

Dawson Creek Transit System

Service Performance Check-In: Final Report



January 26, 2017

City of Dawson Creek |



Acknowledgments

BC Transit would like to thank all Dawson Creek community members who provided input into this Service Performance Check-In, in particular the Council and staff of the City of Dawson Creek and the transit staff of Diversified Transportation Ltd., and all residents and organizations who provided feedback at workshops, in online and print surveys, door-to-door surveys, and one-on-one telephone and in-person interviews.

Table of Contents

Acknowledgments.....	2
1.0 Executive Summary.....	4
1.1 Introduction	4
1.2 Consultation	4
1.3 Change Proposals.....	5
1.4 Next Steps: Suggested Path to Staged Implementation	8
1.5 Recommendations	8
2.0 Introduction	9
2.1 Service Performance Check-In Process.....	9
3.0 Community Context	10
3.1 Demographics	11
3.2 Land Use and Future Growth.....	11
3.2.1 BC Transit Development Referral Program.....	12
3.3 Transportation	12
3.3.1 Step Up ‘N’ Ride Society.....	13
4.0 Transit System Overview	14
4.1 Historical Context.....	15
4.2 Current Performance	15
4.2.1 Comparison with Peer Transit Systems	18
4.2.2 Current Strengths.....	20
5.0 Stakeholder and Public Engagement	21
5.1 Phase 1—Stakeholder Engagement.....	21
5.2 Phase 2—Public Engagement	22
6.0 Change Proposals.....	24
6.1 Service Proposals – Short-Term (2017 to 2018)	27
6.2 Service Proposals – Medium-Term (2018/19 to 5 years from now).....	38
6.3 Service Proposals –Long-Term (2018/19 to 10 years from now)	39
6.4 Marketing and Communications Proposals	40
6.5 Infrastructure Proposals	41
7.0 Other Considerations	43
8.0 Next Steps	45
Appendix A: Fare Structure Review	49
Appendix B: Sample BC Transit Development Referral Response.....	61
Appendix C: Dawson Creek Official Community Plan – Community Land Use Map	63
Appendix D: Service Change Proposals – Voting Results.....	64
Appendix E: Current Performance – Supplementary Data	65

1.0 Executive Summary

1.1 Introduction

The Dawson Creek Service Performance Check-In is an analysis of all transit routes comprising the Dawson Creek Transit System. As specified in the Master Operating Agreement, BC Transit reviews the efficiency and effectiveness of individual systems in order to make recommendations for improving system performance.

The impetus for this review stems from a local desire to verify the needs of existing and potential riders, optimize the transit system, and explore potential opportunities to find efficiencies.

This study has been initiated by BC Transit in collaboration with the system’s local transit partners, the City of Dawson Creek and Diversified Transportation Ltd. to review the transit system and identify opportunities for improvements that can be achieved in a cost-neutral manner.

1.2 Consultation

A range of tools was used to maximize opportunities for public/stakeholder input within time and resource limitations. Engagement techniques included a project website, driver, online, and print surveys, one-on-one discussions (via phone and in person), door-to-door canvassing, and four public Open Houses.

The key themes that emerged from Phase 1 Public Engagement are summarized in the table below. These themes fall into three categories: service, infrastructure, and marketing & communications.

Service	Infrastructure
<p>Service</p> <ul style="list-style-type: none"> • Improve transfer connections between routes (Route 3 Central to Route 1 Northside and Route 2 Southside) • Introduce service along Hwy 97 to serve Nordlys Medical Clinic, Peavey Mart, and Tim Hortons • Reduce the service gaps on Route 1 Northside and Route 2 Southside between 10:30 a.m. and 2:30 p.m. • Ensure schedules meet/continue to meet school bell times • Extend service further north on 17 St (Sunset Ridge) • Increase frequency to the Multiplex • Reduce duplication of routes in the Dawson Creek Secondary School, Hospital, and Library area • Introduce service on 15 St between 108 and 102 Ave 	<p>Infrastructure</p> <ul style="list-style-type: none"> • Improve safety and accessibility of bus stop at Dave’s No Frills • Improve bus stop signage • Improve bus route and bus stop maintenance (e.g. snow clearing) • Ensure good pedestrian access to bus stops (e.g. sidewalk provision between Sunset Ridge and nearest stop) • Consider relocating Multiplex bus stop closer to main entrance
Marketing & Communications	
<p>Marketing and Communications</p> <ul style="list-style-type: none"> • Introduce a Travel Training program aimed at the local seniors’ population 	

In September and October 2016, Phase 2 Public Engagement included the presentation of the draft service change proposals to the public at four Open Houses:

Location	Date & Time	# of Attendees
Dawson Creek Seniors' Hall	September 26, 2016 11:30am – 1:30 p.m.	25
Dawson Creek Co-Op Mall (Transit Exchange)	September 26, 2016 2:00 – 5:00 p.m.	35
	September 27, 2016 9:00 a.m. – 12 noon	25
Nawican Friendship Centre	October 24, 2016 11:30am – 1:30 p.m.	20



Phase 2 Public Engagement: Dawson Creek Seniors' Hall Open House

The information presented at the Open Houses was also made available on the BC Transit website in an online survey, with 45 respondents. Results emerging from these public engagement activities showed that the majority of people are supportive of all service change proposals.

As a result of public engagement, the following changes were made to the service change proposals:

- The proposed reallocation of three specific evening trips under Proposal 2, in order to reduce midday service gaps, will be re-examined, including looking at early morning trips, to determine which trips have the lowest ongoing ridership and can be reallocated in order to enable more midday service;
- Longer-term options for change proposals involving expansion funding were finalized.

1.3 Change Proposals

Based on the review of the existing Dawson Creek service and findings from analysis and public engagement, a set of short-term and longer-term change proposals have been developed for the Dawson Creek Transit System. These include proposals to improve service, marketing and communication, and infrastructure. The short-term changes proposed are all projected to be cost neutral, while the longer-term changes would require municipal and provincial expansion funding.

The table on the following page summarizes these proposals, as well as the benefits and challenges of each.

Service Proposals: Short-Term (2017 to 2018) -- Projected to be cost-neutral		
Change Proposal	Benefits	Challenges
1. Route 3 Central: Extend and reroute along Alaska Highway	<ul style="list-style-type: none"> • Serve new destinations (Nordlys Clinic, Peavey Mart, Tim Hortons) along Highway 97 • Improve transfer connections between routes • Reduce wait times at exchange • Reduce total travel time for passengers using Route 3 Central plus the Northside/Southside route to complete their trip • Improve customer safety/accessibility at Dave's No Frills • Maintain existing service span • Attract additional ridership 	<ul style="list-style-type: none"> • Slightly longer travel times for passengers using Route 3 Central only • To remain cost neutral, Route 3 trip frequency will drop from 20 to 13 daily trips (but existing service span will be maintained) • Permission required from Dave's No Frills for bus stop relocation • Permission required from MoTI for bus stop installation along Hwy 97 • Operational feasibility test required
2. Route 1 Northside & Route 2 Southside: Improve midday service frequency through reallocation (reduce some evening/early morning service)	<ul style="list-style-type: none"> • Reduce long wait times between trips during the midday period • Increase customer convenience • Improve daily service consistency and predictability, making service more continuous • Top service improvement request among existing customers 	<ul style="list-style-type: none"> • Further monitoring of current ridership required (minimizing reallocation impacts on existing evening and early morning passengers)
3. Route 1 Northside: Improve schedules for school bell times and schedule reliability	<ul style="list-style-type: none"> • Improve morning peak on-time performance and schedule reliability • Ensure DCSS Central campus students (~45 rides/day) can arrive before the morning bell • Ensure Kiwanis Child Care children can take transit to arrive at Frank Ross Elementary before the morning bell • Meet some hotel housekeeping shift start times • Attract additional ridership 	<ul style="list-style-type: none"> • Scheduling work required to ensure other key times are maintained
4. Route 1 Northside: Extend to Sunset Ridge	<ul style="list-style-type: none"> • Bring a majority of development area residents within reasonable walk distance of transit 	<ul style="list-style-type: none"> • Adds running time to route – may pose schedule reliability / on-time performance risks • Operational feasibility test required • New routing along residential streets may elicit complaints • Expected level of additional ridership is minimal -- the majority of the development area falls outside of the typical transit demographic
5. Route 2 Southside: Increase coverage area along 15 St routing (except for one AM and one PM trip at school bell times)	<ul style="list-style-type: none"> • Respond to requests for service on 15 St between 108 Ave & 102 Ave • Increase transit system coverage and access • Reduce route duplication in Dawson Creek Secondary, Hospital, Library, and Rotary Lodge area • Provide time savings enabling service to Aquatic Centre front entrance • Attract additional ridership 	<ul style="list-style-type: none"> • Routing deviations can cause confusion (bus signage can resolve this) • New routing route along residential streets may elicit complaints (but canvassing results were supportive) • Operational feasibility test required
6. Route 2 Southside: Increase Multiplex/Aquatic Centre service (remove Canalta School loop)	<ul style="list-style-type: none"> • Remove service from an area of minimal ridership demand • Enable regular Multiplex service, doubling service provision to this location • Make routing more efficient and direct • Attract additional ridership 	<ul style="list-style-type: none"> • Removes service from one or two riders; however, closest remaining bus is within 300m
Service Proposals: Medium-Term (2018/19 to 5 years from now) -- Projected to be cost-neutral		
7. Route 2 Southside: Consider removing Tremblay Elementary routing	<ul style="list-style-type: none"> • Make routing more efficient and direct • Help to ensure schedule reliability and on-time performance during busy morning and afternoon peak service 	<ul style="list-style-type: none"> • Possibility of future (limited) transit demand to this location

Service Proposals: Long-Term (2018/19 to 10 years from now) -- Will require expansion funding

8. Increase service frequency

9. Provide later evening service

10. Provide Sunday and statutory holiday service

11. Consider providing service to Pouce Coupe

12. Consider providing service closer to Fireside Glen seniors' community

13. Consider introducing two-way routing

Marketing & Communications Proposals

14. Introduce Travel Training program aimed at local seniors' population

15. Implement Google Transit

16. Marketing outreach, new ideas for transit promotion

Infrastructure Proposals

17. Install new/Relocate existing bus stops for service changes approved by Council

18. Improve bus stop signage

19. Improve bus route and bus stop maintenance

20. Install additional bus shelters at high-traffic bus stops

21. Ensure good pedestrian access to bus stops

1.4 Next Steps: Suggested Path to Staged Implementation

The next step in this process is to present this Final Draft Report and the change proposals contained herein to Dawson Creek City Council for review and comment. BC Transit will then submit the Final Report to the City of Dawson Creek.

Implementation of these service change proposals would move forward once the planned replacement of the 15 St bridge and 10 St bridge has been completed, in order to minimize customer impact.

This report recommends implementing the service change proposals in a staged approach. This will allow the short-term (cost-neutral) proposals to be implemented first.

Once local government has approved service change proposals for implementation, an Implementation Agreement Memorandum of Understanding (MOU) will be developed for signature by the City and BC Transit. This MOU outlines the exact service changes to be developed for implementation and the roles and timeline for implementation.

It is recognized that service needs and/or local government capacity to fund transit improvements may change over time. Therefore, the longer-term proposals, requiring expansion to service hours or vehicles, will need to be confirmed on an annual basis for the subsequent year as part of the local budget approval process. Any new fleet requests stemming from a service expansion will likely trigger a new bus order, therefore requiring an 18- to 24-month lead time before expected delivery and introduction to revenue service.

It is also recognized that the implementation of any option requiring expansion is dependent on BC Transit's fiscal year budget, as well as the allocation of available provincial transit expansion funding between transit systems as determined through BC Transit's Transit Improvement Program (TIP).

1.5 Recommendations

It is recommended that the City of Dawson Creek:

- **Receive this report as information and provide feedback to City staff prior to finalization by BC Transit staff;**
- **Review the routing and schedule change proposals presented in Section 6.1: Service Proposals – Short-Term; and**
- **Receive the Fare Structure Review (Appendix A) as information.**

2.0 Introduction

In partnership with the City of Dawson Creek and Diversified Transportation Ltd., BC Transit has undertaken a Service Performance Check-In of the transit service provided in Dawson Creek.

As set out in the mutually agreed-upon project Terms of Reference, the objectives of the Service Performance Check-In are to:

1. Analyze and report on the performance of the existing Dawson Creek Transit System, including how it compares to its peers, its current strengths, and opportunities for improvement;
2. Examine future transit requirements based on official community plans, demographic trends, proposed land development and road network changes, and citizen priorities expressed through consultation;
3. Build awareness of and support for the Dawson Creek Transit System through Council and public participation and communication strategies;
4. Outline and recommend service options over the short- and longer-term periods, for consideration by the City of Dawson Creek, to improve transit system performance and effectiveness ;
5. Make recommendations on non-service related supporting strategies; and
6. Outline the process towards implementation of the potential transit system improvement options identified in 4. and 5. above.

This Service Performance Check-In is an analysis of all transit routes comprising the Dawson Creek Transit System. The impetus for this review stems from a local desire to verify the needs of existing and potential riders, optimize the transit system, and explore potential opportunities to find efficiencies.

2.1 Service Performance Check-In Process

The following steps were undertaken by BC Transit staff as part of this Service Review:

- Travelled multiple times to Dawson Creek to better understand local transit dynamics and community transit needs, met with the local operations manager, transit staff, customers, stakeholders, the general public, local partners, and elected officials;
- Researched current and future demographic and economic trends, reviewed planning documents to determine current and future land use and growth areas, and examined existing transportation options;
- Conducted a full review of the local transit system, including both system and route-by-route overviews, and conducted an analysis of ridership, existing system infrastructure, and operational considerations;
- Organized and held public engagement events and activities, including Open Houses, online surveys, and driver surveys, and obtained and summarized feedback from these activities; and
- Proposed detailed service, marketing & communications, and infrastructure change options and short- and longer-term recommendations.

This work was collaborative and included BC Transit, the City of Dawson Creek, and staff of Diversified Transportation Ltd. (which operates the transit system), transit passengers, and representatives from a wide array of community organizations. This Check-In and requisite analysis took place between March and November 2016.

All short-term service change proposals included in this report are projected to be cost neutral in terms of service hours and operational funding requirements.



3.0 Community Context

3.1 Demographics

The city of Dawson Creek, with a population of more than 11,000, is located in the heart of majestic Peace River Country and is a major service centre in northeastern B.C., secondary only to Fort St. John. Since its beginnings in the late 1800s as a farming community, Dawson Creek has grown with opportunities such as the construction of Northern Alberta Railways' western terminus in 1930; the completion of the Alaska Highway, with Dawson Creek situated as "Mile 0", in 1942; and the extension of the Pacific Great Eastern Railway to Dawson Creek in 1958.

Dawson Creek's population today is comprised largely of young families with children. However, as with many other communities within B.C. and across Canada, the birthrate is declining and the overall population is ageing. Between 2006 and 2011, the population of children and youth (0-19 years) declined by 4%, while the seniors' population increased by 16%. In this time, the proportion of older seniors (aged 75+) increased by 41%¹. While the youth population is a heavy user of public transit at school times, older seniors in particular are a key market for transit as driving ability declines.

The top six industries in Dawson Creek in 2011 were service and retail (18%), health care & social assistance and construction (13% each), accommodation and food services (9%), public administration (6%), and natural resources (mining, quarrying, oil and gas) (6%)². Dawson Creek's economy is very closely tied to that of the oil and gas industry, with itinerant work crews providing, for example, a major share of accommodation and food services revenue. The recent downturn in this industry has had a negative impact on Dawson Creek's economy overall.

In 2010 the reported median total household income for Dawson Creek was around \$58,000³. This is slightly lower than the B.C. average of \$60,000. 13% of residents overall fell under the classification of low-income, with this rising to 19% of seniors. People with limited financial means are another key market for transit service.

As well as providing a means for elementary and high school students to get to and from school, transit constitutes a key community support for members without access to a private vehicle, whether due to old age or financial situation.

3.2 Land Use and Future Growth

The management of future land resources is key to the long-term viability of the Dawson Creek Transit System. City staff identified several major development projects that are either planned or underway, but which have stalled with the current downturn, including the following:

- The Harvest View Development between 8 Street and 17 Street on the city's northern outskirts and municipal boundary. This 124-hectare area, formerly designated as Agricultural Land Reserve, is experiencing slow growth currently but has an 80-100 additional single-family homes waiting to be built.
- There are 30-40 single-family units waiting to be completed in the Parkhill Park area, with intermittent construction over the past six to eight years.
- Looking at high-density development, a 130-unit apartment building is planned in the city's far northwest between 17 St and 21 St, with access via 19A St. However, these units are targeted

¹ Statistics Canada – 2011 Census

² Statistics Canada – 2011 National Household Survey

³ Ibid.

specifically to workers in the oil and gas industry, i.e. shift workers with their own vehicles. In terms of new high-density development that would be transit trip generators, City staff have noted that there is nothing on the horizon at this stage.

Although the community land use map (Appendix C) in the City of Dawson Creek's Official Community Plan designates the northern, eastern, southern and southeastern outskirts of the city as either residential or development reserve land use, it identifies the area bordered by 116 Ave 96 Ave/92 Ave/91 Ave, 17 St and 8 St as an intended infill/redevelopment area. This type of infill planning within the areas already served by transit will help to ensure that transit within Dawson Creek can continue to operate as efficiently and effectively as possible, maximizing the resources available for it.

