January 2011

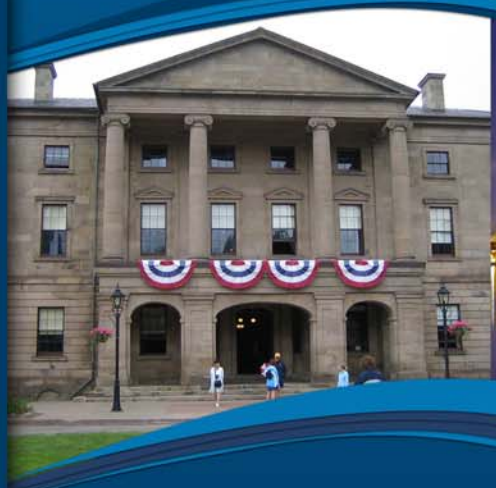
DILLON CONSULTING

CITY OF CHARLOTTETOWN

Greater Charlottetown Area Transit

TRANSIT STRATEGIC PLAN

Final Report



CHARLOTTETOWN

EXECUTIVE SUMMARY

On a typical weekday 750 residents of Charlottetown, Stratford and Cornwall rely on public transit to access work, school, shopping, health care and recreation.

Prior to September 2005, transit service was not available in these communities and now there are 300,000 annual trips. This outstanding achievement resulted from a unique partnership among the three municipalities and a private contractor, Trius Transit.

A seamless region-wide transit service for all residents and a Universal Pass program for 3,600 University of Prince Edward Island (UPEI) students are two major achievements that have still not been attained by many Canadian municipalities. Ridership has increased 21 percent in the past year and should continue to accelerate as people adjust their travel habits and new markets are developed.

At the same time, financial pressures for the municipal partners and for Trius Transit are also increasing and it was considered timely to have an independent review of all aspects of the service and create a 5 year plan for moving forward.

STUDY PURPOSE AND HIGHLIGHTS

Dillon Consulting Limited (Dillon) was retained in September 2010 to review the existing fleet, facilities and services; conduct surveys and interviews with transit users, non-users and stakeholders; assess potential markets; apply experience from other communities; and provide recommendations for a five year service plan as well as longer term strategic directions. A comprehensive public consultation program was undertaken and study results were presented to recently elected Councils in November 2010.

The goal is to move from a successful system 'start up' to a transit service which is responsive to customers, efficient and innovative in its operations, engrained in the communities and financially sustainable over the longer term for the municipalities and the contractor. Some highlights from the assessment of the current situation are:

- 54 percent of current transit users are travelling to work and 27 percent to school;
- 32 percent of riders are students at UPEI and 12 percent are at Holland College;
- Ridership from seniors and high school students is relatively low and both markets are growth opportunities;
- Many users and potential users find the routes and schedules hard to understand;
- Transit is not clearly branded in the community and marketing/promotion efforts have been limited;
- The proportion of operating costs covered by revenues (R/C ratio) is 39 percent, users are satisfied with fares and the contractor's cost per bus hour seems reasonable;
- Municipal subsidy per capita is low compared to peers and there is no provincial operating support for transit in PEI;

- The transit service is under-utilized at 11.21 passengers per revenue vehicle hour in 2009. Ridership growth has been very strong and should increase by about 20 percent for 2010, however, this is still below typical values for its peer group;
- Accessibility features on buses are very unreliable affecting persons with disabilities, seniors, people with strollers and shoppers; and
- Fleet maintenance costs are high, the fleet mix should be more standardized and bus maintenance and storage facilities require upgrades.

The success of the UPEI student U-Pass is a model that should be applied to the 1,500 students at local campuses of Holland College. **Achieving a Universal Pass for Holland College students is the most promising opportunity for immediate ridership growth and this growth and revenue source will support further transit service enhancements which benefit all users**.

SERVICE STRATEGY

A three tiered strategy is recommended to develop the transit service over the immediate and longer term. This strategy consists of a Base Service to create a stable and strong foundation; municipal commitment to the necessary bus hours for Special Services and Trials of innovative services (Tier 2) that will be added to the Base Service when proven successful; and the identification of Potential Enhancements (Tier 3) that will be added directly to the Base Service (or initiated first as Trials) subject to the availability of additional funding support and/or revenue growth.

The **Base Service (Tier 1)** will involve fixed bus routes and schedules, and designated stops for boarding and dropping off passengers. The proposed service level should be considered a minimum and will provide a predictable environment for both municipalities and the service provider. Existing and potential users also need stability to commit to transit as their travel option and it is important that **this base level of service be consistent and available for the next several years**.

The Base Service consists of a simplified transit route and service structure, proposed for implementation in May/June of 2011. The routing will include a transit spine on University Avenue from a Charlottetown Mall terminal to the downtown terminal on Grafton Street. There will be four collector routes in Charlottetown with timed transfers at the two terminal hubs. Monday through Saturday, service will be every 30 minutes, all day on University Avenue and during weekday peak periods on the collector routes. During the off peak periods and on Saturdays, service frequency will be 60 minutes on the collector routes.

Peak period weekday runs linking Cornwall and Stratford with Charlottetown have been very successful and routing will be similar to current services but with some improvements in coverage and productivity. Midday services linking these communities to Charlottetown will continue, again with some refinements to increase productivity.

Special Service and Trials (Tier 2) are recommended for immediate implementation in addition to the Base Service. This will mean an upfront commitment to the necessary service hours by the municipalities, with some flexibility for the contractor in the actual service design and delivery. This will allow for continued innovation by Trius Transit to serve low demand areas/periods and special markets such as seniors and employees on irregular shifts, while maintaining accountability and overall control by the municipalities.

Four innovative techniques are proposed to most effectively address specific markets. These services will complement the Base Service and are recommended for immediate implementation as 6 to 12 month trials. Specific performance targets (passengers/revenue hour) are provided and as trials are successful (or fail) the ongoing service will be adjusted accordingly.

First, **a Community Bus route open to all but catering to the senior's market will operate weekdays on an hourly cycle from 9:00am to 12:00pm and from 1:00pm to 4:00pm**. The route will provide stops in very close proximity to residential locations where senior are concentrated and at destinations which accommodate their shopping, personal business, recreation and health care needs. A draft route design is provided but the final service design should be vetted with current and potential users and partnership/sponsorship opportunities should be pursued with retailers, service clubs and social service agencies. A fully accessible bus must be used at all times and the drivers assigned to Community Bus will require special customer service training.

To serve areas of low density and times of low demand, a fixed route service is unlikely to be productive. An alternative is to **provide a Zone bus which involves flexible routing for a specific area and allows users to call in and arrange their travel**. The zone bus will link the user with the fixed route service typically at one of the terminals on the University Avenue spine. As transit demand grows in the zone the option to convert the Zone bus to a fixed route service should be reviewed.

A third technique will address the issue that the current service hours are not late enough for some commuters to return home on transit. When the collector routes and services to Stratford and Cornwall end, **two of the buses coming out of service, rather than returning empty to the garage, will collect any passengers at the terminals and using a flexible route deliver them to the bus stop nearest their destination**.

The fourth innovative technique involves the use of **Employer specials to provide a custom designed service between designated collection points and the place of employment.** There were several partnership opportunities identified in stakeholder discussions and the Chamber of Commerce business survey where such a targeted approach will be more cost effective than the fixed routes in the Base Service.

Each Tier 2 strategy proposed should be implemented using a 6 to 12 month trial also beginning in May/June 2011. The success of these strategies should be monitored and reported on to the municipalities with suggestions by the contractor for further action. Successful strategies would become permanent additions to the Base Service.

Potential Enhancements (Tier 3) are beyond the Base Service and Special Services and Trials and should be addressed as the system develops and as funding permits. **Examples include; all day 30 minute service weekdays on the collector routes, Saturday service to Cornwall and Stratford, limited Sunday/Holiday service, extended evening hours, student express services and conversions of Zone bus to fixed routes**. These strategies are not included as part of the initial Implementation Plan, however, consideration should be made to trials of such service improvements (and setting of specific performance targets) based on funding availability.

COMMUNICATIONS AND IMAGE

The simplified routing system and schedule will make the transit service much easier to understand and the web site, marketing and outreach activities will be more effective. However, there is also

confusion with users and potential users resulting from the multiplicity of bus colours and system names. It is proposed that **this region-wide transit service be branded with a single name, logo, colour scheme and tag line**.

To improve the efficiency of transit operations and the effectiveness of marketing efforts, it is also recommended that the buses, while still owned by individual municipalities, be deployed by the contractor as part of a single region-wide service and adopt the single brand and colour scheme.

GOVERNANCE AND FINANCIAL PLAN

The partnership between the municipalities and Trius Transit has resulted in great energy and entrepreneurship and a successful system start up. How to continue the enthusiasm and innovation, while making services and relationships more predictable, needs to be addressed. It is suggested that a Transit Coordinating Committee comprising the CAO's of the three municipalities meet quarterly and with the support of a part time Transit Coordinator provide municipal oversight for the system and the necessary links to Councils and to the transit supportive programs in the various municipal departments.

The costs of providing the Base Service and Special Services and Trials have been estimated in terms of revenue hours of bus service. These estimates and the revenue projections from achieving targeted ridership should form the basis for a contract amendment with Trius Transit. Some suggestions for other contract provisions which are intended to strengthen the public-private relationship have also been proposed.

Detailed estimates for the Tier 3 Potential Service Enhancements have not been calculated, however, the Transit Coordinator (working with Trius Transit) should be able to bring these enhancements forward to the Transit Coordinating Committee. The introduction of such enhancements will increase ridership and operating costs and may require additional fleet.

ADDRESSING THE SHORTFALL IN OPERATING COSTS

Subject to confirmation of contractor costs and specific negotiations between the contractor and municipal staff, it is estimated that the provision of the Tier 1 and 2 services will result in an annual funding shortfall of $218,000 to $271,000. A general fare increase and a Universal-Pass price increase (and also assuming a successful C-Pass program is initiated with Holland College) will reduce this shortfall to $101,900 to $154,900. **The municipalities should seek provincial support for the transit operating shortfall**.

Efficient, region-wide transit serving one-third of the Island's population addresses many priorities of the provincial government including strategies for aging at home, economic development and labour force mobility, access to education and health care and Green House Gas reduction. In addition, the island-wide transit services sponsored by the province should be seamlessly integrated with the greater Charlottetown area service and both transit services could also be coordinated at strategically located 'park and ride' lots. It is recommended that provincial funding support for Charlottetown Area Transit operations be provided on an ongoing basis to pursue further ridership growth, integration of local and province-wide services and achievement of provincial objectives.

CAPITAL REQUIREMENTS, FLEET, FACILITIES AND ONE-TIME COSTS

To initiate the proposed services, approximately 250 fixed bus stops must be established, buses branded with a single logo/colour scheme and new maps/schedules produced. One-time costs of $75,000 to $125,000 are estimated for these expenditures.

The need for **a Capital Asset Management and Replacement Plan** is highlighted and a specific bus replacement strategy is proposed. Other capital needs include retrofit of accessibility features, bus shelters, terminal upgrades, indoor bus storage and an improved maintenance facility. **Support from both the federal and provincial governments is essential to secure the capital assets** required to sustain public transit in this region.

MOVING TOWARDS THE VISION

The achievements to date have been outstanding and the challenges ahead are exciting. Implementing the recommendations in this study with the support of the many partnerships available in the community will provide a strong foundation for building a public transit service that meets the Vision for Charlottetown Area Transit.

> ***"To provide an accessible, convenient and reliable public transportation service that is accountable to the customer and community at large and is a viable alternative to driving within the Greater Charlottetown Area."***

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1.0 INTRODUCTION

1.1 Study Purpose

Charlottetown Area Transit has become a victim of its own success. The service has seen remarkable growth in both ridership and service expansion since its inception in 2005. The system began with four peak period routes and now operates eight peak period routes including seamless connections to the neighbouring communities of Stratford and Cornwall. While the service and ridership have increased, the need for municipal operating subsidy has also increased calling into question the financial sustainability of the current transit operation.

It is clear through consultation with municipal staff, politicians, stakeholders, transit users and the public that there is a desire to have public transit as a permanent fixture in the community. To ensure this happens, the Dillon team was contracted to review the system regarding the effectiveness of the current operation and the financial arrangements. The study should also provide recommendations that move Charlottetown Area Transit from a successful system start-up to a long-lasting sustainable system that is entrenched in the community, delivers on quality and service, and is growth oriented, accountable to taxpayers and responsive to customer needs.

1.2 Background

Before 2005, Charlottetown was the only Canadian provincial capital city without a transit service. Operations began in 2005 with funding from the Federation of Canadian Municipalities Green Fund and the Federal Public Transit Capital Trust. The service was contracted out as a 'turn key' operation to Trius Transit with a mandate to operate, maintain and grow the system, while the City would make capital purchases to support growth and provide an annual subsidy. The City retained decision making authority on fares and service levels with Trius Transit retaining the passenger revenue. The system started in September 2005 with four buses running on four routes and grew rapidly in the first couple of years with increasing ridership and expansion of service.

Stratford and Cornwall commissioned feasibility studies then joined Charlottetown Area Transit in 2007 with peak period Connector Routes. Stratford commissioned two routes with two buses and has three AM peak period runs and two PM peak period runs as well as a combined noon hour and mid-afternoon run. Cornwall commissioned one route with one bus and has two AM peak period runs and two PM peak period runs as well as a noon hour run. The area-wide system is seamless from a user's perspective. There is a single fare, services are coordinated and users are able to transfer easily to/from other routes.

In 2008, the Charlottetown Area Transit successfully negotiated a Universal Student Transit Pass (U-Pass) with the University of Prince Edward Island (UPEI). This led to further increases in ridership and as a result, an expansion in service hours on the University Avenue Route to 10:35pm on Monday to Wednesday and to 11:45pm on Thursday, Friday and Saturday.

The regional system has now grown to 8 peak period routes, including the services to Stratford and Cornwall. Annual ridership increased from 112,765 in 2006 to 272,000 in 2009. At the same time total direct operational expenses reported by Trius Transit increased from $949,600 in 2006 to $1,531,822 in 2009.

Recently Trius Transit approached the municipalities concerning the need for additional subsidy to support the service. On an annualized basis Trius Transit is requesting an additional $180,000 in subsidy. The City agreed to provide an additional $15,000 per month until December 2010 pending the results of this review.

2.0 CONSULTATION STRATEGY

The study involved a review of the existing services and an extensive public and stakeholder consultation process to understand current issues and receive comments on both the existing service and proposed directions. Study recommendations are based on consultation with the public, municipal staff and councillors, transit users, the contractor, drivers and system personnel, and major stakeholders. Consideration of best practices from other systems, and technical assessments by the project team also contributed to the recommendations.

Elements of the review of existing services and public consultation are presented below.

2.1 Advertising, Notification and Information

A number of activities were developed to inform the community of the study and provide opportunities for public involvement. These consultation activities are noted below.

TRANSIT WEBSITE

A study website was set up with links connecting to it from the Charlottetown, Stratford, and Cornwall municipal websites. The purpose of the website was to keep the public informed about the status of the study and provide feedback opportunities.

PUBLIC NOTIFICATION AND INFORMATION BULLETINS

Information notices were created for:

- Study initiation;
- Public drop-in session and focus group in October 2010; and
- Public Open House in November 2010.

These notices were posted in the Guardian newspaper before the event and on the study website. Emails were sent to stakeholders who indicated their desire to learn more about the study to attend the public open house.

2.2 Consultation Activities

A number of consultation activities were developed to obtain a better understanding of existing issues and opportunities. These included 'one on one' interviews and focus groups during two visits to the greater Charlottetown Area and surveys of both transit users and non-users. The consultation activities conducted are discussed below:

TRANSIT WEBSITE FEEDBACK AND ONLINE QUESTIONNAIRE

An online survey was available for both transit users and non-users. The purpose of the survey was to understand public opinion concerning transit services. The survey was placed on the study website on September 23, 2010 and comments were collected November 8, 2010. Overall, 140 completed responses were received, of which 105 or 75 percent were from residents of Charlottetown, 16 or 11 percent were from residents of Stratford, and 12 or 9 percent were from residents of Cornwall. A sample of the survey form and a summary of the results are included in **Appendix A**.

Residents were also given the opportunity to phone or email the study team directly to express their opinions of Charlottetown Area Transit. Overall, over 15 direct public contacts were made with members of the study team.

ONLINE BUSINESS SURVEY

An online survey for Charlottetown employers was developed and distributed through an email notification to members of the Chamber of Commerce. The survey was available for a span of 2 weeks in October 2010. The purpose of the survey was to collect information on the characteristics of Charlottetown's businesses, their relationship and attitudes towards transit, and their openness to partnering with Charlottetown Area Transit in enhancing service for their employees and customers. The assistance of Chamber staff in arranging this survey is appreciated

A total of 63 completed surveys were collected. The survey questions and results are summarized in **Appendix A**.

COUNCILLOR DISCUSSIONS

Members of the Dillon team were available for a 'one on one' discussion with councillors from Charlottetown, Stratford and Cornwall on the evening of Monday October 4th, 2010. Three Cornwall councillors and the outgoing mayor attended the session. Consultants also met with and received input from councillors at the Charlottetown Parking and Transit Committee and subsequent to the visit, telephone interviews were held with the mayor and a councillor from Stratford.

PUBLIC DROP IN CENTRE

Members of the Dillon team were available for open discussion with any interested members of the community on the evening of Monday October 4th 2010. Sixteen people attended the session and provided comments. A summary of issues discussed in the consultation activities is included in **Section 2.3**.

FOCUS GROUPS

Focus groups were used to gain more detailed input for the study as well as developing a better understanding of existing ridership patterns and user issues. The following focus groups were conducted:

1. **Focus Group 1: Residents from the Community at Large (October 5th 2010) -** The purpose of this focus group was to obtain feedback from transit users and non-users and a number of stakeholders in the community representing different interests to help Charlottetown Area Transit move forward with creative service plans.
2. **Focus Group 2: Trius Transit Drivers and System Personnel (October 4th 2010)** – The purpose of this focus group was to obtain feedback from transit drivers on the existing service, customer needs and opportunities for improvements. Maintenance and customer service staff were also interviewed.

Input received from the focus groups was used to better understand the existing service and develop study recommendations. A summary of issues discussed in the consultation activities is included in **Section 2.3**.

STAKEHOLDER INTERVIEWS

Stakeholder consultation was conducted during each of the two visits to Charlottetown and via telephone calls in between. The format consisted of focused, one-on-one discussions with individuals or small groups comprising representatives of various stakeholders in Charlottetown. Discussions covered the existing operation of Charlottetown Area Transit, suggestions for improvement and the identification of issues and opportunities to be addressed in the study. Representatives from the following stakeholders were consulted during the study:

1. City of Charlottetown staff;
2. Town of Stratford staff;
3. Town of Cornwall staff;
4. Trius Transit staff;
5. Downtown Charlottetown Inc.;
6. University of Prince Edward Island;
7. City of Charlottetown Chamber of Commerce;
8. Prince Edward Island Association for Newcomers to Canada;
9. Government of Prince Edward Island, Transportation;
10. Department of Veteran's Affairs;
11. Charlottetown Parking and Transit Steering Committee;
12. Queen Elizabeth and Hillsborough Hospitals;
13. Invesco;
14. Stratford Youth Club;
15. Charlottetown Mall;
16. Prince Edward Island Council of People with Disabilities;
17. Holland College;
18. CGI;
19. Eastern School District;
20. Tourism Charlottetown Inc;
21. Online Support; and
22. Seniors Active Living Group.

ONBOARD PASSENGER SURVEY

An on-board passenger survey was conducted during regular transit service hours on Tuesday October 5th, 2010. Survey questions probed trip patterns, trip purpose, walking distance to and from bus stops, transfer patterns, demographic characteristics, and frequency of use. Transit users were also invited to provide written comments on the survey card. The survey form and questions are provided in **Appendix A**.

Excellent cooperation was received from the drivers and Trius Transit's staff in distributing and collecting the surveys. Dillon staff monitored the survey and assisted in handing out and collecting surveys.

A total of 428 valid surveys were collected. On a typical Tuesday there are an estimated 660 people who use Charlottetown Area Transit yielding a survey response rate of 65 percent. This achieves a 95 percent confidence level with a +/-3 percent error. Dillon staff verified the survey card responses for completion and accuracy.

The results of the survey are contained throughout the report and summarized in **Appendix A**.

PUBLIC INFORMATION CENTRE

A Public Information Centre took place at the Rodd Charlottetown Hotel from 4:00pm to 6:00pm and from 7:00pm to 9:00pm on November 23rd, 2010. The purpose of the session was to present study findings including potential directions and obtain feedback.

Seventeen (17) people were in attendance. Attendees included transit users, employees from Stratford and Charlottetown, downtown residents, and senior citizens. Seven (7) people filled out comment sheets. All seven were transit users.

Appendix A contains a synopsis of the Open House and the written comments along with those that were shared verbally with the study team members.

2.3 Summary of Consultation Input

The consultation process allowed the study team to better understand a number of issues facing Charlottetown Area Transit as well as opportunities for service improvements. Below is a summary of some key points raised throughout the process.

Funding

- The level of municipal subsidy (especially operating) is a key issue and concern of the municipalities. Support from the province and federal government (for capital items) is very desirable.
- A fare increase is preferable over an increase in municipal subsidy and the only basis for a fare increase is if service improves.

Accessibility

- A successful transit system is one that is inclusive and accessible to all persons, however the current Charlottetown Area Transit system is not fully accessible.
- While some buses have accessibility features, such as ramps, they are not always used or are often malfunctioning or broken.
- Other transit infrastructure, such as bus shelters, are not fully accessible.
- Bus stops are not announced while on board.
- There are language barriers for those who don't speak English. A general transit information sheet to be translated into several languages would be useful.
- There are no features to assist persons with hearing or visual impairments.

- It would be beneficial to have more partnerships with professionals and volunteers to assist those individuals (seniors, persons with disabilities, newcomers) who require extra help or to show them how to use the transit system.

Communication of Schedules and System Information

- Nearly all stakeholders commented that the bus schedules are very confusing, hard to read and appear inconsistent with the actual service available. Some bus stops occur at certain times of the day but not at other times.
- System maps are confusing.
- The schedule should be available on the bus and at stops and terminals.
- More consistency among drivers in how they operate a route is required.
- The website needs to be updated.
- Colour coding of buses is confusing.
- More marketing and system promotion is required to develop a branding image and transit presence for Charlottetown Area Transit.
- Transit branding should be clear and available at transit stops and terminals.
- Bus route information (such as route number) should be visible on the back of the bus.

Drivers

- Most drivers are friendly and helpful.
- More driver training is needed including First Aid. A policies and procedures manual for operator training and better internal communication is needed.

Dependability

- For transit to succeed in a car-oriented society it must be dependable and people need to know that they can get to and from destinations reliably. The public desire a seamless, easy to use transit system.
- Some routes have schedules that are too tight (difficult for drivers to meet posted schedules).
- Transit priority measures could help to make the service more dependable and consistent.

Fleet

- Some of the buses have breakdowns of the cooling system in the summer and heating in the winter.
- Smaller more fuel efficient buses should be used for midday runs that have fewer customers.

Route Structure

- Need for more direct and express services. Some routes are very indirect.
- Need for service expansion in underserved areas (i.e. East Royalty).
- Service from Cornwall and Stratford to Charlottetown needs to be improved for commuters.
- There is no service in place to Winslow and Milton Station areas.
- The Hillsborough Park route does not run on time.
- More north-south routes without cross-over are needed.
- Designated bus stops are ideal (in some areas passengers have to flag down the bus).

- Island-wide transit is important for the rural economy, poverty reduction strategy, retaining young people and keeping communities intact. Integrate with Charlottetown area transit.

Hours and Frequency of Service

- Service is not at set time at set stops and scheduling is not conducive for students with late classes at the college or university, for shift workers (such as employees at call centres or at Charlottetown Mall) or for hospital workers. Route timing needs to be adjusted.
- The transit system should extend hours and provide coverage for special events. The cost of transit could be included in the ticket price for community events (i.e. Festival of Lights).
- Frequency and route consistency is an issue. Scheduling and time on the bus are also issues.
- Inconsistent operation (route variations, buses late or early).
- Later weekday and Saturday service is required and service on Sunday/holidays is desired.
- More buses are needed on some routes. Also Saturday service for Cornwall and Stratford.
- Midday timing of routes for Cornwall and Stratford is not good.

Transit Programs

- Many stakeholders expressed interest in initiatives such as transit integration with Park and Ride and Ride Sharing programs.
- Transit day-passes and 'guaranteed ride home' programs for employees using transit are also desired.

3.0 SYSTEM CHARACTERISTICS

Trius Transit operates conventional transit services on behalf of Charlottetown, Cornwall and Stratford. Trius Transit employs 15 drivers and 3.5 mechanics, drivers are assigned to specific buses and routes and there are approximately 25,000 bus hours of service annually. Trius Transit also operates a separate transit service between the Summerside and Charlottetown which is not part of the current study.

3.1 Routes, Hours and Service Frequency

There are five peak period routes provided within Charlottetown, two routes connecting to Stratford and one route connecting to Cornwall. The existing route structure is illustrated in **Figure 1**.

Charlottetown Area Transit provides service Monday through Saturday (no service on Sundays or holidays). Service frequencies vary significantly from route to route, by time of day and by day of week. Frequencies generally range between 30 and 60 minutes.

Service within Charlottetown is operated from approximately 6:45am to 7:00pm. The University Route operates until 11:00pm Monday's to Wednesdays and to 12:00am on Thursday to Saturdays on an hourly frequency. Three to four evening runs are also provided between the Charlottetown Mall and the West Royalty Industrial Park and Sears between 7:15pm and 10:20pm via the North End Connector Loop. A fifth evening run is provided to the Econo Lodge/West Royalty Road Centre and Watts Industrial Park at 10:20pm via the West Side Service. Charlottetown Area Transit is also currently operating a 'Late Evening Service' on the University Avenue Express route until 2:00am on Fridays and Saturdays as a trial with UPEI student association.

There are significant variations in bus routings during various times of the day and certain routes go out of service during periods of the day. For example, the St. Peters Road – Ellis Brothers Express primarily operates during the AM and PM peak hours and the Stratford and Cornwall routes service the AM and PM peak hours with one mid day run.

University Avenue Service (Express)

The University Avenue Express operates Monday through Saturday and begins downtown at the Confederation Centre and heads north to the Charlottetown Mall. Other major stops along the route include the UPEI and the Atlantic Superstore. Service begins at 6:45am and ends at 11:00pm (12:00am on Thursday to Saturday). During the peak periods, the service operates at 20 to 30 minute frequencies. During the midday, the service operates every 30 minutes and every 60 minutes during the evening.

North End Connector Loop

The North End Connector Loop provides service from 7:00am to 10:30pm. During the AM and PM peak periods the route operates at 20 to 40 minute frequencies to the West Royalty Industrial Park, however, is less frequent to other areas along the route (i.e. only four to seven runs all day). The service varies throughout the day; at some points the route services the airport (six runs). In addition, the route provides periodic service to Lower Malpeque Road and Stockman Drive, Melody Lane or Sherwood Road, depending on the time of day.

Charlottetown Area Transit

Figure 1 - Existing Route Structure

Charlottetown

Cornwall

Stratford

Legend

- S — High Schools
- C — Holland College
- H — Hospitals
- U — UPEI
- City Streets
- Highway
- Town Boundary

Transit Routes

1. Across Town Connector Loop
2. Central Area Service
3. Downtown Connector Route
4. East Side Service
5. East Side to Downtown Connector Loop
6. North End Connector Loop
7. University Avenue Service
8. West Side Service
9. Transit Service - Cornwall
10. Stratford Connector Southport Side
11. Stratford Connector Bunbury Side

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West Side Service (North River Road – West Royalty Express)

This route begins downtown at the Confederation Centre then heads north along North River Road and east along Highway 1 to end at Charlottetown Mall. Route stops also include the provincial offices in the downtown, Atlantic Super Store and Watts Industrial Park. Service begins at 6:45am and ends at 6:55pm with an additional run provided at 10:20pm to service the Econo Lodge/West Royalty Centre and Watts Avenue Industrial Park. The service operates on an hourly basis with a few additional runs during the AM and PM peak periods. During the AM and PM peak periods, the route travels farther north along Upton Road, Royalty Road and Lower Malpeque Road.

Central Area Service (St. Peters Road – Ellis Brothers Express)

The St. Peters Road – Ellis Brothers Express runs Monday through Saturday beginning at 6:42am and ends at 7:00pm. The route begins downtown at the Confederation Centre and terminates at Charlottetown Mall. In the AM and PM peak hours the route also goes along Belvedere Avenue to the Atlantic Superstore, and further north via Maple Avenue to Ash Drive and MacAleer Drive. This service is only provided during the AM and PM peak periods.

East Side Service (Kensington Road – Hillsborough Express)

This route begins downtown at the Confederation Centre and ends at Charlottetown Mall and also serves the east side of Charlottetown, including the Queen Elizabeth Hospital. The peak period service operates weekdays from 6:45am to 9:00am in the morning and from 3:20pm to 6:55pm in the afternoon at approximately 30 minute frequencies. A reduced service schedule with fewer runs is also available on Saturdays (6:45am to 9:00am and 4:05pm to 6:55pm).

East Side Service (East Side to Downtown Connector Loop)

The East Side to Downtown Connector Loop route begins at 9:00am and runs an hourly service until 5:40pm. The route begins at the Confederation Centre downtown and heads north connecting Ellis Brothers, Sherwood Shopping Centre, the Queen Elizabeth Hospital, Hillsborough Park and Parkdale Medical Centre.

Across Town Connector Loop

This route is an hourly service provided from 8:00am until 4:00pm with two additional runs after 6:00pm. The service begins and ends at Charlottetown Mall and runs along Oak Drive, Patterson Drive (to the Queen Elizabeth Hospital), Belvedere Avenue and north on University Avenue. The route provides additional off-peak service during the midday to supplement the Central Area and East Side Service.

Downtown Connector Loop

The Downtown Connector Loop provides hourly transit service from 9:20am to 4:20pm, Mondays through Fridays. The route begins at the Confederation Centre and connects to the Parkdale Medical Centre, Atlantic Superstore and UPEI. The route also has a strong focus on the seniors market, connecting to nine senior's residence within the City.

Cornwall Service

The Cornwall service operates between Cornwall and Charlottetown on weekdays and primarily serves home to work and home to school commuters residing in Cornwall. There are two morning runs from Cornwall that take customers all the way to the Confederation Centre and one mid-day

run that also stops at Charlottetown Mall. In the evening there are two opportunities to travel into Charlottetown from Cornwall. To travel from Charlottetown to Cornwall there is one early morning and one noon hour run with a transfer at Charlottetown Mall. In the evenings there are two opportunities to travel to Cornwall from Charlottetown.

Stratford Service

There are two routes (Route 7 and Route 8) that link Stratford and Charlottetown. Route 7 loops south of the Trans Canada Highway and makes stops along Keppoch Road, Celtic Lane, Governors Lane and Kinlock Road. The route begins and ends at the Confederation Centre in Charlottetown; there are three morning runs at 30 to 40 minute frequencies and two evening return trips. Route 8 provides service to the Bunbury side of Stratford and makes stops along Bunbury Road, Mason Road and Shakespeare Drive. Like Route 7, this route begins and ends at the Confederation Centre in Charlottetown but it also goes by the hospital. There are three morning runs and two evening runs. A noon hour run and mid-afternoon run are also available and combines stop along both Route 7 and 8. In the morning service, the Stratford routes provide a transfer option to connect Route 7 passengers with the Route 8 bus destined for the Queen Elizabeth Hospital.

3.2 Stops and Terminals

An on-street terminal will be available on Grafton Street between Queen Street and University Avenue. A major building is currently under construction on the north side of this road segment and the on-street terminal is planned to be open in a year with the completion of this construction. Currently, a temporary downtown terminal is located on Queen Street between Grafton Street and Richmond Street.

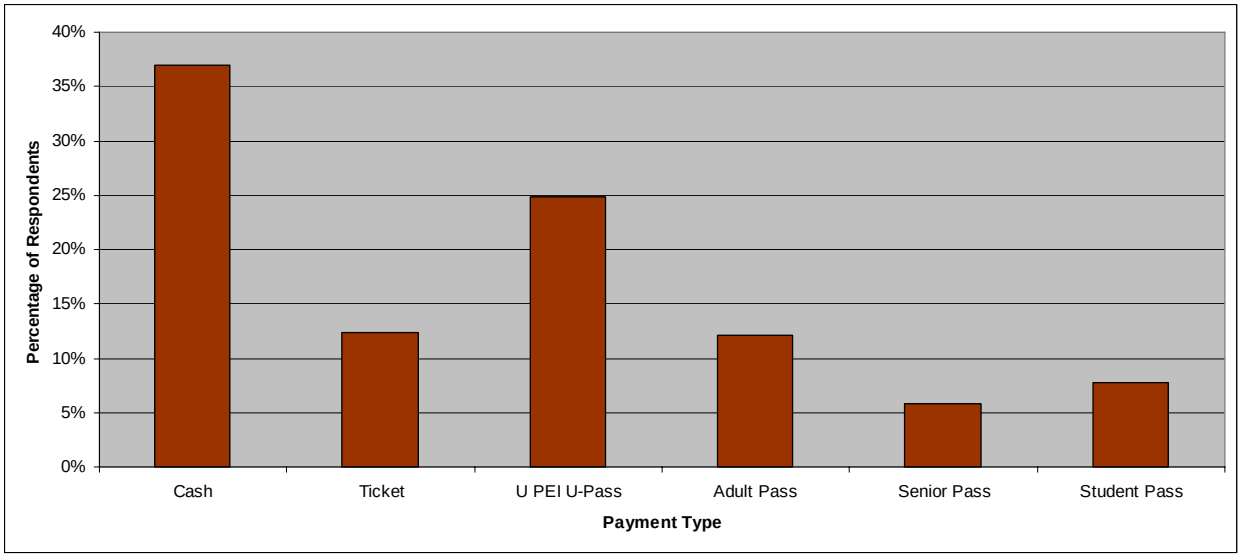
Transfer opportunities are also provided at the Atlantic Superstore, UPEI, Charlottetown Mall, Walmart and at Ellis Brothers. These transfers occur off street, typically in the parking lots of these facilities. At the Charlottetown Mall, a small passenger waiting area is provided with a transit shelter.

Some bus stop locations are designated throughout the three municipalities. In areas without designated bus stops, any road stop sign is considered a bus stop and drivers generally accept flag down and drop off requests throughout the system.

3.3 Fare Structure

A one-way cash fare for one way travel anywhere in the Charlottetown, Cornwall, Stratford service area is $2.00. A ticket booklet (20 tickets) costs $34.00. Monthly passes are $60 for adults and $39 for students and seniors. Tickets and monthly passes can be purchased at Shopper's Drug Marts, Parkdale Pharmacy, Charlottetown Metro Credit Union, West Royalty Pharmacy, Trius Transit, Zellers, Jane's Place, Holland College and UPEI Bookstores and Stratford and Cornwall Town Halls. A Universal Pass is also provided to all UPEI students as part of their tuition at $25 per semester ($50 per year). **Figure 2** illustrates the typical fare payment on the system based on the results of the on-board passenger survey. As illustrated, the majority of passengers pay for the service via a cash fare followed by the UPEI U-Pass.

Figure 2 – Fare Payment (Typical Weekday)



3.4 System Performance

The Canadian Urban Transit Association's (CUTA) 2009 statistics for Charlottetown Area Transit services from the time of inception are summarized in **Table 1**. The statistics illustrate impressive growth in ridership as well as improving trends in ridership per capita and cost/revenue ratio. In 2007, service was extended to include Cornwall and Stratford. In 2008, a U-Pass was successfully negotiated with UPEI and service was further increased.

Table 1 - System Performance

Year	Service Area Population	Ridership	Ridership /Capita	R/C Ratio	Revenue Vehicle Hours/Capita	Passengers/ Revenue Vehicle Hour
2005[1]	32,000	79,200	2.48	32%	0.46	5.39
2006	32,000	112,765	3.52	23%	0.60	5.90
2007[2]	32 000	141,554	4.42	-	-	-
2008[3]	45,000	189,349	4.21	26%	0.56	7.51
2009[3]	45,000	272,707	6.06	39%	0.56	9.52

[1] *Service began in September and does not reflect a full calendar year*
[2] *Data not available*
[3] *Note: Includes the Town of Stratford and the Town of Cornwall*

Annual statistics for transit ridership within Charlottetown, Cornwall and Stratford are summarized in **Table 2** below. These numbers include cash fares, passes and tickets but do not include transfers. The statistics show a steady growth in annual ridership in all three communities. Statistics for 2005 and 2010 are not included as they do not represent a full calendar year (see **Figure 3** for partial year results).

Table 2 - Transit Ridership Statistics

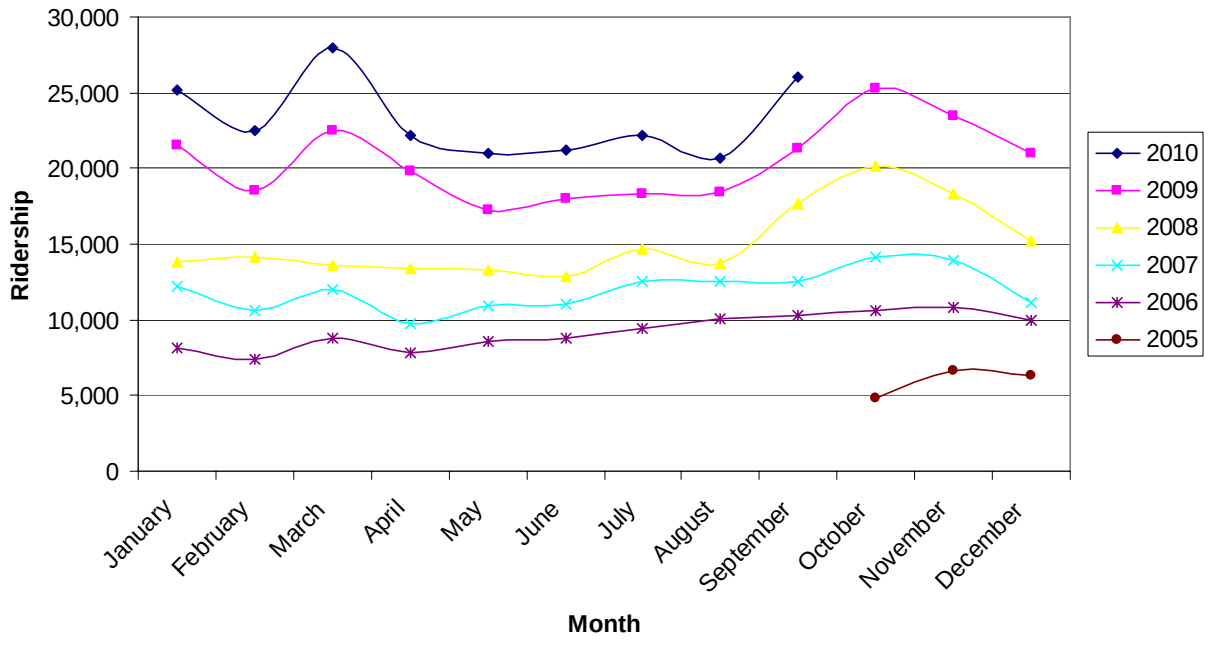
Year	Ridership Total			
	Charlottetown	Cornwall	Stratford	TOTAL
2006	110,528	-	-	110,528
2007	143,278	-	-	143,278
2008	180,855	3,481*	4,166*	188,502*
2009	245,438	11,817*	15,452*	272,707*

*Does not include statistics from a full calendar year

Figure 3 illustrates the monthly trends in transit ridership for routes within Charlottetown. It can be seen that there has been an increase in ridership for every year. This trend has continued in 2010; ridership from January to September 2010 is nearly 20 percent higher than the ridership observed over the same period in 2009. The two peak months are March and October with lower ridership during the summer months.

Major milestones for Charlottetown Area Transit include the introduction of service to Cornwall and Stratford in 2007 and in the fall of 2008, a large spike is seen in ridership that can be partly attributed to the implementation of the U-Pass at UPEI. These developments along with natural growth in usage as residents become aware of and adapt to the relatively new system, illustrate that the service is moving in a very positive direction.

Figure 3 - Charlottetown Ridership Monthly Trends



3.5 Ridership Characteristics

Trius Transit collects daily ridership information by route. This helps identify how effective each route is in servicing passenger needs. **Table 3** illustrates the average daily ridership and ridership per revenue vehicle hour per run in September 2010. It should be noted that this information is collected by bus rather than route, and the same bus will cover off several routes during a day. This makes it difficult to assess the ridership associated with a specific service. Nonetheless, the information is presented below to get a sense of overall performance.

Table 3 – Ridership and Utilization by Route

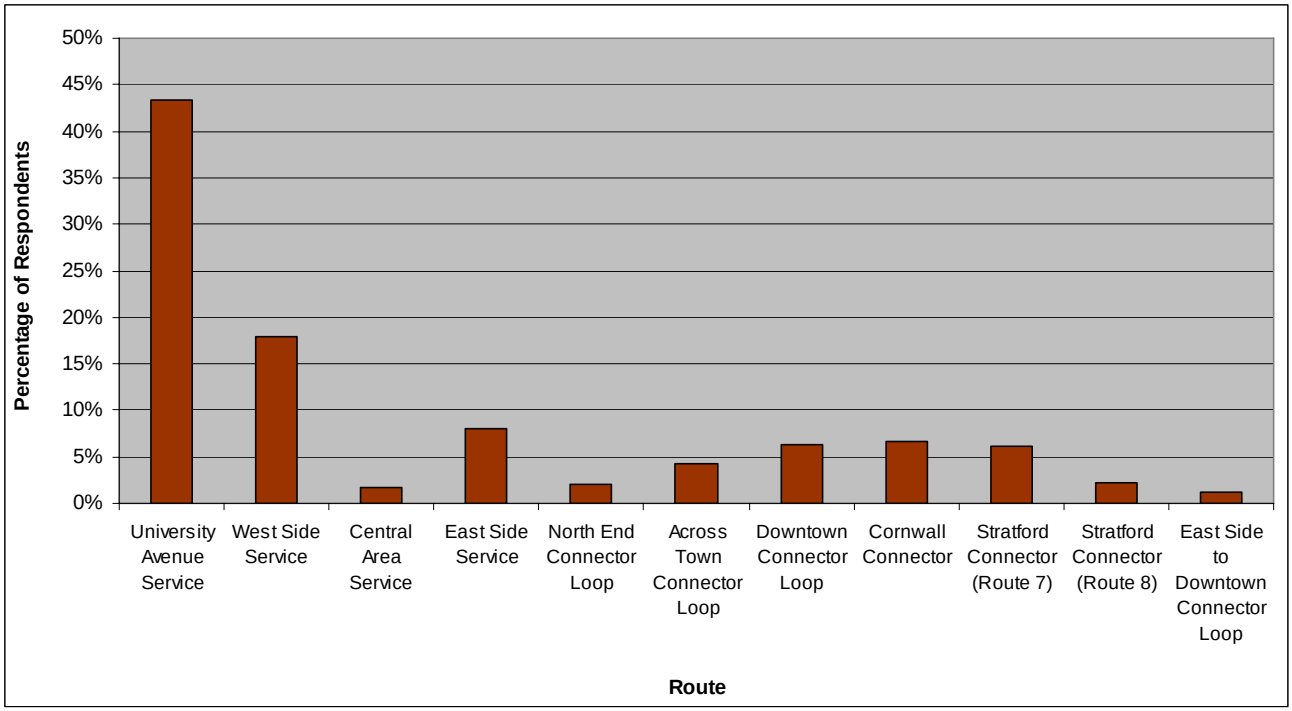
Bus	Routes Covered	Weekday			Saturday		
		Daily Passengers	Daily Service Hours	Pass per Rev Vehicle Hour	Daily Passengers	Daily Service Hours	Pass per Rev Vehicle Hour
Route 1	University Avenue Service North End Connector	397	12	33.1	211	10	21.1
Route 1A	University Avenue Service (midday)	113	4	28.4	97	4	24.1
Route 1B	University Avenue Service (midday)	129	4	32.3	0	0	
Route 2	West Side Service	142	12	11.8	44	10	4.4
Route 3	Central Area Service Across Town Connector North End Connector	105	12	8.7	40	10	4.0
Route 4	East Side Service East Side to Downtown Connector	136	12	11.3	42	10	4.2
Route 5	Downtown Connector Loop University Avenue Service (AM/PM)	111	6	18.5	0	0	
Route 6	University Avenue after 4:00pm North End Connector after 7:00pm	186	8	23.3	128	6	21.3
Route 7	Stratford	69	4	17.3			
Route 8	Stratford - Bunbury Side	29	3.5	8.3			
Route 9	Cornwall Service	81	4.5	18.1			
Total		**1,499**	**82**	**18.3**	**562**	**50**	**11.2**

As indicated above, for the month of September 2010, the system achieved approximately 18.3 passengers per revenue vehicle hour during the weekday and 11.2 on Saturdays. This is likely to be lower during the summer periods when ridership declines slightly. The best performing route is the University Avenue Service, averaging 23.3 to 33.1 passengers per revenue vehicle hour on weekdays.

The poorest performing routes is the Stratford Bunbury Service (8.3 passengers per revenue vehicle hour) and the combination of the Central Area Service, Across Town Connector and North End Connector Service (8.7 passengers per revenue vehicle hour).

The results of the passenger survey were also assessed to get a better understanding of utilization on each route. This is illustrated in **Figure 4**. Each passenger was asked which route they were on during the day of the survey. The majority of trips were made on the University Avenue Service (43 percent). This is followed by the West Side Service (18 percent). The limited number of passengers boarding on the Central and East end routes is somewhat misleading as there are several routes that cover this market and operate at different times of the day. For example, the East Side Service turns into the East Side to Downtown Connector Loop during the midday.

Figure 4 – Percent of Ridership by Route



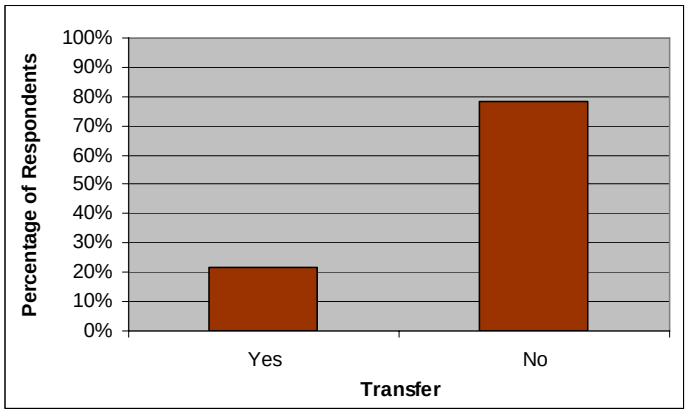
This analysis helps confirm the routes which have the highest ridership and those which fall below ridership performance targets, including:

- Central Area Service (midday service only);
- North End Connector Loop (limited number of runs, very low density);
- Stratford Connector (Route 8 – Bunbury) – limited number of runs, low density, limited trips to the hospital); and
- East Side to Downtown Connector Loop (midday service only).

TRANSFER ACTIVITY

Passengers were also asked about the number of transfers they make on the system. This is illustrated in **Figure 5**. Overall, 79 percent of respondents indicated that they do not need to transfer onto another route to complete their trip. This is considered a good level of service, as transfers are a deterrent to transit use.

Figure 5 – Transfer Activity



ORIGINS/DESTINATIONS

Major origins and destinations in the system were also assessed. The greater Charlottetown area was divided into 23 zones and passengers were asked in which zone they began their trip and in which zone they ended their trip. The zones are illustrated in **Figure 6**.

Figure 7 illustrates the major origins and destinations of transit passengers. Overall, the Charlottetown Centre and UPEI represent the highest number of passenger origins and destinations, followed by Charlottetown Mall. The downtown area (500 Lots, Brighton, Core NW and Core NE also represents a high user attraction, consistent with the high percentage of work trips.

Figure 6 – Origin/Destination Zones in the Greater Charlottetown Area

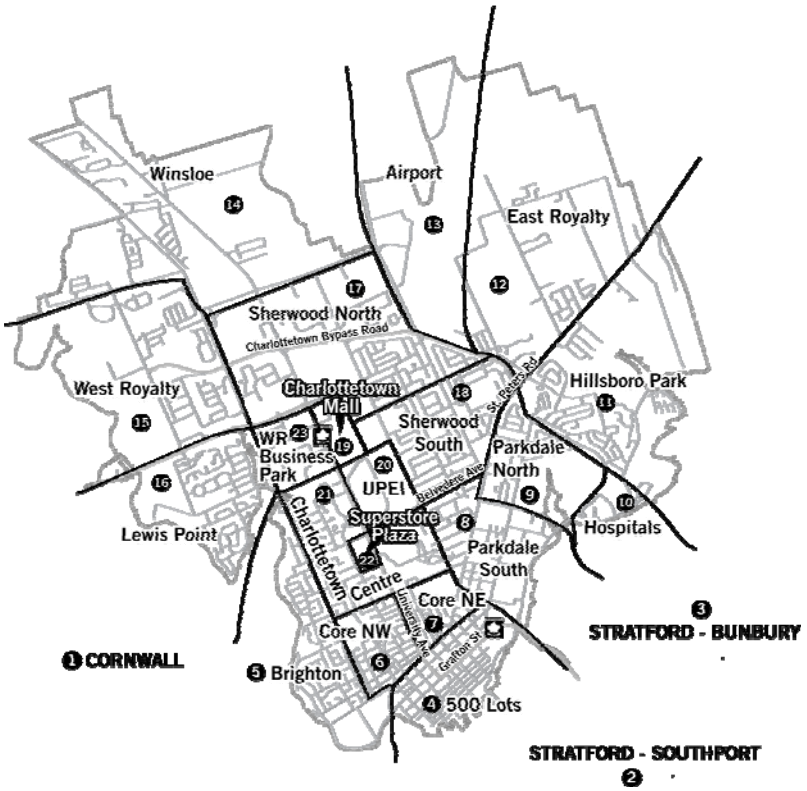
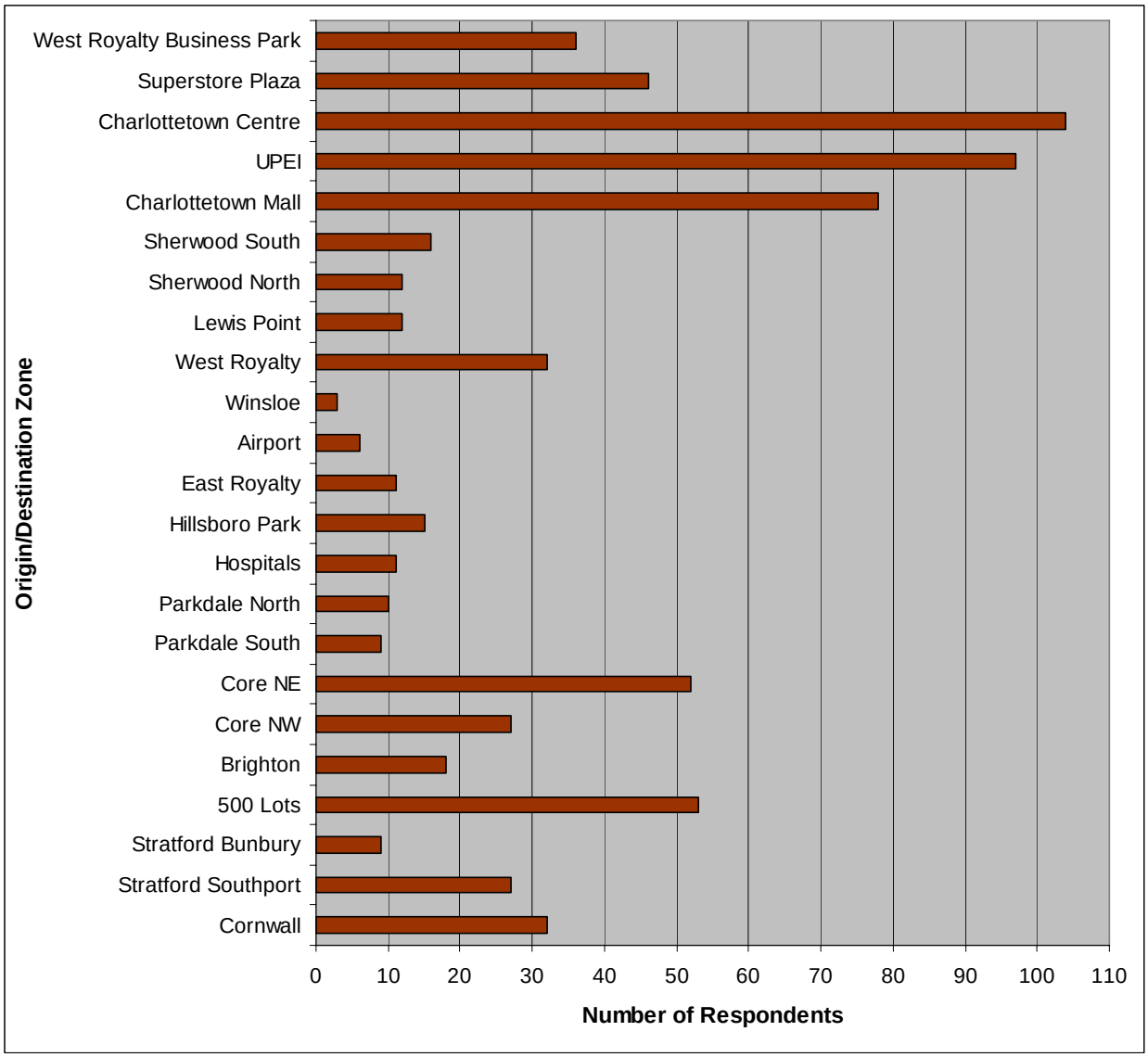


Figure 7 – Major Origin/Destinations



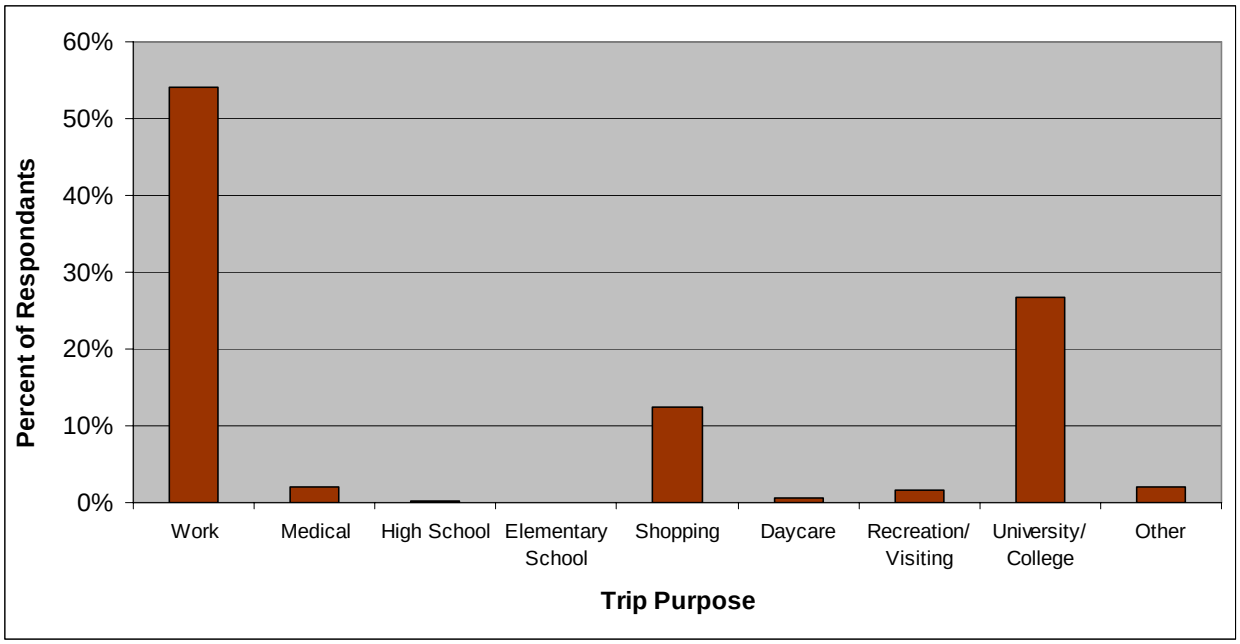
3.6 User Characteristics

The onboard passenger survey queried passengers on their travel characteristics and demographics. The results of the survey indicated that most users are regular weekday commuters.

TRIP PURPOSE

Fifty-four (54) percent of respondents indicated 'work' as their main trip purpose. Another 27 percent indicated 'attendance at university/college' reflecting the success of the recently implemented U-Pass for UPEI. The third highest trip purpose was shopping at 11 percent. This is illustrated in **Figure 8**. These results show that commuters make up the majority of the ridership and require high quality peak period service.

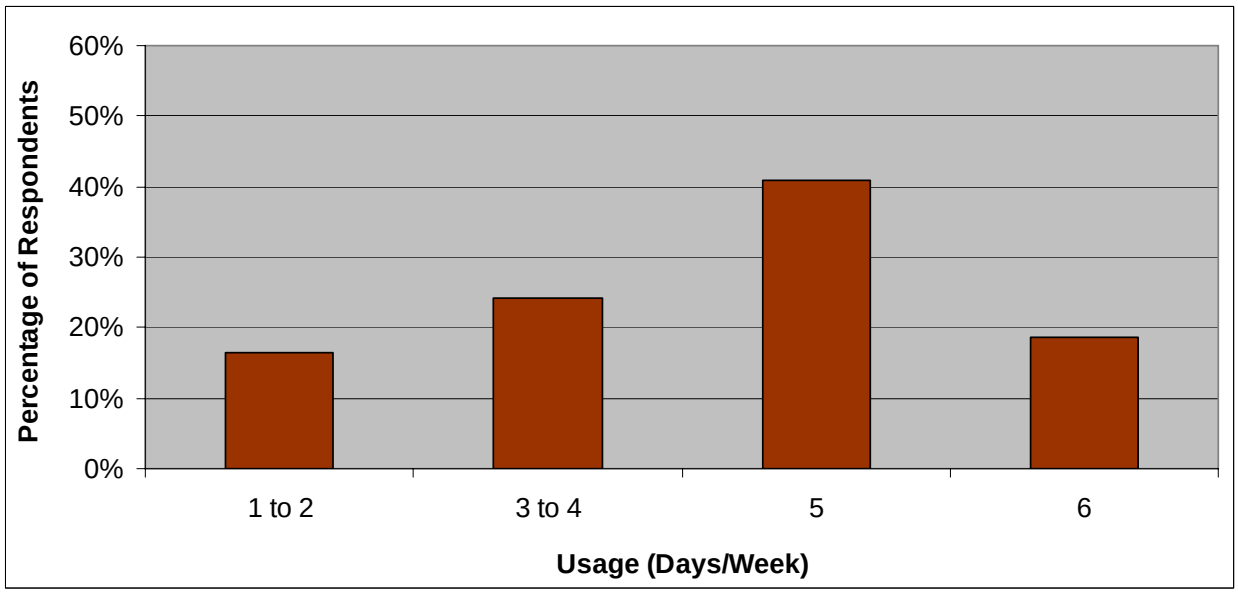
Figure 8 – Trip Purpose



USE OF SERVICE

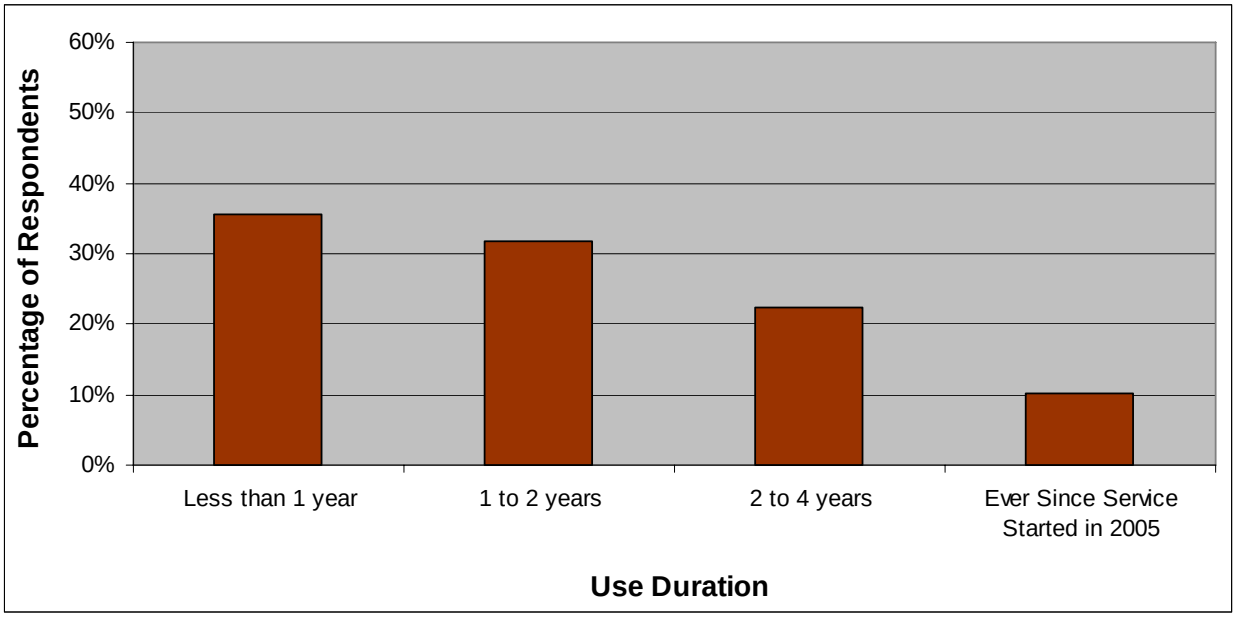
Most (41 percent) respondents indicated they use of Charlottetown Area Transit service 5 days a week while making 2 trips/day (58 percent). This shows a regularity of trips that can be attributed to again a high proportion of commuters on Charlottetown Area Transit buses. This is illustrated in **Figure 9**.

Figure 9 – Frequency of Use of Charlottetown Area Transit (per week)



Duration of use is varied among Charlottetown Area Transit users as shown in **Figure 10** which is expected for a system in its start-up years. This illustrates both good market potential and the need for clear information on how to use the service.

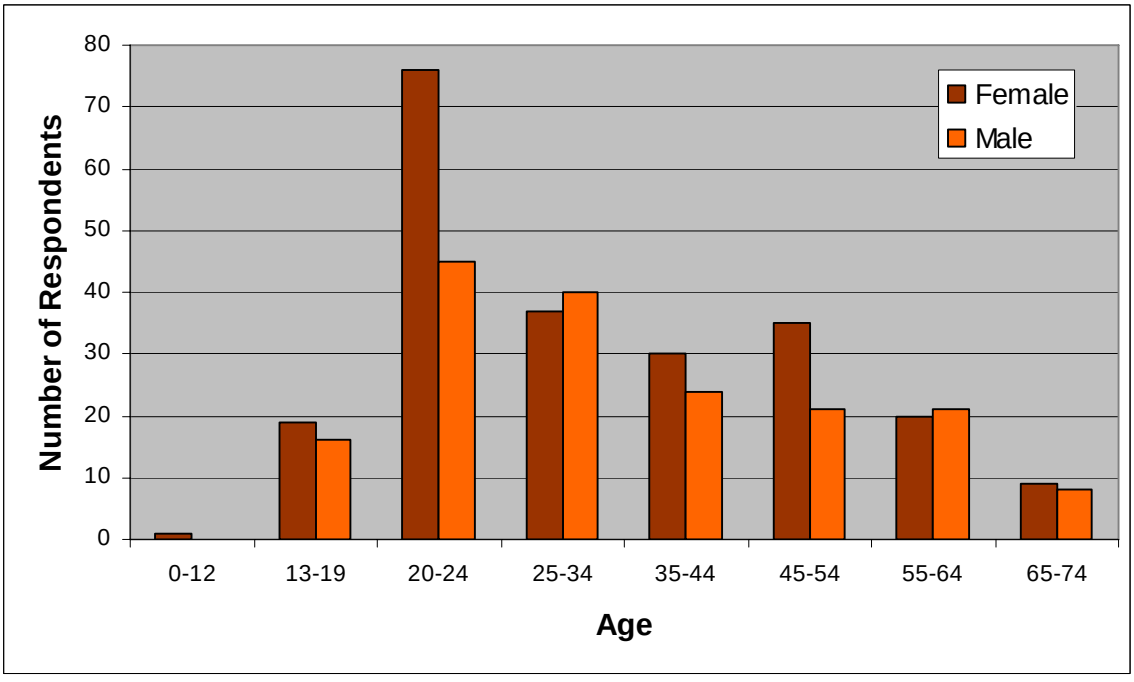
Figure 10 - Duration of Use



DEMOGRAPHIC PROFILE

The demographic profile of Charlottetown Area Transit passengers is illustrated in **Figure 11**.

