



DILLON
CONSULTING

CITY OF ST. JOHN'S
Transit Service Review

Final Report

Executive Summary

Introduction

Dillon Consulting Limited was retained by the City of St. John's to develop a Transit Service Review and update the 2011 Strategic Plan. The purpose of the Transit Service Review is to develop a blueprint that will position the City of St. John's and the St. John's Transportation Commission to meet the opportunities and challenges over the coming years, and successfully serve the community with an effective and efficient transit system that exceeds customer expectations.

Existing Transit System

Metrobus delivers 2.9 million trips annually using 54 buses and operating 134,000 annual revenue hours of service. This translates into approximately 21.6 boardings per revenue hour of service. The 23 routes that make up conventional Metrobus operations provide service to St. John's, Mount Pearl and Paradise. The structure of the routes in St. John's are focused on connecting major nodes, destinations, and terminals and routes also deviate onto local streets to pick up passengers and bring them to major transfer points. The historic road network of St. John's that was developed in the 18th century before the advent of the automobile presents challenges for delivering direct services on major corridors, as there are few roadways that provide a continuous, uninterrupted route between major destinations.

The service is provided in-house by municipal employees. This includes service supervision, operation and maintenance. The City of Mount Pearl and the Town of Paradise contracts the St. John's Transportation Commission to provide conventional transit services on their behalf. As such, both municipalities determine the route structure and the level of service in their respective communities and are billed for the service based on a pre-defined per kilometre rate (Metrobus).

GoBus provides door-to-door specialized transit service to eligible customers with disabilities who are unable to use the conventional transit system. There are currently 1,600 registered customers for the service, which delivers 150,000 annual trips. GoBus operated as a separate entity until 2016, when Metrobus took on responsibility for specialized transit. Unlike Metrobus, GoBus operations are contracted out to a third-party operator (currently MVT Canada), who is responsible for the delivery of daily service, which includes but not limited to: booking client trips, dealing with cancellations and no shows, hiring and training operators, providing service to registered passengers and the maintenance of the fleet. To meet the demand for specialized transit service, MVT Canada also has a separate contract with a taxi company in St. John's, which they often use to deliver service that cannot be accommodated by a GoBus vehicle.

Peer Review

The performance of Metrobus and GoBus was compared to a peer group of transit and specialized transit systems across Canada. The peer group selected represents transit systems that have a similar

service population, annual ridership, or those that have been identified by Metrobus staff as common internal benchmarks. Some key highlights from the peer review include the following:

Metrobus

- Metrobus operates shorter service hours than the peer group average on weekdays, Saturdays and Sundays.
- Metrobus had fewer revenue service hours per capita than all other systems surveyed save for Moncton's Codiac Transpo and Saint John Transit.
- Metrobus has lower than average trips both per revenue vehicle hour and per capita. This is partially reflected in the amount of service provided (the third lowest in the peer group).
- Metrobus has a lower cash fare, but a higher average fare. The systems with U-Pass agreements typically have a much lower average fare due to the deep discounts provided for all enrolled students.
- Despite the higher fare, the municipal operating contribution is high, especially among peers in eastern Canada. This is due to a higher hourly operating cost, as well as structural differences in how costs are reported, and the availability of other funding sources.

GoBus

- Weekday hours of service in St. John's is slightly more than the peer group average, and significantly higher on Saturdays and Sundays due to a late end of service.
- Within the hours of service provided, the amount of service provided in St. John's per capita is the second highest in the peer group and significantly higher than the peer group average. This is also reflected in the trip denial rate, which is very low in St. John's.
- St. John's has significantly more specialized passenger trips both on an absolute basis and per capita compared to its peers. This is reflective in the amount of service provided and the low trip denial rate.
- Productivity of the service per revenue vehicle hour is low indicating there are opportunities to improve the overall efficiency of the service.
- St. John's contributes the highest municipal contribution per capita relative to its peers and thus has the second lowest cost-recovery in the peer group.

Community Engagement

Engagement with the community in St. John's took place on a variety of platforms to reach a broad and diverse range of stakeholders including Metrobus and GoBus riders, as well as residents that are not currently transit customers. In-person engagement involved meetings and workshops with members of the public, advisory committees, and stakeholder groups, while some groups were contacted through conference calls. Digital engagement also took place through two online surveys that were open to all members of the public and posted on the City of St. John's *Engage! St. John's* website. Overall, there were two phases of the engagement strategy that took place.

The first phase of engagement was held at the beginning of the transit service review so that service recommendations would be developed to respond to opportunities, issues, and solutions brought forward from the community that interacts with Metrobus and GoBus every day. After reviewing the results of both the in-person and digital engagement, several key themes emerged as areas where the transit service review, and any recommendations following from it, need to address or consider.

- Remove, where necessary, diversions off of main streets to address long travel times;
- Enhance peak frequency to ensure that transfers can be made easily;
- Improve reliability and schedule adherence to benefit customers and operators;
- Maintain existing coverage (proximity to a bus stop) for riders who may not have another affordable option; and
- Continue the deployment of technology to improve the customer experience.

The need for more reliable service was expressed strongly by Metrobus customers. This is particularly important on high ridership and low frequency routes (where missing a bus means a long wait-time).

Frequency was another issue that was raised by respondents of the survey and attendees at various engagement activities. This suggests that recommendations to improve frequency of service would be well received and would help grow ridership.

The survey also highlighted the importance of Avalon Mall, Village Shopping Centre, MUN, Downtown, College of the North Atlantic, Eastern Health facilities, and other areas such as the emerging Stavanger Retail Area as important destinations that are large generators of transit trips and should be adequately served by the recommended route network that results from the transit service review.

Recommended Service Standards

The existing service standards used by Metrobus for conventional transit were reviewed and updated to reflect the strategic direction of the plan and include new and potential service offerings provided by the St. John's Transportation Commission.

Service standards provide for a consistent and fair evaluation of both existing and proposed services, and establish a framework for guiding decisions on how to best serve customer's diverse travel needs within prevailing budgetary and resource limits. The standards are intended to provide guidelines governing the planning and design of all Metrobus services.

Service Design Standards set out specific criteria for route design and service levels. These include:

- **Eligibility** – For GoBus customers;
- **Hours of Service** – Minimum hours of service that each type of route or service will operate;

- **Headway/Frequency** - The maximum headway that will be operated for both Frequent Transit Network Routes and Local Routes;
- **Trip Booking Window** – Minimum amount of service required to book GoBus and dynamic transit services;
- **Travel Time (Directness of Service)** – Guidelines that set out route deviations or maximum travel time for each route and service type;
- **Proximity to Service** – Accessibility of transit by targeting a maximum walking distance that a customer will have to travel to reach a transit stop;
- **Bus Stop Guidelines** – Including location and spacing that maximize convenience with delays from too many stops; and
- **Accessibility** – Guidelines that outline accessibility initiatives on all service types.

Performance measures are used primarily to set desired and achievable goals for the performance of Metrobus and GoBus and permit evaluation and feedback on how well these goals are met.

Performance measures included in the service standards document include:

- **Trip Denial / Missed Trips** – Measures requested GoBus trips that are not accommodated or when a customer is unable to board a Metrobus vehicle at the requested or scheduled pick-up time;
- **Customer Comfort / Vehicle Occupancy** – Monitors crowding on vehicles and the number of customers that are unable to board buses at a stop due to overcrowding;
- **Reliability** – Measures on-time performance relative to scheduled or GoBus pick-up times and reliability of real-time automatic vehicle location data;
- **Service Utilization** – Measurement of the effectiveness of the application of the system’s resources (boardings per revenue vehicle hour that need to be achieved);
- **Modifications to Existing Routes and Services** – Guidelines for when service modifications should be made; and
- **Introduction of New Service** – Guidelines the population/employment required to support the introduction of a new service.

Recommendations:

A number of recommendations were developed that help optimize the existing service, create efficiencies and identify investment opportunities to change the culture of transit and grow ridership. Six strategic directions are identified, each with a number of strategies that should be taken over the next five year.

Strategic Direction 1 - Strategies to Optimize Existing Investments

A number of operational improvements were identified for Metrobus that are designed to optimize existing services. This includes identifying potential efficiencies in routes and services, improvements in reliability of service and opportunities to simplify the network. It should be noted that there were

limited opportunities to optimize the network and increase ridership without an investment in service. Existing resources are being stretched to maximize coverage, preventing investment in more attractive services at the expense of coverage. This is due to the unique geography that Metrobus operates in. Roads are rarely straight and direct and the roadway network is not connected in a legible grid-pattern. These factors, combined with the low density nature of the St. John's region, provide significant challenges for the provision of efficient and attractive transit service.

Despite this challenge, four potential route modifications were identified that should improve performance without investing in additional service. These include:

- **Route 2/5** – Split Route 2 into two distinct routes at all times. Route 5 would operate from Avalon Mall to Montague Street, while Route 2 would continue to operate from Village Shopping Centre to Montague Street. This change would make the route network more understandable, particularly with the on-line trip planner tool.
- **Route 6** – Remove from downtown where there is duplication with Route 3 to allow for resources from the unproductive Waterford Bridge Road segment to be reinvested elsewhere. Route 6 would instead function as a one-way collector route to and from Village Shopping Centre. The remaining resources from the old Route 6 are recommended to be reinvested by providing a new hourly express service from the Village Shopping Centre to the Galway Commercial Area in Southlands.
- **Route 10** – Review schedule adherence issues on this route by assessing the potential to eliminate the Seaborn Street loop, which is currently only serviced in the downtown direction. This modification should only be made if no other operational improvements are found to improve schedule adherence.
- **Route 18 and Route 25** – Simplify the two routes by discontinuing Route 25 and replacing it with trips on Route 18. This will offer the same level of service as today in an easier to understand way and allow Metrobus to tailor frequency and service hours on the single route more effectively in future.

Strategic Direction 2 - Foster a Transit Culture

These strategic directions focus on passenger fare-based solutions that are designed to further entice new residents to the system and encourage existing customers to use the system more often. The key focus of these strategies is on youth, as a means of changing the perception of transit by encouraging them to try the service and ultimately change their travel behaviours as adults. Changing culture and the perception of transit is critical to attracting new ridership, and is required to make the most of future investments. The following strategies are recommended under this strategic direction:

1. **Strategy 2A – Student Fare Strategies** - Secondary school students offer a significant opportunity to encourage transit familiarity, increase ridership and establish travel patterns that may continue into post-secondary student and adult life. While Metrobus does offer a slight fare

- reduction for youth, the discount has not translated into a significant portion of youth using the Metrobus service. To help foster a culture of transit use by students, it is recommended that Metrobus initiate a pilot program to provide a deeply discounted or free pass to students in grade 12 and under. The strategy includes the following recommendations:
- a. Provide a student pass program for enrolled students between grade 7 and grade 12.
 - b. Develop a transit familiarization outreach program for grade 7 students to help them better understand the transit system and how to use it to access various activities.
 - c. Use the m-Card for this program to allow Metrobus to track update and monitor growth
 - d. Extend free transit for children from age 5 to age 12 to ensure continuity between the free fare Metrobus currently provides for children under 5 years of age and the recommended student pass.
2. **Strategy 2B – Continue to Pursue a U-Pass Opportunity with MUN** - An increasingly common feature of transit systems in Canada is a “U-Pass” – a transit pass for university students that all students pay for, regardless of use. Cities that have introduced these passes have seen significant student ridership growth. A U-Pass was proposed to Memorial University of Newfoundland (MUN) student body in 2018 as a method to improve service levels, reduce student costs and reduce parking demand on campus. While a referendum on the U-Pass held in February 2019 did not pass, there is still significant merit in pursuing this opportunity. It is recommended that Metrobus continue to work with the MUN administration and student union to implement a U-Pass agreement.
 3. **Strategy 2C – Low Income Fare Pilot** - Providing affordable mobility is a key factor in providing individuals with low household incomes with the opportunity to access employment, education, retail and necessary services. The current way of accessing low-income transit passes through the province is not clear and restrictive. It is recommended that Metrobus work with the province to design and implement a new subsidized low-income pass program. Under this new program, the province would be responsible for determining eligibility and fare reduction, and providing the subsidy to Metrobus for the purchase of low-income passes. Metrobus would be responsible for administering the program.

Strategic Direction 3 - Invest in Service

Travel behaviours will not change unless there Metrobus provides a service that is more convenient and reduces travel time. Investing in service is critical to growing ridership, and this strategy direction outlines priorities for service investment. St. John’s currently provides one of the lowest financial contributions per capita for transit service in its peer group. As a result, many Metrobus buses continue to operate a low frequencies during both peak and off-peak periods. Increasing this level of investment per capita will help make transit more competitive with private automobile travel. The following strategies are recommend under this strategic direction:

1. **Strategy 3A – Modify Route 3/14/23** - The northeast area of St. John’s contains three routes which provide service to various destinations, including the St. John’s International Airport, MUN and the downtown. The route structure is fairly indirect due to the structure of the existing road network and need to service key destination. With an extension of Hebron Way to Major’s Path due to open by the end of 2019, there is an opportunity to make the network more direct by completed the following recommended route modifications:
 - a. All Route 3 services operate along an alignment similar to current Route 3B, modified to travel over the Hebron Way extension and service the medical centre.
 - b. Route 14 should be removed from Major’s Path and Torbay Road and instead continue along Portugal Cove Road to Higgins Line directly and extended to Avalon Mall.
 - c. Operate Route 23 all-day to maintain a connection between Torbay Road and MUN, replacing Route 14 and shorten the route to end at MUN.

2. **Strategy 3B – Implement a Frequent Transit Network** - The single biggest factor in determining transit usage is frequency. Routes 1, 2¹, 3, and 10 already operate every 15 minutes during the afternoon peak periods and a short portion of the morning peak period, and every 30 minutes at most other times. These routes connect to major destinations and transfer points in the city, including downtown, MUN, CONA, Avalon Mall, Village Shopping Centre and Torbay Mall. It is recommended that Metrobus formally define a Frequent Transit Network (operating every 15 minutes during the peaks and every 30 minutes during the off-peak periods) and market it as a fast convenient option to access key destinations in the City.

3. **Strategy 3C – Minimize 60 Minute Headways on Key Routes** - Hourly service is not considered an attractive level of service and will do little to attract new customers. Such a low frequency is simply too inconvenient for those with other options and, for those with limited options, using transit becomes a time-consuming and unpleasant experience. Metrobus currently has several routes that operate every 60 minutes but perform above productivity standard minimum requirement as noted in the Metrobus service standards document. It is recommended that Routes 11, 14, 16 and 23 be targeted to improve weekday service frequency from every 60 minutes to every 30 minutes during the peak and midday periods..

4. **Strategy 3D – Pilot a Dynamic On-Demand Transit Service** - Fixed-route transit solutions do not always effective during evening and weekend periods when ridership demand is lower, and in low demand areas characterized by low density neighbourhoods, employment areas designed around the private automobile and large tracts of open or greenfield space. To address these circumstances, it is recommended that Metrobus pilot a Dynamic On-Demand Transit service to

¹ Note: Route 2 is recommended to be split into Route 2 and 5, which will mean both segments operate every 15 minutes during the afternoon peak if this recommendation is adopted.

Southlands / Galway, connecting passengers to either the Galway Commercial area or the intersection of Smallwood Drive and Old Placentia Road in Mount Pearl where passengers would be connected to a fixed-route service to complete their trip. Dynamic on-demand transit services are shared-ride demand-responsive services that use smaller vehicles and mobile app technology to provide mobility to customers. The mobile app allows customers to plan, book, track and pay for their ride in real-time. This increases the convenience and reliability of the service. The mobile app is also used to help optimize trips, increasing the number of shared rides that can be accommodated without sacrificing service quality.

Should the pilot be successful, it is recommended that Metrobus explore the opportunity of approaching adjacent municipalities that may not warrant a fixed route bus to initiate a dynamic on-demand service model, replacing some of its evening weekend and weekday services with a dynamic on-demand service model and/or exploring opportunities to better integrate GoBus with dynamic on-demand transit service.

