



Village of Chase

# Active Transportation Plan

February 2019





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# Executive Summary

The vision of the Chase Active Transportation Plan (ATP) is to, “create safe and enjoyable networks for active transportation.” While Chase has considered active transportation in the past, this plan represents the first-time walking and cycling are being considered holistically and planned for intentionally. The project, is funded from BC Healthy Communities and the BC Ministry of Community, Sport and Cultural Development. The intended outcome of this plan to build facilities and run programs that improve community access to walking and cycling, benefiting the health and well-being of residents. This plan provides a framework that the community can use to build a more active Chase.

The plan includes over 50 infrastructure projects throughout the Village. The projects range from closing gaps in the sidewalk network to building trails along Chase Creek with new bridges. Proposed projects will make walking and cycling around Chase a more convenient and attractive experience. The projects will provide a legacy that will continue to make Chase a great place to live and visit.

Months of public engagement, field work, and analysis have contributed to this plan. Stakeholders were involved in many ways throughout the process, from supporting the inventory of existing conditions, to identifying opportunities and constraints, and evaluating plan priorities. The plan includes the following chapters:

**Chapter 1. Plan Background** – describes the scope and vision, goals, and objectives of the plan.

**Chapter 2. Community Background** – provides context about the Village, including how other Village plans relate to this plan, and regional plans.

**Chapter 3. Activating the Community** – describes how the public and stakeholders were involved in the development of the plan.

**Chapter 4. Developing a Network** – outlines the existing conditions inventory and the analysis that was undertaken to identify where there are needs and opportunities to provide active transportation facilities.

**Chapter 5. Plan Recommendations** – includes descriptions of the types of active transportation facilities being recommended in the plan. The chapter also presents the proposed network and implementation priorities, preliminary concept design of three proposed projects, as well as infrastructure, program, policy, and funding recommendations that will leverage the investment in the network.

## Why a plan that specifically focuses on active transportation?

- Active transportation is accessible – there are no age requirements or significant costs to use active transportation as a way to get around
- Active transportation is good for one’s health – by providing opportunities for people to move through a community using active modes, a person is getting exercise and helping to improve the overall health of a community
- Active transportation is good for community – people have more opportunity to connect and interact with other community members when they are walking and biking around their community. This increases social inclusion and offsets social isolation relating to the WHO determinants of health
- Active transportation is good for the environment – by taking active transportation modes, people in Chase are reducing their dependence on fossil fuels

**Next Steps** - The next steps after adopting this plan are to continue to pursue funding for the implementation of short-term projects and pursue the implementation of priority recommendations including improving one-side shoulder treatments, adopting a 30 km/h speed limit in the downtown area, and initiating an Active and Safe Routes to Schools program.

The active transportation plan is an official policy document of the Village of Chase to guide the planning and implementation of facilities and initiatives that will enable and encourage more walking and cycling trips by more residents and visitors to Chase. The plan includes maps for reference to communicate the proposed network. This plan should be referenced during budget setting, road construction, and property development to identify opportunities to implement projects. The plan should be updated periodically to account for changes in the Village over time.



# Chapter 1. Plan Background

## What is an Active Transportation Plan

Active transportation includes human powered modes of transportation, most commonly walking and cycling. An active transportation plan identifies priorities and provides recommendations to develop a community's walking and cycling network. Recommendations can also address policies and programs to help build the network and to encourage and enhance the experience of people using active transportation modes. A plan is needed in order to guide decisions in the Village. It also helps position the community to obtain funding from other levels of government.

Why create a plan that specifically focuses on active transportation?

- **Accessibility and Mobility Benefits** – there are no age requirements or significant costs to use active transportation as a way to get around
- **Health and Safety Benefits** – by providing opportunities for people to move through a community using active modes, a person is getting exercise and helping to improve the overall health of a community
- **Community and Economic Benefits** – people have more opportunity to connect and interact with other community members when they are walking and biking around their community. They are also more likely to stop and shop locally, more regularly.
- **Environmental Benefits** – by taking active transportation modes, people in Chase are reducing their dependence on fossil fuels

The Village of Chase received funding from the BC Healthy Communities, Active Communities Grant and the BC Ministry of Community, Sport and Cultural Development, Infrastructure Planning Grant to complete this plan. The funding is intended to be a catalyst for improving active transportation in Chase.

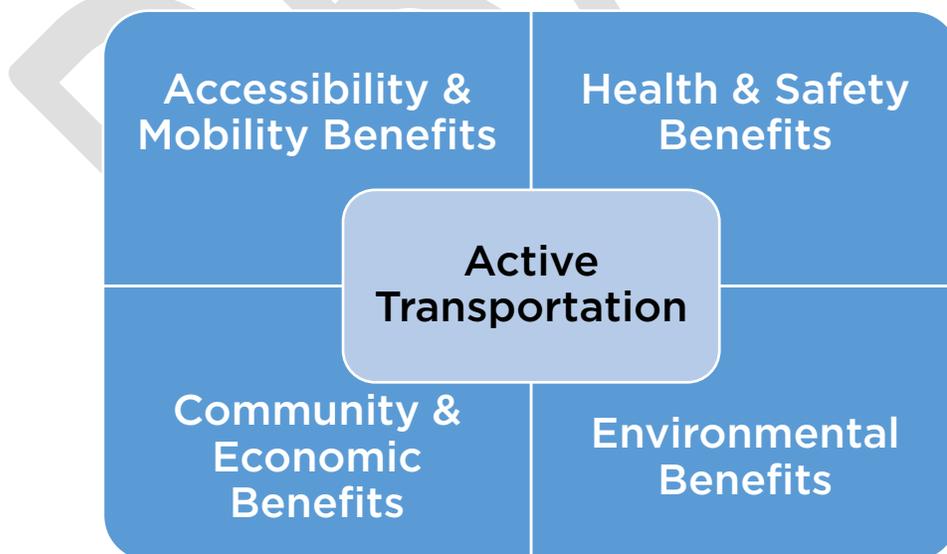


Figure 1.1. Benefits related to active transportation.

## Vision and Objectives

A plan's vision statement describes the philosophy being adopted by a community to guide positive change and provides a summary of a plan's purpose and aspirations. The Village of Chase Active Transportation Advisory Committee (VOCATAC) developed the vision statement at the onset of the planning process:

***“The Village of Chase will create a safe and enjoyable network for walking, cycling or any form of physical activity by providing convenient connections, supportive policies and programs that improve health and community well-being and happiness.”***

Plan objectives reflect the vision statement by providing more specific actionable ideas or direction to enact the plan vision. Evaluating the objectives helps monitor plan progress over time. For example, ongoing evaluation could identify objectives that might need additional attention.

### *Objective 1.*

Increase in number and frequency of residents walking or cycling in Chase.

Monitored through:

- Statistics Canada through the national census, tracks the number of residents that use walking or cycling as their primary commuting to work option
- Use manual counting or automated means to regularly count walking and riding bicycles at key high traffic locations within Chase

### *Objective 2.*

Increase the number of walking and cycling connections in Chase.

Monitored through:

- Maintain inventory of existing facilities
- Track investment in pedestrian and cycling facilities
- Monitor extent of new facilities constructed

### *Objective 3.*

Reduce the number of collisions that involve cyclists or pedestrians in Chase.

Monitored through:

- Use Insurance Corporation of British Columbia (ICBC) collision data and identify a target, with the goal to eliminate collisions involving pedestrians and cyclists.

### *Objective 4.*

Increase the awareness of active transportation for recreational and everyday trips. Examples of everyday trips include traveling to work or school, buying groceries, or visiting friends.

Monitored through:

- Inventory of existing walking/cycling programs (i.e., initiatives that promote, engage, and/or educate people on active transportation) in Chase and by tracking annual investment in new and existing programs
- Regularly track residents' awareness of active transportation options and their willingness to consider them for recreation and utilitarian trips



*Figure 1.2. The existing shared use trail to Chase Creek Falls passes under the Trans-Canada Highway.*

# Chapter 2. Community Background

## Village Context

Successful active transportation plans are context-sensitive; they respond to local characteristics, assets, and challenges. Therefore, this plan begins with an understanding of key characteristics related to the Village of Chase. The project team used these characteristics as a starting point for creating a plan that serves residents.

### General Characteristics

The Village of Chase is located at the outlet of Little Shuswap Lake, where it flows into the South Thompson River, and lined to the east by Scatchard Mountain. Chase Creek flows from Scatchard Mountain, through the Village and into the South Thompson River. The Trans-Canada Highway is at the east end of Chase between the Village and Scatchard Mountain. Selected Village characteristics include:

- Land area: 3.77 km<sup>2</sup>
- Population: 2,286 people (Statistics Canada, 2016)
- Regional District: Thompson-Nicola Regional District (TNRD)
- Regional Destination: Among other regional destinations, Chase is the western gateway to the Shuswap Lake system, a well-loved destination for tourists and residents



*Figure 2.1. North end of the Village on Little Shuswap Lake.*

### Demographics

The current age demographic of Chase is older than the BC average, with 37% of the population age 65 years or older. Over 12% of Chase's population is of aboriginal identity. Across the river from Chase is the Adams Lake First Nations Reserve. South of Chase is the Neskonlith First Nations Reserve. Both communities are part of the Secwepemc Nation.

It is expected that the population of Chase will grow in the coming years with proposed residential development projects in the Village. Providing a variety of transportation options is important for growing communities. Encouraging residents to walk and bike for trips can help prevent congestion and lessen the need for parking caused by motor vehicle usage.

## Active Transportation Usage

The percentage of the population in Chase that walk and cycle to work is higher than the BC average, at 14.6% and 4.9% respectively (Statistics Canada, 2011). For many people, walking or cycling to work may not be feasible. There are no available statistics for how people get around the community for other purposes such as social, shopping, and recreational. More information about the demographics and statistic pertaining to determinants of health were reviewed, and are available in the *BC Community Health Profile – Chase* (2014) by Provincial Health Services Authority. Figure 2.2 compares ways that Chase residents commute to work.

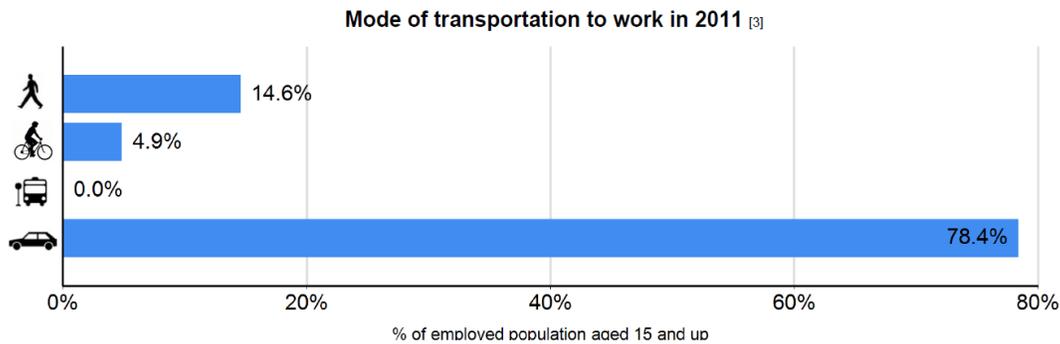


Figure 2.2. Graph showing how people in Chase get to work (Provincial Health Services Authority, 2014).

## Previous Plan Review

A review of previously completed plans revealed local and regional recommendations for improving active transportation in the region. This section identifies key findings from the review.

### Community Plans

The **Official Community Plan (OCP) (2002)** provides the policy framework for planning decisions made by council. The OCP makes reference to active transportation through tourism and economic development opportunities. Active transportation is described as a component of an efficient transportation system. The plan specifically references the need to develop infrastructure for active modes of transportation and to encourage transportation and recreation-based trips.

The **Annual Strategic Plans, Priorities and Measures (2017) report** identified that engaging youth, developing tourism, and developing a wayfinding signage system that incorporates Secwempemc information are all priorities for the Village. The development of an active transportation plan is a key step before the creation of a wayfinding signage system for Chase. A future wayfinding signage system in Chase should guide people using active transportation, due to the walkable scale of the Village. Defining the active transportation network in this plan will position the Village to develop a wayfinding signage system along well-traveled facilities. Appendix A shows the existing conditions of signage in Chase, and presents best practices for wayfinding signage design and placement.

The **Neighbourhood Golf Cart Bylaw (2017)** permits golf carts on local roads and approved highways. The golf carts must include equipment requirements such as signal lights, brakes, and a horn. They



Figure 2.3. A golf cart on Aylmer Road.

cannot have a motor capable of propelling the cart faster than 32km/h on a paved, level surface. The golf carts are not permitted to share facilities with pedestrians or cycling, as they are legally defined as motor vehicles.

### Regional Plans

The Thompson-Nicola Regional District (TNRD) Regional Growth Strategy By-law 2049 (2013) encourages compact community design to save transportation and energy costs. The by-law also recognizes how planning for compact community design will provide more opportunities for people to walk, cycle, and use other forms of active transportation.

The Shuswap Regional Trails Strategy (2016) is an ongoing framework and initiative of the Shuswap Trail Alliance and Shuswap Regional Trails Roundtable to develop trails throughout the Shuswap region. The trails strategy outlines a vision and plan to create a unified network of trails throughout the Shuswap watershed region in collaboration with First Nations, governments, businesses and community stewardship organizations.

### Ongoing Regional Project

The BC Ministry of Transportation and Infrastructure (MoTI) is undertaking the Highway 1 Four-Laning (2019-2021) project at the time of this plan's development. This project will have a significant impact on Chase. In collaboration with the Village committee dedicated to the highway project, a number of recommendations relating to active transportation were submitted to MoTI including the upgrading of existing pedestrian connections including a shared use path to Neskonlith Band Reserve 2, and widening of the Chase Creek bridge to accommodate pedestrians. The project includes planned construction of new trails and pathway connections between the Mount Scatchard switchback trail, Chase Falls, and the Village.



*Figure 2.4. Transport trucks on the Trans-Canada Highway at Coburn Street.*

## Chapter 3. Activating the Community

Community input was sought throughout the development of this plan, using a variety of formats. Community engagement was structured to hear from as many residents as possible. Members of the public and other stakeholders were engaged through the following methods:

- Four Active Transportation Committee (VOCATAC) meetings
- Three stakeholder workshops
- 4 public drop-in meetings
- 3 tabling sessions at community events
- An online and paper survey with nearly 200 responses
- A project website
- Social media posts and newspaper advertisements

Figure 3.1 shows a timeline of community engagement. Further details about engagement tools and their findings are included in the following sections.

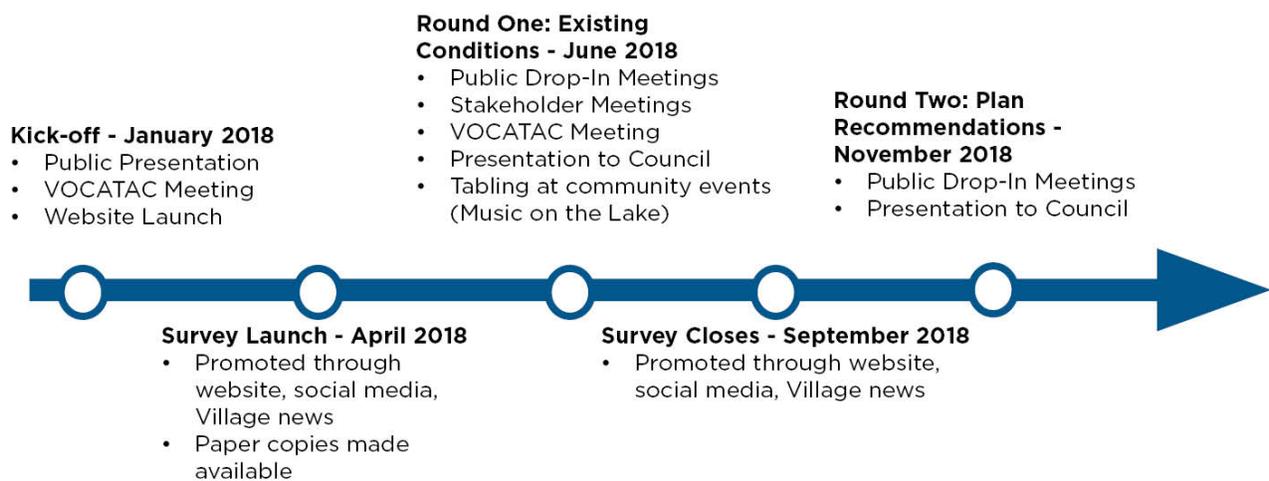


Figure 3.1. Timeline of engagement activities.

### In-person Engagement Opportunities

In-person engagement opportunities were structured as a series of meetings for residents and other stakeholders to gather and share their ideas and questions about the plan. In-person engagement included organizing a project Advisory Committee (VOCATAC) to provide insight about the plan's development, public drop-in meetings, and workshops with stakeholders such as First Nations and public agency representatives.

### Active Transportation Committee (VOCATAC)

The Village of Chase Active Transportation Advisory Committee (VOCATAC), is a volunteer committee comprised of members of the public. The committee was formed in anticipation of this plan, with the purpose of identifying active transportation issues, assessing the existing active transportation network, and participating in public engagement as ambassadors to assist with plan development. It is recommended that VOCATAC continue to meet on an ongoing basis to support the implementation of the plan.

The committee is comprised of up to eight voting members that represent different perspectives relating to active transportation. Two non-voting members on the committee are a member of the Village of Chase Council and a Village of Chase staff member. They include:

- Two pedestrian mobility advocates
- One cycling mobility advocate
- One with expertise on physical accessibility issues
- One advocate on senior’s mobility issues
- One advocate for nature trails
- Up to two additional members to advocate for community in general
- One council member to serve as non-voting liaison to the committee
- Project manager of Active Transportation Plan as non-voting member



*Figure 3.2. VOCATAC members identifying existing issues during their first meeting.*

At the first meeting, VOCTAC members agreed that they would commit to increase their involvement in the plan. This allowed the group to make many meaningful contributions to the plan’s existing conditions and recommendation sections. The committee had a total of four meetings during the process of developing this plan.

Map 1 shows VOCATAC’s comments during the initial stages of the planning process. They were asked to identify where they felt improvements could be made throughout the Village to support people walking and cycling.