Figure 11 – Demographic Profile of Charlottetown Area Transit Passengers



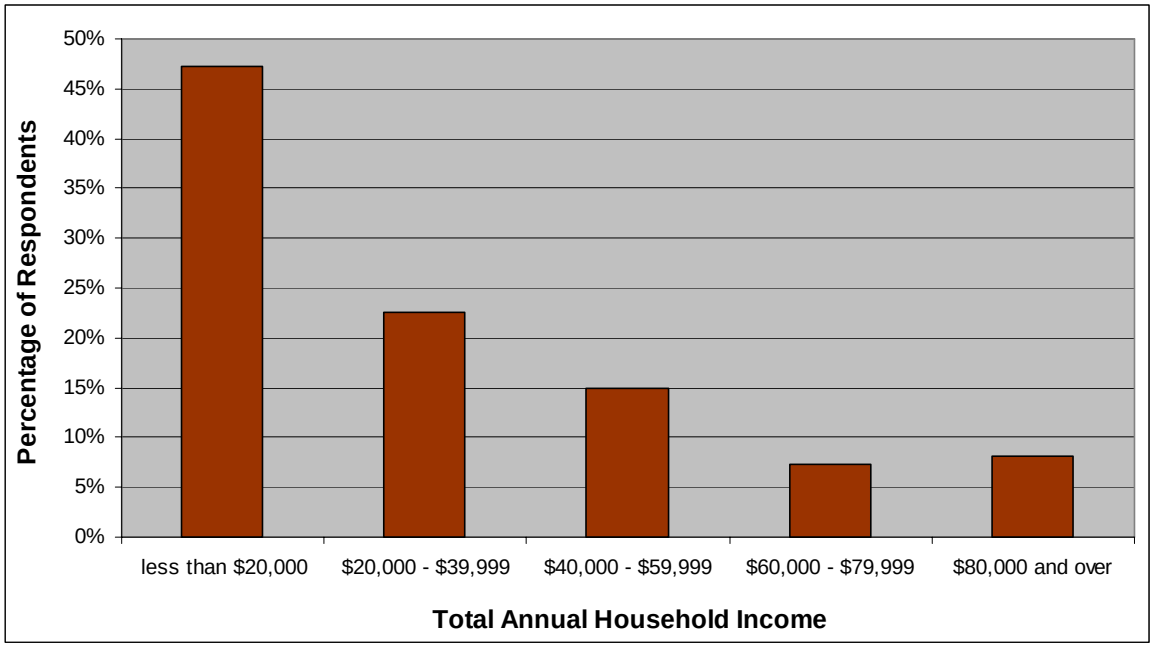
Most Charlottetown Area Transit users are within the age ranges of 20-24 (29 percent) and 25-34 (19 percent). This indicates the prevalence of post-secondary students and young adults starting their work careers. What is somewhat unique for this system is the small percentage of teenagers (13-19) and seniors (65+) that use the transit system at 8 percent and 7 percent respectively. Elementary and secondary school students are bused to and from school by the school boards if they reside 1.0 km (elementary) or 1.6 km from school but secondary students are often transit users for extracurricular activities and to access jobs. Low usage by seniors may be related to lack of training in how to use the system and somewhat attributed to accessibility issues that the system has been experiencing. Female transit users outnumber male users by a ratio of 57 to 43.

Seventy Seven (77) percent of respondents indicated having no vehicle available to them for their trip. In a system this size, this number of users with no vehicle available is typical. This also shows that 23 percent of passengers did have a vehicle available and are using Charlottetown Area Transit as a preferred travel option. Their travel choice for transit may be due to environmental considerations, cost savings, convenience or comfort.

When taking age into consideration, it can be seen that most riders who did have a vehicle available are people in the age brackets of 45-54 and 55-64. This shows that some residents are recognizing the environmental and financial benefits of taking transit, as these people would have been making trips (most likely by car to/from work) before the transit system started up.

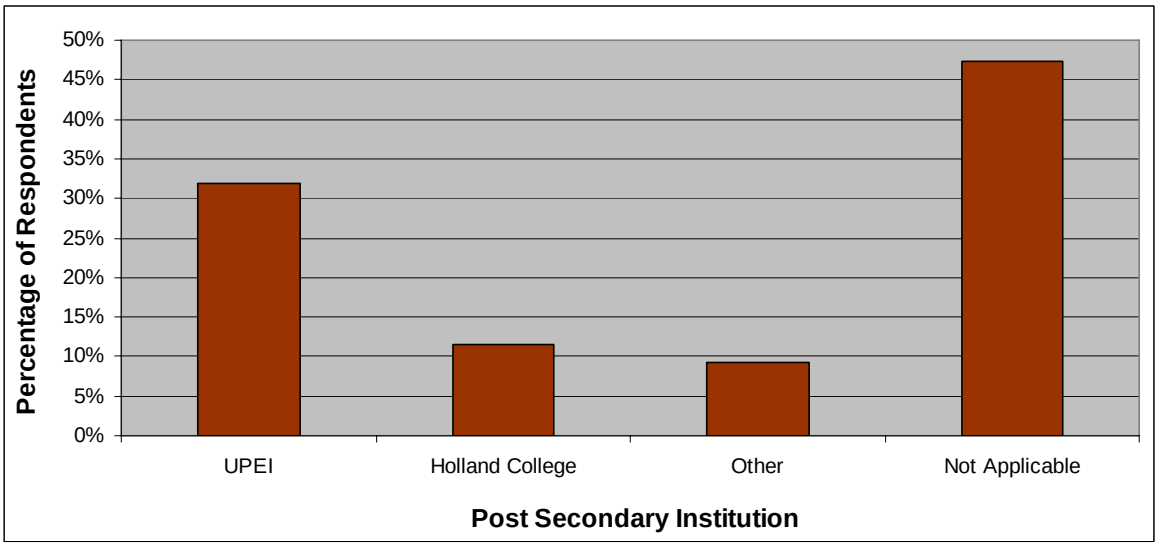
Transit services address the needs of low income households that do not own a private automobile or perhaps two income households that own one vehicle. This trend holds true in the Charlottetown area with 47 percent of respondents reporting a total household income of less than $20,000 (note the high proportion of students in the survey) and 23 percent reporting a total household income between $20,000 and $39,999, while 30 percent of passengers have an average annual household income of $40,000 or greater. This is illustrated in **Figure 12**.

Figure 12 – Average Household Income of Charlottetown Area Transit Passengers



Respondents were asked to indicate which post secondary institution they attend (if applicable). Thirty-two (32) percent indicated attendance at UPEI, with another 12 percent indicated attendance at Holland College. This was an expected result since UPEI has the highest student population and a U-Pass. However, the prevalence of a significant Holland College ridership shows that a strong transit market does exist and could be further increased with the introduction of a Universal Pass.

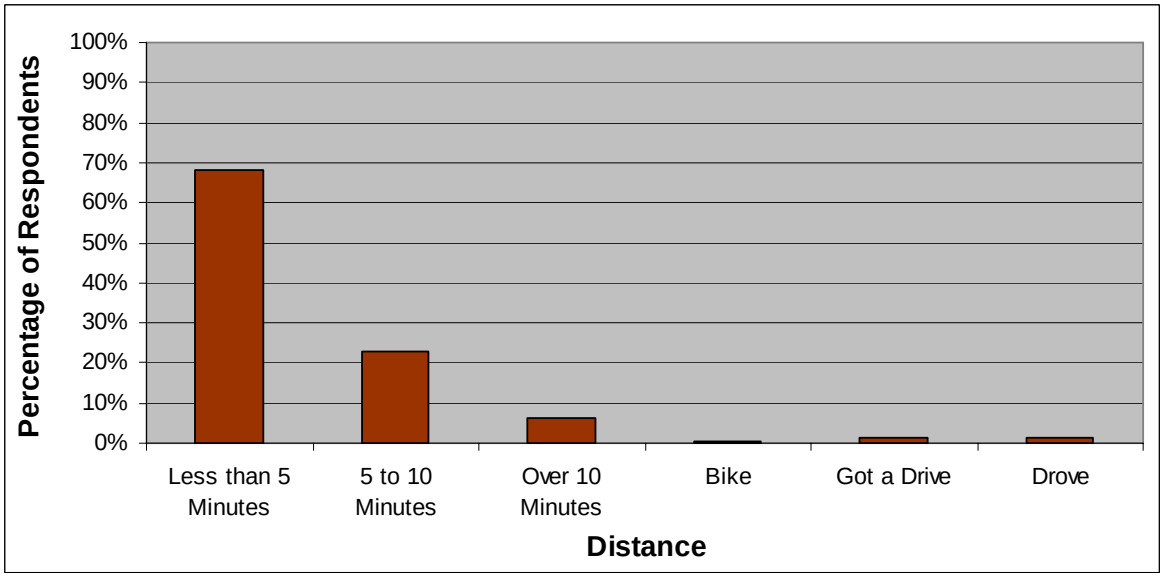
Figure 13 – Post Secondary Student Riders



WALKING DISTANCE

Passengers were asked how long it took them to walk to a bus stop. The survey results indicate that 69 percent of passengers perceive that they are within a 5 minute walk of the service. .

Figure 14 – Average Walking Distance to a Bus Stop



4.0 MARKET POTENTIAL

An assessment of the existing and future market for transit users was conducted to guide recommendations for the design of services. Key markets for transit include students, employees, and seniors. Population and employment growth opportunities and transit's ability to respond were also addressed.

4.1 Existing Population and Employment

The existing population of the areas served by transit are summarized in the **Table 4** below[1]. In terms of future growth, the City of Charlottetown has an annual growth rate of one percent and the Official Plan indicates that the population will grow to 40,250 by the year 2016. Charlottetown's growth is relatively stable compared to Stratford and Cornwall. The Town of Stratford anticipates an annual growth rate of 2 percent while the Town of Cornwall's Official Plan estimates a 3 percent growth rate.

There are few planned developments within the City of Charlottetown. Of note is a new 36,000 square foot conference and convention centre at the waterfront. This facility will double the Province's capacity to hold major meetings and conventions.

The planned build out of the Stratford is 20,000. The Core Area Plan details a commercial corridor along the TransCanada Highway with increased density and mixed uses, reduced parking and transit oriented design. High density plans are also part of a major waterfront development in Stratford.

Table 4 - Census Population Statistics (Statistics Canada)

Municipality	2001	2006	% Change
Charlottetown	32,245	32,174	-0.2
Cornwall	4,412	4,677	6.0
Stratford	6,314	7,083	12.2

Table 5 summarizes the number of employed people in the labour force as well as the unemployment rates for Charlottetown, Cornwall and Stratford. The majority of jobs are located within the City of Charlottetown.

Table 5 - Employment Statistics (Statistics Canada)

Municipality	2006		2001	
	# Employed	Unemployment Rate	# Employed	Unemployment Rate
Charlottetown	15,600	9.0	15,255	10.7
Cornwall	2,405	9.2	2,310	9.2
Stratford	3,735	6.6	3,335	7.4

[1] Statistics Canada 2001 and 2006 National Census

4.2 Post Secondary Market

Post secondary institutions are major market opportunities for transit systems due to the density of students and faculty/staff in a fixed location and the opportunity to introduce U-Pass programs which have been very successful in increasing transit ridership throughout Canada. There are two major post secondary institutions in the Charlottetown Area; University of Prince Edward Island (UPEI) and Holland College.

UNIVERSITY OF PRINCE EDWARD ISLAND

UPEI is located along University Avenue north of Belvedere Avenue and has approximately 3,600 full-time students, 600 part-time students and about 1,000 faculty and staff. The onsite residences house 400 students. The U-Pass was introduced to full time UPEI students in September 2009. Student ridership has increased since the implementation of the U-Pass and the program has helped the university manage its parking issues. The U-Pass program was renewed in a recent student referendum at $25 a semester (the contractor can negotiate pricing changes with the Student Association Executive).

The University is served by the University Avenue service, the Across Town Connector Loop and the East Side service. Service levels on University Avenue have been expanded since the introduction of the U-Pass.

In addition to considerable ridership growth, the implementation of U-Pass programs results in changing travel patterns, including students moving further from campus and a reduction of concentrated student housing and town/gown issues. The on-board passenger survey found that the top five origin-destination pairs included UPEI - Northeast Core, UPEI – Charlottetown Centre, and UPEI – Brighton (see **Figure 6** for map of zones).

The price of the UPEI U-Pass will be addressed in **Section 14.5**. At $25 per semester, the cost is significantly less than many other U-Passes across the country.

The 1,600 faculty and staff and part-time students have a high level of transit service available for their trip making to and from UPEI and should be targeted for employee pass programs (initially discount pass programs and ultimately U-Passes)

HOLLAND COLLEGE

Approximately 2,000 post secondary students are enrolled at Holland College in PEI of which 1,472 are students at the two large Charlottetown campuses (there is also the Canadian Golf Academy facility in Stratford). Classes begin at 9:00am and end by 4:00pm.

Only 200 of the 1,472 students live on campus; most reside in downtown Charlottetown and many live in student housing areas in common with UPEI students.

There is little summer enrolment at Holland College (from May until the Labour Day weekend).

In Charlottetown, Holland College has campus locations on Sydney Street and Weymouth Street. The Weymouth Street location of Holland College is serviced by both the East Side Service and the East Side to Downtown Connector Loop routes. The Sydney Street campus is served by the Central Area Service, the West Side Service and the University Avenue Service. The remaining campus can be served by the University Avenue Service, the Across Town Connector Loop and the East Side

Service. In Stratford, the Canadian Golf Academy (part of Holland College) is located along Kinlock Road and Route 7 serves this area but is only a weekday peak time service.

Currently, the U-Pass is not available to Holland College students. Introducing a student Universal-Pass at Holland College for Charlottetown area campuses is a major market opportunity and could be expected to at least double the current transit usage by this group. There is a preference to brand such a program as a "C-Pass".

4.3 Seniors

Access to public transit can enhance the quality of life of seniors and assist with seniors remaining independent in their own homes as long as possible. Currently, only 7 percent of the ridership are seniors (according to the onboard passenger survey). This is a low percentage of the total senior's population in the greater Charlottetown area (15.5 percent of the population in 2006). **Table 6** illustrates the growth in the senior's population (age 65 and older) between 2001 and 2006.

Table 6 - Seniors Population in Charlottetown, Cornwall and Stratford

	2001		2006	
	Population	**Proportion of population**	**Population**	**Proportion of population**
Charlottetown	5,290	16.4%	5,560	17.3%
Cornwall	340	7.7%	405	8.7%
Stratford	640	10.1%	840	11.9%
Total	**6,270**	**14.6%**	**6,805**	**15.5%**
Provincial Average		*13.7%*		*14.9%*

Prince Edward Island's population profile is aging. Levels of natural population increase are declining due to decreasing fertility rates and the aging of the "baby boomers". In all three communities that make up the greater Charlottetown area, the proportion of seniors increased from 2001 to 2006 and Charlottetown had a significantly higher proportion of seniors compared to the provincial average. Projections by Statistics Canada indicate that by 2036, seniors will reach 26.5 to 28.2 percent of the population in PEI[2].

The amount and type of housing occurring in the region is directly dependent on the age structure. An older population is generally characterized by smaller "empty nesters" households. Also, labour force participation in an aging society is lower as the labour force is generally comprised of the 20 to 60 year old population. Both factors will influence transit service design.

The relationship between the incidence of disability and age can be demonstrated using data from the Participation and Activity Limitation Survey (PALS) data collected by Statistics Canada every 5 years. It is noted that in the PALS surveys, a disability is defined as a condition that limits everyday

[2] Source: Prince Edward Island Department of Finance and Municipal Affairs - "Statistics Canada Releases Population Projections for Canada, Provinces and Territories for 2010 – 2036", May 28, 2010

activities because of a condition or health problem. It is recognized that this is a broad definition of disability and would include many individuals who do not necessarily require special transit systems or accessibility design features for travel.

Table 7 illustrates the incidence of disability for different age groups. This data clearly indicates the increasing incidence of disability among older population groups, with the incidence of disability among persons 75 and older being four times that of the total population.

Table 7 - Incident of Disability by Age Group (2006)

Age Group	Percent of Total Population with Disabilities
0 – 14 years	3.7%
15 – 64 years	11.5%
65 – 74 years	33.0%
75+ years	56.3%
Total Population	**14.3%**

Across PEI there are approximately 22,000 people who indicate that they have some type of disability.

Seniors are a good target market for transit as many no longer drive as they age. Public transit provides an affordable means of transportation for seniors. The senior population tends to be more dependent on transit than other age groups and requires different types and levels of service. A customized service, such as a Community Bus, for seniors is a possible opportunity to meet the travel needs of this demographic.

4.4 Newcomers/Immigrants

Another transit market and area of special consideration is the ethnic and immigrant population. Newcomers often require special attention in order to have successful integration into the community. From Statistics Canada (2006) data there are:

- 1,480 immigrants in Charlottetown (4.7 percent of total population);
- 100 immigrants in Cornwall (2.1 percent of total population); and,
- 385 immigrants in Stratford (5.4 percent of total population).

The Prince Edward Island Association for Newcomers to Canada serves as a community-based immigrant support organization for first generation Canadians living in Prince Edward Island. The association is a not-for-profit organization with 26 staff. Many newcomers live in Charlottetown (including West Royalty, Hillsborough and Downtown) as well as Stratford and Cornwall. In 2010, assistance for settlement was provided to 1,200 clients, of which 80 are refugees. Generally the clients are from family units and most elderly newcomers live with their family. The association may work with some individual clients for over two years.

There are many programs in Charlottetown for newcomers; for instance UPEI has a guide for international students, and Holland College provides English language classes for immigrants. Many newcomers have a personal vehicle, however some newcomers depend on transit.

There are partnership opportunities that can be explored between the association and transit staff. The association holds information sessions once a month for newcomers (30 to 40 attendees) and there is an opportunity for information about the transit system to be shared at these meetings. Transit staff could help train client case workers and provide a general transit information sheet that could be translated into several languages. Sensitivity and awareness training packages available from the association could be used in training transit drivers and customer service staff.

4.5 Secondary School Market

Charlottetown has two large Eastern School District high schools and there are two private schools and one French language school with high school students. There are no high schools in Cornwall or Stratford.

The schools within the Eastern School District have school bus programs for all students to deliver them to and from the school. Based on the results of the on board passenger survey, less than one percent of passengers used transit to go to high school or elementary school. High school students still represent a potential market, particularly for after school activities such as school programs, part-time jobs and visiting friends. One constraint is that service on most routes ends at 7:00pm and many after school activities may extend beyond that time (i.e. part-time retail job). **Table 8** lists the bus routes that provide service to these schools.

Table 8 - Charlottetown Secondary Schools

School	Enrollment	Bus Route
Charlottetown Rural Senior High School (100 Raiders Road)	1,100	West Side Service University Avenue Service Across Town Connector Loop East Side Service
Colonel Gray High School (175 Spring Park Road)	900	University Avenue Service Downtown Connector Loop West Side Service Central Area Service
Full Circle Co-operative School (10 St. Peter's Road)	15*	Downtown Connector Loop Central Area Service East Side to Downtown Connector Loop
Grace Christian School (50 Kirkdale Road)	120**	West Side Service North End Connector Loop
L'école François-Buote (5 Acadian Drive)	310**	East Side Service East Side to Downtown Connector Loop

*Includes Junior High School Students
**Includes Kindergarten, Elementary an Junior High School Students

4.6 Health Care and Hospital Market

There are two Hospitals serving the Greater Charlottetown Area; Queen Elizabeth Hospital and Hillsborough Hospital and Special Care Centre.

The Queen Elizabeth Hospital is located at 60 Riverside Drive and is a multi-service acute care facility with 274 beds that provides both community services and specialized provincial services

supporting inpatient and outpatient care. The hospital is dedicated to improving the health of Islanders by providing leadership in acute care and specialized services. The Queen Elizabeth Hospital has 2,000 employees and approximately 1,500 people come to the hospital on a daily basis (of which approximately 40 percent live in rural and unserviced areas). Night shifts are covered by 100 employees.

The Hillsborough Hospital and Special Care Centre, located on Murchison Lane is a 75 bed psychiatric hospital. As the provincial in-patient psychiatric facility, Hillsborough Hospital's mission is to offer specialized acute and long-term treatment and rehabilitation to the people of Prince Edward Island who have enduring mental illness, mental handicaps, and psychogeriatric conditions. The hospital employs approximately 300 staff.

Service to both Charlottetown Hospitals is provided via the East Side Service, East Side to Downtown Connector Loop and the Across Town Connector Loop. There is also a direct connection to the Hospital from Stratford. Based on the results of the on board passenger survey, only 2 percent of respondents indicated that they were using transit for medical purposes and only 10 passengers indicated that they originated their trip or were destined to the hospital area. This is a low number of trips and service options may need to address this low demand.

Given the close proximity to each other, and the concentration of employment, the hospitals are an ideal candidate for employee transit pass programs. However, comments from staff were that the frequency was insufficient, trip time too long and the evening service time should be more flexible. Dedicated special services may be a better approach to address these employment concentrations.

In addition to the hospitals, there are several medical clinics and many are located within or near to downtown Charlottetown. The clinics are listed in **Table 9** with the transit routes that serve them. Targeting these clinics for a potential service for seniors may be effective in better capturing this market.

Table 9 - Charlottetown Clinics

Clinic	Address	Transit Route
Downtown Walk In Clinic	220 Water Street	East Side to Downtown Connector Loop East Side Service
Parkdale Medical Centre	20 St. Peters Road	Downtown Connector Loop Central Area Service East Side to Downtown Connector Loop
Riverside Medical Centre	1 Garfield Street	East Side to Downtown Connector Loop East Side Service Across Town Connector Loop
Island Rapid-Med	96 Kensington Road	East Side to Downtown Connector Loop East Side Service
Polyclinic	199 Grafton Street	East Side to Downtown Connector Loop East Side Service

4.7 Commercial/Employment Market

Public transit provides access to jobs and daily commuters represent the largest market for Charlottetown Area Transit. The Stratford and Cornwall service is primarily used by commuters travelling from these communities to places of employment in downtown Charlottetown.

The majority of employers in Charlottetown end their work day around 5:00pm. However, there are some employers such as call centres, retail establishments, the Industrial sector and Hospitals that have weekend operations, shift work or hours that begin and end outside of the regular, weekday AM and PM peak hours. Fixed route transit service may not fully address the needs of these employees and special service strategies should be considered.

Major employment concentrations in Charlottetown are found downtown, near the airport, along University Avenue and near Upton Road. Major employers include call centres, institutions, government offices and retail. The key employers within Charlottetown are identified in **Table 10**.

Table 10 - Charlottetown Major Employers

Employer	Location	Employees *(approx.)*
Department of Veteran Affairs	Various Locations throughout City	1,300
UPEI	550 University Avenue	1,000
Provincial Government Offices	Rochford	800
D.P. Murphy Inc.	various	700
Murphy Group of Restaurants	various	400
Sobey's	400 University Avenue & 201 Buchanan Drive	300
Online Support Inc	82 Hillstrom Avenue	250
Advantage Communications	265 Brackley Point Road	200
Invesco Ltd	119 Euston Street	200
BioVectra Inc.	11 Aviation Street	130
Wal-mart Canada	80 Buchanan Drive	130
Vision Research	94 Watts Avenue	90
City of Charlottetown	199 Queen Street	55
Ceridan Canada	223 Queen Street	50

The Charlottetown Chamber of Commerce represents 900 members. Chamber members generally support transit and downtown retailers see the potential to reduce congestion and manage parking. Many members are interested in park and ride, ride share, transit passes, and guaranteed ride home program initiatives.

Downtown Charlottetown Inc. is a non-profit organization that works with businesses to improve living and commerce in the City core. It includes 330 property owners and 586 businesses bounded by Prince Street to the east, Pownal Street to the west, Euston Street to the north and Water Street to the south. The organization recognizes that parking is a major issue in the downtown area and that transit may help. There is the opportunity for specific marketing campaigns that the organization could help out with such as product sampling on the buses, validation of transit tickets, competitions between different employers (who can sell more passes), and Stuff-a-Bus campaigns.

A key consideration is how parking availability and cost influences transit ridership. More expensive and limited parking will make public transit more attractive relative to the private automobile. The generally low congestion levels, low cost of auto ownership, and pricing and supply of parking throughout the transit service area are contributing reasons for why people are choosing the automobile for their travel needs.

Parking in downtown Charlottetown is limited, although some employers (including the provincial government offices) do provide free parking for their employees. Parking that is available is relatively inexpensive with monthly parking passes costing $60 to $90. In addition, the fines for parking violations in Charlottetown are low ($5.00). For comparison, a monthly adult transit pass costs $60 and a two way fare is $4.00 cash for an adult.

The City of Charlottetown completed a Downtown Parking Strategy in 2008 that analysed the existing parking supply/pricing and outlined a Parking Management Strategy based on Downtown growth and anticipated parking demand. At the time of the study there were approximately 7,760 parking spaces in downtown Charlottetown of which 3,890 are on-street and 3,870 are off-street. This report found that the peak parking utilization is 71 percent for the downtown. This indicates that while there is capacity in the overall system, there is not an abundance of parking available, including reserve parking for special events.

Charlottetown Mall is located on University Avenue north of UPEI. The mall contains over 60 shops, has over 500 employees and receives 20,000 customers a week. Some customers and staff use transit and the mall is a major hub for several transit routes.

A large industrial/business park is located in the West Royalty area and at the Charlottetown Airport. The employment centres near the airport (On Aviation Street and Brackley Point Road) are served by the North End Connector Loop. The North End Connector and the West Side Service serve the employment centres on Hillstrom and Watts Avenues. Among other routes, the University Avenue Service serves the employment centres along University Avenue and the downtown area.

Stratford's major employers are summarized in **Table 11**.

Table 11 - Stratford Major Employers

Employer	Location
CGI	24 Stratford Road
Sobey's	9 Kinlock Road
Home Hardware	14 Kinlock Road

4.8 Tourism / Recreation

Prince Edward Island is Canada's smallest province, but also the birthplace of Canada's confederation. Charlottetown is the major destination on the island and the city has a historic district, shopping and access to beaches.

Tourism represents PEI's largest service industry and maintains the status of the largest sector in the province. Employees in this sector are a good market for transit services.

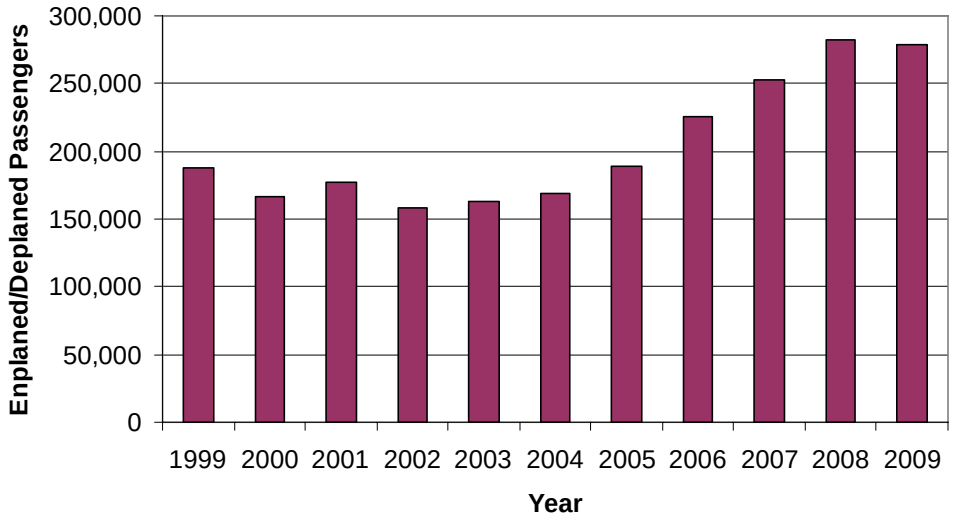
While there are many tourists that visit the Charlottetown area, serving this market with the public transit system is difficult. Specific opportunities and partnerships should be pursued including

development of promotional information and perhaps a day pass (designed as a souvenir) that would encourage access to local shops and photo opportunities with the replica Trolleys.

4.9 Airport

The Charlottetown Airport is located within the City of Charlottetown on Maple Hills Avenue. The airport provides both passenger travel and cargo transport and **Figure 15** summarizes the passenger statistics for the past decade. While the airport is currently served by the North End Connector Loop transit route, the airport represents a small market for the transit system.

Figure 15 - Charlottetown Airport Passenger Statistics



5.0 PEER REVIEW

A benchmark review was conducted using Canadian transit systems in municipalities with similar population size as Charlottetown. The peer group was developed based on 2009 statistics from the Canadian Urban Transit Association (CUTA) and includes municipalities with a population under 50,000 (population group 4). For a more local comparison, Fredericton NB and Cape Breton NS were added. **Table 12** shows a summary of transit system characteristics.

Table 12 - Peer Review System Characteristics

System	Service Area Population	Service Area Size (sq. km.)	Fixed Routes	Number of Vehicles
Charlottetown PEI	45,000	250	11	17
Airdrie AB	38,091	33.1	3	4
Belleville ON	37,000	241.7	8	13
Cobourg ON	10,602	13	3	5
Cornwall ON	45,965	61.5	5	16
Milton ON	49,700	14	5	7
North Bay ON	49,000	314.9	11	23
Stratford ON	32,000	26	6	14
Timmins ON	38,000	24	8	21
Welland ON	48,000	86	15	22
Prince Albert SK	34,000	17.9	6	10
Whitehorse YK	18,900	46	7	9
Yellowknife NWT	19,711	105	5	8
Fredericton NB	50,000	132	8	29
Cape Breton NS	68,000	200	10	16
Average	*37,043*	*98*	*7*	*14*

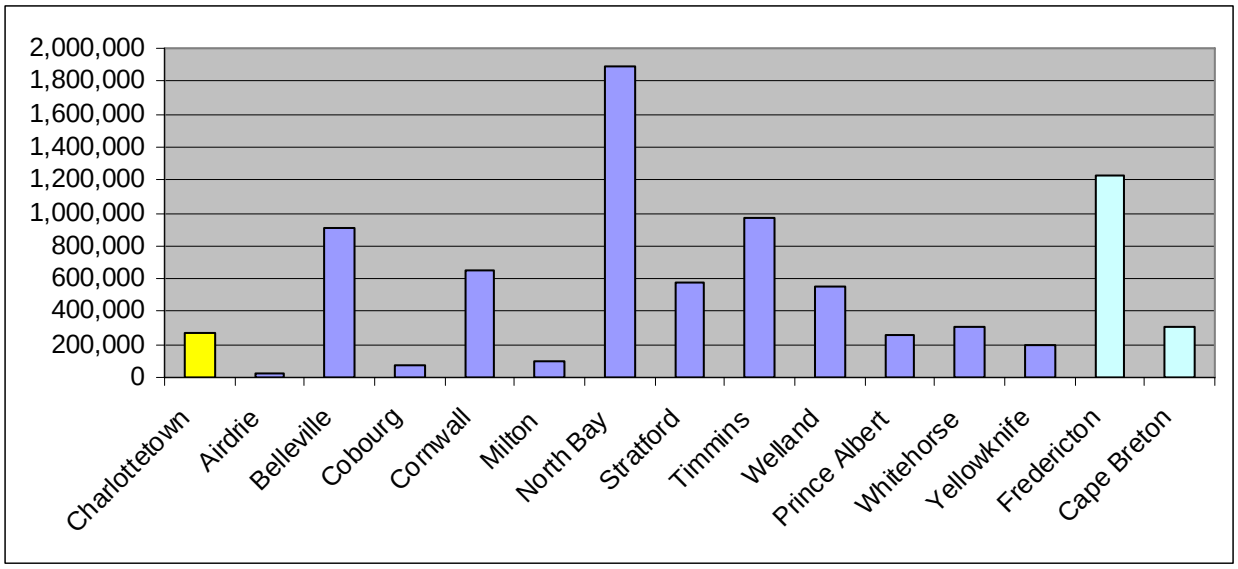
This table shows that Charlottetown Area Transit is somewhat above average in all categories. The service area size is larger than all but one system (North Bay, ON). Transit is less effective when densities are low and/or long unproductive distances must be travelled (deadheading) to reach small pockets of population.

5.1 Ridership

Ridership is a key and simple determinant of the success of a particular transit system. As indicated in **Figure 16**, Charlottetown Area Transit is near the bottom of its peer group in terms of the annual

ridership levels that it achieves. This is related in part to the start up nature of the service and suggests ridership growth will occur as residents become more aware of and comfortable in using the service.

Figure 16 - Regular Service Passengers (2009)

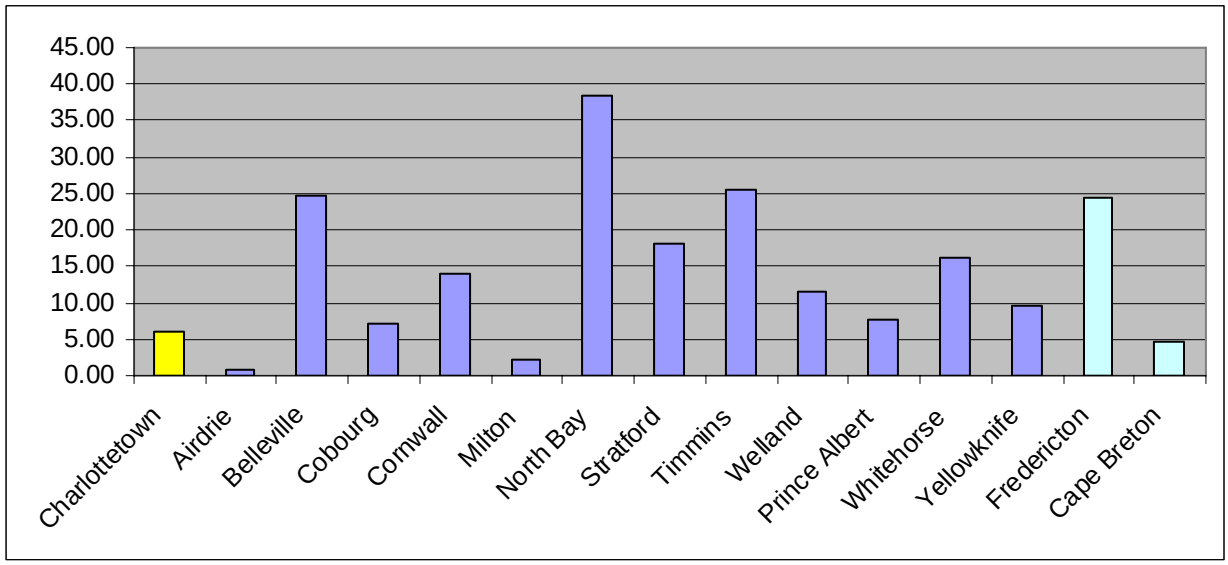


5.2 Service Utilization

Service utilization is measured through two indicators: regular service passenger's per capita and regular service passengers per revenue vehicle hour.

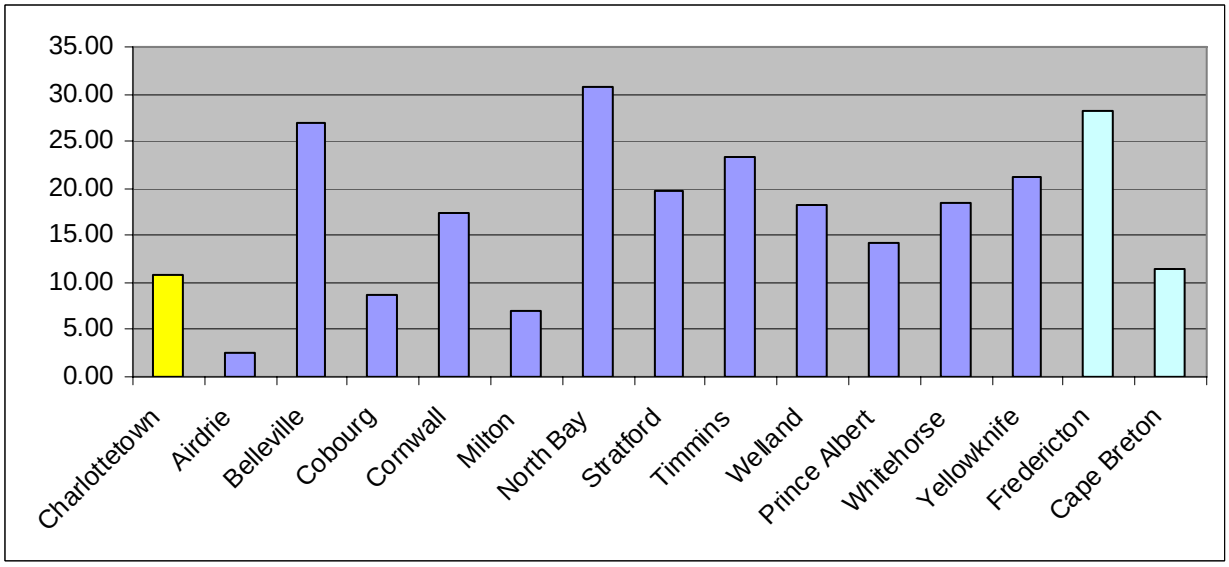
"Regular service passengers per capita" is a good measure of utilization since it takes into account the population of the transit service area. **Figure 17** illustrates this statistic for the peer group. Charlottetown Area Transit is attracting a ridership/capita of 6.04, which is below all but three systems in the peer group. On a positive note, this chart indicates the opportunity to continue to grow ridership as residents become familiar with the service, services are improved, transit supportive measures are adopted and travel behaviour changes

Figure 17 - Regular Service Passengers per Capita (2009)



"Regular service passengers per revenue vehicle hour" is a measure of system productivity. **Figure 18** illustrates this statistic for Charlottetown's peer group. In 2009, Charlottetown Area Transit achieved 10.97 passengers per revenue vehicle hour, which is again below all but three of its peer group systems. A reasonable target for service redesign is suggested at 15 to 20 passengers per hour.

Figure 18 - Regular Service Passengers per Revenue Service Hour (2009)



5.3 Level of Service

Table 13 illustrates the 2010 service hours provided by select systems in the peer group. Charlottetown Area Transit provides service Monday to Saturday between 6:30am and 7:00pm (limited service to midnight in Charlottetown, limited runs to Cornwall and Stratford). Its 12.5 hour

weekday service is below all of the selected peers except for Welland Transit and its 12.5 hour Saturday is below all peers except for Welland and Belleville.

Unique characteristics to note in the peer group include:

- Belleville Transit provides Sunday service but no holiday service. North Bay provides Sunday and Holiday service.
- Welland Transit provides connections to St. Catharines, Niagara-on-the-Lake, and Port Colbourne at varying frequencies. The St. Catharines and Niagara-on-the-Lake connections cater to post-secondary students attending Niagara College and Brock University and run later than 6:45pm.
- Cape Breton Transit provides limited Saturday service

Table 13 - Hours of Operation (2010)

System	Monday - Friday			Saturday			Sunday/Holiday		
	Start	End	Hours*	Start	End	Hours*	Start	End	Hours*
Charlottetown (45,000)	*6:30AM*	*7:00PM*	*12.5*	*6:30AM*	*7:00PM*	*12.5*	-	-	-
Belleville *(37,000)*	5:00AM	10:30PM	17.5	6:45AM	6:15PM	11.5	9:00AM	6:00PM	9
North Bay *(49,000)*	6:15AM	12:15AM	18	6:30AM	12:15AM	17.75	8:30AM	6:15PM	9.75
Stratford *(32,000)*	6:00AM	10:00PM	16	6:00AM	8:00PM	14	-	-	-
Welland *(48,000)*	7:15AM	6:45PM	11.5	10:15AM	6:45PM	8.5	-	-	-
Fredericton *(50,000)*	6:15AM	11:00PM	16.75	6:15AM	11:00PM	16.75	-	-	-
Cape Breton *(68,000)*	7:00AM	10:45PM	15.75	8:00AM	10:45PM	14.75	-	-	-

**rounded to the nearest quarter hour*

Frequency of service within these service hours is shown in **Table 14**. Charlottetown area transit has the most varying frequency levels and a lack of consistency in frequency tends to cause confusion for the customer as the system is less predictable. The 15 minute (some runs) peak time and Saturday service is above average for the peer group and may be resulting in some over-service. All base routes should be running a least every hour at all times to provide a minimum travel option for the customer and half hour frequency is certainly desirable (but must be considered on a productivity basis as well).

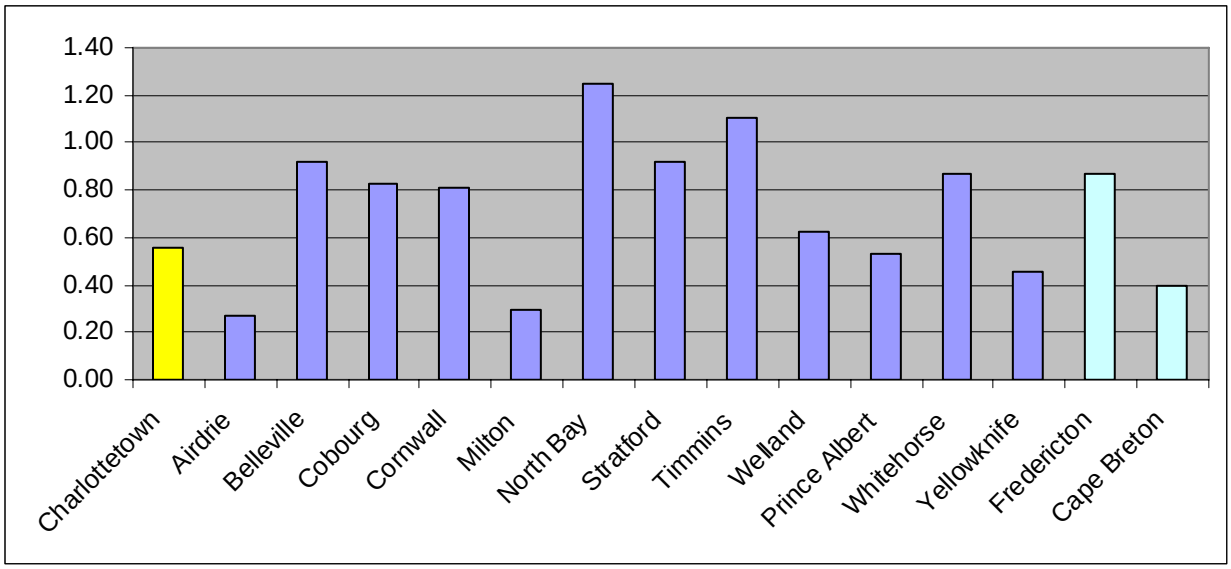
Table 14 - Service Frequency (2010)

System	Weekday Peak (mins)	Weekday Off-Peak (mins)	Saturday (mins)	Sunday (mins)
Charlottetown (45,000)	20-60	30-120	20-120	-
Belleville *(37,000)*	30	30-60	30-60	60
North Bay *(49,000)*	30-60	30-60	60	60
Stratford *(32,000)*	30	30	30	-
Welland *(48,000)*	30	30	30-60	-
Fredericton *(50,000)*	15-30	30-60	60-120	-
Cape Breton *(68,000)*	60+	60+	60+	-

5.4 Amount of Service

A good measure of the amount of service provided is revenue service hours per capita. **Figure 19** illustrates this performance measure for 2009. Charlottetown is at 0.56 revenue service hours per capita, which is lower than all but five of its peers. While Charlottetown Area Transit services one of the larger populations in the peer group, amount of service is below average. It should be noted that amount of service is a key determinant of overall ridership.

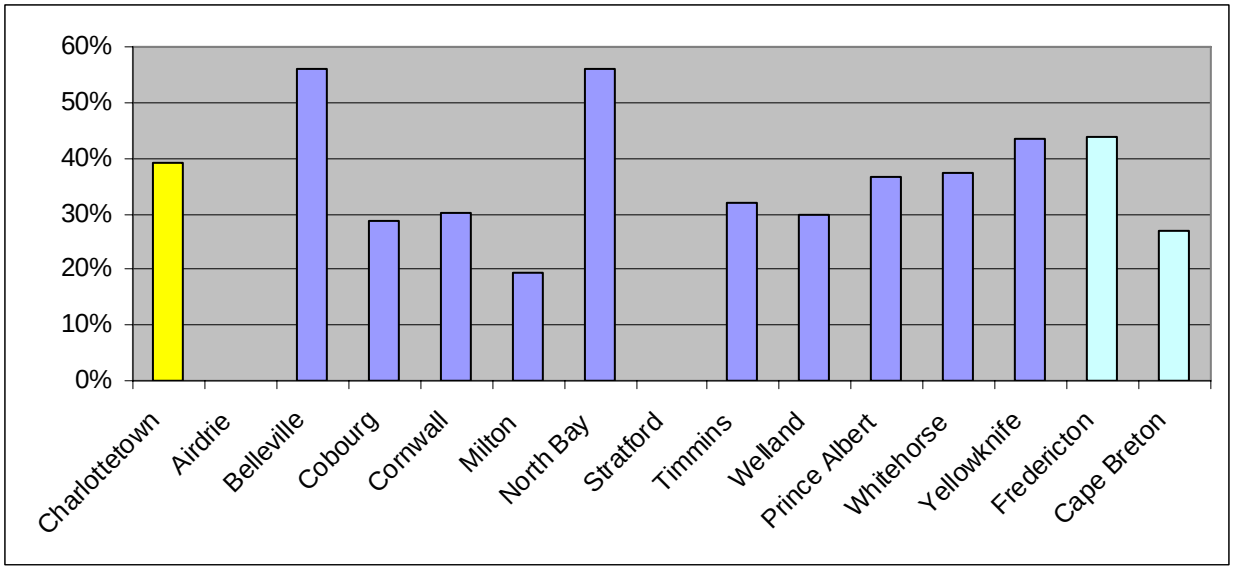
Figure 19 - Revenue Service Hours per Capita (2009)



5.5 Revenue/Cost

One measure of the financial performance of a system is the revenue/cost (R/C) ratio, which is the percentage of operating costs recovered from passenger revenues. All Canadian transit systems operate at a deficit with the balance of funding coming from municipal subsidy and sometimes provincial contribution. **Figure 20** illustrates the R/C ratio's in Charlottetown's peer group. Charlottetown Area Transit's R/C ratio is above most of its peers. This means that Charlottetown Area Transit users are making a typical contribution to the cost of transit operations. A target of 45 to 50 percent for R/C ratio is suggested and establishing this target will help in decisions related to fare setting.

Figure 20 - Revenue/Cost Ratio (2009)

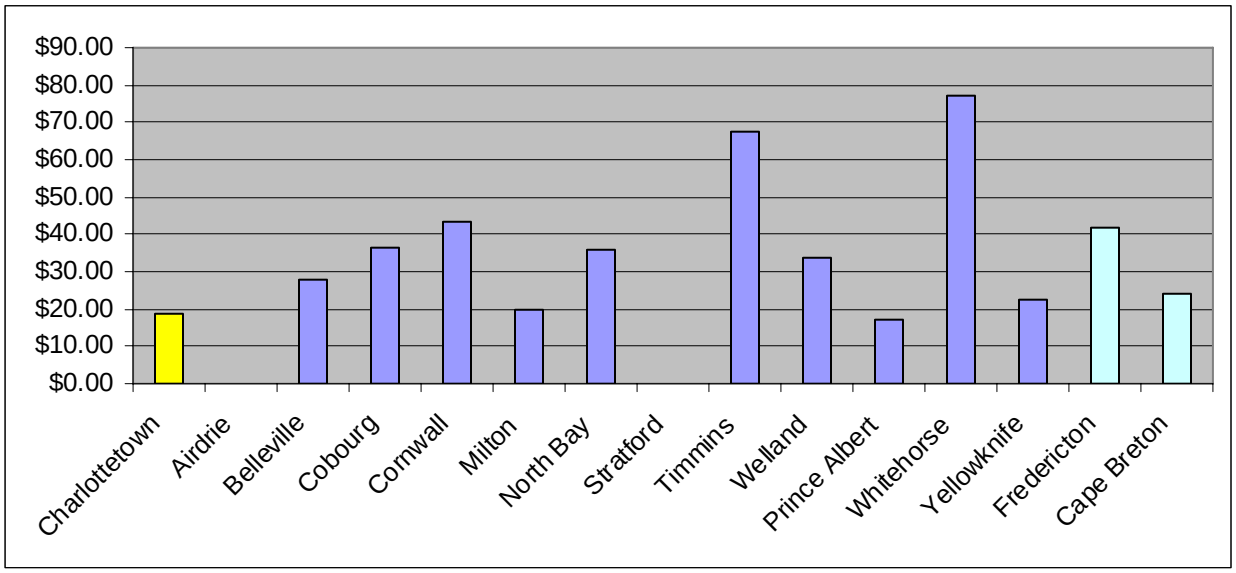


* Airdrie and Stratford did not provide CUTA with financial information

5.6 Municipal Subsidy

"Municipal subsidy per capita" is another financial measure indicating the contribution municipalities are providing (from the general tax base) to the operation of their transit systems. As identified in **Figure 21**, the municipal subsidy per capita provided collectively by Charlottetown, Stratford, and Cornwall is below all but one of the peer group systems. Several peer group systems also receive provincial funding support for operations.

Figure 21 - Municipal Subsidy per Capita (2009)



* Airdrie and Stratford did not provide CUTA with financial information

5.7 Fare Structure

Charlottetown Area Transit offers several fare options for passengers, including cash fare, multi ride tickets and monthly passes. There is a U-Pass agreement in place for UPEI students at $25/semester (students can ride for a full calendar year for $50). For a discussion of U-Pass programs refer to **Section 14.5.**

Table 15 shows the fare structure of the selected peer group for 2008 and there may have been increases in 2010. Most transit systems offer a fare structure that varies by the type of user. Charlottetown Area Transit adult cash fare is below the average of the selected peer group, while the senior and student cash fare is slightly more expensive. However, having a single cash fare is very desirable and discounts are available through tickets and passes. Charlottetown Area Transit gives a higher ticket discount (15 percent) than most selected peer group systems. Monthly passes for all types of users on Charlottetown Area Transit is also generally lower than the select peer group systems.

Some select peer group systems offer a children's fare for children between 5 and 12 years of age, while other systems include them in the student category. Children under 5 years, generally ride free.

Table 15 - Fare Structure (2010)

System	Cash			Ticket			Monthly Pass		
	Adult	**Student**	**Senior**	**Adult**	**Student**	**Senior**	**Adult**	**Student**	**Senior**
Charlottetown (45,000)	*$2.00*	*$2.00*	*$2.00*	*$1.70*	*$1.70*	*$1.70*	*$60*	*$39*	*$39*
Belleville *(37,000)*	$2.25	$1.90	$1.90	$2.08	$1.73	$1.73	$72	$57	$50
North Bay *(49,000)*	$2.25	$2.25	$2.25	$2.20	$2.20	$2.20	$80	$65	$55
Stratford* *(32,000)*	$2.50	$2.00	$2.00	$2.00	$1.75	$1.75	-	-	-
Welland *(48,000)*	$2.50	$2.50	$2.50	$1.91	$1.50	$1.50	$69	$59	$52
Fredericton *(50,000)*	$2.00	$2.00	$2.00	$1.80	$1.80	$1.80	$65	$42	$50
Cape Breton *(68,000)*	$1.25	$1.00	$1.00	-	-	-	-	-	-
Average	**$2.11**	**$1.95**	**$1.95**	**$1.95**	**$1.78**	**$1.78**	**$69**	**$52**	**$49**

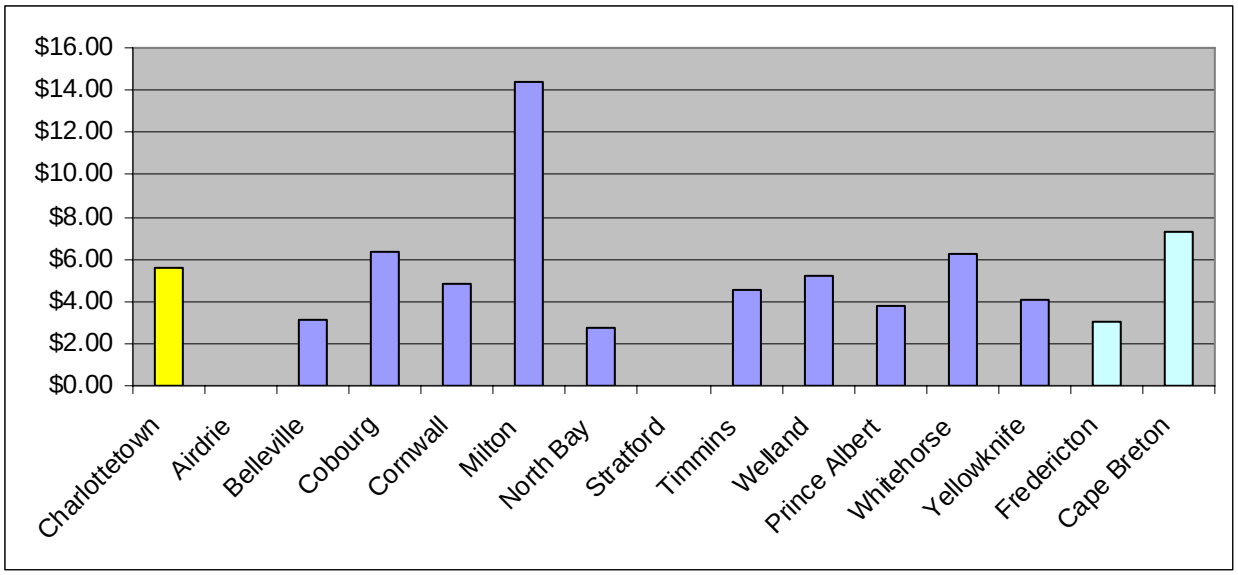
*2010 data

5.8 Cost Effectiveness

Cost effectiveness is measured by the total direct operating expense divided by regular service passenger trips (the cost to operate the service per passenger) or by direct operating expenses divided by revenue service hours or kilometres.

Figure 22 illustrates the cost effectiveness of Charlottetown relative to its peer group. The Charlottetown cost of $5.63 per passenger trip is above most of the peer group systems. There is some effect of an emerging system as initial investment needs to be made to develop the market. Improvements in this indicator over time should be tracked.

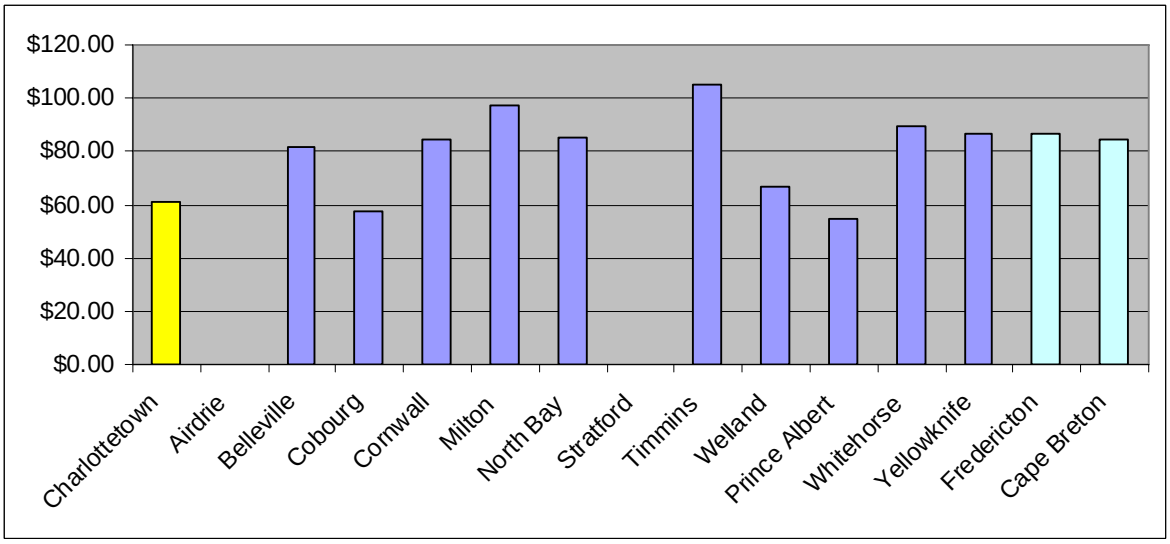
Figure 22 - Total Direct Operating Expenses per Regular Service Passenger (2009)



* Airdrie and Stratford did not provide CUTA with financial information

Figure 23 illustrates direct operating costs per total service hour (which measures account the efficiency of existing operations). On a positive note, Charlottetown Area Transit is below most of the peer group systems for this indicator. This shows that Charlottetown Area Transit with its private contractor is running their system in a financially efficient manner.

Figure 23 - Total Direct Operating Expenses per Total Service Hour (2009)



* Airdrie and Stratford Ontario did not provide CUTA with financial information

5.9 Charlottetown (City) Core Services

Typically the peer systems do not operate a region-wide service with peak period services to adjacent areas. To provide another assessment tool, statistical data regarding Charlottetown Area Transit's

core services (8 routes operating in the City of Charlottetown) were separated from the total system and compared to the peer group. Ridership by route was provided by Trius Transit for this analysis.

SERVICE UTILIZATION

Figure 24 compares Charlottetown Area Transit's core service ridership/capita to the peer group. Charlottetown Area Transit is attracting a ridership/capita of 7.66 based on 32,000 population, which is higher than the system as a whole but still below all but five systems in the peer group.

Figure 24 - Regular Service Passengers/Capita (City) (2009)

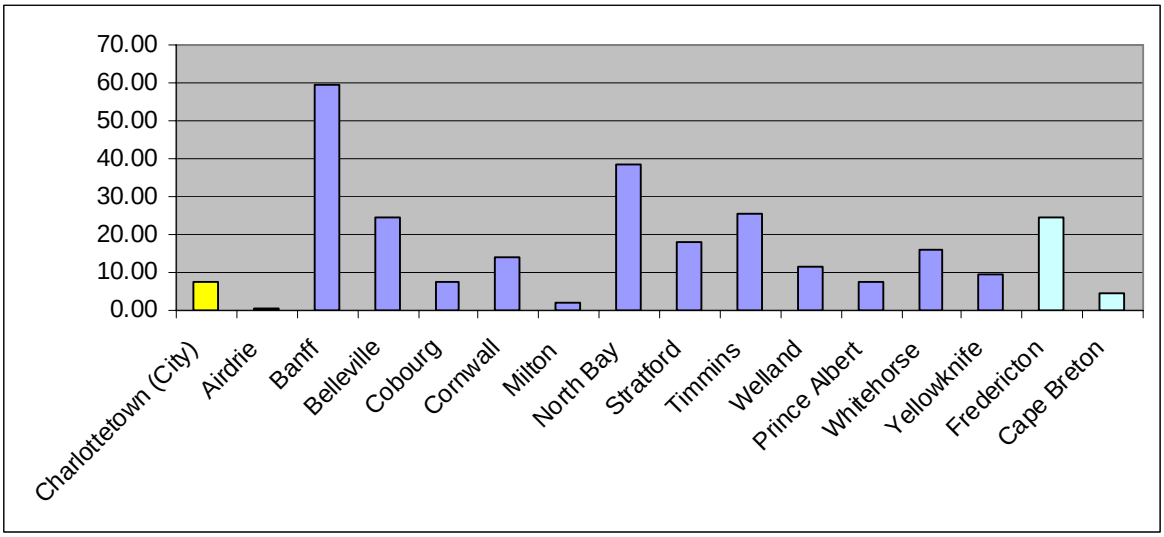
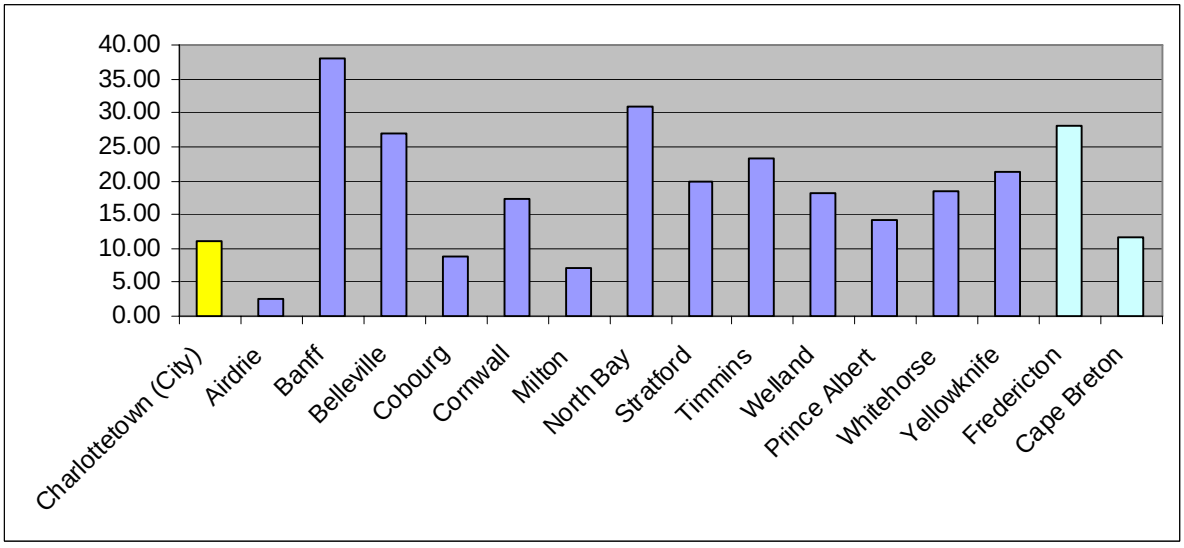


Figure 25 compares Charlottetown Area Transit's core service ridership/vehicle hours to the peer group. Charlottetown Area Transit is currently achieving 11.14 passengers per revenue vehicle hour, which is close to the system as a whole and below all but three of its peer group systems.

Figure 25 - Regular Service Passenger/Revenue Service Hour (City) (2009)

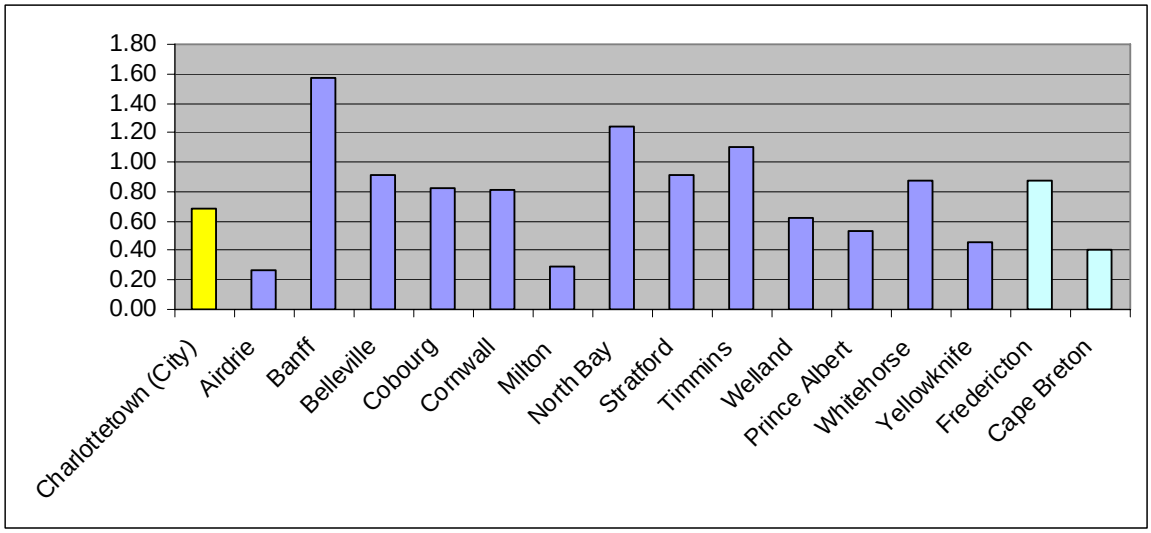


Both comparisons indicate an opportunity to attract additional ridership through service level improvements and demand management techniques.