Strategic Direction 4 - Enhance the Customer Experience

While services are the core of what transit offers to the community, they are supported by many other factors that combine to form the overall customer experience. Working on these non-service factors offers an opportunity to improve ridership through an improved transit experience. Transit systems with higher ridership are customer-focused, anticipating and responding to customer needs. The following strategies are recommend under this strategic direction:

1. **Strategy 4A – Bus Stop Snow Clearing** - The current snow clearing policy does not prioritise the clearing of transit stops. Furthermore, the priority for snow clearing is for the road surface itself, with little regard for the clearing of transit stop areas so passengers can board buses without climbing over snow banks. To address bus stop access during winter conditions, the existing snow clearing policy should be updated to further prioritise the transit network and include specific provisions for stop access. Stops on the network should be prioritized based on usage, with all stops on the Frequent Transit Network given the highest priority.
2. **Strategy 4B – Continue to Improve Accessibility** - Metrobus is currently implementing an Accessibility Plan, gradually moving towards a fully accessible system. It is recommended that Metrobus continue to move towards a goal of full accessibility. Key recommendations include:
 - a. Prioritize the designation of accessible routes on the Frequent Transit Network and other key routes (next priority should be Route 10).
 - b. Continue to work with the City to coordinate road retrofit assignments with an opportunity to retrofit existing non-accessible stops based on new accessibility standards.
 - c. Explore the introduction of an automated stop announcement system.

- d. Prioritise stop upgrades along routes with accessible buses, further highlighting the premium nature of these routes.
3. **Strategy 4C – Improve Integration with Land Use and Transportation** - Transit's biggest asset is the land use and community design it operates in. Transit services that operate along mixed-use high density corridors that are walkable and pedestrian friendly with good connectivity to the places where people live, work and play offer the highest potential to grow ridership. Metrobus already has a good relationship with the City's Planning, Engineering and Regulatory Services Department. To strengthen this connection as well as the development of a multi-modal transportation network, it is recommended that Metrobus continue to work with the City's Planning, Engineering and Regulatory Services Department to:
- a. Play an active role in strategic land-use planning decisions, highlighting the need for high levels of pedestrian amenities, active transportation connections, design of walkable streets and access to the arterial roadway network.
 - b. Align development with transit investment by reviewing development applications and other strategic planning plans and policies and evaluate against the proximity service standard.
 - c. Coordinate transit interests in roadway capital improvement programs (e.g. new stops, shelters, accessibility improvements, transit priority features).
 - d. Be a key stakeholder in the upcoming City-wide Transportation Master Plan and identify strategies to help meet the transit mode share target.

Strategic Direction 5 - Improve Regional Connections

Metrobus provides some limited service under contract to the City of Mount Pearl and the Town of Paradise, which helps improve ridership as well as inter-municipal mobility. However, there are a number of surrounding municipalities that do not have a transit service, resulting in increased auto trips on the St. John's roadway network.

There are also issues with the current contracting model with adjacent municipalities. Under the current model, the service design, level of service and hours of service are dictated by the contracting municipalities and Metrobus is hired as an operator. This results in a lack of service integration and can impact customer service (i.e. different municipalities may have different policies on shelter placement, level of service, walking distance, etc. that may not be in line with how Metrobus operates its service and the Metrobus brand).

For Metrobus to operate more efficiently and provide better, more useful services to the greater St. John's area, it is recommended that:

1. The concept of inter-municipal transit is addressed in the St. John's Transportation Master Plan.
2. Dynamic on-demand transit service models are explored as a more cost effective opportunity to extend service to adjacent municipalities.

3. The contract model that other municipalities enter into with St. John's is modified to provide Metrobus with more authority to plan a more integrated and seamless service, within the minimum service requirements and performance standards outlined in the approved service standards document.
4. The City of St. John's approach each of the municipalities in the Region to coordinate and develop a united advocacy plan to receive sustainable provincial transit funding.

Strategic Direction 6 - GoBus Service

Strategic directions for GoBus focus on opportunities to improve cost control through modifications in the contract, ensure service is being prioritized for persons with disabilities that require it, and opportunities to improve the level of service for passengers. The following strategies are recommend under this strategic direction:

1. **Strategy 6A – Eligibility Criteria Change** - The existing eligibility criteria for GoBus is too broad and not well defined. While it is important to ensure that the eligibility criteria is open to individuals that have various types of disabilities that prevent them from using the conventional transit system, providing more specific definition to those disabilities around the ability to use conventional transit will help ensure that the GoBus service is strictly used by individuals that need it. This will help improve the level of service for GoBus customers (by managing demand).
2. **Strategy 6B – Application Process / Third Party Assessment** - The application form for the GoBus service relies on an individual's physician to determine the applicant's eligibility. This can result in an inconsistent assessment, as not all physicians fully understand how an accessible Metrobus service can accommodate the needs of their patients. It is recommended that Metrobus staff begin to find one or more parties (through RFP) to conduct assessments on behalf of Metrobus for GoBus registration based on the revised eligibility criteria. Third-party assessments will also help manage the growing demand by determining who needs the service and who does not.
3. **Strategy 6C – Revamp Existing GoBus Contract** - There are a number of issues with the existing GoBus contract that require modification. These include the high cost of 'no show' payments to the private operator, the lack of restriction and high cost of taxis used by the private contractor and challenges collecting Go-Card payment on taxi vehicles. To address these issues, it is recommended that Metrobus prepare for termination of existing GoBus contract and reissue the service under a new 18 month contract. The new contract should address the following key issues:
 - reduce the no show payments and reducing the actual amount paid for no shows;
 - reduce the number of taxis trips per day (by setting a limit);
 - reduce the cost of taxi trips (reducing amount paid per trip); and
 - set a shorter-term length for the contract to enable further changes/evaluation.

Following the evaluation of the above noted recommendations, a number of additional short-term recommendations are suggested to improve GoBus service examine the parameters set within the scheduling software program and allow better utilization of existing resources (buses) and change the contract to incentivize the operator to make better use of buses.

4. **Strategy 6D – Go-Card Use on Taxis** - Taxi cabs do not have portable Go-Card readers and therefore no ability to debit a transaction when a customer pays for their trip using a Go-Card. This has resulted in a situation where Metrobus is short thousands of dollars of uncollected fares. This results in a loss in revenue and an increase in administrative time for Metrobus staff to collect passenger fares. Metrobus has begun working with the Go-Card provider to develop a Go-Card app that can be downloaded on a cellphone or tablet. If this initiative can be implemented, all contracted taxis that provide GoBus trips would be required to download the app which would allow them to use their cellphones to read and debit the Go-Card.

Organizational and Administrative Process Review

One of the key questions addressed in the study is whether Metrobus should be maintained as a Commission or changed to a Municipal Department? Commissions are commonly used if one or more of the following exist:

- Transit delivers services to multiple municipalities within a geographic region;
- Transit has authority for multiple components of the urban transportation system; and/or
- There is a requirement or a desire to include citizen representatives on the governing board.

Given that transit services are currently delivered on a regional basis in St. John’s, Mount Pearl, and Paradise, that there is significant population and employment growth in the municipalities surrounding St. John’s, the existing Commission form of governance is an appropriate one to guide the future development of public transit in the greater St. John’s area. Moreover, a Commission model will support the evolution of Metrobus from an “operator” of transit service to a “mobility manager” that coordinates and integrates a wider breadth of transportation services.

A second key question that was addressed is whether staff savings be realized if some transit staff functions were centralized within the City of St. John’s organization? Based on common industry practice and on comparisons with the peer systems, the staffing levels in St. John’s for Finance, IT, and HR are well within industry norms. It is unlikely that the reassignment of all or a portion of these services to the City organization would result in a reduction in overall staffing.

Given the unique operational and labour characteristics of public transit, housing these functions directly within the transit organization provides for more effective collaboration and communication amongst the transit management team, permits a fuller understanding of transit business needs amongst personnel serving in staff functions, and enables more timely response to issues. For these

reasons, it is recommended that the staff functions in Metrobus continue to be housed within the transit organization.

Staffing levels were also reviewed and compared with peer systems. A key recommendation is to increase the number of full-time supervisions by two or three to improve the ratio of supervisors to bus operators to a level similar to peer systems. The additional complement would also permit the supervisory staff to devote more time to their development role for the bus operator workforce.

Phasing Plan

This plan contains a number of strategies and projects that Metrobus and GoBus can undertake to grow ridership and improve productivity. While some projects are cost-neutral, the greatest potential to grow ridership and change the culture of transit use in the city require an investment in additional resources or a reduction in transit fares targeted to youth. Recognizing the need to further invest in the service, the plan is split into three phases highlighted in **Table E1** below.

Table E1: Proposed Phasing of Strategic Directions

Strategic Directions	2019-2020	2021-2022	2023+
Strategy 1: Optimize Existing Investments			
1A – Modify Route 2/5			
1B – Remove Duplication on Route 6			
1C – Improve Schedule Adherence on Route 10			
1D – Merge Route 18/25			
Strategy 2: Foster a Transit Culture			
2A - Student Fare Strategies Option B – Phase 1 (extend free pass to age 12; grade 7 student pilot)			
2A - Student Fare Strategies Option B – Phase 2 (extend to grade 8 - 12)			
2B – Continue to Pursue U-Pass with MUN			
2C - Low Income Fare Pilot			
Strategy 3: Invest in Service			
Strategy 3A: Modify Route 3/14/23			
Strategy 3B: Implement Frequent Transit Network Phase 1			
Strategy 3B: Implement Frequent Transit Network Phase 2			
Strategy 3C: Minimize 60 Minute Headways Phase 1			
Strategy 3C: Minimize 60 Minute Headways Phase 2			
Strategy 3D: Pilot a Dynamic On-Demand Transit Service (Southlands / Galway)			

Strategic Directions	2019-2020	2021-2022	2023+
Strategy 3D: Extend Dynamic On-Demand Transit Service to other areas			
Strategy 4: Enhance Customer Experience			
4A - Stop Snow Clearing			
4B – Continue to Improve Accessibility			
4C – Improve Integration with Land Use and Transportation			
Strategy 5: Improve Regional Connections			
Strategy 6: Improve GoBus Service			
6A - Eligibility Criteria Change			
6B - Application Process / Third Party Assessment			
6C - Revamp Existing GoBus Contract			
6D – Go-Card Use on Taxis			

It should be noted that the approval of strategies should be subject to an annual service plan process along with budget approval from council.

Immediate-term strategies (2020) should occur as soon as possible as they involve minimal capital or operating cost investment and are designed to improve productivity, reliability, customer service and begin to set the stage for future ridership growth strategies.

Short-term strategies (2021-2022) require some level of investment in service and implementation of fare strategies to help change the culture of transit use. This will help bring St. John's more in line with the level of investment experienced by its peer group systems. The following strategies are recommended to be included as part in the short-term.

Medium-term strategies (2023+) further enhance the ridership growth strategy and should be tied with key recommendations from the upcoming Transportation Master Plan. The following strategies are recommended to be included as part in the medium-term.

Financial Plan

Table E2 presents the ridership, service hour and financial summary for Metrobus if each of the route and service recommendations were implemented over a five-year period. All figures are in 2019 dollars and are subject to change as part of detailed service implementation planning. It should be noted that ridership growth forecasts noted below are considered conservative and are expected to continue to occur beyond the 2023 time horizon as it will take time for the full ridership forecast to materialize due

to changing travel behaviours. For example, by 2025, it is anticipated that ridership will grow to 4.05 million, further increasing the uptake from service improvements and fare strategies.

Table E2 – Summary – Metrobus Financial Performance

	2018	2019	2020	2021	2022	2023
Revenue Service Hours	135,886	135,886	142,616	155,256	160,056	166,156
Ridership	2,999,802	3,239,800	3,383,200	3,546,600	3,682,800	3,826,600
Revenue	\$5,600,000	\$5,600,000	\$6,038,400	\$6,357,600	\$6,494,100	\$6,635,700
Other Revenue	\$1,900,000	\$1,940,000	\$1,890,000	\$1,890,000	\$1,890,000	\$1,890,000
Operating Cost	\$19,560,000	\$19,980,000	\$20,497,100	\$21,728,200	\$22,195,700	\$22,789,800
Net Operating Cost (Municipal Investment)	\$12,060,000	\$12,440,000	\$12,568,700	\$13,480,600	\$13,811,600	\$14,264,100
Revenue / Cost Ratio	21.92	23.52	24.40	25.40	26.20	27.04

Table E3 illustrates the operating changes to GoBus service operating costs based on the recommendations in this plan.

Table E3: Summary of Anticipated GoBus Cost Savings

Recommendation	Immediate-term		Short-term
	2019	2020	2021 - 2023
Third-Party Assessment	\$28,000	\$112,000	\$112,000
Reduction in Inappropriate Eligibility Criteria	-\$14,000	-\$83,900	-\$112,000
Change No-Show Rate to \$12	-\$60,000	-\$120,000	-\$120,000
Charge Passengers for No-Shows at \$7.50		-\$70,000	-\$70,000
Change Taxi Per Trip Rate to \$18		-\$300,000	-\$300,000
Metrobus to take on Taxi Contract and Change Rate to \$12-\$16			-\$120,000 to -\$360,000
Total	-\$46,000	-\$461,900	-\$610,000 to -\$850,000

Table of Contents

2.0	Introduction	1
2.1	Transit Context	1
2.2	Study Purpose	2
2.3	Policy Context.....	2
3.0	Existing Transit System	3
3.1	Overview	3
3.2	Eligibility.....	4
3.3	Service Area	4
3.4	Hours of Operation and Headways	6
3.5	Routes and Destinations	6
3.6	Fare Structure	9
3.7	Fleet.....	9
4.0	Review of System Productivity	10
4.1	Metrobus	10
4.2	GoBus.....	12
5.0	Peer Review	13
5.1	Metrobus	13
5.2	GoBus.....	16
6.0	Community Engagement	19
6.1	Outreach Strategies.....	19
6.2	Phase 1 Engagement Summary – What We Heard	20
6.3	Phase 1 Online Survey Summary.....	22
6.4	Key Findings	33
7.0	Recommended Service Standards	35
7.1	Transit Service Area	35
7.2	Service Types.....	36
7.3	Metrobus Service Design Standards.....	38
7.4	Metrobus Performance Standards	42
7.5	GoBus Service Design Standards	47
7.6	GoBus Performance Standards	49

8.0	Metrobus - Strategies to Optimize Existing Investments	51
8.1	Strategy 1A – Modify Route 2/5.....	52
8.2	Strategy 1B – Remove Duplication on Route 6	53
8.3	Strategy 1C – Improve Schedule Adherence on Route 10.....	55
8.4	Strategy 1D – Merge Route 18/25.....	57
9.0	Metrobus – Ridership Growth Strategies	59
9.1	Strategy 2 – Foster a Transit Culture	60
9.2	Strategy 3 – Invest in Service	65
9.3	Strategy 4 – Enhance the Customer Experience	78
9.4	Strategy 5 – Improve Regional Connections	81
10.0	GoBus Service Strategic Directions	85
10.1	Strategy 6A – Eligibility Criteria Change	85
10.2	Strategy 6B – Application Process / Third Party Assessment	87
10.3	Strategy 6C – Revamp Existing GoBus Contract.....	89
10.4	Strategy 6D – Go-Card Use on Taxis	92
10.5	Summary of GoBus Benefits and Impacts.....	92
11.0	Recommended Fare Structure	94
12.0	Community Comments on the Draft Plan	95
12.1	Who Answered the Survey?.....	95
12.2	Route Changes	96
12.3	Service Improvement Priorities.....	99
12.4	Open House Feedback	100
12.5	Student Fare Changes.....	100
12.6	Additional Feedback	101
13.0	Organizational and Administrative Process Review	104
13.1	Existing Organizational Arrangements	104
13.2	Organization Structure Comparisons with Peer Systems	107
13.3	Key Organizational Issues.....	115
13.4	Transit Service Performance Monitoring.....	123
14.0	Phasing and Resources	125
14.1	Phasing Plan	125
14.2	Financial Plan	128

