DISTRICT OF COLDSTREAM'S
ACTIVE TRANSPORTATION NETWORK PLAN

FINAL REPORT

May 2025

District of
Coldstream

District of Coldstream

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1.0 Introduction

The District of Coldstream (Coldstream) is a beautiful lakeside community that is home to 11,171 residents and covers 6,657 hectares of land. Coldstream is situated in the Coldstream Valley in the Northern Okanagan Regional District, located within the Syilx (Okanagan) people's traditional territory. Coldstream was a successful applicant of the BC Active Transportation Network Planning Grant Program which is partially funding the development of this Active Transportation Network Plan (ATNP).

Building on the previous Bicycle and Pedestrian Master Plan that was developed in 2007, and the policies developed in the Official Community Plan (OCP), Coldstream is looking to improve active transportation (AT) connectivity in the community, provide safer facilities, and develop policy to support AT. The development of this ATNP, with input from the public and community partner organizations, will help connect gaps in the network and improve access to popular community destinations for people walking, biking, and rolling. It will provide Coldstream with guidance to make it safer, easier, and more enjoyable to walk, bicycle, and use other forms of AT to move around the community.

The purpose of this ATNP is to help connect gaps in the walking, biking and rolling networks in the community and to improve the experience for people using these facilities whether it be safety, convenience or accessibility.

What is Active Transportation?

Active transportation includes any form of human-powered transportation, such as walking, biking, or rolling using a skateboard, in-line skates, scooter, mobility aids such as a wheelchair, and other modes. It may also include winter-based active modes (e.g., cross-country skiing and snowshoeing), water-based active modes (e.g., canoe, kayak, and stand-up paddle boarding), and even horseback riding. There are also several new and emerging transportation modes that can fit in this category and may use the same trails and pathways, such as e-scooters, electric skateboards, and other small, one-person electric vehicles.

What is All Ages and Abilities?

Coldstream's ATNP focuses on creating a comfortable and safe environment for people of all ages and abilities (AAA) to walk, bicycle, and roll within the District. This means that this ATNP will strive to create an equitable, inclusive, and age-friendly environment that empowers people from a diverse background and comfort level to enjoy Coldstream's AT facilities.

1.1 Study Purpose and Objectives

The existing Bicycle and Pedestrian Master Plan (discussed further below in **Section 1.2**) was developed in 2007. Since then, standards for AT have improved and the wants and needs within the community have evolved.

The ATNP provides Coldstream with a renewed long-term vision, goals, and future direction for AT in the community. Using current best practices and design guidance for AT facilities and community engagement, the plan identifies infrastructure projects, policy and initiatives to encourage and support AT.

This plan builds upon and improves the current bicycle and pedestrian network of sidewalks, biking facilities, and trails. The ATNP provides guidance for the long-term network in addition to high-level cost estimates for high-priority projects that will inform future capital planning and aid in securing grants for future AT infrastructure projects.

The key objectives of the ATNP are to:

- Create a connected active transportation network across Coldstream;
- Improve the safety of the active transportation facilities using current design guidance and best practices;
- Encourage more people to walk, bike, and roll (travel by scooter, wheelchair, mobility aid, etc.);
- Incorporate input from community partners to build support for the ATNP;
- Identify policy recommendations to encourage active transportation facilities in Coldstream; and,
- Help guide and prioritize investments and decision making to encourage more accessible and comfortable active transportation facilities for all residents.

Why is Active Transportation Important?

Promoting and supporting more opportunities for AT can play an important role in enhancing a community's health, environment, and economy. Some of the benefits of AT are described below:

Health – Investing in active transportation facilities has been shown to create more physically active communities. Living an active lifestyle can lead to improved well-being, overall general health, and reduce your risk of several chronic diseases. Providing active transportation facilities makes living an active and healthy lifestyle more accessible and affordable, too.

Safety – Active transportation facilities that have been designed adequately provide dedicated spaces for active transportation uses which increases their visibility for other road users, reduces the risk of collisions, and creates a more comfortable experience. Certain active transportation facilities can have a traffic calming effect which slow vehicles down and increase driver awareness.

Environmental – Increasing the comfortability and attractiveness of active transportation facilities can encourage more people to shift from travelling by car to walking or biking. Shifting the modal split towards active modes reduces greenhouse gas emissions which helps efforts to fight climate change.

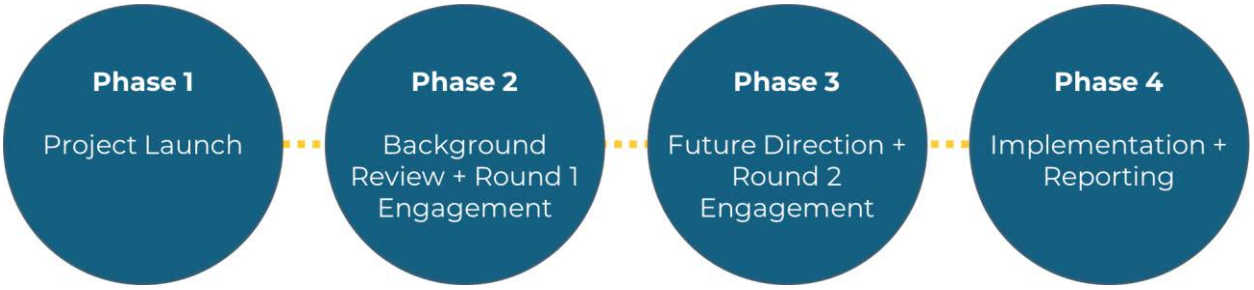
Societal – Active transportation encourages social interaction in the community and creates opportunities for face-to-face interactions. These interactions can lead to connections in the community that are especially important for the youth, elderly people, and people with disabilities that may not have access to their own private vehicle.

Economic – Active transportation facilities that are accessible and comfortable for people can attract more people to the area who may be patrons of local services and amenities and choose to return in the future after a positive experience. Investing in active transportation can also promote tourism and economic development in Coldstream.

Network Efficiency – The transportation network as a whole becomes more efficient and resilient to future growth when more people chose to use active modes of transportation. Active modes also take up less physical space and put less wear and tear on the infrastructure.

Study Process

This ATNP was developed over a one-year period and includes four phases, as described below.



Phase 1 Project Launch (April 2024) – Phase 1 involved a project kick-off meeting with District staff and the consulting team, conducting a community site visit to gain an understanding of the existing conditions, and collecting and reviewing background information and data. A community engagement plan was also developed in this stage.

Phase 2 Background Review + Round 1 Engagement (May 2024 - September 2024) – Phase 2 focused on reviewing and understanding the existing infrastructure and policy for AT in Coldstream including existing planning and policy documents, provincial policy and best practices, and AT infrastructure.

Phase 3 Future Direction + Round 2 Engagement (October 2024 – February 2025) – Phase 3 explored potential future directions of AT in Coldstream. This included confirming the network planning principles, drafting a proposed AT network plan, and identifying policy and program options that support AT. An implementation plan including identifying project cost estimates and funding strategies were also developed. The second round of community and partner organization engagement took place to gather input on the draft recommendations of the plan.

Phase 4 Implementation + Reporting (March 2025 - April 2025) – Phase 4 focused on refining and prioritizing the draft content presented in Phase 3. This phase included the documentation of the final plan and a presentation to District Council for approval.

1.2 Policy & Planning Review

Coldstream's ATNP is closely related to and will interact with several other plans and policies at the local and provincial level. These documents establish objectives, visions, and a framework for community land uses, infrastructure, and other long-term community planning considerations. These documents have helped inform the recommendations in the ATNP. Key documents that were referenced include:

Official Community Plan: The District of Coldstream OCP Bylaw No. 1673 is currently in the process of being updated. An OCP is a policy tool that identifies the guiding principles that help model the main objectives of the community and guide future policies and strategies for land use planning in the District. The goal, objectives, and policies related to AT include expanding the pedestrian and bicycle network, connecting the Coldstream Town Centre to the rest of the community with bicycle routes, supporting transit to aid in the community-wide greenhouse gas emissions reduction target, and providing safe infrastructure.

Coldstream Bicycle & Pedestrian Master Plan (Urban Systems, 2007): The District of Coldstream Bicycle and Pedestrian Master Plan was developed to provide a vision for the overall AT network. This plan aimed to create a safe, feasible, and convenient AT network. Key locations and issues identified in the plan that may have not been completely addressed are listed below:

- Improving safety for bicyclists and pedestrians to and from the beach and surrounding amenities.
- Providing connectivity to and from Middleton Mountain for bicyclists and pedestrians to parks and schools in Coldstream.
- Providing connectivity across Highway 6 for bicyclists and pedestrians.
- Providing safe regional connectivity across Coldstream and to and from the Lavington Area.

Zoning Bylaw: The zoning bylaw is intended to regulate the land use and form, size, density, etc. of properties in a community. Zoning bylaws should reflect the goals and objectives described in their OCP and contain requirements that must be met before redevelopment of land can proceed. The following requirement applies to AT:

- The bylaw outlines that Residential Comprehensive Development Zone One lots may reduce lot minimum areas and frontage requirements may be reduced if the owner constructs walkways, trails, and viewpoints throughout the subdivision and open space area.

Subdivision and Development Servicing Bylaw No. 1826, 2023: The Subdivision and Development Servicing (SDS) Bylaws describe the requirements and provisions of work and services that are needed to obtain approval for the subdivision of land. The bylaw identifies design requirements for sidewalks, multi-use pathways, bike facilities, and typical road cross-sections.

Other Relevant Documents Reviewed

Other relevant plans that were investigated as part of the existing conditions review include:

- BC Active Transportation Design Guide, 2019 (BCAT Design Guide)
- BC Transit Future Action Plan, Vernon Regional Transit System 2021
- Move. Commute. Connect. - B.C.'s Active Transportation Strategy, 2019
- North Kalamalka Area Plan Data Analysis + What We Heard Report (Urban Systems, 2022)
- Coldstream Greenways Initiative (2017)

1.3 Community Consultation and Engagement

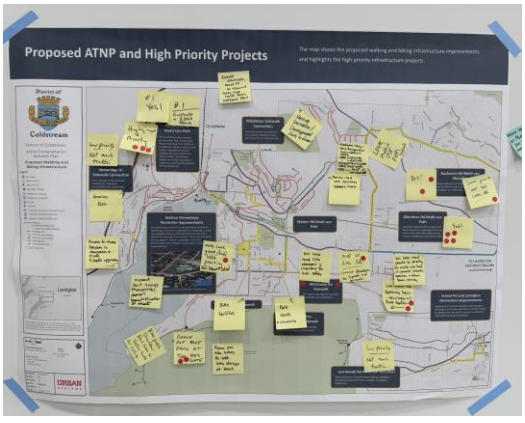
The District hosted various in-person and virtual engagement events to gather feedback on AT issues, opportunities, and priorities from the public, council, and a community partners committee. Community engagement occurred between June 2024 and February 2025. The purpose of community engagement was to inform the public about the ATNP and engagement process, consult with the community members on AT issues and opportunities, and obtain valuable feedback and input to develop the ATNP.

In total, there were nine community engagement events including:

- **Coldstream Council Members Engagement (June 10th, 2024):** Coldstream's Mayor and Council were engaged to understand their priorities and perspectives.
- **Online Community Survey (Open June 15th to September 9th, 2024):** A total of 119 respondents participated in the online community survey, where they were asked to provide feedback on AT issues, priorities, and opportunities in the District.
- **Online Interactive Map (Open June 15th to September 9th, 2024):** An online interactive map was available on an ArcGIS StoryMaps webpage for community members to take a virtual tour around Coldstream's existing AT network and pin comments on a map where there are opportunities to improve the AT network.
- **Two Pop-Up Events (August 18th and 31st, 2024):** Display boards were set up at the Official Community Plan Pop-Up Engagement Event where community members were asked to provide input on the existing AT network.
- **Family Fun Night (September 5th, 2024):** Display boards were set-up during the Family Fun Night at the Coldstream Community Hall for community members to learn more about the project and provide their input.
- **Virtual Community Partners Committee Meetings (September 10th 2024 and February 19th, 2025):** Several local community groups and organizations were invited to participate in a virtual workshop (via Microsoft Teams) to provide input on what they feel Coldstream is doing well with AT, where they see issues with the AT network, and considerations to inspire future AT projects in Coldstream. In the second meeting, members were presented with the draft plan to provide their organization's unique perspective and opinion.

- **Online Community Survey (Open February 13th to March 3rd, 2025):** A total of 19 respondents participated in the online community survey, where they were asked to provide feedback on the draft ATNP.
- **Open House (February 20th, 2025):** Display boards were set-up during the Open House at the Coldstream Community Hall for community members to provide commentary on the draft plan. Community feedback was incorporated into the final ATNP. Approximately 100 people attended this event.
- **Social Media:** The District's Facebook page was used to promote the project and encourage feedback opportunities during the engagement process.

Note: The District undertook engagement for the OCP alongside the ATNP engagement at some of the pop-up and in-person events. Only feedback relevant to the ATNP was included in this report and engagement summary report.



1.4 Key Engagement Feedback Themes

The first round of in person and online public engagement process for Coldstream's AT network planning revealed several key themes for the existing network including the following:

- People feel there are a lack of connections in Coldstream and would like to see more separated facilities.
- Residents feel a lack of safety with the existing infrastructure and would like to see traffic calming incorporated into local streets.
- People would like to see separated facilities around Kal Beach.
- People would like improvements around schools to be prioritized.
- Multi-use pathways, sidewalks, and bike lanes are the preferred facility types.
- Some people expressed a desire for more frequent transit services.

Similarly, the second round of in person and online public engagement revealed key themes regarding the draft ATNP:

- The draft vision and goals are generally well received and supported by community members.
- People generally support the project list and prioritization.
- The Kalamalka Road MUP consistently emerged as a high priority project.
- People would like to see more bicycle parking at community destinations such as parks, beaches, schools, etc.
- Some people expressed a concern that facilities winter maintenance would fall on adjacent landowners.

All feedback and results from both rounds of community engagement are provided in the *What We Heard Engagement Summary Report I & II* in **Appendix A**.

2.0 Existing Conditions Summary

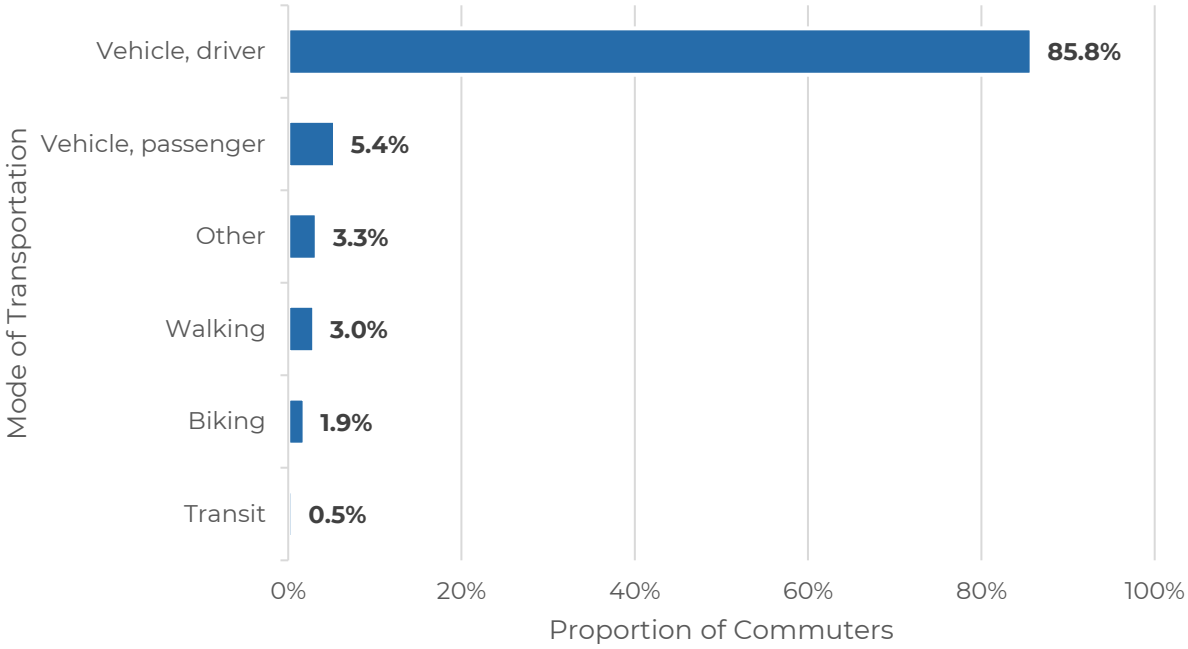
The following section summarizes the findings of the existing conditions review of AT within Coldstream and identifies the gaps and opportunities in the AT network. The complete existing conditions review is provided in a separate report in **Appendix B**.

2.1 Community Profile and Context

Coldstream is located on the traditional territory of the Syilx (Okanagan) peoples, bordered by beautiful mountains, views, parks, and Kalamalka Lake. Like many Districts in BC, Coldstream has traditionally supported agriculture and logging. Coldstream has a population of 11,171 people as identified in the 2021 Canadian Census of Population (2021 Census). The community's OCP noted that it is anticipating consistent population growth for the foreseeable future. Residents of Coldstream see agriculture as an important component of the community; however, recently, the District has also seen an increase in a service-based economy where tourism, real estate, and business are increasing.

The 2021 Census data provided information on the commute duration and mode of transportation used by residents of Coldstream. Of the 25% sample data, over 43% of respondents reported commute durations of less than 15 minutes. These shorter trips often can be replaced with sustainable forms of transportation such as walking, biking, rolling, transit, or other AT methods. With respect to travel modes, over 91% of the respondents reported commuting by motor vehicle as their main mode of transportation. Approximately 6% of respondents reported using AT modes as their main mode of transportation. A summary of the modal split in Coldstream is shown in **Figure 2-1**.

Figure 2-1: District of Coldstream Modal Split (Census 2021)



2.2 Existing Active Transportation Network

Coldstream's existing AT network consists of approximately **77.1 kilometers** of different AT facility types including sidewalks, bike lanes, multi-use pathways, multi-use shoulders, and trails which are descried below. An overview of the existing AT network is illustrated in **Figure 2-2**, below.

Travelling Facilities

Sidewalks are intermittently located downtown, in residential areas, and as part of newly developed neighbourhoods. The District's SDS Bylaws require sidewalks to be constructed on both sides of urban arterial and collector roads. Sidewalks are currently only required on one side of urban local roads.

Bicycle lanes are located on Middleton Way from Middleton Drive to the City of Vernon boundary and Mcclounie Road. The District's SDS Bylaws require bicycle lanes to be constructed on both sides of urban arterial and collector roads. Bicycle lanes are not required on local roads.

Multi-use pathways (MUPs) are located throughout some parts of the community serving many residents. The District's SDS Bylaws do not require multi-use pathway to be constructed; however, a typical cross-section is specified.

Multi-use shoulders are abundant in Coldstream and serve as the main type of facility for active users. However, multi-use shoulders do not provide a designated space that is separate from motor vehicles. There are also several gaps in the AT network that make it challenging to find safe and direct routes between community destinations.

Trails are located throughout the District serving as recreational and commuter routes. The trail network often connects steep terrain and parks. Coldstream is also home to a portion of the Okanagan Rail Trail that connects Coldstream at Kalamalka Beach to Lake Country and to Kelowna at Tugboat Beach.

Pedestrian Crossings and Crosswalks are located around the district with varying degrees of development. The majority of these crossings are located near schools, parks, and trails.

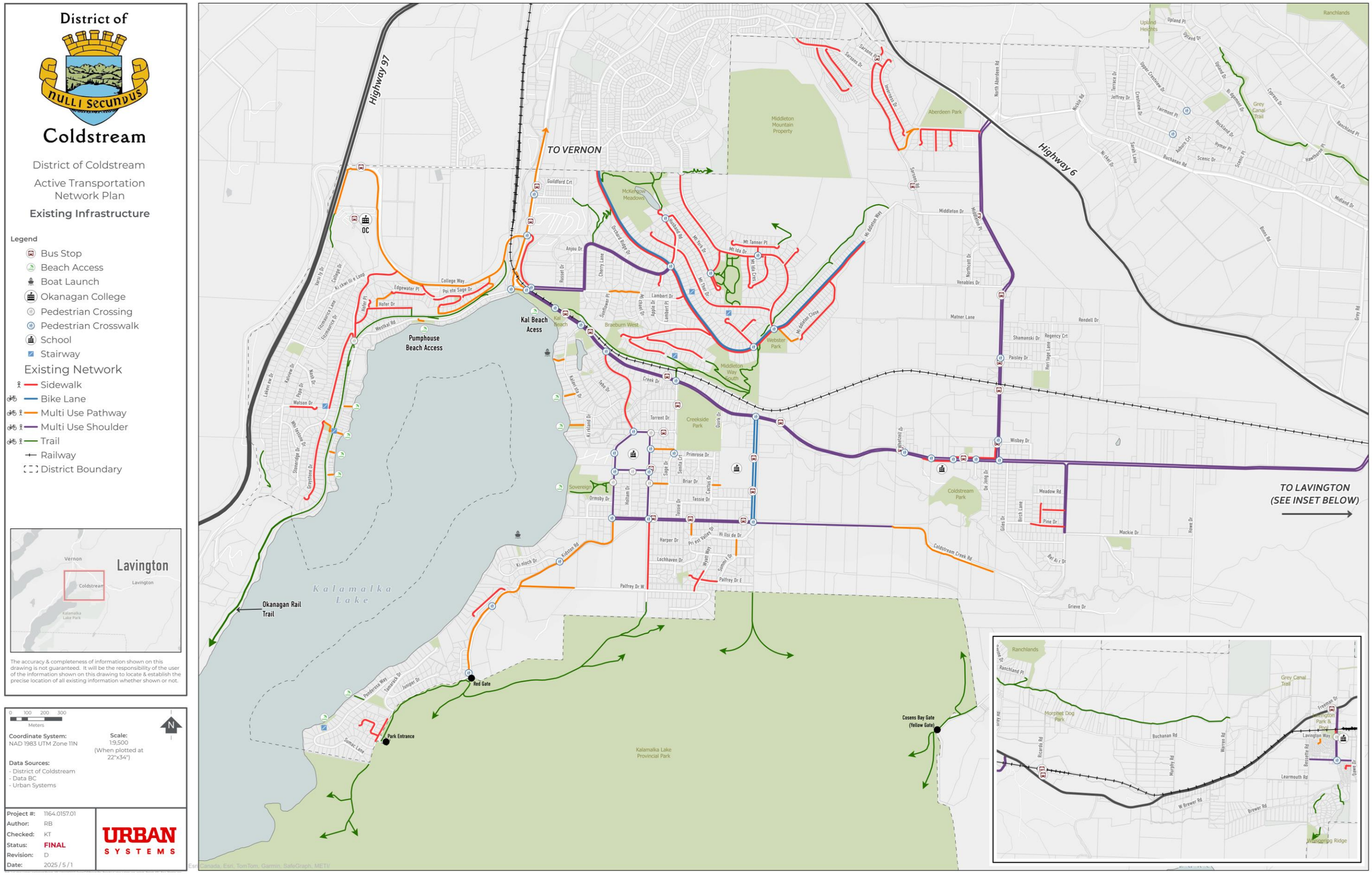
Transit

Transit in Coldstream is limited with minimal connectivity. Three of the four routes pass through Coldstream but do not directly serve the community. Transit facilities are often located on the road shoulder with no seating or weather shelters.

End-of-Trip Facilities and Amenities

End-of-trip facilities such as bicycle parking, showers, change rooms, etc. can make the experience of biking and active transposition trips feel seamless and enjoyable. Bicycle racks can be found in commercial areas and near municipal buildings and schools in Coldstream. Coldstream's Zoning Bylaw does not have any requirements related to end-of-trip facilities.

Figure 2-2: Existing Coldstream Active Transportation Network



3.0 Vision and Goals

Based on existing planning initiatives and what we heard from the community members and partners, a vision statement was developed for Coldstream's ATNP. The ATNP vision is supported by a series of goals that are designed to reflect community priorities and desires such as safety, connectedness, health, and sustainability. These goals were used as guiding principles to help evaluate and prioritize AT projects over the short-, medium-, and long-term.

The Vision for Active Transportation in Coldstream

The active transportation network in Coldstream is well-connected and encourages residents of all ages and abilities to get active and enjoy the scenery in Coldstream. Children have safe routes to school and a network of walking and biking infrastructure supports recreation- and commute-based travel across the community.

The Goals for Active Transportation in Coldstream are to:

Goal 1: Connected
Develop the active transportation network to provide direct and continuous connections between key community destinations.

Goal 2: Safe
Invest in active transportation facilities that are designed to meet the BC Active Transportation Design Guide. Provide facilities with adequate separation between road users where appropriate for safety and comfort.

Goal 3: Respectful
Respect and integrate Coldstream's agricultural and rural heritage in the development of the future active transportation network. Consider farm vehicles in AT infrastructure design and education programs.

Goal 4: Sensible
Allocate funds appropriately to provide the greatest community benefit with more robust facilities located on major collector roads and more sensible options on the local road network. Leverage funding opportunities to maximize the number of projects that can be implemented.

4.0 Active Transportation Facility Design Guidance

The BCAT Design Guide provides a comprehensive set of planning and engineering guidelines for the planning, selection, design, implementation, and maintenance of AT facilities for communities across the province. The BCAT Design Guide is intended to provide a useful reference document for communities of all types and sizes and to create consistency and quality in the design of AT facilities throughout BC. The BCAT Design Guide also clarifies the provincial government's expectations for AT facility design to support the provincial grant programs and it describes what facilities can be considered AAA.

The BCAT Design Guide was used as a reference to guide the recommendations within the ATNP. The BCAT Design Guide was published in 2019 and is currently undergoing an update that is expected to be released in Summer 2025.

4.1 Bicycle Facilities

The following subsections describes the different bicycle facility types and design widths outlined in the BCAT Design Guide that are best suited for Coldstream – a smaller, low-density community with low traffic volumes and a mixture of rural, urban, and suburban contexts.

The BCAT Design Guide includes a facility selection tool that helps identify the appropriate facility type for an AT project which was used in the development of this ATNP. The tool is shown in **Figure 4-1** and **Figure 4-2**, below.