# MAP 1. VOCATAC COMMENTS

## VILLAGE OF CHASE ACTIVE TRANSPORTATION PLAN

1. Trail from Alymer to golf course
2. Sidewalk on Cottonwood for school
3. Bridge over creek and path
4. Access to hiking trails
5. Old school site - meeting place
6. Bicycle lanes on 2nd Ave to Park
7. Railway crossing at Arbutus
8. Upgrade path along Chase Creek
9. New developments to have paths
10. Footbridge across creek to Mill Park
11. Raised crossing on Pine St.
12. Traffic calming on Pine St.
13. Trail around golf course - ski + bike
14. Trail from Hysop to Arbutus
15. Level accessible rail crossing
16. Waterfront trail
17. Bike Path on main streets



Data provided by the Village of Chase and Thompson-Nicola Regional District.  
Map produced January 2019.

### Stakeholder Workshops

Stakeholder workshops offered a chance for in-depth discussion with representatives from public agencies and councilors of Adams Lake and Neskonlith First Nations bands. Three workshops were conducted during the first round of public engagement in June 2018. These workshops included representatives from:

- Adams Lake First Nations Band
- Chase and District Chamber of Commerce
- Chase and District Health Advisory Committee Services Foundation
- Chase School District #73
- Creekside Seniors Association
- Interior Health Authority
- Ministry of Transportation and Infrastructure
- Neskonlith First Nations Band
- Shuswap Trails Alliance
- VOCATAC



*Figure 3.3. Discussing opportunities during a stakeholder workshop.*

Workshop presentations provided information about the project vision and goals, work to date, a visually guided discussion of facility types and traffic calming measures and next steps for the plan. Each presentation was followed by a robust discussion. The small group of participants during each workshop session allowed ample opportunity for stakeholders to ask questions, make recommendations, and discuss the project in detail.

Takeaways from the stakeholder meetings included:

- Examples of regional plans to consider include Sicamous Official Community Plan, Age-friendly plan, Salmon Arm Greenways Strategy
- Ideas related to the plan's approach to formalizing existing paths worn through grassy areas that currently lack paved sidewalks or shared use paths
- Identifying opportunity to plan facilities to connect with adjacent communities
- Understanding that development of trails on band lands must include protection of pictographs and other cultural resources

## Drop-in Public Meetings and Tabling Events

The planning team held drop-in public meetings during the June 2018 engagement events. Staff, stakeholders, and the consulting team spoke with meeting attendees and answered questions about the project. Verbal feedback and ideas were documented to inform the rest of the plan's development. Project information boards were also available for members of the public to learn about the plan's progress.

In addition to plan-specific meetings, staff from the Village and members of VOCATAC hosted tables at summer community events. Tabling at existing community events is a public engagement best practice. By attending existing community events, project staff are often able to interact with more members of the public than they might meet through public meetings alone. Tabling events included Music on the Lake and the Village's Canada Day parade.



Figure 3.4. Table at Music on the Lake to promote the plan.

## Council Meetings

The consulting team presented at two public meetings of the Village Council during the planning effort. The first presentation in June 2018 was intended to introduce Council Members to the plan. This meeting discussed the plan's purpose, existing conditions findings, and next steps.

In November 2018, the proposed network, prioritization, project concepts, and infrastructure, program and policy recommendations of the plan were presented at the November 27<sup>th</sup> public council meeting.

## Online Engagement Tools

A project website included information, presentations and updates about the project (Figure 3.5). The website was linked to the Village website.

A survey was launched online and promoted through the project website, Village website, and local social media groups. Paper copies were also available at the Senior's Centre and the Village Office. The survey was open from April to September 2018, and received 175 responses.

The survey asked questions regarding:

- Modes of transportation used to travel within Chase
- Frequency of walking, biking, and driving
- Opportunities and barriers to using active transportation
- Priorities for future active transportation improvements



Figure 3.5. Project webpage.

The survey also contained space for residents to leave open-ended comments or questions.

Survey responses provided another opportunity to learn about residents' current transportation patterns and hopes for the future. Of all respondents, 30% walk as their primary mode to travel within Chase. Almost 60% of respondents walk and 30% cycle as their secondary form of transportation. These percentages are much higher than the 14% of people that reported walking to work in the census. People are likely walking and cycling much more for other trip purposes besides commuting. Residents selected "hard infrastructure" as a top priority for improving active transportation in Chase. A lack of pedestrian and cyclist focused facilities were identified as the biggest obstacle to walking and biking more. Desired improvements include sidewalks, on-road bike lanes, paved and unpaved trails. Improved lighting was also ranked as a priority, and many general comments were specific to the issue of improving lighting in the Village. The summary of the survey data is provided in Appendix B.

**The most desired improvements for active transportation include sidewalks, on-road bike lanes, paved and unpaved trails, improved lighting, and more bike parking**

- Village of Chase Active Transportation Plan Survey Results (September 2018)

# Chapter 4. Developing a Network

## Existing Conditions

The Village of Chase has built some active transportation facilities such as sidewalks, paved paths, and trails, despite not previously having a plan in place to guide their implementation or identify opportunities for connections between facilities to create a network. As a result, there are many areas without sidewalks, places where trails do not connect to other facilities, and places where sidewalk facilities end abruptly.

### Existing Pedestrian Facilities

**Sidewalks:** While sidewalks exist on a few roads throughout the Village. Shuswap Avenue through the centre of the village has sidewalks on both sides of the road, most other roads only have a sidewalk on one side (Figure 4.1). In many instances, sidewalks do not connect to other sidewalks and end abruptly, such as the sidewalk on Chase Street, south of Okanagan Avenue (Figure 4.2).



*Figure 4.1. Sidewalk on the west side of Pine Street.*



*Figure 4.2. Example of a sidewalk ending abruptly on Chase Street, south of Okanagan Avenue.*



*Figure 4.3. Shuswap Avenue has concrete sidewalks that include curb extensions and painted crosswalks at some intersections.*

**Crosswalks:** Many intersections have painted crosswalk markings and other pedestrian-friendly elements. For example, Shuswap Avenue and Haldane Street feature high visibility crosswalks. This location also has shortened pedestrian crossing distances due to curb extensions. Other attractive pedestrian features at this location include seating, landscaping, and decorative brick. Elsewhere in the village, mid-block painted crosswalks help connect people to popular destinations that are between widely spaced intersections. While some pedestrian crossings have been improved, such as those on Shuswap Avenue, other crossings could be improved to be more conspicuous and enhance the pedestrian

crossing experience. An example of an inadequate crosswalk is at Shepherd Road and Cottonwood Street, where substandard signage is in place.

**Shoulders:** Many of the roads, including Shepherd Road and Third Avenue, west of Pine Street, are painted with an edgeline on one side that acts as a paved shoulder for one side of the road. This space is typically used for pedestrian travel, although people cycling may also use the space when travelling with traffic. People cycling in the opposite direction ride in the travel lane.



*Figure 4.4. Paved shoulder on Shuswap Avenue.*



*Figure 4.5. One side paved shoulder on Shepherd Road.*

### Existing Shared Pedestrian and Bicycle Facilities

**Shared Use Paths:** Some paved asphalt shared use paths exist, including through Willson Park and connecting Shepherd Road to the east of Chase Secondary. These paths can be used by people walking, cycling, or using other non-motorized vehicles (i.e., skateboards, scooters, and rollerblades).

**Trails:** There are existing trails for walking throughout Chase. Some of these paths are managed by the Village or organizations like the Shuswap Trail Alliance, while others are informal. The informal



*Figure 4.6. Shared use path through Willson Park.*



*Figure 4.7. Informal trail between Second Avenue and the CP railway.*



*Figure 4.8. Trail along Chase Creek.*

trails have been developed through their use (i.e., trails on earth). Many of these trails are not built to standards that maximize their longevity and minimize environmental impact.

Informal trails are also not built to a standard that encourages everyday travel, or may not be accessible for people with accessibility challenges. Examples include the paths along Chase Creek, where parts of the trail are eroding into the creek; the trail is narrow, limiting opportunities to pass other people using the trail, and there is a steep hump at the entrance from Third Avenue limiting access. Identifying where informal paths are located is important as they are actively used routes despite informal facilities.

The existing conditions are shown in Map 2.

# MAP 2. EXISTING CONDITIONS

## VILLAGE OF CHASE ACTIVE TRANSPORTATION PLAN

### EXISTING FACILITIES

- Shared Use Path
- Sidewalk
- Trail

### BACKGROUND FEATURES

- Trans-Canada Hwy
- Collector Road
- Local Road
- Resource Road
- Railroad
- Parks
- Village Boundary
- Waterbody



## Identifying Opportunities and Challenges to Active Transportation

The study team conducted mapping- and other data-based reviews to understand community challenges related to the existing conditions shown in the previous section. The reviews consider Chase from a variety of perspectives:

- **Community Well-being:** Public health metrics show the impact of active transportation on health. These findings identify possible countermeasures that can help make communities healthier and more active.
- **Destination Review:** A mapping exercise visualizes popular destinations in Chase. Routes near these destinations were reviewed for possible improvements to encourage active transportation.
- **Gap Review:** A mapping exercise identifies roadways that currently lack dedicated space for walking and/or cycling. Gaps are divided into categories to help develop recommendations that address the gap's scale.
- **Collision Review:** Data from the Insurance Corporation of British Columbia (ICBC) was mapped to show patterns in crash locations and characteristics. Due to a limited number of crashes contained within this dataset, the review was augmented with public survey feedback.



*Figure 4.9. Inputs to the plan recommendations.*

## Community Well-being Review

BC Interior Health and BC Healthy Communities assisted the planning effort by identifying metrics related to Chase residents' health status indicators. The metrics compare Chase, and the Kamloops Local Health Area, against the BC average. Understanding the health status of people living in Chase can indicate community needs and opportunities for programs to address these needs. For example, it is reported that youth in Chase on average do not get enough physical exercise. A recommendation of this plan is to develop a program encouraging youth to walk and bike to school, and exploring other barriers to physical exercise.

**Recent planning and policy work throughout BC, North America, and the world have focused on understanding how community planning can impact the health of the people that live in a community. This research indicates that the built environment significantly affects an individual's health status.**

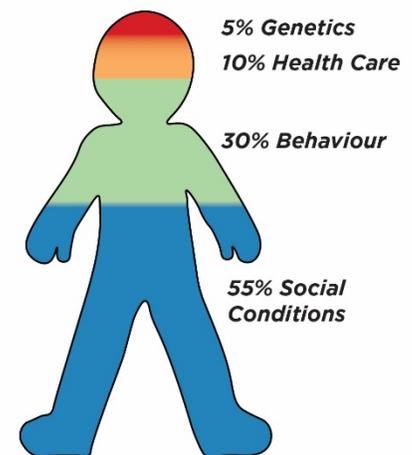
- Health status is a combination of indicators that together consider a person's physical, mental, and social well-being (WHO, 1986)
- Built environment refers to human-made space, including the buildings and streets that form our surroundings. It includes active transportation facilities such as sidewalks, paths, and trails. The built environment also includes the layout of this space, such as where people live, work, and play

Research has found that of the factors that impact a person's health status, genetics has a lower impact than previously theorized. The impact of genetics is currently thought to be five percent. Health care has a 10% impact, and behaviour has a 30% impact. The social conditions that a person lives in determine 55% of a person's health status (WHO, 2008). The built environment plays a role in determining a person's social conditions and behaviour. This plan recommends improvements to the built environment in tandem with programs to target behaviour change to improve social conditions by implementing local interventions that can significantly influence the well-being of people that live in the community.

Some metrics from the Chase Health Profile that were particularly interesting for the purposes of this plan include:

- Grade 3/4 and 7 students are less physically active than the BC average
- 37% of residents are aged 65 or older. This percentage is projected to increase.
- Chance of death due to a motor vehicle collision is 88% higher than the BC average
- Average income is \$20,000 below the BC average
- First Nations people make up more than 12% of the population. Aboriginal people often face systematic social stigmatization and barriers to accessing health services

Similar to national demographic trends, the average age of a person living in Chase is getting older. To accommodate an aging population, it is important to build accessible facilities to accommodate people with different mobility needs. It is important to remember that active transportation is an inclusive form of transportation. People that cannot drive or who do not have access to an automobile, such as youth or people with a lower income, especially benefit from active transportation facilities as it provides them



*Figure 4.10. The factors that make up a person's health status.*

with an opportunity to independently travel throughout the community. Recommended programs in this plan should target education and access to opportunities to use active transportation especially among groups that need support, such as First Nations people and youth.

### Destination Review

The compact footprint of the Chase sets up an ideal setting for active transportation. Many destinations are within comfortable walking or cycling distance. Major destinations throughout Chase are included on Map 3, Destinations. Destinations include schools, parks, retail, community facilities, churches, and public waterfront access. VOCATAC members and members of the public were also engaged to confirm and add to the destinations shown on the map. Identifying destinations in the community shows where there is demand for active transportation, whether it is children cycling to school, a family walking to church, or someone picking up some groceries by bike. The proposed network identified in the next chapter incorporates destinations by providing access to or near them.



*Figure 4.11. Chase Secondary School and adjacent Haldane Elementary are important destinations.*



*Figure 4.12. Many stores and services are located in the downtown area on Shuswap Avenue.*

# MAP 3. DESTINATIONS

## VILLAGE OF CHASE ACTIVE TRANSPORTATION PLAN

### DESTINATIONS

- Sports Facility
- Church
- Health Services
- Park
- School
- Shopping
- Water Access

### EXISTING FACILITIES

- Shared Use Path
- Sidewalk
- Trail

### BACKGROUND FEATURES

- Trans-Canada Hwy
- Collector Road
- Local Road
- Resource Road
- Railroad
- Parks
- Village Boundary
- Waterbody



0 250 500 METRES  
3 MIN BIKE RIDE  
6 MIN WALK



Data provided by the Village of Chase and Thompson-Nicola Regional District.  
Map produced January 2019.



## Gap Review

The gap review uses site visits and mapping to identify areas without defined or dedicated spaces to walk or bike. The gap review establishes a framework to examine the existing conditions. Three kinds of gaps are described below: spot gaps, connection gaps, and network gaps. These definitions were used in tandem with community destinations and existing facility information to inform the network recommendations.

- **Spot gaps** are localized obstacles or barriers to using a facility. They can exist throughout the length of a facility. Examples of spot gaps include a lack of curb ramp, an unmarked crossing, or an obstacle in the facility, such as a utility pole in the middle of the sidewalk. An example of a cycling spot gap is where no curb ramp exists providing access for people cycling onto a shared use path from the road. The person must dismount and wheel their bike over the curb, or risk falling trying to ride up or down the curb.
- **Connection gaps** are areas between existing facilities where no facilities exist. This creates a barrier for people using active transportation modes. An example could be a sidewalk that ends a block before there is a crossing to another sidewalk. This situation might deter someone from walking to a destination. Otherwise, the situation may create an unpleasant or even hazardous travel experience.
- **Network gaps** are areas where no facilities exist at all, and therefore act as a barrier to people traveling by active transportation modes to, from, within or through that area.

Map 4 shows identities gaps throughout Chase’s existing active transportation facilities.



*Figure 4.13. The utility pole placement on Chase Street creates a spot gap.*



*Figure 4.14. The sidewalk on Okanagan Avenue ends, leaving a connection gap to the Willson Park path and Shuswap Avenue via Haldane Street.*

## Collision Review

The locations of pedestrian- and bicycle-involved collisions were mapped to determine the presence of multiple crash locations. ICBC provided collision data for the last 10 years. However, the analysis is limited due to few reported collisions. Nonetheless, the results presented on Map 5 include multiple collisions on Shuswap Avenue at various locations. Four of the five reported collisions in the Village boundary involved pedestrians, and one involved a cyclist.

Three of the collisions occurred early in the morning, so visibility was likely a factor. Adequate street lighting can contribute to enhanced safety and visual awareness of pedestrians. Landscaping and improved street lighting was identified as a priority by nearly 25% of respondents and called out several times in the open comments.

# MAP 4. GAP REVIEW

## VILLAGE OF CHASE ACTIVE TRANSPORTATION PLAN

### EXISTING FACILITIES

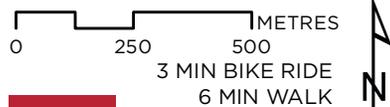
- Shared Use Path
- Sidewalk
- Trail

### DESTINATIONS

- Sports Facility
- Church
- Health Services
- Park
- School
- Shopping
- Water Access

### BACKGROUND FEATURES

- Trans-Canada Hwy
- Collector Road
- Local Road
- Resource Road
- Railroad
- Parks
- Village Boundary
- Waterbody



Data provided by the Village of Chase and Thompson-Nicola Regional District.  
Map produced January 2019.



- Spot Gap
- Connection Gap
- Network Gap

# MAP 5. COLLISION REVIEW

VILLAGE OF CHASE  
ACTIVE TRANSPORTATION  
PLAN

## COLLISION TYPE

-  Pedestrian Involved Collision
-  Bicycle Involved Collision

## EXISTING FACILITIES

-  Shared Use Path
-  Sidewalk
-  Trail

## BACKGROUND FEATURES

-  Trans-Canada Hwy
-  Collector Road
-  Local Road
-  Resource Road
-  Railroad
-  Parks
-  Village Boundary
-  Waterbody



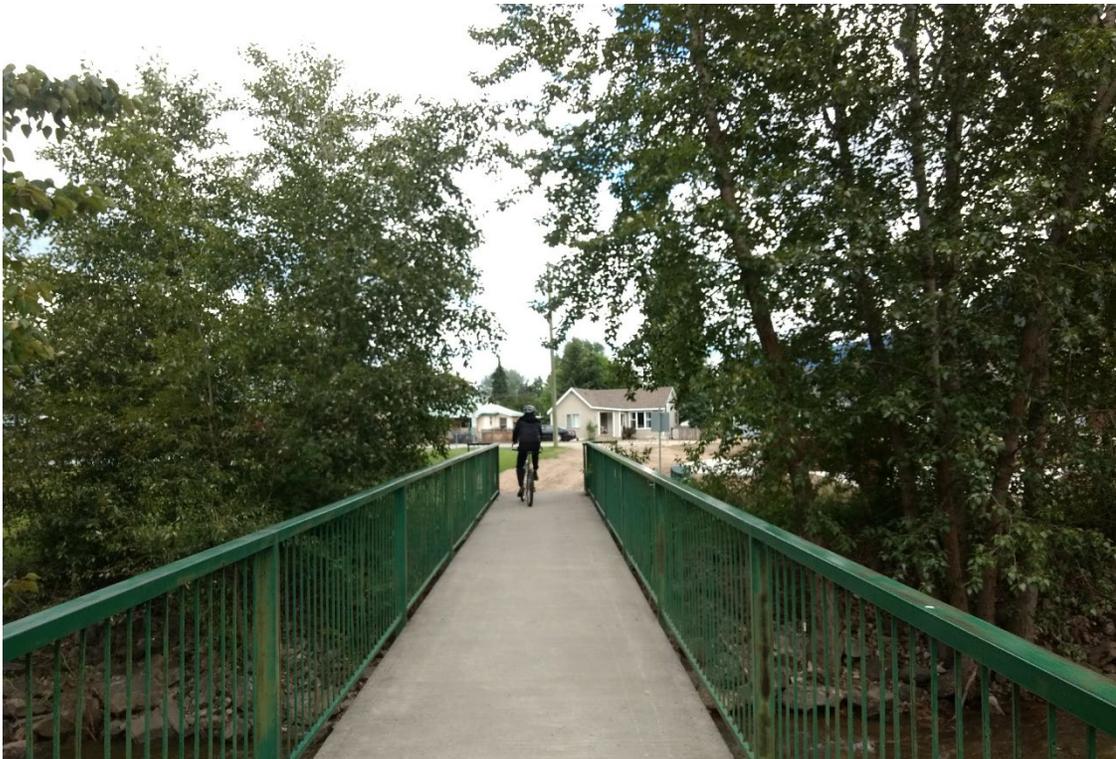
Data provided by the Village of Chase and Thompson-Nicola Regional District.  
Map produced January 2019.



