



MARKET AND OPPORTUNITIES REPORT

TOWN OF PEACE RIVER MUNICIPAL TRANSPORTATION SERVICE

October 2014

Prepared by the Mackenzie Municipal Services Agency and the Town of Peace River



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EXECUTIVE SUMMARY

Background

The Market and Opportunities Report for the Town of Peace River Municipal Transportation Service was initiated by administration in March 2014 after instruction from the Town of Peace River Council. The goal of the report is to explore and identify the best municipal transportation service options that will complement the various mobility and access needs of our residents.

The Town of Peace River faces several challenges to achieving an effective municipal transportation service including a dispersed land use pattern, river valley topography, fragmented pedestrian and cycling infrastructure and a small population. However, Peace River is a growing community and a regional hub; public consultation during this process revealed a strong desire in the community to provide better transportation options for those who need it.

Stakeholder Consultation

A focus group with representatives from local business, social services and the public was held to determine who the primary target groups might be for a municipal transportation service.

A public survey was undertaken to determine what kind of transportation challenges residents are facing, if any, and what kind of system they would like to see implemented. The survey revealed that residents were generally in support of a municipal transportation service, whether they intended to use it or not. A business survey was also developed to determine how a transportation service could impact the local business community.

Transportation Options

This report discusses seven transportation options:

- Para-transit
- Flex-route Transit
- Dial-a-ride
- Ride-Share/Car-Pooling
- Vanpooling
- Taxi Subsidy Program
- Fixed Route Transit
- Community Shuttle Service

Of these options, three were explored in more depth as the most suitable options for the Town. The [Taxi Subsidy Program](#), [Fixed Route Transit](#) and a [Community Shuttle Service](#) were assessed in terms of their economic and social utility.

The Taxi Subsidy Program currently operates as the only municipal transportation service in Town, providing vouchers for one-way rides to clients who meet the criteria of the program.

A Fixed Route Transit system would operate similarly to the Peace River transit system that ran from 2009 – 2011 but with adjustments to improve its efficiency and more investment into transit infrastructure.

The Community Shuttle option arose out of a desire to provide a service that is more flexible than a fixed route transit service with scheduled service developed based on clients' specific needs.

Conclusions and Recommendations

The development of an effective transportation system that can be readily accessed by all three target groups while remaining financially feasible is a challenging goal, particularly when accommodating for individuals with mobility issues. The Transportation Committee compared each service option in terms of the level of service offered to each target group as well as operating costs of that service, and determined that the Fixed Route and Community Shuttle services would not meet the needs of all target populations while being costly to the Town.

The Transportation Committee has three recommendations:

1. That the Town of Peace River implement an enhanced Taxi Subsidy Program that would expand the criteria to include a broader reach into the identified target groups.
2. Update the Municipal Transportation Plan; and
3. Update Trails portion of the Parks and Trails Plan.

INTRODUCTION

In March 2014, Town Council instructed administration to examine the options and feasibility of a variety of municipal transportation services, aiming to identify and meet the mobility and access needs of under-served residents. To accomplish this task, administration took a two-pronged approach:

1. Thinking strategically about transportation and travel in the Town of Peace River to understand current transportation supply and travel patterns, and;
2. Developing a municipal transportation survey to understand the travel patterns of Peace River residents and the specific issues they face.

When considering the options for a municipal transportation service, administration will be examining the impact of each option, based on the mobility and effective access of town residents. *Mobility* can be understood as how far you can travel in a given time, while *access* is how many useful or valuable activities you can do.¹

Seven Demands of Useful Transportation Service²

The following seven demands of a useful transportation service will be used to help evaluate the utility and quality of the service to residents of the town.

1. It takes me *where* I want to go.
2. It takes me *when* I want to go.
3. It is a good use of my *time*.
 - a. Travel time is short.
 - b. Travel time is useful.
4. It is a good use of my *money*.
5. It *respects* me.
6. I can *trust* it.
7. It gives me *freedom* (to change my plans).
 - a. It is there, whenever and wherever I need it.
 - b. I can figure out, and remember, how it works.

¹ Victoria Transport Policy Institute Transportation Demand Management Encyclopedia; Todd Litman

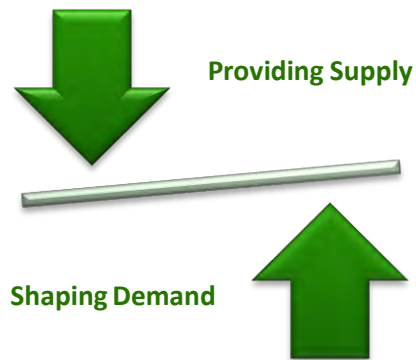
² Adapted from Human Transit: How Clearer Thinking about Public Transit can Enrich our Communities and Our Lives. Jarrett Walker 2012

Phases of a Trip

When developing a new transportation service, it is important to be aware of how the experience of using that new service may differ from more familiar travel modes. The information required to make a trip by transit or taxi is quite different from those trips made independently. In addition, the level of control the trip maker has decreases as they rely on public vehicles.

	Vehicle	Transit	Taxi	Taxi-pass	Bicycle	Walking
Understanding How to make the trip.	Route knowledge	Service, fare, frequency	Service, fare	Service, eligibility, fare	Route knowledge	Route knowledge
Accessing at Origin Where the trip begins	Doorstep	Walk, bike, or drive to stop	Doorstep	Doorstep	Doorstep	Doorstep
Waiting For the vehicle	N/A	Governed by frequency and reliability	Governed by reliability and distance	Governed by reliability and distance	N/A	N/A
Paying Trip cost in time and money	Time: low \$: medium to high	Time: low-high \$: low to medium	Time: low-medium \$: medium to high	Time: low-medium \$: medium to high	Time: low-medium \$: low	Time: high \$: low
Travelling Time spent in transit: <i>Governed by speed and reliability.</i> Quality of time: <i>Governed by quality of environment and ability to make use of the time.</i>						
Accessing at Destination Where the trip ends	Doorstep	Walk, bike, or drive to destination	Doorstep	Doorstep	Doorstep	Doorstep

PEACE RIVER'S TRANSPORTATION NETWORK



Travel patterns are influenced by both the transportation network (supply) and travel desires and needs of the public (demand). Transportation supply includes both public and private components. Public components of supply include the roads, sidewalks, trails, parking spaces, transit vehicles, etc. Private components of supply include cars, bicycles, etc. Taxi cab companies are an example of a public/private component of transportation supply. Peace River's current transportation supply is outlined below. Transportation supply is also influenced by the Town's geography. The

Town has many barriers, specifically the river, hills, the highways and railways, which have contributed to the Town's varied street patterns and disconnected neighbourhoods.

Roads and Parking

The road network is made up of municipal roads, both paved and gravel, and provincial highways (Hwy 2, 684, 734 and 744). The municipal road network in the Town of Peace River is 75.34 km³ long and there is approximately 17.50 km of highway within the Town.

The road network is configured along a grid pattern on the east side of the Peace River. The road network deviates from that pattern where the grid runs up against the rivers, hills and highway. Along the western side of the river the commercial development is centered along Highway 2, with few access points. The industrial areas on the west hill are characterised by curvilinear streets and the residential subdivisions are characterized by cul-de-sacs. Residential neighbourhoods and industrial development are also accessed along the length of the Shaftesbury Trail (Hwy 684).

The Land Use bylaw regulates the provision of off-street parking. There are 1850⁴ parking stalls in total in the downtown, 584 on-street parking spots and 1266 in off-street parking lots. The Town does not currently have an inventory of the parking supply other neighbourhoods.

Walking – Sidewalks, Trails and Streets

The sidewalk network in the Town of Peace River is inconsistent across the community. The sidewalk system is most complete in the downtown. Along Main Street the sidewalks are 3 metres wide, while along other streets the sidewalks vary between 1 and 3 metres. In both the North and South ends of town, sidewalks are present on at least one side of most streets. On the east side of the river, the dyke trail, which is paved from end to end, also plays a key role in the pedestrian network.

On the main bridge spanning the Peace River there is one sidewalk on the south side, separated from the road deck by a guard rail, for pedestrian travel across the bridge. However, accessing the sidewalk

³ Includes all paved and gravel roads maintained by the Town of Peace River. It does not include the Highways, which are maintained by the Province.

⁴ Enhancing Downtown Renewal and Tourism in Peace River AB, Avi Friedman 2009

requires traveling on a steep, gravel path on both sides of the bridge, making the route inaccessible for anyone with mobility challenges.

Along the highways on the west side of the river there are no sidewalks. Pedestrian trails inconsistently run alongside the highway, however, the resulting path is often longer than that of the highway. This results in some pedestrians choosing to walk on the highway shoulder rather than the trail network, which creates a hazardous situation for both pedestrians and drivers. Throughout the commercial/industrial development on the west hill, on the north side of the highway, there is no sidewalk network, apart from a short sidewalk, that takes pedestrians from the intersection at 78th Street to the commercial area. On the south side of the highway there are likewise limited sidewalks through the commercial areas. There are sidewalks on one side of the street throughout the majority of the Saddleback residential neighbourhood.

New residential development in the Town of Peace River is required to provide sidewalks on at least one side of all streets (Municipal Development Plan 2010 pg. 20); however, no similar specific policy standard is provided for other land uses. The municipal servicing standards require a minimum 1.5 m wide sidewalk. The Town does not currently have a transportation plan that identifies the current state of, or future plan for, the sidewalk/pedestrian network.

The trail network in the Town of Peace River includes 11.5 km of paved trails, including paths along the dyke system and along the Shaftesbury Trail. The future development of the trail network is currently directed by the Town of Peace River Parks and Trails Plan (2011).

Bikes

Bicycle infrastructure is minimal in the town of Peace River. There is no provision for bike lanes and riding occurs on the road, sidewalk and trail networks. Bike parking locations are provided along Main Street and at certain, primarily recreational, locations around the community. However the standard of bicycle parking provided is highly variable and many locations do not meet the standards recommended by the Association of Pedestrian and Bicycle Professionals⁵.

Taxi

Peace River is currently served by four taxi companies: Peace River Taxi, 12 Foot Davis Taxi, TwoTone Taxi, and Town Cabs. Dual Cabs of Grimshaw is licensed to operate in town, but does mostly inter-municipal trips.

Taxi Pass Program

The current Taxi Pass Program is an adaptation of a smaller program that had been operating for over 20 years. The new Enhanced Program was brought about following the termination of the Transit System in 2011. The expanded program opened the eligibility criteria to people beyond seniors and individuals on AISH to now also serve students of Northern Lakes College, residents of the Peace River Regional

⁵ http://c.ymcdn.com/sites/www.apbp.org/resource/resmgr/publications/bicycle_parking_guidelines.pdf

Women's Shelter, families and individuals with low income levels and, persons experiencing medical disability.

Transit

From 2003 to 2011 the Town of Peace River offered a municipal transit service. Peace River Transit was a fixed route – loop system, which ran 6 days a week, 13 hours per day. The service was very long, with one loop taking one hour and 17 minutes. The schedule reached all areas of the community, except for the Shaftsbury Estates neighbourhood. This area was dropped from the schedule as it did not receive sufficient use.

INFLUENCES ON TRANSPORTATION NETWORK

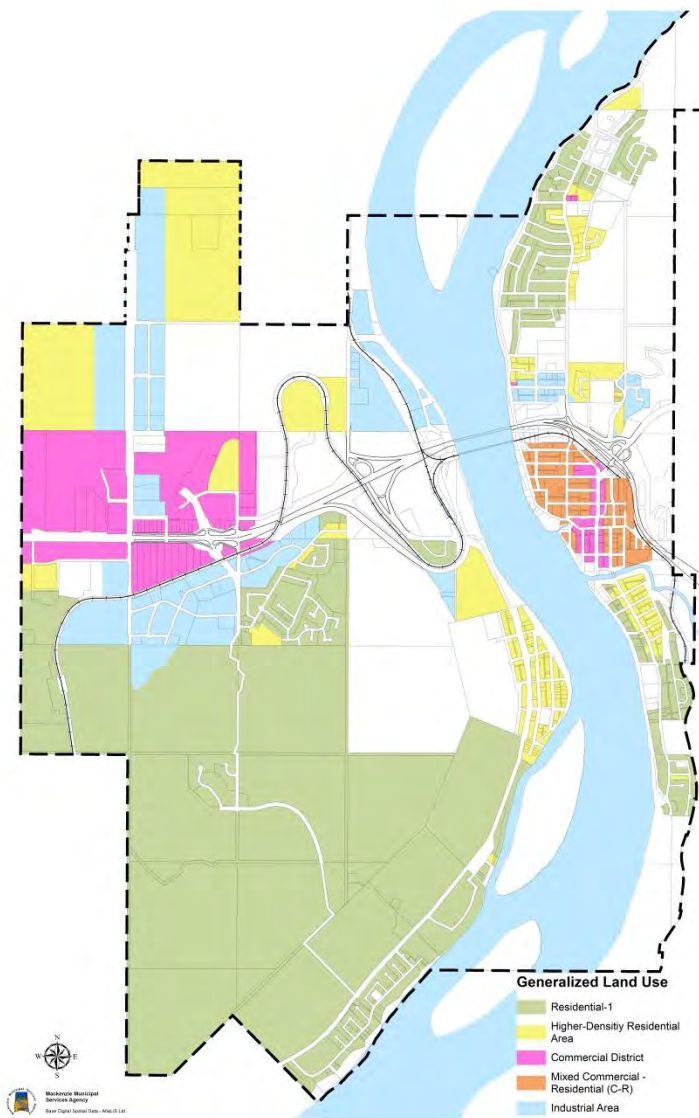


Figure 1 - Generalized Land Use

are exclusively zoned for low density residential development.

Population densities

As outlined in Table 1 the residential areas of the town are divided into the R-1 districts, where the enabled population density is 15 people per hectare or less, and the higher density residential districts, where the Land Use bylaw enables residential densities ranging from 20 people per hectare (in the manufactured home districts) to 90 people per hectare in the R-4A district. Table 2 outlines the residential population densities throughout town, using both the overall area of the town and the

Land Use Patterns and Zoning

The scale and mixture of land uses influences the amount of travel into and out of an area. Figure 1 shows the commercial areas in the town of Peace River, the mixed use downtown core, higher density residential areas, which could have sufficient densities to support a public transit service, and low density residential areas, which make up the bulk of the town's land supply.

Local population

Based on the 2011 census there are 6,744⁶ residents in the Town of Peace River. Approximately 2/3 of those current residents live on the east side of the river, while the majority of future population growth is expected on west side of the river. The majority of the population currently lives in the neighbourhoods known as the North End, the South End, Saddleback Ridge, Shaftesbury Estates and, Upper and Lower West Peace. The majority of residential neighbourhoods have a mixture of residential districts that have enabled a variety of housing types and densities. Only the Shaftesbury Estates and Westbrook neighbourhoods

⁶ 2011 Census Community Profile

developed areas. This information shows that currently the north end of town has some of the highest residential densities, while the northwest and southwest have some of the lowest.