Figure 4-1: Bicycle Facility Selection Decision Support Tool – Rural Context

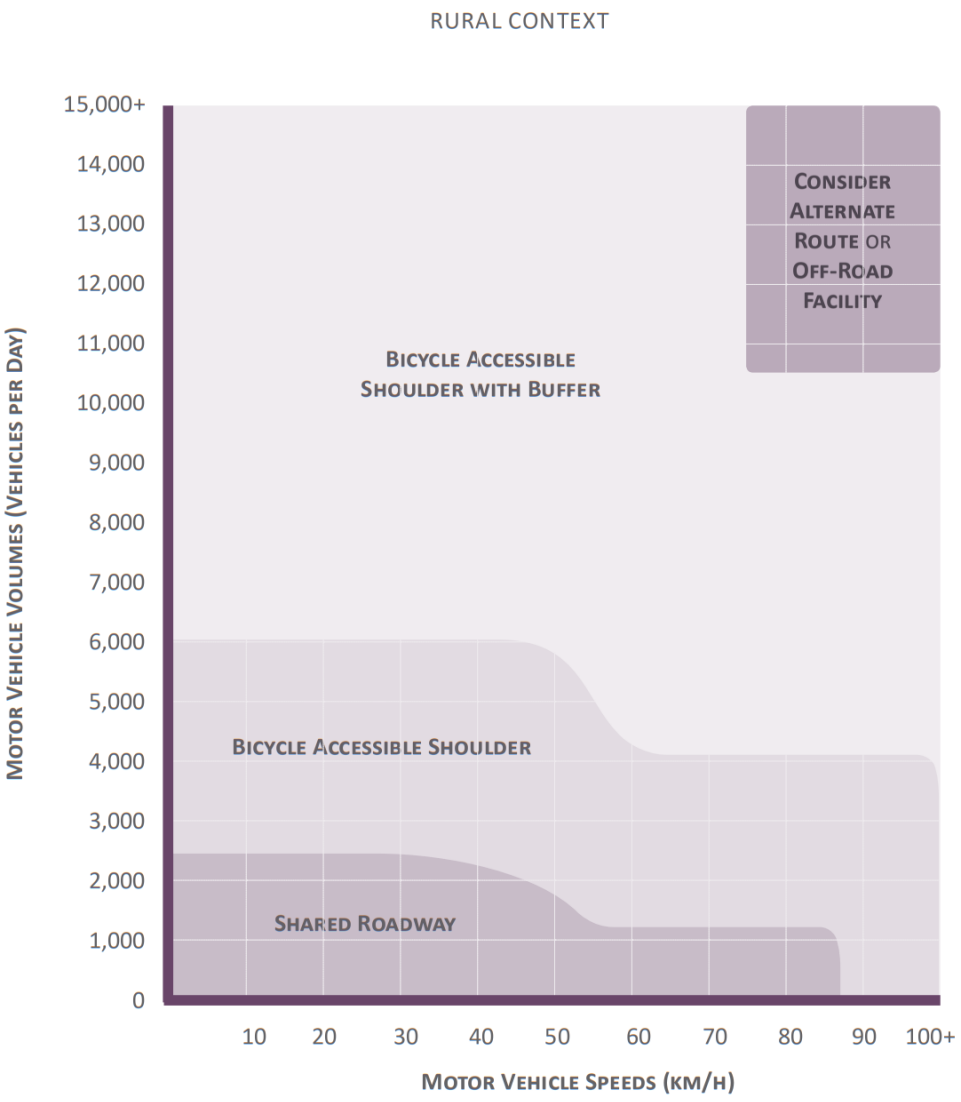
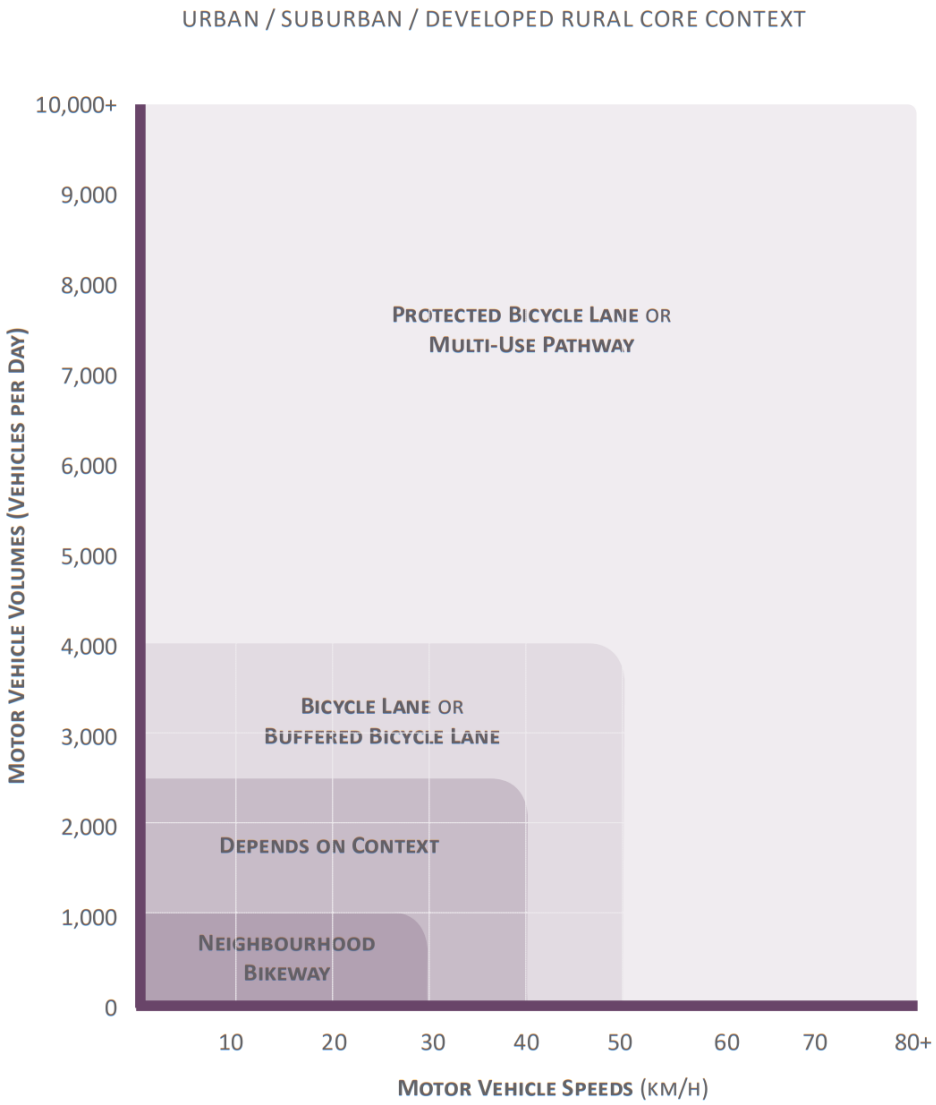


Figure 4-2: Bicycle Facility Selection Decision Support Tool – Urban / Suburban / Developed Urban Core Context



Painted or Buffered Bicycle Lanes

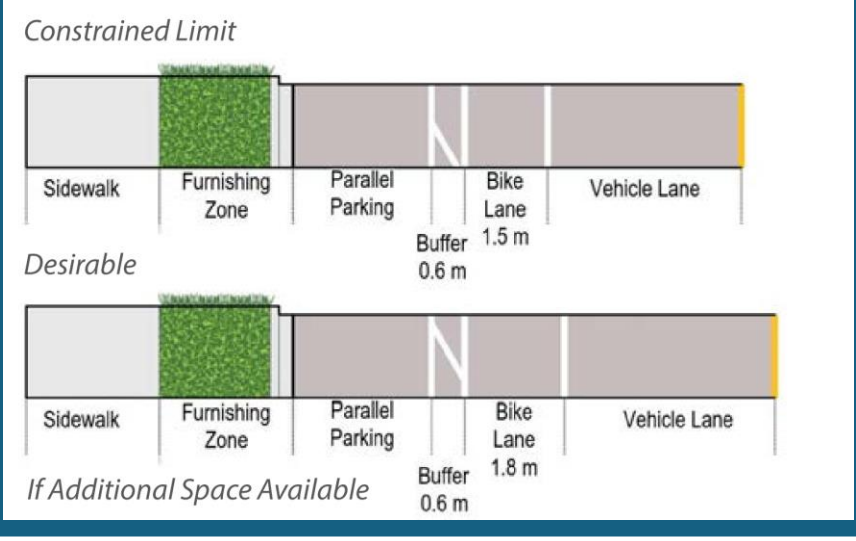
Painted or Buffered bicycle lanes are travel lanes for bicyclists that are delineated by a white pavement line or buffer area that runs parallel to the roadway alignment. An example of a painted and buffered bicycle lane is shown in **Figure 4-3**, below.

Figure 4-3: Painted (Left) and Buffered (Right) Bicycle Lanes

The desirable width for a bicycle lane noted in the BCAT Design Guide is 1.8m and the constrained limit is 1.5m. For buffered bicycle lanes, the desirable buffer width is 0.6m and the constrained limit is 0.3m. A buffer is strongly recommended where vehicle speeds are posted at 50 km/h or greater.

When parking lanes are located adjacent to bicycle lanes, it is recommended to add a buffer between the parking and bicycle lane. If extra space is available, it is also recommended to add a buffer space between the bicycle lane and the vehicle lane.

Figure 4-4: Bicycle Lane Adjacent to Parallel Parking



Shared Roads and Neighbourhood Bikeways

Shared Roads and Neighbourhood Bikeways are roads where vehicles and bicycles share the travel space. These facilities are typically located on low-volume and low-speed roads for AT comfort and safety. Ideally, these roads have less than 1,000 vehicles per day and an operating speed of 30 km/h. These facilities typically have some level of treatment to control vehicle speeds, reduce shortcutting and vehicle volumes, and raise awareness that bicycles share the road. The desired clear width for neighbourhood bikeways is between 4.0m and 5.5m (not including parking). Guidance for level of treatment by motor vehicle volume and speed is illustrated in **Table 4-1**. Additional treatments for roadways of up to 2,500 vehicles per day and 50 km/h operating speed include traffic calming to reduce vehicle speeds and traffic diversions to reduce vehicle volumes.

Table 4-1: Neighbourhood Bikeway Treatments by Motor Vehicle Speed and Volume

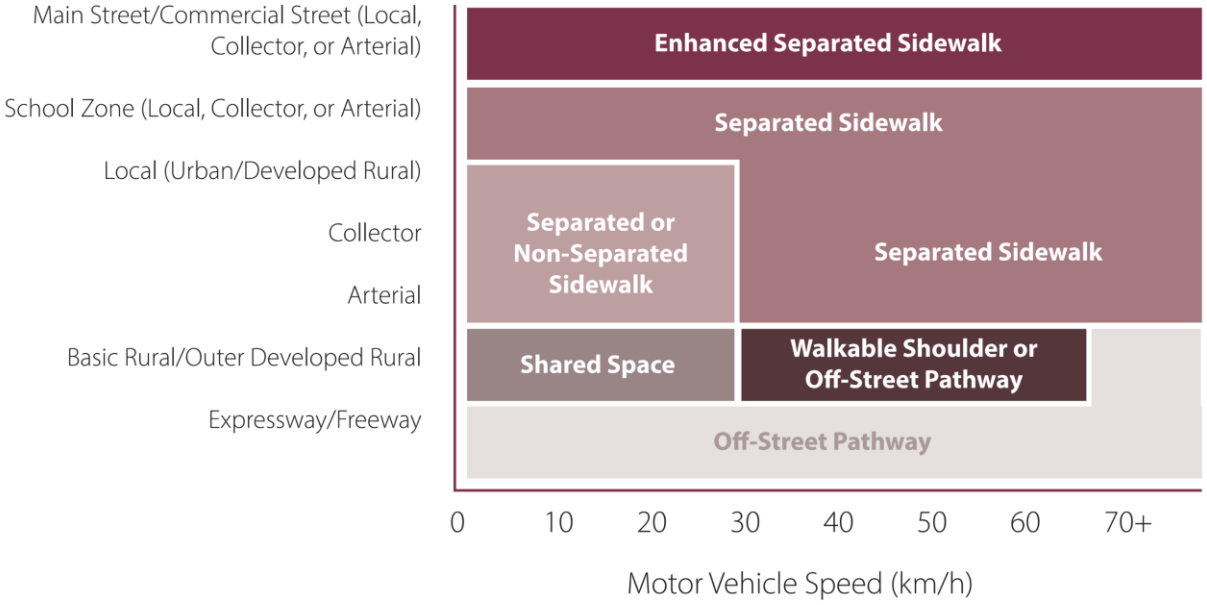
Motor Vehicle Volumes per Day (VPD)	Posted Motor Vehicle Speeds	Level of Treatments		
		Level 1: Required Treatments (intersection Treatments, Signage, and Pavement Markings)	Level 2: Traffic Calming (Speed Management)	Level 3: Traffic Diversion (Volume Management)
<1,000	30 km/h or less	✓		
<1,000	30 to 50 km/h	✓	✓	
1,000 - 2,500	30 km/h or less	✓		✓
1,000 – 2,500	30 to 50 km/h	✓	✓	✓
>2,500	> 50 km/h	Consider alternate facility type		

Figure 4-5: Neighbourhood Bikeway Level 1 Treatments

4.2 Pedestrian

There are several pedestrian facilities that can be considered AAA. The appropriate facility type varies depending on the motor vehicles speeds and adjacent road context. The BCAT Design Guide includes a facility selection tool that helps identify the appropriate facility type for an AT project which was used in the development of this ATNP. The tool is shown in **Figure 4-6**, below.

Figure 4-6: Pedestrian Facility Selection Decision Support Tool



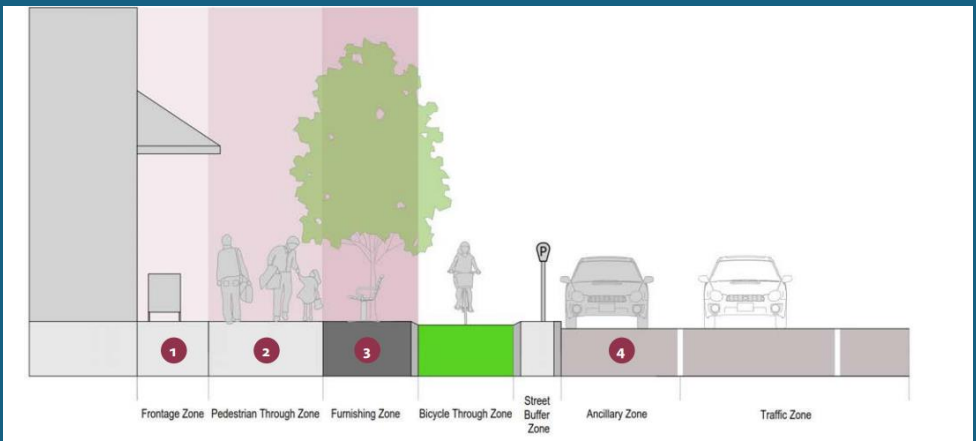
Separated Sidewalks

In general, separated sidewalks are the preferred pedestrian facility type as they provide a dedicated space for pedestrians to travel with a buffer between motor vehicles which increases safety and comfort. Often, these buffer spaces provide space for amenities such as benches, shade providing trees, bike racks, landscaping, etc. An example of a separated sidewalk is shown in **Figure 4-7**, below.

Figure 4-7: Separated Sidewalk

The recommended design width for pedestrian through zones varies depending on adjacent land use. In residential areas, a width of 1.8m (constrained) and 2.1m (desirable) should be provided. In urban areas with higher pedestrian, vehicle, and commercial vehicle volumes, a width of 2.1m (constrained) to 4.0m (desirable) should be provided. These design recommendations provide sufficient space for people mobility devices to operate and people passing comfortably. The boulevard or furnishing zone that provides separation between pedestrians and motor vehicles should be between 0.6m (constrained) and 5.0m (desirable).

Figure 4-8: Pedestrian Through Zone



Non-Separated Sidewalks

Non-separated sidewalks (also know as monolithic sidewalks) are pedestrian facilities located next to motor vehicles lanes without a horizontal buffer space in-between. These facilities are designated with a curb and can either be located at road or curb level. The recommended design width for pedestrian through zones varies depending on adjacent land use. In residential areas, a width of 1.8m (constrained) and 2.1m (desirable) should be provided.

Non-separated sidewalks are not recommended for arterial and collector roadways as vehicle volumes and speeds tend to be higher and pedestrians commonly cite safety concerns and discomfort when walking adjacent to vehicle lanes. It is recommended to provide at least 0.5m buffer space between pedestrians and motor vehicles when operating speeds are greater than 30 km/h. An example of a non-separated sidewalk is shown in **Figure 4-9**, below.

Figure 4-9: Non-Separated Sidewalk

4.3 Multi-Use Facilities

Multi-use facilities are defined as transportation facilities that can be used by more than one mode of transportation. These facilities are often more space efficient than separate facilities and can be used in many contexts including both rural and urban areas.

Multi-Use Pathway

MUPs are paved or gravel pathways that can be used by all AT modes including walking, biking, scootering, roller-skating, skateboarding, etc. These pathways generally accommodate two-directions of travel and are separated from motor vehicle traffic. MUPs are generally separated from motor vehicles with a greenspace or a ditch in rural environments and a barrier or boulevard in urban environments. It is the separated design feature of MUPs which make them well suited as an AAA facility where young children, adults, seniors, and people with mobility challenges can feel safe getting around the community.

The desirable width for a MUP is 3.0m to 4.0m depending on the volume of AT users and adjacent road type. Typically, in Coldstream, 3.0m MUPs are sufficient unless the MUP is located in an area with high AT volumes or steep road grades. MUPs should also have a minimum 0.6m buffer space on either side of the pathway. On major roads and in areas with steep side slopes, the buffer space should be increased to 1.5m. An example of a MUP is shown in **Figure 4-10**, below.

Figure 4-10: Separated Multi-Use Pathway

Multi-Use Shoulder

Multi-use shoulders provide a separate space for AT users to travel on the roadway. These facilities are more common to Coldstream's roads and are delineated by a solid white line and can be supplemented by signage and pavement markings alerting drivers to expect AT users. Multi-use shoulders are typically suited for more rural contexts since these facilities can be used by a variety of users including pedestrians and motor vehicles when required for safety, operations, and maintenance.

While multi-use shoulders are not considered an AAA facility, they provide a dedicated space adjacent to vehicle lanes for AT users to travel between destinations such as Lavington and the Town Centre. Multi-use shoulders may also be called bicycle accessible shoulders, walkable shoulders, or vehicle shoulders. Multi-use shoulders should be between 1.5m (constrained) and 1.8m+ (desirable) in width for roadways with vehicles speeds of 50km/h or less. For roadways with vehicle speeds between 50km/h and 70km/h, the desirable width is 2.5m and the desirable width for roadways with vehicles speeds of 70km/h and greater is 3.0m with a buffer; however, multi-use shoulders are less desirable on roadways with vehicle speeds greater than 50km/h. Examples of a multi-use shoulder are shown in **Figure 4-11**, below.

Figure 4-11: Multi-Use Shoulder

4.4 Quick Build Techniques and Strategies

In recent years, communities across Canada and internationally have increasingly adopted a rapid implementation or quick-build approach to the design and construction of AT infrastructure. Quick build facilities are often constructed using temporary or low-cost, flexible materials, allowing for quicker and more cost-effective development of AT routes or networks.

This approach enables on-the-ground design adjustments and may serve as a permanent interim phase before a long-term commitment to full build-out (requiring more materials) is applied. This approach gives local governments the flexibility to make modifications as needed in a cost-effective manner. This method also addresses the challenges associated with constrained municipal budgets while still supporting the creation of AAA infrastructure at a lower cost than traditional construction methods. Furthermore, quick-build projects maintain high quality by adhering to best practices in AAA design. Additionally, these projects enhance streets with amenities, activation, and beautification, creating more vibrant, attractive, and people-first environments.

Some resources are available to assist in the design and implementation of quick build facilities including the following:

- Translink's Rapid Implementation Design Guide for Bikeways in Metro Vancouver (2020)
- Federation of Canadian Municipalities COVID-19 Street Rebalancing Guide (2020)

Quick Build Protected Bike Lanes (Kelowna, BC)

4.5 Traffic Calming Guidance

Traffic calming is the practice of using physical infrastructure to encourage lower motor vehicle speeds and volumes where appropriate. Typically, traffic calming is used on local roads, areas with consistent speeding concerns, or areas of high AT volumes such as on Kalamalka Road. Neighbourhoods with these treatments often feel more vibrant and liveable as the negative impacts from motor vehicles is reduced and drivers are more aware people walking, biking, etc. Traffic calming measures can also address concerns with vehicles shortcutting through neighbourhoods and support neighbourhood bikeways.

Design guidance on traffic calming is provided mainly by the Transportation Association of Canada and the Institute of Transportation Engineers. Some municipalities have developed their own traffic calming guidance to meet the specific needs of their community. Some examples of traffic calming measures that may be appropriate in Coldstream are listed below:

- **Horizontal deflection** measures create a lateral deflection that vehicles must navigate around. Drivers tend to slow down when they perceive a narrowing of the travel way or when navigating curves. Examples of horizontal deflections include tightening curb radii, chicanes, and mini roundabouts. Municipalities can also use vertical elements such as trees to create a perception of road narrowing without modifying the existing roadway.
- **Vertical deflection** measures cause an upward movement for motor vehicles. Drivers slow down to navigate these measures at the appropriate speed. Examples of vertical deflections include speed humps, raised crosswalks, and raised intersections. These treatments may not be appropriate on arterial or collector roads where emergency vehicles, heavy trucks or transit vehicles are present.
- **Road markings and signage measures** alert all road users that AT users are present on the roadways and clearly define the rules and rights of way on the road. Examples of road markings and signage include sharrows, green paint for bicycle crossings, share the road signage, and elephant's feet crossings for multi-use crossings.

Typical contexts for traffic calming measures in Coldstream are summarized in **Table 4-2**, below which was adapted from the Transportation Association of Canada's *Canadian Guide to Traffic Calming (Second Edition, 2017)*.

Table 4-2: Traffic Calming Measure Guidance

Traffic Calming Measure	Applicable Context		
	Neighbourhood Local / Collector	Urban Arterial	Rural Arterial
Horizontal Deflection			
Chicane	✓	×	×
Curb Radius Reduction	✓	△	×
Traffic Circle	✓	△	△
Curb Extensions	✓	✓	△
Road Diet	✓	✓	×
Vertical Deflection			
Raised Crosswalk	✓	△	△
Raised Intersection	✓	△	△
Speed Hump	✓	△	△
Road Markings and Signage			
Sharrows	✓	△	△
Green Bicycle Markings	✓	✓	✓
Elephant's Feet Markings	✓	✓	✓
Legend	✓	**Applicable**	
	△	**Use with Caution**	
	×	**Not Appropriate**	

5.0 Future Active Transportation Network

Several projects were identified to improve AT in Coldstream based on feedback collected from the community engagement mapping exercises, surveys, and community partners committee. The future AT network projects and connections provide the following:

- Interim and long-term connection between Lavington and western Coldstream
- Safe infrastructure and connections around schools
- Expansion of the multi-use shoulder network where appropriate
- Improvements at Kal Beach

High-level evaluation criteria were developed and used to prioritize projects in the District. Project evaluation was completed using project feasibility and alignment with the Plan's goals noted in **Section 3.0** as a point of comparison. Project feasibility was assessed based on the following categories:

- Acceptability
- Proximity to schools, beaches, parks, trails, and existing AT facilities
- Adjacency to high AT demand
- Ease of Implementation / Constructability / Level of Risk
- Overall Project Cost

Each project was assigned a priority and timeline for implementation. Short-term projects are expected to be implemented in 0-5 years, medium-term projects within 5-10 years and long-term projects in 10+ years.

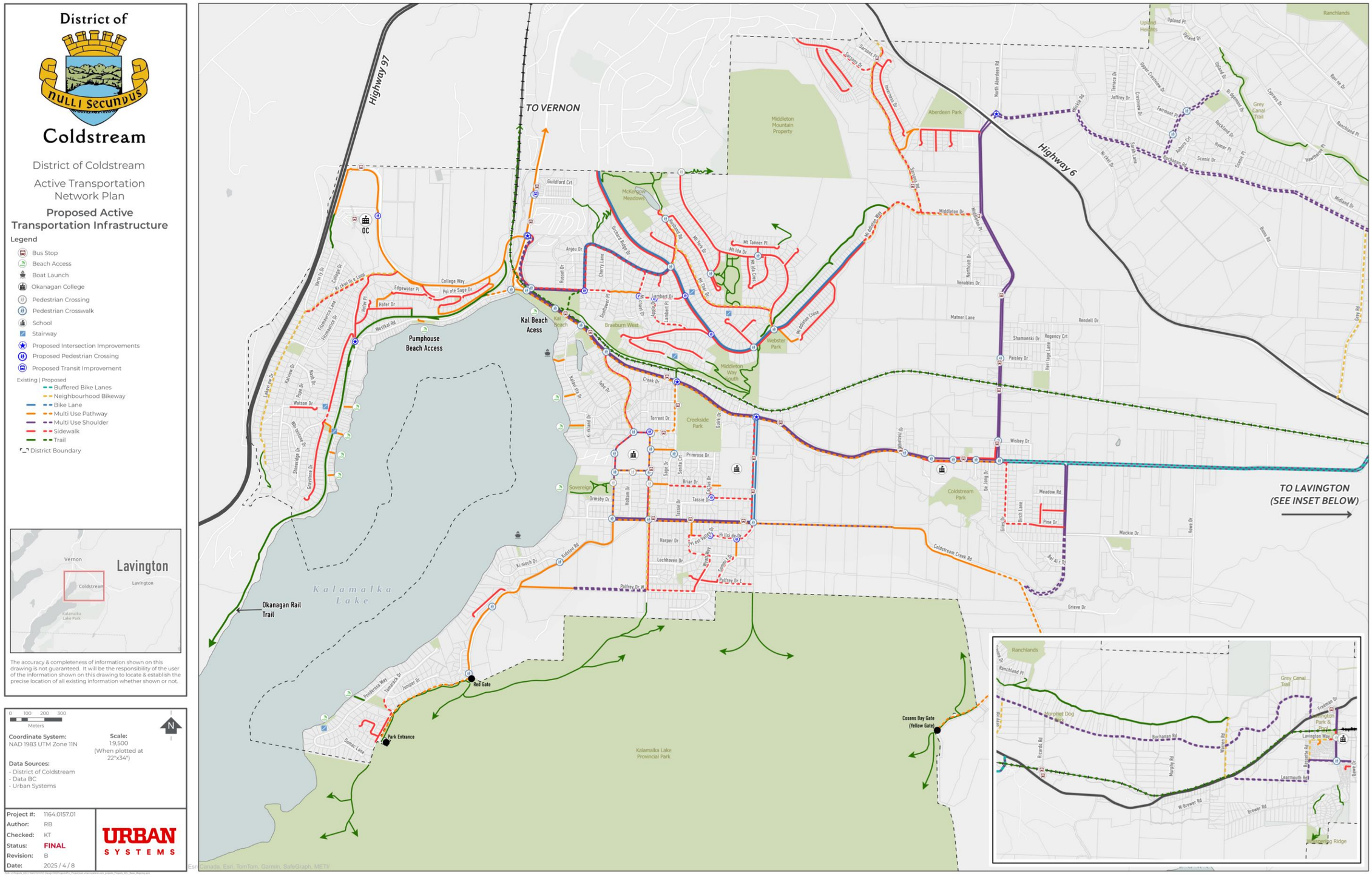
The project priority list and timeline are not binding and are intended to be a recommendation only. For example, a low-priority project may be implemented in advance of a high-priority project for several reasons such as a new development, grant funding, utility repairs, and road resurfacing projects where it is cost effective to advance specific projects ahead of schedule. Conversely, high-priority projects could be delayed due to land acquisition, public consultation, constructability, funding, or other schedule constraints. The projects were grouped into four categories:

- Infrastructure
- Amenities
- Policy
- Operations and Maintenance

5.1 Infrastructure Projects

The proposed AT network map is illustrated in **Figure 5-1**, below. The infrastructure projects noted as high priority are described below. Medium- and low-priority projects are included in the project list in **Appendix C**.

Figure 5-1: Future Coldstream Active Transportation Network



High Priority Projects

High priority AT infrastructure projects were identified based on the priorities identified through the existing conditions review, community engagement, and discussions with District staff. The high priority projects are expected to have the largest impact, but may not necessarily be implemented first as some are large in scale and cost making it infeasible to complete all these projects in a 5 year timeline. Some initial planning for segmentation was given and is reflected in the project list; however, further consideration for phasing of the larger projects is likely required at the preliminary design level as each project advances. Further description of some key high priority projects is provided in the following section. The projects listed in **Table 5-1**, below, are categorized as small to medium and large projects. The project number serves as an identification number and does not indicate an order of preference or priority.