Figures

Figure 1: Current System Map	5
Figure 2: Boardings per Revenue Vehicle Hour by Route (AM Peak and PM Peak)	12
Figure 3: Boardings per Revenue Vehicle Hour by Route (Mid-day, Evening, Late Evening)	12
Figure 4: Purpose of Metrobus Trips.....	22
Figure 5: Primary Destinations of Metrobus Trips	23
Figure 6: Reasons for Using Metrobus	24
Figure 7: Use of Mobility Devices by GoBus Customers.....	25
Figure 8: GoBus Customer Trip Types	26
Figure 9: Preferences for GoBus Improvements.....	27
Figure 10: Improvements to Metrobus Service that would Entice GoBus Customers	28
Figure 11: Preferences for Route Directness	29
Figure 12: Preferences for Time Period to Increase Service Frequency	29
Figure 13: Preferences for Service Level and Fare	30
Figure 14: Preferences for Serving Low-Demand Areas.....	30
Figure 15: Age of Respondents by Range	31
Figure 16: Proportion of Respondents Who Identified as Post-Secondary Students	32
Figure 17: Top Improvements Respondents Would Like to See from Metrobus Service	33
Figure 18: Route 2/5 Proposed Changes	53
Figure 19: Route 6 Proposed Changes	55
Figure 20: Route 10 Proposed Changes	56
Figure 21: Route 25/18 Proposed Changes	57
Figure 22: Route 3/14/23 Proposed Changes.....	67
Figure 23: Frequent Transit Network	69
Figure 24: Community Comments - Metrobus Usage.....	95
Figure 25: Community Comments - Route 2 Changes	96
Figure 26: Community Comments - Route 6 Changes	97
Figure 27: Community Comments - Route 10 Changes	98
Figure 28: Community Comments - Route 25 Changes	98
Figure 29: Community Comments - Priorities	99
Figure 30: Community Comments - Open House Feedback.....	100
Figure 31: Community Comments - Student Discount.....	101

Figure 32: Current Organization Chart	106
---	-----

Tables

Table 1: Existing Hours of Operation (2019).....	6
Table 2: Headways	6
Table 3: Metrobus Route Inventory	7
Table 4: Metrobus and GoBus Fares	9
Table 5: Weekday Boardings per Revenue Vehicle Hour (2018)	11
Table 6: Service Hour Peer Comparison.....	14
Table 7: Service Utilization Peer Comparison.....	15
Table 8: Conventional Transit Financial Performance Peer Comparison	16
Table 9: Specialized Transit Service Hours Peer Comparison	17
Table 10: Specialized Transit Service Utilization Peer Comparison	17
Table 11: Specialized Transit Financial Performance	18
Table 12: Current (2019) Route Classifications.....	37
Table 13: Minimum Hours of Service	38
Table 14: Maximum Headway	39
Table 15: Booking Window Policies	39
Table 16: Trip Denials / Missed Trip Performance Standards	43
Table 17: Maximum Vehicle Occupancy Standards	44
Table 18: On-time Performance Standards	45
Table 19: Minimum Service Utilization Levels (Customer Boardings per Revenue Vehicle Hour)	45
Table 20: Minimum Hours of Service	48
Table 21: Booking Window Policies	49
Table 22: Trip Denials Performance Standards.....	49
Table 23: Target Service Utilization Levels (Customer Boardings per Revenue Vehicle Hour)	50
Table 24: Recommended Headway for Route 18	58
Table 25: Forecasted Impact of Student Pass Program (Full Implementation)	62
Table 26: Existing and Proposed Route 3, 14 and 23 Schedule	67
Table 27: Proposed Frequency	70
Table 28: Additional Service Hours Required for Frequent Transit Network.....	71
Table 29: Proposed Frequency	73

Table 30: Additional Service Hours Required for Priority Frequency Improvements 73

Table 31: Service Level Criteria for Fixed-Route versus Dynamic On-Demand Transit..... 75

Table 32: Community Comments - Additional Comments and Responses 102

Table 33: Generic Functions for Public Transit 107

Table 34: Peer Systems Comparison of Key Indicators (Conventional Transit) 110

Table 35: Mapping of Generic Functions Across Transit Systems..... 111

Table 36: Proposed Phasing of Strategic Directions 126

Table 37: Summary – Metrobus Financial Performance 129

Table 38: Ridership Growth Scenario Testing..... 130

Table 39: Five Year Vehicle Expansion Costs 130

Table 40: Summary of Anticipated GoBus Cost Savings..... 131

Appendices

Appendix A: Peer System Data from 2017 CUTA Fact Book

2.0 Introduction

St. John's is located in the northeast of Newfoundland's Avalon Peninsula and covers roughly 450 square kilometres along the Atlantic coastline. St. John's is one of the oldest cities in North America with permanent settlement and growth dating back to the 16th century. Prior to European settlement, the area, as with much of Newfoundland Labrador, was part of the traditional Beothuk territory. The European settlement of St. John's focused on the harbour which was the main source of trade and economic activity in the coastal city.

The location of housing and industry occurred was largely unplanned and had to contend with the topography of the area and also maintain a close, walkable connection with the harbour. These factors are largely responsible for setting out the early built form and road network of the City, which, in many ways, continues to impact how residents move through the City today. This early establishment relative to other North American cities also lends a unique character to the city through its historic buildings, irregular street pattern, compact and walkable downtown, and role in many historic provincial and national events.

St. John's has grown steadily since 2001 with the addition of 10,000 residents, however the metropolitan area, including the municipalities of Conception Bay South, Mount Pearl, Paradise and nine other smaller municipalities surrounding St. John's has grown by nearly 30,000 during the same period. Since then, the majority of recent growth is within the outer reaches of the municipal boundary of the St. John's. This has resulted in increased traffic volumes in the region, as the City of St. John's continues to form the centre for government, administration, industry in the province, yet transit or other alternative forms of sustainable transportation do not extend to all of the growing municipalities that surround the city.

2.1 Transit Context

After the discontinuation of street railway service in 1948, coach and bus lines became the sole transit mode in the 1950s and led to the municipal consolidation of all transit operations in 1958 under the St. John's Transportation Commission. The Commission continues to oversee transit services in the City operating as Metrobus. Metrobus is funded by the City of St. John's and the commission is made up of City Councillors, Metrobus management, the City/Deputy City Manager, industry representatives and citizens at large.

The delivery of transit service is guided by a strategic plan that is updated every five to ten years. Service standards form a part of this strategic plan, which provides guidelines for planning, designing and monitoring the performance of routes and services. The Strategic Plan and service standards are approved by the Commission.

The strategic plan contains a vision, mission, goals, and actions that, together, guide how transit service is planned and delivered in St. John's. The vision and mission establish a focus on customers and the role of every employee in delivering an innovative, affordable, cost-effective, and sustainable transit system.

The service standards relate to the coverage of transit routes, the structure of routes, hours of service, frequency, criteria for service changes, and the location of infrastructure such as bus bays and shelters

In setting a direction, all future route planning and organizational decisions must ensure they are working toward achieving the goals from the strategic plan and move Metrobus closer to the established vision. A review of the strategic plan has been completed as part of this study, following a robust public and stakeholder engagement process to identify the areas that Metrobus can build upon or address going forward. This document is included under separate cover.

2.2 Study Purpose

The primary objective of this Transit Master Plan is to position the City of St. John's and the St. John's Transportation Commission to develop a blueprint that will allow them to meet the opportunities and challenges of the coming years, and successfully serve the community with an effective and efficient transit system that exceeds customer expectations.

2.3 Policy Context

The guiding land-use policy document in St. John's is the Municipal Plan approved in 2003 which describes the guiding policies for development in the city. In the Municipal Plan, there are explicit objectives to reduce automobile trips and increase transit ridership through encouraging more transit-supportive development patterns. These patterns reduce the separation of land uses and thus the need to travel long distances to reach opportunities for work, education, recreation and essential goods and services.

The City is undergoing a review of the 2003 Municipal Plan, through the *Envision St. John's* process, and has produced a draft Municipal Plan that will replace the 2003 plan once approved by City Council. In this plan, there is a greater emphasis on regional coordination of transit services and a continuation of the support for increasing transit ridership and designing new communities to be transit-supportive.

There is a recognition in the Municipal Plan of the role that land use plays in growing transit ridership which demonstrates that the City of St. John's is willing to use what levers they have from a land use policy perspective to encourage the growth of transit ridership.

3.0 Existing Transit System

Metrobus and GoBus are components of the overall transportation system in St. John's that contributes to the economic, social, and environmental health of the city. Metrobus and GoBus play a key role in the transportation system as a means to reduce congestion by providing a more space efficient transportation than the private automobile; to access employment opportunities, education, and essential services; and to reduce greenhouse gas emissions. An effective transit system can also help preserve historic areas of the City where road expansion and parking construction may negatively impact the character of historic downtown St. John's, the area around St. John's harbour, and the communities and villages that add unique character to St. John's.

3.1 Overview

3.1.1 Metrobus

Metrobus delivers 2.9 million trips annually using 54 buses and operating 134,000 annual revenue hours of service. This translates into approximately 21.6 boardings per revenue hour of service. The 23 routes that make up conventional Metrobus operations provide service to St. John's, Mount Pearl and Paradise. The structure of the routes in St. John's are focused on connecting major nodes, destinations, and terminals and routes also deviate onto local streets to pick up passengers and bring them to major transfer points. The historic road network of St. John's that was developed in the 18th century before the advent of the automobile presents challenges for delivering direct services on major corridors, as there are few roadways that provide a continuous, uninterrupted route between major destinations.

The service is provided in-house by municipal employees. This includes service supervision, operation and maintenance.

The City of Mount Pearl and the Town of Paradise contracts the St. John's Transportation Commission to provide conventional transit services on their behalf. As such, both municipalities determine the route structure and the level of service in their respective communities and are billed for the service based on a pre-defined per kilometre rate (Metrobus). Service in these communities is integrated with Metrobus service in the City of St. John's. It is important to note that Metrobus and the City of St. John's do not control the design or amount of service in these municipalities.

As such, the analysis and recommendations in this report only apply to routes and services that are within the City of St. John's.

3.1.2 GoBus

GoBus provides door-to-door specialized transit service to eligible customers with disabilities who are unable to use the conventional transit system. There are currently 1,600 registered customers for the service, which delivers 150,000 annual trips.

GoBus operated as a separate entity until 2016, when Metrobus took on responsibility for specialized transit. Unlike Metrobus, GoBus operations are contracted out to a third-party operator (currently MVT Canada), who is responsible for the delivery of daily service, which includes but not limited to: booking client trips, dealing with cancellations and no shows, hiring and training operators, providing service to registered passengers and the maintenance of the fleet. To meet the demand for specialized transit service, MVT Canada also has a separate contract with a taxi company in St. John's, which they often use to deliver service that cannot be accommodated by a GoBus vehicle.

Trips on GoBus can be booked over the phone, email, or on the online web portal. Users also have the option to allow others (agency, family, friend, etc.) book trips for them. The latest time to schedule a pick-up is 30 minutes before closing time, however 24-hour service is available to/from St. John's International Airport.

3.2 Eligibility

There are no eligibility restrictions for the use of Metrobus services.

The existing eligibility criteria for GoBus is based upon an individual's inability to use the conventional transit system (Metrobus) independently and with dignity due to their disability or health condition.

3.3 Service Area

The service area of Metrobus covers nearly 500 square kilometers on the northeast of Newfoundland's Avalon Peninsula and includes 135,000 people in the City of St. John's, City of Mount Pearl and Town of Paradise. The service area includes many important destinations that are further detailed in **Section 2.5**. The service area is shown in **Figure 1**.

GoBus operates in a larger service area than Metrobus as it provides service to eligible passengers St. John's and Mount Pearl, including the less-populated and more dispersed rural areas of St. John's and Mount Pearl where conventional service is not operated.

Figure 1: Current System Map



3.4 Hours of Operation and Headways

Metrobus and GoBus operate different service hours from each other for weekday, Saturday and Sunday service as presented in **Table 1**. As shown, Metrobus operates earlier than GoBus on weekdays and weekends, while GoBus operates until as late as 2:00am on Fridays and Saturdays. GoBus also accepts bookings for any time of day, 24-hour access, to St. John's International Airport.

Table 1: Existing Hours of Operation (2019)

	Weekday	Saturday	Sunday	Holiday
Metrobus	6:20-00:25	6:45-00:25	8:30-20:30	8:30-20:30
GoBus (Accessible Service)	7:00-00:00 (M-Th); 7:00-2:00 (F)	8:00-2:00	8:00-00:00	7:00-00:00 (M-Th); 7:00-2:00 (F)

Of the 23 routes operated by Metrobus, Routes 1, 2, 3 and 10 account for a disproportionately high ridership compared to other routes on the network and are therefore considered "base" routes. The remaining routes have been classified as primary and secondary local routes. The existing headways for each route type is presented in **Table 2**.

Table 2: Headways

Headway (minutes)	Peak	Off-Peak	Saturday	Sunday/Holiday
Base	15	30	30	60
Primary Local	30	30	30	60
Secondary Local	60	60	60	

3.5 Routes and Destinations

Metrobus operates 23 routes with 20 routes providing service to St. John's exclusively, two routes providing service to the City of Mount Pearl and one route to the Town of Paradise. Avalon Mall, Village Shopping Centre and Memorial University are critical transit terminals that serve as transfer and connection points for a majority of Metrobus services.

The current Metrobus routes are detailed in **Table 3** below.

Table 3: Metrobus Route Inventory

Route	Route Typology	Destinations
1 - Village / Institutes	Base	The Village Shopping Centre; Cashin Avenue; Crosbie Road; Memorial University; Confederation Building; College of the North Atlantic; Marine Institute
2 - Avalon / Virginia Park / Village	Base	The Village Shopping Centre; LeMarchant Road; Freshwater Road (at Parade Street); Kings Bridge Road; Pleasantville; Newfoundland Drive; Virginia Park; Torbay Road Mall; Churchill Square; Memorial University; Avalon Mall
3 - Village / Downtown / Stavanger	Base	The Village Shopping Centre; Craigmiller Avenue; Water Street; Kings Bridge Road; New Cove Road; Torbay Road; Stavanger Drive; Wedgewood Park
5 - Virginia Park / MUN / Avalon	Secondary Local	Pleasantville; Newfoundland Drive; Virginia Park; Torbay Road Mall; Churchill Square; Memorial University; Avalon Mall
6 - Village / Sesame Park / Downtown	Secondary Local	The Village Shopping Centre; Sesame Park; Eastern College; Waterford Valley; Water Street; Waterford Hospital
9 - MUN / Torbay Rd / Logy Bay Rd	Secondary Local	Memorial University; Marine Institute; College of the North Atlantic; Torbay Road Mall Logy Bay Road; Eastern Health Long-term Care
10 - Downtown / MUN / Avalon	Base	Kelsey Drive; Avalon Mall; Health Science Centre; Memorial University; Merrymeeting Road; Freshwater Road (at Parade Street); Military Road; Water Street; City Hall
11 - Shea Heights / Downtown / Avalon	Secondary Local	Avalon Mall; Crosbie Road; Mews Centre; St. Clare Avenue; City Hall; Water Street (at Waldegrave Street) & Water Street West; Shea Heights
12 - Village / Avalon	Primary Local	The Village Shopping Centre; Blackmarsh Road; Ropewalk Lane; Avalon Mall, Revenue Canada building
13 - Village / Institutes EXPRESS	Secondary Local	The Village Shopping Centre; Health Sciences Centre; Memorial University; Marine Institute; College of the North Atlantic
14 - Airport / Torbay Rd / MUN	Secondary Local	St. John's Airport; Airport Heights; Majors Path; Torbay Road; Newfoundland Drive; Marine Institute; Memorial University
15 - Cuckholds Cove / MUN / Avalon	Primary Local	Cuckhold's Cove; Miller Centre; Military Road; Bonaventure Avenue; Allandale Road; MUN Centre; Health Sciences Centre; Avalon Mall
16 - Kenmount Terrace / MUN	Secondary Local	Kenmount Terrace; Avalon Mall; Health Sciences Centre; Memorial University

Route	Route Typology	Destinations
18 - Village / Kilbride / Goulds	Secondary Local	The Village Shopping Centre; Kilbride; Goulds
19 - Village / Avalon	Primary Local	The Village Shopping Centre; Cowan Heights; Empire Avenue; Crosbie Road; Avalon Mall
21 - Village / Mount Pearl	Secondary Local	The Village Shopping Centre; Mount Pearl Square; Park Avenue; Commonwealth Avenue; Old Placentia Road; Pearlgate Shopping Centre; Motor Vehicle Registration; Smallwood Drive
22 - Village / Mount Pearl	Secondary Local	The Village Shopping Centre; Mount Pearl Square; Wyatt Boulevard; Masonic Park; Pearlview; Brookhaven; Donovan's Industrial Park; Reid Centre; Motor Vehicle Registration; Commonwealth Avenue
23 - Avalon / MUN / Stavanger	Secondary Local	Avalon Mall; Health Sciences Centre; Memorial University; Higgins Line; Newfoundland Drive; Torbay Road; Stavanger Drive
24 - Airport Heights / MUN EXPRESS	Secondary Local	Airport Heights; Memorial University
25 - Village / Kilbride / Goulds	Secondary Local	The Village Shopping Centre; Kilbride; Goulds; Petty Harbour Road
26 - Kenmount Terrace / MUN EXPRESS	Secondary Local	Kenmount Terrace; Memorial University
30 - Paradise / Avalon	Secondary Local	Paradise Double Ice Complex; Valley Ridge; Donovan Terrace; Elizabeth Park; Kenmount Road; Avalon Mall

GoBus provides a shared-ride on-demand service with no fixed routes. Routes are planned based on passenger trip requests. Where feasible, trip requests from individual passengers are booked on the same vehicle to improve the efficiency of the service.