## Active Transportation Needs Assessment

There is significant potential for more people to walk or cycle in Chase, and improve the experience for the many people that already do. This potential was identified through the community background review in Chapter 2 and the public engagement summarized in Chapter 3. This chapter considers the existing condition of active transportation facilities and the social context of the community to identify the opportunities and challenges for the community to use active transportation. Highlights from these reviews are summarized below:

- **Existing Conditions:** Some sidewalks, paths, and trails exist throughout the village, but there is a lack of connection between facilities. Existing facilities were inventoried using GIS mapping software
- **Community Well-being:** There is a need for people to be more physically active and to improve social inclusion. Youth, seniors, and First Nations peoples are specific populations that could benefit from targeted programs to encourage and support active transportation
- **Destinations:** Given the small size of the village, most everyday destinations are short walk or bike ride away. Key destinations were identified throughout the community
- **Gap Review:** The existing conditions were reviewed using a gap framework to identify where active transportation facilities do not go to, and gaps or barriers that limit the functionality where they do exist. There are many gaps throughout the village confirming what was identified in the existing conditions review
- **Collision Review:** Pedestrian and cyclist involved collisions were reviewed to identify if there are any commonalities between them so that preventative improvements could be recommended. The small number of reported collisions limited this exercise, but improved lighting was identified as one preventative improvement



*Figure 4.15. Bridge over Chase Creek at Centennial Park.*

## Chapter 5. Plan Recommendations

This chapter presents plan recommendations in two sections, Infrastructure Recommendations and Policy and Program Recommendations. Each section includes the following:

- Network Recommendations
  - Active transportation facility types
  - Proposed network of facilities
  - Proposed project prioritization
  - Other infrastructure recommendations
- Policy and Program Recommendations
  - Policy recommendations
  - Program recommendations
  - Funding opportunities to implement the plan

These recommendations are based on the context and background of Chase described in Chapter 2, the feedback from public engagement activities described in Chapter 3, and the needs and barriers to active transportation identified in Chapter 4.

The Network Recommendations section provides a typology of active transportation facility types, proposes where these facilities should go to create a network. Project prioritization proposes the implementation priority for each proposed project that makes up the proposed network. Other recommendations relating to infrastructure are also provided here.

The Policy and Program Recommendations include recommendations of initiatives to encourage and support people to use active transportation. This section also includes a review of funding opportunities to support the implementation of this plan.



*Figure 5.1. Sub-par bike parking rack at Memorial Park.*

## Network Recommendations

### Active Transportation Facility Types

Active transportation facilities, such as sidewalks, paths, and bike lanes, are all active transportation facilities must be built to recognized standards. The facility types recommended for Chase are based on the:

- Transportation Association of Canada (TAC) *Geometric Design Guide for Canadian Roads* (2017)
  - This is the national Canadian guide for roads, and includes a section on pedestrian and cycling facilities
- US Federal Highway Administration (FHWA) *Small Town and Rural Multimodal Networks Guide* (2016)
  - This guide specifically considers the types of facilities and networks for active transportation in rural and small town contexts

This section of the plan presents various types bicycle and pedestrian facilities that comprise an active transportation toolbox. This toolbox should be consulted as Chase begins to design and build the facilities recommended by this plan. Each entry includes a photo example, summary of the facility type and key implementation considerations. BC guidance documents, such as the BC Ministry of Transportation and Infrastructure *Bicycle Traffic Control Guidelines* (2012), should also be considered to be consistent with similar projects in the province. Other ideas and measures for pedestrians and cyclists can be found in the BC *Community Road Safety Toolkit* (2018). The TAC and BC guidance documents are to be used for more detailed information on facility treatment and other considerations as project is advanced through the design process.

The facility toolbox is classified into three categories based on the type of separation from motor vehicle traffic: Physically Separated, Visually Separated, and Mixed Traffic. Generally, physically separated facilities offer the highest level of user comfort, and are most appropriate along roadways with higher traffic volumes and speeds. Visually separated facilities are generally appropriate on roadways with low to medium traffic volumes and speeds, or as interim measures. Mixed traffic facilities are appropriate only on low traffic, low speed roadways. The facility types presented in the toolbox are summarized into the three categories in the table below.

*Table 5.1. Categories of Active Transportation Facility Types*

Physically Separated	Visually Separated	Mixed Traffic
Sidewalk	Buffered Bicycle Lane	Advisory Lane
Shared Use Path (Paved)	Bicycle Lane	Neighbourhood Greenway
Shared Use Trail (Unpaved)	Paved Shoulder	
Pedestrian Path	Pedestrian Lane	

## Physically Separated Facilities

### *Sidewalk*

Sidewalks provide dedicated space for use by pedestrians that is safe, comfortable, and accessible. They are physically separated from the roadway by a curb or buffer space (paved or unpaved).

#### Recommended Applications

- Sidewalks are recommended on all but the most low-speed and low-volume roadways

### *Shared Use Path (Paved)*

Shared use paths are located off-road in their own corridor, through a park, or physically separated from motor vehicles by a large buffer or barrier and provide sufficient width and supporting facilities to be used by cyclists, pedestrians and other non-motorized users. Shared-use paths are generally paved and ideally 3m wide. Paths should also have 0.6m clear shoulders to offer adequate maneuvering space and visibility. Clear shoulders also reduce the potential for user conflicts at crossing or curves.

#### Recommended Applications

- Through parks or other independent corridors, or adjacent to roadways with consideration to the context of the road
- Posted speed >40 km/h
- ADT > 4,000 veh/day

### *Shared Use Trail (Unpaved)*

Shared use trails are located in parks or their own corridor and provide sufficient width and supporting facilities to be used by cyclists, pedestrians and other non-motorized users. Trails often have a hard-packed granular surface and are ideally 3m wide. The granular surface can make it challenging for people using wheelchairs and for year-round maintenance. Trails should also have 0.6m clear shoulders to offer adequate maneuvering space and visibility, and to reduce potential for user conflicts at crossing or curves.

#### Recommended Applications

- Through parks or independent corridors
- Posted speed >40 km/h
- ADT >4,000 veh/day



Figure 5.2. Sidewalk with a furnishing zone in Kelowna, BC.



Figure 5.3. Shared use path adjacent to a roadway in Ottawa, ON.



Figure 5.4. Shared use trail (unpaved) in Guelph, ON.

### *Pedestrian Path*

Pedestrian paths are paved or unpaved facilities that are only intended for use by people walking or using a mobility device to address pathways between buildings or short connections between cul-de-sacs. Paths should be minimum 1.8m wide to comfortably allow two people to walk beside each other, or two people in wheelchairs to pass. The path should have a vertical clearance of 2.1m. Paths should have a maximum grade of 5%.

### **Recommended Applications**

Where opportunities exist such as appropriate right-of-way or connection between dead end roadways to enable pedestrian connection



*Figure 5.5. A pedestrian path beside a building in Burlington, ON.*

## Visually Separated Facilities

### *Buffered Bicycle Lane*

Buffered bicycle lanes are an exclusive space for cyclists separated from motor vehicle lanes by solid white lane lines with gored pavement markings. Buffered bike lanes are indicated with a bicycle stencil and a diamond and are marked with dedicated signs. Located directly adjacent to motor vehicle travel lanes, buffered bike lanes follow the same direction of travel. The painted buffer areas distance the bike from the adjacent motor vehicle travel lane. Flexible delineator posts could be added in the buffer area to provide vertical separation. Additional treatments should be added at intersections to provide greater delineation.

### Recommended Applications

- Used in urban areas with low to medium average daily traffic (ADT) and high bicycle volumes
- Posted speed is  $\leq 50$  km/h
- ADT  $< 7,000$  veh/day



*Figure 5.6. A buffered bicycle lane in Lyndonville, Vermont (Western Transportation Institute).*

### *Bicycle Lane*

Bicycle lanes designate an exclusive space for cyclists distinct from motor vehicle lanes. Bicycle lanes are marked with a solid white line between the vehicle lane and the bicycle lane, and include a bicycle stencil, diamond, and are marked with dedicated signs. Located directly adjacent to motor vehicle travel lanes, bicycle lanes follow the same direction of travel. When used on two-way roadways, provide one bicycle lane in each direction of travel. Bicycle lanes can be retrofit onto roadways by road diets, which reduce the number of travel lanes and/or reallocate space to better accommodate active transportation.



*Figure 5.7. A bicycle lane in Canmore, AB.*

### Recommended Applications

- Used in rural or urban areas with low to medium average daily traffic (ADT) and high bicycle volumes
- Posted speed is  $\leq 50$  km/h
- ADT  $< 4,000$  veh/day

### *Paved Shoulder*

A shoulder is a paved area outside the general-purpose travel lanes delineated by a continuous white line. Located on rural roadways, shoulders suitable for active transportation should be at least 1.5m wide and may include bicycle and/or pedestrian-oriented signing and striping. If the shoulder also serves as a breakdown lane for motor vehicles, there should be an additional unpaved portion of approximately 2.4 m in order for disabled vehicles to not block people from walking or bicycling in the shoulder. Parking for motor vehicles in the shoulder should be discouraged. Shoulders may include painted buffers or rumble strips to discourage motor vehicles from straying into the shoulder. Rumble strips should only be used where adequate smooth shoulder width remains. Rumble strips should not be continuous. See additional guidance.



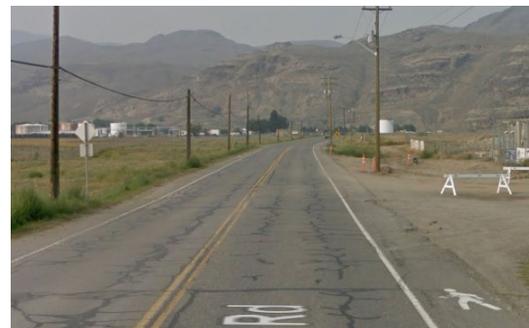
*Figure 5.8. People cycling on a paved shoulder in Rocky View County, AB.*

### **Recommended Applications**

- Appropriate on rural roads with low to medium volumes, and medium to high speeds
- Posted speed 50 to 80 km/h
- ADT >1,000 veh/day to <4,000 veh/day (or the road is part of a known cycling route)
- Rural areas (TAC sets density of <400 persons/km<sup>2</sup>>)

### *Pedestrian Lane*

Pedestrian lanes provide interim or temporary pedestrian accommodations on roadways lacking sidewalks. Pedestrian lanes are not intended as an alternative to sidewalks, and are often used to fill short gaps between higher quality facilities. Use a PED ONLY pavement marking to indicate exclusive pedestrian use.



*Figure 5.9. A pedestrian lane in Kamloops, BC (Google Streetview).*

### **Recommended Applications**

- May be appropriate on rural roads with low to moderate speeds and volumes
- Appropriate for interim or temporary pedestrian accommodation in areas without sidewalks
- Posted speed is <40 km/h
- ADT <2,500 veh/day

## Mixed Traffic

### *Advisory Lane*

Advisory lanes include a single bi-directional travel lane for motor vehicles bordered by shoulders. The shoulders are separated from the vehicle travel lanes by dashed white lane lines. When vehicles traveling in opposite directions meet, motorists enter the advisory shoulder to pass. This facility type better accommodates active transportation users within a constrained roadway width.

### Recommended Applications

- Most appropriate on streets with low to moderate motor vehicle volumes and speeds
- Posted speed <50 km/h
- ADT <2,500 veh/day
- Narrow roadways ≤11.1 m



*Figure 5.10. A street with advisory lane markings in Hanover, New Hampshire.*

### *Neighbourhood Greenway*

Neighbourhood greenways include a range of traffic calming treatments to improve conditions for cyclists and pedestrians on local streets. This typically includes signage and pavement markings, and varying degrees of vehicle speed and volume management. Potential traffic calming infrastructure includes speed humps, cushions or tables, traffic circles, lateral shifts (chicanes), or diverter median islands. Neighbourhood greenways are also often referred to as Local street bikeways or Bicycle boulevards.

### Recommended Applications

- Appropriate on local streets with low volumes and low speeds. Speed and volumes may be managed to create desired operating conditions
- Posted speed <40km/h
- ADT <2,500 veh/day. Ideal volumes are around ≤1000 veh/day



*Figure 5.11. A neighbourhood greenway in Vancouver, BC.*

## Proposed Active Transportation Network

The proposed active transportation network (Map 6) is comprised of facilities presented in the Active Transportation Facility Toolbox. The proposed network identifies where these facilities should be implemented throughout Chase. The proposed network fills gaps between existing facilities, proposes upgrades to existing facilities, and recommends new facilities to create a connected active transportation network that aims to make walking and cycling comfortable and attractive. The network was designed to reach destinations throughout the village and leverage existing assets.

Examples of proposed projects include:

- New shared use path through Willson Park, connecting from the existing path to Elm Street, including a replacement of the bridge over Chase Creek. This path will provide an alternative to crossing the creek along Shuswap Avenue or on Coburn Street, shortening the distance of trips. The path connects the schools on Cottonwood to the north and east areas of the Village
- Sidewalks on Cottonwood Street and Cedar Avenue for youth walking to school and connecting to the new path over Chase Creek at Willson Park
- Shared use path on Shuswap Avenue, west of Aylmer Road. This path will provide a safe and comfortable place for people to walk and cycle towards Chase Plaza and the businesses at the Tran-Canada Highway and Shuswap Avenue intersection
- A sidewalk on First Avenue, east of Pine Street, and a crosswalk to Haldane will close a gap in the sidewalk network, and provide a more direct route for people walking between the downtown area and the areas north of the CP railway
- A shared use path along Hysop Road to Arbutus Place will provide a more direct connection between the areas along Pine Street to the northeast part of the Village, so that people do not have to travel to Second Avenue to get across the Village if they live near the waterfront

Map 6 shows the proposed active transportation network. A proposed project list is shown in Appendix C. The list includes details such as proposed project length, location, priority and key characteristics.



*Figure 5.12. The bridge abutments from Willson Park to Elm Street could support a new crossing of Chase Creek.*



*Figure 5.13. Sidewalks on Cottonwood Street would provide a physically separated space for youth walking to the schools.*

# MAP 6. PROPOSED NETWORK

## VILLAGE OF CHASE ACTIVE TRANSPORTATION PLAN

### PROPOSED FACILITIES

- - - Sidewalk
- - - Ped Path
- - - Shared Use Path
- - - Shared Use Trail
- - - Bike Lane
- - - Mixed Traffic

### EXISTING FACILITIES

- Existing Facility

### BACKGROUND FEATURES

- Trans-Canada Hwy
- Collector Road
- Local Road
- Resource Road
- + Railroad
- Parks
- Village Boundary
- Waterbody



**alta**  
PLANNING + DESIGN

Data provided by the Village of Chase and Thompson-Nicola Regional District.  
Map produced January 2019.



\* indicates that the facility is planned as part of Highway 1 expansion project.

## Project Priority for the Network

Identifying the priority for the implementation of the network is important as it helps to direct resources, and prioritize projects that are important or easily feasible. Six criteria were used to determine the priority of each project. The criteria were identified at the start of the project. They are based on the plan vision and objectives. The project team defined each criterion to assess whether a project achieves that criterion.

*Table 5.2. Project Implementation Priority Criteria*

Criteria	Definition
Safety	Enhances safety compared to existing conditions
Usage / Projected Usage	Connects to destinations
Vulnerable Users	Supports wide range of ages and abilities
Network Contribution	Connects to other existing facilities
Cost	\$, \$\$, \$\$\$
Implementation Feasibility	Complexity of constructing the improvement. Examples include: <ul style="list-style-type: none"> <li>• Jurisdiction (more coordination required for non-local roads)</li> <li>• Space / lack of physical constraint</li> <li>• Physical infrastructure (stormwater management, permanent civil works)</li> <li>• Property acquisition/ownership</li> <li>• Stakeholders</li> <li>• Required studies (environmental protection, traffic, parking)</li> <li>• Project complexity (road crossings, grade)</li> </ul>

Each of the proposed projects was scored using the criteria above. Map 7, Proposed Project Priority, shows the result of the scoring exercise. The projects have been grouped into short, medium, and long-term recommendations based on the project's cumulative score. By recommending short, medium, and long-term priorities the plan identifies projects that are expected to have the greatest impact while being more feasible installed first. The actual timing of designing and constructing proposed projects may change based on opportunities such as combining a project with other capital works, development opportunities, community desire, and grants. The project ranking should be reviewed periodically to confirm that the proposed priorities continue to reflect community values and provide the greatest return on investment.

Appendix C shows the results of the proposed project prioritization scoring.