Table 5-1: High Priority Infrastructure Projects

Small to Medium Scale Projects						
No.	Recommended Improvement	Facility	Road Segment	Project Extent		Description
				From	To	
1	Kidston Elementary Perimeter Improvements	Sidewalk	Kidston Road	Linden Drive	Cunliffe Road	AT improvements around the perimeter of Kidston Elementary.
		MUP	Cunliffe Road	Kidston Road	Linden Drive	
		MUP	Linden Drive	Cunliffe Road	Kidston Road	
2	Kidston Road MUP	MUP	Kidston Road	Kalamalka Road	Cunliffe Road	MUP along Kidston Road.
3	Cunliffe Road Sidewalk	Sidewalk	Cunliffe Road	Coldstream Creek Road	Linden Drive	Sidewalk on Cunliffe Road.
4	Cunliffe Road to McClounie Road Sidewalk Connection	Sidewalk	Tassie Drive	McClounie Road	Cactus Drive	Sidewalk connection from Kalamalka Secondary to Kidston Elementary.
		Sidewalk	Cactus Drive	Tassie Drive	Briar Drive	
		Sidewalk	Briar Drive	Cactus Drive	Sage Drive	
		Pedestrian Crossing	Tassie Drive / Cactus Drive	-	-	
5	School Road Multi-use Shoulder	Multi-User Shoulder	School Road	Lavington Way	Learmouth Road	Continue road widening and other improvements completed in 2024 along School Road.
6	Lavington Elementary and Centennial Park Sidewalks	Sidewalk	Lavington Way	Lavington Centennial Park Parking Lot	School Road	Construct sidewalks near Lavington Elementary and Centennial Park to support vulnerable road users.
		Sidewalk	School Road (west side)	Lavington Way	Lavington Elementary north Crosswalk	
		Sidewalk	School Road (east side)	Jeffers Drive	Church Parking Lot	
7	Middleton Sidewalk Connection	Sidewalk	Lambert Drive	Middleton Way	Michael Drive	Sidewalk connections between Husband Road, Middleton Way, Sunflower Place, and Kalamalka Road.
		Sidewalk	Michael Drive	Lambert Drive	Husband Road	
		Sidewalk	Apple Drive	Lambert Drive	Braeburn Drive	
		Pedestrian Crossing	Lambert Drive / Apple Drive	-	-	
		Pedestrian Crossing	Michael Drive / Lambert Drive	-	-	
8	Sidewalk gap connection	Sidewalk	Stoneridge Drive	8131 Stoneridge Drive	8119 Stoneridge Drive	Fill in gap in sidewalk for improved accessibility and connectivity.
Large Scale Projects						
No.	Recommended Improvement	Facility	Road Segment	Project Extent		Description
				From	To	
9	Kalamalka Road MUP*	MUP	Kalamalka Road	Westkal Road	Kalavista Drive	MUP along Kal Beach that is part of a long-term plan to connect Westkal Road to Aberdeen Road.
10	Learmouth Road Multi-use Shoulders	Multi-use Shoulder	Learmouth Road	School Road	Highway 6	Road widening to reasonably accommodate multi-use shoulders. Connection from Lavington to western Coldstream.
11	Buchanan Road Multi-use Shoulders	Multi-use Shoulder	Buchanan Road	Highway 6	Upland Drive	Road widening to accommodate multi-use shoulders as part of connection from Lavington to western Coldstream.
		Multi-use Shoulder	Buchanan Road	Upland Drive	Warren Road	
		Multi-use Shoulder	Buchanan Road	Warren Road	Highway 6	
		AT Safety Improvement	Buchanan Road / N Aberdeen Road	-	-	
12	Aberdeen Road Multi-use Shoulders	Multi-use Shoulder Improvement	Aberdeen Road	Highway 6	Venables Drive	Safety improvements to existing multi-use shoulders.
			Aberdeen Road	Venables Drive	Kalamalka Road	
13	Sidewalk gap connection	Sidewalk	Mcclounie Road	Coldstream Creek Road	Kalamalka Road	Fill in gap in sidewalk for improved accessibility and connectivity.

*This project has additional phases noted in **Appendix C**; however, they are not high priority.

Key Project Highlights

The following section describes some of the high priority infrastructure projects and conceptual solutions. All conceptual solutions should be investigated further and may be refined or changed as more information becomes available.

Kalamalka Road Potential Multi-Use Pathway

Kalamalka Road functions as an arterial road in Coldstream, linking residents from Highway 6 in the east to Vernon in the west. This roadway provides access to several key destinations, including Kal Beach, three schools, multiple parks, and various residential areas within the community.

Figure 5-2: Kalamalka Road (looking Northwest)

The Kalamalka Road MUP could be located on the south side of Kalamalka Road, extending from Kal Beach to Aberdeen Road. The project was broken into four phases:

- Phase 1 – Westkal Road to Kalavista Drive (short-term)
- Phase 2 – Kalavista Drive to Kidston Road (medium-term)
- Phase 3 – Kidston Road to McClounie Road (medium-term)
- Phase 4 – McClounie Road to Aberdeen Road (long-term)

This connection will provide an AAA facility that is separate from motor vehicles serving the residents and visitors of Coldstream. The residents of Coldstream have expressed their desire for a revitalization of Kal Beach with improved AT facilities during several engagement events and previous planning studies. Kal Beach is also where the existing MUP to Vernon ends, making it a great location to prioritize as a first phase.

Figure 5-3: Kalamalka Road Phase 1 Potential Conceptual Cross-Section (facing west)

Kidston Elementary Perimeter Improvements

Kidston Elementary is located in southwestern Coldstream near Kal Beach, Creekside Park, Kal Secondary School, Sovereign Park, and Kal Lake Provincial Park. Over 400 students attended Kidston Elementary in 2024 including children in Kindergarten through Grade 7.

Throughout the engagement process, we heard improvements at schools should be made a priority. Kidston Elementary was identified as having the greatest need for improvements during the existing conditions review. Currently, children walking and biking to school must use the road shoulders with limited visibility and space in some areas.

The Kidston Elementary Perimeter Improvements consist of approximately 365m of sidewalk in the northwest, 430m of MUP on the southeast, and a pedestrian crossing improvement on the perimeter of the school property. These improvements are meant to support children travelling to school by active modes and integrate into broader network improvements that can be seen in the proposed AT network map.

Figure 5-4: Kidston Elementary Perimeter Improvements

It is anticipated that Coldstream and School District 22 will work collaboratively on this project to provide high quality AT infrastructure for children traveling to and from school. Few construction challenges are anticipated and there may be opportunity to construct the pathways partially on School District 22's property to reduce costs and provide greater separation between AT users and motor vehicles.

Kidston Road Potential Multi-Use Pathway

The primary purpose of the Kidston Road MUP is to provide a safe connection for children travelling to school along Kidston Road between Kalamalka Road and Cunliffe Road separate from motor vehicles. Eventually, this connection will serve in the broader MUP network proposed in the ATNP connecting Coldstream Elementary to Cosens Bay, Kalamalka Lake Provincial Park, Kal Beach, the Rail Trail, and the City of Vernon.

Kidston Road functions as a collector road in Coldstream and sees relatively large vehicle volumes in the context of Coldstream, making separated facilities the preferred choice, though this may be infeasible due to the constraints along the corridor. Notable constraints include private property, Creekside Park, and Coldstream Creek that may limit the available options. A conceptual design for this project was completed as part of the ATNP.

Figure 5-5: Existing Kidston Road Facing North (top) and Facing East (bottom)

Cost Estimates

Conceptual planning-level (Class D) cost estimates were prepared for the high priority infrastructure projects using unit costs gathered from other recent projects in the North Okanagan Area. The Class D unit costs used to develop the high priority infrastructure project costs were developed by gathering construction costs from similar projects. These unit costs are available in **Appendix D**.

A generalized cost estimating procedure was used and does not include allowances for right of way and property acquisition, utility relocations, or environmental remediation. Contingency allowances were included in the capital costs and considered the following assumptions:

- Contingency – 40%
- Engineering Services (Survey, Design and Construction Services) – 21%

The Class D cost estimates listed below in **Table 5-2** provide the District with the relative project size which will assist with applying for external funding opportunities. These cost estimates represent 2024 $CAD and should be further refined with preliminary design before implementation. This entails considering property acquisition, utility relocation, inflation and other potential costs. Construction costs in Canada consistently rise quicker than the national average reported in the Canadian Consumer Price Index. The BC Ministry of Transportation and Transit publishes the *B.C. Highway Construction Cost Indexes* which can be used to adjust the unit costs provided in this ATNP to present day costs at the time of consideration and implementation. In some cases, actual construction costs may be less than shown as further detailed engineering will often eliminate project risks and uncertainties.

Note: unit rates and capital costs shown are subject to change. Therefore, it is important to reassess medium- and long-term capital costs before implementation. Only projects with linear unit rates are given Class D cost estimates; non-linear items are given an estimation based on costs of similar projects in the region.

Planning level unit costs are included in **Appendix D** which were used to estimate capital costs for high priority projects. These unit rates can also be applied to low and medium priority projects.

Table 5-2: High Priority Infrastructure Projects Planning Level Cost Estimates

Small to Medium Scale Projects						
No.	Recommended Improvement	Facility	Road Segment	Project Extent		Cost
				From	To	
1	Kidston Elementary Perimeter Improvements	Sidewalk	Kidston Road	Linden Drive	Cunliffe Road	$515,000
		MUP	Cunliffe Road	Kidston Road	Linden Drive	$855,000
		MUP	Linden Drive	Cunliffe Road	Kidston Road	$220,000
2	Kidston Road MUP	MUP	Kidston Road	Kalamalka Road	Cunliffe Road	$650,000
3	Cunliffe Road Sidewalk	Sidewalk	Cunliffe Road	Coldstream Creek Road	Linden Drive	$375,000
4	Cunliffe Road to McClounie Road Sidewalk Connection	Sidewalk	Tassie Drive	McClounie Road	Cactus Drive	$350,000
		Sidewalk	Cactus Drive	Tassie Drive	Briar Drive	$110,000
		Sidewalk	Briar Drive	Cactus Drive	Sage Drive	$735,000
		Pedestrian Crossing	Tassie Drive / Cactus Drive	-	-	$6,000
5	School Road Multi-use Shoulder	Multi-User Shoulder	School Road	Lavington Way	Learmouth Road	$300,000
6	Lavington Elementary and Centennial Park Sidewalks	Sidewalk	Lavington Way	Lavington Centennial Park Parking Lot	School Road	$430,000
		Sidewalk	School Road (west side)	Lavington Way	Lavington Elementary north Crosswalk	$125,000
		Sidewalk	School Road (east side)	Jeffers Drive	Church Parking Lot	$370,000
7	Middleton Sidewalk Connection	Sidewalk	Lambert Drive	Middleton Way	Michael Drive	$315,000
		Sidewalk	Michael Drive	Lambert Drive	Husband Road	$220,000
		Sidewalk	Apple Drive	Lambert Drive	Braeburn Drive	$440,000
		Pedestrian Crossing	Lambert Drive / Apple Drive	-	-	$6,000
		Pedestrian Crossing	Michael Drive / Lambert Drive	-	-	$6,000
8	Sidewalk gap connection	Sidewalk	Stoneridge Drive	8131 Stoneridge Drive	8119 Stoneridge Drive	$120,000
Large Scale Projects						
No.	Recommended Improvement	Facility	Road Segment	Project Extent		Description
				From	To	
9	Kalamalka Road MUP*	MUP	Kalamalka Road	Westkal Road	Kalavista Drive	$1,485,000
10	Learmouth Road Multi-use Shoulders	Multi-use Shoulder	Learmouth Road	School Road	Highway 6	$2,210,000
11	Buchanan Road Multi-use Shoulders	Multi-use Shoulder	Buchanan Road	Highway 6	Upland Drive	$1,090,000
		Multi-use Shoulder	Buchanan Road	Upland Drive	Warren Road	$5,630,000
		Multi-use Shoulder	Buchanan Road	Warren Road	Highway 6	$2,525,000
		AT Safety Improvement	Buchanan Road / N Aberdeen Road	-	-	$100,000 - $300,000*
12	Aberdeen Road Multi-use Shoulders	Multi-use Shoulder Improvement	Aberdeen Road	Highway 6	Venables Drive	$725,000
			Aberdeen Road	Venables Drive	Kalamalka Road	$700,000
13	Sidewalk gap connection	Sidewalk	Mcclounie Road	Coldstream Creek Road	Kalamalka Road	$1,850,000

*A range is provided for this project as there are several potential solutions that could be implemented. Solutions could range from a temporary quick-build construction to permanent infrastructure.

5.2 Amenities

A list of amenity project recommendations for the District are identified in **Table 5-3**. Amenities are features or facilities designed to serve all forms of AT. Their purpose is to enhance the environment, improve convenience, comfort, security, and coherence of the streetscape. These amenities should be durable, resistant to weather and vandalism, cost-effective, easy to maintain, and have modular parts that are simple to repair or replace. Incorporating local Indigenous languages into future wayfinding and signage materials should be considered to foster relationships and honour the history of the land.

Table 5-3: Amenity Recommendations

No.	Recommended Improvement	Description	Implementation Time Frame	Priority
1	Wayfinding	Develop and display wayfinding signage along AT corridors showing other routes and nearby amenities.	Short	High
2	E-scooters	Work with the City of Vernon to expand their e-scooter program to Kal Beach. Supporting e-scooter parking infrastructure should be provided.	Short	Medium
3	Bicycle Parking	Increase bike parking at trail heads, in commercial areas, at schools, and in the Town Centre.	Short	Medium
4	Street Trees	Increase the amount of shade-providing street trees near AT facilities.	Medium	Medium
5	Accessibility	Provide rest areas on AT facilities with steep grades. Rest areas should be located on level ground with seating and, ideally, shelter for and other weather protection.	Medium	Medium
6	AT Network Maps	Develop AT network maps accessible online and printouts.	Short	Medium
7	Bicycle Parking	Provide a paved surface around the bicycle parking at Kalamalka Beach.	Short	Low

5.3 Policies

A list of policy projects within the District are identified in **Table 5-4**. The table summarizes the actions which include policy directions to enhance and encourage more community members to use AT facilities. Policy changes can help support the development of safe AT infrastructure to meet the needs of the District and community. Policy recommendations in this ATNP should be incorporated into the OCP.

Table 5-4: Policy Recommendations

No.	Recommended Improvement	Description	Implementation Time Frame	Priority
1	Pedestrian and Bicyclist Education	Develop and promote educational materials for the community such as documents, videos, pamphlets, etc. that describe how drivers and active modes should travel along their respective facilities.	Short	High
2	SDS Bylaw Update	Update the SDS Bylaws with respect to design requirements for AT facilities (width, size, buffers, and lighting) based on the BCAT Design Guide best practices.	Medium	Medium
3	Winter Maintenance	Consider developing a policy to include commuter AT facilities as a priority for snow clearing.	Medium	Medium
4	Transit	Consider updating the DCC Bylaw to include costs for transit and AT infrastructure.	Medium	Medium

5.4 Operations and Maintenance

While the installation of new infrastructure to promote and encourage AT is often seen as top priority, ongoing rehabilitation and maintenance of existing and new infrastructure should be an equally important focus. For people walking and biking, poorly maintained infrastructure, the presence of snow and ice, and inaccessible infrastructure can make it more difficult and less desirable to walk or bike.

A list of operations and maintenance projects recommended for the District are outlined below in **Table 5-5**. The strategies and actions in this section are tasks that may be undertaken by the Operations & Infrastructure Services in the District.

Table 5-5: Operations and Maintenance Recommendations

No.	Recommended Improvement	Description	Implementation Time Frame	Priority
1	Signage at Kick Willie Loop Rd / Rail Trail	Repaint road markings and increase maintenance frequency at the Kick Willie Loop Road / Rail Trail crossing.	Short	High
2	Youth Educational Programs	Encourage SD22 to host youth education events such as bike buses and youth education programs.	Short	High
3	Road Markings	Update existing share the road signage including vehicles, pedestrians, bicyclists, and horses for roads with multi use shoulders and implement where appropriate.	Short	High
4	Traffic Signal Adjustment at Kalamalka Rd / College Way / Husband Road	Review the signal timing to provide a leading pedestrian interval signal at the intersection of Kalamalka Road / College Way / Husband Road.	Short	High
5	Signage	Provide Shared Street Signage as determined in review and consideration of public requests on local roads.	Short	Medium
6	Transit	Advocate for BC Transit to continue to expand transit services in Coldstream including the proposed Route 10 and improve infrastructure at existing bus stops.	Medium	Medium
7	Events	Plan and host celebration events for the completion of new AT infrastructure as they are completed.	Short	Medium
8	Transit	Work with BC Transit to consolidate the bus stops on Kalamalka Road / Mallard Way and Kalamalka Road /	Medium	Medium

		Guilford Crescent (Bust Stop ID: 144342 and 144029).		
9	Transit Design Standard	Develop and implement a standard bus landing pad design.	Medium	Medium
10	Off-street Pathway	Repair the off-street pathway between Sunflower Place and Michael Drive.	Medium	Medium
11	Acquiring Right-of-Way for Priority Projects where Needed	For priority AT projects, undertake functional planning to refine project design details, costs and potential property acquisition at a project specific level, notable for projects located in narrow rights-of-way.	Long	Low

5.5 Funding Strategies

The small population and large footprint of Coldstream can make it difficult to invest in AAA facilities throughout the District. Implementation costs for the improvements noted in this ATNP can be significantly reduced with the help of external funding sources and partnership opportunities. This section describes some of the potential funding strategies and sources that the District could consider pursuing to maximize the quality and quantity of network improvements. Many funding opportunities have application intake periods that are posted every year. Additionally, funding programs are added and removed regularly, thus the District should regularly check with all levels of government to stay informed on current funding opportunities and pursue all available sources of funding for AT facilities and programs.

Federal Funding Opportunities

Green Municipal Fund – The Green Municipal Fund is managed by the Federation of Canadian Municipalities and funded by the Government of Canada. This program provides funding to support efforts to reduce pollution, greenhouse gas emissions, and improve air quality at the municipal level. The expectation is that knowledge and experience gained in best practices and innovation will be applied to national infrastructure projects. At the time of writing this ATNP, there are no AT related grants; however, there are grants related to increasing shade providing trees. Additionally, the grants offered through the Green Municipal Fund change over time.

Canada Community-Building Fund (CCBF) – The CCBF (formerly known as the Gas Tax Fund) is a permanent source of funding provided by the Federal Government upfront, twice a year, to provinces and territories to support local infrastructure projects. This fund delivers over $2.4 billion every year to over 2600 communities in Canada. Over the next five years the CCBF will invest $1.6 billion in BC starting with $313 million in 2024-2025.

National Active Transportation Fund – Infrastructure Canada previously offered several funding opportunities that supported AT in municipalities across Canada. In 2021, the Federal Government announced the AT Fund which will provided $400 million over 5 years (to

2026/2027) to expand and improve the AT network in communities of all types and sizes. The fund has been fully subscribed; however, there may be potential for fund renewal to occur in the future.

Provincial Funding Opportunities

BC Active Transportation Infrastructure Grants Program – This program assists and incentivizes communities in BC to invest in planning and construction of AT facilities. The goal of this program is to improve safety, support the economy, improve air quality and public health, and improve accessibility and equity. This ATNP for Coldstream was co-funded by the Provincial Government and the District under the Active Transportation Network Planning Grant intake of this program. Several of the capital projects identified in this ATNP could be eligible for further funding under the infrastructure grant intake in the future.

ICBC Road Safety Programs – ICBC offers funding through the Road Improvement Program for road improvements including AT facilities, particularly where there is potential to improve safety, reduce collision severity, and reduce ICBC claim costs. Other ICBC programs include the Speed Watch Program (through Community Policing Centres), Speed and Intersection Safety Program, Holiday CounterAttack Road checks, Operation Red Nose, and Road Sense Speaker Program for Schools.

Vision Zero BC – The British Columbia Vision Zero Grant Program offers up to $20,000 per successful project and can be used to create safer road systems in the community. Projects can include AT planning and design, public education programs, or road safety planning.

Move. Commute. Connect. – This provincial strategy aims to invest in high quality AT infrastructure throughout the province to encourage AAA AT infrastructure that is safe and convenient. Funding is provided in a cost-sharing structure with local governments and is intended to support BC's goal of doubling the trips taken with AT by 2030 and progressing towards Vision Zero. Some possible funding opportunities include a bike share program, youth programs that provide skills training, bicycle rickshaw programs to those with mobility challenges, pedestrian tunnels, and grade separate multi-use pathways.

Private Funding Opportunities

Developers – The District may explore opportunities for road improvements to be constructed as development within the District occurs. This process could be formalized by updating the SDS Bylaw No. 1826, 2023 or through individual negotiations.

Development Cost Charges – The District could amend their Development Cost Charges for new developments to include the requirement for developers to provide funding specifically for AT facilities in Coldstream.

Private Sector – Many businesses are keen to partner with municipalities, to be active members of the community and support environmentally-friendly initiatives. AT facilities are well-suited for corporate sponsorship and have attracted significant sponsorship both at the local level and throughout North America. Examples in BC include Construction Aggregates

in Sechelt, which constructed an overpass over a gravel conveyor to provide a link for pedestrians and bicyclists; and 7-Eleven and Molson Breweries, which have sponsored MUPs in Metro Vancouver.

Advertising – The District could consider collaborating with local businesses to develop AT network maps. AT network maps such as a pedestrian, bicycle, trails, etc. often feature advertisement for local businesses to cover some of or all the costs to produce the map.

Service Clubs – In many communities, clubs have been involved in funding and building infrastructure and facilities including the Okanagan Rail Trail and bike parking.

Electric Scooters – Electric scooters are part of a pilot project in BC that is confirmed to run until 2028. Electric scooters are often neutral or positive in their revenue generation; however, allowing the private sector to provide the capital and infrastructure offers another mode of transportation for the community with little to no cost. There are also opportunities to harvest current and real-time trip data to understand local travel patterns.

6.0 Closing

This ATNP provides a detailed approach to guide Coldstream in the investment and development of the AT network over the next 20 years and beyond. Recommendations for infrastructure, policy, design standards, operation, and funding strategies are provided over the short-, medium-, and long-term.

To meet the vision and goals outlines in this ATNP, the District intends to invest in new AT infrastructure, upgrade existing infrastructure, and provide ongoing maintenance of existing facilities. To maximize project delivery, the District will take advantage of external funding opportunities as they arise. Local Indigenous communities should be engaged as active transportation projects advance towards implementation.

The ATNP was developed based on technical work and engagement with community members through a public engagement process and with regular meetings with District staff.

APPENDIX A:

WHAT WE HEARD ENGAGEMENT SUMMARY REPORT

District of Coldstream

Active Transportation Network Plan

What We Learned

Phase One Engagement

District of Coldstream

October 2024

TABLE OF CONTENTS

INTRODUCTION

The District of Coldstream is creating an Active Transportation Network Plan (ATNP), which will act as a long-range plan to guide the future development and implementation of walking, rolling and cycling facilities throughout the community.

The goals of the ATNP are to:

- Ensure safe and accessible active transportation infrastructure for all ages and abilities
- Enhance connections to community destinations
- Develop appealing routes that encourage walking, cycling and other forms of active transportation
- Promote healthy lifestyles and reduce greenhouse gas emissions

As part of this process, the District is engaging with residents throughout the project ensure the ATNP reflect the priorities and needs of the community. During the initial phase of engagement from June to September 2024, the community's concerns and opportunities for enhancing Coldstream's active transportation network were explored. The feedback collected during this phase will be used to inform the development of the draft ATNP.

This report summarizes the key findings from this first phase of engagement.

ENGAGEMENT OPPORTUNITIES

Throughout June to September 2024, the District invited residents to participate in an online survey and interactive map, pop-up events and a family-friendly open house. These engagement opportunities focused on understanding how residents currently travel around Coldstream and their concerns and priorities related to active transportation.

The below engagement opportunities were communicated to the public through a variety of tactics:

- Project StoryMap: coldstreamATNP.ca
- Social media
- District newsletter
- Print materials, including postcards and posters

Online Survey

An online survey was available June 15 to September 9, 2024. The survey collected input on issues and opportunities to improve Coldstream's active transportation network. Hard copies of the survey were also available at the in-person engagement activities. **A total of 119 responses were received.**

Interactive Map

An interactive map of Coldstream was embedded in the project StoryMap. Respondents were asked to pin comments around the community where they believe there are opportunities to improve Coldstream's active transportation network.

Pop-Up Events

In conjunction with the District's Official Community Plan update engagement, the project team hosted a total of four pop-up events at different locations in Coldstream on August 18 and 31, 2024. The locations included:

- Lavington Centennial Park - August 18, 9:30 to 11:30 am
- Coldstream Rail Trail Station - August 18, 1:30 to 3:30 pm
- Creekside Park – August 31, 9:30 to 11:30 am
- Kal Beach – August 31, 1:30 to 3:30 pm

Panel boards were set up at the events to present background information about the ATNP and collect feedback.

Family Fun Night

An in-person, family-friendly open house was held at the Coldstream Community Hall on September 5, 2024 from 4 to 7 pm as part of the District's Official Community Plan update engagement. ATNP project team members attended the event to raise awareness and collect feedback related to the ATNP. Approximately 60 people attended the event.

Figure 1. Photos from the in-person pop-up events and open house

WHAT WE LEARNED

The following section presents the results of the online survey, interactive map and in-person engagement opportunities.

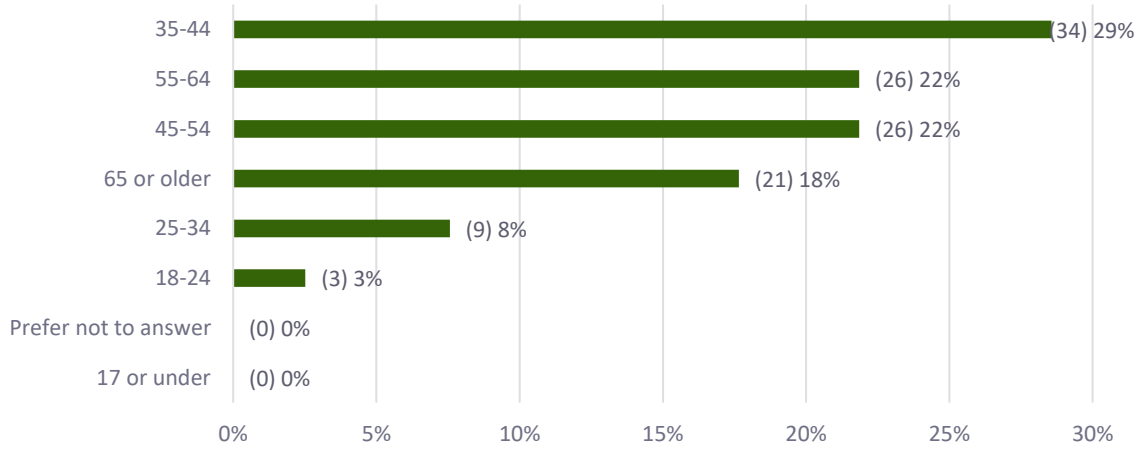
Online Survey

The results of the online survey have been compiled and summarized below.

Who We Heard from and How They Travel

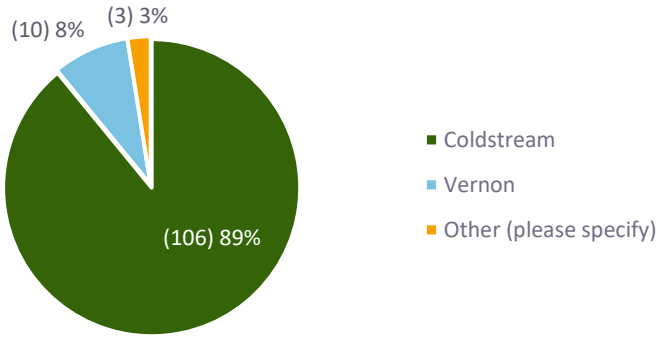
What is your age? (n=119)

The highest proportion of respondents were between the ages of 35 and 44 (29%).



What is your primary residence? (n=119)

Coldstream is the primary residence for nearly 90% of respondents, with 8% living in Vernon and 3% responding other.