Major destinations within St. Johns include a number of shopping centres, educational institutions, hospitals, recreational facilities and government buildings. Key destinations served by Metrobus and GoBus include the following:

- Memorial University of Newfoundland (M.U.N);
- College of the North Atlantic;
- Marine Institute;
- Downtown St. John's;
- The Village Shopping Centre;

- Avalon Mall;
- Torbay Road Mall;
- Health Sciences Centre;
- St Clare’s Mercy Hospital; and
- Newfoundland Parliament (Confederation Building).

3.6 Fare Structure

Fares for Metrobus and GoBus are the same, and are as described in **Table 4**. Discounts are available to seniors over 64 and children under 18, while children under five ride free. Full time post-secondary students can purchase a four-month semester pass for \$275.

Table 4: Metrobus and GoBus Fares

	Adult	Senior	Child
Cash Fare	\$2.50	\$2.50	\$2.00
10-Ride Pass	\$22.50	\$18.00	\$18.00
Monthly or 30-Day Pass	\$78.00	\$53.00	\$53.00
Semester Pass	\$275.00		

3.7 Fleet

Metrobus service is provided using a fleet of fifty 40-foot conventional buses, three 30-foot buses and one 26-foot low-floor community bus. There are currently 54 buses in the system, with 41 used for peak service.

Over the past nine years, Metrobus has slowly been replacing the existing fleet of non-accessible buses with accessible low-floor vehicles. Accessible low-floor vehicles improve the accessibility of the service for all passengers and can reduce dwell time at stops. To date, six of Metrobus’ existing routes use accessible buses, with a plan to move replace all vehicles with these accessible buses as they reach the end of their lifecycles.

GoBus operates 18 Crestline Goshen Impulse specialized transit buses. The fleet is owned by Metrobus and operated and maintained by the private contractor. Crestline vehicles can seat up to eight ambulatory patrons and three wheelchair users.

Taxis that are used to complement the service are a combination of sedans and accessible minivans. Taxis are not dedicated to GoBus service.

4.0 Review of System Productivity

4.1 Metrobus

Automatic passenger counts (APC) are available on Metrobus vehicles which count customer boardings and alightings at a specific time and location along a route. Boardings per revenue vehicle hour (productivity) is a key metric used to define how well service is utilized and whether or not there should be increases and/or decreases in the level of service offered.

Table 5 below breaks down the productivity by AM peak, mid-day, PM peak, early evening and late evening periods during the week by route and route typology.

Each route in the table below is graphically illustrated in **Figure 2** (AM and PM peak) and **Figure 3** (Mid-day, evening, and late evening). The average productivity for each period is defined by a dashed line. Key trends from these figures are identified in the following list:

- On average, base routes are more productive than primary local routes. Secondary local routes are the least productive.
- AM peak period has an average productivity of 33.6 boardings per revenue vehicle hour:
 - Route 13 and 26 are significantly over performing the period average;
 - Route 6, 9, 11 and 25 are currently performing under the period average; and
 - The remaining routes are on par with the average productivity by span.
- PM peak period has an average productivity of 29.2 boardings per revenue vehicle hour:
 - Route 6, 9, 11 and 25 are under performing the period average; and
 - Route 1, 2, 3, 10, 12, 15 and 19 are slightly greater than the period average.
- Mid-day has an average productivity of 31.4 boardings per revenue vehicle hour:
 - Route 1, 2, 3, 10 and 18 are over performing the period average; and
 - Route 6, 9, 11 and 16 are under performing the period average.
- Early evening has an average productivity of 23.9 boardings per revenue vehicle hour:
 - Route 1, 2, 10, 12 and 19 are over performing the period average; and
 - Route 6, 14 and 16 are under performing the period average.
- Late-evening has an average productivity of 14.8 boardings per revenue vehicle hour:
 - Route 1, 5 and 10 are over performing the period average; and
 - Route 14, 16 and 23 are underperforming the period average.

Table 5: Weekday Boardings per Revenue Vehicle Hour (2018)

Route	Typology	AM Peak	Mid-Day	PM Peak	Early Evening	Late Evening	All Day
		06:00-08:59	09:00-14:59	15:00-18:29	18:30-21:59	22:00-30:00	
Route 1	Base	35.5	43.1	36.8	34.8	22.3	37.7
Route 2		39.8	44.0	36.7	34.8	15.3	37.8
Route 3		38.0	34.1	35.1	22.0	14.9	31.4
Route 10		38.8	44.1	34.8	37.4	21.1	37.8
AVERAGE		38.0	41.3	35.9	32.3	18.4	36.2
Route 12	Primary Local	33.2	29.6	33.5	27.2	13.6	29.7
Route 15		32.3	32.7	35.2	22.9	14.3	30.8
Route 19		31.9	29.0	34.2	32.6	16.7	30.3
AVERAGE		34.4	30.7	32.7	24.0	12.7	29.3
Route 5	Secondary Local	-	-	-	23.1	18.1	22.0
Route 6		27.7	22.1	20.4	8.0	-	22.2
Route 9		18.8	17.4	13.7	-	-	16.5
Route 11		21.1	20.7	22.0	-	-	20.8
Route 13		49.4	-	-	-	-	49.4
Route 14		40.0	31.5	28.0	13.4	6.3	26.2
Route 16		33.7	24.5	29.1	17.0	8.0	24.3
Route 18		32.6	35.8	26.6	22.9	15.9	28.3
Route 23		-	-	-	23.7	10.9	19.9
Route 24		24.0	-	-	-	-	24.0
Route 25		20.7	-	22.7	-	-	22.2
Route 26		53.8	-	-	-	-	53.8
AVERAGE		31.3	24.1	22.4	18.3	13.2	27.6
AVERAGE	All	33.6	31.4	29.2	23.9	14.8	29.7

Figure 2: Boardings per Revenue Vehicle Hour by Route (AM Peak and PM Peak)

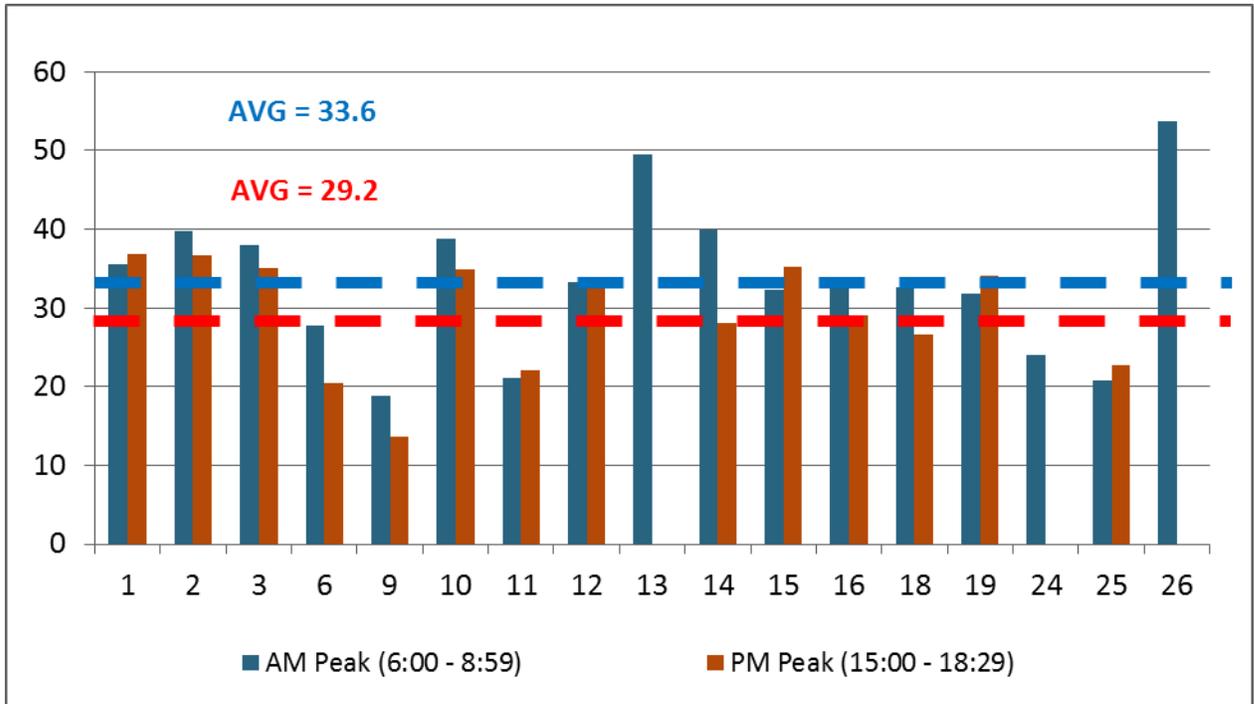
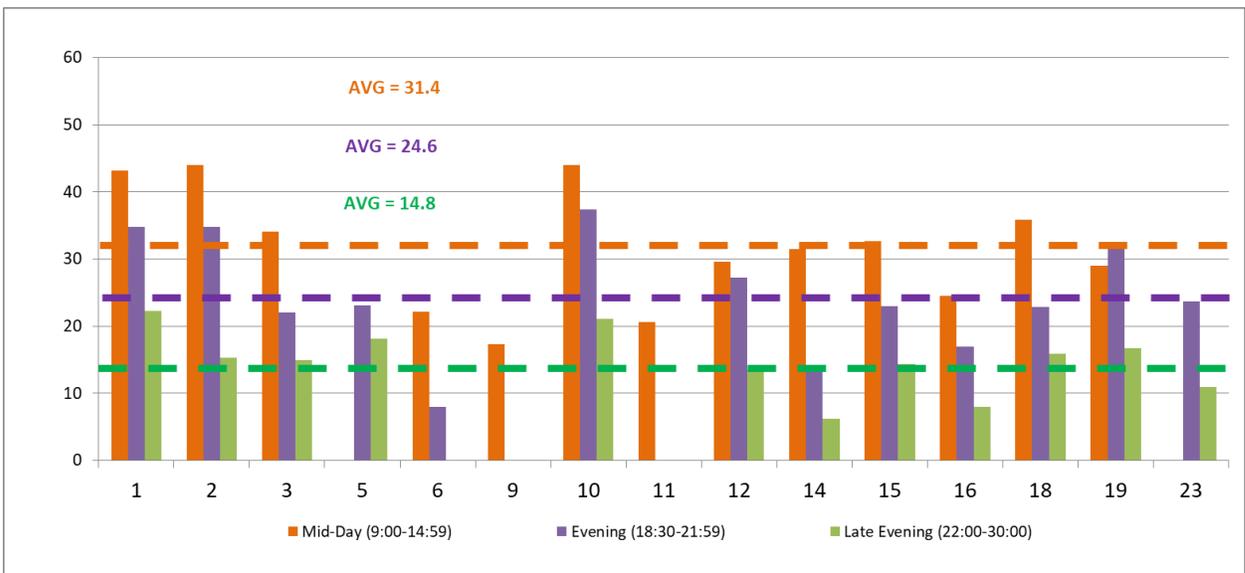


Figure 3: Boardings per Revenue Vehicle Hour by Route (Mid-day, Evening, Late Evening)



4.2 GoBus

According to the 2017 CUTA Canadian Specialized Transit Statistics, 40% of GoBus trips are via non-dedicated vehicles (taxis), while 60% of trips are via a dedicated specialized transit vehicles. Dedicated vehicles carry 2.08 passengers per revenue hour, which is low among other transit agencies as described in Section 4.2. These statistics suggest that most trips are single occupant.

5.0 Peer Review

The performance of Metrobus and GoBus was compared to a peer group of transit and specialized transit systems across Canada. The peer group selected represents transit systems that have a similar service population, annual ridership, or those that have been identified by Metrobus staff as common internal benchmarks. The transit systems selected for the peer review were:

- Saint John, NB;
- Moncton, NB;
- Barrie, ON;
- Thunder Bay, ON;
- Kingston, ON;
- Sudbury, ON;
- Kelowna, BC;
- Guelph, ON;
- St. Catharines, ON; and
- Regina, SK.

All of the information for the peer review is drawn from the 2017 Canadian Urban Transit Association Fact Book for conventional and specialized transit services. Full tables for each category are available in **Appendix A**. It should be noted that several transit systems of the peer groups connect to higher order transit and thus may have higher transit utilization levels based on connecting services. Statistics for St. John's include service to Mount Pearl and Paradise, just as some of the peer systems also serve multiple municipalities.

It should be noted that the peer system data should be reviewed with caution, as certain systems report data differently, which may influence how they compare to Metrobus and GoBus services. For example, certain systems report transfers in their ridership data, while others do not. Also, certain systems report costs from all administrative services (e.g. human resources), while other systems that operate within a municipal department structure may not report the cost of these essential services as they are difficult to separate from the broader municipal function.

5.1 Metrobus

5.1.1 Amount of Service

This set of key performance indicators will help understand whether Metrobus is providing similar levels of service as other peer systems. The investment of revenue service hours per capita ties this comparison to the municipal population.

Table 6: Service Hour Peer Comparison

Municipality	Hours of Service			Revenue Service Hours/Capita
	Weekday	Saturday	Sunday	
St. John's, NFLD	18	17.6	12.0	0.99
Saint John, NB	18.7	17.3	8.8	0.86
Moncton, NB	17	17.0	8.5	0.89
Barrie, ON	20.5	17.8	12.3	1.27
Thunder Bay, ON	18.5	18.5	15.5	1.35
Kingston, ON	17.5	17.5	12.0	1.97
Sudbury, ON	20	20.0	20.0	1.12
Kelowna, BC	19.5	18.5	16	1.37
Guelph, ON	19	19.0	10.0	1.56
St. Catharines, ON	18	18.0	11.5	1.13
Regina, SK	19.5	19.5	11.0	1.21
Average	18.9	18.7	13.7	1.27

Metrobus operates shorter service hours than the average of the peer group on weekdays, Saturdays and Sundays. The overall amount of service can be measured based on revenue service hour per capita. This helps reflect variations in population between the peer group. Overall St. John's had fewer revenue service hours per capita than all other systems surveyed save for Moncton's Codiac Transpo and Saint John Transit. There are other factors that affect the provision of transit service that are not easily determined from a peer review. For example, the transit systems with the highest service hours per capita (Guelph, Kingston, Barrie, Thunder Bay, etc.) all have U-Pass agreements in place with a post-secondary institution. U-Pass agreements provide a transit pass to all enrolled students are known contributors to significant ridership growth.