Table 1 Maximum population density enabled by the Peace River Land Use Bylaw

Residential Land Use District	Maximum Number of Dwelling Units Enabled in LUB (per ha)	Average # of Persons in Private Households ⁷	People/Ha
R1-A	6	2.5	15
R1-A(20)	6	2.5	15
R1-B	6	2.5	15
R1-C	6	2.5	15
R1-D	None	2.5	N/A
R1-E	None	2.5	N/A
R1-F	6	2.5	15
R-2	12	2.5	30
R2-A	15	2.5	37.5
R-3	24	2.5	60
R-4	30	2.5	75
R-4A	36	2.5	90
R-MHS	8	2.5	20
R-MHP	8	2.5	20
R-VE	None	2.5	N/A
C-R	None	2.5	N/A

Table 2 Residential Population Densities in the Town of Peace River

Census Dissemination Area	# of businesses registered	Population	Residential Density (ppl/Ha) based on total land area	Residential Density (ppl/Ha) based on developed land area
48190293	102	435	1.22	3.69
48190294	41	1030	1.32	21.63
48190295	34	450	4.78	16.36
48190296	58	675	3.39	17.70
48190297	46	520	10.34	14.97
48190298	609	465	11.17	20.71
48190299	18	480	3.35	10.48
48190300	9	495	6.06	40.70
48190301	17	495	31.11	39.50
48190302	16	450	31.49	41.92
48190303	24	640	4.60	22.65
48190304	34	650	1.11	5.17

⁷ Based on 2011 Statistics Canada Town of Peace River Community Profile



Figure 2 – Census Dissemination Areas Used to Calculate Population Densities

Local Employment

Over 1000 industries are registered in the Town⁸. Of those, approximately 3/4 are registered on the east side of the river. 51.2% of residents with employment income work full time, with a median employment income of \$58,449.⁹ The median after-tax income for families in 2010 was \$89,656, for couple families was \$96,400 and for lone-parent families was \$52,997. For individuals the median after-tax income was \$32,570. In Peace River, 62.6% of the population was in the top half of the income distribution, while 10.9% of the population is classified as low income by the Federal government. In Peace River, compared to the population of all ages, the low income rate was higher at 15.0% for persons under 18 and lower at 6.3% for the population aged 65 years and over.

Based on this information, demand for a municipal transportation service will likely be greater for the young and underemployed members of the community. While demand for the service from the elderly population will be driven more from disability, and less from an economic standpoint.

⁸ 2011 Census

⁹ Statistics Canada. 2013. Peace River, T, Alberta (Code 4819038) (table). National Household Survey (NHS) Profile. 2011 National Household Survey. Statistics Canada Catalogue no. 99-004-XWE. Ottawa. Released September 11, 2013. <http://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/index.cfm?Lang=E> (accessed August 11, 2014).

The Town of Peace River had a Global Non-Response Rate of 31.2%, which means that 31.2% of households who received the NHS did not complete the survey. The greater the GNR, the greater the risk that the data gathered does not accurately represent the community because non-respondents tend to have different characteristics from respondents.

Key Activity Nodes and Trip Generators

Within the Town of Peace River seniors housing and related facilities, secondary schools, community facilities, and recreation facilities would represent key trip generators. As shown in Figure 3, the majority of the key community trip generators are located on the east side of the river, in the Downtown and North End. However, a few key locations are located on the west side, particularly the hospital and Northern Lakes College.

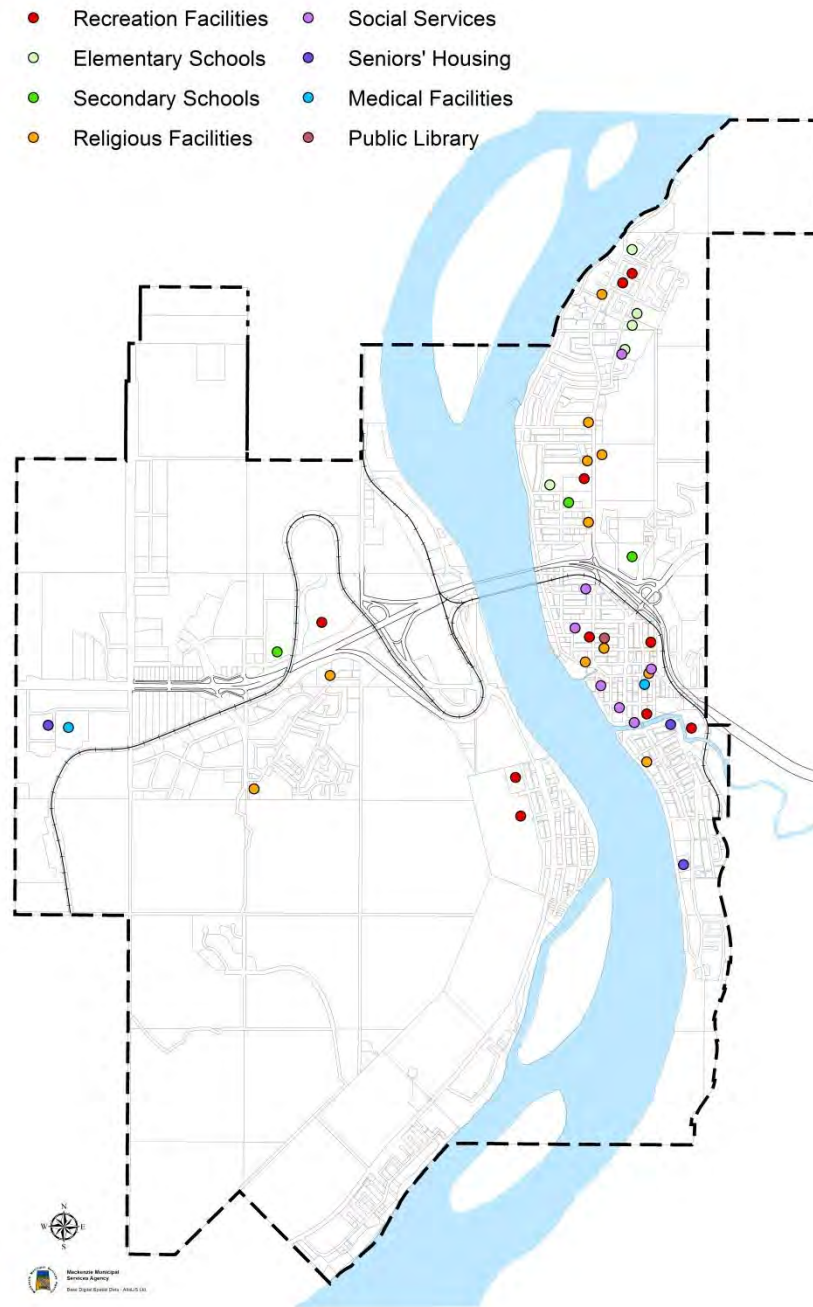


Figure 3 - Key Trip Generators

COMMUNITY PERSPECTIVE ON PR TRANSPORTATION NETWORK

Consultation Objective

The objective of the community consultation process was to understand the mobility and access needs of Peace River residents who are currently under-served by the transportation options available within the town.

Consultation Process and Components

Direction of Council

On March 23, 2014 Council directed Administration to proceed with establishing a working group for public transportation in the Town of Peace River with a target date of September 1, 2014 for completing the Green Trip Funding and which is to include to 2 members of Council in the said working group.

Level of Public Input

The nature of the issue requires a high level of public input; Level 3 full public input process¹⁰.

Consultation Components

Focus Group

On April 29, 2014 municipal staff held a focus group with representatives from local businesses, social services and members of the general public to get initial direction as to who the primary target groups might be for a municipal transportation service.

The top target populations identified in the focus group meeting were people with limited mobility, low income families, students and people without access to a vehicle. The top destinations identified included the downtown, west hill, hospital and community recreation facilities. The most common functions for a municipal transportation system were identified as being healthcare, shopping/groceries and/or to and from work, related.

Attendance at the meeting included:

- Bill Lizowsky – Chamber of Commerce Rep
- Erin Harris – Alberta Health Services
- Mary-Ann O’Byrne – Alberta Health Services – Mental Health
- Alix McClouclin – Peace River Outreach Campus
- Two Student Reps – Peace River Outreach Campus
- Rod Burr – Town Council
- Terry Sawchuk – Town Council
- Kevin Delorey – Northern Lakes College
- Tanya Bell – Director of Community Services
- Alisha Mody – Municipal Planner

¹⁰ “Public Input Tool Kit for Municipalities”, 2012 Alberta Municipal Affairs.

Advisory Group

The participants of the initial focus group were asked to continue in an advisory capacity through process of developing the Market and Opportunities Report. The Advisory Group has met a total of four times, to provide feedback on the consultation process, its results and the report. After reviewing the information provided by administration, the Advisory Group was able to provide recommendations to Council, for next steps in the municipal transportation project. Participants in the Advisory Group include:

- Erin Harris – Alberta Health Services
 - Mary-Ann O’Byrne – Alberta Health Services – Mental Health
 - Rod Burr – Town Council
 - Terry Sawchuk – Town Council
 - Kevin Delorey – Northern Lakes College
 - Larry Dixon – Public
 - Derek Bakker – Community Services Board
 - Dennis Bacso – Community Services Board
 - Bill Lizowsky – Chamber of Commerce
 - Johanna Downing – Alberta Works
- Staff:
- Kelly Bunn – Chief Administrative Officer
 - Tanya Bell – Director of Community Services
 - Laurie Stavne – Community Programs Coordinator
 - Alisha Mody – Municipal Planner
 - Kate Churchill – Municipal Planner

Family Interagency

Municipal staff attended the May 14, 2014 Family Interagency Committee meeting to engage social agencies on the issue of transportation challenges within the community. A questionnaire was developed with the focus on the four issues (Responses in Appendix D):

1. Who is reporting challenges with transportation; please provide a general overview of the demographics of these clients.
2. What are the challenges that your clients are reporting in regard to meeting their own transportation needs within the Town of Peace River?
3. Do you have any specific details on your client’s needs that you can explain to us?
4. Are there specific barriers to existing systems that you can provide additional information to assist us in the evaluation of the programs, such as the Taxi Pass program?
5. Are there any possible solutions/ideas related to your client needs that you would like to tell us?

Participation included over 18 individuals representing 12 different agencies. The agencies included: Ground Level Youth Centre, Peace River Library, HIV North, Stepping Up, Child and Family Services, A Touch of A Horse Program, Peace Regional Outreach, HIV North, Smoky River FCSS, PR Women’s Shelter, Peace Parent Link, North Peace Housing, WJS/FASD Program, and AB Works/Alberta Supports.

The meeting feedback affirmed the previous focus group identification of target market; low income individual/family and individuals with low mobility. Affordability of transportation was the most common theme for challenges and barriers to meeting the transportation needs of the clients.

Aboriginal Interagency

On May 20th, 2014, Municipal Staff attended the Aboriginal Interagency Committee Meeting, with intentions of engaging additional agencies with the Social Agency Survey. However, the meeting attendance was quite low, therefore staff provided advertising information and requested agencies to submit their information and encourage their clientele to complete the online survey.

Public Survey

The public survey aimed to understand the mobility and access needs of Town residents by asking questions about travel patterns, in addition to key demographic information. The survey included 14 questions (Appendix A). The public survey was open from May 21, 2014 through to June 30, 2014.

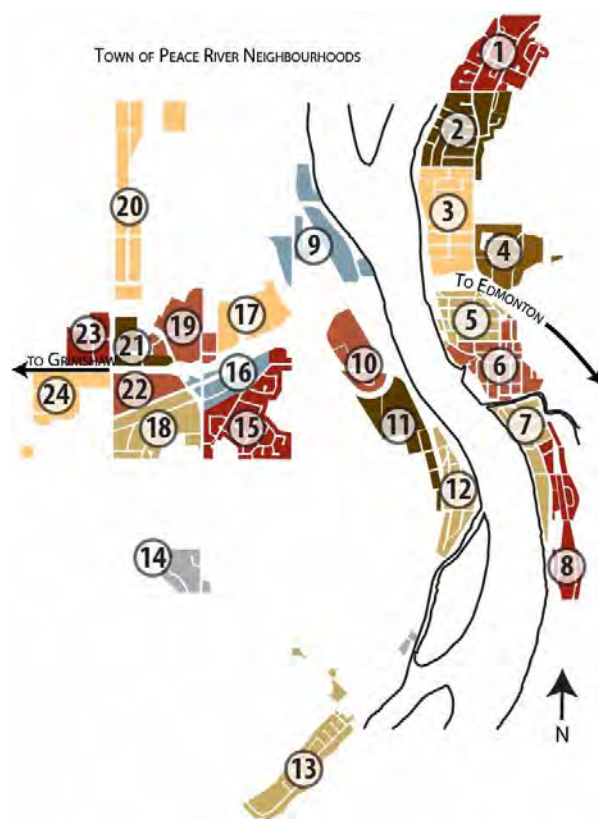


Figure 4 - Graphic of Peace River neighbourhoods was incorporated into the online survey to assist in understanding travel origins and destinations within the town

The survey was available online, through the Town’s Facebook page. Hard copies were also available at the Town office front desk, Community Services, the Library, Peace Regional Pool and Peace River Museum.

A practicum student from the University of Ottawa further encouraged participation in the survey by making direct contact with 34 agencies and industries. Each contact was provided a brief description of the project and invited to support the project by helping the Town reach their clients and/or employees. The student provided both paper copies of the survey, poster (Appendix C) and flyer, and online access information.

Business Survey

A second, business survey was developed to understand how a municipal transportation service could potentially impact the local business community by meeting the needs of their employees and customers (Appendix B). The business survey was available online. The survey link was available through the Town’s Facebook page and an email with the link to the survey was sent to all Chamber of Commerce members, requesting their participation.

Consultation Reach

Table 3 - Facebook posts

Date	Post Reach ¹¹
May 22	2710
May 25	819
May 27	2254
June 2	2821
June 11	621
June 16	1462
June 23	19
June 25	679

The transportation surveys were advertised throughout town in a number of ways. Posters were placed around town in a variety of public locations. The posters were also posted to the Town's Facebook page, along with a link to the online surveys, a total of 8 times. As shown in Table 3, information about the surveys reached a large portion of the town's population through the Facebook page, with the most widely viewed post going on 2821 individual's newsfeeds.

Information about the survey was also included in the Town's weekly newspaper advertisement through the months of May and June. A news article about the transportation project was also included in the Peace River Record Gazette on June 18, 2014.

Survey information was also broadcasted on the local radio stations, YL Country and Kix 106. Additional promotion of the online survey was initiated through email networks, of both the Family Interagency and the Aboriginal Interagency, which covers the majority of the helping agencies and organizations within the Town of Peace River.

Public Survey Results

A total of 426 surveys were completed, both online and via hard copy. 375 surveys were completed online, more than double the number of surveys completed in any previous online survey (167). Of the 375 online surveys, 250 were completed in full. Figure 5 shows the online response volumes per week. 51 hard copies were also completed and submitted to the Town office.

