		30	168	25	126	174	49	84	100	151	0	0	0	907		0	0	0	
Peak Hour		8	56	7	44	53	26	30	35	40						0	0	0	
PHF																			

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	1	2	0	5	3	3	3	11	2			
14:15	14:30	0	2	3	9	0	5	12	7	0			
14:30	14:45	2	4	0	3	0	4	8	3	0			
14:45	15:00	1	2	0	9	5	4	7	2	0			
15:00	15:15	0	4	1	6	1	1	6	1	0			
15:15	15:30	0	3	0	6	4	4	3	5	1			
15:30	15:45	0	3	0	5	1	2	4	4	3			
15:45	16:00	0	2	1	8	2	9	3	8	2			
16:00	16:15	0	2	1	4	1	5	3	11	3			
16:15	16:30	0	2	0	5	2	2	4	5	1			
16:30	16:45	2	2	0	1	3	6	5	10	0			
16:45	17:00	0	1	0	9	3	8	3	7	2			
Total		6	26	6	70	25	53	61	74	14	0	0	0
Peak Hour		0	10	2	23	8	20	13	28	9	0	0	0
% Heavy Vehicles		0%	15%	22%	34%	13%	43%	30%	44%	18%	0%	0%	0%

Bicycles

[illegible]

Intersection Turning Movement Count Summary

N/S Street:	Kawkawa Lake Road
E/W Street:	7th Ave
LOCATION:	Hope, BC
DATE:	14-Mar-23
WEATHER:	Clear
JOB #:	3486

Observer: _____ EW
Notes: _____

TOTAL HOURS = 3

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

Light Vehicles

Light Vehicles		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
TIME		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
From	To																		
7:00	7:15	3	6	4	9	9	0	0	0	0	2	5	15	53		0	0	0	
7:15	7:30	1	18	4	10	24	1	1	0	1	1	1	11	73		0	0	0	
7:30	7:45	1	17	5	12	21	0	11	0	0	3	0	9	79		0	0	0	
7:45	8:00	0	16	5	15	28	1	0	0	0	3	0	7	75	280	4	0	0	
8:00	8:15	1	13	9	12	26	0	0	0	0	3	0	7	71	298	1	0	0	
8:15	8:30	0	15	6	13	50	1	0	1	0	7	0	8	101	326	1	0	0	
8:30	8:45	0	19	7	10	33	1	0	0	0	5	0	4	79	326	1	0	0	
8:45	9:00	0	16	9	20	25	1	0	1	0	3	0	11	86	337	3	4	0	
9:00	9:15	0	14	5	19	30	3	0	0	0	4	1	10	86	352	0	1	0	
9:15	9:30	0	12	5	7	16	1	0	1	0	2	0	8	52	303	1	1	0	
9:30	9:45	0	13	12	12	18	1	1	0	0	11	1	10	79	303	1	1	1	
9:45	10:00	1	22	10	11	27	0	0	0	0	11	0	8	90	307	0	0	0	
Total		7	181	81	150	307	10	13	3	1	55	8	108	924		12	7	1	
Peak Hour		0	64	27	62	138	6	0	2	0	19	1	33			5	5	0	
PHF																			

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min interval}) / (\text{Max15min interval} * 4))$

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0	4	0	0	1	0	0	0	0	0	1	5
7:15	7:30	0	5	0	2	0	0	0	0	0	0	1	3
7:30	7:45	1	4	1	3	0	0	8	1	0	0	0	5
7:45	8:00	0	2	0	6	3	0	0	0	0	0	0	4
8:00	8:15	0	4	1	4	1	0	0	0	0	2	0	6
8:15	8:30	0	2	2	8	3	0	0	0	0	0	0	8
8:30	8:45	0	2	0	10	5	0	0	0	0	0	0	8
8:45	9:00	0	7	2	2	1	0	0	0	0	0	0	6
9:00	9:15	0	4	3	2	3	0	0	0	0	1	0	6
9:15	9:30	0	2	0	5	3	0	1	0	0	1	0	6
9:30	9:45	0	1	1	2	0	0	0	0	0	0	0	8
9:45	10:00	0	2	0	4	0	0	0	0	0	0	0	6
Total		1	39	10	48	20	0	9	1	0	4	2	72
Peak Hour		0	15	7	22	12	0	0	0	0	1	0	29
% Heavy Vehicles		0%	19%	21%	26%	8%	0%	0%	0%	0%	5%	0%	47%

Bicycles

[illegible]

Intersection Turning Movement Count Summary

N/S Street: Kawawa Lake Road
E/W Street: 7th Ave
LOCATION: Hope, BC
DATE: 14-Mar-23
WEATHER: Slightly overcast
JOB #: 3486

Observer: _____ EW
Notes: _____

TOTAL HOURS = 3

Speed Limit Major Street: 50 km/h
Speed Limit Minor Street: 50 km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	7	2	16	1	2	0	0	25	13	8	31	2	107		2	0	0	2
14:15	14:30	7	2	9	3	0	0	0	33	16	10	36	2	118		5	0	1	9
14:30	14:45	11	1	17	1	2	0	0	33	10	15	21	3	114		1	1	1	1
14:45	15:00	9	0	15	3	1	1	3	42	16	19	27	1	137	476	5	0	4	3
15:00	15:15	12	0	21	1	1	0	1	27	12	15	25	1	116	485	3	1	2	4
15:15	15:30	5	0	15	1	1	0	0	35	6	7	33	0	103	470	1	0	1	0
15:30	15:45	18	0	23	0	0	0	0	30	9	9	25	1	115	471	3	0	4	0
15:45	16:00	7	0	21	0	0	0	0	36	8	10	34	1	117	451	3	0	4	0
16:00	16:15	3	0	12	0	0	1	1	30	10	11	40	5	113	448	3	2	0	3
16:15	16:30	6	0	11	0	0	0	0	35	3	22	30	1	108	453	2	2	2	0
16:30	16:45	12	0	34	1	0	0	0	33	11	20	26	1	138	476	0	1	0	0
16:45	17:00	3	2	25	1	0	0	1	45	8	11	30	0	126	485	1	0	0	0
Total		6	404	122	157	358	18	12	7	2	100	7	219	1412		19	22	7	29
Peak Hour		39	3	62	8	4	1	4	135	54	59	109	7			14	2	8	17
PHF		0.89																	

Peak Hour
PHF Calculation

A consecutive hour (60-mins) with the highest volume of traffic
(((Max60min Interval) / (Max15min Interval *4))

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	0	0	0	0	0	1	0	5	2	0
14:15	14:30	1	0	3	0	0	0	0	1	0	9	2	0
14:30	14:45	2	0	6	0	0	0	0	0	1	6	1	0
14:45	15:00	0	0	4	0	0	0	0	5	0	4	3	1
15:00	15:15	0	0	3	0	0	0	0	2	2	5	2	0
15:15	15:30	1	0	1	0	0	0	0	2	1	8	1	0
15:30	15:45	0	0	2	0	0	0	0	1	1	2	1	0
15:45	16:00	0	0	0	0	0	0	0	1	1	3	3	0
16:00	16:15	0	0	0	0	0	0	0	2	0	8	0	0
16:15	16:30	0	0	1	0	0	1	0	0	0	8	1	0
16:30	16:45	0	0	0	0	0	0	0	3	0	1	2	0
16:45	17:00	0	0	0	0	0	0	0	2	0	2	3	0
Total		0	20	6	61	21	1	0	0	1	4	0	20
Peak Hour		3	0	16	0	0	0	0	8	3	24	8	1
% Heavy Vehicles		7%	0%	21%	0%	0%	0%	0%	6%	5%	26%	7%	13%

Bicycles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	0	0	0	0	0	0	0	0	0	0
14:15	14:30	0	0	0	0	0	0	0	0	0	0	0	0
14:30	14:45	0	0	0	0	0	0	0	0	0	0	0	0
14:45	15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:00	15:15	1	0	0	0	0	0	0	1	1	0	0	0
15:15	15:30	0	0	0	0	0	0	0	0	1	0	0	0
15:30	15:45	0	0	0	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	1	0	0	0	0	0	2	0
16:00	16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	2	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	1	2	0	2	0	0	1	0	1	0	2
Peak Hour		1	0	0	0	0	0	0	1	1	0	0	0

N/S Street:	Othello Rd
E/W Street:	Kawawa Lake Rd
LOCATION:	Hope
DATE:	14-Mar-23
WEATHER:	Cloudy
JOB # :	3486,B01

Observer: Jason Yuen
Notes: _____

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

TOTAL HOURS = 3

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
7:00	7:15	0		1						11	0	3		16		0	0	0	0
7:15	7:30	4		0						2	13	0	1	20		0	0	0	0
7:30	7:45	2		0						2	13	0	5	22		0	0	0	0
7:45	8:00	5		0						4	19	0	6	34	92	0	0	0	0
8:00	8:15	5		0						6	9	0	2	22	98	0	0	0	0
8:15	8:30	5		0						5	6	0	4	20	98	0	0	0	0
8:30	8:45	10		0						3	9	1	4	27	103	0	0	0	0
8:45	9:00	1		0						6	3	0	4	14	83	0	0	0	0
9:00	9:15	4		0						0	8	0	6	18	79	0	0	0	0
9:15	9:30	4		0						2	6	0	4	16	75	0	0	0	0
9:30	9:45	2		0						2	7	0	3	14	62	0	0	0	0
9:45	10:00	6		0						4	4	0	5	19	67	0	0	0	0
Total		48	0	1	0	0	0	0	0	37	108	1	47	0	242	0	0	0	0
Peak Hour		25	0	0	0	0	0	0	0	18	43	1	16	0		0	0	0	0
PHF		0.76																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0		0					0	1	0	0	
7:15	7:30	0		1					0	1	0	0	
7:30	7:45	1							0	2	0	0	
7:45	8:00	0		0					0	0	0	0	
8:00	8:15	0		0					0	1	0	0	
8:15	8:30	0		0					0	4	0	0	
8:30	8:45	5		0					0	8	0	1	
8:45	9:00	9		0					1	11	0	0	
9:00	9:15	8		0					1	9	0	0	
9:15	9:30	10		0					0	11	0	1	
9:30	9:45	11		0					1	9	0	0	
9:45	10:00	1		0					0	11	0	1	
Total		45	0	1	0	0	0	0	3	68	0	3	0
Peak Hour		5	0	0	0	0	0	0	0	13	0	1	0
% Heavy Vehicles		17%	0%	0%	0%	0%	0%	0%	0%	23%	0%	6%	0%

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0		0					0	0	0	0	
7:15	7:30	0		0					0	0	0	0	
7:30	7:45	0		0					0	0	0	0	
7:45	8:00	0		0					0	0	0	0	
8:00	8:15	0		0					0	0	0	0	
8:15	8:30	0		0					0	0	0	0	
8:30	8:45	0		0					0	0	0	0	
8:45	9:00	0		0					0	0	0	0	
9:00	9:15	0		0					0	0	0	0	
9:15	9:30	0		0					0	0	0	0	
9:30	9:45	0		0					0	0	0	0	
9:45	10:00	0		0					0	0	0	0	
Total		0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour		0	0	0	0	0	0	0	0	0	0	0	0

Intersection Turning Movement Count Summary

N/S Street:	Othello Rd
EW Street:	Kawkawa Lake Rd
LOCATION:	Hope
DATE:	14-Mar-23
WEATHER:	Sunny
JOB # :	3486.B01

Observer: Jason Yuen
Notes: _____

TOTAL HOURS = 3

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	11		0					5	7	0	3		26		0	0	0	0
14:15	14:30	8		0					2	2	0	2		14		0	0	0	0
14:30	14:45	3		0					5	8	1	8		25		0	0	0	0
14:45	15:00	9		0					8	5	0	4		26	91	0	0	0	0
15:00	15:15	9		0					2	6	0	5		22	87	0	0	0	0
15:15	15:30	11		1					5	3	0	11		31	104	0	0	1	0
15:30	15:45	6		0					7	5	0	3		21	100	0	0	0	0
15:45	16:00	9		0					4	4	1	7		25	99	0	0	0	0
16:00	16:15	15		2					4	4	0	9		34	111	0	0	0	0
16:15	16:30	19		0					6	5	0	6		36	116	0	0	0	0
16:30	16:45	14		0					3	7	0	5		29	124	0	0	0	0
16:45	17:00	14		0					15	8	0	4		41	140	0	0	0	0
Total		128	0	3	0	0	0	0	66	64	2	67	0	330		0	0	1	0
Peak Hour		62	0	2	0	0	0	0	28	24	0	24	0			0	0	0	0
PHF		0.85																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

Heavy Vehicles

Heavy Vehicles														
TIME		Northbound			Southbound			Eastbound			Westbound			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	
14:00	14:15	7		0					0	7	0	0		
14:15	14:30	10		0					0	7	0	0		
14:30	14:45	7		0					0	5	0	0		
14:45	15:00	6		0					1	7	0	0		
15:00	15:15	4		0					0	7	0	0		
15:15	15:30	7		0					0	3	0	0		
15:30	15:45	5		0					0	7	0	0		
15:45	16:00	7		0					0	4	0	0		
16:00	16:15	6		0					0	5	0	1		
16:15	16:30	1		0					0	1	0	0		
16:30	16:45	4		0					0	0	0	0		
16:45	17:00	1		0					0	2	0	0		
Total		65	0	0	0	0	0	0	0	1	55	0	1	0
Peak Hour		12	0	0	0	0	0	0	0	8	0	1	0	0
% Heavy Vehicles		16%	0%	0%	0%	0%	0%	0%	0%	25%	0%	4%	0%	

Bicycles

[illegible]

N/S Street:	3 Ave
E/W Street:	Old Hope Princeton Way
LOCATION:	Hope, BC
DATE:	14-Mar-23
WEATHER:	Cloudy
JOB # :	3486,B01

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

TOTAL HOURS = 3

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians				
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W	
7:00	7:15	3	0	0	2	0	0	2	1	105	0	0	47	5	165		0	0	0	0
7:15	7:30	1	0	0	2	0	2	5	82	0	0	45	4	141		2	0	0	0	
7:30	7:45	1	0	0	3	0	5	1	88	0	0	40	11	149		0	0	0	0	
7:45	8:00	0	0	0	7	0	3	2	93	0	0	57	5	167	622	2	0	0	0	
8:00	8:15	1	0	1	3	0	6	5	69	0	0	50	7	142	599	0	0	0	0	
8:15	8:30	0	1	0	3	0	4	4	64	0	0	56	3	135	593	0	3	2	0	
8:30	8:45	2	0	0	6	0	2	6	77	0	0	41	4	138	582	1	0	0	0	
8:45	9:00	0	0	1	6	0	7	4	69	0	0	63	15	165	580	1	0	0	0	
9:00	9:15	2	0	0	4	0	1	3	47	0	0	63	10	130	568	3	0	0	0	
9:15	9:30	2	0	0	3	0	1	5	53	0	0	60	5	129	562	0	2	1	0	
9:30	9:45	0	0	1	4	0	2	7	64	0	0	67	6	151	575	1	1	7	0	
9:45	10:00	2	0	1	8	0	5	7	72	0	0	55	12	162	572	0	1	0	0	
Total		14	1	4	51	0	40	50	883	0	0	644	87	1774		10	7	10	0	
Peak Hour		5	0	0	14	0	12	9	388	0	0	189	25			4	0	0	0	
PHF		0.93																		

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min interval}) / (\text{Max15min interval} * 4))$

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0	0	0	1	0	0	1	15	0	0	5	0
7:15	7:30	1	0	0	0	0	0	0	8	0	0	7	0
7:30	7:45	0	0	0	1	0	0	0	5	0	0	4	0
7:45	8:00	1	0	0	0	0	0	0	9	0	0	9	0
8:00	8:15	1	0	0	0	0	0	0	16	0	0	2	1
8:15	8:30	1	0	0	1	0	0	1	10	0	0	12	0
8:30	8:45	0	0	0	0	0	0	1	18	0	0	11	0
8:45	9:00	0	0	0	0	0	2	1	14	0	0	5	0
9:00	9:15	3	0	0	0	0	0	0	6	0	0	5	0
9:15	9:30	2	0	0	1	0	0	0	7	0	0	2	0
9:30	9:45	0	0	0	1	0	0	0	9	0	0	6	1
9:45	10:00	0	0	0	0	0	0	0	10	0	0	8	0
Total		9	0	0	5	0	2	4	127	0	0	78	2
Peak Hour		2	0	0	2	0	0	1	37	0	0	25	0
% Heavy Vehicles		29%	0%	0%	13%	0%	0%	10%	9%	0%	0%	12%	0%

[illegible]

Intersection Turning Movement Count Summary

N/S Street: 3 Ave
 E/W Street: Old Hope Princeton Way
 LOCATION: Hope, BC
 DATE: 14-Mar-23
 WEATHER: Cloudy
 JOB #: 3486.B01

Observer: Miovision
 Notes:

TOTAL HOURS = 3

Speed Limit Major Street: 50 km/h
 Speed Limit Minor Street: 50 km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	1	1	3	6	0	3	7	60	0	0	69	11	161		3	2	1	0
14:15	14:30	1	1	0	9	0	10	6	84	0	0	76	4	191		0	0	0	0
14:30	14:45	1	0	0	11	0	5	11	78	0	0	82	15	203		0	1	2	0
14:45	15:00	0	0	1	10	0	7	5	73	0	0	80	6	182	737	2	0	1	0
15:00	15:15	1	0	0	4	0	3	5	75	0	0	83	11	182	758	0	2	1	0
15:15	15:30	7	3	1	4	0	7	6	87	0	0	86	6	207	774	2	0	0	0
15:30	15:45	4	2	0	9	0	10	7	80	0	0	80	14	206	777	0	0	0	0
15:45	16:00	3	3	1	10	0	8	7	74	0	0	84	15	205	800	1	0	0	0
16:00	16:15	3	0	1	11	0	12	6	64	0	0	82	11	190	808	0	0	0	0
16:15	16:30	3	1	1	6	0	7	8	60	0	0	119	6	211	812	1	0	0	0
16:30	16:45	3	0	2	13	0	7	8	80	0	0	107	9	229	835	1	0	1	0
16:45	17:00	5	2	1	6	0	4	2	69	0	0	96	7	192	822	1	0	1	0
Total		32	13	11	99	0	83	78	884	0	0	1044	115	2359		11	5	7	0
Peak Hour		12	4	5	40	0	34	29	278	0	0	392	41			3	0	1	0
PHF		0.91																	

Peak Hour
 PHF Calculation: A consecutive hour (60-mins) with the highest volume of traffic
 ((Max60min Interval) / (Max15min Interval *4))

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	0	1	0	0	0	5	0	0	4	0
14:15	14:30	0	1	0	1	0	0	0	5	0	0	4	0
14:30	14:45	0	0	0	1	0	0	0	8	0	0	8	0
14:45	15:00	0	0	0	0	0	1	0	4	0	0	5	0
15:00	15:15	0	0	0	0	0	1	1	9	0	0	9	0
15:15	15:30	0	0	0	0	0	0	1	5	0	0	9	0
15:30	15:45	0	0	0	1	0	0	0	5	0	0	11	1
15:45	16:00	2	0	0	0	0	0	0	1	0	0	4	0
16:00	16:15	0	0	0	0	0	0	0	5	0	0	11	0
16:15	16:30	0	0	0	0	0	0	0	3	0	0	14	1
16:30	16:45	0	0	0	0	0	0	0	1	0	0	6	0
16:45	17:00	1	0	0	0	0	0	0	0	0	0	5	0
Total		3	1	0	4	0	2	2	51	0	0	90	2
Peak Hour		2	0	0	0	0	0	0	10	0	0	35	1
% Heavy Vehicles		14%	0%	0%	0%	0%	0%	0%	3%	0%	0%	8%	2%

Bicycles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	0	0	0	0	0	0	0	0	1	0
14:15	14:30	0	0	0	0	0	0	0	0	0	0	0	0
14:30	14:45	0	0	0	0	0	0	0	0	0	0	0	0
14:45	15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	0	0	0	0	0
15:45	16:00	0	1	0	2	0	0	0	0	0	1	1	0
16:00	16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	1	0	2	0	0	0	2	0	1	2	0
Peak Hour		0	1	0	2	0	0	0	0	0	1	1	0

Intersection Turning Movement Count Summary

N/S Street:	6 Ave
E/W Street:	Old Hope Princeton Way
LOCATION:	Hope, BC
DATE:	14-Mar-23
WEATHER:	Cloudy
JOB # :	3486, B01