# MAP 7. PROPOSED PROJECT PRIORITY

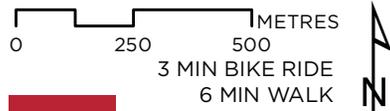
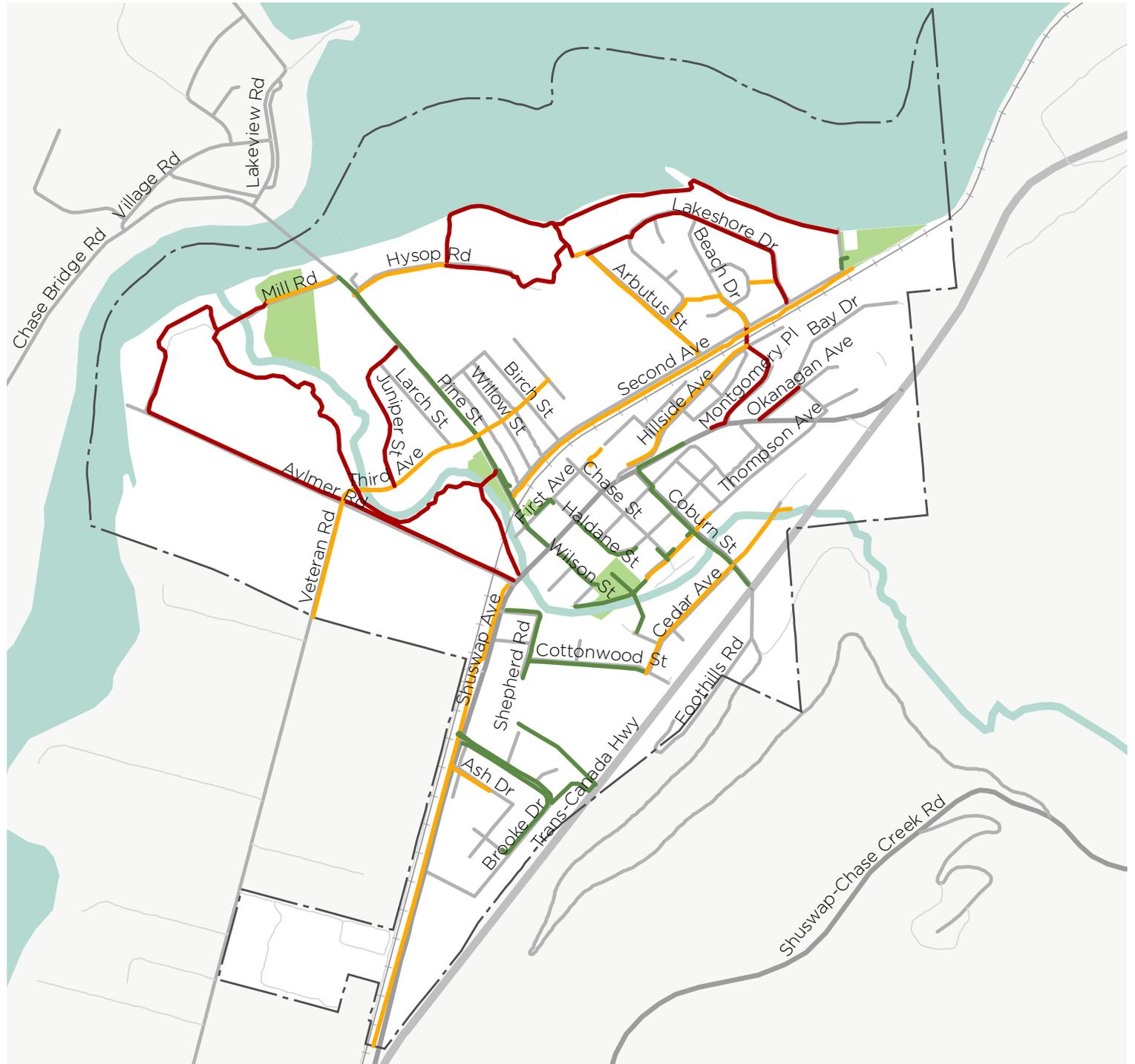
VILLAGE OF CHASE  
ACTIVE TRANSPORTATION  
PLAN

## PROPOSED PRIORITY

- Short-Term
- Medium-Term
- Long-Term

## BACKGROUND FEATURES

- Trans-Canada Hwy
- Collector Road
- Local Road
- Resource Road
- Railroad
- Parks
- Village Boundary
- Waterbody



Data provided by the Village of Chase and Thompson-Nicola Regional District.  
Map produced January 2019.

## Detailed Project Concepts

Three projects from the active transportation network were selected for preliminary conceptual development. The purpose of the concepts is to provide greater detail on how projects could be implemented. The concepts visualize the facility in cross section illustrations. The project concepts identify existing conditions that may present issues and opportunities for each project. This conceptual exploration will require a more detailed corridor design process prior to construction. The projects selected include:

- Bike lanes on Pine Street from Mill Road to Shuswap Avenue
- Shared use path on Second Avenue from Pine Street to Memorial Park
- Sidewalk on Coburn Street from Shuswap Avenue to Trans-Canada Highway

### Pine Street Bike Lane

A bike lane on Pine Street will provide a lower stress connection for people cycling between downtown and north areas of the Village and to Adams Lake. Providing bike lanes on Pine Street has been proposed previously, including as part of ICBC’s safety review of the street (ICBC, 2016).

**Existing:** Pine Street from the Chase Bridge south to First Avenue is a two-lane road with curbs on both sides and a sidewalk on the west side of the road. A left turn lane exists on Pine at Second Avenue.

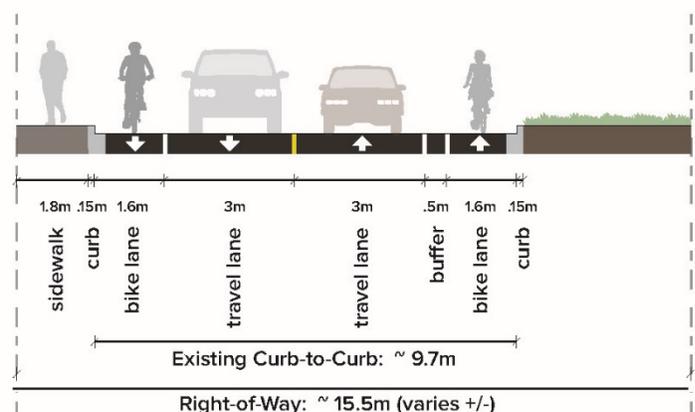
**Proposed:** Add painted bike lanes in both directions within the existing curb to curb. The lane on the eastbound side will be a buffered bicycle lane.

#### Implementation Issues and Opportunities:

The current roadway width from curb to curb allows for striping of one buffered bike lane and one bike lane without a painted buffer. To increase cyclist comfort, wider bike lanes and buffers would be ideal, but would require widening of the roadway. Ultimately the bike lane should be extended across the bridge through cooperation with MoTI and Adams Lake Band.



Figure 5.14. Pine Street at Third Avenue.



\*Right of way and curb to curb are approximate. Need to be field verified.

Figure 5.15. Cross section of proposed bike lanes.

## Second Street Shared Use Path

A shared use path on Second Avenue would provide a physically separated facility for people to walk and cycle from Pine Street to Memorial Park. People currently walk and cycle through the grass between the shoulder and railroad right-of-way along Second Avenue between Pine Street and Memorial Park. Turning the unpaved “desire line” into a formal, paved shared use path would improve the route’s longevity and accessibility.

**Existing:** There is an informal shared use trail adjacent to 2nd Avenue from Pine Street to Cummings Street.

**Proposed:** Formalize this trail by paving it to create a shared use path. Paving the path would make the path more accessible. It would also allow for better maintenance.

**Implementation Issues and Opportunities:** Implementing a path adjacent to the existing roadway may require some tree removal. Locating the path next to the roadway would limit the amount of separation between people walking and cycling and people driving. Locating the path south of the existing trees would provide more separation from the roadway. However, portions of the alignment may be located on railroad property. Discussions with CP Railway are needed to determine alignment feasibility.



Figure 5.16. Existing informal trail along Second Avenue

### Option 1

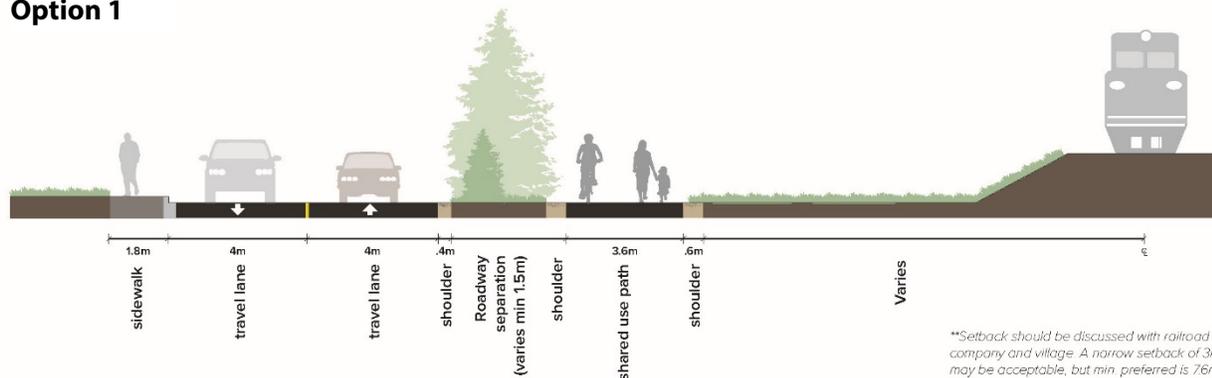


Figure 5.17. Option 1 shows a cross section of shared use path setback from the roadway.

### Option 2

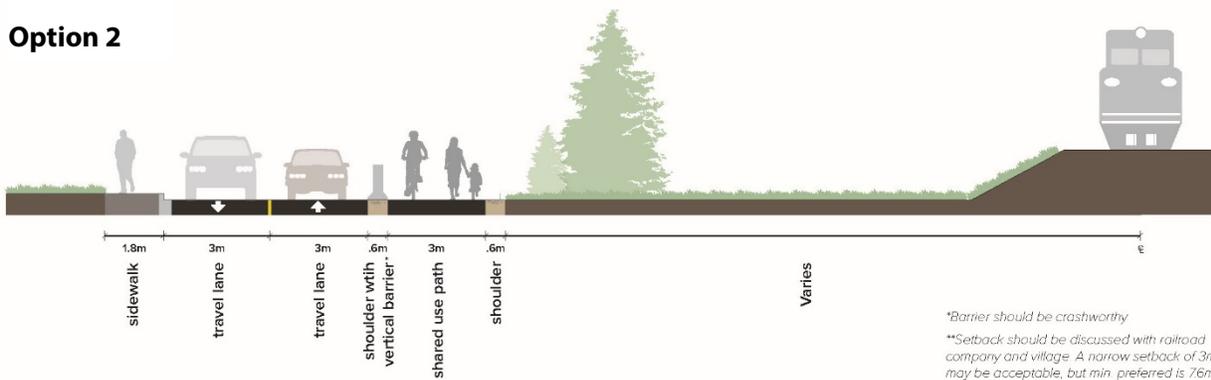


Figure 5.18. Option 2 shows a cross section of shared use path adjacent to the roadway.

### Coburn Street Sidewalk and Traffic Calming

Coburn Street is an important connection as it allows travel between downtown and the south part of the village. From Shuswap Avenue, Coburn Street crosses Chase Creek and continues to the Trans-Canada Highway, providing access to the cemetery, and the Scatchard Mountain Switchbacks trail. Coburn Street is a planned exit as part of the Highway 1 Four-Laning Project. The planned exit will likely increase traffic on Coburn Street, increasing the need for a place for people to walk that is physically separated from passing motor vehicle traffic.



Figure 5.19. The existing conditions along Coburn Street.

**Existing:** Coburn Street from Shuswap Avenue to the Trans-Canada Highway is a two-lane road lined by residential homes.

**Proposed:** The short-term proposal would add a pedestrian lane. The long-term proposal would add a sidewalk and traffic calming improvements.

### Implementation Issues and Opportunities:

The existing road is narrow (7m) and would require the addition of pavement to add a pedestrian lane or sidewalk. Additional challenges that will need consideration in detail design include the location of existing utilities, a retaining wall adjacent to the road and the narrow bridge over Chase Creek.

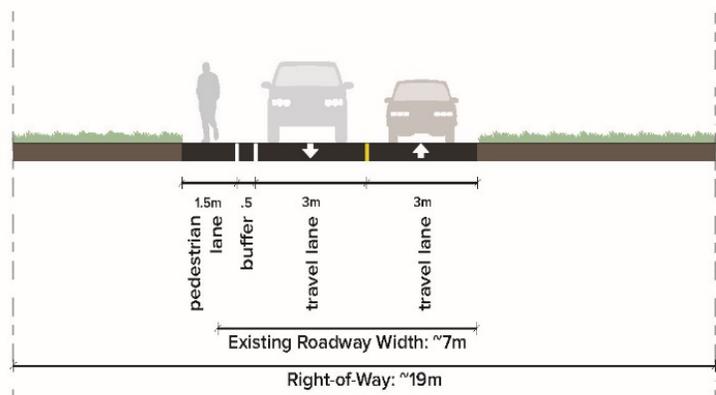
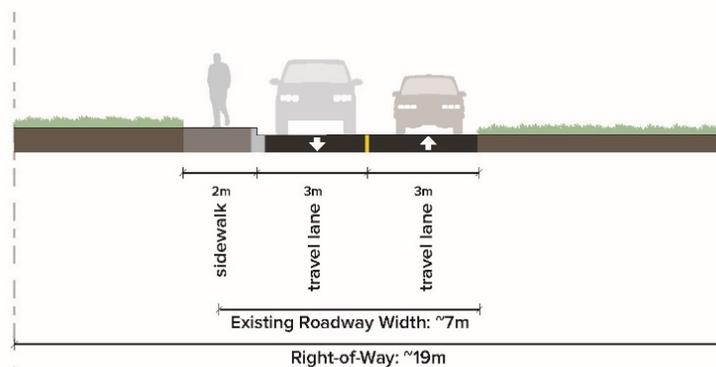


Figure 5.20. Short-term concept for Coburn Street



Figure 5.22 The narrow bridge over Chase Creek is an implementation challenge.



\*Since existing width of roadway pavement is 7m, this will require 1m of pavement be added to roadway; Right of way and edge of pavement to edge of pavement are approximate. Need to be field verified.

Figure 5.21 Long-term concept for Coburn Street.

## Additional Infrastructure Recommendations

In addition to recommending new or upgraded facilities as part of the proposed active transportation network, the plan also recommends infrastructure improvements. These recommendations include opportunities to make improvements to infrastructure which contribute to achieving the objectives of the plan.

### Plan Objectives:

- Objective 1: More people walking and cycling
- Objective 2: Improve walking and cycling connections
- Objective 3: Improve the safety and comfort of walking and cycling
- Objective 4: Increase awareness of walking and cycling

*Table 5.3. Additional Infrastructure Recommendations*

Recommendation	Objective 1	Objective 2	Objective 3	Objective 4
Formalizing one-side paved shoulders as pedestrian lanes	✓	✓	✓	✓
Traffic Calming Measures	✓	✓	✓	
Enhanced Crossings	✓	✓	✓	✓
Tactical Urbanism Projects	✓	✓	✓	✓
Trail Access Bollard Design		✓	✓	

### Formalizing one-side shoulders as pedestrian lanes

#### *Priority Recommendation*

**Background:** Many of the roads in Chase are striped with a white edgeline on one-side of the roadway. This creates space for a paved shoulder on one side of the roadway.

**Recommendations:** Upgrade selected roadway shoulders to create a pedestrian lane on one side of the roadway. Add pedestrian lane pavement markings so that motorists anticipate people walking within the lane. Where possible, add physical separation, such as bollards, for increased pedestrian comfort. Pedestrian lanes are good interim measures where a sidewalk is proposed, or as a way to close a gap between existing sidewalks. Bicycle sharrows should be placed in the general traffic lanes to guide bicycle traffic and positioning on the roadway.



*Figure 5.23. One-side paved shoulder on Shepherd Road.*

### Traffic Calming Measures

**Background:** Simply lowering speed limits does not necessarily result in high levels of motorist compliance to the new speed limit. However, engineering and design-based traffic calming measures create conditions that increase the compliance with the lower speed limit. A variety of design elements can encourage lower motor vehicle speeds, including vertical and horizontal deflection such as speed humps, median islands, curb extensions, and lane width reductions. New or improved marked pedestrian crossings, vegetation along the street and other landscaping improvements can also encourage lower and more predictable motorist speeds.

**Recommendations:** Utilize the Transportation Association of Canada’s Canadian Guide to Traffic Calming (Second Edition, 2018) to select and install a variety of traffic calming design elements, particularly within downtown Chase. The document provides detailed guidance related to the planning, design, installation, operation, and maintenance of traffic calming measures.

### Enhanced Crossings

**Background:** High visibility markings and signage at pedestrian crosswalks can improve driver yielding compliance to pedestrians (LaCoste et al., 2014, Huang et al., 2000). A variety of pavement markings and signage placements are used throughout Chase. However, there are currently no pedestrian activated beacon crossings in the village. In addition to designing for pedestrian visibility, crossing design should also encourage accessibility for all, including pedestrians with low vision and people who use wheelchairs or other mobility devices. Curb ramps increase crossing accessibility by providing a gradual slope from the street to sidewalk level.

**Recommendation:** Highly used crossings or locations with low driver yielding compliance should receive improvements to reinforce pedestrian priority and to increase driver awareness of the crossing. Enhanced crossings should also be implemented where a shared use pathway crosses a roadway. The crossing should be intuitive to use for people walking and cycling. Raised crosswalks are one possible design treatment. They use vertical deflection to make people crossing more visually prominent to vehicle drivers. A raised crosswalk also acts as a speed hump to lower vehicle speeds.

### Tactical Urbanism

**Background:** There is a growing interest among Canadian cities to plan and install demonstration and pilot projects. These projects are simple approaches to implementing a design or road intervention, typically meant for short-term installation. They are also called “tactical urbanism” projects. Depending on the materials used, installing the short-term design can be low cost and sourced with help from community partners. These projects can develop through community involvement to select a site or select design treatments. These projects can result in beautiful, unique, community-owned improvements, and demonstrate a design for people to experience before a costly, long-term construction process. It also provides an opportunity for the local agency to revise the design as conflicts arise. The [Tactical Urbanist’s Guide to Materials and Design](#) (2016) by the Street Plans Collaborative is a free resource for providing guidance on materials, designs, and project implementation.



*Figure 5.24. New crosswalks and temporary curb extensions as part of a tactical urbanism project in North Dakota.*

**Recommendation:** Village staff should work with VOCATAC and other relevant stakeholders to identify locations for tactical urbanism projects throughout Chase. Once potential sites are selected, VOCATAC and Village staff should review temporary and long-term design improvements and support their implementation.