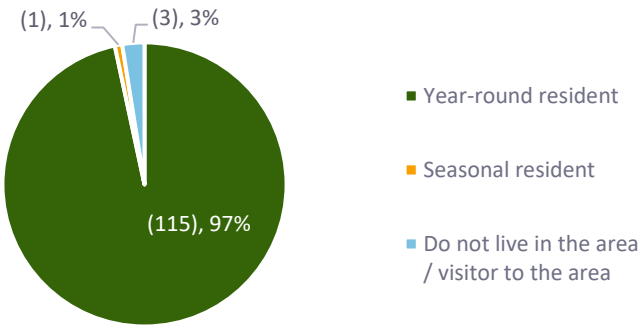


Other responses included:

- Kelowna
- Oyama
- Victoria

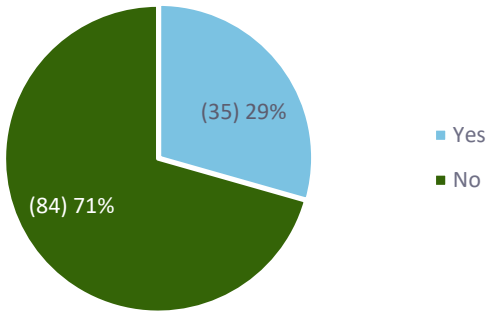
Which best describes your residence in the area? (n=119)

Nearly all respondents (97%) are year-round residents. Three percent (3%) do not live in the area and 1% are seasonal residents.



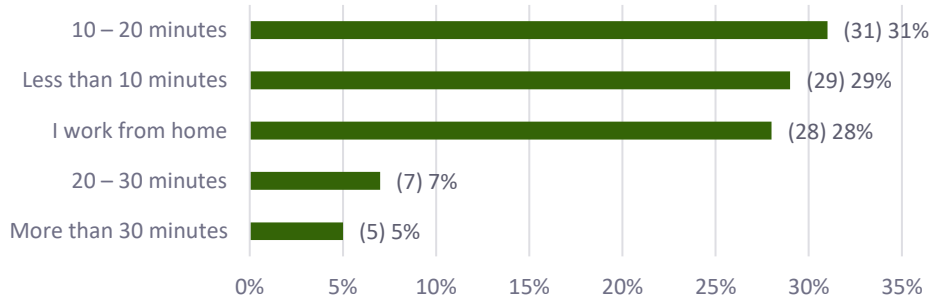
Do you work in Coldstream? (n=119)

The majority of respondents do not work in Coldstream (71%), while 29% do.



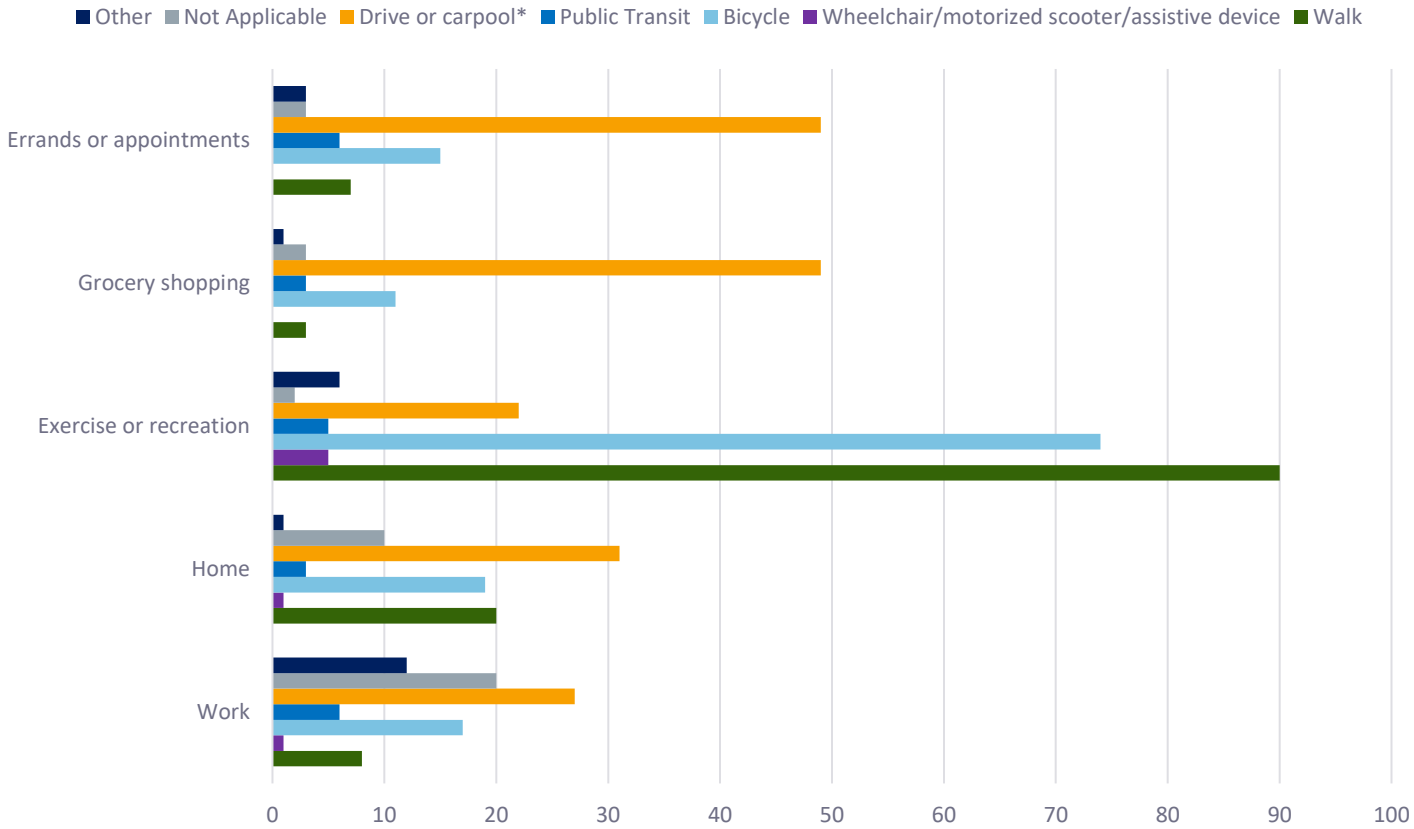
What is your average commute time to work or school? (n=100)

Sixty-percent (60%) of respondents commute 20 minutes or less to work or school. Twenty-eight percent (28%) work from home and 12% have a commute greater than 20 minutes.



How do you typically travel to/from the following? (n=114)

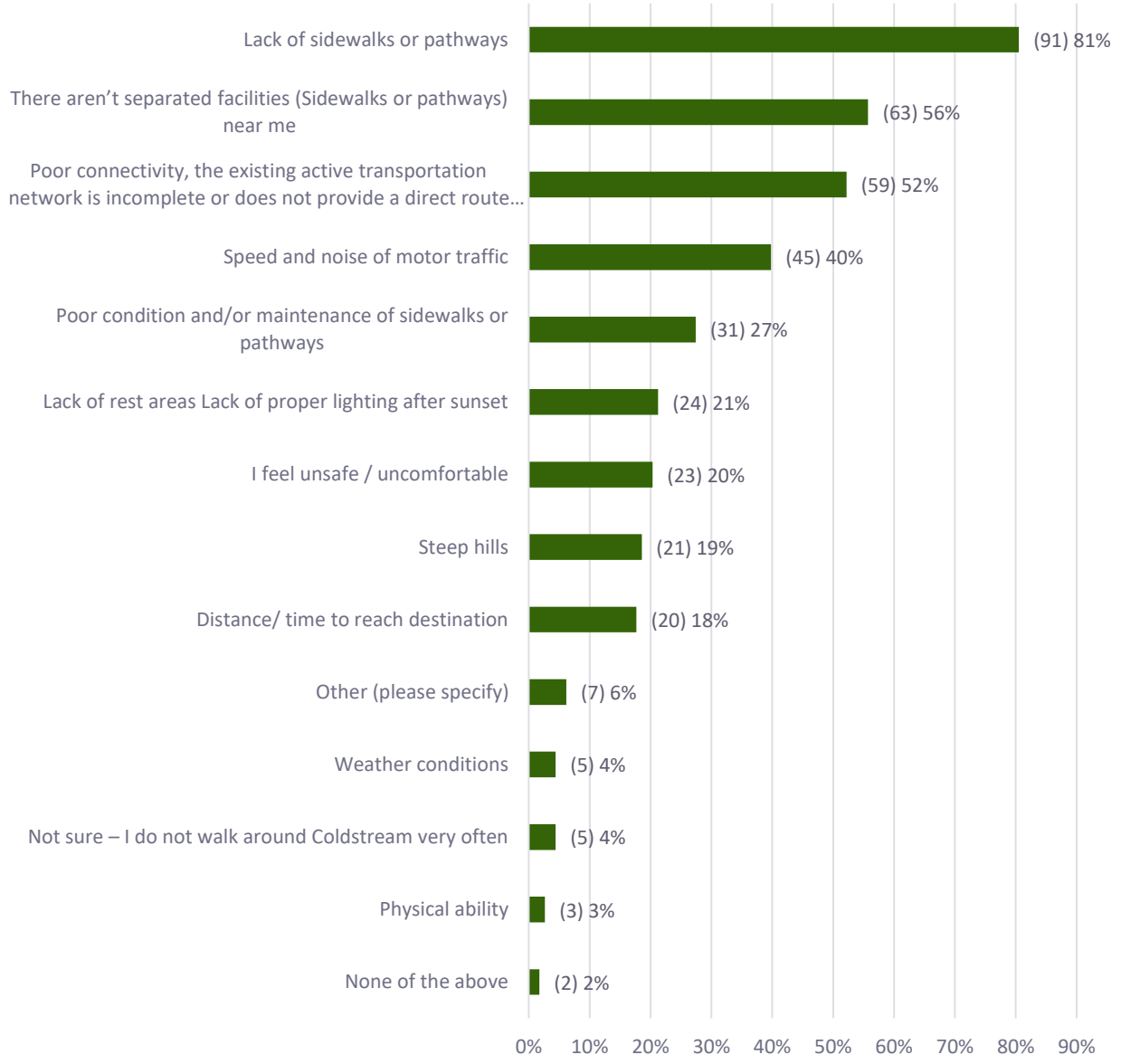
Overall, walking is the most common mode of travel for exercise and recreation, followed by biking. The majority of respondents drive or carpool when travelling for errands or appointments and grocery shopping.



**This question was modified for clarity after responses had already been collected. As a result, early respondents did not have a "Drive or carpool" answer option. This may affect the overall results of this question.*

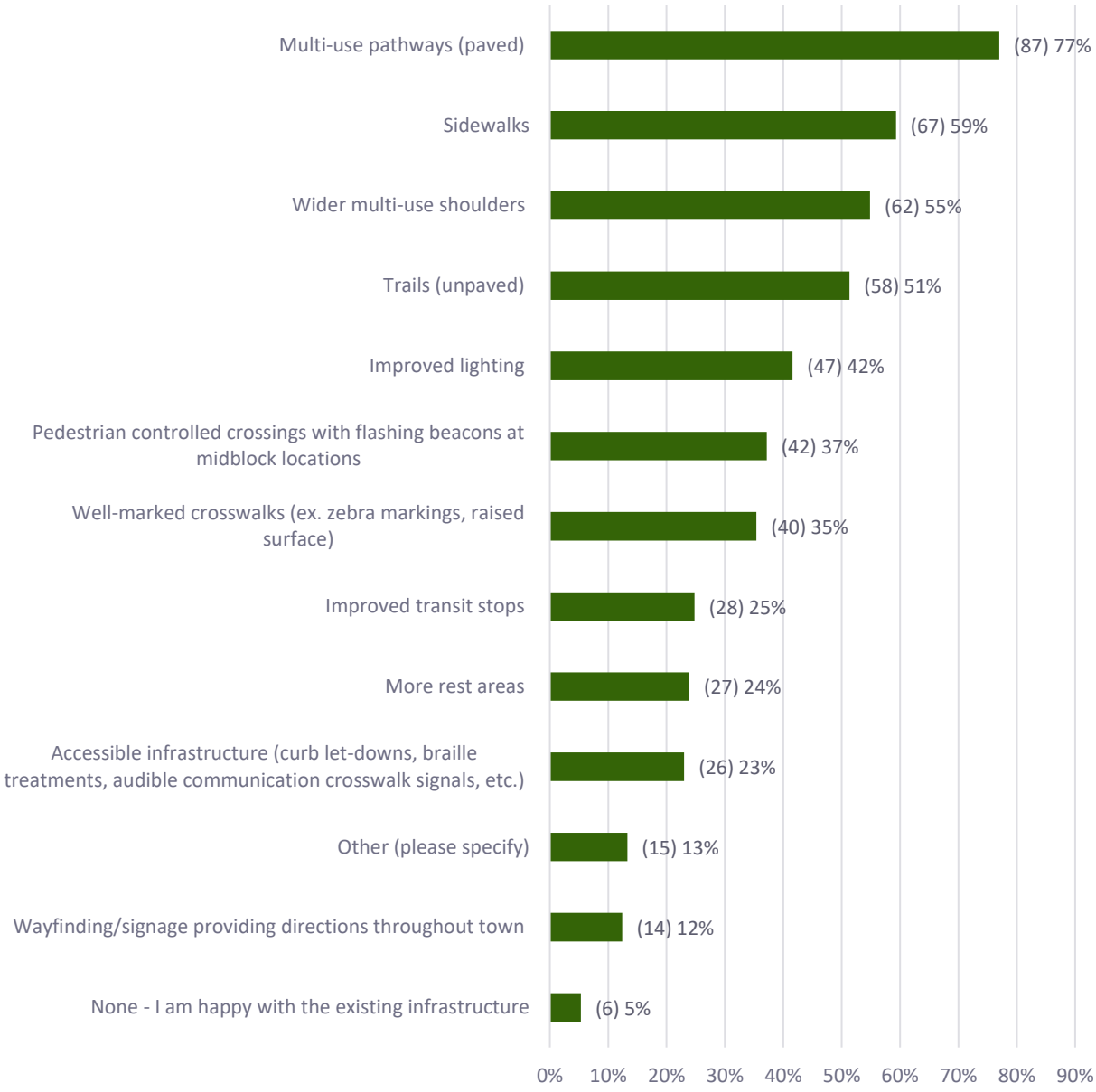
What are the main issues or challenges for walking or rolling in Coldstream? (n=113)

Lack of sidewalks or pathways is the greatest barrier for walking or rolling in Coldstream for 81% of respondents. Over half of respondents (56%) cited a lack of separated facilities near where they live as a challenge. Additionally, roughly 50% also indicated that poor connectivity is a key challenge.



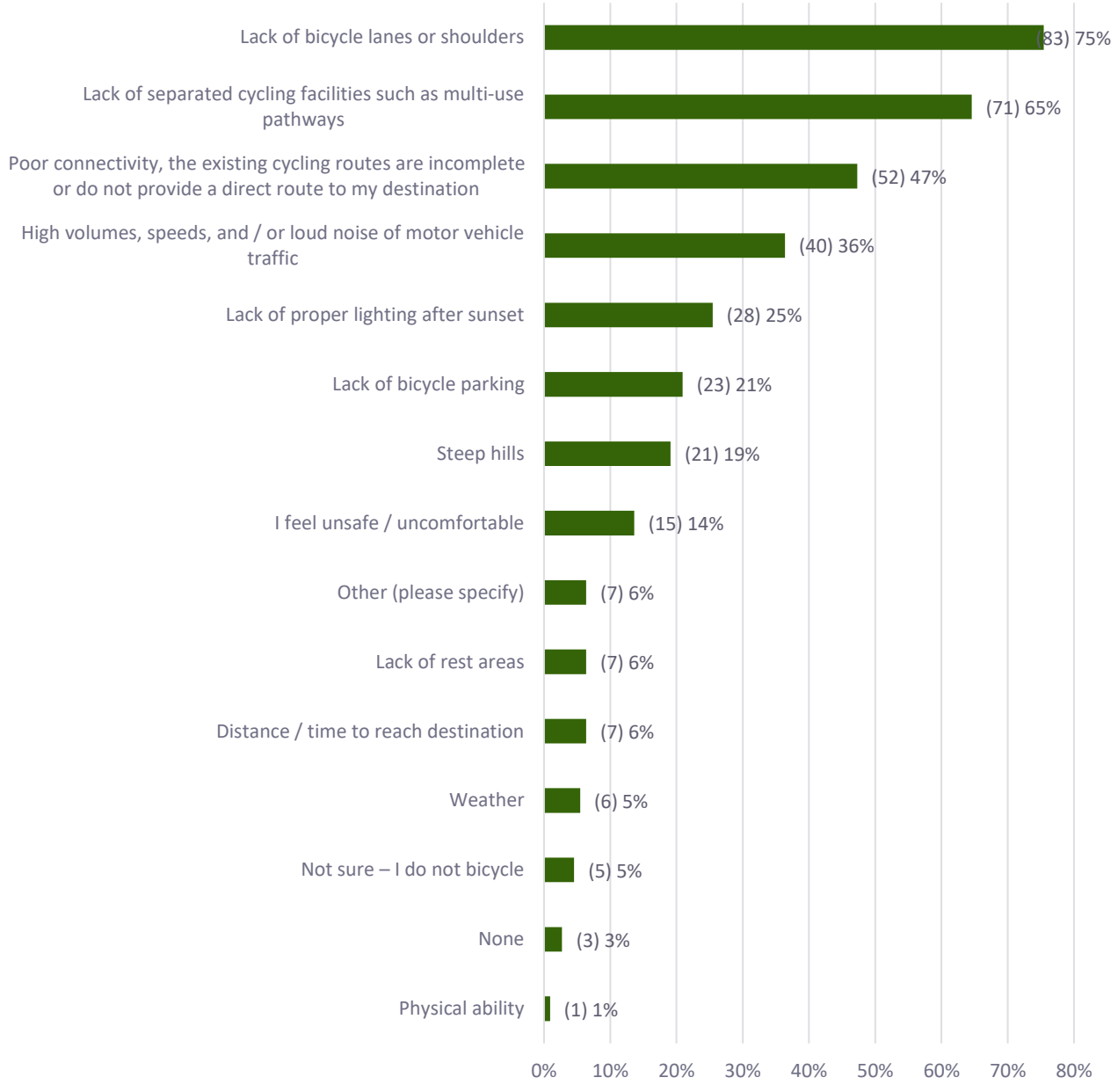
What types of walking, rolling, or accessible infrastructure (designed for all ages and abilities) would you like to see more of in Coldstream? (n=113)

Roughly three-quarters of respondents (77%) would like to see more paved multi-use pathways in Coldstream, followed by sidewalks (59%) and wider multi-use shoulders (55%).



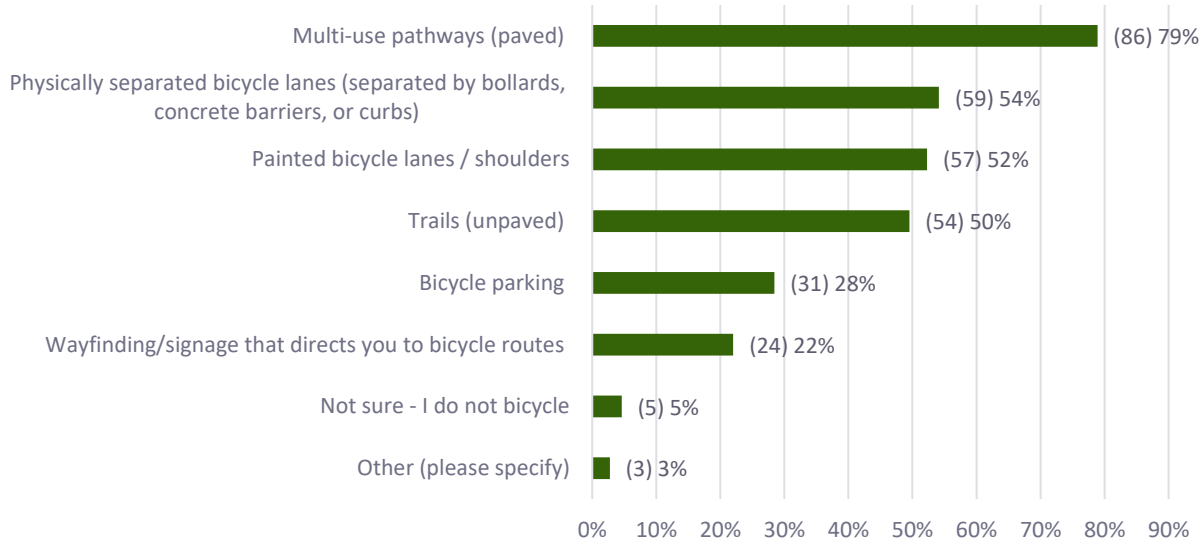
What are the main issues or challenges for bicycling or rolling in Coldstream? Please select all that apply. (n=110)

Three quarters (75%) of respondents cited lack of bicycle lanes and shoulders as a key challenge for bicycling and rolling in Coldstream, followed by lack of separated cycling facilities (65%) and poor connectivity (47%).



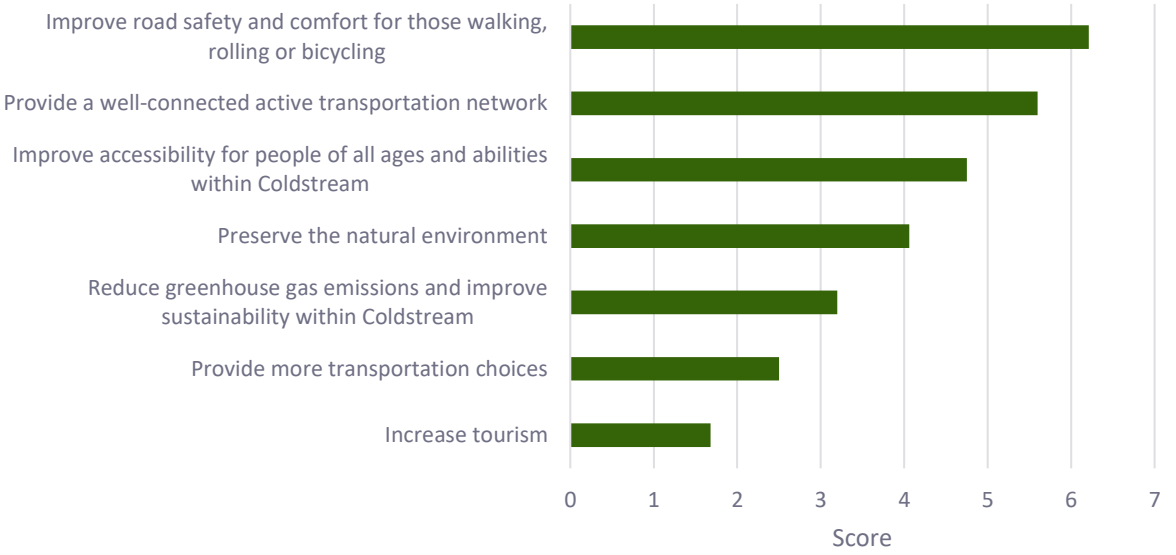
What types of bicycling or rolling infrastructure would you like to see in Coldstream? (n=109)

There is a high level of support for paved multi-use pathways (79%), physically separated bicycle lanes (54%) and painted bicycle lanes/shoulders (52%).



As the Active Transportation Network Plan is developed, which of the following outcomes are most important to you? Rank these topics in order of priority from 1 (most important) to 7 (least important) (n=107)

Respondents ranked improving road safety and comfort for those walking, rolling or bicycling as their top priority, followed by providing a well-connected and active transportation network, and improving accessibility for people of all ages and abilities within Coldstream.



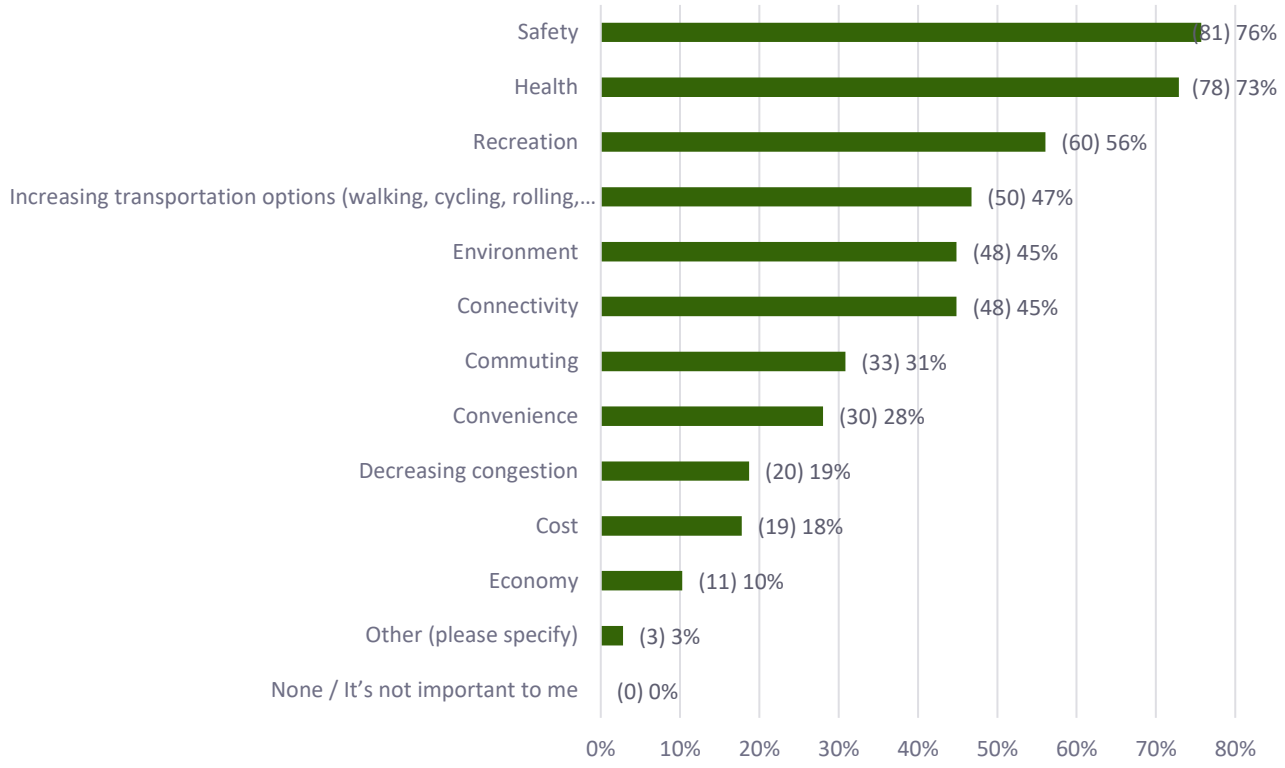
Priorities

What aspects of Coldstream's active transportation system should be considered the highest priority? Rank topics in order of priority from 1 (most important) to 8 (least important) (n=103)

Respondents ranked providing more multi-use shoulders as the top priority, followed by providing more separated cycling facilities and providing more sidewalks.

What aspects of active transportation (i.e. walking, cycling, rolling) are most valuable to you? (n=107)

The top three aspects of active transportation that are most valuable to respondents are safety (76%), health (73%) and recreation (56%).

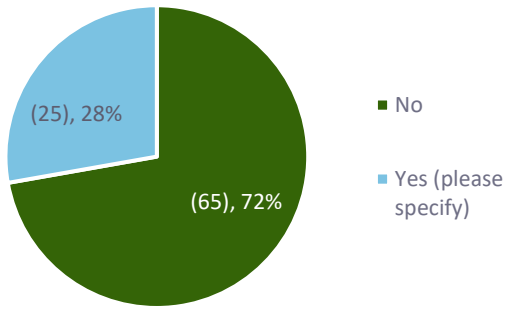


Do you have any desired outcomes that were not included in the list above? (n=90)

Of the 28% of respondents who indicated they have desired outcomes not included in the list above, comments frequently expressed a desire for pedestrian and cyclist infrastructure.