3.2.1 BC Transit Development Referral Program

One critical aspect of best-practice transit service design is the integration of land use with transportation planning principles, as transit-supportive land use is critical for the success of a transit system. One way in which local governments can encourage this integration is through taking advantage of BC Transit's Development Referral Program, which enables BC Transit's local government partners to send larger-scale development or rezoning applications to BC Transit for comment. As part of this referral process, BC Transit reviews the proposal from a transportation planning perspective and provides local government with comments on how the proposed development fits with the existing transit network, the outlook for future transit service to the development area, and comments on pedestrian links or transit amenities that would make the development more transit friendly.

Development referrals can be sent to developmentreferrals@bctransit.com. Appendix B shows a sample BC Transit development referral response.

3.3 Transportation

Dawson Creek is located at Mile 0 of Highway 97's northernmost portion, the Alaska Highway. It is an important transportation hub within the Peace River region, connecting to via the Alaska Highway portion of Highway 97 to Fort Nelson, the Yukon, and Alaska, to Prince George via Highway 97 (John Hart Highway) as well as Grande Prairie and Edmonton via Highway 2 and then Alberta Highway 43.

Within the city, streets are laid out in a mixture of grid and Radburn garden suburb design, skirting several major parks, including Chamberlain Heritage Nature Park to the west, and Kin Park and Barbaree Park south of downtown. These latter two have implications for the street network and thus transit service design, as there are limited thoroughfares in this area. The only north-south connector between 15 Street and 8 Street is via the 10 Street bridge, which all three of Dawson Creek's transit routes use and which is due for replacement over the next year.

The main streets are the north-south 17 Street and 8 Street (Highway 2), and the east-west Highway 97/Highway 49 (the continuation of Highway 97 east of the city into northern Alberta). Greyhound Bus Lines, which has a bus stop in the city, operates routes north to Whitehorse (via Fort Nelson), south to Kamloops and Vancouver via Prince George, and east to Edmonton. The city is also served by the taxi companies Yellow Cabs and Golden Cabs, with one wheelchair accessible taxi available.

In 2011, most of Dawson Creek's population drove to work (80%), while the majority of the remainder either travelled to work in a vehicle as a passenger (9%) or walked (8%). Of the remaining 3%, 1% used public transit and 1% cycled (see Figure 1 below).⁴

⁴ Ibid.

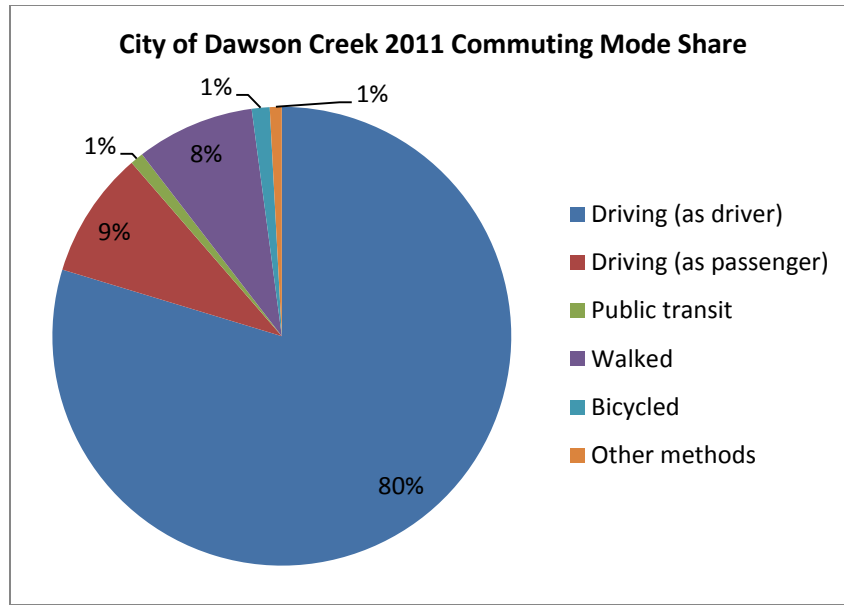


Figure 1: Dawson Creek 2011 Commuting Mode Share

The 2013 Dawson Creek Transportation Master Plan provides a comprehensive vision and action plan for active transportation (walking and cycling), streets and traffic, and public transit. One key road network recommendation that would impact transit service planning and allow more potential routing options is the proposal to extend 13 Street from the Alaska Highway north to 95 Ave.

The Plan recommends ten priority bus stop improvements to be made by 2019, and also mentions six service planning issues for inclusion in this BC Transit review. Where possible and according to transit planning best practice, these issues have been addressed in the service change proposals contained herein.

3.3.1 Step Up 'N' Ride Society

Step Up 'N' Ride is a local non-profit society providing door-to-door, wheelchair accessible transportation within Dawson Creek and the surrounding area for seniors and residents with physical or cognitive impairments who are unable to use the conventional transit system. The City of Dawson Creek provides an annual grant of \$25,000, with other funding coming from the school district, fares, a provincial grant from gaming revenues, and donations. Step Up 'N' Ride has service contracts with Northern Health Authority and School District 59.

Service is offered Monday to Friday between 9:30 a.m. and 5:00 p.m. Subsidised service open to all clients is available 9:30 a.m. – 2:00 p.m.; while riders are encouraged to book in advance, same-day bookings can often be accommodated. Contract service for Northern Health and School District 59 clients is available 2:00 p.m. – 5:00 p.m.

Society staff mentioned ongoing funding challenges and that they are averaging two to three unmet trips daily. However, there is no desire for BC Transit handyDART service to be introduced to Dawson Creek as this would see Step Up 'N' Ride become redundant. Additionally, the fact that this is a community grassroots operation enables a high degree of flexibility and quick responsiveness to local needs.

4.0 Transit System Overview

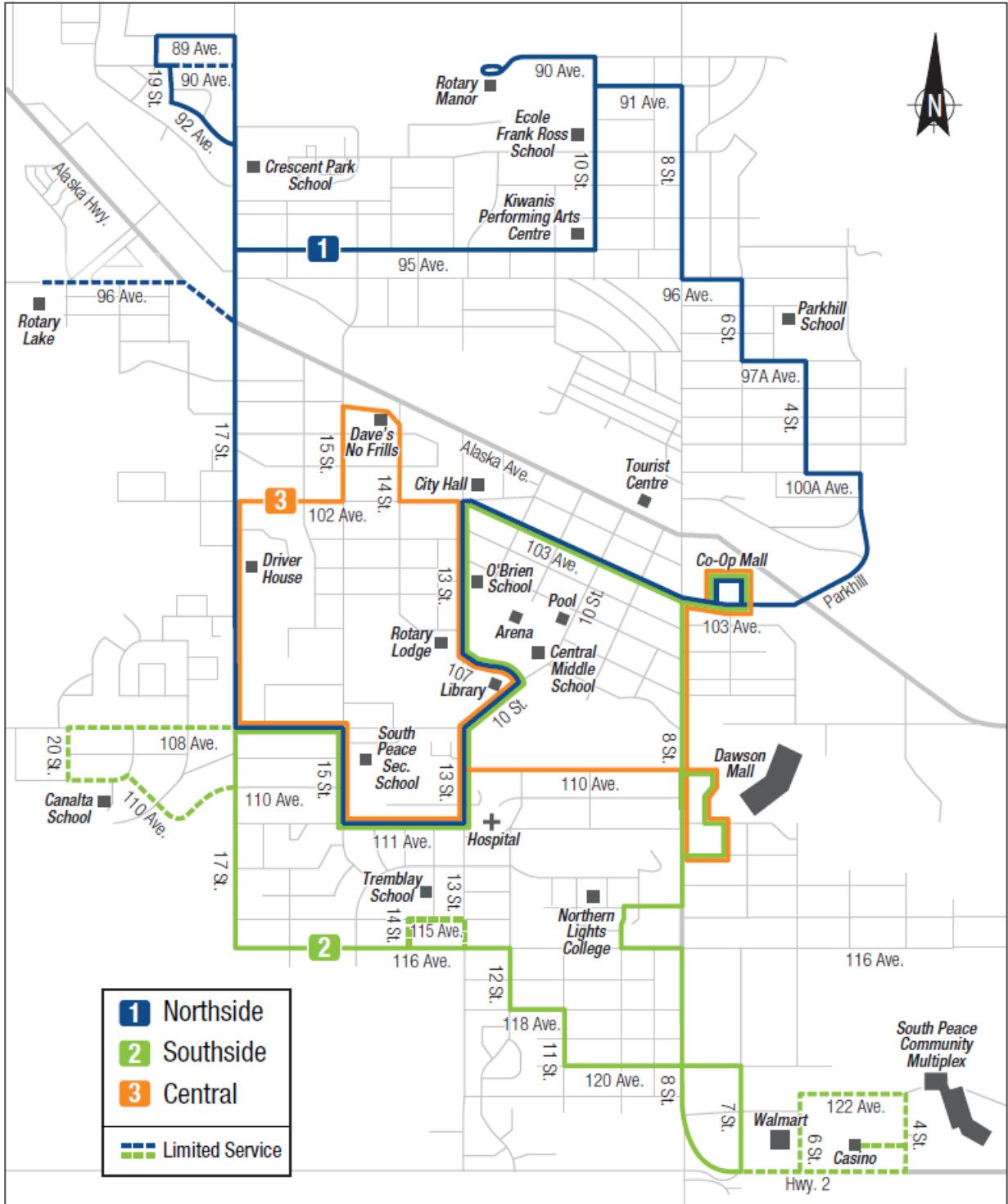


Figure 2: Existing Dawson Creek Transit System

4.1 Historical Context

Dawson Creek’s transit system was initiated in 1981. As shown in Figure 3 below, the first full year of service in 1982-83 provided approximately 147,000 rides with 7,400 hours of service Monday through Saturday on two routes, Route 1 Northside and Route 2 Southside. Ridership fell over the next five years to 80,000 annual rides in 1987-88, and service hours were reduced in 1985-86 and again in 1986-87, down to approximately 6,000 hours. Ridership remained steady from this time until 2002-03, averaging approximately 100,000 rides per year, before seeing a steady increase up to 122,000 annual rides in 2006-07, even as service hours remained steady during this period.

Service change highlights include the following:

- **August 2007:** Addition of a third route, Route 3 Multiplex:
 - extending service to the newly constructed South Peace Community Multiplex;
 - providing service to Walmart and Northern Lights College on every trip, previously served on an alternating basis, every other trip only; and
 - adding 2,000 annual service hours and generating an additional 20,000 rides within the 2007-2008 fiscal year compared to 2006-2007.
- **September 2008:** Introduction of limited Friday evening and Sunday service, adding 1,600 annual service hours
- **May 2010:** Friday evening and Sunday service removed
- **April 2011:** Route 3 Multiplex eliminated, resulting in an 11% drop in ridership
- **February 2012:** Route 3 Central implemented

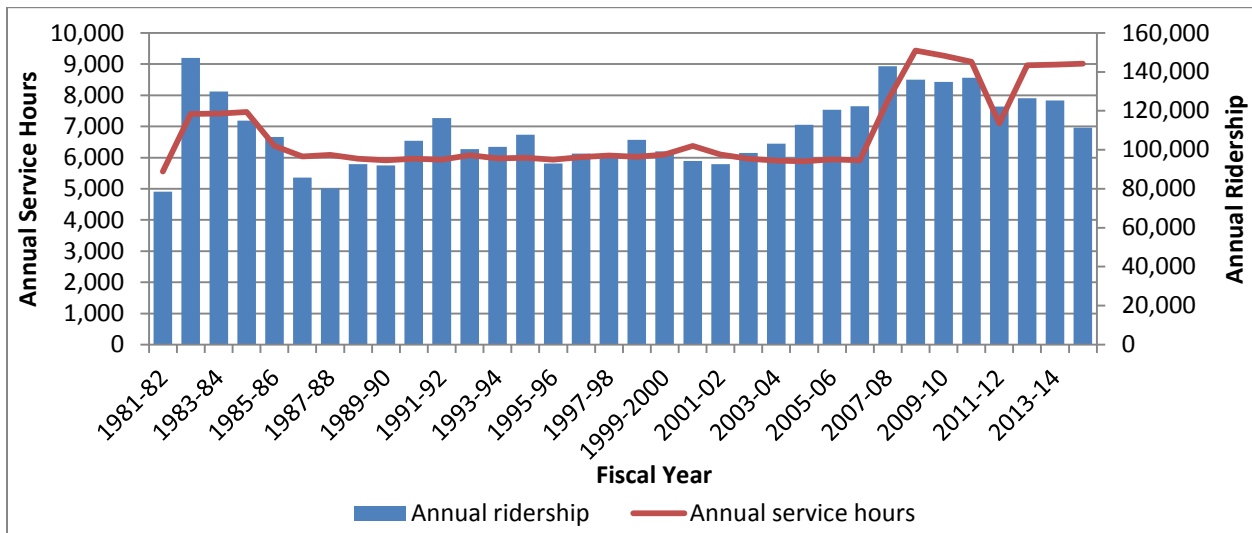


Figure 3: Historical Ridership and Service Hour Trends

4.2 Current Performance

Today, the Dawson Creek Transit System provides approximately 9,000 annual hours of service, operating Monday through Saturday. It has four vehicles: three in-service vehicles at peak times, two during off-peak periods (early morning, midday, and evening), and one acting as a spare. In 2015-16, the transit system generated approximately 107,000 rides, averaging between 6,700 (summer) and 11,600 (winter) rides per month.



More detailed data on current system performance was gathered specifically for this Performance Check-in from the following sources:

- a) A two-week passenger count, conducted February 22 to March 5 2016, which counted
 - boardings per trip according to passenger type (adults, including college students; K-12 students; seniors; children under the age of five):
 - the number of passengers using:
 - BC Bus Pass (a reduced-cost, annual bus pass for low-income seniors and persons with disabilities), and/or mobility aids
- b) A bus stop activity count, conducted February 27 to April 2 2016, which counted the number of passengers boarding and alighting at each bus stop in the system.

The results of this data collection indicate that Route 1 Northside accounts for the largest proportion of overall ridership (irrespective of service day type), followed by Route 2 Southside and Route 3 Central. This pattern is paralleled in the distribution of weekday ridership among the different routes. Ridership distributions change on Saturdays, however, when the Southside route's ridership share outperforms those of the Central and Northside routes.

This pattern is also reflected when looking at each route's productivity in terms of rides per hour of service provided, which takes into account the differences in number of trips operated and service hour provision between the three routes.

The difference in weekday and Saturday ridership patterns by route can be explained by the difference in weekday and Saturday ridership demographics. On weekdays, students comprise 39% of total ridership – and over half of the ridership on Route 1 Northside – versus Saturdays, when students comprise only 6% of total ridership.

Route 1 Northside's weekday performance is driven largely by its high student ridership, with maximum vehicle loads of up to 35 passengers at once at school bell times. Students comprise 51% of the Northside route's ridership on weekdays, but this drops to 4% on Saturdays (Figure 4 below).

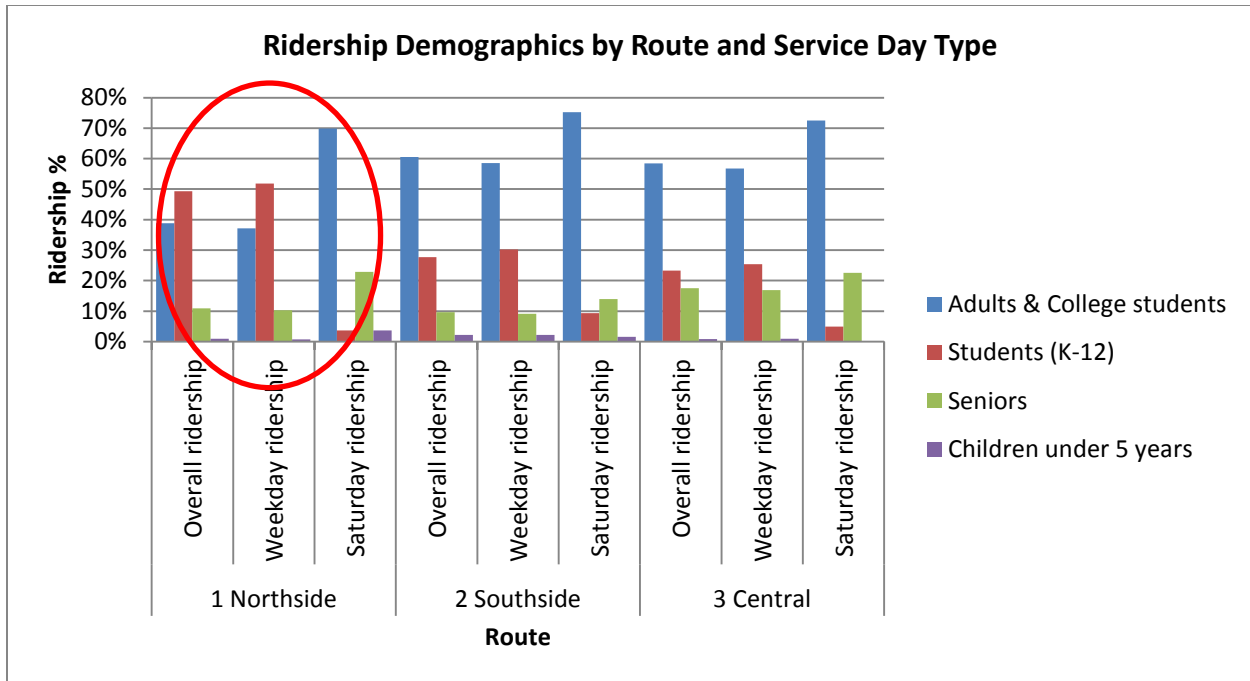


Figure 4: Ridership Demographics by Route and Service Day Type

In terms of transit destinations, the key activity centres driving ridership in Dawson Creek, together generating approximately two-thirds of weekday rides, are as follows:

- Co-Op Mall (whether as a destination in itself, or as a route transfer location)
- Dawson Creek Secondary School – Central Campus and nearby amenities (Library, Senior Citizens’ Hall)
- Dawson Creek Secondary School – South Peace Campus and nearby high-density apartment buildings (Sunridge Apartments, Heritage House, Yukon Manor, Tuscany Manor)
- Downtown (by The Bargain Store)
- Walmart
- Dawson Mall and Safeway
- Ecole Frank Ross
- Mountain Christian School
- Dawson Creek & District Hospital

There are some differences in activity centres when comparing weekdays and Saturdays (Figures 5 and 6 below), due to differences in student ridership. On Saturdays, Dawson Creek Secondary’s South Peace and Central campuses still appear in the top six trip generators, but the South Peace campus appears ahead of the Central campus as there are multiple high-density apartment buildings located opposite the South Peace campus that continue to drive ridership on non-instructional days. Walmart, followed by Dawson Mall and Safeway, move into second and third place respectively. Ecole Frank Ross and Mountain Christian School move out of the top ten, to be replaced by the stops located at City Furniture (the closest stop on the Northside and Southside routes to the Dawson Creek Society for Community Living and the Nawican Friendship Centre), and at the Centennial Manor apartment building (13 St and 106 Ave).