LEVEL OF SERVICE

Figure 26 compares Charlottetown Area Transit's core service vehicle hours/capita to the peer group. Charlottetown Area Transit's core services is 0.69 revenue service hours per capita, which is higher than the system as a whole (0.56) but still lower than all but six of its peers. This shows that a high proportion of Charlottetown Area Transit's service hours are concentrated in Charlottetown proper.

Figure 26 - Revenue Service Hours/Capita (City) (2009)



5.10 Summary

Based on the peer review provided in this section for Charlottetown Area Transit and Charlottetown Area Transit core services, some general conclusion can be drawn. These include:

- Charlottetown Area Transit covers a relatively large service area, so care must be taken to minimize deadheading and avoid unproductive service to low density areas.
- Charlottetown Area Transit is still a maturing system which somewhat accounts for not achieving ridership and service utilization to the level of many systems in the peer group. There is a latent market for transit and ridership will grow as residents become increasingly familiar with the service and sufficiently confident in its continuation to change their tavel behaviour.
- Charlottetown Area Transit service schedules and frequencies are irregular causing confusion for existing riders/ new riders, and potentially compromising ridership growth.
- The amount of service provided is among the lowest in the peer group on a per capita basis. Later evening service and higher frequencies are common in the peer group. Most systems serving a population the size of greater Charlottetown do not operate Sunday and Holiday service.

- Municipalities are getting good value from the contractor (cost per bus hour) and the system is operating at a reasonable revenue/cost ratio.
- The municipal subsidy per capita (or contribution from the general tax base) is among the lowest in its peer group. The lack of provincial contribution to operating costs is also noteworthy.
- Charlottetown Area Transit offers reasonable fares and a good discount for tickets and monthly passes. A single cash fare should be retained. However, more fare options should be explored (day passes, employer passes, child tickets, tourist passes, family pass).

6.0 BEST PRACTICES

Several best practices from other Canadian transit applications were identified and analyses/lessons were incorporated in various sections of the report as follows:

- Service in Low Demand areas (**Section 11.0 and 12.0**)
- Governance and Contract Management (**Section 14.1**).
- Provincial Funding Practices (**Section 14.3**)
- U-Pass Programs (**Section 14.5**)
- Maintenance/Replacement of Fleet (**Section 15.0**)

The consultant team believes that Charlottetown Area Transit should be recognized as providing best practise leadership to the Canadian transit industry in terms of achieving seamless region-wide service delivery through municipal cooperation and public/private partnerships and achieving innovation in approaches to contracting for services.

7.0 DIAGNOSIS OF EXISTING SERVICE

The following presents a diagnostic of the existing service structure and the current role of transit within the community. The analysis is based on stakeholder and public consultation, discussions with staff and an assessment of the existing situation by the consultant team.

7.1 Strength of the University Avenue Corridor

The existing route structure is primarily focused on the downtown, with sub-nodes located at UPEI, Atlantic Superstore and Charlottetown Mall. The importance of travel to/from the UPEI campus has grown significantly, particularly since the introduction of the U-Pass. With new students coming into the University each year and with continued improvements to the corridor, the University is expected to become an even more significant destination in the system.

Based on current travel patterns, the University Avenue Service also has the highest ridership in the system, achieving in excess of 30 percent of total system ridership. As such, it is clear that this corridor from the downtown to Charlottetown Mall should be reinforced as a major transit spine and form the focus of the transit route structure.

Transfer points should be established in the downtown and at the Charlottetown Mall to define the corridor and services should be intensified within these limits. Transit supportive land uses (i.e. facilities, services and employment uses with a high affinity for transit) should be located within walking distance of the University Avenue corridor; residential opportunities for intensification should be pursued and transit oriented design principles should be adopted.

Transit services levels (days, hours, frequency) should be highest in this corridor and semi-express/express services should be introduced as demand warrants. Local collector routes should be used to feed the corridor at the north and south nodes.

7.2 Complexity of the Route Structure/Schedules

The route structure and service schedule for Charlottetown Area Transit has been designed by the operator in a very creative fashion to develop many markets with limited resources. Routes have been stretched to service low demand areas, with variations on individual routes by period of the day or for individual runs to accommodate specific passenger demands and trip purposes. For example, the North End Connector Loop offers approximately seven different route structures; to Stockman Drive, to Melody Lane, to the Sears, to MacAleer Drive, etc. This dynamic 'tailoring' of the service to expand coverage during different times of the day has resulted in a hybrid of a fixed route and demand responsive service. While this strategy has had some success, it has also resulted in confusion among users and non users regarding the system and difficulty in marketing the service. This comment was iterated on several occasions in the public consultation process as a deterrent to using the system and to attracting new riders.

One of the key elements of the proposed route and schedule design will be to simplify the service and apply a more consistent, easily understandable route structure and service level. Improvements to marketing materials and the web site should easily follow.

7.3 Transit Service for a Aging Population

The Downtown Connector Loop currently provides 'at the door service' for nine seniors' residences in the central Charlottetown area. It is a weekday off peak service with low ridership per revenue hour compared to other routes in the system.

While this route has relatively low productivity, the seniors market is very important as the demographic is growing, transit availability is important to allow seniors to 'age at home' and a well designed service can be less expensive than alternatives. Partnerships are available within the community to financially support and increase the utilization of such services. Seniors travel needs and expectations are significantly different than regular home to work and home to school commuters and a special service design is proposed for this market.

7.4 Serving Low Demand Areas and Periods

A number of areas were identified as having limited or no service in terms of coverage or frequency. This is particularly true in the north end of the City (north of the Charlottetown Bypass) and the East Royalty Area (a growing residential area). Certain areas of Stratford also lack service and service to both Cornwall and Stratford is limited in the off-peak and lacking on Saturdays.

One of the reasons for limited service is low ridership potential and/or extensive deadheading to reach the peripheral areas. In such cases, the operation of all day fixed route transit service is not effective.

With a goal of increasing transit usage and providing people a travel option that is reasonably competitive, service frequencies beyond 30 minutes and limitations on service hours should be reduced as much as possible. Yet financial realities and the nature of land use and activity patterns result in some geographic locations and/or service times when transit demand is low and difficult to serve productively with a fixed route bus system.

Zone bus, Transcab and Worker specials are some concepts that have been used in conjunction with a fixed route transit service to address areas and periods of low demand.

7.5 Accessibility

The current fleet is accessible by design but not in practise (due to reliability issues) and this must be addressed. Recognizing the limitations in budget available, a clear commitment and plan is required to move forward with a fully accessible transit service for the greater Charlottetown area.

This plan should involve some retrofits (e.g. ramps on buses), adoption of new technologies and provision of features on buses, at stops and at terminals that enhance the ability of persons with various types of disability to more easily access and use the transit service. Specific commitments on future procurements should be made and accessible routes designated as soon as equipment is available. Partnerships to deliver travel training (for persons with disabilities using the conventional buses) are available but support from the community requires clear commitment to transit accessibility and action.

7.6 Dependability and Predictability

The Charlottetown Area Transit system tries to meet people's needs but it is complicated for users to understand. There is also a lack in uniformity in how drivers operate the service (e.g. stop procedure, flag downs, exiting the bus). Service standards should be developed and monitored to

ensure delivery of a consistent level of service to all customers. A driver's handbook should be developed and appropriate training undertaken.

The relationship between the contractor and the municipalities seems generally excellent with a high degree of mutual respect. Certainly the innovation and growth in the service since 2005 is a direct result of this relationship. Going forward there is a need to ensure that there are no surprises on either side and that everyone is comfortable with the roles, responsibilities and communication links between the parties.

The challenge will be to make the transit service more regular and predictable for users and municipal decision makers without stifling the entrepreneurship and creativity of the contractor which is still essential to move forward.

7.7 Fleet and Facilities

There are several issues with fleet and facilities that need to be addressed to ensure the safe and efficient operation of the transit service. Items include retrofit of accessibility features, fleet replacement strategy, upgrades to maintenance and storage facilities, provision of fixed bus stops and passenger amenities, technology applications, etc. Maintenance costs for the fleet are relatively high and this is related to both the fleet mix and limitations of the maintenance/storage facility.

Needs are both immediate and longer term and in some cases the financial implications are very significant. As a first step, a Capital Asset Management and Improvement plan should be developed by the municipalities (and Contractor) and used as a basis for future planning and for negotiating financial support for capital items from the provincial and federal governments.

7.8 Marketing, Branding and Communications

There have been many successes since transit was introduced in 2005 and many lessons learned as the system has evolved. Dealing with rapid growth, financial pressures and the daily operational issues has limited the contractor's ability to consolidate existing markets and pursue new opportunities including partnerships with many stakeholders identified during this study.

As a first priority, the transit service should be clearly branded and simplified communications and marketing tools implemented. The public needs to understand that this is a region-wide service provided through a municipal partnership and branding the transit service with a single name, logo and color scheme should be introduced.

Responsibilities for marketing and promotion need to be clearly set out and resourced accordingly. The contractor would benefit from having an operations manager in place to deal with internal issues such as staff training, consistency in operations, service design and monitoring. This would allow the general manager and owner more time to pursue specific marketing, promotion and partnership opportunities targeted at ridership growth.

7.9 U-Pass Programs

U-Pass programs are beneficial to students, school administrations, transit systems and the community. For the students there is low cost transportation and increased choice of housing. Institutions benefit from reduced parking requirements. Transit benefits from a stable revenue source and improved productivity, while the community benefits from higher levels of transit service for everyone and reduced 'town and gown' issues. Everyone benefits from the reduction in

environmental impacts and increased transit awareness of the next generation of workers and decision makers.

Implementing a Universal Pass (or C-Pass) for the 1,500 students of Holland College at the Charlottetown campuses is the most significant opportunity available to quickly accelerate transit to a new level of ridership and service.

Logically the program offered should be on the same terms as the UPEI program. Future refinements should address the opportunity to extend the Universal Pass to faculty, staff and part-time students as there will be a high level of transit service available for all to access these institutions. In the short term, volume discount employee pass programs should be introduced and marketed.

The Universal Pass is a very successful demand-side initiative which has transformed transit systems in many communities. The concept applies equally well to employers and should be considered for application to the various levels of government in the greater Charlottetown area.

7.10 Partnerships

A common theme in the stakeholder interviews was the opportunity to implement partnerships between transit and various individuals and organizations. The availability of a good transit service is very important for some employers, retailers, tourism operators, social service providers and health care agencies.

Partnerships might involve special promotions, travel training for the elderly and newcomers, U-Pass programs, dedicated employee shuttles and other initiatives outlined in this report. Successful partnerships seem more easily achieved in communities of this size but a concern occurs if the transit system is moving in too many directions at the same time or frequently changing directions.

A simple route and schedule strategy for the basic transit service is proposed and partnerships to promote and market this service are encouraged. At the same time, some innovative service strategies are also proposed to augment the basic service and for each strategy there are partnership opportunities to be explored.

The partnership between the contractor and the municipalities has been very successful to date and can be built upon to ensure that transit is well integrated with all municipal planning, programs and service delivery.

8.0 VISION AND SERVICE STANDARDS

This chapter presents a Vision for Charlottetown Area Transit, including supporting service standards. The Vision for Charlottetown Area Transit is a reflection of existing community values translated into a statement identified through consultation with the public, a review of established quality of life and sustainability principles and consideration of related municipal goals for transportation. Service Standards are meant to set targets and measure performance relative to the vision and goals.

8.1 A Vision for Transit in the Greater Charlottetown Area

The Vision statement sets the direction for Transit with a long-term horizon and should reflect the needs and values of the community. Vision statements are typically a compelling description of what an organization 'should be' or how it 'should operate' at some point in the future.

For Charlottetown Area Transit, the Vision should be in harmony with the overall Vision for each municipality.

The 2005 update of the Charlottetown Plan (Official Plan) has a vision for transportation which is based largely on the development of travel choice and encouraging alternatives modes of travel. The Charlottetown Plan states that the goal is to:

> *"…secure the maximum efficiency and safety of Charlottetown's existing and proposed transportation system,* ***increase opportunities for other modes of travel,*** *ensure that urban transportation decisions protect and enhance the environment, and strive to realize the full potential of the City's harbour and airport."*

The Town of Stratford's general development goal (2006 Official Plan) states:

> *"Utilizing an open, participatory approach to local governance, it shall be the MISSION of the Council of The Town of Stratford to foster the long term development of a self-reliant municipality which provides a range of high quality, safe, healthy, stable and affordable residential experiences together with complimentary commercial and* ***municipal services****, while protecting the legitimate long term interests of farmers and maintaining the quality of our natural environment."*

Transit is part of the range of municipal services that contributes to a self reliant municipality.

The Town of Cornwall's vision (Official Plan) states:

> *"The Town of Cornwall is a vibrant and well-planned community. Embracing urban and rural, we have a great respect for the environment and the land upon which we depend. We encourage and* ***support sustainable growth*** *to enhance the well-being of our community."*
>
> *"Building on its proximity to Charlottetown, Cornwall serves as* ***a social and economic service centre*** *for a substantial surrounding area."*
>
> *"… Cornwall's social, physical, and educational infrastructure creates a safe, friendly, and healthy community where people of all ages enjoy a high quality of life."*

As a social and economic service centre for the surrounding area, transit service provision in Cornwall is imperative. The quality transit system that is responsive and user friendly supports sustainable growth by allowing residents to make the choice of transit over their personal automobile.

A focus group was held on October 5th 2010 with representatives from community organizations and the public at large. Focus group participants were also asked what components of transit services are important to them and what they envision as the long-term success of Charlottetown Area Transit.

The results of the consultation process and review of the needs of greater Charlottetown area residents led to the following Vision statement being recommended for Charlottetown Area Transit.

> ***"To provide an accessible, convenient and reliable public transportation service that is accountable to the customer and community at large and is a viable alternative to driving within the Greater Charlottetown Area."***

8.2 Goals

Goals should reflect the transit vision. Goals are statements that broadly relate to achieving the vision. The focus is on "ends" rather than "means" and "actions" that should be undertaken by Charlottetown Area Transit and the three municipalities it services to achieve the overall vision. Seven goals were developed for Charlottetown Area Transit:

1. **IMAGE:** Promote a positive image of Charlottetown Area Transit as an established part of the community and the preferred transportation mode for diverse markets of residents, employees and visitors.
2. **SERVICE QUALITY:** Promote the use of transit as an effective and sustainable alternative to the single occupant, private automobile by providing quality transit service that is accessible, easy to use and understand, safe, convenient and reliable.
3. **EQUITY:** Deliver a service which promotes the opportunity for mobility to all members of the community, regardless of their abilities, age or cultural backgrounds through access to efficient public transit.
4. **SEAMLESS CONNECTIONS:** Promote and facilitate seamless connections between transit and other travel modes within the Greater Charlottetown Area and throughout the larger commutershed.
5. **EFFECTIVENESS AND EFFICIENCY:** Provide an effective and efficient transit service with appropriate sharing of costs among passenger fares, the general municipal tax base, senior levels of government and other revenue sources.
6. **SUSTAINABLE FUNDING:** Secure long-term, sustainable funding sources to support existing and expanded levels of transit service.
7. **RESPONSE TO GROWTH:** Respond to development, transportation and parking issues and changing demographics in a proactive manner, recognizing that transit is an integral part of urban quality of life and environmental sustainability.

8.3 Service Standards

Service standards are an important tool in assessing and monitoring the financial and operating performance of the total transit system and individual routes, and ensuring availability and reliability of service, convenience and comfort for passengers. Standards also provide a uniform framework for service design and for assessing requests for new, modified or extended services.

Charlottetown Area Transit currently has no formal service standards for assessing its on-going performance or guiding the modification/growth of existing services. With the rapid rate of growth, it is recommended that a service standards document be developed. The service standards document encompasses both design standards and performance measures.

For the purposes of this strategy, two service standards were developed:

RIDERSHIP (SERVICE UTILIZATION)

Ridership performance is best measured by the overall utilization of the service relative to the amount of service being provided. This provides better understanding of the effectiveness of service strategies as opposed to simply measuring ridership growth on its own. A good performance measure is the number of passengers using the system per revenue hour of service or per capita.

Major factors that influence ridership or service utilization include demand for service, density of residential and employment areas, service area size, and service availability and reliability. Service utilization and productivity will impact the costs of providing the service. Enhancements in productivity can result in costs savings for the municipality and potential service increases. Since transit ridership varies by month due to factors such as weather, holidays and length of school year, the most appropriate monitoring of service utilization is done annually.

At a system level, service utilization is measured through two indicators: regular service passengers per capita and regular service passengers per revenue vehicle hour.

Charlottetown Area Transit is currently (2009) attracting a ridership/capita of 6.04 and a ridership/revenue vehicle hour of 10.97, which is below all but three systems in its peer group.

Based on this assessment, a reason and forward looking service standard would be the following:

1. Achieve a system-wide average utilization of:
    a. 18 to 20 revenue passengers per revenue vehicle hour of service provided.
    b. 10 to 12 revenue passengers per capita

It is also recommended that ridership targets be monitored on an individual route basis to measure performance. This will help identify whether routes are underperforming or may warrant further enhancements in service (i.e. extended service hours or additional frequency). The following targets are recommended:

1. Provide service targeting the following peak and off-peak total passenger boardings by service type (see **Section 10.0** and **11.0**):

Area	Weekday Peak	Off Peak *(Weekdays and Saturdays)*
Base Routes	Avg. 22 passengers per revenue vehicle hour. Min. 15 passengers per revenue vehicle hour.	Avg. 15 passengers per revenue vehicle hour. Min. 7 passengers per revenue vehicle hour
Community Bus	n/a	Avg. 10 passengers per revenue vehicle hour. Min. 5 passengers per revenue vehicle hour
Zone Bus	Avg. 15 passengers per revenue vehicle hour. Min. 10 passengers per revenue vehicle hour	Avg. 10 passengers per revenue vehicle hour. Min. 5 passengers per revenue vehicle hour

2. Routes falling below this target should be reviewed and potentially modified (frequency, coverage).

COST RECOVERY

Revenue Cost Ratio is a financial performance indicator for the transit system that measures the total passenger revenues collected as a percentage of the total operating costs of the system. The revenue component is influenced by both the amount of ridership and the level of fares charged. The cost component is driven by the efficiency of service delivery, but also the amount of service supported by the municipalities.

Charlottetown Area Transit is currently operating at an R/C ratio of 39 percent (2008). This is typical for a transit system this size. For each system, the R/C ratio is typically driven by municipal policy on level of service and fares/subsidy.

For Charlottetown Area Transit, the following Cost Recovery standards are recommended:

1. Target an overall system R/C of 45 to 50 percent, to be achieved within 3 years of implementation of the recommended strategies in this report.
2. Target a municipal subsidy per capita at or above the 50th percentile of a selected peer group.

MONITORING

This data is already collected by Trius Transit and should be continued. A semi annual report should be developed by Trius Transit and provided to the staff coordinating transit services within the City of Charlottetown and Towns of Stratford and Cornwall for review and assessment.

NEXT STEPS

As a next step, it is recommended that Charlottetown Area Transit develop and adopt a complete service standards document. The document is meant to support to the overall Vision and Goals of Charlottetown Area Transit and establish performance targets that will help monitor whether the transit service is moving towards its overall vision. The document should be written as a public document and made available on the Charlottetown Area Transit website. This provides a communication tool to the public with a commitment to a minimum level of service and criteria for expanding/changing service.

Overall, two types of standards should be developed:

1. **Design Standards** – These standards provide guidelines and warrants for overall service design that reflect objectives identified in the Vision Statement and Goals. These include a minimum level of service for residents and address coverage, days/hours/frequency of service, and type of service.
2. **Performance Measures** – These standards are used primarily to set desired and achievable goals for the performance of the transit system and permit evaluation and feedback on how well these goals are met. This includes financial performance, efficiency and utilization to ensure appropriate and cost effective decisions are being made.

Some standards provide both a Design Standard and a Performance Measure. For example, a Design Standard which sets a minimum standard for "Hours of Service" may include a performance measure to identify when the service hours should be extended.

Appendix B provides as an example service standards document from Milton Transit in Ontario, a similar sized system to Charlottetown Area Transit.

9.0 FIVE YEAR PLAN – BUILDING A STRONG FOUNDATION

9.1 Building Blocks

The following service structure model is based on a number of building blocks that became evident during the assessment and analysis of the service. These building blocks address the issues and opportunities presented in the system diagnostic and are identified below.

- **The Importance of the University Avenue Corridor** – University Avenue is the major north-south spine connecting the downtown to the University and to major retail outlets such as the Charlottetown Mall. Ridership on the corridor is high, which suggests a strong need for a high capacity, direct and frequent service along University Avenue from the downtown terminal to the Charlottetown Mall terminal.

- **Need to Support Major Nodes** – The University, the downtown and Charlottetown Mall are three very significant nodes in the greater Charlottetown area, and there needs to be a continuing transit focus on service to these destinations. With the University Avenue corridor as a transit spine, it allows both the downtown and the Charlottetown Mall to function as anchors or hubs and facilitate connections from collector routes serving the residential areas. Excellent feeder and corridor service will then be available to UPEI, other attractors such as Superstore Mall along the corridor and major destinations within walking distance of the corridor (i.e. the high schools and downtown businesses). This service design stresses the significance of University Avenue and the City should identify opportunities along this corridor to intensify residential and commercial uses, locate services and businesses that have an affinity for transit, and implement Transit Oriented Design (TOD) design principles for associated developments.

- **Simplicity** – The proposed route structure and service schedule should be a simple design that is easily understood. This means minimizing route/schedule deviations throughout the day so that existing and new users clearly understand and can rely on a consistent level of service delivery. Several markets (or service voids) will still need to be addressed and it is proposed that special service strategies be used in these cases.

- **Satisfying Demand in Peak and Off-Peak Periods** – Some existing route segments are underutilized during the off-peak and it will be important for efficient operation to be able to adjust service frequency based on demand. Certain routes are directed to areas with low passenger demand and modifications are suggested to make better use of existing resources. This approach will generate savings in service hours which can be reinvested elsewhere in the system.

- **Service Design** – The spine route between the downtown and Charlottetown Mall anchors can operate with a round trip run time of 30 minutes. Collector routes should be developed with a 30 minute running time to/from the hubs and be designed to be as direct as possible (two-way service). Small loops at their extremities can be used to increase coverage. By minimizing circuitous one-way loops, transit travel times will be reduced for as many users as possible.

The 30 minute run times will also reduce passenger confusion by allowing for a consistent schedule throughout the day. Buses will leave the downtown node at 15 minutes before and after the hour and leave the north node on the hour and half hour. On collector routes the bus will always arrive at set times such as 11 and 41 minutes after the hour during peak periods. This service design structure also facilitates timed transfers at both anchor terminals to reduce passenger waiting time.

For Cornwall and Stratford, the proposed service approach is to continue with the successful AM and PM commuter runs and link users seamlessly to the new route and schedule structure within Charlottetown. Improvements are proposed to the routing in both towns and the midday runs would continue. Service enhancements are outlined for both areas which can be implemented as demand matures and resources permit. Once proven successful, trials of the special services listed below could be applied in Cornwall and Stratford to address low demand areas or periods.

- **Special Service Opportunities** – Extending fixed route all day transit service is not always the most effective approach to servicing all markets, periods and geographic areas. Low demand areas or service periods should be considered for special service applications. This could include different service delivery structures such as Zone Bus or services such as Industrial specials targeted to a specific market. Partnerships should be explored where appropriate to help fund a service that is targeted to a specific client group.

9.2 Service Strategy

Using these building blocks as a foundation, a specific route structure and service schedule is recommended for implementation. The recommended service structure will provide greater flexibility and productivity and contribute to further ridership growth while addressing existing ridership patterns and customer needs.

The service strategy is based on a three tiered approach as follows;

1. **Base Service (Tier 1)** – The Base Service is considered the minimum level of fixed route service that is required to provide a viable transit option in the greater Charlottetown area. It will involve fixed routes and schedules and designated stops for boarding and dropping off passengers. The proposed fixed route service will provide a predictable environment for municipalities and the service provider. Existing and potential users also need stability to commit to transit as their travel option and it is important that this base level of service be relatively unchanged for the next several years.
2. **Special Services and Trials (Tier 2)** - Special Service and Trials are recommended as necessary additions to the Base Service. The contractor has shown great enthusiasm and innovation in taking the system from start up to its current state. The ongoing relationship should provide the flexibility for the contractor to pursue these special services. This involves a commitment to annual service hours by the funding municipalities, with some flexibility in the actual service design. This will allow continued innovation by Trius Transit to service low demand areas/periods and special markets while maintaining overall control by the funding agencies. Four innovative techniques are proposed to most effectively address specific markets. These services will complement the Base Service and are recommended for immediate implementation as 6 to 12 month trials. Specific performance

targets (passengers/revenue hour) are provided and as trials are successful (or fail) service will be adjusted accordingly.

3. **Potential Future Enhancements (Tier 3)** - Potential Future Enhancements beyond the Base Service and Special Services and Trials should be considered in the medium to long-term. Examples include; all day 30 minute service on collector routes, Saturday service to Cornwall and Stratford, limited Sunday service, extended evening hours and express services. These enhancements are not included as part of the initial funding commitment, however, consideration should be made to future service improvements based on system performance targets being met and funding sources identified. The introduction of such enhancements will increase ridership and operating costs and may require additional fleet.

Tiers 1 and 2 (Base Service and Special Services and Trials) will require an annual service hour commitment from the funding partners and should be implemented in May/June 2011. Potential Future Enhancements should be introduced based on performance targets being met and as funding becomes available.

10.0 BASE SERVICE – FIVE-YEAR PLAN

10.1 Route Structure

The recommended route structure is illustrated in **Figure 27**. The route structure provides a base level of service within the City of Charlottetown and the Towns of Stratford and Cornwall, meeting the design objectives noted above. While the following description is arranged by municipality, it is important to note that a key element of this service strategy is the continued seamless integration of services among Stratford, Cornwall and Charlottetown.

BASE SERVICE – CHARLOTTETOWN

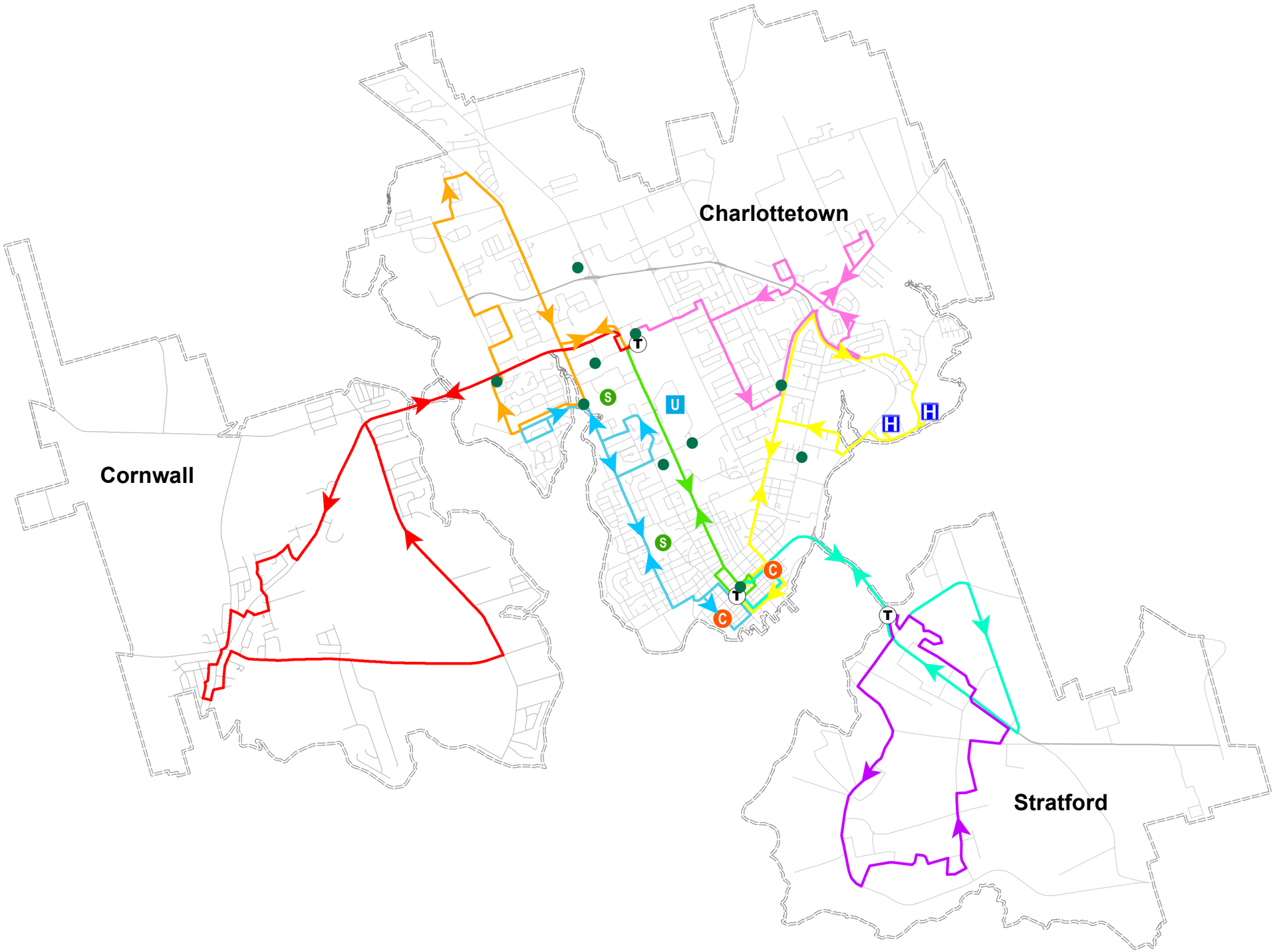
The recommended route structure within Charlottetown consists of five routes (see **Figure 27**), anchored by a terminal in the downtown (Queen Street, south of Grafton Street) and a terminal at the Charlottetown Mall. Timed transfer opportunities are provided at both terminals with routes serving University Avenue, the southwest, southeast and Stratford connecting in the downtown. Routes serving University Avenue, the northwest, northeast and Cornwall connect at the Charlottetown Mall terminal. The University Avenue spine route is the main link connecting both terminals and other major destinations in the corridor such as UPEI. The following describes each of the routes in more detail.

- **Route 1 (University Avenue Service)** - The existing route was modified to operate with a 30 minute runtime (round trip). The service is anchored at the Charlottetown Mall in the north and buses then proceed directly south past UPEI and Superstore to the downtown terminal. Before reaching the downtown terminal, the route will conduct a small loop within the downtown to drop off and pick up passengers closer to some key destinations. The travel time is under 15 minutes per direction which will allow a short layover to coordinate transfers at the terminals. To maintain the 15 minute run time, the service is not anticipated to go into the Superstore or UPEI during the peak periods, but will instead stop only at designated on street locations (far side at signalized intersections is preferred). Bus service is proposed to operate at a 30 minute frequency on this corridor between start and end of the service day. Buses would leave the downtown terminal at 15 minutes before and after the hour and depart the north terminal on the hour and half hour.

- **Route 2 (Southeast Service)** – The existing route was slightly modified to operate within a 30 minute runtime. The route proceeds east along Grafton Street and north to Longworth Avenue where two way service is provided up to Woodward Drive. The route continues north to the Hillsborough neighbourhood, east to the Queen Elizabeth Hospital and back to All Weather Highway/Longworth Avenue before proceed back to the downtown terminal. The route passes a number of destinations including Holland College main campus, Elis Brothers Plaza and the Queen Elizabeth Hospital. The service is proposed to operate every half hour during the peak periods and hourly during the off peaks.

Charlottetown Area Transit

Figure 27 - Recommended Base Route Structure



Legend

- Shopping Centres
- Bus Transfer Locations
- High Schools
- Holland College
- Hospitals
- UPEI
- City Streets
- Highway
- Town Boundary

Transit Routes

1. University Avenue Service
2. Southeast Service
3. Southwest Service
4. Northeast Service
5. Northwest Service
6. Cornwall Connector
7. Stratford Connector Southport Side
8. Stratford Connector Bunbury Side

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- **Route 3 (Southwest Service)** – This route was also modified to operate within a 30 minute run time. The route begins at the downtown terminal and proceeds northwest to North River Road providing direct two-way service all the way to Belvedere Avenue. At this point, the bus turns right on Belvedere Avenue and north on Queen Street, which provides close proximity to the Atlantic Superstore and UPEI. The bus then continues west on Skyview Drive and north again on North River Road to Beach Grove Road, providing some coverage to this neighbourhood before returning south on North River Road. On the return trip, the bus provides some additional coverage in the downtown area, including to key destinations such as the provincial buildings. This is a very direct route which provides connections to major generators in the City, including the downtown, UPEI and the Atlantic Superstore.
- **Route 4 (Northeast Service)** – This service begins at the Charlottetown Mall and services the residential area to the east, including a portion of East Royalty. The bus proceeds through along Towers Private Road, Ash Drive before heading south on Maple Avenue. From here, the bus proceeds east on Belvedere Avenue/All Weather Highway past the Elis Brothers Plaza to Hillsborough Park and some residential coverage in East Royalty (Angus Drive and Norwood Road). From here, the bus continues west on Oak Drive/Ash drive and Towers Private Road to the Charlottetown Mall. This route is meant to service as a primarily residential collector to get passengers to the Charlottetown Mall with opportunities to connect to other major destinations in the City. Routes 2 and 4 will share a stop near Ellis Brothers, and while transfer will be possible, it will not be a timed transfer.
- **Route 5 (Northwest Service)** - This service begins at the Charlottetown Mall and heads north on University Avenue and west on Capital Drive to North River Road. The bus then proceeds south and west on Beach Grove Road before heading north along Maypoint Road to provide services to this residential neighbourhood. From here, the bus continues north on Upton Road and east on McCarville Street to service a number of employers in West Royalty. The bus then proceeds north on Upton Road, east on Royalty Road and north on Alderwood Avenue to service a number of residential areas. On the return trip, the bus heads back to Lower Malpeque Road and east on Capital Drive back to the Charlottetown Mall.

BASE SERVICE – CORNWALL

The recommended route structure for Cornwall is similar to what exists today. It consists of a single route (Route 6 – Cornwall). Two runs are proposed during the AM peak, one during the midday and two during the PM peak. The initial run in the AM peak period is recommended to begin at Charlottetown Mall and follow the Trans Canada Highway into Cornwall. The existing route is maintained, with a slight modification near Centenial Drive to extend coverage further into the residential areas around Popular Avenue and Patti Lee Drive. At the end of the first run, passengers are dropped off at the Charlottetown Mall Terminal with an opportunity to interline with other routes (Route 1 if heading downtown or Routes 4 or 5). The bus then picks up connecting passengers heading into Cornwall and completes its second run. On the return of the second trip, the bus connects at the Charlottetown Mall and then follows Route 1 (University Service) on the off cycle to provide 15 minute service past UPEI and into the downtown before going out of service.

During the midday, it is recommended that the Cornwall route begin and end in the downtown (off-cycle) to provide additional capacity on the University corridor. Bringing the service downtown also provides the potential for this bus to be used as a midday Stratford Bus.

During the PM peak, the first run will begin in the downtown (off-cycle) to provide 15 minute northbound service on University Avenue before heading into Cornwall. On the second run, the service starts from the Charlottetown Mall. On the return trip, it is also recommended that the service operate on University Avenue to providing additional capacity on this corridor before going out of service.

For simplicity, the map and schedule of the Cornwall Route should always show its origin and terminus at the Charlottetown Mall rather than the downtown. The additional service frequency provided on University Avenue on certain runs should be indicated on the Route 1 schedule.

BASE SERVICE – STRATFORD

The routes in Stratford were adjusted to meet a half hour run time which would allow passengers the opportunity for timed transfers with routes in Charlottetown at the downtown terminal. It was also seen as an unproductive use of resources to have both buses cross the Hillsborough Bridge, particularly with the limited ridership from Stratford to the hospitals. Therefore the two routes were restructured to have one route within Stratford at all times collecting and dropping off passengers and the other route crossing the bridge and proceeding to the downtown terminal. Stratford residents destined to the Hospitals would transfer to Route 2. This routing strategy allowed for a slight improvement in overall coverage within Stratford.

- **Route 7 (Stratford Southport Side)** – This route was adjusted to operate with a 30 minute run time and connect to the Route 8 bus which provides service to the downtown. The route begins at the transfer point at the foot of the Hillsborough Bridge in Stratford. The bus proceeds east on Hopeton/Bunbury Road, then turns right onto Rankin Drive and meanders through this residential area ending up on Shakespeare Drive servicing the Town Hall. The route then proceeds east on Trans Canada Highway, then turns right onto Georgetown Road and then right onto Stratford Road passing by Pinehill Drive., Jenkins Drive, and Stewart Avenue heading toward Kinlock Road. This route change provides some additional coverage to residential neighbourhoods. The bus turns left on Kinlock Road heading south passing by several residential areas as it heads toward the Stonington Subdivision. The bus takes a right onto Stonington Boulevard then proceeds toward Bonavista Avenue and Skye Lane, eventually exiting onto the Keppoch Road. The bus then proceeds east on Keppoch Road and Stratford Road providing coverage to several residential areas along the way. The route terminates at the foot of the Hillsborough Bridge, timed to meet Route 8 and connect to the downtown terminal in Charlottetown.

- **Route 8 (Stratford Bunbury Side) -** This route was slightly adjusted to operate within a 30 minute run time. The route begins at the downtown terminal and proceeds east on Grafton Street passing a number of downtown locations including Holland College before crossing the Hillsborough Bridge. The route then proceeds east on Bunbury Road, south on Mason Road, and north again on the Trans Canada Highway. An opportunity to transfer between Routes 7 and 8 is provided at the foot of the Hillsborough Bridge. At this point, it is recommended that passengers on the bus with the least number of passengers transfer onto the bus with the higher passenger volume to minimize the number of people that have to

physically transfer. Then the bus with passengers heading downtown would proceed to the Downtown terminal while the other bus would begin the Route 7 (Southport) run.

10.2 Frequency and Hours of Service

It is recommended that the Base Service described above and illustrated in **Figure 27** should operate at a 30 minute frequency during the weekday AM and PM peak periods. Peak period services from Cornwall and Stratford would provide the same number of runs as the current service and be timed to meet other routes at the Charlottetown hubs.

During the off-peak, the University Avenue Service (Route 1) continues to operate at 30 minutes due to the high demand along this corridor. Routes 2, 3, 4 and 5 are recommended at an hourly frequency until sufficient demand is generated to justify 30 minute service.* For Stratford and Cornwall, it is recommended that 1 bus run continue to operate during the midday to allow this travel market to develop. The midday run in Stratford should generally use one bus to cover both the Southport Side and the Bunbury Side peak routes. Recommended service frequencies for each route are illustrated in **Table 16**.

Table 16 – Proposed Weekday Route Frequency (minutes)

Routes	AM Peak	Midday	PM Peak	Evening
Route 1 - University Avenue	30	30	30	30
Route 2 - Southeast	30	60	30	
Route 3 - Southwest	30	60	30	
Route 4 - Northeast	30	60	30	
Route 5 - Northwest	30	60	30	
Route 6 - Cornwall	45 (2 runs)	1 run	45 (2 runs)	
Route 7 - Stratford Southport Side	30 (3 runs)	1 run	30 (3 runs)	
Route 8 - Stratford Bunbury Side	30 (3 runs)	1 run	30 (3 runs)	

**A frequency of 30 minutes as a minimum standard including off peak periods is highly desirable for all routes. However, given the current financial situation and the anticipated level of demand, 60 minute frequency is being proposed off peak on the collector routes. The contract should allow the operator the flexibility to test and develop the market for 30 minute off peak service and the municipalities should be prepared to move to this standard as soon as practical.*

10.3 Hours of Service

The existing service on Charlottetown Area Transit begins at approximately 6:45am with most routes terminating around 7:00pm. The University Avenue route runs until approximately 11:00pm on Monday to Wednesday and to 12:00pm on Thursday to Saturday. A pilot late night shuttle that operates until 2:00am is also provided on Friday and Saturday nights to address University student needs. Certain late evening runs are provided to some of the industrial areas after 7:00pm.

Based on the peer review and consultation process, the 6:45am start time is appropriate and should be maintained. Evening service was an issue with a number of stakeholders, particularly those working in the retail industry and in the call centres. While the University route does provide later service to some retailers, employers and residents, it does not connect to all areas and neighbourhoods and thus is only applicable to individuals that have both ends of their trip within walking distance of the University Avenue corridor.

Service Standard to Address Extension of Service Hours

1. Consider extending service hours by at least one run when a minimum average of 15 passengers per route per hour (both revenue and transfers) is reached on the first or last run over a 2 month period.
2. Consider reducing service hours by at least one run when an average of less than 7 total passenger boardings per route per hour on the first or last run is recorded over a two month period, as long as any target for minimum hours of service is met.

As part of the base level of service, it is recommended that Charlottetown Area Transit maintain its existing hours of service. Extension of service hours on other routes during the evening period should be based on minimum performance standards being met (passengers per hour above a certain threshold).

Some of the late evening demand is related to shift times of employers in the Industrial areas and the service strategy outlined in Section 11.4 may be more appropriate than extending hours on the fixed route service. If the extension of service to 2:00 am on the University Ave route is to be continued, it is suggested that this be fully funded by the students, University and private sector partners.

An opportunity for an Evening Flex Route Service is identified in **Section 11.2** as a low cost opportunity to extend service after 7:00pm and test productivity.

10.4 Route Interlining

It is recommended that under the proposed route structure, bus routes are interlined at the Charlottetown Mall Terminal and the Downtown Terminal.

Interlining routes allows some passengers to avoid physical transfers, as buses simply change route signs at the terminal, allowing passengers transferring to the interlined route to remain on board their bus. This reduces transfer anxiety for some passengers and is particularly beneficial during inclement weather conditions.

Another benefit of interlining is to improve driver operating conditions on routes with more challenging run times and improve on time performance for users. Interlining allows a 'tight' route to be matched with a route with more flexibility in its schedule, providing the driver the opportunity to recover the schedule if required on the subsequent run. Interlining requires routes to run on a common frequency which may impact on which routes can be interlined.

Once the new route strategy is agreed, it is recommended that Trius Transit conduct a transfer trace on existing services and consult with the drivers to determine which route pairs will have the highest number of passengers transferring between them. Interlined pairs should then be selected to maximize passenger convenience (by minimizing physical transfers), obtain productivity in driver scheduling and balance routes with high and low run times. While there are some benefits to having drivers assigned to a single route, there may be greater benefit in having drivers become familiar with many routes. The system is small enough that driver familiarity with passengers would not likely

suffer and there would be a benefit in more uniform procedures being adopted throughout the system.

During the peak periods, some runs on Routes 2 to 5 should be interlined with Route 1 (University Avenue). During the off-peak periods, when there is hourly service on the collector routes, Routes 4 and 5 would interlined at the Charlottetown Mall and Routes 2 and 3 would be interlined at the downtown terminal.

During the midday, opportunities to interline the Cornwall service (Route 6) and the Stratford service (Route 7) should also be explored. This would also provide an added run down University Avenue during the midday.

The normal service design process is to first set the routes and days, frequency and hours of service including any seasonal variations. Then buses are assigned to provide the scheduled service based on capacity and other issues such as accessibility features/maintenance schedules. Finally individual work schedules are prepared which include provisions for relief and meal breaks as well as vacation, holiday and standards for work hours. These driver work schedules are typically valid for several months and individual drivers are assigned through a collaborative discussion. Trius Transit staff can use established contacts with Atlantic region transit operators to help refine and apply this complex scheduling procedure to maximize overall productivity and customer service.

10.5 Saturday Service

Ridership on Saturday is currently 50 percent of average weekday ridership, which is typical for most transit systems. Currently service hours and frequencies on Saturday are generally the same as on weekdays and there is no Saturday service linking Cornwall and Stratford to Charlottetown.

For Saturday service, it is recommended that the fixed route structure in Charlottetown continue to be operated, with half hour service on the University corridor (Route 1) and hourly service on Routes 2 to 5. Service should begin a little later at 7:30am to meet shift times for retail employees and end at 7:00pm. Three buses would be required to operate this Saturday service.

Service to Cornwall and Stratford on Saturday is not recommended at this time due to anticipated low demand. However, if either municipality is interested in Saturday service, consideration should be given to operating a zone bus with a half hour run time similar to the strategy discussed in **Section 12.2**.

10.6 Sunday Service

Sunday and Holiday service is not recommended as part of the 5-year service plan and is more fully discussed in **Section 12.5**. Typically Sunday ridership in systems providing the service is about 25 percent of weekday ridership.

10.7 Summer Service Strategy

Ridership during the summer is less than ridership during the fall, winter and spring. The primary reason for this reduction is the lower number of students travelling to the University and Holland College. While tourism is increased, many tourists do not use public transit, particularly due to the 'walkability' of the downtown area.

Nonetheless, many residents in the greater Charlottetown area rely on transit during the summer to conduct various activities, including access to work. Half hour frequency to cover peak period work

trips should be considered a minimal level of service and off-peak frequencies should not be less than hourly in the summer time. Therefore, there is limited opportunity to reduce service during the summer, even with the lower ridership and it is recommended that Charlottetown Area Transit maintain the proposed level of service on a year round basis. A small adjustment in duration of the peak periods may be considered as a productivity measure.

In the future, if service becomes 30 minutes all day or if special services are introduced to support U-Pass programs at UPEI (and Holland College), then some consideration should be given to reduced service levels during summer months.

10.8 Service Hour and Vehicle Implications

The proposed new route structure will require eight buses to operate during the peak periods (five in Charlottetown, two in Stratford and one in Cornwall). This does not change the peak bus requirement from the existing route structure.

The total daily revenue vehicle hours required to operate the service proposed is identified in **Table 17**. This equates to 360.5 weekly revenue vehicle hours. It should be noted that this does not include the Special Services and Trials (**Section 11.0**), which should form part of the committed revenue service hours.

Table 17 – Proposed Base Service Revenue Vehicle Hours and Peak Hour Vehicles

Routes	Terminal	Hours of Service					Peak Buses
		Daily			Weekly	Annual	
		M - W	T - F	Sat			
Route 1 - University Avenue	Downtown, Ch Mall	17.25	18.25	17.25	105.50	5,326	1
Route 2 - Southeast	Downtown	9.00	9.00	6.25	51.25	2,584	1
Route 3 - Southwest	Downtown	9.00	9.00	6.25	51.25	2,584	1
Route 4 - Northeast	Charlottetown Mall	9.00	9.00	6.25	51.25	2,584	1
Route 5 - Northwest	Charlottetown Mall	9.00	9.00	6.25	51.25	2,584	1
Route 6 - Cornwall	Downtown, Ch Mall	3.75	3.75		18.75	941	1
Route 7 - Stratford Southport Side	Hillsborough Bridge	2.75	2.75		13.75	690	1
Route 8 - Stratford Bunbury Side	Downtown	3.50	3.50		17.50	879	1
Total		**63.25**	**64.25**	**42.25**	**360.50**	**18,172**	**8**

11.0 SPECIAL SERVICES AND TRIALS – FIVE-YEAR PLAN

The Tier 1 Base Service scenario does not address all the transit travel demands within the community but it does focus on key travel markets using proven techniques and provides a basic level of transit mobility which can grow as ridership and service demand develops and the transit system demonstrates that acceptable financial and performance targets can be met. It will provide a strong foundation on which to improve the current service and a reliable platform to grow from.

Some innovative strategies are available to address geographic areas or time periods of low demand, and to reach target markets that are not be best served by the fixed route Base Service. A Tier 2 of Special Services and Trials is envisioned as an upfront municipal commitment of revenue vehicle hours that provide the contractor with a degree of flexibility in how the services are designed and operated.

The strategies below are recommended for the operator to pursue over the next year on a trial basis. Performance targets are attached to each strategy to monitor performance. Successful strategies should be moved into the Tier 1 Base Service as soon as the concepts are proven. Unsuccessful strategies should be revisited and modified as required. It is important to note that the total amount of revenue service hours recommended in this Tier 2 strategy should be maintained to permit continued innovation and market development.

11.1 Community Bus

Charlottetown Area Transit currently operates a Downtown Connector Loop from 9:20am to 3:40pm with a break in the service between 12:00pm and 1:00pm. The service operates on an hourly frequency and targets the seniors market by serving a number of residences with a high senior population as well as destinations that are frequented by seniors.

This type of service is also known as a "Community Bus" and is successfully used in a number of communities across Canada to provide a service that is oriented to meet the travel needs of senior citizens and persons with special needs. There are variations on the design of the service – in some communities it tends to look like a fixed route – fixed schedule service with smaller buses operating primarily during midday periods but oriented to destinations that are attractive to the senior's market (i.e. senior's homes, adult day centres, personal services, shopping and clinics). In other communities, the service has evolved towards a seniors shopping service operating one or two days a week and providing bus transportation to desired shopping centres.

Oakville Transit operated a community bus service with a small bus, fixed route midday weekday model for about 10 years. However, this service suffered from low ridership and productivity. The Oakville service evolved to become a seniors' shopping service that was designed in close consultation with seniors groups. Under this model, it was reported that the operating hours (and costs) have been reduced and the number of trips provided is greater. Other municipalities offer specific trips to designated stores or malls, often in financial partnership with those stores. The stores gain by having customers during less active times, the customers gain by being in the stores when staff has more time for them and the transit system gains by sharing costs with the stores.

Cornwall Transit (Ontario) operates two Community Bus routes, which are widely used and are a much cheaper alternative than their Handi-Transit system. Many seniors using the Community Bus are registered Handi-Transit users; however, they choose to use the Community Bus because of the

flexibility and the opportunity for social interaction with other passengers. Passenger loadings in the range of 9 to 12 passengers per hour have been achieved for each Community Bus route in Cornwall.

The Downtown Connector Loop service in Charlottetown is not performing well and should be modified. It is recommended that the service be redesigned to serve as a service open to the public but targeted to serving seniors living in higher density settings with a focus on shopping, personal business, recreation, clinics and relevant activity centres. The design of the community bus service should include extensive consultation with seniors groups and representatives of senior's residences in Charlottetown as well as persons using the current service. It is suggested that the concept would be as follows:

- Continue to operate the service weekdays during the midday period for 6 hours, extending the current service by an hour (9:00am to 4:00pm). A one hour break would occur around 12:00pm;
- Design the community bus service to be coordinated with the Base Services and provide convenient transfers where possible;
- The route would directly serve as many seniors apartment buildings and retirement homes as possible within the service area with connections to the primary shopping and personal services destinations, recreation centres and the downtown. Connections to the hospitals and medical clinics should also be made if practical;
- The route would operate on a 60 minute cycle for ease of understanding and be open to the public, including persons with special needs;
- Target a ridership performance of 5 to 10 passengers per revenue vehicle hour;
- The service should be provided using an accessible low floor vehicle at all times; and
- Specific financial and performance targets should be established for the service and after a 12 month trial the service should be evaluated for possible expansion or reduction.

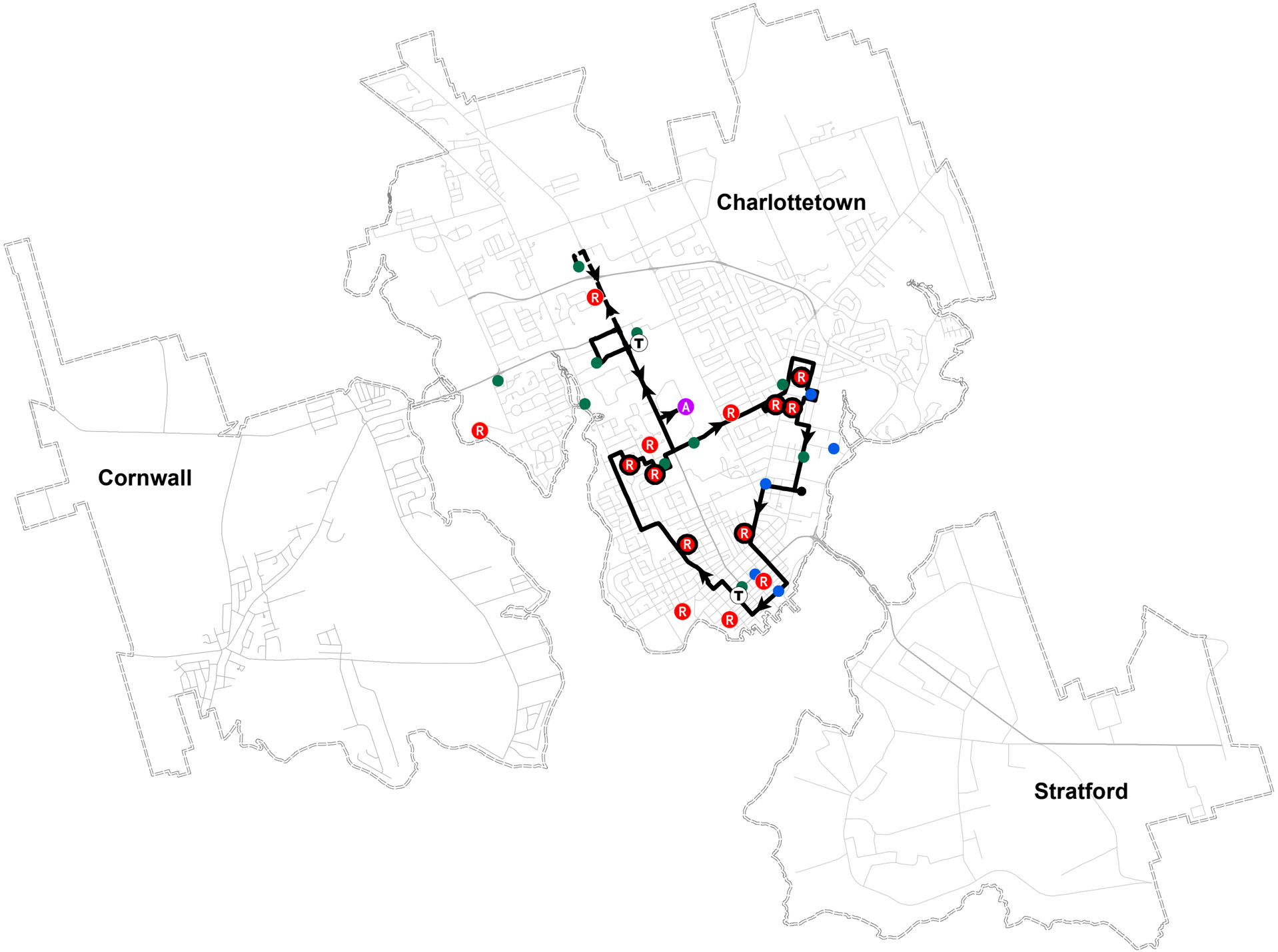
Businesses such as the malls and supermarkets and local service clubs could be asked to participate in the program by providing public information on the route and schedule, providing bus stop amenities and possibly sponsorship funding. For example, in Hamilton, local supermarkets have funded the operation of seniors shopping buses to their stores for many years. A new and separately branded, smaller bus with Easier Access features may be a community sponsorship opportunity.

It was suggested during the consultations that some seniors are anxious about trying the transit service and there are several partnership opportunities to help address this issue. Active seniors and secondary school students can be enlisted as volunteers providing seniors with travel buddies, shopping companions and training for new users.

Based on the above analysis, the Downtown Connector Loop was redesigned and branded as a Community Bus route (as illustrated in **Figure 28). Typically an hourly Community bus service can achieve about 20 km of route coverage.** It is recommended that this conceptual design be used as a starting point for discussions with various stakeholders and current users.

Charlottetown Area Transit

Figure 28 - Potential Community Bus Concept



Legend

- Shopping Centres
- Medical Clinics
- Bus Transfer Locations
- Senior Homes
- Seniors Active Living Centre
- Community Bus Route
- Sears Extension*
- City Streets
- Highway
- Town Boundary

Sears extension may be available on some runs - depending on timing

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Recommendations:

- That Charlottetown Area Transit redesign and re-brand the Downtown Connector Loop service as a Community bus in consultation with seniors groups, persons with disabilities, and other stakeholders. This new service would require the use of an accessible bus at all times and should be implemented in the short term;
- That the service be operated hourly for 6 hours, between 9:00am and 4:00pm weekdays for a period of 12 months with a target of 5 to 10 passengers per revenue hour; and
- That Charlottetown Area Transit pursue partnership and sponsorship opportunities for Community bus marketing, promotion, travel training, new equipment and general financial support.

11.2 Evening Flex Route Strategy

Providing late evening transit service can be inefficient with a fixed-route transit system primarily because the demand is lower and potential users may have additional transportation options in the evening. Reducing service frequency or creating long looping routes would help manage costs but the resulting service becomes less attractive to users.

Travel markets on weekdays after 7:00pm are students, shoppers and employees at Malls and Power Centers and employees in certain industries or offices that do not follow a typical 9:00am to 5:00pm work day (i.e. call centres in West Royalty). Many of these potential passengers are looking for a trip home as their trip from home may have been within the transit system operating hours.

For transit users that live beyond walking distance of the University Avenue corridor, no service is available to return home after 7:00pm, which many impact their decision to use transit altogether. Extending all fixed route services later into the evening may be an unproductive use of resources given the low levels of projected ridership. For every hour of service beyond 7:00pm, this would require an additional 2 daily bus hours in Charlottetown and 4 daily bus hours if Cornwall and Stratford are included.

An alternative is to develop an Evening Flex Route Strategy designed to take passengers home. One bus would be stationed at the downtown terminal and the other at the Charlottetown Mall, timed to meet transfers with the University Avenue Service (Route 1). Each bus would be given a zone of operation to take passengers home. If the service was extended by only one run, then the bus would accept all transferring passengers and the driver would design a specific route that would take those passengers home before returning to the transit garage. The bus at Charlottetown Mall would focus on the area north of Belvedere Avenue and potentially Cornwall and the bus at the downtown would focus on the area south of Belvedere Avenue and potentially Stratford. The size of the zone and number of buses required would based on a maximum 30 minute travel time to take passengers home.

Milton Transit in Ontario provides a good example of this type of strategy. Previously, Milton Transit operated all five of its routes to accommodate passengers transferring from the last commuter train (GO Train) coming from Toronto. This required five buses to be kept in operation, with only a few passengers per route. Milton Transit decided to keep only two buses in service.

When the last train arrives, the two bus drivers create a route based on the destinations of the connecting GO Train passengers (and any other Milton Transit passengers transferring from other

routes). This Flex Route Shuttle will not pick passengers up after departing the GO Station but serves to drop passengers off at the closest bus stop to their home before going out of service. This strategy saved approximately $42,000 per year in operating expenses.

Partnership opportunities may also be an effective means of providing this service. The Charlottetown Mall or downtown employers, for example, could sponsor Evening Flex Route Shuttles to take their employees and shoppers home. This service offering may also increase transit ridership during the day as some users will have a reliable transit service for their return trip home.

RECOMMENDATIONS:

To implement an Evening Flex Route Shuttle, the following steps are proposed.

1. That Charlottetown Area Transit work with representatives of large retailers and employers to establish interest in supporting a specially designed transit service for employees/shoppers that would operate after 7:00pm on weeknights.
2. That performance targets (ridership per service hour) be established and financial contributions pursued.
3. That Charlottetown Area Transit design, implement and monitor the service for a period of six months and modify as required. Based on the success in meeting performance targets, the service is continued for a further six month period.

It is recommended that initially two buses are used for this strategy, operating Monday to Friday. One bus would be stationed out of the downtown terminal and the other at the Charlottetown Mall terminal. This would require 1 daily revenue vehicle hour of service per bus (total 2 hours), which would include service to Cornwall and Stratford.

A performance target of 12 to 15 passengers per revenue vehicle hour should be considered. Once this target is achieved, consideration should be made to putting a third bus in service, providing additional runs (i.e. at 7:30/7:45pm, etc) or extending hours on the collector routes of the Base Service.

11.3 Zone Bus to Service the Periphery

There have been requests to serve some of the peripheral areas in the greater Charlottetown area, however low density and the resulting low demand make these areas inefficient to service with fixed route transit. The north area in Charlottetown up to Stockman Drive and the East Royalty area (with development occurring along East Royalty Road) are two areas that would benefit from service, but may not warrant fixed route service.

One option is the implementation of a Zone bus service. A Zone bus operates using a similar strategy as the Evening Flex Route Service, providing demand responsive, flexible route within a predefined area that can be serviced within a 30 minute window. Zone buses would only operate within a zone and transfers would be required to the fixed route service at a designated transfer point for travel beyond the zone.

To use the Zone bus, customers would call a dispatcher for the time and location of pick-up, and the dispatcher would create a route comprised of all pick ups that could be completed within one cycle (i.e. 30 minute headway). The route performed for each cycle would be designed to provide timed transfers at the Charlottetown Mall Terminal to the fixed route system. For passengers

connecting from a fixed route to the Zone bus, the driver would devise a flex-route within the zone as passengers indicate their destination when boarding the Zone bus at the transfer point. The drop offs would be combined with the passengers that need to be picked up within the zone, as arranged by the dispatcher.

Oakville Transit inaugurated a Zone bus system for low demand periods (evenings and Sundays). Passengers booked their trip and destination through a dispatcher and could travel throughout the system using the normal fare. Implementation of the model resulted in a doubling of ridership during these low demand periods, with service operating at about one third of the cost of operating a conventional fixed route service in the same area. The Zone bus service has since been replaced by a fixed route service. This resulted from its success in attracting transit ridership, as the Zone bus could only effectively accommodate low demand periods.

In the greater Charlottetown area, this concept could be used to service low demand peripheral areas as illustrated in **Figure 29**. The size of each zone would be based on the estimated passenger demand that one bus could handle during a cycle. For Zone buses, the standard is typically a maximum of 10 to 14 passengers per revenue vehicle hour, operating at a 30 or 60 minute frequency. Frequencies under 30 minutes generally require a fixed route service.

In assessing this model for Charlottetown Area Transit, some key points have been identified as follows:

- Zone bus requires a dispatching function and new scheduling duties for bus drivers; and
- Zone buses are not suitable for high demand periods or areas. Periods of high demand place additional pressure on drivers, and can cause missed trips or long delays for passengers.

Based on the above assessment, it is recommended that a Zone bus concept be introduced on a trial basis in the West and East Royalty areas not serviced by fixed route transit. Six (6) daily hours of service are recommended to be allocated for this service between Monday and Saturday focused on the two peak periods with one or two runs during the midday.

Cost to provide the service would be negotiated with the contractor and 10 to 14 riders per revenue vehicle hour should be set as a performance target.

Recommendation:

- That Charlottetown Area Transit pilot a Zone bus service in the North End and East Royalty Area to help build transit ridership.

Charlottetown Area Transit

Figure 29 - Peripheral Zone Bus Strategy

Charlottetown

Cornwall

Stratford

Legend

- Shopping Centres
- Bus Transfer Locations
- High Schools
- Holland College
- Hospitals
- UPEI
- City Streets
- Highway
- Town Boundary
- Peripheral Zone Bus

Transit Routes

1. University Avenue Service
2. Southeast Service
3. Southwest Service
4. Northeast Service
5. Northwest Service
6. Cornwall Connector
7. Stratford Connector Southport Side
8. Stratford Connector Bunbury Side

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Map Created By: KR
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11.4 Employer Specials

The challenge with fixed route service in industrial areas is that workplace start and stop times are hard to match with bus schedules especially when the route passes several employers. If frequency is increased to provide a better level of service, this will also lead to a number of unproductive periods where the service does not match shift times.

