TRANSIT future
actionplan

# Transit Future Action Plan

## Kamloops Transit System



*June 2020*

Kamloops
Canada's Tournament Capital

BCTransit

# Acknowledgements

This plan was made possible by participation from provincial and local governments, key stakeholders and the public. BC Transit would like to thank staff from:

The City of Kamloops

Tk’emlúps te Secwẻpemc (TteS)

# 1 Contents


Executive Summary ..... 1
COVID-19 Impact on Service and Planning ..... 4
1 Introduction ..... 12
1.1 Plan Area ..... 13
2 Developing a Transit Future Action Plan ..... 14
2.1 Timeline ..... 14
2.2 Informing the Plan ..... 14
2.2.1 Community Context ..... 14
2.2.2 Transit Service Principles ..... 18
2.2.3 Transit Context ..... 21
2.3 Custom Transit ..... 25
2.4 Changes since 2012 Transit Future Plan ..... 25
3 Future Transit ..... 27
3.1 Transit Future Plan Targets ..... 27
3.1.1 On Time Performance ..... 28
3.2 Proposed Future Transit Investment Timeline ..... 28
4 Public Engagement ..... 30
4.1.1 Phase I ..... 30
4.1.2 Phase II ..... 30
5 Service Change Proposals ..... 32
5.1 Short-Term Service Proposals (1-2 years) ..... 33
5.2 Medium-Term Service Proposals (3-4 years) ..... 46
5.3 Long-Term Service Proposals (5 years and beyond) ..... 58
5.4 Service Change Initiatives ..... 64
6 Infrastructure Proposals ..... 68
6.1 Short-Term Infrastructure Proposals (1-2 years) ..... 68
6.2 Medium-Term Infrastructure Proposals (3-4 years) ..... 71
6.3 Long-Term Infrastructure Proposals (5 years and beyond) ..... 72
7 Emerging Technology ..... 73
7.1 Fleet-Related Technology ..... 73
7.1.1 SmartBus ..... 73
7.1.2 Low Carbon Fleet ..... 73
7.2 Mobility as a Service ..... 74

7.2.1 Car and Bike Sharing ..... 74
7.2.2 Ride Hailing ..... 74
7.3 Autonomous Vehicles ..... 75
8 Moving Forward ..... 76
8.1 Funding the Plan ..... 76
8.2 Keys to Success ..... 76

# EXECUTIVE SUMMARY

Transit has tremendous potential to contribute to strong, more sustainable communities. The need to realize this potential in the City of Kamloops is increasingly important due to factors such as climate change, population growth, traffic congestion and an aging demographic.

The 2020 Kamloops Transit Future Action Plan (TFAP) provides an update to the Kamloops Transit Future Plan (TFP), which was completed in 2012. The changes that have occurred since 2012 enabled the Kamloops Transit System to increase ridership by 15.3 per cent to four million annual rides and over 119,000 annual service hours in the 2018/19 fiscal year. The development of the Kamloops TFAP was a highly collaborative process, which included BC Transit, City of Kamloops and First Canada. Its creation included two phases of public engagement.

To increase transit ridership and improve the quality of transit within the City of Kamloops the plan proposes the development of a Transit Future Network (TFN). Defined in the 2012 TFP, the network includes three distinct layers of transit service to better match service to demand. The network is designed to be more competitive with automobile travel by improving the directness and reliability of the transit system. The network may require more customers to transfer from one service to another to complete their journey with the trade-off being that trips will be more frequent and overall travel will be more direct. More information on the TFN can be found in Section 3.

The transit service and infrastructure priorities identified within this TFAP are based on a review of existing transit services, changing land uses and land use plans, and feedback from stakeholders and the public. These priorities have been separated by timeline, with short (1-2 years), medium (3-4 years), and the longer-term (5+ years) options.

The tables below describe the short, medium and long-term implementation priorities discussed in this plan.

*Table 1: Short-Term Implementation Priorities*

| Short-Term Implementation Priorities (1-2 years) | | | |
|---|---|---|---|
| **Service Priorities** | | **Estimated Annual Service Hours** | **Expansion Buses** |
| 1 | Invest in Core Transit Routes | 4,150 | 2 |
| 2 | Improve Route 4 Pacific Way | 250 | 0 |
| 3 | Expand Custom Transit | 1,800 | 0 |
| 4 | Introduction of Route 8 Battle | 5,000 | 3 |
| 5 | Improve Route 18 Mt. Paul | 1,700 | 1 |
| **TOTAL** | | **12,900** | **6** |

*Table 2: Medium-Term Implementation Priorities*

| Medium-Term Implementation Priorities (3-4 years) | | | |
|---|---|---|---|
| **Service Priorities** | | **Estimated Annual Service Hours** | **Expansion Buses** |
| 1 | Improve Local Transit Network | 4,900 | 2 |
| 2 | Improve North Shore service | 1,600 | 1 |
| 3 | Phase I Route 99 Southwest Loop | 5,000 | 2 |
| 4 | Phase I Route 98 East West Express | 7,000 | 3 |
| **TOTAL** | | **18,500** | **9** |

*Table 3: Long-Term Implementation Priorities*

| Long-Term Implementation Priorities (5+ years) | | | |
|---|---|---|---|
| **Service Priorities** | | **Estimated Annual Service Hours** | **Expansion Buses** |
| 1 | Invest in the Frequent Transit Network | 10,900 | 5 |
| 2 | Phase II Route 99 Southwest Loop | 2,500* | 1 |
| 2 | Phase II Route 98 East West Express | 4,000* | 2 |
| 4 | Expand service area of Route 18 Mt. Paul | 1,500 | 1 |
| **TOTAL** | | **18,900** | **9** |

*Note: All hours are estimated. Further refinement is required during implementation planning.*

**These hours will shift dependent on what route re-alignments occur. Cost fluctuation may occur.*

In order to enable and support service improvements to enhance the customer experience, investment in the TFP network, development of new transit exchanges, and installation of new bus shelters at key bus stops is required.

*Table 4: Summary of Infrastructure and Strategic Priorities*

| Infrastructure Priorities | |
|---|---|
| 1 | Identify new site(s) for Thompson Rivers University exchange and preliminary designs for an exchange in Valleyview |
| 2 | Improve bus stop infrastructure around Kamloops including accessibility and providing shelters |
| 3 | Complete a study of Transit Priority for key intersections and corridors in Kamloops and develop an implementation plan |
| 4 | Improve North Shore Transit Exchange, Thompson Rivers University Transit Exchange and Lansdowne Transit Exchange<br>• Expanding vehicle capacity as required<br>• Expanding passenger capacity (i.e. waiting space)<br>• Improve proximity to route connections |

| | |
|---|---|
| 5 | Identify requirement and new site locations for Park & Rides in Westyde, Dallas and Dufferin |
| **Strategic Priorities** | |
| 1 | Restore ridership and service to pre-COVID-19 levels |
| 2 | Right-sizing initiative to match demand with transit vehicle capacity |
| 3 | Investigate “School Specials” and provide potential solutions |
| 4 | Adopt Custom Transit Report recommendations |
| 5 | Expand transit network to service new areas |
| 6 | Adopt Service Standards and Performance Guidelines |

Service improvements will be integrated into the three year Transit Improvement Process (TIPs), which is updated on an annual basis. Infrastructure priorities will inform Capital plans for both BC Transit and the City of Kamloops. Prior to implementation of service changes, BC Transit planning staff will work with staff at the City of Kamloops to ensure service improvements appropriately reflect local needs. Additional targeted engagement may be required.

As the Kamloops TFAP was concluding, the global COVID-19 pandemic began to take hold in Canada, causing significant and rapid changes to the transit landscape. In Kamloops, transit ridership dropped more than 60 per cent compared to 2019 levels, requiring swift action to modify service while still ensuring transit remained available and accessible to those who require it. Transit is an essential service, and its continued operation during uncertain times is critical.

The focus of this TFAP is on the expansion of Kamloops’ transit system, but due to the ongoing pandemic it is acknowledged that timelines and priorities must be re-evaluated in order to facilitate a return to pre-COVID 19 ridership and service levels. It is anticipated that these levels will need to be restored prior to moving forward with any service expansions.

# COVID-19 IMPACT ON SERVICE AND PLANNING

In March 2020, the World Health Organization officially declared the novel coronavirus (COVID-19) global outbreak a pandemic. In response, the Province of British Columbia declared a State of Emergency. Within this, Emergency Management BC declared public transit to be an essential service. To mitigate the spread of the virus, the Office of the Provincial Health Officer (PHO) ordered the indefinite limitation of all travel and transportation (except for essential purposes) and to suspend all mass gatherings to encourage physical distancing. This included the suspension of in-person classes at all schools, the closing of most service industry establishments, the transition of most office and administrative jobs to work remotely and the introduction of new strict protective health measures.

These orders had an immediate and profound impact on BC Transit services across the province. To comply with the PHO's new protective health measures, BC Transit implemented operational changes to protect the safety of front line employees and transit riders. This included the following measures:

- Rear door boarding and no fare collection
- Passenger capacity constrained to 40 per cent to ensure social distancing could be accommodated
- Enhanced cleaning protocols
- Reduced transit services to reflect operator availability and decreased demand

As expected, given the PHO's advice to limit non-essential travel, transit ridership in Kamloops substantially decreased. Figure 1 below shows that transit usage in Kamloops decreased sharply in mid-March 2020 and remained low through to mid-June, as COVID-19 cases rose and the curve of infections flattened. Ridership fell by up to 66 per cent compared to 2019 levels and has seen a slight increase as services and some businesses opened in mid-June. This ridership response is typical of all large to medium size transit systems across the province.

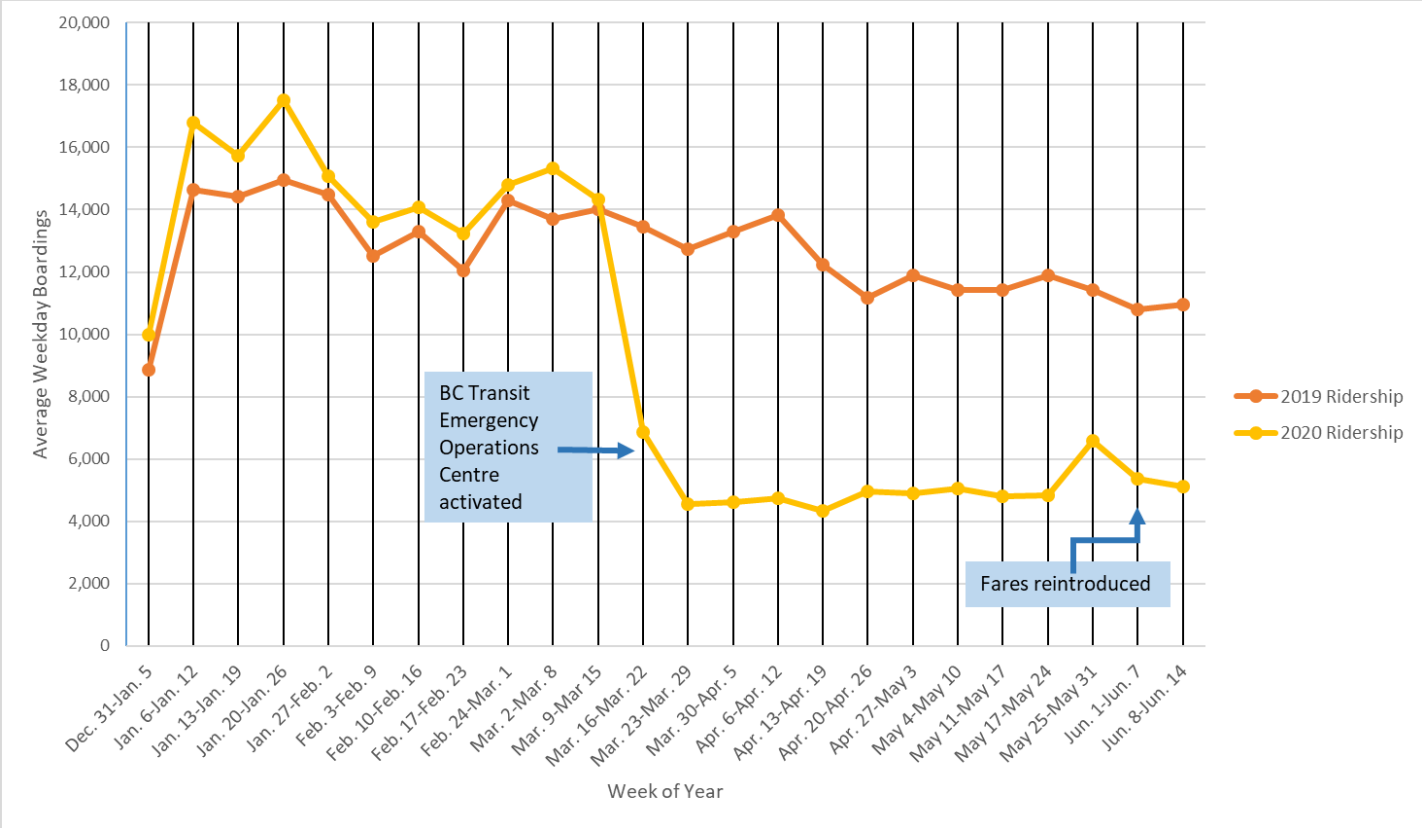



*Figure 1: Transit ridership in Kamloops: 2019 compared to 2020 levels*

The focus of this Transit Future Action Plan is the improvement of the Kamloops Transit System; however, due to the pandemic, it is acknowledged that timelines and priorities established through community engagement in 2019 may need to be re-evaluated as the system transitions through the recovery phases of the pandemic and ridership demand returns.

The progression and recovery of transit service in the Kamloops system is planned to occur in stages aligned with the British Columbia Restart Plan. Table 5 outlines the four Phases of the BC Restart Plan and the corresponding transit response plan that has occurred or is planned to occur.

The Kamloops system is also positioned to respond as required to reduce capacity and restart phase 1 emergency procedures in the event of a second outbreak of COVID-19.

| **British Columbia's Restart Plan** | | | **BC Transit – Kamloops Response Plan** |
|---|---|---|---|
| **Phase** | **Timeframe** | **Provincial Directive** | |
| Phase 1: Response | March – mid-May | Essential services and some businesses open | • Reduced transit service to Summer 2019 levels, to reflect decreased demand<br>• Capacity limited to 40 per cent on buses |

| | | | |
|---|---|---|---|
| | | | • Enhanced cleaning protocols<br>• Rear door boarding, no fare collection |
| Phase 2: Recovery | Mid-May and onwards | Restoration of some services, under enhanced protocols:<br>• Elective surgeries, dentists, chiropractic, physiotherapy, massage therapy<br>• More retail, restaurants, cafes, pubs and personal services<br>• Offices<br>• Recreation/sports | • Public education campaign encouraging the use of face coverings on buses<br>• Signage on buses and at stops encouraging personal etiquette<br>• Stabilize service levels, monitor demand<br>• Continued enhanced cleaning protocols<br>• Installation of driver barriers on all buses |
| Phase 3: Recovery | June – September | Further restoration of services, under enhanced protocols:<br>• K-12 schools (partial return in June, full return in September)<br>• Hotels<br>• Post-secondary institutions- predominantly online. | • Return to front-door loading and fare payments<br>• Implement a modified Spring 2020 schedule for September, in lieu of the planned service increase<br>• Extra hours available to serve as overload buses at peak times<br>• Increased capacity on vehicles to approximately 66 per cent<br>• Ridership recovery campaign<br>• Face masks strongly encouraged for all passengers |
| Phase 4: Rebuild | TBD | • Large gatherings permitted, conditional on the release of a vaccine or treatment. | • Return to full capacity on buses<br>• Investigate proposed transit investment and service priorities developed for the Transit Future Action Plan, and determine timeframe for delivery over the next five years |

*Table 5: Kamloops' Transit Recovery Plan*

### Immediate Impact and Response

In response to the significant and rapid changes that occurred in mid-March across the Kamloops transit landscape, BC Transit staff worked with City staff to implement a modified Summer 2020 schedule that took into consideration the suspension of in-person courses at educational institutions across the city, as well as the reduction in transit ridership overall.

An essential consideration when planning for post-COVID-19 recovery is the need to ensure service levels provide ridership demand with appropriate physical distancing opportunities. As with other BC Transit systems across the province, capacity on Kamloops buses was reduced to 40 per cent of seated capacity at the early onset of the pandemic.

### Planning for Transit Recovery and Rebuild

Transit is and will continue to be an essential service for communities as residents go about their daily lives. Transit will continue to play a pivotal role in addressing the challenges that will exist long after the pandemic is over, including climate change, congestion and affordability. BC Transit acknowledges that demand characteristics across communities will be different, and the staged reopening of different sectors will impact ridership and how service is delivered over time.

Over time, and in consultation with the Provincial Health Authority and Work Safe BC, capacity on buses will be increased as appropriate over the coming months. It is important to acknowledge that there may be significant anxieties of customers who do not feel comfortable riding in a bus that has many other passengers on it. Maintaining public trust and faith in the transit system to deliver safe and reliable service is critical. BC Transit and City staff will continue to work together to ensure service is optimized and, where possible, hours reallocated to areas of greater need, such as along corridors that are seeing a swifter return of riders.

The Kamloops Transit System is used by riders for many purposes, but customers can generally be grouped into the categories of going home, work, school, college, shopping, social, medical and other. Figure 2 following summarizes the ridership drivers and the typical daily percentages in the Kamloops Transit System based on analysis that was undertaken in February 2020.

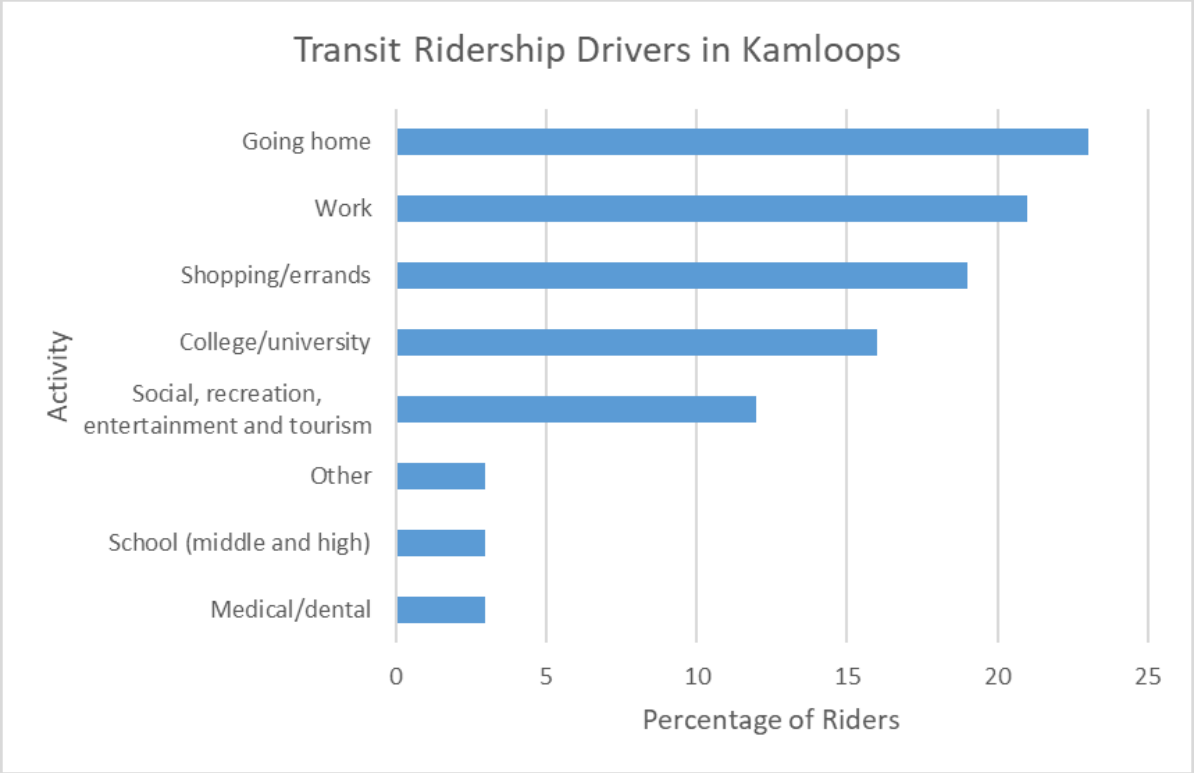
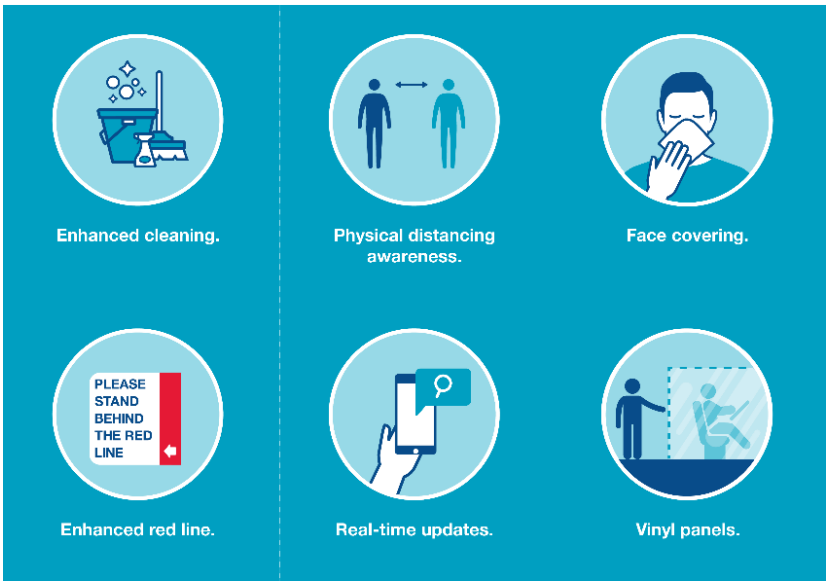



*Figure 2: Ridership drivers in the Kamloops transit system. Source: 2019 Customer Satisfaction survey conducted by NRG Research Group*

### Scaling up Service: Welcome Back Ridership Demand

Restoring transit service to pre-COVID-19 levels will be informed largely by how ridership returns and where. For example, as Figure 2 above indicates, almost one fifth of Kamloops' ridership consists of post-secondary students using transit to access institutions like Thompson Rivers University (TRU). In response to changes in how courses will be delivered in the fall, routes primarily serving the university will be reduced in frequency, while still remaining in operation to serve those who need to access TRU or other destinations along the route.