Observer: Miovision
Notes: _____

TOTAL HOURS = 3

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
7:00	7:15	4	2	10	9	3	10	20	67	6	1	29	7	168	0	0	0	0	
7:15	7:30	3	3	8	9	1	8	18	55	3	2	21	9	140	0	1	0	1	
7:30	7:45	4	4	5	6	1	11	18	46	7	1	25	8	136	1	4	0	4	
7:45	8:00	5	1	2	5	1	12	15	49	11	3	27	5	136	580	0	1	0	1
8:00	8:15	7	3	3	5	2	14	19	45	1	4	23	16	142	554	0	0	1	0
8:15	8:30	5	6	2	4	2	16	17	33	8	3	26	13	135	549	7	4	1	4
8:30	8:45	4	2	7	4	5	14	16	43	7	6	17	5	130	543	3	0	0	6
8:45	9:00	12	2	4	2	5	13	18	38	5	3	31	4	137	544	4	0	1	3
9:00	9:15	9	0	6	1	5	6	12	30	6	2	36	4	117	519	3	0	1	1
9:15	9:30	6	1	5	6	3	11	9	26	6	5	35	5	118	502	0	0	2	0
9:30	9:45	10	2	12	4	2	9	12	31	3	10	40	3	138	510	1	1	1	1
9:45	10:00	4	5	5	6	0	16	12	37	6	7	30	3	131	504	4	2	0	2
Total		73	31	69	61	30	140	186	500	69	47	340	82	1626	23	16	6	23	
Peak Hour		16	10	25	29	6	41	71	217	27	7	102	29		1	6	0	6	
PHF		0.86																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	2	1	1	0	0	0	3	12	0	0	5	0
7:15	7:30	1	0	0	2	1	2	1	4	1	0	1	0
7:30	7:45	1	0	0	0	0	1	2	6	1	2	2	0
7:45	8:00	2	0	0	2	1	0	1	6	0	0	3	0
8:00	8:15	0	1	0	0	0	0	1	10	0	0	1	0
8:15	8:30	0	0	0	2	1	5	3	13	0	0	9	2
8:30	8:45	0	1	1	0	0	2	3	15	0	0	6	0
8:45	9:00	0	0	0	1	0	1	3	9	0	0	2	0
9:00	9:15	0	1	0	1	1	1	1	3	0	0	3	0
9:15	9:30	0	0	0	1	0	3	1	3	2	1	2	0
9:30	9:45	1	0	0	0	0	1	4	5	0	0	4	1
9:45	10:00	0	0	1	1	0	0	0	5	0	1	9	1
Total		7	4	3	10	4	16	23	91	4	4	47	4
Peak Hour		8	1	4	2	3	7	28	2	2	11	0	
% Heavy Vehicles		27%	9%	4%	12%	25%	7%	9%	11%	7%	22%	10%	0%

Bicycles

[illegible]

Intersection Turning Movement Count Summary

N/S Street: 6 Ave
E/W Street: Old Hope Princeton Way
LOCATION: Hope, BC
DATE: 14-Mar-23
WEATHER: Sunny
JOB #: 3486.B01

TOTAL HOURS = 3

Observer: Miovision
Notes:

Speed Limit Major Street: 50 km/h
Speed Limit Minor Street: 50 km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	12	3	11	4	9	10	12	37	5	10	34	13	160		3	1	2	0
14:15	14:30	9	4	7	7	3	14	21	48	10	4	46	14	187		1	2	4	3
14:30	14:45	11	14	11	12	12	17	16	44	8	7	44	15	211		2	3	1	6
14:45	15:00	8	9	9	5	7	13	20	41	6	7	50	13	188	746	4	0	1	0
15:00	15:15	8	4	16	8	10	29	17	30	6	2	46	14	190	776	1	0	0	5
15:15	15:30	13	8	8	6	8	15	27	29	12	6	47	6	185	774	1	3	0	5
15:30	15:45	13	1	17	11	4	24	20	45	5	8	44	10	202	765	2	0	1	10
15:45	16:00	11	4	6	10	6	22	25	36	3	8	52	18	201	778	2	6	1	1
16:00	16:15	13	5	1	3	3	20	15	37	3	6	41	19	166	754	3	0	1	1
16:15	16:30	11	4	8	5	4	32	13	38	4	7	61	17	204	773	3	0	1	0
16:30	16:45	8	9	5	7	8	17	15	52	1	8	59	17	206	777	2	0	1	2
16:45	17:00	12	5	7	12	8	26	20	46	2	4	48	22	212	788	0	2	0	4
Total		129	70	106	90	82	239	221	483	65	77	572	176	2312		24	17	13	37
Peak Hour		44	23	21	27	23	95	63	173	10	25	209	75			8	2	3	7
PHF		0.93																	

Peak Hour
PHF Calculation

A consecutive hour (60-mins) with the highest volume of traffic
(((Max60min Interval) / (Max15min Interval *4))

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	0	0	0	1	0	4	0	0	4	0
14:15	14:30	0	0	0	1	0	1	0	4	0	0	6	1
14:30	14:45	0	0	0	0	0	1	1	7	0	2	6	0
14:45	15:00	0	0	0	0	0	1	1	3	1	0	3	0
15:00	15:15	0	0	0	0	0	2	1	4	0	0	5	0
15:15	15:30	0	0	0	1	0	0	0	5	0	0	7	1
15:30	15:45	1	1	0	0	0	3	1	3	1	0	5	1
15:45	16:00	0	0	0	0	0	1	0	3	0	0	2	0
16:00	16:15	0	1	0	1	1	1	2	2	1	0	12	0
16:15	16:30	0	0	0	0	0	2	0	1	0	0	15	0
16:30	16:45	0	0	0	0	0	2	1	1	0	0	4	0
16:45	17:00	0	0	1	0	0	1	0	0	0	0	0	0
Total		1	2	1	3	1	16	7	37	3	2	69	3
Peak Hour		0	1	1	1	1	6	3	4	1	0	31	0
% Heavy Vehicles		0%	4%	5%	4%	4%	6%	5%	2%	9%	0%	13%	0%

Bicycles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	0	0	0	0	0	0	0	0	1	0
14:15	14:30	0	0	0	0	0	0	0	0	0	0	0	0
14:30	14:45	0	0	0	0	0	0	0	1	0	0	0	0
14:45	15:00	0	0	0	0	0	0	0	1	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0	0	0	0	0	1
15:15	15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0	0	0	0	0	1
16:00	16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	1	0	0	0	0	0	2	0
Total		0	0	0	0	1	0	0	2	0	0	3	2
Peak Hour		0	0	0	0	1	0	0	0	0	0	2	0

N/S Street:	Trans-Canada Hwy
E/W Street:	Coquihalla St
LOCATION:	Hope, BC
DATE:	16-Mar-23
WEATHER:	Sunny
JOB # :	3486.B01

Notes:

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians				
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W	
7:00	7:15		28	4	1	41					3		0	77		0	0	2	0	
7:15	7:30		16	2	0	22					6		4	50		0	0	0	0	
7:30	7:45		30	7	1	25					7		2	72		0	0	0	0	
7:45	8:00		33	8	1	43					4		4	93	292	0	0	0	0	
8:00	8:15		26	13	4	27					3		1	74	289	0	0	0	0	
8:15	8:30		24	19	1	31					11		4	90	329	0	1	0	0	
8:30	8:45		39	11	2	43					5		2	102	359	1	0	2	0	
8:45	9:00		20	3	0	21					3		3	50	316	0	0	0	0	
9:00	9:15		27	2	1	33					6		5	74	316	0	0	0	0	
9:15	9:30		41	1	1	31					5		1	80	306	0	0	0	0	
9:30	9:45		28	3	0	20					4		8	63	267	0	0	0	0	
9:45	10:00		37	2	1	32					6		0	78	295	0	0	0	0	
Total		0	349	75	13	369	0	0	0	0	63	0	34	903			1	1	4	0
Peak Hour			122	51	8	144					23		11				1	1	2	0
PHF		0.88																		

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15		2	0	0	4					0		0
7:15	7:30		9	0	0	4					1		0
7:30	7:45		6	0	0	3					0		0
7:45	8:00		6	0	0	2					0		0
8:00	8:15		6	1	0	4					0		0
8:15	8:30		3	1	0	7					1		0
8:30	8:45		4	0	0	2					0		0
8:45	9:00		10	0	0	3					0		1
9:00	9:15		4	0	0	2					0		0
9:15	9:30		9	0	0	5					0		0
9:30	9:45		3	0	0	6					1		0
9:45	10:00		5	0	0	6					0		0
Total		0	67	2	0	48	0	0	0	0	3	0	1
Peak Hour		0	19	2	0	15	0	0	0	0	1	0	0
% Heavy Vehicles		0%	13%	4%	0%	9%	0%	0%	0%	0%	4%	0%	0%

[illegible]

Intersection Turning Movement Count Summary

N/S Street:	Trans-Canada Hwy
E/W Street:	Coquihalla St
LOCATION:	Hope, BC
DATE:	16-Mar-23
WEATHER:	Sunny
JOB # :	3486,B01

Observer: Miovision
Notes: _____

TOTAL HOURS = 3

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

Light Vehicles

Light Vehicles		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
TIME		LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15		48	6		2	36				0		2	94		0	0	0	
14:15	14:30		28	19		3	52				5		6	113		0	0	0	
14:30	14:45		39	18		2	57				3		4	123		1	0	1	
14:45	15:00		48	8		3	47				10		3	119	449	0	0	0	
15:00	15:15		48	11		1	39				7		3	109	464	0	0	0	
15:15	15:30		32	9		1	60				7		5	114	465	0	0	0	
15:30	15:45		40	8		1	54				10		2	115	457	0	0	0	
15:45	16:00		57	8		2	47				2		1	117	455	0	0	0	
16:00	16:15		56	9		2	44				5		5	121	467	0	0	0	
16:15	16:30		58	10		2	48				7		4	129	482	1	0	1	
16:30	16:45		52	10		3	57				2		5	129	496	0	0	0	
16:45	17:00		49	6		2	36				4		4	101	480	0	0	0	
Total		0	555	122	24	577	0	0	0	0	62	0	44	1384		2	0	2	0
Peak Hour			223	37	9	196					16		15			1	0	1	0
PHF																			

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15		3	0	0	2					0		0
14:15	14:30		6	0	0	7					0		0
14:30	14:45		2	1	0	6					0		0
14:45	15:00		2	0	0	5					0		0
15:00	15:15		6	0	0	5					0		0
15:15	15:30		6	0	0	4					0		0
15:30	15:45		2	0	0	8					0		0
15:45	16:00		3	0	1	9					0		0
16:00	16:15		1	0	0	5					0		0
16:15	16:30		3	0	0	6					0		0
16:30	16:45		4	1	1	4					0		0
16:45	17:00		4	0	0	2					0		0
Total		0	42	2	2	63	0	0	0	0	0	0	0
Peak Hour		0	11	1	2	24	0	0	0	0	0	0	0
% Heavy Vehicles		0%	5%	3%	18%	11%	0%	0%	0%	0%	0%	0%	0%

Bicycles

[illegible]

Intersection Turning Movement Count Summary

N/S Street:	3 Ave
EW Street:	Wallace St
LOCATION:	Hope
DATE:	16-Mar-23
WEATHER:	Sunny
JOB # :	3486.B01

Observer: Miovision
Notes: _____

TOTAL HOURS = 3

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
7:00	7:15	0	4	1	2	2	0	1	8	0	1	12	3	34		0	0	0	0
7:15	7:30	0	6	3	0	1	2	0	9	0	2	6	0	29		0	0	0	0
7:30	7:45	1	5	1	0	8	1	1	12	1	2	5	0	37		0	0	0	0
7:45	8:00	1	5	3	2	5	0	1	13	1	2	14	3	50	150	0	0	0	0
8:00	8:15	0	6	3	1	3	0	2	13	2	2	16	1	49	165	0	0	0	0
8:15	8:30	1	6	7	2	6	1	0	17	0	4	19	6	69	205	0	0	0	0
8:30	8:45	2	8	3	1	9	0	4	13	0	5	20	6	71	239	0	0	0	0
8:45	9:00	3	8	7	4	8	2	0	12	1	5	21	5	76	265	0	0	0	0
9:00	9:15	3	3	8	3	9	2	2	14	1	3	17	3	68	284	0	0	0	0
9:15	9:30	3	7	7	3	2	4	3	25	1	4	17	7	83	298	0	0	0	0
9:30	9:45	2	8	6	3	5	2	0	16	2	2	18	4	68	295	0	0	0	0
9:45	10:00	2	3	8	7	3	4	0	23	2	2	26	5	85	304	0	0	0	0
Total		18	69	57	28	61	18	14	175	11	34	191	43	719		0	0	0	0
Peak Hour		10	21	29	16	19	12	5	78	6	11	78	19			0	0	0	0
PHF		0.69																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min interval}) / (\text{Max15min interval} * 4))$

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0	0	0	0	0	0	0	0	0	0	0	0
7:15	7:30	0	0	0	0	0	0	0	0	0	1	1	0
7:30	7:45	0	0	0	0	0	1	0	0	0	0	0	0
7:45	8:00	0	0	0	0	1	0	0	0	0	0	0	1
8:00	8:15	0	0	0	0	0	0	0	1	0	0	4	0
8:15	8:30	0	0	0	0	0	0	0	1	0	0	4	0
8:30	8:45	0	0	1	0	0	0	0	0	0	0	0	0
8:45	9:00	0	0	0	0	0	0	0	1	0	0	0	1
9:00	9:15	0	0	0	0	0	0	0	0	0	0	0	1
9:15	9:30	0	0	0	0	0	0	0	0	0	0	0	0
9:30	9:45	0	0	0	0	0	0	0	2	0	0	0	0
9:45	10:00	0	0	0	0	1	0	0	2	0	0	1	0
Total		0	0	1	0	2	1	0	7	0	1	10	3
Peak Hour		0	0	0	0	1	0	0	4	0	0	1	1
% Heavy Vehicles		0%	0%	0%	0%	5%	0%	0%	5%	0%	0%	1%	5%

Bicycles

[illegible]

Intersection Turning Movement Count Summary

N/S Street:	3 Ave
E/W Street:	Wallace St
LOCATION:	Hope
DATE:	16-Mar-23
WEATHER:	Sunny
JOB # :	3486,B01

Observer: Miovision
Notes: _____

TOTAL HOURS = 3

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	5	15	9	10	6	7	3	39	4	3	45	10	156		7	10	2	9
14:15	14:30	5	17	16	2	9	6	3	34	5	7	29	6	139		17	3	6	1
14:30	14:45	4	9	12	5	6	9	3	40	4	8	42	8	150		10	7	8	5
14:45	15:00	8	6	10	9	6	2	4	34	3	8	51	1	142	587	7	6	10	11
15:00	15:15	3	5	9	3	9	3	2	31	7	9	38	5	124	555	13	10	6	15
15:15	15:30	6	12	15	14	6	5	5	39	3	8	39	6	158	574	8	14	17	7
15:30	15:45	2	5	5	10	4	0	1	43	8	4	43	4	129	553	11	12	1	14
15:45	16:00	2	3	9	6	7	5	1	40	2	5	35	4	119	530	8	8	5	3
16:00	16:15	4	5	7	7	5	10	3	29	3	6	38	8	125	531	6	3	1	1
16:15	16:30	3	6	10	6	5	4	3	19	2	5	36	7	106	479	13	10	5	1
16:30	16:45	5	4	8	8	12	8	1	32	3	6	34	4	125	475	8	6	19	5
16:45	17:00	9	9	11	9	3	5	1	33	5	6	33	5	129	485	1	13	3	3
Total		56	96	121	89	78	64	30	413	48	75	463	68	1602		109	102	83	75
Peak Hour		22	47	47	25	27	24	13	147	16	26	167	25			41	25	25	25
PHF		0.94																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min interval}) / (\text{Max15min interval} * 4))$

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	0	0	0	0	0	0	1	0	0	1	0
14:15	14:30	0	0	0	0	0	0	0	0	0	0	1	0
14:30	14:45	0	0	0	0	0	0	0	0	0	0	1	0
14:45	15:00	0	0	0	0	0	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0	1	0	0	1	0
15:15	15:30	0	0	0	0	0	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	1	0	0	1	0
15:45	16:00	0	0	0	0	0	0	0	1	0	0	0	0
16:00	16:15	0	0	0	0	0	0	1	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	1	0
16:30	16:45	0	0	0	0	0	0	1	1	0	0	1	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	2	0
Total		0	0	0	0	0	0	2	5	0	0	9	0
Peak Hour		0	0	0	0	0	0	0	1	0	0	3	0
% Heavy Vehicles		0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	2%	0%

Bicycles

[illegible]

N/S Street:	6 Ave
E/W Street:	Wallace St
LOCATION:	Hope
DATE:	16-Mar-23
WEATHER:	Sunny
JOB # :	3486,B01

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

TOTAL HOURS = 3

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
7:00	7:15	12	8	0	0	17	2	0	0	10	3	0	0	52		1	0	0	0
7:15	7:30	6	22	1	0	20	0	1	0	10	0	0	0	60		0	1	0	2
7:30	7:45	8	13	0	0	17	3	0	0	10	4	0	0	55		2	0	2	0
7:45	8:00	17	24	2	0	16	4	3	3	7	1	3	0	80	247	1	0	2	0
8:00	8:15	16	29	2	2	26	5	2	1	12	3	2	1	101	296	6	1	7	2
8:15	8:30	25	49	3	1	35	6	8	3	15	5	4	0	154	390	1	0	1	1
8:30	8:45	21	18	1	0	38	12	2	1	15	12	1	0	121	456	1	5	1	0
8:45	9:00	22	6	1	0	30	6	1	1	12	1	4	1	85	461	2	0	2	0
9:00	9:15	19	17	5	0	15	10	1	4	15	1	3	0	90	450	3	0	0	4
9:15	9:30	25	11	0	0	14	1	4	2	18	2	3	0	80	376	0	1	0	0
9:30	9:45	26	14	1	1	8	5	4	1	17	3	1	0	81	336	0	0	1	0
9:45	10:00	30	9	0	0	10	3	3	1	22	1	3	0	82	333	1	1	0	0
Total		227	220	16	4	246	57	29	17	163	36	24	2	1041		18	9	16	9
Peak Hour		84	102	7	3	129	29	13	6	54	21	11	2			10	6	11	3
PHF		0.75																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	1	0	0	0	1	0	0	0	1	0	0	0
7:15	7:30	1	1	0	0	1	0	0	0	1	0	0	0
7:30	7:45	1	1	0	0	0	0	0	0	0	0	0	0
7:45	8:00	2	1	0	0	1	1	0	0	1	0	0	0
8:00	8:15	5	1	0	0	1	0	0	0	0	0	0	0
8:15	8:30	1	3	0	0	5	0	0	0	0	0	0	0
8:30	8:45	2	0	0	0	1	0	0	0	1	0	0	0
8:45	9:00	0	0	0	0	1	0	0	0	1	0	0	0
9:00	9:15	1	0	0	0	0	0	0	0	0	0	0	0
9:15	9:30	0	1	0	0	0	0	0	0	1	1	0	0
9:30	9:45	0	0	0	0	1	0	0	0	0	0	0	0
9:45	10:00	0	0	0	0	1	0	1	0	1	0	0	0
Total		14	8	0	0	13	1	1	0	7	1	0	0
Peak Hour		8	4	0	0	8	0	0	0	2	0	0	0
% Heavy Vehicles		9%	4%	0%	0%	8%	0%	0%	0%	4%	0%	0%	0%

[illegible]

Intersection Turning Movement Count Summary

N/S Street: 6 Ave
E/W Street: Wallace St
LOCATION: Hope
DATE: 16-Mar-23
WEATHER: Sunny
JOB #: 3486.B01

Observer: Jason Yuen
Notes:

TOTAL HOURS = 3

Speed Limit Major Street: 50 km/h
Speed Limit Minor Street: 50 km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	39	18	7	0	19	3	5	2	39	9	1	1	143		2	4	4	0
14:15	14:30	32	39	9	0	19	4	7	4	28	5	1	1	149		12	5	12	1
14:30	14:45	39	40	0	1	32	11	4	2	49	8	2	1	189		7	3	8	7
14:45	15:00	37	19	2	4	46	7	5	3	46	9	3	0	181	662	4	3	4	7
15:00	15:15	40	24	3	0	26	8	5	3	35	4	6	1	155	674	11	4	16	7
15:15	15:30	37	27	2	0	28	1	8	3	44	2	4	0	156	681	6	1	13	6
15:30	15:45	36	22	5	1	28	10	5	2	38	4	2	0	153	645	12	7	10	5
15:45	16:00	32	18	9	0	22	7	4	8	32	4	1	1	138	602	3	2	3	1
16:00	16:15	27	26	6	0	21	4	10	5	33	3	2	0	137	584	0	0	4	1
16:15	16:30	45	23	4	1	21	8	9	4	36	2	1	2	156	584	5	1	0	0
16:30	16:45	20	29	4	1	20	5	7	6	22	6	7	0	127	558	3	0	6	2
16:45	17:00	40	30	7	2	35	5	10	1	35	7	0	0	172	592	0	1	0	1
Total		424	315	58	10	317	73	79	43	437	63	30	7	1856		65	31	80	38
Peak Hour		153	110	7	5	132	27	22	11	174	23	15	2			28	11	41	27
PHF																			

Peak Hour PHF Calculation: A consecutive hour (60-mins) with the highest volume of traffic ((Max60min Interval) / (Max15min Interval *4))

Heavy Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	1	0	0	2	0	1	2	0	0	1	0
14:15	14:30	1	1	0	0	1	0	0	0	0	1	0	0
14:30	14:45	2	3	0	0	0	0	0	0	1	0	0	0
14:45	15:00	1	0	0	0	2	0	0	0	0	0	0	0
15:00	15:15	0	1	0	0	0	0	0	0	0	0	0	0
15:15	15:30	0	1	0	1	0	0	0	0	0	0	0	0
15:30	15:45	0	1	0	0	2	0	0	0	1	0	0	0
15:45	16:00	0	0	0	0	3	0	0	1	1	0	0	0
16:00	16:15	2	0	0	0	3	0	0	0	0	0	0	0
16:15	16:30	0	1	0	0	0	0	0	0	2	0	0	0
16:30	16:45	2	0	0	0	0	0	0	0	1	0	0	0
16:45	17:00	2	1	0	0	2	0	0	0	3	0	1	0
Total		10	10	0	1	15	0	1	3	9	1	2	0
Peak Hour		3	5	0	1	2	0	0	1	0	0	0	0
% Heavy Vehicles		2%	4%	0%	17%	1%	0%	0%	0%	1%	0%	0%	0%