5.1.2 Service Utilization

Service utilization is determined by measures such as boardings per hour of service provided and boardings per capita. Boardings per hour of service is a measure of the effectiveness of the system in generating ridership for every hour of service provided. Boardings per capita provides a measure of transit's role in the transportation system and can be used understand the market penetration of the transit service.

Table 7: Service Utilization Peer Comparison

Municipality	Annual Ridership	Regular Service Passenger Trips/Revenue Vehicle Hour	Regular Service Passengers/Capita
St. John's, NFLD	2,880,114	21.47	21.33
Saint John, NB	2,054,643	22.10	18.95
Moncton, NB	2,350,022	22.61	20.10
Barrie, ON	2,677,396	15.65	19.75
Thunder Bay, ON	3,779,172	26.04	35.02
Kingston, ON	6,145,809	25.75	50.74
Sudbury, ON	4,062,532	24.31	27.14
Kelowna, BC	5,239,650	27.06	36.98
Guelph, ON	6,476,108	31.46	49.14
St. Catharines, ON	5,124,463	30.36	33.73
Regina, SK	5,208,671	19.09	23.15
Average	4,342,280	24.49	31.08

Compared to its peers, St. John's has lower than average trips both per revenue vehicle hour and per capita. This is partially reflected in the amount of service provided (the third lowest in the peer group) and the challenges servicing the community due to the historic roadway network and urban form. This may also be due to how various systems report ridership, as Metrobus does not include transfer data from its 10-ride or cash riders into its ridership reporting while other systems may. The systems with the highest productivity are those with U-Pass agreements in place with local post-secondary institutions.

5.1.3 Financial Performance

Financial performance was assessed through comparing the hourly operating costs, municipal operating contributions, averages fares, and revenue/cost ratios for each system.

Compared to its peers, Metrobus has a lower cash fare, but a higher average fare. The systems with U-Pass agreements typically have a much lower average fare due to the deep discounts provided for all enrolled students.

Despite the higher fare, the municipal operating contribution is high, especially among peers in eastern Canada. This is due to a higher hourly operating cost, as well as structural differences in how costs are reported, and the availability of other funding sources. Since Metrobus operates as a Commission structure, it carries the costs of a number of administrative staff positions (e.g. human resources) and other costs (e.g. pension liability) that peers systems that operate as a municipal department do not directly report on (because they form part of other municipal departments). While both the commission

and municipal department structure require the same costs to operate, they are reported differently in the CUTA Fact Book, meaning direct comparisons can be difficult. Ontario systems also receive a large portion of funding through the provincial gas tax (approximately \$1 for every \$3 spent). This provincial investment in transit (capital and operating) can off-set the amount of funding required by a municipality to deliver service for its residents.

Table 8: Conventional Transit Financial Performance Peer Comparison

	Adult Cash Fare	Average Fare	Hourly Operating Cost	Municipal Operating Contribution/ Capita	Revenue/Cost Ratio (%)
St. John's, NFLD	\$2.50	\$2.03	\$131.12	\$81.92	37%
Saint John, NB	\$2.75	\$1.82	\$103.37	\$50.94	39%
Moncton, NB	\$2.50	\$1.67	\$100.25	\$59.39	38%
Barrie, ON	\$3.00	\$2.08	\$110.90	\$82.74	29%
Thunder Bay, ON	\$2.75	\$1.46	\$112.02	\$91.90	34%
Kingston, ON	\$3.00	\$1.17	\$90.22	\$117.45	33%
Sudbury, ON	\$3.20	\$1.89	\$119.63	\$76.89	40%
Kelowna, BC	\$2.50	\$1.30	\$101.61	\$26.04	35%
Guelph, ON	\$3.00	\$1.81	\$131.45	\$112.94	43%
St. Catharines, ON	\$3.00	\$1.89	\$116.98	\$62.80	51%
Regina, SK	\$3.25	\$1.77	\$117.06	\$91.01	29%
Average	\$2.86	\$1.72	\$112.34	\$78.05	38%

5.2 GoBus

5.2.1 Amount of Service

Table 9 provides a comparison of the amount of service provided by GoBus relative to peer systems. This includes service hours, service hours per capita and trip denial rate (which helps understand whether the demand for service exceeds supply during the hours of service).

Compared to the peer systems, the weekday hours of service in St. John's is slightly more than the peer group average, and significantly higher on Saturdays and Sundays due to a late end of service.

Within the hours of service provided, the amount of service provided in St. John's per capita is the second highest in the peer group and significantly higher than the peer group average. This is also reflected in the trip denial rate, which is very low in St. John's.

Table 9: Specialized Transit Service Hours Peer Comparison

	Hours of Service			Revenue Service Hours/Capita	Trip Denial Rate
	Weekday	Saturday	Sunday		
St. John's, NFLD	17	18	16	0.34	1.1%
Saint John, NB	12	8	0	0.05	0.5%
Barrie, ON	20.25	17.75	14	0.16	8.2%
Thunder Bay, ON	18.5	18.5	15.5	0.21	2.1%
Sudbury, ON	17.5	17	17	0.35	2.1%
Kelowna, BC	10.75	9	0	0.22	0.0%
Guelph, ON	19	19	9.5	0.10	0.0%
St. Catharines, ON	17	17	11	0.11	13.2%
Regina, SK	17.25	12	11	0.31	1.1%
Average	16.6	15.1	10.4	0.21	3.2%

5.2.2 Service Utilization

Table 10 illustrates ridership and service utilization for the GoBus system.

Table 10: Specialized Transit Service Utilization Peer Comparison

	Specialized Passenger Trips	Specialized Transit Trips /Revenue Vehicle Hour ¹	Specialized Transit Trips/Capita
St. John's, NFLD	152,968	2.08	1.16
Saint John, NB	25,682	4.31	0.21
Barrie, ON	51,302	2.31	0.34
Thunder Bay, ON	75,932	2.46	0.52
Sudbury, ON	117,295	2.15	0.78
Kelowna, BC	172,099	3.70	0.94
Guelph, ON	41,982	3.33	0.32
St. Catharines, ON	34,062	2.29	0.26
Regina, SK	186,513	2.89	0.84
Average	95,315	2.84	0.6

¹This metric includes only dedicated trips that are made on a dedicated vehicle. Taxi trips, for example, are not included in this calculation, but are included in the total ridership in the first column

St. John's has significantly more specialized passenger trips both on an absolute basis and per capita compared to its peers. This is reflective in the amount of service provided and the low trip denial rate.

Productivity of the service per revenue vehicle hour is low indicating there are opportunities to improve the overall efficiency of the service.

5.2.3 Financial Performance

Table 11 illustrates key financial performance measures typically used to assess the service.

Table 11: Specialized Transit Financial Performance

	Adult Cash Fare	Hourly Operating Cost (Dedicated Service)	Cost per Passenger	Municipal Operating Contribution per Capita	Revenue/Cost Ratio (%)
St. John's, NLFD	\$2.50	\$48.94	\$25.01	\$27.19	6.3%
Saint John, NB	\$5.00	\$24.16	\$19.65	\$2.97	28.5%
Barrie, ON	\$3.00	\$38.19	\$21.16	\$7.47	4.4%
Thunder Bay, ON	\$2.75	\$52.57	\$29.05	\$13.70	14.9%
Sudbury, ON	\$3.20	\$49.40	\$24.02	\$19.32	7.1%
Kelowna, BC	\$2.50	\$74.66	\$19.12	\$15.29	14.0% ¹
Guelph, ON	\$3.00	\$144.82	\$47.74	\$14.01	3.0%
St. Catharines, ON	\$3.00	\$85.95	\$40.94	\$10.96	6.1%
Regina, SK	\$3.25	\$64.20	\$28.30	\$22.54	11.7%
Average	\$3.13	\$64.77	\$28.33	\$14.77	10.3%

¹Kelowna's revenue/cost ratio is based on 2016 data

Specialized transit is not designed to be a revenue generator, so the high municipal contribution per capita and low revenue/cost ratio is unsurprising. However, St. John's does contribute the highest municipal contribution per capita relative to its peers and thus has the second lowest cost-recovery in the system.

6.0 Community Engagement

6.1 Outreach Strategies

Engagement with the community in St. John's took place on a variety of platforms to reach a broad and diverse range of stakeholders including Metrobus and GoBus riders, as well as residents that are not currently transit customers. In-person engagement involved meetings and workshops with members of the public, advisory committees, and stakeholder groups, while some groups were contacted through conference calls. Digital engagement also took place through two online surveys that were open to all members of the public and posted on the City of St. John's *Engage! St. John's* website. Overall, there were two phases of the engagement strategy that took place.

Phase 1 Engagement - October 2-5, 2018

The purpose of this phase of engagement was to get a better understanding of resident and customer perceptions of the existing Metrobus and GoBus service. The following activities were undertaken to collect this feedback:

- Pop-up public engagement booth at Avalon Mall;
- Metrobus/GoBus stakeholder meetings with the following groups and organizations:
 - Amalgamated Transit Union Executive;
 - St. John's Transportation Commission;
 - Transit supervisors, operator trainers, and ISRs (customer service professionals);
 - Operators (by drop-in session);
 - Para-transit advisory committee;
 - Metrobus accessible transportation staff;
 - MVT Canada (operator of GoBus services);
- City and community stakeholder meetings:
 - St. John's City Council workshop;
 - City of St. John's Inclusion Committee workshop;
 - City of St. John's Environmental Advisory committee workshop;
 - City of St. John's Seniors Advisory Committee workshop;
 - City of St. John's Local Immigration Partnership meeting;
 - Transitional House of Newfoundland and Labrador conference call; and
 - MUN Parking and Transportation Solutions Committee presentation and discussion.

Phase 1 Engagement: November 27th - 29th, 2018

A second round of engagement was conducted during the Phase 1 engagement strategy to further the conversation about the existing service and get a better understanding of directions to move towards. The following activities occurred during this round of engagement:

- Drop-in session to engage with members of the public held at the St. John’s Community Market and at MUN;
- Metrobus/GoBus stakeholder meetings with the following groups and organizations:
 - St. John’s Transportation Commission;
 - Metrobus route planning and scheduling staff;
 - GoBus dispatch;
 - Newfound Cabs;
 - One-on-one meetings with Metrobus management staff to understand organizational structure;
- City and Community stakeholder meetings:
 - St. John’s City Council workshop on GoBus;
 - City of St. John’s Youth Committee;
 - City of St. John’s Solicitor;
 - Vibrant Communities;
 - Eastern Health Network;
 - Executive Directors of Disability Organizations; and
- Digital engagement through an online survey linked to the City of St. John’s *Engage! St. John’s* website from October 5th to December 7th, 2018.

Phase 2 Engagement: June 2019

The final phase of engagement was to present the preliminary recommendations to the public to receive feedback. This included:

- Open house in St. John’s on June 26th and 27th, 2019; and
- Online survey open from June 25th to July 22nd, 2019.

6.2 Phase 1 Engagement Summary – What We Heard

The first phase of consultation and engagement were held at the beginning of the transit service review so that service recommendations would be developed to respond to opportunities, issues, and solutions brought forward from the community that interacts with Metrobus and GoBus every day. Through the meetings and workshops, several key considerations, common issues, quick wins, and strategic directions began to emerge that formed the basis for identifying gaps, opportunities, and potential improvements to transit service in St. John’s. The meetings and workshops were given structure through set of common questions that were used to guide discussion and engagement. Some of the key feedback from those sessions is summarized below:

What is the role of transit in St. John’s?

- Part of an integrated system of transportation options;
- Provides access to employment, services, shopping, medical, and recreation that may otherwise be difficult to access; and
- Provides a lower-cost travel option than the private automobile.

What should the goals of this study be?

- Increase ridership on Metrobus;
- Explicitly state the role of transit in a balanced transportation system;
- Demonstrate the value, not only financially but socially, of transit investments;
- Frame transit as a municipal service that should not be expected to turn a profit, similar to parks or community facilities;
- Better serve St. John's commuters, newcomers, youth, and seniors; and
- Improve the image of transit and change the culture around transportation in St. John's.

What is working well?

- Friendly customer service;
- Cleanliness of the system;
- Core routes perform well from a customer and operator point of view, especially during peak times;
- Technology:
 - On-board wifi;
 - The app works well for customers, is easy to navigate, and provides a method of communication between customers and staff;
 - m-Card is convenient;
- Bus shelter quality; and
- Community buses.

What are the issues that need to be addressed?

- Frequency is currently too low to attract new ridership;
- Some routes operate on indirect, circuitous paths that increase travel time;
- Schedule adherence is an issue for many routes which causes missed connections, delays, and limits operator break time;
- Many trips require at least one transfer with a low-frequency service to complete;
- Service to new developments and suburban communities such as Mount Pearl and Paradise is inadequate;
- Lack of coordination with the city over snow clearing, construction, and parking enforcement; and
- Metrobus operations not considered in City infrastructure projects such as intersection design and road improvements.

What are the solutions?

- Free high school passes and a discounted U-pass would provide access for students and increase ridership;
- More express services to attract new ridership and decrease travel times;

- Signal priority and other measures should be accelerated to increase reliability and schedule adherence; and
- Park and ride options should be explored.

Open ended questions and discussion allowed for respondents and members of the public to provide context for their answers to the above questions, underscore an issue of particular importance, or specify down to a fine-grained level of detail what their answers pertained to such as specific route concerns or stop-level solutions. Frequent concerns raised by customers, stakeholders, and committee members were service frequency, long travel times on transit, transfer time, and inaccessibility/quantity of stops and shelters.

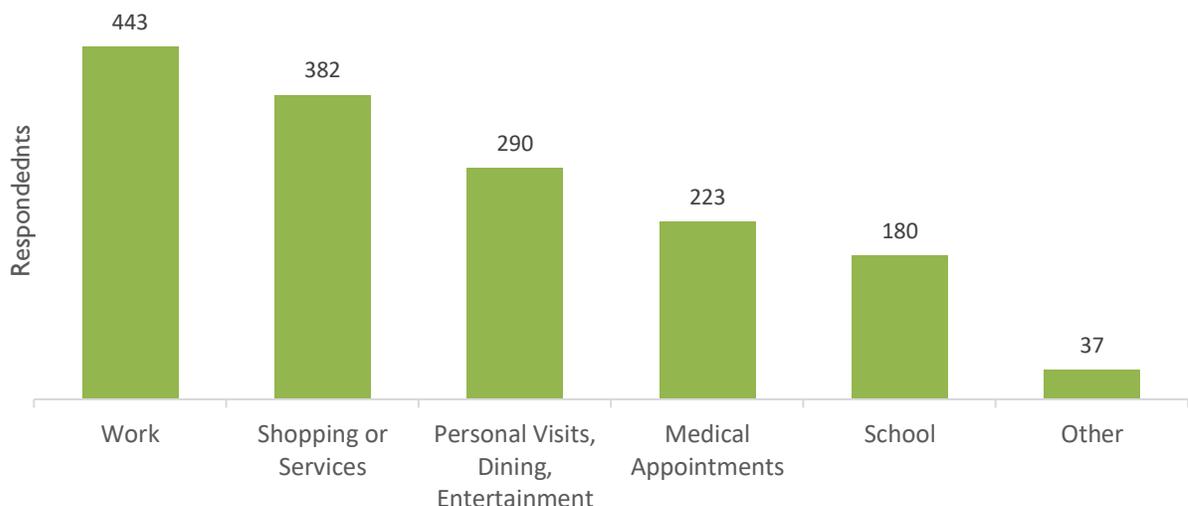
6.3 Phase 1 Online Survey Summary

The digital engagement was conducted through an online survey that performed extremely well in attracting a large sample of opinions on transit service in St. John's. There were 1,253 responses and nearly 40% of those respondents have not taken transit in the last three months. This perspective of non-riders is important to understanding what barriers exist to ridership growth and attracting new riders. The following provides a summary of the responses.