¹¹ Post reach is the number of people who have seen a post. A post counts as reaching someone when it's shown in News Feed. Figures are for the first 28 days after a post was created and include people viewing a post on desktop and mobile. Source: <https://www.facebook.com/help/241332825914969>

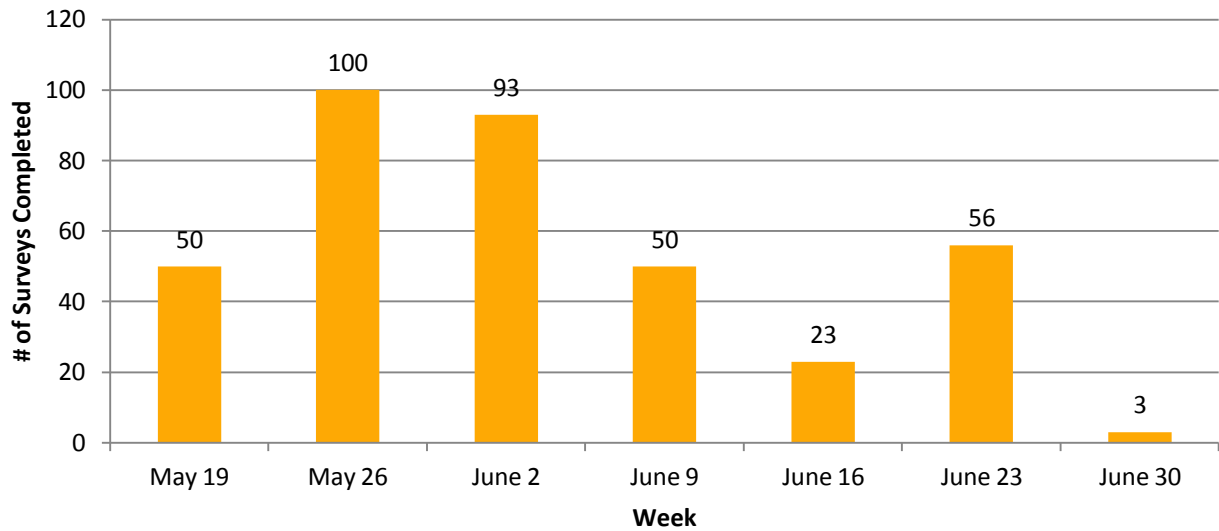


Figure 5 - Online Survey Response Volumes by Week

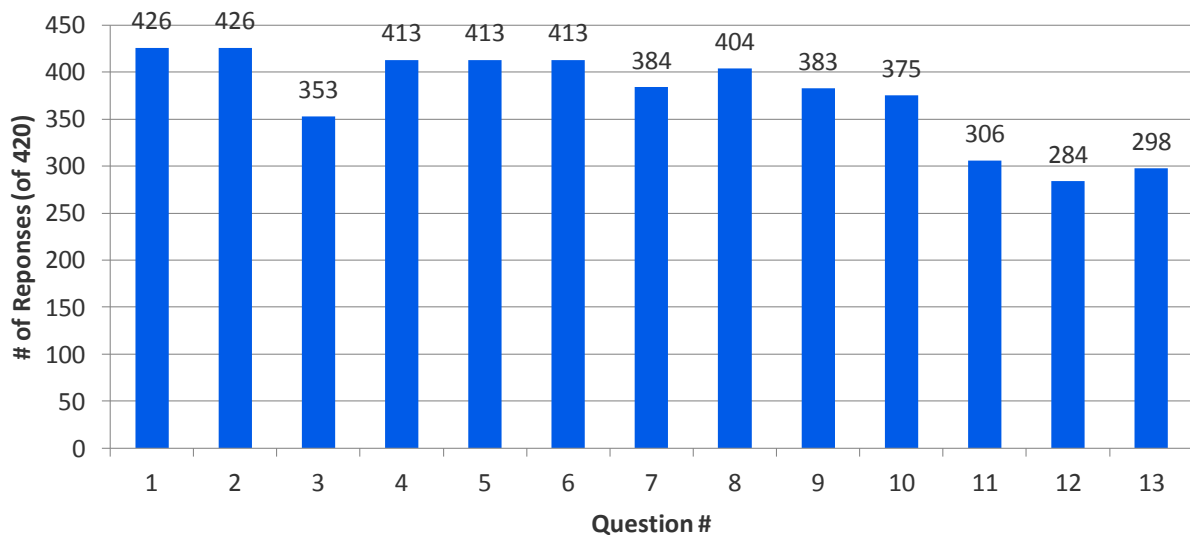


Figure 6 - Survey Question Response Volumes

Response rates to the survey questions, shown in Figure 6, were relatively high until question 11, which asked respondents to “tell us about your regular trips around Peace River”. Question 11 was the most demanding question of the survey to answer, making the dropout rate unsurprising. The online survey required a response to question 11, which accounts for the continued lower response rate for questions 12 and 13.

Public Survey Results and Analysis

Who Responded

The demographic questions in the survey allow Town staff to determine if the responses were representative of the Town's population. As shown in Figure 7, the survey attracted responses from all age groups, apart from young children, who were not targeted.

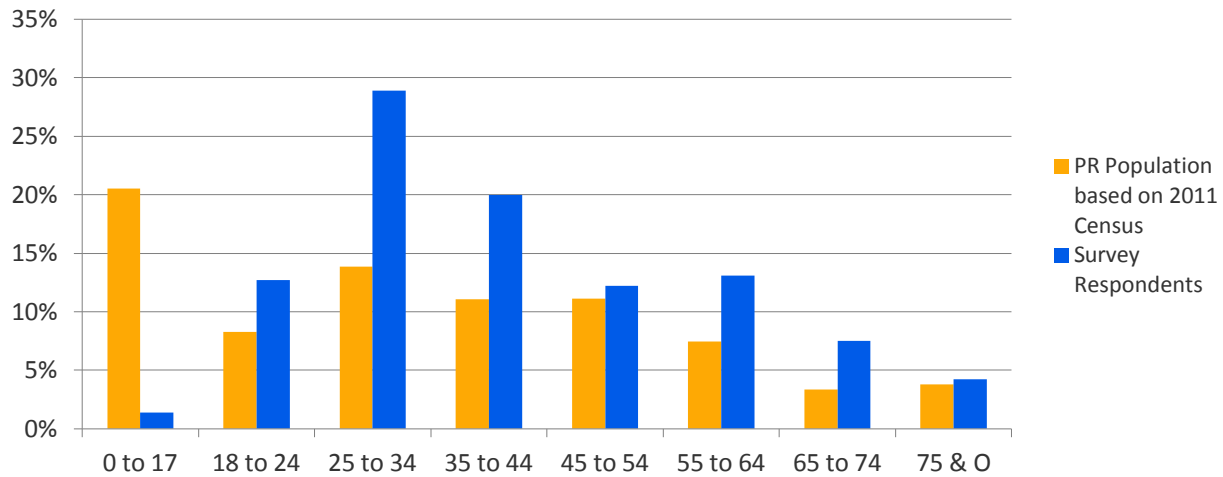


Figure 7 - Response to "What is your age?" and age distribution of Town of Peace River Residents from 2011 Census (426 responses, 0 skipped)

As shown in Figure 8, the majority of survey respondents are residents of the Town. Of those respondents who are not Town residents, the majority live in a neighbouring municipality or indicated that they are former residents who still visit the town on a regular basis. Figure 9 show where resident survey respondents live in the Town. 67.9% (approximately 2/3) of survey respondents live on the east side of the river. This is significant, as it consistent with the overall population distribution in town.

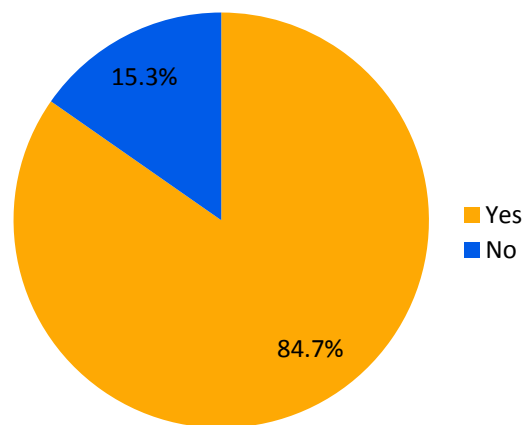


Figure 8 - Response to "Are you a resident of the Town of Peace River?" (426 responses, 0 skipped)

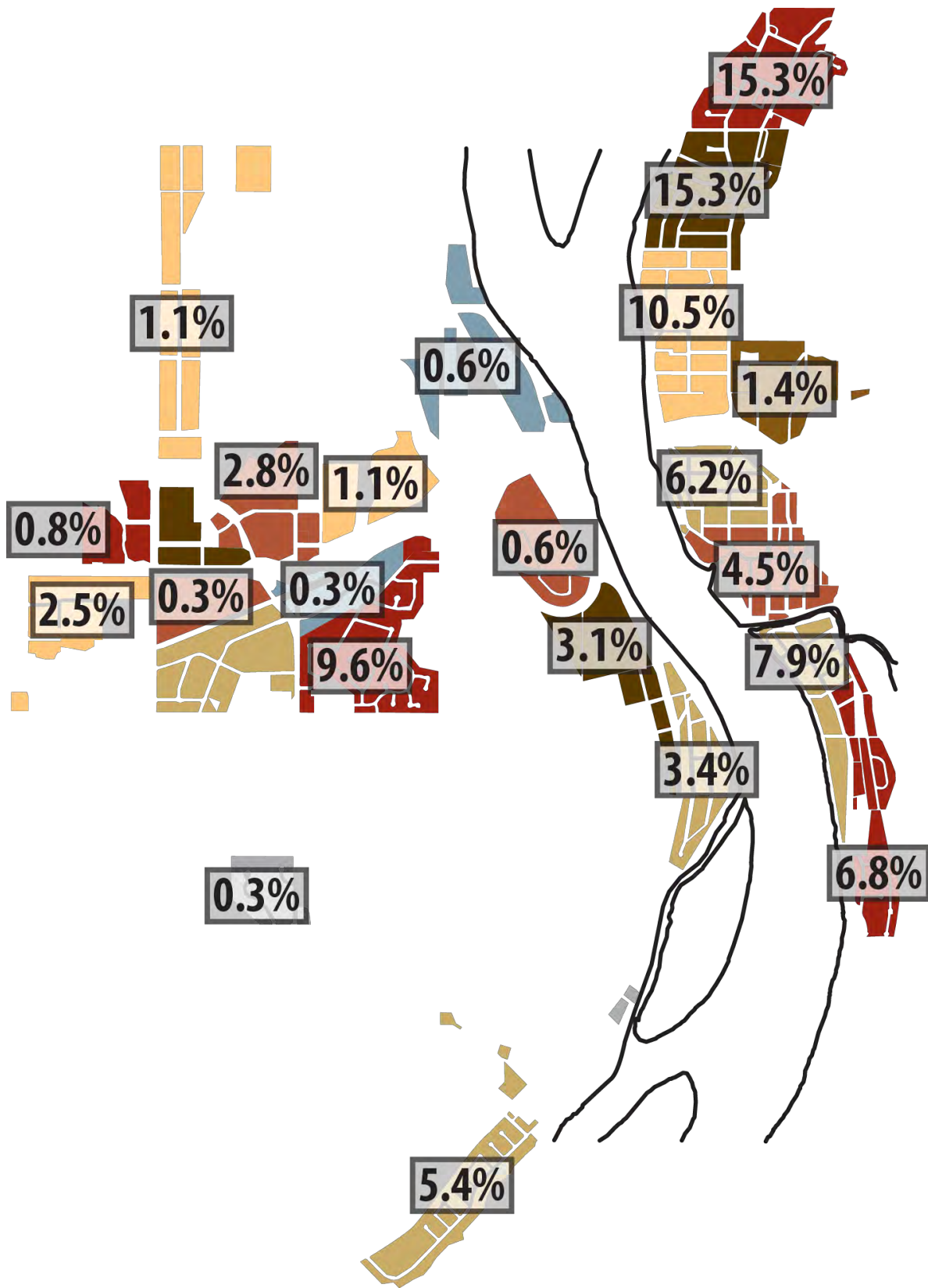


Figure 9 - Where do survey respondents live as a percentage of respondents, by neighbourhood

Questions addressing income, employment and number of cars in the household helped to determine the survey respondents' ability to meet their travel needs privately, in the absence of a municipal transportation service. As Figure 10 shows, approximately 80% of survey respondents are employed. Of those not employed, many specified that they were retired, or unable to work, due to disability, transportation challenges or both.

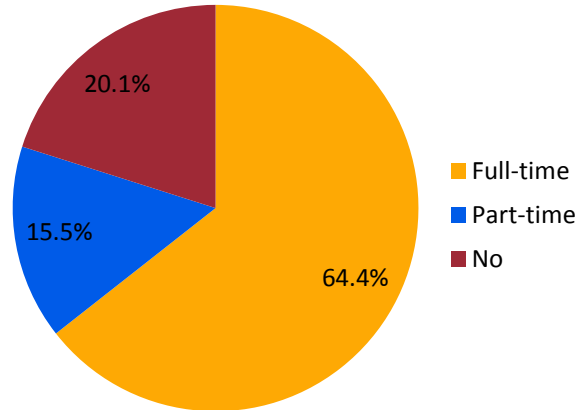


Figure 10 - Response to "Are you currently employed?" (413 responses, 13 skipped)

As Figure 11 shows, 44.3% of survey respondents have an annual income over \$50,000. This is consistent with the income information provided in the 2011 National Household Survey (NHS). According to the NHS, 10.9% of households in Peace River are classified as low income, which means half the median

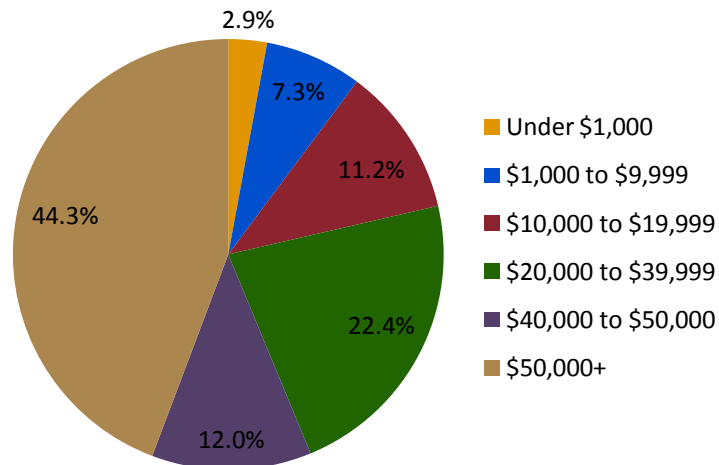


Figure 11 - Response to "What is your annual income?" (384 responses, 42 skipped)

after tax income, which, in Peace River, is approximately \$45,000. These numbers are difficult to compare since the NHS measures the income of all members of the household while the survey asked for individuals' income. 21.4% of survey respondents had an income under \$20,000.