Bicycles

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	1	1	0	0	0	1	0	0	0	0	0	0
14:15	14:30	0	1	0	0	0	0	0	0	1	0	0	0
14:30	14:45	0	1	0	0	0	0	0	0	3	0	0	0
14:45	15:00	0	0	1	0	1	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	1	1	1	0	0	0	0	0
15:15	15:30	2	0	0	0	3	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:00	16:15	1	0	0	0	0	0	0	0	2	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	1	0	0	0	0	0	0	0	0	0	0
Total		4	4	1	0	5	2	1	0	6	0	0	0
Peak Hour		2	1	1	0	5	1	1	0	3	0	0	0

N/S Street:	Water Ave
E/W Street:	Old Hope Princeton Way
LOCATION:	Hope
DATE:	15-Mar-23
WEATHER:	Cloudy
JOB #:	3486.B01

Speed Limit Major Street:	50	km/h
Speed Limit Minor Street:	50	km/h

TOTAL HOURS = 3

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
7:00	7:15	0	19	91	25	9	13				6	30	14	207		0	0	0	
7:15	7:30	1	19	59	19	3	21				17	24	20	183		0	0	0	
7:30	7:45	0	27	46	18	8	14				14	21	17	165		0	0	0	
7:45	8:00	0	27	84	20	6	14				14	27	20	212	767	0	0	0	
8:00	8:15	2	35	79	19	10	11				14	29	27	226	786	0	0	0	
8:15	8:30	1	42	62	14	12	12				15	31	19	208	811	0	0	0	
8:30	8:45	1	36	69	12	11	12				15	29	24	209	855	0	0	0	
8:45	9:00	2	49	44	26	8	13				17	31	29	219	862	0	0	0	
9:00	9:15	0	25	52	18	9	24				16	23	12	179	815	0	0	0	
9:15	9:30	1	32	44	15	3	16				16	27	17	171	778	0	0	0	
9:30	9:45	0	30	43	17	6	20				9	40	17	182	751	0	0	0	
9:45	10:00	0	36	64	22	12	16				12	25	23	210	742	0	0	0	
Total		8	377	737	225	97	186	0	0	0	165	337	238	2371		0	0	0	
Peak Hour		6	162	254	71	41	48	0	0	0	61	120	99			0	0	0	
PHF		0.95																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min interval}) / (\text{Max15min interval} * 4))$

TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
7:00	7:15	0	7	4	11	0	3				2	0	1
7:15	7:30	1	4	13	7	1	1				1	1	2
7:30	7:45	1	5	9	1	1	2				1	4	2
7:45	8:00	0	5	16	5	1	2				0	1	5
8:00	8:15	1	3	6	4	1	1				2	1	2
8:15	8:30	1	6	17	5	0	1				2	2	1
8:30	8:45	0	2	7	2	0	4				3	3	2
8:45	9:00	0	8	9	2	0	1				0	2	4
9:00	9:15	0	5	8	3	0	2				2	3	0
9:15	9:30	2	3	6	3	1	0				1	4	1
9:30	9:45	0	5	4	0	0	1				1	2	2
9:45	10:00	0	7	5	1	0	5				1	3	3
Total		6	60	104	44	5	23	0	0	0	16	26	25
Peak Hour		2	19	39	13	1	7	0	0	0	7	8	9
% Heavy Vehicles		25%	10%	13%	15%	2%	13%	0%	0%	0%	10%	6%	8%

[illegible]

Intersection Turning Movement Count Summary

N/S Street:	Water Ave
E/W Street:	Old Hope Princeton Way
LOCATION:	Hope
DATE:	15-Mar-23
WEATHER:	Cloudy
JOB # :	3486.B01

Observer: Miovision / Jason Yuen
Notes: _____

TOTAL HOURS = 3

Speed Limit Major Street:		km/h
Speed Limit Minor Street:		km/h

Light Vehicles

TIME		Northbound			Southbound			Eastbound			Westbound			Total Volume	Hourly Volume	Pedestrians			
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT			N	S	E	W
14:00	14:15	2	48	53	31	19	37				29	62	27	308		0	0	0	0
14:15	14:30	0	43	49	22	16	28				26	49	32	265		0	0	0	0
14:30	14:45	0	50	65	29	10	45				16	49	29	293		0	0	0	0
14:45	15:00	2	48	57	35	18	41				28	47	25	301	1167	0	0	0	0
15:00	15:15	0	37	44	18	11	36				17	48	29	240	1099	0	0	0	0
15:15	15:30	2	48	61	14	15	26				21	48	28	263	1087	0	0	0	0
15:30	15:45	2	43	55	26	17	37				29	43	20	272	1076	0	0	0	0
15:45	16:00	1	48	60	22	15	31				25	53	34	289	1064	0	0	0	0
16:00	16:15	1	50	51	20	18	37				17	46	29	269	1093	0	0	0	0
16:15	16:30	5	37	50	21	13	29				27	52	31	265	1095	0	0	0	0
16:30	16:45	1	49	75	24	22	48				25	58	31	333	1156	0	0	0	0
16:45	17:00	4	47	71	22	19	40				37	57	38	335	1202	0	0	0	0
Total		20	548	691	284	193	435	0	0	0	297	612	353	3433		0	0	0	0
Peak Hour		11	183	247	87	72	154	0	0	0	106	213	129			0	0	0	0
PHF		0.90																	

Peak Hour	A consecutive hour (60-mins) with the highest volume of traffic
PHF Calculation	$((\text{Max60min Interval}) / (\text{Max15min Interval} * 4))$

Heavy Vehicles

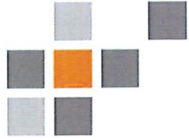
TIME		Northbound			Southbound			Eastbound			Westbound		
From	To	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
14:00	14:15	0	2	2	1	0	4				2	3	2
14:15	14:30	0	8	2	3	2	9				0	5	2
14:30	14:45	0	3	7	3	0	3				2	4	2
14:45	15:00	1	5	3	0	2	3				1	7	0
15:00	15:15	0	3	2	1	0	4				0	2	0
15:15	15:30	0	3	4	3	1	2				1	5	2
15:30	15:45	0	6	4	3	0	4				0	1	0
15:45	16:00	0	4	3	2	0	8				1	1	1
16:00	16:15	0	6	2	1	1	5				1	7	9
16:15	16:30	0	2	5	4	1	3				4	6	5
16:30	16:45	0	4	1	2	0	5				1	16	2
16:45	17:00	0	2	2	4	0	3				0	6	2
Total		1	48	37	27	7	53	0	0	0	13	63	27
Peak Hour		0	14	10	11	2	16	0	0	0	6	35	18
% Heavy Vehicles		0%	7%	4%	11%	3%	9%	0%	0%	0%	5%	14%	12%

Bicycles

[illegible]



Appendix D – Zone Map for Visum



Appendix E – Existing Zone Quantities

X	Y	Join_Count	NO	CODE	NAME	TYPENO	Single Family	Multi Family	Agricultural	Institutional	Recreational	Service	Industrial	Hospital	Office	Hotel	Retail
614753.3	5470812	207	13017			0	70	0	0	0	0	0	0	0	0	0	0
615217.5	5470715	105	13018			0	20	0	2376	0	0	22851	0	0	0	0	0
615743.7	5471402	256	13019			0	100	0	0	0	0	0	0	0	0	0	0
616626.9	5471719	38	13021			0	27	0	0	0	0	0	0	0	0	0	0
616901	5471572	210	13022			0	50	3	0	0	1466534.52	0	0	0	0	0	0
611108.7	5468080	337	13023			0	260	4	0	1472	0	16156	11680	0	0	0	2384
612810.7	5471965	100	13026			0	74	30	0	0	0	0	0	0	0	0	0
611766.6	5471095	55	13027			0	33	0	7112	0	0	0	0	0	0	0	0
614021.6	5471396	25	13028			0	24	0	0	0	0	0	0	0	0	0	0
614162.7	5471689	35	13029			0	32	0	0	0	0	1550	1	0	0	0	0
615269.8	5471247	49	13030			0	45	0	0	0	0	0	0	0	0	0	0
615133.9	5471069	3	13031			0	4	0	0	0	0	0	0	0	0	0	0
615088.5	5470427	48	13032			0	40	0	0	0	0	0	0	0	0	0	0
615382.4	5470191	47	13033			0	41	0	0	0	0	0	0	0	0	0	0
610303.5	5470320	12	13034			0	9	0	3881	0	0	0	0	0	0	0	0
607712.5	5469321	42	13035			0	12	0	6694	0	0	0	26459	0	0	0	0
608164.3	5469012	47	13036			0	11	2	4782	0	971867.16	15921.2	0	0	0	0	1579
609949.3	5469912	15	13037			0	3	0	6086	0	0	0	9611	0	0	0	0
610435.9	5469562	18	13038			0	6	0	7938	0	0	0	0	0	0	0	0
610923.7	5469310	21	13039			0	10	0	0	0	0	0	0	0	0	0	0
610415.9	5469325	17	13040			0	3	1	0	0	0	0	25417	0	0	0	0
610016.1	5469361	1	13041			0	0	0	0	0	0	0	0	0	0	0	888
609754.5	5469212	13	13042			0	2	16	0	0	0	8545	89897	0	0	0	0
610539.6	5468918	11	13043			0	0	1	0	0	0	8611	28768	0	0	0	0
610793.4	5468145	45	13044			0	26	0	0	0	0	0	3660	0	0	0	0
610926.7	5467792	18	13045			0	13	0	0	0	0	0	0	0	0	0	0
610846.4	5468973	14	13046			0	8	0	0	0	0	0	0	0	0	0	0
611792.4	5469647	25	13047			0	18	0	0	0	0	0	0	0	0	0	0
6091128.3	5469995	36	13048			0	8	0	20536	0	0	0	19098	0	0	0	0
608159.2	5469666	10	13049			0	3	0	5437	0	0	0	0	0	0	0	0
609223.5	5469570	1	13050			0	0	0	0	0	0	0	2013	0	0	0	0
613126.3	5476140	14	13051			0	6	0	0	0	0	0	0	0	0	0	0
613329.6	5475858	0	13052			0	0	0	0	0	0	0	0	0	0	0	0
613117.1	5475342	0	13053			0	0	0	0	0	0	0	0	0	0	0	0
613464	5474922	0	13054			0	0	0	0	0	0	0	0	0	0	0	0
613094.7	5474661	0	13055			0	0	0	0	0	0	0	0	0	0	0	0
613113.9	5474423	3	13056			0	3	0	0	0	0	0	0	0	0	0	0
613087.1	5474255	0	13057			0	0	0	0	0	0	0	0	0	0	0	0
612569.7	5473882	11	13058			0	9	0	0	0	0	0	0	0	0	0	0
612305.4	5473877	2	13059			0	1	0	0	0	0	0	960	0	0	0	0
612197.8	5473604	3	13060			0	1	0	0	0	0	0	0	0	0	0	0
612585.4	5473068	6	13061			0	4	0	0	0	0	0	0	0	0	0	0
612122.6	5473073	0	13062			0	0	0	0	0	0	0	0	0	0	0	0
611876.5	5473077	3	13063			0	2	0	1	0	0	0	0	0	0	0	0
612150.2	5472427	0	13064			0	0	0	0	0	0	0	0	0	0	0	0
611862.7	5471958	16	13065			0	3	0	4380	0	0	0	0	0	0	0	0
610962.6	5471759	1	13066			0	1	0	0	0	0	0	0	0	0	0	0
610887.9	5471457	0	13067			0	0	0	0	0	0	0	0	0	0	0	0
615744.8	5469920	2	13068			0	2	0	0	0	0	0	0	0	0	0	0
615784	5470489	7	13069			0	4	0	0	0	0	0	0	0	0	0	0
614669.1	5471163	18	13070			0	13	0	0	0	0	0	0	0	0	0	0
614314.6	5470586	18	13071			0	0	98	0	0	0	3062	0	216190	0	0	0
614311.7	5470949	4	13072			0	0	1	0	0	439520.4	0	0	0	0	0	0
613926	5470780	3	13073			0	0	0	0	0	0	0	0	0	109873	0	0
613988	5471047	77	13074			0	59	0	0	0	0	0	0	0	1120	0	0
613819.2	5471931	6	13075			0	1	0	0	0	2692008	0	0	0	0	0	0
613359.1	5470249	1	13076			0	0	0	0	0	0	2907	0	0	0	0	0
613283.3	5470398	34	13077			0	3	178	0	0	0	47075	0	0	0	0	0
613840.5	5470471	23	13078			0	0	0	0	0	0	79516	0	0	0	60	0
613655.1	5470389	6	13079			0	1	0	0	0	0	37268	0	0	0	0	0
613531.9	5470378	24	13080			0	2	0	0	0	0	20400	0	0	0	146	0
613423.2	5470375	19	13081			0	10	0	0	0	0	5292	0	0	0	0	0
613336.6	5470472	3	13082			0	2	0	0	0	0	0	0	0	0	0	0
613420.6	5470570	4	13083			0	1	0	0	0	0	0	30637	0	0	0	0
613540.2	5470582	6	13084			0	0	1	0	0	0	0	37628	0	0	0	0
613769.2	5470566	19	13085			0	8	1	0	0	0	34372	3040	0	0	0	2099
613669.5	5470653	8	13086			0	0	0	0	0	0	1500	12890	0	0	0	0
613704.7	5470812	17	13087			0	0	0	0	0	0	29183	0	0	0	0	13097
615358.4	5472382	22	13088			0	11	0	660	0	0	0	3975	0	0	0	0
619354.5	5471105	0	13089			0	0	0	0	0	0	0	0	0	0	0	0
618815.7	5471332	6	13090			0	2	0	0	0	0	0	0	0	0	0	0
617303.5	5471355	0	13091			0	0	0	0	0	0	0	0	0	0	0	0
616706.4	5470959	1	13092			0	1	0	0	0	0	0	0	0	0	0	0
616127.7	5471028	3	13093			0	3	0	0	0	0	0	0	0	0	0	0
614707.7	5470169	7	13094			0	1	0	0	0	0	0	0	0	0	17	0
614376.6	5470168	6	13095			0	0	0	0	9198	0	32925	898	0	0	0	0
613049.2	5472141	97	13096			0	90	0	0	0	0	0	0	0	0	0	0
613171.8	5471707	55	13097			0	55	0	0	0	0	0	0	0	0	0	0
613261.1	5471893	67	13098			0	70	0	0	0	0	0	0	0	0	0	0
613465.1	5471655	49	13099			0	40	0	0	23982	0	0	0	0	0	0	0
613177.1	5471546	41	13100			0	45	0	0	0	0	0	0	0	0	0	0
612915.1	5471724	20	13101			0	20	15	0	0	0	0	0	0	0	0	0
612977.1	5471515	14	13102			0	13	0	0	0	0	0	0	0	0	0	0
613495	5471459	62	13103			0	38	18	0	0	0	0	0	0	0	0	0
613716.8	5471439	46	13104			0	36	0	0	0	0	0	0	0	0	0	0
613621	5471246	66	13105			0	48	0	0	0	0	0	0	0	0	0	0
613707.6	5471152	10	13106			0	7	6	0	0	0	5417	0	0	0	0	0
613305.7	5471327	103	13107			0	76	62	0	0	0	0	0	0	0	0	0
613432.4	5471117	58	13108			0	31	10	0	0	0	2011	0	0	0	0	37711
613496.7	5470930	32	13109			0	20	2	0	1619	0	0	0	0	9747	0	8952
613148.3	5471231	29	13110			0	25	0	0	2880	0	0	0	0	0	0	0
613286.6	5470999	23	13111			0	2	57	0	2319	0	20927	0	0	2985	17	5851

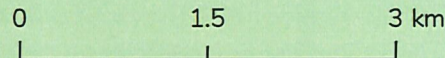
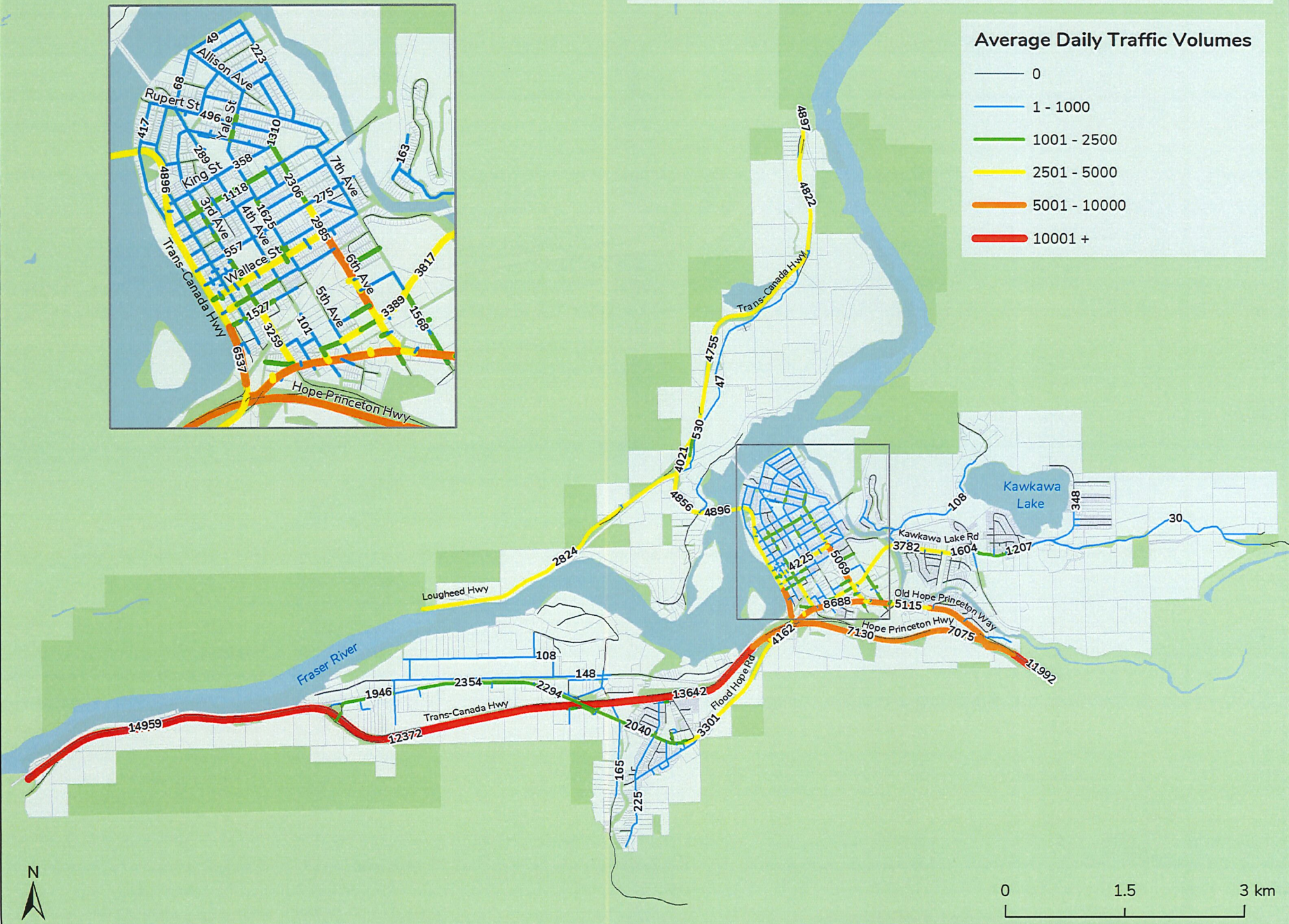
[illegible]