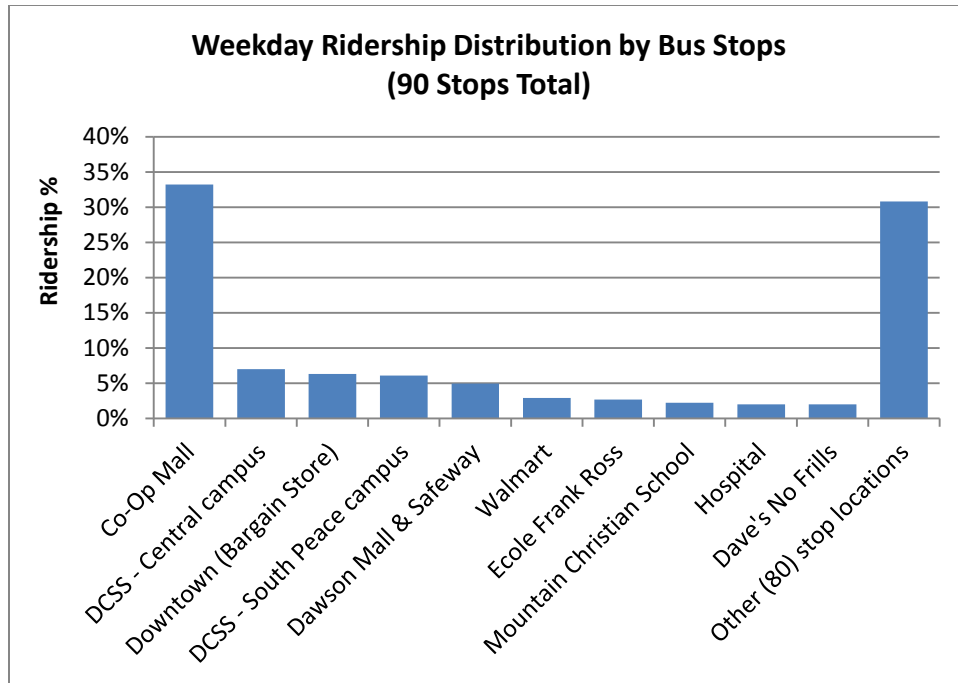


Figure 5: Ridership Distribution by Bus Stop (Top 10 Stops), Weekdays

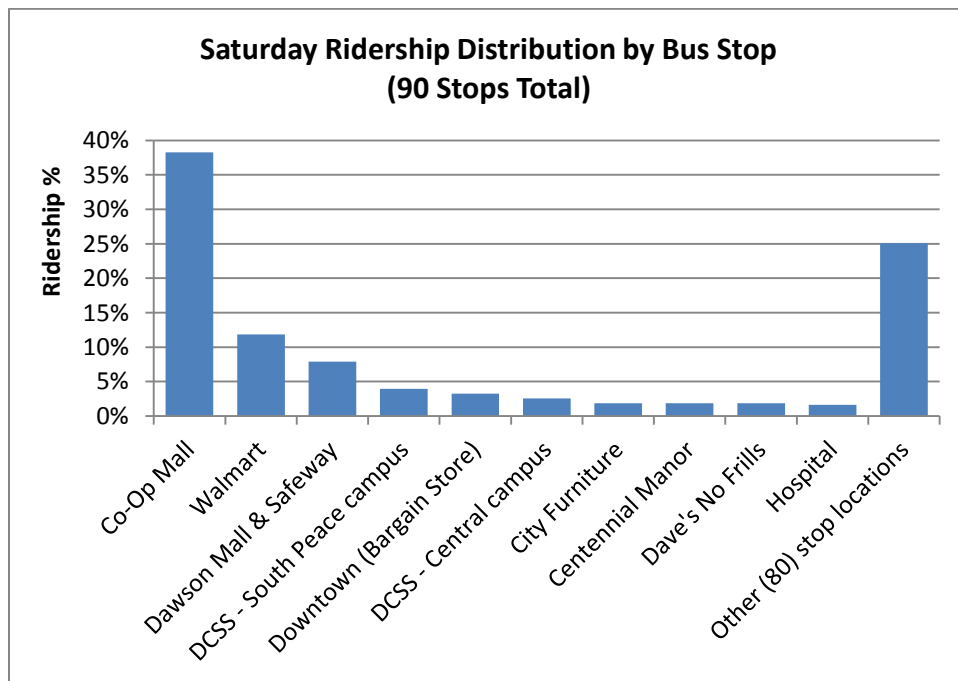


Figure 6: Ridership Distribution by Bus Stop (Top 10 Stops), Saturdays

4.2.1 Comparison with Peer Transit Systems

Table 1 below illustrates how Dawson Creek’s transit system compares to other transit systems in B.C. that share similar characteristics (e.g. system type, service hours provided, and location), as well as to the average of all conventional (fixed-route) transit systems serving B.C. communities with populations of less than 25,000 (classified by BC Transit as “Tier 3” systems).

Metric	Dawson Creek	Fort St. John	Kitimat	Terrace	Peer Average	Tier 3 Average
Operating cost per hour	\$119.19	\$149.04	\$113.60	\$93.38	\$121.50	\$109.83
Passenger trips per hour	11.9	11.1	12.4	15.9	12.9	18.7
Operating cost per passenger trip	\$10.00	\$13.39	\$9.14	\$5.88	\$9.40	\$5.88
Operating cost recovery	10.8%	9.9%	12.8%	20.3%	13.1%	20.7%
Passenger trips per capita	9.6	6.5	16.1	9.4	9.2	14.8

Table 1: Dawson Creek and Peer (B.C.) Transit System Performance

It can be seen that Dawson Creek performs below the Tier 3 average in all metrics. However, the majority of other systems within this tier cannot be considered Dawson Creek’s peers, for reasons of land use density, transit system history, transit system operations (i.e. municipally run, resulting in cost efficiencies), and even average rainfall. When limiting comparisons to the Dawson Creek Transit System’s true peers—Tier 3 systems located in northern B.C.—it can be seen that Dawson Creek performs better than average in terms of operating cost per hour and passenger trips per capita, and only slightly below average in terms of passenger trips per hour, operating cost per passenger trip, and operating cost recovery.

Additionally, to view these results from a broader perspective, it should be noted that the transit systems in British Columbia perform highly compared to transit systems in the rest of Canada. Table 2 shows that outside of B.C., Dawson Creek outperforms 21 Canadian municipalities in the passenger trips per capita metric, and 11 municipalities in the passenger trips per hour metric. Dawson Creek’s transit system performance should be viewed within its overall Canadian context as well as its B.C. context.

Province	Municipality	Rides/ Hour	Rides/ Capita	Province	Municipality	Rides/ Hour	Rides/ Capita
BC	Dawson Creek	9.60	11.90	BC	Dawson Creek	9.60	11.90
Municipalities with lower rides/capita:				Municipalities with lower rides/capita and rides/hour:			
ON	Burlington	12.20	11.46	AB	Airdrie	8.82	3.48
AB	Grande Prairie	17.76	10.91	ON	Wasaga Beach	7.27	3.90
SK	Prince Albert	20.34	10.44	ON	Niagara Region	6.58	0.53
ON	Cobourg	11.90	9.63	AB	Hinton	6.16	2.33
NWT	Yellowknife	15.96	9.18	ON	Leamington	6.15	1.11
PEI	Charlottetown	17.90	8.50	AB	Leduc	5.71	2.36
ON	Milton	12.54	4.92	AB	Fort Saskatchewan	5.68	1.19
NB	Miramichi	n/a	3.41	ON	Bradford West Gwillimbury	4.68	0.73
NB	Corner Brook	n/a	3.23	ON	Deseronto	3.15	1.22
AB	Spruce Grove	13.64	2.72	ON	Niagara-on-the-Lake	2.67	1.34
				ON	Norfolk County	2.17	0.23

Source: Canadian Urban Transit Association: Canadian Transit Fact Book -- 2015 Operating Data

Table 2: Dawson Creek and Other Canadian Transit System Performances

4.2.2 Current Strengths

The transit system in Dawson Creek provides a vital service to the local community, carrying on average 340 riders every weekday. Of this average weekday total ridership, approximately 130 riders are students, the majority attending the Central or South Peace campuses of Dawson Creek Secondary School with additional ridership for Ecole Frank Ross and Mountain Christian School; and approximately 160 are adults attending medical appointments, shopping, or running other errands. Only 40 daily riders on average are from the local seniors' population—however, ridership from this demographic may be boosted through transit education and outreach efforts.

On average, there are more than 20 passengers per day eligible for and using the BC Bus Pass Program, which provides a low-cost, annual bus pass to low-income seniors and persons with disabilities. Up to 15 passengers per day use mobility aids in order to use the bus.

The Dawson Creek Transit System provides a vital transportation link for local community members who do not have access, whether by reason of age, means, or physical or cognitive challenges, to a private vehicle. The majority of Dawson Creek's transit system riders are regular riders using the system daily or most days per week.

It should be highlighted here that the transit system's drivers know most of their customers, from whom they receive ongoing positive feedback. These drivers form an integral part of the community, often going above and beyond their professional duties in order to assist passengers in need. This helps to make riding the bus a friendly, pleasant, and safe experience for all.



5.0 Stakeholder and Public Engagement

5.1 Phase 1—Stakeholder Engagement

Public input for this Performance Check-in was solicited in the form of detailed driver surveys, which summarized all the passenger feedback received, as well as informal passenger interviews conducted by BC Transit staff, and discussions with key community stakeholders, including:

- Diversified Transportation Ltd. (operating company)
- School District 59
- South Peace Community Resources
- Step Up ‘N’ Ride
- Dawson Creek Society for Community Living
- Better At Home
- Nawican Friendship Centre
- Kiwanis Child Care Centre

This input can be summarized as follows:

Service	Infrastructure
<p>Service</p> <ul style="list-style-type: none"> • Improve transfer connections between routes (Route 3 Central to Route 1 Northside and Route 2 Southside) • Introduce service along Hwy 97 to serve Nordlys Medical Clinic, Peavey Mart, and Tim Hortons • Reduce the service gaps on Route 1 Northside and Route 2 Southside between 10:30 a.m. and 2:30 p.m. • Ensure schedules meet/continue to meet school bell times • Extend service further north on 17 St (Sunset Ridge) • Increase frequency to the Multiplex • Reduce duplication of routes in the Dawson Creek Secondary School, Hospital, and Library area • Introduce service on 15 St between 108 and 102 Ave 	<p>Infrastructure</p> <ul style="list-style-type: none"> • Improve safety and accessibility of bus stop at Dave’s No Frills • Improve bus stop signage • Improve bus route and bus stop maintenance (e.g. snow clearing) • Ensure good pedestrian access to bus stops (e.g. sidewalk provision between Sunset Ridge and nearest stop) • Consider relocating Multiplex bus stop closer to main entrance
Marketing & Communications	
<p>Marketing and Communications</p> <ul style="list-style-type: none"> • Introduce a Travel Training program aimed at the local seniors’ population 	

Table 3: 2016 Dawson Creek Service Performance Check-In – Key Themes from Phase I Public Engagement

Additionally, feedback from the 2013 Dawson Creek Transportation Master Plan was analyzed for transit-related themes, summarized below:

Meet school bell times and after-school activities	Service further northwest into Sunset Ridge area
Replace one-way loops with two-way routes for more frequent service and better routing options	Buses are too large; smaller, more efficient buses should be considered
Better service for the Multiplex, including more frequent midday service (service gaps are too long) and later evening service	

Table 4: 2013 Dawson Creek Transportation Master Plan – Transit-Related Public Feedback (June-July 2013)

5.2 Phase 2—Public Engagement

Process

Based on the feedback received in *Phase 1—Stakeholder Engagement*, seven transit service change proposals were presented to the public through:

- an online/print survey (September 16-30, 2016)
- Public Open Houses, held as follows:

Location	Date & Time	# of Attendees
Dawson Creek Seniors' Hall	September 26, 2016 11:30am – 1:30 p.m.	25
Dawson Creek Co-Op Mall (Transit Exchange)	September 26, 2016 2:00 – 5:00 p.m.	35
	September 27, 2016 9:00 a.m. – 12 noon	25
Nawican Friendship Centre	October 24, 2016 11:30am – 1:30 p.m.	20

Additionally, door-to-door surveys were conducted along 15 St from 108 to 102 Ave, and 18 St and 87 Ave, streets proposed for transit rerouting based on the feedback received in Phase 1 Engagement.

Proposals

The seven transit service change proposals presented were as follows:

1. Reroute and extend Route 3 Central along Alaska Highway
2. Improve midday service frequency
3. Improve schedules for school bell times (and schedule reliability)
4. Extend service to Sunset Ridge
5. Increase service coverage area (along 15 St)
6. Increase Multiplex/Aquatic Centre service (removing Canalta School loop)
7. Reduce evening service (to enable Proposal #2, improved midday service frequency)



Public Open House: Dawson Creek Seniors' Hall

Results

A total of approximately 110 people attended the four Open Houses, and 54 people responded to the survey, either online or filling out a paper version. Voting results on the service change proposals are shown in Appendix D. All proposals received overwhelming support. The only proposals receiving negative votes were Proposal #6 and Proposal #7:

Proposal #6 (increasing Multiplex/Aquatic Centre service, removing Canalta school loop) received one negative vote out of a total of 78. This respondent was a parent of a Ron Pettigrew student. It should be noted that this school is located less than 300m (i.e. within the maximum recommended 400m walk distance) of the closest remaining stop on 17 St.

Proposal #7 (reducing evening service, in order to improve midday service frequency) received eight negative votes out of a total of 61. This result indicates a need to reconsider the details of this proposal, in terms of which trips to reallocate in order to improve midday service frequency. The removal of the Route 1 Northside 7:20 p.m. trip seemed to cause the most concern. There were a few suggestions to reallocate service from the earliest morning trips rather than this trip in particular. It is recommended that supplementary passenger counts be conducted on the evening and early morning trips in order to be able to increase midday service frequency with the least impact on existing riders.

All residents who were available at the time of door-to-door canvassing (ten out of 20 households) were supportive of the proposed transit reroutings.



Public Open House: Dawson Creek Seniors' Hall

6.0 Change Proposals

A summary of proposed changes is shown on the following two pages, and detailed further in this section. All short-term service proposals were presented to the public in Phase 2 Public Engagement and received considerable support (70%-97% – see Appendix D for detailed results).