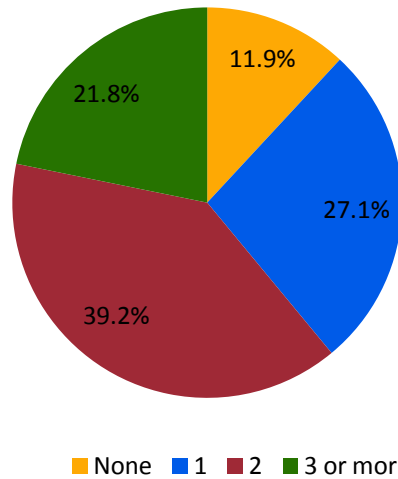


Figure 12 - Response to "How many cars are owned by your household?" (413 responses, 13 skipped)

While it would be possible for any resident of the Town of Peace River to access a municipal transportation service, as the number of cars in the household increases, the likelihood that any member of that household will access the service is likely to go down. As shown in Figure 12, 61% of survey respondents had 2 or more vehicles in their household.

Current Travel Patterns

Travel pattern questions provide a greater understanding of how residents are currently meeting their travel needs within the town. As Figure 13 shows, travel by private vehicle, either as the driver or the passenger, is the primary mode of travel within the town on a regular basis. Walking is the next most prevalent travel mode. Figure 14 further shows that the majority of trips made in Peace River are made alone, followed by, with 1 or more teenagers or adults. However, 19.5% of trips are made with 2 or more children, which is a trip type that presents a greater challenge to serve for a municipal transportation service, as the additional children’s car seats or strollers are more difficult, though not impossible, to accommodate. Figure 15 shows the destinations for the first trip reported by survey respondents. The responses show that over 36% of trips go into the downtown core, with another spike of activity on the West Hill, in the IGA/Walmart neighbourhood. The North End and the hospital neighbourhoods also account for a significant number of reported destinations. Figure 16 then goes further, isolating the top neighbourhoods for both origins and destinations, as well as showing in which neighbourhoods these overlap. This analysis shows that the North End and Downtown are key zones for a municipal transportation service.

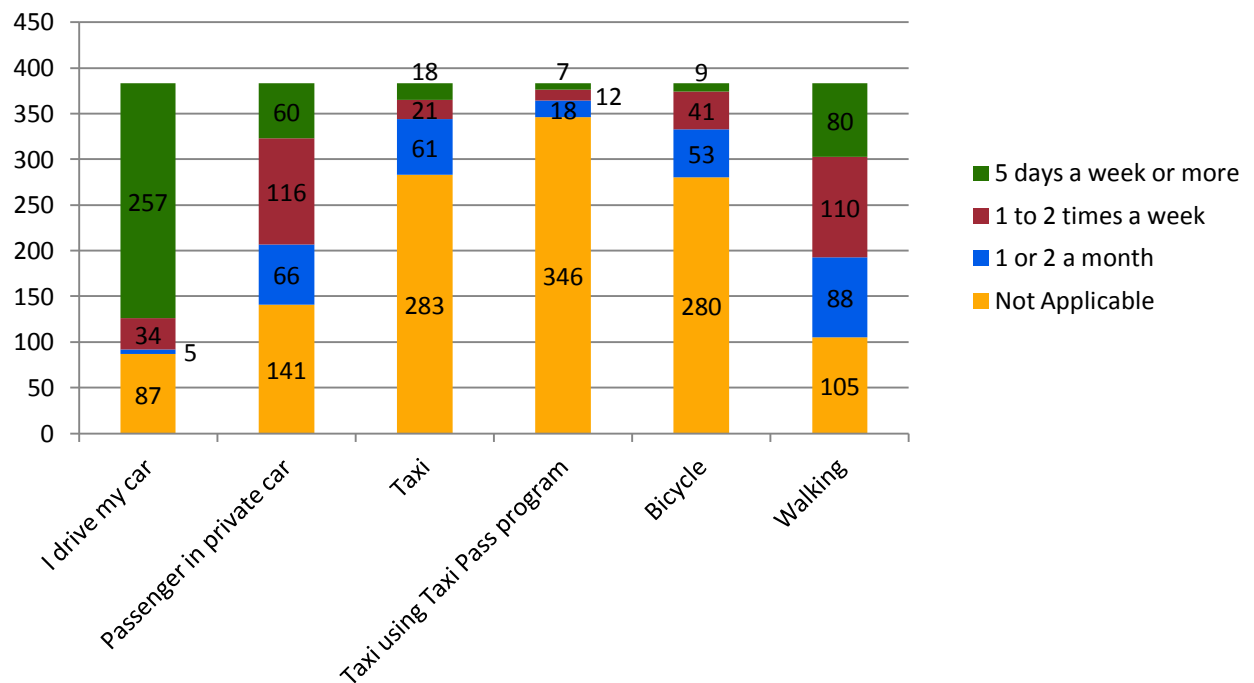


Figure 13 - Response to "How do you currently travel around Peace River? And, how often? (383 responses, 43 skipped)

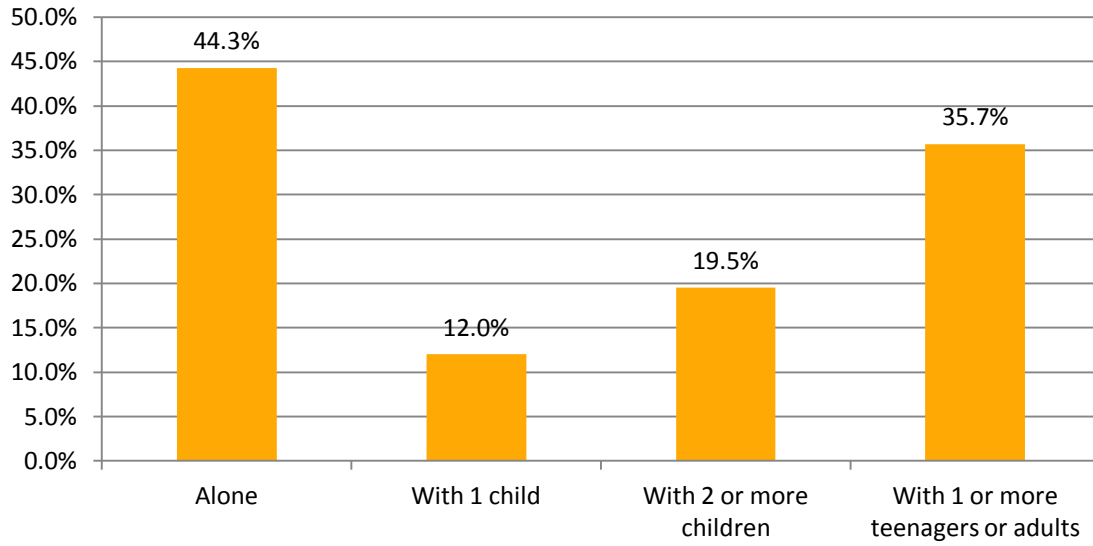


Figure 14 - Response to "On a typical trip within Peace River, do you travel with other people?" (375 responses, 51 skipped)

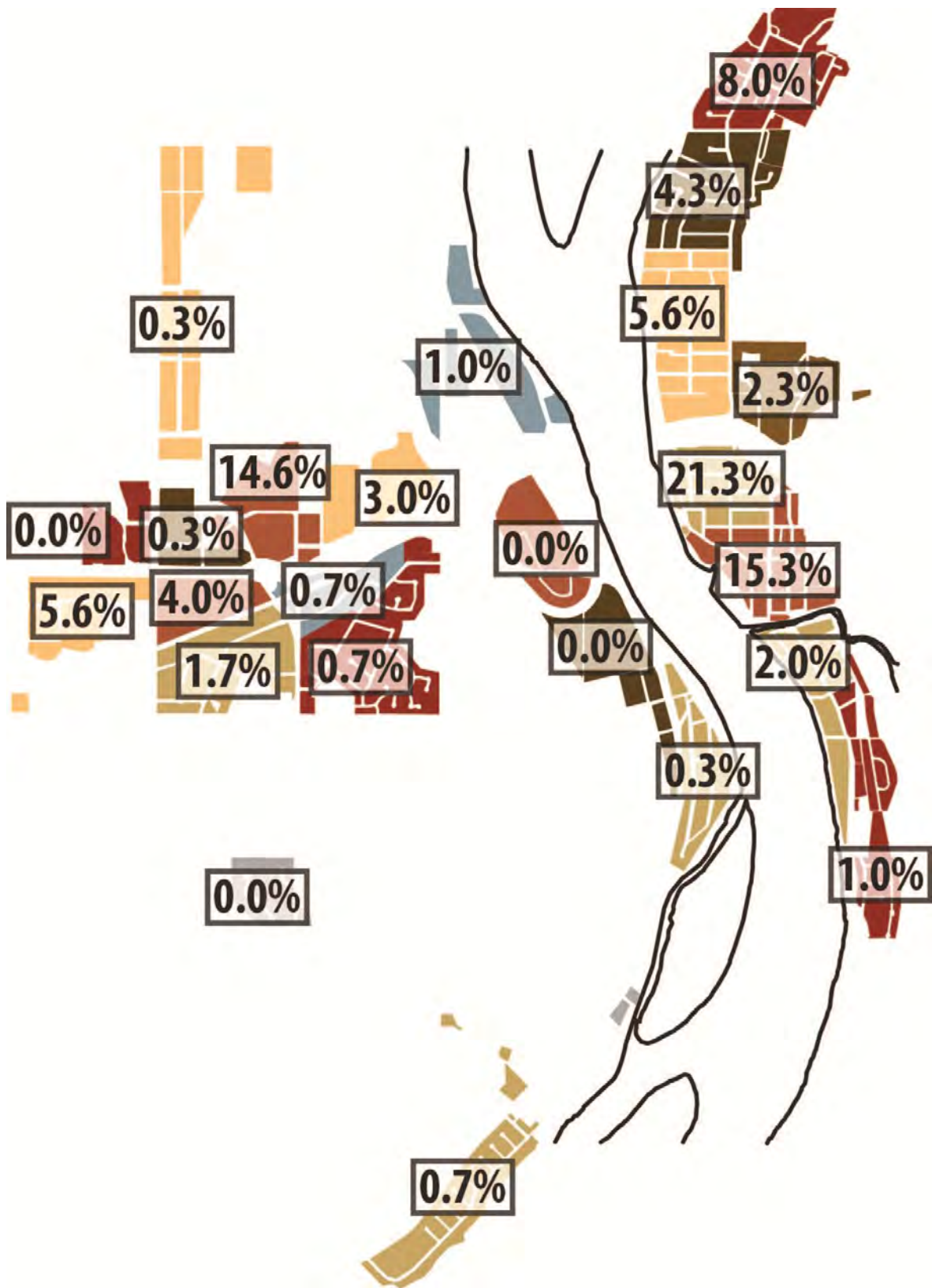


Figure 15 - Question 11 Destinations for the Trip 1 as a percentage of trips reported

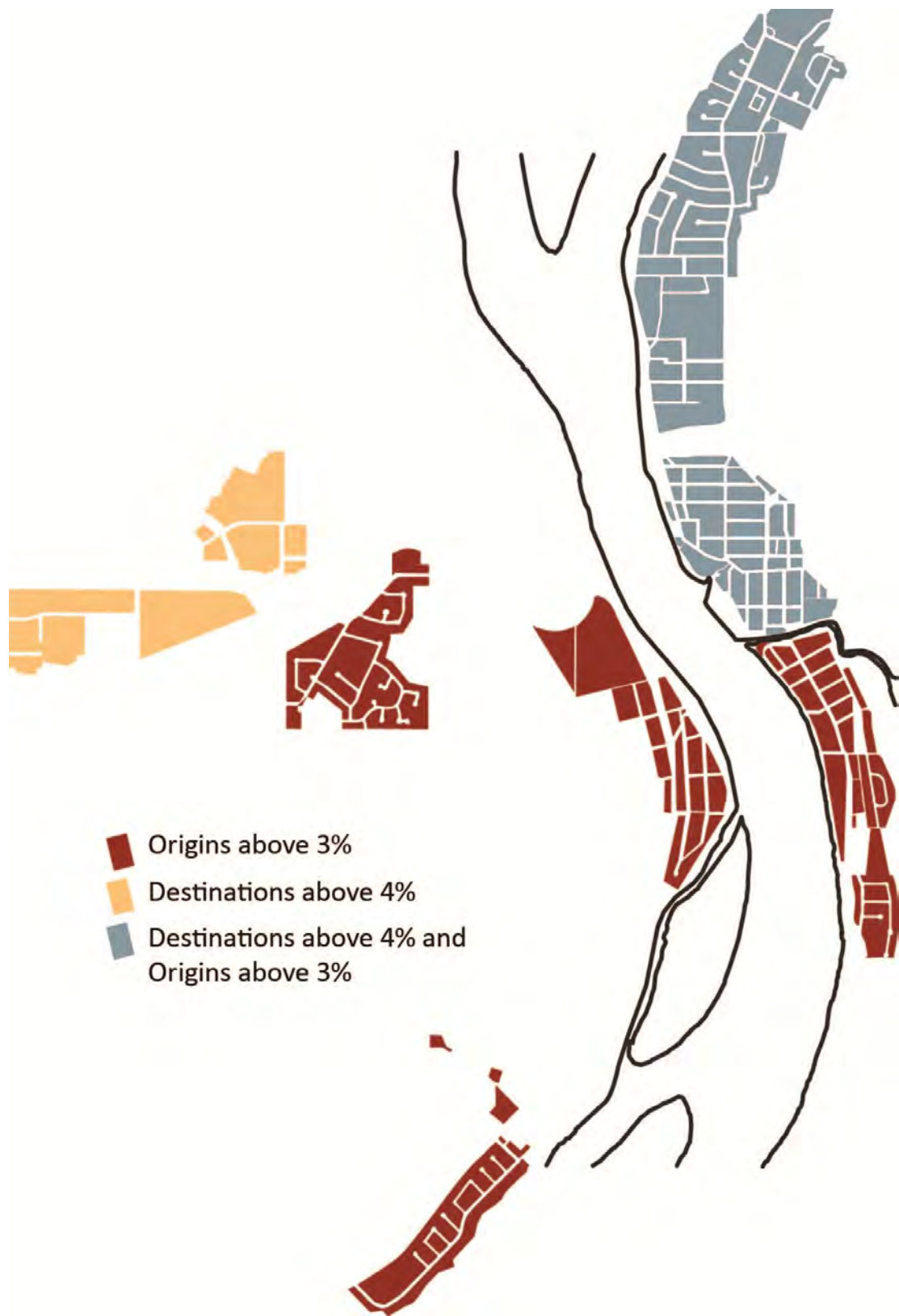
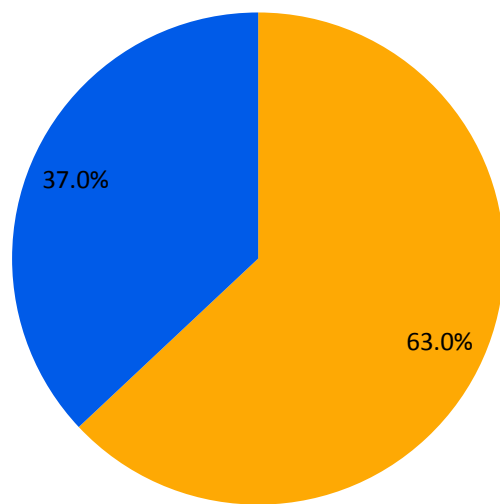


Figure 16 - Top origin and destination neighbourhoods

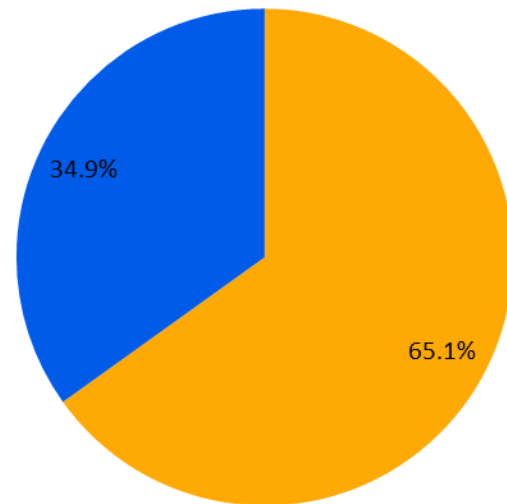
Transportation Service Needs

Questions 12 and 13 (Figures 17 and 18) asked survey respondents whether they anticipated accessing a municipal transportation service and whether their current travel needs are being met within the town. Interestingly, approximately 2/3 of respondents said they would like to access a municipal transportation service, while 2/3 also said their travel needs are currently being met. These two results seem incongruent. Taken together, these results may suggest that there are approximately 1/3 of survey respondents whose needs are not currently being met and who may attempt to use a transportation service, if it could successfully address the gap.