### Trail Access Bollard Design

**Background:** Currently, large barriers and signage have been erected to prevent golf carts from accessing pathways. The large barriers are made of concrete, presenting both an accessibility challenge and a collision risk. Wider types of bicycles or less experienced users may find it challenging to negotiate the limited space available to access the pathways.

**Recommendation:** While not including a bollard at all is a best practice, installing flexible bollards instead of concrete barriers, could encourage rule compliance while reducing the risk of injury in the event of a collision.



*Figure 5.25. Existing trail barrier at Shepherd Road path.*

## Policy and Program Recommendations

Providing a comfortable and safe environment for people using active transportation requires a focus on creating a network of active transportation facilities as well as supporting investments through education, encouragement, and enforcement. The following section presents policy and program options that Chase can implement to further enhance non-motorized transportation. Programs that target specific segments of the population can be more effective in encouraging use active transportation (Butler et al., 2007). Thus, these targeted efforts could be more impactful in improving the health status of that group. Recommendations fall into one of two categories:

- Recommendations focused on improving internal Village processes would refine the Village’s approach to active transportation planning and project implementation.
- Recommendations focused on public-facing efforts would provide residents with new or improved education and encouragement related to walking and cycling to community destinations.

Table 5.4 shows how proposed recommendations align with plan objectives. While all options would benefit Chase, Village staff and VOCATAC used this tool to select priority short-term recommendations. Priority recommendations are identified as such within the summaries.

### Plan Objectives:

- Objective 1: More people walking and cycling
- Objective 2: Improve walking and cycling connections
- Objective 3: Improve the safety and comfort of walking and cycling
- Objective 4: Increase awareness of walking and cycling

*Table 5.4. Policy Recommendations*

Recommendation	Objective 1	Objective 2	Objective 3	Objective 4
<b>Policy</b>				
Maximum 30 km/h speed limit	✓	✓	✓	✓
New Sidewalk Policy		✓	✓	
Update zoning bylaw to require bike parking facilities in new development		✓		✓
Golf Carts and Neighbourhood Electric Vehicles			✓	
Continue to support VOCATAC			✓	✓
Pursue grant funding for projects	✓	✓	✓	✓

*Table 5.5. Program Recommendations*

Recommendation	Objective 1	Objective 2	Objective 3	Objective 4
<b>Program</b>				
Active and Safe Routes to School Program	✓	✓	✓	✓
Annual encouragement events and programs	✓			✓
Bicycle Parking Program	✓			✓
Formalizing Chase relationship with Shuswap Regional Trails Roundtable		✓		✓
Wayfinding Program		✓		✓

## Policy Recommendations

### Maximum 30 km/h speed limit within downtown area

#### *Priority Recommendation*

**Background:** Lowering speed limits are one strategy for making roads safer and more attractive for people walking and cycling. In event of a motor vehicle collision with a pedestrian, the probability of pedestrian fatality more than doubles when a vehicle is travelling at 50 km/h, compared to 30 km/h (Richards, 2010). However, the majority of speed limits in Chase are 50 km/h.

In addition to the potential for conflict with people walking and cycling, current posted speed limits pose concerns for sharing the roadway with people driving golf carts. The Neighbourhood Golf Cart By-law (2017) permits golf carts on Chase roadways. Although they golf cart drivers can legally drive on roadways with a 50 km/h speed limit, golf carts have a maximum operating speed of 32 km/h. To help draw attention to the speed differential, Chase added signage regulating a speed limit of 30 km/h for all motor vehicles when a golf cart is present.

During this plan's development, VOCATAC members questioned the equality of regulating lower speeds for motor vehicles when a golf cart is present. Motorists are not legally required to lower their speed in the presence of more vulnerable pedestrians and cyclists. The current approach to signage and other regulation was decided because during the time of the golf cart pilot project, a proposal to set all speed limits to 30km/h was controversial among certain members of the community.



*Figure 5.26. Speed limit signage in the Village.*

In response to the considerations posed above, a discussion activity with VOCATAC members during this plan's process identified roads or zones appropriate for a 30 km/h speed limit.

**Recommendations:** Establish a 30 km/h speed limit within downtown Chase. This area should include Shuswap Avenue between Coburn Street and Bell Street. The recommended boundaries could provide a safer environment for children and youth to get to school. The lower speed area would complement the recommended Active and Safe Routes to School Program.

### New Sidewalk Policy

**Background:** New development projects within Chase offer opportunities to require the construction of active transportation facilities as a condition or incentive of new development. Other communities have used new development as a chance to add active transportation facilities in areas that may otherwise lack these amenities.

**Recommendations:** As land in the village is subdivided and developed, leverage new development by requiring construction of sidewalk or pathway facilities. The Village could choose between two approaches to achieving this recommendation:

- Add language within development agreements outlining requirements or incentives for constructing sidewalks and pathways
- Require developers to contribute to a village fund for building adjacent or priority projects from this plan

### **Golf carts and neighbourhood electric vehicles and off-road facilities**

**Background:** Current regulations do not allow for golf carts to use off-road facilities, such as the asphalt pathway through the school. As a wider range of neighbourhood electric vehicles come to market, and with the recent growth in e-assist bicycles, it will be important for the Village to clarify policy on what vehicles and technologies are permitted to use off-road shared use paths.

**Recommendations:** Regulations should be revised to allow e-assist bicycles on shared use paths. These bicycles have a similar weight and operation as pedal propelled bicycles. The Village should continue to educate people when registering their golf carts that they are only permitted on roads.

### **Update zoning bylaw to require bike parking facilities in new development**

**Background:** Bicycles should receive equal consideration when calculating parking needs with specific calculations provided for determining the amount of bicycle parking provided by land use type. Design and location standards for bicycle parking should be clearly stated to provide for safe and convenient access to destinations. Different standards of bicycle parking are needed for short-term visitors and customers and for longer term users like employees, residents, and visitors.

**Recommendations:** The Village should develop and adopt a zoning bylaw which requires bike parking facilities to be built in new developments. Bylaw changes could include such topics specifying a standard rack type, allowing a reduction in car parking due to installing bike parking, and including specifications for bike parking location. A fund could also contribute to installing short-term bike parking throughout the Village. For more information, refer to 'Bicycle Parking Program' under the following section.

Standards for bicycle parking design can be found through the Association of Pedestrian and Bicycle Professionals' *Bicycle Parking Guidelines*: [www.apbp.org](http://www.apbp.org)

Bicycle Parking Model Ordinance, Change Lab Solutions:  
<http://changelabsolutions.org/publications/bike-parking>

### **Continue to support VOCATAC**

**Background:** The VOCATAC began in coordination with the development of this plan to bring together a diverse group of residents to act as a focus group. The committee helped develop and refine plan ideas. Members also promoted the plan's awareness as part of public engagement events.

**Recommendations:** The VOCATAC should continue to meet after the plan's completion. The committee could support the development of policies and programs in the Village.

### **Pursue grant funding for projects**

**Background:** Building new active transportation facilities or improving existing facilities has cost implications which may exceed the Village of Chase's planned budget. There are numerous federal and provincial grant programs that are specifically intended to support communities building active transportation facilities. An example of a program is ICBC's Safer Streets Road Improvement Program which will fund up to 50% of a project that includes road user safety improvements. A summary of existing programs is provided in the following section, Funding.

**Recommendations:** The Village of Chase should direct staff to regularly review and pursue grant programs to support the cost of implementing the active transportation plan.

## Program Recommendations

### Active and Safe Routes to School Program

#### *Priority Recommendation*

**Background:** Active and Safe Routes to School (ASRTS) refers to a variety of programs aimed at promoting healthy alternatives for children's travel to and from school besides driving in the family car. Walking and biking to school are healthy alternatives to being driven, and can increase children's sense of independence. Similarly, riding the bus and carpooling reduce traffic and improve safety near schools. Among the goals of ASRTS programs are improved safety for children, establishing good health and fitness habits in families, and decreased traffic and air pollution from private automobiles.

ASRTS uses a variety of approaches to improve traffic safety around schools. Examples include educational materials, fun events, enforcement and safety reminders, and engineering countermeasures. ASRTS programs typically involve partnerships among municipalities, school districts, community organizations, parent/caregiver volunteers, and law enforcement agencies. ASRTS plans may include individual school plans that identify needed safety improvements around schools, and/or regional strategic ASRTS plans that may focus on funding, staffing, or communications needs.

**Recommendations:** Convene an Active and Safe Routes to School (ASRTS) Task Force to define program goals and problems the program could address. Task Force members could include representatives from the Village of Chase, the school district, the RCMP, school administration, parents, and interested community members. The Task Force could work with other stakeholders to begin developing an action plan to focus on addressing identified problems.

There are many free resources available including [HASTe BC](#) and the [Ontario Active School Travel Toolkit](#).

### Annual encouragement events and programs

#### **Background:**

#### *Bike Month*

British Columbia celebrates Bike Month every June. Communities can participate through hosting events to promote cycling. Events can be supported through sponsorships, fundraising, or crowdsourcing. Successful events include group rides or tours, educational workshops, and cycling related film screenings. Past events are available on the [BC Bike Month](#) and the [Bike to Work Week](#) websites

#### *Open Streets*

Open Streets and other programs that aim to activate public space encourage communities to try new modes in a low-stress environment, connect with neighbours, and see their community from a different perspective. More information on how to organize an Open Street event, including a toolkit is available from [Open Streets Project](#).

#### *Media Campaign*

Media campaigns can increase the visibility of people on bikes and encourage more people to ride or walk. Research shows that the most effective campaigns are those that use positive, reinforcing messaging and graphics, as opposed to shaming or frightening any type of road user. These campaigns can utilize a variety of media outlets, including billboards; print advertising; transit vehicles, stations, or shelters; informational brochures or handbills; social media; branded promotional items, etc.

Campaign focus can include the following topics:

- Safety Media Campaign
- Travel Behaviour Choices
- Distracted and/or Impaired Driving
- Senior Safety
- Vulnerable User Awareness
- Share the Road

**Recommendations:** The Village should work to establish annual encouragement events and programs.

### **Bicycle Parking Program**

**Background:** Secure and well-located bike parking is key to encouraging more people to bike to work, home, shopping, and other frequent trips. In the survey, 26% of respondents identified that not having somewhere to lock their bike was an obstacle for them. Chase should proactively set standards for bicycle parking. Standards should act as a resource to guide the type of parking racks, its placement, and its role in the community.

**Recommendations:** The Village should create a program to purchase and install bicycle racks in the public right of way. This approach would provide short-term bicycle parking where community members feel it is most needed. The program could incorporate a public request form to provide a way for residents and people who bike to request bicycle racks at specific locations. A public request form could also help support local businesses by providing an easy way for patrons to securely park nearby.

### **Work with Shuswap Trails Alliance to develop a regional trail network and formalize Chase’s relationship with Shuswap Regional Trails Strategy group**

**Background:** The Village is currently a member of the Shuswap Regional Trails Strategy group. The goal of the group is to develop a network of trails throughout the Shuswap Region, which will increase the profile and access to hiking and cycling facilities for inter-community travel, recreation and tourism. Chase’s location at the western gateway to the Shuswap is a strategic location for the economic benefits of increased tourism from the development of a regional trails system.

**Recommendation:** The Village should continue to support and be involved with the Shuswap Regional Trails Strategy group through Village staff involvement.

### **Wayfinding Program**

**Background:** A wayfinding program can help guide people around the community, on paths and to destinations. A wayfinding system is an attractive, cohesive approach that standardizes signage making it predictable and easy to understand. Wayfinding programs support can also enhance community identity and support tourism objectives. Appendix A includes an existing conditions assessment, best practice guidance, and an initial concept of how signage could look.

**Recommendations:** Review Appendix A of this plan and develop a plan for the implementation and on-going maintenance of a wayfinding program to be implemented in Chase.

## Funding

This plan explores potential funding sources that could be used to fund active transportation improvements in Chase. This section identifies a number of potential funding sources the Village could access. Funding sources include:

### Community Contribution Fees and Taxes

#### General Funds/Taxation

Property taxes collected by the Village could be one way of capturing funds to help pay for this plan and the ongoing operations and maintenance associated with recommended projects. Proposed projects and programs will be new services for residents. To accelerate the delivery of the priority projects, it may be necessary to increase contributions from General Taxation to match funding from Federal and Provincial Grants to achieve the funding targets recommended in this report.

### User Fees and Project Related Revenue Sources

#### Development Cost Charges

The Local Government Act (Sec 933) allows local governments to impose development cost charges (DCC's) to assist a local government in funding capital improvements including, but not limited to regional parks, trails or roadway improvements that serve the development subject to the charge.

#### Cash-in-lieu

Recent changes to the Local Government Act allow municipalities and regional districts to request developers to provide cash-in-lieu of providing off-street parking spaces to fund alternative transportation such as active transportation network upgrades as per Section 525 of the Local Government Act. According to Section 525, if money is received by a municipality or regional district under this provision, the municipality or regional district must invest the funds in new and existing off-street parking spaces. Subsection 7(a)(ii) states that investment in transportation infrastructure that supports walking, bicycling, public transit or other alternative forms of transportation may be funded in lieu of off-street parking space improvement.

### Grants

Funding opportunities change regularly; the information in this section is subject to change. The Village should regularly check with all levels of government to remain apprised of funding opportunities.

#### BikeBC Program

The Province of BC currently provides approximately \$6 million annually for municipal cost-sharing toward cycling infrastructure projects through the BikeBC program. The program currently provides up to 75% of the project costs for communities with a population under 15,000. The program evaluates projects on how they improve safety for cyclists. As such, bike paths that allow physical separation between cyclists and other road users are preferred. BikeBC will also fund a variety of other projects. Potential projects are listed in order from most to least preferable:

- Cyclist/pedestrian bridges and overpasses
- Buffered bike lanes (for example, those that can be separated by barriers such as parked vehicles or painted medians with increased width)
- Bike lanes
- Shoulder bikeways
- Shared roadways

Funding is directed toward projects that are part of an approved bicycle network plan and which facilitate cycling to work, school or errands. Cycling facilities can also generate tourism-related traffic based on proximity to amenities and points of interest for tourists, and through linkages to other communities; however, serving tourist related traffic is not the primary objective of the project as determined through the engagement process. An approved plan by Council forms the basis for an approved bicycle network plan, allowing the Village to apply for BikeBC funding for projects in Chase.

#### **Insurance Corporation of British Columbia (ICBC) – Safer Streets Road Improvement Program**

Since 1990, ICBC has contributed more than \$138 million toward road improvement projects and studies across the province that have helped to reduce death and injury on BC roads through the Safer Streets Road Improvement program. ICBC partners with municipal, regional and provincial agencies to construct improvements that improve road safety. ICBC works with MoTI, municipal and regional staff to review studies, crash data and other information to decide projects for agency investment. ICBC contributes funds to projects that are likely to improve safety and reduce collision claims on roadways throughout BC. Selected projects received 50% of their funding from ICBC.

#### **New Building Canada Fund – Small Communities Fund**

The Province of BC and Federal government have allocated \$109 million annually until 2024 to fund infrastructure projects in communities with a population of less than 100,000. There are 13 categories of eligible projects including, for example, disaster mitigation, innovation, public transit and highways and major roads. Any of these categories might include active transportation related components. First Nations projects are eligible for funding. Funding requirements include:

- Project location partially or entirely on reserve
- Purpose must align with the program parameters
- Project must meet the grant conditions
- Demonstrate benefits extending beyond the reserve community
- Climate Action Revenue Incentive Program

The Climate Action Revenue Incentive Program is a conditional grant program that provides funding to BC Climate Action Charter (Charter) signatories equivalent to one hundred per cent of the carbon taxes they pay directly. This funding supports local governments in their efforts to reduce greenhouse gas emissions and move forward on achieving their Charter goals. Governments must take action towards carbon neutrality and measuring GHG emissions to be eligible. A number of local agencies such as Vernon, Penticton and Cowichan Regional District have applied these funds toward pedestrian and cycling facilities.

## Federal Gas Tax Fund

Gas tax is collected annually by the federal government. Jurisdictions receive a proportion of the federal dollars based on their populations through the Community Works Fund (Federal Gas Tax Program). The Gas Tax Program supports environmentally sustainable municipal infrastructure by funding projects that reduce reliance on the private automobile.

## Infrastructure Canada

The programs of Infrastructure Canada are the Active Transportation Fund, New Building Canada Fund (NBCF) and the aforementioned Gas Tax Fund. Typically, the federal government contributes one-third of the cost of municipal infrastructure projects. Provincial and municipal governments contribute the remaining funds and, in some instances, there may be private sector investment as well. The NBCF supports projects of national, regional and local significance that promote economic growth, job creation and productivity. A number of active transportation projects and roadway and transit projects with active transportation elements have been funded through this program.

## Green Municipal Funds

The Federation of Canadian Municipalities (FCM) manages the Green Municipal Fund (GMF). Eligible capital projects include transportation that must demonstrate the potential to reduce vehicle kilometres travelled in a single occupancy vehicle by encouraging active transportation. Matched funds are required.

## Volunteer and Private Sectors

### Deeds, donations, dedications and volunteer labour

In many communities, shared use pathways have been constructed in part through contributions from local residents and businesses that donated their time or money toward construction. Examples in B.C. of sponsorship from local businesses include:

- Construction Aggregates in Sechelt constructed an overpass over a gravel conveyor to provide a link for pedestrians and cyclists;
- 7-Eleven and Molson Breweries sponsored the BC Parkway path in Vancouver, Burnaby and New Westminster.

BC residents and visitors have also contributed funding. The Trans Canada Trail, for example, was funded partially by sales of one-metre sections for \$40. Volunteer efforts have also been significant. A dedication program can be set up for residents and corporations to donate. In many cases, deeds, donations and dedications are tax deductible where administered by a not-for-profit agency.

## Service Clubs

Efforts to provide new bicycle facilities or shared use pathways can be coordinated with service clubs, such as the Lions Club, the Rotary Clubs and Kiwanis. The Courtenay Rotary Club for example contributed to the construction of the Rail Trail that runs from Fifth Street down to 26 Street.

## Advertising

There may be several options for obtaining funding for bicycle and walking projects from advertising revenues. The costs of producing and distributing an active transportation route map could be partially or fully offset by selling advertising space on the map. Advertising on bicycle racks could reduce the costs of providing bicycle parking and in some cases infrastructure projects have been funded directly through revenues from advertising. For example, McBride pedestrian/bicycle overpass in New Westminster, B.C. was paid for by Mediacom in return for a 20-year advertising deal involving seven billboards throughout the community.