Sidewalks, bike lanes and multi-use pathways were most commonly mentioned, indicating a desire for safer and more accessible routes for walking and biking. Some noted that they support bike infrastructure connecting Coldstream to Lavington.

Traffic safety is also a high priority. Many would like to see traffic/speed reduction measures such as speed humps, as there is a concern about high vehicle speeds in residential areas.



Is there anything else you would like to share with the project team? (n=48)

Overall, the following key themes emerged from the comments:

- **Pedestrian and cyclist safety:** Many expressed concerns about the safety of pedestrians and cyclists. Respondents highlighted the need for improvements on Kalamalka Road to make it safer and more comfortable for pedestrians and cyclists, specifically near the schools. Additionally, Buchanen Road was also highlighted as a route of concern, with a desire for safer pedestrian and cyclist infrastructure along this road.

- **Traffic calming:** Safety concerns were raised due to speeding vehicles and insufficient traffic calming measures. There were suggestions for speed bumps and lower speed limits.

- **Infrastructure improvements:** There is a desire for better active transportation infrastructure, such as separated multi-use lane/shoulders, more sidewalks/pathways and better lighting.

- **Transit:** Some expressed that they would like to see better and more frequent transit services within Coldstream and to areas outside of the community, such as Silver Star.

Figure 2. In-person engagement feedback

In-person Engagement

Throughout the in-person pop-up events and Family Fun Night, community members commonly expressed:

- **Active transportation infrastructure improvements:** Overall, there is a strong desire for active transportation infrastructure to be prioritized, with calls for more sidewalks (especially connecting to schools), separated bike lanes, lighting and crosswalks.

- **Safety and accessibility:** Some voiced concerns about high curb heights, lack of curb letdowns and the need for more markings and bike signals at intersections, particularly at Husband Road and Kalamalka Road. Community members also suggested better winter maintenance for walking and cycling paths.

- **Traffic and parking:** There are concerns regarding speeding, particularly on Aberdeen Road and Kalamalka Road. Parking on Kalamalka Road is causing cyclists to be forced onto the road, indicating a need for better traffic control and parking solutions for cyclist safety.

- **Connectivity and expansion:** Some would like to see a bike lane from Vernon to Lumby, as well as a multi-use path down Kalamalka Road and on Highway 6 towards Lavington, and a continuation of the existing multi-use path on Coldstream Creek Road.

Interactive Map

An online interactive map was available on the project StoryMap. Respondents were asked to add pins to the map indicating where they believe there are opportunities to improve Coldstream's active transportation network. Comments have been compiled and summarized based on location, as shown in Figure 3.

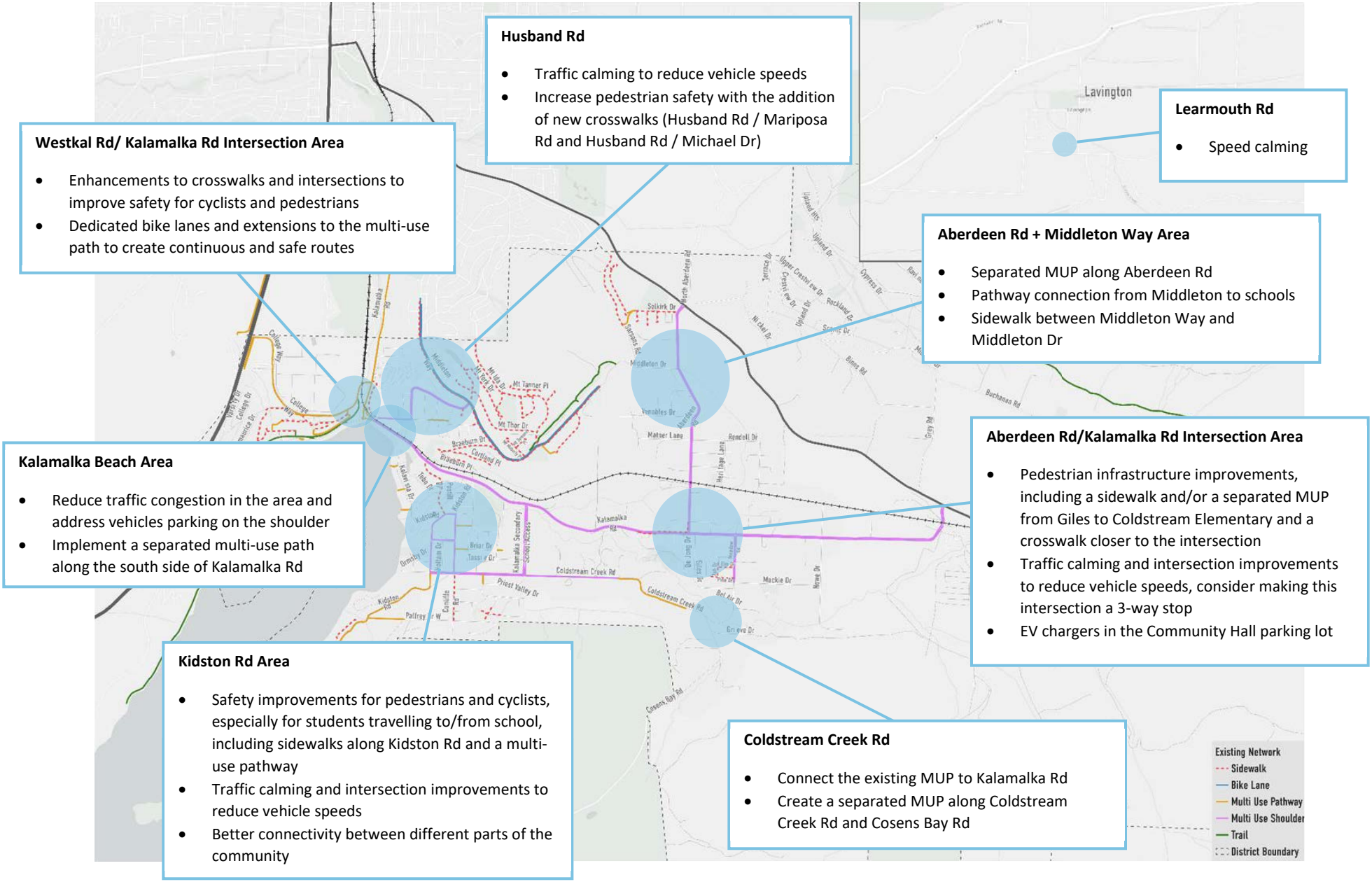


Figure 3. Key themes from the interactive map

District of Coldstream

Active Transportation Network Plan

What We Learned

Phase Two Engagement

March 2025

District of Coldstream

TABLE OF CONTENTS

INTRODUCTION

The District of Coldstream is creating an Active Transportation Network Plan (ATNP), which will act as a long-range plan to guide the future development and implementation of walking, rolling and cycling facilities throughout the community.

The goals of the ATNP are to:

- Ensure safe and accessible active transportation infrastructure for all ages and abilities
- Enhance connections to community destinations
- Develop appealing routes that encourage walking, cycling and other forms of active transportation
- Promote healthy lifestyles and reduce greenhouse gas emissions

As part of this process, the District undertook two phases of public engagement to ensure the ATNP reflects the priorities and needs of the community. This report summarizes the key findings from the second phase of engagement.

Engagement Opportunities

Phase One (June to September 2024)

The initial phase of engagement explored the community's concerns and opportunities for enhancing Coldstream's active transportation network. Residents shared their input through pop-up events, an open house and a survey. The feedback collected during this phase was used to inform the development of the Draft ATNP.

Phase Two (February to March 2025)

In February 2025, the District released the Draft ATNP for community review and input. The second phase of engagement focused on presenting the draft plan's vision, goals and priority projects, and providing opportunities for residents to offer feedback. This feedback will be used to refine the ATNP and ensure it aligns with the community's priorities for the future of walking, biking and rolling in Coldstream.

The phase two engagement process offered two opportunities for the community to provide input:

- **Open House:** An open house was held on Thursday, February 20, 2025 from 4 to 7 PM at the Coldstream Community Hall. Attendees had the opportunity to review key elements of the draft Plan through several informative panel boards, share their feedback, and ask questions to the project team. **A total of ~100 people attended the event.**

Figure 1. Open House

- **Survey:** A survey was available online from February 13 to March 2, 2025. The survey focused on understanding participants' level of support for the plan's draft vision, goals and priority projects. Hard copies of the survey were also available at the open house. **The survey received a total of 19 responses.**

The above engagement opportunities were communicated to the public through the following tactics:

- Project StoryMap: coldstreamATNP.ca
- Social media
- News release

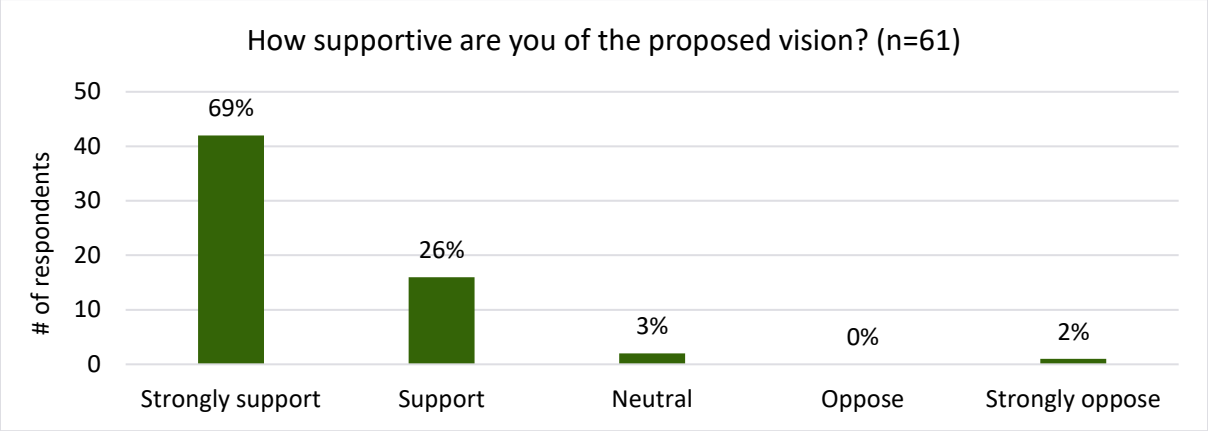
Figure 2. Open House

WHAT WE LEARNED

The following section compiles and summarizes the results of the survey and open house.

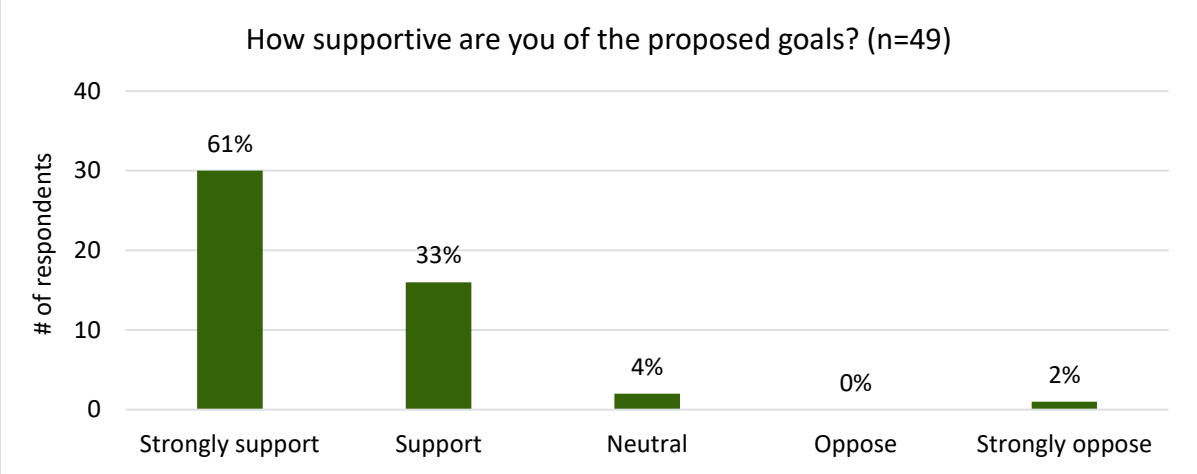
Proposed Vision

Participants were asked to review the proposed Vision Statement and indicate their level of support. Overall, there was a high level of support for the proposed Vision Statement, with 95% expressing either strongly support or support. Three percent (3%) are neutral and 2% are in opposition.



Proposed Goals

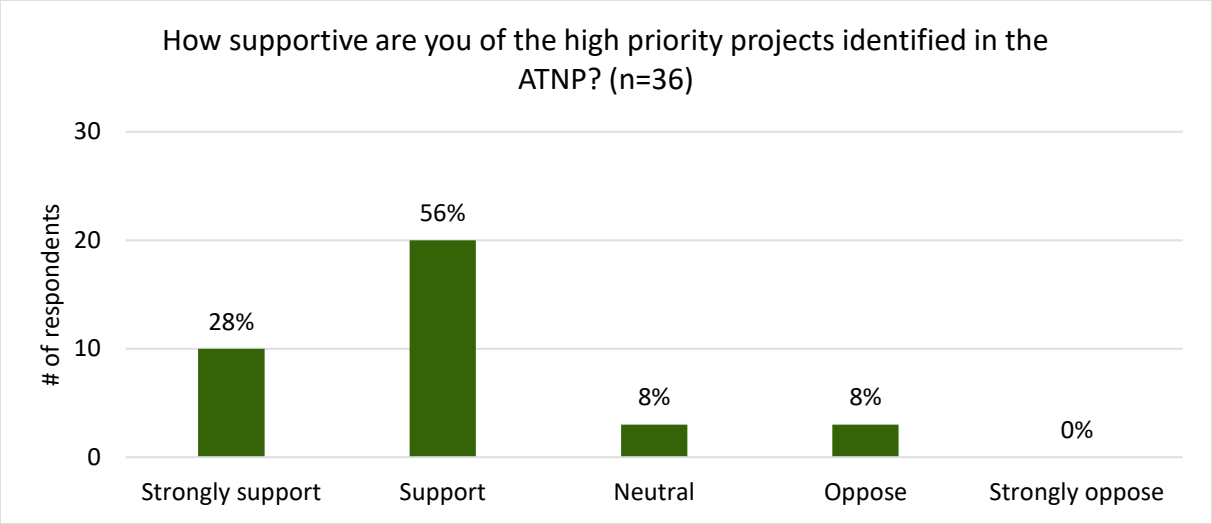
Participants were asked to review the ATNP's four proposed goals and indicate their level of support. Ninety-four percent (94%) support the proposed goals, while 4% are neutral and 2% oppose them.



Priority Projects

Level of Support

Participants were asked to review the thirteen high priority projects identified in the ATNP and indicate their overall level of support. The majority support the high priority projects (85%), 8% are neutral and 8% are in opposition.


How supportive are you of the high priority projects identified in the ATNP? (n=36)
# of respondents
30
20
10
0
28%
56%
8%
8%
0%
Strongly support
Support
Neutral
Oppose
Strongly oppose

Prioritization Criteria

Survey respondents were presented with the project prioritization criteria and were asked if they have any other suggestions for how future active transportation projects should be prioritized.

Overall, respondents suggested:

- More sidewalks, increased separated active transportation facilities and dedicated cycling/pedestrian trails.
- Ensuring safety for active transportation users in high traffic and high speed areas, consider building pedestrian/cyclist infrastructure on less busy roads.
- Quick, temporary trial solutions to test projects rather than waiting for long-term fixes.
- Prioritization for projects that maximize accessibility for all ages and abilities.
- Enhanced lighting and accessibility for sidewalks.
- Addressing high traffic related to accessing Kal Lake.

Suggestions

Survey and open house participants were asked to provide comments on anything they believe is missing or needs to be addressed related to the priority projects.

Overall, participants suggested:

- Increased safety for pedestrians and cyclists and more sidewalks to improve connectivity, including along West Kal Lake Road and Middleton Drive.
- Prioritizing safety for students walking and biking to Coldstream Elementary, with suggestions for prioritizing a sidewalk or multi-use path on the southside of Kal Road between Giles and Coldstream Elementary.
- Prioritizing extending the multi-use path from the Rail Trail to Alexander's Pub to McClounie.
- Traffic calming throughout Coldstream to improve safety for active transportation users
- Improve condition of pathway between Sunflower Place and Michael Drive.
- Improve safety of Middleton Drive and Sarsons Way by implementing better lighting, wider shoulders and separation between users.
- Pedestrian bridge at Kal Beach.

Map of Priority Projects

Open house participants had the opportunity add comments to a map presenting the high priority projects. **Table 1** summarizes the comments regarding priority projects.

Table 1. Priority Project Map Comments

Priority Project	Comments
Kalamalka Rd Multi-Use Path	This project is high priority and participants would like to see it coordinated with the RDNO beach.
Aberdeen Rd Improvements	Participants feel this project is high priority.
Buchanen Rd Multi-Use Shoulder	While some identified this project as a high priority, one participant feels it is lower priority over Kal Lake Rd.
Learmouth Rd Multi-Use Shoulders	Participant feels this is low priority as there is not much traffic.
Stoneridge Dr Sidewalk Connection	Participant feels this is low priority as there is not much traffic. One comment noted that they would like to see a formalized path.
Kidston Elementary Perimeter Improvements	Participants agree this is a high priority project and would like to ensure that it is thoughtfully designed with safe bike parking at Kal Beach and the school.

Some participants identified areas of Coldstream where they have concerns or would like to see improvements, as summarized in **Table 2**.

Table 2. Areas of Concern

Location/Area	Comments
Kal Lake Rd	Prioritize a multi-use path on this road as it is a crucial connection for residents.
Middleton Drive	This is a high traffic area with safety concerns, would like to see widening, better lighting and bike lakes or a multi-use path or shoulder.
Stoneridge Rd/ Graystone Dr	Would like to see safety improvements as access to the beaches is unsafe.
Coldstream Beach	Add safe bike storage.
Cunliffe Rd and Palfrey Dr	Add bike facilities.

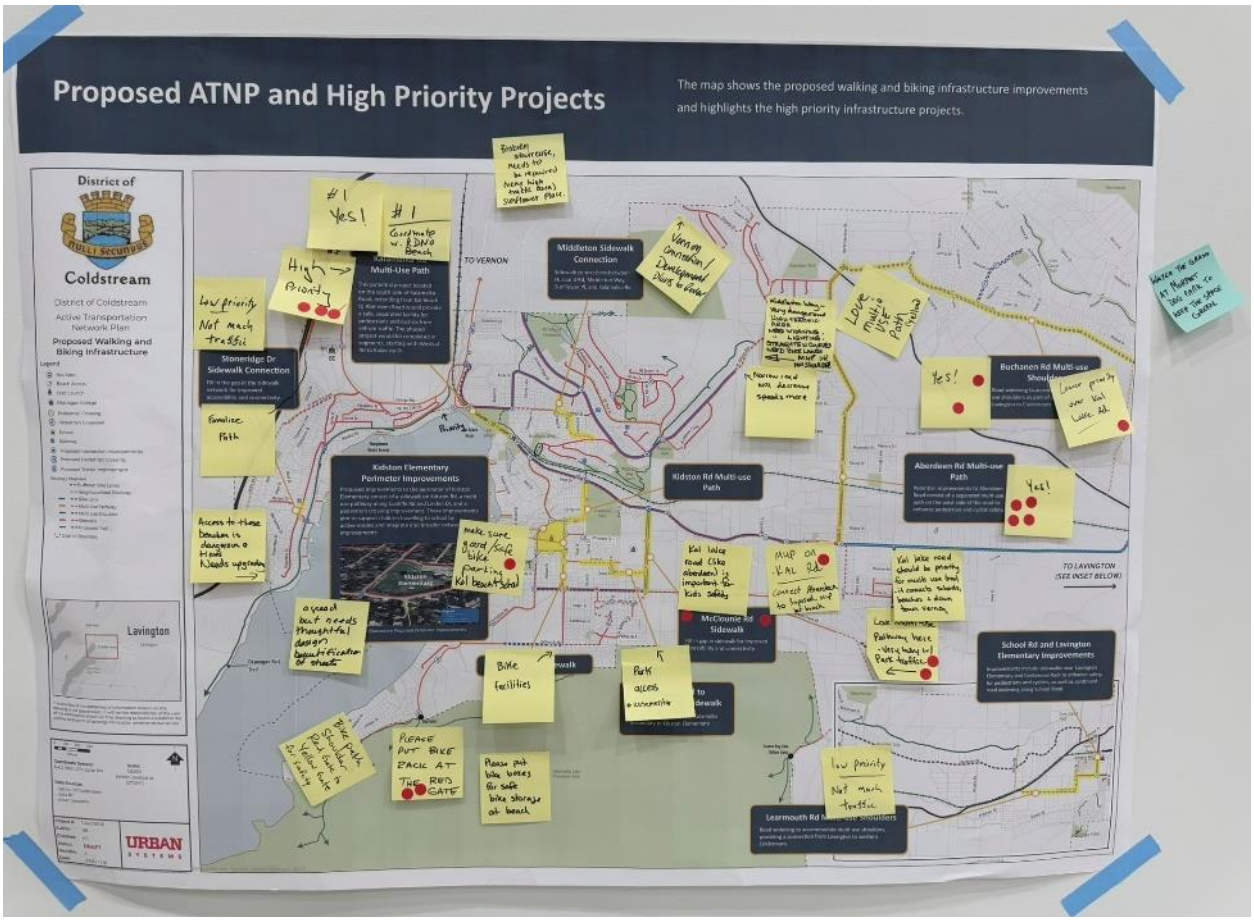


Figure 3. Map of Priority Projects with comments

Additional Comments

At the end of the survey, respondents were able to provide any additional comments about the Draft ATNP. Overall, the comments emphasize the need for improved safety and connectivity in Coldstream, highlighting the importance of better pedestrian and cycling infrastructure. The key themes from the comments are summarized below.

- Better infrastructure needed along Buchanan Road and Kal Lake Road to ensure safety for pedestrians and cyclists.
- Ongoing maintenance of pathways, such as the stairs connecting Michael Drive to Sunflower Place, is crucial.
- Separated bike/walking paths to connect key areas like Postill Drive to the Rail Trail.
- Reducing speed limits and enforcing traffic calming, especially on Kal Lake Road.
- Concerns about high cost estimates and the need for better integration of plans to avoid disjointed infrastructure.
- Addressing parking issues, implementing stop signs, and ensuring sidewalks are prioritized.
- Prioritizing improvements to Middleton Drive and Sarsons Road.

APPENDIX B:

EXISTING CONDITIONS REPORT

DISTRICT OF COLDSTREAM

ACTIVE TRANSPORTATION NETWORK PLAN

EXISTING CONDITIONS REPORT

July 15, 2024

District of
Coldstream

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FIGURES

APPENDICES

APPENDIX A: MAJOR ROAD NETWORK MAP

1.0 INTRODUCTION

The District of Coldstream (Coldstream) is a beautiful lakeside community that is home to 11,171 residents and covers 6,657 hectares of land. Coldstream is situated in the Coldstream Valley in the Northern Okanagan Regional District and on the Syilx (Okanagan) people's traditional territory. Coldstream was a successful applicant of the BC Active Transportation Infrastructure Grant Program which is partially funding the development of this Active Transportation Network Plan (ATNP).

Building on the previous Bicycle and Pedestrian Master Plan that was developed in 2007, and the policies developed in the Official Community Plan (OCP), Coldstream is looking to improve active transportation connectivity in the community, provide safer facilities, and develop policy to support active transportation. The development of an ATNP, with input from community members and partner organizations, will help connect gaps in the network and improve access to popular community destinations for people walking, cycling, and rolling. It will provide Coldstream with guidance to make it safer, easier, and more enjoyable to walk, bicycle, and use other forms of active transportation to move around the community.

Understanding the community's existing conditions by reviewing relevant studies and plans, existing and planned infrastructure, and identifying opportunities and issues of active transportation is an important component in the development of the ATNP. This information will be supplemented by input provided by community members through public engagement. This report is a summary of the information gathered on existing conditions for active transportation in Coldstream.

1.1 STUDY PURPOSE AND OBJECTIVES

The existing Bicycle and Pedestrian Master Plan (discussed further below in **Section 1.2**) was developed in 2007. Since then, standards for active transportation have improved and the wants and needs within the community have evolved.

The ATNP will provide Coldstream with a long-term vision, goals, and future direction for active transportation in the community. Using current best practices and design guidance for active transportation facilities and community engagement, the plan will identify policy and initiatives to encourage and support active transportation.

This plan will build upon and improve the current bicycle and pedestrian network of sidewalks, cycling facilities, and trails. The ATNP will provide guidance for the long-term network in addition to high-level cost estimates for high-priority projects that will inform future capital planning and aid in securing grants for future active transportation infrastructure projects.

The key objectives of the ATNP include:

- Create a connected active transportation network across Coldstream.
- Improve the safety of the active transportation facilities using current design guidance and best practices.
- Encourage more people to walk, bike, and roll (travel by scooter, wheelchair, mobility aid, etc.).
- Incorporate input from community partners to build support for the ATNP.
- Identify policy recommendations to encourage active transportation facilities in Coldstream.
- Help to guide and prioritize investments and decision making to encourage more accessible and comfortable active transportation facilities for all residents.

WHY IS ACTIVE TRANSPORTATION IMPORTANT?

Promoting and supporting more opportunities for active transportation can play an important role in enhancing a community's health, environment, and economy. Some of the benefits of active transportation are described below:

What is Active Transportation?

Active transportation includes any form of human-powered transportation, such as walking, cycling, or rolling using a skateboard, in-line skates, scooter, mobility aids such as a wheelchair, and other modes. It may also include winter-based active modes (e.g., cross-country skiing and snowshoeing), water-based active modes (e.g., canoeing, kayaking, and stand-up paddle boarding), and even horseback riding. There are also several new and emerging transportation modes that can fit in this category and may use the same trails and pathways, such as e-scooters, electric skateboards, and other small, one-person electric vehicles.

Health – Investing in active transportation facilities has been shown to create more physically active communities. Living an active lifestyle can lead to improved well-being, overall general health, and reduce your risk of several chronic diseases. Providing active transportation facilities makes living an active and healthy lifestyle more accessible and affordable, too.

Safety – Active transportation facilities that have been designed adequately provide dedicated spaces for active transportation users which increases their visibility for other road users, reduces the risk of collisions, and creates a more comfortable experience. Certain active transportation facilities can have a traffic calming effect which slow vehicles down and increase driver awareness.

Environmental Benefits – Increasing the comfortability and attractiveness of active transportation facilities can encourage more people to shift from travelling by car to walking or biking. Shifting the modal split towards active modes reduces greenhouse gas emissions which helps efforts to fight climate change.

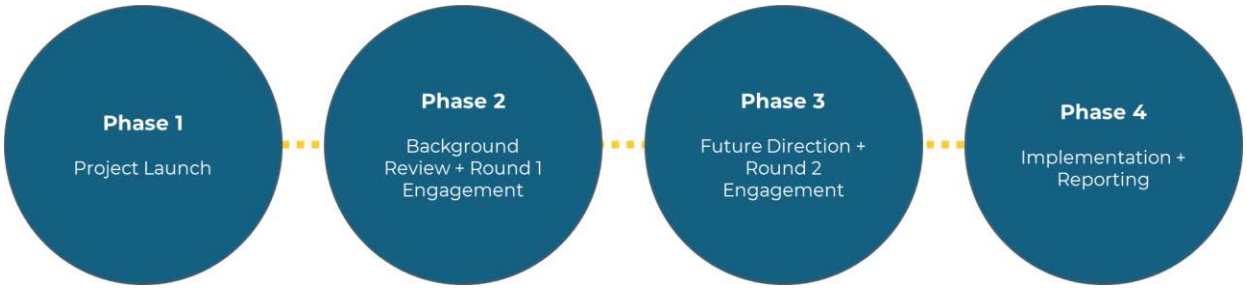
Societal – Active transportation encourages social interaction in the community and creates opportunities for face-to-face interactions. These interactions can lead to connections in the community that are especially important for the youth, elderly people, and people with disabilities that may not have access to their own private vehicle.