6.3.1 Trip Purpose

Respondents who had used Metrobus in the last three months were asked about their primary trip purpose when riding Metrobus. Travel to and from work was the largest share of trip types by respondents, followed by travel to shopping and services, travel to personal visits and entertainment, and travel to medical appointments as seen in **Figure 4**. The high proportion of shopping or service trips relates to two of the major transit terminals in the city being located at shopping malls.

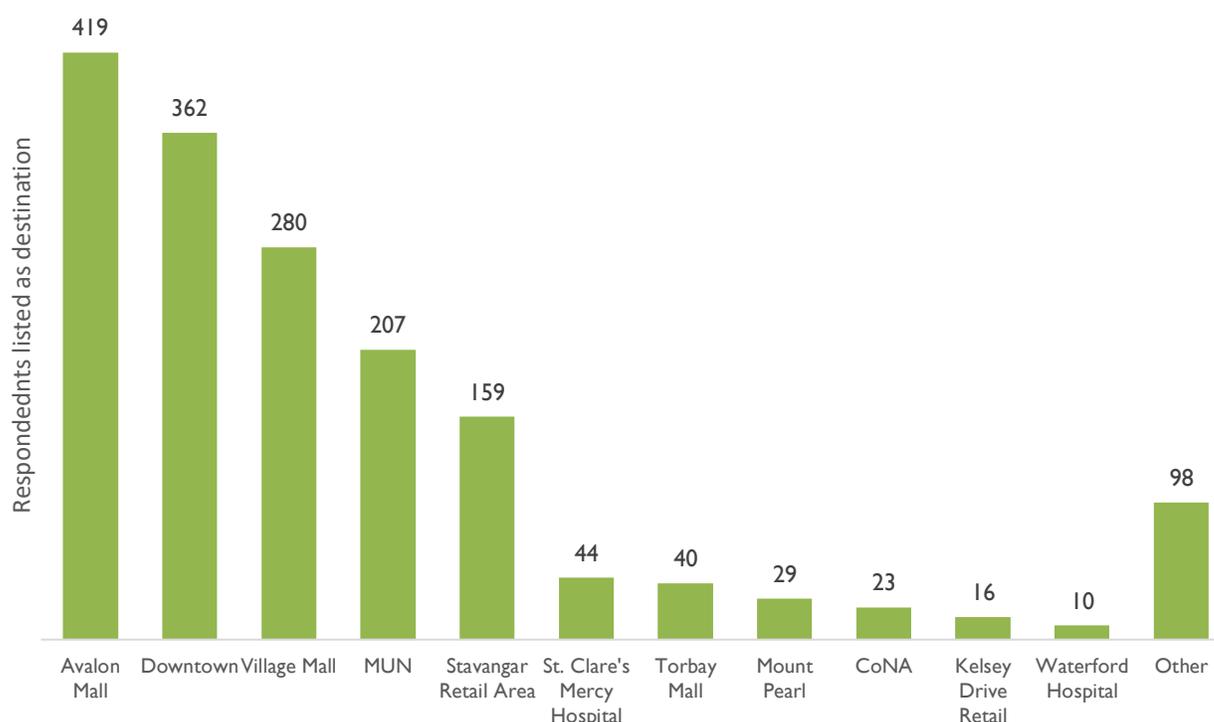
Figure 4: Purpose of Metrobus Trips



6.3.2 Key Destinations

Metrobus customers were asked to identify up to three destinations that they use Metrobus to access in order to highlight key transit trip generators in St. John's. The destinations of Metrobus customers reflect the importance of the major malls and retail areas, Downtown, educational institutions, and hospitals in the Metrobus service area. Destinations in the "Other" category included Kenmount Road Retail Area, Paradise, St. John's International Airport, Goulds and a number of smaller local retail areas. The popularity of each destination for Metrobus customers is presented in **Figure 5**. The high number of respondents who listed Downtown as a destination combined with the relatively few routes that serve Downtown makes Routes 3, 10 and 15 quite productive and worthy of further analysis to ensure Downtown is adequately served. The popularity of Avalon Mall and Village Shopping Centre reinforce their roles as major transfer points. The Stavanger retail area also generates a significant number of transit trips and an evaluation of how to best service this area will be considered.

Figure 5: Primary Destinations of Metrobus Trips

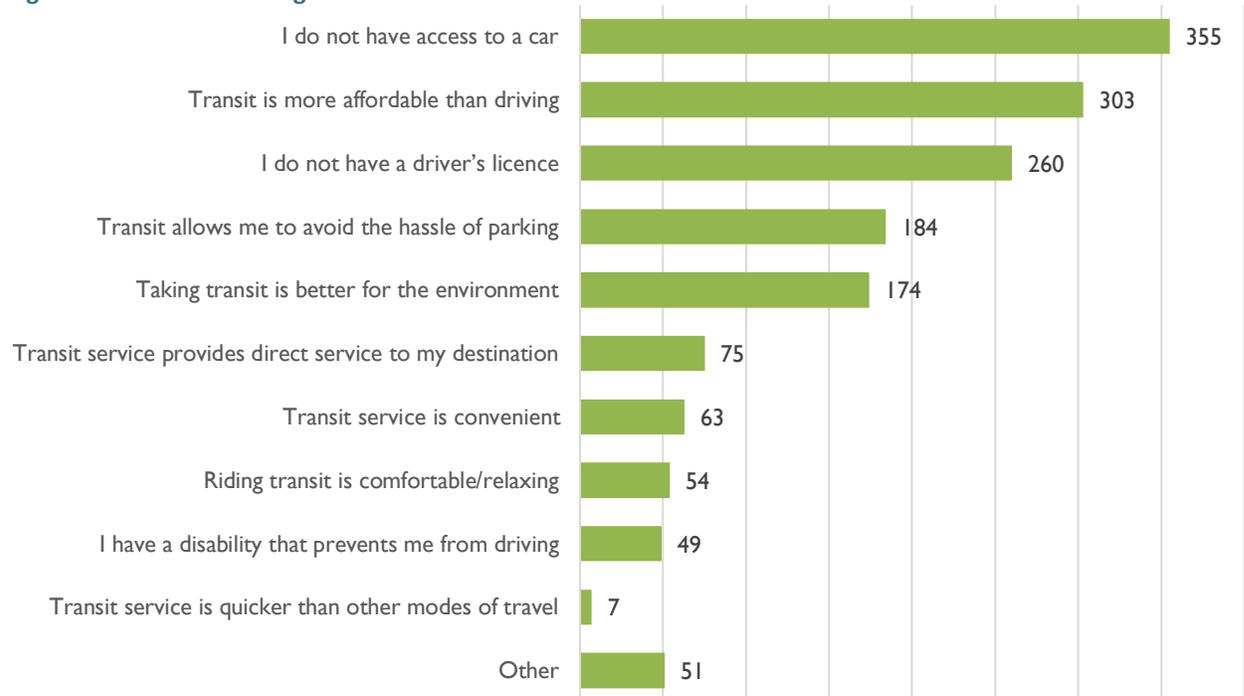


6.3.3 Reasons for Using Metrobus

Customers were asked what their primary reason was for using Metrobus service. The top reasons for customers using Metrobus that were identified through the survey were focused on affordability and lack of access to a car or not having a licence to operate an automobile. Other reasons included avoiding the hassle of parking and supporting a more environmentally-friendly mode of travel. Fewer respondents cited convenience, directness, and comfort. Speed and getting to destinations quicker than other modes was only selected by seven respondents of the 678 who answered this question,

underscoring the feedback from the in-person engagement that overall travel time is a key challenge for Metrobus. Metrobus provides a vital transportation service, however, the reasons for using the service out of necessity (such as affordability or lack of access to a car) outweighed reasons for using the service out of choice (e.g. better than other modes) by nearly 2:1. While this is not uncommon for other systems of this size, the results have suggest that an improvement in travel time and convenience is required to significant growth ridership. The full representation of respondents reasons for using Metrobus are presented in **Figure 6**.

Figure 6: Reasons for Using Metrobus



6.3.4 GoBus

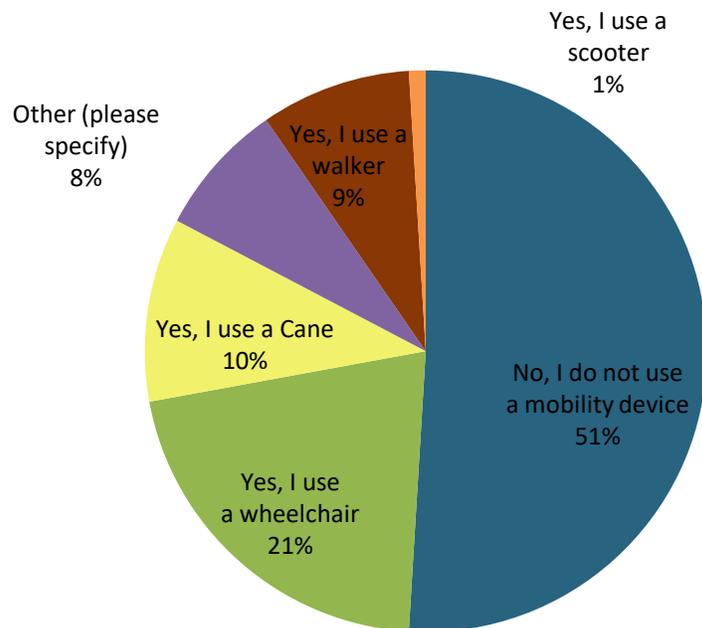
A section of the survey was designed to get feedback on transit service specifically from GoBus customers. Over 100 respondents answered the set of questions designed to understand the accessibility needs of riders, destinations of GoBus customers, what improvements could be made to GoBus service, and what barriers exist to current GoBus customers taking Metrobus service.

6.3.4.1 Mobility Device Use

A question about customer's use of mobility devices provided an insight into the needs of GoBus customers and the critical transportation option that GoBus provides. The majority of GoBus riders do not use a mobility device while customers in wheelchairs are the largest share of customers who use

mobility devices. “Other” included attendants for registered customers and the use of service animals. The distribution of mobility device use by GoBus customers is presented in **Figure 7**.

Figure 7: Use of Mobility Devices by GoBus Customers

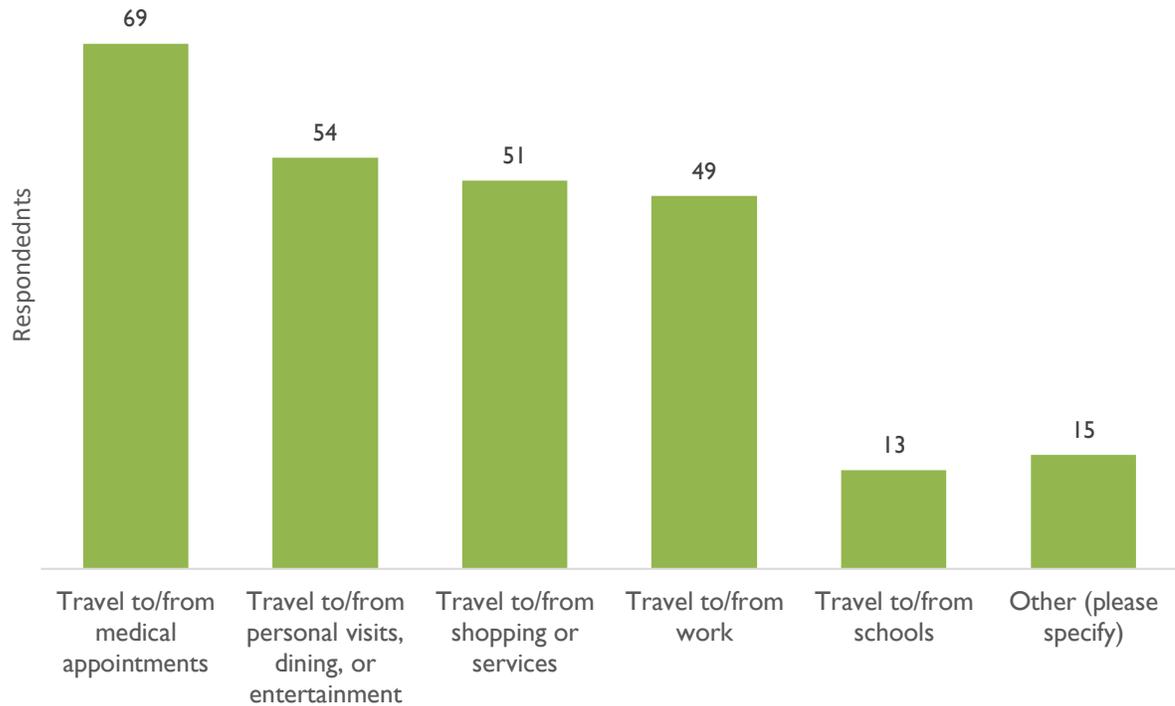


6.3.4.2

GoBus Trip Types

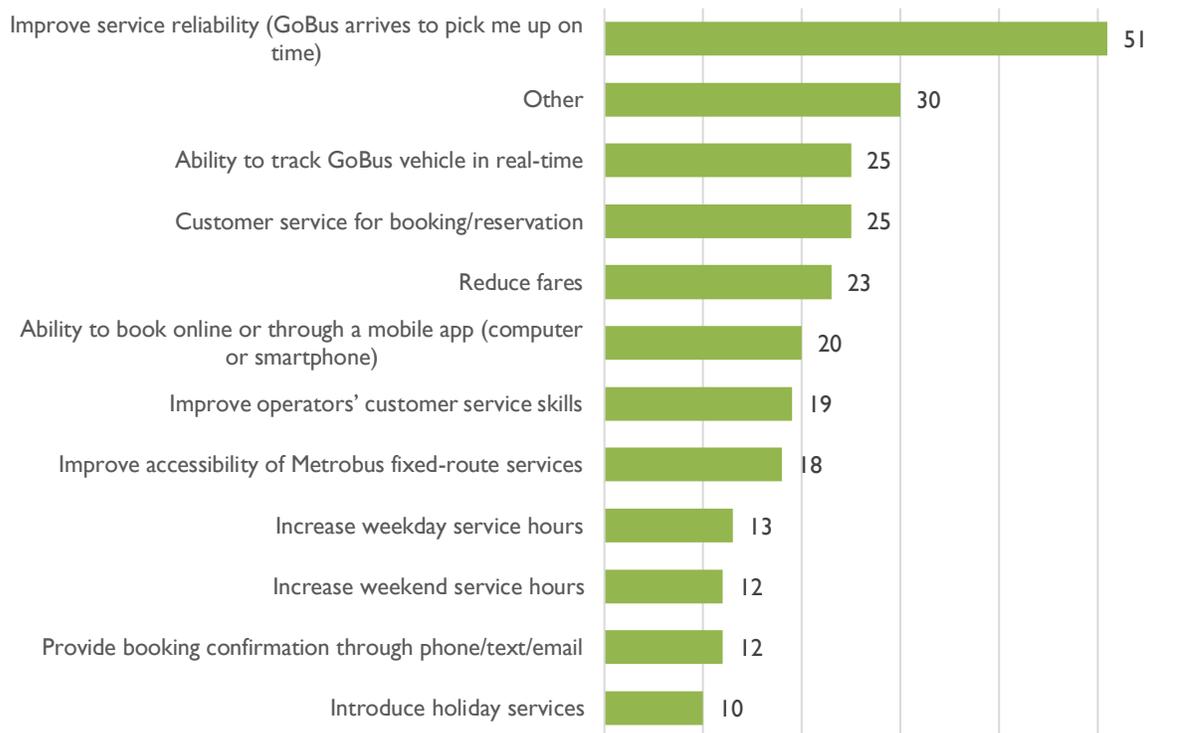
GoBus customers were asked about their primary trip purpose when using the service. Travel to and from medical appointments was the most frequent response followed travel to personal visits or entertainment, travel to shopping and services and travel to work. Other included travel to meetings or volunteering. The breakdown of trip types by GoBus customers is presented in **Figure 8**.