Good service design during the recovery phase will ensure a solid platform continues to exist for essential services, physical distancing, customer comfort and the flexibility to respond to ridership demand as it returns over time. The goal is to make service safe and available to welcome back ridership. If these travel needs are not met, there is a risk of transit riders shifting to private vehicles and abandoning public transportation, increasing congestion and emissions, and reducing the long-term viability of the Kamloops Transit System.




Welcoming back ridership demand will be supported by BC Transit marketing initiatives, including a broad campaign encouraging the use of face masks on transit, personal etiquette signage on the bus and at stops and NextRide bus capacity information. Table 6 below outlines the service recovery strategy to be followed between June 2020 and December 2020.

| Area | Assumptions | June – August | September – December |
|---|---|---|---|
| **Estimated Ridership Demand** | • Partial workplace returns throughout the summer<br>• Gradual increase in non-essential trips<br>• Secondary schools return in September<br>• Post-secondary schools transition to primarily online teaching through to the end of 2020<br>• The administrative workforce continues to primarily work remotely through the fall | 40%-50% Year Over Year | 50%-60% Year Over Year |
| **Service Hours** | • Summer service levels for June – August<br>• Implement a modified Spring 2020 schedule for September, including lower service levels for TRU routes | 90% Year Over Year | 95-100% Year Over Year |
| **Capacity** | • Gradual increase in capacity on buses<br>• Reduced physical distancing requirements<br>• Face masks strongly encouraged for all passengers | 40-60% | 60-80% |

| | | | |
|---|---|---|---|
| **Projected Revenue** | • Resumption of fare collection<br>• Revenue reflects ridership demand<br>• Reduction in UPass revenue due to anticipated reduction in TRU enrollment | 40-50% Year Over Year | 50-60% Year Over Year |

*Table 6: Service Recovery Strategy*

### Peak Travel Demand

Figure 3 below shows that since mid-March 2020, ridership data has indicated a slight rounding out of peak travel demand when compared to 2019. Typically the ridership demand in Kamloops features distinct morning and afternoon peak periods of travel coinciding with commuter and post-secondary/secondary school demand. In comparison, ridership data during the acute phase of the pandemic, mid-March to mid-June, indicates slightly more sustained demand throughout the day (though with fewer riders overall). This suggests that scaling up service needs to consider delivering consistent transit service throughout the day, rather than returning to typical commuter focused service frequency. BC Transit will continue to monitor these trends to inform service changes moving forward. Travel demand management strategies, including informing riders of real time bus capacity levels through NextRide, will help to guide passengers about adjusting their travel times to make best use of the service and ensure they feel comfortable traveling with their fellow passengers.

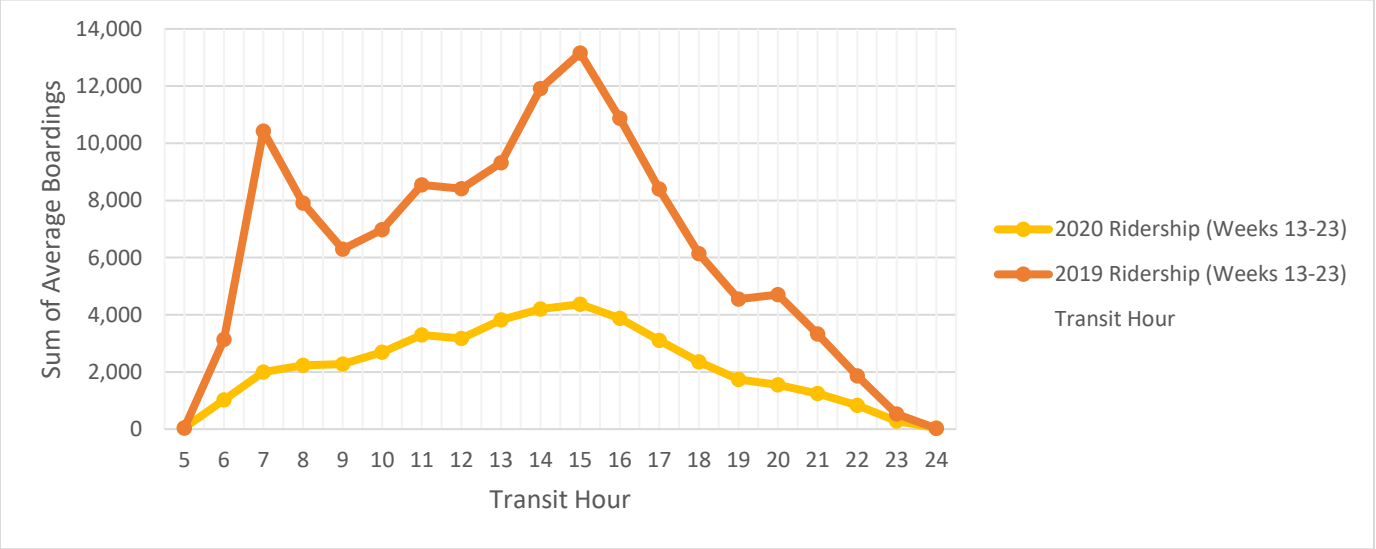



*Figure 3: Year-over-year peak travel demand comparison (2019-2020)*

### Rebuild Phase – Long-term sustainability and the Transit Future Action Plan

The response and recovery phases over the short to medium term will stabilize services, rebuild trust, and regain ridership across the Kamloops Transit System.

At the time of drafting this Transit Future Action Plan, it was early in the pandemic response and recovery phases, and many factors that will affect the Kamloops system's operations and finances were unknown. Stability and rebuild solutions will be a partnership between local governments, BC Transit and the Province. BC Transit will continue working with the Province to analyze revenues, expenditures, capital and debt and develop options for provincial consideration.

Recent surveys have suggested that Canadians are less likely to return to their pre-COVID-19 use of transit without a vaccine, and their daily travel habits will include less unnecessary travel. When ridership returns, there are multiple scenarios that may occur. The goal is to ensure the Kamloops system has the best transportation solution and a transit strategy that reflects the current impacts of COVID-19, and continues to be able to position the system to improve services for the community in the future and respond effectively to Kamloops' sustainable development goals.

In response to the COVID-19 pandemic, service expansions for the 2020/21 fiscal year were deferred across all BC Transit systems until a later date. The City of Kamloops had service expansion scheduled for September 2020, which would have seen an increase in service frequency on Routes 1 Tranquille, Route 7 Aberdeen and Route 9 Gleneagles. This deferred expansion will be reexamined by the City of Kamloops for inclusion into the BC Transit three year service planning process called the Transit Improvement Program (TIPs). The TIP seeks to align municipal and regional budget processes to ensure funding availability is aligned with local needs and provincial funding. Similarly, service improvements outlined in Section 5 of the TFAP, will be integrated into the TIP as required. BC Transit will continue to work with City staff to monitor ridership and ensure future service improvements year over year appropriately reflect budgets and local needs. It is possible that ridership in certain areas or along certain routes will recover more swiftly than in others, and the priorities discussed in this plan could be rearranged accordingly so that they best address the post-COVID-19 transit landscape in Kamloops.

# 1 INTRODUCTION

Transit has tremendous potential to contribute to strong, more sustainable communities. The need to realize this potential in Kamloops is increasingly important due to factors such as climate change, population growth, increasing traffic congestion and an aging demographic. The plan builds on priorities identified in the Transit Future Plan (2012).

**2012 Kamloops Transit Future Plan Vision and Goals:**

**Vision:**

*The Kamloops Transit System provides convenient transportation throughout the community, contributing to the environmental, economic and social sustainability of Kamloops.*

**Goals:**

- Contributes to a more environmentally sustainable Kamloops
- Is integrated with other transportation modes
- Is efficient
- Is an attractive alternative to the private vehicle
- Is safe
- Is accessible

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

- Identifies opportunities to support the Transportation Master Plan goal to increase transit mode share to 5%;
- Defines improvements for service and infrastructure over the next one to five years; and
- Provides revised transit routes that more efficiently connect neighbourhoods with key destinations to improve travel times and increase customer convenience.

TFAPs provide a number of defined service improvements for implementation over the next five years and ensure that transit improvement priorities are consistent with evolving local priorities, emergent transit trends and demands, and BC Transit operational capacity. The Plan is informed by the Kamloops TFP, multiple forms of public engagement, analysis of existing transit use, and feedback from stakeholder groups and the City of Kamloops. Additionally, the plan takes into account long-term planning documents such as the KamPlan and the Transportation Master Plan.

This plan recommends an increase of approximately 25,000 additional service hours to grow transit ridership in Kamloops over the next five years. These expansions will support the region in supporting economic growth and social wellbeing, and in meeting climate change objectives.

## 1.1 Plan Area

The geographic boundary for this Plan is shown in the map below. The area consists of four different sectors: the Northwest, Northeast, Southwest and Southeast. Tk'emlúps te Secwẻpemc land is included in the Northeast sector.

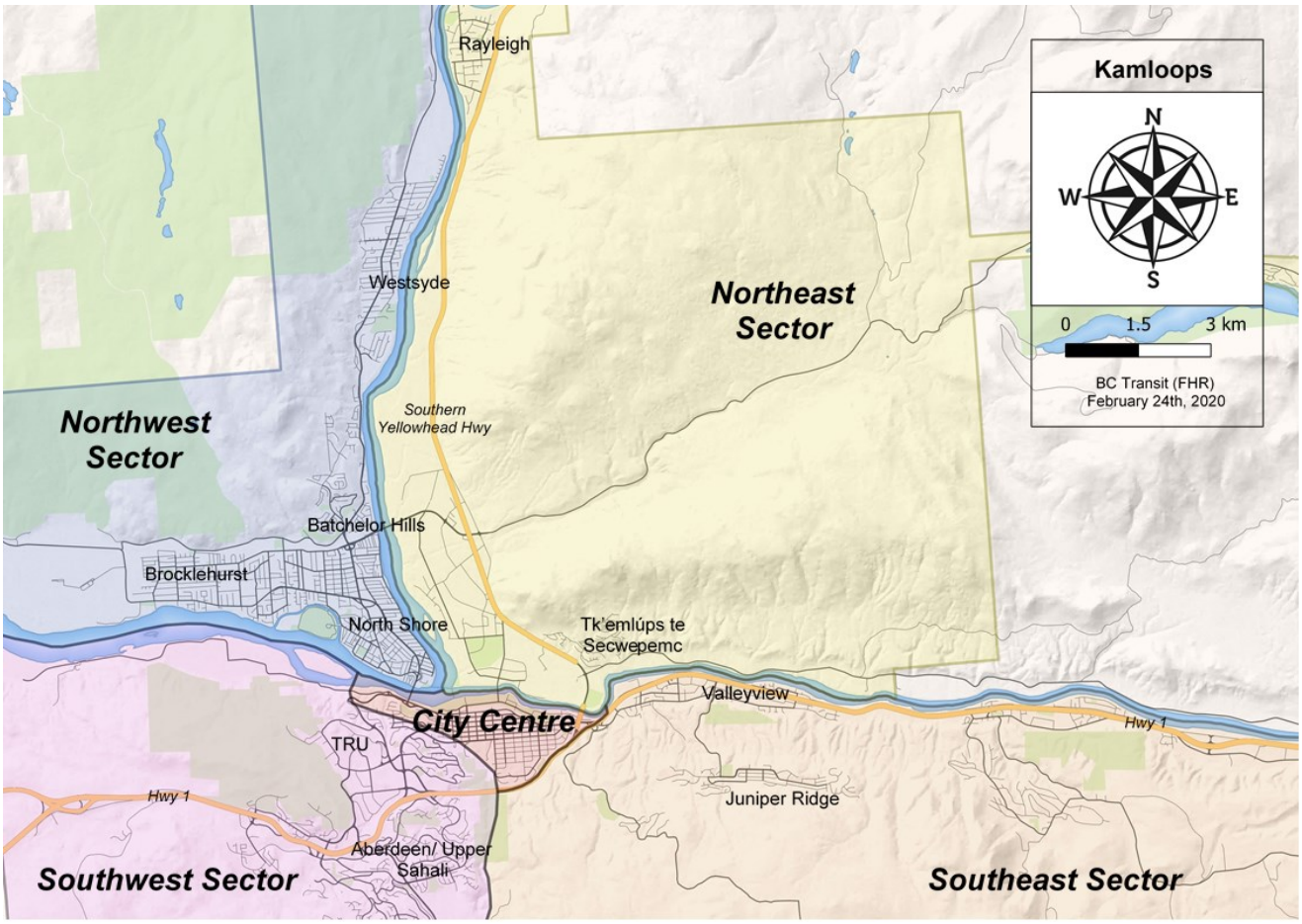



*Figure 4: Transit Future Action Plan study area*

# 2 DEVELOPING A TRANSIT FUTURE ACTION PLAN

## 2.1 Timeline

Development of this TFAP began in the fall of 2018 and included a number of phases to understand the current context, review potential service changes with stakeholders and draft a plan that provides a framework for short-term to long-term growth of the transit system. Figure 5 illustrates the key steps involved in developing this TFAP.

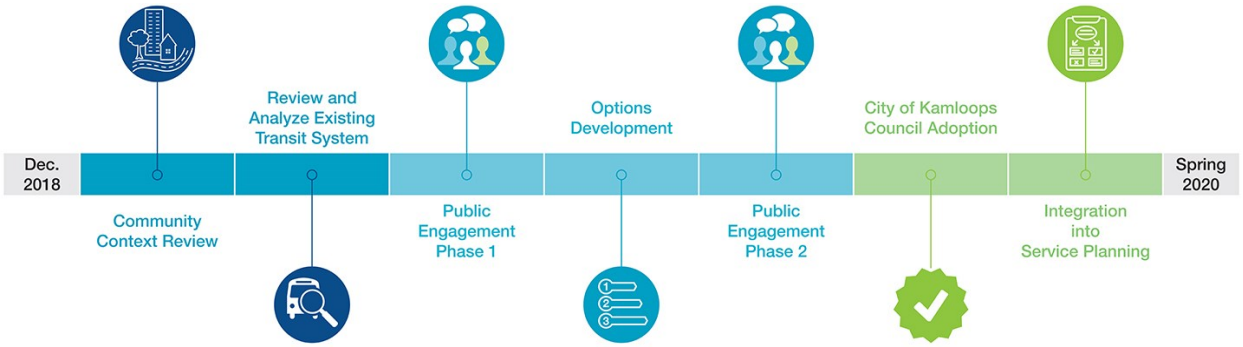



*Figure 5: Timeline for the development of this Transit Future Action Plan*

## 2.2 Informing the Plan

BC Transit has worked with staff at the City of Kamloops to develop the TFAP to prioritize transit improvements that build upon and are informed by the City of Kamloops TFP, existing and proposed land uses, the community's demographic composition, and public input. Supporting work that contributed to this plan is summarized below.

### 2.2.1 Community Context

Along with existing land uses and transit system performance considerations, the TFAP process examined the short and medium-range community development directions in the City of Kamloops. This plan also reviewed existing Official Community Plans and Transportation Plans to incorporate future road network or transportation changes.

This local development information was used to create the service proposals summarized in this plan to meet current and future customer demand. It was also used to improve the likelihood that service proposals evolve as the community evolves. Having a full picture of the proposed growth patterns is important to reduce the chance that service will need to be restructured in the future.

*Sustainable Kamloops (2010)*

The Sustainable Kamloops Plan, adopted in 2011, was designed to strike a balance between social responsibility, economic vitality and environmental integrity. The Sustainable Kamloops Plan outlines transportation goals and targets, which are provided below.

Transportation Goals:

- Reduce automobile usage in Kamloops, particularly single-occupant vehicles, by increasing the use of alternate modes of travel and integrating land use and transportation planning
- Balance the need for ease of automobile movement on the road network with other considerations relating to environmental, economic and social sustainability

Relevant Transportation Targets:

- Increase transit ridership by 50 per cent (compared to base year of 2008)
- Reduce vehicle ownership to 0.6 vehicles per capita by 2020
- Increase spending on active transportation facilities and programs directed to modes of travel other than single-occupant vehicles (primarily cycling and walking) by 50 per cent.

*Kamloops Official Community Plan - KamPlan (2018)*

The City of Kamloops adopted an Official Community Plan (OCP) known as the KamPlan, in 2018, which specified six transportation goals including:

- Create an environmentally, socially, culturally and economically sustainable transportation system
- Foster an efficient, affordable, safe and accessible transit system that is an attractive alternative to the private vehicle and integrates with other transportation modes
    - Support more direct and higher frequency public transit in areas where the City aims to achieve higher density (e.g. mixed-use centres and neighbourhood centres)

The main area of growth exists in the Southwest neighbourhoods, with the Southeast and Northwest being the next two. The KamPlan also outlined distinct mixed-use centres of future growth, including the Tranquille Market Corridor, the McGill Corridor, as well as various town-centres. The KamPlan also listed various Future Development Areas (FDAs) comprised of Henry Grube Education Centre, Brocklehurst West, the Dunes of Kamloops, Juniper West and Pineridge Golf Course. Since 2017, some of these FDAs have already begun development.