Economic – Active transportation facilities that are accessible and comfortable for people can attract more people to the area who may be patrons of local services and amenities and choose to return in the future after a positive experience. Investing in active transportation can also promote tourism and economic development in Coldstream.

Network Efficiency – The transportation network as a whole becomes more efficient and resilient to future growth when more people choose to use active modes of transportation. Active modes also take up less physical space and put less wear and tear on the infrastructure.

STUDY PROCESS

This ATNP is being developed over a one-year period and includes four phases, as described below.



Phase 1 Project Launch (April 2024) – Phase 1 involved a project kick-off meeting with the District staff and the consulting team, conducting a community site visit to gain an understanding of the existing conditions, and collecting and reviewing background information and data. A community engagement plan was also developed in this stage.

Phase 2 Background Review + Round 1 Engagement (May - July 2024) – Phase 2 focuses on reviewing and understanding the existing infrastructure and policy for active transportation in Coldstream. Phase 2 involved reviewing existing planning and policy documents, provincial policy and best practices, and active transportation infrastructure. This memo is a review of the findings of Phase 2 and will inform the development of the final ATNP. The findings of Phase 2 will be shared with the community in the first round of engagement to gather further input and understanding on the existing conditions.

Phase 3 Future Direction + Round 2 Engagement (July - December 2024) – Phase 3 will explore potential future directions of active transportation in Coldstream. This includes confirming the network planning principles, drafting a proposed ATNP, and identifying policy and program options that support active transportation. The second round of community and partner organization engagement will take place to gather input on the draft recommendations of the plan.

Phase 4 Implementation + Reporting (December - February 2025) – Phase 4 will focus on refining and prioritizing the draft content presented in Phase 3 and developing an implementation plan including identifying project cost estimates and funding strategies. This phase includes the documentation of the final plan and a presentation to District Council for approval.

1.2 POLICY & PLANNING REVIEW

Coldstream's ATNP is closely related to and will interact with several other plans and policies at the local and provincial level. These documents establish objectives, visions, and a framework for the land use, infrastructure, and other long-term community planning considerations. The following section summarizes relevant documents that were reviewed and inform this ATNP.

LOCAL PLANS AND POLICY

OFFICIAL COMMUNITY PLAN BYLAW NO. 1673 (2016)

The District of Coldstream OCP Bylaw No. 1673 is currently in the process of being updated. An OCP is a policy tool that identifies the guiding principles that help model the main objectives of the community and guide future change. The goal, objectives, and policies related to active transportation are summarized below:

- Create an extensive pedestrian and cycling network where walking and cycling are convenient ways to get around and children walk to school on sidewalks or trails.
- Connect the Coldstream Town Center Area to the rest of the community with bicycle routes and support future transit to meet the community-wide greenhouse gas emissions reduction target.
- Ensure adequate bicycle lanes exist along arterial and collector roads.
- Include walkways and bicycle paths as a requirement for future development permits and encourage developers to include bicycle racks in multi-family developments.
- Identify and support future trail corridors.

COLDSTREAM BICYCLE & PEDESTRIAN MASTER PLAN (URBAN SYSTEMS, 2007)

The District of Coldstream Bicycle and Pedestrian Master Plan was developed to provide a vision for the overall active transportation network. This plan aimed to create a safe, feasible, and convenient active transportation network and was comprised of three components:

- Overall Bicycle and Pedestrian Route Network
- Comprehensive Design Guidelines
- Implementation strategy

Key locations and issues identified in the plan that may have not been completely addressed are as follows:

- Improving safety for bicycles and pedestrians to and from the beach and surrounding amenities
- Providing connectivity to and from Middleton Mountain for bicycles and pedestrians to parks and school in Coldstream
- Providing connectivity across Highway 6 for pedestrians and cyclists
- Providing safe regional connectivity across Coldstream and to and from the Lavington Area.

ZONING BYLAW

The zoning bylaw is intended to regulate the land use and form, size, density, etc. of properties in a community. Zoning bylaws should reflect the goals and objectives described in their OCP and contain requirements that must be met before redevelopment of land can proceed. The following requirement applies to active transportation:

- The bylaw outlines that Residential Comprehensive Development Zone One lots may reduce lot minimum areas and frontage requirements may be reduced if the owner constructs walkways, trails, and viewpoints throughout the subdivision and open space area.

SUBDIVISION AND DEVELOPMENT SERVICING BYLAW NO. 1826, 2023

The Subdivision and Development Servicing (SDS) Bylaws describe the requirements and provisions of work and services that are needed to obtain approval for the subdivision of land. The bylaw identifies design requirements for sidewalks, multi-use pathways, bike facilities, and typical road cross-sections.

LOCAL STUDIES AND REPORTS

NORTH KALAMALKA AREA PLAN DATA ANALYSIS + WHAT WE HEARD REPORT (URBAN SYSTEMS, 2022)

The North Kalamalka Area Plan (previously entitled: Head of the Lake Plan) was developed to create a plan for the non-residential lands around Kal Beach between the Pumphouse Beach and Kalavista Boat Launch. Phase 1 was completed which consisted of two parts including data collection and data analysis and public engagement.

Turning movement count data was collected for vehicles and bicycles at the following intersections:

- Kalamalka Road & Westkal Road
- Kalamalka Road & Kalavista Road

People who choose to park in the parking lot must cross the CN Rail line, which occasionally travels through the area, and then cross Kalamalka Road via a Rectangular Rapid Flashing Beach crossing. Pedestrian counts were collected at this crosswalk as part of the study and are summarized below in **Table 1-1**.

Table 1-1: Pedestrians Crossing Mid-Block Crosswalk at Kal Beach (August 2022)

	To Beach	To Parking Lot	Total
Total Pedestrians (7hr Count)	887	694	1581
Adults	604	473	1077 (68%)
Children ≤ 12	262	198	460 (29%)
Senior Pedestrians ≥ 65	21	23	44 (3%)

Several engagement techniques were used to ensure that meaningful feedback was collected from a diverse group of people with different perspectives.

COLDSTREAM GREENWAYS INITIATIVE (2017)

The Coldstream Greenways Initiative is a report produced by the Greenways Coldstream Active Transportation (GCAT) volunteer group. The goal of the GCAT is to promote greenways for residents and visitors of all ages and abilities and provide access by active transportation to key locations in Coldstream. Greenways in the report are defined as separated multi-use trails that are paved. As part of this report, 183 survey responses were received and the following key results were found:

- 81% of respondents feel that the main roads in Coldstream are somewhat safe or not safe.
- 86% of respondents feel that is likely or somewhat likely that their children would walk or bike to school if greenways were provided.
- Respondents believe that greenways should be a higher priority with current tax dollars and would support a tax increase to fund active transportation projects.

PROVINCIAL PLANS, POLICIES, AND STUDIES

Provincial plans and policies were also reviewed as part of this process to ensure the plan aligns with provincial goals and objectives which include:

- BC Active Transportation Design Guide, 2019 (BCAT Design Guide)
- BC Transit Future Action Plan, Vernon Regional Transit System 2021
- Move. Commute. Connect. - B.C.'s Active Transportation Strategy, 2019

1.3 ENGAGEMENT

Community engagement will be completed as part of the development of the ATNP. Engagement will provide an opportunity for the people who live in Coldstream to provide feedback on the existing network and identify opportunities for improvement in the community that residents would like to see. The following engagement opportunities will take place:

- 2x Online Public Community Engagements with Surveys
- 2x Community Partner Committee (CPC) Meetings
- Work collaboratively with the OCP engagement team at in-person events

As part of the public community engagement process, the following opportunities for engagement will be provided:

In-Person Events: The District will be hosting in-person community engagement opportunities in the summer of 2024 for the OCP and ATNP. The in-person events will raise awareness of both planning processes as well as the other opportunities to be involved later in 2024. Members of the community will be able to speak with the project team to provide input on what they want to see in the future ATNP.

Online Survey: For those that can not attend the in-person events or would like to provide more feedback, an online survey will be open from June 15th to August 7th, 2024.

Interactive Map: The interactive map will allow community members to take a virtual tour around Coldstream's existing active transportation network and pin comments on a map where there are opportunities to improve the active transportation network.

2.0 COMMUNITY PROFILE

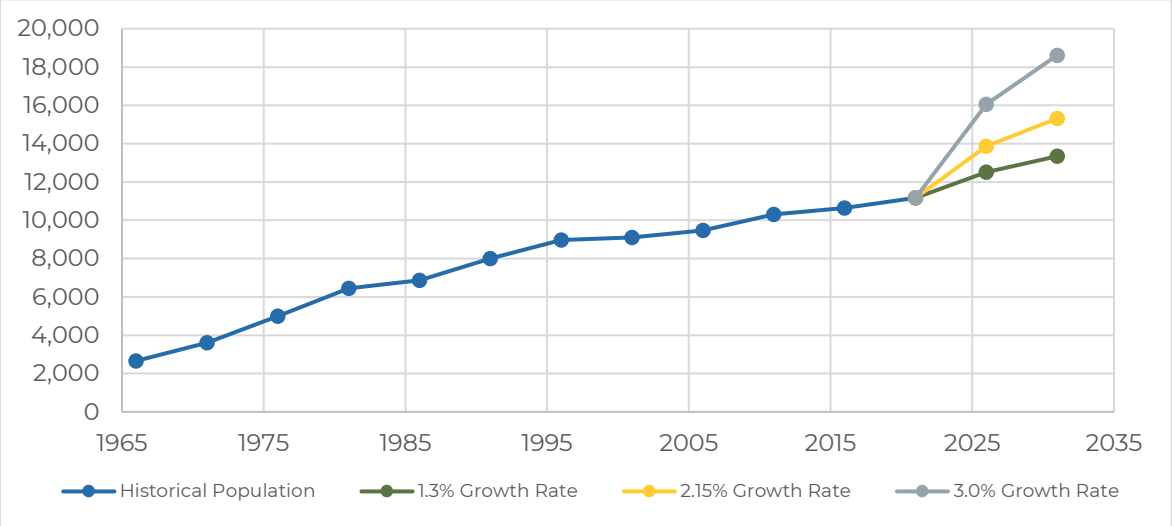
The District of Coldstream is located in the Coldstream Valley on the traditional territory of the Syilx (Okanagan) peoples. The Coldstream Valley is home to beautiful mountains, views, parks, and Kalamalka Lake that attracts many tourists. Like many Districts in BC, Coldstream has traditionally supported agriculture and logging. Residents of Coldstream see agriculture as an important component of the community; however, recently, the District has also seen an increase in a service-based economy where tourism, real estate, and business are increasing.

Understanding Coldstream's context and demographics is important when planning the transportation network. Increasing population, shifting community hubs, and new developments can create pressures on the existing transportation network. Understanding these new demands and pressures help provide context for the development of a safe and accessible active transportation network that will encourage more people to travel by active and sustainable modes.

2.1 DEMOGRAPHICS

According to the 2021 Canadian Census of Population (2021 Census), Coldstream has a population of 11,171 people. The OCP outlines three potential growth scenarios that all expect the population of Coldstream to continue to grow into 2031. The historic and projected population of Coldstream are illustrated in **Figure 2-1**, below. The expected population growth provides an opportunity to construct more active transportation infrastructure as development occurs (by requiring sidewalks, multi-use pathways, and cycling infrastructure in the SDS Bylaw).

Figure 2-1: District of Coldstream Historic and Projected Population (2021 Census and OCP)



According to the 2021 Census, the highest proportion of the population are working adults aged 15 to 64 (61.2%), followed by older adults aged 65 and older (22.5%), and youth 14 years and younger have the smallest proportion of the population (16.3%). The median age of the population is 48.4 years old which is higher than the provincial median age of 42.8.

Understanding community demographics is important for creating an equitable transportation system that is safe, comfortable, and accessible for all, regardless of identity. It is especially important to focus on centering equity and supporting marginalized populations, which may include but are not limited to:

- Women
- Seniors
- Youth
- Black, Indigenous, and People of Colour (BIPOC)
- Immigrants and refugees
- 2SLGBTQ+ people
- People who are socioeconomically disadvantaged
- People with mobility challenges
- People experiencing homelessness
- People experiencing addiction

Marginalized populations face unique and intersecting challenges when navigating the transportation system. They may be uncomfortable walking, rolling, and cycling due to personal safety concerns. They may also need infrastructure treatments, that can include sidewalks, curb ramps, audible pedestrian signals, and tactile warning indicators to safely navigate the transportation network. These populations, especially older adults and the BIPOC community – also tend to be overrepresented in traffic fatalities and serious injuries.

Based on the 2021 Census data, 11.4% of the population identify as immigrants, 5.0% of the population identifies as a visible minority, and 4.9% of the population identifies as indigenous. Additionally, 14.8% of residents spend 30% or more of their income on shelter.

2.2 LAND USE AND COMMUNITY AMENITIES

Coldstream is a relatively spread out community with a total area of 6,657 hectares. Highway 6 runs through Coldstream connecting the population centers within the District as well as the District to the neighbouring communities of Vernon and Lumby.

Existing development in Coldstream consists mainly of residential and agricultural lands. The majority of residents are located in the west near Kalamalka Lake and Middleton Mountain, though there are residential communities north of Highway 6 and to the east towards Lavington. There are commercial zones scattered throughout the District and some Industrial zones focused near Highway 6 from east to west throughout Coldstream. There are also several parks located throughout the District. The zoning map and major areas are shown below in **Figure 2-2**. Some key centers in the District are:

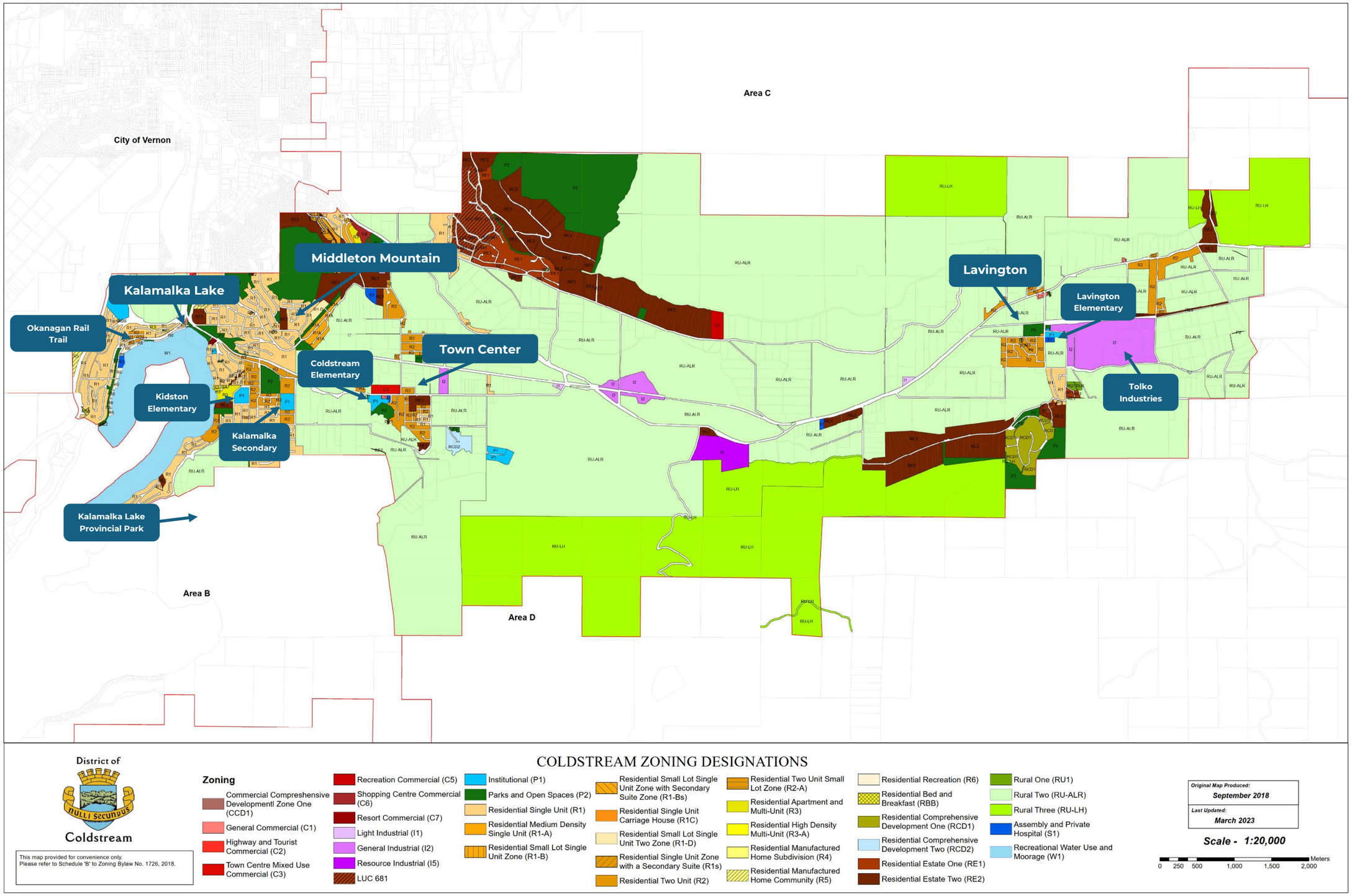
Town Center – The Town Center is located east of Kalamalka Lake and consists of commercial uses such as a gas station and a café as well as residential and municipal buildings. Coldstream Elementary School and Coldstream park are also located in the Town Center.

Kalamalka Lake – The Kalamalka Lake Area surrounds Kalamalka Lake and consists mainly of hilly terrain that surround the lake. Kalamalka Beach and Kalamalka Lake Provincial Park attract many visitors in the summer. Most of the land use in the area consists of single-family residential with a few multi-family residential zones. There are two small commercial zones located on either side of Kalamalka beach that consist of a café, sports rental shop, liquor store, and a pub. Kidston Elementary School, Kalamalka Secondary School, and sports fields are also located in this area.

Middleton Mountain – Middleton Mountain is residential area that is well connected to the City of Vernon. There are few amenities in the area and no commercial zoning.

Lavington – The Lavington area is located in the eastern region of Coldstream and consists of a flat central area with mountains to the north and south. Land use in Lavington consists of a mixture of single-family residential, agricultural, and industrial. Lavington has several amenities such as a firehall, sports fields, gas station, and Lavington Elementary School. Tolko Industries is a major employer in the area.

Figure 2-2: Coldstream Zoning and Major Areas



2.3 TRAVEL PATTERNS

The 2021 Census data provides information on the modes of transportation used by residents of Coldstream. According to the 2021 Census, Coldstream's mode share is predominantly reliant on motor vehicles to travel with 91% of the population commuting by motor vehicle. Approximately 3% of the trips were made by walking, 2% by bike, and 0.5% by transit. Coldstream has seen an increase in people who bike by 35% since the 2016 Census data. Transit ridership has decreased by 50% since 2016; however, this may be due to the fact that the 2021 Census data was collected during the COVID 19 pandemic. A detailed summary of the modal split is shown in **Figure 2-3**.

Despite Coldstream's rural nature, most trips (43%) made by residents are less than 15 minutes in length. These shorter trips often can be replaced with sustainable forms of transportation such as walking, cycling, rolling, transit, or other active transportation methods. A summary of the commuting duration in Coldstream is illustrated in **Figure 2-4**.

The 2021 Census also showed that 13% of residents commute within Coldstream, but the majority of people (73%) commute to another census subdivision.

Figure 2-3: District of Coldstream Modal Split (2021 Census)

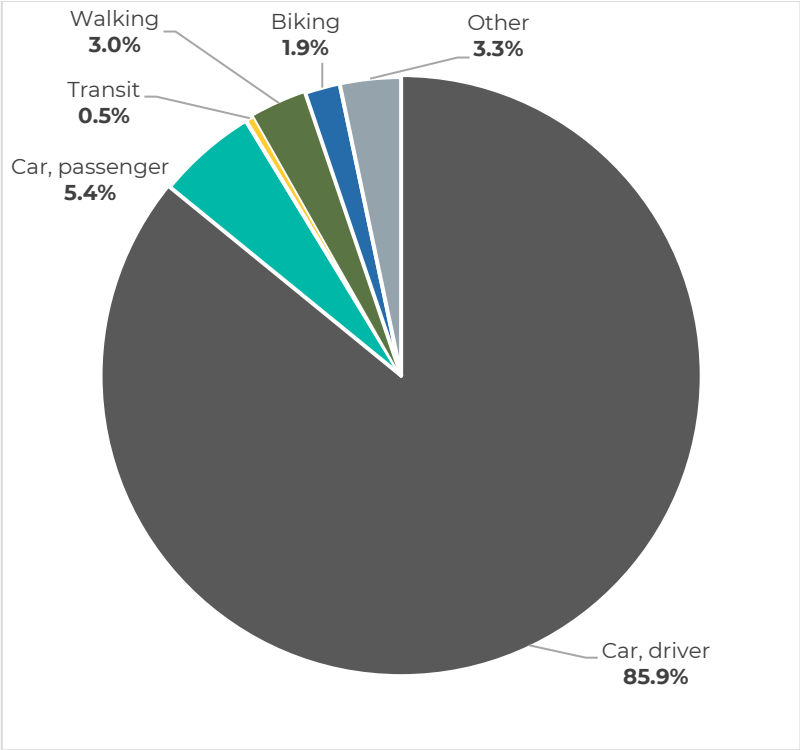
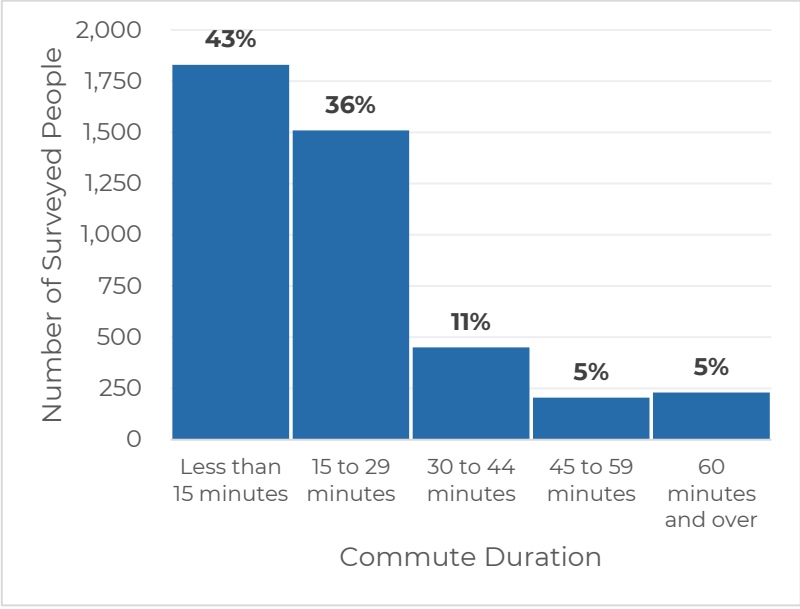


Figure 2-4: District of Coldstream Commuting Duration (2021 Census)



3.0 EXISTING NETWORK

Coldstream's existing transportation network includes roads and active transportation facilities. The following section summarizes the transportation facilities that currently exist in the District.

3.1 ROAD NETWORK

The Coldstream road network has approximately 118.4km of roads that consist of arterial, collector, and local roads. The road classification map from the Major Roadway Network Plan (2004) and the major road network map from the OCP are shown in **Appendix A**.

Highway 6 provides connections east to the neighbouring community of Lumby and west to the neighbouring community of Vernon. Highway 6 is under the Ministry of Transportation and Infrastructure's jurisdiction. Vehicles on Highway 6 travel at higher speeds, greater volumes, a higher proportion of heavy vehicles and are typically less suitable for active transportation facilities.

3.2 ACTIVE TRANSPORTATION NETWORK

Coldstream's existing active transportation network consists of 77 kilometers of different facility types. A list of the facilities and the quantity in the District is shown in **Table 3-1**. The most common type of active transportation facility in Coldstream are multi-use shoulders, trails, and bike lanes. A map illustrating all of Coldstream's existing active transportation network and its facilities is illustrated in **Figure 3-2**.

Table 3-1: Active Transportation Network Inventory

Facility Type	Kilometers
Sidewalk	18.1
Bike Lane	6.6
Multi-Use Pathway	9.4
Multi-Use Shoulder	24.4
Trail	18.5

PEDESTRIAN NETWORK

The pedestrian network encompasses several user and facility types. People using the pedestrian network could be walking or using mobility devices such as wheelchairs, mobility scooters, walkers, etc. The pedestrian network is comprised of sidewalks, multi-use pathways, trails, and multi-use shoulders. There also stairways that provide connections to Kal Beach and between roadways in hilly neighbourhoods. There is a total of 56.8 kilometers of pedestrian network in Coldstream including the following:

- **Sidewalks** are typically concrete facilities that are raised above the roadway and provide a separate space for people walking and using mobility devices.
- **Multi-Use Pathways** are typically, but not always, paved facilities that are located adjacent to roadways. These pathways are typically separated from motor vehicles where possible with a vertical or horizontal buffer and can facilitate walking, cycling, and rolling. Since multi-use pathways facilitate multiple modes of transportation, they are also a part of the cycling network.
- **Multi-Use Shoulders** are typically used in a rural context and can facilitate people walking, cycling, and rolling depending on the facility width. Multi-use shoulders are best suited for low volume roads since they are less safe than separated active transportation facilities. This space is not designated for cyclists or pedestrians with signage or road markings and can be used by motor vehicles.

- **Trails** are typically located in parks or natural areas and have an unpaved gravel surface. Trails are typically used by people walking and cycling and thus are also part of the cycling network.
- **Stairways** provide pedestrian connections in areas with steep terrain. There are six stairways in Coldstream.

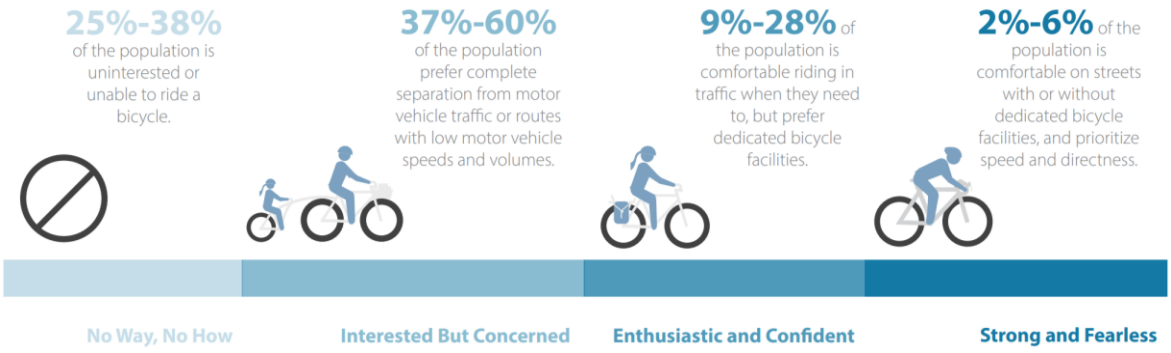
There are also pedestrian crosswalks and pedestrian crossings in Coldstream which are typically located near schools, parks, major intersections, the Town Center, and beaches. The current pedestrian facility requirements mentioned in the subdivision and development servicing bylaws are as follows:

- **Arterial Roads:**
  - Urban: 2.0m sidewalks on both sides of the road
  - Rural: 1.5m paved shoulder and 1.5m gravel shoulder
- **Collector Roads:**
  - Urban: 2.0m sidewalks on both sides
  - Rural: 1.5m paved shoulder and 1.5m gravel shoulder
- **Local Roads:**
  - Urban: 1.8m sidewalks on one side of the road
  - Rural: 1.5m gravel shoulder

CYCLING NETWORK

Cycling infrastructure is essential to increasing safety and encouraging more people to cycle in their community. Everyone has a unique perception of safety and risk when it comes to using the cycling network. The City of Portland was the first to create a classification system that placed people who ride a bicycle on a "Bicycle Rider Spectrum" that consists of four groups of riders, organized by their stress and risk tolerance (see **Figure 3-1**). Research suggests that most people fall into the "interested but concerned" user group. These people are interested in riding a bicycle but require comfortable and safe facilities.