The recommended Base Service Strategy provides half hour peak period service to the West Royalty Industrial Area and hourly midday service. While peak period service provides a good level of access, the midday service may not meet specific trip demands. Several employers require access on weekends when the fixed route service is not available or at an hourly frequency. Also, there is no fixed route service under the proposed strategy to employment areas near the Airport.

An alternative to providing fixed route service to industrial areas is to implement an **industrial special service**. Industrial or Employer Specials can be customized to provide more direct and specialized service. Designing such services typically involves conducting a survey of industrial employers, including shift times and employee's residential locations and designing a tailored service to meet specific transit and shift demands.

The benefit of this strategy for the employer and employees is that they are provided a service that is uniquely tailored to fit their needs (i.e. matching shift times and providing more direct service right to the plant door). The industrial service can also be designed to operate during periods when conventional transit is not operating (i.e. after 7:00pm weekdays and on weekends). Finally, specials can be designed to run express between collection points and the industrial area, thereby increasing the attractiveness of the service.

For the operator, the operation of the service can be structured to match demand, thereby increasing the efficiency and effectiveness of the service. Specific runs may also provide the opportunity to minimize split shifts for bus drivers and buses may be integrated into and supplement the base service when returning from the industrial trip.

Since industrial specials are based on a partnership approach with employers, monitoring performance is essential. There are two approaches to implementing an industrial special:

Option 1 – Industrial Special based on Utilization Targets

This approach provides a specially designed industrial service with pre-set utilization targets to determine whether the service should be continued, modified or discontinued. Providing special service to industrial areas can be costly, as a result of having to carry bus fleets beyond the normal, for one or two runs a day, and the cost of manpower outside normal operating hours. This extra cost not only includes the driver but also maintenance and supervision.

This strategy would involve setting a performance standard to identify acceptable utilization targets. The concept of "Use it or Lose it" is appropriate and underutilized runs would be candidates for discontinuance. For example, a Performance Standard for Industrial Specials could be:

1. Acceptable Utilization 25 or more on average passengers per revenue vehicle hour
2. Marginal Utilization 16 to 24 on average passengers per revenue vehicle hour
3. Unacceptable Utilization 15 or fewer on average passengers per revenue service hour

These utilization targets would need to be confirmed if this strategy where selected. The average would be calculated over a three month period. If performance is marginal, Charlottetown Area Transit would provide a notice to the employers on that route to post on their Bulletin Boards that ridership on the specific run has not maintained an economic threshold, but would be extended for a further three month trial period. The notice would include the positive aspects of the service and general information on how to use the bus, the transit pass tax deduction advantages, environmental benefits and personal savings potential compared with auto operation. Such a process has the added advantage of notifying the employer who would be in a position to consider adding incentives for transit use on their own. All runs that are in the unacceptable range for more than a three month period would be discontinued.

These guidelines are recommended for services operating during or close to normal operating hours. Requests for service during extreme off service hours, such as 12:30am to 5:00am are difficult to provide efficiently by Transit. The local taxi industry may be better equipped to provide these services on a contract basis unless a suitable cost sharing agreement between Charlottetown Area Transit and the industry can be reached.

Option 2 – Financial Partnership Approach

This option involves developing a partnership and specific agreement between Charlottetown Area Transit and the industrial area employers being serviced by transit. The concept is to design an effective dedicated service in cooperation with employers and obtain a minimum financial commitment from them (through the advance purchase of transit passes for employees) before initiating the service.

The benefit of this strategy for the employer and employees is that:

1. Employees can use their transit pass to access all Charlottetown Area Transit services;
2. Employers can sell transit passes to employees (if desired) to recover some of their cost of service;
3. Provision of transit services will help attract the necessary labour pool for employers;
4. Transit passes are tax deductible, which provides a further financial incentive; and
5. The special industrial service can be designed if required to operate during days and hours where regular transit is not provided.

The benefit of this strategy for Charlottetown Area Transit is that:

1. A specific cost recovery target is set before the service begins operation and the revenue contribution from employers is guaranteed;
2. The strategy is incentive-based for the employers and puts more responsibility on them to encourage the use of transit;
3. The service can be operated on a trial basis and discontinued only by employers opting out. If successful the service is easily expanded under the same principles; and
4. Capital costs may not be required, but if they are then some financial recovery is possible when setting the cost of service;

To implement the above service concept, the following steps are suggested:

1. Charlottetown Area Transit to set Revenue/Cost ratio and minimum call out time (i.e. 2 hours of consecutive service) for the industrial special service;
2. Trius Transit works initially with one large employer to spearhead the initiative;
3. Trius Transit identifies other nearby employers who might participate in the special service and develop marketing and branding strategies;
4. Trius Transit works with these employers to design the Industrial service offering that is tailored to shift times of participating employers;
5. Trius Transit sells 6 months worth of monthly Industrial service passes to the participating employers at an Adult Monthly Pass rate;
6. The number that employers are required to purchase depends on the number of service hours involved and the required cost recovery standard (i.e. between 40 and 75 percent R/C ratio). As an incentive this Special Pass will be usable on all Charlottetown Area Transit services;
7. The employer can choose to give the monthly passes to their employees or sell them at whatever price they wish;
8. Anyone using the Industrial special without an Industrial Special Pass must present a transfer or pay a separate fare. Any extra revenue is credited back to the employer's contribution in the next six month period;
9. New employers can sign on during the six month period and again any excess in revenue beyond the target R/C will be credited back to employers' contribution in the next six month period; and
10. Service is reviewed, modified and renegotiated on a six month basis.

Based on the above assessment, it is recommended that Charlottetown Area Transit reserved four (4) hours of service per weekday for Industrial specials. The application of these hours should be based on a proposal from Trius Transit based on communication and marketing with the industrial employees. Targets should include increased service to the West Royalty Area and service to the Airport employment area. This strategy may require one additional peak period bus, depending on the time that the service is in place.

11.5 Service Hour and Vehicle Implications

The recommended service strategies require one to two buses to operate during the peak periods (depending on the allocation of the Industrial Special Service). This brings the total peak period fleet from eight buses to nine or ten buses. An advantage of the private contractor is that any extra fleet requirement may be available from with the contractor-owned fleet.

The total daily revenue vehicle hours required to operate the special service strategies and trials is identified in **Table 18**. This Tier 2 requirement equates to 91 weekly revenue vehicle hours.

Table 18 – Proposed Special Services and Trials Revenue Vehicle Hours and Peak Hour Vehicles

Routes	Terminal	Hours of Service				Peak Buses
		Daily		Weekly	Annual	
		Weekday	Sat			
Community Bus	Downtown, Ch Mall	6.00		30.00	1,506	
Zone Bus	Charlottetown Mall	6.00	6.00	36.00	1,818	1
Evening Shuttle	Downtown, Ch Mall	2.00		10.00	502	
Employer Specials	Charlottetown Mall	4.00		20.00	1,004	1
Total		**18.00**	**6.00**	**96.00**	**4,830**	**2**

12.0 POTENTIAL FUTURE ENHANCEMENTS

A third Tier of services (Potential Future Enhancements) beyond the Base Service and Special Services and Trials should be addressed in the medium to long-term, once the system has achieved financial stability and ridership growth targets.

Charlottetown Area Transit is still a very new system and there is continuing opportunity for growth. However, growth beyond the strategies recommended in the Tier 1 and 2 Plan should be based on achieving acceptable ridership performance targets or a specific policy direction from each participating municipality (i.e. to provide service to a new residential neighbourhood).

Examples of potential future enhancements that should be assessed are described below. The introduction of such enhancements will increase both ridership and operating costs and may require additional fleet. To initiate action on these improvements, proposals should be made by the contractor to Charlottetown Area Transit with financial implications outlined. Any future enhancement should be introduced on a trial basis as a Tier 2 service before moving to the Base Service (if successful).

12.1 Increase Frequency on Collector Routes

One of the first potential enhancements is to increase the service frequency on the Base Service to 30 minute all day service on all routes.

Hourly service is often implemented during periods or on routes where ridership performance is poor (i.e. less than 10 passengers per revenue vehicle hour). In Charlottetown, the majority of routes currently fall below this target during the midday period.

However, providing hourly midday service in a growing system which is trying to increase overall transit usage must be viewed with caution. Hourly service makes the system inconvenient and unattractive for many potential riders. It reduces a user's spontaneity in riding the system and the assurance that a bus will be available when needed. Trips requiring transfers may result in a 30 minute delay depending on which routes are interlined. This may also have an impact on peak period ridership, as passengers are forced to plan their trips around certain time periods. While hourly off-peak service will improve the short-term financial performance of the system, it may not achieve the ridership growth potential and will make the system less appealing for potential new riders and residents that are moving to the greater Charlottetown area.

Before considering this strategy, midday ridership should be tracked for at least 6 months on the collector routes. A ridership performance target of 15 passengers (system average) per revenue vehicle hour should be in place before considering the move to half hour all day service. If all four collector routes within Charlottetown operated at a 30 minute midday frequency on weekdays, the number of additional revenue vehicle hours required would be 70 hours weekly. It may be possible to move to 30 minute service on only the busiest collector routes and the contractor may propose this strategy.

12.2 Increased Frequency of Service and/or Introduce Saturday Service to Cornwall and Stratford

Another potential enhancement in service is to increase the number of runs or provide limited Saturday service in Cornwall and/or Stratford. Currently, weekday routes are limited to peak period

runs and one run during the midday. This works well for employees with weekday work hours between 8:00am and 5:00pm, but does not accommodate other trips as well. With a growing student ridership from the U-Pass implementation and the potential implementation of a Holland College Universal-Pass, consideration may be made to increase the number of runs to accommodate student trips. Stratford also has the highest percentage of seniors in the greater Charlottetown area and more midday runs may be beneficial to improve their level of service.

As a future enhancement, 1 to 2 additional runs after the morning peak, during the midday or before the afternoon peak could be considered as a 6 to 12 month trial. This would need to be tied to ridership reaching a set performance target or a policy decision to create growth in ridership by improving service.

During off-peak periods, a Zone bus strategy could also be used to expand service in Cornwall and/or Stratford with a connection to the Charlottetown Mall and downtown terminal respectively. Since the fixed route service in both municipalities takes more than 30 minutes to complete, the Zone bus concept with a 30 minute run time would ensure that connections could be accommodated at each of the transfer points in low demand periods and would reduce the number of revenue service hours required to operate the service. The Zone bus strategy would be a preferred option for Cornwall and/or Stratford to initiate a Saturday service.

12.3 Extended Evening Hours on Base Service

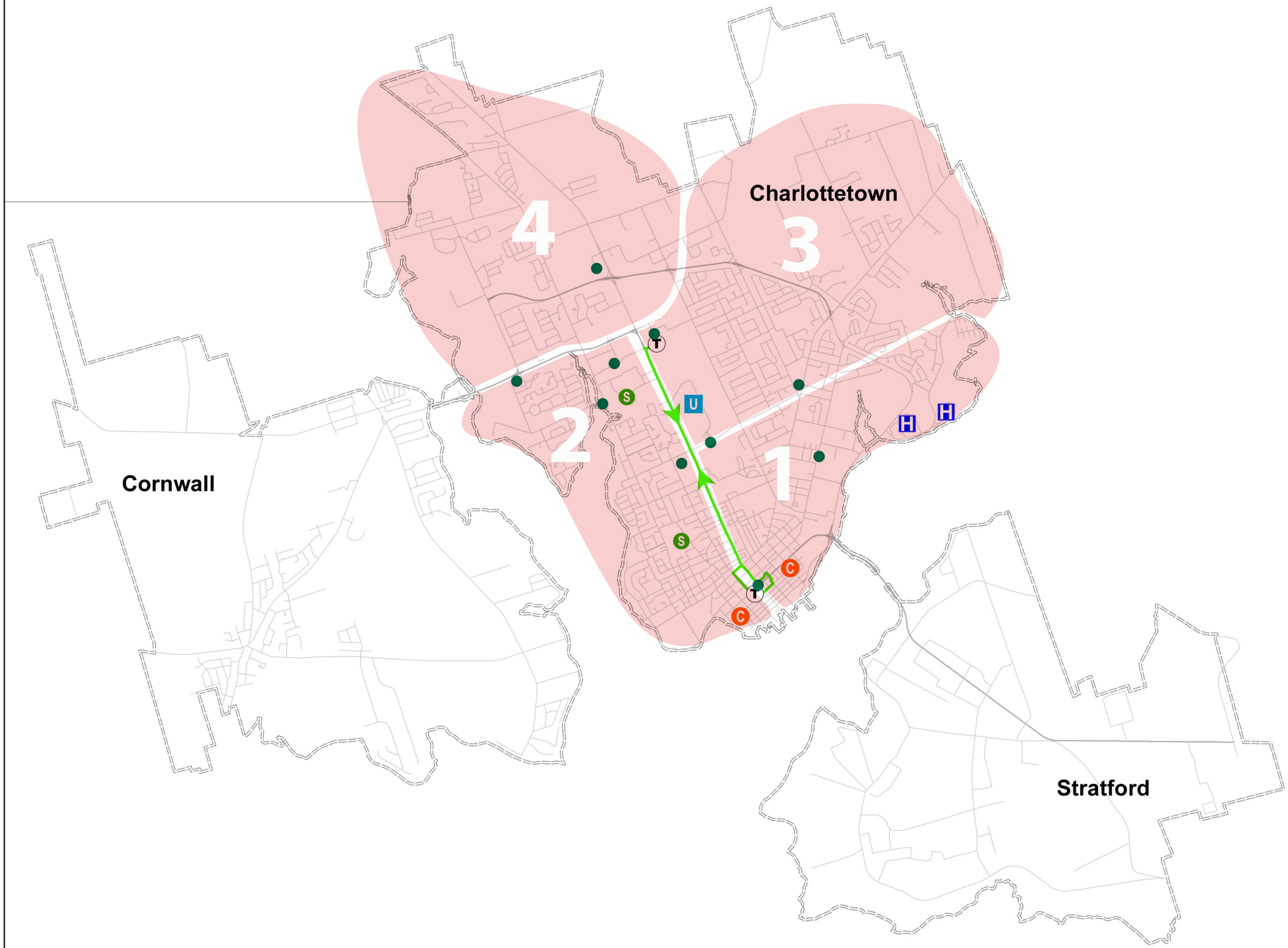
Extending service on the collector routes after 7:00pm should be revisited in the medium term. Charlottetown Area Transit has one of the earlier end times in its peer group, with most systems ending around 10:00pm or 11:00pm on weekdays. While the University Avenue service operates until 11:00pm or 12:00pm, it does not cover a large area and limits use to those living along the corridor. The Evening Flex Route Service will provide a good indication of the need to extend service hours, and a Zone Bus strategy should be considered as an option to extend service. Achieving an average of 12 to 15 passengers per revenue vehicle hour on these runs would be a good indication that service hours should be extended.

One potential design would be operate an evening service using a combination of the University Avenue spine service (Route 1) and two to four zones operated using 2 buses. The University Avenue (Route 1) service would provide half hour frequency on the corridor. Two additional buses would be allocated to four different zones, one bus anchored out of the Charlottetown Mall servicing the areas northeast of Belvedere Avenue and northwest of Belvedere Avenue (including Cornwall) and another bus anchored out of the downtown terminal servicing two zones south of Belvedere Avenue and within Stratford. The zone buses would operate in half hour cycles, alternating between the two zones to provide hourly service. An example of this type of service is illustrated in **Figure 30**, and could also be used as a potential Sunday/Holiday service concept (see **Section 12.5**). This service would need to be refined based on the results of a six month trial to ensure the appropriate size of the zone.

A passenger per revenue vehicle hour target of 12 to 15 passengers is suggested.

Charlottetown Area Transit

Figure 30 - Weekday Evening & Sunday Zone Bus Concept



Legend

- Shopping Centres
- Bus Transfer Locations
- High Schools
- Holland College
- Hospitals
- UPEI
- City Streets
- Highway
- University Spine Service
- Town Boundary
- Potential Zones

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DILLON CONSULTING

Map Created By: KR
Map Checked By: TH
Date Created: 15/11/10
Date Modified: 08/12/10
File Path: I:\GIS\103919 - Charlottetown\Mapping\Figure 30 - Weeday Evening & Sunday Zone Bus Concept.mxd

12.4 Student Express Services

A number of transit systems with large post secondary institutions operate special services designed to accommodate the student market. This is particularly true where the regular fixed route service cannot accommodate large student demands or where the service is not oriented to the post secondary institution.

Guelph Transit (Ontario) provides a good example. Over 50 percent of Guelph Transit's ridership are University of Gueph students, primarily due to the long standing U-Pass in place. To accommodate excess student trips, Guelph Transit operates 3 to 5 'University Express' services between areas with a high rate of student housing and the University. The service is provided during the Fall and Winter semesters only recognizing the volume of ridership during these periods. The cost of operating this service is also incorporated into the U-Pass agreement.

For Charlottetown Area Transit, the potential exists to provide additional and targeted services to UPEI and potentially Holland College. This special service offering should form part of a U-Pass renegotiation (UPEI)/negotiation (Holland College) to ensure that the cost is being adequately covered by U-Pass revenue.

12.5 Sunday/Holiday Service

Charlottetown Area Transit currently does not operate on Sunday or Holidays. This is typical of most systems serving a population this size. The primary reason is the poor productivity achieved on Sundays when ridership is typically 25 percent of weekday ridership. With such low demand, it is difficult to design a Sunday/Holiday service that can achieve acceptable financial performance. Limiting hours, reducing coverage or decreasing frequencies would reduce the cost of Sunday/Holiday service and provide some level of mobility for residents, however, this would likely not achieve financial performance targets.

In the medium to long-term, the provision of Sunday/Holiday service should be reconsidered using a fixed route on University Avenue augmented by a demand responsive Zone Bus strategy. This should be considered once annual ridership has grown to at least 500,000 passengers and the financial performance of the system is stabilized. Another trigger for Sunday/Holiday service might be negotiation of a U-Pass price increase with UPEI (and hopefully Holland College) students.

12.6 Conversion of Zone Bus to Fixed Route

The Zone bus concept is meant to operate within low demand periods or geographic areas. Once ridership builds beyond 10-15 passengers per revenue vehicle hour, the Zone bus becomes difficult to manage and a fixed route service should be considered. Since a Zone bus can typically cover a larger territory than a fixed route service, this may mean an increase in the number of buses / operating hours required to cover the same area as the Zone bus.

12.7 Park and Ride Strategy

Charlottetown Area Transit piloted a park and ride project in 2007 for a period of several months. The park and ride lot was located at the Sears store off Upper Malpeque Road and was well promoted. The pilot was discontinued due to lack of use.

Commuter parking lots that facilitate car pools are fairly common but there are few cities the size of Charlottetown with Park and Ride lots that have transit connections. Ottawa, Toronto, Calgary,

Halifax and Vancouver use Park and Ride as a strategy to get potential passengers from the periphery to use transit for at least part of their trip. One of the challenges with implementing Park and Ride in smaller municipalities is the lack of disincentives to continue driving a vehicle all the way to the downtown area.

The Transit Cooperative Research Program (TCRP) Report 95 (Chapter 3) provides a list of factors that help determine the potential success of transit integration with Park and Ride lots. These include:

- Direct transit service from the facility to a major workplace such as Charlottetown's downtown;
- Express bus service and/or transit service with priority;
- Significant downtown parking costs or scarcity of downtown parking;
- Frequent bus service (15 minute intervals or closer) and bus travel times reasonably competitive with the automobile (for maximum effectiveness, Park and Ride lots should provide a time savings of over five minutes during the peak hour compared to the private automobile);
- Location in corridors with high road congestion during peak periods;
- Located between the urban fringe and the downtown, but not to either extreme. Ideal location between 8 and 16 kilometres from the downtown and the home origin;
- Visibility and ease of access from a major transportation corridor;
- Free parking provided at Park and Ride lot;
- Higher density surrounding facility to increase catchment area; and
- Safety and security (real or perceived) provided at Park and Ride lot.

The Sears store is located approximately 5.5 kilometres from the downtown area. Based on the proposed routing structure, there is limited bus service to this location. The challenge for an automobile driver is that if they miss the connecting bus, they may need to wait up to 30 minutes before the next one arrives. The travel time downtown by automobile from the Sears store is between 5 and 10 minutes.

In addition, parking rates in the downtown range from $60 to $90 per month, with an adult monthly transit pass priced at $60 and several employers provide free parking. The price of parking downtown may not be high enough for most users to make the switch.

Based on this assessment, the introduction of transit integrated with park and ride lots in Charlottetown is not recommended at this time. Potential future lots could be considered within Stratford or Cornwall along the highway corridor, however, these would only be effective if more frequent service was introduced.

When province-wide transit is introduced, park and ride facilities integrated with Charlottetown Area Transit services should also be explored along the highway corridor between Summerside and Charlottetown.

13.0 MARKETING AND PUBLIC AFFAIRS

13.1 Background

In its outreach to the communities of Charlottetown, Cornwall and Stratford, the Dillon team received consistent, positive feedback that the transit system is safe and clean and that office staff and drivers are kind and helpful, fares are generally reasonable and that management reacts quickly and positively to most customer requests.

However, feedback also indicated that not enough people know about transit, that transit has no recognizable brand or image and that transit information materials are either difficult to obtain or to understand.

What follows is an overview of tactics that the transit system can plan for in order to maximize its outreach and to grow its target markets.

13.2 The Basics – A Long Term Marketing Plan

Charlottetown Area Transit does not yet possess a marketing plan, which in turn, would support an overall strategy. Past efforts at marketing have been creative, but also constrained by human and monetary resources.

STAFFING

While the current transit service level is not expansive enough to justify marketing staff, a certain amount of time should be budgeted for existing or planned staff to focus upon marketing and outreach. If Trius Transit assigned a supervisor to handle operational issues, more time would be available for the general manager and owner to develop marketing programs and community partnerships.

IMAGE AND BRANDING

Charlottetown Area Transit currently suffers from a lack of clear branding. Feedback indicates that the varied types and colours of vehicles are confusing to both customers and to would-be customers. As it is not always possible to keep a certain bus colour on a specific route (due to any number of issues, including maintenance), individually colour-coded routes are no longer colour-coded or branded. Customer feedback also indicates that there is confusion regarding route names and numbers and such information is not visible on the back of buses.

Bus stops are used by many customers only as an option. Many indicate that they hail down the buses and trolleys between stops. While this is wonderful service in the short term, it does nothing to help define Transit as a service of scheduled stops on specific routes, as noted on its schedules. Additionally, bus stop posts are made of lesser quality materials. While budget and resource constraints are the cause, if Transit is to be taken seriously, it must look the part.

COMMUNICATIONS

Trius Transit has proven to be customer responsive in that every effort is made to ensure that customers obtain their trips, no matter what the vehicle or driver is required to do. Additionally, drivers have been very flexible in picking up and dropping off customers.

Some campaigns, such as the "Vote for your Student Pass" are commendable. However, to make the most of limited resources, campaigns should be tied into an overall strategic marketing plan.

Customers appreciate the phone information line however, for people without access to the internet there is no easily accessed transit information available after 4:00pm on weekdays and none on weekends.

Currently, there is no easy venue in place to track employee and customer feedback and to be able to quickly and efficiently use that feedback for planning, marketing, performance measures and employee relations purposes.

Lack of branding is an issue for the Transit web site for the greater Charlottetown area. A Google keyword search brings up a number of listings that are not official transit web sites. Anyone new to transit may not recognize the "Trius" name and could easily dismiss the site. If one enters the Charlottetown official web site, finding transit on the site is itself a challenge. Another hurdle is to determine which site is the most reliable and accurate. Ironically the non-official site which also comes up first in a search (www.the bus) appears to attract the most viewers.

Feedback indicates that the schedules are difficult to read and to understand and that a route map which includes all of Charlottetown, Cornwall and Stratford is required.

Largely due to lack of time and resources, shelter and bus card space is not used by Charlottetown Area Transit for its own messages and more advertising revenue may also be possible.

COMMUNITY PROFILE AND SUPPORT

Community support for transit appears to be strong. The contractor has invested time and resources in the community to make the system work and to portray a positive image of transit. For example, the contractor is currently pursuing the opportunity to partner with various sponsors, tour operators and the Cancer Society to acquire "pink" buses which can be used in fund raising for breast cancer research as well as encouraging greater use of public transit by residents and employers.

Feedback from a variety of businesses and organizations indicates a willingness to partner with transit and/or to assist on a number of topics, from driver sensitivity training to customer education.

However, there is currently no structure in place for encouraging local business or media support for Transit.

13.3 Five-year Marketing Plan & Annual Work Plans

When looking at overall market penetration, feedback attained through the consultation process and experience in similar communities, the following sectors should be considered for increased market penetration:

- **Students** attending the University, Holland College and the major high schools;
- **Seniors** which are growing in numbers across the tri-municipal area *(Currently one route caters heavily to the senior population in central Charlottetown);*
- **Adults** that are commuting to work *(For example, Invesco foresees a 50 percent increase in staff growth in the next two years. Large government offices are in the downtown have excellent transit access. Staffing at the Call Centres is growing and is a prime target audience);*

- **Tourists** may be a potential market especially in the summer, but will require targeted marketing with the help of Tourism Charlottetown and local businesses, in order to attract them.

A 5-year Marketing Plan would support the new direction of Charlottetown Area Transit and would be a key building block to help:

- define the Transit brand;
- increase communication with the general public;
- increase interaction with decision-makers, community partners and the media;
- maximize employee communications; and
- capture customer feedback and use it for ongoing transit planning and marketing.

Each year, Trius Transit staff would produce an Annual Work Plan to support the 5-year Marketing Plan. Each year's Work Plan would build upon the work of the previous year and would allow staff to review the successes, the unmet needs and the lessons learned in the previous year.

The Annual Marketing Work Plans would help ensure that the work needing to be done is budgeted for, has adequate human resources assigned to it and is reviewed for changes, as necessary.

To Support a Marketing Plan, the critical Components are:

1. **Budget Resources Specifically for Marketing –** The anticipated operating budget for the proposed 2011 transit service is approximately $1.8 M. Charlottetown Area Transit should strive for 1 percent of this budget for marketing purposes for each of the next two years and work up to at least 2 percent of the overall budget within five years. At 1 percent of the 2011 Budget, the annual Marketing budget would be approximately $18,000. This should cover print media, electronic media, copy work, graphics and map production, campaigns, special events and contracted staff resources. This budget is not intended to cover internal staff resources.
2. **Marketing Staff** - One member of staff should oversee all Marketing and Communications efforts. That staff member would also update and review the Annual Marketing Work Plan. Marketing work which is not within the expertise or the resources of the internal staff would be externally contracted. Examples may include the production of art, electronic and print materials and survey work.
3. **Branding** - To give Charlottetown Area Transit a strong brand, noticeable to residents and visitors alike, Transit can consider the following options:

    - new name;
    - consistent colour scheme;
    - new logo; and
    - tag line.

    Suggestions for options, as well as for how and where the branding would be used, are listed in the Marketing Plan below.

4. **Marketing Campaigns** - Marketing campaigns would be limited in the first three years until the "basics" such as the design, printing and dissemination of the route maps and the upgrading of the web site are well underway. An exception would be campaigns to help define and promote the Transit brand, which will be a key step to the ongoing marketing of the system.

   The new Transit name, logo and art should soon become easily identifiable to residents and to employees who work in the area. A cohesive graphic will not only help to give the transit system a strong brand – it will actually be less expensive to implement, use and re-use over time.

5. **Information by Phone** - Customers and would-be customers, especially those who are new to the three municipalities and or the service, should have a phone number that they can call at any time. An automated system would be an option in the evening and weekend hours and as a back-up to staff during the day. There should be "live" service on Saturdays, at a minimum during the same hours as on weekdays.

6. **Recording Public Feedback** - Investing in a system to track all manner of feedback in order to be able to quickly and efficiently use that feedback for planning, marketing, performance measures and employee relations purposes will be money well spent. A variety of options exist on the market, from inexpensive, "Access" based software systems to systems tied into scheduling and other programs.

13.4 Marketing Strategies

OVERALL OBJECTIVES

The objectives for Charlottetown Area Transit's Strategic Marketing are grouped into the following areas:

A) Develop Transit's Brand

- Increase the level of awareness/visibility for Transit.
- Create a consistent visual identity that will allow all elements of Charlottetown Area Transit to be immediately identified.

B) Build Community Support for Transit

- Build awareness and support among key opinion leaders, including elected officials, the business community, particularly the tourism industry, the media and community partners.

C) Increase Awareness of Transit Services

- Produce and update communications materials to provide up-to-date, user-friendly customer information in formats appropriate for various target markets, including newcomers and persons with disabilities.

D) Build Usage and Market Share for Transit Services

- Retain core ridership through effective service delivery, excellent customer communications and follow up on issues identified in the recent survey.

- Attract new riders as route and service changes are implemented using targeted marketing.

A) DEVELOP CHARLOTTETOWN AREA TRANSIT'S BRAND

This is the time for Charlottetown/Trius Transit to build a strong, consistent look for its vehicles, drivers, stops/shelters, print and electronic materials.

The Brand Name

There appears to be confusion regarding the current transit name. Is it Trius Transit? Is it Charlottetown Transit, Cornwall Transit and Stratford Transit? Does any name reflect the service area and its markets? Potential users need simplicity and clarity.

Suggestions for a new name, which would reflect the region-wide service area, should include names that offer an acronym as an option. This is a commonly used tactic across North America and includes systems as large as those of Toronto, Ontario (commonly referred to as the TTC) or as small as Hinton, Alberta (HTS).

Any name with an acronym that has a double meaning, such as "CAT", can also be used to develop interesting marketing visuals and text. Cats are known for being fast, elegant, efficient animals – all good descriptions of transit in its ideal form.

Optional Brand Names

Charlottetown Area Transit (or CAT)

Greater Charlottetown Area Transit (GCAT)

Tri-Municipal Transit (TMT)

Tri-Trans or Tri-Trans Service (TTS)

Capital Region Transit (CRT)

Capital Area Transit (again CAT)

Charlottetown, Stratford, Cornwall Transit (CSC)

A new name can be decided internally or perhaps the top three suggestions for a new name can be shared with consumer groups, focus groups, the public at large or users (via an on-board survey, for example) to determine which name is likely to garner the strongest favour.

A Tag Line

The existing tag line for Charlottetown Area Transit is "Go Green… Go Transit". This is communicated on the website, but it is not clear as to the extent that it is known and recognized. While a tag line is not essential, the timing for developing one is ideal. A tag line should support the Vision and Mission of the Transit system. Examples include:

- "Getting you there" – Airdrie Transit, Alberta;
- "Welcome Aboard" – Burlington Transit; and
- "Connecting Communities" – Durham Region Transit.

An example of a tag line for transit in the Charlottetown/Stratford/Cornwall area could be:

- "Go Green… Go Transit" (existing);
- "Your Municipal Link"; or
- "Connecting People and Communities".

The desired tag line would be seen on all print and electronic materials and could be used especially well on radio (public service announcements and/or ads) and in print articles.

As with a new name for Transit, a Tag Line could be developed in-house and vetted with the appropriate decisions-makers to keep costs down.

The Brand Colours and Logo for Transit

A new colour scheme for any transit system is often based upon the official colours of the local municipality it is serving. This provides a link to the community and cohesive advertising when transit opts to partner with the municipality or various municipal departments for ads and campaigns.

In this case, transit is serving three municipalities, but the philosophy still works. The official colours for Charlottetown and Stratford are a dark and a light blue that, while not identical, are similar. Cornwall uses a green which could work well with the blue tones. A blue and green combination would provide a colour scheme that is classic and that reflects the colours of the three municipalities. Perhaps more than anything, PEI is regularly marketed as a Province of beautiful greens and ocean blues. A blue and green combination would also work well in marketing an environmentally friendly and sustainable transportation option.

As for a logo, the City of Charlottetown has an elegant "swoosh" that resembles and ocean wave. Stratford uses a crest; Cornwall does not market a logo on its web site. If Stratford and Cornwall are amenable, the "swoosh" or a version of it would work particularly well along the sides of vehicles and could easily be used to tie the blues and the green together.

It is recommended that Charlottetown Area Transit employ a professional graphics company (preferably local) to develop a colour scheme and a logo, to be approved by the municipalities. The overall approved Transit image would be used for:

- Uniforms (e.g. uniforms could be a dark blue with green piping, stitching or badges);
- Fare media;
- Bus stops and signage;
- Shelters and benches;
- Waste receptacles;
- Route maps;
- Posters (used at schools, community centres, etc.);
- Letterhead and business cards;
- Flyers and brochures;
- Display system materials;
- Web site pages;
- Media kits; and
- Any other materials as applicable.

While a number of the above items may not be purchased or developed for several years (e.g. display system materials), the colour scheme and logo will be timeless.

It is recommended that if the municipalities follow a set of Graphic Standards, these would also be adhered to by Transit (for print materials, electronic formats and signage). The Graphics Standards Document should be available to printers and manufacturers in a short form, where feasible.

The Brand for Vehicles

The "swoosh" style and environmentally blue and green colours should work well for new, accessible vehicles, as well as for other types of vehicles that may be associated with transit.

Transit staff would work with the graphic design company to ensure that the logo design version for use on vehicles is produced in a format which is easy to use in vehicle paint shops. Alternately, the design could also be used in a decal form. Discussion with vehicle manufacturers prior to purchase would be helpful. Decals would also be useful on existing vehicles to start developing the Brand.

If budget allows, all existing vehicles should be repainted in 2011. Regardless of the timeline dictated by the Vehicle Maintenance Budget, publicity and communications should inform the public as to the approximate date by which they can expect the entire fleet to have its new look.

The Brand Launch

Transit would launch an image campaign to educate the general public about Transit's new look and services. To introduce the new visual identity, Transit would capitalize on the newsworthy events that will be occurring during the year. The communication regarding the new look or brand should be scheduled to highlight service improvements, fare changes and other newsworthy activities. This will help to reduce time, cost and effort and will maximize both resources and impact.

However, an actual launch of the new brand will help to get an ongoing Brand Campaign underway. Transit staff would meet with appropriate municipal staff to determine the best date for a launch. September of 2011 would be ideal, if one or more vehicles are ready by that time and if any other materials have been revised with the new look by that date.

However, the preferred date should take into account the following items:

- Weather conditions at the preferred time of year;
- Availability of Mayors, Municipal Councillors federal and provincial politicians on the date;
- Tie-in to other local events, or conversely, ensuring that this event is not competing with other events on the preferred date; or
- Tie-in to a major service or fare change, to the completion of a number of newly painted vehicles, or to any other date that has meaning for both transit and the public.

Once the date has been chosen, Transit staff, with the assistance of Municipal staff, may include any number of the following items into the launch:

- Media photo shoot;
- Ribbon cutting ceremony;
- Giant cake to be served to VIPs and general public at the ceremony;

- Music played by local school band(s) or adult groups;
- Route map or flyers handed out to each passenger on the launch date, possibly only during certain periods of the day or on key routes, if such materials are ready;
- Local media invited to broadcast or report from one of the routes;
- Politicians invited to ride one or more routes, directly after ribbon cutting; and
- Essay, poem or art contests in local schools relating to why transit is good for the greater Charlottetown area, with best results copied onto posters, flyers, bus cards or ads.

The above is a selection of suggestions, with additional options limited only to the imagination. It should be noted that many of these options require staffing resources and the ability to carry these out will be tied to staff time and availability. It is, however, possible that municipal employees and local business and non-profit organizations may be willing to assist.

Advertising of the launch and date may be achieved through, but not limited to:

- Newspaper stories;
- Newspaper ads, co-opted with launch partners, if any;
- Radio interviews;
- Public service announcements on radio and TV, if the launch can be tied into a service, fare or other change; and
- Web site info.

If resources and time allow, the following communications venues could also be considered:

- New Route Maps sent to targeted homes and businesses;
- E-mail bulletins to targeted businesses (especially to the tourism industry) the colleges, universities and major high schools, social service agencies, and targeted individuals; and
- Interior bus cards or posters on vehicles*.

**Transit does not appear to be set up for exterior bus cards on vehicles, nor for shelter ads. As new equipment is purchased, items such as bus cards can be implemented. Because of cost, bus cards may be best used to promote info of a more permanent nature, such as a long term change in service or to promote Transit as moving forward not only visually, but also in its service level to the public.*

Transit staff should follow up after the launch with any issues that arose on the day, both positive and negative. On the positive side, the media may appreciate stories listing facts and trivia, such as the number of people who rode the system on the launch date, or staff may offer the media one or more interviews with specific drivers, dispatchers or other staff.

B) BUILD COMMUNITY SUPPORT FOR CHARLOTTETOWN AREA TRANSIT

While building ridership and market share are critical to the successful achievement of Transit's day to day mission, strengthening support among the non-riding majority is also important if the system is to have the resources it needs to serve the community's needs.

The strategies outlined in this section, combined with Branding described above are designed to build understanding of and support for Charlottetown/Trius Transit's important role in the community.

Speakers Program

A speakers' program would help to build awareness of Transit and its benefits for the three communities. Speakers may include Senior Transit Staff, Senior Municipal Staff, the Mayors, Municipal Councillors, members of the Public Transit Coalition, the Chamber of Commerce, etc.

For any speaker other than the Transit Manager there should be training time to bring that person fully up to date on all things of key transit importance. A "Crib Sheet" that can be electronically updated would be one quick method of keeping and managing transit information to share for public dissemination.

A PowerPoint presentation and handout could include key data about:

- Brief history of transit in the greater Charlottetown area;
- System facts;
- Benefits of transit for communities;
- Customer base;
- Service area coverage; and
- Upcoming changes and plans for the future.

This will make a strong base for a wide variety of presentations. This "base presentation" can be updated annually, or as needed.

To the Base Presentation, sub-presentations on transit can be added, as needed. They can include topics such as:

- Planned or recent changes to service;
- Other changes, including fares, policies, programs;
- Capital purchases; and
- How transit is an asset to the area (economic, social, health, tourism, environment).

Additionally, testimonials from customers, politicians, business people, environmentalists, etc, can be added over time, as can any specific topic, as it relates to the audience or the issue to which the speaker is making his/her presentation. An example could be "High School Students - achieving some independence by using transit in lieu of having parents drive them".

However, there may be issues and questions that the speaker, even the transit manager, may not be able to easily respond to. For this reason, speakers must be prepared to:

- Relate to various audiences;
- Make the topic of transit directly pertinent to various target audiences;
- Handle difficult questions and contentious issues;
- Handle the media, when present; and
- Quickly and efficiently create a great presentation.

Good information for presentations is freely available from a wide variety of sources, including:

- APTA - American Public Transportation Association - http://www.apta.com;
- CTAA - Community Transportation Association of America - www.ctaa.org;
- CTHF - Canadian Transit Heritage Foundation - http://www.transitheritage.ca;
- CUTA - Canadian Urban Transit Association - www.cutaactu.ca;
- OPTA - Ontario Public Transit Association - www.ontariopublictransit.ca;
- Stats Can - Statistics Canada - http://www.statcan.ca;
- TAC - Transportation Association of Canada - http://www.tac-atc.ca;
- Transport Canada - http://www.tc.gc.ca;
- Transport 2000 Canada - http://www.transport2000.ca; and
- UTRAC - Urban Transportation Research and Advancement Centre - http://www.jpint.utoronto.ca

To initiate speaking engagements, organizations to consider targeting include:

- Tourism Charlottetown;
- University, Holland College and the School Boards;
- Chamber of Commerce, Business and Trade Associations; and
- Charlottetown and Area Service Clubs and Non-profit Agencies.

One size does not fit all, when it comes to targeting these and other groups. It is recommended that groups are contacted by e-mail, phone or letter (over time), depending upon the relationship that Charlottetown Area Transit has already or has not yet established with each group.

Timing for presentations must be considered. Education centres may be better prepared to listen to a speaker well before the start of the school year or near the end of a semester. Tourism presentations should ideally be made such that the production of new tourist brochures and materials can be accommodated.

Outreach to Community Leaders/Developing Partnerships

Making personal contacts with individuals and organizations takes time, but can offer more impromptu flexibility, whereas the Speakers Program dates will require advance planning.

The Transit Manager should target the "quick hits" first, beginning with key opinion leaders that are already advocates of transit. This will give the Manager "learning curve" time to handle potentially more difficult meetings later on. For example, Councillors that are already supportive of transit can help to share valuable information that may assist in convincing at least some of the other Councillors that Transit should be treated as an essential community service for the greater Charlottetown area.

During this study some stakeholders have specifically indicated an interest in transit partnerships and include:

- The Charlottetown Mall, which may be interested in mutual promotion and special events;
- The Downtown Business Association, which sees the potential to reduce congestion and to manage parking. Additionally, some businesses may be open to validating transit tickets/tokens and in assisting with on-line surveys;
- The Chamber of Commerce and several members who responded to the business survey;
- The PEI Association for Newcomers;
- Invesco, which indicated an interest in potential partnership to improve evening transit service for its employees;
- The Department of Veterans Affairs, which indicated an interest in promoting transit; and
- Several youth groups, who would like improved access to events and in general.

The above list represents a sample of potential partners. Each municipality also has community outreach initiatives and events and transit can be more directly involved with such initiatives.

The taxi industry is another potential partner, particularly as a brokered service for low peak hours and areas of service.

Other, contacts could include federal and local politicians, leaders of the tourism sector, heads of social service agencies, school and university/college administrators, hospital administration, business community leaders and especially, the local media. Although there is overlap with the audiences targeted for speaker presentations, the audiences mentioned here can be more varied and diverse. As well, contacts made as a result of Speaker Presentations might be followed with discussions regarding the transit needs of the members or clientele of the company, agency or organization in question.

Media relations would benefit from increased two-way contact and all key media should clearly know who the key transit spokesperson is, and more importantly, who the back-up is, if the key person is unavailable.

Transit Management and staff can make the most of speaker and more informal contacts and connections to identify marketing partnerships, contra-deals, and "freebies". This may work especially well for garnering free media articles and publicity.

Outreach can be simple. Targeted contacts can be met at their place of work or can be invited to a ride on a transit vehicle. The Transit Manager may have good insight as to the some of the interests of various contacts and can make use of this knowledge to decide upon the best approach for a meeting.

C) INCREASE AWARENESS OF TRANSIT SERVICES

Producing and updating communications materials to provide up-to-date, user-friendly customer information in formats appropriate for various target markets, including newcomers and people with disabilities, will serve the Transit system, its customers and the community well..

Information by Phone

Customers and would-be customers, especially those who are new the city and or the service, should have a phone number that they can call at any time. An automated system would be an option to "live" service in the evening and weekend hours and as a back-up to staff during the day. It may also be possible to build onto an automated phone system already being used by the municipalities to accommodate late night and weekend callers.

Strictly speaking, neither the resources nor the budget for this generally comes under the auspices of "Marketing". It is noted here for purposes of overall budgeting.

Recording Feedback

Charlottetown/Trius Transit would be well served to invest in a program to track feedback from the public, from employees and from key opinion leaders. The feedback may come in by phone, by e-mail, by fax, by mail or in person, particularly though the bus drivers.

A program which helps one or more designated employees to efficiently record this feedback should also be able to list the information in such as way as to be able to use that feedback for planning, marketing, performance measures and employee relations purposes.

Because of resource issues, it may be possible to partner with the municipalities to enter data into a system for later review by Transit staff.

Information at Bus Stops

Transit staff will already have worked with the graphic design company to create a newly branded Transit system, a version of which will be used to brand bus stops and to really make them stand out. Bus stop posts can be fitted with a sign that will include the transit phone number, the transit web site address, the routes served by that stop and the minutes after the hour for bus arrival. Public consultation has indicated a desire for schedules to be posted at bus stops/shelters.

Transit staff should investigate the different bus stop options available on the market, to determine the most viable and cost efficient option. Staff should take into consideration:

- How many of the stops will include signs or panels *(These could be implemented on a phased-in basis starting with stops at main intersections);*
- Cost and ease of updating the information;
- How often the information will require updating;
- Ease of keeping the information current, readable, clean and vandal-proof; and
- Who will be assigned to ensure that stops are kept clean and readable? *(e.g. internal staff, contracted staff, staff from transit Ad Revenue Agency?).*

If the bus stop panel information is limited to basics such as the transit phone number and web site, this option may be feasible. However, if route and schedule information is added, stops may require more frequent updates than resources allow.

With respect to the cost of upgrading the bus stops, it is possible that nearby businesses might be encouraged to adopt stops and shelters.

As more shelters are requested by customers, an "Adopt a Shelter" program (with businesses) could help to make additional shelters more affordable. Alternatively, or additionally, when Charlottetown Area Transit staff renews or revises the contract with the ad revenue agency, discussions may be had pertaining to new options for the supply of shelters.

However, it is understood that obtaining sponsorship from businesses is administratively time consuming, at least initially.

The Charlottetown Area Transit Web Site

Transit requires a web site which is clearly branded, instantly identified and is user friendly.

Ideally, over time, the site could become interactive, as budget allows. An interactive site could include a link through Google, to allow for interactive trip planning, provide current information regarding detours, service changes, special events, etc. and might eventually allow customers to purchase their fares online.

The site should also be in an HTML format that allows people with visual challenges to convert the text into a spoken format as well as allowing them to enlarge text to accommodate individual needs.

Transit staff may be able to work with municipal IT staff to update the site with its new Brand and to ensure that the Transit page links are clearly shown on the sites of all three municipalities. Links should also be included on Municipal tourism-based pages. Over time, as Transit reaches out to the communities, local area tourist attractions, social service agencies, university, college, shopping areas, hotels, restaurants, etc. may be willing to add the transit link to their own sites.

Transit staff will work with IT, and will contact the school boards, the university and the college to ensure that the Transit web pages reflect student needs. There may be an option for Transit Staff to work with university or college students (on the web site), if municipal staff is unavailable and/or if budget does not allow for a contracted service to do the work.

Outreach via Personal Electronic Devices (PEDs)

Feedback from the consultation process suggests that transit detours, changes and general information be made available through PEDs. Once the web site is re-created and is running smoothly, this could be investigated. However, this type of outreach requires a strong and timely commitment in human resources.

Outreach via Social Media Networks

The consultation process also received feedback regarding customer outreach via social media networks such as "Facebook" and "Twitter". A growing number of Transit systems are using "Facebook" and other social media networks to help to promote their agendas and as a method of obtaining immediate and ongoing customer feedback.

However, social media as a tool to communicate and advertise can quickly come to require a great deal of dedicated staff time. As a result, most transit systems only venture into the social network

arena once they have the resources to do so. Factors that affect time commitments for staff include how the media sites are being used. Will they be used strictly for operational purposes? For example, if the social network sites are used to share route and service changes, fare increases or detours, staff time requirement is likely to be considerably less than if the social networks are being used to market the system in a more interactive manner.

Where a transit web site may require only a periodic update, a social media site, once it becomes popular, may require updating and review several times a day. This can be not only to review feedback, but also to investigate and to respond to requests and complaints. As social network sites on topics like transit are regularly reviewed by the media, it is critical that a social network site hosted by a transit system be immediately and quickly responsive. Are the staff hours and resources available for this type of daily interaction?

There is another way to use these sites, which is to monitor public reaction to transit changes (or lack of changes). For example, "Tweetdeck" allows you to monitor blogs and commentary on a wide variety of social networks, including Facebook, Google, Twitter, Myspace and more. It can become a "real time" form of obtaining feedback regarding transit.

A more traditional approach is to write a regular e-newsletter or as-needed news bulletins which can be instantly e-mailed to all subscribing transit customers. This can serve to reduce the amount of information and marketing print materials in which Charlottetown/Trius Transit would otherwise be required to invest.

Charlottetown Area Transit Route Maps

A clean, clear, simple route map which encompasses the service in all three of the municipalities is a 'must have". It is required for the web site and for print materials from bus cards to hand-outs.

The size, look and quality of the new route map will be a key element to re-branding the system. The following elements should be considered prior to developing a new system map:

- The new system colours should be used through the design wherever possible;
- The new logo should be on the front page and/or at the top of the design (depending upon whether it is a folded brochure, web page or newspaper ad, etc.);
- Key contact information must be prominent; and
- The schedule should be easy to read for as wide an audience as possible. This includes newcomers, people for whom English is not their first language, people with literacy challenges, people with some diminishing vision and some people with cognitive disabilities. Charlottetown Area Transit may wish to consider showing the schedule using clock faces rather than numbers. If the schedules are not overly complex, this would require the use of the clock face only when the timing changes – e.g. from a half-hourly service to an hourly service in the off-peak.

The route maps, schedules and all print materials should be developed in a CNIB-friendly font, such as "Verdana"; the colour contrasts between text and background and between route lines and background should be strong and there should be a reasonable amount of white space on materials. Not only will this help readability, but will also create an uncluttered look.

The route maps and schedule should be made available on the web site in a manner that allows viewers to enlarge both the map and the font into a size that meets individual needs.

The quality of the paper and of the printing for a brochure must be carefully considered. A higher quality should be considered if:

- It is unlikely that routes will change for a long period of time; and/or
- The map is created in partnership with the three municipalities and shows all of the roads, regardless of whether they include transit service (If so, this is a map which will be more widely used and will be kept longer).

If it is planned that routes and or schedules will require frequent changes over a period of time, lesser quality, more disposable options may be considered.

How and where the system map is available to customers is almost as important as the map itself.

Mailing a map to each household will not be economically efficient. Instead, Transit staff can consider initially mailing maps to the newly developed service areas, as well as to their main contacts in the business community.

Venues to pick up maps may include the locations of a wide variety of transit partners, such as the shopping mall, the university, the college, major businesses, etc. Transit can create a data base of locations for mailing out maps on a pre-determined schedule to these locations. If in-house resources do not allow for this, City staff may be able to assist, or a mailing house can be used, but at a cost, of course.

Many maps are produced in the greater Charlottetown area and there are partnership opportunities to have transit routes and schedules displayed on these maps. There are also advertising opportunities with a system route map to help defray production costs.

The fact that a version of the map is available on the Transit web site pages would be marketed in as many places as possible on existing materials, on phone lines and of course, on the web site itself.

Bus Cards

Transit may be able to use unsold interior bus card spaces to advertise its own messages, at the cost of printing, only. If some cards are designed to be generic, they can be reused over time. Examples include cards relating to annual Charlottetown Area Transit events which are always at the same time of year (e.g. a Christmas food drive on the buses was suggested by some customers). If printed on good quality stock, the cards can be stored and re-used to cut costs.

As Transit builds new partnerships in the community, it may also be able to sell some of this ad space for additional revenue.

Info Kits for Media, Business and Key Opinion Leaders

Transit does not currently have Info Kits for the media, for politicians or for businesses. Kit covers could be created on a one-time basis and used for years to come. The kit design would wear the new Transit Brand. The kit cover can be used for packages for virtually all of the target markets noted in this document. The covers will add an extra note of professionalism to materials and will also make it easier for transit staff to assemble materials for dissemination at media events, community events and launches.

Customer Service Training

For Transit Employees

To assist employees to provide the best possible customer service, an employee training schedule could include courses provided by any number of agencies. The CUTA Transit Ambassador Course to help drivers provide stellar customer service (www.cutaactu.ca) and the OPTA SkilForm Course to help drivers and staff to serve people with disabilities (www.ontariopublictransit.ca) are both examples of excellent programs available on the Canadian market.

The PEI Newcomers Association offers a multi-cultural education program which is open to transit drivers and the University has indicated that it welcomes Transit staff to attend student orientation sessions in September.

For New Residents

The PEI Newcomers Association holds a monthly information session for new residents. The Association has indicated that it would like to invite Transit staff to give clients an overview of transit at these sessions.

For Seniors

In a number of communities across Canada, students are teaching seniors how to use their public transit system. This is part of their required community service/volunteer hours needed to obtain their degrees. Charlottetown Area Transit may wish to contact the education centres to determine if such a program could be implemented locally.

D) Build Usage and Market Share for Transit Services

Target Marketing Programs to build Commuter Ridership

To target employees for major employers, Charlottetown Area Transit staff should contact the key administrative personnel of businesses and major retailers to identify the most efficient employee communications channel, which may, for example be:

- E-mail bulletins;
- Payroll stuffers; and/or
- Bulletin board memos or posters.

Based upon feedback, Charlottetown Area Transit staff would choose the most popular option and would create or assemble the appropriate material for use to reach as wide an audience as possible. For example, a generic e-mail bulletin for one business may work equally well for another, with simple changes to any references on routes and schedules, as appropriate.

Eventually, Charlottetown Area Transit staff would provide targeted employers with a package of maps and key transit info on an annual basis. These packages could be used to orient new employees, as well.

Transit staff could create a short, generic article, which can be adapted by most employers for their employee newsletters and staff communications materials.

Target Marketing Programs to Build Student Ridership

Secondary and post-secondary school students are identified as a key Charlottetown Area Transit target markets in the Charlottetown area.

As noted in the "Building Community Support" section of the document, contact with senior school board, college and university administrators should be made, wherever possible. Student union leaders could also be contacted, where appropriate. Once contact has taken place and if the key contacts appear to be receptive to Transit, follow-up can take place using the communications channels noted for the Commuter Target Market above.

Additionally, Transit may consider developing Student Transit Ambassadors in the two largest Secondary Schools. This would be one student in each school that is charged with keeping students up to date on "all things transit". These Student Ambassadors would receive maps, schedules and any other pertinent transit print materials, as available. The Student Ambassadors would make the information available to the student population by placing the items in school display racks, on bulletin boards, etc. These Ambassadors would receive e-bulletins from Transit to keep them abreast of changes, detours, etc. In return for their work, the Student Ambassadors could be given a free Student Pass for each semester.

Transit Presence at Community Events

As transit is still relatively new in the greater Charlottetown area, it is important to get residents on the buses and beginning to understand that there is a good transportation alternative available for members of their households. In many communities, Transit is featured to bring people to community events such as Canada Day celebrations, Jack Frost Festival, and the International Shellfish Festival.

Other initiatives such as having buses in parades and providing tours for elementary school children will all help the ongoing marketing efforts.

14.0 GOVERNANCE AND FINANCING

14.1 Governance

The governance structure for the three municipalities that provide transit and Trius Transit was explored as part of the review. The objective was to suggest an effective structure for the planning, delivery and coordination of transit services within the greater Charlottetown area.

BACKGROUND

Charlottetown Area Transit was started in 2005 with a private sector partner (Trius Tours Ltd.). The terms and conditions between the City and Trius Tours were enunciated in a Memorandum of Understanding (MOU) dated October 31, 2005. This MOU laid out general arrangements for the next ten years until the expiry of the MOU in 2015. It also expressed "estimates" of annual operating subsidy and projected revenues which were to be retained by Trius Tours.

The 2005 MOU was revised in December 2006. This MOU was further revised in September 2008. The parties were the City of Charlottetown and now Trius Transit (2007) Inc. This latest Transit Agreement contained two significant features. The first was reference to the contractual arrangements that changed the relationship from a contractor to a partnership by referring to Trius Transit as a "turn-key transit service provider". The second was the addition of transit services to the Towns of Stratford and Cornwall.

In September 2008, the City of Charlottetown and the Town of Stratford entered into a Transit Agreement whereby the Town delegated to the City the operation of their transit system. Similarly, in January 2009, the Town of Cornwall entered into a Transit Agreement also delegating to the City the operation of their transit system. All of these obligations were addressed in the MOUs and Transit Agreements.

PRIVATE VERSUS PUBLIC OPERATION

The decision to contract the operation of transit to a private sector operator was assessed (versus operating the service in-house). Contracting the management and operation of the public transit service to the private sector is most prevalent in the United States where 35 percent of regular transit service and 60 percent of specialized transit is contracted out. In Canada, this is less prevalent, but there are several good examples such as St. Albert (AB), Wood Buffalo (AB), small systems in British Columbia (i.e. Campbell River, Central Fraser Valley, Chilliwack Comox Valley, Kamloops), Corner Brook (NL), Barrie (ON) and Milton (ON).

Experience indicates that the private sector working on contracted service can save the municipality 10-25 percent of the operating costs of the transit service. This saving is not from reduced hourly wages or by skimping on maintenance. It is as a result of management efficiencies and more flexible working arrangements. Some of these contracts provide municipally owned fleet and even the facilities for maintenance and vehicle storage. Others require the contractor to provide a full turn-key contract. Most contracts are for three years with an option to renew for two more years based on performance. Most contracts are based on the revenues going to the municipality and the contractor being paid on the basis of a fee per revenue service kilometre or revenue service hour.

Where the contractor is providing a full turn-key service, there are often built-in incentives, especially if the contractor retains the fare-box revenue. For example, in Lancaster, California, a set

fee is agreed upon. However, if the contractor due to marketing initiatives and customer friendly service is able to increase ridership then a bonus is triggered.

Based on this assessment, it is recommended that the operation of Charlottetown Area Transit continue to be contracted out as a turn-key operation, while the municipal partners retain control over service planning and fare levels.

In negotiating an amended contract with Trius Transit the following factors should be considered:

1. Basing municipal payment as a cost per revenue service hour;
2. Setting the term and cancellation provisions to share risk appropriately;
3. Requiring specific vehicle maintenance schedules to be followed;
4. Permitting the more efficient use of vehicles as one fleet;
5. Specifying more clearly the level of marketing effort expected by the contractor; and
6. Defining specific reporting requirements and periods.

GOVERNANCE MODELS

There are several models of cooperation and integration to provide area-wide transit services amongst municipalities and the arrangements and conditions under which a private contractor must operate. It is also noted that prior to 2005, there was no public transit system and the above noted MOUs and Agreements were based on projections and informal route studies. Trius Transit, in this regard, was given an opportunity to best serve the citizens of Charlottetown, Cornwall and Stratford. As a good corporate partner, they attempted to respond to ridership demand as it evolved to the changing fleet and facility requirements.

However, none of those Agreements spell out a discipline of decision-making and the focus of budget adherence. With all good intentions, Trius Transit undertook service and route changes that sometimes gave a return on investment but sometimes did not. As a corporation, Trius Transit absorbed some of the losses but also made requests for more subsidy.

To introduce more discipline to service delivery planning process and maintain financial stability of the system, the Terms of Reference for this study made specific reference to the issue of Governance. There are four Governance Models that could be considered for Charlottetown Area Transit.

- **Commission Model** - In this model, the three municipalities would form an independent Commission which could be comprised of some citizens at large and representation of municipal councillors. The members would meet monthly to receive reports and authorize actions to the contractor.
- **Council Transit Committee** - In this model, the three municipalities would select a pre-determined ratio of their respective councils. The members would essentially function as the Commission above except that the Committee would be comprised solely of elected officials.
- **Executive Committee/Transit Coordinating Committee** - This model would be composed of senior staff members (i.e. the City Manager and manager of finance or

planning) of each municipality. They would ensure communication to their respective councils and ensure contract compliance and budget variance.

- **Contracted Service** - This model gives the contractor complete freedom within the Terms and Conditions of the contractual arrangements.

This latter model is close to the current arrangement. It must be recognized that this arrangement has been very successful in getting a new service up and running, in generating substantial ridership growth, in negotiating a U-Pass with UPEI and in providing a seamless region-wide transit service. However, neither the municipalities nor Trius Transit are completely satisfied. The municipalities are faced with increasing requests for subsidy and occasionally feel Trius Transit (with all good intentions) is making route and service changes without prior communication and approval. Trius Transit, on the other hand, is absorbing losses, is not able to pre-plan service design and service levels and is exposed to financial risk in further developing potential markets.

Each of these models of governance can be found across Canada and the United States. The success of each depends on history, willingness of municipal councils and cooperation of the contractor. In the contracted services in most provinces (except British Columbia) most transit services are directed under a Commission or Transit Committee. However, in British Columbia and a few systems in Alberta, the contractor is managed by an Executive Committee of staff. This has proven to be a successful model to bridge the communication between the contractor, staff and municipal council. It has also achieved budget discipline and planning/marketing control.

RECOMMENDED MODEL

It is recommended that Charlottetown, Cornwall and Stratford continue with a 'turn-key' contractual arrangement and transition towards greater predictability and more organized communications. The first step is to form an Executive Committee (Transit Coordinating Committee) composed of the CAO's of the three municipalities. This Committee would meet quarterly and discuss topics such as:

- Budget;
- System performance measures and monitoring;
- Common fares and fare programs;
- Routes, schedules and any proposed changes for Tier 1 services;
- Results of Tier 2 Special Services and Trials;
- Funding opportunities to support Tier 3 Service Enhancements;
- Overall service levels;
- Complaints summary and volume;
- Capital budget needs;
- Municipal support for community partnerships involving transit;
- Issues arising from the contract; and
- System performance comparisons with CUTA statistics as expressed in their Fact Book.

Committee members would report back to their respective councils at least twice a year, at budget time and mid-year to report on performance. The contractor would be expected to attend these Committee meetings and provide reports in advance.

To support the Committee and to ensure that day to day issues are dealt with and that communications among the contractor and municipalities is timely, it is suggested that a Transit Coordinator position be designated. This municipal staff position would not be full time and logically seems best housed within the City of Charlottetown. A position description should be developed and some duties might involve:

- Support to the Transit Coordinating Committee;
- Tracking action items from the Committee and approved study recommendations;
- Day to day liaison with contractor;
- Ensuring coordination occurs between city departments (Planning & Heritage, Public Works) and the contractor;
- Ensuring all municipalities are informed in a timely fashion on transit issues; and
- Coordinating transit involvement at special events and municipal promotions.

Several Canadian municipalities provide transit service under contract and will be willing to share best practises with a Transit Coordinator for Charlottetown Area Transit.

14.2 Financial Strategy

Contracting the Charlottetown Area Transit service to Trius Transit has benefited the system with reduced costs compared to trying to establish a municipally operated system. However, Trius Transit has advised that it is not recovering its full cost and the municipality has advised that it is being requested to fund unforeseen budget increases. There are several reasons for this dichotomy:

- The municipalities do not have in place a governance model by which an integrated and coordinated transit service can be operated on a continuing basis;
- In the absence of such a governance model, there is the opportunity for miscommunication and a void in controlling the contractor (other than by budget);
- The revenue stream is low which is to some degree is due to the fare schedule (in particular the U-Pass may be undervalued);
- The contractor is hampered by the fleet being diverse, resulting in high inventory costs;
- The contractor is not being resourced with adequate equipment. For example, a modern fare boxes; front, back and side electronic signage on the bus;
- The contractor is not adequately being supported for street amenities such as bus stop signs, bus shelters and boarding platforms; and
- There is no provincial funding support for operating and capital needs.

While Trius Transit has taken the lead for service initiatives and responding to customer requests, this has led to some concern about accountability and service changes that were not fully

communicated in advance. An effective governance model as outlined in the previous section and an appropriate fare structure as outlined in **Section 14.5** will help address these issues. Further, in examining other contracted services, they are generally not based on a negotiated budget allowance. They generally have an annual cost-of-living allowance and are based on a contracting for a specific number of service kilometre or service hours.

RECOMMENDATIONS

- That the municipalities make allowance in the contract for marketing and communication activities, including a position of Operations Supervisor to free up more time for the General Manager to pursue the many initiatives outlined in this study.
- That the three municipalities agree to continue to acquire the vehicles but develop a single vehicle specification and allow their fleet to be utilized universally throughout the Charlottetown Area Transit service.
- That at the earliest opportunity, the contract with Trius Transit be negotiated to a fee per revenue service hour.
- That the province be asked to provide an annual, dedicated transit operating subsidy to support services in Charlottetown, Cornwall and Stratford.
- That the municipalities complete the Capital Asset Management and Replacement Plan outlined in **Sections 15** and **16** and seek federal and provincial support for capital needs.

14.3 Provincial Funding

In many parts of the country, public transit is in a stronger position today than it has been since the 1950's. Ridership is growing, with a record ridership across Canada in 2007 of 1.76 billion trips which was a 3.1 percent increase over 2006 (CUTA Transit Vision 2040). The environmental benefits of transit are widely recognized, and transit capital and operating investment by federal and many provincial governments has surged over the past five years. The provincial investment represents a recovery from diminished funding in the 1990s, while federal funding for transit projects is a new phenomenon, increasing from zero in 2001 to $240 million in 2005, and over $600 million in 2007 (CUTA Transit Vision 2040).