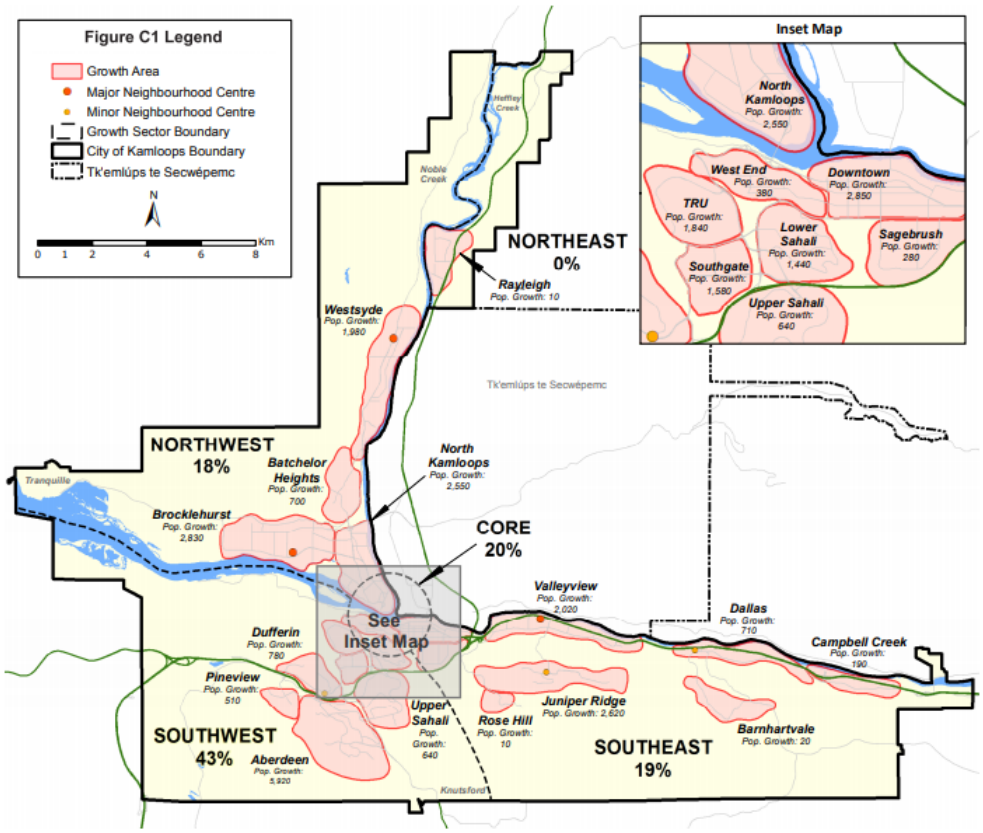



*Figure 6: Areas of growth in Kamloops (KamPlan)*

## *Kamloops Transportation Master Plan (2018)*

The Kamloops Transportation Master Plan based its vision on the goals and principles of the KamPlan, and supersedes previous plans. The purpose of the document is to prepare a long-term guide for the planning, design, development, and long-term maintenance of transportation facilities and infrastructure. Specific to transit, the Transportation Master Plan states that for BC Transit and the City of Kamloops to achieve these goals, Kamloops must improve transit service frequency, route connections, and supporting amenities; in addition, there must be an intensification of land use in the mixed-use centres and neighbourhood centres. The specific goals of the Transportation Master Plan are stated below:

- Transit to achieve annual ridership of 8 million rides at a population of 120,000 by 2039, representing a 5 per cent mode share target at 3.4 trips per day per person
- Increase share of travel to work by sustainable modes to 30 per cent at a population of 120,000 in 2039
- SmartBus technology (NextRide) is implemented on all scheduled fixed transit routes by 2020
- 100 per cent of bus stops in urban areas are wheelchair accessible
- Be the top Tier 1 system in the province (excluding Whistler) for Transit System Cost Recovery

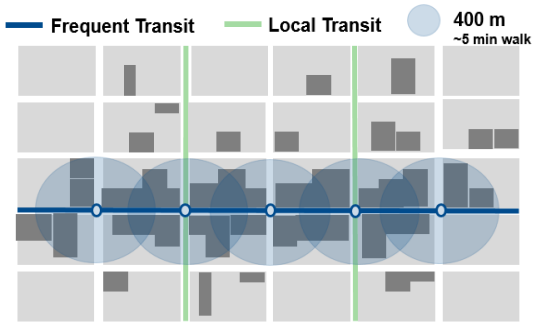
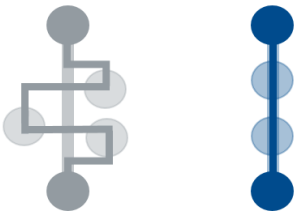
- Be the top Tier 1 system in the province (excluding Whistler) for Riders per Revenue Hour

## 2.2.2 Transit Service Principles

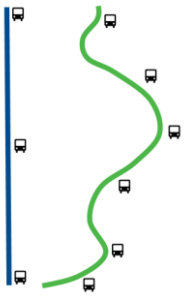
### Design Principles

To meet the goals of the TFP, this plan proposes to make improvements to the transit system so that is more convenient and more cost-effective for potential transit users. To accomplish this, the plan proposes to streamline service to support the development of a frequent transit network along high-density corridors and local transit service to lower density areas with moderate transit demand.

The following guiding design principles were used to develop and refine routes:

| Design Principle | Description |
|---|---|
| **Service Areas of Demand**   | Transit service is most productive by providing service to areas with high demand. The City of Kamloops TFP affirms that transit service should be focused on major activity centers and residential areas within urban areas to increase ridership. |
| **Connections to Regional Centres**  | Transit is most useful when it connects residents to regional centres. Concentrating mixed-used development along transit corridors will ensure consistent and high ridership. |
| **Simplify Routes**  | Routes that are as direct and consistent as possible are more likely to increase ridership. This helps ensure route legibility, which refers to how easy a service is to understand and remember. |

**Improve Speed and Reliability**

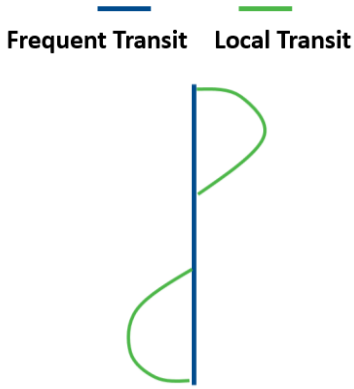


To be competitive with the automobile, transit travel time must be competitive. Spacing bus stops appropriately along a corridor can improve speed and reliability. Transit priority measures, such as queue jumper lanes or transit signal priority also improve speed and reliability.

**Avoid Service Duplication**

Transit service should operate on different corridors so they do not duplicate or compete for passengers. Routes that overlap reduce ridership on each route.

**Standardize Service Categories**




Standardizing service categories allows for predictability of service. Both frequencies and span of service are consistent, increasing customer legibility.

*Figure 7: Principles of Transit Service Design*

**Transit Service Priority Pyramid**

Before increasing transit service or coverage, and in advance of implementing the larger transit service and infrastructure recommendations within the TFAP, it is important to ensure that the existing transit system is performing effectively. See below for a Transit Service Improvement Priority Pyramid (Figure 8). Only when the bottom level is operating at a satisfactory rate should the next level be considered as an area for resource investment.

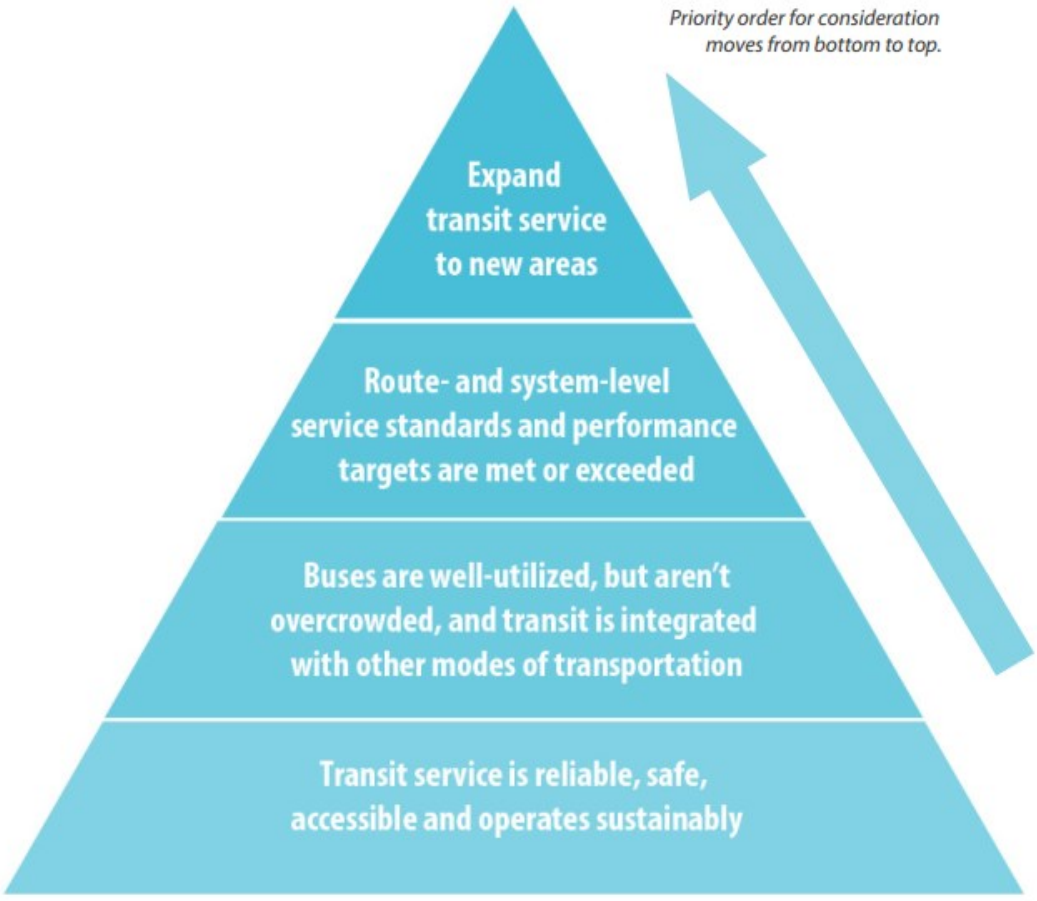



*Figure 8: Approach to transit service improvement priorities*

### 2.2.3 Transit Context

**Fixed-route System Performance**

Currently there are 14 transit routes within the Kamloops Fixed-route[1] Transit System. These routes require over 119,000 annual service hours in 2019-2020 and carried 4,002,220 riders in the 2018-19 fiscal year (Figure 9)[2]. Fixed-route ridership has grown by more than 15 per cent over the past five years. While many factors influence transit use, new investments typically spur growth in ridership. The Kamloops system has benefited from a series of substantial service expansions in accordance with recommendations contained in the TFP as seen in Section 2.4.

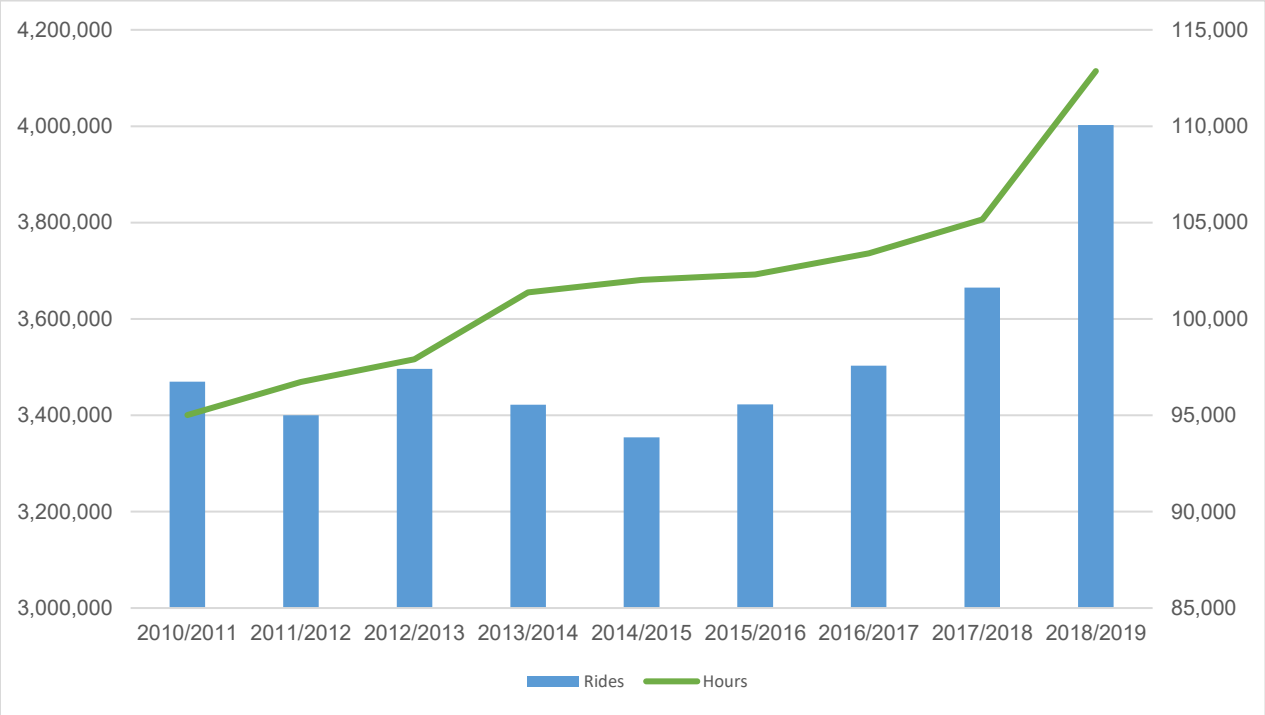



*Figure 9: Kamloops Fixed-route Transit Ridership and Service Hours*

Figure 10 shows how total ridership is distributed between the routes within the transit system. The majority of total ridership occurs on Routes 9, 7 and 1, which tend to operate within the higher density areas of Kamloops, as well as providing service to Thompson Rivers University.

[1] Fixed-route transit service is comprised of Conventional Transit service and Community Transit service. Conventional is comprised of route 1 to route 17 and Community service includes routes 13 and 18, as well as Health Connections in the region.
[2] 2019/2020 ridership figures were not available at the time of writing.

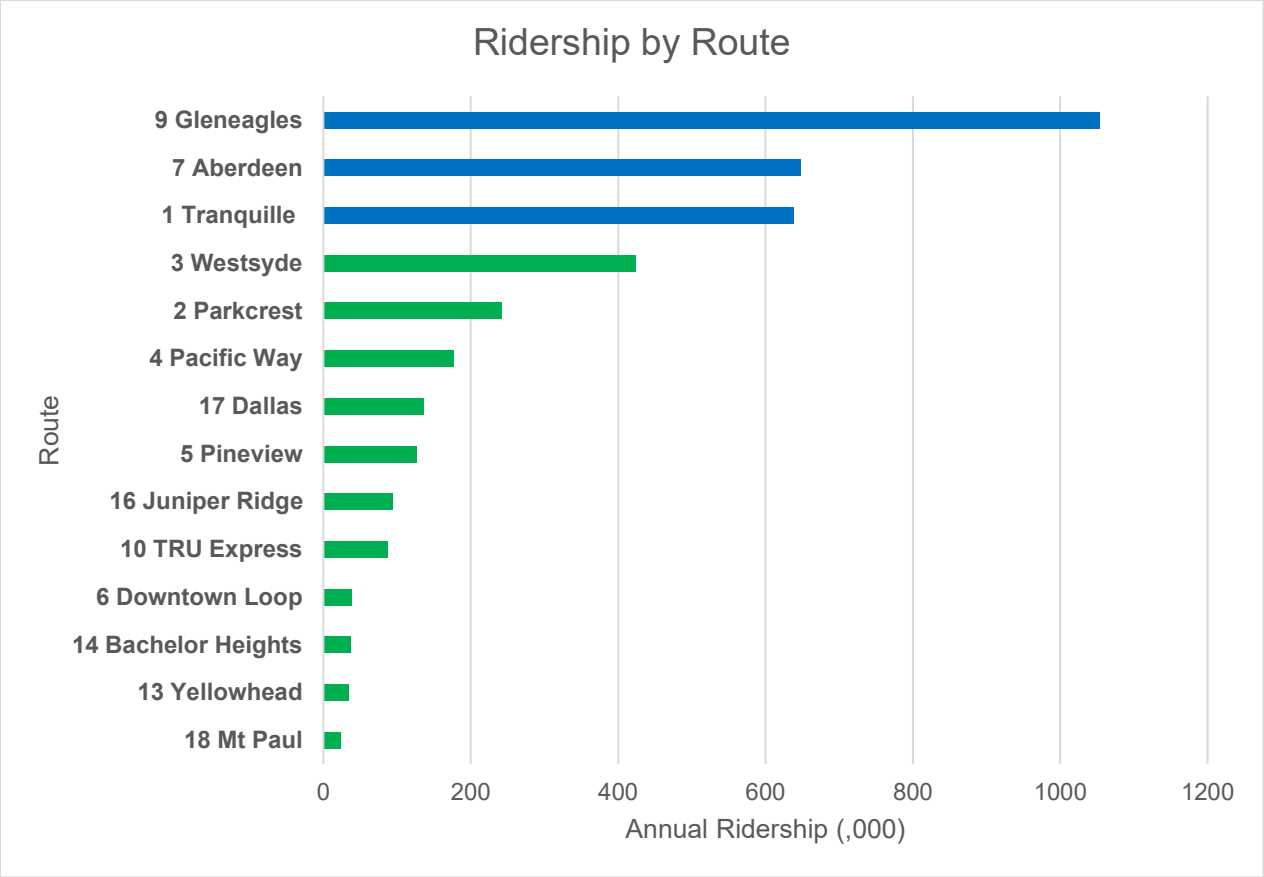



*Figure 10: Total Ridership by Route (2018)*

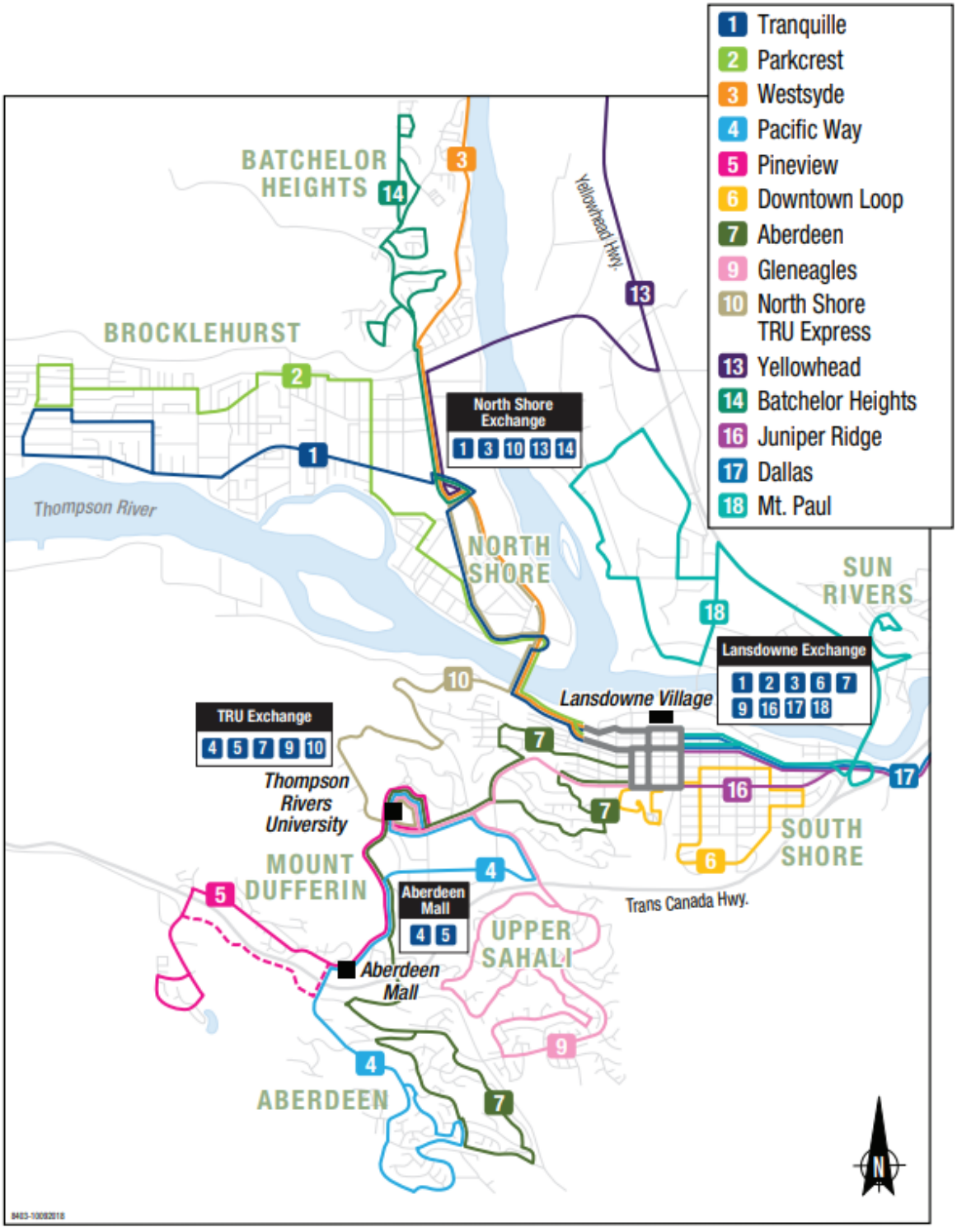



*Figure 11: Kamloops Conventional Transit System*

### Existing Fleet

Fixed-route and Custom Transit[3] service in Kamloops is provided by a fleet of 69 vehicles, with 22 light-duty vehicles and 47 heavy-duty Compressed Natural Gas (CNG) vehicles.