Figure 3-1: Bicycle Rider Spectrum (BCAT Design Guide)



There is a total of 68.9 kilometers of cycling network in Coldstream. Coldstream currently has one dedicated cycling facility (in addition to the previously mentioned multi-use pathways, multi-use shoulders, and trails that are also part of the pedestrian network):

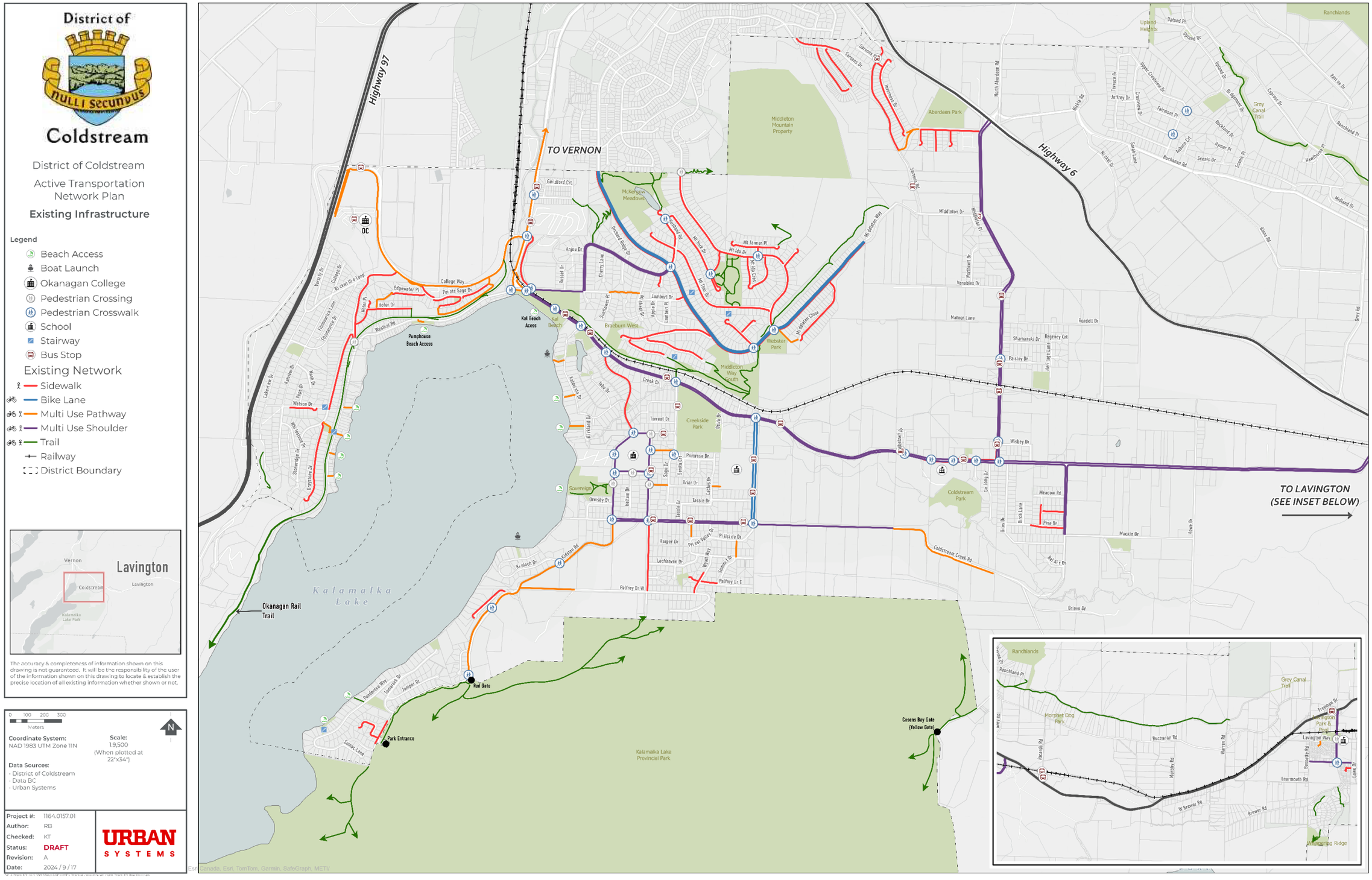
- **Painted Bicycle Lanes** are on-street designated lanes for people cycling. People cycling are separated from motor vehicles with a painted line.

The current cycling network in Coldstream is quite limited and focused mainly on major roads. The trail network is quite popular in Coldstream and serves as both a recreational and transportation route. The

current cycling requirements mentioned in the subdivision and development servicing bylaws are as follows:

- **Arterial Roads:**
  - Urban: >1.5m bike lanes on both sides of the road
  - Rural: 1.5m paved shoulder and 1.5m gravel shoulder
- **Collector Roads:**
  - Urban: 1.5m bike lanes on both sides of the road
  - Rural: 1.5m paved shoulder and 1.5m gravel shoulder
- **Local Roads:**
  - Urban: Shared bicycle facilities
  - Rural: 1.5m gravel shoulder

Figure 3-2: Existing Coldstream Active Transportation Network



4.0 INTERGRATION WITH OTHER MODES

Integrating active transportation with other modes of transportation is an important consideration in creating a robust and attractive active transportation network. Active transportation users often utilize multiple modes of transportation on their journey to and from their destination, especially in adverse weather conditions. Thus, it is important to ensure the connections between other modes of transportation are safe, convenient, and appealing.

4.1 BC TRANSIT

The transit network in Coldstream is limited with four transit routes connecting to the District. Three of the four route pass through Coldstream but do not directly serve the District.

While some of the bust stops in Coldstream are located in areas with concrete sidewalks, many are located in areas with only a paved shoulder and there are opportunities to improve the connections between active transportation facilities and bus stops to improve the safety and comfort for transit uses.

Route 1 – Coldstream provides service through Middleton, the Town Center, and Kalamalka Lake through to Vernon. This route operates seven days a week with fewer services on Saturdays and Sundays.

Route 6 – College links Okanagan College to the downtown Vernon area but does not travel into the Coldstream core areas. This route operates seven days a week with fewer services on Saturdays and Sundays.

Route 61 – Lumby connects Lumby, Lavington, and the industrial area on Ricardo Road to the downtown Vernon area. Route 61 offers a limited service on weekdays only.

Route 90 – UBCO links the University of British Columbia Okanagan to the downtown Vernon area but stops at Okanagan College. This route connects to Okanagan College seven days a week with fewer services on Saturdays and Sundays.

4.2 SCHOOL BUSES

School District 22 provides bus services for students that are within the school catchment area but outside of the walking distance limit which is two kilometers from the school.

School District 22 is continuously re-evaluating and restructuring their bus routes to maximize their available resources. Thus, these routes are subject to change each year. Several of the school bus pick-up locations offer little protection and waiting areas and could be improved with active transportation facilities such as sidewalks. Other improvements could include benches and shelters.

5.0 SAFETY

Safety is a key consideration in the planning of the active transportation network. To assess the existing safety conditions in Coldstream, ICBC collision date for pedestrians and cyclists between 2013 and 2022 was reviewed. Based on the ICBC data, there were nine collisions that involved pedestrians and cyclists, two of which were fatal and the other seven involved injury.

There were 7 collisions involving pedestrians at the following locations:

- **Fatal**
  - 725m east of Highway 6 & Buchanan Road
  - 350m west of Highway 6 & Hill Drive
- **Injury**
  - College Way & Kalamalka Road (x2)
  - Coldstream Creek Road & McClounie Road
  - Learmouth Road & Reid Road
  - 65m east of Husband Road & Sunflower Place

There were 2 collisions involving a cyclist at the following location:

- **Injury**
  - Buchanan Road & Ricardo Road
  - College Way & Kick Willie Loop Road

Both collisions at College Way & Kalamalka Road involved vehicles failing to notice pedestrians as they are turning left at the intersection. Both fatal collisions involved pedestrians walking along Highway 6. There are no other significant trends with the available data.

The 2021 Census data shows that only 4.9% of people in Coldstream walk or bike to their destinations which may be contributing to the low number of collisions over the last 10 years.

6.0 KEY ISSUES AND OPPORTUNITIES

The following section describes key issues, barriers, and opportunities for the active transportation network in the District of Coldstream.

NETWORK CONNECTIVITY

A key barrier for active transportation in Coldstream is poor network connectivity. The existing active transportation network contains several gaps such as discontinuous sidewalks, multi-use shoulders and multi-use pathways which contributes to connectivity issues between amenities and services for active transportation users.

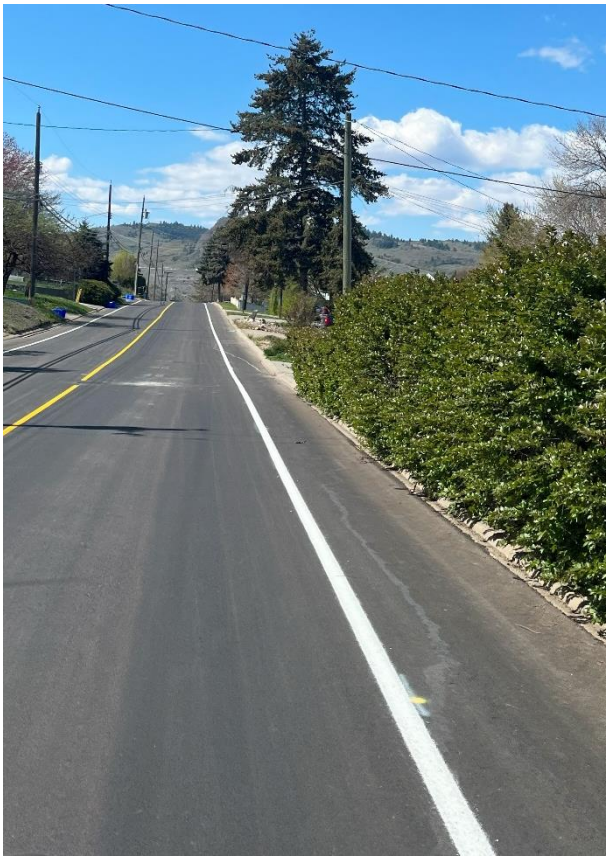
CYCLING NETWORK IS LIMITED TO SPECIFIC USER GROUPS

The cycling network mainly serves the strong and fearless and enthusiastic rider, but many of the interested but concerned cyclists are not comfortable using these facilities.

The existing bike lanes generally meet the minimum recommended width by the BCAT Design Guide which is not an all ages and ability design. Providing wider facilities with either horizontal and/or vertical separation from other modes of transportation would encourage more people in the interested but concerned group to cycle in Coldstream.

FACILITY WIDTH AND SEPARATION

The existing active transportation facilities could be improved. Currently, a large portion of the active transportation network consists of multi-use shoulders which are appropriate in a rural setting but not in an urban setting. Further, these facilities meet the minimum recommendation for cycling of 1.5m, but not for a shared pedestrian and cyclist use. The recommended width for multi-use pathways adjacent to a road is 3.0m with physical separation between active transportation users and motor vehicles.



The pedestrian sidewalk network has expanded with development since the previous Bicycle and Pedestrian Master Plan; however, many parts of Coldstream still rely on paved or gravel shoulders to support pedestrians getting around the network. While this may be appropriate in a rural context, best practice is to provide sidewalks of at least 1.8m wide. This provides vertical separation between people walking and motor vehicles. Formal sidewalks are especially important in areas with high senior population and within the two kilometer school bus walking distance limit.

ACTIVE TRANSPORTATION FACILITY SAFETY

The current active transportation facilities do not represent current best practices for supporting all ages and abilities. There is a lack of separation between vehicles and active transportation users.

The existing bicycle lanes meet the minimum recommended facility width; however, they are adjacent to parking lanes with no buffer. This leaves cyclists susceptible to door dings when parked vehicles swing their door open without checking for cyclists first. A buffer of at least 0.6m should be provided between parking and bicycle lanes.

While no trends were identified in the safety review, two collisions involving pedestrians were reported at College Way / Kalamalka Road while performing a left turn. Improvements to signal phasing can be made to mitigate this issue.

EXISTING PUBLIC RIGHT-OF-WAY IS VERY NARROW

The existing right-of-way in Coldstream can be very narrow in some areas which makes providing active transportation facilities that are comfortable for all ages and abilities impractical and expensive for a municipality of this size.

THERE IS LIMITED INTEGRATION BETWEEN TRANSIT, CYCLING, AND WALKING

The current integration between active transportation facilities and transit is limited in Coldstream. Providing additional amenities at transit stops (bicycle parking, benches, shelters, etc.) could enhance opportunities for multi-modal trips and help increase transit use in the District. Many transit users in Coldstream currently wait for the bus in the road shoulder. Additionally, providing end-of-trip facilities (short- and long-term bicycle parking, lockers, showers, etc.) in key areas can help ensure cycling becomes a more common form of transportation for commuting, as well as for other trips.

Source: Google Streetview

OTHER ACTIVE TRANSPORTATION OPPORTUNITIES

Below is a summary of some of the other issues and opportunities in Coldstream's active transportation network based on the review of the existing conditions:

- Highway 6 presents a barrier for people of the community and divides those who live north and south of it. Providing adequate safe crossings would play a large role in encouraging people to use active modes of transportation north of Highway 6.
- Kal Beach is a key destination in Coldstream but is very car centric and does not create a sense of welcomeness or safety for active transportation users. Additionally, the crossing from the parking lot to Kal Beach can often cause traffic congestion during the busy summer months.
- The current OCP, Zoning Bylaw, and SDS bylaw provide little resources to improve the active transportation network in Coldstream.

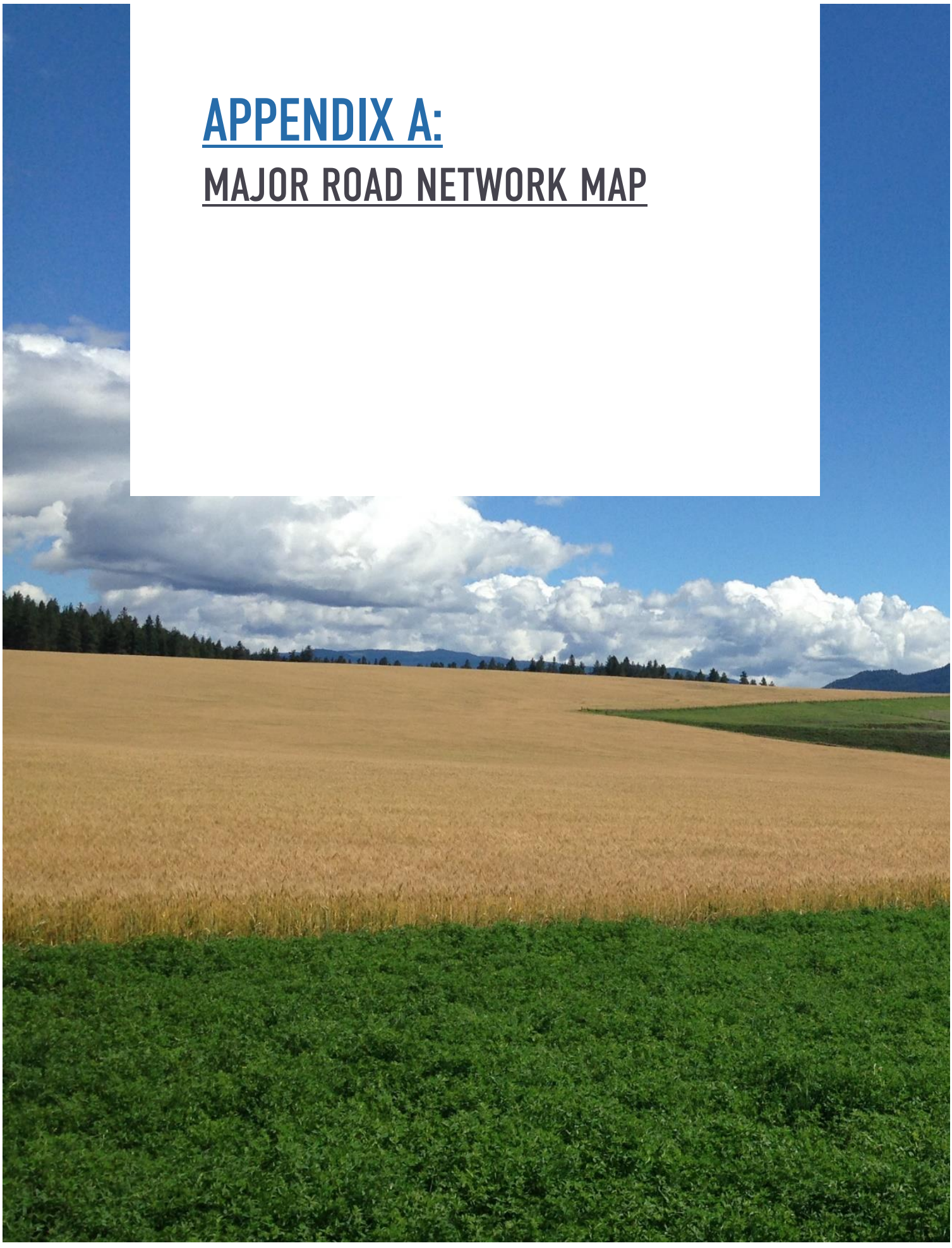
7.0 NEXT STEPS

The existing conditions report has been prepared as part of the process to develop an Active Transportation Network Plan. This document summarizes existing conditions for walking, cycling, and transit in Coldstream today based on technical analysis.

The next phase of work will focus on setting the course for the future active transportation network in Coldstream. Based on technical findings and input received from the public and key community partners, a future vision will be developed along with supporting goals, strategies, actions, and a proposed active transportation network.

APPENDIX A:

MAJOR ROAD NETWORK MAP



DISTRICT OF COLDSTREAM MUNICIPAL BOUNDARY

FIGURE 5

ROADWAY NETWORK CLASSIFICATION

LEGEND

- PROVINCIAL HIGHWAY
- ARTERIAL
- COLLECTOR
- LOCAL

District of Coldstream

URBAN SYSTEMS

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ICIPAL

DISTRICT OF COLDSTREAM MUNICIPAL BOUNDARY

NOBLE CANYON ROAD

SPRINGFIELD ROAD

PETWORTH ROAD

LOCKE DRIVE

SPRINGFIELD ROAD

HILL DRIVE

PARK LANE

FREEMAN DRIVE

HWY. NO.6

SCHOOL ROAD

JEFFERS DRIVE

LAVINGTON WAY

WILMAR WAY

WOODLAND DRIVE

GLENDORA WAY

BESSETTE ROAD

MONTCALM DRIVE

LEARMOUTH ROAD

LEARMOUTH ROAD

ANGUS DR.

DAVE DR.

LEARMOUTH ROAD

ROCHDELL ROAD

REID ROAD

LEARMOUTH RD.

BUCHANAN ROAD

BUCHANAN ROAD

VIMY ROAD

VIMY ROAD

MURPHY ROAD

MURPHY ROAD

VARREN ROAD

HWY. NO. 6

HWY. NO. 6

KING EDWARD LAKE RD.

BREWER ROAD WEST

BREWER ROAD

BREWER ROAD

DISTRICT OF COLDSTREAM MUNICIPAL BOUNDARY

FIGURE 5

ROADWAY NETWORK CLASSIFICATION

LEGEND

- PROVINCIAL HIGHWAY
- ARTERIAL
- COLLECTOR
- LOCAL

District of Coldstream

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URBAN SYSTEMS®

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N

District of Coldstream

Official Community Plan

Major Roads

Legend

- Existing Major Road
- Proposed Major Road
- Existing Collector
- Proposed Collector

0 0.5 1 Kilometers

1 : 25,000

District of Coldstream

Official Community Plan

Major Roads

Legend

- Existing Major Road
- Proposed Major Road
- Existing Collector
- Proposed Collector

Coldstream Creek

Brewer Creek

Creasie Creek

0 0.5 1 Kilometers

1 : 25,000

APPENDIX C:
PROJECT LIST

Coldstream ATNP
Project List
Final - April 2025

	Category		Segment Details				Description/Strategy/Action	Implementation Time Frame			Project Priority	Capital Cost
								Short Term (<2030)	Medium Term (2030-2035)	Long Term (2036-2045)		
								Feasible/likely implementation time-frame			Qualitative assessment of overall effectiveness at meeting Transportation Plan Objectives	
Project ID	Infrastructure / Operation & Maintenance / Amenities / Policy / Advocacy	Cycling / Trails / Sidewalk / Other	Infrastructure Segment	From	To	Length (m)	Project Name and Description/Strategy/Comments	x	x	x	Low / Medium / High Priority	
1	Infrastructure	Sidewalk	Kidston Road	Linden Drive	Cunliffe Road	365	Kidston Elementary perimeter improvements.	X			High	$ 515,000
	Infrastructure	Multi Use Pathway	Cunliffe Road	Kidston Road	Linden Drive	230		X			High	$ 855,000
	Infrastructure	Multi Use Pathway	Linden Drive	Cunliffe Road	Kidston Road	200		X			High	$ 220,000
2	Infrastructure	Multi Use Pathway	Kidston Road	Kalamalka Road	Cunliffe Road	435	Construct multi-use pathway on Kidston Road.	X			High	$ 650,000
	Infrastructure	Pedestrian Crosswalk	Kidston Road / Cunliffe Road				Multi-use crosswalk to facilitate newly constructed multi-use pathway.	X			Medium	
3	Infrastructure	Multi Use Shoulder	Upland Drive	Ridgemont Drive	Buchanan Road	555	Road widening to reasonably accommodate people walking and cycling to Upland Drive Park.		X		Low	
4	Infrastructure	Multi Use Pathway	Coldstream Creek Road	Existing Pathway	Cosens Bay Road	170	Extending multi-use pathway to Cosens Bay parking lot.			X	Low	
	Infrastructure	Multi Use Pathway	Cosens Bay Road	Coldstream Creek Road	Cosens Bay Parking Lot	1200				X	Low	
5	Infrastructure	Sidewalk	Stoneridge Drive	8131 Stoneridge Drive	8119 Stoneridge Drive	85	Fill in gap in the sidewalk on Stoneridge Drive.	X			High	$ 120,000
6	Infrastructure	Sidewalk	Pointe Sage Drive	7332 Pointe Sage Drive	7324 Pointe Sage Drive	60	Fill in gap in the sidewalk on Pointe Sage Drive.	X			Medium	
7	Infrastructure	Multi Use Pathway	Westkal Road	Rail Trail Café	Rail Trail Access Point	145	Provide a safe connection from the multi-use pathway to the Rail Trail.			X	Low	
8	Infrastructure	Sidewalk	Husband Road	Existing Sidewalk and Beach Parking Lot	Pathway Connection on Sunflower Place	455	Construct sidewalk on the road to connect to Husband Road and the existing sidewalk.		X		Medium	
9	Infrastructure	Sidewalk	Lambert Drive	Middleton Way	Michael Drive	220	Fill in gap in sidewalk on the road.		X		High	$ 315,000
	Infrastructure	Sidewalk	Michael Drive	Lambert Drive	Husband Road	155	Fill in gap in sidewalk on the road.	X			High	$ 220,000
	Infrastructure	Sidewalk	Apple Drive	Lambert Drive	Braeburn Drive	310	Construct sidewalk on Apple Drive.		X		High	$ 440,000
	Infrastructure	Pedestrian Crossing	Lambert Drive / Apple Drive				Construct pedestrian crossing once connecting sidewalks are constructed.		X		High	$ 6,000
	Infrastructure	Pedestrian Crossing	Michael Drive / Lambert Drive				Construct pedestrian crossing once connecting sidewalks are constructed.		X		High	$ 6,000
10	Infrastructure	Multi Use Pathway	Kidston Road	Red Gate	Kalamalka Lake Provincial Park	700	Construct multi-use pathway on or adjacent to Kidston Road. Opportunity to collaborate with BC Parks.			X	Medium	
11	Infrastructure	Sidewalk	Mcclounie Road	Coldstream Creek Road	Kalamalka Road	605	Fill in gap in sidewalk on the road.		X		High	$ 1,850,000

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	Category		Segment Details				Description/Strategy/Action	Implementation Time Frame			Project Priority	Capital Cost
								Short Term (<2030)	Medium Term (2030-2035)	Long Term (2036-2045)		
								Feasible/likely implementation time-frame			Qualitative assessment of overall effectiveness at meeting Transportation Plan Objectives	
Project ID	Infrastructure / Operation & Maintenance / Amenities / Policy / Advocacy	Cycling / Trails / Sidewalk / Other	Infrastructure Segment	From	To	Length (m)	Project Name and Description/Strategy/Comments	x	x	x	Low / Medium / High Priority	
12	Infrastructure	Multi Use Pathway	Kalamalka Road	Westkal Road	Kalavista Drive	450	Construct separated MUP on Kalamalka Road. Potential to revitalize the area as part of construction.	x			High	$ 1,485,000
	Infrastructure	Multi Use Pathway	Kalamalka Road	Kalavista Drive	Kidston Road	665	Construct separated MUP on Kalamalka Road.		x		Medium	
	Infrastructure	Multi Use Pathway	Kalamalka Road	Kidston Road	McClounie Road	520	Construct separated MUP on Kalamalka Road.			x	Medium	
	Infrastructure	Multi Use Pathway	Kalamalka Road	McClounie Road	Aberdeen Road	1490	Construct separated MUP on Kalamalka Road.			x	Medium	
13	Infrastructure	Multi Use Shoulder	Learmouth Road	School Road	Highway 6	2420	Road widening to reasonably accommodate people walking and cycling. Property acquisition could be considered for more robust facilities in the future.		x		High	$ 2,210,000
14	Infrastructure	Neighbourhood Bikeway	Warren Road	Highway 6	Grey Canal Trail	1160	Road resurfacing, gravel shoulders, neighbourhood bikeway signage and pavement markings.		x		Low	
15	Infrastructure	Multi Use Shoulder	Buchanan Road	Highway 6	Upland Drive	1120	Road widening to reasonably accommodate people walking and cycling.	x			High	$ 1,090,000
	Infrastructure	Multi Use Shoulder	Buchanan Road	Upland Drive	Warren Road	5800	Road widening to reasonably accommodate people walking and cycling.		x		High	$ 5,630,000
	Infrastructure	Multi Use Shoulder	Buchanan Road	Warren Road	Highway 6 (Lavington)	2600	Road widening to reasonably accommodate people walking and cycling.		x		High	$ 2,525,000
	Infrastructure	Intersection AT Safety Improvements	Buchanan Road / N Aberdeen Road				Intersection safety improvements to accommodate AT users and improve safety.		x		High	$ 100,000 - $300,000
16	Infrastructure	Neighbourhood Bikeway	Sarsons Road	Middleton Drive	City of Vernon	1100	Install neighbourhood bikeway road markings and signage.	x			Low	
	Infrastructure	Sidewalk	Sarsons Road	Selkirk Drive MUP	Middleton Drive	390	Construct sidewalk on Sarsons Drive.		x		Medium	
17	Infrastructure	Sidewalk	Middleton Way / Middleton Drive	Middleton Way	Aberdeen Road	815	Construct sidewalk on Middleton Drive.			x	Medium	
	Infrastructure	Neighbourhood Bikeway	Middleton Way / Middleton Drive	Middleton Way	Aberdeen Road	815	Install neighbourhood bikeway road markings and signage. Consider traffic calming measures.	x			Medium	
18	Infrastructure	Multi Use Shoulder	Aberdeen Road	Highway 6	Venables Drive	1050	Safety improvements to existing multi-use shoulders. Road widening, property acquisition, and/or shifting the centre line may required. Corridor lighting improvements should accompany this project.	x			High	$ 725,000