Several provinces recognize that municipal transit operations address key elements of the provincial agenda and provide incentive based support for capital and/or operational costs. **Appendix C** illustrates the level of federal, provincial and territorial transit funding across Canada. Four of the thirteen provinces and territories invest directly in municipal transit. Out of the nine provinces, four provide dedicated operating subsidy while others provide subsidy in the form or grants which may be spent on transit.

Funding is particularly significant in Ontario, where the provincial government provides 3 cents a litre from the gas tax to support public transit systems. This funding is for both operating and capital costs and is designed to support ridership growth. Therefore, provincial funding is considered an addition to (not a replacement of) municipal contributions. This type of funding has gone a long way to support ridership growth in Ontario. In the greater Toronto area, interregional services similar to the Cornwall/Charlottetown and Stratford/Charlottetown links are 100 percent supported by the Province.

Those provinces that do have a transit funding program do so for a variety of reasons. Their motivations include environmental and social benefits, congestion reduction, support for seniors and 'aging at home' strategies, economic development, land use intensification objectives and equity for the poor and unemployed.

While there are no provincial programs designed to fund public transit in Prince Edward Island, Charlottetown Area Transit has received some capital funding from the province. This came in the form of a Provincial Sales Tax rebate on capital purchases made by the City to develop a public transit system. The PST incentive was available up to a maximum amount of $120,000 and helped to reduce the cost of buses and equipment.

The province is currently considering its potential involvement in funding and implementing public transit service on the island. In 2008, an Island Wide Transit Feasibility Study was completed which concluded with a favourable recommendation for implementing an island-wide transit service. The province has recently issued an RFP to contract with an operator to provide a trial service between Charlottetown and Summerside.

The development of a province-wide transit service is an opportunity for Charlottetown Area Transit ridership and revenue to be increased while overall system efficiencies are improved. For this benefit to occur, it is important to have a seamless connection between such a system and the local service to make transit attractive to potential users.

There is the opportunity to integrate the systems at key nodes and tie into the commuter market already established in Cornwall and Stratford. The local and provincial systems might also develop mutual programs such as 'park and ride' strategies.

Lack of provincial (and federal) funding is also seen as a key issue limiting the growth of Charlottetown Area Transit. There are capital requirements for equipment, facilities and technology upgrades that could greatly improve the transit service but seem beyond the means of the local municipalities to fund. These acquisitions should be candidates for provincial and federal support.

As the Capital Region and given the regional nature of Charlottetown Area Transit, securing additional sustainable funding from the Province should form a part of the implementation strategy for the study recommendations.

14.4 Federal Transit Funding Opportunities

There are federal funding opportunities such as the Federal Gas Tax, the Public Transit Capital Trust, the Municipal Rural Infrastructure Fund and the Transit Pass Tax Credit programs.

Financial support for operating and capital costs is integral for the success of a municipal transit system. Past and present federal funding initiatives targeting public transit are listed below.

- Public Transit Fund – a one-time investment of $400 Million (2005);
- Public Transit Capital Trust - $900 Million (2006) and $500 Million (2008);
- Gas Tax Fund – An ongoing transfer of funds from the federal government to municipalities. Gas tax funds are allocated on a per capita basis and are used for 'environmentally sustainable municipal infrastructures' which includes public transit;

- Building Canada Fund – This fund allocates $8.8 Billion for infrastructure for the period of 2007 to 2014. Spending will be allocated among territories and provinces on a per capita basis, supporting several types of investments including public transit;
- Municipal Rural Infrastructure Fund (MRIF) - $1.2 Billion available to help support smaller scale municipal infrastructure to provide better quality of life for First Nations Communities; and
- Infrastructure Stimulus Fund - $4 Billion to provincial, municipal and territorial infrastructure rehabilitation projects. The fund was available for 2 years (2009-2010) and covers 50 percent of the project costs.

Ideally, transit support in the Capital region should be a three-way partnership among the various levels of government.

14.5 U-Pass

One of the most exciting, transit developments in the past decade has been the introduction of U-Passes at many Canadian Universities and Community Colleges. The U-Pass results from a specific negotiation typically conducted among the transit system, the administration of the post secondary institution and the student association. When implemented all students have full access to transit services, typically by showing their student photo I.D., and the negotiated fee is included in their activity fee on a semester or annual basis.

U-Pass programs can be difficult to launch because of the negotiations involved. There is also a perception by some that a mandatory charge for all students, despite the tremendous discount relative to the value of a monthly transit pass, is unfair to students who are not within the service area or choose not to take transit. Usually a student referendum is required to launch the initiative and experience has shown that once implemented there is a very high approval rating by all parties and subsequent renewals become routine with high approval ratings.

Aside from the specific benefits related to travel cost for students, reduced campus parking requirements, broader location choice for accommodations, reduction of neighbourhood issues, etc, there is the significant benefit that accrues to the environment from the growth in transit usage by post secondary students. U-Passes create demand for and help fund transit services, which could ultimately lead to service improvements for all residents. In many situations, the U-Pass has resulted in more frequent service, including express buses, to respond to demand. These programs have an environmental benefit to the community as a whole and are gradually changing the image of transit and perception of public transit users. After graduation many post secondary students are more inclined to continue using transit for work trips and are more supportive of transit as a key contributor to sustainable communities.

The U-Pass at UPEI was implemented in 2009. Students voted 70 percent in favour of the U-Pass in a referendum in the spring of 2009 and 61 percent in favour of the U-Pass renewal in October 2010. Students used Community Based Social Marketing (Facebook) to gain support for the U-Pass from their peers. The cost of the U-Pass is $25.00 per semester and service availability is extended for the entire year (effectively students staying in the Charlottetown area during the summer have unlimited transit service for $50.00 per year).Ridership from UPEI students is quite high. Results from the passenger survey indicate that 32 percent of riders are UPEI students.

A Universal Pass program has not been implemented at Holland College. In the past, a referendum was held for Holland College students regarding implementation of a U-Pass. At the time, 50 percent of the students voted with 80 percent opposed to the U-Pass. There appears to have been a misunderstanding that the program would be applied to campuses outside the greater Charlottetown area.

Students and the administration appear motivated to garner a universal C-Pass for Holland College students based on affordability, addressing parking issues and support for the environmental benefits of transit. Based on the results of the passenger survey, 12 percent of ridership on Charlottetown Area Transit is from Holland College students and a C-Pass program is expected to significantly increase this ridership.

An important priority for Charlottetown Area Transit is to pursue negotiations with the Holland College student association and administration to implement a C-Pass program. With over 1,500 students in the area, this would add significantly to ridership on the transit service.

Municipalities that have implemented the Universal-Pass have been able to achieve significantly higher service levels and utilization, with reasonable financial efficiency. In St. Catharines, the U-Pass was implemented in 2003. In 2002 total ridership was 3,000,000 and by 2005 ridership had increased to 4,600,000. In Halifax, average monthly transit trips by students increased from 7.5 trips to 14 trips after the first year of implementation (CUTA U-Pass Toolkit, 2004).

U-Pass implementation generally results in a win-win-win situation among the students, administration and transit service and benefits include;

Students:

- Reduced transportation costs for current transit users;
- Opportunity to eliminate/reduce dependence on cars;
- Improved transit service levels, including weekends and evenings;
- Access to improved and more affordable housing options;
- Contribution to sustainable environment;

University/College:

- Reduced parking requirements and frees up space for other uses;
- Higher transit service levels available for faculty and staff;
- Reduced 'town and gown' conflicts as off campus housing is more dispersed;
- Contribution to a sustainable environment;

Charlottetown Area Transit and Municipalities:

- Significant ridership growth;
- New and guaranteed revenue source which grows with enrolment:
- Service level expansion which benefits all users;

- Attracts students to transit and develops future market;
- Improves transit's image and role in community;
- Reduction of 'town and gown' issues;
- Reduced road congestion and parking issues especially near the University and the downtown; and

It is assumed that a Holland College student C-Pass would be priced the same as the UPEI pass. Based on a comparison to other municipalities (**Table 19**) the price seems low, even when the somewhat lower transit service level is considered.

Services that cater directly to students have been introduced and more will be required as ridership accelerates (some cities have designed special express routes to manage peak loads).Other services that benefit all residents will also be required (e.g. frequency improvements, improved weekend services). In negotiating a next round of U-Pass renewals all of these issues should be considered in setting the price.

A logical extension of the student Universal Pass is to apply the same principles to a program for faculty and staff. Such techniques promote transit demand and will help Charlottetown Area Transit achieve financial sustainability while contributing to broader community goals.

Table 19 – Sample U-Pass Pricing in Canadian Universities and Colleges

University / College	Municipality	Municipal Population	University/College Population	U-Pass Price (semester)
St. Thomas	**Fredericton NB**	**50,000**	**2,600**	**$50**
University of New Brunswick	**Fredericton NB**	**50,000**	**1,000 (only graduate students)**	**$50**
Nipissing University	**North Bay ON**	**49,000**	**3,200**	**$66**
Niagara College	**Welland ON**	**48,000**	**24,000**	**$63**
Laurentian University	**Sudbury ON**	**129,000**	**5,100**	**$73**
University of Guelph	**Guelph ON**	**120,000**	**18,000**	**$82**
Thompson Rivers University	**Kamloops BC**	**86,000**	**13,000**	**$49**

14.6 Fare Strategy

Fare increases, no matter how small, are viewed negatively by passengers especially if they perceive that the service has not improved. However, people recognize that fare increases are needed to keep up with inflation and the rising costs of operating and maintaining the system (e.g. fuel cost and wages).

Ideally, small fare increases should be implemented annually in January to avoid large one-time increases to "catch up". Larger fare increases should be tied to introduction of new services, extended service hours or improved frequency of service, provision of new equipment or in response to extraordinary circumstances (e.g. sudden, dramatic increase in fuel costs). This approach will give customers the impression that they are getting appropriate value from the increased fare.

The existing fare structure for Charlottetown Area Transit is illustrated in **Table 20**.

Table 20 - Existing Charlottetown Area Transit Fare Structure

Fare Category	Cash	20 Ride Ticket	Pass
Adult	$2.00	$34.00 ($1.70 per ticket)	$60.00 / month
Senior	$2.00	$34.00 ($1.70 per ticket)	$39.00/ month
Student*	$2.00	$34.00 ($1.70 per ticket)	$39.00 / month
Child (under 6)	Free	Free	Free

**UPEI undergraduate students receive a U-Pass at $25.00 per semester or $50 annually.*

A review of existing fares revealed that:

- Charlottetown Area Transit's 2010 adult cash fare of $2.00 is just under the peer group average of approximately $2.11 and the $2.00 cash fare for students and seniors is slightly above the average of $1.95.
- The practice of a single cash fare for all age categories is effective and easily administered. Setting a high cash fare tends to reduce the number of cash riders and encourages the use of discounted tickets and monthly passes, which in turn increases the usage of the system and reduces administrative cash handling costs. Cash fares should only be adjusted in 25 cent increments and exact cash fares should be required (driver does not make change or sell tickets or passes is a common transit policy).
- The average unit cost per ticket is significantly below the peer group average for adults and is reflective of the peer group average for seniors and students.
- The Adult, Student and Senior Monthly Pass is also below the peer group average.
- The practice of purchasing tickets in a 20 ride book is somewhat unique as most transit systems sell 10-ride tickets. At 20 rides for $34.00, this is almost the cost of a monthly pass for seniors and students and there is little incentive to use tickets.
- The R/C ratio is 39 percent in 2009 which means users are contributing only 39 percent of system operating costs and a target of 45 to 50 percent is suggested.

Based on the above analysis and recognizing the financial pressures on the system, the following fare structure is recommended, to be implemented along with the proposed changes to the service structure.

Table 21 - Recommended Charlottetown Area Transit Fare Structure

Fare Category	Cash	10 Ride Ticket	Pass
Adult	$2.25	$20.00	$65.00 / month
Senior	$2.25	$18.00	$45.00 / month
Student	$2.25	$18.00	$45.00 / month
Child (under 6)	Free	Free	Free

Pricing strategies and incentives should move as many users as possible from cash to tickets and passes. While this reduces the average fare, the conversion of occasional cash riders to become more regular transit users is a key growth strategy.

Recognizing that the contractor retains all fare revenues, the proposed increase should allow the municipalities to negotiate increased service hours or reduced municipal subsidies. The recommended fare structure should increase contractor revenues from passengers by approximately 10 percent.

At $25 per semester ($50 per annum) the U-Pass is priced below the levels common in other communities (see **Table 19).** The low pricing seems to reflect limitations of the service provided and the newness of the system. Nevertheless from the passenger survey 32 percent of users are UPEI students while the U-Pass contributes only about 10 percent of total system costs. It is suggested that the Holland College C-Pass be priced at $30 per semester for implementation in September 2011 and the UPEI U-Pass be negotiated up to $30 also in September 2011. Further $5.00 increments in Pass prices should be pursued annually in conjunction with transit service improvement strategies such as student express services or special shuttles.

The 2009 R/C for the system is 39 percent and the target proposed for the ongoing service is to achieve 45 to 50 percent which would mean the users collectively should be contributing about half the cost of annual operations. The adjustments proposed above will move the system toward this target over the next several years. More dramatic increases in passenger fares and universal pass pricing are not recommended as the negative impact on ridership may be counterproductive.

The modified fare structure recommends:

1. A 25 cent increase in the Cash fare in all categories;
2. A move to a 10-Ride Card tickets for all users and an increase in the fare for adults to bring the price closer to the peer group average;
3. A $6.00 increase in the student and seniors monthly pass to bring the price closer to the peer group average;
4. A $5.00 increase in the adult monthly pass price recognizing the current rate is in line with the peer group average; and

5. Increasing the U-Pass and C-Pass prices in $5.00 per semester increments.

14.7 Extended Transfer Policy

Transfers are typically issued to passengers traveling from one bus route to another to continue travel in one direction and have a time restriction for use (e.g. 30 minutes). A transfer strategy that is more customer-friendly and increases transit use is the concept of an extended time transfer, which allows a passenger for a single fare to have a brief stop over or travel to and from a destination for trips of short duration. A transfer would only need to be day and time specific and not linked to a route or travel direction. Extended time transfers also reduce the number of fare and transfer disputes and are more easily understood by the public.

The extended transfer provides an added convenience for passengers and a benefit for merchants and should not significantly impact the main ridership base (work and school trips). Typically it might allow someone to make a short evening or mid-day shopping trip on a single fare and encourage occasional users to become regular transit users.

An extended transfer of 90 minutes should have minimal impact on revenue and is a preferred strategy to having lower off peak fares which can be challenging to administer. It also facilitates commercial activity at transfer points and helps deal with affordability issues. It will allow people to shop briefly after work without paying a second fare and be well received by users and merchants. The extended transfer should also increase usage in low demand periods.

14.8 Employee Transit Pass Program

Programs for discounted employee transit passes are useful and usually provide a 10 percent to 15 percent discount on monthly pass prices based on achieving specific sale volumes for a minimum one-year enrolment. Negotiations with employers or employee groups should require between 5 and 50 minimum enrolments over a year; with most transit properties setting the minimum between 20 to 25 enrolments for one year. The federal tax credit for transit pass purchase is an incentive that helps market this program. The City of Charlottetown currently reimburses their employees 50 percent of the cost of a monthly transit pass.

However, there is no greater incentive to changing societal patterns that favour private transportation than the provision of U-Passes. As the many successful student programs have already shown, once a person has the transit pass, usage patterns change dramatically and for the better. The opportunity to begin reducing the number of cars per household is real and an important societal goal given the growing concern for the environment and the rapidly accelerating costs of car ownership. Allowing people to more easily make the 'right' travel choice is a frequent comment during the public consultation processes.

Employee U-Pass programs are on the leading edge of development, targeting companies that have a specific commitment to environmental sustainability and public institutions that can be expected to take a leadership position for sustainable communities. Hospitals, schools and government offices in their employer role fit this description. As an example, the City of Guelph, in its last collective agreement negotiation, offered municipal employees a half price transit pass. Further, if the employee surrenders their parking pass privilege, then the transit pass is free.

Based on the above assessment, the following recommendations are made:

1. **Explore Employee Transit Pass Discount Programs**
   Charlottetown Area Transit should look for opportunities to enter into negotiations with major employers to offer Employee Transit Passes. This would involve a 10 to 15 percent discount on the adult monthly pass if purchased for a minimum 12 month period. To participate, employers would need to purchase the equivalent of a minimum of 20 annual transit passes.

2. **Commence Discussion to Implement an Employee U-Pass at Charlottetown City Hall**
   The location of City Hall near the downtown terminal means that all employees who are resident in the city, Cornwall or Stratford have direct and convenient transit access to their jobs along with a good service level. As an employer and a role model within the community, there is a leadership opportunity for the city to develop an employee U-Pass. A transit pass program which provides an opportunity for employees to reduce the number of cars in their households could be developed and made consistent with the city's employee parking policy. As a center for provincial and federal government offices, Charlottetown has a unique opportunity to promote this strategy as a significant Environmental initiative.

14.9 Fare Strategies and Affordability

The practice of discounting fares for key promotions is an effective means of getting people to try the service or use it more. Metrobus (St. John's) used an "Eighties Promotion" to reduce transit fares to a $1.00 during three Friday's in August. This led to the highest ridership in August compared to recent years. While such marketing campaigns are occasionally recommended, deep fare discounts are not recommended as a basis for setting fares. Fare reduction would attract some increased ridership, however, the system needs to achieve a sustainable revenue to cost ratio to maintain effective operations. Several studies have found that level of service is a much higher determinant of ridership than fare pricing (in technical terms, service elasticity is much higher than fare elasticity for transit systems). Therefore, the focus on ridership growth should be on service improvements rather than reduction in fares.

The affordability issue, particularly for seniors, was brought up during the public consultation process. There are various approaches to 'affordability' which should be further explored. Typically, municipal transit services are set up to operate as a 'business' in recognition of the significant expenditures required for capital assets, staffing, and operations and the large municipal subsidies involved. Fare concessions for specific demographic groups such as seniors are typically modest discounts recognizing that the recipients are likely off-peak travellers which may cost the system somewhat less to service than peak period travellers. However, applying large discounts to generic groups such as seniors, assumes all members of that group have affordability issues which is increasingly not the case.

The effect of lower fares for one category is that other users must pay more if the system R/C target is to be achieved. Thus the impact of a significant discount for all seniors will be felt by other users and the situation will only accelerate given the demographic projections for the Charlottetown, Cornwall and Stratford service area.

It is recommended that the issue of 'transit affordability' continue to be a subject for the social service departments. Targeting assistance to those in need, capturing the voluntary generosity of service clubs and individual donors, and determining appropriate levels of municipal direct or

matching support is a sensitive task that requires this experienced judgement. Transit certainly provides a vital social service but it is best operated as a transportation business with social policy decisions (such as large fare subsidies) left to others.

15.0 FLEET STRATEGY

15.1 Current Fleet Review

Transit service in the greater Charlottetown area is operated through a contract with Trius Transit. As reported in September 2010, the fleet is made up of 10 low-floor trolley replicas, 1 low-floor 40-ft bus and 9 older second-hand high-floor 40-ft buses. While the trolley replicas and the low-floor 40-ft buses are owned by Charlottetown, Stratford and Cornwall (and leased to Trius Transit for $1.00), the high-floor buses are owned by Trius Transit.

The average age of the low-floor and high-floor fleet is 13.5 years as of 2010. It is important to note that while the low-floor bus average age was only 6.8 years, the high-floor were significantly older at 21.8 years. The following review of the fleet will describe each main type of bus: the trolley replicas and the 40-ft buses.

TROLLEY REPLICA BUSES

The core of the Charlottetown Area Transit service is provided through a fleet of 10 replica trolley buses purchased by Charlottetown (8 units) and Stratford (2 units) in two lots of 5 units each. These buses have an average age of 7.3 years. The trolley bodies have been assembled by Dupont Trolley of Quebec City. Trius Transit employees have reported that the body workmanship and quality is below standard and that the trolleys are prone to corrosion. The low-floor chassis for the trolleys have been sourced through either Thomas or Blue Bird in the United States. The industry consensus is that both of these bus chassis (Thomas SLF and Blue Bird Ultra LF) come with reliability and parts availability challenges. This has also been the case with the Charlottetown fleet. For example, one of Charlottetown's trolley replica buses has been down from March to at least October 2010.

The engines on these chassis are from Cummins and range in manufacturing date from 2002 to 2004. It is frequent for trolley replica bodies to be built on older chassis that are kept in stock. The engines do meet 2002 emission standards. These buses are all low-floor and are wheelchair accessible through a ramp. They are air conditioned as well. As Charlottetown Area Transit's bus routes are identified through livery, a destination sign is not installed on the buses.

These buses range in length from 30 to 35 feet and offer from 24 to 28 passenger seats. Looking at the buses in service and for which data was available, the average mileage was around 117,000 km as of September 2010. This means that the average annual mileage of the trolley replica fleet is around 29,250 km or half the designed lifecycle of the chassis which is 66,666 km annually as validated by the Altoona Bus Test. Based on test results available in the market, the average fuel consumption for these types of buses is 48 litres per 100km.

As of September 2010, nine of the trolley replicas were running regularly with one being out of service for technical reasons since March 2010. According to the operating company, trolleys are operated 5 days a week on average, using the high floor buses as spares at other times. Half of the trolley buses are equipped with sliding, telescopic ramps which have serious reliability issues and are often nun-functioning. As operators tend to only use the front door for unloading passengers, the rear exit doors also present reliability issues. Finally, the HVAC units have been problematic as well.

40-FT BUSES

High Floor - While the trolley fleet is municipally owned, Trius Transit also uses its own fleet of second-hand high floor buses as spares or when extra capacity is needed. According to the vehicle roster supplied by Trius Transit, there are nine of these buses. All of them are of the 40 ft "Classic" model built by either GMC or MCI from 1984 to 1991. Their average age is 21.8 years old. These buses are not wheelchair accessible. They provide up to 83 percent more seats than the smaller trolley replicas with typically 44 passenger seats in the Classics. The high floor buses use older Detroit Diesel engines that have significantly dirtier emissions than the trolley replicas (at least 60 percent higher for NOx).

Low Floor - In 2010, Cornwall purchased a 40 ft low-floor bus from Transplus Inc. This vehicle is to be leased to Trius Transit and added to the Charlottetown Area Transit service. It is equipped with major components from North America but its design and final assembly is sourced in China from Zhongtong Bus. Transplus Inc. is a New Brunswick based company of about 15 employees founded in 2007. It is importing and distributing these buses for the North American market. On average the vehicles cost 20 percent less than comparable North American made buses. Cornwall is Transplus' first bus customer. The reliability of this bus and the parts availability from China are completely unknown. This model has not been tested at the Altoona Bus Test Center. The bus industry is very competitive and there is a risk that the Transplus business model might not be successful, potentially leaving Charlottetown Area Transit with an orphan bus as well as parts availability issues.

Both high and low floor 40 ft. buses have an average fuel consumption of about 68 litres per 100km.

All municipally owned buses are maintained by Trius Transit under its agreement with the City of Charlottetown. The next section will examine the maintenance practices currently used by Trius Transit.

MAINTENANCE PRACTICES

According to the company's personnel, Trius Transit's maintenance operations are focused on daily and general operations. Buses are serviced by three certified heavy-duty mechanics who also work on other Trius Transit company vehicles (i.e. coaches, tour buses). Trius Transit operates on a preventive maintenance cycle where each bus comes in the shop every three weeks. According to maintenance personnel, the road failure rate is very low. Data shows that the spare ratio is quite high compared to peer systems (see **Table 22** below)

The facility can accommodate two buses at a time with two sets of hoists and no space for any other vehicle. Service bays are located one behind the other with very little space in front and at the rear of them. There is not an additional pit for inspection and routine servicing and all buses are stored outside. In the context of Canadian transit operations with temperatures reaching - 20°C in winter and heavy snow and rain precipitation, this presents a problem. Maintenance employees agree that winter brings the largest number of issues, especially relating to electrical wiring and connections. One positive is the presence and utilization of a bus wash ensuring good outside appearance.

The maintenance department's domains of expertise include air, electrical, brakes, suspension and daily maintenance and repairs. The maintenance shop does not have tools for engine or transmission rebuilds. Similarly, the maintenance department does not offer major body repairs, painting, or air conditioning work. This is typical of small transit systems.

For these services and repairs that they cannot undertake in house, Trius Transit outsources to third party contractors, most located off the island. Major component dealers such as for engines and transmission are located in the greater Halifax region and provide quick response times for parts delivery. When Trius Transit orders from Blue Bird or Thomas (the trolley replica chassis suppliers), normal parts wait time is seven days and for some parts can be much longer. Maintenance employees have expressed the need for more staff training.

In order to better understand how maintenance impacts operations, one has to compare Charlottetown's indicators with its peer transit systems. This will be the focus of the next section.

COMPARISON TO PEER SYSTEMS

Charlottetown Area Transit' statistics and indicators are reported in the 2008 Canadian Urban Transit Association (CUTA) fact book. It is listed in population group 4 (under 50,000 people). Compared to the national peer average for population group 4, Charlottetown Area Transit' service utilization is very low with 4.21 regular service passengers per capita and 7.51 regular service passengers per revenue vehicle hour. The population group 4 averages are 82.28 regular service passengers per capita and 42.04 regular service passengers per revenue vehicle hour. Fleet accessibility is slightly better than average at 59 percent for Charlottetown Area Transit and 56 percent for the peer average despite Charlottetown Area Transit's relatively high average fleet age of 10.3 years versus 8.5 years for the peer average.

Using statistics from the 2008 CUTA Fact Book, the Charlottetown Area Transit operations were compared to the following three small-size Canadian transit systems: Stratford, ON, Welland, ON and Kentville, NS. These systems were selected because of similar fleet sizes and the availability of data. The indicators as reported in 2009 are shown in **Table 22** below, except for operating expenses per revenue vehicle kilometres, which are from 2008.

Table 22 – Peer Comparisons of Fleet and Maintenance (2009)

	Charlottetown	Stratford	Welland	Kentville
Fleet Size	17	14	22	13
Peak Period Requirement	9	10	15	9
Spare Ratio	47%	29%	32%	31%
Accessible Buses	10	8	19	13
Accessibility	59%	57%	86%	100%
Aver. Bus Age	11.3	10.9	7.8	5.5
Rev Veh KM	500,000	567,032	679,351	600,304
Rev Veh Hr	25,200	29,328	29,988	16,185
Reg Service Pass Trips	228,481	579,148	548,515	380,139
Energy Exp.	248,805	344,545	509,070	507,596
Maintenance Exp.	331,750	190,909	425,334	288,279
Reg Service Pass/ Cap	6.28	18.1	11.43	3.75

	Charlottetown	Stratford	Welland	Kentville
Reg Service Pass/ Rev Veh Hr	11.21	20.0	18.29	23.49
Average Speed (km/hr)	19.84	19.33	22.65	37.09
Rev Veh KM / Bus	29,412	40,502	30,880	46,177
Energy Exp. / Rev Veh Km (2008)	0.50	0.62	0.76	0.76
Maintenance Exp. / Rev Veh Km (2008)	0.66	0.34	0.63	0.43

**Note that the fleet information is slightly different than the one for 2010 listed above.

The Charlottetown Area Transit fleet spare ratio (the ratio of spare buses to peak-peak period buses) is 47 percent which is higher than the peer group used. The Canadian average spare ratio, is 17 percent, however, a spare ratio of 30 to 35 percent is typical for other small systems.

Based on revenue vehicle KM per vehicle, Charlottetown Area Transit's vehicles are the least used of the selected sample with 29,412 revenue vehicle kilometres per vehicle per year vs. a sample average of 36,743 km. It is important to put this in perspective as this number might be caused by the high spare ratio of the fleet. According to Trius Transit, the Trolley buses that comprise the peak fleet actually ran about 53,000km each annually.

When looking at operational costs per revenue vehicle kilometres (only available in the 2008 CUTA Fact Book), Charlottetown Area Transit fared relatively well with lower energy expenses ($0.50 per revenue vehicle kilometre vs. average of $0.66) while maintenance expenses were the highest of the group ($0.66 per revenue vehicle kilometres versus average of $0.52). It is worthwhile to note that in 2006 (only other year showing maintenance costs), maintenance expenses for Charlottetown Area Transit were lower at $0.32 per revenue vehicle kilometre and energy expenses were similar at $0.47 per revenue vehicle kilometre.

FLEET AND MAINTENANCE ISSUES

The description of Charlottetown Area Transit's fleet and maintenance as well as the comparison with other systems highlights three main areas of concern for the present fleet: low fleet utilization, fleet mix and accessibility. Underlying these issues is the limited amount of maintenance resources at the disposal of Trius Transit coupled with the increased costs of maintenance (per kilometre maintenance costs have doubled in two years).

LOW FLEET UTILIZATION

Data indicates that the Charlottetown Area Transit fleet is underutilized compared to its peers. As stated previously for the Trolley Bus Replicas and confirmed in **Table 22**, the Charlottetown Area Transit buses run approximately 29,000 km per year or half the designed service profile. Furthermore passenger occupancy is the lowest of its peer group with only 7.51 regular service passengers per revenue vehicle hours (less than half the average of the peer group). It is important to note that according to Trius Transit employees, the University route does experience full loads some of the times, even with larger 40 foot buses.

Another indicator of fleet inefficiency is the high spare ratio of the Trolley Replicas. Common industry practice is to run newer buses longer than older units that are used as spares during peak

service. While the overall fleet spare ratio of 35 percent is comparable with peer systems, Trius Transit personnel indicated that the Trolley Replicas were used only 5 days per week, thus indicating a ratio of 40 percent which is worse than the peer group average. This is caused by the low throughput of the maintenance operations as well as the lower than average reliability of these buses. As Trius Transit is using its own fleet of older high-floor buses to compensate for the trolley replicas unreliability, its costs are increasing with a negative impact on the present financial arrangements with the city.

NON-STANDARDIZED FLEET

Fleet choices made for Charlottetown Area Transit were not based on lifecycle costs and reliability. The Trolley Replicas are a niche product that is not commonly used in a heavy-duty revenue service environment such as municipal public transit. The fleet composition is not standardized and the buses are unreliable. Trolley Replicas and older Classic 40 foot buses drive up maintenance costs which are the highest of its peer group. Even the trolley replicas are not standardized as they are built on two different platforms (Blue Bird and Thomas). The recent acquisition of a Chinese made bus presents a high risk of ending once again with an underutilized and hard to maintain bus. A fleet that is too diversified drives up parts inventory costs and makes it difficult to standardize preventive maintenance practises. More training and more types of tools are required to address different bus makes which in turn increases maintenance costs. As the bus fleet becomes due for replacement, Charlottetown Area Transit should favour the selection of standard transit buses with a proven service history in the Canadian environment.

Of prime concern regarding availability is Trolley replica #510 which has been out of service since March 2010. Technical issues for this bus are mostly related to the electrical system and started just after initial delivery. Trius Transit has spent over 100 hours trying to fix the bus and many attempts were made to replace components with no improvement. At this point Trius Transit has decided to focus on current maintenance needs and leave the bus alone. According to Trius Transit personnel, bus #510 is a one-off and the issues have not appeared in the other trolley replicas.

ACCESSIBILITY PROBLEMS

Early on Charlottetown Area Transit made a conscious effort to invest in a wheelchair accessible fleet. Increased accessibility is expected to be a part of any transit system service standards. It allows for shorter dwell times and takes into account the needs of an aging population and people with strollers as well as those using walkers and wheelchairs. The unreliability of the trolley replicas and their accessibility equipment (a majority of them are equipped with telescopic ramps which are prone to corrosion) has severely compromised Charlottetown Area Transit's ability to provide a fully accessible service. Furthermore, the under utilization (5 days per week) of the trolley replicas, the use of non-accessible spare buses and the unreliability of the ramps have undermined this effort further.

SWOT OF CURRENT FLEET

Based on the current state of the fleet, the following table summarises the strengths, weaknesses, opportunities and threats of the Charlottetown Area Transit bus fleet.

Table 23 – SWOT of Current Fleet

Strengths	Weaknesses
• Strong image related to Trolley Replicas • Trolley Replicas are more fuel efficient than 40 ft. buses • Good parts availability for 40 ft. Classic buses which are used as spares • Willingness of Trius Transit to invest in the Classics to provide spares	• Reliability of bus platforms (Thomas and Blue Bird) is lower than average • Maintenance facility is inadequate • Outdoor storage is undesirable • Lack of fleet standardization • Under utilization of buses • High maintenance costs per km • Relatively low accessibility ratio despite Low Floor bus acquisitions • Ramps are not reliable and Classics are not accessible • Limited OEM support on the island
Opportunities	**Threats**
• Under utilization might translate in longer service life • High-floor buses are at the end of their life and replacing them would not cause any issue	• Increasing operational costs • Inability to meet on-street service requirement if fleet availability diminishes • High risk attached to low-floor bus acquired from Transplus • Reliance on buses owned by Trius Transit

RECOMMENDATIONS

Recommendations are based on the issues identified above; they will address three goals: vehicle availability, fleet standardization and accessibility. Achieving these goals will be done through maintenance-related actions, fleet rationalization and infrastructure investments. A side benefit of addressing the first two goals would be improved control of maintenance costs. The table below summarizes the recommendations, their scope range (term of action and budget if available) and which goals they address. Closing comments of the section will address performance indicators for monitoring the maintenance function.

Table 24 – Recommended Fleet Strategies

Recommendation	Scope	Goals Addressed
1. Determine mechanics training needs and invest into skills development.	Short to medium term. Low costs.	Vehicle Availability
2. Invest in adequate equipment and tools based on assessment of department assets.	Short term. Low to medium costs.	Vehicle Availability
3. Store bus indoors to minimize vehicle wear and tear and improve reliability.	Medium to long term. Medium to high costs. Could be achieved through a temporary structure or re-location.	Vehicle Availability
4. Repair and put back into service Trolley Replica Unit #510 that has been out of service since March 2010	Short to medium term. Unknown costs.	Vehicle Availability Accessibility
5. Implement an annual corrosion proofing program.	Short term. Low cost.	Vehicle Availability.
6. Expand and renovate the maintenance facility, providing for transit at least two bays with hoists and one maintenance pit.	Long term. High cost.	Vehicle Availability.
7. Retrofit telescopic ramps with fold-out units.	Short to medium term. Medium costs.	Accessibility
8. Implement a fleet replacement program based on standardization, lower life-cycle costs and accessibility.	Long term. High costs.	Vehicle Availability Accessibility Fleet Standardization

BENCHMARKING AND KEY PERFORMANCE INDICATORS

The maintenance cost increases shown in the performance indicator section are a matter of concern. As the Trolley Replicas get older, it is expected that maintenance costs will keep increasing until they reach retirement (expected at an age of approximately 10 years). Keeping track of maintenance performance would enable the municipalities and Trius Transit to understand operational cost increase as well as decide when to retire certain bus models and invest in maintenance capital (human, equipment or infrastructure) to increase efficiencies.

Based on accepted practices, it is recommended that the following indicators be tracked and reported as part of the contract between Trius Transit and the City of Charlottetown / Town of Stratford and Cornwall:

- Mean Distance between Failures (MDBF);
- Turnaround Time (Days);
- Annual Maintenance Cost per Vehicle (including Maintenance Cost per Age);
- Number of Missed Preventive Maintenance Events; and
- Daily Fleet Availability.

15.2 Fleet Expansion / Replacement Strategy

As reported in the CUTA Fact Book, Charlottetown Area Transit's 2008 ridership was about 190,000 passenger trips and was achieved with 17 vehicles. Comparable systems such as Welland, ON or Kentville, NS were able to reach more than double that ridership number with fewer vehicles, including spares. While the fleet ownership is split between Trius Transit and the municipalities, under present operational conditions the core Trolley Replica fleet is not able to meet present and future service demands and additional spare buses are needed. Furthermore, the high-floor buses will need to be retired in the near term and the issue of full accessibility should be addressed.

A proper fleet expansion or replacement strategy must be implemented once Charlottetown Area Transit achieves industry standard fleet efficiency levels. To achieve acceptable levels of performance, Charlottetown Area Transit should be able to make do with 13 reliable vehicles, providing for a spare ratio of 30 percent. By the same token, proper maintenance infrastructure and practices must be put into place to support this fleet strategy.

While Charlottetown Area Transit's maintenance operations and infrastructure should be upgraded to industry-accepted standards, the current vehicle roster presents a challenge in terms of model reliability and manufacturer support.

The following objectives should be addressed when putting together a fleet replacement strategy for Charlottetown Area Transit:

1. As operational efficiency will meet industry standards, the fleet size should go from 20 in 2010 to 13 units in 2017.
2. Trolley replica unit 501 which is disabled since March 2010 should be retired as soon as possible.
3. Remaining Trolley replicas should be retired no later than after 12 years of life.
4. Pre-1990 40-ft high floor Classic buses should be retired in the next two years.
5. The Transplus 40-ft low-floor bus should not be kept for more than 10 years of life.
6. The objective should be for the fleet to be composed of about 50 percent 40-ft and 50 percent 30-ft heavy-duty transit buses. This would provide optimum flexibility and allow for the opportunity to run buses which are more fuel efficient on lower demand routes or at lower demand times. Examples and a description of the type of buses being recommended is shown in **Table 25**.
7. New buses should be acquired at a rate of no more than 2 units per year to allow for an easier transition for maintenance while reducing capital pressures on the municipalities.
8. In each acquisition year, new buses being delivered should be of one model only. Delivery of two different models in a year could put too much pressure on the operations.

The following table shows an example of a fleet replacement plan for Charlottetown Area Transit based on the objectives listed previously. Budget costs for this acquisition plan are approximately $900,000 per year from 2012 to 2017. Each bus model could be acquired through a 3-year contract with 2 buses to be delivered annually.

Table 25 - Charlottetown Fleet Replacement Strategy

			2010	2011	2012	2013	2014	2015	2016	2017	2018
	Build Year	**Build Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**	**Qty**
Trolley Replica	2002	4	4	4	4	2	2				
Trolley Replica	2003	5	5	5	5	3	3	1			
Trolley Replica	2004	1	1								
Transplus	2008	1	1	1	1	1	1	1	1	1	1
Classic	1984	1	1	1							
Classic	1986	2	2	2	1						
Classic	1988	1	1	1	1						
Classic	1989	1	1	1	1						
Classic	1990	3	3	3	3	3	3	3	2		
Classic	1991	1	1	1	1	1	1	1	1		
40-ft HD Bus	2012	2			2	2	2	2	2	2	2
40-ft HD Bus	2013	2				2	2	2	2	2	2
40-ft HD Bus	2014	2					2	2	2	2	2
30-ft HD Bus	2015	2						2	2	2	2
30-ft HD Bus	2016	2							2	2	2
40-ft HD Bus	2017	2								2	2
Total	**2018**		**20**	**19**	**19**	**14**	**16**	**14**	**14**	**13**	**13**
Average Age			**13.6**	**13.5**	**13.1**	**10.6**	**10.3**	**8.6**	**2.8**	**1.5**	**2.2**

The proposed replacement 40-ft and 30-ft buses are described in the table below.

Table 26 - Description of Proposed Replacement Buses

Description and example of make/model	Floor	Lifecycle (years/ 000s km)	Length	Seats	Budget	Fuel Economy (l/100km)
Monocoque (for example Eldorado EZ Rider II) 	Low	12 yr/800	30'	35	$ 375,000	48
Monocoque, full size for example (Orion VII Next Gen) 	Low	12 yr/800	40’	35 to 42	$450,000	68

15.3 New Bus Technologies

Some innovations and technologies are currently being implemented in transit bus fleets across Canada and should be considered by the municipalities and Trius Transit through a retrofit program or during the acquisition of new vehicles. These technologies include maintenance management systems (MMS), electric cooling and on-board surveillance cameras.

MAINTENANCE MANAGEMENT SYSTEMS (MMS)

Most transit systems in North America use software to manage their maintenance operations. This provides them with the tools to centralize data, schedule jobs and keep track of performance. These tools also provide transit systems with the opportunity to reduce inventory costs and decrease costs through better-managed warranty claims.

Implementation of maintenance management software is relatively straightforward throughout the industry and requires some staff training.

ELECTRIC COOLING

A transit bus engine cooling fan is operated through a hydraulic system that draws parasitic load from the engine. For the past 5 years, electric cooling systems have been developed through the utilization of increased air cooled alternators and electronically controlled electrical fan arrays. These systems that cost about $25,000 per unit as a retrofit, can reduce fuel consumption by 15 to 20 percent as demonstrated by the Société de Transport de Montréal in a pilot project. Depending on the bus size and considering the annual mileage, these systems could allow for fuel cost savings of $2,100 to $4,000 annually.

FARE BOX SYSTEM

Collection of passenger revenue is somewhat informal on the current system. As other Canadian transit system upgrade their equipment the opportunity to acquire used, reliable and standardized fare collection systems should be pursued.

ON-BOARD SURVEILLANCE CAMERAS

While transit bus surveillance camera systems are associated with larger cities they could also offer clear benefits to operations the size of Charlottetown Area Transit. Cameras offer benefits in terms of operator and passenger safety, accident investigation and overall liability for all parties involved. Systems can record event data or even broadcast information wirelessly to central dispatch depending on options selected. Some systems can start as low as $2,000 per bus depending on options and manufacturers. If Charlottetown considers testing or installing camera systems it should include an analysis of privacy implications for the transit operations. Information on the matter can be found by contacting the Canadian Urban Transit Association (CUTA).

16.0 INFRASTRUCTURE AND TECHNOLOGY

16.1 Transit Terminals

Transit terminals form an important component of a transit system. The proper placement of a terminal should be within walking distance of major destinations and should also facilitate transfers without significant delay to bus operations Terminals must also be located in a safe and secure area that is well lit and active. Real and perceived safety for transit users is an important component of terminal design, particularly at night.

The safe, effective and efficient design of a transit terminal requires that buses always move in a forward direction (flow through operation), bus bays are assigned to specific routes for ease of passenger access/transfers, passenger and pedestrian movements are accommodated (to the maximum extent possible) without crossing active traffic lanes or between buses and buses are able to move effectively to and from the road network, perhaps using transit priority measures. This means visible and simple signage, placement of maps and schedules, paved surfaces and raised platforms (curb level) to ease boarding for persons with mobility issues, and placement of passenger amenities such as benches and shelters to improve comfort while waiting for a bus. It is also important that effective branding of the transit system is in place.

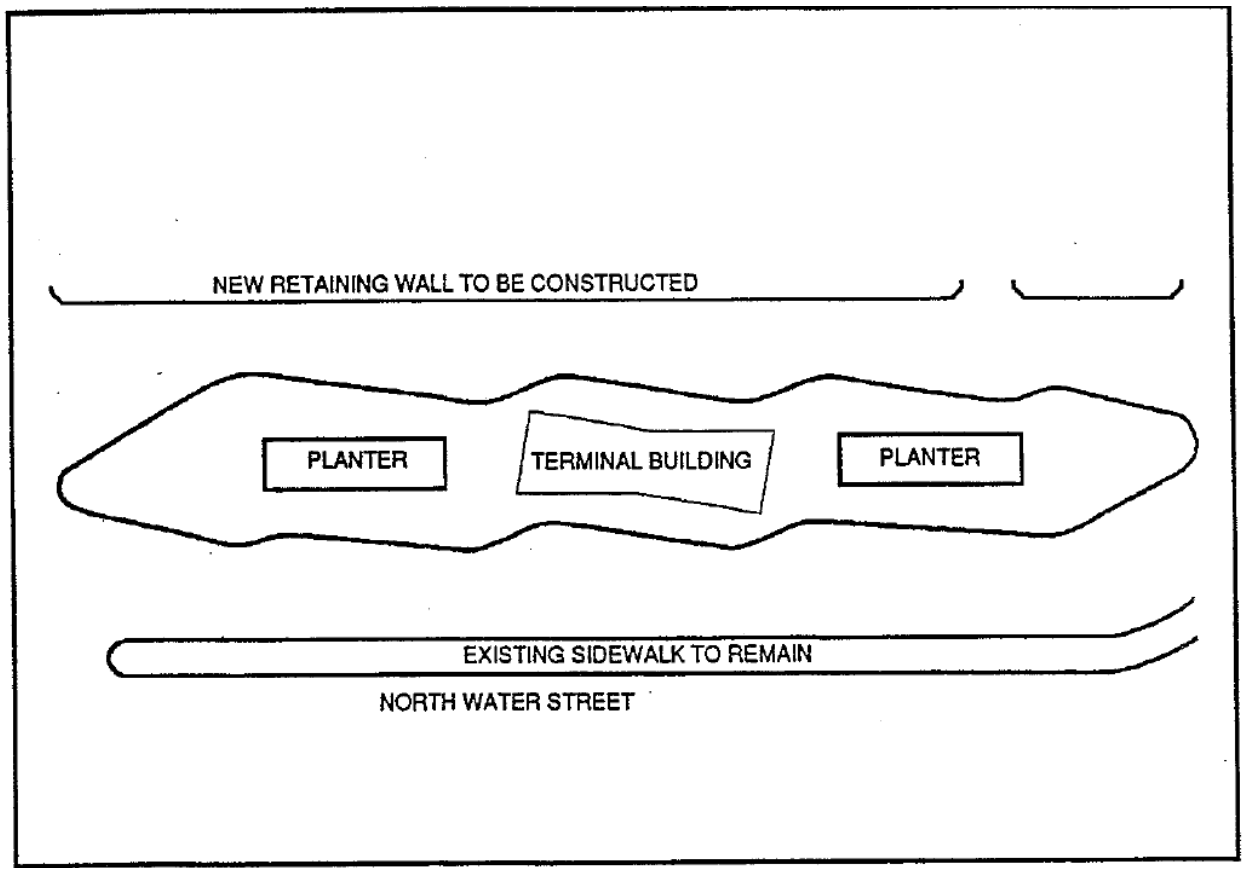
The two terminal locations proposed in the recommended routing structure are in the downtown and at the Charlottetown Mall.

For the downtown terminal, a new on-street location is proposed on the south side of Grafton Street between Queen Street and University Avenue. This is an appropriate location that is in close proximity to a number of major destinations within the downtown core. The design should include five bus bays to accommodate the four peak period routes and a future expansion route. The design must allow buses to enter and leave the terminal without having to back up.

The north terminal is located in the parking area of the Charlottetown Mall. Currently the terminal is able to accommodate two buses pulling up at the curb. It is suggested that this terminal be re-designed to accommodate five to six buses. This includes four peak period buses under the recommended strategy and room for two additional vehicles (Zone bus, Industrial special, future expansion). Ideally, a single platform design to accommodate three buses on either side of the platform could be provided. There is significant time lost with the current bus routing on the Mall property and it is suggested that a location closer to University Avenue (with appropriate passenger shelter) be considered. An example of the preferred type of terminal is illustrated in **Figure 31.**

When a transit terminal is located on private property there is usually a formal agreement between transit and the property owner setting out terms and conditions for operations, maintenance and modifications. In many cases transit is fully integrated into the surrounding land use functions and the terminal becomes a 'mobility hub' integrating various transportation modes and acting as a catalyst for adjacent development that is transit supportive.

Figure 31 – Sample Off-Street Transit Terminal Layout



Source: Ministry of Transportation Ontario Transit Terminal Planning and Design Guidelines

16.2 Bus Stops

It is important for bus stops and associated street furniture to also be branded. The existing bus stops seem temporary, which is not the image of a sustainable service.

In many of the peripheral areas of Charlottetown and in Cornwall and Stratford, bus stops are not in place. The policy in these areas is that any stop sign or traffic signal along a transit route will serve as a bus stop and passengers can inform the drivers where to stop or can flag down a bus for boarding. While this provides a high degree of flexibility for the transit passenger, it does take away from the branding of the system, particularly for the new user who may not know where to wait for a bus. Also as routes become busier, having frequent bus stops will slow down the service, inconvenience the majority of users, limit the potential to expand coverage and make the service less reliable.

It is recommended that Charlottetown Area Transit drop this practice (except in exceptional circumstances) and install standard bus stop signs in all areas. Designated fixed stops will also

provide a greater opportunity to enhance passenger amenities at the stop, including passenger information, shelters, an accessible concrete pad (particularly important during the winter) and benches. It is generally recommended that bus stops be located at the near-side of the intersection if there is a stop sign. This prevents buses from stopping twice (once at the stop sign and once at the bus stop). If the intersection has no stop sign then a far side stop is preferred.

At signalized intersections, the placement of the bus stop on the far-side can reduce the number of times a bus needs to stop, particularly if there is a long queue at the light (a bus may have to stop once behind the queue, once at the stop and again if the light turns red while boarding/alighting passengers). Bus stops at the far-side of signalized intersections can avoid this situation if the bus reaches the intersection when the light is green and a far side location is generally recommended.

Mid-block, bus stop locations should be avoided unless the distance between two intersections is long or when a particularly important destination is located at mid-block. Mid-block locations increase the uncontrolled interaction between cars and pedestrians caused by pedestrians crossing the street at mid-block. If such locations are required, a pedestrian cross-walk should be considered.

16.3 Shelter Warrants

The presence of shelters at terminals and any transfer points should be a priority, and shelters should offer protection from the elements (wind, snow and rain). Shelters can be designed in a uniform, identifiable way that provides a "transit presence" in the area and helps establish the transit brand. This is illustrated in **Figure 32** below.

Figure 32- Typical Shelter

Location warrants for bus shelters are often included in the service standards for public transit systems. The following factors (in order of priority) have been used in some transit systems and may be considered for Charlottetown Area Transit.

1. High passenger volume boarding areas (i.e. all bus transfer locations);
2. Areas with poor microclimatic conditions (i.e. wind tunnels);

3. Inbound locations on routes are preferred over outbound locations;
4. Stops with high senior's usage;
5. Stops that are fully accessible to and used by persons with mobility aids;
6. Stops with good lighting and visibility to minimize instances of vandalism (i.e. along major arterial roads); and
7. Highly visible areas for advertising purposes.

The process of selecting shelter locations should be transparent and based on a clear rationale and criteria as indicated above.

Charlottetown currently has 24 shelters, Stratford has 8 and there are none in Cornwall. Most transit systems target a 15 percent shelter to stop ratio which may be appropriate for Charlottetown Area Transit.

Recommendations:

1. The municipalities should initiate feasibility studies (with property owners where applicable) for shelter implementation at primary destinations and transfer locations such as Charlottetown Mall and Downtown Terminals, the transfer location in Stratford (at the Hillsborough Bridge), Queen Elizabeth Hospital, UPEI, major shopping areas, etc.
2. The municipalities should adopt and apply a set of standards for bus shelter location criteria (as outlined above). Putting this type of standard in place will require the monitoring of passenger boardings at specific stops to determine the priority locations for shelters. This can be done annually as part of an overall ridership-tracking program. Once shelters are in place, vandalism and maintenance should also be monitored. This will help track if certain locations are subject to more instances of vandalism and help in the decision making of shelter provision and removal.
3. The municipalities should adopt a consistent shelter design throughout the system to help create an identifiable brand. This will also help standardize maintenance and parts for shelter repair. The specs for the shelter should include adequate space for advertising and transit information. The material and design should ensure good visibility for waiting passengers (thus safety), standardized features for those with visual impairments, and provide appropriate protection from wind, rain, snow and sun. The dimensions and placement should allow persons with mobility devices enough room to access the shelter. Transit information should be displayed and opportunities for shelter-based advertising should be sought to off-set the capital and maintenance costs of shelters.
4. The municipalities should identify an annual budget for shelter provision. The cost of a shelter can range from $3,000 (i.e. standard Daytech glass shelter) to $10,000 for an upgraded shelter model. For the purposes of this review, it is assumed that shelters would cost $3,500. Therefore, it is recommended that a budget of $10,500 to $15,000 be set aside for the addition of 3 to 4 shelters per year. The maintenance and repair functions would continue as contractor responsibilities.

16.4 GPS Review

Geographical Positioning Systems (GPS) are the backbone of any Intelligent Transportation System (ITS). In the context of transit operation, they can provide valuable real-time information to passengers as well as supervisors. For future technology applications, GPS is at the heart of automated fare collection, passenger counting or passenger information systems.

Currently the bus operators are supervised by Trius Transit's division manager. Questions from users and passengers are addressed by the office staff with support from one employee from the tour division of Trius Transit. The topics that are the most frequently queried include schedules, directions and information on delays and waiting times.

Because Charlottetown Area Transit's headways are 30 and 60 minutes, service reliability is more sensitive to weather and detour interruptions or delays. For these reasons, Charlottetown Area Transit would be an ideal candidate for the deployment of an automated vehicle location (AVL) system feeding a real-time passenger information system. In this system, each bus would be equipped with a GPS unit that would send real-time location information to a central dispatch through the cellular network. An example of what the information looks like for the San Francisco area can be viewed on the following web link:

http://www.nextbus.com/predictor/publicMap.shtml?a=actransit&r=B .

An AVL provides benefits to the passengers and to fleet operations. For passengers, real-time bus arrival information is displayed through Web, SMS or e-mail on mobile phones or computers. It will tell them when their bus is supposed to arrive at a given stop and if late, will give an accurate estimate of delays. For fleet managers, AVL systems can generate on-time reports for routes or specific drivers, provide indications of service disruptions and reduce response time in cases of emergencies.

AVL systems also provide the opportunity to improve accessibility for visually as well as the hearing impaired individuals. Most AVL providers offer the option to use GPS data to feed an on-board audio and visual next stop annunciation system.

In Canada, some small and medium sized municipalities have implemented AVL systems for passenger information and accessibility benefits; they include St. John's in Newfoundland and Guelph and St. Catharines in Ontario.

In terms of budget, AVL systems can cost from $2,500 to $5,000 per bus depending on options with a monthly system access fee of $50 to $100 per bus. A centralized monitoring system would also need to be in place.

17.0 ACCESSIBILITY STRATEGY

With an aging population, Charlottetown Area Transit has the potential to tap into this typically transit friendly market. The passenger survey revealed that only 1 percent of users are senior citizens and this group makes up 15 percent of the greater Charlottetown area's population. While there may have been some 'under reporting' with this passenger survey, it was confirmed by observation that seniors are not as prevalent on Charlottetown Area Transit as found in other municipalities.

With an aging society there are increased accessibility needs. Challenges of using the system include being able to access bus stops (particularly during winter) or accessing the bus (when the high floor 40 ft Classic buses are in use or the ramps are not functioning). Persons with disabilities have also expressed a desire for a more accessible transit system to promote mobility within the community. While there is an accessible demand responsive service provided by Pat and the Elephant, this service has limited hours and the cost can be prohibitive for some individuals.

The term accessibility also applies to the public's ability to understand how to use the bus service, and the communications strategy proposed in **Section 13.0** of this report is important, particularly for newcomers.

Achieving a fully accessible system should be a key priority for Charlottetown Area Transit. This will not only benefit persons with disabilities, but also an aging population, families with strollers, tourists and newcomers. It should be noted that while improving accessibility is a immediate strategy, full implementation will occur over several years as it requires the gradual replacement of some existing vehicles, addressing current ramp issues, developing policy, providing training, and making the infrastructure near transit stops more accessible.

The following steps are recommended for moving forward.

1. **Designate Certain Routes as 100 Percent Accessible Transit Routes -** The Transit industry has generally standardized their bus fleet to low-floor buses. Some have added a kneeling feature and others have added a ramp. Such buses should continue to be purchased by Charlottetown Area Transit for both vehicle expansion and replacement. Retrofitting some buses with improved ramps and adopting procedures to increase reliability are priorities.

   Moving towards a fully accessible system is an important goal and phasing in new, fully accessible buses will help meet immediate accessibility needs of persons with disabilities and seniors. In the short-term, Charlottetown Area Transit should designate certain routes as low-floor accessible routes. Only low-floor buses with reliable ramps should be assigned to these routes, including spares if regular buses are out of service. The message to the passenger is that a low-floor bus is available at all times of the day on this route. Based on ridership, the two primary routes to initiate as fully accessible are the Community Bus and Route 1: University Avenue.

2. **Develop a Travel Training Program** - Travel Training is a concept that assists new passengers that are unfamiliar with or anxious about using the transit service . The program should be targeted to seniors, persons with disabilities, newcomers and students. A 'mobility trainer' would be made available to show new users (typically in groups) how to use transit.

This could involve everything from how to read a schedule, where to catch the bus and assistance in using the bus for the first time. It is recommended that Trius Transit partner with several stakeholder groups within the greater Charlottetown area to assist in travel training, including the Seniors Resource Centre, the Association for Newcomers, and the Accessibility Council. The concept would be to 'train the trainer' to provide the ability for these groups to assist their own members.

A partnership with local high schools might also be effective whereby students could apply their community service requirements to being 'travel buddies' for seniors or others requiring special assistance. Linking Charlottetown Area Transit with local high schools through Transit Ambassador and 'travel buddy' programs is a key strategy for long term market growth.

3. **Snow Clearing** – Winter conditions make it more difficult for many users with disabilities (particularly with mobility or vision impairment) to access bus stops because of snowdrifts and banks on sidewalks and around transit stops. Timmins Transit (Ontario) reports an 85 percent reduction in its registered paratransit passenger's usage of the low-floor, fixed-route system during the winter. Stratford Transit (Ontario), on the other hand, does not have this same degree of passenger loss in the winter because of an excellent snow clearing program. Therefore, for this strategy to be successful in the greater Charlottetown area, snow clearing should be coordinated with the Public Works Department and prioritized at bus stops, shelters, and sidewalks on 'accessible' transit routes. Budgets will need to be increased.
4. **Street Curbing and Sidewalks** - The implementation of low-floor bus routes will need to be coordinated with the curbing of roads. Low-floor buses that stop on sections of the road that do not have street curbs or sidewalk connections will create accessibility problems for some passengers. This level of accessibility provision should also be part of the site plan approval process for any new developments.
5. **Driver Training** - A successful program will require bus driver training, particularly sensitivity training. This should be done before any routes are designated as low-floor accessible. The Canadian Urban Transit Association has a number of programs that could be used and the Newcomers Association could also assist.
6. **Low-Floor Bus Policies and Procedures** - A policy should be developed regarding the types of wheelchairs and other devices that can be accommodated on board low-floor buses and the level of assistance drivers are required to give to passengers. This should be clearly communicated to all drivers and the public on the Transit web site. For large systems, the expectation is that passengers with a wheelchair are required to secure themselves on buses without driver assistance. Companions or attendants may be required to assist certain passengers. This will help to ensure that significant delays in the bus schedule do not occur when accommodating persons with mobility devices. An important component of the travel training program will be how to secure a mobility device.

18.0 OTHER STRATEGIES TO ENCOURAGE TRANSIT RIDERSHIP

The effectiveness of public transit is directly tied to the structure of the land use it services and the degree of integration with other transportation opportunities. Many of the recommendations presented in this report focus on 'supply side' solutions. The following strategies focus on ways to influence transportation demand. This will encourage ridership growth without investing heavily in capital or operating costs.

18.1 Parking Policies

Low price, readily available parking and the lack of significant road congestion create a situation where the private vehicle is the preferred choice of travel. Limited parking in the downtown area is seen as a major issue and transit is a potential solution.

Parking is potentially the most significant driver of choice for transit use as many aspects of parking management significantly influence the decision-making process of commuters when determining their mode of transportation.

The 2006 Downtown Charlottetown Parking Strategy found there was a high parking utilization, and that parking fees and fines were not high enough. In addition, many stakeholders identified parking as an issue. Some stakeholders identified the lack of parking downtown as a barrier to business while others felt that parking is inexpensive and its availability facilitates auto use and thus forms a deterrent to using transit.

To encourage transit use, a parking strategy should provide disincentives to single-occupant vehicle use particularly regarding all day parking. By addressing parking issues in Charlottetown, transit ridership and revenues can be increased and a more competitive transit system developed.

18.2 Land Use and Transit Integration

Land use is another key determinant of an individual's transportation choice. Land use that is supportive of transit service will attract a much larger pool of potential riders without having to invest as high a cost in the level of service, as is required in an area that is not transit supportive.

Promoting transit supportive development can be accomplished through policies and practices that influence urban structure, mix of land uses, density of development, distances to transit services, design of corridors/right-of-way and provision of pedestrian amenities. Encouraging transit-supportive development is not a matter that can be dealt with by focussing on one subject alone (e.g. density). Rather, it requires a system of policies working together to encourage high-quality, transit-supportive communities.

While there is not much development planned within the greater Charlottetown area, there are some intensification opportunities and growth is expected in outlying areas (i.e. East Royalty and areas in Stratford). For land use to be more supportive of transit, guidelines and process must be in place that support the objective of increasing transit's mode share. This includes planning and design initiatives to improve pedestrian access to bus stops and establishing Transit Supportive Development Guidelines. The emphasis of these guidelines should include Density, Diversity (mixed use development), and Design. All plans of subdivision and site plans should be reviewed under the criteria established in the guidelines and input from transit operations should be obtained at an early stage. Most importantly, the location of new development should be encouraged at or

near existing transit routes (especially the University Avenue spine) rather than requiring transit service to be extended to the new development.

18.3 Integration with Active Transportation and Ride Sharing

Integrating transit with other modes of transportation can help improve the overall efficiency of the transportation system and connectivity within the greater Charlottetown area. Integration can also help to increase ridership by attracting pedestrians and cyclists to use transit for some of their trip making (e.g. longer trips, travel in adverse weather conditions) and consideration should also be given to installing bike racks on buses.

Some individuals are recognizing the health, environmental and financial benefits of reducing their dependence on the private auto. This may mean a household moving from three cars to two or from two cars to one. By addressing some of a household's transportation requirements, transit can assist the household to reduce car ownership levels and as individuals become more comfortable using transit the travel behaviour shift will accelerate.

18.4 Transportation and Traffic Signal Control Considerations

While the greater Charlottetown area does not suffer from the congestion issues of some larger urban areas, there are site specific locations where transit buses can be delayed, including along University Avenue. These delays can reduce the reliability of the transit service (i.e. missed transfers), limit route expansion opportunities, and ultimately may require the purchase of additional buses to address passenger demand and service standards.

While congestion levels do not warrant major transit priority systems that are prevalent in systems such as Halifax or Ottawa, there are some site specific areas that may be possible to improve. The contractor (Trius Transit) should work with the Public Works Department to identify areas of delay where minor improvements could help increase the reliability of transit services, including;

- Minor geometric design improvements at intersections where buses have difficulty making turning movements;
- Locating bus stops where transit vehicles can easily merge into lanes of traffic and locating at the far side of intersections to avoid transit vehicles from stopping twice; and
- On-street parking restrictions and enforcement where parked vehicles block buses from accessing/egressing stops or effectively manoeuvring on the road network.

19.0 IMPLEMENTATION PLAN

RIDERSHIP FORECASTS

On an annual basis, the proposed Tier 1 and Tier 2 services total 23,000 revenue bus hours of operation. This is slightly above the existing service offering of 21,500 revenue service hours estimated by the contractor.

Ridership forecasts were developed for a 'low' and 'high' scenario. The 'low' scenario is based on current ridership, recent trends and typical ridership per revenue service hour achieved in Charlottetown Area Transit's peer systems. Since the Charlottetown Area Transit system is still quite new, there is some pent up opportunity for ridership growth and the recommendations developed in the report should accelerate that growth. The 'high' scenario depends on the degree to which trials are successful, partnerships are developed and resources are applied to marketing and promotion.

Currently, the system is achieving about 15 passengers per revenue vehicle hour. Both the Tier 1 and Tier 2 services were assessed in more detail to identify potential ridership targets for both 'low' and 'high' scenarios. U-Pass ridership (32 percent of existing passengers) was calculated separately as growth in U-Pass ridership (once the pricing is fixed) does not contribute to increased system revenue. The ridership forecasts are presented in **Table 27** below.

Table 27 – Ridership Forecasts

				Ridership per Bus Hour		
Revenue Passengers	**2010**	**Low**	**High**	**Existing**	**Low**	**High**
Total Base Service Passengers	331,500	363,400	399,800	15	20	22
- U-Pass Passengers*	106,100	127,200	151,900			
- Other Passengers	225,400	236,200	247,900			
Special Services and Trials						
- Community Bus		6,500	12,900		5	10
- Zone Bus		15,500	21,700		10	14
- Evening Shuttles		4,300	6,500		10	15
- Employer Specials		21,500	25,800		25	30
Total Passengers	**331,500**	**411,200**	**466,700**	***15***	***18***	***20***

** Assume 32% of ridership existing, 35% low, and 38% high*

It is estimated that ridership will increase between 24 and 41 percent and this increase will be phased over the next few years. This will bring annual ridership from 331,500 to between 411,200 and 468,200 (in the low and high scenario respectively) and Charlottetown Area Transit will be more in line with its peer group in terms of ridership per capita.