Appendix F – Existing Conditions Traffic Volumes

2023 District of Hope Average Daily Traffic Map

Average Daily Traffic Volumes

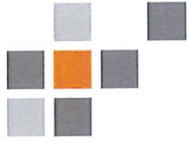




Appendix G – 2028 Zone Quantities

X	Y	Join_Count	NO	CODE	NAME	TYPENO	Single Family	Multi Family	Agricultural	Institutional	Recreational	Service	Industrial	Hospital	Office	Hotel	Retail
614753.3	5470812	207	13017			0	87.5	0	0	0	0	0	0	0	0	0	0
615217.5	5470715	105	13018			0	27.7	0	2.376	0	0	22.851	0	0	0	0	0
615743.7	5471402	256	13019			0	100	0	0	0	0	0	0	0	0	0	0
616626.9	5471719	38	13021			0	27	0	0	0	0	0	0	0	0	0	0
616901	5471572	210	13022			0	50	3	0	0	1466.53452	0	0	0	0	0	0
611108.7	5468080	337	13023			0	288	4	0	1.472	0	16.156	11.68	0	0	0	2.384
612810.7	5471965	100	13026			0	74	30	0	0	0	0	0	0	0	0	0
611766.6	5471095	55	13027			0	33	0	7.112	0	0	0	0	0	0	0	0
614021.6	5471396	25	13028			0	24	0	0	0	0	0	0	0	0	0	0
614162.7	5471689	35	13029			0	39	0	0	0	0	1.55	0.001	0	0	0	0
615269.8	5471247	49	13030			0	94	0	0	0	0	0	0	0	0	0	0
615133.9	5471069	3	13031			0	19	0	0	0	0	0	0	0	0	0	0
615088.5	5470427	48	13032			0	40	0	0	0	0	0	0	0	0	0	0
615382.4	5470191	47	13033			0	41	0	0	0	0	0	0	0	0	0	0
610303.5	5470320	12	13034			0	9	0	3.881	0	0	0	0	0	0	0	0
607712.5	5469321	42	13035			0	12	0	6.694	0	0	0	26.459	0	0	0	0
608164.3	5469012	47	13036			0	11	2	4.782	0	971.86716	15.9212	0	0	0	0	1.579
609949.3	5469912	15	13037			0	3	0	6.086	0	0	0	9.611	0	0	0	0
610435.9	5469562	18	13038			0	6	0	7.938	0	0	0	0	0	0	0	0
610923.7	5469310	21	13039			0	10	0	0	0	0	0	0	0	0	0	0
610415.9	5469325	17	13040			0	3	1	0	0	0	0	25.417	0	0	0	0
610016.1	5469361	1	13041			0	0	0	0	0	0	0	0	0	0	0	0.888
609754.5	5469212	13	13042			0	2	16	0	0	0	8.545	89.897	0	0	0	0
610539.6	5468918	11	13043			0	0	1	0	0	0	8.611	28.768	0	0	0	0
610793.4	5468145	45	13044			0	26	0	0	0	0	0	3.66	0	0	0	0
610926.7	5467792	18	13045			0	13	0	0	0	0	0	0	0	0	0	0
610846.4	5468973	14	13046			0	8	0	0	0	0	0	0	0	0	0	0
611792.4	5469647	25	13047			0	18	0	0	0	0	0	0	0	0	0	0
609128.3	5469995	36	13048			0	8	0	20.536	0	0	0	19.098	0	0	0	0
608159.2	5469666	10	13049			0	3	0	5.437	0	0	0	0	0	0	0	0
609223.5	5469570	1	13050			0	0	0	0	0	0	0	2.013	0	0	0	0
613126.3	5476140	14	13051			0	6	0	0	0	0	0	0	0	0	0	0
613329.6	5475858	0	13052			0	0	0	0	0	0	0	0	0	0	0	0
613117.1	5475342	0	13053			0	0	0	0	0	0	0	0	0	0	0	0
613464	5474922	0	13054			0	0	0	0	0	0	0	0	0	0	0	0
613094.7	5474661	0	13055			0	0	0	0	0	0	0	0	0	0	0	0
613113.9	5474423	3	13056			0	3	0	0	0	0	0	0	0	0	0	0
613087.1	5474255	0	13057			0	0	0	0	0	0	0	0	0	0	0	0
612569.7	5473882	11	13058			0	9	0	0	0	0	0	0	0	0	0	0
612305.4	5473877	2	13059			0	1	0	0	0	0	0	0.96	0	0	0	0
612197.8	5473604	3	13060			0	1	0	0	0	0	0	0	0	0	0	0
612585.4	5473068	6	13061			0	4	0	0	0	0	0	0	0	0	0	0
612122.6	5473073	0	13062			0	0	0	0	0	0	0	0	0	0	0	0
611876.5	5473077	3	13063			0	2	0	0.001	0	0	0	0	0	0	0	0
612150.2	5472427	0	13064			0	0	0	0	0	0	0	0	0	0	0	0
611862.7	5471958	16	13065			0	3	0	4.38	0	0	0	0	0	0	0	0
610962.6	5471759	1	13066			0	1	0	0	0	0	0	0	0	0	0	0
610887.9	5471457	0	13067			0	0	0	0	0	0	0	0	0	0	0	0
615744.8	5469920	2	13068			0	2	0	0	0	0	0	0	0	0	0	0
615784	5470489	7	13069			0	91.5	0	0	0	0	0	0	0	0	0	0
614669.1	5471163	18	13070			0	13	0	0	0	0	0	0	0	0	0	0
614314.6	5470586	18	13071			0	0	98	0	0	0	3.062	0	216.19	0	0	0
614311.7	5470949	4	13072			0	0	1	0	0	439.5204	0	0	0	0	0	0
613926	5470780	3	13073			0	0	0	0	0	0	0	0	0	109.873	0	0
613988	5471047	77	13074			0	59	0	0	0	0	0	0	0	1.12	0	0
613819.2	5471931	6	13075			0	1	0	0	0	2837.7522	0	0	0	0	0	0
613359.1	5470249	1	13076			0	0	0	0	0	0	2.907	0	0	0	0	0
613283.3	5470398	34	13077			0	3	178	0	0	0	47.075	0	0	0	0.048	0
613840.5	5470471	23	13078			0	0	0	0	0	0	79.516	0	0	0	0.06	0
613655.1	5470389	6	13079			0	1	0	0	0	0	37.268	0	0	0	0	0
613531.9	5470378	24	13080			0	2	0	0	0	0	20.4	0	0	0	0.146	0
613423.2	5470375	19	13081			0	10	0	0	0	0	5.292	0	0	0	0	0
613336.6	5470472	3	13082			0	2	0	0	0	0	0	0	0	0	0	0
613420.6	5470570	4	13083			0	1	0	0	0	0	0	30.637	0	0	0	0
613540.2	5470582	6	13084			0	0	1	0	0	0	0	37.628	0	0	0	0
613769.2	5470566	19	13085			0	8	1	0	0	0	34.372	3.04	0	0	0	2.099
613669.5	5470653	8	13086			0	0	0	0	0	0	1.5	12.89	0	0	0	0
613704.7	5470812	17	13087			0	0	0	0	0	0	29.183	0	0	0	0	13.097
615358.4	5472382	22	13088			0	11	0	0.66	0	0	0	3.975	0	0	0	0
619354.5	5471105	0	13089			0	0	0	0	0	0	0	0	0	0	0	0
618815.7	5471332	6	13090			0	2	0	0	0	0	0	0	0	0	0	0
617303.5	5471355	0	13091			0	0	0	0	0	0	0	0	0	0	0	0
616706.4	5470959	1	13092			0	1	0	0	0	0	0	0	0	0	0	0
616127.7	5471028	3	13093			0	3	0	0	0	0	0	0	0	0	0	0
614707.7	5470169	7	13094			0	1	0	0	0	0	0	0	0	0	0.017	0
614376.6	5470168	6	13095			0	0	0	0	9.198	0	32.925	0.898	0	0	0	0
613049.2	5472141	97	13096			0	90	0	0	0	0	0	0	0	0	0	0
613171.8	5471707	55	13097			0	55	0	0	0	0	0	0	0	0	0	0
613261.1	5471893	67	13098			0	70	0	0	0	0	0	0	0	0	0	0
613465.1	5471655	49	13099			0	40	0	0	23.982	0	0	0	0	0	0	0
613177.1	5471546	41	13100			0	45	0	0	0	0	0	0	0	0	0	0
612915.1	5471724	20	13101			0	20	15	0	0	0	0	0	0	0	0	0
612977.1	5471515	14	13102			0	13	38	0	0	0	0	0	0	0	0	0
613495	5471459	62	13103			0	38	18	0	0	0	0	0	0	0	0	0
613716.8	5471439	46	13104			0	36	0	0	0	0	0	0	0	0	0	0
613621	5471246	66	13105			0	48	0	0	0	0	0	0	0	0	0	0
613707.6	5471152	10	13106			0	7	6	0	0	0	5.417	0	0	0	0	0
613305.7	5471327	103	13107			0	76	62	0	0	0	0	0	0	0	0	0
613432.4	5471117	58	13108			0	31	10	0	0	0	2.011	0	0	0	0	37.711
613496.7	5470930	32	13109			0	20	2	0	1.619	0	0	0	0	9.747	0	8.952
613148.3	5471231	29	13110			0	25	0	0	2.88	0	0	0	0	0	0	0
613286.6	5470999	23	13111			0	2	57	0	2.319	0	20.927	0	0	2.985	0.017	5.851

[illegible]



Appendix H – 2038 Zone Quantities

X	Y	Join_Count	NO	CODE	NAME	TYPENO	Single Family	Multi Family	Agricultural	Institutional	Recreational	Service	Industrial	Hospital	Office	Hotel	Retail
614753.3	5470812	207	13017			0	120	0	0	0	0	0	0	0	0	0	0
615217.5	5470715	105	13018			0	42	0	2.376	0	0	22.851	0	0	0	0	0
615743.7	5471402	256	13019			0	100	0	0	0	0	0	0	0	0	0	0
616626.9	5471719	38	13021			0	27	0	0	0	0	0	0	0	0	0	0
616901	5471572	210	13022			0	50	3	0	0	1466.53452	0	0	0	0	0	0
611108.7	5468080	337	13023			0	340	4	0	1.472	0	16.156	11.68	0	0	0	2.384
612810.7	5471965	100	13026			0	74	30	0	0	0	0	0	0	0	0	0
611766.6	5471095	55	13027			0	33	0	7.112	0	0	0	0	0	0	0	0
614021.6	5471396	25	13028			0	24	0	0	0	0	0	0	0	0	0	0
614162.7	5471689	35	13029			0	52	0	0	0	0	1.55	0.001	0	0	0	0
615269.8	5471247	49	13030			0	185	0	0	0	0	0	0	0	0	0	0
615133.9	5471069	3	13031			0	114	0	0	0	0	0	0	0	0	0	0
615088.5	5470427	48	13032			0	40	0	0	0	0	0	0	0	0	0	0
615382.4	5470191	47	13033			0	41	0	0	0	0	0	0	0	0	0	0
610303.5	5470320	12	13034			0	9	0	3.881	0	0	0	0	0	0	0	0
607712.5	5469321	42	13035			0	12	0	6.694	0	0	0	26.459	0	0	0	0
608164.3	5469012	47	13036			0	11	2	4.782	0	971.86716	15.9212	0	0	0	0	1.579
609949.3	5469912	15	13037			0	3	0	6.086	0	0	0	9.611	0	0	0	0
610435.9	5469562	18	13038			0	6	0	7.938	0	0	0	0	0	0	0	0
610923.7	5469310	21	13039			0	10	0	0	0	0	0	0	0	0	0	0
610415.9	5469325	17	13040			0	3	1	0	0	0	0	25.417	0	0	0	0
610016.1	5469361	1	13041			0	0	0	0	0	0	0	0	0	0	0	0.888
609754.5	5469212	13	13042			0	2	16	0	0	0	8.545	89.897	0	0	0	0
610539.6	5468918	11	13043			0	0	1	0	0	0	8.611	28.768	0	0	0	0
610793.4	5468145	45	13044			0	26	0	0	0	0	0	3.66	0	0	0	0
610926.7	5467792	18	13045			0	13	0	0	0	0	0	0	0	0	0	0
610846.4	5468973	14	13046			0	8	0	0	0	0	0	0	0	0	0	0
611792.4	5469647	25	13047			0	18	0	0	0	0	0	0	0	0	0	0
609128.3	5469995	36	13048			0	8	0	20.536	0	0	0	19.098	0	0	0	0
608159.2	5469666	10	13049			0	3	0	5.437	0	0	0	0	0	0	0	0
609223.5	5469570	1	13050			0	0	0	0	0	0	0	2.013	0	0	0	0
613126.3	5476140	14	13051			0	6	0	0	0	0	0	0	0	0	0	0
613329.6	5475858	0	13052			0	0	0	0	0	0	0	0	0	0	0	0
613117.1	5475342	0	13053			0	0	0	0	0	0	0	0	0	0	0	0
613464	5474922	0	13054			0	0	0	0	0	0	0	0	0	0	0	0
613094.7	5474661	0	13055			0	0	0	0	0	0	0	0	0	0	0	0
613113.9	5474423	3	13056			0	3	0	0	0	0	0	0	0	0	0	0
613087.1	5474255	0	13057			0	0	0	0	0	0	0	0	0	0	0	0
612569.7	5473882	11	13058			0	9	0	0	0	0	0	0	0	0	0	0
612305.4	5473877	2	13059			0	1	0	0	0	0	0	0.96	0	0	0	0
612197.8	5473604	3	13060			0	1	0	0	0	0	0	0	0	0	0	0
612585.4	5473068	6	13061			0	4	0	0	0	0	0	0	0	0	0	0
612122.6	5473073	0	13062			0	0	0	0	0	0	0	0	0	0	0	0
611876.5	5473077	3	13063			0	2	0	0.001	0	0	0	0	0	0	0	0
612150.2	5472427	0	13064			0	0	0	0	0	0	0	0	0	0	0	0
611862.7	5471958	16	13065			0	3	0	4.38	0	0	0	0	0	0	0	0
610962.6	5471759	1	13066			0	1	0	0	0	0	0	0	0	0	0	0
610887.9	5471457	0	13067			0	0	0	0	0	0	0	0	0	0	0	0
615744.8	5469920	2	13068			0	2	0	0	0	0	0	0	0	0	0	0
615784	5470489	7	13069			0	254	0	0	0	0	0	0	0	0	0	0
614669.1	5471163	18	13070			0	13	0	0	0	0	0	0	0	0	0	0
614314.6	5470586	18	13071			0	0	98	0	0	0	3.062	0	216.19	0	0	0
614311.7	5470949	4	13072			0	0	1	0	0	439.5204	0	0	0	0	0	0
613926	5470780	3	13073			0	0	0	0	0	0	0	0	109.873	0	0	0
613988	5471047	77	13074			0	59	0	0	0	0	0	0	1.12	0	0	0
613819.2	5471931	6	13075			0	1	0	0	0	3108.42	0	0	0	0	0	0
613359.1	5470249	1	13076			0	0	0	0	0	0	2.907	0	0	0	0	0
613283.3	5470398	34	13077			0	3	178	0	0	0	47.075	0	0	0	0.048	0
613840.5	5470471	23	13078			0	0	0	0	0	0	79.516	0	0	0	0.06	0
613655.1	5470389	6	13079			0	1	0	0	0	0	37.268	0	0	0	0	0
613531.9	5470378	24	13080			0	2	0	0	0	0	20.4	0	0	0	0.146	0
613423.2	5470375	19	13081			0	10	0	0	0	0	5.292	0	0	0	0	0
613336.6	5470472	3	13082			0	2	0	0	0	0	0	0	0	0	0	0
613420.6	5470570	4	13083			0	1	0	0	0	0	0	30.637	0	0	0	0
613540.2	5470582	6	13084			0	0	1	0	0	0	0	37.628	0	0	0	0
613769.2	5470566	19	13085			0	8	1	0	0	0	34.372	3.04	0	0	0	2.099
613669.5	5470653	8	13086			0	0	0	0	0	0	1.5	12.89	0	0	0	0
613704.7	5470812	17	13087			0	0	0	0	0	0	29.183	0	0	0	0	13.097
615358.4	5472382	22	13088			0	11	0	0.66	0	0	0	3.975	0	0	0	0
619354.5	5471105	0	13089			0	0	0	0	0	0	0	0	0	0	0	0
618815.7	5471332	6	13090			0	2	0	0	0	0	0	0	0	0	0	0
617303.5	5471355	0	13091			0	0	0	0	0	0	0	0	0	0	0	0
616706.4	5470959	1	13092			0	1	0	0	0	0	0	0	0	0	0	0
616127.7	5471028	3	13093			0	3	0	0	0	0	0	0	0	0	0	0
614707.7	5470169	7	13094			0	1	0	0	0	0	0	0	0	0	0.017	0
614376.6	5470168	6	13095			0	0	0	0	9.198	0	32.925	0.898	0	0	0	0
613049.2	5472141	97	13096			0	90	0	0	0	0	0	0	0	0	0	0
613171.8	5471707	55	13097			0	55	0	0	0	0	0	0	0	0	0	0
613261.1	5471893	67	13098			0	70	0	0	0	0	0	0	0	0	0	0
613465.1	5471655	49	13099			0	40	0	0	23.982	0	0	0	0	0	0	0
613177.1	5471546	41	13100			0	45	0	0	0	0	0	0	0	0	0	0
612915.1	5471724	20	13101			0	20	15	0	0	0	0	0	0	0	0	0
612977.1	5471515	14	13102			0	13	38	0	0	0	0	0	0	0	0	0
613495	5471459	62	13103			0	38	18	0	0	0	0	0	0	0	0	0
613716.8	5471439	46	13104			0	36	0	0	0	0	0	0	0	0	0	0
613621	5471246	66	13105			0	48	0	0	0	0	0	0	0	0	0	0
613707.6	5471152	10	13106			0	7	6	0	0	0	5.417	0	0	0	0	0
613305.7	5471327	103	13107			0	76	62	0	0	0	0	0	0	0	0	0
613432.4	5471117	58	13108			0	31	10	0	0	0	2.011	0	0	0	0	37.711
613496.7	5470930	32	13109			0	20	2	0	1.619	0	0	0	0	9.747	0	8.952
613148.3	5471231	29	13110			0	25	0	0	2.88	0	0	0	0	0	0	0
613286.6	5470999	23	13111			0	2	57	0	2.319	0	20.927	0	0	2.985	0.017	5.851

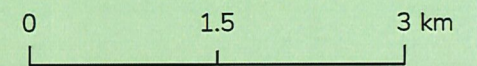
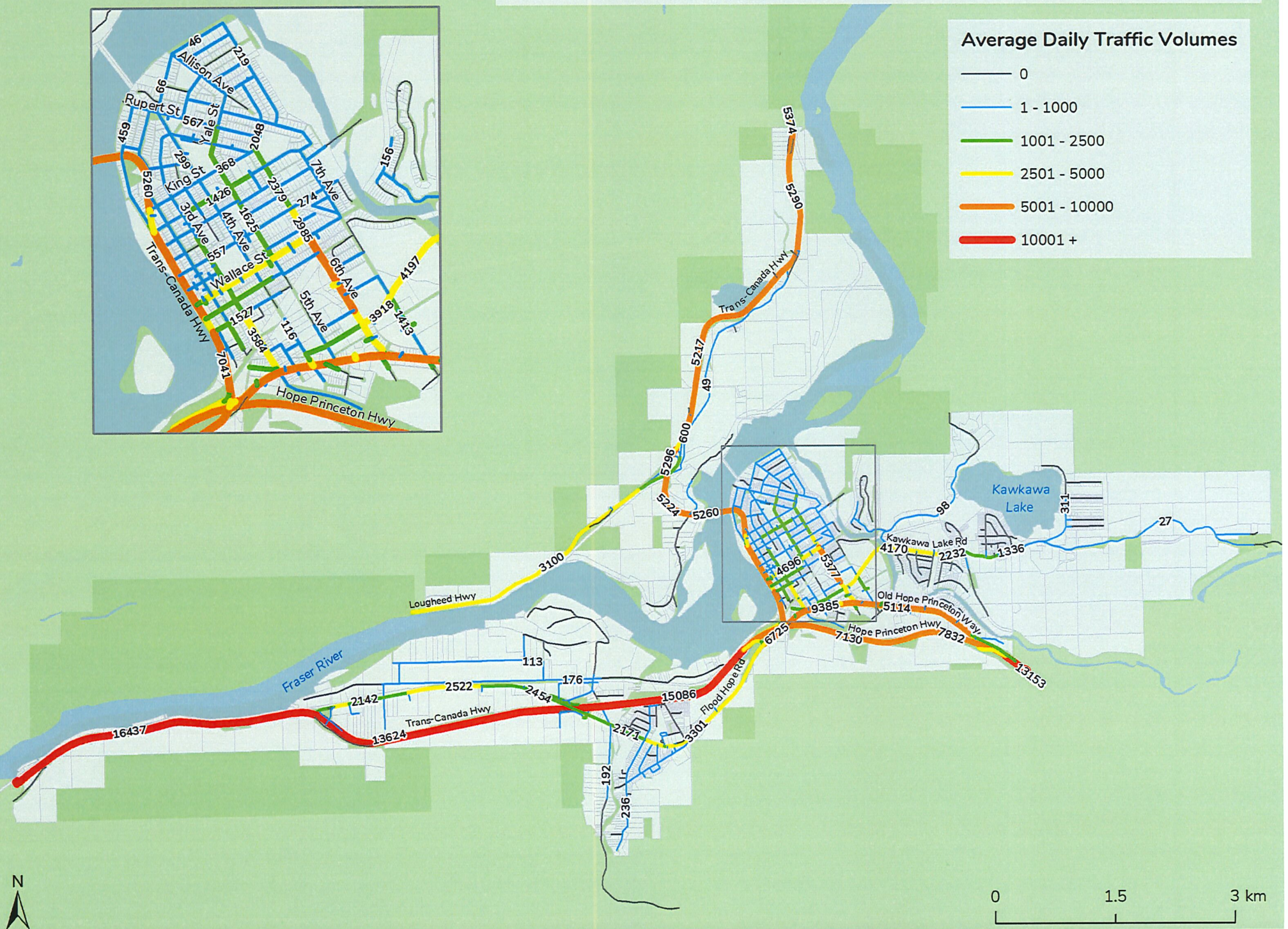
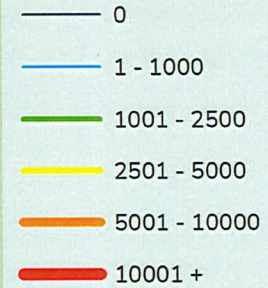
[illegible]