Figure 8: GoBus Customer Trip Types



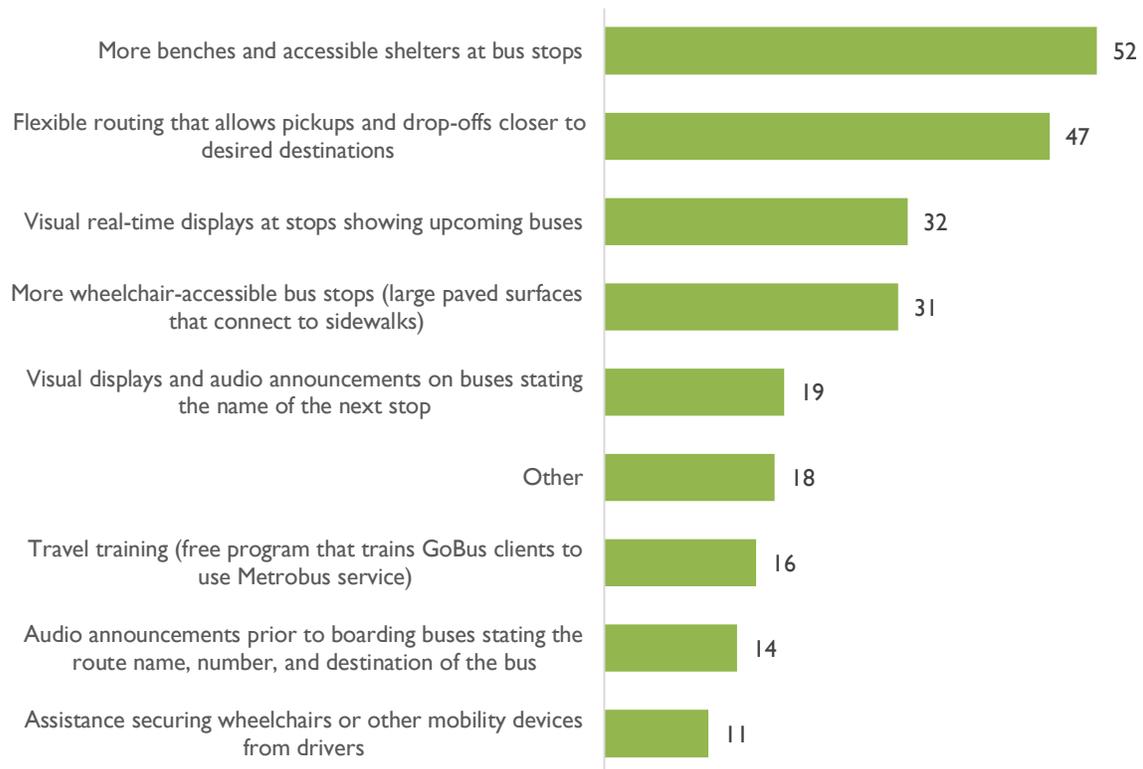
6.3.4.3 GoBus Improvements

GoBus customers were also asked what improvements they would make to GoBus service. Improvements to reliability was the most popular option followed by other which included a variety of improvements such as more buses to reduce pickup windows, removing the 24 hour advance booking window, reducing reliance on taxis, and increasing the service area. Customer service improvements for booking and reservations, a mobile app for booking, the ability to track the bus in real time, and confirmation of a booking through email or text suggest that gaps exist in the current booking process and trips could be made easier with better integration of technology. Reducing fares was also a popular improvement as was increasing service hours, however, respondents were split on whether to improve weekday, weekend, or holiday hours. The popularity of GoBus improvements is presented in **Figure 9**.

Figure 9: Preferences for GoBus Improvements

6.3.4.4 Metrobus Improvements to Accommodate GoBus Trips

GoBus customers were asked to identify improvements to Metrobus service that would allow them to take the Metrobus conventional bus service, or use it more often. Stop improvements such as shelters, benches, accessible features, and next-bus displays made up nearly half of all preferred improvements selected by respondents. Next-stop announcements, and route announcements prior to boarding the bus would improve the riding experience. More flexible routing that gets riders closer to their destinations, to minimize walking or rolling distance, was also a popular option. The popularity of various Metrobus improvements that would the service more appealing to current GoBus users is are shown in **Figure 10**.

Figure 10: Improvements to Metrobus Service that would Entice GoBus Customers

6.3.5 Service Improvement Preferences

All respondents were asked to identify their preferences for how the transit service should be designed by selecting the most appropriate statement that completed the phrase “I would prefer a transit system with...”. These questions were designed to help the public understand that sometimes there are sometimes trade-offs that need to be made when designing a public transit service.

The first question asked respondents their preference over designing more direct routes focused on arterial corridors (which may result in longer walks to a bus stop), or routes that minimized walking distance for passengers (which may result in longer in-vehicle travel time). This is illustrated in **Figure 11**.

Figure 12 illustrates the response to the question about the public’s preferences for frequency improvements. Would they benefit from more frequency during the weekday peak periods, weekday midday period, weekday evening period or on weekends?

Figure 11: Preferences for Route Directness

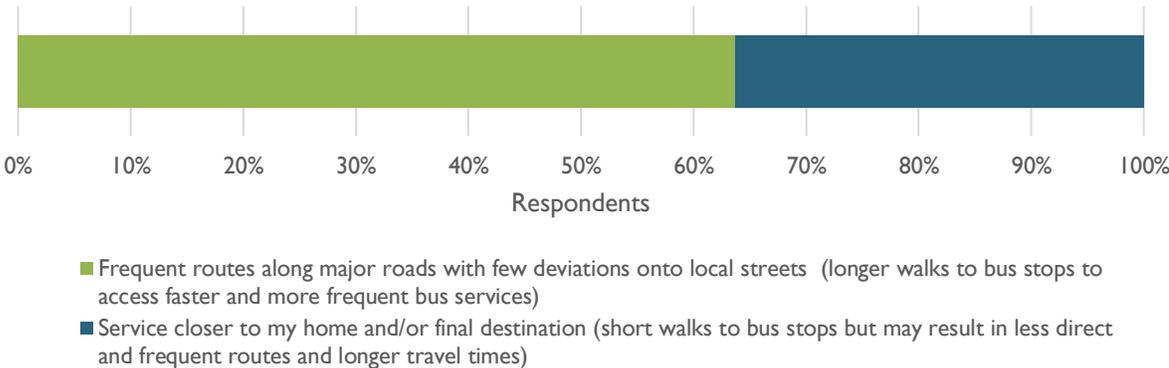


Figure 12: Preferences for Time Period to Increase Service Frequency

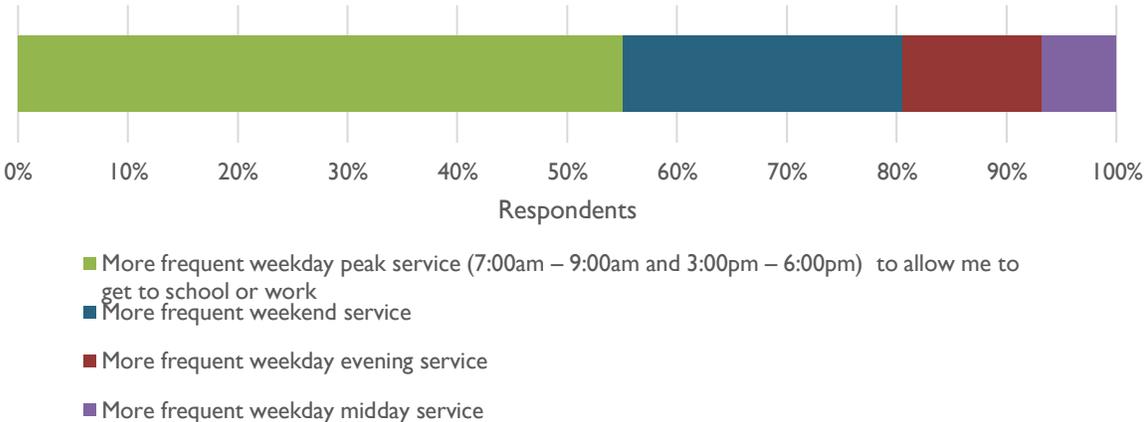
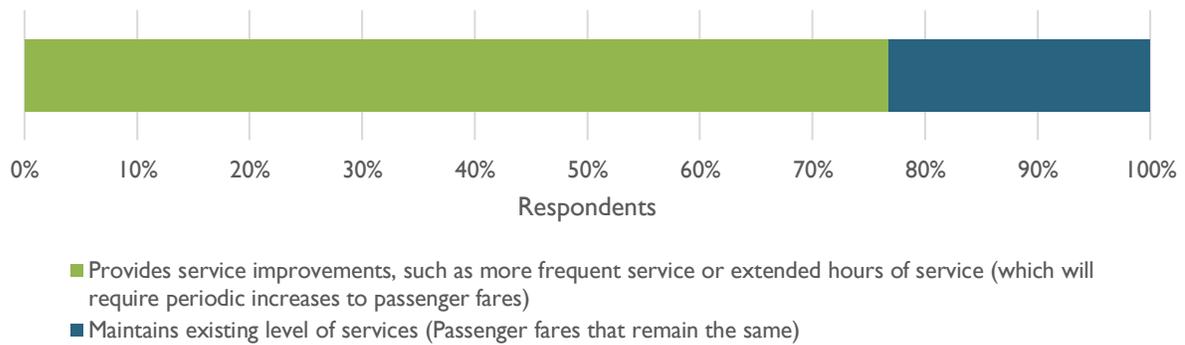
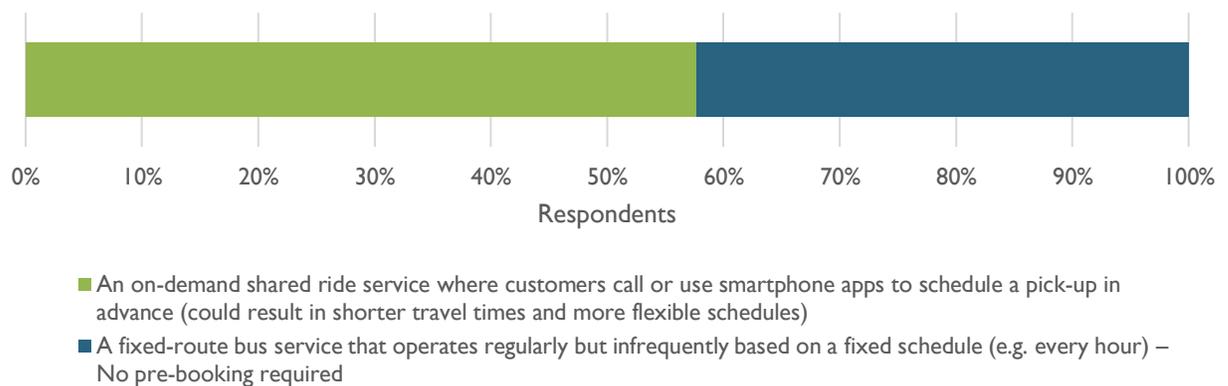


Figure 13 illustrates the response to a question regarding willingness to pay for service improvements. The survey asks whether respondents would prefer to maintain existing fares and service levels or if they would be willing to pay a higher fare for increased service.

Figure 13: Preferences for Service Level and Fare

Respondents also selected their preferences for serving low-demand areas with transit between a low frequency fixed-route service or an on-demand service booked in advance through an app as shown in **Figure 14**.

Figure 14: Preferences for Serving Low-Demand Areas

More direct and frequent service with longer walks to access service was favoured over short walks to and from bus stops by the survey respondents. This echoes what riders and stakeholders communicated through the engagement sessions as service frequency and travel time were common concerns. However, while deviating routes and long travel times are a persistent issue communicated by riders, there is a need for services that provide coverage to those who are unable to walk long distances such as those with mobility challenges or the elderly (particularly during inclement weather conditions). This informed the service recommendations in that areas with high senior populations may still require a bus route that minimizes walking distances at the cost of longer travel times.

The preference for more peak time bus service reflects the high proportion of respondents who use Metrobus to commute to and from work. An increase to service for this period would also benefit many

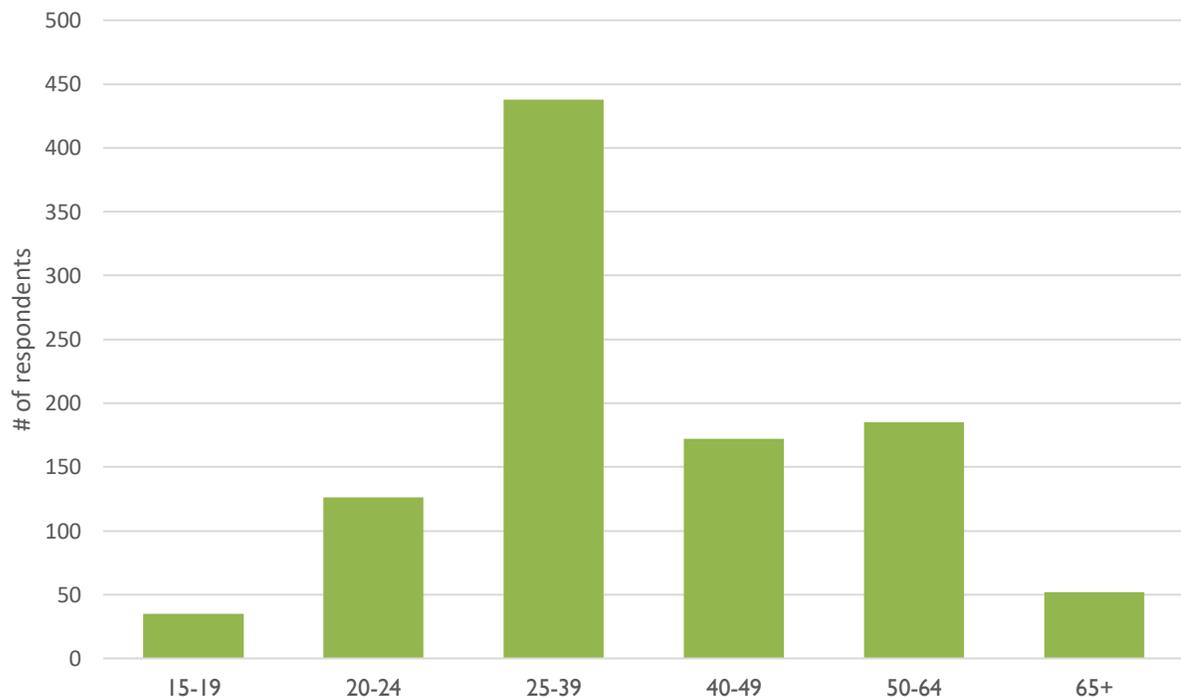
students. Following weekday peak improvements, the next most popular period for increased frequency was weekend service followed by weekday evening and weekday midday.

Increased fares for a higher level of service was preferred by respondents of the survey. This highlights that the majority of transit customers are able to absorb a fare increase for an increased level of service and also that any future fare increase, above escalations in line with operating costs, should be tied to a bundle of service improvements. It should also be noted that while respondents supported a Metrobus fare increase for increased service, 23 of 104 GoBus customers that responded to the survey indicated that reduced fares are a desirable improvement to GoBus service.