*Figure 5.27. Chase Creek at Centennial Park.*

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**Appendix A. Wayfinding Memo**

DRAFT



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# Memorandum

**Date:** January 30, 2019  
**To:** Sean O'Flaherty, Village of Chase  
**From:** Kim Voros, Alta Planning + Design  
**Re:** Chase Wayfinding Memo

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## Core Wayfinding Principles

The legibility of a place describes how easy it is to understand. Places are more legible when they are arranged intuitively so that people can determine locations of destinations, identify routes and pathways, and recognize areas with different characteristics. Wayfinding systems help improve the legibility of places. Logical wayfinding in the Village of Chase means an individual is capable of easily and successfully finding their way to their destination, able to understand where they are with respect to other key locations, able to orient themselves in an appropriate direction with little effort or stress, and is comfortable to explore and discover new places and services.

To create a successful wayfinding system, the planning and design process begins with guiding principles to focus the intent of messaging and provide a framework for implementing a cohesive, easy to use network of routes and signs. These principles have been developed for pedestrian and bicycle focused wayfinding plans and are based on best practices from around North America.

### 1. Connect Places

Wayfinding enables both residents and visitors to travel between destinations and discover new destinations and services accessible to pedestrians and cyclists. Wayfinding connects neighbourhoods and provides navigational assistance to both local and regional destinations. Effective wayfinding is an extension to the bicycling and walking network and provides a seamless travel experience for non-motorized users. The connectivity wayfinding enables goes beyond physical signage. Wayfinding signage elements can create a deeper connection to a place, cultivate a sense of pride by reflecting community values and identity, and support economic development by encouraging residents and visitors to explore and use local services.

### 2. Promote Active Travel

A wayfinding network should encourage increased rates of active transportation by creating a clear and attractive system that is easy to understand and navigate. The presence of wayfinding signs with walking and cycling information validates walking and bicycling as viable transportation options, and helps reduce mental barriers to using these modes for all types of trips. These signs should be in accessible formats to affirm that active transportation is promoted equitably.

Wayfinding should also expand the awareness and use of bicycle and pedestrian facilities by the whole community. The installation of wayfinding has the potential to increase walking and bicycling on existing facilities with low levels of use. This is an efficient use of active transportation investments on infrastructure already in place. Wayfinding also helps expand the use of the existing transportation network at low cost. In many cases, streets with low speeds and volumes may be good candidates for walking or cycling routes and simply need the installation of wayfinding to raise awareness of these route options.

### **3. Maintain Motion**

Wayfinding information should be presented in a way that is quickly understood. Walking and bicycling require physical effort, and frequent stopping and starting to check directions may lead to frustration. Wayfinding information that can be quickly and easily grasped contributes to a more enjoyable environment for walking and bicycling. Consistent, clear, and visible wayfinding elements allow active transportation users to navigate while maintaining movement.

### **4. Be Predictable**

Wayfinding should be predictable and consistent. When information is predictable, users will recognize a pattern of information and be able to quickly anticipate and recognize information. Predictability should relate to all aspects of wayfinding placement and design (i.e., sign materials, dimensions, colours, forms, and placement). Design consistency also contributes to a continuity of experience as landscapes and context change along walking and bicycling routes. Once users trust that they will encounter consistent and predictable information, their level of comfort is raised and new journeys become easier to attempt and complete, thereby promoting an experience that is welcoming and friendly. Similarly, maps should employ consistent symbology, fonts, colours, and style. The system should be designed in accordance with local, provincial, and national guidelines to allow funding to the system from these sources.

### **5. Keep Information Simple**

Wayfinding should provide clear information in a logical succession, and not overburden users with excess information. Information should be presented in a clear and logical format. Wayfinding signage should be both universal and usable for the widest possible demographic and with special consideration for those without high educational attainment, English language proficiency, or spatial reasoning skills. It is important to provide information in manageable amounts. Too much information can be difficult to understand; too little, and decision-making becomes impossible. Information should be provided in advance of where major changes in direction occur, and confirmed when the maneuver is complete.

## Best Practice Review

The following examples provide an overview of some of the best practices for pedestrian and cycling wayfinding signage across North America.

### *Jackson Hole, Wyoming*

The Jackson Hole, WY bicycle network seeks to appeal to a broad spectrum of riders with safe, inviting, and convenient routes. Signs adhere closely to MUTCD guidance while integrating a custom logo reflecting the area's signature Teton Mountain skyline.

#### Best Practice Highlights

- Custom enhancement marker
- Distances given in physical length and time



Figure 1. Grand Loop Bike Route wayfinding Signage in Jackson Hole, WY

### *Berkeley, California*

The City of Berkeley opted to use non-standard purple signs for its bicycle wayfinding network. Both sides of signs are painted and utilized. Signage on the front provides directional information to users while a logo on the back serves as a semi-conformation sign providing reassurance to cyclists in the opposite direction that they are still on a bicycle boulevard.

#### Best Practice Highlights

- Unique identifying colour
- High visual contrast
- Custom enhancement marker



Figure 2. Channing Avenue Bicycle Boulevard in Berkeley, CA

## Wayfinding Guidance

As per the community wayfinding standards, colour coding may be used on wayfinding guide signs to help users distinguish between multiple potentially confusing traffic generator destinations located in different neighbourhoods. Community wayfinding guide signs may use background colours other than green in order to provide colour identification for the wayfinding destinations by geographical area within the overall wayfinding guide signing system.

The standard colours of red, orange, yellow, purple, or the fluorescent versions thereof, fluorescent yellow-green, and fluorescent pink should not be used as background colours for community wayfinding guide signs in order to minimize possible confusion with critical, higher-priority regulatory and warning sign colour patterns readily understood by road users. The colour wheel diagram below depicts colours which are already assigned specific meanings and thus should not be used on community wayfinding signs. Green is the standard colour for guide signs. Blue and brown are also used for traveler information including destination and street name signs. The remaining colours are eligible for use on community wayfinding signs as long as they are sufficiently different from the assigned colours.

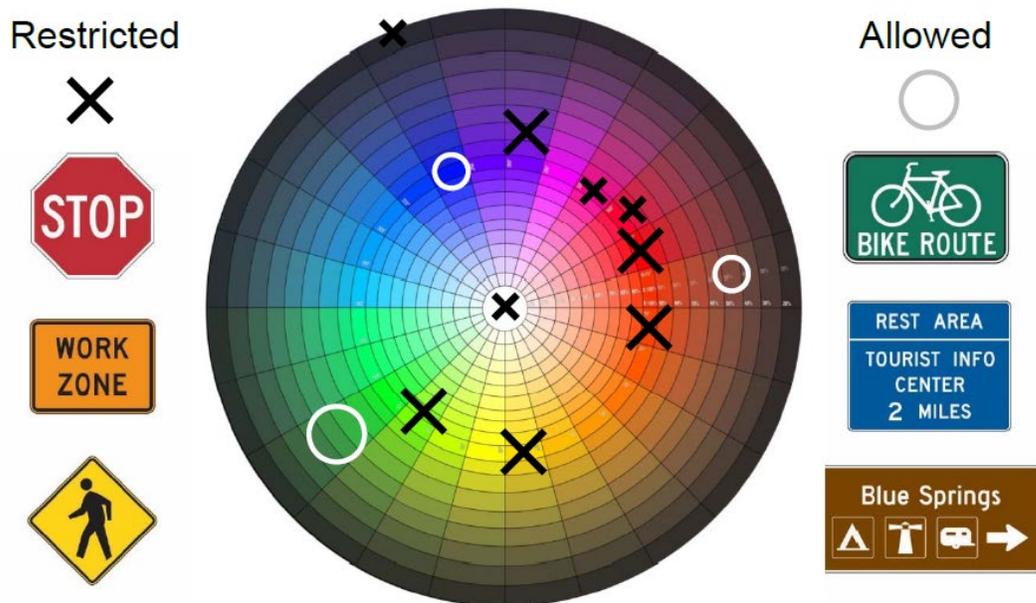


Figure 3. Best practice colour wheel diagram

### Cycling

Bicycle wayfinding signs on any bicycle facility should be placed so as to not distract vehicular traffic. In general, orientation toward the physically-separated bicycle facility and away from the street accomplishes this. If the facility is two-way, signs displaying wayfinding guidance facing both directions of traffic should be provided.

### Pavement Markings

Directional pavement markings indicate confirmation of cyclist presence on a designated route and where cyclists should turn. Pavement markings can often be more visible and can help supplement or reinforce signage, particularly in urban settings.

### Map Kiosks

Kiosks with area and/or citywide orientation maps can provide helpful navigational information, especially where cyclists may be stopping long enough to digest more information (i.e. transit stations or stops, busy intersections, trail heads). The use of icons and high contrasting colours is a good practice which makes maps comprehensible to a wide audience.



Figure 4. Left to Right: Cycling Route, Pavement Marking and Map Kiosk

## Existing Signage

Wayfinding in the Village of Chase currently consists of a various signage types; including welcome, wayfinding, reserve, pilot, and provincial signage. An inventory of signage types was performed in order to review the branding and style used by the Village of Chase. This review helped to create a wayfinding strategy that incorporates local styles and colours that already exist in the Village.

### Welcome Signage

Welcome signage in Chase is commonly broken into Village Welcome Signs and Park Welcome Signs.

Village welcome signs are large, thick wooden post signs that depict some of the nature found in the area. The Salmon portrays the local connection to the Salmon spawning run, while the Ram builds upon the Village crest. Each sign is found at an entry point to the Village from Highway 1, with twin salmon signs marking the North and South most street entries, and the ram in the central entry.

The park signage is identically branded and shares the heavy wooden post design with both the entry signs and some of the larger wayfinding signage in the Village.



Figure 5. Welcome Signage

### Wayfinding Signage



Figure 6. Wayfinding Signage

The majority of Chase wayfinding signage can be broken down into two distinct categories: mapping and wayfinding.

The scale of the area plotted by the maps really delineates the aim. We have large scale map that shows road connections to the surrounding areas, the mid-range map shows locations within the Village itself, and the trail map directs hikers on their path. While the maps themselves change drastically, the posts that support them all utilize the same heavy wood frame.

Wayfinding signage is even more varied. Coloured street signs delineate the core of the Village from the surrounding areas of blue and green signage. The public beach directional sign combines art with a wayfinding component to direct travelers to the beach access point on the banks of Little Shuswap Lake.

## Reserve Signage

A variety of specialized reserve signage is present in the area directly surrounding Chase. There will be reserve signage within three kilometres of the Village because of the two local bands, and two reserves in the area. While the intent of the individual signs varies, they all delineate the area as reserve land to indicate the different rules regarding it.



Figure 7. Reserve Signage

## Provincial Signage



Figure 8. Provincial Signage

A variety of standard provincial signage is present in Chase and the surrounding area as its location relative to Trans Canada Highway 1 demands wayfinding signs for those leaving the Village and numerous information and wayfinding signs to direct visitors to local services. These signs are almost entirely aimed at motorists, and as such are designed to communicate information at speed, and are placed on the outside edges of the right of way, out of the roadway.

## Pilot Signage

Pilot signage refers to the specialized signs for the Neighbourhood Golf Cart Pilot Project currently taking place in Chase, BC. As a pilot for other localities, residents of Chase have the opportunity to take golf carts on the roadways, something that is currently illegal in all other communities in British Columbia. With this uncommon set of rules in place, specialized signs to both denote this project and inform drivers of the unique rules that govern it are in place around Chase. These signs are generally road signs that are common throughout the province, customized to include specialized rules and regulations involving golf carts.



Figure 9. Pilot Project Signage

## Design Aesthetic Development

Recognizing common patterns of travel within and through a community is an important element in developing a wayfinding system. All trips start and end at a location and many decisions are made along a route whether it is made by foot, bicycle, transit, or vehicle. This section includes a map that displays the major wayfinding decision-making points in the Village. When developing a wayfinding system, focusing on these points will help users navigate to destinations easily.

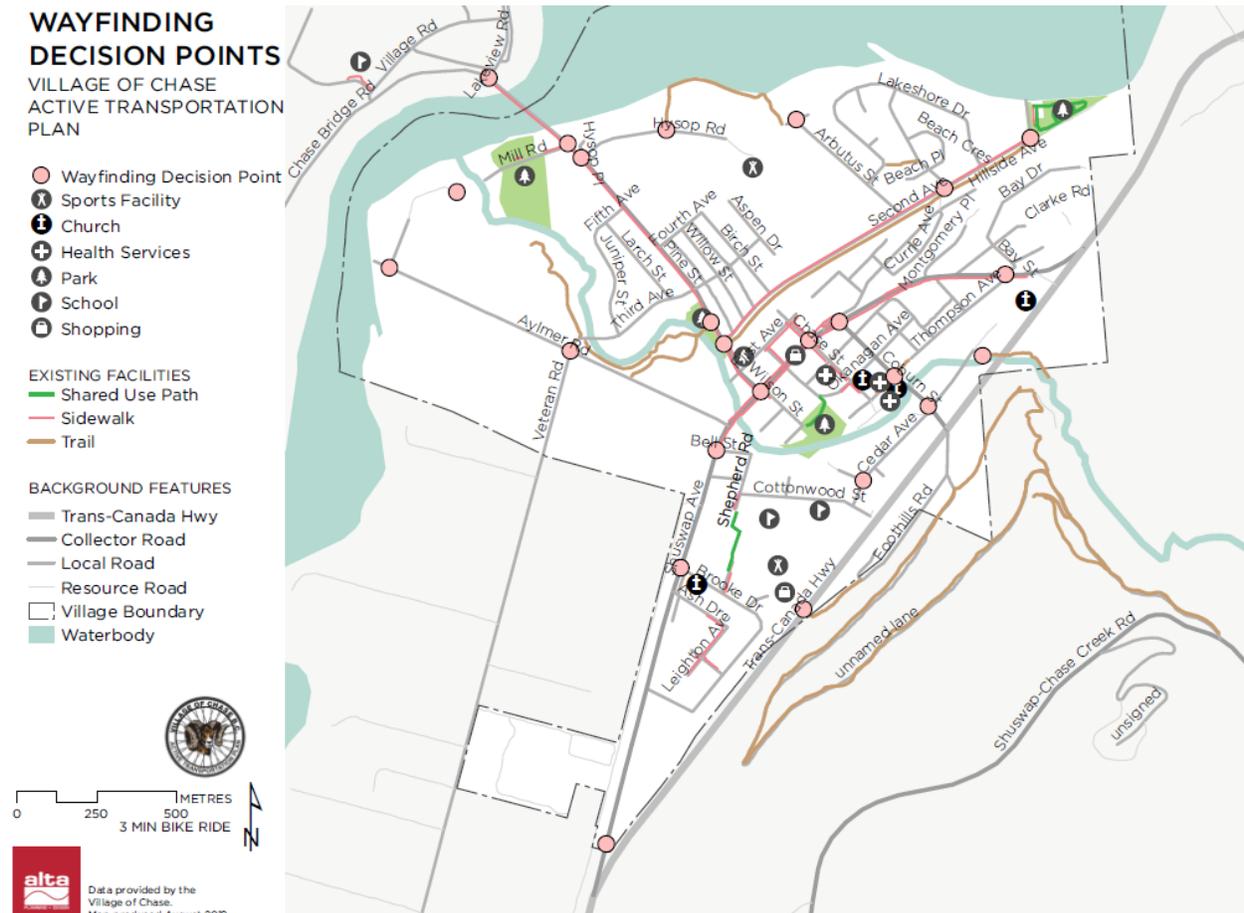


Figure 10. Destination and Decision Point Map

## Recommendations

Together, the existing conditions, best practices, and design aesthetic development illustrate how wayfinding can be used to support tourism and economic development, and will assist staff in building a vision and business case for a comprehensive wayfinding strategy. An effective wayfinding system provides residents and visitors with a cohesive, intuitive experience by which to explore the local community, its services, and attractions. The Village of Chase has the opportunity to improve signage and navigation information to help residents and visitors easily reach their destinations. Wayfinding is an effective way to grow the Village’s brand and support tourism in the area. Whether traveling by bicycle or on foot, improved navigation information helps people reach destinations. Clear, consistent, and predictable signage reduces anxiety and builds confidence in travel decisions, resulting in a smooth and easy journey.