*Table 7: Kamloops Transit Fleet*

| Vehicle Type | Make | Service Type | Size (Length) | Passenger Capacity (Max) | # of Vehicles |
|---|---|---|---|---|---|
| Light Duty | Chevrolet ARBOC | Custom | 26' | 20 | **18** |
| Light Duty | Chevrolet ARBOC | Community | 26' | 20 | **4** |
| Heavy Duty | New Flyer CNG | Conventional | 40' | 52 | **47** |

[3] See section 2.3 for the definition of Custom Transit service

## 2.3 Custom Transit

Custom Transit is a door-to-door, demand responsive or specialized service for customers with physical or cognitive impairments who cannot independently use the Fixed-route Transit system some or all of the time. There are three different types of custom transit services available to registered Custom Transit clients:

- **handyDART:** Providing the majority of Custom Transit service, handyDART is a door-to-door, shared ride service that uses smaller vehicles. A client can arrange a time for pick-up and the operator will arrive at their home, help them board the vehicle, and safely get them to the door of the final destination. There are two types of handyDART trips:
    - Subscription trips are scheduled once a week or more at the same location and time for an extended period.
    - Reservation trips are one-time or occasional trips, and are scheduled on a first-to-call basis.
- **Taxi Supplement Program**: The Taxi Supplement Program enables the handyDART operator to book trips in taxis when the regular vehicle(s) is unavailable, either because of capacity issues or because the trip cannot be accommodated in a timely manner. In essence, the handyDART operator becomes one large regular client to the taxi company, while in turn the vehicles of the taxi company act like extra vehicles to the handyDART operator.
- **Taxi Saver:** For times when the handyDART system is unavailable, Taxi Saver vouchers provide registered handyDART clients with subsidized taxi service, giving them the flexibility to coordinate their own trips on their own time.

### Custom Transit System Performance

The Kamloops Custom Transit System operated over 29,000 annual service hours and provided 96,000 rides in 2018/19 through the handyDART, Taxi Supplement, and Taxi Saver services.

### Custom Transit System Coverage Area

Currently Custom Transit in the Kamloops Transit System is only provided within the municipal boundaries of the City of Kamloops. As Tk'emlúps te Secwépemc partners with the City of Kamloops to receive fixed-route transit service, BC Transit, the City of Kamloops and TteS have discussed the possibility of also operating custom transit service to and on the Reserve. At this time, TteS is not interested in receiving custom transit service as they have a volunteer driver program that meets this need.

## 2.4 Changes since 2012 Transit Future Plan

There have been significant changes to the Kamloops Transit System since the TFP was completed in 2012. Additionally, a new operations and maintenance building was completed in 2012.

*Table 8: Improvements made to Kamloops Transit since 2015*

| Year | Service Change |
|---|---|

| | |
|---|---|
| **2015** | • Improve run-time efficiency on Route 5 Pineview and Route 9 Gleneagles<br>• Optimize service on Route 8 Battle<br>• Phase One of establishing an FTN complete (Terminate Route 4 at Thompson Rivers University)<br>• Re-route Route 7 Aberdeen to service a larger area<br>• Increase span of service on Route 1 Tranquille and Route 9 Gleneagles<br>• Increase frequency on Route 14 Batchelor Heights in the midday |
| **2016** | • Improve Route 4 Pacific Way connections at Thompson Rivers University<br>• Modify routing of Route 7 Aberdeen to service new stop at Royal Inland Hospital<br>• Improve Route 10 North Shore TRU Express frequency<br>• Improve Route 13 Yellowhead connection at North Shore Exchange<br>• Improve Route 14 Batchelor Heights frequency |
| **2017** | • Remove airport service after low performance from Route 1 Tranquille<br>• Improve frequency on Route 1 Tranquille, Route 2 Parkcrest, Route 3 Westsyde, Route 4 Pacific Way, Route 5 Pineview, Route 7 Aberdeen, Route 9 Gleneagles, Route 13 Yellowhead, Route 14 Batchelor Heights, Route 16 Juniper Ridge, and Route 17 Dallas<br>• Increase service area of Route 17 Dallas |
| **2018** | • Improve frequency on Route 1 Tranquille, Route 3 Westsyde, Route 4 Pacific Way, Route 5 Pineview, Route 7 Aberdeen and Route 9 Gleneagles<br>• Operational improvements on Route 9 Gleneagles<br>• Route 14 Batchelor Heights extended to service new neighbourhood along Saddleback Drive<br>• New Route 18 Mt. Paul created to service Sun Rivers and TteS |
| **2019** | • Improve service reliability on Route 1 Tranquille, Route 7 Aberdeen and Route 9 Gleneagles<br>• Provide peak service on Route 7 Aberdeen on Saturdays as well as Sunday service span increase<br>• Provide peak service on Route 9 Gleneagles on Saturdays<br>• Increase evening span of Route 17 Dallas on Sundays |

# 3 Future Transit

The Kamloops TFP identified three layers of service that are designed to efficiently and effectively move people. These layers include the Frequent Transit Network, the Local Transit Network and Targeted Service. The Frequent and Local Transit Network can be seen in Figure 12. Currently, Kamloops lacks standardization of service levels. A Service Standards and Performance Guidelines document could be created and adopted by the City of Kamloops as a tool to compare current transit service levels to these network standards. Service Standards and Performance Guidelines can be used to assess route performance and assist with determining when changes need to be made in order to continue effectively serving riders. These guidelines can also be drawn on when there is a need to modify service levels in response to external forces that impact ridership, such as the COVID-19 pandemic or other, more localized changes. Service Standards and Performance Guidelines are discussed more fully in Section 5.4.

**Frequent Transit Network (FTN)**

The Frequent Transit Network provides key corridors with a convenient, reliable and frequent transit service. The FTN will carry a large share of the transit system's total ridership and for this reason justifies capital investments in transit priority, a high level of transit stop amenities and corridor branding.

**Local Transit Network (LTN)**

The LTN is designed to connect neighbourhoods within Transit Coverage Areas to local destinations and to the FTN.

**Targeted Services**

Targeted Services are a collection of transit services, which include handyDART, express service, and Dial-a-Ride or paratransit services.

## 3.1 Transit Future Plan Targets

The 2012 TFP forecasts ridership growth of 50 per cent to just over 7 million annual passengers in 2036, representing a 5.6 per cent mode share. The TFP identified a requirement of approximately 4,920 annual service hours of expansion and two buses each year to achieve the Plan's ridership goals. This has since been superseded by the Transportation Master Plan, which has set a goal of achieving a 5 per cent transit mode share by 2039.

To reach a 5 per cent transit mode share by 2039, Kamloops should invest 204,000 hours, equating to 316,000 hours annually by 2039*. Each year this would require approximately 4,700 annualized service hours and approximately two buses**. In order for Kamloops to attain these targets, significant levels of investment will be required in the short, medium, and longer terms. The first four years will have greater investment that deviates from the numbers above to account for the development of the FTN layers. Section 3.2 below includes an overview of proposed levels of transit investment in the short term. These proposals are detailed further in Section 5.0 Proposed Service Changes.

**Assume that the rides per service hour will remain consistent or higher.*

*** The City of Kamloops current transit facility has capacity for 113 vehicles which would be sufficient for this growth estimate.*

### 3.1.1 On Time Performance

Industry best practice recommends that service hours be increased by 1 per cent annually, to invest in system on-time performance and schedule reliability as a response to increasing urban congestion and population. The City of Kamloops currently provides approximately 111,000 annual service hours for transit; applying this 1 per cent increase would work out to an expansion of 1,100 annual service hours specifically dedicated towards on time performance measures. On time performance improvement priorities will be identified regularly through the Annual Performance Summary (APS) process. Each service expansion will include a recommendation on whether or not on-time performance measures are required.

## 3.2 Proposed Future Transit Investment Timeline

The proposed future investment timeline over the next five years is shown below. These values are estimates and are contingent on the operations facility's capacity to maintain the vehicles.

At the July 14, 2020 Council meeting, Council also expressed interest in adding another Custom Transit vehicle to the Kamloops fleet. This will be integrated in BC Transit's Transit Improvement Process moving forward.

*Table 9: Service expansion for Kamloops Transit over the next five years*

| | | | | Estimated Additional Annual… | | |
|---|---|---|---|---|---|---|
| **Year** | **Project Type** | **Hours** | **Vehicles** | **Revenue ($)** | **Total Costs ($)** | **Net Municipal Share ($)** |
| 2019-20 | Service Expansion | *4,500** | *2* | *85,300* | *563,000* | *334,300* |
| 2020-21 | Service Expansion | *4,500** | *2* | *85,300* | *563,000* | *334,300* |
| 2021-22 | Service Expansion | 5,000 | 3 | 78,100 | 826,000 | 424,000 |
| 2022-23 | Service Expansion | 4,500 | 2 | 70,300 | 708,000 | 350,000 |
| 2023-24 | Service Expansion | 6,200 | 3 | 77,500 | 903,500 | 470,000 |
| **Total** | | **24,700** | **12** | **396,500** | **3,563,500** | **1,912,600** |

**This expansion has already been signed off by Council prior to the Transit Future Action Plan being adopted.*

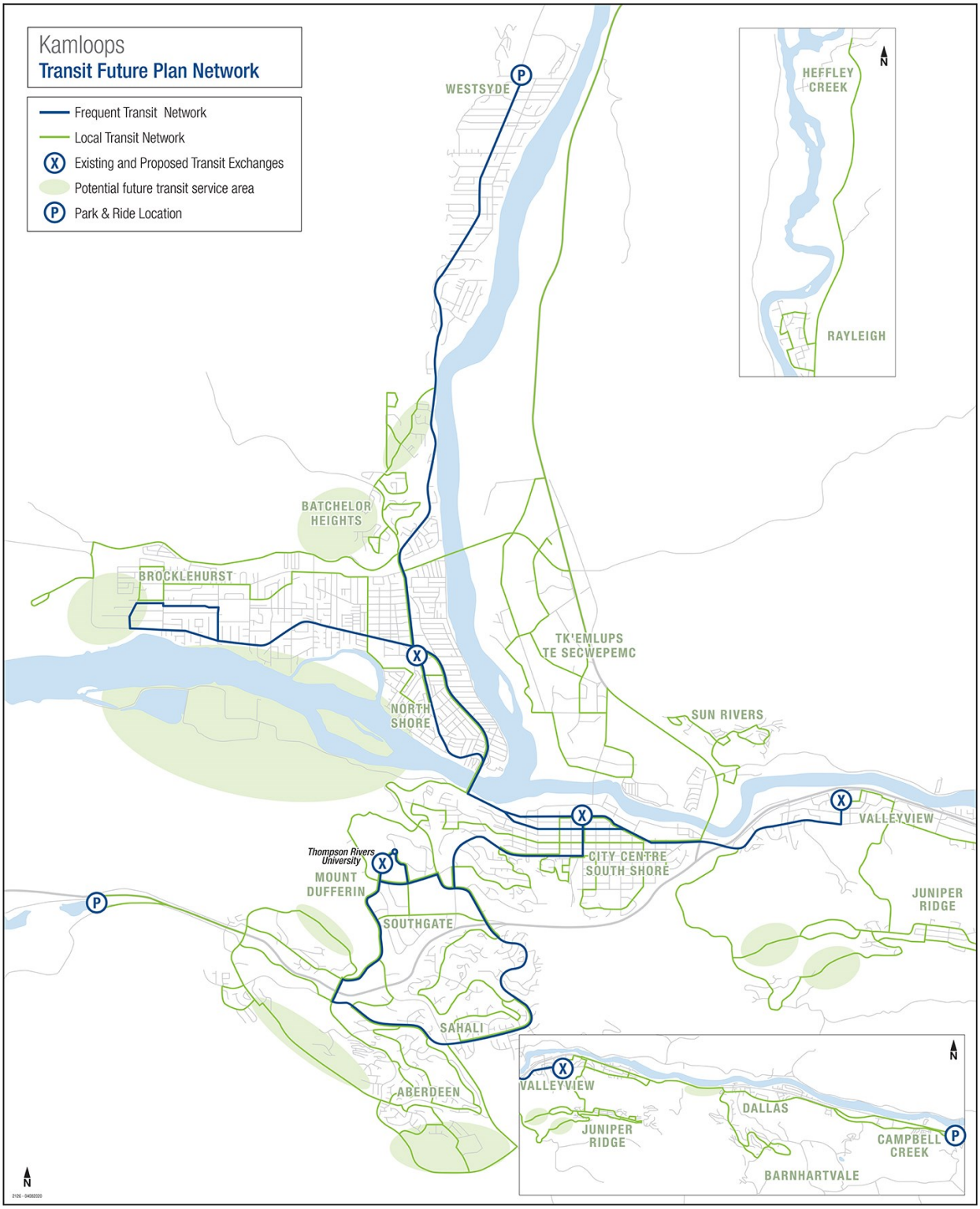



*Figure 12: Transit Future Map of Kamloops*

# 4 PUBLIC ENGAGEMENT

Two phases of public engagement contributed to the development of this TFAP. Phase I included an on-board intercept survey administered by NRG Group where customers completed surveys on buses. It provided an opportunity for customers to describe their travel patterns, their level of satisfaction with the transit system, as well as where they believe investments should be made into the Kamloops Transit System. Phase II presented draft route alignments for more specific feedback on tentative route changes, as well as options for further improvements to service levels and infrastructure improvements. Approximately 1500 participants were involved in both phases of public engagement.

### 4.1.1 Phase I

Phase I took place in winter of 2018 and gathered customer input on multiple aspects of transit in Kamloops including on-time performance, transfer times, frequency and overall impression. Additionally, the survey determined where customers felt investment should be made to improve transit service and it collected data showing the most popular transit routes. Key points received from the public included the following:

- Weekend service improvements were most important to current users of the transit system
- Route 7 Aberdeen, Route 9 Gleneagles, Route 1 Tranquille and Route 17 Dallas are the four routes where customers believe investment is most important
- There is room for improvement with on-time performance as well as availability of bus shelters and benches

The full report can be found in Appendix A.

### 4.1.2 Phase II

Phase II occurred in the spring of 2019 and included two open house events and an accompanying online survey. The engagement focused on gathering public feedback on proposed service level and infrastructure improvements; in addition, it gauged residents' interest in potential route changes that were identified in the TFP. The following themes were noted from the second phase of public engagement:

- Route 7 Aberdeen remained the most important route to improve service levels with weekend frequency, followed by Route 9 Gleneagles weekend frequency
- Maintain service coverage in the North Shore
- Improve frequency on Route 10 TRU Express and provide service on the weekends
- Strong support for all service changes, noting that further engagement will be required with any route restructure due to the large portion of responses indicating that it does not affect them
- Interest in providing service to new areas such as Ord Road and increasing the service area in Juniper Ridge
- Interest for BC Transit and the City of Kamloops to work with School District 73 to support the needs of students
- Support for the introduction of Route 8 Battle
    - A petition was brought forward to Council on May 8, 2019, which stated that certain members of the West End in Kamloops disapprove of the routing along Battle Street West between Boundary Road and Centre Avenue. Following the petition, neighbourhood residents raised additional concerns with the proposed

routing. Modifications to the route have been made to ensure that transit service is still efficient, safe and provides coverage to all residents of Kamloops. Additional information can be found in Section 5.3 Short Term Proposals.

There were 450 respondents to the online survey, as well as 154 attendees to the open houses. A public engagement report for Phase 2 can be found in Appendix B.

# 5 SERVICE CHANGE PROPOSALS

The following sections outline proposed service improvements to the Kamloops Transit System. This section discusses the general approach to transit service improvements and priorities and identifies improvements relevant for the entire system (e.g. service reliability and Custom Transit).

These regionally specific proposals have also been organized into three time periods:

- Short-Term: Next 1-2 years
- Medium-Term: Next 3-4 years
- Longer-Term: 5 years and beyond

All resource impacts for short-term and medium-term proposals presented are based on annual figures. Longer-term options are outlined as concepts considering estimates for these items may change substantially with community growth patterns and changing priorities.

## 5.1 Short-Term Service Proposals (1-2 years)

These transit proposals address top priority operational, reliability, and customer concerns, and as such are presented for consideration in the short-term over the next one to two years. Further engagement will be held at the discretion of the City of Kamloops for any route modifications.

### Proposal 1: Invest in Core Transit Routes

The majority of ridership is generated on Route 1 Tranquille, Route 7 Aberdeen and Route 9 Gleneagles, as seen in Figure 10. Public engagement results showed that Kamloops transit users also want to see improvements on these routes. To ensure that Kamloops continues towards the creation of an FTN, frequency and span of service should be invested in on these routes. The recommended investments are not required to be made simultaneously.

**Resources required:**

*Table 10: Core transit investments*

| Transit Route | Service Day | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|---|
| **Route 1 Tranquille** | Weekday | 150 | 15 min/ 30 min | 6:00am to 12:30am | 0 |
| | Saturday | 400 | 15 min/ 30 min | 6:30am to 12:30am | 0 |
| | Sunday | 200 | 30 min/ 45 min | 7:00am to 11:00pm | 0 |
| **Route 7 Aberdeen*** | Weekday | 1,000 | ~15 min/ ~30 min | 6:00am to 12:30am | 1 |
| | Saturday | 150 | ~15 min/ ~30 min | 6:00am to 1:30am | 0 |
| | Sunday | 100 | ~30 min/ ~45 min | 7:00am to 11:30pm | 0 |
| **Route 9 Gleneagles** | Weekday | 1,500 | ~15 min/ ~30 min | 6:00am to 12:30am | 1 |
| | Saturday | 150 | ~15 min/ ~30 min | 6:00am to 1:30am | 0 |
| | Sunday | 500 | ~15 min/ ~30 min | 7:00am to 11:30pm | 0 |
| **Total** | n/a | **4150** | n/a | n/a | **2** |

**Due to two different variants, Route 7 Aberdeen cannot have consistent headway departures. Future expansions may impact the headways if the variants are removed and enable more consistent headways.*

## Proposal 2: Route 4 Pacific Way

Currently Route 4 Pacific Way services the Aberdeen neighbourhood in Kamloops, located in the Southwest Sector. Key destinations include Thompson Rivers University, Aberdeen Mall and the Aberdeen neighbourhood. This proposal seeks to extend the loop to service Bentall Drive. It would also seek to reduce the overlap with Route 7 Aberdeen along Van Horne Drive.