Service Proposals: Short-Term (2017 to 2018) -- Projected to be cost-neutral		
Change Proposal	Benefits	Challenges
1. Route 3 Central: Extend and reroute along Alaska Highway	<ul style="list-style-type: none"> • Serve new destinations (Nordlys Clinic, Peavey Mart, Tim Hortons) along Highway 97 • Improve transfer connections between routes • Reduce wait times at exchange • Reduce total travel time for passengers using Route 3 Central plus the Northside/Southside route to complete their trip • Improve customer safety/accessibility at Dave's No Frills • Maintain existing service span • Attract additional ridership 	<ul style="list-style-type: none"> • Slightly longer travel times for passengers using Route 3 Central only • To remain cost neutral, Route 3 trip frequency will drop from 20 to 13 daily trips (but existing service span will be maintained) • Permission required from Dave's No Frills for bus stop relocation • Permission required from MoTI for bus stop installation along Hwy 97 • Operational feasibility test required
2. Route 1 Northside & Route 2 Southside: Improve midday service frequency through reallocation (reduce some evening/early morning service)	<ul style="list-style-type: none"> • Reduce long wait times between trips during the midday period • Increase customer convenience • Improve daily service consistency and predictability, making service more continuous • Top service improvement request among existing customers 	<ul style="list-style-type: none"> • Further monitoring of current ridership required (minimizing reallocation impacts on existing evening and early morning passengers)
3. Route 1 Northside: Improve schedules for school bell times and schedule reliability	<ul style="list-style-type: none"> • Improve morning peak on-time performance and schedule reliability • Ensure DCSS Central campus students (~45 rides/day) can arrive before the morning bell • Ensure Kiwanis Child Care children can take transit to arrive at Frank Ross Elementary before the morning bell • Meet some hotel housekeeping shift start times • Attract additional ridership 	<ul style="list-style-type: none"> • Scheduling work required to ensure other key times are maintained
4. Route 1 Northside: Extend to Sunset Ridge	<ul style="list-style-type: none"> • Bring a majority of development area residents within reasonable walk distance of transit 	<ul style="list-style-type: none"> • Adds running time to route – may pose schedule reliability / on-time performance risks • Operational feasibility test required • New routing along residential streets may elicit complaints • Expected level of additional ridership is minimal -- the majority of the development area falls outside of the typical transit demographic
5. Route 2 Southside: Increase coverage area along 15 St routing (except for one AM and one PM trip at school bell times)	<ul style="list-style-type: none"> • Respond to requests for service on 15 St between 108 Ave & 102 Ave • Increase transit system coverage and access • Reduce route duplication in Dawson Creek Secondary, Hospital, Library, and Rotary Lodge area • Provide time savings enabling service to Aquatic Centre front entrance • Attract additional ridership 	<ul style="list-style-type: none"> • Routing deviations can cause confusion (bus signage can resolve this) • New routing route along residential streets may elicit complaints (but canvassing results were supportive) • Operational feasibility test required
6. Route 2 Southside: Increase Multiplex/Aquatic Centre service (remove Canalta School loop)	<ul style="list-style-type: none"> • Remove service from an area of minimal ridership demand • Enable regular Multiplex service, doubling service provision to this location • Make routing more efficient and direct • Attract additional ridership 	<ul style="list-style-type: none"> • Removes service from one or two riders; however, closest remaining bus is within 300m
Service Proposals: Medium-Term (2018/19 to 5 years from now) -- Projected to be cost-neutral		
7. Route 2 Southside: Consider removing Tremblay Elementary routing	<ul style="list-style-type: none"> • Make routing more efficient and direct • Help to ensure schedule reliability and on-time performance during busy morning and afternoon peak service 	<ul style="list-style-type: none"> • Possibility of future (limited) transit demand to this location

Service Proposals: Long-Term (2018/19 to 10 years from now) -- Will require expansion funding

8. Increase service frequency

9. Provide later evening service

10. Provide Sunday and statutory holiday service

11. Consider providing service to Pouce Coupe

12. Consider providing service closer to Fireside Glen seniors' community

13. Consider introducing two-way routing

Marketing & Communications Proposals

14. Introduce Travel Training program aimed at local seniors' population

15. Implement Google Transit

16. Marketing outreach, new ideas for transit promotion

Infrastructure Proposals

17. Install new/Relocate existing bus stops for service changes approved by Council

18. Improve bus stop signage

19. Improve bus route and bus stop maintenance

20. Install additional bus shelters at high-traffic bus stops

21. Ensure good pedestrian access to bus stops

6.1 Service Proposals – Short-Term (2017 to 2018)

All short-term service proposals included below are projected to be cost-neutral. They have all been presented to the public in Phase 2 Public Engagement and received significant support.

Proposal 1: Extend and reroute Route 3 Central along Alaska Highway

There were many customer requests for service to be extended along the Alaska Highway in order to serve Nordlys Medical Clinic, Peavey Mart, and Tim Hortons.

Furthermore, most Route 3 Central trip arrivals at the Co-Op Mall do not meet Route 1 Northside and Route 2 Southside trip departure times. There have been many requests for these transfer connections to be improved.

Additionally, the current bus stop at Dave's No Frills, served by Route 3 Central, presents safety and accessibility concerns, particularly in winter conditions and for passengers with mobility aids.



Existing bus stop at Dave's No Frills

Compared to Dawson Creek's other two routes, Route 3 Central carries the highest proportion of seniors, as well as the highest number of users of mobility aids and/or the BC Bus Pass. For these reasons, it can be classified as a "shopper shuttle"-type route, best suited among the three routes to serve additional shopping and medical destinations.

Route 3 Central's running time is 26 minutes and operates trips every half hour. In comparison, Route 1 Northside and Route 2 Southside have running times of 34 minutes and 33-37 minutes respectively, operating trips every 40 minutes. This results in the majority of Central route arrivals at the Co-Op Mall not meeting Northside and Southside departure times, with passengers wishing to transfer between Route 3 Central and the other two routes facing wait times of up to 30 minutes.

At Dave's No Frills, as the bus enters the parking lot in a counter-clockwise direction the bus stop is located on a traffic island. This is very narrow and not maintained in winter conditions.

It is likely that expanding the number of medical and shopping destinations served by this route and improving transfer connections to the Northside and Southside routes, as well as improving safety and accessibility at Dave's No Frills, would contribute to increasing ridership performance on this route specifically as well as on the Dawson Creek Transit System as a whole.

The suggested extension and rerouting is shown below (Figure 7). An operational feasibility test would be required to confirm the safety of this proposed rerouting and routing extension.

Funding for bus stop installation along the Alaska Highway may be available through the Ministry of Transportation and Infrastructure (MoTI)'s Minor Betterments Fund, a province-wide \$1M annual fund for small transit-related infrastructure projects that are on MoTI land or right of way. Projects are 100% funded and implemented by MoTI, and the fund is subject to annual approval.

In order to continue to service clients at the Nawican Friendship Centre, it is recommended that the bus stop currently located on 102 Avenue at 14 Street be relocated around the corner to 14 Street at 102 Avenue.

Advantages

Extending Route 3 Central to the Alaska Highway between 10 Street and 15 Street would:

- respond to customer requests for service to Nordlys Medical Clinic, Peavey Mart, and Tim Hortons;
- lengthen the Central route's running time to match those of the Northside and Southside routes, transforming the Dawson Creek Transit System into a "pulse system" and enabling easy transfer connections at the Co-Op Mall Exchange between all three routes;
- reduce wait times at the exchange, and thus total travel time, for customers using the Central route plus one of the other two routes to complete their trip
- allow for reverse routing through the parking lot of Dave's No Frills, improving customer safety and accessibility by enabling passengers to board and alight using the store's sidewalk.
- Service span would be maintained, requiring no increase to service hours.

Challenges

- The new routing would be less direct, resulting in slightly longer travel times for passengers using Route 3 Central and no other route.
- Although its current service span would be maintained, the Central route's increase in trip time would reduce its frequency from the existing 20 trips per day to approximately 13 trips per day.
- Permission would be required from the property owners at Dave's No Frills to change the bus stop location, and from the Ministry of Transportation and Infrastructure to install safe, accessible bus stops along the Alaska Highway (verbal permission has already been granted).
- An operational feasibility test would be required along the new routing sections.

3 Central

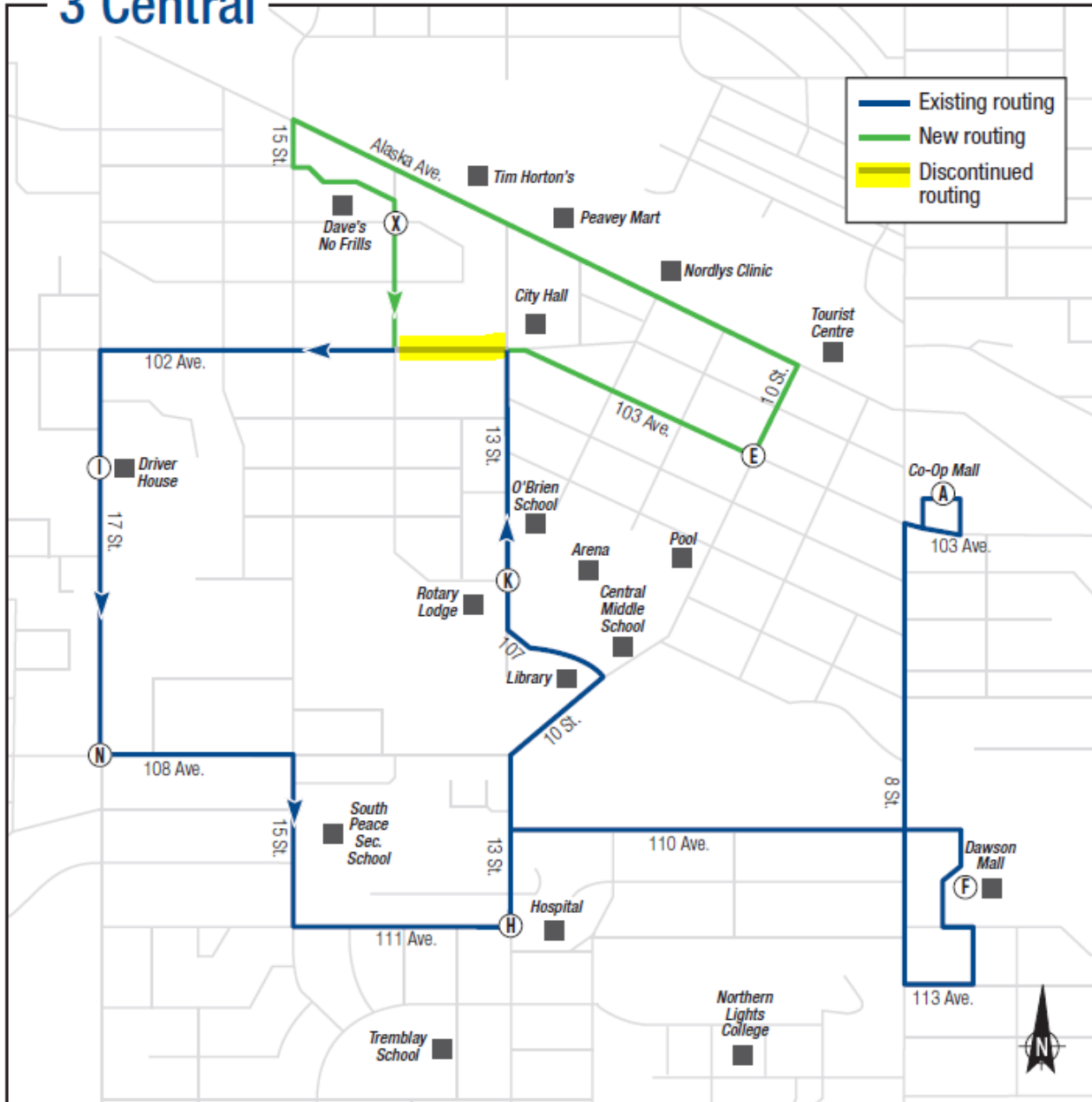


Figure 7: Route 3 Central Change Proposal

Proposal 2: Improve midday service frequency through service reallocation

There were many passenger requests for increased service during the midday period, when Dawson Creek's three peak-time vehicles are reduced down to two vehicles and service frequency is reduced. This was the top service improvement request from existing customers.

Currently, Dawson Creek's three peak-service vehicles are reduced down to two vehicles during the 10:30 a.m. – 2:30 p.m. period. While Route 3 Central service remains continuous, Route 1 Northside and Route 2 Southside see service gaps of 1 hour 20 minutes during these four hours, significantly impacting customer convenience as well as transfer connections between routes.

In order to fill in the service gaps during the midday period using the system's existing service hours, service would need to be reallocated from elsewhere in the system. Typically, early morning and evening service see the lowest ridership numbers in any transit system, and suggestions have been received from drivers to eliminate the earliest and latest trips of the day in order to fill the midday gaps.

Three possible alternatives to be able to increase midday service while remaining within existing service hour provision are:

- a) Spread these service gaps more evenly among all three routes, to allow for slightly increased frequency on the Northside and Southside routes during this time;
- b) Eliminate trips at the beginning and end of the service day, when ridership is typically lowest;
- c) A combination of a) and b)

The two-week passenger counts indicated that average ridership does tend to be lowest on the first and last trips of the day (prior to 7:20 a.m. and after 6:00 p.m.), as shown in the graphs below (Figure 8).

However, it should be noted that Route 2 Southside's last trip of the day averaged the same number of passengers as some of this route's (mid-) morning trips. Additionally, these averages, from a single two-week sample, in general disguise some significant maximum boardings: as one example, there were 15 passenger boardings on one of the Southside route's 7:00 a.m. trips counted during this two-week period.

Given that there is some regular ridership on the first and last trips of the day, c) is recommended. Additionally, some concerns were expressed during Phase 2 Public Engagement about eliminating the Northside 7:20 p.m. trip. It is recommended that further passenger counts be conducted on Dawson Creek's evening and early morning trips to determine which trips can be reallocated to the midday period with minimal disruption to existing riders.

Advantages

- This service hour reallocation would enable more frequent service during the midday period in response to customer requests, achieved cost-neutrally.
- It would also improve daily service consistency and predictability and make service more continuous, minimizing the existing long wait times between trips.

Challenges

- Further monitoring of current ridership patterns will be required to ensure that service reallocation minimizes impacts on existing early morning and evening riders.

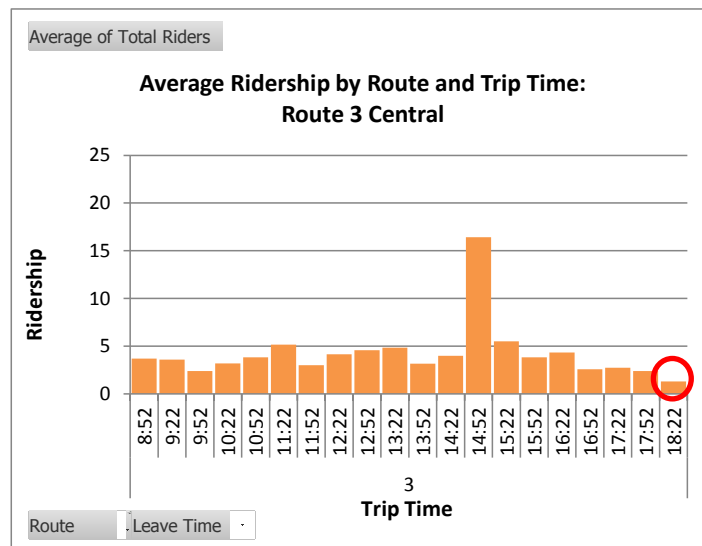
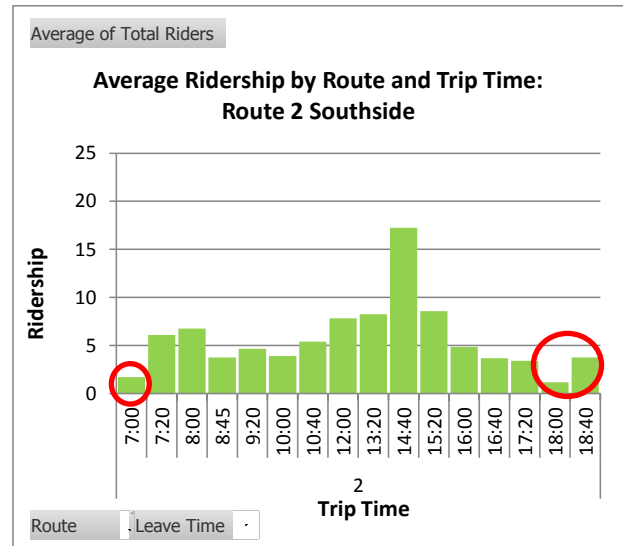
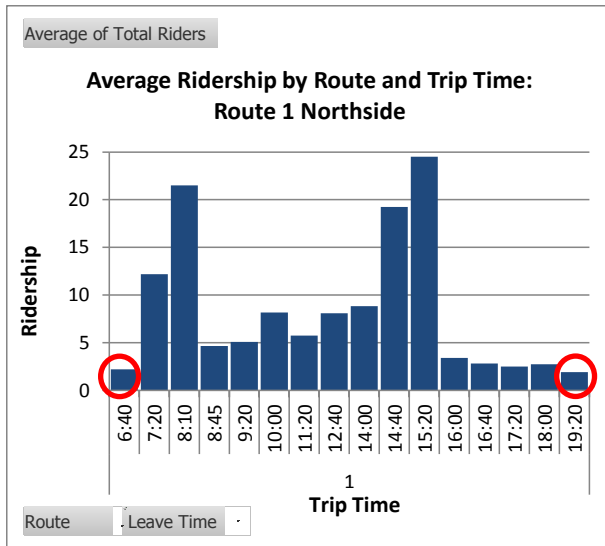


Figure 8: Average Ridership by Route and Trip Time

Proposal 3: Improve schedules for school bell times (and schedule reliability)

School District 59 requested that the bus schedule better meet the morning bell time (8:43 a.m.) at Dawson Creek Secondary’s Central Campus. Drivers requested an earlier scheduled start time for the Northside 8:10 a.m. trip to improve schedule reliability.