IMPLEMENTATION

The Base Service (Tier 1) and Service Specials and Trials (Tier 2) proposed in this study should be implemented in May/June of 2011, which will permit sufficient time for detailed operational planning, an effective 'launch' by the contractor and the ability to 'fine tune' the services if required during the summer in preparation for the student ridership surge in September 2011.

The implementation of the recommendations will require appropriate staffing by the contractor. This includes an operations supervisor to free up the general manager and as discussed in **Section 13.0** to address marketing issues. Greater emphasis on marketing, promotions and partnerships will be a significant component in reaching the ridership growth projections.

OPERATING COSTS AND REVENUES

Subject to formal negotiation, it is estimated that the contractor's cost to provide this service will be $1.8 million. Current transit subsidies from the three municipalities total $840,000 and the expected revenue from passenger fares and the UPEI U-Pass is between $669,000 and $722,000. Other revenue (e.g. advertising) totals approximately $20,000. Hence, an annual operating shortfall of $271,000 to $218,000 is projected to enact the study recommendations under a status quo approach.

The following are some techniques/opportunities to address this estimated shortfall by increasing passenger revenue and moving toward a system target R/C ratio of 45 to 50 percent.

	Increase in Revenue ($$)
1. Implement a general fare increase as outlined in **Section 14.6**	$46,600 to $52,900
2. Implement a $5 increase in UPEI U-Pass to $30 per semester	$36,000
3. Introduce a $30 per semester Holland College C-Pass	$33,700 to $27,400*

**Estimate for C-Pass is $90,000 based on 1,500 students minus loss of existing revenue from students currently using Charlottetown Area Transit at regular fares.*

Increasing other revenues (currently estimated at $20,000) through more advertising, partnerships, sponsorships, etc will take time to develop and cannot be expected to have a significant positive impact in the short term. This leaves the option of **securing Provincial support for transit to address an annual operating shortfall estimated between $101,900 (high scenario) and $154,900 (low scenario).**

The proposed transit service strategy is considered a minimum level of service to provide a viable transportation option for the communities. Any inefficiencies in current services have been eliminated. The only potential options to address the shortfall through service hour reductions are listed below. The estimated savings in operating costs are based on a hourly cost of $78.00 per revenue service hour to operate the service. This is off-set by a loss in ridership due to the reduction of service and thus a loss in potential revenue.

Other changes to the proposed service strategies would significantly reduce the ridership/revenue forecasts, may be counterproductive and are not recommended.

	Service Hours Saving	Operating Cost Saving	Revenue Reduction
1. Reduce Community Bus operation from 5 to 3 days per week	624	$48,800	$9,000
2. Eliminate Saturday Service on north Charlottetown Zone Bus	312	$24,400	$7,200
3. Reduce north Charlottetown Zone Bus weekday hours from 6 to 4	502	$39,300	$11,600
4. Eliminate midday runs to Stratford and Cornwall	377	$29,500	$9,900

This level of service reduction would reduce the annual projected deficit to between $zero and $53,000. These potential service reductions are not recommended and it is hoped that an appropriate funding source will be identified.

CAPITAL COSTS

Several one time costs will be required to introduce the service changes in May/June 2011. Major activities are the placement of 250 signs for fixed bus stops, and other system branding activities (e.g. bus painting, new maps and schedules). These costs will be in the range of $75,000 to $125,000 and may be candidates for federal or provincial support.

A Capital Asset Management and Replacement Plan for the Charlottetown Area Transit service has been initiated as part of this study, including a recommended fleet replacement strategy developed to reduce high maintenance costs and improve reliability. Specific federal and provincial funding support should be sought for fleet expansion and replacement, indoor bus storage, upgrades to maintenance facilities and equipment, infrastructure such as bus terminals, shelters and passenger information systems, upgraded fare collection systems, etc.

APPENDIX A
Public Consultation Activities

1.0 INTRODUCTION

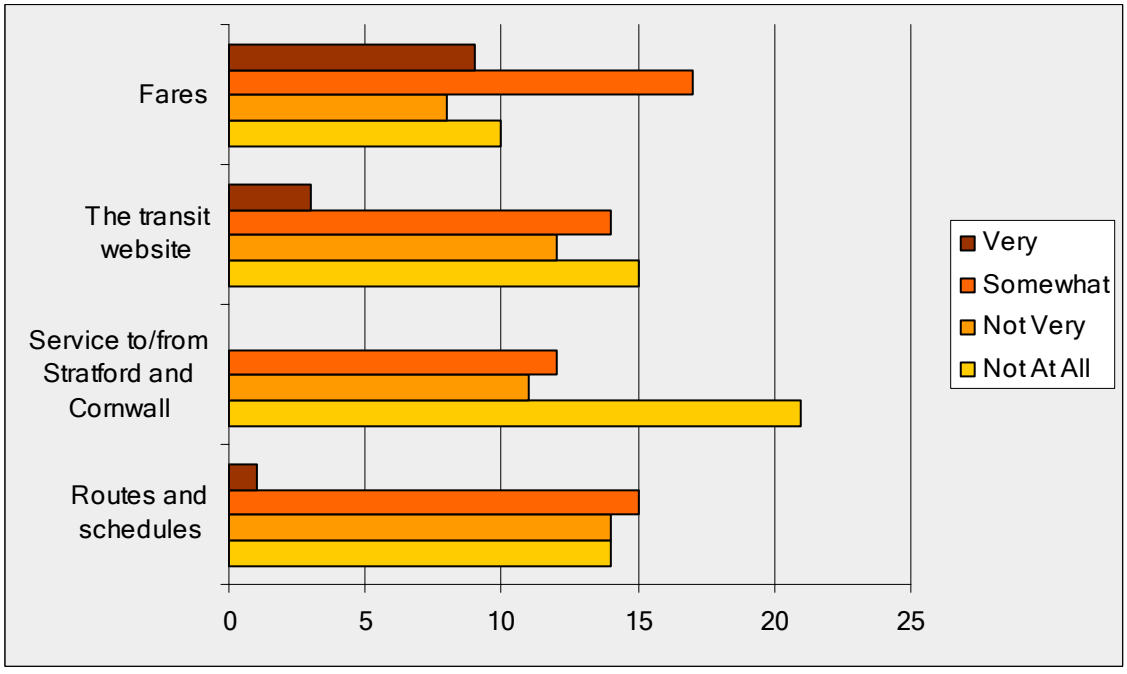
An online survey for the general public was developed and placed on the study webpage. The survey was placed on the study website in September 2010 and comments were collected until November 8th, 2010. Overall, 140 completed responses were received, of which 133 or 95 percent were from residents of Charlottetown, Stratford, or Cornwall and 132 or 97 percent were travelling to destinations within Charlottetown, Stratford or Cornwall on a regular basis. The survey queried respondents on their demographics, use of Charlottetown Area Transit, and attitudes towards Charlottetown Area Transit. The survey also allowed respondents to add their contact info for inclusion in the focus group.

The first question asked whether the respondent has used Charlottetown Area Transit in the past 6 months. Respondents that responded that they have not were identified as "non-transit users". Thirty-one (31) percent of respondents were identified as non-transit users.

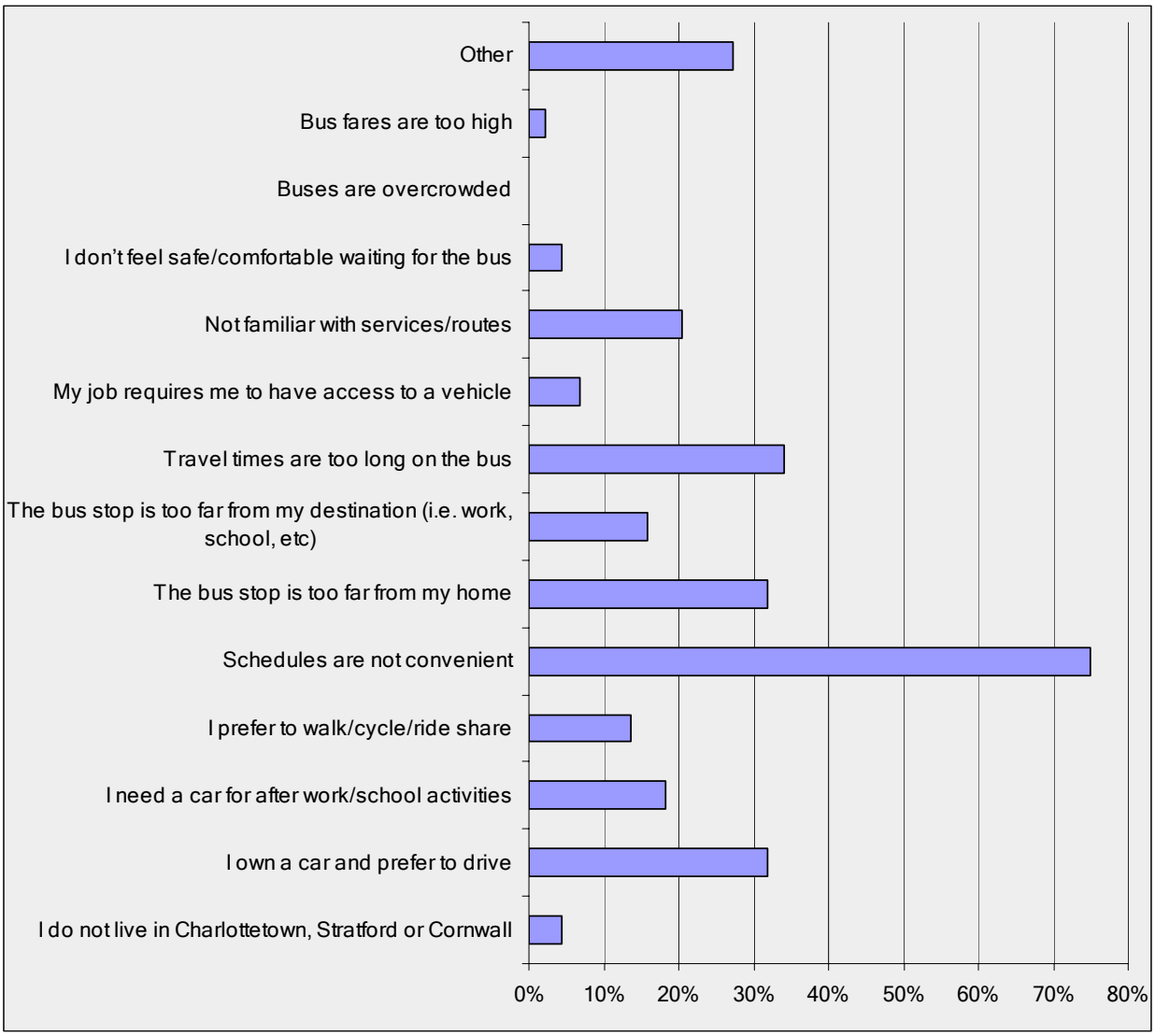
2.0 NON TRANSIT USERS

The following targeted questions were asked to respondents that indicated that they do not use Charlottetown Area Transit.

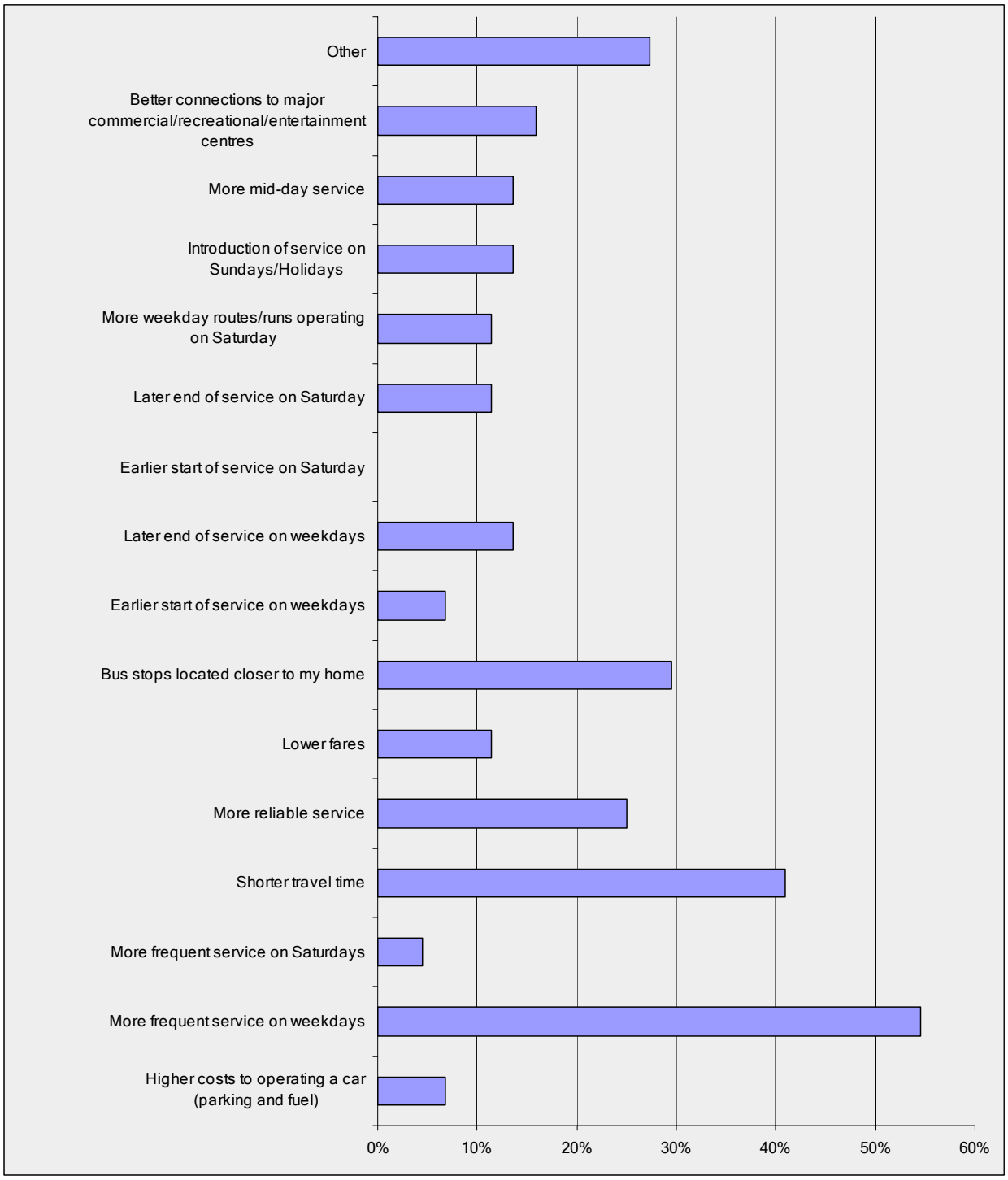
2.1 Question: How familiar are you with:



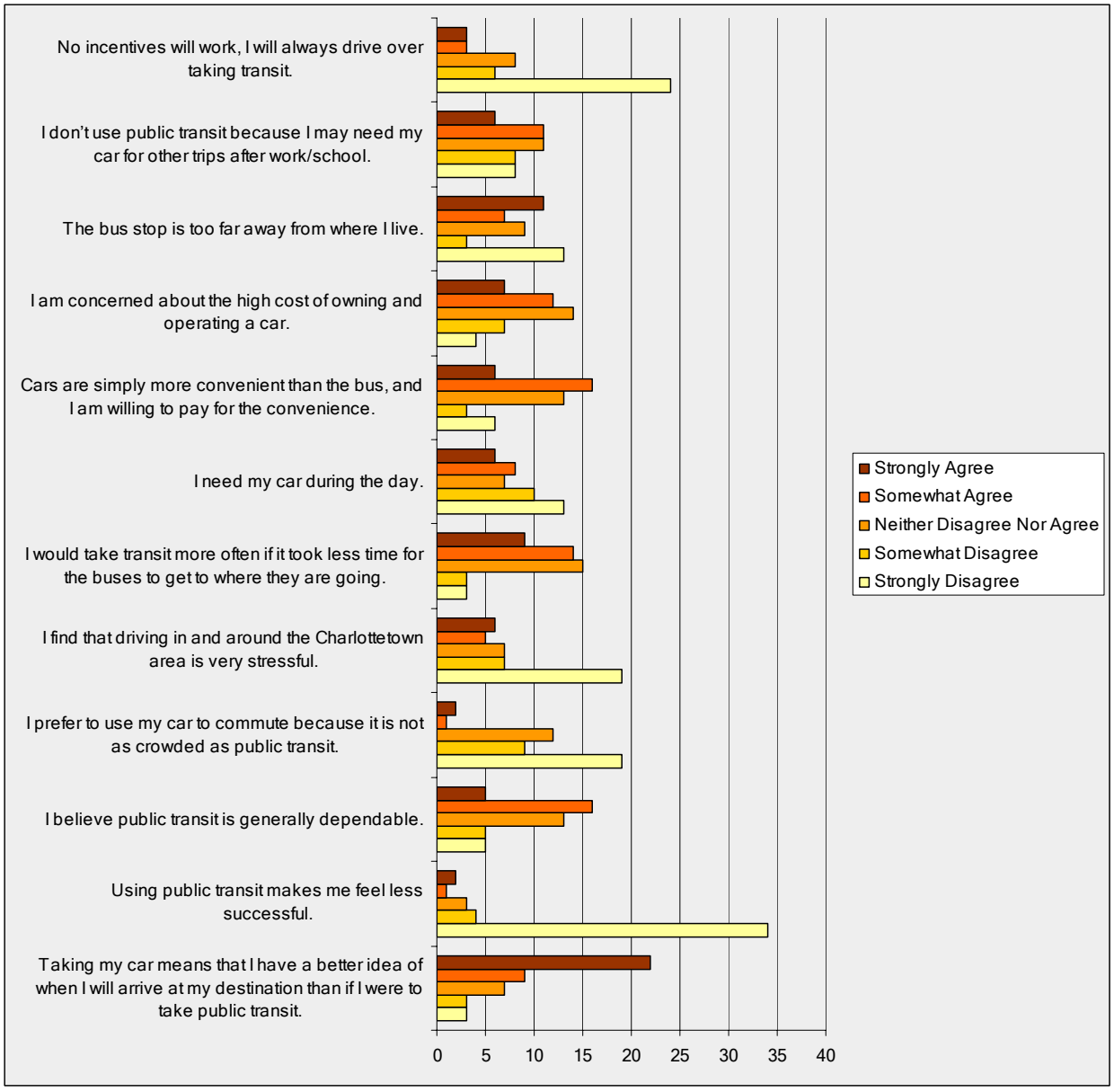
2.2 Question: What are your top 3 reasons for not using Charlottetown Area Transit?



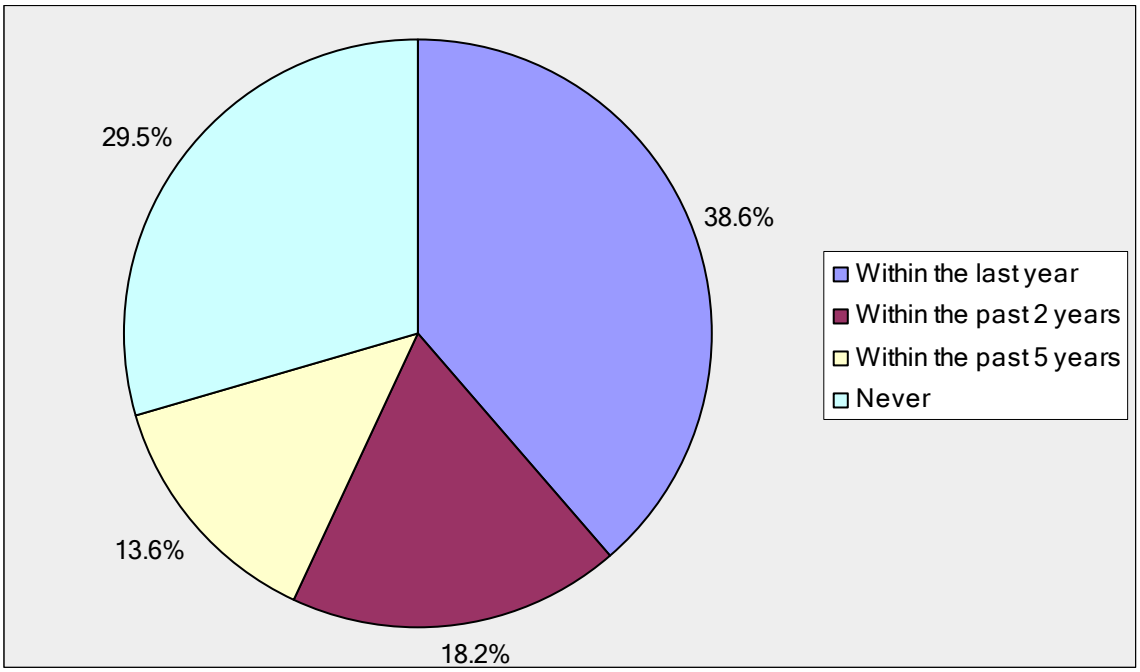
2.3 Question: Identify the top three improvements/factors that would get you to try Charlottetown Area Transit?



2.4 Question: How much do you agree or disagree with each of the following statements?



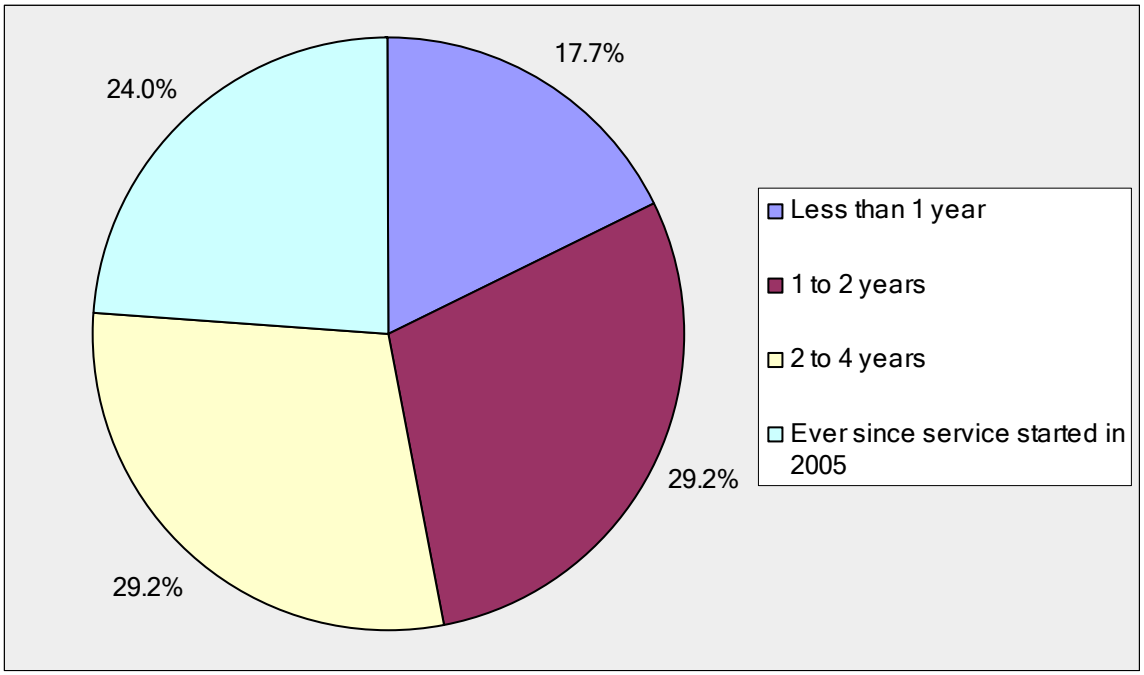
2.5 Question: When was the last time that you were on public transit for any reason?



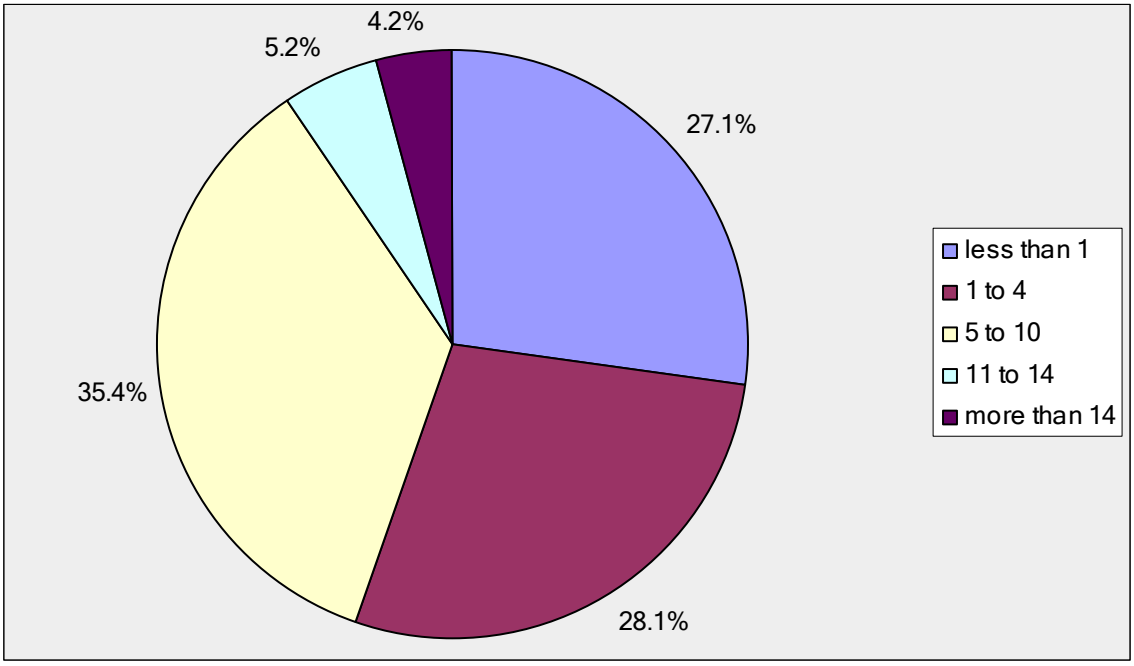
3.0 TRANSIT USERS

The following targeted questions were asked to respondents that indicated that they are regular users of Charlottetown Area Transit.

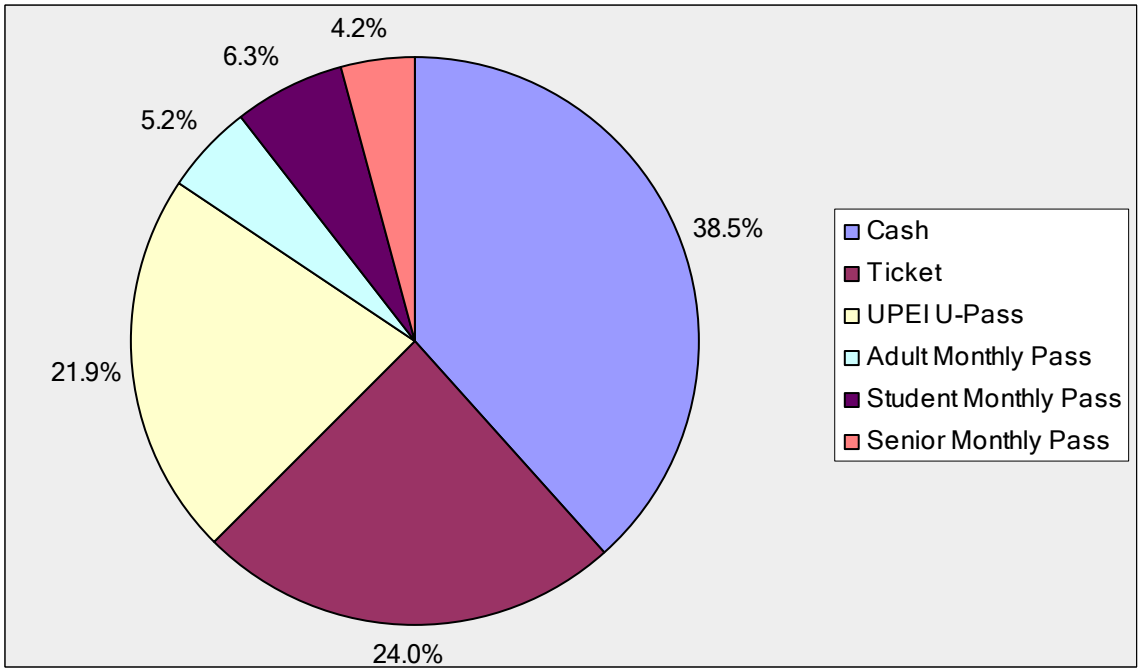
3.1 Question - How long have you been using Charlottetown Area Transit?



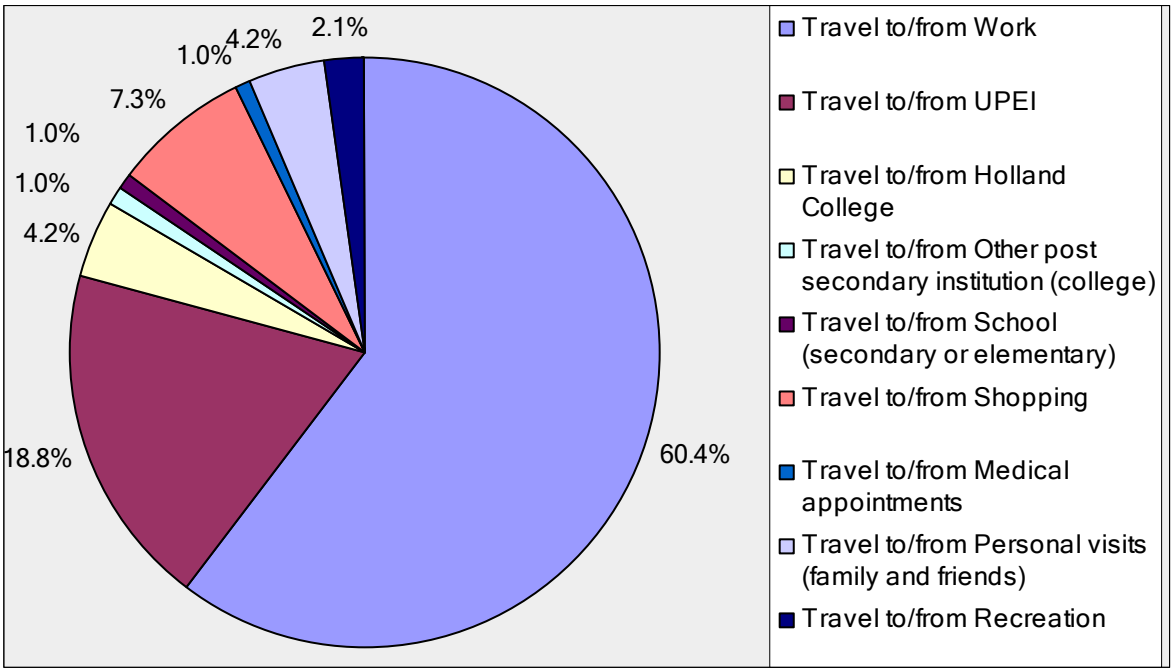
3.2 Question: In an average week, how many one-way trips do you take on Charlottetown Area Transit? (Transferring between buses to arrive at your destination is still considered a one-way trip; i.e. home to work is a one-way trip even if transfers are required)



3.3 Question: How do you normally pay for your trip on Charlottetown Area Transit?



3.4 Question: What is your primary purpose for using Charlottetown Area Transit?



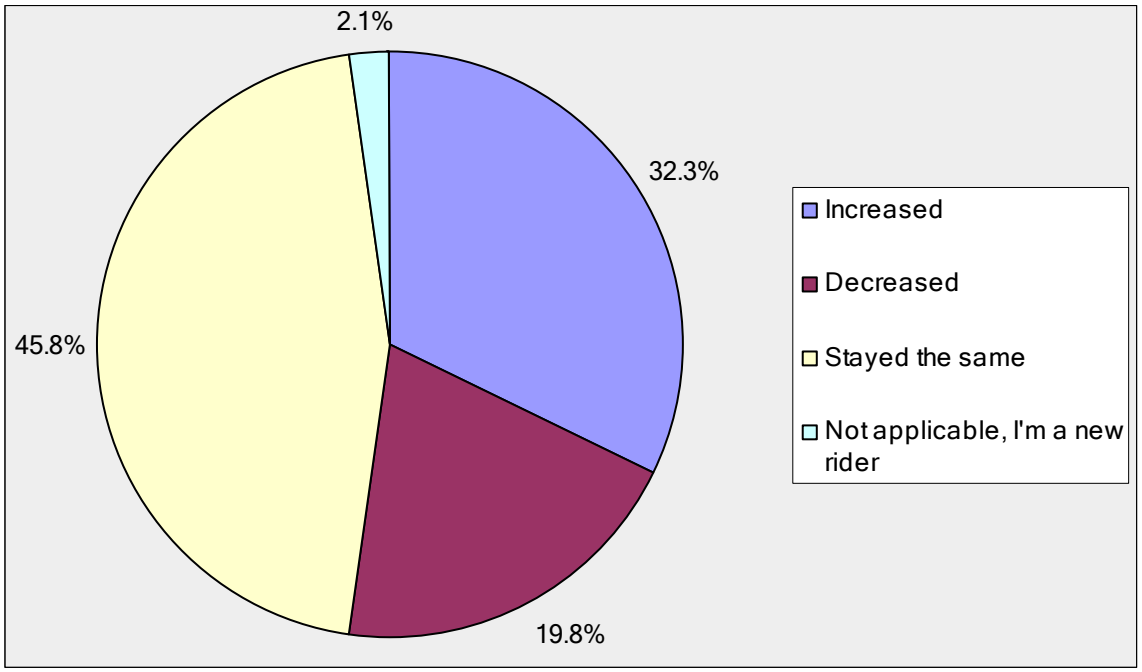
3.5 Question: When you are using Charlottetown Area Transit for your primary trip, are you required to transfer between buses to reach your destination?

- Yes: 37.5%
- No:62.5%

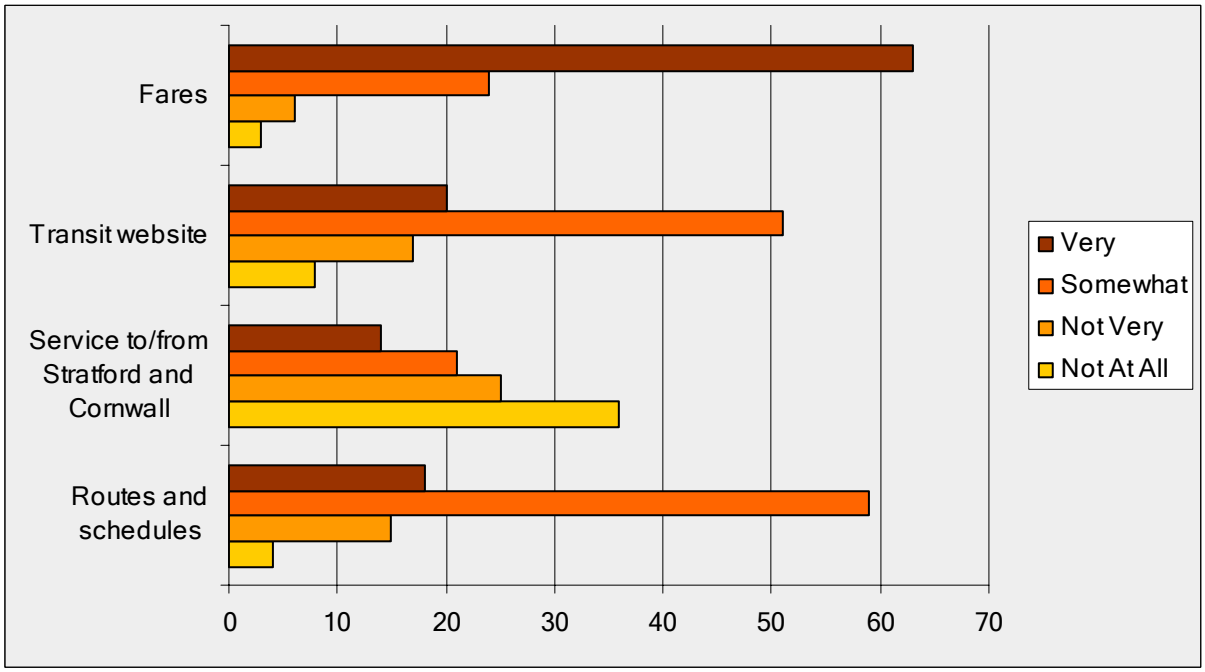
3.6 Question: How many transfers are required to reach your destination?

- 1 - 89%
- 2 - 11%

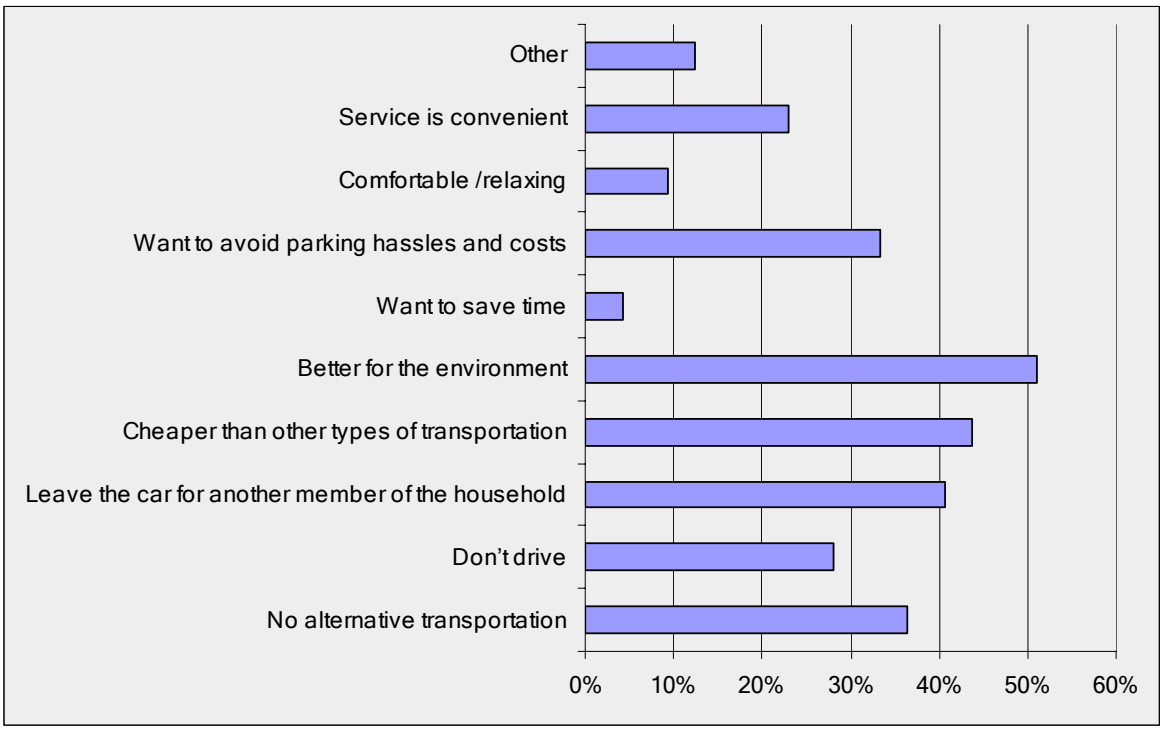
3.7 Question: In the past 12 months, the average number of transit trips I take on a weekly basis has:



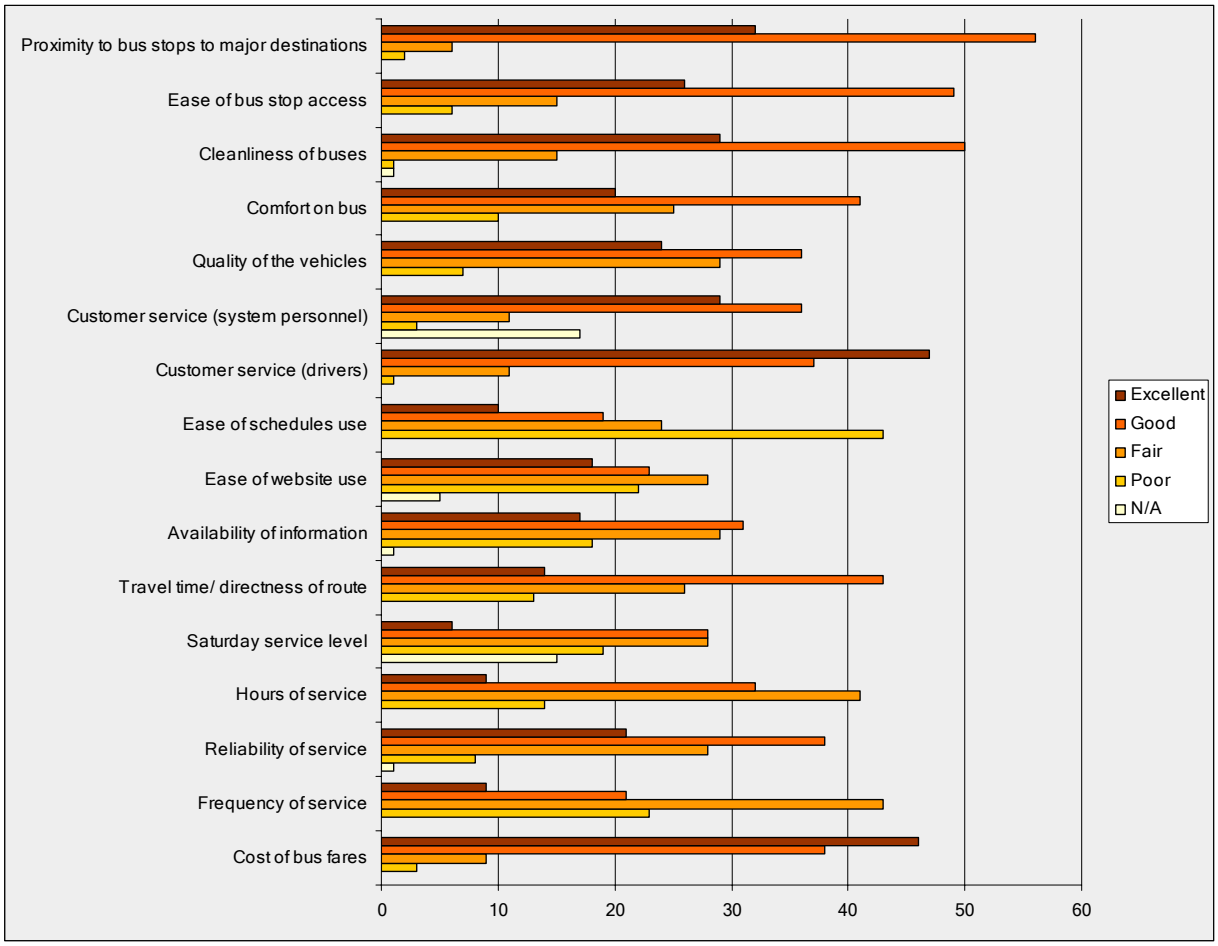
3.8 Question: How familiar are you with:



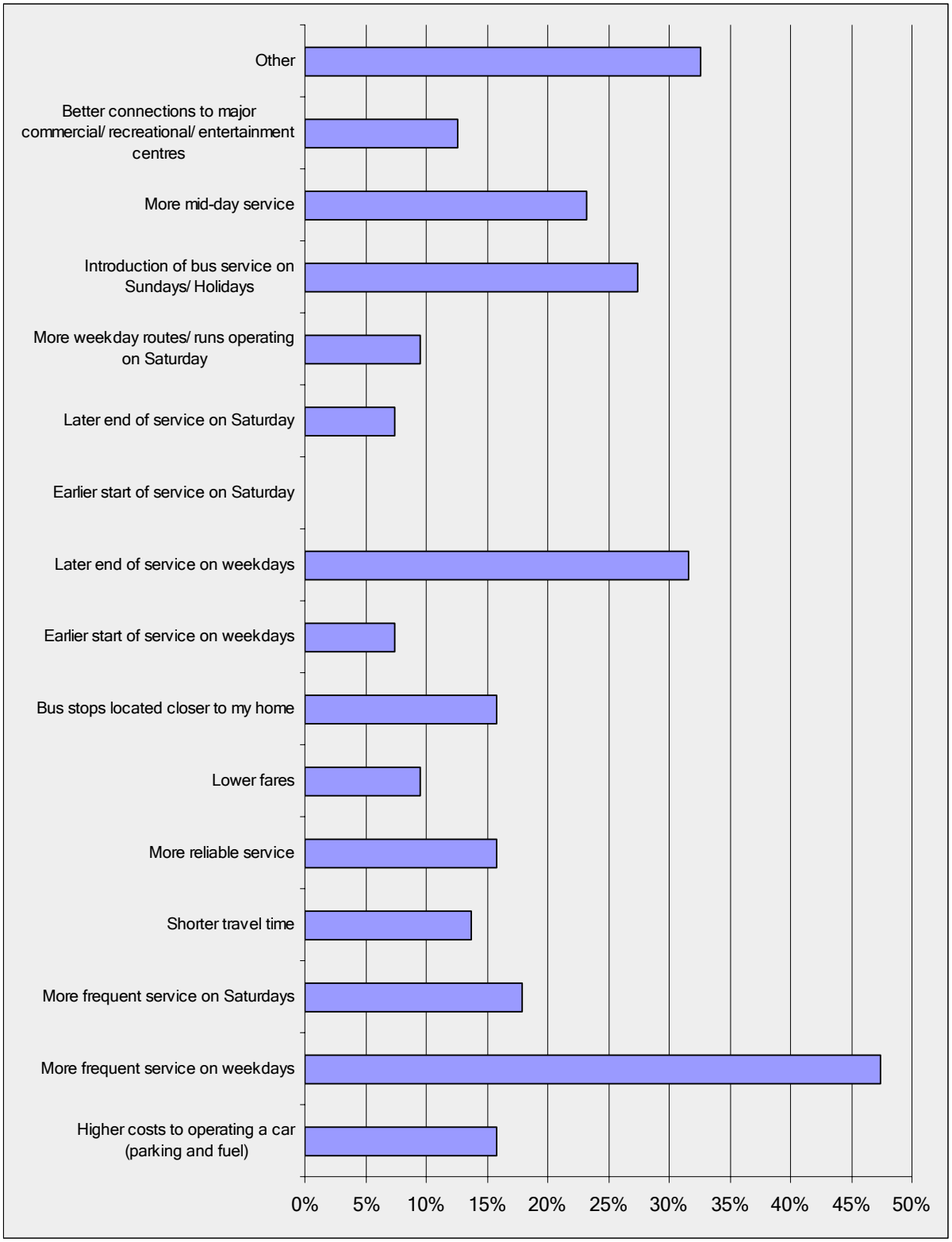
3.9 Question: What are your top 3 reasons for using Charlottetown Area Transit?



3.10 Question: How would you rate the following elements of Charlottetown Area Transit services?



3.11 Question: Identify the top three improvements that would get you to use Charlottetown Area Transit more often.



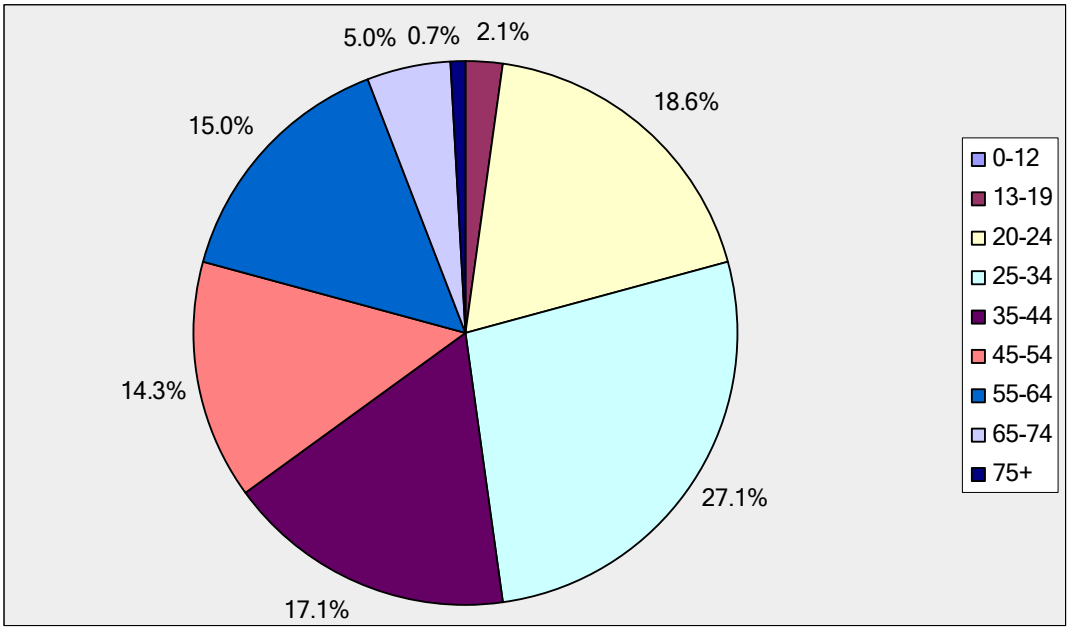
4.0 DEMOGRAPHICS

All respondents were asked to provide information pertaining to their demographics.

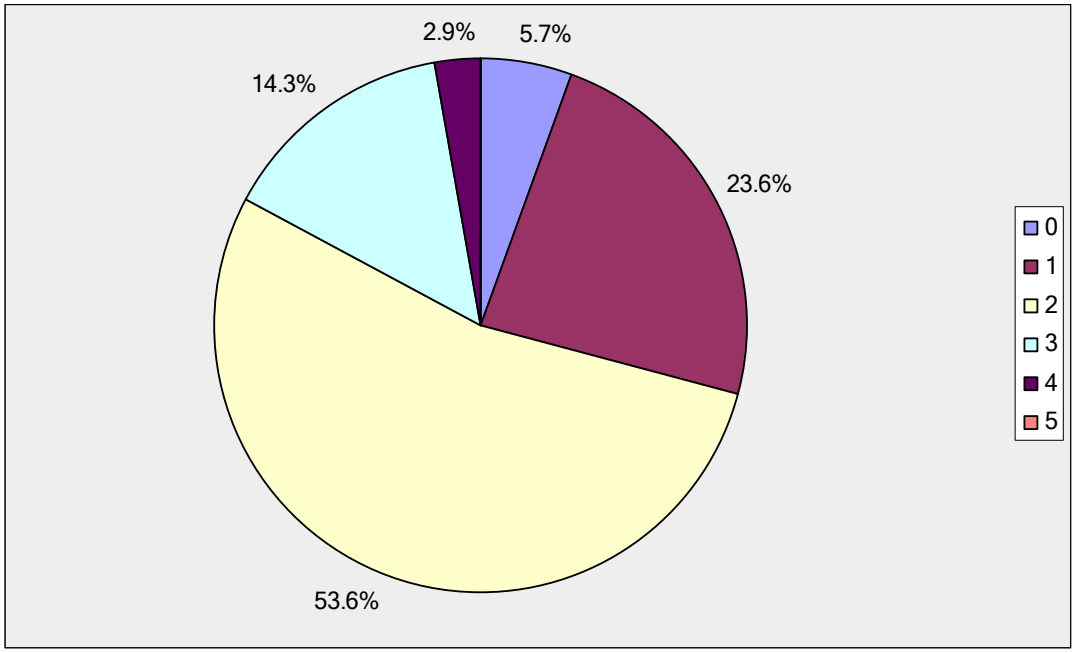
4.1 Question: Please indicate your gender:

- Female: 59%
- Male: 41%

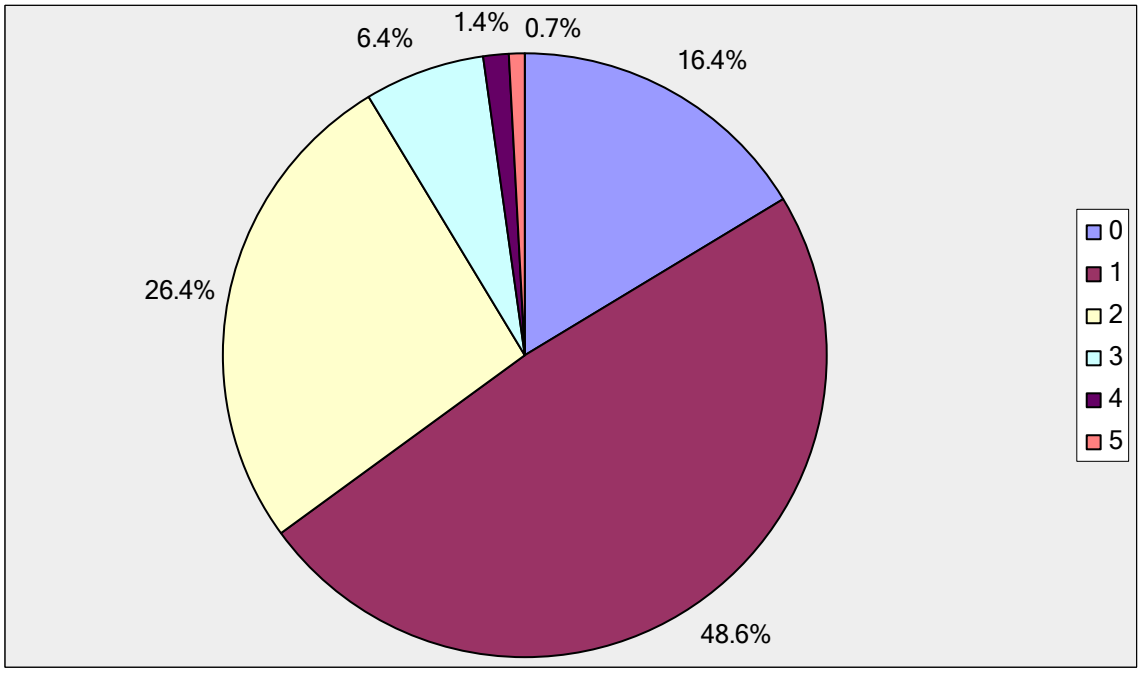
4.2 Question: Please indicate what age category you are in:



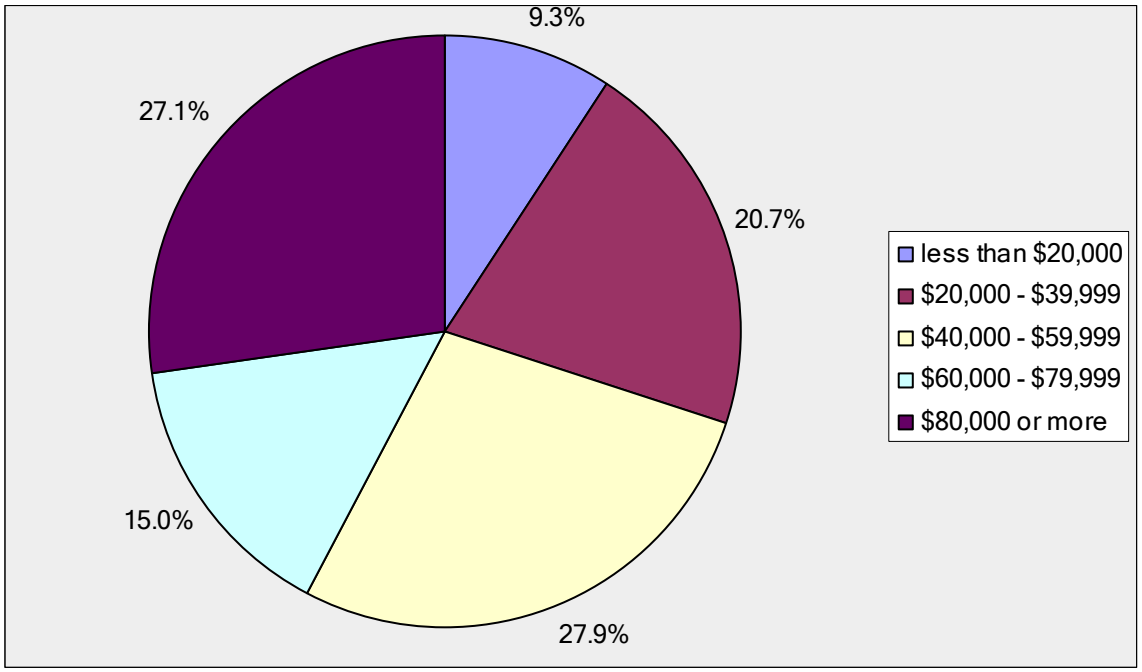
4.3 Question: How many licensed drivers are there in your household?



4.4 Question: How many vehicles are there in your household?



4.5 Question: Which of the following ranges best represent your household income?



1.0 INTRODUCTION

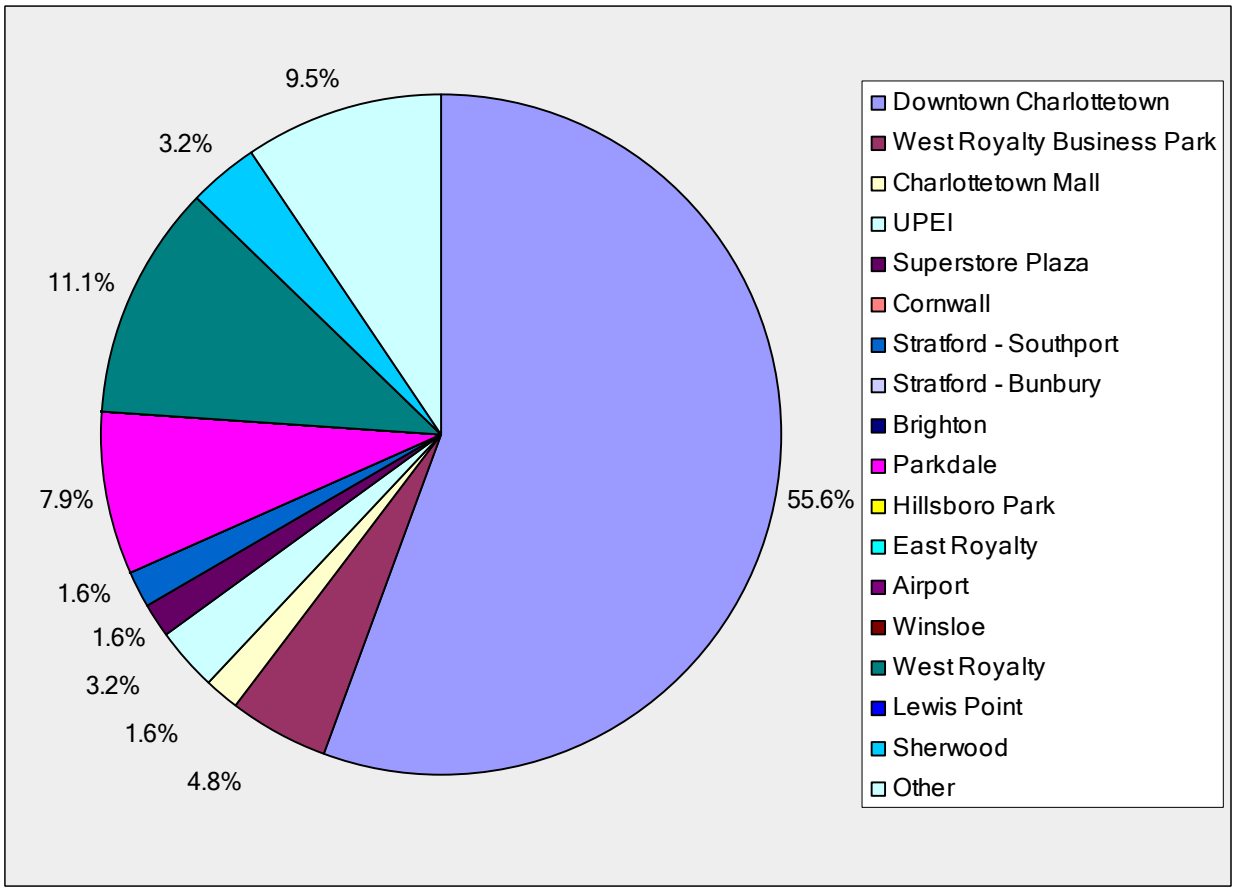
An online survey for Charlottetown Area employers was developed and distributed through an email notification to members of the Chamber of Commerce. The survey was available for a span of 2 weeks in October 2010. The purpose of the survey was to collect information on the characteristics of Charlottetown Area businesses and their relationship and attitudes towards transit.

Businesses were asked to fill out a survey of each of their locations in the Charlottetown Area. A total of 63 completed surveys were collected. The survey results are summarized below.

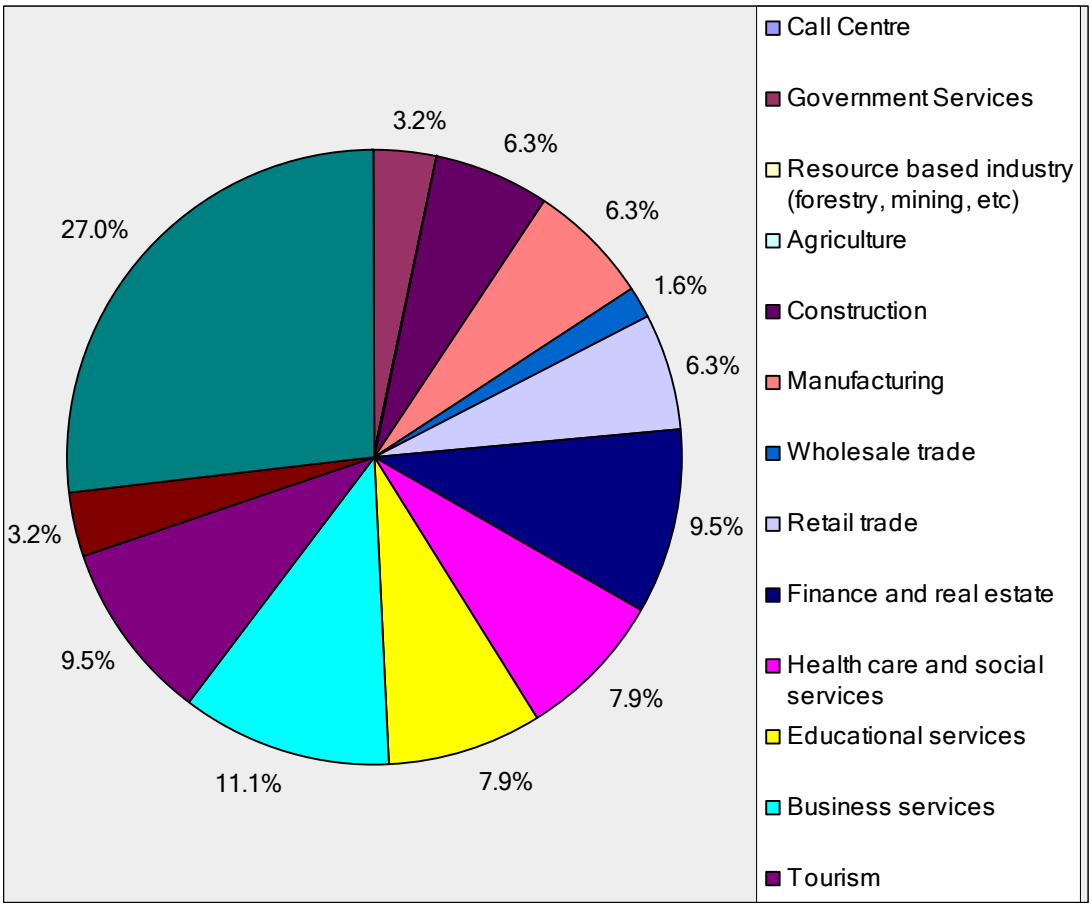
2.0 TELL US ABOUT YOUR BUSINESS

Businesses were asked a series of questions regarding the characteristics of the business and its operations.