Appendix I – 2028 Post-Development Traffic Volumes

2028 District of Hope Projected Average Daily Traffic Map

Average Daily Traffic Volumes

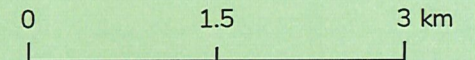
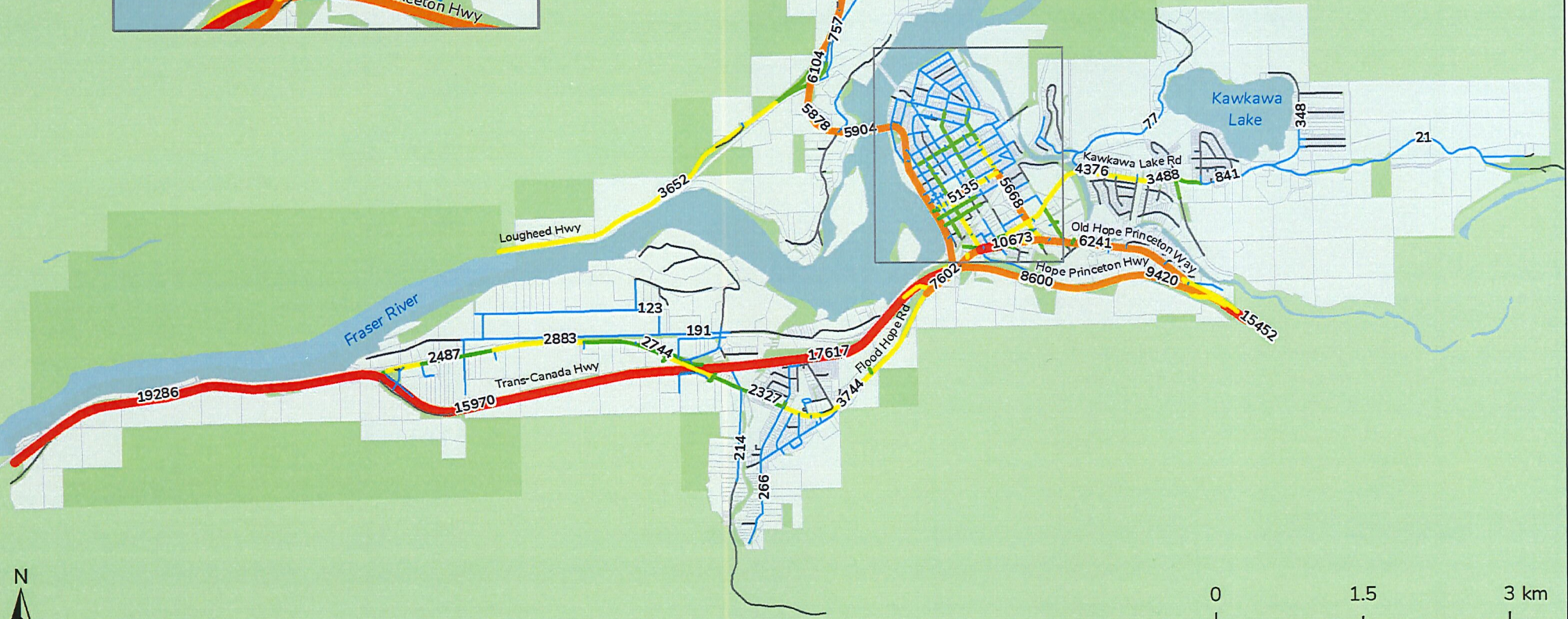
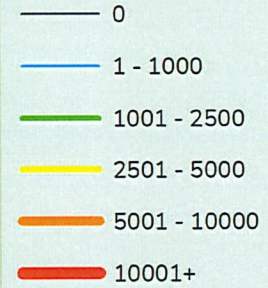




Appendix J – 2038 Post-Development Traffic Volumes

2038 District of Hope Projected Average Daily Traffic Map

Average Daily Traffic Volumes





Appendix K – Traffic Modelling Reports

Hope ITMP
1: Othello Rd & Kawkawa Lake Rd

Existing Conditions
2023-12-18

Intersection

Int Delay, s/veh 1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations	↑			↑	↑	
---------------------	---	--	--	---	---	--

Traffic Vol, veh/h	37	4	5	33	2	5
--------------------	----	---	---	----	---	---

Future Vol, veh/h	37	4	5	33	2	5
-------------------	----	---	---	----	---	---

Conflicting Peds, #/hr	0	0	0	0	0	0
------------------------	---	---	---	---	---	---

Sign Control	Free	Free	Free	Free	Stop	Stop
--------------	------	------	------	------	------	------

RT Channelized	-	Free	-	None	-	None
----------------	---	------	---	------	---	------

Storage Length	-	-	-	-	0	-
----------------	---	---	---	---	---	---

Veh in Median Storage, #	0	-	-	0	0	-
--------------------------	---	---	---	---	---	---

Grade, %	0	-	-	0	0	-
----------	---	---	---	---	---	---

Peak Hour Factor	92	92	92	92	92	92
------------------	----	----	----	----	----	----

Heavy Vehicles, %	2	2	2	2	2	2
-------------------	---	---	---	---	---	---

Mvmt Flow	40	4	5	36	2	5
-----------	----	---	---	----	---	---

Major/Minor	Major1	Major2	Minor1
-------------	--------	--------	--------

Conflicting Flow All	0	-	40	0	86	40
----------------------	---	---	----	---	----	----

Stage 1	-	-	-	-	40	-
---------	---	---	---	---	----	---

Stage 2	-	-	-	-	46	-
---------	---	---	---	---	----	---

Critical Hdwy	-	-	4.12	-	6.42	6.22
---------------	---	---	------	---	------	------

Critical Hdwy Stg 1	-	-	-	-	5.42	-
---------------------	---	---	---	---	------	---

Critical Hdwy Stg 2	-	-	-	-	5.42	-
---------------------	---	---	---	---	------	---

Follow-up Hdwy	-	-	2.218	-	3.518	3.318
----------------	---	---	-------	---	-------	-------

Pot Cap-1 Maneuver	-	0	1570	-	915	1031
--------------------	---	---	------	---	-----	------

Stage 1	-	0	-	-	982	-
---------	---	---	---	---	-----	---

Stage 2	-	0	-	-	976	-
---------	---	---	---	---	-----	---

Platoon blocked, %	-	-	-	-	-	-
--------------------	---	---	---	---	---	---

Mov Cap-1 Maneuver	-	-	1570	-	912	1031
--------------------	---	---	------	---	-----	------

Mov Cap-2 Maneuver	-	-	-	-	912	-
--------------------	---	---	---	---	-----	---

Stage 1	-	-	-	-	982	-
---------	---	---	---	---	-----	---

Stage 2	-	-	-	-	973	-
---------	---	---	---	---	-----	---

Approach	EB	WB	NB
----------	----	----	----

HCM Control Delay, s	0	1	8.7
----------------------	---	---	-----

HCM LOS			A
---------	--	--	---

Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT
-----------------------	-------	-----	-----	-----

Capacity (veh/h)	994	-	1570	-
------------------	-----	---	------	---

HCM Lane V/C Ratio	0.008	-	0.003	-
--------------------	-------	---	-------	---

HCM Control Delay (s)	8.7	-	7.3	0
-----------------------	-----	---	-----	---

HCM Lane LOS	A	-	A	A
--------------	---	---	---	---

HCM 95th %tile Q(veh)	0	-	0	-
-----------------------	---	---	---	---

Hope ITMP
2: 7th Ave & Kawkawa Lake Rd

Existing Conditions
2023-12-18

Intersection

Intersection Delay, s/veh 8.9

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	
Traffic Vol, veh/h	5	159	19	46	128	5	33	7	47	1	5	5
Future Vol, veh/h	5	159	19	46	128	5	33	7	47	1	5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	173	21	50	139	5	36	8	51	1	5	5
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9.1	9.1	8.3	7.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	38%	3%	0%	26%	9%
Vol Thru, %	8%	97%	0%	72%	45%
Vol Right, %	54%	0%	100%	3%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	87	164	19	179	11
LT Vol	33	5	0	46	1
Through Vol	7	159	0	128	5
RT Vol	47	0	19	5	5
Lane Flow Rate	95	178	21	195	12
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.121	0.245	0.024	0.246	0.016
Departure Headway (Hd)	4.622	4.953	4.235	4.55	4.726
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	776	726	846	790	757
Service Time	2.646	2.675	1.957	2.571	2.757
HCM Lane V/C Ratio	0.122	0.245	0.025	0.247	0.016
HCM Control Delay	8.3	9.3	7.1	9.1	7.8
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.4	1	0.1	1	0

Hope ITMP
3: 6 Ave & Corbett St/Kawkawa Lake Rd

Existing Conditions
2023-12-18

Intersection												
Int Delay, s/veh	5.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	3	79	23	17	73	69	2	159	51	54	161	3
Future Vol, veh/h	3	79	23	17	73	69	2	159	51	54	161	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	38	35	-	-	27	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	86	25	18	79	75	2	173	55	59	175	3
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	577	527	177	555	501	201	178	0	0	228	0	0
Stage 1	295	295	-	205	205	-	-	-	-	-	-	-
Stage 2	282	232	-	350	296	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	428	456	866	442	472	840	1398	-	-	1340	-	-
Stage 1	713	669	-	797	732	-	-	-	-	-	-	-
Stage 2	725	713	-	666	668	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	326	435	866	352	451	840	1398	-	-	1340	-	-
Mov Cap-2 Maneuver	326	435	-	352	451	-	-	-	-	-	-	-
Stage 1	712	640	-	796	731	-	-	-	-	-	-	-
Stage 2	588	712	-	535	639	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	14.7			13.2			0.1			1.9		
HCM LOS	B			B								
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR			
Capacity (veh/h)	1398	-	-	483	428	840	1340	-	-			
HCM Lane V/C Ratio	0.002	-	-	0.236	0.229	0.089	0.044	-	-			
HCM Control Delay (s)	7.6	-	-	14.7	15.9	9.7	7.8	-	-			
HCM Lane LOS	A	-	-	B	C	A	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	0.9	0.9	0.3	0.1	-	-			

Hope ITMP
4: 5th Ave & Corbett St

Existing Conditions
2023-12-18

Intersection

Int Delay, s/veh 7.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	5	88	5	7	83	1	5	11	20	1	27	5
Future Vol, veh/h	5	88	5	7	83	1	5	11	20	1	27	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	96	5	8	90	1	5	12	22	1	29	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	113	78	32	117	69	23	34	0	0	34	0	0
Stage 1	34	34	-	33	33	-	-	-	-	-	-	-
Stage 2	79	44	-	84	36	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	864	812	1042	859	822	1054	1578	-	-	1578	-	-
Stage 1	982	867	-	983	868	-	-	-	-	-	-	-
Stage 2	930	858	-	924	865	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	788	809	1042	775	819	1054	1578	-	-	1578	-	-
Mov Cap-2 Maneuver	788	809	-	775	819	-	-	-	-	-	-	-
Stage 1	979	866	-	980	865	-	-	-	-	-	-	-
Stage 2	830	855	-	817	864	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10	1	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1578	-	-	817 817	1578	-	-
HCM Lane V/C Ratio	0.003	-	-	0.13 0.121	0.001	-	-
HCM Control Delay (s)	7.3	0	-	10.1 10	7.3	0	-
HCM Lane LOS	A	A	-	B B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4 0.4	0	-	-

Hope ITMP
5: 6 Ave & Wallace St

Existing Conditions
2023-12-18

Intersection

Intersection Delay, s/veh 9.5

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	13	20	127	8	33	1	107	127	4	5	125	32
Future Vol, veh/h	13	20	127	8	33	1	107	127	4	5	125	32
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	22	138	9	36	1	116	138	4	5	136	35
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	8.8	8.8	10.3	9.1
HCM LOS	A	A	B	A

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	45%	39%	0%	19%	3%
Vol Thru, %	53%	61%	0%	79%	77%
Vol Right, %	2%	0%	100%	2%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	238	33	127	42	162
LT Vol	107	13	0	8	5
Through Vol	127	20	0	33	125
RT Vol	4	0	127	1	32
Lane Flow Rate	259	36	138	46	176
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.342	0.058	0.188	0.068	0.229
Departure Headway (Hd)	4.766	5.808	4.903	5.327	4.679
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	750	614	727	667	762
Service Time	2.817	3.57	2.664	3.403	2.735
HCM Lane V/C Ratio	0.345	0.059	0.19	0.069	0.231
HCM Control Delay	10.3	8.9	8.8	8.8	9.1
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.5	0.2	0.7	0.2	0.9

Hope ITMP
7: 6 Ave & Coquihalla St

Existing Conditions
2023-12-18

Intersection

Intersection Delay, s/veh 7.8

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	5	26	18	1	30	2	4	103	1	5	84	12
Future Vol, veh/h	5	26	18	1	30	2	4	103	1	5	84	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	28	20	1	33	2	4	112	1	5	91	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	7.6			7.7			7.9			7.8		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	4%	10%	3%	5%
Vol Thru, %	95%	53%	91%	83%
Vol Right, %	1%	37%	6%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	108	49	33	101
LT Vol	4	5	1	5
Through Vol	103	26	30	84
RT Vol	1	18	2	12
Lane Flow Rate	117	53	36	110
Geometry Grp	1	1	1	1
Degree of Util (X)	0.136	0.063	0.044	0.126
Departure Headway (Hd)	4.175	4.276	4.464	4.117
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	848	843	807	858
Service Time	2.255	2.277	2.466	2.2
HCM Lane V/C Ratio	0.138	0.063	0.045	0.128
HCM Control Delay	7.9	7.6	7.7	7.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.1	0.4

Hope ITMP
8: 3 Ave & Coquihalla St

Existing Conditions
2023-12-18

Intersection

Int Delay, s/veh 4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	50	5	5	35	2	5	48	4	5	26	1
Future Vol, veh/h	1	50	5	5	35	2	5	48	4	5	26	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	54	5	5	38	2	5	52	4	5	28	1

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	40	0	0	59	0	0	123	109	57	136	110	39
Stage 1	-	-	-	-	-	-	59	59	-	49	49	-
Stage 2	-	-	-	-	-	-	64	50	-	87	61	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1570	-	-	1545	-	-	852	781	1009	835	780	1033
Stage 1	-	-	-	-	-	-	953	846	-	964	854	-
Stage 2	-	-	-	-	-	-	947	853	-	921	844	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1570	-	-	1545	-	-	825	778	1009	787	777	1033
Mov Cap-2 Maneuver	-	-	-	-	-	-	825	778	-	787	777	-
Stage 1	-	-	-	-	-	-	952	845	-	963	851	-
Stage 2	-	-	-	-	-	-	912	850	-	860	843	-

Approach	EB		WB		NB		SB
HCM Control Delay, s	0.1		0.9		9.9		9.8
HCM LOS					A		A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	795	1570	-	-	1545	-	-	785
HCM Lane V/C Ratio	0.078	0.001	-	-	0.004	-	-	0.044
HCM Control Delay (s)	9.9	7.3	0	-	7.3	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Hope ITMP
9: 4th Ave & Hope St

Existing Conditions
2023-12-18

Intersection

Intersection Delay, s/veh

7

Intersection LOS

A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations



Traffic Vol, veh/h

5

5

2

24

5

5

Future Vol, veh/h

5

5

2

24

5

5

Peak Hour Factor

0.92

0.92

0.92

0.92

0.92

0.92

Heavy Vehicles, %

2

2

2

2

2

2

Mvmt Flow

5

5

2

26

5

5

Number of Lanes

1

0

0

1

1

0

Approach

EB

NB

SB

Opposing Approach

SB

NB

Opposing Lanes

0

1

1

Conflicting Approach Left

SB

EB

Conflicting Lanes Left

1

1

0

Conflicting Approach Right

NB

EB

Conflicting Lanes Right

1

0

1

HCM Control Delay

6.9

7.1

6.7

HCM LOS

A

A

A

Lane	NBLn1	EBLn1	SBLn1
------	-------	-------	-------

Vol Left, %

8%

50%

0%

Vol Thru, %

92%

0%

50%

Vol Right, %

0%

50%

50%

Sign Control

Stop

Stop

Stop

Traffic Vol by Lane

26

10

10

LT Vol

2

5

0

Through Vol

24

0

5

RT Vol

0

5

5

Lane Flow Rate

28

11

11

Geometry Grp

1

1

1

Degree of Util (X)

0.031

0.011

0.011

Departure Headway (Hd)

3.977

3.802

3.675

Convergence, Y/N

Yes

Yes

Yes

Cap

905

944

978

Service Time

1.98

1.816

1.682

HCM Lane V/C Ratio

0.031

0.012

0.011

HCM Control Delay

7.1

6.9

6.7

HCM Lane LOS

A

A

A

HCM 95th-tile Q

0.1

0

0

Hope ITMP
10: Flood Hope Rd/Water Ave & Exit 170

Existing Conditions
2023-12-18



Lane Group	EBL	NBT	SBT
Lane Configurations	TTT	↑	↑
Traffic Volume (vph)	230	231	166
Future Volume (vph)	230	231	166
Turn Type	Prot	NA	NA
Protected Phases	4	6	2
Permitted Phases			
Detector Phase	4	6	2
Switch Phase			
Minimum Initial (s)	7.0	10.0	10.0
Minimum Split (s)	21.7	20.3	20.3
Total Split (s)	25.0	30.0	30.0
Total Split (%)	45.5%	54.5%	54.5%
Yellow Time (s)	4.5	4.3	4.3
All-Red Time (s)	1.2	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.3	5.3
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	Min	Min
Act Effect Green (s)	8.6	10.7	10.7
Actuated g/C Ratio	0.28	0.35	0.35
v/c Ratio	0.33	0.38	0.27
Control Delay	7.3	9.6	8.6
Queue Delay	0.0	0.0	0.0
Total Delay	7.3	9.6	8.6
LOS	A	A	A
Approach Delay	7.3	9.6	8.6
Approach LOS	A	A	A

Intersection Summary	
Cycle Length: 55	
Actuated Cycle Length: 30.4	
Natural Cycle: 45	
Control Type: Semi Act-Uncoord	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 8.3	Intersection LOS: A
Intersection Capacity Utilization 30.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 10: Flood Hope Rd/Water Ave & Exit 170

Ø2 30 s	Ø4 25 s
Ø6 30 s	

Queuing and Blocking Report Baseline

12/18/2023

Intersection: 1: Othello Rd & Kawkawa Lake Rd

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	5.3	9.0
Average Queue (m)	0.2	1.5
95th Queue (m)	2.2	6.9
Link Distance (m)	234.5	133.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: 7th Ave & Kawkawa Lake Rd

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (m)	14.2	7.5	18.2	14.3	6.8
Average Queue (m)	5.2	3.4	10.7	4.5	1.7
95th Queue (m)	9.9	9.1	16.5	10.2	6.4
Link Distance (m)	207.5		199.6	139.0	119.5
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		41.4			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: 6 Ave & Corbett St/Kawkawa Lake Rd

Movement	EB	WB	WB	NB	NB	SB
Directions Served	LTR	LT	R	L	TR	L
Maximum Queue (m)	19.4	18.2	14.0	1.8	6.9	7.3
Average Queue (m)	10.4	9.4	8.4	0.1	0.3	2.1
95th Queue (m)	17.2	14.4	13.1	1.3	2.7	7.3
Link Distance (m)	234.3	207.5			105.0	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)			38.0	35.0		27.0
Storage Blk Time (%)						
Queuing Penalty (veh)						

Queuing and Blocking Report Baseline

12/18/2023

Intersection: 4: 5th Ave & Corbett St

Movement	EB	WB	NB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	16.1	16.5	5.3
Average Queue (m)	8.8	9.4	0.2
95th Queue (m)	14.0	14.4	2.2
Link Distance (m)	117.3	234.3	95.5
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: 6 Ave & Wallace St

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (m)	10.6	19.8	16.8	24.9	19.9
Average Queue (m)	6.6	9.9	6.5	11.1	11.6
95th Queue (m)	13.3	14.3	14.6	19.0	17.4
Link Distance (m)	234.6		216.5	148.3	188.0
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		22.0			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 6: 3 Ave & Wallace St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	33.9	38.4	27.0	22.5
Average Queue (m)	16.2	18.8	12.4	8.7
95th Queue (m)	30.0	32.8	22.7	19.2
Link Distance (m)	99.2	183.3	93.9	95.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report Baseline

12/18/2023

Intersection: 7: 6 Ave & Coquihalla St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	16.6	14.3	20.5	19.7
Average Queue (m)	7.8	6.3	10.0	10.4
95th Queue (m)	14.5	13.8	15.4	16.5
Link Distance (m)	89.1	157.2	105.6	109.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: 3 Ave & Coquihalla St

Movement	WB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	3.7	19.6	14.1
Average Queue (m)	0.2	8.6	6.1
95th Queue (m)	2.3	15.1	13.7
Link Distance (m)	93.4	95.8	118.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: 4th Ave & Hope St

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	5.7	9.3	9.2
Average Queue (m)	1.4	5.3	2.0
95th Queue (m)	5.2	12.7	8.1
Link Distance (m)	149.5	122.9	178.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report Baseline

12/18/2023

Intersection: 10: Flood Hope Rd/Water Ave & Exit 170

Movement	EB	EB	NB	SB
Directions Served	L	LR	T	T
Maximum Queue (m)	29.0	18.4	30.0	27.3
Average Queue (m)	15.4	6.3	14.4	12.6
95th Queue (m)	24.2	15.6	26.2	24.2
Link Distance (m)	311.9	311.9	238.2	255.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary




Network wide Queuing Penalty: 0

Hope ITMP
1: Othello Rd & Kawkawa Lake Rd

5-year Conditions
2023-12-18

Intersection

Int Delay, s/veh 1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	32	3	5	32	2	5
Future Vol, veh/h	32	3	5	32	2	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	3	5	35	2	5

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	-	35
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	0	1576
Stage 1	-	0	-
Stage 2	-	0	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1576
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT
Capacity (veh/h)	1001	-	1576	-
HCM Lane V/C Ratio	0.008	-	0.003	-
HCM Control Delay (s)	8.6	-	7.3	0
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0	-	0	-