The Route 1 Northside 8:10 a.m. trip is scheduled to arrive at the Central Campus five minutes before the morning bell. However, due to high passenger volumes on this trip (up to 35 riders), in practice it tends to arrive up to five minutes behind schedule, meaning that students often arrive late to their first class.

This affects the transit system’s on-time performance at this peak travel time; on-time performance is key to maintaining existing, and attracting new, ridership, as passengers need to be able to rely on transit schedules.

The delays often seen on this Northside 8:10 a.m. trip cause a knock-on effect on the departure time of the subsequent 8:45 a.m. Route 2 Southside trip, operated by the same vehicle. The Southside route serves Walmart and three major hotels. These have extremely varied shift times depending on employer and type of work, but at one hotel most of the housekeeping shifts start at 9:00 a.m. While the bus is scheduled to arrive at this hotel at 8:57 a.m., in practice it can arrive after 9:00 a.m.

Additionally, while the Route 1 Northside 8:45 a.m. trip is scheduled to arrive at Frank Ross Elementary before the morning bell, if it is running late students alight on 91 Avenue at 10 Street, before the bus does the Rotary Manor loop, in order to reach school on time. This is not possible for children being transported from the Kiwanis Child Care Centre, whose staff are required to transfer the children to the care of school staff at the bus stop directly outside of the school. (These children do ride the bus in the afternoon, and number up to 25 students.)

The 8:10 a.m. Northside trip could be scheduled to start 10 minutes earlier to provide more running time, to address delays caused by high passenger loads and ensure Central Middle School students arrive before the morning bell. This would also enable the subsequent Route 2 Southside and Route 1 Northside trips, currently scheduled for an 8:45 a.m. departure, to be rescheduled to depart at 8:40 a.m. instead and meet more school and work start times.

Advantages

This change would:

- improve on-time performance
- ensure that this trip consistently meets the morning bell time at Dawson Creek Secondary's Central Campus, enabling Central campus students to arrive in time for morning class start
- ensure Kiwanis Child Care children arrive at Frank Ross Elementary in time for the morning bell
- improve morning peak schedule reliability
- meet the housekeeping shift start time at one of the Multiplex-area hotels.

Challenges

- Detailed scheduling work would be required to ensure no negative effects on other key times.

Proposal 4: Extend service to Sunset Ridge

Some passenger requests were received for service closer to the Sunset Ridge – Harvest View development area at the north end of 17 Street.

The Sunset Ridge – Harvest View development area is located on 17 Street between 87 Avenue and 83 Avenue. There are currently 3-4 passengers per day (6-8 daily rides) from this area. Transit service currently extends to 17 Street and 89 Avenue.

The higher-density Sunset Ridge townhomes comprise the type of demographic most likely to use transit. While these are located within the recommended 400m walk distance to the closest existing bus stop on 89 Avenue, there are no sidewalks along this section of 17 Street, making pedestrian access less than ideal on this busy road, especially in winter conditions.

Service could be extended further north on 17 Street. The option involving the lowest level of risk is shown in Figure 9 below. Door-to-door surveys indicated that all residents along 18 Street and 87 Avenue who responded had no objections to transit service operating along their street. However, this routing extension may not be warranted given the low projected levels of additional ridership.

Advantages

- This service extension would bring the majority of residents of this development area within reasonable walking distance of transit service.

Challenges

- Extending the Route 1 Northside to 87 Ave would add approximately one minute of running time and at peak times may pose operational risks for on-time performance and schedule adherence, a key factor in retaining existing and attracting new ridership
- An operational feasibility test would be required to ensure safe access along 18 St and 87 Ave for transit vehicles
- Expected level of additional ridership is minimal, as the majority of the typical transit demographic is already well within the recommended walk distance to transit.

An alternative solution, involving the construction of sidewalks, is proposed in *Proposal 21* under 6.5 *Infrastructure Proposals* below.

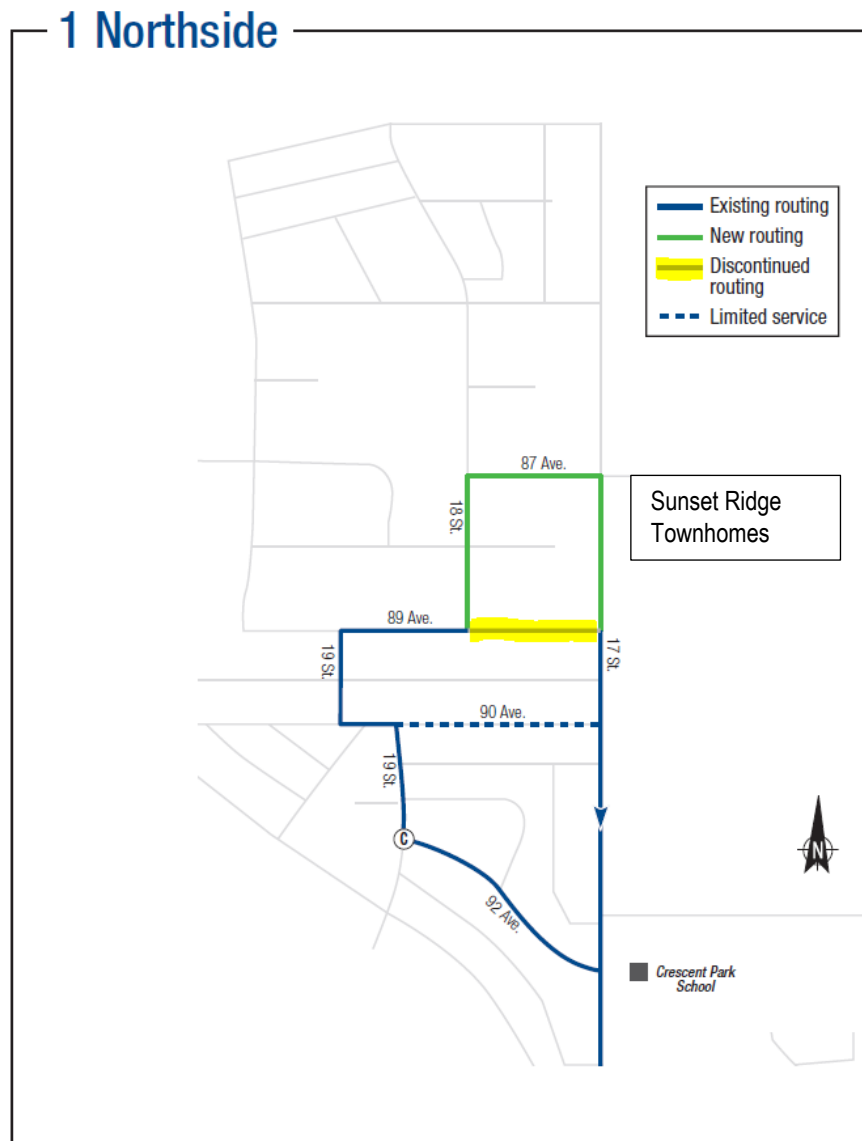


Figure 9: Proposed Sunset Ridge – Harvest View Area Routing Extension

Proposal 5: Increase service coverage area (along 15 St), extend service to Aquatic Centre doors

There were requests for reduced route duplication and increased service coverage, in particular along 15 St between 108 Ave and 102 Ave.

Currently, all three routes operate identical routing in the area of the Dawson Creek Secondary School South Peace campus, Hospital, Dawson Creek Secondary Central campus, Library, Senior Citizens' Hall, Rotary Lodge, and Arena up to City Furniture (see Figure 10). Except for during the 10:30 a.m.-2:30 p.m. service gaps when trips alternate between the Northside and Southside routes, both these routes serve this area at the same time. Half of the Central route's daily trips also coincide with the other two routes along this stretch.

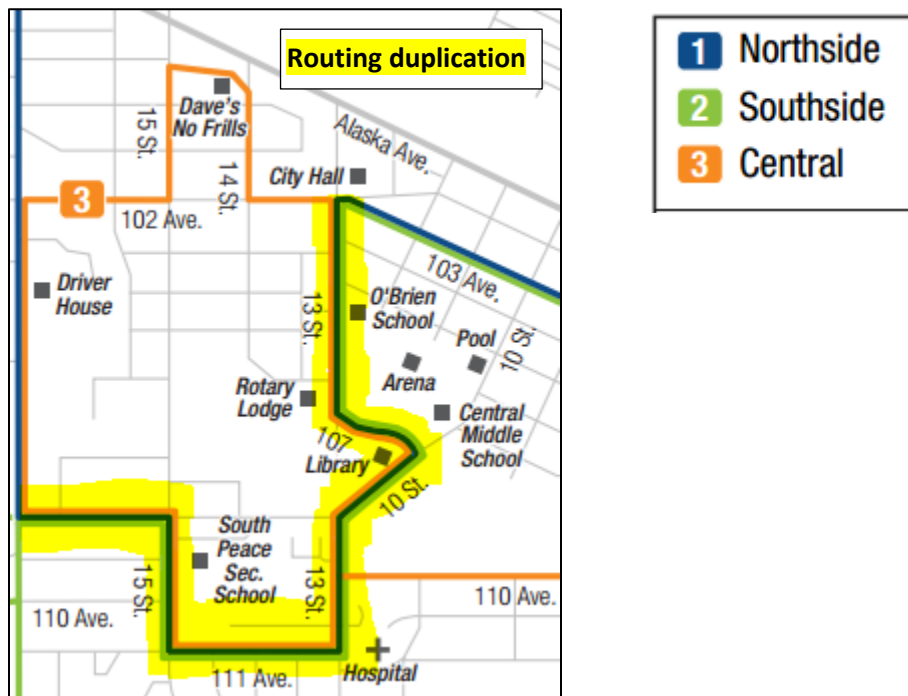


Figure 10: Existing Routing Duplication

It should be noted that 22% of Dawson Creek's total ridership is generated in this area, although this drops to 8% when school bell time trips are excluded.

However, route duplication could be reduced while minimizing potential ridership losses by removing one route from this stretch of 13 Street outside of school bell times. This would also enable service provision to new areas as requested, e.g. along 15 Street between 108 Avenue and 102 Avenue.

Proposal 5 would increase Route 2 Southside's service coverage area outside of school bell times, by routing north on 15 Street and east on 102 Avenue instead of south on 15 Street, east on 111 Avenue and north on 13 Street/10 Street (see Figure 11 below).

In order to increase transit options for Nawican Friendship Centre clients, it is recommended that a bus stop be installed on 102 Avenue opposite the Centre and a crosswalk provided.

Additionally, there were some requests for the Aquatic Centre bus stop to be moved to outside the front entrance to allow passengers to wait inside in winter. This stop is currently located 100 metres around the corner, out of sight of the front entrance.

The time savings from the rerouting along 15 Street and 102 Avenue would allow for this stop relocation at the Aquatic Centre, with the bus stopping directly outside then looping around the parking lot and back onto 122 Avenue.

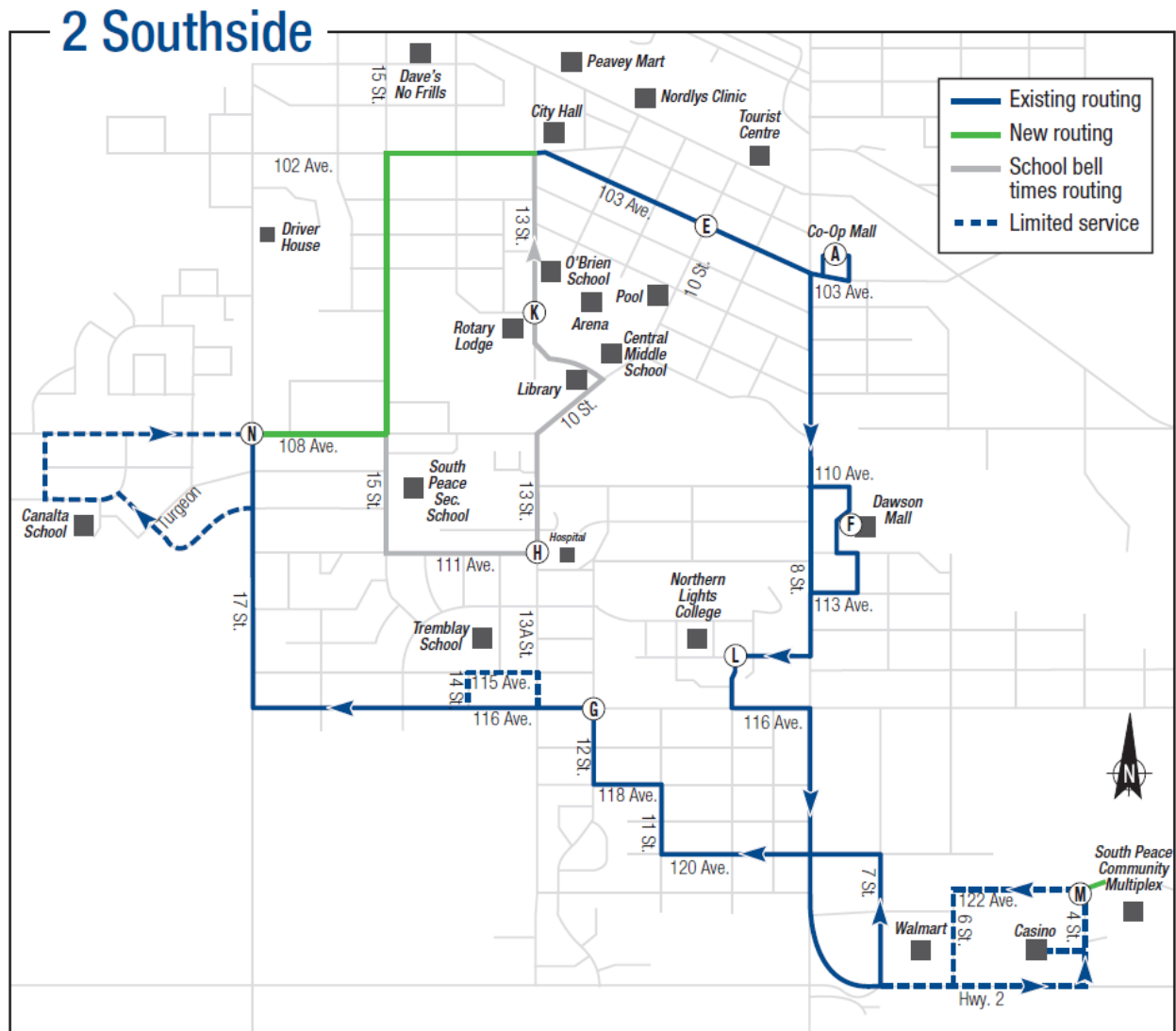


Figure 11: Proposed Increase in Service Coverage Area

Advantages

This proposal would:

- respond to requests for service additions to 15 Street between 108 Avenue and 102 Avenue;
- increase the transit system’s coverage area;
- reduce duplication in the Dawson Creek Secondary, Hospital, Library, and Rotary Lodge area outside of school bell times;
- provide time savings to allow for service directly to the Aquatic Centre’s front entrance

Challenges

- While the 25% of 15 Street residents who answered door-to-door surveys responded positively, the remainder were unavailable for comment, leading to some potential for residential complaints.
- Routing deviations can cause customer confusion, which can be mitigated through bus signage.

Proposal 6: Increase Multiplex/Aquatic Centre service (remove Canalta School loop)

The Multiplex/Aquatic Centre is currently served on alternating trips only when the Canalta Elementary School area is not served.

In order to provide more frequent service to the Multiplex/Aquatic Centre, service would need to be reallocated from elsewhere. In terms of bus stop activity, ridership along the Southside route shows some transit demand gaps, most notably in the area around Canalta School. Data indicates zero ridership at four out of the five bus stops on this loop (Figure 13), and that ridership at the stop by Ron Pettigrew Christian School averages two passengers per week. This latter stop is located within walking distance (300 metres) of the closest stop on 17 Street.

Proposal 6 would see service removed from the Canalta School loop (20 Street, and 108 Avenue and 110 Avenue east of 17 Street), due to extremely low ridership demand. This time would be reallocated to provide service to the Multiplex/Aquatic Centre on each Southside trip. This is shown in Figure 12 below.