- Yes, a municipal transportation service would make traveling within Peace River easier for me.
- No, I don't think I would use any public transportation system.

Figure 17 - Response to "Would you like to have access to a municipal transportation service (taxi pass, bus or other)?" (284 responses, 142 skipped)



- Yes
- No

Figure 18 - Response to "Are your transportation needs currently being met?" (298 responses, 128 skipped)

Question 12 Filter

In an attempt to understand the disconnect in the overall results between questions 12 and 13 responses, the respondents who answered yes to question 12 were filtered out (Figure 19) to understand who these respondents are and what resources they have access to. The results of this filter show that 47% of respondents who said they would like access to a municipal transportation service have 2 or more vehicles in their household. Similarly, 38.5 % of these respondents make an annual income greater than \$40,000. Both these results suggest that approximately half of the respondents who have indicated that they would like to access a municipal transportation service have significant resources available to meet their travel needs, and therefore may be less likely to access the service unless it very specifically meets these travel needs.

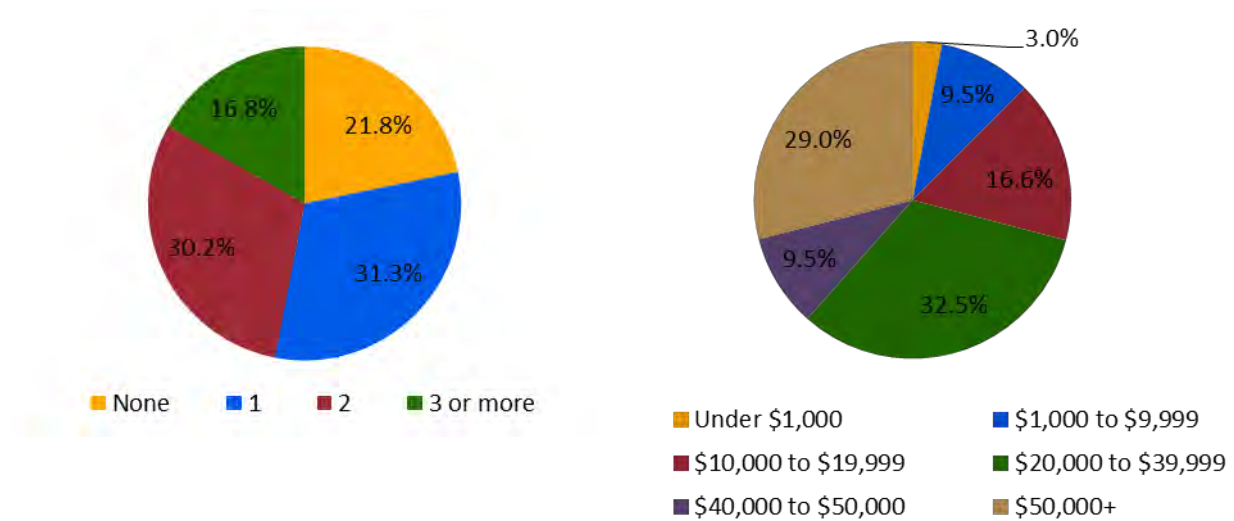


Figure 19 – Left: Filtered responses comparing those who would like access to municipal transportation with the number of vehicles in their household. Right: The annual income of these respondents.

The transportation challenges identified by survey respondents to question 14 were highly varied and a number of recurring themes emerged. Figure 21 shows how frequently varying themes emerged.

1. No Challenge

There were a few respondents who indicated that they had no issues or challenges with transportation in Peace River.

2. Disability

Respondents with disabilities as well as their friends, family and service workers noted that citizens with disabilities experience limited independence without accessible public transportation and must rely on friends and family or the Taxi-Pass Program.

3. Walking Conditions/Non-motorized Transportation Options

The lack of sidewalks in many areas of town, particularly the West Hill, was a recurring theme. Where sidewalks do exist, respondents noted that snow clearance and general maintenance is an issue, particularly for elderly citizens who no longer drive.

Another recurring theme from respondents was the desire to see other non-motorized transportation options explored such as bike paths and better connected trail systems.

4. Taxis

There seems to be a perception within the Town of Peace River that the local taxi cab companies are unreliable and sometimes unsafe. Key issues that were mentioned include highly variable costs (particularly when a client has more than one destination) and limited availability and/or long waits at certain times. For those who depend on the taxis as an integral component of their transportation system, the cost of the taxis becomes prohibitive. In addition, for those travelling with small children, particularly those in car seats, there are extra challenges to using a taxi. Respondents noted that the taxi pass program, as it is currently run, underserves users and that a public bus system would help fill in the transportation gaps.

5. Previous Bus System Was Inadequate/I Miss the Bus

There were a few comments that the previous bus system (discussed later) did not provide efficient service and was underused. Conversely, others were satisfied with the bus service and would like to see it reinstated.

6. Challenging Geography/Layout of Town

Many respondents noted that Peace River's main commercial and business areas are on opposite sides of the river with only one bridge serving as a crossing. The resulting disconnects between residential areas and employment centres and services are further hampered by

inadequate pedestrian infrastructure. Respondents pointed out that they often have multiple destinations throughout town that they are unable to access in one trip, whether it is by taxi or on foot.

7. Weather Challenges

Weather produces challenges for many of the respondents ranging from snow and ice not being cleared off sidewalks to it being too cold or too hot to walk.

8. Relying on Others for Rides is Sub-Optimal/Others rely On Me

A number of survey respondents regularly travel as a passenger with friends, family or coworkers, however, many of them indicated that this arrangement feels like an imposition. In addition, this situation can also be unreliable, making regular trips at specific times (like those required to hold a job) difficult to achieve. Conversely, many respondents described situations where they are the primary means of transportation for others: parents driving their children; children driving their aging parents; friends driving their friends, etc. These respondents noted that a public transit service would provide an alternative means of transportation for those who depend on them in the event that they are unable to provide transportation.

9. Only One Vehicle

Where households only have one vehicle for two or more residents, respondents noted that it is difficult to coordinate and accommodate multiple schedules.

10. Transportation System Infrastructure Maintenance

Many respondents noted particular issues with the infrastructure that supports the transportation system:

- a. Potholes in the roads;
- b. Sidewalks not well-maintained or non-existent;
- c. Snow, ice, sand and gravel clearance from roads, sidewalks and trails; and
- d. Benches and shelters for pedestrians to stop and rest.

11. Increasing Traffic Levels in Town

Several respondents mentioned that increasing levels of traffic in Town has an impact on traffic safety and infrastructure maintenance as more users access a finite and aging resource. Concern was indicated for pedestrian safety in particular.

12. Parking

A few respondents were concerned about the availability of parking close to businesses in the downtown.

13. Getting to Work

Many of the respondents highlighted that their transportation challenges limited their ability to find work, or reliability get to their jobs. The wage they are able to earn at their job is not enough to cover the cost of getting to work.

14. Cost of Travel

Some of the respondents with vehicles mentioned that they would like the option to use public transportation as a way to save money on fuel and as a back-up mode of transportation if their vehicle is unavailable.

15. Mobility/Equity/Freedom of Movement

A number of respondents pointed out that without access to affordable public transportation, many citizens experience a loss of independence and mobility and therefore a lower quality of life. Those who identified themselves as owning a vehicle noted that having access to reliable, affordable and accessible transportation should be a service provided by the Town, for everybody. For citizens with a low income, those without a license or access to a vehicle, and citizens with disabilities, opportunities for employment and/or to attend social events and daily living needs are limited. Several respondents with vehicles mentioned that they would like the option of taking public transit as a way to save money, to avoid driving during bad weather conditions and/or to live in a more environmentally friendly way.

16. Perceived Future Need

Many respondents admitted that while they do not need public transportation right now, they will probably need it in the future. Parents mentioned that their children will soon be old enough to take a bus by themselves; elderly citizens mentioned that they will not be able to drive themselves, or others who depend on them, indefinitely.

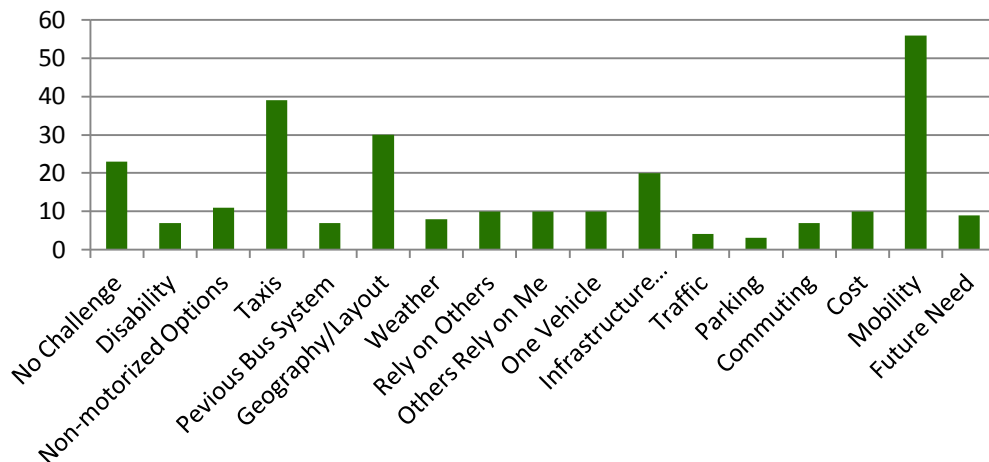


Figure 21 – Themes in responses to question 14: “Please describe your transportation challenges in the Town of Peace River.”

Business Survey Results and Analysis

A total of 41 local businesses responded to the business survey. Approximately 1/3 of the businesses surveyed indicated that their employees are struggling with transportation issues. The issues identified include: No drivers licence, no car, foreign workers, high cost of travel, relying on others to get around, taxis have been unreliable, long walking distances

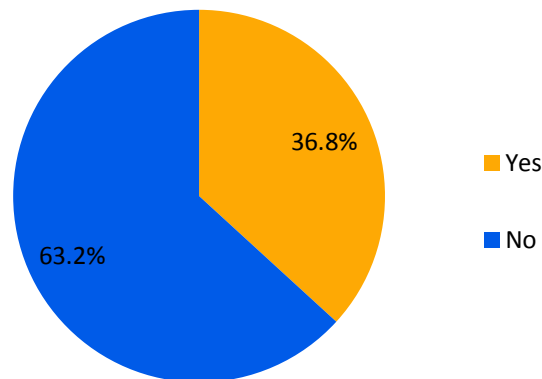


Figure 22 - Response to "Are any of your employees struggling with transportation issues?" (38 responses, 3 skipped)

Themes in the Feedback

The attitude of the business community towards a municipal transportation service is split. Some in the business community have identified that the current transportation system in Peace River does not meet the needs of their employees and customers, and they value changes and improvements to the system. These respondents identified specific groups such as low-income earners, elderly citizens and disabled citizens as especially in need of improved service. Alternatively, other businesses are satisfied with the current transportation system and are concerned that any major addition to the transportation supply would increase taxes.

The majority of businesses indicated that employee and customer transportation does not have an impact on their business. Of the employers who indicated their businesses *have* been impacted, some themes emerged:

- A number of businesses have identified that they have lost employees who could not find affordable transportation to work;
- Employers struggle to deal with employees who are late for their shift, cannot make it to their shift at all, or who need to be picked up and dropped off;
- Employers also recognize that their employees who rely on a taxi to get to and from work are spending a large portion of their wage on travel. Often, these employees are also late, when the wait time for a taxi is unexpectedly long.
- Many businesses identified that the geography of the area and the layout of the Town is a barrier to customers without access to personal transportation; and

- The cost of taking a taxi or renting a car was also identified as a potential barrier to customers accessing their businesses.

Businesses also reported on how their employees currently travel to work:

- Car : 28
- Cab : 5
- Walk : 9
- Bike : 3
- Rely on others : 6
- Company-supplied transport : 2

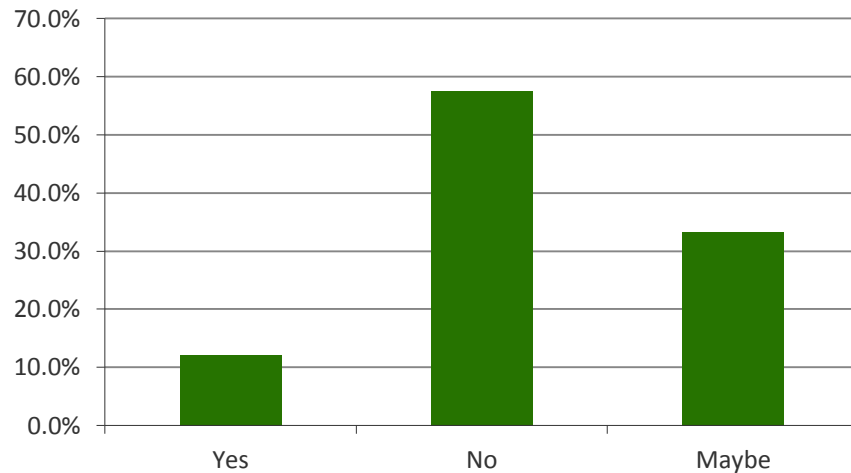


Figure 23 - Response to “Would you have flexibility to change your shift times to coordinate with a municipal transportation service?” (33 responses, 8 skipped)

The success of a public transportation service could be influenced by the business community’s ability to adapt their business practices, particularly their shift start and end times to coordinate with the services. As Figure 23 shows, slightly less than half of survey respondents indicated a potential to work with a municipal transportation service, to maximize its effectiveness for both employees and the business.