## 4 Pacific Way Proposed Route Modification

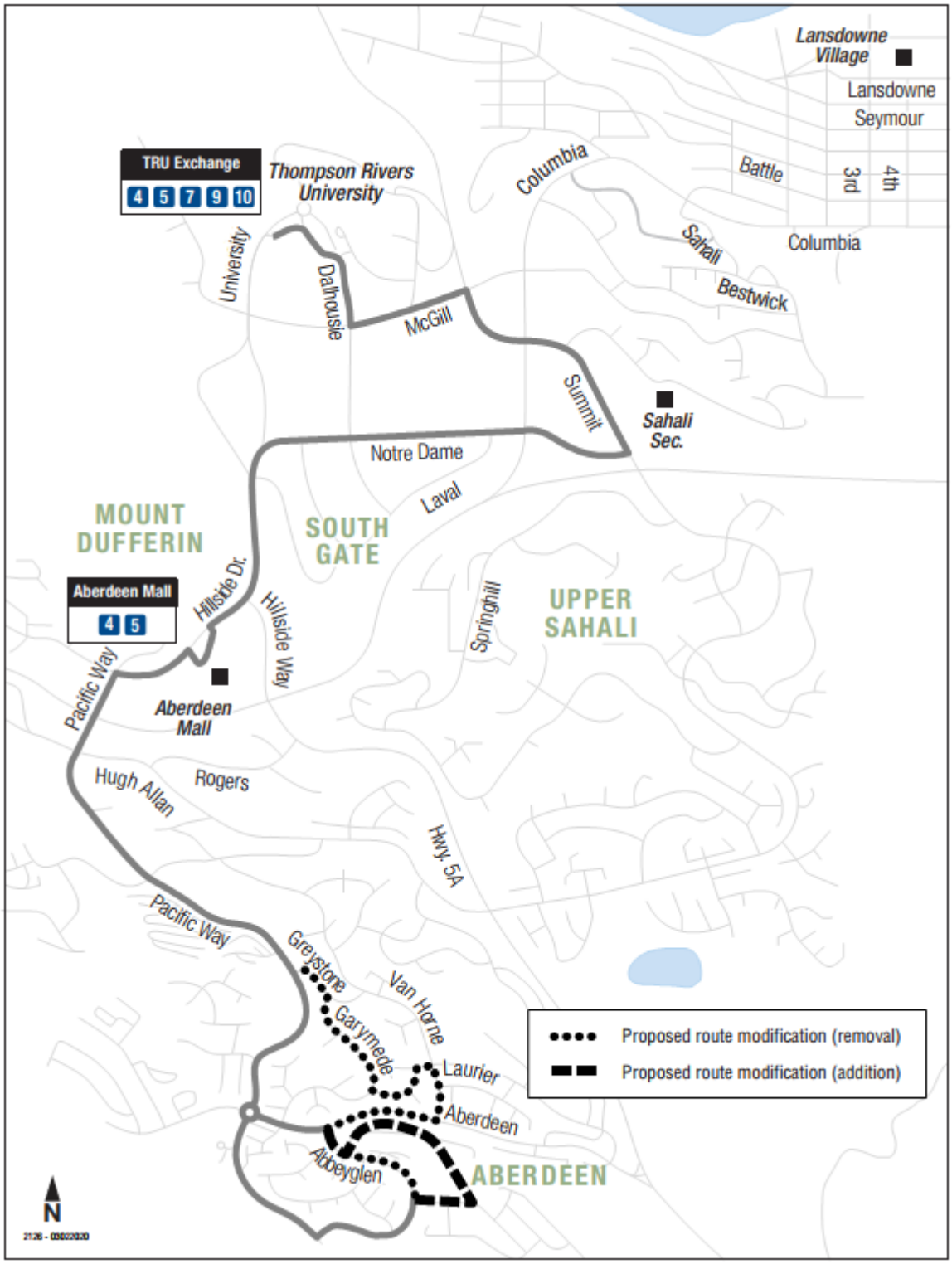



*Figure 13: Proposed modification of route 4 Pacific Way*

**Design Principles:**

- Better service to areas of growing demand, including Bentall Drive
- Reduction of service duplication along Van Horne Drive

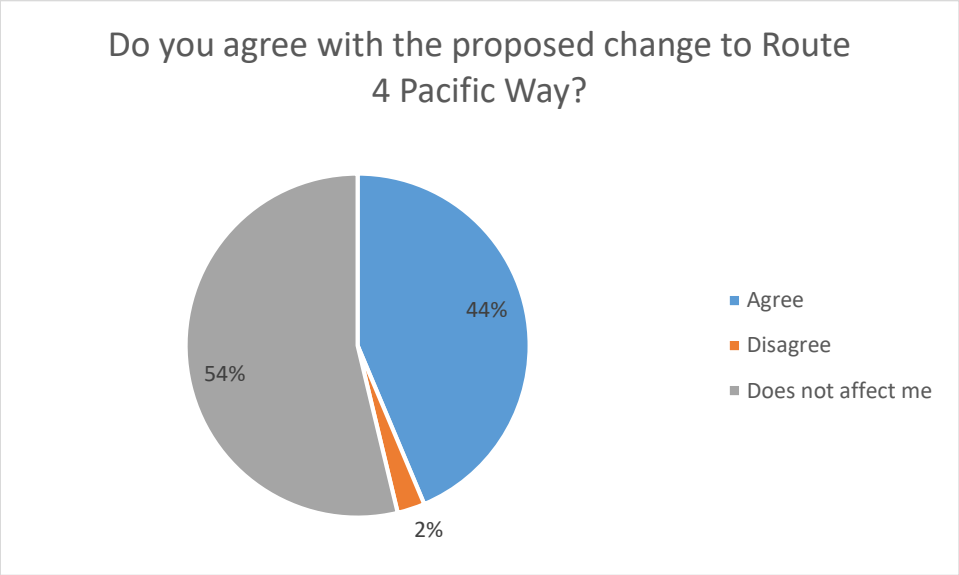
**Benefits:**

- Provides service to new area of Aberdeen
- Removes overlap of service along Van Horne Drive

**Considerations:**

- Proposed new route would discontinue a portion of service along Abbeyglen Way

**Engagement Results:**
Engagement related to the proposed change to Route 4 Pacific Way yielded the following results:




Further public engagement may be considered to conduct targeted engagement to inform the residents of the neighbourhood of the change.

**Resources required:**

| Proposed Service Improvement | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|
| Restructure route to provide service along Bentall Drive while removing service on Abbeyglen Way. | 250 | n/a* | n/a* | 0 |
| **Total** | **250** | n/a | n/a | **0** |

**The service levels will see no change in this proposal*

## Proposal 3: Expand Custom Transit to align with Conventional Service

As the population of seniors continues to increase, and the percentage of the population living with disabilities rises, the demand for Custom Transit service will continue to grow at an accelerating pace. Public transit agencies are facing tremendous pressure to accommodate this growing demand. At the same time, the transit industry is undergoing significant change because of advancing technologies that are offering new opportunities to achieve efficiencies and improve the customer experience. Currently in Kamloops the service spans of Custom Transit is lower than that of Conventional service. Below is a table showing the discrepancy between Conventional and Custom Transit hours of operation.

**Resources Required:**

*Table 11: Difference between hours of operation in Custom and Conventional Transit*

| | Conventional | Custom | Differential | Est. Service Hours |
|---|---|---|---|---|
| **Hours of Operation** | Monday-Friday: 6:00am to 12:00am | Monday - Friday: 7:00am to 11:00pm | 2 Hours | 790 |
| | Saturday: 7:00am to 12:00am | Saturday: 7:00am to 11:00pm | 1 Hour | 141 |
| | Sunday: 7:00am to 11:00pm | Sunday: 9:00am to 6:00pm | 7 Hours | 850 |
| **Total** | n/a | n/a | n/a | **1781** |

To address the identified variance of Custom Transit service availability to Conventional service, it is recommended that service be expanded by approximately 1,780 hours to run service every hour that Conventional service currently runs service. The estimated service hours is a reflection of the cost outlined in the 2018/19 Kamloops Custom Transit Services Review. An updated 2019/20 Custom Transit Services Report will be available later in 2020.

## Proposal 4: Route 7 Aberdeen, Route 8 Battle

Route 7 Aberdeen connects downtown Kamloops to Thompson Rivers University, Aberdeen Mall as well as the Aberdeen neighbourhood via the West End and Lower Sahali. The route takes approximately an hour to complete a full trip. The proposed service change would eliminate a route variant along Battle Street and Columbia Street and would increase consistency along the Sahali/Bestwick variant.

Route 8 Battle would provide service between downtown Kamloops and Thompson Rivers University. Key destinations include the business park behind Thompson Rivers University as well as the West End neighbourhood in Kamloops, including the Guerin Creek Estates subdivision.

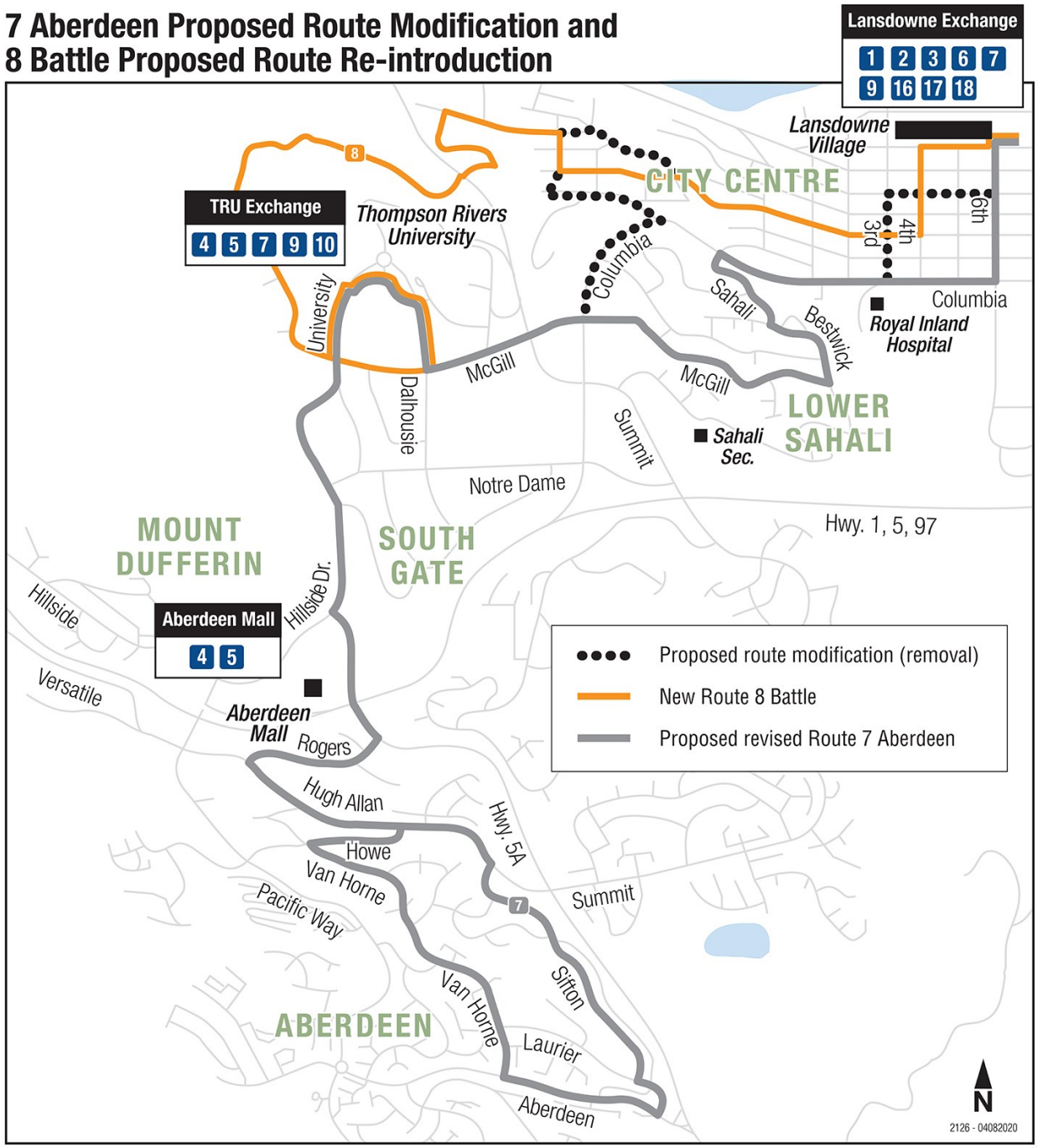



*Figure 14: Proposed routing of Route 8 Battle and discontinued routing of Route 7 Aberdeen that was presented to the public during the engagement phase of the TFAP. Note that service will still be provided on Columbia Street West by Route 9. This is not the final recommended routing.*

**Design Principles:**

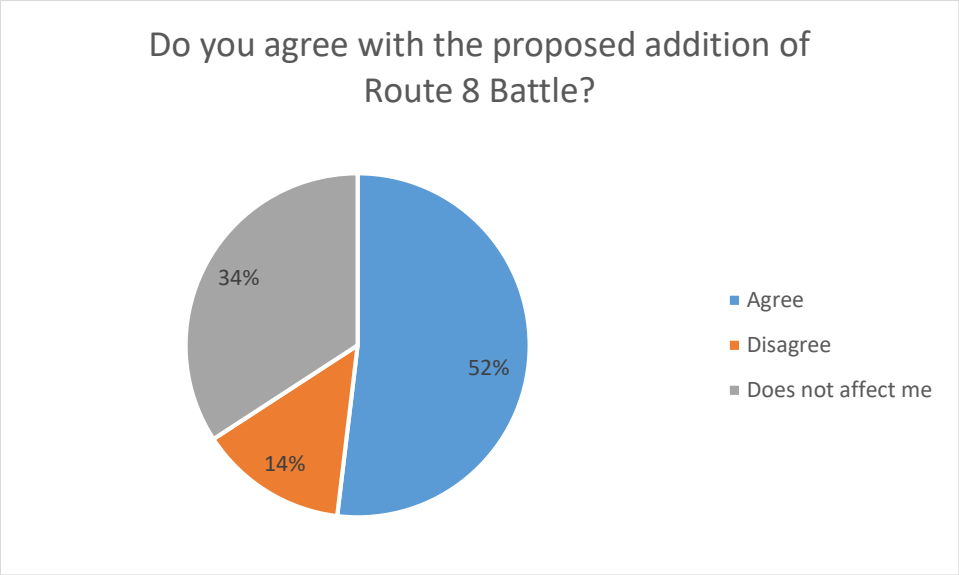
- Route 8 Battle provides service to areas of demand including the West End of the City
- Provides a direct connection between Thompson Rivers University and downtown Kamloops
- Simplifies Route 7 Aberdeen and allows more consistent and reliable service

**Benefits:**

- Provides more direct service between downtown and Thompson Rivers University
- Provides service to Thompson Rivers University business park on weekends
- Streamlining service and removal of variants on Route 7 Aberdeen reduces customer confusion

**Engagement Results:**

Engagement related to the proposed addition of Route 8 Battle yielded the following results:




**Engagement Analysis:**

After public engagement was complete, a petition was created amongst residents of the West End; specifically the 400 to 600 block of Battle Street West (see Appendix C for the area covered in the petition). Petitioners disagreed with the proposed routing of Route 8 Battle along the 400, 500 and 600 blocks of Battle Street West, between Strathcona Terrace and Centre Avenue, due to various concerns outlined in the petition (Appendix D). Concerns raised include safety concerns as well as parking constraints. Concerns were further expressed by residents through letters written to the Mayor, Council and City staff, as well as through flyers distributed

around the neighbourhood. The table below shows further analysis of survey results pertaining to the route change.

*Table 12: Engagement analysis results*

| Neighbourhood | Analysis |
|---|---|
| West End Residents | • 26 per cent of respondents that self-identified as West End agree with the route change. 68 per cent of respondents who self-identified as West End disagree with the route change. 5 per cent believe it does not affect them.*<br>• 62 per cent of respondents that self-identified as West End that disagree with the route change said they never ride the bus. |
| Affected Neighbourhoods: West End, Thompson Rivers University, Southgate, Sagebrush, Lower Sahali, Downtown, Aberdeen | • 57 per cent of respondents that self-identified to live in affected neighbourhoods agree with the route change. 26 per cent of respondents that live in the affected neighbourhoods disagree with the route change. 17 per cent feel it does not affect them. |
| City of Kamloops | • 52 per cent of respondents that indicated they live in other neighbourhoods in the City agree with the route change. 14 per cent of respondents in these neighbourhoods disagree with the route change. 34 per cent feel it does not affect them. |

**Numbers do not total 100 due to rounding.*

The proposed routing that Route 8 Battle follows was created in the 2012 TFP and therefore followed the same routing in the public engagement material for the 2020 TFAP. The proposed routing was supported by various transit planning principles (Figure 7) coinciding with BC Transit best practices, stated below:

- Ensure all residential properties are within 400 meters of transit service
- Simplified routes increase legibility of service
- Ensure the road infrastructure and classification is suited to have transit service along it

Priorities change over the years and therefore modifications can be made if safe and reliable service can still be provided. The above analysis shows that the majority of respondents do want to have this service in the affected neighbourhoods as well as the entire City, but a large percentage of residents who live within the area of new service disagree with the route change.

Recognizing that we can still accomplish best practices listed above, BC Transit recommended the modified routing shown in Figure 15 below. BC Transit additionally recommended that further engagement for this proposal included informing the neighbourhoods affected as well as working with residents to determine appropriate locations for bus stop infrastructure.

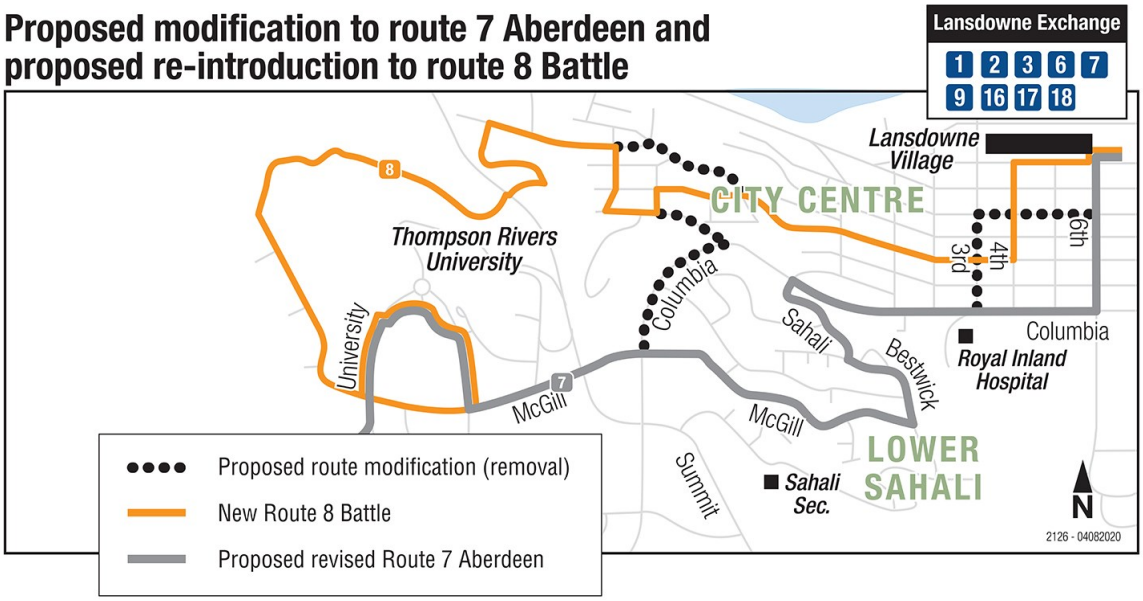



*Figure 15: Modification to original proposal. Note that this was not the final routing approved by Kamloops Council.*

At the July 14, 2020 Kamloops City Council meeting, Council voted to amend the proposed routing put forward by BC Transit and supported by City staff, in response to concerns voiced by residents of the West End neighbourhood of Battle Street West. The final routing for the proposed re-introduction of Route 8 Battle can be seen in Figure 16. This routing maintains service on Strathcona Terrace and Lombard Street, while removing service from the east and westbound stops located at Grandview Terrace and Dalgleish Drive, which are two of the most heavily used stops in this area. As with any new route, BC Transit recommends that performance along the Route 8 be monitored, with adjustments being made as necessary.