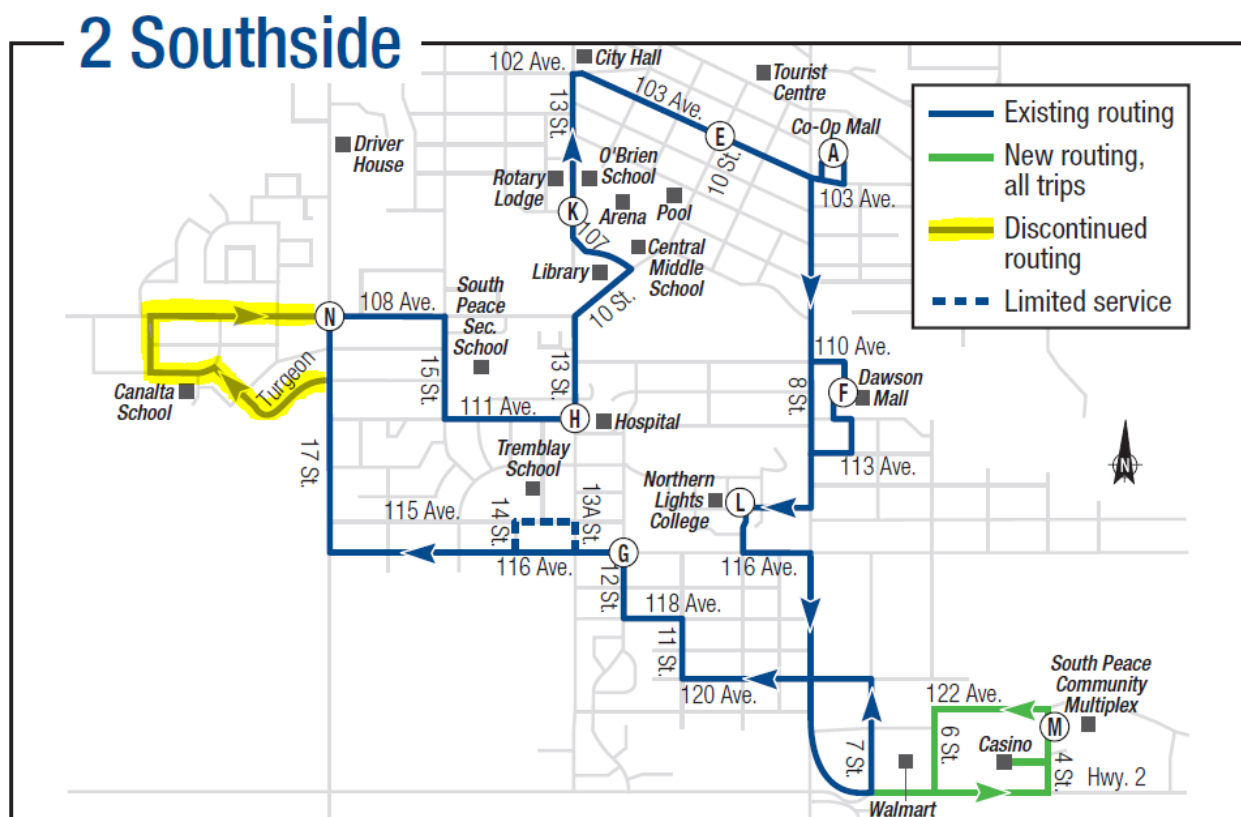


Figure 12: Proposed Service Increase to Multiplex/Aquatic Centre

Advantages

This proposal:

- removes service from the Canalta school loop area where there is very little demand, making routing more efficient and direct;
- doubles service provision to the Multiplex and Aquatic Centre.

Challenges

- One or two student riders use the stop outside Ron Pettigrew School. However, this stop is within 300 metres of the bus stop on 17 Street at 110 Avenue, which will continue to be served.

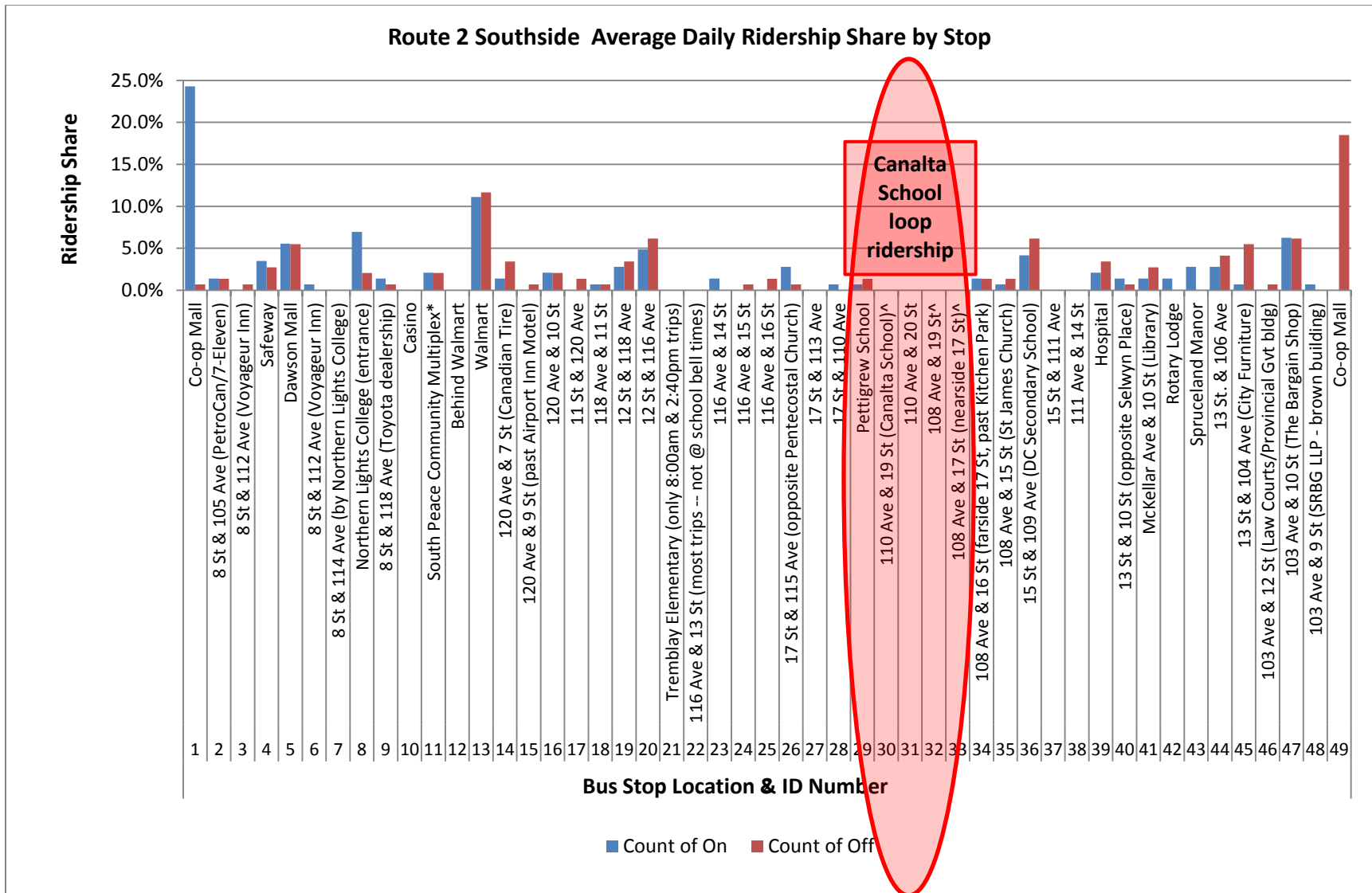


Figure 13: Route 2 Southside Average Daily Ridership Share by Stop

6.2 Service Proposals – Medium-Term (2018/19 to 5 years from now)

The medium-term proposal below is cost-neutral, but was not presented to the public as further ridership data collection was ongoing at the time of Phase 2 Public Engagement.

Proposal 7: Consider removing Tremblay Elementary routing (continue monitoring ridership)

Historical and current data collection has indicated there is zero ridership to or from Tremblay Elementary on the two trips (8:00 a.m. and 2:40 p.m.) routing to this location for school bell times (Figure 14 below). This proposal would involve continued monitoring of passenger usage of this stop, and in the case of no ridership, would recommend removing this routing.

2 Southside

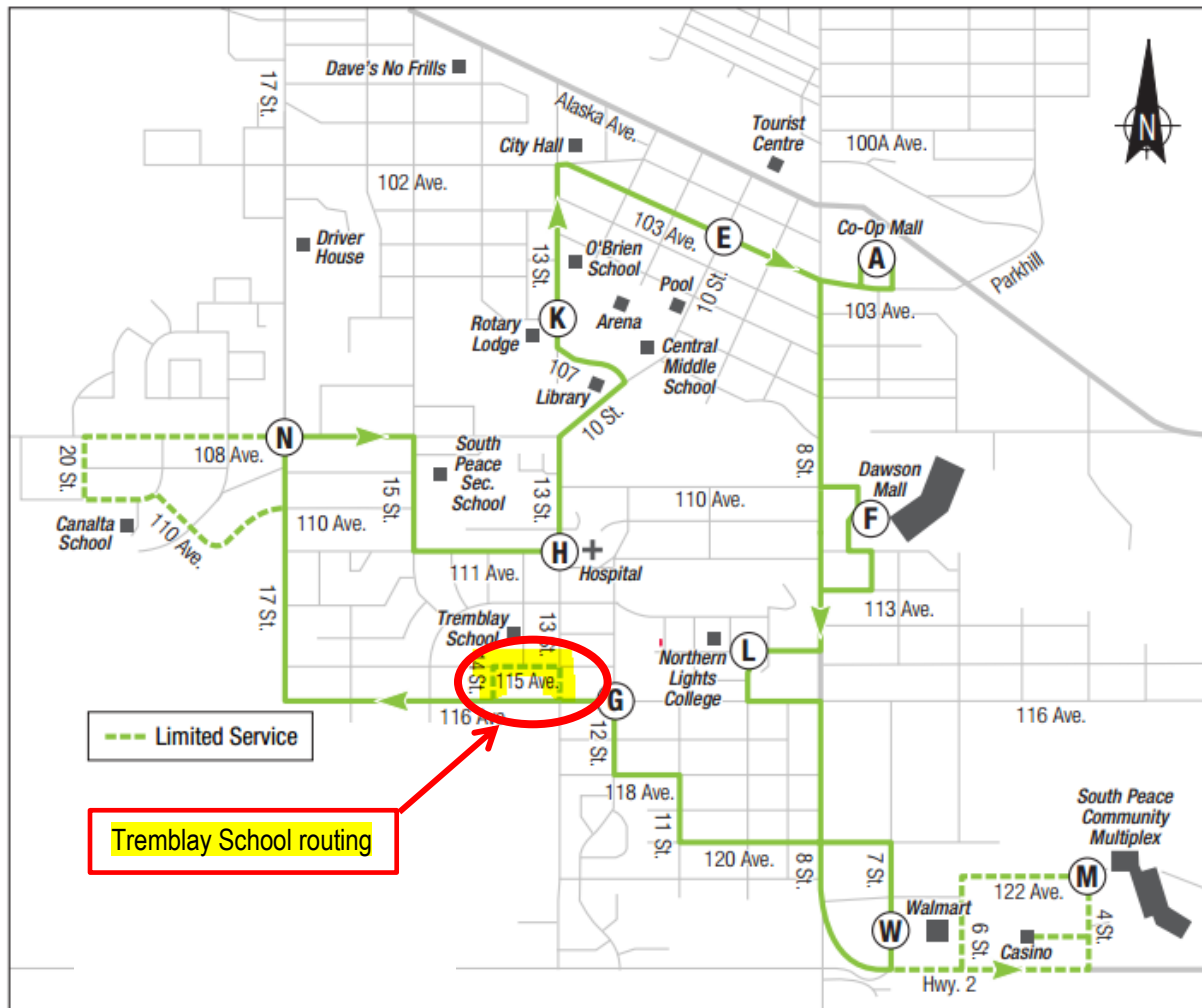


Figure 14: Existing Route 2 Southside: Tremblay Elementary Routing

Advantages

- Removing this routing will make service more efficient and direct.
- It will also help to ensure schedule reliability and on-time performance during busy morning and afternoon peak service.

Challenges

- There is a possibility of future limited transit demand to this location.

6.3 Service Proposals –Long-Term (2018/19 to 10 years from now)

All long-term proposals listed below are suggestions received as part of Phase 2 Public Engagement for future priorities requiring local and provincial expansion funding. Applications for provincial expansion funds can be submitted on an annual basis as part of the Transit Improvement Program process.

Proposal 8: Increase service frequency

This proposal would enable any midday service gaps remaining after implementation of Proposal 2 above to be eliminated, allowing for continuous all-day transit service as is available in all other Tier 3 BC Transit systems.

Proposal 9: Provide later evening service

There were several requests for later evening service in the community to allow people to attend shows or games or eat out and be able to return home using transit. This could be introduced initially on Friday and Saturday nights

Proposal 10: Provide Sunday and statutory holiday service

Most other Tier 3 BC Transit systems provide transit service on Sundays, and some provide statutory holiday service. There were a few online survey requests for this service addition. Following increased service frequency, and in tandem with later evening service, this is the next growth step for the Dawson Creek Transit System.

Proposal 11: Consider providing service to Pouce Coupe

A few requests were received for service between Dawson Creek and Pouce Coupe, located approximately 10km from downtown Dawson Creek. As demand for such service is extremely limited at the present time, it is recommended that this proposal be revisited if demand increases in future.

Proposal 12: Consider providing service closer to Fireside Glen

A few residents of Fireside Glen seniors' community north of Parkhill Park have requested transit service closer to their neighbourhood in order to reduce the walk distance to the closest stop, currently approximately 400 meters away at 6 Street and 96 Avenue. As with Proposal 12 above, it is recommended that this proposal be revisited in future if further demand is registered.

Proposal 13: Consider introducing two-way routing

Once Proposals 8-10 above have been implemented, the next major evolution of the Dawson Creek Transit System would be the introduction of two-way routing, to replace the existing loop routes.

6.4 Marketing and Communications Proposals

Proposal 14: Introduce a Transit Travel Training program aimed at the local seniors' population

Seniors are typically a key market for public transit but currently constitute only 12% of Dawson Creek's total ridership. Feedback indicates that while seniors' groups use transit for occasional special outings, such as the Christmas Light Up tour, their members do not take transit in their everyday lives due to lack of knowledge of how to ride the bus, for example where the bus routes go and what the schedules are.

It can be particularly difficult for this demographic to begin riding transit as new users. Finding ways to encourage local senior residents to begin using transit will increase their transportation options when driving abilities decline, enabling them to continue to access medical and shopping services and maintain social connections within the community, live independently for longer, and age in place.

A Transit Travel Training program could be implemented for local seniors' groups in conjunction with the local operator, to help familiarize seniors with their transit travel options, how to board with mobility aids, how and where to purchase tickets and passes, etc.

Proposal 15: Implement Google Transit

Google Transit helps customers to plan their travel online, integrating bus stop, route, and schedule information to make trip planning quick and easy. It is due for implementation in Dawson Creek over the next 12 months.

Proposal 16: Marketing outreach, new ideas for transit promotion

Given that transit passengers are necessarily also pedestrians, and given the short- and long-term benefits of active transportation to both individual physical and overall community health, it is recommended that the City continue to invest in programs to encourage the use of active forms of transportation such as transit, walking, and biking. This will help to promote Dawson Creek's economic development by continuing to attract young families to Dawson Creek and enabling seniors to age in place and remain in the community. While BC Transit has an annual marketing and communications budget allotted for Dawson Creek, this can be mostly expended on producing new Riders' Guides, presentation materials and advertising for local public engagement activities, interior bus rack cards (e.g. fare posters), bus stop signage, and related promotional materials.

The Dawson Creek Better at Home society already partners with BC Transit and local sponsors to provide an annual Christmas lights Light Up Tour, which has proven popular. In addition, for the past few years the City has been promoting an annual "free transit week" during Dawson Creek's "Idle Less Week" at the end of November, providing free transit for the week plus a Christmas prize draw for passengers.

Operating company staff suggest hosting a Transit Information Booth at the Co-Op Mall on weekends, in order to teach local residents who do not currently use the transit system how to, and perhaps offering some free day passes in a prize draw to enable people to try it out. This would likely help to raise public transit's profile in the community.

Other local initiatives that have worked well in other B.C. communities to promote transit use include the following strategies:

- introducing a "Transit Day" where local elected officials ride the buses and greet customers;
- introducing a "Seniors Buddy Day", allowing paying seniors to bring a friend on the bus for free
- bundling Riders' Guides with property tax notices or other municipal mail-outs.

More ideas are welcomed from other local partners. BC Transit's Marketing Department is available to assist with ideas and implementation of local marketing initiatives.

6.5 Infrastructure Proposals

Proposal 17: Install new/Relocate or remove existing bus stops for service changes approved by Council

Depending on which service change proposals are approved by Council, the following bus stops would need to be relocated, removed, or new bus stops installed. Further details will be supplied closer to time of implementation:

Proposal #	Bus stop relocations/additions/removals
1. Route 3 Central: Extend and reroute along Alaska Highway	<ul style="list-style-type: none"> • Install new stops along Alaska Highway (close to Nordlys Clinic and Peavey Mart/Tim Hortons) (Funding for these stops may be available through MoTI's Minor Betterments Fund) • Relocate stop at Dave's No Frills • Remove stop at 15 St and 101 Ave • Relocate stop by Nawican Friendship Centre to 14 St and 102 Ave
4. Route 1 Northside: Extend to Sunset Ridge	<ul style="list-style-type: none"> • Install new stop at 17 St and 87 Ave
5. Route 2 Southside: Increase coverage area along 15 St routing	<ul style="list-style-type: none"> • Install new stops on: <ul style="list-style-type: none"> – 15 St at Chamberlain Dr – 15 St at 107 Ave – 15 St at 105 Ave – 15 St at 102 Ave – 102 Ave at 14 St (opposite Nawican Friendship Centre)
6. Route 2 Southside: Increase Multiplex/Aquatic Centre service (remove Canalta School loop)	<ul style="list-style-type: none"> • Remove stops on: <ul style="list-style-type: none"> – 110 Ave at Turgeon Dr (Ron Pettigrew School) – 110 Ave at 19 St (Canalta School) – 108 Ave at 19 St – 108 Ave at 17 St • Relocate stop at Multiplex/Aquatic Centre to outside Aquatic Centre front doors
7. Route 2 Southside: Consider removing Tremblay Elementary routing	<ul style="list-style-type: none"> • Remove stop on 115 Ave at 13a St

Proposal 18: Improve bus stop signage

Along with the vehicles themselves, transit infrastructure is the most visible aspect of transit service to the customer and non-user alike, and has a significant influence on how transit service is perceived by the local community and on the customer experience.