Employers were split with respect to the value that a municipal transportation service could bring to their business. 15 of the respondents indicated they do not think business would improve as a result of the provision of a municipal transportation service. However, 4 of the respondents thought it may be beneficial and a further 13 of the respondents could see a benefit to their business because:

- It would give customers more transportation options;
- It would provide youth and the elderly with more mobility; and
- More freedom of movement for the population of the Town as a whole.

TRANSPORTATION OPTIONS

Service Market

Based on the feedback from the public survey, there is a clear desire in the community to provide better transportation options for seniors, persons with disabilities and low income individuals. Responses to the business survey also highlight a need to provide new transportation options to low income workers.

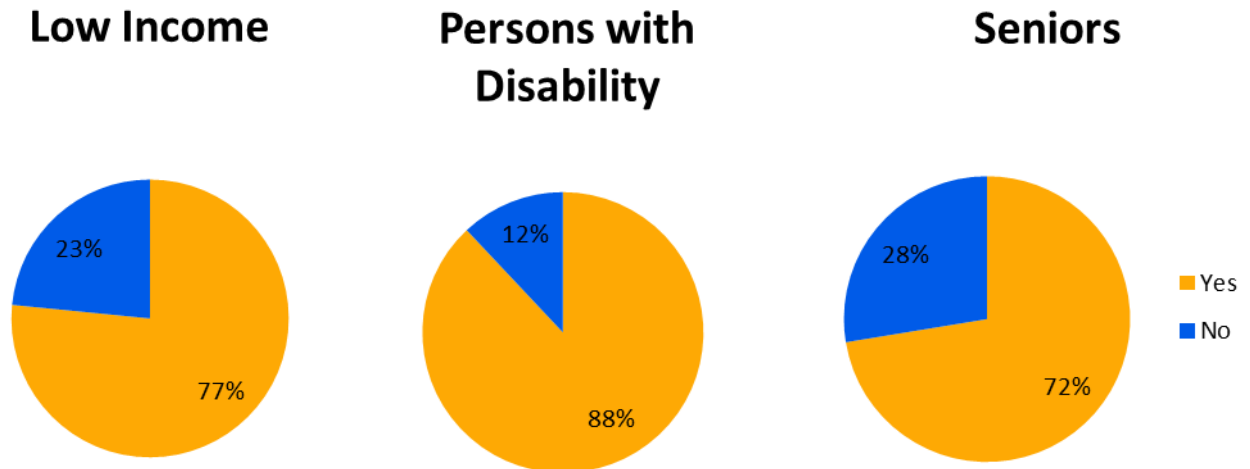


Figure 24 - Target Group responses to Q12 "Would you like to have access to a municipal transportation service (taxi pass, bus or other)?"

As shown in Figure 24, for all the key target groups identified by the Peace River community and the Focus group, the proportion of those who answered "Yes" to question 12 and indicated that they would like access to a municipal transportation service was greater than the overall survey respondents (63%).

In order to effectively serve these populations we must consider the following questions.

- ✓ **WHO** do we want to serve? (And, who is travelling with them?)
 - *Age; Income Level; Job Type; Family Structure; Ability Level; Gender*
- ✓ **WHERE** do they need to travel (from and to)? (origin and destination)
- ✓ **WHY** do they need to go? (Trip Purpose)
- ✓ **WHEN** do they need to make a trip(s)? (time of day, day of week)
- ✓ **HOW** often do they need to make the trip? (Frequency - daily, weekly, monthly)

Trip 1 Origin and Destinations for Key Target User Groups

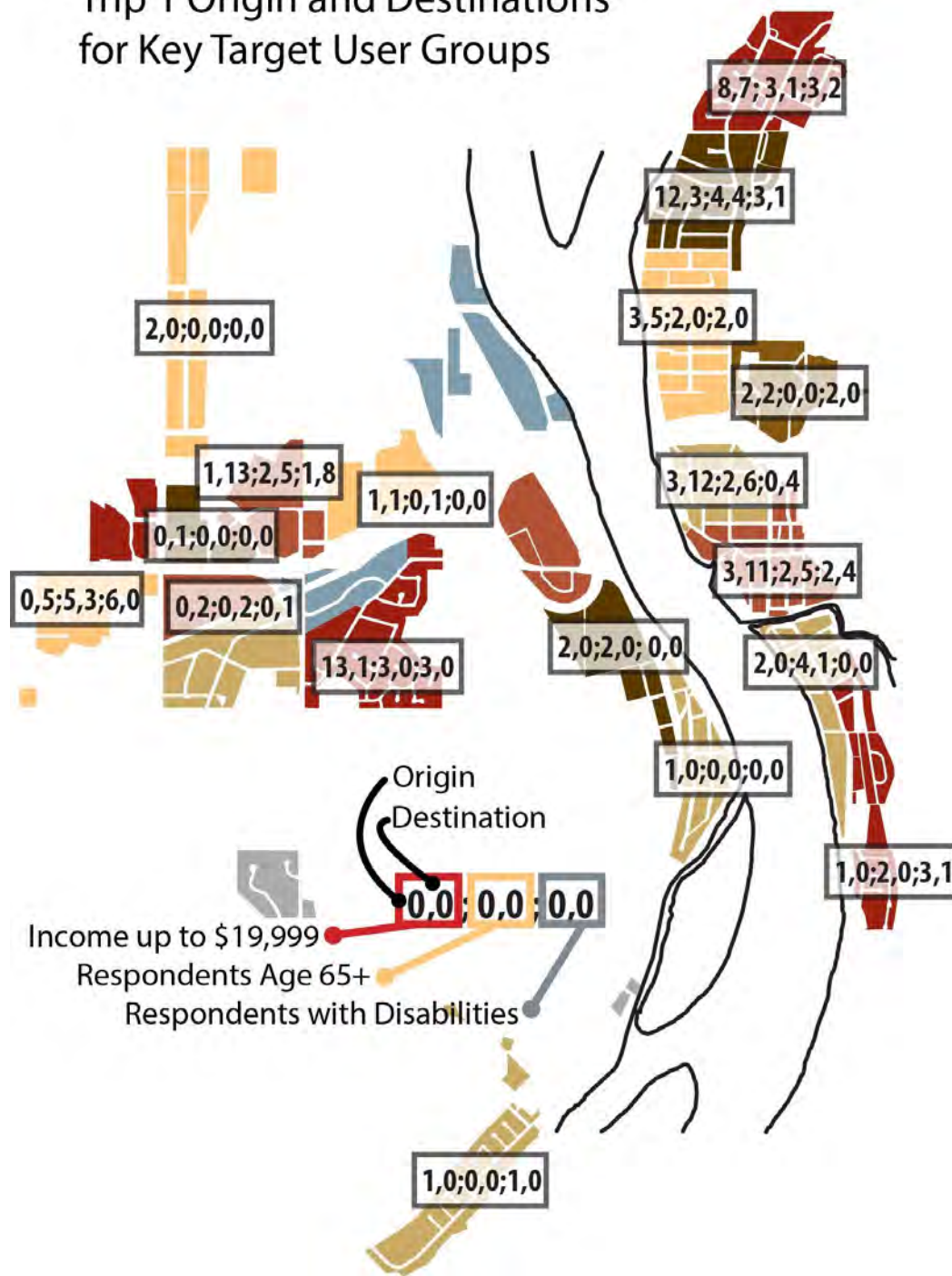


Figure 25 - Question 11 Trip 1 Origins and Destinations for target user groups: Income up to \$19,999, Age 65+, With Disabilities

The target groups are the residents who will be the most likely and frequent users of a municipal transportation service and, as such, their travel patterns and needs will influence the most appropriate type of service. Figure 25 maps where each of the identified user groups are traveling to and from based on responses from question 11. Table 4 describes the different types of transportation services and their appeal or usefulness to different user groups.

Table 4 - Transportation Service Alternatives ability to serve User Groups

	Low-Income	Able-bodied Seniors (65+)	Persons with Disabilities
Conventional Fixed Route Transit	High	High	Low to Moderate
Flex-route transit	High	High	Low to Moderate
Paratransit	Low	High	High
Dial-a-ride	High	High	Low
Vanpool	Moderate	Moderate	Low
Enhanced Taxi Pass Program	Low to Moderate	High	High; no wheelchair clients

Service Options

The service options are compared in Appendix E.

Paratransit

Paratransit provides specialized transportation for individuals with disabilities using accessible vehicles. These services include assistance provided by the driver to access and be safely secured within the vehicle. Local paratransit examples are “Handi-bus” services. These tend to be either not-for-profit owned and operated or managed and funded through municipalities. Northern Sunrise County and the MD of Smoky River both provide services under this model. The bus systems were originally developed for seniors and individuals with disabilities, however they have recently been expanded to include other sectors of their communities. These types of services can operate either on a fixed-route, stop based system or as a demand responsive service that provides door-to-door transportation.

Flex-route Transit

Flex-route transit service is a variation of fixed-route transit service. With a flex-route, the actual fixed route can sometimes be shorter, and portions of the route with lower ridership are only covered occasionally when there is a passenger. This type of service can often result in lower operating costs by eliminating a vehicle in off-peak times, or extending service to areas with low ridership just beyond the regular route.

Unfortunately, two of the key variables that are essential to making this type of service viable are absent in Peace River. Firstly, the ability to reduce vehicles during off-peak times is not present in Peace River, as a fixed-route system appears to be feasible only with a single bus. Secondly, the “base” fixed route must have sufficient time in the schedule to occasionally permit longer trips that cover the areas served

by the flex routing. In the case of Peace River, it would appear that the fixed route would be so long that there would not be sufficient extra time to occasionally cover a flex trip off the route.

Dial-a-ride

Dial-a-ride services are again another variation of a fixed route bus service. This service would include designated bus stops, where the user calls into a Dispatcher requesting pick up at a specific numbered bus stop within a specified timeframe. The user is transferred to the nearest stop based on their request.

The bus is then dispatched to the stop with potential stops along the way as other calls dictate the direction of the bus travel.

Dial-a-ride services are potentially useful during off-peak or low usage timeframes and can be a prelude to a full fixed route bus service as a tracking system can be put in place to assess the demand of each stop and destination points. However, the implementation of this system can be more complicated, as a dispatcher, in addition to a driver, is required to run the service.

Ride-Share/Car-Pooling

This type of transportation service allows individuals to share the expense of traveling to a destination. The service requires individuals to register for the “sharing” of their vehicle or the acceptance of additional riders within their vehicle. This type of service occurs informally on a regular basis, especially with employees within the same company on the same work schedule. This type of service is not one that a municipality would coordinate, but rather encourage or promote as an individual choice or option.

Vanpooling

Vanpooling is a variation of carpooling but on a larger scale. Whether provided by a community not-for-profit or by a business, members register for the service and provide payment in return for a “ride” to their destination. This type of service is commonly found occurring between communities. An example of this service was attempted by a local company between Grimshaw and Peace River over three years ago.

Conventional Fixed Route Transit

The fixed route transit system is a route that operates of a fixed schedule, with identified stop locations.

Comparable Transit Systems

Hinton

Hinton has a population of 9,640¹² and has a similar valley topography and somewhat disconnected land use pattern as Peace River. The public transit service in Hinton is a small bus that operates on a loop style route, running every hour. The bus service is reduced during July, August, Spring Break and Statutory Holidays when demand falls and is insufficient to warrant service. In addition, no service is

¹² Stats Canada, source: <http://www12.statcan.gc.ca/census-recensement/2011/as-sa/fogs-spg/Facts-csd-eng.cfm?LANG=Eng&GK=CSD&GC=4814019>

offered on non-school Fridays. The Town of Hinton also provides a Handi-bus service in addition to the fixed route service. In 2013, Hinton provided a total of 24,846 rides.

Whitecourt

Whitecourt has a population of 10,574¹³ with valley topography creating two distinct areas of the Town, though they are not separated by a river. The Town of Whitecourt currently operates a Dial-A-Bus Transportation Program for seniors, and persons with disabilities, and is implementing a new public transit service in September 2014. The new service is expected to be an hour-long, 25 km loop. The service is to be a one year pilot project.

Cold Lake

Cold Lake had a population between 11,000 and 13,000 at the time the town implemented their transit system¹⁴. The Cold Lake Transit System ran from September 2004 to February 2005 and ended with a \$100,000 deficit. The system had operated Monday to Friday from 6:30 a.m. to 6:30 p.m. with three buses and generated approximately \$100 per day in revenue. Transit fares were \$3 for adults and youth, \$2.50 for seniors and \$2 for children. The Town of Cold Lake is once again investigating the possibility of a transit system.

Peace River 2009 to 2011

The Peace River transit service was a low cost (Figure 26) fixed route – loop system that ran Monday to Saturday from 6:30 am to 7:30 pm (13 hours per day). Service was not provided on Sundays and statutory holidays. The service was very long with one loop taking one hour and 17 minutes. The schedule allowed the transit to reach all neighbourhoods of the town, except for the Shaftsbury area. This area was dropped from the schedule as it did not receive sufficient use. In 2010, the last complete year of operation, the town provided 11,466 rides.

Cash Fare:	\$2.00 [one way] (rider must have exact change)
Ticket Booklet:	\$35.00 (20 tickets)
Monthly Pass:	\$70.00 regular rate
	\$65.00 for seniors/students/disabled persons and individuals on AISH
	(School ID and proper documents must be provided at time of pass purchase)
	Children under 5 years of age ride free
	Monthly passes are eligible for a tax credit on Federal Income Tax.

Figure 26 – Peace River Transit System Fares

¹³ 2013 Municipal Census, source:

<http://www.whitecourt.ca/Government/2013MunicipalCensus/tabid/659/Default.aspx>

¹⁴ Cold Lake Municipal Census, source:

<http://www.coldlake.com/municipal/coldlake/webcms.nsf/AllDoc/F7FE7892B9EA848687257D1000704517?OpenDocument>

The system operated from 2009 to 2011 and provided a number of benefits to the community, however it also proved challenging to operate. Both the challenges and benefits are highlighted below. The challenges highlighted are based upon rider complaints and Town administration's experience with operating the system.

Challenges:

- **Infrastructure**, such as curb cuts, sidewalks, benches, and shelters at bus stops was lacking.
- Required **updated vehicles**; the bus was old and visually not very appealing to users.
- **Manpower during winter** months was insufficient to maintain access to bus stop locations – i.e. Snow shoveling and snow plowing.
 - Possibly placed bus stops within snow removal zones that caused an issue of snow being piled up near bus stops, making them inaccessible.
- Complaints of **inconsistency** in schedule/route timing.
 - The drivers of the bus were going off route to assist clientele, especially those with mobility issues. However, this additional assistance had an impact on route schedules.
- Overall route schedule was **too long** and a single loop took over one hour and twenty minutes.
 - Poor overlap to shorten crossover points, to allow for shorter wait and ride times while on the route.
 - Requests for additional bus stops were increasing, thus increasing pressure to expand a system that was beyond a reasonable timeframe.
- Service/bus was **not accessible** to those with significant mobility issues, although the system was never designed or marketed to meet this specific area of need.