Hope ITMP
2: 7th Ave & Kawkawa Lake Rd

5-year Conditions
2023-12-18

Intersection

Intersection Delay, s/veh 9.3
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	
Traffic Vol, veh/h	5	199	19	49	142	5	32	8	29	1	4	5
Future Vol, veh/h	5	199	19	49	142	5	32	8	29	1	4	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	216	21	53	154	5	35	9	32	1	4	5
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			2			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			2			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			2		
HCM Control Delay	9.6			9.3			8.4			7.9		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	46%	2%	0%	25%	10%
Vol Thru, %	12%	98%	0%	72%	40%
Vol Right, %	42%	0%	100%	3%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	204	19	196	10
LT Vol	32	5	0	49	1
Through Vol	8	199	0	142	4
RT Vol	29	0	19	5	5
Lane Flow Rate	75	222	21	213	11
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.101	0.303	0.024	0.269	0.015
Departure Headway (Hd)	4.845	4.919	4.204	4.553	4.817
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	740	732	852	790	742
Service Time	2.875	2.642	1.926	2.576	2.855
HCM Lane V/C Ratio	0.101	0.303	0.025	0.27	0.015
HCM Control Delay	8.4	9.8	7	9.3	7.9
HCM Lane LOS	A	A	A	A	A
HCM 95th-tile Q	0.3	1.3	0.1	1.1	0

Hope ITMP
3: 6 Ave & Corbett St/Kawkawa Lake Rd

5-year Conditions
2023-12-18

Intersection

Int Delay, s/veh 6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	3	101	24	21	78	72	3	173	65	57	173	3
Future Vol, veh/h	3	101	24	21	78	72	3	173	65	57	173	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	38	35	-	-	27	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	110	26	23	85	78	3	188	71	62	188	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	625	579	190	612	545	224	191	0	0	259	0	0
Stage 1	314	314	-	230	230	-	-	-	-	-	-	-
Stage 2	311	265	-	382	315	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	397	426	852	405	446	815	1383	-	-	1306	-	-
Stage 1	697	656	-	773	714	-	-	-	-	-	-	-
Stage 2	699	689	-	640	656	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	293	405	852	299	424	815	1383	-	-	1306	-	-
Mov Cap-2 Maneuver	293	405	-	299	424	-	-	-	-	-	-	-
Stage 1	696	625	-	771	713	-	-	-	-	-	-	-
Stage 2	556	688	-	487	625	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.7	14.5	0.1	1.9
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1383	-	-	445 389 815	1306	-	-
HCM Lane V/C Ratio	0.002	-	-	0.313 0.277 0.096	0.047	-	-
HCM Control Delay (s)	7.6	-	-	16.7 17.8 9.9	7.9	-	-
HCM Lane LOS	A	-	-	C C A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.3 1.1 0.3	0.1	-	-

Hope ITMP
4: 5th Ave & Corbett St

5-year Conditions
2023-12-18

Intersection

Int Delay, s/veh 7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	5	103	5	8	88	1	5	11	24	2	32	5
Future Vol, veh/h	5	103	5	8	88	1	5	11	24	2	32	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	112	5	9	96	1	5	12	26	2	35	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	126	90	38	135	79	25	40	0	0	38	0	0
Stage 1	42	42	-	35	35	-	-	-	-	-	-	-
Stage 2	84	48	-	100	44	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	848	800	1034	836	811	1051	1570	-	-	1572	-	-
Stage 1	972	860	-	981	866	-	-	-	-	-	-	-
Stage 2	924	855	-	906	858	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	768	797	1034	740	808	1051	1570	-	-	1572	-	-
Mov Cap-2 Maneuver	768	797	-	740	808	-	-	-	-	-	-	-
Stage 1	969	859	-	978	863	-	-	-	-	-	-	-
Stage 2	818	852	-	783	857	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	10.2	0.9	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1570	-	-	804 804	1572	-	-
HCM Lane V/C Ratio	0.003	-	-	0.153 0.131	0.001	-	-
HCM Control Delay (s)	7.3	0	-	10.3 10.2	7.3	0	-
HCM Lane LOS	A	A	-	B B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5 0.5	0	-	-

Hope ITMP
5: 6 Ave & Wallace St

5-year Conditions
2023-12-18

Intersection

Intersection Delay, s/veh	9.6
Intersection LOS	A













Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	
Traffic Vol, veh/h	16	21	137	8	36	1	112	124	4	1	129	36
Future Vol, veh/h	16	21	137	8	36	1	112	124	4	1	129	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	23	149	9	39	1	122	135	4	1	140	39
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9	8.9	10.5	9.3
HCM LOS	A	A	B	A

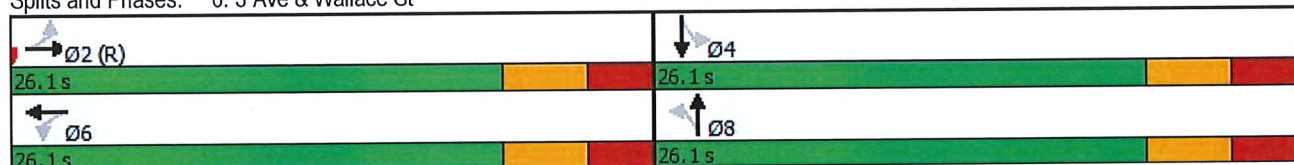
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	47%	43%	0%	18%	1%
Vol Thru, %	52%	57%	0%	80%	78%
Vol Right, %	2%	0%	100%	2%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	240	37	137	45	166
LT Vol	112	16	0	8	1
Through Vol	124	21	0	36	129
RT Vol	4	0	137	1	36
Lane Flow Rate	261	40	149	49	180
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.35	0.065	0.204	0.073	0.237
Departure Headway (Hd)	4.824	5.855	4.929	5.371	4.72
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	741	608	722	660	756
Service Time	2.879	3.624	2.698	3.456	2.779
HCM Lane V/C Ratio	0.352	0.066	0.206	0.074	0.238
HCM Control Delay	10.5	9	9	8.9	9.3
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.6	0.2	0.8	0.2	0.9

Hope ITMP
6: 3 Ave & Wallace St

5-year Conditions
2023-12-18

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	170	9	203	2	89	2	79
Future Volume (vph)	2	170	9	203	2	89	2	79
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	20.0	20.0	20.0	20.0	15.0	15.0	15.0	15.0
Minimum Split (s)	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (s)	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
All-Red Time (s)	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		6.1		6.1		6.1		6.1
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		20.0		20.0		20.0		20.0
Actuated g/C Ratio		0.38		0.38		0.38		0.38
v/c Ratio		0.26		0.33		0.21		0.13
Control Delay		12.2		13.0		8.4		10.9
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		12.2		13.0		8.4		10.9
LOS		B		B		A		B
Approach Delay		12.2		13.0		8.4		10.9
Approach LOS		B		B		A		B
Intersection Summary								
Cycle Length: 52.2								
Actuated Cycle Length: 52.2								
Offset: 26.1 (50%), Referenced to phase 2:EBTL, Start of Green								
Natural Cycle: 55								
Control Type: Pretimed								
Maximum v/c Ratio: 0.33								
Intersection Signal Delay: 11.4					Intersection LOS: B			
Intersection Capacity Utilization 39.3%					ICU Level of Service A			
Analysis Period (min) 15								

Splits and Phases: 6: 3 Ave & Wallace St



Intersection

Intersection Delay, s/veh 7.9

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	5	28	22	1	32	2	5	102	1	5	89	12
Future Vol, veh/h	5	28	22	1	32	2	5	102	1	5	89	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	30	24	1	35	2	5	111	1	5	97	13
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.7	8	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	5%	9%	3%	5%
Vol Thru, %	94%	51%	91%	84%
Vol Right, %	1%	40%	6%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	108	55	35	106
LT Vol	5	5	1	5
Through Vol	102	28	32	89
RT Vol	1	22	2	12
Lane Flow Rate	117	60	38	115
Geometry Grp	1	1	1	1
Degree of Util (X)	0.137	0.071	0.047	0.132
Departure Headway (Hd)	4.196	4.27	4.487	4.135
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	842	844	803	854
Service Time	2.284	2.271	2.489	2.226
HCM Lane V/C Ratio	0.139	0.071	0.047	0.135
HCM Control Delay	8	7.6	7.7	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.1	0.5

Hope ITMP
8: 3 Ave & Coquihalla St

5-year Conditions
2023-12-18

Intersection

Int Delay, s/veh 5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	5	55	2	6	38	4	5	48	8	5	26	1
Future Vol, veh/h	5	55	2	6	38	4	5	48	8	5	26	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	60	2	7	41	4	5	52	9	5	28	1




Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	62	0	0	143	130	61	159	129	43
Stage 1	-	-	-	-	-	-	71	71	-	57	57	-
Stage 2	-	-	-	-	-	-	72	59	-	102	72	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1563	-	-	1541	-	-	826	761	1004	807	762	1027
Stage 1	-	-	-	-	-	-	939	836	-	955	847	-
Stage 2	-	-	-	-	-	-	938	846	-	904	835	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1563	-	-	1541	-	-	797	755	1004	753	756	1027
Mov Cap-2 Maneuver	-	-	-	-	-	-	797	755	-	753	756	-
Stage 1	-	-	-	-	-	-	936	833	-	952	843	-
Stage 2	-	-	-	-	-	-	901	842	-	838	832	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.6			0.9			10			10		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	784	1563	-	-	1541	-	-	762
HCM Lane V/C Ratio	0.085	0.003	-	-	0.004	-	-	0.046
HCM Control Delay (s)	10	7.3	0	-	7.3	0	-	10
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1

Intersection

Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	2	23	7	5
Future Vol, veh/h	5	5	2	23	7	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	2	25	8	5
Number of Lanes	1	0	0	1	1	0

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	1	1	0
Conflicting Approach Right	NB		EB
Conflicting Lanes Right	1	0	1
HCM Control Delay	6.9	7.1	6.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	SBLn1
Vol Left, %	8%	50%	0%
Vol Thru, %	92%	0%	58%
Vol Right, %	0%	50%	42%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	25	10	12
LT Vol	2	5	0
Through Vol	23	0	7
RT Vol	0	5	5
Lane Flow Rate	27	11	13
Geometry Grp	1	1	1
Degree of Util (X)	0.03	0.011	0.013
Departure Headway (Hd)	3.98	3.804	3.724
Convergence, Y/N	Yes	Yes	Yes
Cap	904	943	965
Service Time	1.983	1.818	1.731
HCM Lane V/C Ratio	0.03	0.012	0.013
HCM Control Delay	7.1	6.9	6.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0	0

Hope ITMP
10: Flood Hope Rd/Water Ave & Exit 170

5-year Conditions
2023-12-18



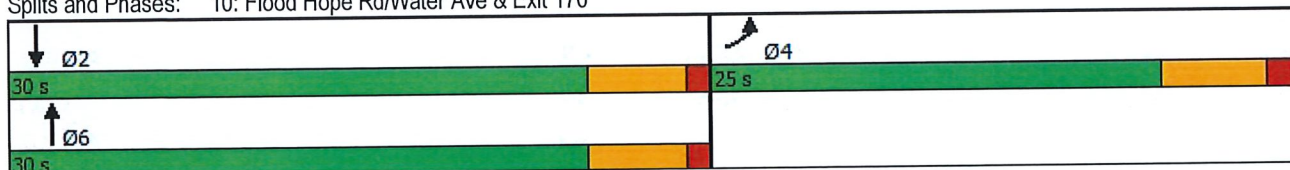
Lane Group	EBL	NBT	SBT
Lane Configurations	WT	↑	↑
Traffic Volume (vph)	240	246	186
Future Volume (vph)	240	246	186
Turn Type	Prot	NA	NA
Protected Phases	4	6	2
Permitted Phases			
Detector Phase	4	6	2
Switch Phase			
Minimum Initial (s)	7.0	10.0	10.0
Minimum Split (s)	21.7	20.3	20.3
Total Split (s)	25.0	30.0	30.0
Total Split (%)	45.5%	54.5%	54.5%
Yellow Time (s)	4.5	4.3	4.3
All-Red Time (s)	1.2	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.3	5.3
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	Min	Min
Act Effct Green (s)	9.0	10.9	10.9
Actuated g/C Ratio	0.29	0.35	0.35
v/c Ratio	0.38	0.40	0.31
Control Delay	6.7	10.2	9.2
Queue Delay	0.0	0.0	0.0
Total Delay	6.7	10.2	9.2
LOS	A	B	A
Approach Delay	6.7	10.2	9.2
Approach LOS	A	B	A

Intersection Summary

Cycle Length: 55
 Actuated Cycle Length: 31
 Natural Cycle: 45
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.40
 Intersection Signal Delay: 8.3
 Intersection Capacity Utilization 33.2%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 10: Flood Hope Rd/Water Ave & Exit 170



Queuing and Blocking Report
Baseline

12/18/2023

Intersection: 1: Othello Rd & Kawkawa Lake Rd

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	3.7	9.0
Average Queue (m)	0.1	1.3
95th Queue (m)	1.9	6.4
Link Distance (m)	234.5	133.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: 7th Ave & Kawkawa Lake Rd

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (m)	15.9	7.6	23.2	10.9	8.2
Average Queue (m)	6.2	2.9	12.2	3.7	2.0
95th Queue (m)	11.8	8.7	19.8	8.0	7.0
Link Distance (m)	207.5		199.6	139.0	119.5
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		41.4			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: 6 Ave & Corbett St/Kawkawa Lake Rd

Movement	EB	WB	WB	NB	NB	SB
Directions Served	LTR	LT	R	L	TR	L
Maximum Queue (m)	22.4	19.0	14.2	1.6	5.8	9.8
Average Queue (m)	11.7	10.4	8.4	0.1	0.2	2.9
95th Queue (m)	18.8	15.7	13.6	1.1	2.6	8.9
Link Distance (m)	234.3	207.5			105.0	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)			38.0	35.0		27.0
Storage Blk Time (%)						
Queuing Penalty (veh)						

Queuing and Blocking Report

Baseline

12/18/2023

Intersection: 4: 5th Ave & Corbett St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	21.2	15.5	3.1	3.4
Average Queue (m)	9.2	9.5	0.1	0.1
95th Queue (m)	15.9	13.5	1.6	1.7
Link Distance (m)	117.3	234.3	95.5	90.7
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: 6 Ave & Wallace St

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (m)	13.2	21.3	17.3	24.2	20.5
Average Queue (m)	6.1	10.5	7.6	11.4	11.5
95th Queue (m)	13.5	16.2	14.9	19.3	17.5
Link Distance (m)	234.6		216.5	148.3	188.0
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		22.0			
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			

Intersection: 6: 3 Ave & Wallace St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	34.8	42.3	31.3	28.7
Average Queue (m)	16.4	19.6	12.6	9.8
95th Queue (m)	29.0	35.7	24.2	21.2
Link Distance (m)	99.2	183.3	93.9	95.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report Baseline

12/18/2023

Intersection: 7: 6 Ave & Coquihalla St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	15.8	12.0	18.0	17.5
Average Queue (m)	8.4	5.4	10.4	9.8
95th Queue (m)	14.6	13.0	16.2	14.3
Link Distance (m)	89.1	157.2	105.6	109.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: 3 Ave & Coquihalla St

Movement	NB	SB
Directions Served	LTR	LTR
Maximum Queue (m)	15.1	15.4
Average Queue (m)	8.2	6.0
95th Queue (m)	14.3	14.0
Link Distance (m)	95.8	118.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: 4th Ave & Hope St

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	5.8	9.3	9.3
Average Queue (m)	1.4	5.1	2.7
95th Queue (m)	5.3	12.5	9.5
Link Distance (m)	149.5	122.9	178.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report

Baseline

12/18/2023

Intersection: 10: Flood Hope Rd/Water Ave & Exit 170

Movement	EB	EB	NB	SB
Directions Served	L	LR	T	T
Maximum Queue (m)	28.8	18.7	38.7	29.5
Average Queue (m)	16.1	6.8	15.5	13.1
95th Queue (m)	25.4	16.6	29.5	25.1
Link Distance (m)	311.9	311.9	238.2	255.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

Hope ITMP
1: Othello Rd & Kawkawa Lake Rd

15-year Conditions
2023-12-20

Intersection

Int Delay, s/veh 1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
----------	-----	-----	-----	-----	-----	-----

Lane Configurations	↑			↑	↑	
---------------------	---	--	--	---	---	--

Traffic Vol, veh/h	23	2	5	29	2	5
--------------------	----	---	---	----	---	---

Future Vol, veh/h	23	2	5	29	2	5
-------------------	----	---	---	----	---	---

Conflicting Peds, #/hr	0	0	0	0	0	0
------------------------	---	---	---	---	---	---

Sign Control	Free	Free	Free	Free	Stop	Stop
--------------	------	------	------	------	------	------

RT Channelized	-	Free	-	None	-	None
----------------	---	------	---	------	---	------

Storage Length	-	-	-	-	0	-
----------------	---	---	---	---	---	---

Veh in Median Storage, #	0	-	-	0	0	-
--------------------------	---	---	---	---	---	---

Grade, %	0	-	-	0	0	-
----------	---	---	---	---	---	---

Peak Hour Factor	92	92	92	92	92	92
------------------	----	----	----	----	----	----

Heavy Vehicles, %	2	2	2	2	2	2
-------------------	---	---	---	---	---	---

Mvmt Flow	25	2	5	32	2	5
-----------	----	---	---	----	---	---

Major/Minor	Major1	Major2	Minor1
-------------	--------	--------	--------

Conflicting Flow All	0	-	25	0	67	25
----------------------	---	---	----	---	----	----

Stage 1	-	-	-	-	25	-
---------	---	---	---	---	----	---

Stage 2	-	-	-	-	42	-
---------	---	---	---	---	----	---

Critical Hdwy	-	-	4.12	-	6.42	6.22
---------------	---	---	------	---	------	------

Critical Hdwy Stg 1	-	-	-	-	5.42	-
---------------------	---	---	---	---	------	---

Critical Hdwy Stg 2	-	-	-	-	5.42	-
---------------------	---	---	---	---	------	---

Follow-up Hdwy	-	-	2.218	-	3.518	3.318
----------------	---	---	-------	---	-------	-------

Pot Cap-1 Maneuver	-	0	1589	-	938	1051
--------------------	---	---	------	---	-----	------

Stage 1	-	0	-	-	998	-
---------	---	---	---	---	-----	---

Stage 2	-	0	-	-	980	-
---------	---	---	---	---	-----	---

Platoon blocked, %	-	-	-	-	-	-
--------------------	---	---	---	---	---	---

Mov Cap-1 Maneuver	-	-	1589	-	935	1051
--------------------	---	---	------	---	-----	------

Mov Cap-2 Maneuver	-	-	-	-	935	-
--------------------	---	---	---	---	-----	---

Stage 1	-	-	-	-	998	-
---------	---	---	---	---	-----	---

Stage 2	-	-	-	-	977	-
---------	---	---	---	---	-----	---

Approach	EB	WB	NB
----------	----	----	----

HCM Control Delay, s	0	1.1	8.6
----------------------	---	-----	-----

HCM LOS			A
---------	--	--	---

Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT
-----------------------	-------	-----	-----	-----

Capacity (veh/h)	1015	-	1589	-
------------------	------	---	------	---

HCM Lane V/C Ratio	0.007	-	0.003	-
--------------------	-------	---	-------	---

HCM Control Delay (s)	8.6	-	7.3	0
-----------------------	-----	---	-----	---

HCM Lane LOS	A	-	A	A
--------------	---	---	---	---

HCM 95th %tile Q(veh)	0	-	0	-
-----------------------	---	---	---	---

Hope ITMP
2: 7th Ave & Kawkawa Lake Rd

15-year Conditions
2023-12-20

Intersection

Intersection Delay, s/veh 9.6
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕			↕	
Traffic Vol, veh/h	5	208	18	59	160	5	33	9	53	1	4	5
Future Vol, veh/h	5	208	18	59	160	5	33	9	53	1	4	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	226	20	64	174	5	36	10	58	1	4	5
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			2			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			2			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			2		
HCM Control Delay	9.9			9.8			8.7			8.1		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	35%	2%	0%	26%	10%
Vol Thru, %	9%	98%	0%	71%	40%
Vol Right, %	56%	0%	100%	2%	50%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	213	18	224	10
LT Vol	33	5	0	59	1
Through Vol	9	208	0	160	4
RT Vol	53	0	18	5	5
Lane Flow Rate	103	232	20	243	11
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.139	0.323	0.023	0.314	0.015
Departure Headway (Hd)	4.842	5.021	4.305	4.647	4.967
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	739	715	830	774	718
Service Time	2.879	2.753	2.037	2.678	3.017
HCM Lane V/C Ratio	0.139	0.324	0.024	0.314	0.015
HCM Control Delay	8.7	10.1	7.1	9.8	8.1
HCM Lane LOS	A	B	A	A	A
HCM 95th-tile Q	0.5	1.4	0.1	1.3	0

Hope ITMP
3: 6 Ave & Corbett St/Kawkawa Lake Rd

15-year Conditions
2023-12-20

Intersection

Int Delay, s/veh 7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	3	122	28	25	95	70	2	191	52	57	197	3
Future Vol, veh/h	3	122	28	25	95	70	2	191	52	57	197	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	38	35	-	-	27	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	133	30	27	103	76	2	208	57	62	214	3





Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	670	609	216	662	582	237	217	0	0	265	0	0
Stage 1	340	340	-	241	241	-	-	-	-	-	-	-
Stage 2	330	269	-	421	341	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	371	410	824	375	425	802	1353	-	-	1299	-	-
Stage 1	675	639	-	762	706	-	-	-	-	-	-	-
Stage 2	683	687	-	610	639	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	260	390	824	257	404	802	1353	-	-	1299	-	-
Mov Cap-2 Maneuver	260	390	-	257	404	-	-	-	-	-	-	-
Stage 1	674	608	-	761	705	-	-	-	-	-	-	-
Stage 2	527	686	-	437	608	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.7	16.6	0.1	1.8
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1353	-	-	427	361	802	1299	-	-
HCM Lane V/C Ratio	0.002	-	-	0.389	0.361	0.095	0.048	-	-
HCM Control Delay (s)	7.7	-	-	18.7	20.5	10	7.9	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.8	1.6	0.3	0.1	-	-