Improvements are suggested for the following stops:

Bus Stop Location	Suggested Improvement
<ul style="list-style-type: none"> • 108 Ave by Kitchen Park 	Replace missing bus stop pole and sign
<ul style="list-style-type: none"> • 102 Ave and 17 St • 8 St and 114 Ave • 110 Ave and 19 St 	Adjust bus stop signs to face oncoming pedestrians and traffic and improve their visibility (currently angled parallel to street)
<ul style="list-style-type: none"> • 19 St and 90 Ave 	Ensure that bus stop signs are displayed September through June, removed July through August only
<ul style="list-style-type: none"> • Co-Op Mall and 103 Ave at 10 St (by The Bargain Store) 	Replace outdated signage with new-style signage

Proposal 19: Improve bus route and bus stop maintenance and accessibility

Prioritizing snow clearance along transit routes would improve winter on-time performance and service reliability. Providing cleared paths at bus stops between sidewalk and road would improve transit accessibility, particularly for the elderly and passengers using mobility aids or with strollers. Both measures would significantly improve the overall customer experience.

Proposal 20: Install additional bus shelters/benches at high-traffic stops

Due to Dawson Creek’s severe winter climate there have been requests for more bus shelters to be constructed at busy stops. Recommendations for additional shelters include for the following locations:

Location	Details
14 St at 102 Ave (relocated stop currently by Nawican Friendship Centre for Proposal #1, Extend Route 3 Central to Hwy 97)	Install shelter and bench
Dave’s No Frills (for stop relocation as part of Proposal #1)	Install shelter and bench
102 Ave at 14 St (new stop for Proposal #5, Increase Route 2 Southside Coverage Area Along 15 St Routing)	Install shelter and bench
13 St at 104 Ave (outside City Furniture)	Install shelter and bench
90 Ave (Rotary Manor)	Install shelter
12 St at 116 Ave	Install shelter and bench

Proposal 21: Ensure good pedestrian access to bus stops

The majority of public transit trips begin and end as pedestrian trips. Improving pedestrian access to bus stops helps to improve the overall accessibility of the transit system.

There are currently no sidewalks along 17 St north of 89 Ave. It is recommended that sidewalks be installed to improve transit access for residents of the Sunset Ridge – Harvest View development.

7.0 Other Considerations

This section lists an upcoming infrastructure project that will impact transit service for its duration, as well as transit-related suggestions submitted as part of the 2013 Dawson Creek Transportation Master Plan but not addressed under the change proposals above.

a) Rerouting for 2017 Scheduled 10 Street Bridge Replacement

The 10 Street Bridge is due for replacement in 2017. All three existing bus routes operate on this bridge in order to serve Dawson Creek’s hospital, library, senior citizens’ hall, and Dawson Creek Secondary’s Central campus. Due to the limitations of the road network in the surrounding area, a major routing and schedule redesign will be required for the duration of the bridge replacement work.

Rerouting options will need to be discussed with City engineering staff and operating company staff closer to the time in order to verify operational feasibility. A high-level concept option is shown in Figure 16 below.

The routing changes necessitated by this required bridge upgrading work will have a significant impact on transit passengers’ ability to access Dawson Creek Secondary’s Central campus as well as the library and senior citizens’ hall and will result in ridership losses. Additionally, rerouting options are limited by the narrow, residential nature of the surrounding streets and their ability to absorb three transit routes. Operationally feasible options will likely necessitate more running time for each route and require a rescheduling of the entire system. In order to be able to accommodate this cost-neutrally, service frequency will likely need to be decreased.

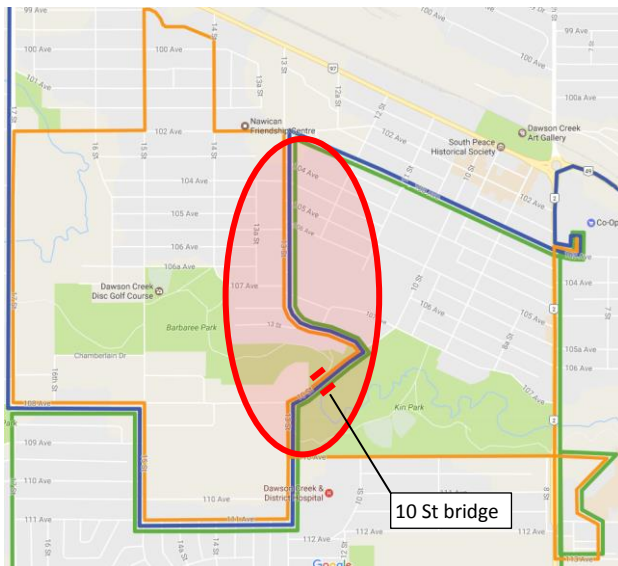


Figure 15: Existing routing

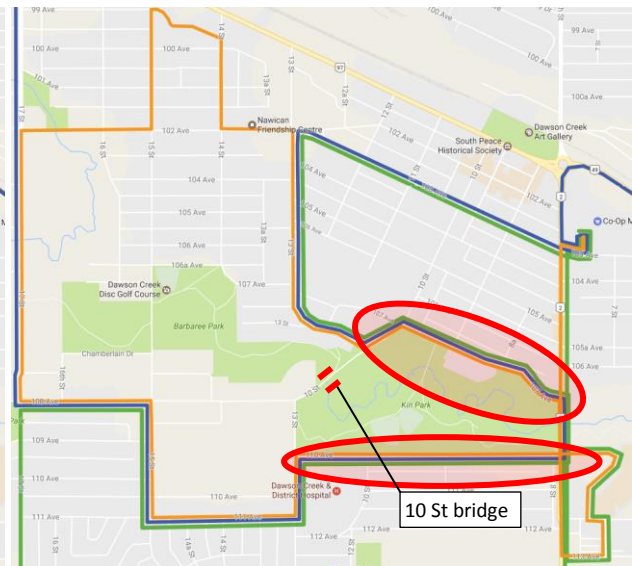


Figure 16: Temporary rerouting – concept

b) BC Transit Development Referral Program

BC Transit’s Planning department operates a Development Referral Program to provide comment on proposed large-scale developments (such as housing projects) and forecasted impact these may have on the local transit service. It is recommended that the City participate in this process to ensure that future developments are aligned with the transit goals of the region. Referrals can be

sent to developmentreferrals@bctransit.com. Appendix B shows an example of a Development Referral response for Squamish.

BC Transit's Planning staff are also available to provide comment on Official Community Plans, Regional Growth Strategies, transportation plans and other local planning endeavours from a transit perspective. BC Transit input can be requested through your BC Transit Senior Regional Transit Manager.

c) Vehicle Right-Sizing

In October 2013, new, more compact 27' Vicinity vehicles (total passenger capacity, seated plus standees: 39) were introduced in Dawson Creek to replace the former 30' Dennis Darts (total passenger capacity: 49). Owing to existing peak-time passenger demand, the Vicinity is the smallest vehicle able to be deployed in Dawson Creek's fleet.

While vehicles tend to operate with light passenger loads during the off-peak hours, a surge in demand at peak times means that all three routes require the capacity of a standard-sized vehicle like the Vicinity. In order to minimize the number of vehicles required and the associated capital costs, vehicle capacity needs to be able to accommodate the maximum passenger loads of peak travel times.

Peak-time passenger volumes will continue to be monitored in order to ensure that Dawson Creek's fleet is optimally sized.

d) Standardized Vehicle Lease Fees

Starting in April 2017, BC Transit will be introducing a Standardized Lease Fee (SLF) that will mitigate cost volatility and increase predictability. Since 2010, BC Transit has been working with local government partners to continuously refine and improve the vehicle lease fee model. A Standardized Lease Fee is the next iteration of these efforts. The SLF is based on three elements: term; capital investment in the bus and its major components within five vehicle categories; and a risk protection fund.

8.0 Next Steps

The next step in this process is to present this Final Draft Report and the change proposals contained herein to Dawson Creek City Council for review and comment. BC Transit will then submit the Final Report to the City of Dawson Creek.

At this stage, and in partnership with the City of Dawson Creek, BC Transit will issue an Implementation Plan Memorandum of Understanding (MOU) in order to move ahead with the service change proposals which have received the approval of Council.

Implementation of these service change proposals would move forward once the planned replacements of the 15 St bridge and 10 St bridge have been completed, in order to minimize customer impact.

APPENDICES

Fare Structure Review

City of Dawson Creek



Appendix B: Sample BC Transit Development Referral Response



Development Referral Response

June 16, 2016

Project No. 2016-26 (DP 416)

Development Location:

A portion of Lot 24, Plan BCP25251, Section 14
Located at Dowad Drive (Skyridge Phase 3)

Local Government: District of Squamish

Transit System: Squamish Transit

Overall Transit Impact

The proposed site:

- Is located 500-600 m from the closest existing bus stops, by 41105 Tantalus Road. The proposed development is slightly beyond reasonable walking distance to these stops, which are currently served by Route 4 Tantalus, with existing service operating weekdays only at commuter times. These stops are at the terminus for this route.

Land Use

- This application, if approved, would allow for 10 duplexes (20 units), 4 townhouse buildings (26 units), and 1 apartment building (44 units) on unnamed new roads (Strata Road A, Strata Road B and Strata Road C) intersecting from Dowad Drive.
- In order to minimize the walk distance to the closest bus stop, consideration should be given to providing pedestrian cut-throughs between Dowad Drive and these internal roads.

Bus Stops and Stations

- This proposed development is expected to be a medium-level trip generator. However, there may be operational constraints to extending service further up Tantalus Road due to the absence of a location where the bus can be turned around to begin inbound service, and any extension of service will also require expansion resources.

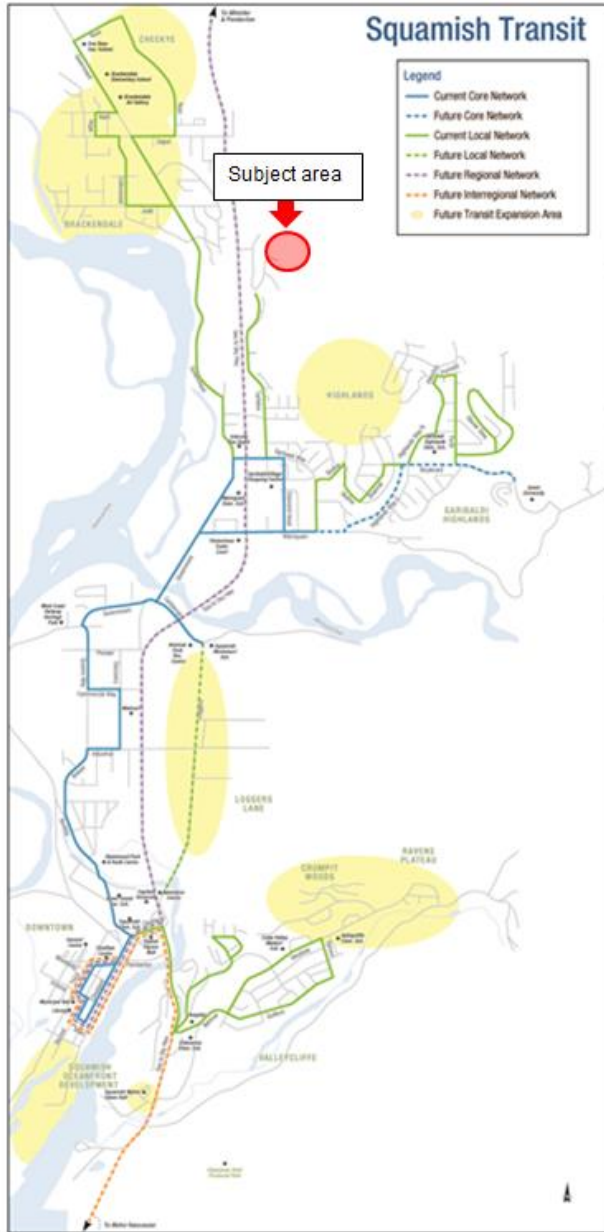
BC Transit Level of Support

- BC Transit has no objection to this development permit application, but note the challenges with providing transit to this area in the future.

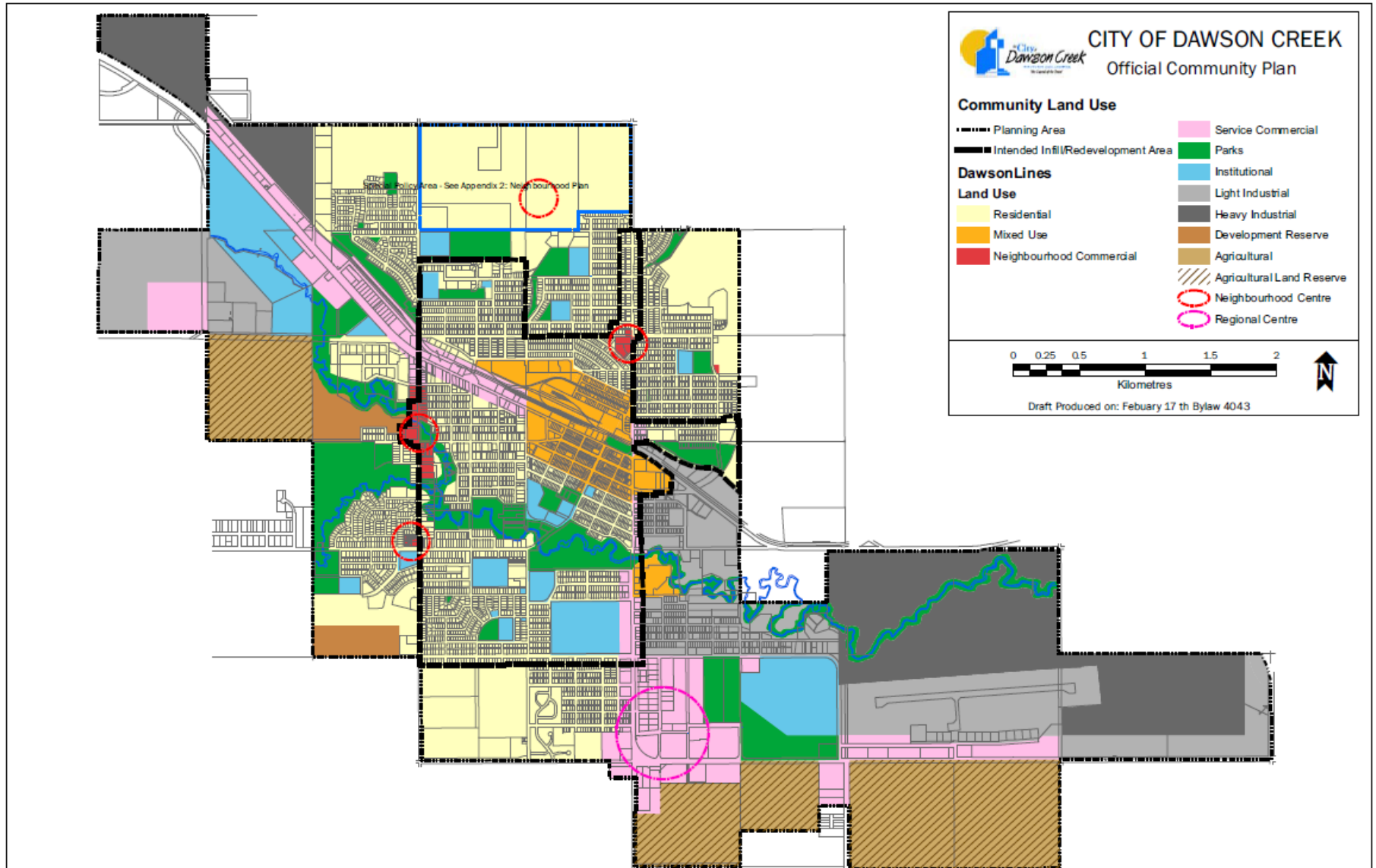
Thank you for the opportunity to review this proposed development. If you have any questions or would like further comments on this proposal, please contact:

Alison McDonald, Transportation Planner
BC Transit | 520 Gorge Road East, Victoria BC V8W 2P3
250-385-2551 x5341 | alison_mcdonald@bctransit.com

Map: Squamish Transit System from the Sea to Sky Transit Future Plan. The proposed development is located within reasonable walking distance of the current local network.