2.1 Question: Where is your business located?



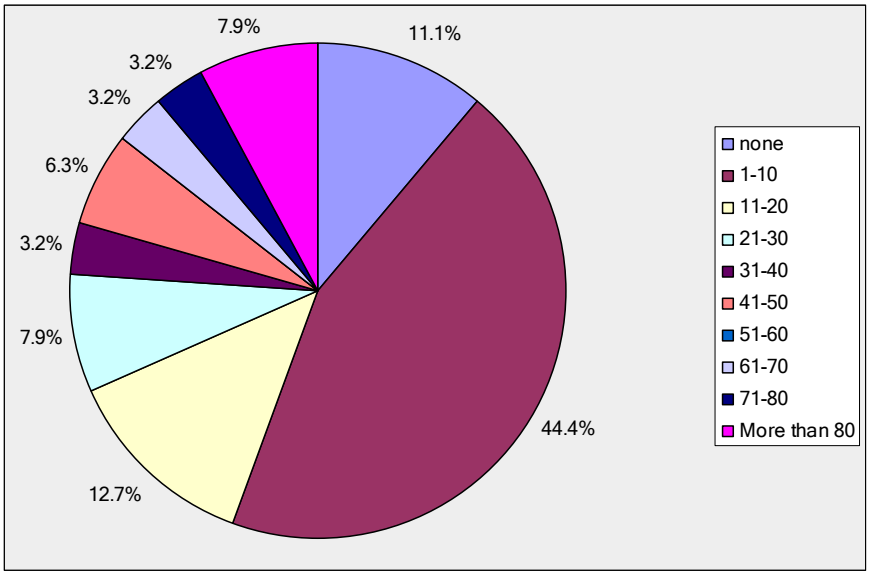
2.2 Question: Main type of business activity



2.3 Question: On an average day, how many staff members are onsite at your business/location?

- Average Full-time: 17.2
- Average Part-time: 2.4

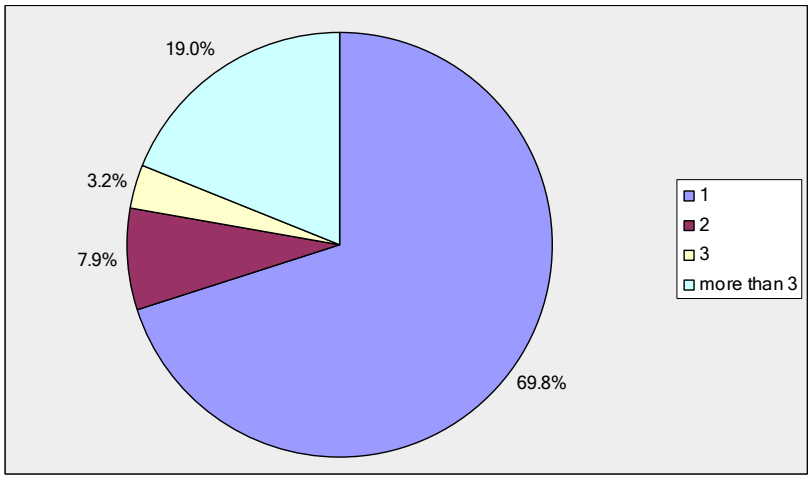
2.4 Question: Approximately how many clients/customers visit this business/location on a typical weekday?



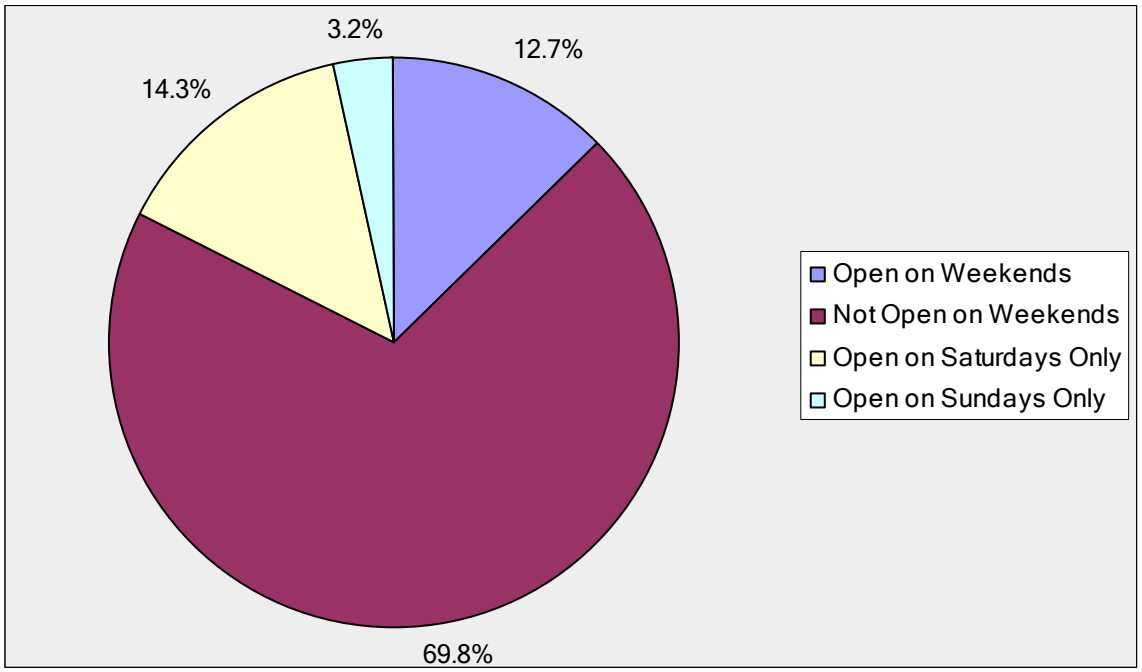
2.5 Question: What is the normal start and stop time of the main weekday daytime shift at your business/location?

- 51% of businesses had their main weekday shift start time at 8:00AM;
- 27% of businesses had their main weekday shirt start time at 8:30AM;
- 49% of businesses had their main weekday shift end time at 5:00PM;
- 22% of businesses had their main weekday shift end time later than 5:00PM.

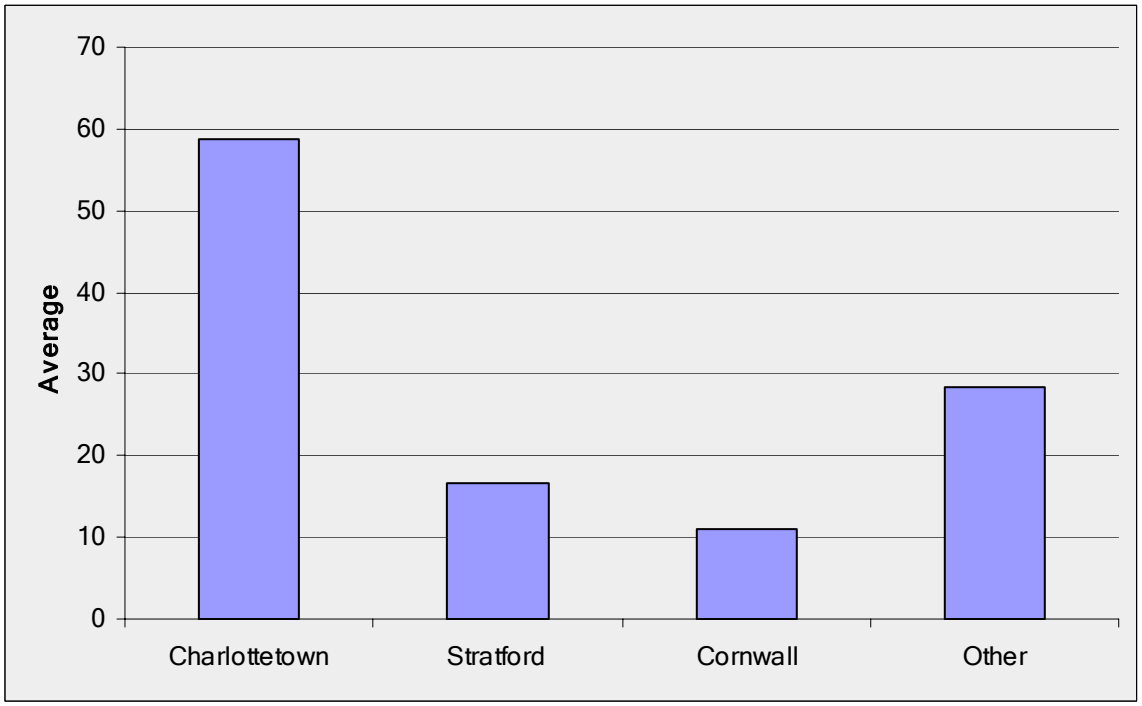
2.6 Question: How many shifts does your business/location have?



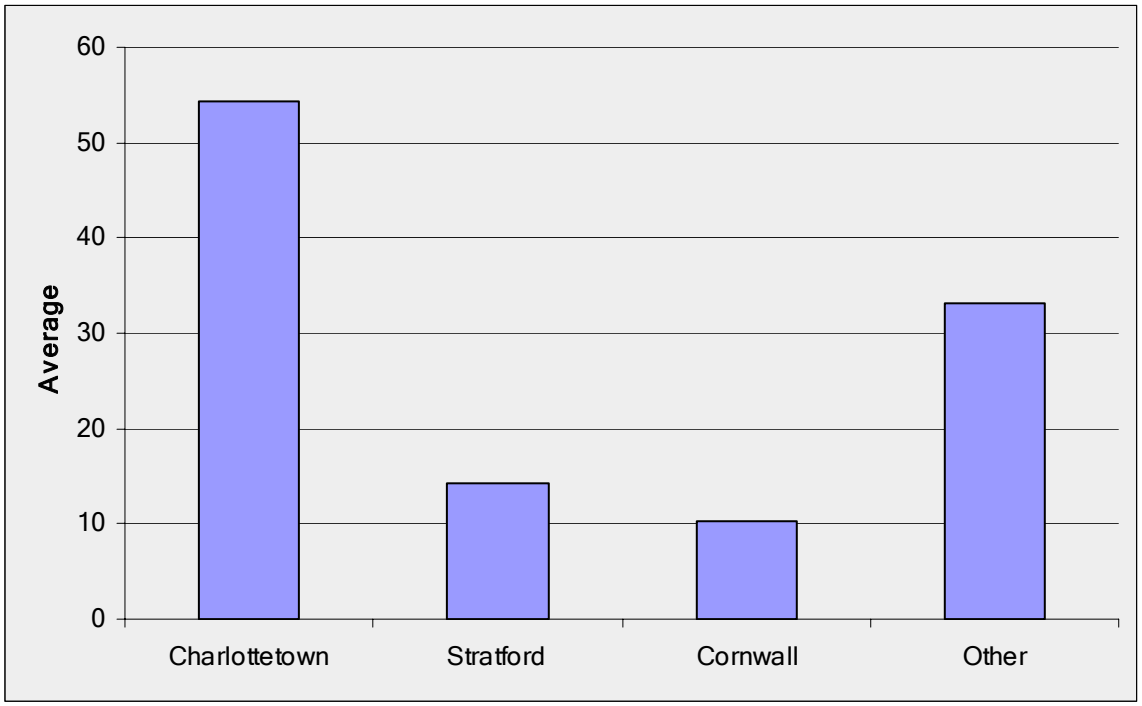
2.7 My business is:



2.8 Question: Please estimate the percentage of employees who live in:



2.9 Question: Please estimate the percentage of clients/customers who live in:



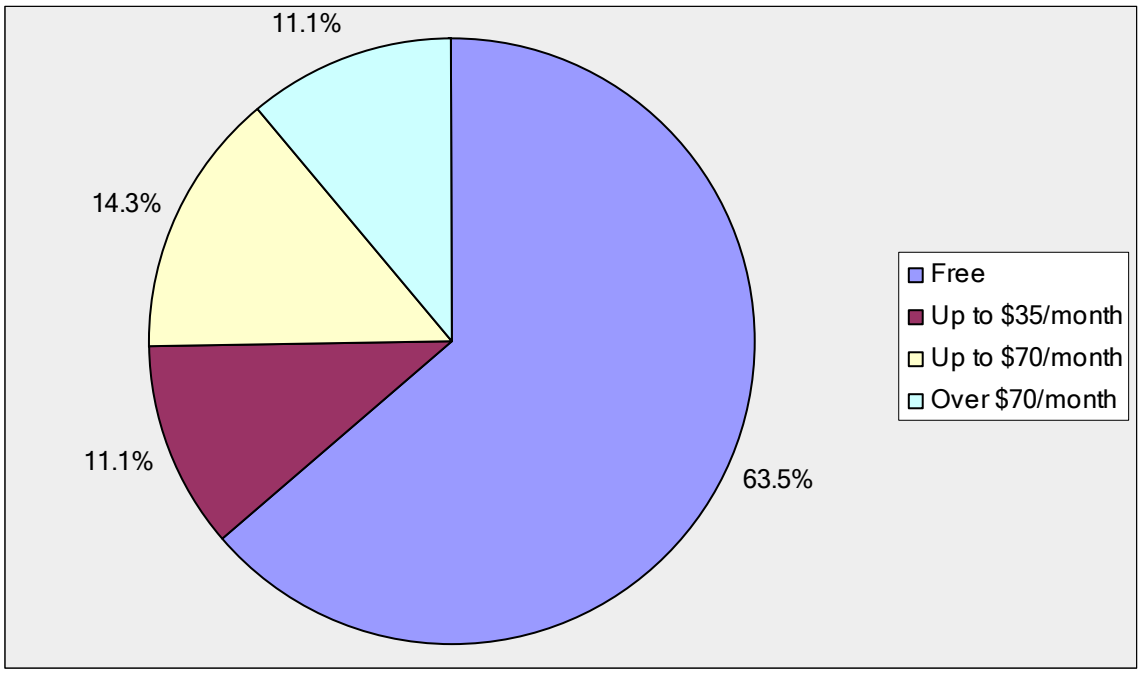
3.0 RELATIONSHIP TO TRANSIT

Businesses were queried about their relationship with Charlottetown Area Transit. Questions gauged level of usage as well as business practices that effect transit usage, such as providing free parking. Information regarding opinions about transit was also gathered.

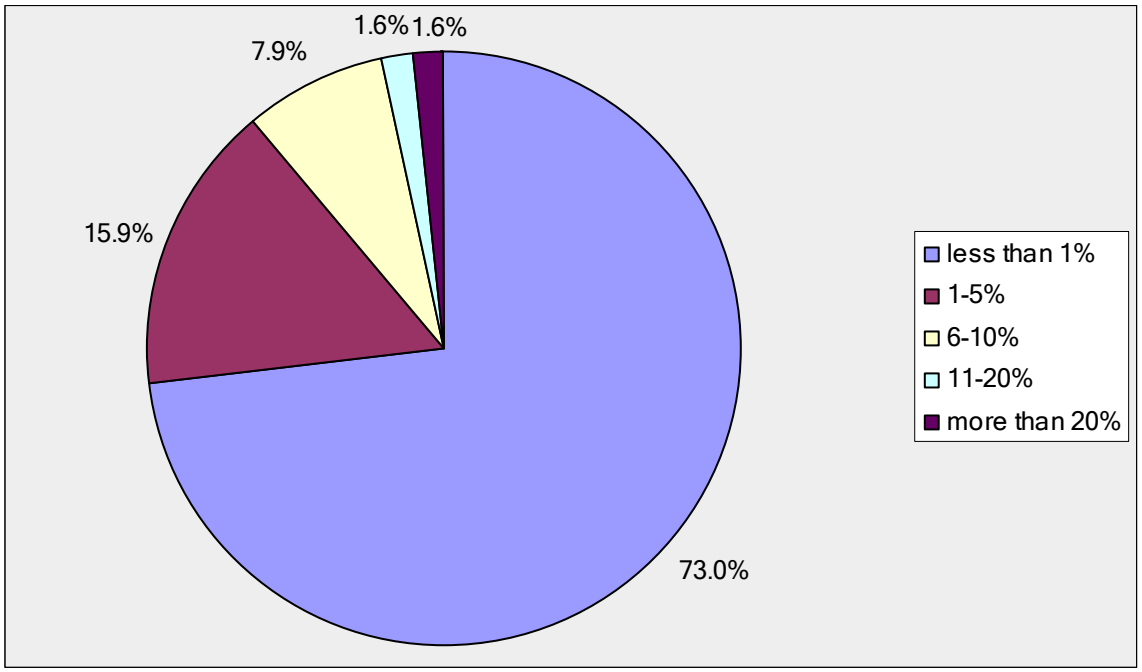
3.1 Question - Does your business/location provide parking for employees?

- Yes: 67%
- No: 33%

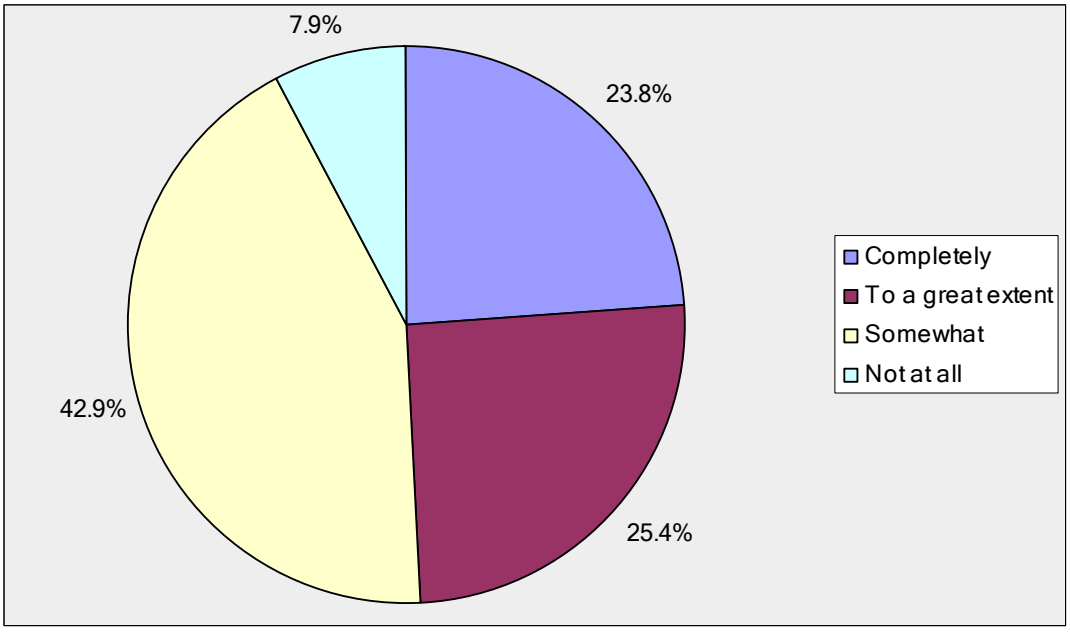
3.2 Question: What is the cost of employee parking?



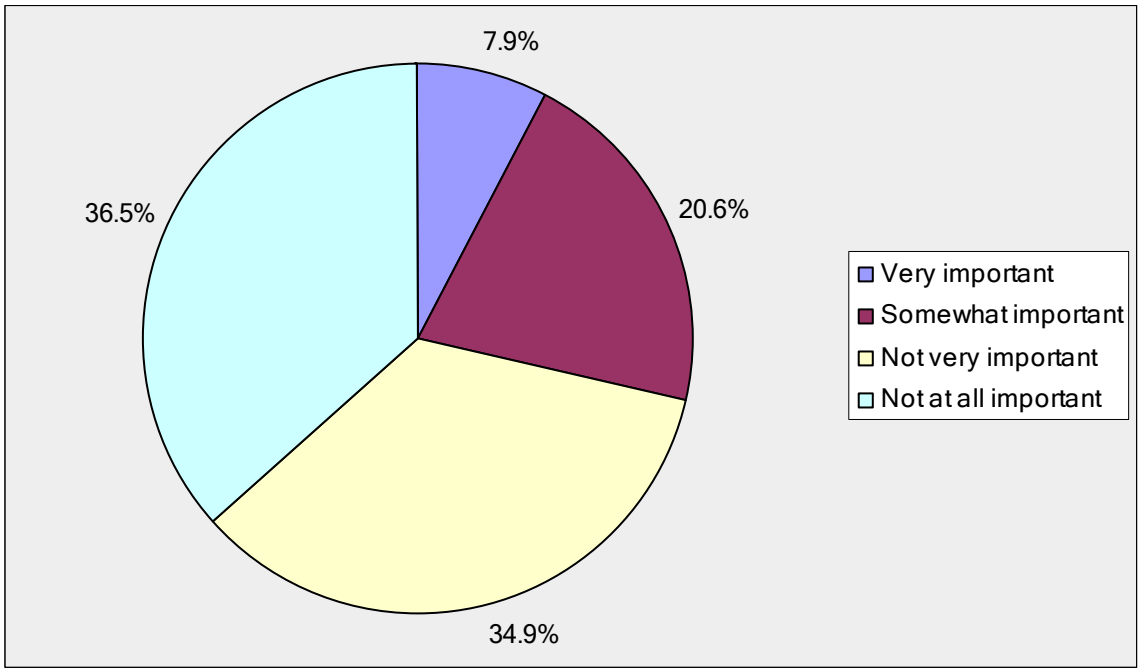
3.3 Question: Please estimate what percentage of employees currently use Charlottetown Area Transit to get to/from work?



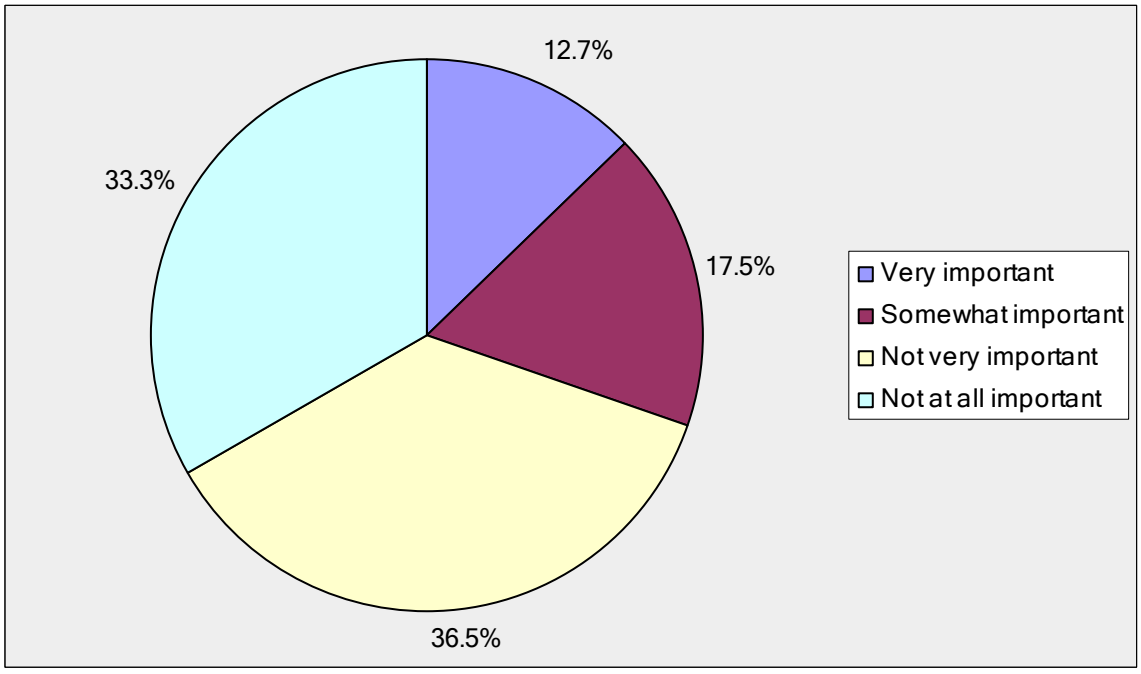
3.4 Question: Do the current transit service hours meet the needs of your employees/clients/customers? Note Charlottetown Area Transit service hours are: Monday-Saturday 6:45AM - 7:00PM (limited service to 12:00AM)



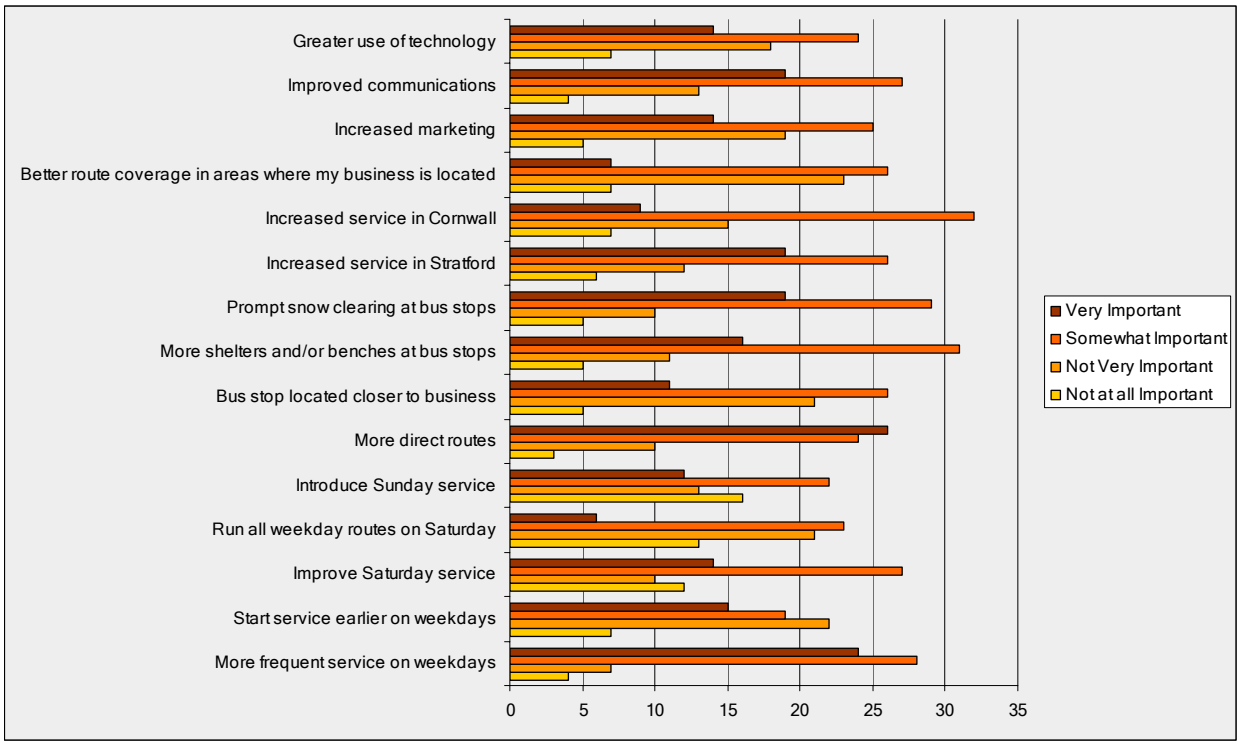
3.5 Question: How important is transit in attracting and retaining employees?



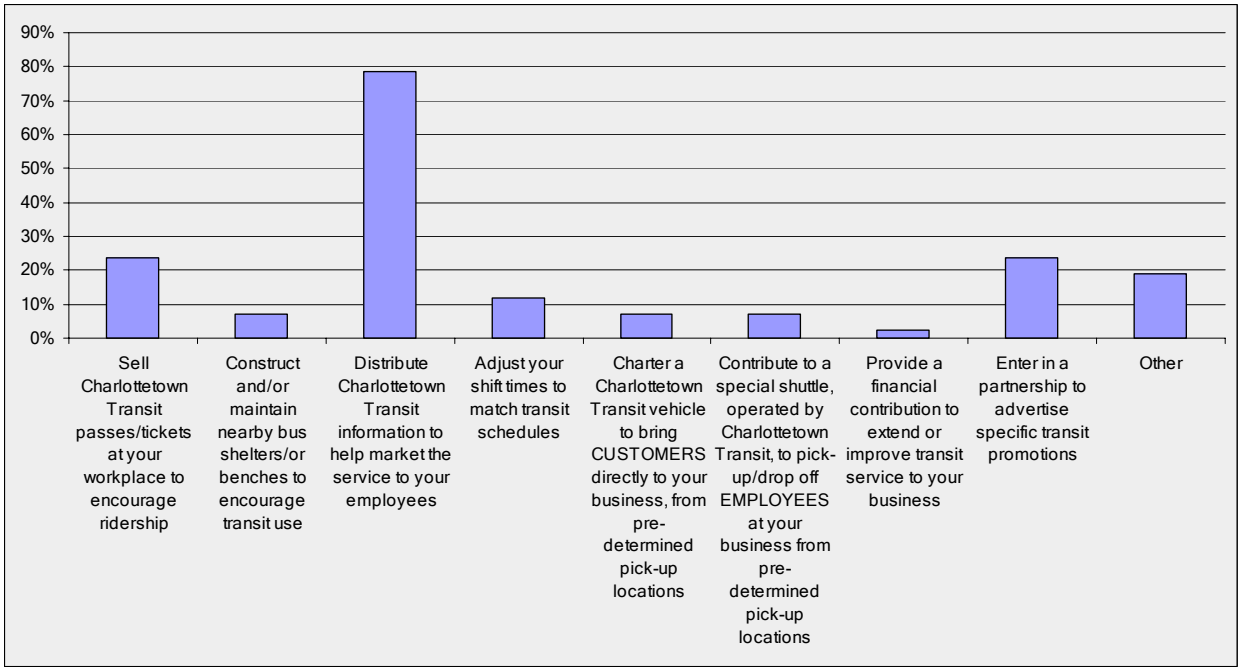
3.6 Question: How important is transit in the attracting customers/clients to your business/location?



3.7 Question: How important would you rate the following potential improvements in Charlottetown Area Transit services?



3.8 Would you CONSIDER participating in a partnership with Charlottetown Area Transit to obtain or improve transit service where your business would:



1.0 INTRODUCTION

An on-board passenger survey was conducted during regular transit service hours on Tuesday October 5th, 2010. Survey questions probed trip patterns, trip purpose, walking distance to and from bus stops, transfer patterns, demographic characteristics, and frequency of use. Transit users were also invited to provide written comments on the survey card.

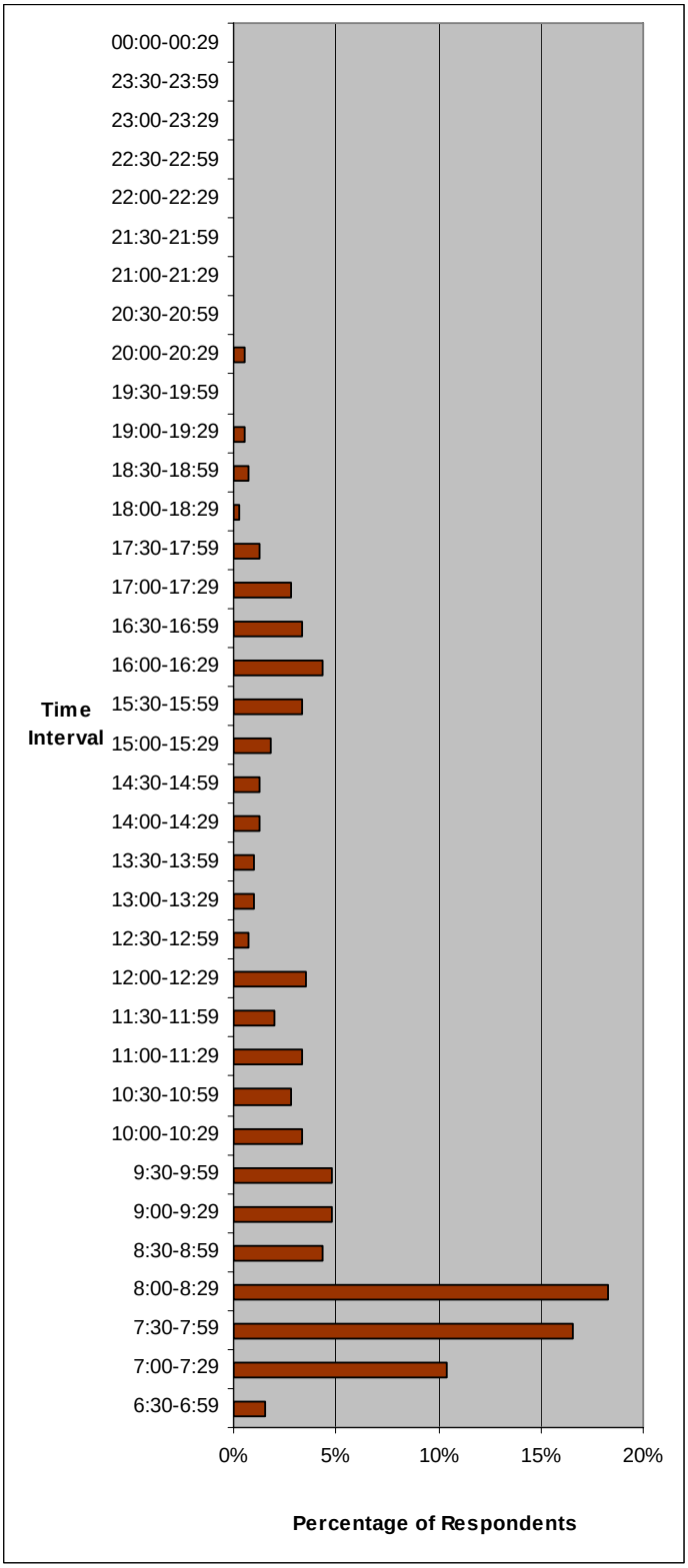
Excellent cooperation was received from the drivers and Trius Transit's staff in distributing and collecting the surveys. Dillon staff monitored the survey and assisted in handing out and collecting surveys.

A total of 428 valid surveys were collected. On a typical Tuesday there are an estimated 660 people who use Charlottetown Area Transit yielding a survey response rate of 65 percent. This achieves a 95 percent confidence level with a +/-3 percent error. Dillon staff verified the survey card responses for completion and accuracy.

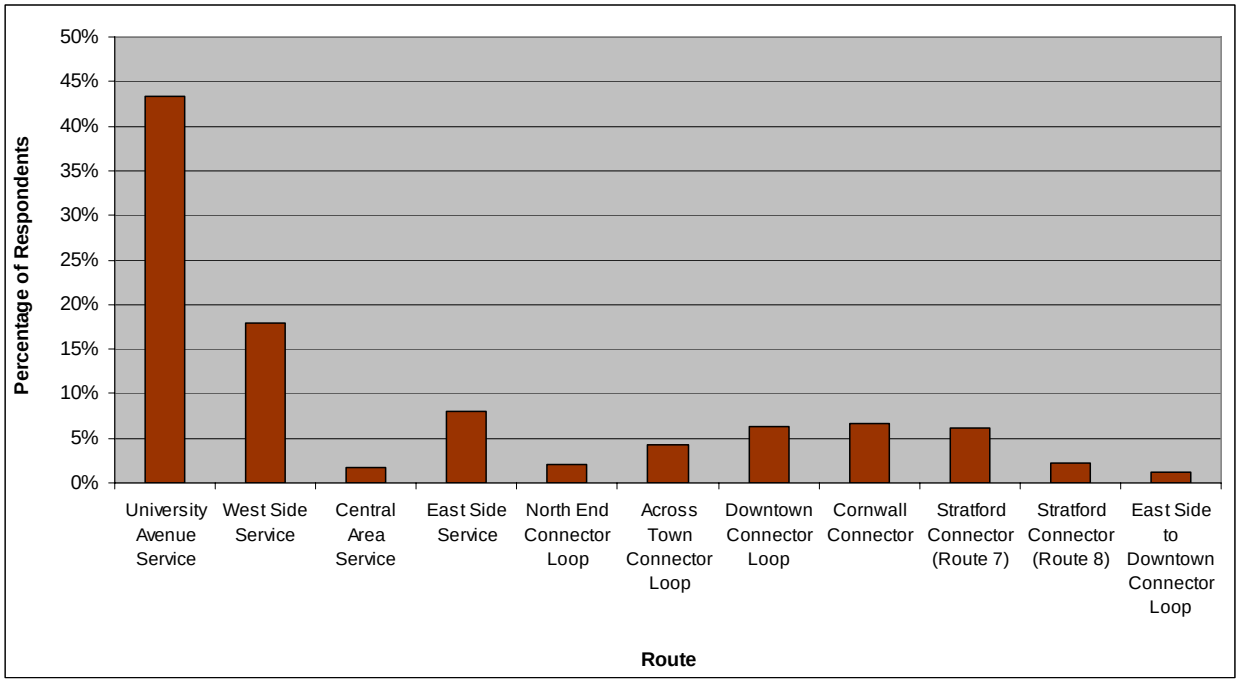
2.0 TRIP CHARACTERISTICS

The following questions probed the characteristics of the trip that the respondent was currently on.

2.1 Question: Approximately what time did you board the bus today?

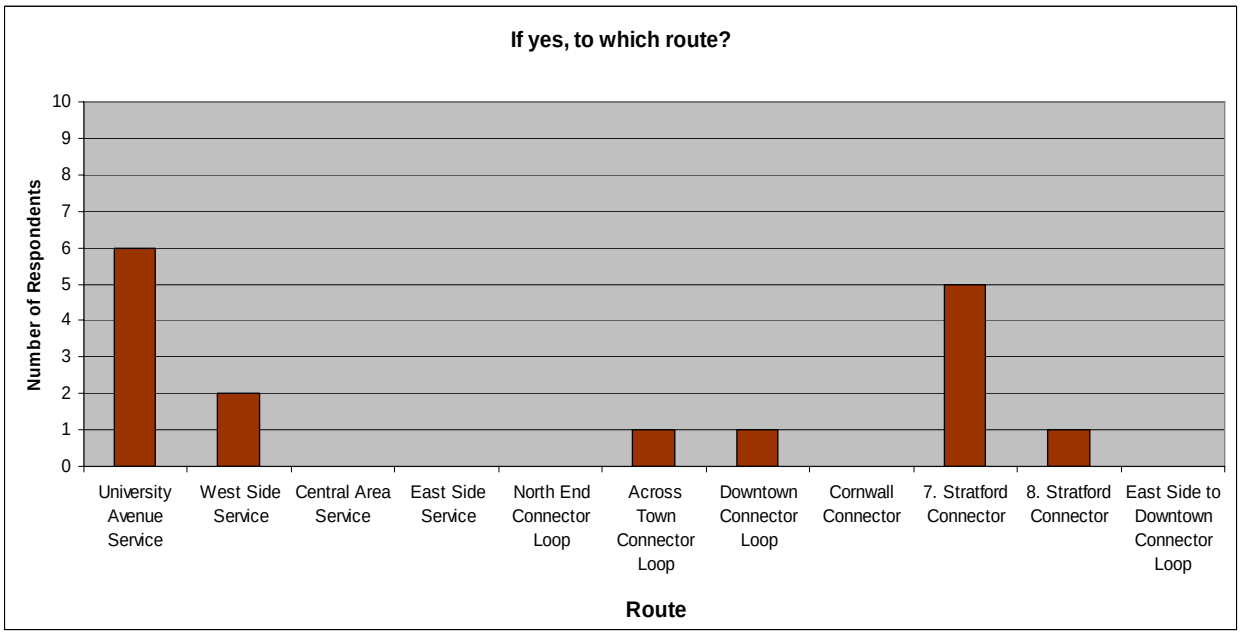


2.2 Question: What route are you on now?

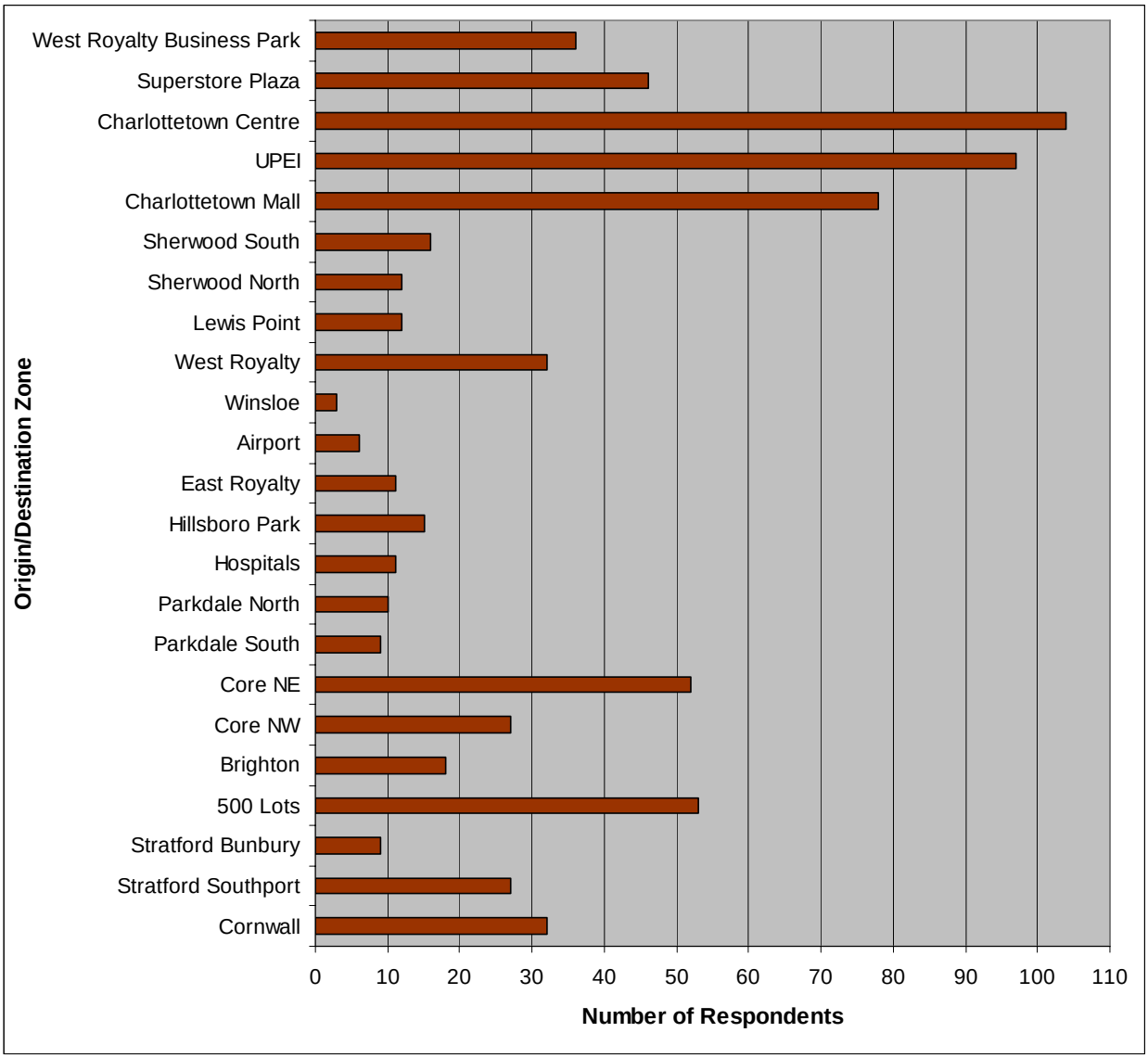


2.3 Question: Does this trip require you to transfer to another route?

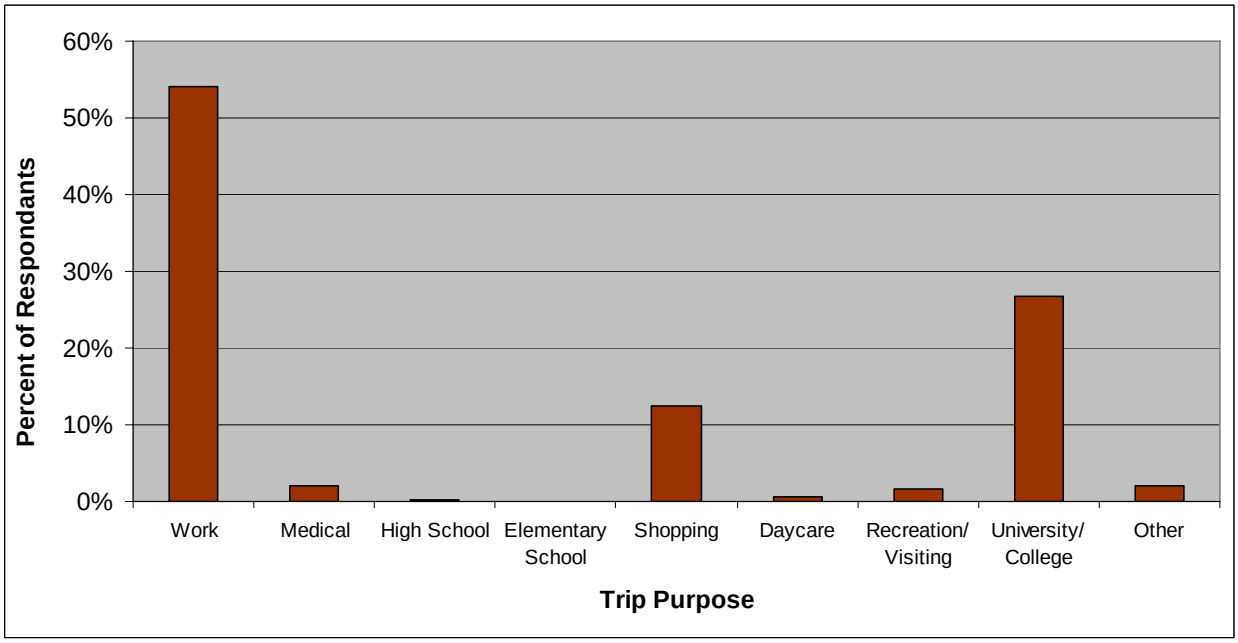
- Yes: 22%
- No: 78%



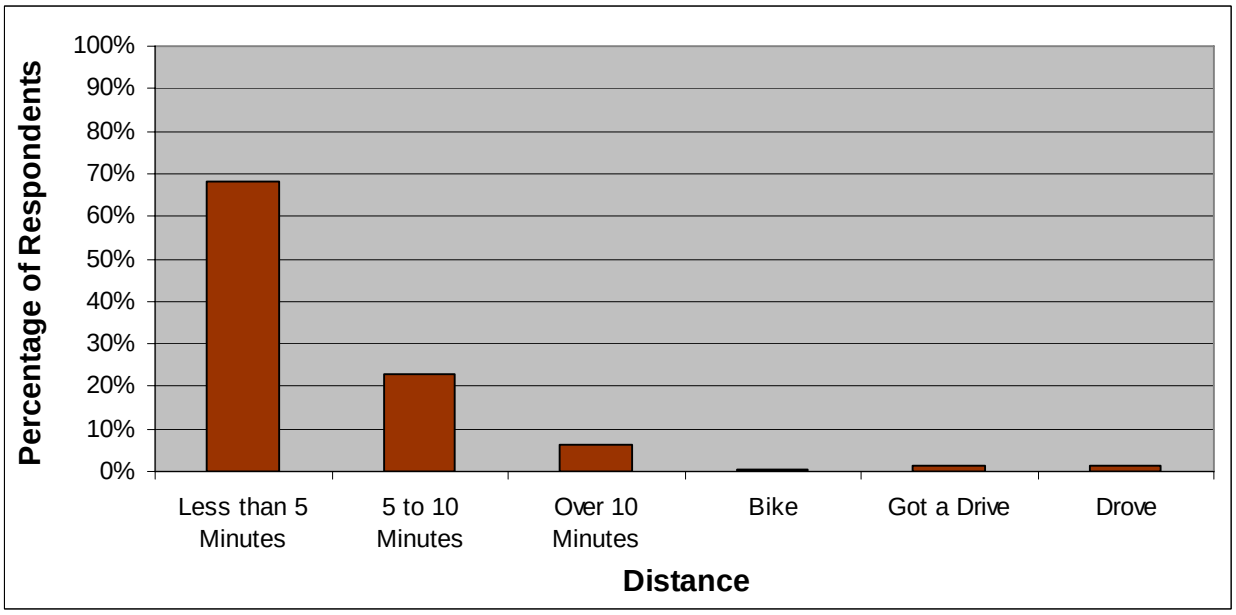
2.4 Question: Please check where you began your trip (Start) and where you will end your trip (End). Please do not indicate any transfers.



2.5 Question: What is your primary reason for using transit today?

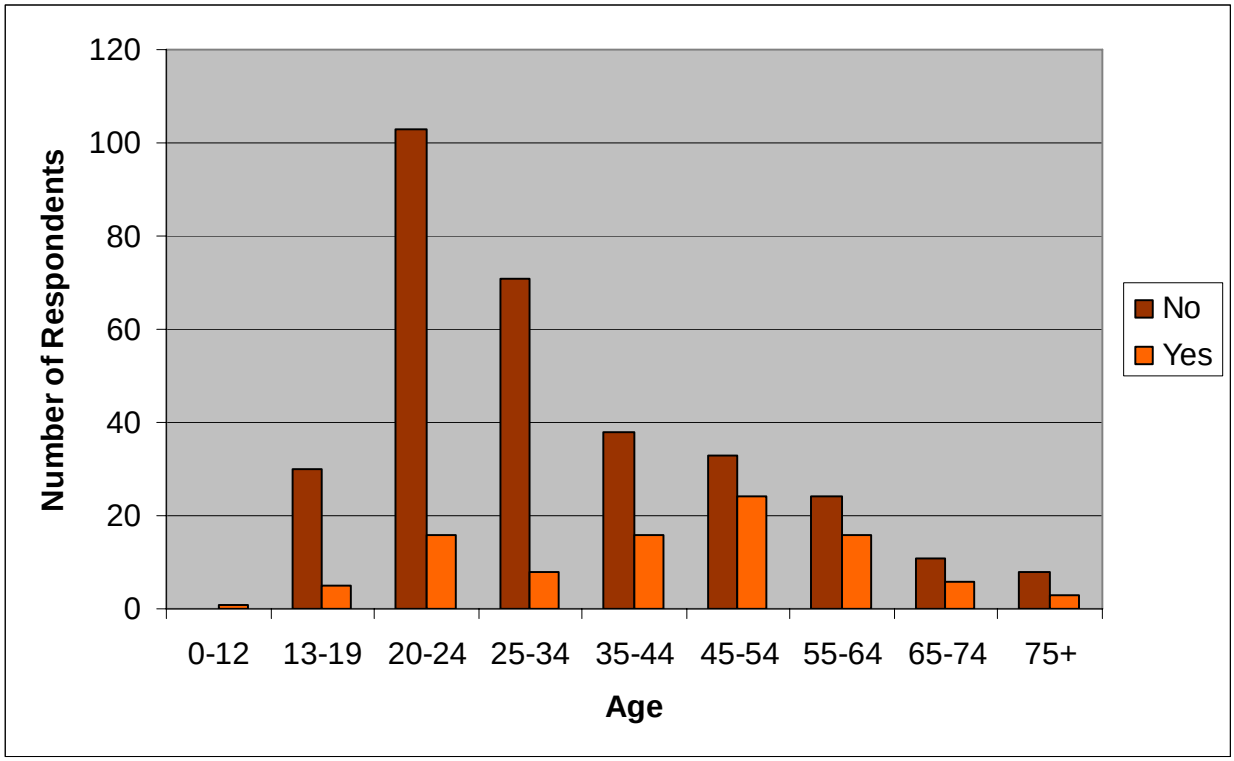


2.6 Question: How long did you walk to get from your home to the bus stop?



2.7 Question: Was a car available for you to drive for this trip today?

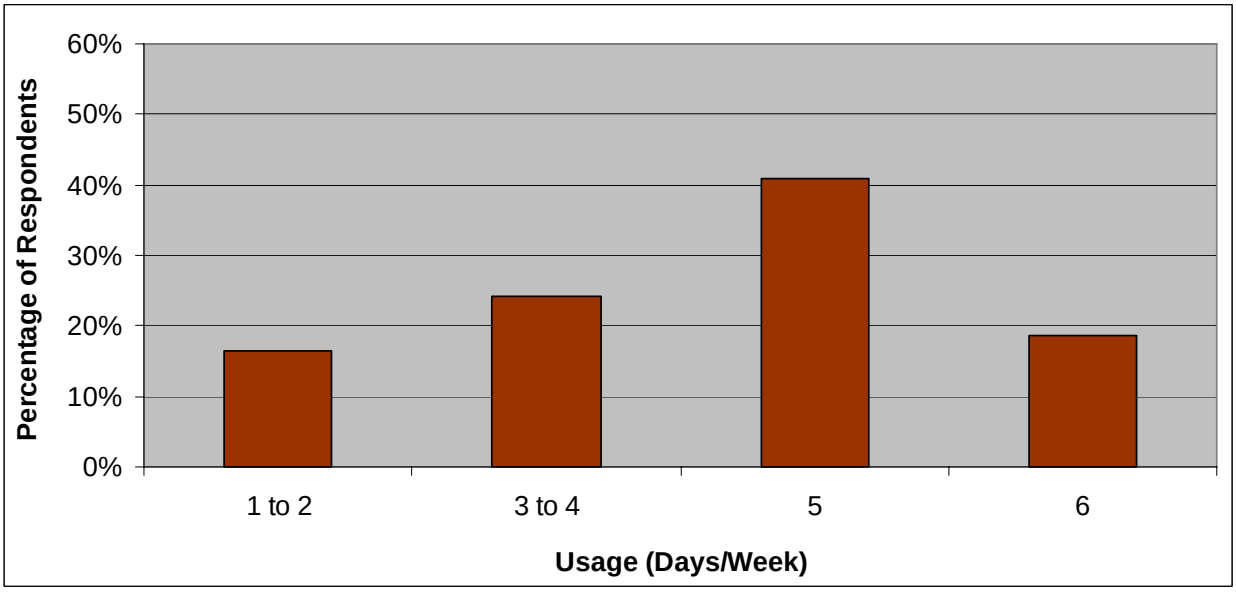
- Yes: 23%
- No: 77%



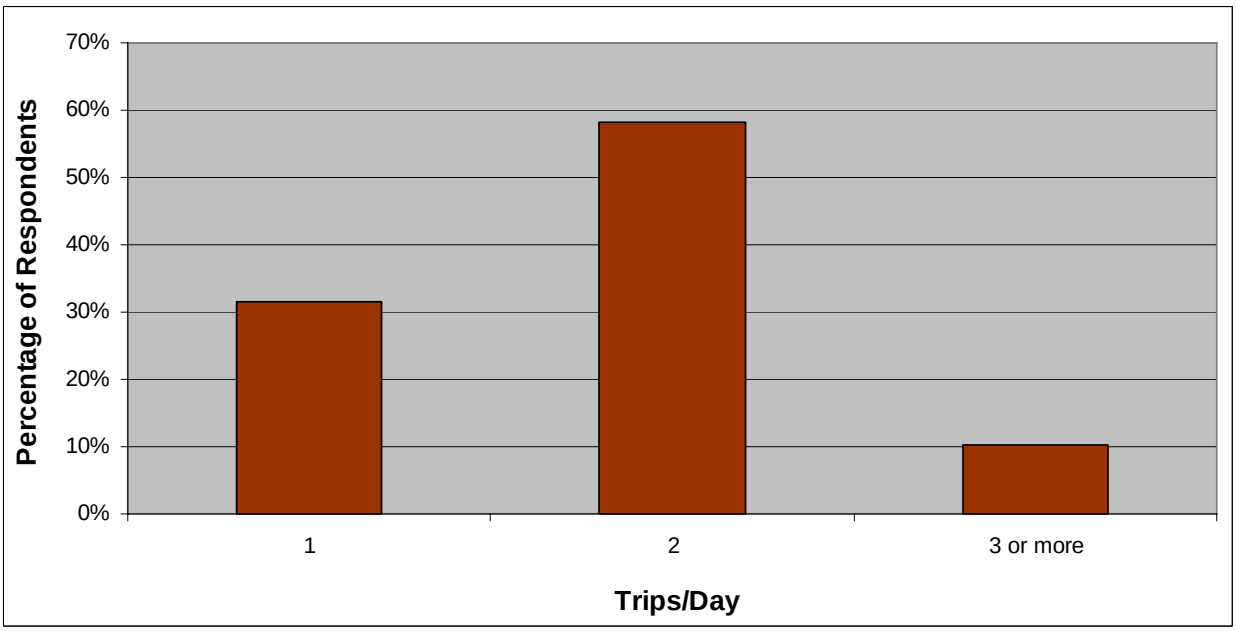
3.0 TRAVEL CHARACTERISTICS

The following questions targeted the general travel behaviours of the respondents.

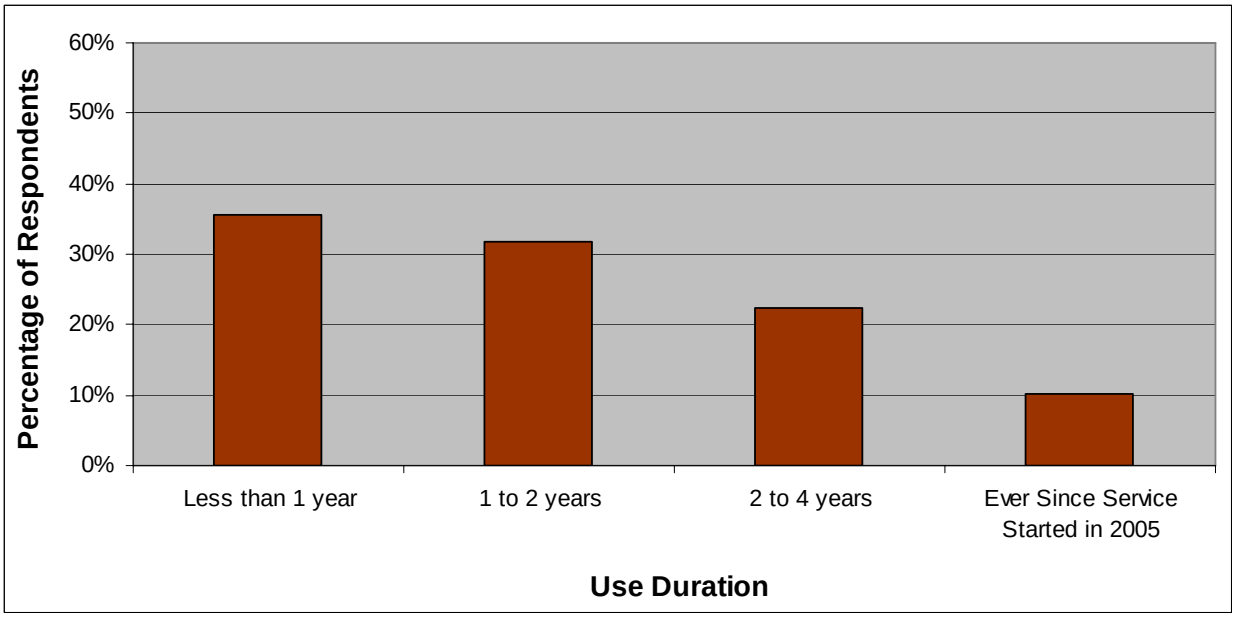
3.1 Question - How many days per week do you typically use transit?



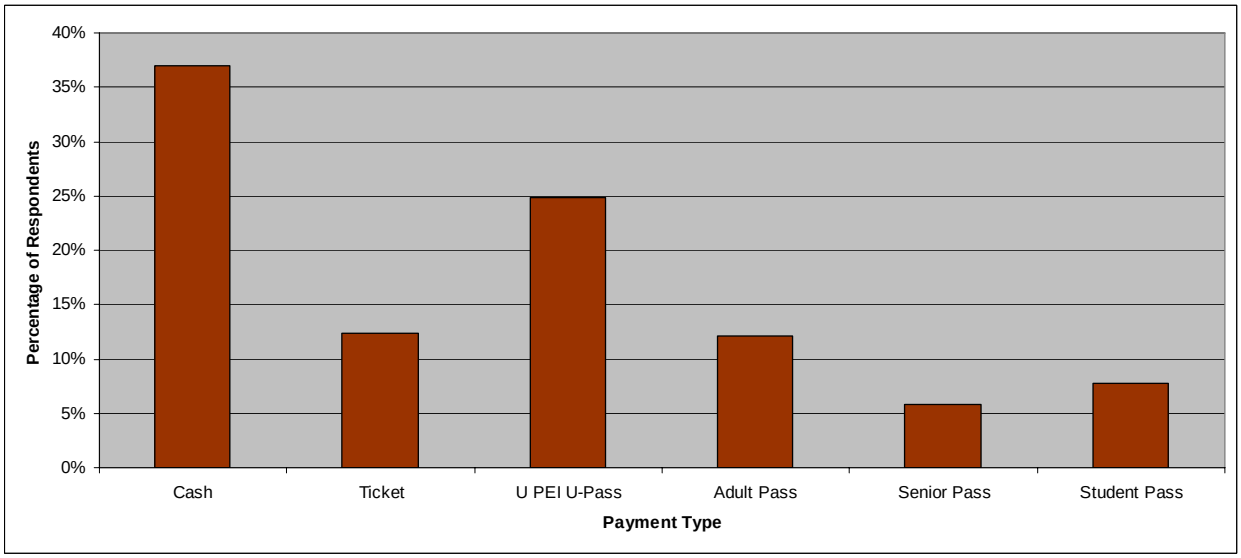
3.2 Question: How many one way trips will you use transit for today?