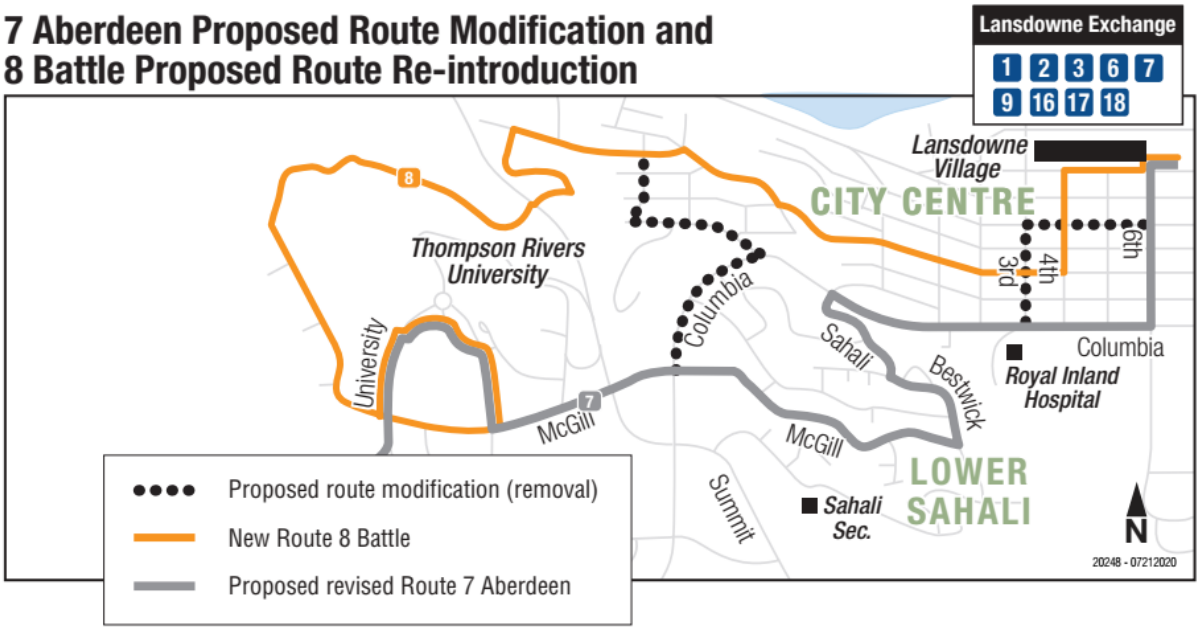



*Figure 16: Final routing for the re-introduced Route 8 Battle.*

**Resources required:**

| Proposed Service Improvement | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|
| Restructure Route 7 Aberdeen to remove variant that enters the West End of Kamloops | 0 | n/a* | n/a* | 0 |
| Introduce new route to provide service between downtown and Thompson Rivers University via the West End | 5,000 | 30 min / 60 min | 7:00 am to 11:00 pm | 3 |
| **Total** | **5,000** | n/a | n/a | **3** |

**The service levels will see no change in this proposal*

## Proposal 5: Route 18 Mt. Paul

Route 18 Mt. Paul connects downtown to Sun Rivers as well as the Tk'emlúps te Secwẻpemc communities. Key destinations include the industrial park along Mt. Paul Way and Bighorn Golf and Country Club. The proposed service change would improve service levels to include weekend service and increased service span on weekdays.

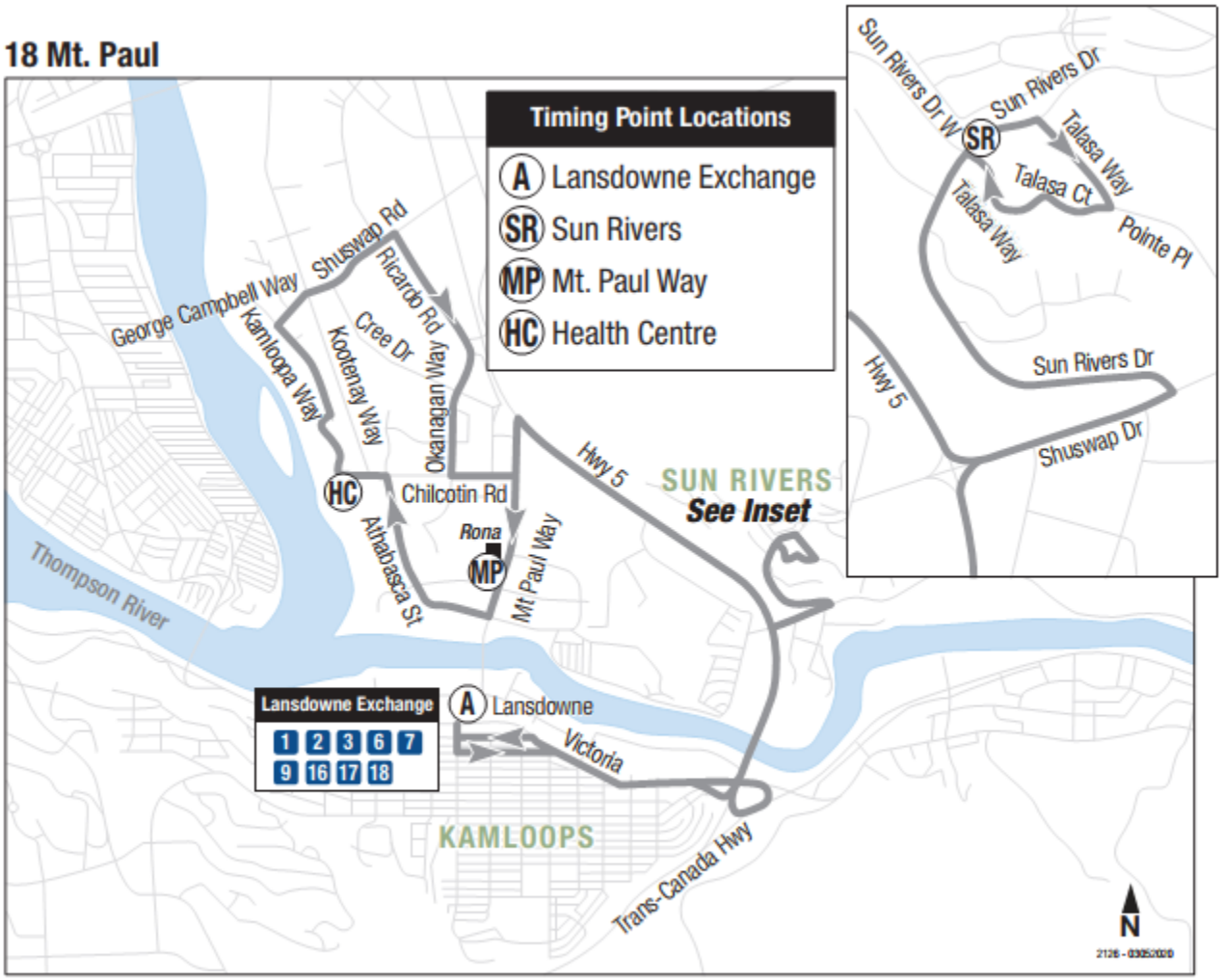



*Figure 17: Route 18 Mt. Paul*

**Resources required:**

| Proposed Service Improvement | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|
| Increase span to end service at 10:00pm | 1,000 | 60 min | 7:00 am to 10:00pm | 0 |
| Add weekend service | 700 | 120 min | 9:00am to 5:00pm | 1 |
| **Total** | **1,700** | n/a | n/a | **1** |

## 5.2 Medium-Term Service Proposals (3-4 years)

The following section outlines proposals and costs for the consideration of the City of Kamloops in the medium-term over the next three to four years. Further engagement will be held at the discretion of the City of Kamloops for any route modifications.

### Proposal 1: Improve Local and Frequent Transit Network

As BC Transit and the City of Kamloops further establish the TFP network, investments are continuously required to improve span and frequency of service. Through public engagement it was determined that Route 3 Westsyde, Route 4 Pacific Way, Route 16 Juniper Ridge and Route 17 Dallas were the most in need of improvement. Specifically, respondents wanted to see improved frequency and weekday span on Route 17 Dallas, whereas they would like to see increased weekend span for Route 3 Westsyde. The recommended investments are not required to be made simultaneously.

*Table 13: LTN and FTN improvements*

| Transit Route | Service Day | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|---|
| **Route 3 Westsyde** | Weekday | 0 | 15 min/ 30 min | 6:00am to 12:00am | 0 |
| | Saturday | 400 | 30 min/ 60 min | 7:30am to 12:30am | 0 |
| | Sunday | 400 | 30 min/ 60 min | 8:00am to 11:00pm | 0 |
| **Route 4 Pacific Way** | Weekday | 1,000 | 20 min/ 30 min | 6:00am to 11:30pm | 0 |
| | Saturday | 50 | 20 min/ 30 min | 8:00am to 11:00pm | 0 |

| | | | | | |
|---|---|---|---|---|---|
| | Sunday | 150 | 60 min | 8:00am to 10:00pm | 0 |
| **Route 16 Juniper Ridge** | Weekday | 800 | 30 min/ 60 min | 6:00am to 10:00pm | 1 |
| | Saturday | 300 | 30 min/ 60 min | 8:00am to 11:00pm | 0 |
| | Sunday | 300 | 30 min/ 60 min | 8:00am to 10:00pm | 0 |
| **Route 17 Dallas** | Weekday | 1,000 | 30 min/ 60 min | 6:00am to 12:00am | 1 |
| | Saturday | 150 | 30 min/ 60 min | 8:00am to 12:00am | 0 |
| | Sunday | 350 | 60 min | 8:00am to 11:00pm | 0 |
| **Total** | n/a | **4,900** | n/a | n/a | **2** |

## Proposal 2: Route 2 Parkcrest, Route 10 TRU Express

Route 2 Parkcrest currently connects the Brocklehurst neighbourhood to downtown. Key destinations include the North Shore, Chances Casino, NorKam Secondary School and Macarthur Island. The proposed service change would simplify Route 2 Parkcrest to utilize the North Shore Exchange rather than travelling all the way downtown. The proposed service change would also provide closely timed connections from the North Shore Exchange to downtown via Route 1 Tranquille and Route 3 Westsyde. Additionally, this change would provide closely timed connections from the North Shore Exchange to Thompson Rivers University utilizing Route 10 North Shore TRU Express. This proposal would also expand Route 10 North Shore TRU Express to run on weekends.

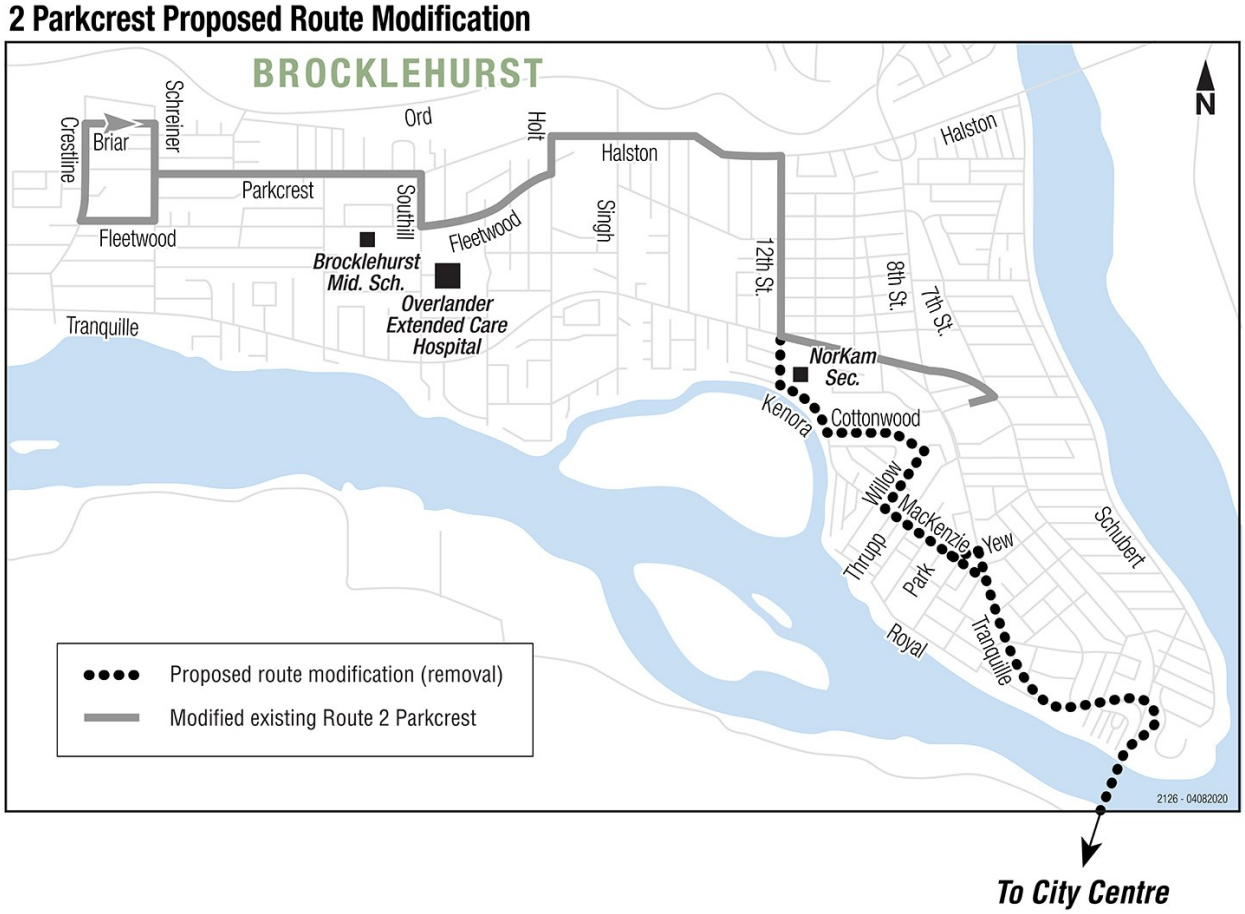



*Figure 18: Proposed modification of Route 2 Parkcrest*

**Design Principles:**

- Simplifies route to improve on-time performance
- Reduces service duplication along Tranquille Road and Fortune Drive into downtown

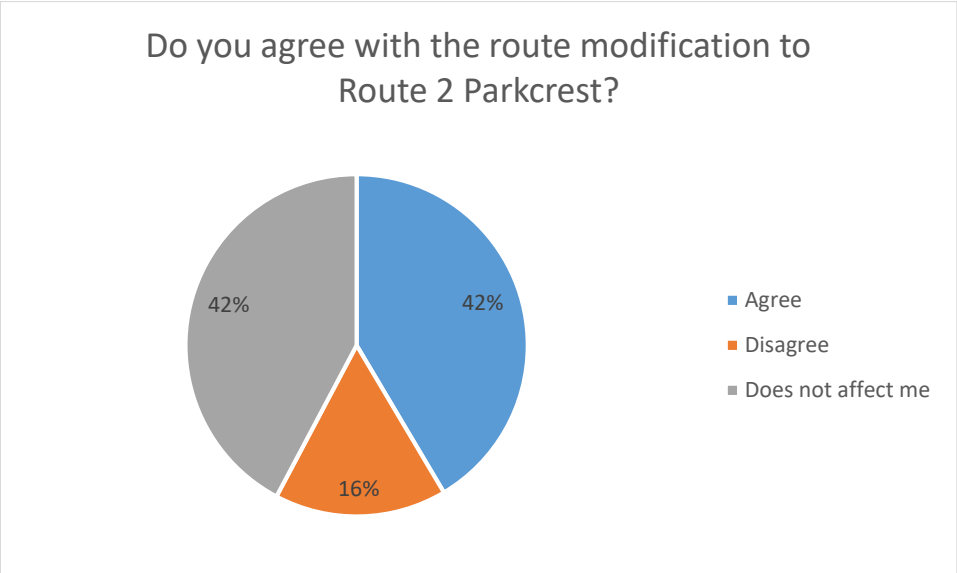
**Benefits:**

- Increases on-time performance
- Service from North Shore directly to Thompson Rivers University on the weekend

**Considerations:**

- Proposed modification would remove direct connection to downtown Kamloops

**Engagement Results:**
Engagement related to the proposed route modification for Route 2 Parkcrest yielded the following results:




**Engagement Analysis:**
16 per cent of respondents did not support this route change. 67 per cent of these respondents ride the bus three times or more a week. The main concern that is not addressed by this proposal is loss of service to Macarthur Island area.

The proposed routing that Route 2 Parkcrest follows was created in the TFP and therefore followed the same routing in the public engagement material for the 2020 Transit Future Action Plan. The proposed routing was supported by various transit planning principles (Figure 7) coinciding with BC Transit best practices, stated below:

- Simplified routes to increase legibility of service
- Avoid service duplication

Priorities change over the years and therefore modifications can be made if safe and reliable service can still be provided. Since the TFP, the North Shore neighbourhood has experienced a lot of growth on Tranquille Road. To address the loss of area, this plan proposes a modification to the route proposal as seen in public engagement, seen in Figure 17 below. It is important to

note that further engagement is always recommended by BC Transit for route modifications and new routes.

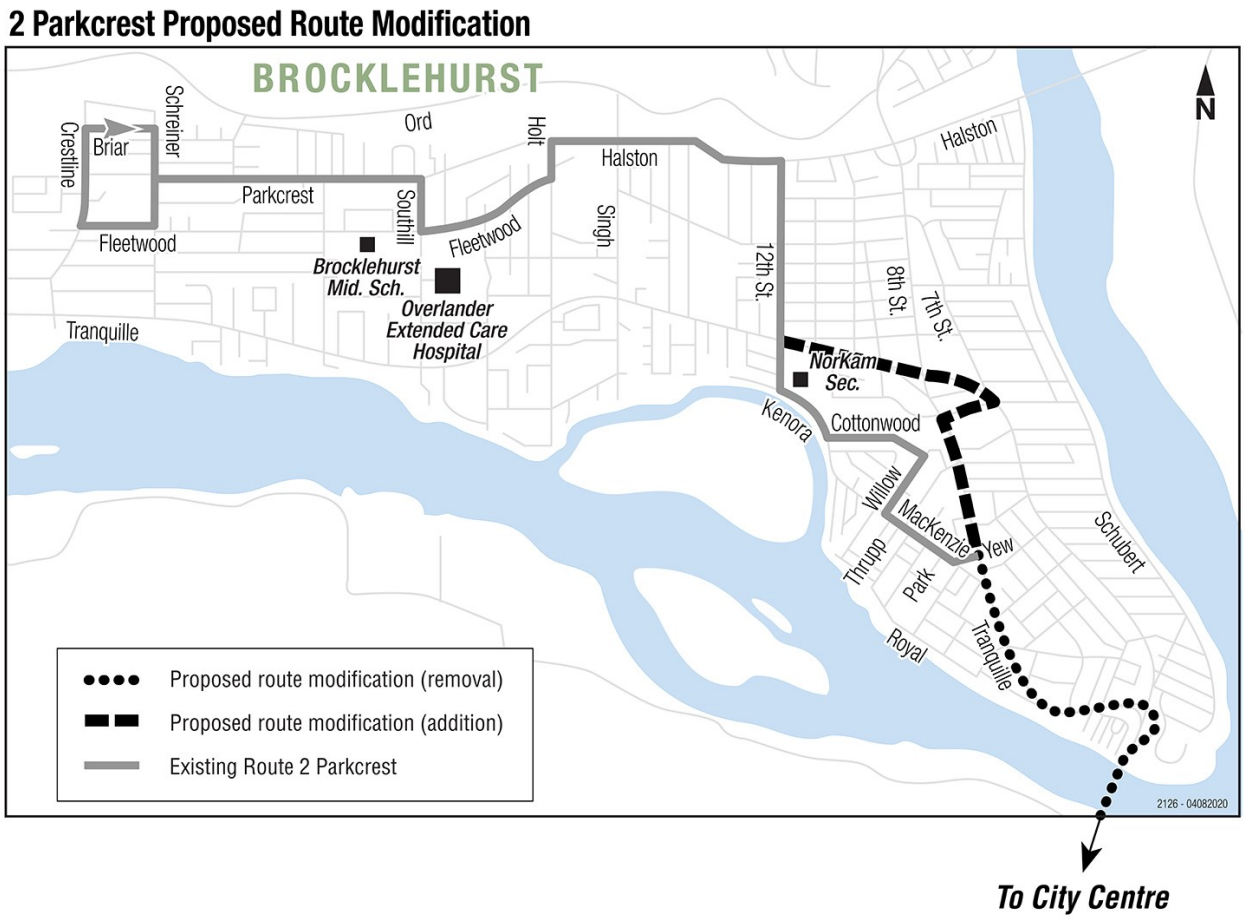



*Figure 19: Modified route change to include Macarthur Island neighbourhood*

**Resources required:**

*Table 14: Proposed improvements to Route 2 Parkcrest and Route 10 North Shore TRU Express*

| Proposed Service Improvement | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|
| Restructure Route 2 Parkcrest by eliminating routing to downtown from Mackenzie Road and Tranquille Road | (3,000)* | n/a** | n/a** | 0 |
| Add weekday service to Route 10 North Shore TRU Express | 2,600 | 20 min/ 30 min | 6:00am to 11:00pm | 0 |
| Add weekend service to Route 10 North Shore TRU Express | 2,000 | 30 min/ 60 min | 7:00am to 11:00pm | 1 |
| **Total** | **1,600** | n/a | n/a | **1** |

**Restructuring Route 2 Parkcrest will lead to a savings of 3,000 annual service hours, which will be reallocated into adding service hours on Route 10 North Shore TRU Express*

***The service levels will see no change in this proposal*

## Proposal 3: Phase I Route 99 Southwest Loop

Route 99 Southwest Loop would provide service in a loop between the communities of Lower and Upper Sahali, Aberdeen, Mount Dufferin, Southgate and Thompson Rivers University. Key destinations include Thompson Rivers University, Sahali Secondary School and Aberdeen Mall. Service will be timed appropriately with connections to downtown and the North Shore. Phase I will provide introductory service to complement existing service.