Appendix C: Dawson Creek Official Community Plan – Community Land Use Map



Appendix D: Service Change Proposals – Voting Results

#	Proposal	Details	Open House & Online Survey Totals		
			Support	Don't Support	Doesn't Matter to Me
1	Reroute and extend Rte 3 Central	via Alaska Hwy, Nordlys, Peavey Mart, Tim Hortons	90%	0%	10%
2	Improve midday service frequency	Start 3rd bus back around 1230-1300-ish	86%	0%	14%
3	Improve schedules for school bell times	Shift 0800 and 0810 trips 5-10 mins earlier	97%	0%	3%
4	Extend service to Sunset Ridge	Rte 1 route from 89 Ave up 18 St to 87 Ave, then 17 St south again	87%	0%	13%
5	Increase service coverage area	Rte 2 route from 108 Ave to 102 Ave via 15 St, then 102 Ave; move Multiplex bus stop to outside pool front entrance	92%	0%	8%
6	Increase Multiplex/Aquatic Centre service	Rte 2 remove service from Canalta School loop, route all trips via Multiplex/pool	83%	1%	15%
7	Reduce Evening service to enable Proposal #2	Discontinue Rte 1 1920, Rte 2 1800, and Rte 3 1822 trips	70%	13%	16%

Appendix E: Current Performance – Supplementary Data

Figures 17 and 18 show that Route 1 Northside generates the highest proportion of ridership and highest productivity (rides per hour) of all three routes on weekdays, leading to its overall high performance.

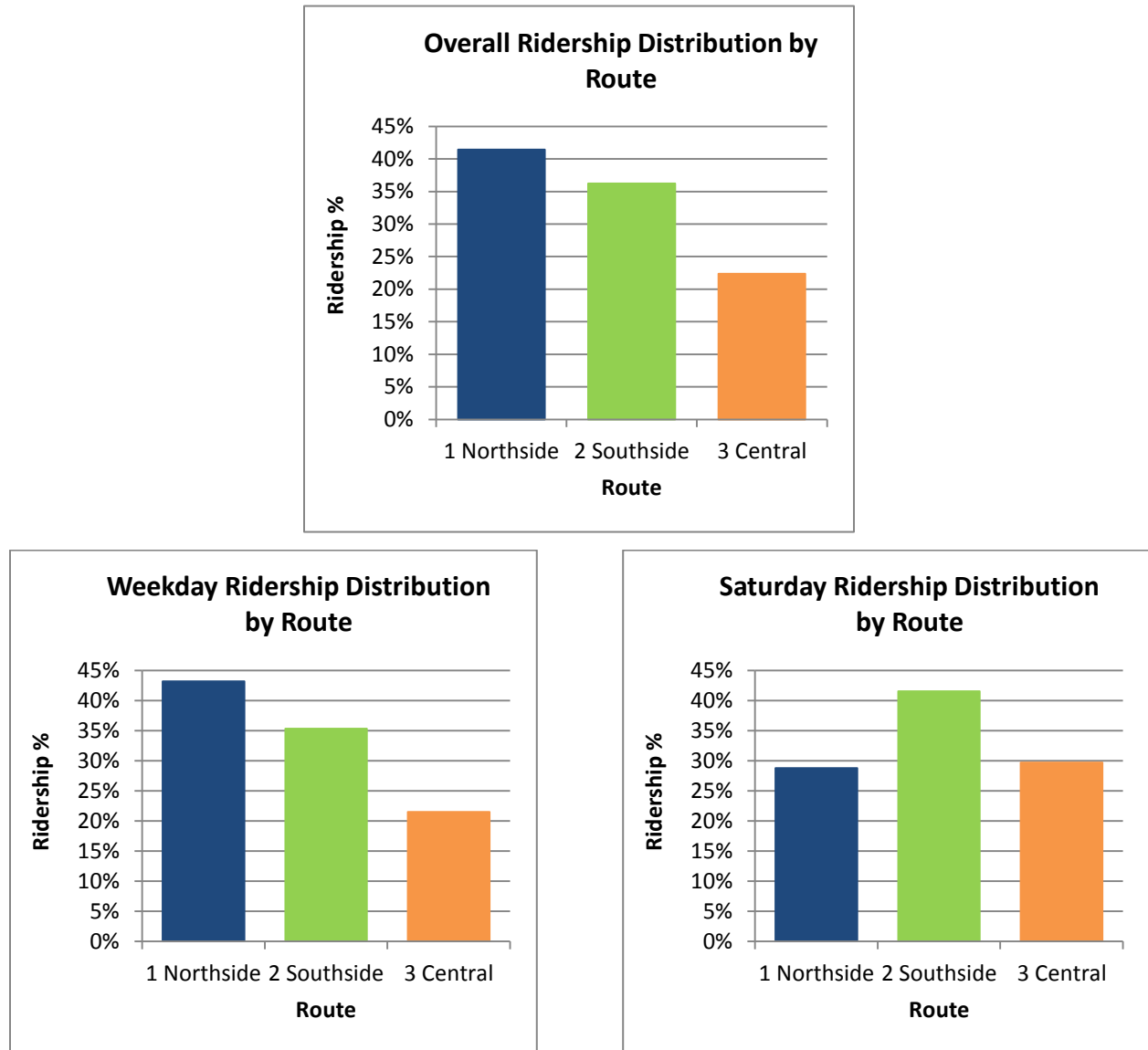


Figure 17: Ridership Distribution by Route and Service Day Type

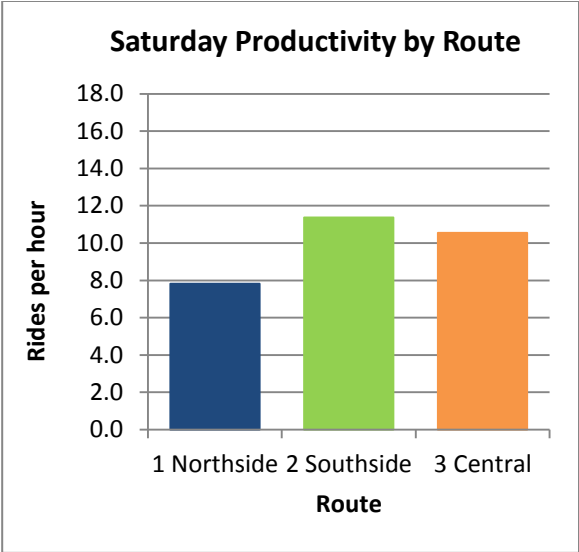
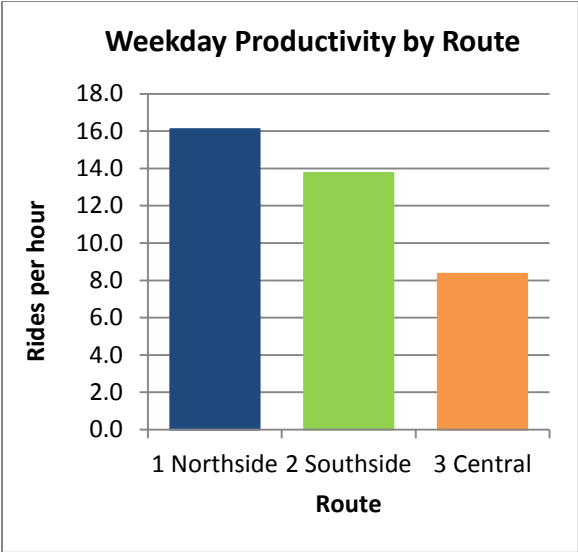
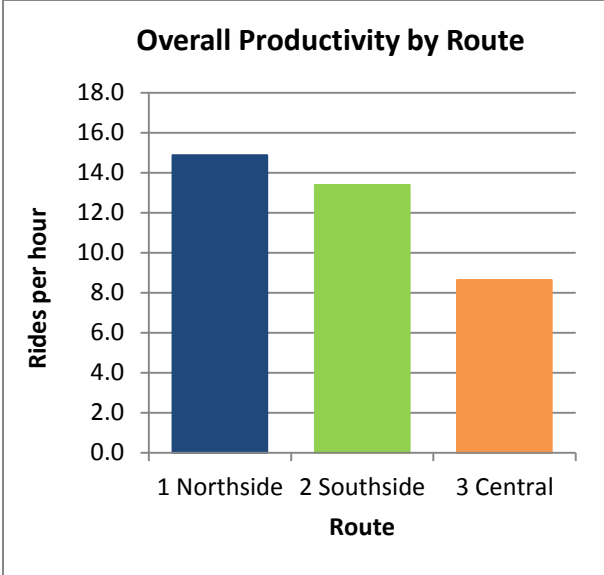


Figure 18: Productivity by Route and Service Day Type

Nearly 40% of weekday ridership is comprised of students (Figure 19), the majority of whom travel using Route 1 Northside (Figure 20). The Northside trip's 8:10 a.m. trip has very high passenger volumes due to student riders (Figure 21)

Route 3 Central carries the highest proportion of seniors (Figure 20), as well as the highest proportion of passengers using mobility aids and/or holders of BC Bus Passes (Figure 22).

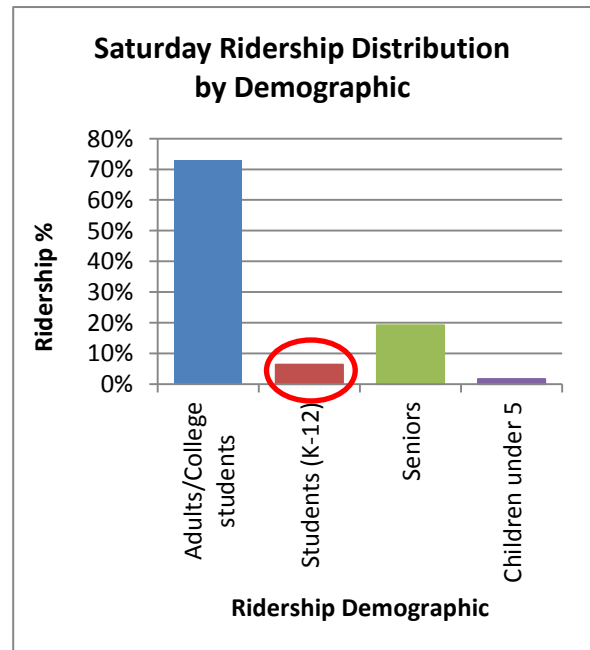
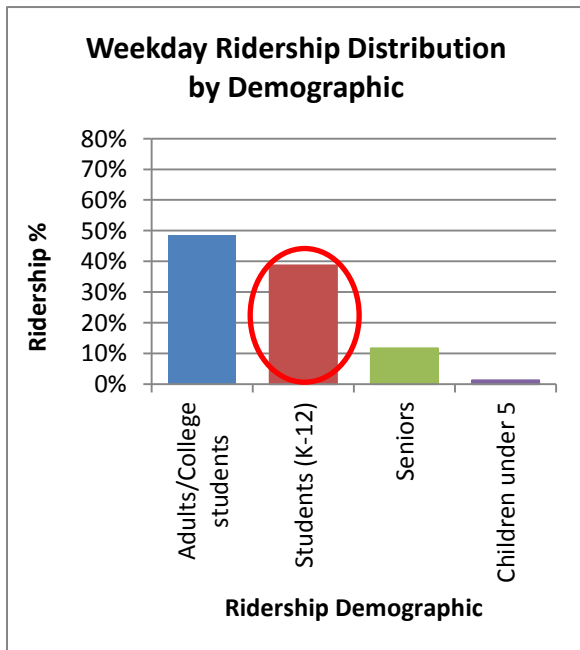
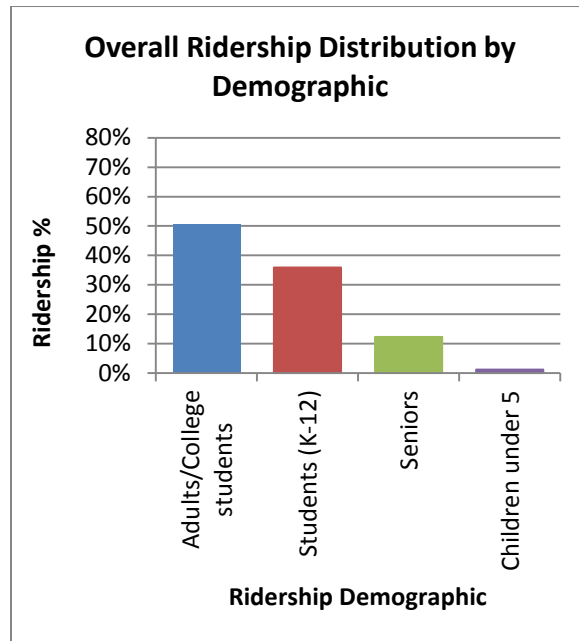


Figure 19: Ridership Distribution by Demographic and Service Day Type

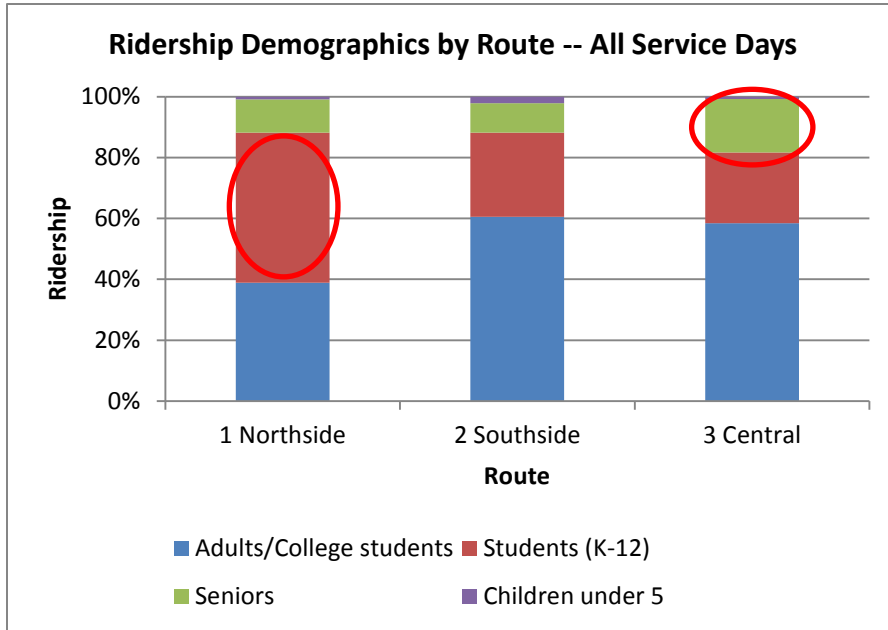


Figure 20: Ridership Demographics by Route

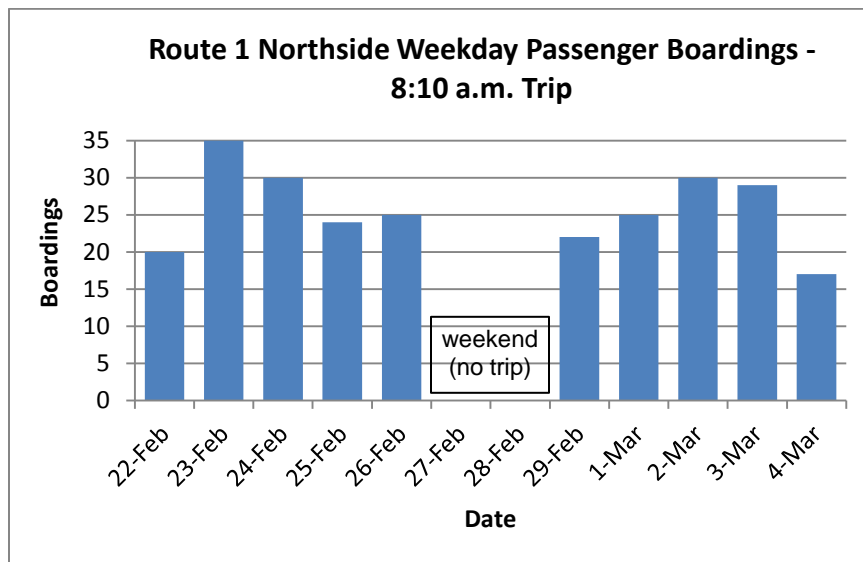


Figure 21: Route 1 Northside 8:10 a.m. Trip Weekday Passenger Boardings

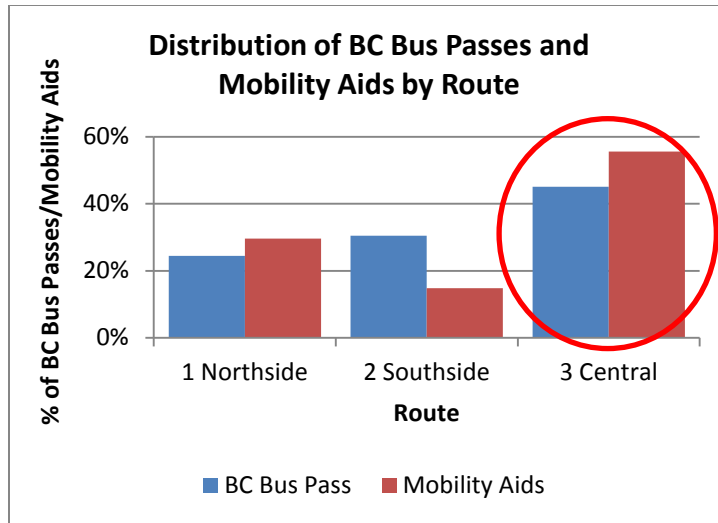


Figure 22: Distribution of BC Bus Passes and Mobility Aids by Route