Benefits:

- Overall **community acceptance and support** for the service.
- **Open access** to any user, no criteria or application for use.
- Provided **service throughout** the majority of the community.
- Very **inexpensive** to the user.

Also of significant note, it has been reported that the ridership of the transit system within its last year of service, was predominantly being utilized by the same core group of individuals. This observation has been made by a number of regular users of the service during this period. Unfortunately, ridership statistics were taken based on the number of tickets or cash amounts obtained by the driver and during the last year of service there were no surveys to confirm the actual number of “users” of the system, only the number of rides provided.

The observational information is valuable in providing some context to the development of any new transportation service.

2014 Transit Option

This alternative examines the feasibility of redeveloping a fixed-route transit system for Peace River. A fixed-route service also provides a baseline against which other alternatives can be compared. The objective of the system would be to maximize the population served, while maintaining an hourly service. The hourly standard was chosen for a number of reasons:

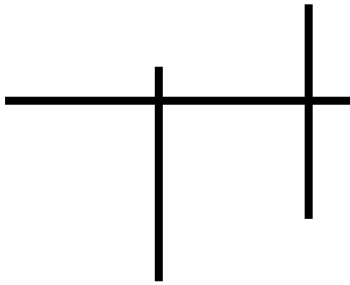


Figure 27 - Basic shape of Peace River travel patterns

1. A bus serving a stop once an hour is a simple concept to communicate to the public, which increases the legibility of the system, thus supporting ridership and providing better service.
2. It is the standard set by comparable transit systems in the Towns of Hinton and Whitecourt.

The basic layout of Peace River (Figure 27) has both advantages and disadvantages for the design and operation of a public transit system. The town is very linear on the east side of the river, which is good for transit. The town is also quite narrow on the east side, not more than 800 metres at its widest point. This means that the majority of the North End and Downtown can be effectively served by one route, as a 400m walking distance to a bus stop is a respectable level of service.

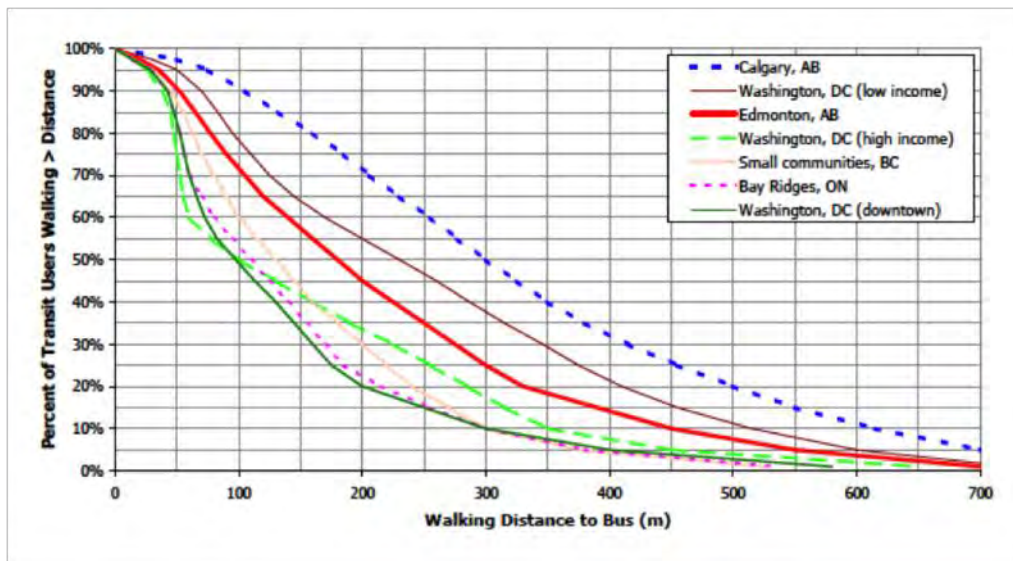


Figure 28 – In general, research has shown that the optimal walking distance to a transit stop is 400m or less.¹⁵

As shown in Figure 28, the majority of the east side of the river can be captured within a 400m buffer of a single transit line and any attempts to duplicate the service would result in high levels of overlap, and thus significant inefficiencies. However, the South End presents a challenge, as the southernmost end of this neighbourhood splits into three levels, which are not connected by streets or pedestrian trails.

¹⁵ Source: Walker, Jarret. Human Transit. <http://www.humantransit.org/2011/04/basics-walking-distance-to-transit.html>

On the west side of the river, the Town is organized around Hwy 2 running east-west on the West Hill, and along Hwy 684 (Shaftesbury Trail) running north-south, along the river. This concentration along 2 major roads makes serving all areas of town with timely service a challenge. On the West Hill there are only two locations within the town where vehicles can cross the highway and it is impossible for a vehicle to route back on itself on the north side of the highway if taking the first and quickest exit off the highway.

Figure 29 shows a possible fixed route transit system for the Town of Peace River. The system consists of 2 lines served in succession by one bus: the **North End-South End Line** and the **Downtown-West Hill Line**.

The **North End-South End Line** serves the east side of the river. The route is 9.3 km in length, which takes approximately 15 minutes to travel in good conditions, without stops. There are approximately 11 stops along this route.

This route will serve the North and South Ends, the Downtown, and the Cool Springs Manufactured Home Park. In the south end, the route terminus is at 108 Ave. and the route does not travel up to either of the terraces. Residents at the furthest end of the neighbourhood will have to walk over 1 km to access the bus service. While not ideal, this routing decision is based on a number of factors:

1. It is not time effective to serve the terraces, traveling the extra distance increases the total time of the route by 5 to 7 minutes, which jeopardizes the ability to maintain an hourly schedule.
2. The streets in the area are narrow, particularly in winter, making it difficult for a bus vehicle to navigate, which will further increase the travel time in the area.
3. Past experience has shown that the bus had challenges ascending the hill in winter, when road conditions are variable, which would further increase travel time.
4. It would be difficult, if not impossible to directly serve all three levels of residential development.

The **Downtown-West Hill Line** is 14.5 km in length, which takes approximately 24 minutes to travel in good conditions, without stops. There are 15 stops along the route that will serve the Cheviot Manufactured Home Park, Westview and Saddleback neighbourhoods. Given the geographical challenges of this area, the line will act as a one-way loop through the IGA commercial area and through the Saddleback neighbourhood but will function as a regular 2-way line between Canadian Tire and the hospital (terminus stop).

An additional line, the **Downtown-Shaftesbury Line**, is needed to reach the neighbourhoods along the Shaftesbury Trail. However, serving this line will make the route schedule too long and therefore should not be implemented in the first phase of a transit system. This line is 11.5 km in length and takes approximately 20 minutes to travel in good conditions without stops. There are 7 stops along the route. This route will serve the Terrace Manufactured Home Park, the Lions Campground, the Pines, Citadel Ridge, Upper West Peace and Lower West Peace neighbourhoods.

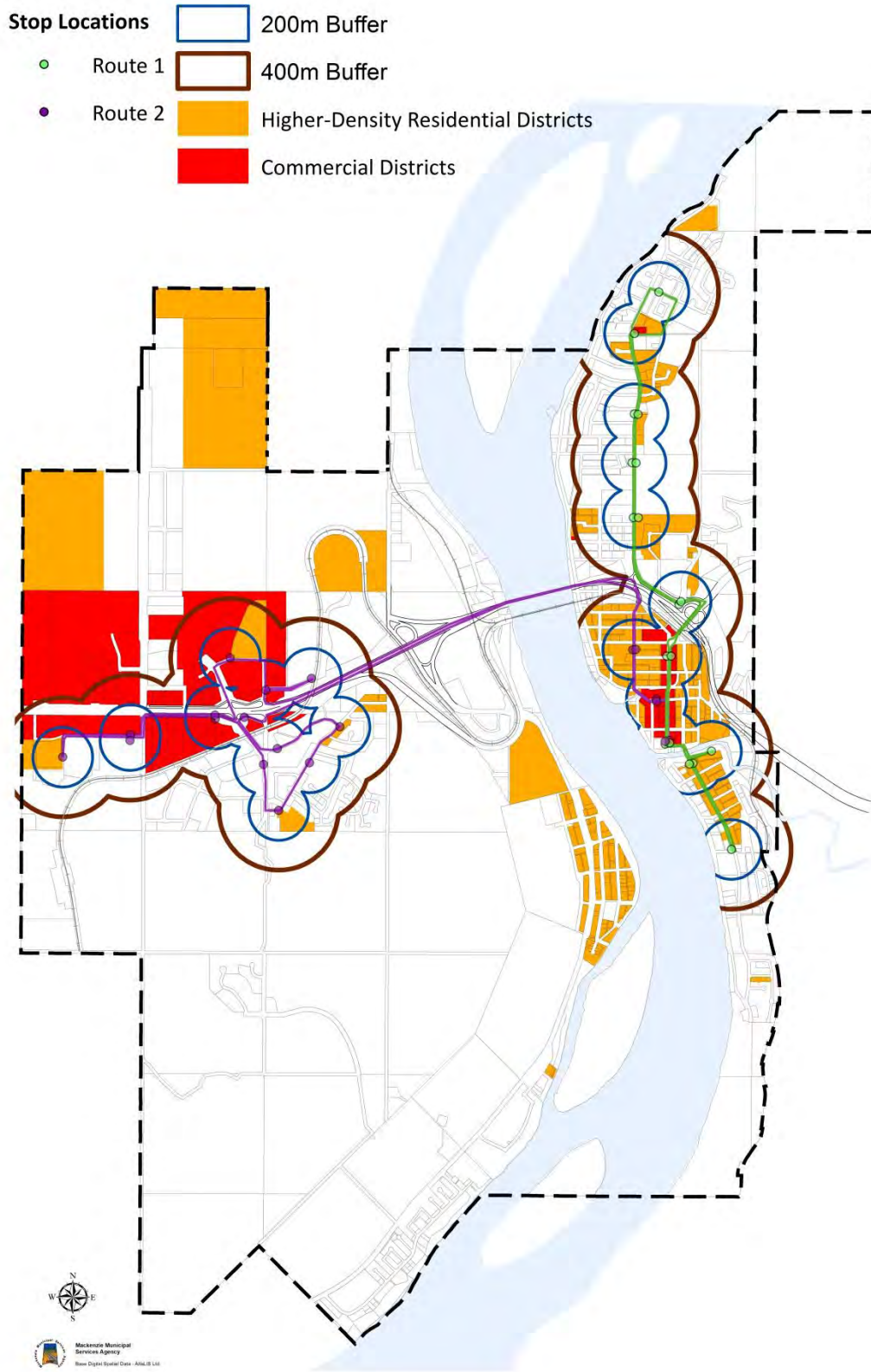


Figure 29 – Phase 1 Bus Routes and potential stop locations with buffers

Table 5 – Route descriptions and implementation phases

Line	Distance (km)	Drive Time (min)	# of Stops	
North End – South End	9.3	15	11	Implementation Phase 1
Downtown – West Hill	14.5	24	15	Implementation Phase 1
Downtown - Shaftesbury	11.5	20	7	Implementation Phase 2
Total	35.3	59	34	

The total time to travel all three lines, in good conditions without stops, is 59 minutes. As such, it would not be possible to serve all three lines with a single bus. Therefore, tough choices will have to be made to be able to provide an hourly service with a single bus.

An initial bus service that runs the **North End-South End Line** and the **Downtown-West Hill Line** will serve the majority of the residential population in town and both main commercial areas. Serving these lines takes 39 minutes, which allows a dwell time of 1 minute at 16 stops along the route, and provides a 5 minute buffer on each hour, for driver breaks, possible poor road conditions or unforeseen travel delays.

Adding a second bus and driver, which would allow the **Downtown-Shaftesbury Line** to be served, increases overall capital and operating costs, but decreases the drive-time and provides more flexibility, two factors that positively influence ridership.

There is also an option of operating two buses only during high demand periods, thus decreasing travel time and effectively managing the ridership demand.

Anticipated Ridership

In the last full year of bus service, the Peace River bus had 11,466 passengers (not including children under 5) or 1.7 rides/person.

In 2013, the Hinton bus service had a ridership of 24,846. Hinton has a population of 9,640 people, which equates to 2.58 rides/person. If Peace River was to achieve a similar ridership level per person that would work out to 17,382 rides per year.

It is difficult to predict what the impact of the new transit system, compared to the old system, would have on overall ridership. The transit system would not provide the same coverage throughout town as previously. However, the system would improve in a number other ways, which would support increased ridership. Table 6 outlines factors that would positively and negatively impact ridership.

Table 6 – Factors influencing transit ridership

Positively impact ridership	Negatively impact ridership
<ul style="list-style-type: none"> • Greater route clarity • Greater route reliability • More frequent service • Accessible vehicle 	<ul style="list-style-type: none"> • Reduce number of neighbourhoods served by system • Fewer bus stops and greater walking distances

Anticipated Costs

Costs for a transit system are driven by the initial capital costs for the required infrastructure, as well as capital reinvestment, and the annual operating costs required to deliver the service. Operating costs are driven by the number of hours of service provided by the service. Table 7 illustrates an approximate costing based on a per hour calculation, which is assumed at 52 weeks. The cost per ride calculation includes all operating expenses and is divided by the number of actual riders.

It is interesting to note, both Hinton and Whitecourt operate their transit services using a contracted vehicle through a private company. However, they both hire their own drivers and manage the service internally to their municipalities.

Table 7 – Transit system operating costs

	Annual Operating Cost	Cost/Service Hour	Cost/ride
Hinton	\$ 262,101.52 (2013 actual)	\$69.05	\$10.54/ride
Whitecourt	\$ 323,000 (2014 anticipated)	\$73.95	Unknown
Old Peace River	\$193,709 (2010 actual)	\$49.18	\$16.89/ride
Transit – Contracted buses	\$319,523	\$78.78	Unknown
Transit – (purchase of bus for an internal service – capital not included)	\$304,200.00 (estimated)	\$75.00	Unknown

A successful transit service requires certain components to increase its chance of success:

- **Shelters/benches at each stop** – users with physical limitations or challenges are more likely to access a service that ensures their comfort.
- **Shorter route times** – no more than half hour per route.
- **Perception of high quality service**
- **Regular and consistent maintenance** of bus stop, including snow removal.

Table 8 – Proposed Peace River transit system capital costs

Capital Requirements	Units	Total Cost (Estimate)
Stops		
Transit Stop Signs	26	\$ 1,300.00
Benches	13	\$ 65,000.00
Shelters	26	\$ 65,000.00
Garbage Cans	8	\$ 9,600.00
Concrete Pads and Curb Cuts	8	\$ 8,000.00
Buses		
Fare Boxes	2	\$ 400.00
Buses (for an internally run system; 2 vehicles*, One low floor accessible vehicle** and one back up vehicle)	2	\$ 294,510.00
Total Capital Requirements		\$ 443,810.00

*Must have 2 buses available, for when the main bus is off route for maintenance or breakdowns

**A Low-floor bus has advantages that could increase ridership:

- **Increased access to wider variety of users** – Improved (or actual) accessibility for wheelchair users, those with physical disabilities who have a difficulty climbing up or down stairs, children and caregivers with strollers.
- **Reduced route time** – Boarding times are reduced which lowers dwell time at each stop and improves reliability of service.