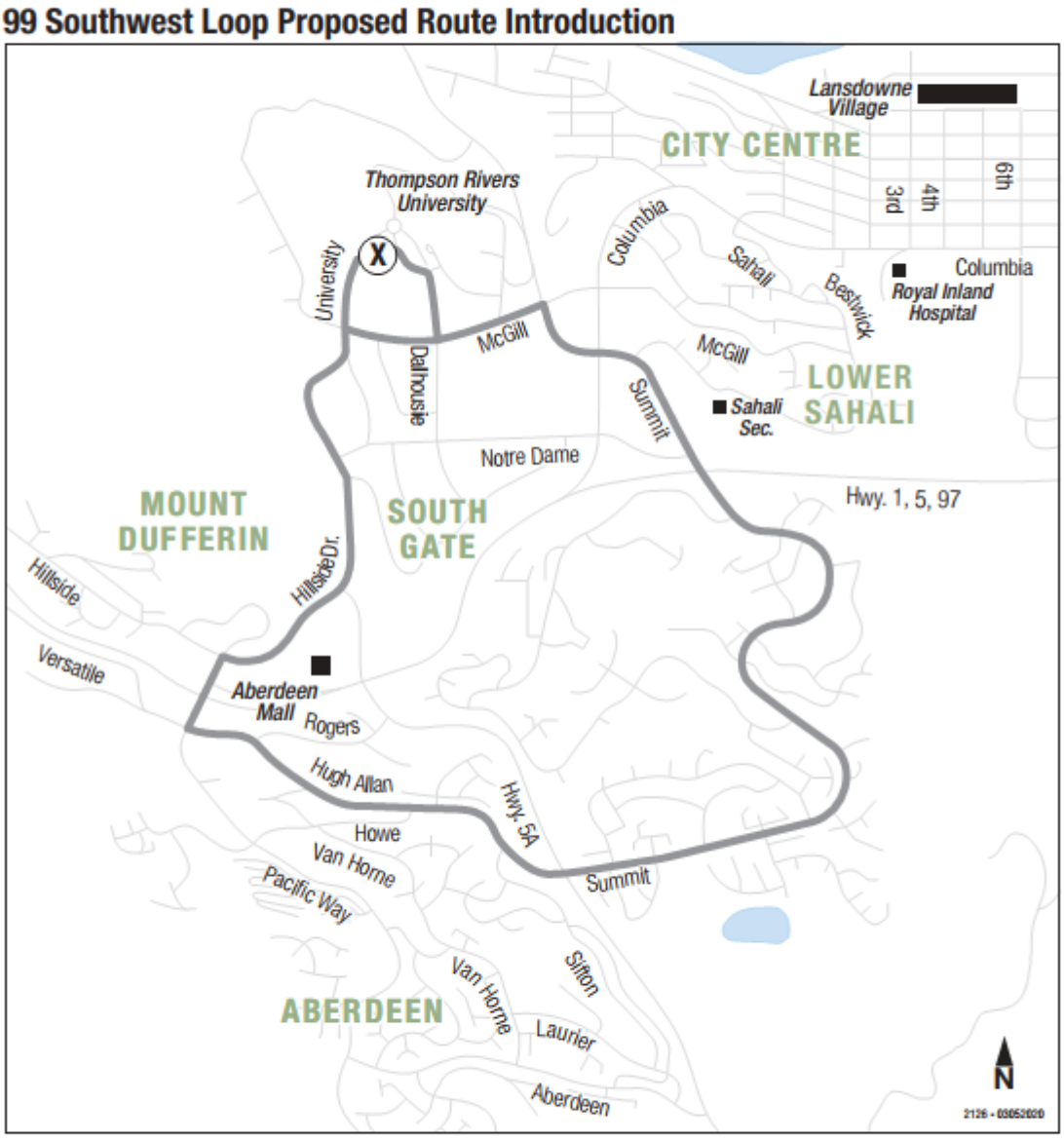



*Figure 20: Proposed routing of Route 99 Southwest Loop*

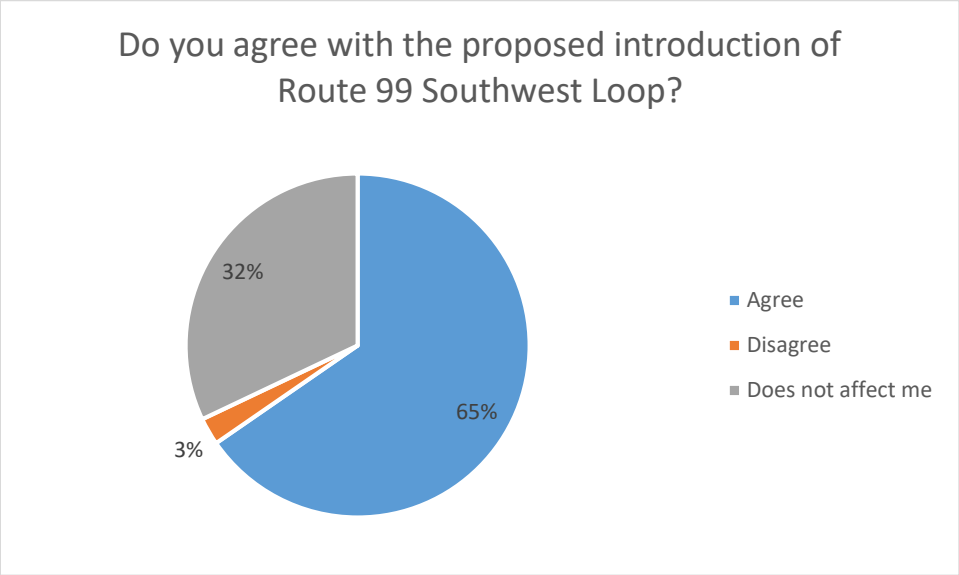
**Design Principles:**

- Connect major hubs in the southwest Sector
- Straight and legible routing provides frequent and reliable service

**Benefits:**

- Consistent service occurring every day of the week will allow more reliable service that does not travel down the hill to downtown

**Engagement Results:**
Engagement related to the proposed introduction of Route 99 Southwest Loop yielded the following results:




It is important to note that further engagement is always recommended by BC Transit for route modifications and new routes, and that infrastructure improvements, such as the addition of sidewalks, are reviewed when these changes are implemented.

**Resources required:**
*Table 15: Proposed service improvements for Route 99 Southwest Loop*

| Proposed Service Improvement | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|
| Introduce new route between circulating the Southwest sector terminating at Thompson Rivers University during the week | 5,000 | 15 min/ 30 min | 7:00 am to 12:00am | 2 |
| **Total** | **5,000** | n/a | n/a | **2** |

## Proposal 4: Phase I Route 98 East West Express

Route 98 East West Express would provide service from Valleyview to Thompson Rivers University via downtown, with a stop at Lansdowne Exchange. Key destinations include downtown, Thompson Rivers University and Sahali Secondary. Service would be contingent on the construction of a transit exchange in Valleyview. If construction did not proceed, direct service between Thompson Rivers University and downtown may provide an alternative.

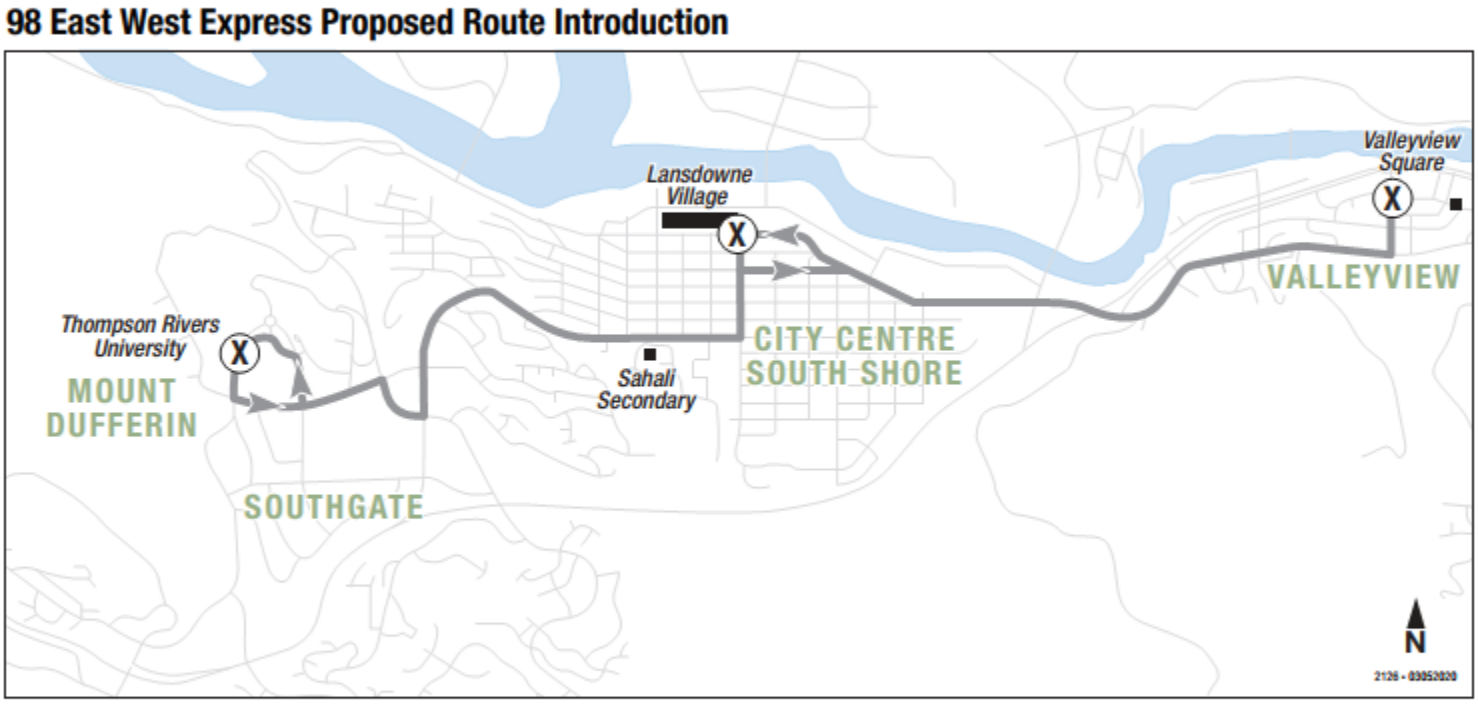



*Figure 21: Proposed routing of Route 98 East West Express*

**Design Principles:**

- Straight and legible routing provides frequent and reliable service
- Provide valuable regional connections

**Benefits:**

- Provides direct service between major hubs without requiring a transfer between Valleyview and Thompson Rivers University

**Engagement Results:**

- 96 per cent of respondents indicated support for the introduction of Route 98 East West Express

It is important to note that further engagement is always recommended by BC Transit for route modifications and new routes, and that infrastructure improvements, such as the addition of sidewalks, are reviewed when these changes are implemented.

**Resources required:**

*Table 16: Proposed service improvements for Route 98 East West Express*

| Proposed Service Improvement | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|
| Introduce new route connecting Valleyview to Thompson Rivers University via downtown during the week | 7,000 | 15 min/ 30 min | 7:00 am to 12:00am | 3 |
| **Total** | **7,000** | n/a | n/a | **3** |

## 5.3 Long-Term Service Proposals (5 years and beyond)

### Proposal 1: Invest in Frequent Transit Routes

Once the Kamloops Transit System begins to develop its FTN network, investments in the frequency of the FTN will be required to ensure that BC Transit and the City of Kamloops is supporting the growth of these routes. This service proposal would look to add weekend service to Route 98 East West Express and Route 99 Southwest Loop. The recommended investments are not required to be made simultaneously.

**Resources required:**

*Table 17: Proposed service improvements to Frequent Transit Routes*

| Transit Route | Service Day | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|---|
| **Route 1 Tranquille** | Weekday | 1,000 | 15 min/ 30 min | 6:00am to 1:00am | 1 |
| | Saturday | 300 | 15 min/ 30 min | 6:30am to 12:30am | 0 |
| | Sunday | 500 | 15 min/ 30 min | 7:00am to 11:00pm | 0 |
| **Route 9 Gleneagles** | Weekday | 0 | 15 min/ 30 min | 6:00am to 12:30am | 0 |
| | Saturday | 300 | 15 min/ 30 min | 6:00am to 1:30am | 0 |
| | Sunday | 800 | 30 min/ 45 min | 7:00am to 11:30pm | 0 |
| **Route 98 East West Express** | Weekday | 3,000 | 15 min/ 30 min | 7:00 am to 12:00am | 2 |
| | Saturday | 1,000 | 15 min/ 30 min | 7:00 am to 12:00am | 0 |
| | Sunday | 1,000 | 15 min/ 30 min | 7:00 am to 12:00am | 1 |
| **Route 99 Southwest Loop** | Weekday | 2,000 | 15 min/ 30 min | 7:00 am to 12:00am | 1 |
| | Saturday | 500 | 15 min/ 30 min | 7:00 am to 12:00am | 0 |

| | | | | | |
|---|---|---|---|---|---|
| | Sunday | 500 | 15 min/<br>30 min | 7:00 am to 12:00am | 0 |
| **Total** | n/a | **10,900** | n/a | n/a | **5** |

## Proposal 2: Phase II Route 99 Southwest Loop

As demand warrants, increase service to every 15 minutes during the majority of the day, with 30-minute frequency providing service in other times of the day. This will allow the routes to be realigned to form the Transit Future Network, which features spontaneous travel in the peak periods and timed-transfers.

**Resources required:**

*Table 18: Proposed service improvements to Route 99 Southwest Loop*

| Proposed Service Improvement | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|
| Re-align routes in southwest Kamloops to better match FTN and LTN networks | TBD | n/a | n/a | TBD |
| Increase service to provide adequate support to re-alignment of other surrounding routes | 2500* | 15 min / 30 min | 7:00am to 12:00am | 1 |
| **Total** | **2500*** | n/a | n/a | **1** |

**These hours will shift dependent upon what route re-alignments are decided on. Cost fluctuation may occur.*

## Proposal 3: Phase II Route 98 East West Express

As demand warrants, increase service to every 15 minutes during the majority of the day, with 30-minute frequency providing service in other times of the day. This will allow the routes to be realigned to form the Transit Future Network, which features spontaneous travel in the peak periods and timed-transfers.

**Resources required:**

*Table 19: Proposed service improvements to Route 98 East West Express*

| Proposed Service Improvement | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|
| Re-align routes in southwest and southeast Kamloops to better match FTN and LTN networks | TBD | n/a | n/a | TBD |
| Increase service to provide adequate support to re-alignment of other surrounding routes | 4000* | 15 min / 30 min | 7:00am to 12:00am | 2 |
| **Total** | **4000*** | n/a | n/a | **2** |

**These hours will shift dependent upon what route re-alignments are decided on. Cost fluctuation may occur.*

## Proposal 4: Route 18 Mt. Paul

Route 18 Mt. Paul service began in September 2018. Transit planning principles state that it takes approximately three years for ridership to reach its full potential. Ridership has slowly began expanding on this route. Once further investments have been made to service levels as seen in Section 5.2 Medium-Term Service Proposals, the service area can expand.

During public engagement completed in summer 2018, BC Transit and the City of Kamloops received input from the Sun Rivers community to expand service further into the development. Other input from the TteS community included expanding service to Carrier Street and Salish Road, as detailed below on the map.

To implement either of these service changes, further engagement will be required one year before expansion occurs.