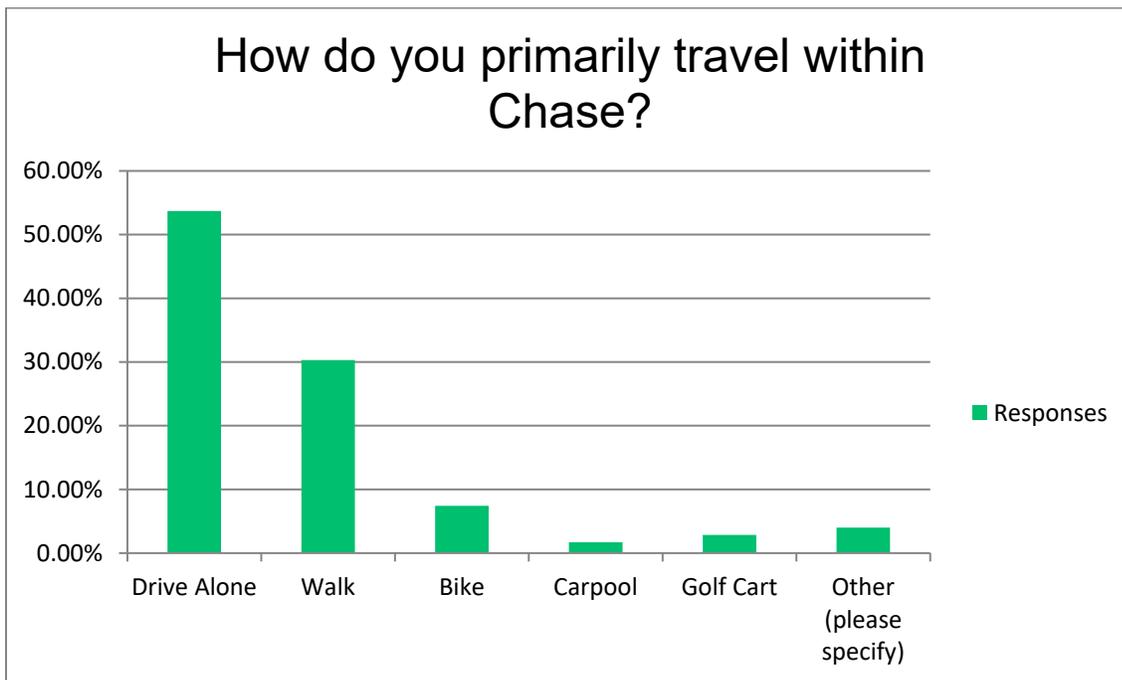
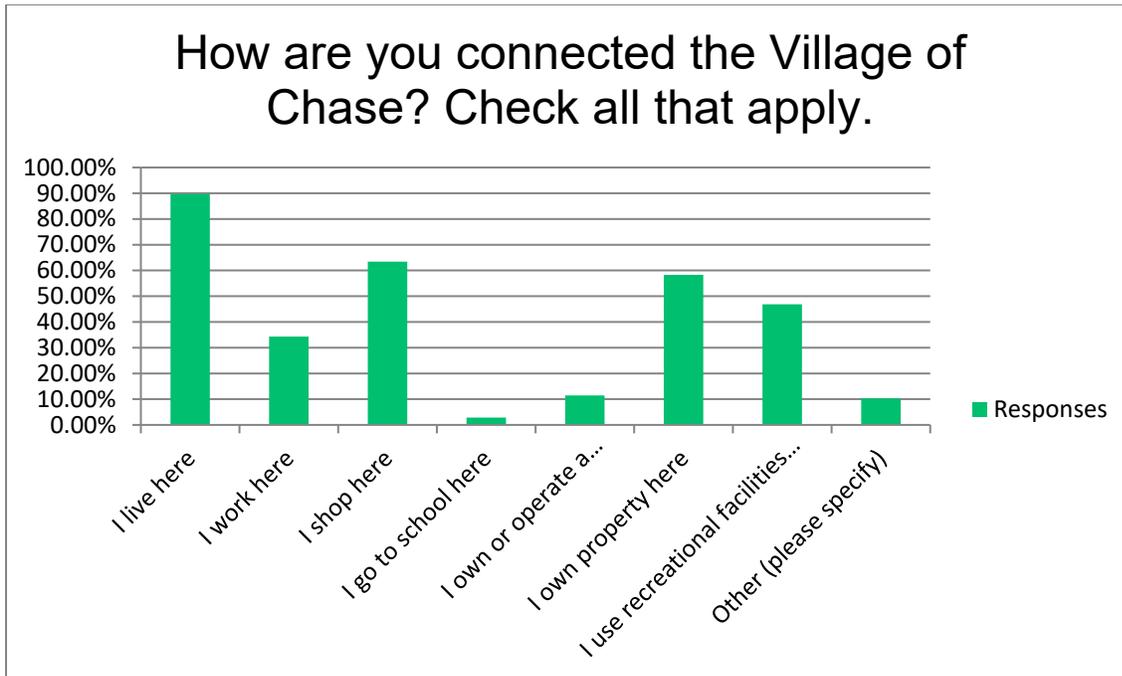
**Appendix B. Survey Summary**

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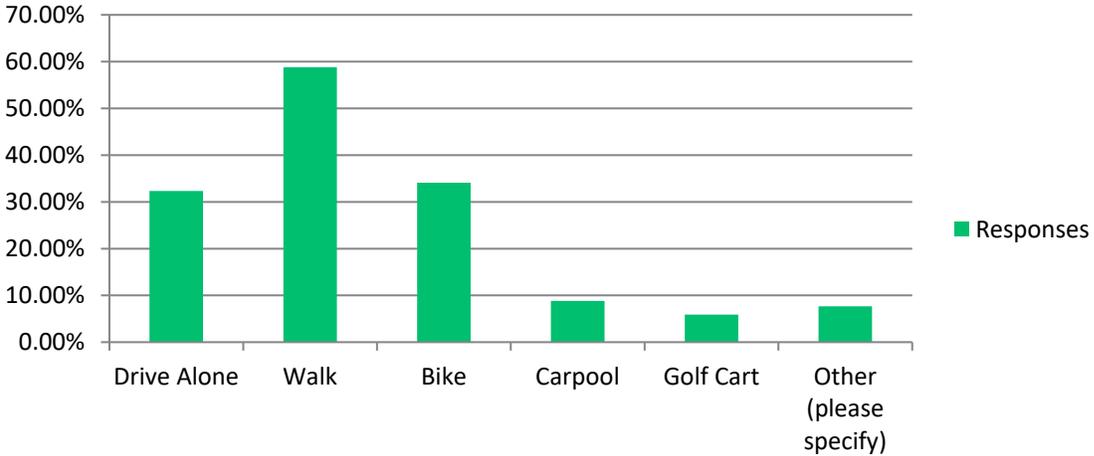
## Appendix B. Survey Summary

April, 2018 - September 3<sup>rd</sup>, 2018 Total

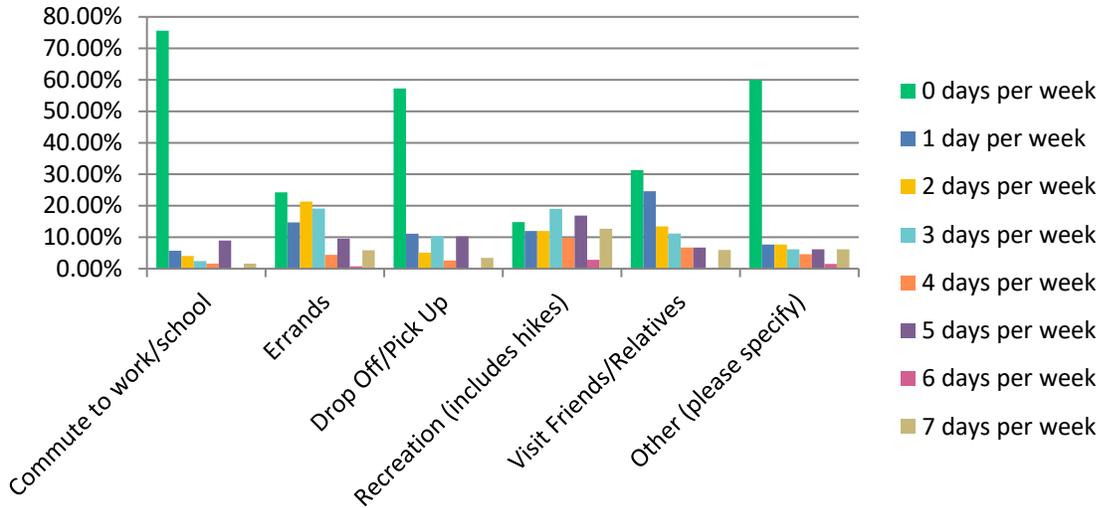
responses: 175



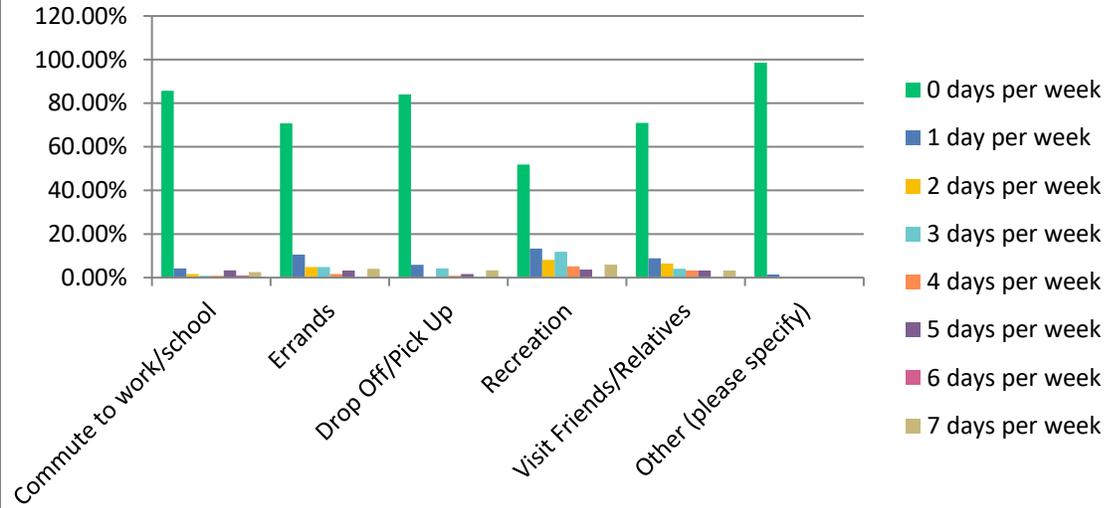
If you sometimes use a different mode of transportation, what is it? Check all that apply.



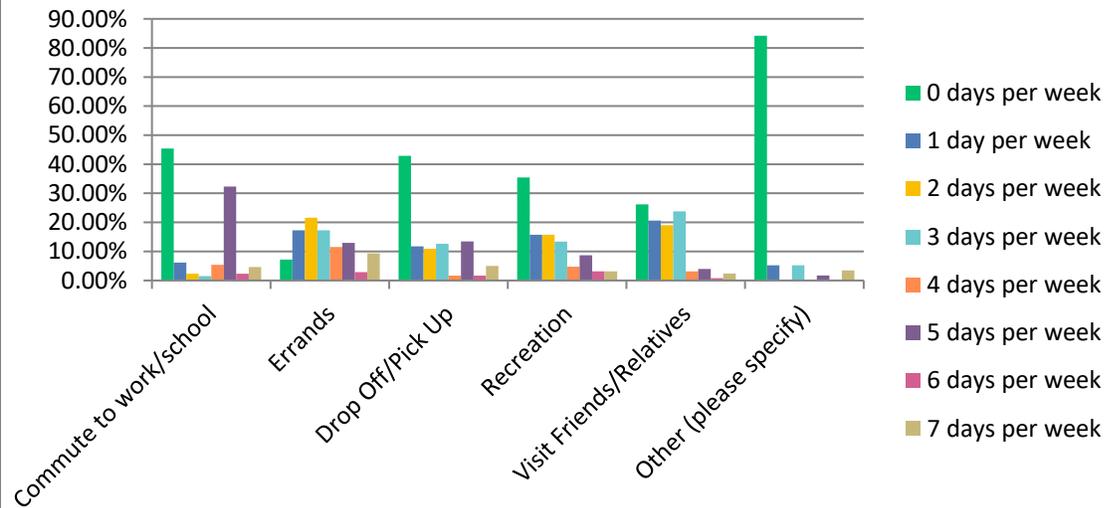
How many days a week do you walk for the following activities?



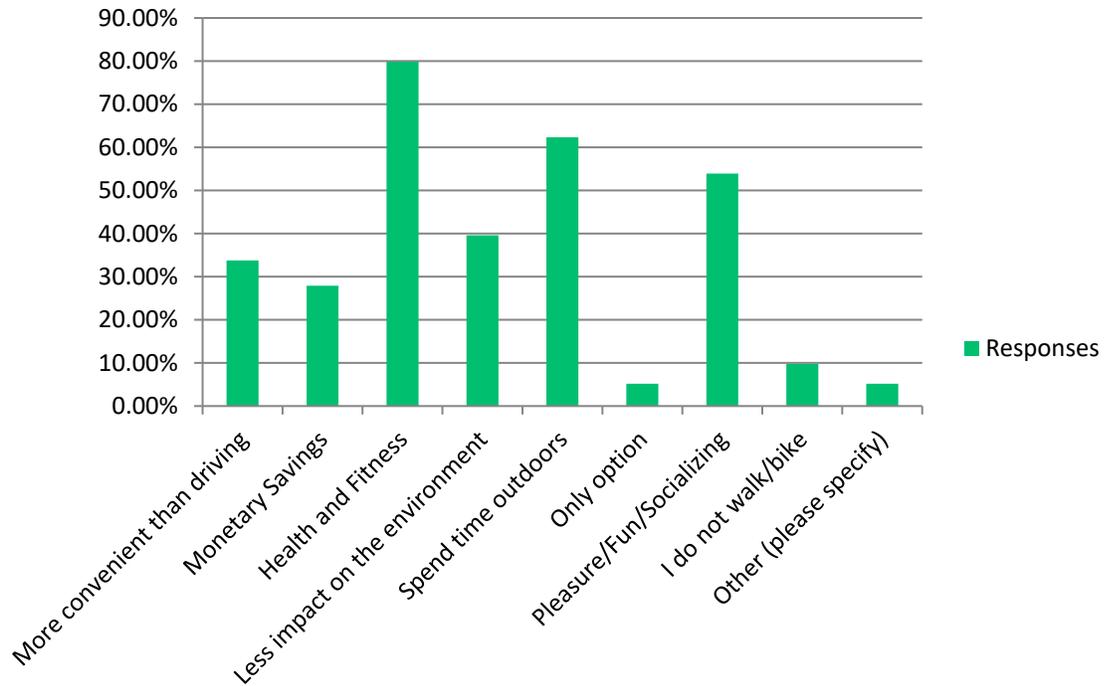
## How many days a week do you bike for the following activities?



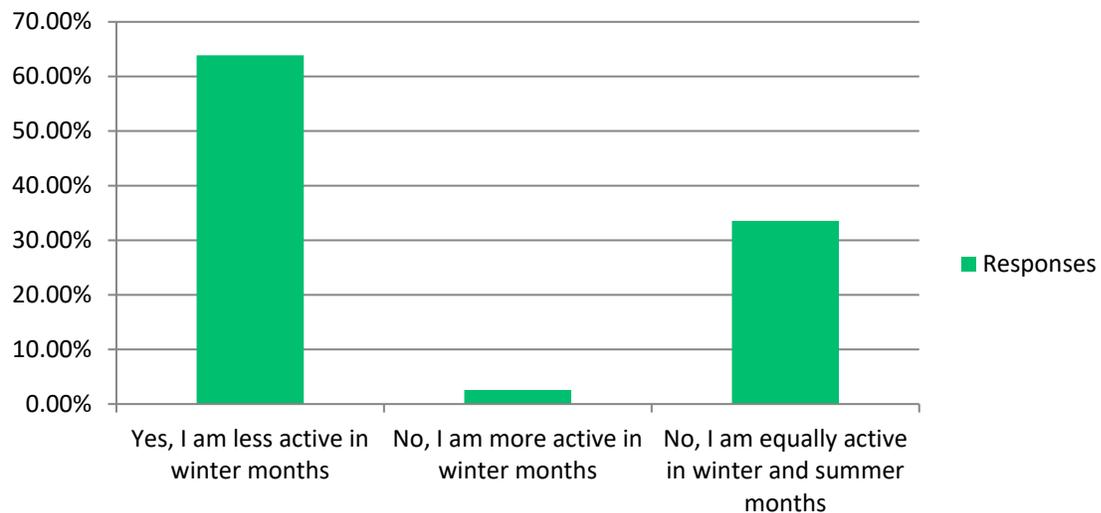
## How many days a week do you drive for the following activities?



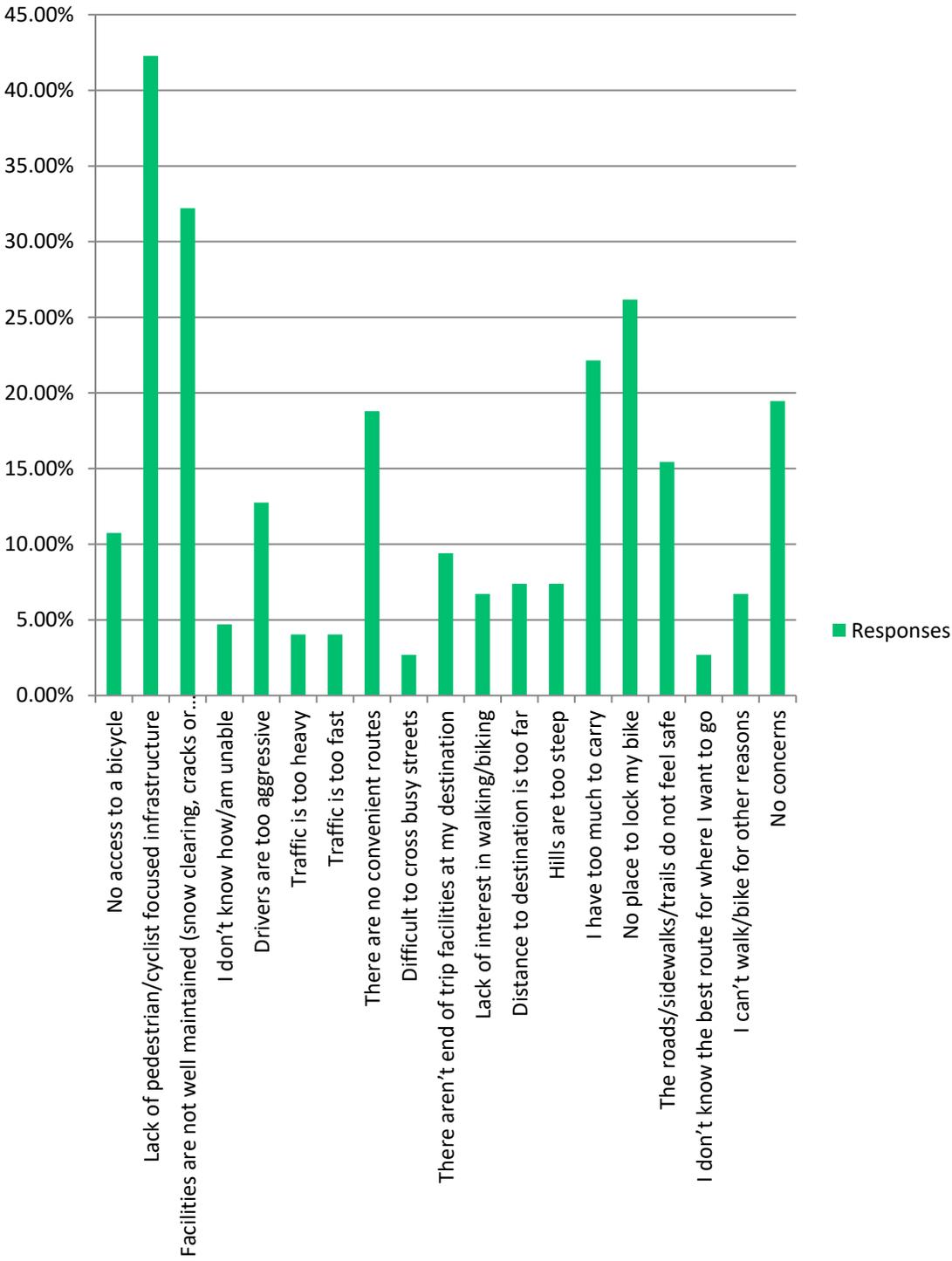
## Why do you walk or bike? Check all that apply.