Hope ITMP
4: 5th Ave & Corbett St

15-year Conditions
2023-12-20

Intersection												
Int Delay, s/veh	7.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	116	5	10	105	1	5	12	42	2	36	5
Future Vol, veh/h	5	116	5	10	105	1	5	12	42	2	36	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	126	5	11	114	1	5	13	46	2	39	5
Major/Minor	Minor2		Minor1		Major1				Major2			
Conflicting Flow All	150	115	42	157	94	36	44	0	0	59	0	0
Stage 1	46	46	-	46	46	-	-	-	-	-	-	-
Stage 2	104	69	-	111	48	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	818	775	1029	809	796	1037	1564	-	-	1545	-	-
Stage 1	968	857	-	968	857	-	-	-	-	-	-	-
Stage 2	902	837	-	894	855	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	725	772	1029	701	793	1037	1564	-	-	1545	-	-
Mov Cap-2 Maneuver	725	772	-	701	793	-	-	-	-	-	-	-
Stage 1	965	856	-	965	854	-	-	-	-	-	-	-
Stage 2	778	834	-	758	854	-	-	-	-	-	-	-
Approach	EB		WB		NB				SB			
HCM Control Delay, s	10.6		10.5		0.6				0.3			
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1564	-	-	778	786	1545	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.176	0.16	0.001	-	-				
HCM Control Delay (s)	7.3	0	-	10.6	10.5	7.3	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.6	0.6	0	-	-				

Hope ITMP
5: 6 Ave & Wallace St

15-year Conditions
2023-12-20

Intersection	
Intersection Delay, s/veh	10
Intersection LOS	A













Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕			↕			↕	
Traffic Vol, veh/h	16	27	146	10	38	1	115	137	5	1	144	41
Future Vol, veh/h	16	27	146	10	38	1	115	137	5	1	144	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	29	159	11	41	1	125	149	5	1	157	45
Number of Lanes	0	1	1	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	2	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	2	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	2
HCM Control Delay	9.3	9.1	11	9.7
HCM LOS	A	A	B	A

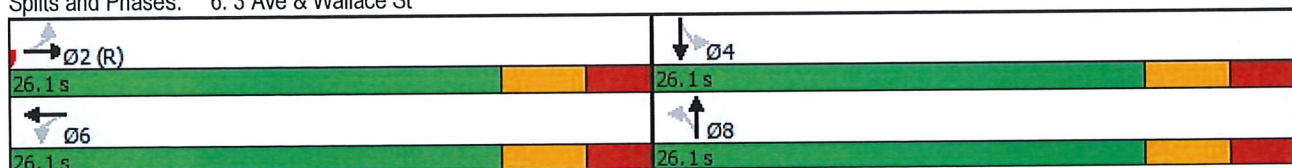
Lane	NBLn1	EBLn1	EBLn2	WBLn1	SBLn1
Vol Left, %	45%	37%	0%	20%	1%
Vol Thru, %	53%	63%	0%	78%	77%
Vol Right, %	2%	0%	100%	2%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	257	43	146	49	186
LT Vol	115	16	0	10	1
Through Vol	137	27	0	38	144
RT Vol	5	0	146	1	41
Lane Flow Rate	279	47	159	53	202
Geometry Grp	2	5	5	4a	2
Degree of Util (X)	0.381	0.077	0.222	0.083	0.27
Departure Headway (Hd)	4.907	5.935	5.039	5.619	4.804
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	726	599	705	641	740
Service Time	2.98	3.72	2.823	3.619	2.882
HCM Lane V/C Ratio	0.384	0.078	0.226	0.083	0.273
HCM Control Delay	11	9.2	9.3	9.1	9.7
HCM Lane LOS	B	A	A	A	A
HCM 95th-tile Q	1.8	0.2	0.8	0.3	1.1

Hope ITMP
6: 3 Ave & Wallace St

15-year Conditions
2023-12-20

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	2	183	10	221	2	99	2	88
Future Volume (vph)	2	183	10	221	2	99	2	88
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		2		6		8		4
Permitted Phases	2		6		8		4	
Detector Phase	2	2	6	6	8	8	4	4
Switch Phase								
Minimum Initial (s)	20.0	20.0	20.0	20.0	15.0	15.0	15.0	15.0
Minimum Split (s)	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (s)	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1
Total Split (%)	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%	50.0%
Yellow Time (s)	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
All-Red Time (s)	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		6.1		6.1		6.1		6.1
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)		20.0		20.0		20.0		20.0
Actuated g/C Ratio		0.38		0.38		0.38		0.38
v/c Ratio		0.28		0.36		0.24		0.14
Control Delay		12.4		13.3		8.3		10.9
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		12.4		13.3		8.3		10.9
LOS		B		B		A		B
Approach Delay		12.4		13.3		8.3		10.9
Approach LOS		B		B		A		B
Intersection Summary								
Cycle Length: 52.2								
Actuated Cycle Length: 52.2								
Offset: 26.1 (50%), Referenced to phase 2:EBTL, Start of Green								
Natural Cycle: 55								
Control Type: Pretimed								
Maximum v/c Ratio: 0.36								
Intersection Signal Delay: 11.5					Intersection LOS: B			
Intersection Capacity Utilization 40.6%					ICU Level of Service A			
Analysis Period (min) 15								

Splits and Phases: 6: 3 Ave & Wallace St



Hope ITMP
7: 6 Ave & Coquihalla St

15-year Conditions
2023-12-20

Intersection

Intersection Delay, s/veh 8

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Traffic Vol, veh/h	5	30	22	1	35	2	4	114	1	5	101	13
Future Vol, veh/h	5	30	22	1	35	2	4	114	1	5	101	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	33	24	1	38	2	4	124	1	5	110	14
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Approach	EB			WB			NB			SB		
Opposing Approach	WB			EB			SB			NB		
Opposing Lanes	1			1			1			1		
Conflicting Approach Left	SB			NB			EB			WB		
Conflicting Lanes Left	1			1			1			1		
Conflicting Approach Right	NB			SB			WB			EB		
Conflicting Lanes Right	1			1			1			1		
HCM Control Delay	7.7			7.8			8.1			8		
HCM LOS	A			A			A			A		

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	3%	9%	3%	4%
Vol Thru, %	96%	53%	92%	85%
Vol Right, %	1%	39%	5%	11%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	119	57	38	119
LT Vol	4	5	1	5
Through Vol	114	30	35	101
RT Vol	1	22	2	13
Lane Flow Rate	129	62	41	129
Geometry Grp	1	1	1	1
Degree of Util (X)	0.155	0.075	0.052	0.153
Departure Headway (Hd)	4.315	4.341	4.551	4.258
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	836	827	789	847
Service Time	2.318	2.358	2.569	2.261
HCM Lane V/C Ratio	0.154	0.075	0.052	0.152
HCM Control Delay	8.1	7.7	7.8	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.2	0.2	0.5

Hope ITMP
8: 3 Ave & Coquihalla St

15-year Conditions
2023-12-20

Intersection

Int Delay, s/veh 5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	59	2	7	42	6	5	50	9	5	30	1
Future Vol, veh/h	5	59	2	7	42	6	5	50	9	5	30	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	64	2	8	46	7	5	54	10	5	33	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	53	0	0	66	0	0	158	144	65	173	142	50
Stage 1	-	-	-	-	-	-	75	75	-	66	66	-
Stage 2	-	-	-	-	-	-	83	69	-	107	76	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1553	-	-	1536	-	-	808	747	999	790	749	1018
Stage 1	-	-	-	-	-	-	934	833	-	945	840	-
Stage 2	-	-	-	-	-	-	925	837	-	898	832	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1553	-	-	1536	-	-	776	741	999	734	743	1018
Mov Cap-2 Maneuver	-	-	-	-	-	-	776	741	-	734	743	-
Stage 1	-	-	-	-	-	-	931	831	-	942	836	-
Stage 2	-	-	-	-	-	-	884	833	-	829	830	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.9	10.1	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	772	1553	-	-	1536	-	-	747
HCM Lane V/C Ratio	0.09	0.003	-	-	0.005	-	-	0.052
HCM Control Delay (s)	10.1	7.3	0	-	7.4	0	-	10.1
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2

Hope ITMP
9: 4th Ave & Hope St

15-year Conditions
2023-12-20

Intersection

Intersection Delay, s/veh

7

Intersection LOS

A

Movement

EBL

EBR

NBL

NBT

SBT

SBR

Lane Configurations

W

W

W

Traffic Vol, veh/h

5

5

2

27

8

5

Future Vol, veh/h

5

5

2

27

8

5

Peak Hour Factor

0.92

0.92

0.92

0.92

0.92

0.92

Heavy Vehicles, %

2

2

2

2

2

2

Mvmt Flow

5

5

2

29

9

5

Number of Lanes

1

0

0

1

1

0

Approach

EB

NB

SB

Opposing Approach

SB

NB

Opposing Lanes

0

1

1

Conflicting Approach Left

SB

EB

Conflicting Lanes Left

1

1

0

Conflicting Approach Right

NB

EB

Conflicting Lanes Right

1

0

1

HCM Control Delay

6.9

7.1

6.8

HCM LOS

A

A

A

Lane

NBLn1

EBLn1

SBLn1

Vol Left, %

7%

50%

0%

Vol Thru, %

93%

0%

62%

Vol Right, %

0%

50%

38%

Sign Control

Stop

Stop

Stop

Traffic Vol by Lane

29

10

13

LT Vol

2

5

0

Through Vol

27

0

8

RT Vol

0

5

5

Lane Flow Rate

32

11

14

Geometry Grp

1

1

1

Degree of Util (X)

0.035

0.012

0.015

Departure Headway (Hd)

3.978

3.814

3.746

Convergence, Y/N

Yes

Yes

Yes

Cap

904

940

959

Service Time

1.984

1.831

1.756

HCM Lane V/C Ratio

0.035

0.012

0.015

HCM Control Delay

7.1

6.9

6.8

HCM Lane LOS

A

A

A

HCM 95th-tile Q







0.1

0

0

Hope ITMP
10: Flood Hope Rd/Water Ave & Exit 170

15-year Conditions
2023-12-20




			
Lane Group	EBL	NBT	SBT
Lane Configurations			
Traffic Volume (vph)	250	294	216
Future Volume (vph)	250	294	216
Turn Type	Prot	NA	NA
Protected Phases	4	6	2
Permitted Phases			
Detector Phase	4	6	2
Switch Phase			
Minimum Initial (s)	7.0	10.0	10.0
Minimum Split (s)	21.7	20.3	20.3
Total Split (s)	25.0	30.0	30.0
Total Split (%)	45.5%	54.5%	54.5%
Yellow Time (s)	4.5	4.3	4.3
All-Red Time (s)	1.2	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.7	5.3	5.3
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	Min	Min
Act Effect Green (s)	9.4	11.7	11.7
Actuated g/C Ratio	0.29	0.36	0.36
v/c Ratio	0.42	0.47	0.34
Control Delay	6.8	10.9	9.5
Queue Delay	0.0	0.0	0.0
Total Delay	6.8	10.9	9.5
LOS	A	B	A
Approach Delay	6.8	10.9	9.5
Approach LOS	A	B	A

Intersection Summary

Cycle Length: 55
 Actuated Cycle Length: 32.3
 Natural Cycle: 45
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 8.7
 Intersection Capacity Utilization 37.4%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 10: Flood Hope Rd/Water Ave & Exit 170

 Ø2	 Ø4
30 s	25 s
 Ø6	
30 s	

Queuing and Blocking Report
Baseline

12/20/2023

Intersection: 1: Othello Rd & Kawkawa Lake Rd

Movement	NB
Directions Served	LR
Maximum Queue (m)	9.1
Average Queue (m)	1.3
95th Queue (m)	6.4
Link Distance (m)	133.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: 7th Ave & Kawkawa Lake Rd

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (m)	18.7	8.8	23.8	16.7	6.8
Average Queue (m)	5.7	3.2	12.8	5.0	2.0
95th Queue (m)	11.7	9.1	20.3	11.7	7.0
Link Distance (m)	207.5		199.6	139.0	119.5
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		41.4			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: 6 Ave & Corbett St/Kawkawa Lake Rd

Movement	EB	WB	WB	NB	NB	SB
Directions Served	LTR	LT	R	L	TR	L
Maximum Queue (m)	22.3	21.6	15.6	3.5	6.5	8.6
Average Queue (m)	11.7	11.4	8.7	0.1	0.4	2.6
95th Queue (m)	18.2	18.0	13.8	1.8	3.4	8.3
Link Distance (m)	234.3	207.5			105.0	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)			38.0	35.0		27.0
Storage Blk Time (%)						
Queuing Penalty (veh)						

Queuing and Blocking Report
Baseline

12/20/2023

Intersection: 4: 5th Ave & Corbett St

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	17.3	18.2	1.8
Average Queue (m)	9.0	10.0	0.1
95th Queue (m)	14.3	14.8	1.3
Link Distance (m)	117.3	234.3	90.7
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: 6 Ave & Wallace St

Movement	EB	EB	WB	NB	SB
Directions Served	LT	R	LTR	LTR	LTR
Maximum Queue (m)	14.1	19.5	13.3	24.7	20.5
Average Queue (m)	7.0	10.8	7.4	11.7	12.8
95th Queue (m)	13.8	16.2	14.5	20.1	18.9
Link Distance (m)	234.6		216.5	148.3	188.0
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		22.0			
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	0	0			

Intersection: 6: 3 Ave & Wallace St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	32.6	43.4	36.0	25.6
Average Queue (m)	17.1	20.5	13.6	10.5
95th Queue (m)	28.3	35.9	26.2	22.0
Link Distance (m)	99.2	183.3	93.9	95.8
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report Baseline

12/20/2023

Intersection: 7: 6 Ave & Coquihalla St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	13.5	19.4	19.3	18.4
Average Queue (m)	7.6	6.9	10.1	9.9
95th Queue (m)	13.9	15.3	15.6	15.3
Link Distance (m)	89.1	157.2	105.6	109.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: 3 Ave & Coquihalla St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	3.4	3.6	18.4	17.1
Average Queue (m)	0.1	0.2	8.4	6.3
95th Queue (m)	1.7	2.2	15.4	14.6
Link Distance (m)	97.5	93.4	95.8	118.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 9: 4th Ave & Hope St

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	5.7	12.1	9.3
Average Queue (m)	1.7	5.7	2.8
95th Queue (m)	5.7	13.3	9.6
Link Distance (m)	149.5	122.9	178.8
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Queuing and Blocking Report
Baseline

12/20/2023

Intersection: 10: Flood Hope Rd/Water Ave & Exit 170

Movement	EB	EB	NB	SB
Directions Served	L	LR	T	T
Maximum Queue (m)	25.9	19.1	39.6	30.2
Average Queue (m)	13.0	6.9	18.7	14.3
95th Queue (m)	21.9	16.5	32.4	25.7
Link Distance (m)	311.8	311.8	238.2	255.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

Hope ITMP
3: 6 Ave & Corbett St/Kawkawa Lake Rd








15-year Improved Conditions

2024-01-12

Intersection

Intersection Delay, s/veh 12.1

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	122	28	25	95	70	2	191	52	57	197	3
Future Vol, veh/h	3	122	28	25	95	70	2	191	52	57	197	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	133	30	27	103	76	2	208	57	62	214	3
Number of Lanes	0	1	0	0	1	1	1	1	0	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	1
HCM Control Delay	12.2	10.6	13.4	11.9
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	100%	0%	2%	21%	0%	100%	0%
Vol Thru, %	0%	79%	80%	79%	0%	0%	98%
Vol Right, %	0%	21%	18%	0%	100%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	243	153	120	70	57	200
LT Vol	2	0	3	25	0	57	0
Through Vol	0	191	122	95	0	0	197
RT Vol	0	52	28	0	70	0	3
Lane Flow Rate	2	264	166	130	76	62	217
Geometry Grp	5	5	4b	5	5	5	5
Degree of Util (X)	0.004	0.439	0.296	0.237	0.121	0.114	0.368
Departure Headway (Hd)	6.639	5.979	6.41	6.537	5.721	6.611	6.093
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	538	600	559	548	624	541	589
Service Time	4.391	3.731	4.473	4.297	3.48	4.365	3.846
HCM Lane V/C Ratio	0.004	0.44	0.297	0.237	0.122	0.115	0.368
HCM Control Delay	9.4	13.4	12.2	11.3	9.3	10.2	12.4
HCM Lane LOS	A	B	B	B	A	B	B
HCM 95th-tile Q	0	2.2	1.2	0.9	0.4	0.4	1.7

Queuing and Blocking Report
Baseline

01/12/2024

Intersection: 3: 6 Ave & Corbett St/Kawkawa Lake Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	TR	L	TR
Maximum Queue (m)	19.0	19.2	16.0	5.3	28.8	12.3	19.0
Average Queue (m)	10.2	10.1	8.7	0.4	15.6	6.1	10.1
95th Queue (m)	15.1	15.2	13.7	3.3	23.4	11.3	17.0
Link Distance (m)	234.3	207.5			105.0		87.2
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)			38.0	35.0		27.0	
Storage Blk Time (%)					0		
Queuing Penalty (veh)					0		

MOVEMENT SUMMARY

 **Site: [15-Year Conditions]**

6 Avenue / Corbett Street / Kawkawa Lake Road
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed km/h
South: 6 Ave												
3	L2	2	2.0	0.242	5.5	LOS A	1.2	9.2	0.40	0.27	0.40	48.8
8	T1	208	2.0	0.242	5.5	LOS A	1.2	9.2	0.40	0.27	0.40	34.0
18	R2	57	2.0	0.242	5.5	LOS A	1.2	9.2	0.40	0.27	0.40	45.5
Approach		266	2.0	0.242	5.5	LOS A	1.2	9.2	0.40	0.27	0.40	36.7
East: Kawkawa Lake Rd												
1	L2	27	2.0	0.191	5.1	LOS A	0.9	6.9	0.39	0.27	0.39	48.0
6	T1	103	2.0	0.191	5.1	LOS A	0.9	6.9	0.39	0.27	0.39	48.0
16	R2	76	2.0	0.191	5.1	LOS A	0.9	6.9	0.39	0.27	0.39	36.3
Approach		207	2.0	0.191	5.1	LOS A	0.9	6.9	0.39	0.27	0.39	44.0
North: 6 Ave												
7	L2	62	2.0	0.237	5.2	LOS A	1.2	9.3	0.33	0.19	0.33	44.1
4	T1	214	2.0	0.237	5.2	LOS A	1.2	9.3	0.33	0.19	0.33	44.1
14	R2	3	2.0	0.237	5.2	LOS A	1.2	9.3	0.33	0.19	0.33	41.5
Approach		279	2.0	0.237	5.2	LOS A	1.2	9.3	0.33	0.19	0.33	44.0
West: Corbett Street												
5	L2	3	2.0	0.169	5.2	LOS A	0.8	5.8	0.46	0.35	0.46	34.3
2	T1	133	2.0	0.169	5.2	LOS A	0.8	5.8	0.46	0.35	0.46	48.8
12	R2	30	2.0	0.169	5.2	LOS A	0.8	5.8	0.46	0.35	0.46	46.3
Approach		166	2.0	0.169	5.2	LOS A	0.8	5.8	0.46	0.35	0.46	48.0
All Vehicles		918	2.0	0.242	5.3	LOS A	1.2	9.3	0.39	0.26	0.39	42.5

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

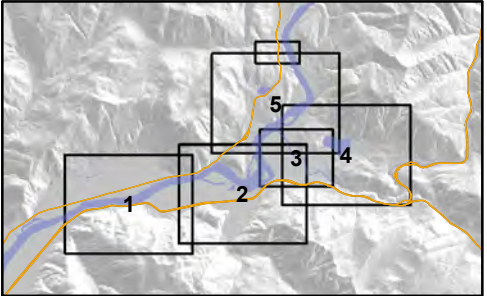
Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Appendix E: Land Use Maps (From IOCP)

District of Hope Future Land Use

Map 1



- Streams
- Lakes/Rivers
- District of Hope
- Parcel Boundaries
- First Nation Reserves
- ALR
- Limited Use
- Country Residential
- Urban/Suburban Residential
- Downtown Hope
- Highway Commercial
- Light Service Industry
- Heavy Industry
- Parks, Recreation and Open Space
- Rural/Agricultural
- Airport
- F** Firehall **P** Police
- H** Hospital **R** Rec Centre
- L** Library **S** School

Prepared by Modus Planning, Design & Engagement Inc.

Hillshade imagery and Freshwater Atlas information is from openmaps.gov.bc.ca and geobc.gov.bc.ca/base-mapping/atlas/fwa/

Additional fish stream information is from the Community Mapping Network and Fraser Valley Regional District (2012): cmnbc.ca/atlas_gallery/fraser-valley-regional-district-habitat

Agricultural Land Reserve data is from the Province of BC. The District of Hope recognizes that First Nation Reserve land is not subject to the Agricultural Land Reserve.

Disclaimer: The data provided has been compiled from various sources and may not be complete or accurate. The District of Hope is not responsible for any errors, omissions, or deficiencies in the data.