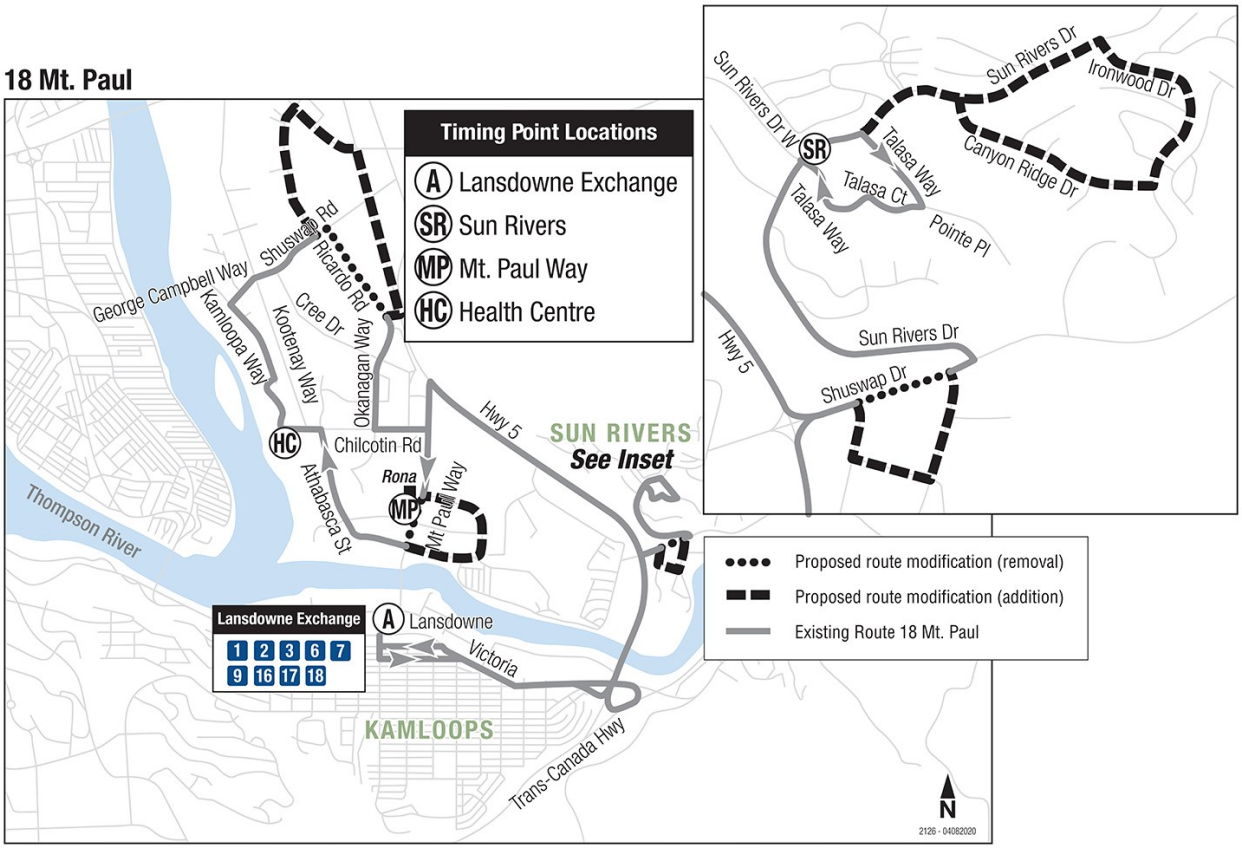



*Figure 22: Potential route expansion areas on Route 18 Mt. Paul*

**Resources required:**

*Table 20: Proposed service improvements to Route 18 Mt. Paul*

| Proposed Service Improvement | Est. Service Hours | Frequency Peak/Base | Service Span | Expansion Buses |
|---|---|---|---|---|
| Expand service further into Sun Rivers | 500 | 60 | 7:00 AM – 10:00 PM | 0 |
| Expand service further into TteS | 1,000 | 60 | 7:00 AM – 10:00 PM | 1 |

| | | | | |
|---|---|---|---|---|
| **Total** | **1,500** | n/a | n/a | **1** |

**The service levels will see no change in this proposal*

## 5.4 Service Change Initiatives

*Table 21: Service change Initiatives*

| Initiatives | | |
|---|---|---|
| 1 | Restore ridership and service to pre-COVID-19 levels | The COVID-19 pandemic caused an unprecedented drop in ridership across all BC Transit systems, mirroring ridership drops seen across the world. Before any of the discussed expansions are carried out, pre-COVID-19 service and ridership should be restored.<br><br>BC Transit will work with the City to monitor ridership levels, directing service towards areas that require it while remaining flexible and able to accommodate unexpected demands. This pandemic is constantly evolving, and at this stage in the recovery process there are still many unknowns, including factors that will impact how the system operates and is financed. BC Transit will continue to collaborate with the City, the provincial government and other partners to stabilize and restore the transit system in Kamloops. |
| 2 | Fleet Right-Sizing Study | Current ridership levels on various routes within Kamloops present an opportunity to use smaller vehicles on lower ridership trips, which can increase operational efficiency and allow savings to be reinvested back into the system. To explore this opportunity, BC Transit and the City of Kamloops will review data in closer detail to evaluate the potential benefits and impacts of adding a smaller vehicle type to the existing fleet and to develop an implementation scheme. Automatic Passenger Counter data can be used to inform trips that could employ a lower capacity vehicle. Analysis shall include consideration of scheduling and cost implications.<br><br>Figure 23 identifies routes that provide opportunities for potential bus right sizing by comparing average bus capacity to the maximum number of passengers on a trip at the busiest time during the trip. Pursuant to the graph below, the following routes should be considered for right sizing: 4 Pacific Way, 5 Pineview, 6 Downtown Loop, 13 Yellowhead and 14 Batchelor Heights. |
| 3 | Re-visit School Bus Service Review | Currently five unique “School Special” trips run independently from the Conventional Transit system in Kamloops. They deviate from the original routing to provide service to local schools across the City of Kamloops. This review will provide recommendations to |

| | | |
|---|---|---|
| | | for local partners to work with School District 73 to best support the needs of students. |
| 4 | Adopt Custom Transit Recommendations | Custom Transit within the Kamloops Transit System includes handyDART, Taxi Saver, and Taxi Supplement. BC Transit recently conducted a review of the Kamloops Custom Transit System and identified a number of recommendations including the following:<br>• Unmet trips should be addressed as a top priority to support customer service excellence while mitigating the build-up of latent demand;<br>• Initiatives to accurately identify, and maximize the availability of service for, eligible users of Custom services;<br>• Initiatives to progressively address equity of service among Conventional and Custom services with priority as follows:<br>  ○ Hours of service (i.e. evening service, morning service);<br>  ○ Service boundaries<br>• Other initiatives to improve the overall program<br>Further details can be found within the 2018/19 Kamloops Custom Transit Services Review. |
| 5 | Expand service to new areas | As the City of Kamloops grows over the next five years so will the transportation network within the City. To serve residents of Kamloops efficiently, BC Transit should work with the City to determine which areas should be provided new service as they grow in population and accessibility. Through public engagement areas that should be monitored include:<br>• Qu'Appelle Boulevard/Juniper Ridge<br>• Ord Road<br>• Rose Hill<br>This initiative should be revisited periodically to ensure BC Transit and the City of Kamloops are providing access to all residents of the City. |
| 6 | Adopt Service Standards and Performance Guidelines | The 2012 Independent Review of BC Transit included a recommendation that "BC Transit should work with local governments to set appropriate service standards for each transit system and provide annual data on system and route performance" (BC Transit Independent Review: Recommendation 12). Since the Review, BC Transit has been working with local governments and transit partners to develop Service Design Standards |

| | | |
|---|---|---|
| | | and Performance Guidelines for transit systems as part of planning projects or independent of projects.<br><br>Service Design Standards and Performance Guidelines are developed as tools to facilitate future service planning decisions, whether adjusting existing service or planning additional service. Service Standards and Performance Guidelines are defined as follows:<br><br>• Service Design Standards define minimum service levels, the service area, and when new service should be introduced to an area.<br>• Performance Guidelines measure service effectiveness and efficiency of service delivery. Once performance starts being monitored against these guidelines, it is easy to determine how well the transit system is progressing towards achieving its goals, and determine whether change is required.<br><br>This document will be created by BC Transit and reviewed with the City of Kamloops to ensure progression towards the TFP network.<br><br>This document will also aid in achieving the goal defined in the Transportation Master Plan (2018), which is to foster an efficient, affordable, safe, and accessible transit system that is an attractive alternative to the private vehicle and integrates with other transportation modes. This will be utilized internally and modified appropriately with yearly expansions to transit. |

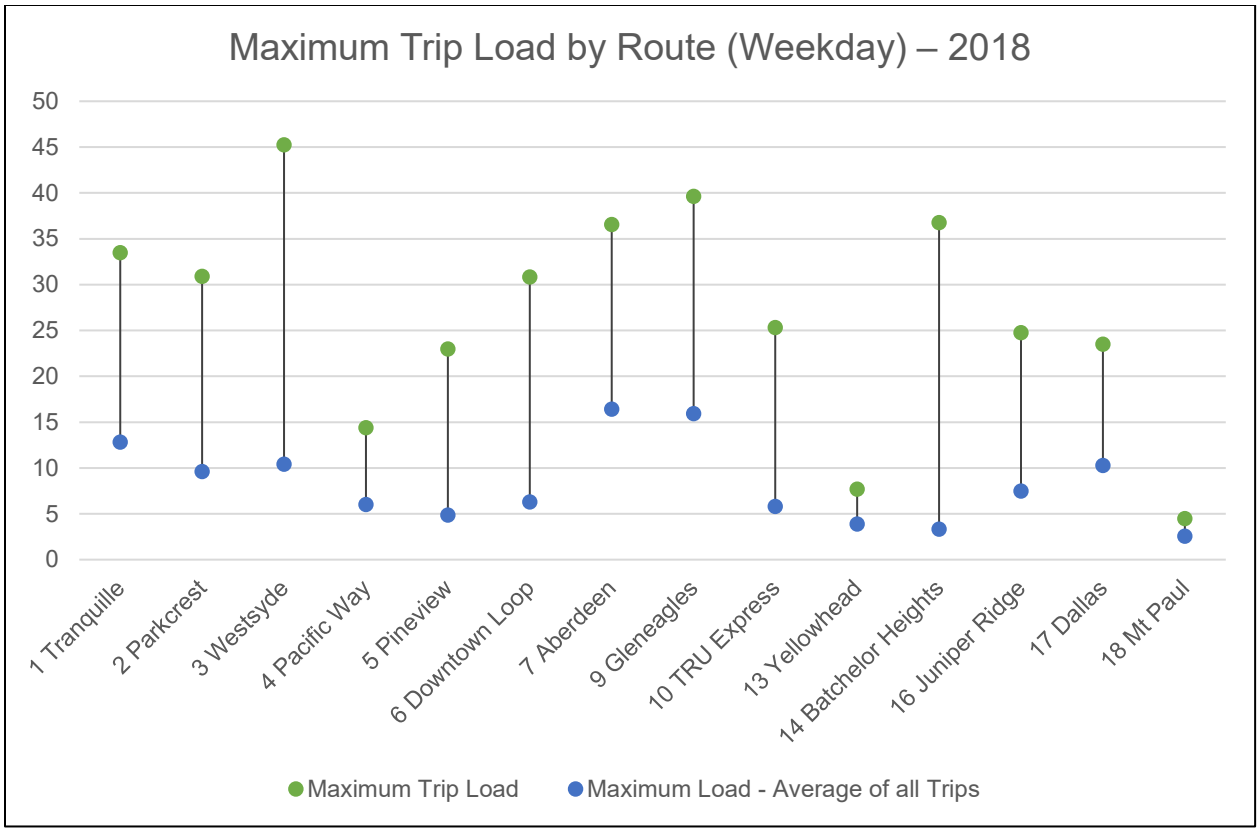



*Figure 23: Maximum Load of all Kamloops Routes*

# 6 INFRASTRUCTURE PROPOSALS

## 6.1 Short-Term Infrastructure Proposals (1-2 years)

*Table 22 Short-term proposals*

| Infrastructure Proposals | | |
|---|---|---|
| 1 | Kamloops Transit Exchange Exploratory Study | In the TFP, a priority was to design and build a new transit exchange in Valleyview. This remains a priority in the TFAP, as the TFP network is reliant upon connections to begin and terminate at a location in the Valleyview neighbourhood.<br><br>Additionally, determining a new location for the Thompson Rivers University exchange has been identified recently through communication with the City of Kamloops and Thompson Rivers University. This study would seek to develop and evaluate transit exchange conceptual design options for the University and Valleyview. |
| 2 | Bus Stop Improvements | Investments for new bus stop amenities should be made on bus stops with the greatest number of boarding's, as evidenced by Automatic Passenger Count data. Transit stops with lower levels of passenger activities should, at a minimum, meet BC Transit's accessibility guidelines. BC Transit's Infrastructure and Design Guidelines provides additional design recommendations and engineering specifications for bus stops and transit exchanges.<br><br>Table 21 below identifies key bus stops within the area of this TFAP with high boarding activity and no existing shelter. Shelters for these stops should be considered as funding becomes available or opportunities arise.<br><br>The City of Kamloops intends to launch a study examining bus shelters in greater detail. The locations listed in Table 21 are the ten stops that are the busiest across the system without shelters, but this list may be modified depending on the outcome of the study, as well as other, external factors including safety or changing ridership levels. |
| 3 | Kamloops Transit Priority Measure Study | To accommodate expansions over the next five years consideration should be made to utilize Transit Priority Measures (TPM) throughout the City. TPM's include queue jumper lanes, transit priority lanes as well as traffic signal synchronization. Key locations include:<br>• Columbia Street West and Summit Drive |

| | | |
|---|---|---|
| | | • Victoria Street West/Lansdowne<br>• Overlander Bridge<br><br>This study would seek to develop and evaluate locations and infrastructure options for TPMs to be developed and implemented in Kamloops. |

*Table 23: Busiest bus stops without shelters*

| Bus Stop Location | Bus Stop ID | Average Daily Boardings (2018) |
|---|---|---|
| Lansdowne at 4th Ave (WB) | 104201 | 244 |
| Hillside at Notre Dame (NB) | 104434 | 107 |
| Tranquille at MacKenzie (SB) | 104255 | 98 |
| Summit at Notre Dame (NB) | 104555 | 91 |
| Seymour at 4th Ave (EB) | 104263 | 80 |
| Rogers Way at Rogers Place (EB) | 104547 | 67 |
| Summit at Springhill (WB) | 104608 | 62 |
| Hillside at McGill (SB) | 104406 | 61 |
| Summit 1050 Block (SB) | 104513 | 61 |
| McGill at Dalhousie (EB) | 104439 | 60 |

## 6.2 Medium-Term Infrastructure Proposals (3-4 years)

*Table 24: Medium-term proposals*

| Infrastructure Proposals | | |
|---|---|---|
| 1 | Kamloops Transit Exchange Design Study | Kamloops currently has three transit exchanges. Lansdowne Exchange is the main transfer point for the City. All routes with the exception of Routes 4, 5, 10, 13 and 14 use this exchange as their start and end. The North Shore Exchange services routes 1, 3, 10, 13 and 14, and the Thompson Rivers University Exchange services routes 4, 5, 7, 9 and 10. To ensure that Kamloops' transit exchanges have capacity to accommodate planned future transit improvements in the short, medium, and long-term a Transit Exchange Design Study should be conducted. This study would confirm operational requirements and assist in prioritizing and phasing any required transit exchange improvements. |
| 2 | Implement Short-term exchange improvements | Based on the findings from the Kamloops Transit Exchange Design Study, improvements to existing transit exchange infrastructure should be implemented in order to accommodate the short-term transit service expansions and network changes. |
| 3 | Kamloops Park & Ride Study | Kamloops currently has no Park & Rides. In the 2012 TFP, it was a goal to investigate potential sites in Westsyde and Campbell Creek. In 2018, a site was located at the BC Wildlife Park but failed to be implemented. Park & Rides can increase the catchment of the transit network by providing an opportunity for those living beyond the transit service area to connect into the transit network. This study would confirm siting of potential locations and determine any benefits and considerations. |

## 6.3 Long-Term Infrastructure Proposals (5 years and beyond)

*Table 25: Long-term proposals*

| Infrastructure Proposals | | |
|---|---|---|
| 1 | Implement long-term exchange improvements | Based on the findings from the Kamloops Transit Exchange Design Study, improvements to existing transit exchange infrastructure should be implemented in order to accommodate the longer-term transit service expansions and network changes. |

# 7 EMERGING TECHNOLOGY

New emerging technologies will have a direct impact on future mobility within the Kamloops region. Mobility as a service, autonomous and electric vehicles, and other emerging bus technologies have the potential to reshape how people choose to move throughout their communities.

The following section outlines some of these future technologies and how they could potentially influence the transit system in the Kamloops Region.

## 7.1 Fleet-Related Technology

BC Transit is committed to continuously enhancing the rider experience. As part of this endeavour, BC Transit is moving forward with the installation and development of technology initiatives to improve efficiency, increase security and put passengers in control of their BC Transit experience. SmartBus is a major BC Transit project with the goal of improving fleet technology.

### 7.1.1 SmartBus

#### Phase 1

The first phase of the SmartBus program at BC Transit introduces real-time bus information, automated stop announcements, and closed circuit TV Cameras onboard each bus. The implementation of these bus technology improvements was completed in 2018.

#### Phase 2

BC Transit is beginning a review of fare technology and fare payment systems with the intent to move to an advanced fare collection system.

The review process includes an assessment of BC Transit fare collection systems and industry wide trends in fare collection systems for transit. Recommendations from the review suggest BC Transit move towards an advance system where the customer brings their own ticket (i.e. mobile app, bankcard) and includes the required onboard electronic readers and software systems to allow onboard validation/payment, and back office accounting and data management.

To validate the recommendations presented in the report and collect the required information necessary to write a business case for the project a request for information (RFI) to industry suppliers and subject matter experts was posted.

The next step is to complete the business case and post an RFP for evaluation and response by industry suppliers. The intent of the RFP is to select a contractor to help BC Transit make an advanced fare collection system a reality.

### 7.1.2 Low Carbon Fleet

In November 2018, BC Transit approved a Low Carbon Fleet Program to support provincial targets for greenhouse gas (GHG) emissions and to align with the provincial CleanBC plan. Core to this program is a 10-year fleet replacement strategy to replace over 1200 existing buses and expand the fleet by an additional 350 buses by using the potential of advanced GHG

reducing technology. Across the province of B.C., there is growing expectation from all partners that BC Transit endeavor to find prudent ways to support its emission reduction goals. BC Transit is actively pursuing new and emerging low carbon technologies, supported by the use of renewable fuels, as we strive towards a cleaner, greener fleet. Based on the fleet replacement needs required in each vehicle classification, an initial pathway to full electrification has been established. More information on this program is available in BC Transit's Low Carbon Fleet Program report (2019).

## 7.2 Mobility as a Service

Mobility as a Service (MaaS) is the transition away from personally owned forms of transportation to mobility options that are purchased as a service. Recent technology improvements have provided consumers options to plan, reserve, and pay for travel using an application on their electronic device. Mobility as a Service applications are capable of combining multiple travel modes into one trip, allowing multi-modal travel options for customers including walking, public transit, car share, bike share, or ride hailing.

### 7.2.1 Car and Bike Sharing

Car and bike sharing leverages the sharing economy to extend the benefits of car or bicycle ownership to individuals without the upfront costs, maintenance, and storage required for ownership. Touted benefits of car and bicycle sharing include decreasing the incidence of car ownership and promoting multimodal travel within communities, which could help build transit ridership within a community. Car and bike sharing programs can help address the first and last mile issue with transit; in other words, car and bike sharing services can extend the reach of transit by connecting transit riders between a bus stop and their trip origin or destination.

There are several different car sharing models including station based, A to B, and free-floating models. Further, there are several different car sharing business models including business to consumer, business-to-business, peer to peer, and not for profit.

Similar to car sharing, there are several different bicycle sharing models include docked, dockless, workplace pool bikes, bike loans, and peer to peer sharing. Another distinguishing factor within these models is whether the bikes are geo-fenced or not.

Many transportation-sharing services are currently seeing significant investment as technology improvements and profitable business models emerge for these services.

### 7.2.2 Ride Hailing

Ride hailing is the provision of immediate or on-demand service whereby a vehicle and driver are hired for a fee to transport a passenger, or a small group of passengers, between locations of their choice. This service may be provided by Transportation Network Companies (TNCs) or traditional taxi operators.

Beginning in 2019, TNCs are permitted to operate in British Columbia. As seen in many other cities that currently permit TNCs, the widespread adoption of ride hailing services can either supplement or substitute existing fixed-route transit services depending on various contextual factors.

## 7.3 Autonomous Vehicles

Autonomous vehicle technology is rapidly emerging, and has the potential to drastically alter the way people move throughout their communities. The widespread implementation of autonomous vehicles would change the variety and cost of mobility options available to the public, and consequently would have implications for how public transit is planned and delivered within the Kamloops Region. By changing how people get around, the emergence of autonomous vehicle technology also has implications for future land use and transportation related policy and infrastructure.

# 8 MOVING FORWARD

## 8.1 Funding the Plan

To achieve the goals of this TFAP, capital and operating investments in the transit system will be required over the next five years and beyond. Annual operating costs are based on service hours that are projected to increase by 24,700 hours*. The plan also calls for capital investments that include:

- An additional 12* buses added to the transit fleet;
- New transit exchanges or upgrades to transit exchanges; and
- Improvements to customer amenities at transit stops.

Given the level of transit investment anticipated over the coming decades, BC Transit and its funding partners will need to evaluate stable and predictable funding sources beyond the existing mechanisms.

**These estimates do not include long-term expansions, which may see cost fluctuation*

## 8.2 Keys to Success

Guiding the plan from vision to reality will require an on-going dialogue between the Province, BC Transit and the City of Kamloops on transportation policy, funding and the connection between land use and transit planning.

The Kamloops TFAP builds upon the TFP as well as local land use and transportation plans and will be used to support the vision and direction for transit in the region. Steps required for the success of the plan include integrating the transit strategy into other municipal projects, supporting travel demand management measures, transit-oriented development and transit-friendly land use practices.

This plan will be presented to the City of Kamloops Council for approval. Service improvements will be integrated into the three year Transit Improvement Process (TIPs), which is updated on an annual basis. Infrastructure improvements will be incorporated into BC Transit's Capital Plan. Prior to implementation of service changes, BC Transit planning staff will work with staff at the City of Kamloops to ensure service improvements appropriately reflect local needs. Additional targeted engagement may be conducted.

BC Transit would like to thank all those who were involved in the creation of this plan.