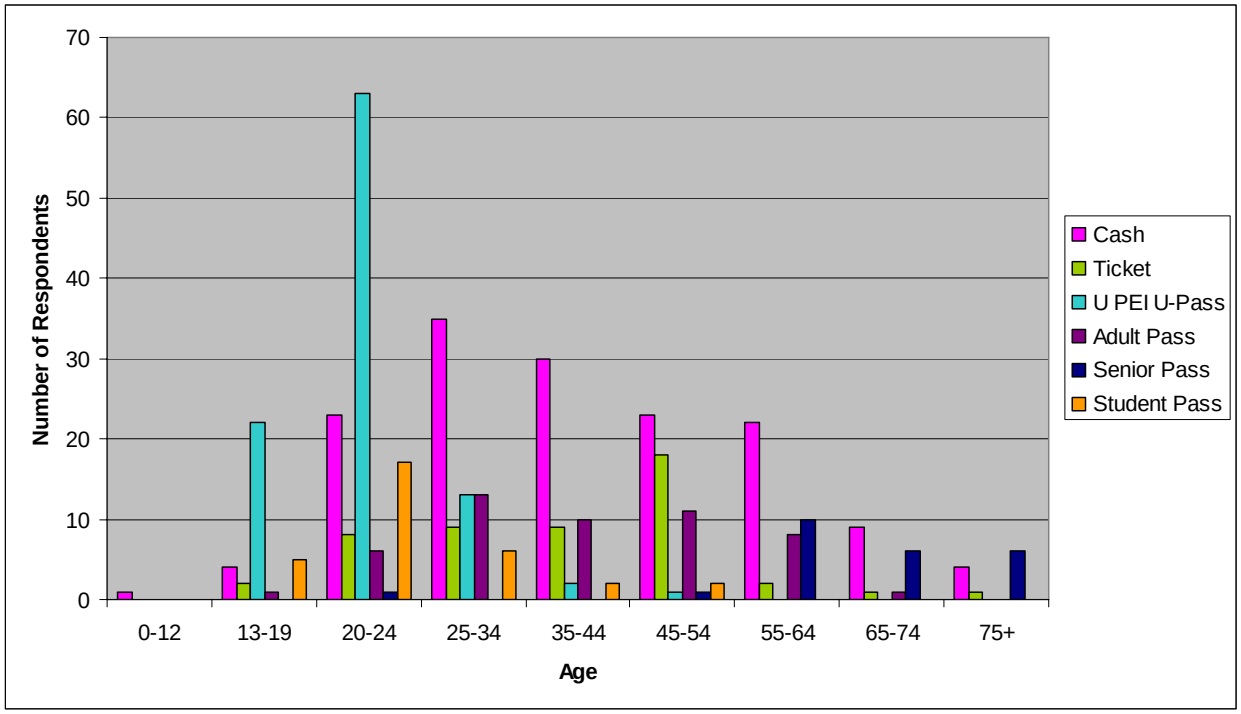


3.3 Question: How long have you been using transit?



3.4 Question: How do you normally pay for your trip?

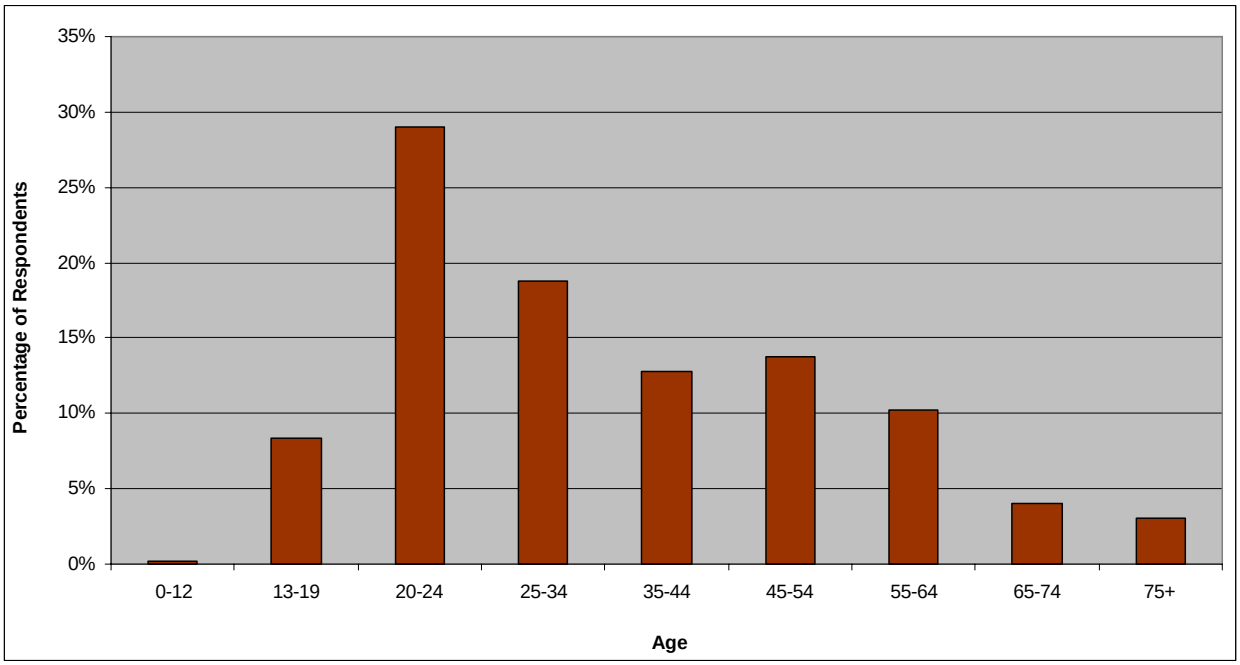


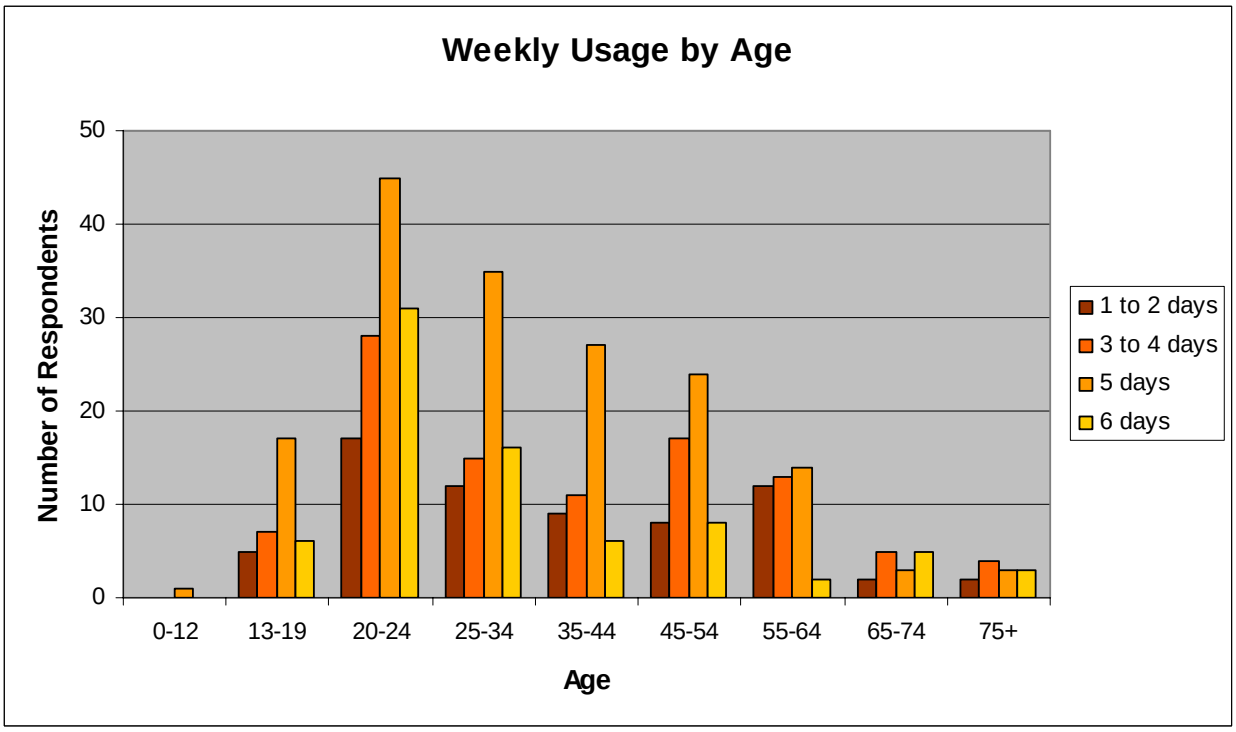

70
60
50
40
30
20
10
0
Number of Respondents
0-12
13-19
20-24
25-34
35-44
45-54
55-64
65-74
75+
Age
Cash
Ticket
U PEI U-Pass
Adult Pass
Senior Pass
Student Pass

4.0 DEMOGRAPHICS

Respondents were asked to provide information pertaining to their demographics.

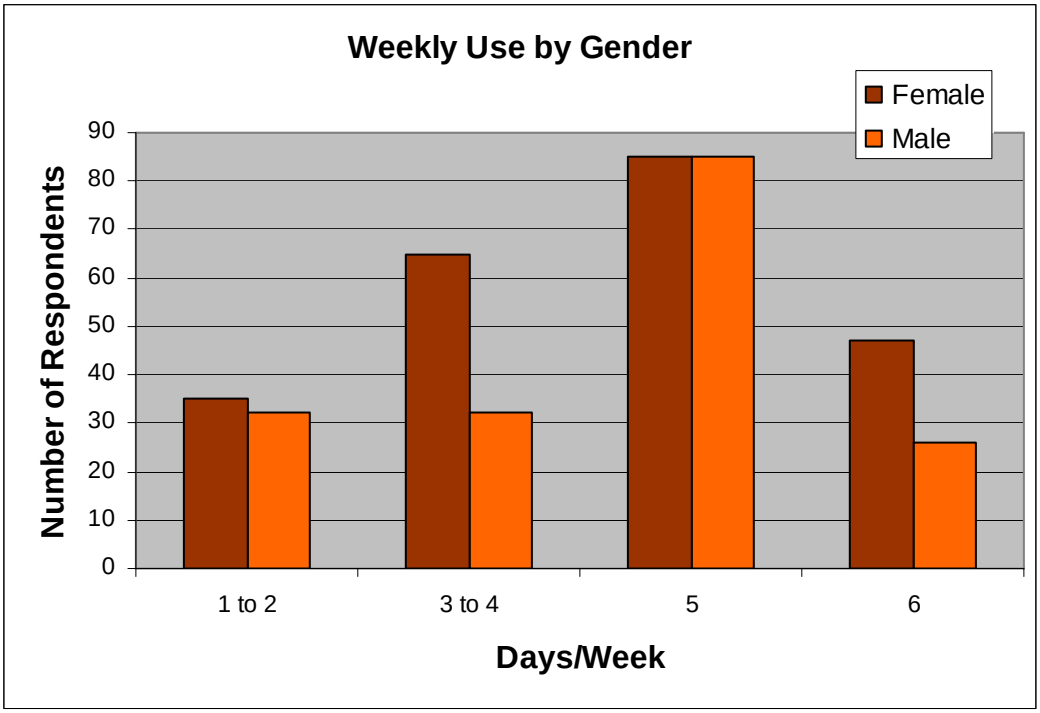
4.1 Question: What is your age?



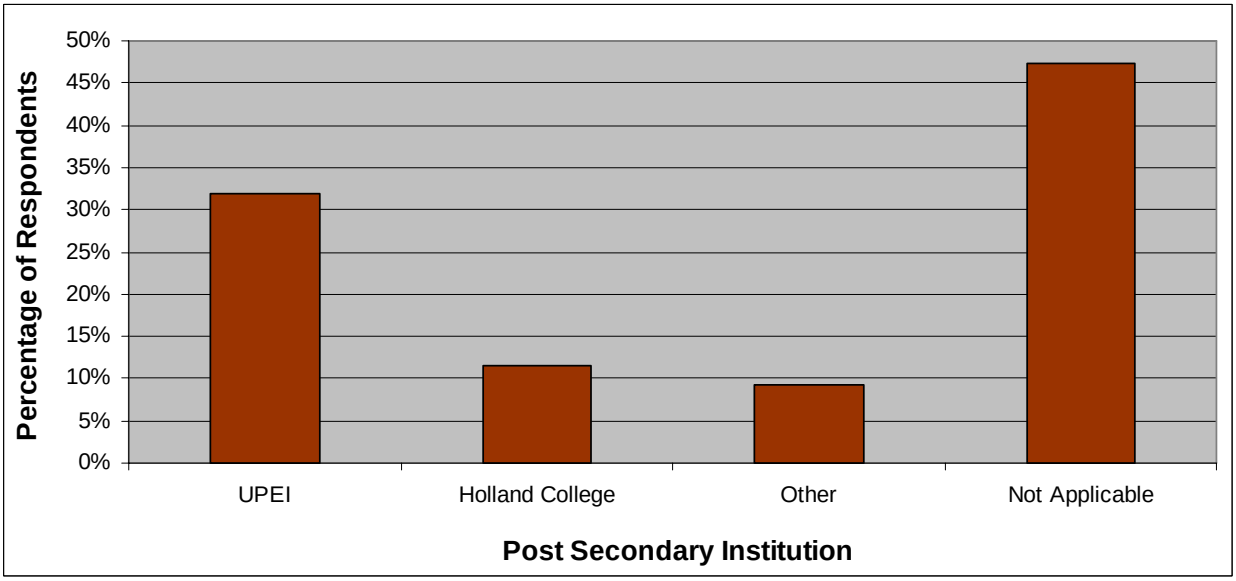


4.2 Question: What is your gender?

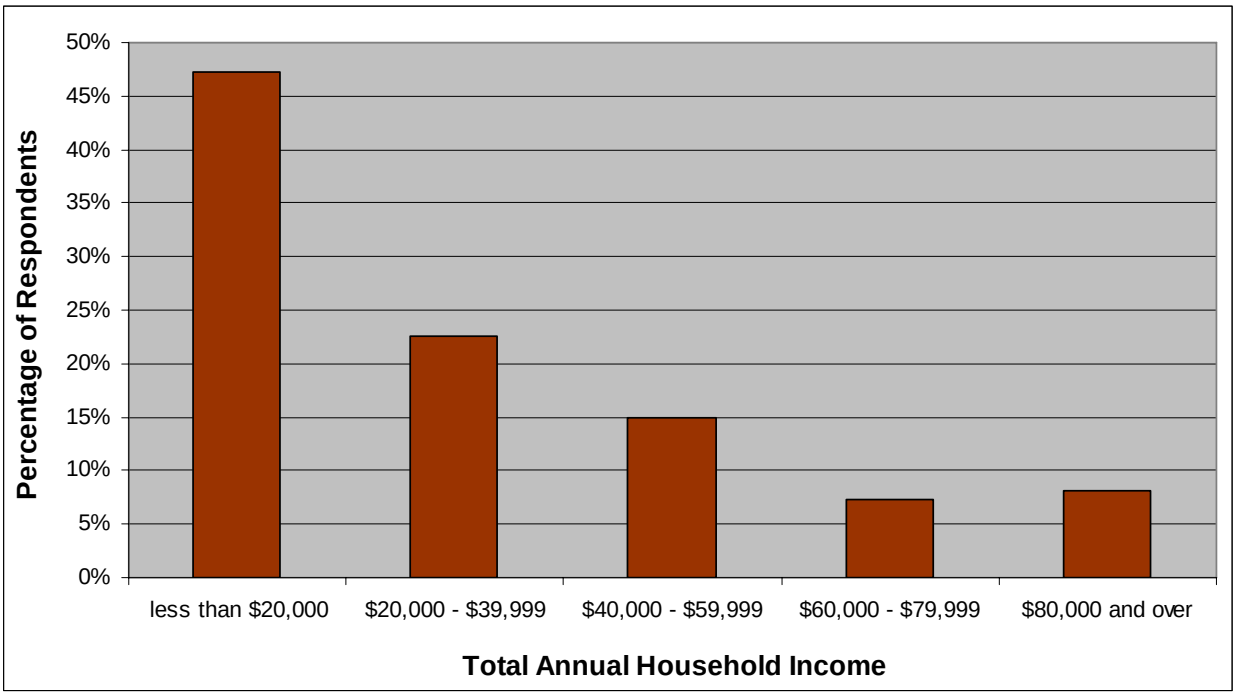
- Male: 43%
- Female: 57%

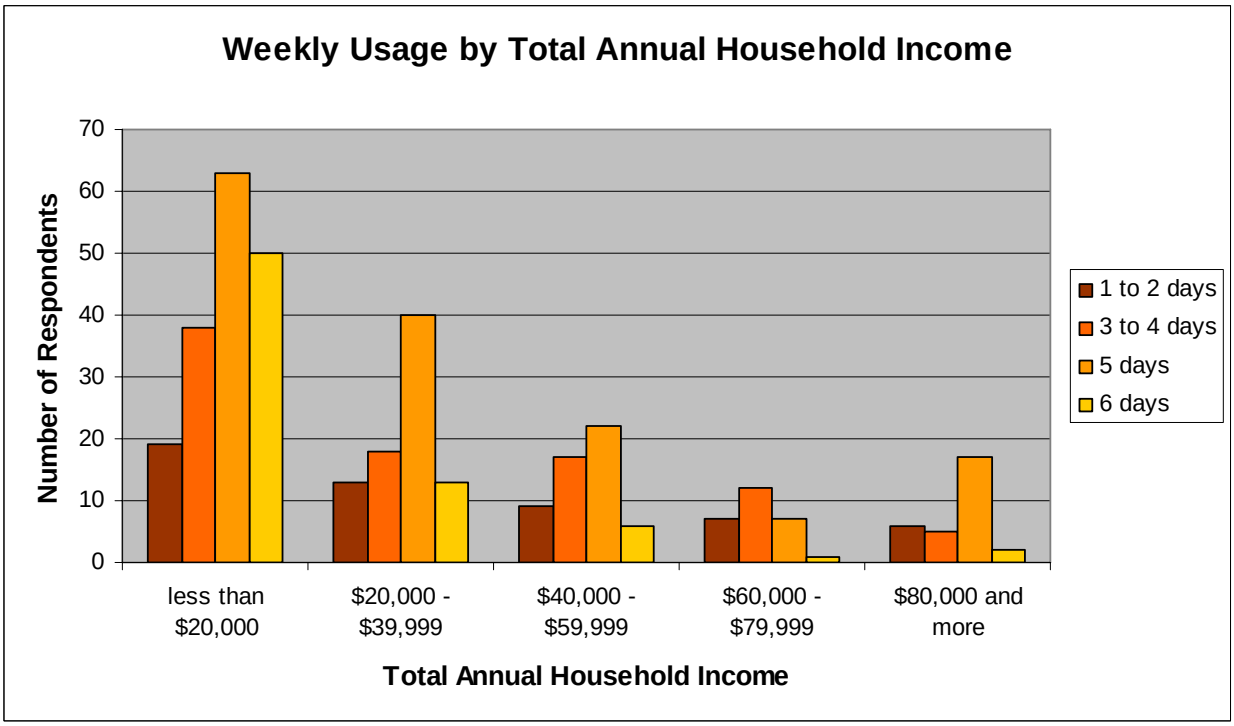


4.3 Question: Are you a post-secondary student?



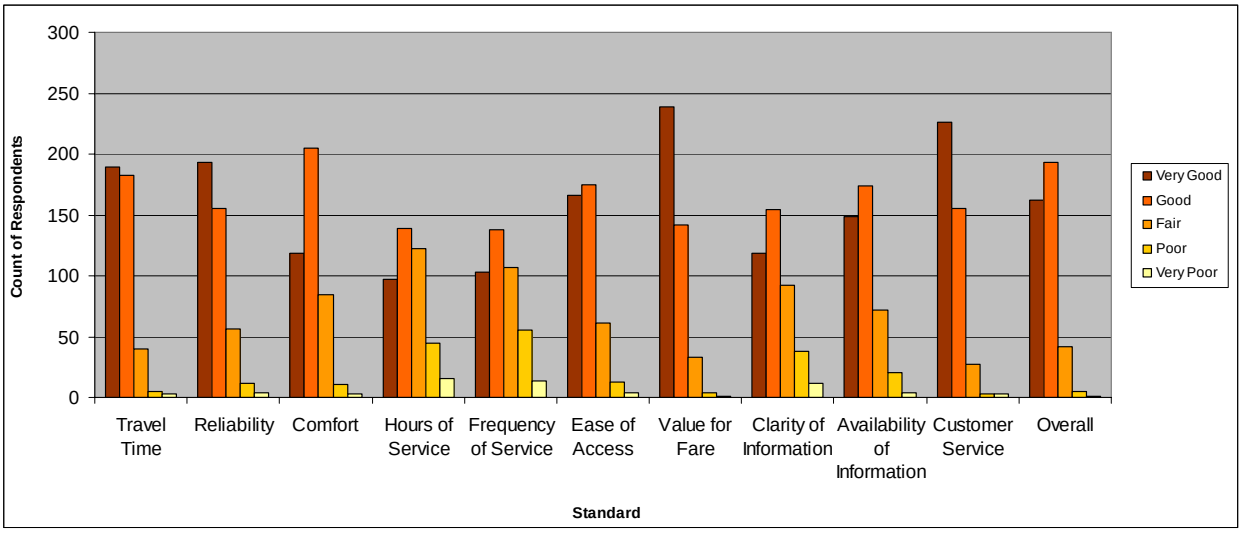
4.4 Question: What is your total household annual income?





5.0 PASSENGER OPINION

The below question asked respondents to rate various elements of current Charlottetown Area Transit services. Space was provided for additional comments.



Positive Comments about Charlottetown Area Transit

Comment	Count	Percentage
Great service	9	50%
Drivers are great	5	28%
Convenience	2	11%
Environmentaly Friendly	1	6%
Frequency and routes	1	6%
Total	***18***	***100%***

Improvements Suggested for Charlottetown Area Transit

Comment	Count	Percentage
Frequency	84	29%
Better Frequency in General	*52*	*18%*
Better Sunday Frequency	*19*	*7%*
Better Weekday Frequency	*11*	*4%*
Better Saturday Frequency	*2*	*1%*
Extended Service	59	21%
Extended Service Weekday Nights	*23*	*8%*
Extended Sunday Service	*12*	*4%*
Extended Service Weekday Mornings	*9*	*3%*
Extended Service in General	*7*	*2%*
Extended Saturday Service	*6*	*2%*
Service on Holidays	*2*	*1%*
Route Structure	36	13%
Improve Route Structure in General	*14*	*5%*
Not Enough Service for My Needs	*8*	*3%*
Routes are Indirect	*3*	*1%*
Travel times are Too Long	*1*	*0%*
Expanded Routes	10	4%
Better Communication of Information	27	9%
Service Reliability (not punctual)	20	7%
Buses	18	6%
Better Buses in General	*10*	*4%*
Accessible Buses	*5*	*2%*
Newer Buses	*3*	*1%*
Waiting Areas	8	3%
More Waiting Areas/Shelters	*5*	*2%*
Improved Waiting Areas/Shelters	*3*	*1%*
Fares	7	2%
Fare Options are Inadequte	*4*	*1%*
Fares are Too High	*3*	*1%*
Aggressive/Impolite Drivers	7	2%
Transfers	4	1%
Accommodate Users Better	3	1%
Handicaped	*2*	*1%*
Seniors	*1*	*0%*
Buses are Crowded	2	1%
Total	***285***	***100%***

Charlottetown Transit On-Board Passenger Survey

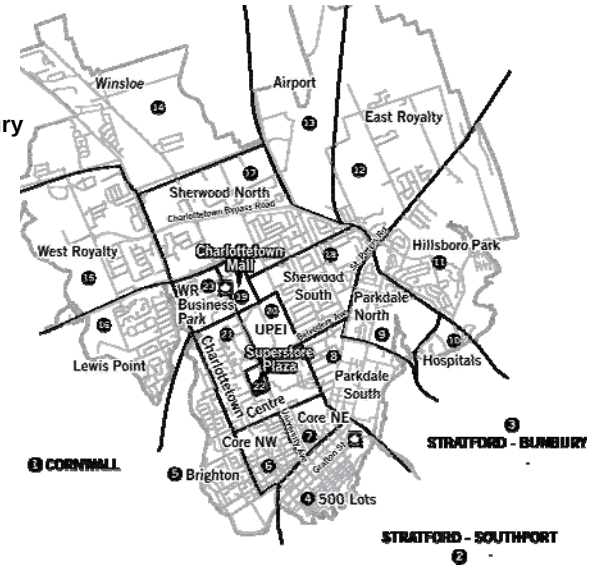
Charlottetown Transit is reviewing your transit system to improve service.

Please take a few minutes to complete both sides of this survey for the current ONE-WAY trip that you are making. Please complete both sides and return the survey to the large envelope near the rear doors or behind the driver. ***Thank you***!

At approximately what time did you first board the bus today?			
_____:_____AM or PM (please circle one)			
What Route are you on <u>now</u>?			
☐ University Avenue Service	☐ West Side Service	☐ Central Area Service	☐ East Side Service
☐ North End Connector Loop	☐ Across Town Connector Loop	☐ Downtown Connector Loop	☐ Cornwall Connector
☐ 7 Stratford Connector (Southport side)	☐ 8 Stratford Connector (Bunbury side)	☐ East Side to Downtown Connector Loop	
Does this trip require you to transfer to another route?			
☐ Yes ☐ No If yes, to which route? _____			

Referring to the map below and using the check boxes, please check where you began your trip (Start) and where you will end your trip (End). Please do not indicate any transfers.

Start	**End**	
☐	☐	**1 Cornwall**
☐	☐	**2 Stratford Southport**
☐	☐	**3 Stratford Bunbury**
☐	☐	**4 500 Lots**
☐	☐	**5 Brighton**
☐	☐	**6 Core NW**
☐	☐	**7 Core NE**
☐	☐	**8 Parkdale South**
☐	☐	**9 Parkdale North**
☐	☐	**10 Hospitals**
☐	☐	**11 Hillsboro Park**
☐	☐	**12 East Royalty**
☐	☐	**13 Airport**
☐	☐	**14 Winsloe**
☐	☐	**15 West Royalty**
☐	☐	**16 Lewis Point**
☐	☐	**17 Sherwood North**
☐	☐	**18 Sherwood South**
☐	☐	**19 Ch'town Mall**
☐	☐	**20 UPEI**
☐	☐	**21 Ch'town Centre**
☐	☐	**22Superstore Plaza**
☐	☐	**23 WR Business Pk**



If you are unaware of the zone you started or ended you trip, indicate the closest intersection below:

Start _____ and _____

End _____ and _____

(Please indicate the closest major intersection)

What is your primary reason for using transit today?

☐ Work ☐ Medical ☐ High School ☐ Elementary School ☐ Other
☐ Shopping ☐ Daycare ☐ Recreation/ Visiting ☐ University/College _____

How long did you walk to get from your home to the bus stop?

☐ Less than 5 minutes ☐ 5 to 10 minutes ☐ Over 10 minutes
☐ I rode my bike ☐ I got a drive ☐ I drove to the bus stop

How many days per week do you typically use transit?
☐ 1 to 2
☐ 3 to 4
☐ 5
☐ 6

How many one way trips will you use transit for today?
☐ 1
☐ 2
☐ 3 or more

How long have you been using transit?
☐ Less than 1 year
☐ 1 to 2 years
☐ 2 to 4 years
☐ Ever since service started in 2005

What is your age?
☐ 0-12 ☐ 45-54
☐ 13-19 ☐ 55-64
☐ 20-24 ☐ 65-74
☐ 25-34 ☐ 75+
☐ 35-44

What is your gender?
☐ Male
☐ Female

Are you a Post Secondary Student?
☐ UPEI
☐ Holland College
☐ Other_____
☐ Not Applicable

Was a car available for you to drive for this trip today?
☐ Yes
☐ No

How do you normally pay for your trip?
☐ Cash
☐ Ticket
☐ U PEI U-Pass
☐ Adult Pass
☐ Senior Pass
☐ Student Pass

What is your total household annual income?
☐ less than $20,000
☐ $20,000 - $39,999
☐ $40,000 - $59,999
☐ $60,000 - $79,999
☐ $80,000 or more

How would you rate the following elements of Charlottetown Transit service?

	Very Good	Good	Fair	Poor	Very Poor
Travel time	☐	☐	☐	☐	☐
Reliability	☐	☐	☐	☐	☐
Comfort	☐	☐	☐	☐	☐
Hours of Service	☐	☐	☐	☐	☐
Frequency of Service	☐	☐	☐	☐	☐
Ease of Access	☐	☐	☐	☐	☐
Value for Fare	☐	☐	☐	☐	☐
Clarity of Information	☐	☐	☐	☐	☐
Availability of Information	☐	☐	☐	☐	☐
Customer Service	☐	☐	☐	☐	☐
Overall Service	☐	☐	☐	☐	☐

Please provide suggestions to improve Charlottetown Transit service?

1.0 PUBLIC INFORMATION CENTRE SUMMARY

A Public Information Centre took place at the Rodd Charlottetown Hotel from 4:00PM – 6:00PM and 7:00PM – 9:00PM on November 23rd, 2010. The purpose of the session was to present study findings including potential directions and obtain feedback.

Seventeen (17) people were in attendance. Attendees included transit users, employees from Stratford and Charlottetown, downtown residents, and senior citizens. Seven (7) people filled out comment sheets. All 7 were transit users. A summary of the comments left is provided below.

Strengths of the service:

- Reliability (2)
- Drivers (3)
- Value for fare

Improvements needed:

- Better routing numbering and colour coding (2)
- Simpler schedule (2)
- Turn off music (2)
- Park and ride in Stratford at the Hillsborough Bridge
- Bus terminal should be off main streets in the Downtown to save parking spaces
- Schedule information at stops
- Benches and shelters at the downtown terminal
- Sign behind the driver informing passenger of municipal subsidies involved with the service
- Evening service for seniors (2)
- Weekend service for seniors (2)
- More evening and late night service
- Buy buses for Canadian companies
- More service to outskirts and Cornwall and Stratford (2)
- Maps of routes

Suggestions to increase transit ridership in the future:

- Cut parking availability (3)
- Replace school buses with transit buses for high schools
- More advertising (4)
- Partnerships (2)
- More frequent trips (2)
- Better coverage for seniors service

APPENDIX B
Sample Service Standards from Milton Transit

Sample Service Standards from Milton Transit

Standard	Element	Performance Measure	Target / Standard
Design Standards			
Walking Distance and Coverage	Walking distance from origin/destination to closest bus stop.	Effectiveness	< 400 m for 90% of urban population. 300 m for 90% of high density areas, major attractions senior's homes, activity centres.
Hours of Service	Period of operation for all routes.	Effectiveness	Mon-Fri Service: start at least 1 hour before the standard work day (7:30AM) and end at least 1 hour after the standard work day (5:30PM) Extend Service by one run when min 15 pass/ route/ hour is reached on first/last run. Reduce Service by one run when less than 10 pass/ route/ hour is reached on first/last run.
Frequency of Service	Frequency of bus service during hours of operation based on minimum standards or passenger demand.	Effectiveness	Peak period: every 30 minutes for AM and PM weekday service in residential areas. Off-peak: minimum 60 minutes for weekday service. Consider increased frequency when bus seated capacity consistently exceeded. Consider reduced frequency on routes when less than 10 passengers per revenue hour consistently reached.
Route Directness	Route design guideline to reduce in-vehicle travel time. Used for new routes and route modifications.	Effectiveness	Direct service between main transfer point and all areas in urban area (maximum in bus travel time 15 minutes). Route deviations: not exceed 3 km away from linear path. Design routes as direct two-way corridor service. Origin/destination pairs within urban service area should be connected by at most 1 transfer point.
Stop Spacing	Standard for the number and spacing of stops along a route, balanced against maintaining an appropriate average speed of buses.	Effectiveness Efficiency	300 m to 500 m apart in residential areas (increased in underdeveloped areas) Priority for stops at major intersections/major destinations Good pedestrian connections to/from origin/destination for each stop location (confirm with planning and roads)
Stop Location	Standard for specific location of stops on a route to promote safe operation, minimize dwell time of buses, and reduce impacts to adjacent properties.	Effectiveness	Factors to be considered when selecting stop locations (in order of preference): • passenger safety, • pedestrian safety, • general traffic safety, • passenger convenience, • freedom of bus movement, • roadway capacity, • minimize nuisance to property owners, • auto driver convenience.

Standard	Element	Performance Measure	Target / Standard
			On residential streets, priority locations for bus stops in order of preference: • beside open/green space, • beside side yard of house, • in-front of house At intersections controlled by a stop –sign, preference to locate bus stops at near side of intersection At intersections that are signalized, preference to located bus stops at the far side of intersection
Shelter Warrants	Addresses passenger comfort, defined in terms of the ratio of the number of bus shelter to number of bus stops as well as the appropriate placement of shelters	Effectiveness	Maintain a ratio of 1 shelter per 7 bus stops Prioritize shelter locations based on the following priorities (in order of preference) • High passenger boarding areas • Areas with poor microclimatic conditions • Inbound locations on routes over outbound • Stops with high senior's usage • Stops that are fully accessible • Stops with good lighting and visibility • Highly visible areas for advertising purposes Avoid creating a sightline problem for motorists
Private Property	Guideline for provision of service onto private property	Effectiveness	Decision to access on case by case basis in discussion with property owner Situations where it is appropriate to operate on private property include the following: • The property is used as a sub-terminal • The property is considered a major destination • Passenger/pedestrian safety issues exist to access the private property from a bus stop on the street For a private property to be accessed, the following arrangements / assessments should be in place: • Adequate snow removal and maintenance; • Completed assessment of bus circulation and stop location relative to pedestrian and vehicle safety • Completed assessment of bus timing and impact on meeting schedule/expanding service area.
Vehicle Accessibility	Determine how easily customers can access buses through the provision of accessible low floor buses.	Effectiveness	Ensure all new vehicles purchased are low-floor buses Adopt goal of all routes being fully accessible Short term: designate "accessible routes"

Standard	Element	Performance Measure	Target / Standard
Performance Measures			
On-Time Performance	Measures the reliability of service relative to the scheduled time.	Effectiveness	Meet posted schedules 95% of time (0 to 3 min late) Achieve timed transfers 98% of time
Missed Trips	Measure reliability of service relative to the trip being completed in the scheduled time period.	Effectiveness	Scheduled trips for each route should be completed 99% of the time.
Passenger Loading	Measure maximum number of passengers on board a transit vehicle at one time	Effectiveness Efficiency	Off peak runs (hourly average): < 100% vehicle seated capacity. Peak period runs (hourly average): < 150% of seated capacity. If targets exceeded: consider frequency changes, extra buses, route modifications, or semi-express service.
New Service	Route performance requirements over six months and twelve months	Effectiveness Efficiency	Serve all growth areas identified in the Official Plan. Introduce new services on a 1 year trail basis early in a new development. Minimum 25% of the system average financial performance target reached within 6 months of service introduction. Standard performance targets of all routes reached within 12 months of service introduction.
Industrial Service	Provision of transit service to industrial areas	Effectiveness Efficiency	Service provision in industrial areas should be based on the following guidelines: • Industrial areas within existing fixed route service area: all standards apply; further partnership opportunities with employers should be sought. • Industrial areas outside fixed route coverage: special transit provided on partnership basis subject to guaranteed R/C ratio set by municipality.
Complaint (Compliment) Rate	Used to keep track of customer feedback on the system for both complaints and compliments.	Effectiveness	Monitor number/type of complaints per 1,000 passenger trips. Reduce # of overall complaints each year by 10%. Monitor and provide feedback to employee on complaints. Provide positive feedback to employees, when warranted. Respond within 10 business days to customers on actions taken.
Service Utilization	Provides an standard of productivity being achieved on the system	Effectiveness Efficiency	Achieve a minimum of 10 revenue passengers per capita annually. Achieve a minimum of 15 revenue passengers per revenue vehicle hour.

Standard	Element	Performance Measure	Target / Standard
Financial Performance	Measures the total passenger revenues collected as a percentage of the total operating costs of the system	Financial Performance	System: Achieve R/C of 50% within 3 years. Saturday: Achieve R/C of 35% within one year. Individual routes: Minimum R/C target of 50% of the system average. Routes falling below should be reviewed. Municipal subsidy per capita at benchmark set by Council and annually increased by assessment increase

APPENDIX C
Federal, Provincial & Territorial Funding of Public Transit in Canada: A Compendium

Source: Canadian Urban Transit Association

CUTA
ACTU

CANADIAN URBAN TRANSIT ASSOCIATION
ASSOCIATION CANADIENNE DU TRANSPORT URBAIN

FEDERAL, PROVINCIAL & TERRITORIAL FUNDING OF PUBLIC TRANSIT IN CANADA: A COMPENDIUM

February 2009

MISSION STATEMENT

CUTA is the voice for enhancing the public transit industry in Canada.

Its mission is to establish public transit as the primary solution to urban mobility in the achievement of sustainable transportation, and to assist its members in the fulfillment of their mandates.

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Federal, Provincial & Territorial Funding of Urban Transit in Canada: A Compendium

Introduction

Funding of urban transit in Canada has been a critical issue for many years. Infrastructure investment and operating contributions are key to the eventual and continued success of public transit. A recent survey of Canadian transit system on transit infrastructure needs revealed there is an estimated renewal and expansion need of $40.1 billion for the 2008-2012 period. The survey highlights the message that if transit is expected to increase mobility in urban areas, federal and provincial levels of government must continue to invest in transit. Parts of these needs are adressed by existing funding programs, including a transfer of a portion of the federal gas tax to municipalities.[1] Figure 1 displays the capital contributions made by all levels of government towards transit from 2001 to 2007. In 2007, combined transit capital investments exceeded $2 billion. In terms of transit operations, Figure 2 illustrates transit operating revenues in 2007, of which the majority continues to come from passenger fares.[2]

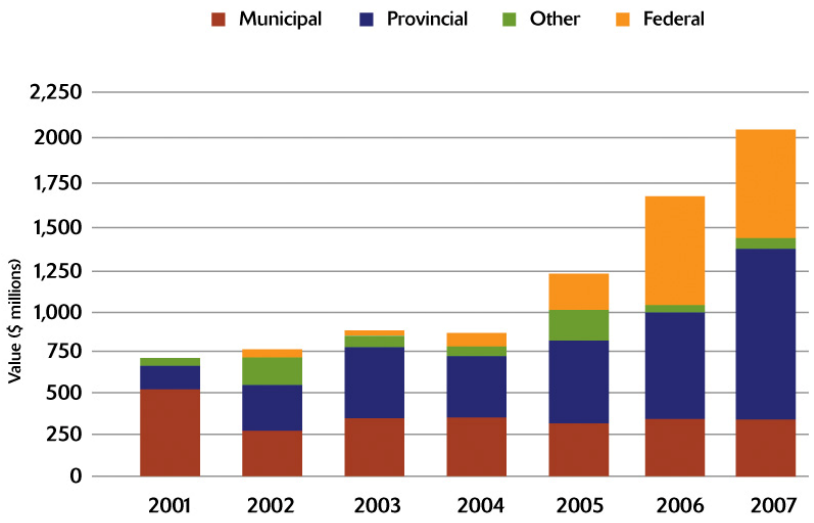

Figure 1. Sources of transit capital investment (2001-2007)

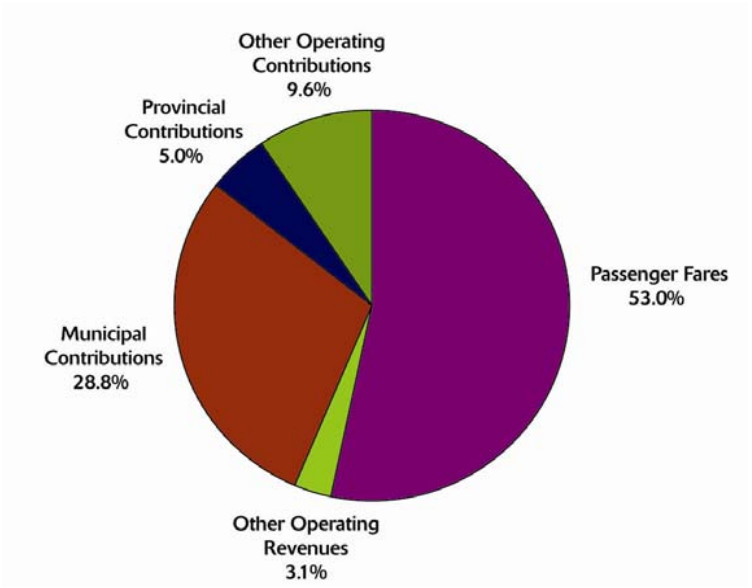

Figure 2. Sources of transit operating revenues (2007)[3]

[1] CUTA, Report on a Survey of Transit Infrastructure Needs for the Period 2008-2012, February 2008
[2] CUTA, Canadian Transit Fact Book 2007 Operating Data, September 2008
[3] Figure 2 presents all Operating Revenues and Contributions, of which 53% are *Regular Service Passenger Revenues*. This figure should not be interpreted as the *Revenue to Cost Ratio (R/C ratio)*, which is calculated using *Total Operating Revenues/Total Direct Operating Expenses*. In 2007, CUTA reported an R/C ratio of 58%.

Synopsis of Common Findings

Funding contributions come in various forms, dependent on the jurisdiction. First, a distinction should be made between direct and indirect funding. As indicated by Table 1, 9 of 13 provinces and territories, as well as the Federal government, invest directly in transit. Of those 9 provinces and territories, 3 provinces directly provide operating and capital investments for both conventional and specialized transit. The Northwest Territories and Newfoundland & Labrador provide no direct grants and in Nunavut there is no urban transit service.

Table 1 - Direct Provincial Investment in Transit

	Conventional		Specialized	
	Operating	**Capital**	**Operating**	**Capital**
Government of Canada		√		√
Alberta		√		√
British Columbia – Metro Vancouver		√		√
British Columbia – other municipalities	√	√	√	√
Manitoba	√	√	√	√
New Brunswick				√
Newfoundland & Labrador				
Northwest Territories				
Nova Scotia				
Nunavut				
Ontario[4]	√	√	√	√
Prince Edward Island – Charlottetown only		√[5]		
Québec - 9 largest systems	√	√	√	√
Québec - smaller systems	√		√	√
Saskatchewan		√	√	√
Yukon			√	

[4] Ontario's gas tax funding can be utilized for either conventional or specialized transit, and for capital or operating costs at the municipality's discretion.
[5] Charlottetown is provided a capital grant based on a provincial sales tax rebate.

In addition to provincial funding, the federal government recently offered several funding initiatives targeting the transit sector including:

- Public Transit Fund – a one-time investment of $400 million introduced in the 2005 Federal Budget (Table 2)
- Public Transit Capital Trust (2006) – $900 million was announced in the 2006 Federal Budget (Table 2)
- Public Transit Capital Trust (2008) - an investment of $500 million announced in the 2008 Federal Budget. (Table 2)
- Gas Tax Fund – An ongoing transfer of funds from the federal government to municipalities. The Fund has been extended to 2014 as part of the Building Canada Plan, and Budget 2008 includes a commitment to make it permanent. Gas tax funds are allocated on a per capita basis and are to be used for "environmentally sustainable municipal infrastructures", which includes public transit, but may also include water, wastewater, solid waste and community energy systems, and active transportation infrastructure.
- Building Canada Fund – Announced in the Budget 2007, the Building Canada Fund allocates $8.8 billion for infrastructure for the period 2007-2014. Spending will be allocated among provinces and territories on a per capita basis, supporting investments in the core national highway system, large-scale projects such as public transit and sewage treatment infrastructure, and small-scale municipal projects such as cultural and recreational facilities.
- Municipal Rural Infrastructure Fund (MRIF) - The government of Canada has provided $1.2 billion to help support smaller scale municipal infrastructure such as water and wastewater treatment, or cultural and recreation projects, to provide better quality of life for both smaller and First Nations communities.
- Infrastructure Stimulus Fund - Announced in the 2009 budget, the Infrastructure Stimulus Fund is to provide $4 billion to provincial, municipal and territorial infrastructure rehabilitation projects. Funding will be available for two years for projects that will begin construction during the 2009 and 2010 construction seasons, with the fund covering up to 50% of project costs.
- Green Infrastructure Fund – The 2009 budget announced a five-year $1 billion Green Infrastructure Fund.

Table 2 below outlines the Public Transit Fund as well as the two Public Transit Capital Trust, and is categorized by province or territory. The provincial/territorial grant programs range in monetary value but are related mainly to population size and the need for public transit services. In addition to the direct grant funding programs, there are several indirect funding contributions allocated to the provinces. There are two forms of provincial and federal support:

- Unconditional (or "unallocated") grants. These are transferred from province to municipality. Determinations of the grant amounts are usually based on population size or ridership levels. Unconditional or unallocated grants from provinces to municipalities become part of the general revenue of the recipient municipality, which then decides how much to allocate to public transit;

- Dedicated local taxes or user fees. Through provincial legislation, these were created for the municipality or region as an alternative method of revenue to fund public transit. Most common forms are taken from a portion of property taxes as in Victoria and the Greater Vancouver Regional District (GVRD). Other forms that are prevalent are user fees, which are utilized from a proportion of various sources such as gas, hydro, or parking.

Table 2 - Government of Canada Public Transit Funding Allocation 2005-2009 ($millions)

	Public Transit Fund	**Public Transit Capital Trust (PTCT)**		**Total**
	2005	2006	2008	
Newfoundland and Labrador	6.5	14.1	7.6	28.2
Prince Edward Island	1.7	3.8	2.1	7.6
Nova Scotia	11.7	25.8	14.0	51.5
New Brunswick	9.4	20.7	11.3	41.4
Québec	94.4	210.8	116.3	421.5
Ontario	155.2	351.5	194.9	701.6
Manitoba	14.7	32.6	17.9	65.2
Saskatchewan	12.5	27.2	14.9	54.6
Alberta	40.1	91.3	52.9	184.3
British Columbia	52.5	119.3	66.7	238.5
Yukon	0.4	0.9	0.5	1.8
Northwest Territories	0.5	1.2	0.6	2.3
Nunavut	0.4	0.8	0.5	1.7
Total	400.0	900.0	500.0	1,800.0

Funding by Jurisdiction

The following section outlines operating & capital program funding for public transit – conventional and specialized - by jurisdiction.

CANADA

	CONVENTIONAL AND SPECIALIZED	
	Operating	**Capital**
Municipalities with transit systems	• No direct operating grants.	• The Public Transit Fund has provided $400 million in fiscal year 2005-2006. • Public Transit Capital Trust 2006 provided $900 million. • Public Transit Capital Trust 2008 provided $500 million. - Trust funding was allocated to provinces and territories on a per-capita basis, and they decided on the distribution to projects, municipalities and/or transit agencies.
All municipalities		• Annual Gas Tax Fund (GTF) allocation to municipalities, for sustainable infrastructure, including transit. Beginning in 2009-2010, a total of $2 billion will be made available annually to municipalities across Canada, consistent with GTF agreements signed by each province and territory. • Municipal allocation varies by jurisdiction and is established by provinces/territories • For the first two years of the GTF (2005/6 and 2006/7), 26% of the Fund, or approximately $1.3 billion, was used for transit investments. • Funding can be used for up to 100% of project costs.

Specific municipalities or transit agencies		• Sunsetting infrastructure programs, such as the Canada Strategy Infrastructure Fund include: - $450 million for the Canada Line in Vancouver - $350 million for the Toronto Transit Commission Modernization Project - $385 million for the GO Transit Rail Improvement Program - $95 million for Brampton Acceleride - $83 million for Mississauga bus rapid transit - $135 million for York VIVA • Building Canada Fund supports public transit as an eligible funding category if provinces and territories choose to make that sector a priority. Funding can be used for up to 50% of project costs for a provincial project, 1/3 if municipal and 25 % if private. • Municipal Rural Infrastructure Fund (MRIF) – The government of Canada has provided $1.2 billion to help support smaller scale municipal infrastructure such as water and wastewater treatment, or cultural and recreation projects, to provide better quality of life for both smaller and First Nations communities. • Non-infrastructure programs, such as Transit-Secure, the Urban Transportation Showcase Program and ecoMobility are available sources of funding for transit. • Infrastructure Stimulus Fund - Announced in the 2009 budget, the Infrastructure Stimulus Fund is to provide $4 billion to provincial, municipal and territorial infrastructure rehabilitation projects. Funding will be available for two years for projects that will begin construction during the 2009 and 2010 construction seasons, with the fund covering up to 50% of project costs. • Green Infrastructure Fund – The 2009 budget announced a five-year $1 billion Green Infrastructure Fund.

ALBERTA

	CONVENTIONAL AND SPECIALIZED	
	Operating	**Capital**
Calgary & Edmonton	• No direct operating grants. • Annual Unconditional Municipal Grant Program[6] funding all, part or none of which may be spent on transit, according to the wishes of the recipient municipality. - Value of grant determined by per capita rate. - Amount unchanged since 1994.	• Annual Transportation Capital Grant determined by amount of road-use gasoline and diesel sold in each city, at rate of 5¢ per litre. - Projected to raise $100 million for Calgary and $90 million for Edmonton in F/Y 2008-09 – roughly $100 per capita in each city. - Can be spent on roads and/or transit. Proportion spent on transit is allocated by each city council depending on the city's current transportation priorities. • Alberta Municipal Infrastructure Program - Provides approximately $905 million to Calgary and $648 million to Edmonton in total over five years, 2005-06 to 2009-10. - Can be spent on municipal infrastructure, including transit. Proportion spent on transit is allocated by each city council depending on the city's current transportation priorities.

[6] The Public Transit Operating Assistance Grant is calculated separately, and then combined with two other grants to form the Unconditional Municipal Grant, which is provided by Alberta Municipal Affairs. For F/Y 2008/2009, the Public Transit Operating Assistance Grant component was calculated at $10.8 million -- including $2,323,282 for the City of Calgary and $2,001,728 for the City of Edmonton.

Other cities, including any Calgary- or Edmonton-area municipalities	• No direct operating grants. • Annual Unconditional Municipal Grant Program funding all, part or none of which may be spent on transit, according to the wishes of the recipient municipality. - Value of grant determined by per capita rate. - Amount unchanged since 1994.	• Annual Transportation Capital Grant of $60 per capita for 2008/09. - In F/Y 2008/09, about $37 million is being provided to the 16 eligible cities. - Can be spent on roads and/or transit. Proportion spent on transit specifically determined by each city council. - Covers up to 75% of project cost, to the maximum of the grant funds available. • Alberta Municipal Infrastructure Program - Provides approximately $583 million to other cities in total over five years (2005-06 to 2009-10), based on population. - Can be spent on roads, transit, or other municipal infrastructure. Proportion spent on transit is allocated by each city council depending on the municipality's current transportation priorities. • Green Transit Incentives (Green Trip) - $2 billion in public transit investments, supporting new transit alternatives throughout the province that will significantly reduce the number of vehicles on Alberta roads and reduce GHG emissions. - Funds will come from budget surplus. Green TRIP is open to all municipalities, regional entities, non-profit organizations, and private sector groups.

BRITISH COLUMBIA

	CONVENTIONAL & SPECIALIZED	
	Operating	**Capital**

Metro Vancouver	• No direct operating grants.
	• Province has made tax transfers and tax room available to TransLink, the regional transportation authority.
	• Under legislation, TransLink is permitted to levy new transportation-related charges, such as a charge on motor vehicles, benefiting area charges (for new facilities) and tolls on new facilities (for the purposes of paying for the improvements), etc.
	
	- Available from the 2007 TransLink Annual Report
	  - Property tax (residential and non-residential) $246,891,000
	  - Fuel tax ($0.12 per litre) $267,637,000
	  - Transit Fares $327,609,000
	  - Hydro Levy ($1.60 per month per household) $17,566,000
	  - Parking Site Tax $21,789,000
	  - Other sources - $14,901,00
	  - Total revenues - $896,393,000
		• The province provided $51.8 million in March 2008. Funds are to be spent on trolley buses the SeaBus, diesel buses and SkyTrain cars. Future capital funds are expected, but the amount is to be determined.

Greater Victoria	• 27.8% of conventional operating costs $16.6 million in 2007-2008 • 63.0% of specialized operating costs; $3.9 million in 2007-2008	• 31.7% of conventional capital costs. Grant received from the Province for their share of debt servicing. • 63.0% of specialized capital costs. Grant received from the Province for their share of debt servicing.
	The province has also granted the Victoria Regional Transit Commission the right to collect a 2.5 ¢ per litre gasoline tax, the revenues from which covered 11% of conventional and specialized operating costs in 2007-2008	
Municipal Systems	• 43.5% of conventional operating costs (average of 24 systems). • 53.8% of specialized operating costs (average of 55 systems).	• 46.7% of conventional capital costs. • 62.0% of specialized capital costs.
	Alternative funding arrangements for expanded transit services exist on a case by case basis with community funding partners and local governments.	

MANITOBA

	CONVENTIONAL & SPECIALIZED		
	Operating		Capital
Winnipeg	• Unconditional operating grant of $25,036,300 (2008 Budget) provided annually for transit services, including Handi-Transit. The city determines the allocation of this funding between its conventional and specialized transit services. - Funding is provided through the 50/50 transit operating funding partnership, enshrined in provincial legislation, which is intended to offset 50% of the net operating costs of Winnipeg's transit services, including future Rapid Transit costs.	• General Support Grant (unconditional financial support to municipalities with payrolls of $1.0 million or more) provided to offset to Payroll Tax paid by these municipalities, including tax paid on transit payrolls. • Winnipeg, Brandon, Flin Flon and Thompson all received General Support Grants.	• Winnipeg receives $3.84 million (2008 Budget) in capital funding for the purchase of low floor transit buses. Amount determined annually by the Province. • The Province has signed a Rapid Transit Agreement with Winnipeg, partnering to fund the first stage of the Southwest Rapid Transit Corridor – an estimated $138M project.

Brandon	• $1,245,000 (2008 Budget) annual operating grant funding • Amount allocated to conventional and specialized transit determined each year by the City. • Funding is provided through the 50/50 transit operating funding partnership, enshrined in provincial legislation, which is intended to offset 50% of the net operating costs of transit services.		• $128,000 annual grant (2008 Budget) – amount determined annually by the Province.
Thompson	• $186,700 (2008 Budget) annual operating grant funding - Amount allocated to conventional and specialized transit determined each year by the City. - Funding is provided through the 50/50 transit operating funding partnership, enshrined in provincial legislation, which is intended to offset 50% of the net operating costs of transit services.		Thompson and Flin Flon lease, rather than purchase, transit buses. Therefore these towns do not receive capital grants.
Flin Flon	• $133,200 (2008 Budget) annual operating grant funding - Amount allocated to conventional and specialized transit determined each year by the City. - Funding is provided through the 50/50 transit operating funding partnership, enshrined in provincial legislation, which is intended to offset 50% of the net operating costs of transit services.		

Other (specialized transit only)		• $983,800 (2008 Budget) provided to 66 municipalities. • Grants include: – One-time start-up grant of $6,000. – Annual grant of 37.5% of gross operating expenses to maximum of $20,000 per year ($30,000 for those municipalities operating more than one vehicle.)	• Province budgeted $30,000 in 2008 to provide one-time capital grants to municipalities. • Funding is based on applications from municipalities and is equal to 50% of the net cost to purchase a handivan, to a maximum of $10,000.

NEW BRUNSWICK

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
	• No direct operating grants. • Province provides municipalities open-ended block grants for municipal services, part of which may be spent on transit at the municipalities' discretion.	• No direct capital grants.	• No direct operating grants. • Province provides municipalities open-ended block grants for municipal services, part of which may be spent on transit, at the municipalities' discretion.	• A vehicle retrofit program provides a maximum grant of $8,000 to qualifying individuals and organizations. The grant is renewable every 10 years for individuals and every 5 years for organizations.

NEWFOUNDLAND AND LABRADOR

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
	• No direct operating grants. • Province makes Municipal Operating Grants to municipalities -- all, part or none of which may be spent on transit, according to the wishes of the recipient.	• No direct capital grants.	• No direct grants.	

NORTHWEST TERRITORIES

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
	• No direct grants.		• No direct grants.	

NOVA SCOTIA

	CONVENTIONAL & SPECIALIZED	
	Operating	**Capital**
Regions with low population density	• The Community Transportation Assistance Program (CTAP) will provide $485,000 in F/Y 2008/2009 for existing community transportation services. • Grants are capped at $1.60 per capita for population in service area. • CTAP also provides a one-time grant (per annum) of $5,000 to organizations interested in developing new transportation services to undertake start-up work such as needs assessment and business planning. • Community Accessible Transportation services in Nova Scotia are eligible for complete reimbursement of vehicle plate and registration fees for accessible vehicles in the Province.	• Accessible Transportation Assistance Program (ATAP) with total budget of $120,000 for F/Y 2008/2009. May be used to purchase new accessible vehicles or convert existing non-accessible vehicles. • In Dec 2008, the Province is finalizing the terms and conditions for a new Nova Scotia Transit Rural Incentive Program (NS-TRIP). The $3M (per annum) program will be administered by Service Nova Scotia and Municipal Relations and eligible projects categories are: operating, capital and capacity building.

NUNAVUT

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
	• Not applicable.	• Not applicable.	• Not applicable.	• Not applicable.

ONTARIO

	CONVENTIONAL & SPECIALIZED	
	Operating	**Capital**
All municipalities	Dedicated Gas Tax for public transit: • Provided for transit capital and operating that supports ridership growth (municipalities are required to prepare ridership growth plans that set out specific targets). 89 transit systems serving 111 Municipalities received funding in 2007/2008. • $0.010 per litre = $156 million October 2004 to September 2005. • $0.015 per litre = $232 million October 2005 to September 2006. • $0.020 per litre = $312 million October 2006 to September 2007. • $0.020 per litre = $314 million October 2007 to September 2008.	
		Ontario Bus Replacement Program is a $50 million annual program that was introduced in 2007 to assist municipalities with the replacement of their ageing conventional and specialized transit fleets. For 2008 municipalities will receive up to 33.3% of their eligible bus replacement expenditures.
GO Transit[7]	As of January 2001, the province assumed responsibility for 100% of GO Transit's net operating costs. In fiscal year 2007-08, this amounted to $35.9 million.	• Province has assumed responsibility for funding GO Transit base capital costs. • The Province has also committed to covering one-third of the capital costs of expansion. • See “Metrolinx’s Quick Win projects” in the “Greater Toronto Area (GTA)” section

[7] Net operating and base capital costs assumed to be about $1 billion over 10 years. Taking back GO Transit also frees up over $100 million per year for municipalities within the current GO service area to reinvest in transit including GO Transit growth. Note: GO Transit does not provide specialized service.

Greater Toronto Area (GTA)	• See "Dedicated Gas Tax for public transit" in the "All municipalities" section.	• The province committed the investment of $11.5 billion through MoveOntario 2020 to Metrolinx's priority projects, as an investment toward implementing the Regional Transportation Plan for the Greater Toronto and Hamilton areas. • As part of the 2008 provincial budget, a $744.2 million investment toward Metrolinx's Quick Win projects to reduce traffic congestion, cut smog, help reduce greenhouse gas emissions, and support sustainable urban development, leading to stronger communities and a higher quality of life. The Quick Win commitment includes: - $32.8 million for Hamilton's A-line and B-line improvements; and James Street north GO/VIA Station Gateway to Niagara - $66.1 million for Peel Region's Dundas and Hurontario higher-order transit corridor development; Mississauga Transitway Hub, Airport-Renforth Gateway; and Bolton GO Transit Improvements - $57.6 million to Halton Region's Dundas Street BRT - $105.6 million for York Region's Yonge Street and Highway 7 corridors; and Cornell Terminal - $82.3 million for Durham Region's Highway 2 BRT Spine - $305.8 million for Toronto's Transit City LRT Head Start; Yonge subway capacity improvements; and Yonge Finch to Steeles BRT - $94 million toward GO Transit's bicycle expansion; Rail Fleet expansion; Double-decker Bus Fleet; Track Expansion for GO Bradford and GO Stouffville corridors.

PRINCE EDWARD ISLAND

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
Charlottetown ONLY	▪ No direct grants.	▪ Provincial sales tax rebate on capital purchases made by the City of Charlottetown to develop a public transit system. This rebate will help defray the cost of items such as buses and other equipment purchased in 2005-2006. The PST incentive will be up to a maximum amount of $120,000.	▪ No direct grants.	

QUÉBEC

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
Greater Montréal Region • *Agence métropolitaine de transport (AMT)*	• No direct subsidy. • Revenue sources: - $30 per year from each vehicle licensed in its region. - 1.5¢ per litre of gas sold in its region.	• A subsidy covering 100% of eligible expenses for the development of the Metro system, the train and other rapid transit systems, including buildings, equipment and devices required for operational purposes. • A subsidy equal to 75% of eligible expenses to maintain and improve the services of such networks or systems. • The AMT also has a source of revenue dedicated to public transit capital asset projects corresponding to 1 cent per $100 of the municipal assessment based on the property values of the municipalities on its territory.	• The AMT is eligible to receive subsidies to cover inter-network expenditures pertaining to the three public transit companies in the Montreal area and several organizations on the north and south shores of Montreal. These subsidies cannot exceed 75% of the costs incurred.	• No direct subsidy.

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
The Sociétés de transport en commun ***Montréal :*** • *Société de transport de Montréal (STM)* • *Réseau de transport de Longueuil (RTL)* • *Société de transport de Laval (STL)* ***Québec :*** • *Réseau de transport de la Capitale (RTC)* • *Société de transport de Lévis (STL)* ***Other régions :*** • *Société de transport de l'Outaouais (STO)* • *Société de transport de Sherbrooke (STS)* • *Société de transport de Trois-Rivières (STTR)* • *Société de transport du Saguenay (STS)*	• A subsidy equal to 50% of the additional operating costs to boost the number of public transit services available. • A subsidy equal to 50% of eligible expenses to promote public transit. • A subsidy equal to 50% of the reduction received by users using both public transit systems. • $30 per year for each vehicle licensed in each of the regions and 1.5 cents per litre of gas (sold) in the Montreal area. Notes: - The AMT redistributes to the three public transit corporations in the Montreal area a portion of the licence revenue ($30) and revenue from the 1.5 cents per litre of gasoline from the gas tax. - In the Quebec City region, revenue from the $30 is shared between the RTC and the STL based on the users' revenue (80%) and the drivers' contribution (20%).	• There are two subsidy programs, i.e., the *Programme d'aide gouvernementale au transport collectif des personnes (PAGTCP)* and the *Programme d'aide aux immobilisations en transport en commun* of the *Société de financement des infrastructures locales du Québec (SOFIL).* The subsidy rate is 84.5% for SOFIL and the subsidies are payable by immediate transfer. Meanwhile, as for the PAGTCP, the subsidy rate is 50% for buses, minibuses and service vehicles; and 75% in other cases. The subsidies are generally transferred through debt service. • The following assets are eligible: - buses, minibuses and service vehicles; - land (except for the SOFIL); - garage, terminals, admin. centre, including equipment and devices required for operations and customer information along with the replacement of the 20-year-old roof. - reserved lane and park-and-ride parking - technological innovations: vehicle tracking, customer information, source of energy for vehicles, operational software, issuance of passenger tickets and collection of receipts. - bus shelters; - bicycle racks; - maintenance, improvement and development of rapid transit system services.	• Government financial assistance covers between 65% and 75% of the operating expenses and some eligible capital asset expenditures. • The financial assistance program is currently being reviewed for 2008 to 2010.	

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
The smaller public transit systems in suburban Montreal (municipality, Conseil intermunicipal et régional de transport) and in other regions in Quebec (municipality and groups of municipalities)	• An operating subsidy equivalent to 40% of income generated by public transit services. • A subsidy specific to monthly passes equal to the amount of the reduction given to passengers. • A subsidy equal to 50% of the reduction received by users using both public transit systems. • A subsidy equal to 50% of the additional operating costs to boost the number of public transit services available. • A subsidy equal to 50% of eligible expenses to promote public transit. • The AMT redistributes to the municipal organizations in the Montreal area a portion of the licence revenue ($30) and revenue from the 1.5 cents per litre of gasoline from the gas tax.	• There are two subsidy programs, i.e., the *Programme d'aide gouvernementale au transport collectif des personnes (PAGTCP)* and the *Programme d'aide aux immobilisations en transport en commun* of the *Société de financement des infrastructures locales du Québec (SOFIL).* The subsidy rate is 84.5% for SOFIL and the subsidies are paid by immediate transfer. Meanwhile, as for the PAGTCP, the subsidy rate is 75% and the subsidies are generally paid through debt service. • The following assets are eligible: - land (except for the SOFIL); - park-and-ride parking outside AMT territory - technological innovations: vehicle tracking, customer information, vehicle priorization, source of energy for vehicles, operational software, issuance of passenger tickets and collection of receipts. - bus shelters; - bicycle racks; • An 84.5% subsidy paid through SOFIL to cover the cost of capital assets included in the cost of operating contracts with a private carrier.	• Government financial assistance covers between 65% and 75% of the operating expenses and some eligible capital asset expenditures. • The financial assistance program is currently being reviewed for 2008 to 2010.	

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
Rural Régions: • *82 regional county municipalities (RCMs)* • *15 municipalities outside an RCM territory* • *Kativik regional administration and the Cree regional administration* • *18 Conférences régionales des élus (CRÉ)* • *Inter-city carriers*	• A new *Programme d'aide gouvernementale au transport collectif régional* with an annual envelope of $11M over a five-year period (2007-2011): - $8M for mass transit development in rural areas; - $1M for regional mass transit planning on the territory of CRÉs; - $2M to maintain or develop intercity coach transit lines		• Government financial assistance covers between 65% and 75% of the operating expenses and some eligible capital asset expenditures. • The financial assistance program is currently being reviewed for 2008 to 2010.	

SASKATCHEWAN

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
Cities and towns	• Province makes unconditional Urban Revenue Sharing Grants to municipalities each year, part of which may be spent on transit, at the recipients' discretion. • Budget for 2007 – 2008 - $67,447,000.		• The Municipal Transit Assistance for People with Disabilities Program operating budget is currently calculated using population and is also performance based. • Annual budget: $2,375,000.	• The Municipal Transit Assistance for People with Disabilities Program capital budget is 75% of the eligible vehicle cost to a maximum of $55,000 per vehicle. • Annual budget: $275,000. • The criteria for vehicle requests are based on the age of the vehicle, the mileage, overall condition of the vehicle and the critical need of that vehicle to the community.
	• No other direct or indirect grants.	• Through the Municipal Rural Infrastructure Program funding was available for rapid transit, Intelligent Transport Systems (ITS), the purchase of transit vehicles and the construction of transit bus stations.		

YUKON

	CONVENTIONAL		SPECIALIZED	
	Operating	**Capital**	**Operating**	**Capital**
Whitehorse	• No direct operating grants.	• No direct capital grants.	• $186,000 per year	• No direct capital grants.

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