Anticipated Revenue

The anticipated annual revenue is based on an analysis of cash fare revenues for two different scenarios:

1. A full fare of \$2.00 per ride for everyone; and
2. A full fare of \$3.00 per ride for everyone.

Table 9 provides an analysis of potential revenue from the two different cash fares based on ridership rates from the last year of the previous Peace River transit system as well as ridership rates based on projections from the Town of Hinton.

Additional revenue could be gained from advertisements on the buses and bus shelters and, while helpful, should not be relied on as a significant revenue source. Hinton was able to garner \$10,000 in advertising revenue in 2013.

Table 9 – Anticipated Revenue

Fares (\$)	Revenue based on Peace River 2010 Ridership Rate (1.7 rides/person or 11,466 rides)	Revenue based on Hinton projected ridership rates (2.58 rides/person or 17,382 rides)
\$2.00	\$22,932.00	\$34,763.78
\$3.00	\$34,398.00	\$52,145.67
\$4.00	\$45,864.00	\$69,528.00
Advertising		
	\$10,000.00	

If the Town ran the service internally, the annual operating costs are estimated at \$304,200.00. In the best-case scenario of 2.58 rides/person or 17,382 rides per year at an average cash fare of \$3.00, the revenue would be \$52,145.67, with a net cost to the Town of **\$252,054.33**. At \$2.00 cash fare, the revenue would be \$34,763.78, with a higher net cost to the Town of **\$269,436.22**.

If the Town contracted the service out, the annual operating costs are estimated at \$319,523.00, which results in net costs to the Town of **\$267,377.33** at a \$3.00 cash fare or **\$284,759.22** for a \$2.00 cash fare.

Taxi Subsidy Programs

Taxi subsidy programs subsidize the cost of a trip using a private cab company. There are many communities that utilize this type of service, especially within smaller communities under a population of 6,000; examples include the MD of Big Horn, Town of Black Diamond, and the Town of Grande Cache. This is a typical program for communities with taxis as the only transportation service.

Service models include:

- Direct billing for client rides to the municipality,
- Using taxi cards/coupons that clients purchase and provide to the cab company for payment of the ride, which the cab company submits to the municipality for reimbursement , or
- Charging 50% of the cost of a trip to the client and the remaining 50% to the municipality, for approved clients.

These variations of a taxi subsidy system work well when the fares for a ride are consistent within a community, regardless of destination.

Another variation of taxi subsidy, used where the taxi fares are variable, depending on the trip is TaxiSaver program. This program is a subsidy on the actual rate for a taxi ride. Booklets of tickets that represent cash value are purchased from the municipality at a reduced rate (e.g. For \$100 of TaxiSaver money, the client may spend \$50). The rate of subsidy could be variable, depending on the client and the needs of the community. The booklets are made up of coupons of various denominations that the client then uses to pay the total dollar amount of the ride. Many of the mid-sized to larger cities provide this option to clients of their Handi-Bus systems, including Kelowna and Vancouver, BC.

Current Taxi Pass Program

The current Taxi Pass Program is an adaptation of a smaller program that had been operating in Peace River for over 20 years. The current enhanced program was augmented following the termination of the transit system in 2011. The initial program served seniors and individuals on AISH and the expansion in 2011 opened the eligibility criteria to a wider segment of the population. Currently, users of the Taxi Pass Program must meet one of the following criteria to be eligible for the Taxi Pass Program:

- Resident of the Town of Peace River and at least one of the following:
 - Registered student at Northern Lakes College;
 - Combined family income level below \$25,000;
 - Individual Income Level below \$15,000;
 - Seniors – over the age of 65 years;
 - Assured Income for the Severely Handicapped (AISH) recipients;
 - Clients of the Peace River Regional Women’s Shelter – purchased through the Women’s Shelter; and/or
 - Medical Disability (must provide Note from Physician).

An application form must be completed for all new clients prior to access to the program. When applicants are approved, they will receive a plastic Taxi Card with their name, identifying them as an approved user of the program. The plastic Taxi Card allows the program participant to purchase up to 40 tickets (two booklets of 20 tickets) every 4 weeks. Each booklet costs \$15.

One ticket per ride is provided to the Taxi Driver by the client, regardless of number of passengers. For each ride, the Taxi Driver collects one signed ticket plus \$2.50 cash from the client, for a taxi ride on one side of the river, or one signed ticket plus \$5.00 cash from the client, for a taxi ride to the opposite side of the river. The Town reimburses cab companies at a rate of \$7.00/ticket.

Challenges

While the current taxi pass program does provide service to a portion of the municipal transportation service market, the program does have limitations and experiences certain challenges that prevent it from meeting the needs of all persons currently under-served by transportation options in Town. Some of these include:

- The current eligibility requirements do not allow all low income citizens, particularly low-income workers, to participate,
- There have been complaints by users that drivers are overcharging,
- There are few controls on how either users or drivers manipulate the tickets,
- The taxi companies are limited in their ability, due to liability issues, to provide assistance into the vehicles for those with mobility issues (e.g. getting heavy bags into/out of the vehicle, installing a child’s seat, getting into or out of a wheelchair),
- Access is limited, users who travel with wheelchairs, walkers or strollers experience challenges, and
- The process of ticket purchase, redeeming of ticket plus cash is complicated for some users.

Benefits

There are also a number of key advantages that the current taxi pass program offers to its users and the Town. These include:

- Door-to-door service from origin to destination,
- The administration of service is relatively simple and payments to the taxi companies are made based on invoicing,
- The service supports and works with local taxi businesses, and
- There is no additional capital infrastructure funding required by the Town.

2014 Taxi Service Option

This alternative examines the feasibility of redeveloping and rebranding a taxi subsidy program for Peace River. The objective of the program would be threefold:

- To expand the eligibility criteria to ensure that persons currently under-served by the transportation network are able to make use of program, particularly low income workers who are currently not being served by the Taxi Pass Program,
- To address the current limitations of taxi service to ensure that those with complex needs, such as the need to travel with wheelchairs or strollers, can make use of the service, and
- To improve awareness of the program's existence and parameters for use with users, taxi drivers and the community at large.

A new taxi subsidy program would require the extension of the eligibility criteria to include a wider range of income levels. The program is based on a coupon system that subsidizes the cost of a fare. The rate of subsidy could be variable based on needs of the user, ranging anywhere from 75% to 25%, with a higher subsidy for those with a higher need for assistance. The users would pay their taxi fares using the coupons of varying denominations within the booklet.

Elements of redeveloping the taxi subsidy program include:

- Branding the service and communicating the program through Town channels and in partnership with the taxi companies,
- Redeveloping service criteria as a part of the Program Agreement with taxi companies such as:
 - Code of ethics;
 - Clear guidelines for user and taxi company; and
 - Improved vehicles that provide easier access
- Simplifying the coupon system

In addition to individuals being eligible for this program, qualified businesses would also be able to access the program, purchasing Taxi Saver booklets for their employees, without an individual requirement for the employee to apply for the service. Similarly, community groups or service providers may be able to sponsor subsidies for specific groups, such as youth programs, special events or specific facilities.

For the purpose of this report, we have used Statistics Canada measure of “Low-Income Measure after Tax” (LIM-AT). Under this measure, a household of four with after-tax income below \$38,920 is considered low income and, for a person living alone, the threshold is \$19,460. In 2010, Peace River had 10.9% of 6,585 total persons in private households considered as low income, or 717 individuals. Of the 717 low-income residents, 107 were under the age of 18 years. Therefore there are 610 potential low-income users in the community, double the current number of individuals accessing the Taxi Pass Program. These numbers will be updated after the 2016 census.

Further work is required to determine the amount of taxi subsidy the Town could provide. There are a number of ways to adjust the expense of the program. They could include:

- Adjust the number of coupons that users are eligible for.
- Adjust the rate of subsidy users are eligible for.
- Use a grading of the number of tickets available to a client, based on a grading of their income.

A final budget expense would need to be set so that Town Administration could adjust program criteria and operations to meet the budget standard.

Table 10 - Estimated costs of Taxi Subsidy Option Using Taxi Pass Program as the Base

	Year	User Statistics	Rides Provided	Annual Operating Expense (less revenues)	Cost/ride
Taxi Pass Program	2013	208	20,589	\$132,011.70	\$6.41
Taxi Subsidy Option*		416	41,178	\$308,835.00	\$7.50

*Doubled the users stats and number of rides; estimating \$15/ride

Community Shuttle Service

A final option is a hybrid version of the options described above that would operate as a transit-style service during peak hours to serve low income workers, with aspects of the Dial-a-Ride and paratransit service during off-peak hours. Service schedules would be based on registered users who sign up in advance through an application program. Common reservations would be grouped and planned accordingly. This type of service could act as a precursor to a conventional fixed route service by establishing necessary routes and encouraging ridership through high quality service.

This hybrid would be a client driven service and would evolve based on the client needs, and as such would require some time to develop.

Basic aspects of the service:

- Operate 5-6 days a week from 7am to 6pm,
- Fixed pick-up and drop-off locations around town for peak hour service,
- Regular routes would be determined based on demand and usage (precursor to conventional fixed route service),
- Would be accessible to target users (seniors, low-income, disabled),
- Two, 8-15 passenger van with wheelchair lift,
- More flexibility during off-peak hours,
- An additional source of revenue could be to rent the bus outside of public access times.

This type of service would be constantly adapting to user needs and as such would require significant, on-going administrative resources. Further work that would be required to implement this type of service includes:

- The number of fixed stops/time points
 - This could be based off the route and stops for the conventional fixed route but focused on the specific needs of the registered users.
- Advanced reservation requirements
 - Users would need to sign up at least 24 hours in advance. Pick-up times would be scheduled at the same time for hour-long increments (e.g. driver returns in one hour, or two hours, or three, etc.) depending on the client's need.
- Fare policies
 - Users could pay online for regular use and pay the driver for one-time service. Fares would be calculated based on one-time purchase and regular purchase.
- Eligibility policies
 - Must be scheduled in advance unless a regularly scheduled service has room and meets the needs of all the users.
- Productivity thresholds
 - Would depend on scheduled users and the size of the bus/van.

- Specialized marketing
 - Work with businesses to develop employee scheduling. Advertise to targeted users through hospitals, activity centres, etc.
- Communications and technology requirements
 - Online and call-in registration.

Options Comparison

The Transportation Committee reviewed a comparison of all the available options for a transportation service, which have been explained in detail in the previous section. The process of review included the various benefits and expenses of each system, and the impact on the potential target market to be served.

This overview illustrated that there were a number of systems that were not feasible for our purposes of a municipally operated or municipally offered system. However, it must be noted that systems like carpooling/ride sharing are a natural transportation option within our community and continue to serve a purpose and need outside of any formal transportation service.

The committee narrowed down the options to three main service types:

- Taxi Subsidy programs
- Transit System
- Community Bus – Hybrid



Figure 30 - Target Client Groups Served by Service Types

The following is a comparison of the three service types, with slight variation options.

Table 11 – Comparison of targeted options

	Annual Operating Cost	Cost/ Service Hour	Target Market Served		
			Low Income	Individuals with disabilities	Seniors
Taxi Pass Program	\$300,000 (assuming to double expenses from 2014)	n/a	Yes	Some	Yes
Taxi Saver	\$308,835.00	n/a	Yes	Some	Yes
Transit – internal with Town owned buses *	\$304,200 (based on 13hrs/day -total 4056 hours/year)	75.00/hr	Yes	Some	Yes
Transit – contracted buses	\$319,523 (based on 13hrs/day -total 4056 hours/year)	78.78	Yes	Some	Yes
Community Shuttle- Town owned bus **	\$304,200 (based on 13hrs/day -total 4056 hours/year)	75.00***	Yes	Yes	Yes

* These numbers do not include the capital requirements of **\$354,370.00**

** Would require capital funds of approximately **\$244,650** (2 small buses, some shelters and benches.)

***Operating costs are based on similar Transit Operating expenses, however they could be reduced based on the actual number of hours served.

RECOMMENDATIONS

Municipal Transportation Service

Based on this review of options for a municipal transportation service, the Transportation Committee recommends implementing a new taxi subsidy program that meets the needs of more Peace River residents who are currently under-served by the municipal transportation system. The new taxi subsidy program would:

- Expand the eligibility criteria to ensure that persons currently under-served by the transportation network are able to make use of program, particularly low income workers who are currently not being served by the Taxi Pass Program,
- Address the current limitations of taxi service to ensure that those with complex needs, such as the need to travel with wheelchairs or strollers, can make use of the service, and
- Improve awareness of the program's existence and parameters for use with users, taxi drivers and the community at large.

This new program would also set out performance measures and an annual evaluation system, giving the Town the ability to gauge success.

Other

Additional recommendations relative to areas of transportation within the Town of Peace River include the following;

1. Update the Municipal Transportation Plan
2. Update Trails portion of the Parks and Trails Plan

Rational

The Transportation Committee compared how each option could provide service to each target market, while maintaining fiscal responsibility to both the tax payer and the user. When exploring the options of providing a service for individuals with mobility issues this posed to be a significant challenge and ultimately requires additional development.

It was generally felt that a full transit service was not going to fully meet the needs of all target populations identified through the community surveys and advisory meetings. In addition, and will also be a costly service to operate, especially when amortization for all capital expenditures is factored in. Any variation of this service type would also have the same financial impact, such as the proposed Community Shuttle Hybrid.

A subsidy for existing taxi services limits the need for capital expenditures, additional administrative resources and can be implemented with greater simplicity than other proposed systems. The service is door to door, on demand and would cover all geographical areas of the community. Concerns of the quality of service are proposed to be addressed to the development of program standards which will be a requirement of the program agreements with participating companies. The option of accessibility will be explored with private companies, through financial incentives to retrofit vehicles and provide

additional assistance to clients. In addition, there are various options to be explored where the municipality could purchase and lease a wheelchair accessible vehicle to a company for a ride share system. Further details would be developed and a full program would be reviewed with Council prior to its implementation.

The results of the Municipal Transportation Survey, in addition to highlighting a desire to assist those under-served by the current transportation system, also indicated a diverse set of concerns as relates to the transportation system in the Town of Peace River. The current Municipal Transportation Plan dates from 1990 and as such, provides little current guidance for transportation issues in Peace River. Therefore, undertaking a new Transportation Plan, which examines the entire Peace River transportation network, across all travel modes, and provides direction for an integrated and cohesive transportation system, would serve to meet current and plan for the future transportation needs of the town.

This process has illustrated the need for a continual evaluation of the transportation needs within the community of Peace River. As the community continues to develop and grow, then other transportation service options should be revisited. As commented by a committee member “a transit system is an option, just not yet”.

NEXT STEPS

Develop a new taxi subsidy program, based on the parameters set by Town Council. In addition, Administration would suggest that the Transportation Committee would be involved through the development of the proposed new program.

APPENDICES

- A. Community Survey and Responses**
- B. Business Survey and Responses**
- C. Survey Posters**
- D. Interagency Responses**
- E. Evaluation of Transportation Alternatives**