DISTRICT OF
HOPE

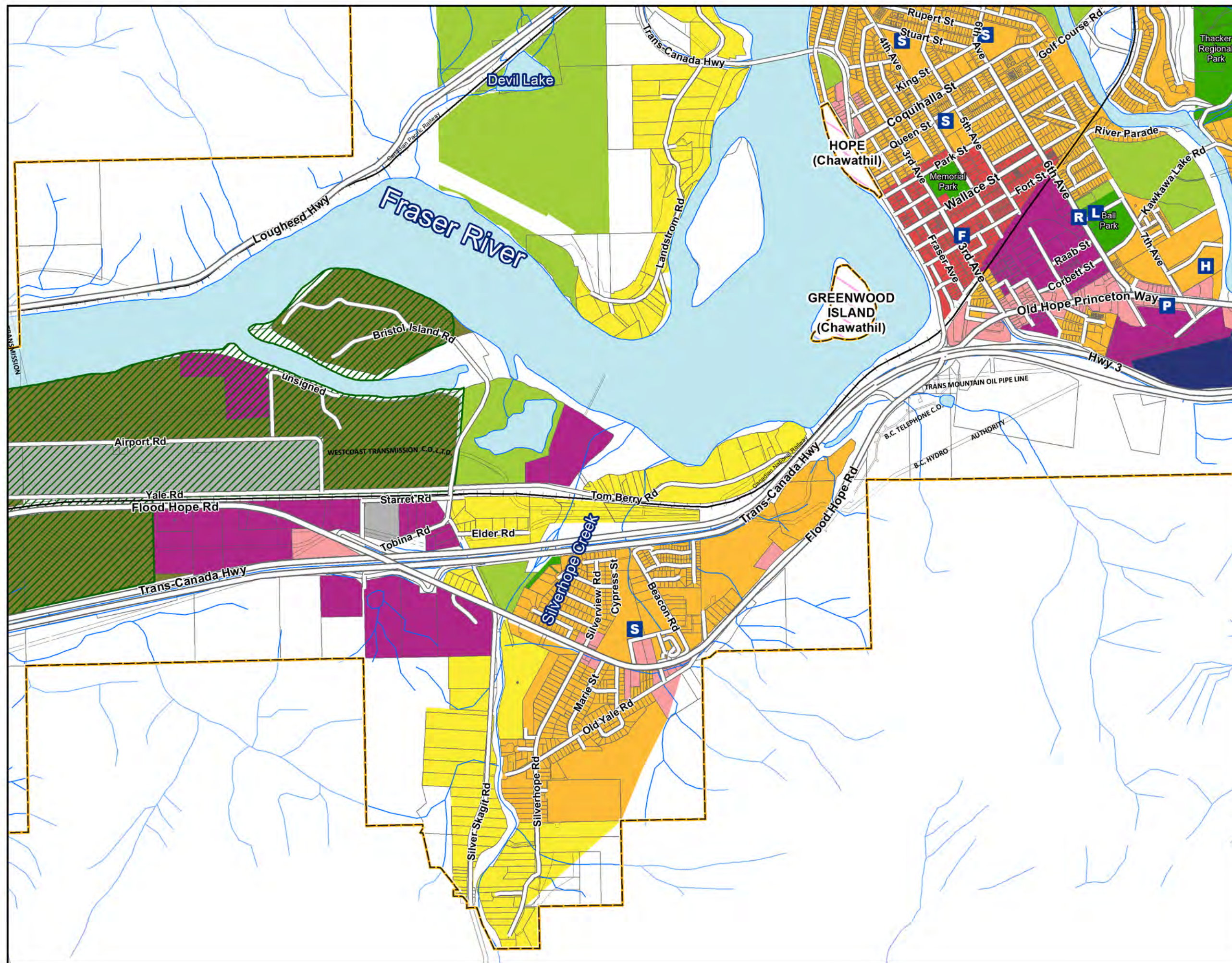
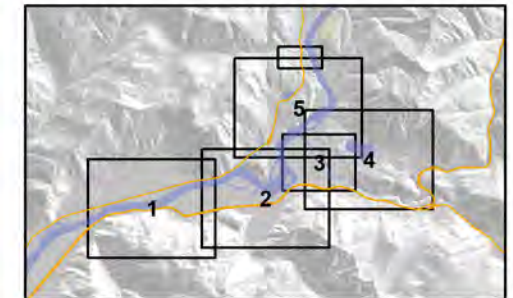


0 125 250 500 Meters
Scale = 1:17,500

NAD83 UTM 10

District of Hope Future Land Use

Map 2



- Streams
- Lakes/Rivers
- District of Hope
- Parcel Boundaries
- First Nation Reserves
- ALR
- Limited Use
- Country Residential
- Urban/Suburban Residential
- Downtown Hope
- Highway Commercial
- Light Service Industry
- Heavy Industry
- Parks, Recreation and Open Space
- Rural/Agricultural
- Airport
- Firehall
- Police
- Hospital
- Rec Centre
- Library
- School


Prepared by Modus Planning, Design & Engagement Inc.

Hillshade imagery and Freshwater Atlas information is from openmaps.gov.bc.ca and geobc.gov.bc.ca/base-mapping/atlas/fwa/


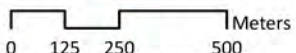
Additional fish stream information is from the Community Mapping Network and Fraser Valley Regional District (2012): cmnbc.ca/atlas_gallery/fraser-valley-regional-district-habitat

Agricultural Land Reserve data is from the Province of BC. The District of Hope recognizes that First Nation Reserve land is not subject to the Agricultural Land Reserve.

Disclaimer: The data provided has been compiled from various sources and may not be complete or accurate. The District of Hope is not responsible for any errors, omissions, or deficiencies in the data.

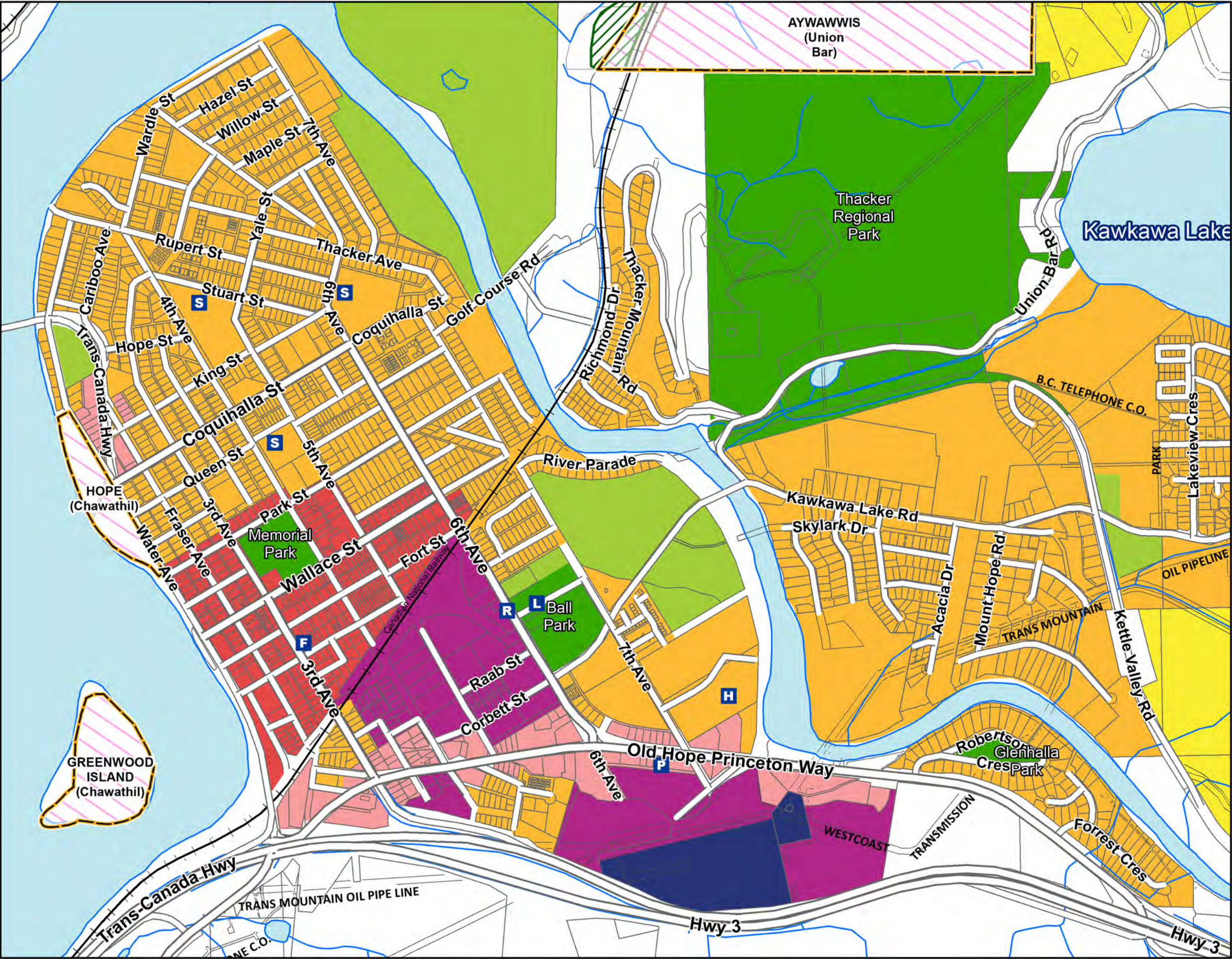


DISTRICT OF HOPE

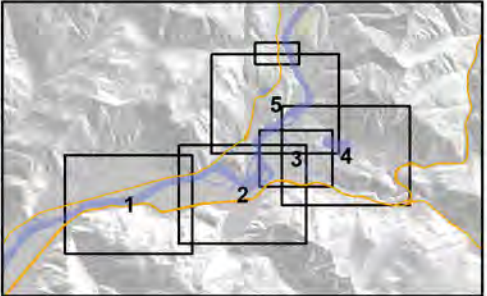
Scale = 1:17,500

NAD83 UTM 10



District of Hope Future Land Use

Map 3



- Streams
- Lakes/Rivers
- District of Hope
- Parcel Boundaries
- First Nation Reserves
- ALR
- Limited Use
- Country Residential
- General Urban
- Downtown Hope
- Highway Commercial
- Light Service Industry
- Heavy Industry
- Parks, Recreation and Open Space
- Rural/Agricultural
- Airport
- F Firehall
- H Hospital
- L Library
- P Police
- R Rec Centre
- S School

Prepared by Modus Planning, Design & Engagement Inc.

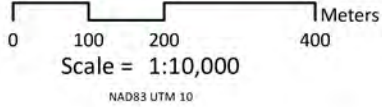
Hillshade imagery and Freshwater Atlas information is from openmaps.gov.bc.ca and geobc.gov.bc.ca/base-mapping/atlas/fwa/

Additional fish stream information is from the Community Mapping Network and Fraser Valley Regional District (2012): cmnbc.ca/atlas_gallery/fraser-valley-regional-district-habitat

Agricultural Land Reserve data is from the Province of BC. The District of Hope recognizes that First Nation Reserve land is not subject to the Agricultural Land Reserve.

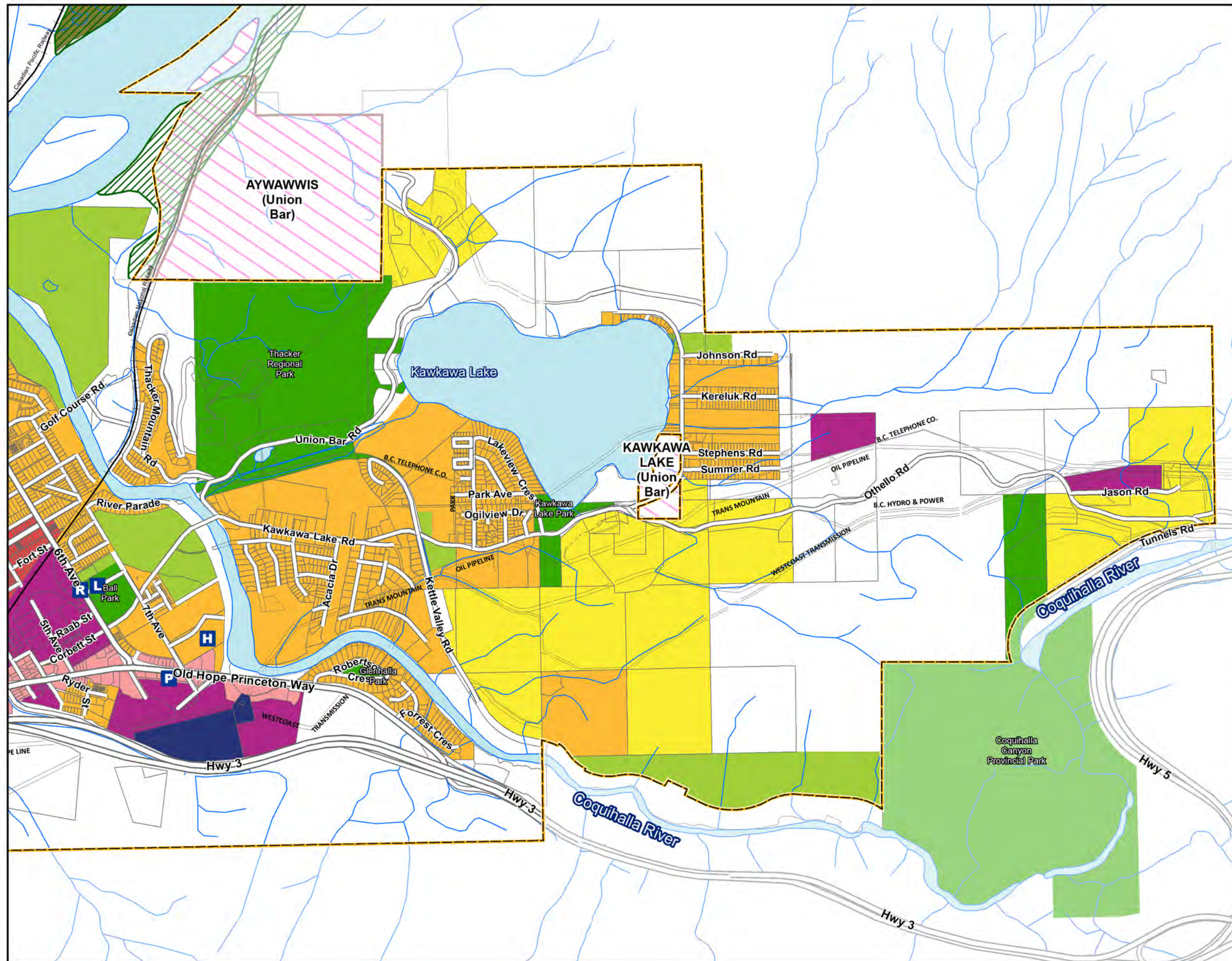
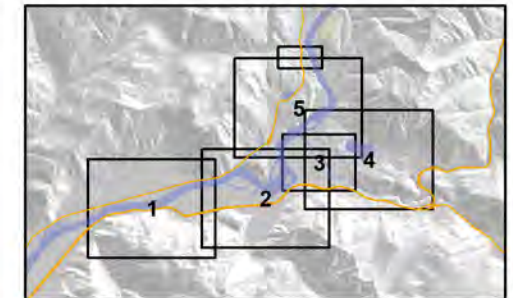
Disclaimer: The data provided has been compiled from various sources and may not be complete or accurate. The District of Hope is not responsible for any errors, omissions, or deficiencies in the data.

DISTRICT OF
HOPE



District of Hope Future Land Use

Map 4



- Streams
- Lakes/Rivers
- District of Hope
- Parcel Boundaries
- First Nation Reserves
- ALR
- Limited Use
- Country Residential
- Urban/Suburban Residential
- Downtown Hope
- Highway Commercial
- Light Service Industry
- Heavy Industry
- Parks, Recreation and Open Space
- Rural/Agricultural
- Airport
- F Firehall
- P Police
- H Hospital
- R Rec Centre
- L Library
- S School

Prepared by Modus Planning, Design & Engagement Inc.

Hillshade imagery and Freshwater Atlas information is from openmaps.gov.bc.ca and geobc.gov.bc.ca/base-mapping/atlas/fwa/

Additional fish stream information is from the Community Mapping Network and Fraser Valley Regional District (2012): cmnbc.ca/atlas_gallery/fraser-valley-regional-district-habitat

Agricultural Land Reserve data is from the Province of BC. The District of Hope recognizes that First Nation Reserve land is not subject to the Agricultural Land Reserve.

Disclaimer: The data provided has been compiled from various sources and may not be complete or accurate. The District of Hope is not responsible for any errors, omissions, or deficiencies in the data.

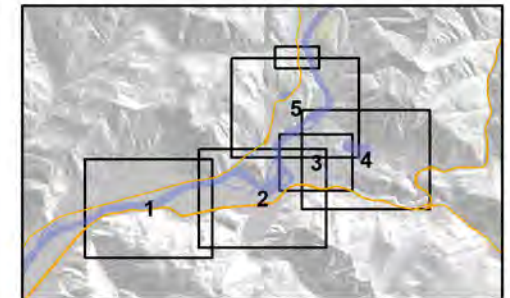
DISTRICT OF HOPE

Scale = 1:17,500

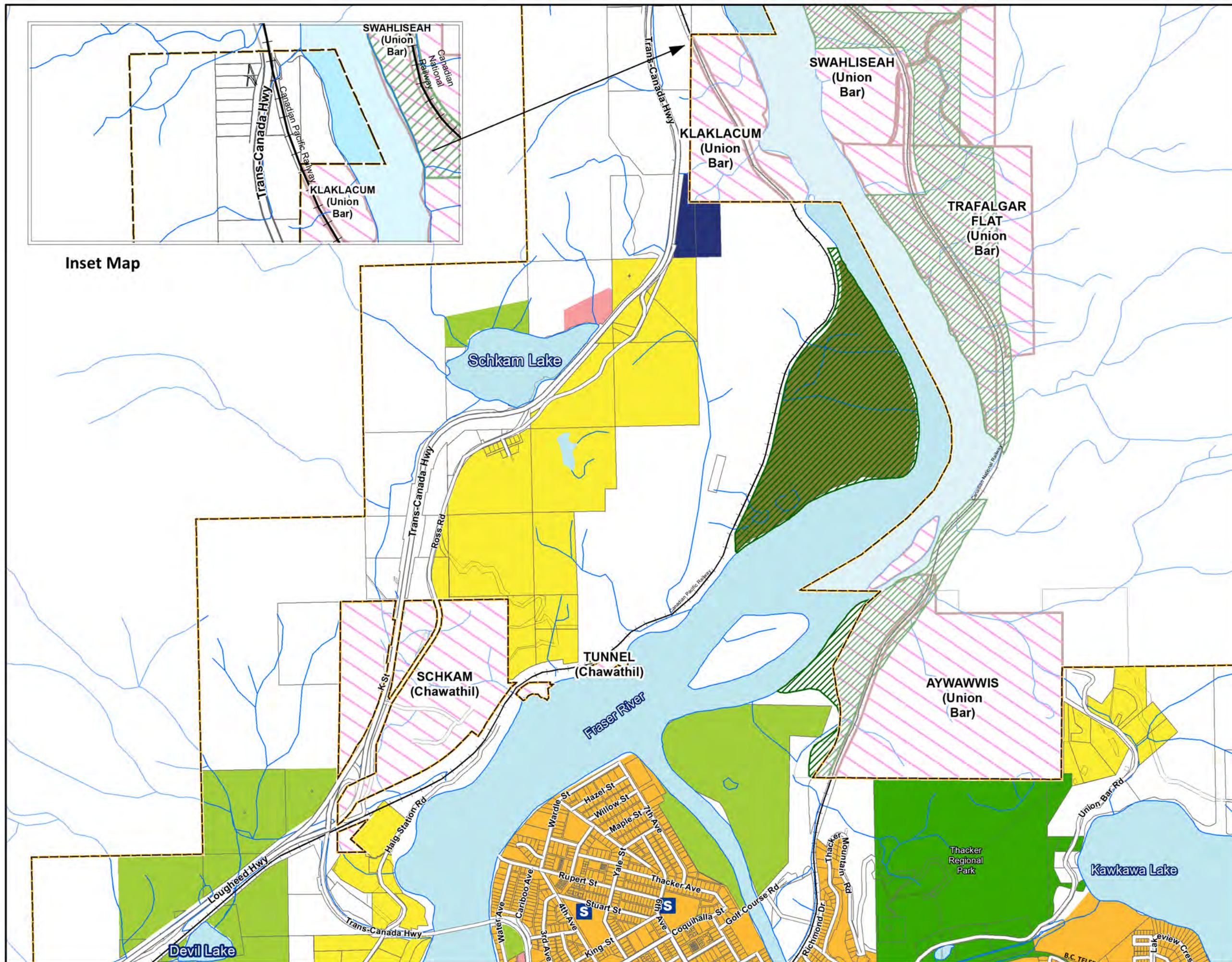
NAD83 UTM 10

District of Hope Future Land Use

Map 5



Inset Map



- Streams
- Lakes/Rivers
- District of Hope
- Parcel Boundaries
- First Nation Reserves
- ALR
- Limited Use
- Country Residential
- General Urban
- Downtown Hope
- Highway Commercial
- Light Service Industry
- Heavy Industry
- Parks, Recreation and Open Space
- Rural/Agricultural
- Airport
- F** Firehall **P** Police
- H** Hospital **R** Rec Centre
- L** Library **S** School

Prepared by Modus Planning, Design & Engagement Inc.

Hillshade imagery and Freshwater Atlas information is from openmaps.gov.bc.ca and geobc.gov.bc.ca/base-mapping/atlas/fwa/

Additional fish stream information is from the Community Mapping Network and Fraser Valley Regional District (2012): cmmbc.ca/atlas_gallery/fraser-valley-regional-district-habitat

Agricultural Land Reserve data is from the Province of BC. The District of Hope recognizes that First Nation Reserve land is not subject to the Agricultural Land Reserve.

Disclaimer: The data provided has been compiled from various sources and may not be complete or accurate. The District of Hope is not responsible for any errors, omissions, or deficiencies in the data.

DISTRICT OF
HOPE