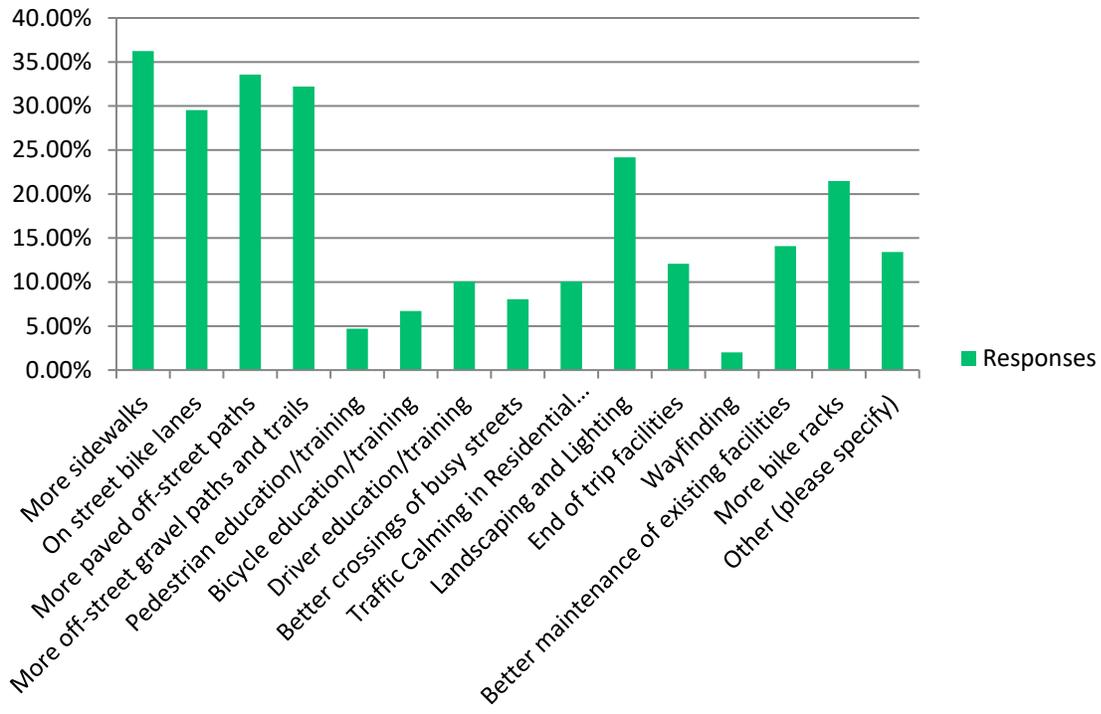
## Are you less active during winter months compared to summer months?



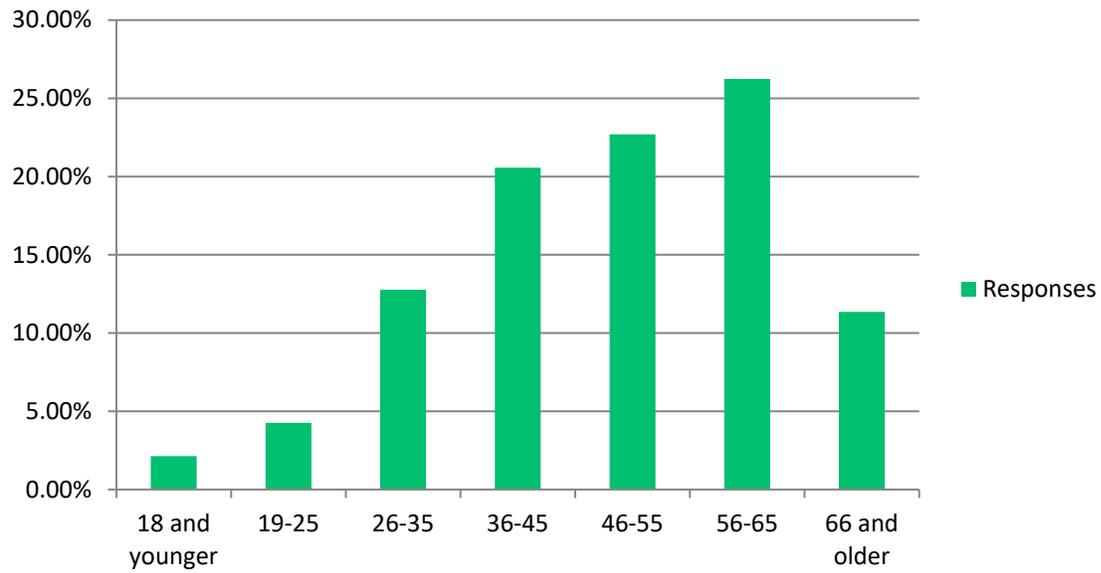
# What are the top five obstacles or concerns that may prevent you from walking/biking more?



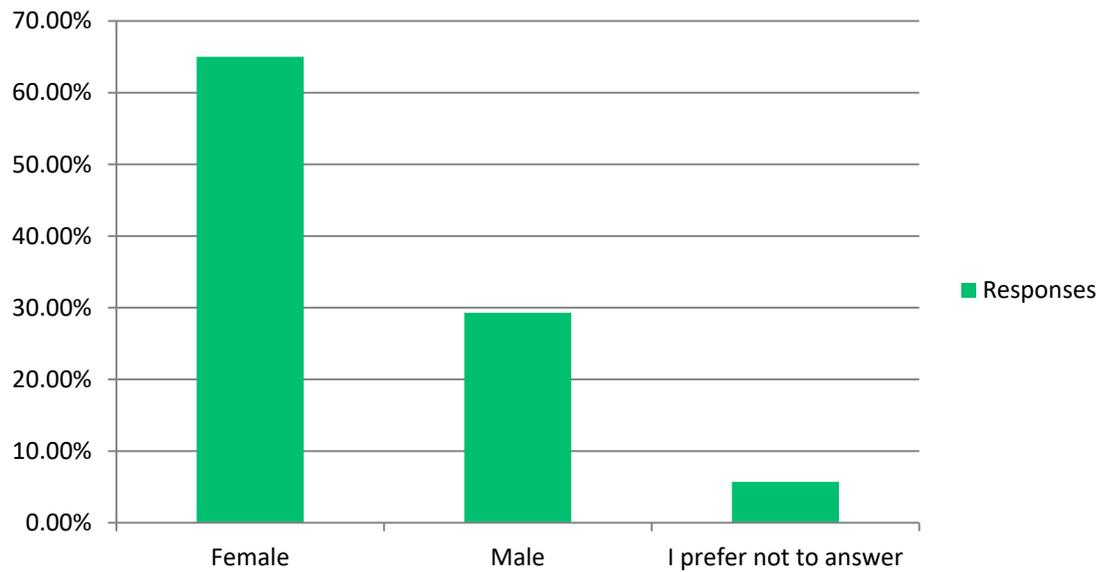
## Select your top three priorities for future transportation investment.



## What is your age?



## What is your gender?



Quotables:

Is there anything you think we need to know about active transportation in Chase?

- Rumbles on road by splash pool. Rumbles before stop signs. Playground area - Flashing lights get activated to warn drivers to slow down - rumbles are very good too. Do not put in bumps or dips!!
- Need better crosswalk from Shuswap Ave. to Bell Street
- We live in an amazing community that would benefit huge with walking trails all linked together.
- More trails please and bike path on hwy
- It would be nice if there were a paved path with solar lights all the way from the Petro Canada, and somehow connecting down 2nd Avenue to the park.
- Fix the problem of beach walking access for all residents - including dogs!!
- Travel on bike on the village sidewalks is frowned upon, however travel on the streets/avenues is sometimes downright dangerous due to (probably) driver attitudes, which includes excessive speed and aggressiveness particularly along the main routes. I believe this driver-attitude is experienced everywhere as certainly the larger cities have similar complaints.
- The impediments in place on sidewalks in Town. Telephone poles, cables, etc. Safety mobility issues for senior elders.
- People drive too fast in residential areas
- It would be great to have a safe railway walking path crossing near the beach/playground that can somehow access upper Chase.
- I am greatly in favour of restoring the creekside trail all the way to the falls
- I frequently use the path beside the creek leading to Memorial Bridge. It is worn down and rocks are a tripping hazard. It would be great if bark mulch or some levelling material could be used to even out the path
- We definitely need to do something so that bikers and walkers have their own space, particularly in busier parts of our village.
- Fix or replace what already existed to connect one side of Chase to the other. Mainly the foot bridge across the creek from Elm Street to Wilson Park giving quicker and safer access to the Clinic and post office and other stores uptown for people who are on foot and for school children who walk or cycle from the east end of Chase and from across the train tracks on Pine Street, keeping them off the main streets once they cross Shuswap Ave.
- put in sidewalks on Brooke Drive.... Its a busy street and there is a fair bit of commercial trucks and it's not safe for children walking
- NEED WAY more lighting especially by the schools most of the time the street lights that are there are out
- The crosswalk in front of Mountain View restaurant should have no parking beside it so motorists can actually see you there!
- I think a few benches down to beach and maybe an outhouse half way mark would be awesome
- Why isn't there trails along the lake for walking and biking?
- Allow everyone to access the beauty we have via walking trails around our waterways
- The location has exceptional opportunities for this project and would provide a valuable asset to the Village infrastructure.
- Just that it's much needed
- Needs to happen!

**Appendix C. Proposed Project Table**

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**Appendix C. Village of Chase Active Transportation Plan - Proposed Project Table**

PROJECT NO.	NAME	FACILITY TYPE	LOCATION	PRIORITY	LENGTH (M)	NOTES
1	Shuswap Avenue	Shared Use Path	Trans-Canada Hwy to Aylmer Rd.	Medium	1385	
2	Aylmer Road	Shared Use Path	Shuswap Ave. to Path	Long	1209	
3	Chase Creek and River	Shared Use Path	Creek Path to Aylmer Rd.	Long	750	
4	Chase Creek Bridge at Riv	Shared Use Path	Mill Rd. to Creek Path	Long	166	
5	Hysop Road	Shared Use Path	Pine St. to River Path	Medium	295	
6	Hysop Road II	Shared Use Path	Hysop Rd. to Arbutus Pl	Long	458	
7	Arbutus Street	Sidewalk	Arbutus Pl to Second Ave.	Medium	478	
8	Lakeshore Drive	Sidewalk	Arbutus St. to Accessway	Medium	89	
9	Path Accessway	Ped Path	Beach Cres. to Lakeshore Dr.	Medium	75	
10	Cummings Street	Sidewalk	Second Ave. to Memorial Park	Short	45	
11	Railway Crossing	Shared Use Path	Second Ave. to Hillside Ave.	Long	57	Work with CP to develop bike/ped grade crossing
12	First Avenue	Sidewalk	First Ave. to Haldane St.	Short	71	Closing gaps in sidewalk network
13	Path Accessway	Ped Path	First Ave. to First Ave.	Medium	71	
14	Lakeshore Drive	Sidewalk	Arbutus St. to Second Ave.	Long	740	
15	Beach Drive	Sidewalk	Second Ave. to Accessway	Medium	120	
16	Path Accessway	Ped Path	Hillside Ave. to Montgomery Pl	Long	73	
17	Montgomery Place	Sidewalk	Shuswap Ave. to Accessway	Long	271	
18	Shuswap Avenue	Sidewalk	Coburn St. to Existing Sidewalk	Short	147	
19	Hillside Avenue	Sidewalk	Existing Sidewalk to Railway Crossing	Medium	492	
20	Pine Street	Sidewalk	Second Ave. to Skate Park Path	Short	68	
21	Thompson Avenue	Sidewalk	Willson Park to Coburn St.	Medium	209	
22	Chase Street	Sidewalk	Thompson Ave. to Existing Sidewalk	Short	43	Closing gaps in sidewalk network
23	Thompson Avenue	Sidewalk	Chase St. to Coburn St.	Short	44	Closing gaps in sidewalk network
24	Willson Park Bridge	Shared Use Path	Willson Park to Elm St.	Short	120	
25	Willson Park Trail	Ped Path	Aulin Ave. to Thompson Ave.	Short	221	
26	Okanagan Avenue	Sidewalk	Haldane Path to Existing Sidewalk	Short	75	
27	Coburn Street	Sidewalk	Trans-Canada Hwy to Thompson Ave.	Short	216	
28	Paquette Road	Mixed Traffic	Coburn St. to End	Medium	229	Mixed traffic facility TBD - see facility toolbox
29	Coburn Street	Sidewalk	Thompson Ave. to Shuswap Ave.	Short	259	
30	Haldane Street	Sidewalk	Okanagan Ave. to Shuswap Ave.	Short	135	
31	Shepherd Road and Bell S	Sidewalk	Shuswap Ave. to Existing Path	Short	289	
32	Cottonwood Street	Sidewalk	Shepherd Rd. to Cedar Ave.	Short	341	
33	Cedar Avenue	Sidewalk	Cottonwood St. to Coburn St.	Medium	400	
34	Chase Plaza and Arena	Shared Use Path	Shepherd Rd. to Chase Plaza Path	Short	223	General line, alignment done in future planning
35	Chase Plaza Path II	Shared Use Path	Chase Plaza Path to Plaza Access	Short	83	
36	Brooke Drive	Sidewalk	Leighton Pl to Plaza Access	Short	212	
37	Brooke Drive	Shared Use Path	Plaza Access to Shepherd Rd.	Short	164	
38	Ash Drive	Sidewalk	Shuswap Ave. to Ash Dr.	Medium	131	
39	Brooke Drive	Sidewalk	Shuswap Ave. to Shepherd Rd.	Short	177	
40	Pine Street	Bike Lane	Mill Rd. to First Ave.	Short	1065	Continue across Bridge in with Adam's Lake
41	Wilson Street	Sidewalk	Willson Park to Shuswap Ave.	Short	143	
42	Okanagan Avenue	Sidewalk	Shuswap Ave. to Bay Dr.	Long	144	
43	Lake Path	Shared Use Trail	River Path to Cummings St.	Long	884	
44	Veteran Road and Third A	Shared Use Path	Village Boundary to Pine St.	Medium	795	Work with TNRD to expand beyond Village
45	Third Avenue	Mixed Traffic	Pine St. to Aspen Dr.	Medium	259	Mixed traffic facility TBD - see facility toolbox
46	Thompson Avenue Access	Ped Path	Thompson Ave. to Thompson Ave.	Medium	63	

47	Chase Creek Path	Shared Use Path	Third Ave. to Pine St.	Long	498	
48	Aylmer Road to Creek Pat	Shared Use Path	Aylmer Rd. to Chase Creek Path	Long	284	Alignment to vary based on development plan
49	Second Avenue	Shared Use Path	Pine St. to Memorial Park	Medium	1139	
50	Path Accessway	Ped Path	Lakeshore Dr. to Beach Dr.	Medium	100	
51	River Path	Shared Use Trail	Hysop Rd. to Arbutus Pl	Long	558	
52	Chase Creek Path	Shared Use Path	Chase Creek Path (Third Ave.) to Chase C	Long	405	
53	Mill Road	Shared Use Path	Chase Creek River Bridge to Pine St.	Medium	204	
54	Scratchard Mtn to Falls Tr	Ped Path	Scratchard Mtn Trail to Chase Creek Falls	See Note	192	Planned MOTI improvements
55	Chase Creek Trail	Shared Use Path	Coburn St. to Chase Creek Falls Trail	See Note	274	Planned MOTI improvements
56	Juniper Street	Sidewalk	Third Ave. to Pine St.	Long	453	Recommended by Chase staff

**Appendix D. Willson Park Bridge Project Sheet**

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## Willson Park Bridge and Shared Use Path

A key short-term recommendation of the Chase Active Transportation Plan is the replacement of the bridge over Chase Creek in Willson Park. The project would also fund construction of paved shared use paths to connect the existing path through the park to Elm Street on the south side of the creek. This project is a key short-term recommendation for the following reasons:

- The project will create a more direct connection for people to walk and cycle from the south end of the Village to the downtown.
- Currently, people must cross the creek on Shuswap Avenue or Coburn Street. The Coburn Street bridge is constrained and does not have any pedestrian facilities which increases the potential for user conflicts.
- The project will create a safer route for children to walk and cycle to both Haldane Elementary and Chase Secondary located south of the creek.
- The site for the bridge has existing abutments and there is a right-of-way to Elm Street, creating an opportunity to quickly implement this project.



*The photo above shows where the proposed project would connect to the existing shared use path through Willson Park. The bridge location is to the left in the photo at the tree line.*

### Project Features

The following elements should be included in the proposed project:

- A paved asphalt path through Willson Park from the existing path to bridge. The paved asphalt path will continue south from the other side of bridge to Elm Street.
- Construction of a new bridge on the site of the existing bridge abutments.
- Lighting along the path.

### Public Engagement

During public engagement for this plan, residents identified the need to replace this bridge. Many other residents commented on the bridge over the creek on Coburn Street as being inadequate and unsafe for pedestrians.



*The photo above shows the bridge abutments from the old bridge site on the Willson Park side. This project would leverage the existing infrastructure.*

### Network Considerations

The project ties into the existing shared use path in Willson Park. Another short-term priority project in the plan would construct sidewalks along Cedar Avenue and Cottonwood Street. These sidewalk projects would complete a network of pedestrian facilities to the schools on Cottonwood Street. A map showing the project location with existing and proposed active transportation facilities, as well as destinations, is included on the following page.

# WILLSON PARK

## VILLAGE OF CHASE

### ACTIVE TRANSPORTATION PLAN

#### PROPOSED FACILITIES

- - - Sidewalk
- - - Ped Path
- - - Shared Use Path
- - - Shared Use Trail
- - - Bike Lane
- - - Mixed Traffic

#### EXISTING FACILITIES

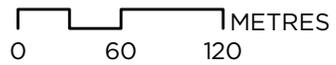
- Sidewalk
- Shared Use Path
- Trail

#### DESTINATIONS

- Sports Facility
- Church
- Health Services
- Park
- School
- Shopping

#### BACKGROUND FEATURES

- Parks
- Property
- Village Boundary
- Waterbody



Data provided by the Village of Chase and Thompson-Nicola Regional District.  
Map produced January 2019.