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								Short Term (<2030)	Medium Term (2030-2035)	Long Term (2036-2045)		
								Feasible/likely implementation time-frame			Qualitative assessment of overall effectiveness at meeting Transportation Plan Objectives	
Project ID	Infrastructure / Operation & Maintenance / Amenities / Policy / Advocacy	Cycling / Trails / Sidewalk / Other	Infrastructure Segment	From	To	Length (m)	Project Name and Description/Strategy/Comments	x	x	x	Low / Medium / High Priority	
18	Infrastructure	Multi Use Shoulder	Aberdeen Road	Venables Drive	Kalamalka Road	1010	Safety improvements to existing multi-use shoulders. Road widening, property acquisition, and/or shifting the centre line may required. Corridor lighting improvements should accompany this project.	x			High	$ 700,000
19	Infrastructure	Multi Use Pathway	Highway 6 / Rail Line	School Road	Kalamalka Road	7200	Long term inter-city rail trail in CN Rail right-of-way. Would require coordination between multiple agencies.			x	Low	
20	Infrastructure	Buffered Bike Lanes	Kalamalka Road	Highway 6	Aberdeen Road	2450	Provide painted buffer for multi-use shoulder.			x	Medium	
21	Infrastructure	Multi Use Shoulder	Palfrey Drive	Existing MUP	Cunliffe Road	420	Road widening to reasonably accommodate people walking and cycling.			x	Low	
22	Infrastructure	Sidewalk	Palfrey Drive	Wyatt Way	Cunliffe Road	270	Construct sidewalk on Palfrey Drive.			x	Low	
23	Infrastructure	Sidewalk	Cunliffe Road	Coldstream Creek Road	Linden Drive	265	Construct sidewalk on Cunliffe Road.		x		High	$ 375,000
24	Infrastructure	Multi Use Pathway	Kidston Road	Coldstream Creek Road	Linden Drive	275	Separated MUP on Kidston Road. Some property acquisition may be required.		x		Medium	
25	Infrastructure	Intersection	Kalamalka Road / College Way / Husband Road				Place elephants feet road markings on intersection crossing to indicate a multi-use crossing.	x			Medium	
	Infrastructure	Intersection	Kalamalka Road / College Way / Husband Road				Improve existing curb ramps to meet accessible design standards.	x			Medium	
26	Infrastructure	Neighbourhood Bikeway	Postill Drive	Kalamalka Road	Kidston Road	545	Neighbourhood bikeway signage and pavement markings.	x			Medium	
27	Infrastructure	Neighbourhood Bikeway	Grey Road	Highway 6	Buchanan Road	1010	Neighbourhood bikeway signage and pavement markings.		x		Low	
28	Infrastructure	Multi Use Pathway	Kalamalka Road	College Way	CN Rail Bridge	200	Widen the existing MUP.		x		Medium	
29	Infrastructure	Multi Use Shoulder	Coldstream Creek Road	Kalamalka Road	Cosens Bay Road	1000	Road widening to reasonably accommodate people walking and cycling.		x		Medium	
30	Infrastructure	Multi Use Shoulder	School Road	Lavington Way	Learmouth Road	430	Continue road widening and streetlight improvements that were completed in 2024 from Lavington Park to Learmouth Road.	x			High	$ 300,000
31	Infrastructure	Sidewalk	Kickwillie Loop Road	Lakeview Drive	Kickwillie Loop Road	400	Construct sidewalk on Kickwillie Loop Road.		x		Low	
	Infrastructure	Neighbourhood Bikeway	Kickwillie Loop Road	Lakeview Drive	Kickwillie Loop Road	595	Neighbourhood bikeway signage and pavement markings.	x			Medium	
32	Infrastructure	Multi Use Shoulder	Husband Road	Kalamalka Road	Kal Beach Parking Lot Entrance	360	Road widening to reasonably accommodate people walking and cycling.			x	Medium	
33	Infrastructure	Neighbourhood Bikeway	Husband Road	Middleton Way	McKergow Meadows	355	Install neighbourhood bikeway road markings and signage. Consider intersection treatments.		x		Medium	
34	Infrastructure	Neighbourhood Bikeway	Mt Thor Drive	Husband Road	Middleton Way	855	Install neighbourhood bikeway road markings and signage. Consider intersection treatments.		x		Medium	

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								Short Term (<2030)	Medium Term (2030-2035)	Long Term (2036-2045)		
								Feasible/likely implementation time-frame			Qualitative assessment of overall effectiveness at meeting Transportation Plan Objectives	
Project ID	Infrastructure / Operation & Maintenance / Amenities / Policy / Advocacy	Cycling / Trails / Sidewalk / Other	Infrastructure Segment	From	To	Length (m)	Project Name and Description/Strategy/Comments	x	x	x	Low / Medium / High Priority	
35	Infrastructure	Sidewalk	Husband Road	Sunflower Place	Middleton Way	800	Construct sidewalk on Husband Road.			X	Medium	
	Infrastructure	Bike Lane	Husband Road	Sunflower Place	Middleton Way	800	Convert multi-use shoulders to bicycle lanes with the construction of sidewalk.			X	Low	
	Infrastructure	Pedestrian Crosswalk	Husband Road / Sunflower Place				Construct pedestrian crossing across Husband Road with construction of sidewalk on Sunflower Place/Husband Road.		X		Medium	
36	Infrastructure	Multi Use Pathway	Coldstream Creek Road	Kidston Road	Existing MUP	1635	Construct a MUP on Coldstreem Creek Road.			X	Low	
37	Infrastructure	Sidewalk	Sarsons Drive	Existing Sidewalk	Sarsons Road	220	Construct sidewalk on Sarsons Drive.			X	Medium	
38	Infrastructure	Neighbourhood Bikeway	Lakeview Drive	Souther Road Extent	Kickwillie Loop Road	955	Road widening to reasonably accommodate people walking and cycling.	X			Medium	
39	Infrastructure	Neighbourhood Bikeway	Lavington Way	Bessette Road	School Road	500	Neighbourhood bikeway signage and pavement markings. Traffic calming could be considered in front of Lavington Centennial Park.	X			Medium	
	Infrastructure	Neighbourhood Bikeway	Bessette Road	Lavington Way	Learmouth Road	400	Neighbourhood bikeway signage and pavement markings.	X			Medium	
40	Infrastructure	Sidewalk	Pine Drive	Giles Drive	Existing Sidewalk	150	Construct sidewalk on Pine Drive.		X		Medium	
	Infrastructure	Sidewalk	Giles Drive	Kalamalka Road	Pine Drive	360	Construct sidewalk on Giles Drive.		X		Medium	
	Infrastructure	Sidewalk	Kalamalka Road	Giles Drive	Aberdeen Road	60	Construct sidewalk on Kalamalka Road.		X		Medium	
41	Infrastructure	Sidewalk	Lavington Way	Lavington Centennial Park Parking Lot	School Road	140	Construct sidewalk on Lavington Way.		X		High	$ 430,000
	Infrastructure	Sidewalk	School Road	Lavington Way	Lavington Elementary north Crosswalk	40	Construct sidewalk on School Road.		X		High	$ 125,000
	Infrastructure	Sidewalk	School Road	Jeffers Drive	Church Parking Lot	120	Construct sidewalk on School Road.		X		High	$ 370,000
42	Infrastructure	Sidewalk	Summit Drive	Palfrey Drive E	Priest Valley Drive	180	Construct sidewalk on Summit Drive.		X		Medium	
	Infrastructure	Sidewalk	Hillside Drive	Priest Valley Drive	Coldstream Creek Road	300	Construct sidewalk on Hillside Drive.		X		Medium	
	Infrastructure	Sidewalk	Priest Valley Drive	Hillside Drive	Harper Drive	165	Construct sidewalk on Priest Valley Drive.		X		Medium	
	Infrastructure	Sidewalk	Priest Valley Drive	Harper Drive	Wyatt Way	160	Construct sidewalk on Priest Valley Drive.			X	Medium	
	Infrastructure	Sidewalk	Wyatt Way	Existing Sidewalk	Priest Valley Drive	65	Construct sidewalk on Wyatt Way.			X	Medium	
	Infrastructure	Pedestrian Crossing	Existing Pathway / Hillside Drive				Construct pedestrian crosswalk from the existing pathway to proposed sidewalk on Hillside Drive.			X	Medium	
	Infrastructure	Pedestrian Crossing	Hillside Drive / Priest Valley Drive				Construct pedestrian crosswalk.			X	Medium	
	Infrastructure	Pedestrian Crossing	Priest Valley Drive / Summit Drive				Construct pedestrian crossing from the existing pathway to the proposed sidewalk on Summit Drive.			X	Medium	
43	Infrastructure	Sidewalk	Tamarack Drive	Kidston Road	Long Lake Estates Drive Park	90	Construct sidewalk on Tamarack Drive.			X	Medium	

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								Feasible/likely implementation time-frame			Qualitative assessment of overall effectiveness at meeting Transportation Plan Objectives	
Project ID	Infrastructure / Operation & Maintenance / Amenities / Policy / Advocacy	Cycling / Trails / Sidewalk / Other	Infrastructure Segment	From	To	Length (m)	Project Name and Description/Strategy/Comments	x	x	x	Low / Medium / High Priority	
	Infrastructure	Sidewalk	Kidston Road	Existing Sidewalk	Tamarack Drive	55	Construct sidewalk on Kidston Road.			X	Medium	
44	Infrastructure	Intersection	Kalamalka Road / Kidston Road				Tighten corner radii to reduce vehicle speeds around the corner.		X		Medium	
45	Infrastructure	Intersection	Kalamalka Road / McClounie Road				Tighten corner radii to reduce vehicle speeds around the corner.		X		Medium	
46	Infrastructure	Sidewalk	Tassie Drive	McClounie Road	Cactus Drive	245	Construct sidewalk on Tassie Drive.		X		High	$ 350,000
	Infrastructure	Sidewalk	Cactus Drive	Tassie Drive	Briar Drive	75	Construct sidewalk on Cactus Drive.		X		High	$ 110,000
	Infrastructure	Sidewalk	Briar Drive	Cactus Drive	Sage Drive	240	Construct sidewalk on Briar Drive.		X		High	$ 735,000
	Infrastructure	Pedestrian Crossing	Tassie Drive / Cactus Drive				Construct pedestrian crossing at the intersection of Tassie Drive / Cactus Drive.		X		High	$ 6,000
47	Infrastructure	Pedestrian Crosswalk	College Way / Okanagan College				Construct multi-use crossing at OC driveway access.	X			Medium	
48	Infrastructure	Trail	Kal Beach Parking Lot	Husband Road	Kalamalka Road	185	Formalize trail through beach parking lot from Husband Road to Kal Beach.		X		Low	
49	Infrastructure	Pedestrian Crossing	Middleton Way / Lambert Drive				Construct pedestrian crossing at the intersection of Middleton Way / Lambert Drive.		X		Low	
50	Infrastructure	Pedestrian Crossing	Middleton Way / Braeburn Drive				Construct pedestrian crossing at the intersection of Middleton Way / Braeburn Drive.		X		Low	
51	Infrastructure	Neighbourhood Bikeway	Cunliffe Road	Palfrey Drive	Linden Drive	685	Neighbourhood bikeway signage and pavement markings.		X		Medium	
52	Infrastructure	Sidewalk	Palfrey Drive E	Existing Sidewalk	Kal Park Access	200	Provide a sidewalk connection to the Kal Park entrance on the end of Palfrey Drive E.			X	Low	
1	Policy	SDS Bylaw Update					Update the SDS Bylaws with respect to design requirements for AT facilities (width, size, buffers, context) based on the BCAT Design Guide best practices.		X		Medium	
2	Policy	Winter Maintenance					Consider developing a policy to include commuter AT facilities as a priority for snow clearing.		X		Medium	
3	Policy	Pedestrian and Cyclist Education					Develop and promote educational materials for the community such as documents, videos, pamphlets, etc. that describe how drivers and active modes should travel along their respective facilities.	X			High	
4	Policy	Transit					Consider updating the DCC Bylaw to include costs for transit and AT infrastructure.		X		Medium	
1	Operations & Maintenance	Signage					Provide Shared Street Signage as determined in review and consideration of public requests on Local roads.	X			Medium	
2	Operations & Maintenance	Acquiring Right-of-Way for Priority Projects where Needed					For priority AT projects, undertake functional planning to refine project design details, costs and potential property acquisition at a project specific level, notable for projects located in narrow rights-of-way.			X	Low	

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	Category		Segment Details				Description/Strategy/Action	Implementation Time Frame			Project Priority	Capital Cost
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								Feasible/likely implementation time-frame			Qualitative assessment of overall effectiveness at meeting Transportation Plan Objectives	
Project ID	Infrastructure / Operation & Maintenance / Amenities / Policy / Advocacy	Cycling / Trails / Sidewalk / Other	Infrastructure Segment	From	To	Length (m)	Project Name and Description/Strategy/Comments	x	x	x	Low / Medium / High Priority	
3	Operations & Maintenance	Transit		Middleton	Vernon		Advocate for BC Transit to continue to expand transit services in Coldstream including the proposed Route 10 and improve infrastructure at existing bus stops.		x		Medium	
4	Operations & Maintenance	Events					Plan and host celebration events for the completion of new AT infrastructure as they are completed.	x			Medium	
5	Operations & Maintenance	Youth Educational Programs					Encourage SD22 to host youth education events such as bike buses and youth education programs.	x			High	
6	Operations & Maintenance	Transit	Bust Stop ID: 144342 and 144029				Work with BC Transit to consolidate the bus stops on Kalamalka Road / Mallard Way and Kalamalka Road / Guilford Crescent (Bust Stop ID: 144342 and 144029).		x		Medium	
7	Operations & Maintenance	Signage at Kick Willie Loop Rd / Rail Trail	Kickwillie Loop Road / Rail Trail				Repaint road markings and increase maintenance frequency at the Kick Willie Loop Road / Rail Trail crossing to increase visibility and awareness of people crossing.	x			High	
8	Operations & Maintenance	Road Markings					Update existing share the road signage to include vehicles, pedestrians, cyclists, and horses and place on roads with multi use shoulders. These should be implement where appropriate.	x			High	
9	Operations & Maintenance	Transit Design Standard					Develop and implement a standard bus landing pad design.		x		Medium	
10	Operations & Maintenance	Off-street Pathway		Sunflower Place	Michael Drive		Repair the off-street pathway between Sunflower Place and Michael Drive.		x		Medium	
11	Operations & Maintenance	Traffic Signal Adjustment at Kalamalka Rd / College Way / Husband Road	Kalamalka Road / College Way / Husband Road				Review the signal timing to provide a leading pedestrian interval signal at the intersection of Kalamalka Road / College Way / Husband Road.	x			High	
1	Amenities	Wayfinding					Develop and display wayfinding signage along AT corridors showing other routes and nearby amenities.	x			High	
2	Amenities	E-scooters					Work with the City of Vernon to expand their e-scooter program to include Kal Beach. Supporting e-scooter parking infrastructure should be provided.	x			Medium	
3	Amenities	Cycle Parking					Increase bike parking at trail heads, in commercial areas, at schools, and in the Town Centre.	x			Medium	
4	Amenities	Street Trees					Increase the amount of shade-providing street trees adjacent to AT facilities.		x		Medium	
5	Amenities	Accessibility					Provide rest areas on AT facilities with steep grades.		x		Medium	
6	Amenities	Cycle Parking	Kalamalka Beach				Provide a paved surface around the bicycle parking at Kalamalka Beach.	x			Low	
7	Amenities	AT Network Maps					Develop AT network maps accessible online and in print.	x			Medium	

APPENDIX D:

CLASS D UNIT COST RATES

District of Coldstream
Conceptual Planning Level Class D Cost Estimates
Pedestrian and Cycle Facilities - Unit Rate (per Meter) Cost Derivations
Prepared November 2024

Facility 1.1 - Pedestrian Sidewalk (1.8 metre)

Description of Works	Unit	Qty	Unit Cost	Cost per Metre (on-site drainage)	Cost per Meter (off-site drainage)
Clearing, Grubbing and Common Excavation	sq.m.	1.8	$ 18.00	$ 32.40	$ 32.40
Concrete Sidewalk with 100mm granular base and subgrade prep	sq.m.	1.8	$ 185.00	$ 333.00	$ 333.00
Imported Soil Restoration (one side)	sq.m.	0.6	$ 48.00	$ 28.80	$ 28.80
Saw Cut Asphalt / Concrete	l.m.	1	$ 22.00	$ 22.00	$ 22.00
Curb and Gutter	l.m.	1	$ 225.00	$ 225.00	$ 225.00
Contingency for Urban Drainage System (storm, cb, mh, leads)	l.m.	1	$ 1,160.00	-	$ 1,160.00
Contingency for ditch-based drainage	l.m.	1	$ 190.00	$ 190.00	-
			Subtotal	**$ 831.20**	**$ 1,801.20**
			Construction Contingency (40%)	$ 332.48	$ 720.48
			Subtotal	**$ 1,163.68**	**$ 2,521.68**
			Engineering (15%)	$ 174.55	$ 378.25
			Construction Services (6%)	$ 69.82	$ 151.30
			Total Unit Rate Cost Estimate (rounded)	**$ 1,410.00**	**$ 3,050.00**

Facility 1.2 - Pedestrian Sidewalk (1.8 metre) with Retaining Wall

Description of Works	Unit	Qty	Unit Cost	Cost per Metre (on-site drainage)	Cost per Meter (off-site drainage)
Clearing, Grubbing and Common Excavation	sq.m.	1.8	$ 18.00	$ 32.40	$ 32.40
Concrete Sidewalk with 100mm granular base and subgrade prep	sq.m.	1.8	$ 185.00	$ 333.00	$ 333.00
Imported Soil Restoration (one side)	sq.m.	0.6	$ 48.00	$ 28.80	$ 28.80
Saw Cut Asphalt / Concrete	l.m.	1	$ 22.00	$ 22.00	$ 22.00
Curb and Gutter	l.m.	1	$ 225.00	$ 225.00	$ 225.00
Retaining Wall Contingency (average 1 meter height across project)	v.l.m.	1	$ 1,800.00	$ 1,800.00	$ 1,800.00
Contingency for Urban Drainage System (storm, cb, mh, leads)	l.m.	1	$ 1,160.00	-	$ 1,160.00
Contingency for ditch-based drainage	l.m.	1	$ 190.00	$ 190.00	-
			Subtotal	**$ 2,631.20**	**$ 3,601.20**
			Construction Contingency (40%)	$ 1,052.48	$ 1,440.48
			Subtotal	**$ 3,683.68**	**$ 5,041.68**
			Engineering (15%)	$ 552.55	$ 756.25
			Construction Services (6%)	$ 221.02	$ 302.50
			Total Unit Rate Cost Estimate (rounded)	**$ 4,460.00**	**$ 6,100.00**

Facility 2.1 - Quick Build Paved Multi-Use Pathway

Description of Works	Unit	Qty	Unit Cost	Cost per Metre (on-site drainage)
Signage	1 / 100 l.m.	0.02	$ 600.00	$ 12.00
Pre-cast Concrete Low-Rise Barrier	l.m.	1	$ 450.00	$ 450.00
Contingency for ditch-based drainage	l.m.	1	$ 190.00	$ 190.00
			Subtotal	**$ 652.00**
			Construction Contingency (40%)	$ 260.80
			Subtotal	**$ 912.80**
			Engineering and Survey (15%)	$ 136.92
			Construction Services (6%)	$ 54.77
			Total Unit Rate Cost Estimate (rounded)	**$ 1,100.00**

Facility 2.2 - Standard-Build Urban Paved Multi-Use Pathway

Description of Works	Unit	Qty	Unit Cost	Cost per Metre (on-site drainage)	Cost per Meter (off-site drainage)
Clearing, Grubbing and Common Excavation	sq.m.	3.6	$ 18.00	$ 64.80	$ 64.80
Subgrade Preparation	sq.m.	3.6	$ 3.50	$ 12.60	$ 12.60
Granular Base (150mm)	sq.m.	3.6	$ 17.00	$ 61.20	$ 61.20
Granular Sub-Base (200mm)	sq.m.	3.6	$ 25.00	$ 90.00	$ 90.00
Asphalt Pathway - 50mm thickness	sq.m.	3.6	$ 75.00	$ 270.00	$ 270.00
Imported Soil Restoration (one side)	sq.m.	0.6	$ 48.00	$ 28.80	$ 28.80
Saw Cut Asphalt / Concrete	l.m.	1	$ 22.00	$ 22.00	$ 22.00
Signage	1 / 100 l.m.	0.02	$ 600.00	$ 12.00	$ 12.00
Curb and Gutter	l.m.	1	$ 225.00	$ 225.00	$ 225.00
Contingency for Urban Drainage System (storm, cb, mh, leads)	l.m.	1	$ 1,160.00	-	$ 1,160.00
Contingency for ditch-based drainage	l.m.	1	$ 190.00	$ 190.00	-
			Subtotal	**$ 976.40**	**$ 1,946.40**
			Construction Contingency (40%)	$ 390.56	$ 778.56
			Subtotal	**$ 1,366.96**	**$ 2,724.96**
			Engineering and Survey (15%)	$ 205.04	$ 408.74
			Construction Services (6%)	$ 82.02	$ 163.50
			Total Unit Rate Cost Estimate (rounded)	**$ 1,650.00**	**$ 3,300.00**

Facility 2.3 - Constrained Paved Multi-Use Pathway with Retaining Wall

Description of Works	Unit	Qty	Unit Cost	Cost per Metre (on-site drainage)	Cost per Meter (off-site drainage)
Clearing, Grubbing and Common Excavation	sq.m.	3.6	$ 18.00	$ 64.80	$ 64.80
Subgrade Preparation	sq.m.	3.6	$ 3.50	$ 12.60	$ 12.60
Granular Base (150mm)	sq.m.	3.6	$ 17.00	$ 61.20	$ 61.20
Granular Sub-Base (200mm)	sq.m.	3.6	$ 25.00	$ 90.00	$ 90.00
Asphalt Pathway - 50mm thickness	sq.m.	3.6	$ 75.00	$ 270.00	$ 270.00
Imported Soil Restoration (one side)	sq.m.	0.6	$ 48.00	$ 28.80	$ 28.80
Saw Cut Asphalt / Concrete	l.m.	1	$ 22.00	$ 22.00	$ 22.00
Signage	1 / 100 l.m.	0.02	$ 600.00	$ 12.00	$ 12.00
Curb and Gutter	l.m.	1	$ 225.00	$ 225.00	$ 225.00
Retaining Wall Contingency (average 1 meter height across project)	v.l.m.	1	$ 1,800.00	$ 1,800.00	$ 1,800.00
Contingency for Urban Drainage System (storm, cb, mh, leads)	l.m.	1	$ 1,160.00	-	$ 1,160.00
Contingency for ditch-based drainage	l.m.	1	$ 190.00	$ 190.00	
			Subtotal	**$ 2,776.40**	**$ 3,746.40**
			Construction Contingency (40%)	$ 1,110.56	$ 1,498.56
			Subtotal	**$ 3,886.96**	**$ 5,244.96**
			Engineering and Survey (15%)	$ 583.04	$ 786.74
			Construction Services (6%)	$ 233.22	$ 314.70
			Total Unit Rate Cost Estimate (rounded)	**$ 4,700.00**	**$ 6,350.00**

Facility 2.4 - New Rural Multi-use Pathway/Trail with Gravel

Description of Works	Unit	Qty	Unit Cost	Cost per Metre (on-site drainage)
Clearing, Grubbing and Common Excavation	sq.m.	3.5	$ 18.00	$ 63.00
Subgrade Preparation	sq.m.	3.5	$ 3.00	$ 10.50
Granular Base (150mm)	sq.m.	3.5	$ 17.00	$ 59.50
Granular Sub-Base (200mm)	sq.m.	3.5	$ 25.00	$ 87.50
Gravel Surface	sq.m.	3.5	$ 30.00	$ 105.00
Signage	1 / 100 l.m.	0.02	$ 600.00	$ 12.00
Contingency for ditch-based drainage	l.m.	1	$ 190.00	$ 190.00
Imported Soil Restoration (both sides)	sq.m.	1.2	$ 48.00	$ 57.60
			Subtotal	**$ 585.10**
			Construction Contingency (40%)	$ 234.04
			Subtotal	**$ 819.14**
			Engineering (15%)	$ 122.87
			Construction Services (6%)	$ 49.15
			Total Unit Rate Cost Estimate (rounded)	**$ 990.00**

Facility 3 - Multi-Use Shoulder with 2.5m Paved Shoulder Widening

Description of Works	Unit	Qty	Unit Cost	Cost per Metre (on-site drainage)
Clearing, Grubbing and Common Excavation	sq.m.	2.5	$ 18.00	$ 45.00
Subgrade Preparation	sq.m.	2.5	$ 3.00	$ 7.50
Saw Cut Asphalt / Concrete	l.m.	1	$ 22.00	$ 22.00
Granular Base (150mm)	sq.m.	2.5	$ 17.00	$ 42.50
Granular Sub-Base (200mm)	sq.m.	2.5	$ 25.00	$ 62.50
Asphalt Pathway - 50mm thickness	sq.m.	2.5	$ 75.00	$ 187.50
Paint Marking	l.m.	1	$ 15.00	$ 15.00
Contingency for ditch-based drainage	l.m.	1	$ 190.00	$ 190.00
			Subtotal	**$ 572.00**
			Construction Contingency (40%)	$ 228.80
			Subtotal	**$ 800.80**
			Engineering (15%)	$ 120.12
			Construction Services (6%)	$ 48.05
			Total Unit Rate Cost Estimate (rounded)	**$ 970.00**

Facility 4 - Neighbourhood Bikeway / Painted Shoulder (no shoulder widening required)

Description of Works	Unit	Qty	Unit Cost	Cost per Metre
Paint Marking	l.m.	1	$ 15.00	$ 15.00
Signage	1 / 100 l.m.	0.02	$ 600.00	$ 12.00
Traffic Calming Device Contingency	1 / 100 l.m.	0.01	$ 2,500.00	$ 25.00
			Subtotal	**$ 52.00**
			Construction Contingency (40%)	$ 20.80
			Subtotal	**$ 72.80**
			Engineering and Survey (15%)	$ 10.92
			Construction Services (6%)	$ 4.37
			Total Unit Rate Cost Estimate (rounded)	**$ 90.00**

Facility 5 - Buffered Bike Lane with 1.2m Paved Shoulder Widening for 0.6m buffers

Description of Works	Unit	Qty	Unit Cost	Cost per Metre (on-site drainage)
Clearing, Grubbing and Common Excavation	sq.m.	1.2	$ 18.00	$ 21.60
Subgrade Preparation	sq.m.	1.2	$ 3.00	$ 3.60
Saw Cut Asphalt / Concrete	l.m.	1	$ 22.00	$ 22.00
Granular Base (150mm)	sq.m.	1.2	$ 17.00	$ 20.40
Granular Sub-Base (200mm)	sq.m.	1.2	$ 25.00	$ 30.00
Asphalt Pathway - 50mm thickness	sq.m.	1.2	$ 75.00	$ 90.00
Paint Marking	l.m.	1	$ 30.00	$ 30.00
Contingency for ditch-based drainage	l.m.	1	$ 190.00	$ 190.00
			Subtotal	**$ 407.60**
			Construction Contingency (40%)	$ 163.04
			Subtotal	**$ 570.64**
			Engineering (15%)	$ 85.60
			Construction Services (6%)	$ 34.24
			Total Unit Rate Cost Estimate (rounded)	**$ 690.00**