6.3.6 Demographics

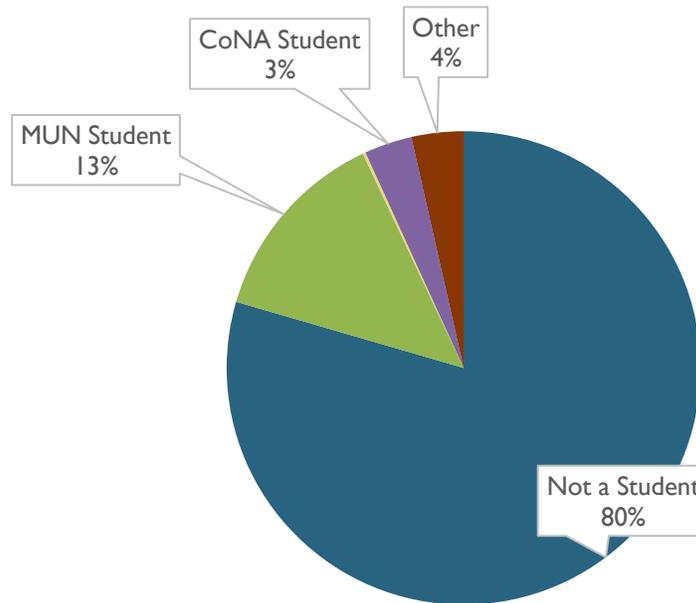
The respondents to the survey were from a diverse range of ages as seen in **Figure 15**. The range from 25-39 made up the largest share, which is encouraging as more traditional, in-person types of engagement tend to reach an older demographic. This mixed approach is more representative of the diversity in ages within St. John's. Over 83% of respondents lived in the City of St. John's with Mount Pearl and Paradise accounting for much of the remaining respondents.

Figure 15: Age of Respondents by Range



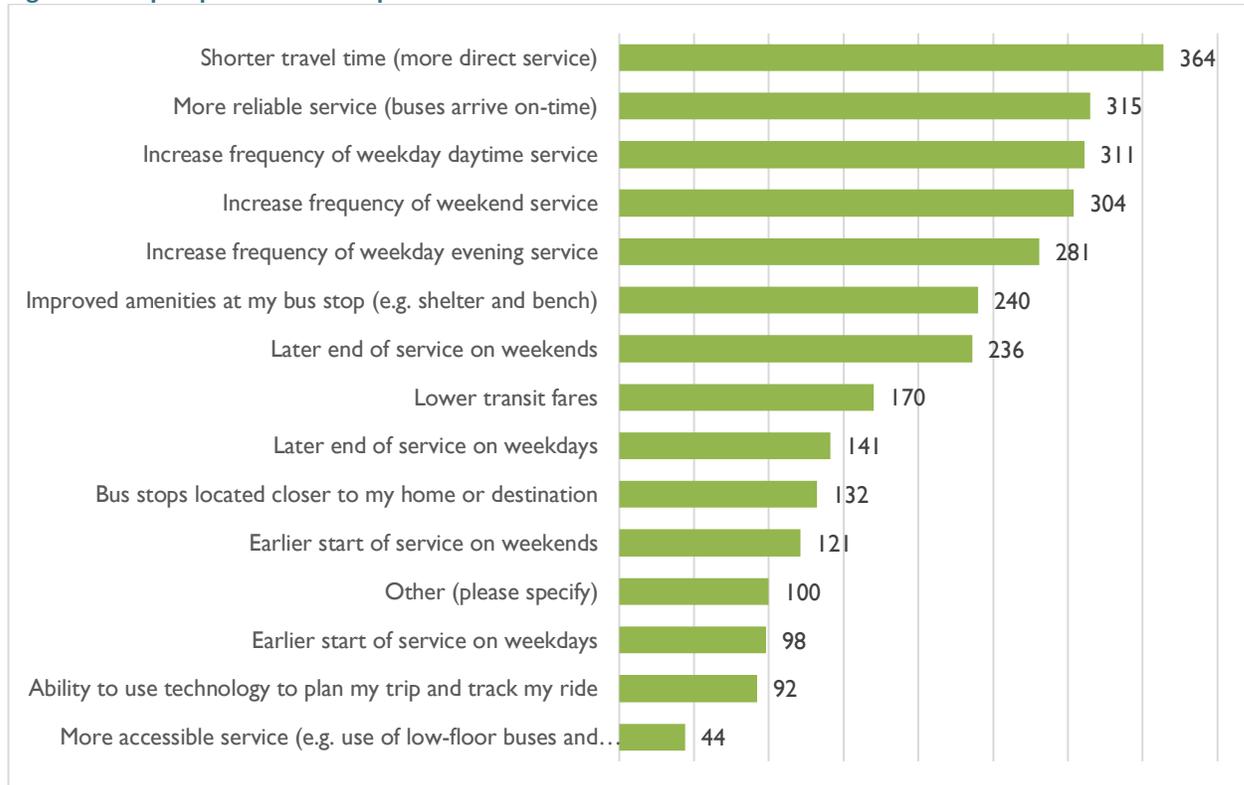
Only 20% of respondents identified as post-secondary students, as shown in **Figure 16**, which is below the proportion of post-secondary students who take Metrobus. As a result, more targeted in-person engagement with students at MUN took place during the November consultation period to get their perspective on transit service in St. John's.

Figure 16: Proportion of Respondents Who Identified as Post-Secondary Students



6.3.7 Improvements to Generate Ridership

All respondents were asked to choose improvements that, in their opinion, would lead to increased use of Metrobus service. Improvements identified by respondents included shorter travel time, more reliable service, increased frequency, longer service hours, shorter walks to bus stops, lower fares, more accessible service, and greater use of technology. The increased reliability, shorter travel time, and increased frequency were the most often selected as improvements that would drive increased transit use and highlight again the findings from the in-person engagement that identified these as key issues. The number of times each improvement was selected by a respondent are presented in **Figure 17**.

Figure 17: Top Improvements Respondents Would Like to See from Metrobus Service

6.4 Key Findings

After reviewing the results of both the in-person and digital engagement, several key themes emerged as areas where the transit service review, and any recommendations following from it, need to address or consider.

- Remove, where necessary, diversions off of main streets to address long travel times;
- Enhance peak frequency to ensure that transfers can be made easily;
- Improve reliability and schedule adherence to benefit customers and operators;
- Maintain existing coverage (proximity to a bus stop) for riders who may not have another affordable option; and
- Continue the deployment of technology to improve the customer experience.

The need for more reliable service was expressed strongly by Metrobus customers. This is particularly important on high ridership and low frequency routes (where missing a bus means a long wait-time).

Frequency was another issue that was raised by respondents of the survey and attendees at various engagement activities. This suggests that recommendations to improve frequency of service would be well received and would help grow ridership.

The survey also highlighted the importance of Avalon Mall, Village Shopping Centre, MUN, Downtown, College of the North Atlantic, Eastern Health facilities, and other areas such as the emerging Stavanger Retail Area as important destinations that are large generators of transit trips and should be adequately served by the recommended route network that results from the transit service review.

7.0 Recommended Service Standards

The existing service standards used by Metrobus for conventional transit were reviewed and updated to reflect the strategic direction of the plan and include new and potential service offerings provided by the St. John's Transportation Commission.

Service standards provide for a consistent and fair evaluation of both existing and proposed services, and establish a framework for guiding decisions on how to best serve customer's diverse travel needs within prevailing budgetary and resource limits. The standards discussed in this document are intended to provide guidelines governing the planning and design of all Metrobus services, including conventional transit, community bus, dynamic on-demand transit and specialized transit (GoBus). Definitions and details of the standards and how they are used in decision making are also identified.

Because markets, customer expectations, and Metrobus' resources change over time, service standards are evolutionary by nature. Metrobus must be responsive to these changes in order to retain current customers and achieve and sustain ridership growth. Balancing customer expectations and budget constraints is a difficult challenge. Existing services must be monitored and modified continually to match service levels to demand and respond to opportunities for new or improved services. The dynamic nature of new developments and changing travel markets in St. John's requires constant review of new service strategies, service expansion, or service re-alignment options. Metrobus must be able to rationally evaluate service changes and make adjustments to service within the constraints of budget and equipment availability, in order to provide the highest quality service in the most efficient manner possible, using established service standards as a guide.

The following service standards should be reviewed and updated, as necessary, in conjunction with a five-year strategic review of the system to ensure that the established criteria are still relevant to Metrobus' and GoBus' operating environment, customer needs and expectations and reflect current transit industry trends.

The following service standards are based on a review of current performance and future goals and directions and input provided through the public engagement process.

7.1 Transit Service Area

Service standards will be applicable to transit services provided by Metrobus and GoBus in the City of St. John's. For Metrobus, the Transit Service Area is more specifically defined as the entire area of the City that is within 800m of an arterial, collector or local road.

Service may be provided to or through other significant areas in the Greater St. John's Region outside of the City of St. John's, if warranted with the agreement of other municipalities. Services outside of the City of St. John's should be fully funded by the municipality it services.

To maintain consistency for passengers crossing municipal boundaries, the service standards identified below should be followed and form part of the service agreement.

7.2 Service Types

Standards are defined for different types of routes and services that the St. John's Transportation Commission operates, now or in the future, as part of their overall family of services. As the service offered by Metrobus and GoBus are proposed to change, new service types have been created to reflect the new types of services that will be offered in the future. These new route and service types are:

Frequent Transit Network (FTN)

These fixed-routes connect high demand destinations and transit hubs within the City of St. John's. They are as direct, frequent and rapid as possible, and are focused on commuters and people attending major post-secondary institutions.

Local Routes

These fixed-routes provide service within and, in some cases beyond, the City, connecting communities with each other, with local activity centres, and with transit terminals where transfers to and from Frequent Transit Network routes can be made.

Dynamic On-Demand Transit Services

These shared-ride demand-responsive services provide flexible routing and scheduling in the City during periods of the day and/or areas where it is difficult to justify the operation of a Local Route or if it is deemed a better alternative to fixed-route service. Dynamic On-Demand Transit Services provide stop-to-stop or curb-to-curb services that connect areas of the community that do not have a Local Route, as a supplement to a Local Route, or provide connections to major transit focal points to facilitate transfers to other fixed-routes. These typically use dedicated or non-dedicated small/medium-sized vehicles (including buses, taxis, vans, sedans or GoBus vehicles) operating in shared-ride mode (according to customer needs). To access the service, the customer must call a dispatch office or use their mobile phone to request a trip in advance of the trip pick-up time.

Community Bus

These fixed-routes provide services within the City with limited timetables, often restricted to midday weekday periods. Routes are designed to minimize walking distance to bus stops, which often results in more circuitous routes. They primarily cater towards seniors and persons with limited mobility, linking senior residences and communities with retail services, activities and medical facilities. They are not designed to connect with other services and operate independently of other service types.

Special Services

These are routes or services that are operated at specific times or on specific days and accommodate high numbers of customers making the same trip (examples include special school services to or from a high school and supplementing Local Routes, or special event services).

GoBus Services

These are shared-ride, accessible, door-to-door demand-responsive services designed for St. John's and Mount Pearl residents with disabilities who are unable to use any of the other family of services noted above and meet specific eligibility criteria. Note that GoBus service standards are detailed in **Section 6.5 and 6.6**. For guidance, current (2019) routes are re-classified in **Table 12** below under the proposed standard.

Table 12: Current (2019) Route Classifications

Route Number	Service Type	Weekday Peak Headway	Weekday Off-Peak Headway	Weekday Hours of Service
1	FTN	15-30	30-60	6:30 am – 11:55 pm
2	FTN	15-30	30-60	6:40 am – 12:25 am
3	FTN	15-30	30-60	6:40 am – 12:15 am
5	Special		60	7:00 pm – 11:00 pm
6	Local	60	60	6:35 am – 7:00 pm
9	Local	60	60	6:45 am – 6:35 pm
10	FTN	15-30	30-60	6:20 am – 12:00 am
11	Local	60	60	7:30 am – 6:55 pm
12	Local	30	30-60	7:00 am – 11:55 pm
13	Special	30		7:30 am – 9:05 am
14	Local	60	60	6:50 am – 10:50 pm
15	Local	30	30-60	6:35 am – 11:30 pm
16	Local	60	60	6:45 am – 11:10 pm
18	Local	60	60	6:30 am – 12:20 am
19	Local	30	30-60	6:30 am – 11:55 pm
21	Local	60	60	6:30 am – 11:30 pm
22	Special (peak only)	60		6:30 am – 6:25 pm
23	Special		60	6:30 pm – 11:30 pm
24	Special	1 Trip		7:45 am – 8:00 am

Route Number	Service Type	Weekday Peak Headway	Weekday Off-Peak Headway	Weekday Hours of Service
25	Special	65		7:05 am – 6:25 pm
26	Special	20-40		7:30 am – 8:55 am
30	Special (peak only)	60		6:50 am – 6:00 pm
Community West 1, 2, 3 and East 1, 2, 3	Community		60	9:00 am – 4:30 pm

7.3 Metrobus Service Design Standards

Service Design Standards set out specific criteria for route design and service levels, including system proximity, route directness, service frequencies, and span of service.

7.3.1 Hours of Service

Metrobus will provide service on all days of the year except designated statutory holidays. Service will generally operate during the following periods illustrated in **Table 13**. It should be noted that these represent minimum hours of service, and service can be operated beyond these hours if they meet minimum service utilization targets.

Table 13: Minimum Hours of Service

Service Type	Weekdays	Saturdays	Sundays and Holidays
Frequent Transit Network (FTN)	7:00 am – 12:00 am	8:00 am – 12:00 am	9:00 am – 8:00 pm
Local Routes	7:00 am – 7:00 pm	8:00 am – 7:00 pm	None

Note: minimum service hours reflected above represent the first departure and last arrival time of the vehicle

For Special Services, Dynamic On-Demand Services and Community Bus, minimum hours of service standards do not apply. Service performance standards will determine the service level.

7.3.2 Headway (Frequency of Service)

Table 14 illustrates the maximum headway that will be operated for both FTN Routes and Local Routes. More frequent service can be operated if the appropriate service utilization targets can be met.

If a Local Route operating at the maximum headway falls below the minimum service utilization target, the route should be modified or removed from service, with consideration given to proximity to service standards. Consideration will also be made to converting the route to a Dynamic On-Demand Transit Service. If both options are not feasible and do not result in an improved service and/or service utilization level, the maximum headway should be maintained and other efforts will be undertaken to increase ridership.

Community Bus and Special Services will be planned and maintained based on forecast or observed demand – operating times and headways will be organized accordingly.

Headways do not apply for Dynamic On-Demand Transit Services. Instead, the availability of service is measured by the Trip Booking Window and Trip Denials/Missed Trips.

Table 14: Maximum Headway

Operating Period	Service Period	FTN Routes	Local Routes
Weekday Morning	6:00 am – 7:30 am	30 minutes	60 minutes
Weekday AM Peak	7:30 am – 8:30 am	15 minutes	60 minutes
Weekday Midday	8:30 am – 3:30 pm	30 minutes	60 minutes
Weekday PM Peak	3:30 pm – 5:30 pm	15 minutes	60 minutes
Weekday Evening	5:30 pm – 8:00 pm	30 minutes	60 minutes
Weekday Late	8:00 pm – end	60 minutes	60 minutes
Saturday Morning	7:00 am – 9:00 am	60 minutes	60 minutes
Saturday Midday	9:00 am – 6:00 pm	30 minutes	60 minutes
Saturday Evening	6:00 pm – 9:00 pm	60 minutes	60 minutes
Sunday/Holiday Morning	8:00 am – 11:00 am	60 minutes	60 minutes
Sunday/Holiday Midday	11:00 am – 6:00 pm	60 minutes	60 minutes
Sunday/Holiday Evening	6:00 pm – 7:00 pm	60 minutes	60 minutes

7.3.3 Trip Booking Window

For Dynamic On-Demand Transit Services, customers must book a trip ahead of their desired pick-up time. Notice (booking window) is required to mobilize and optimize the vehicle to deliver the trip and accommodate similar shared-ride trips that may be requested at the same time. Booking windows for Dynamic On-Demand Transit Services are typically short as services can accommodate more ridesharing when services connect to fixed-route stops.

Table 15: Booking Window Policies

Service Type	Maximum Booking Window	Minimum Booking Window
Dynamic On-Demand Transit Services	One week prior to trip request	Recommend 60 minutes prior to trip request (on-demand service accommodated based on availability)

7.3.4 Travel Time (Directness of Service)

Travel Time (Directness of Service) is a measure of service quality. The design of routes and services should minimize the amount of time a customer needs to be in a vehicle compared to the direct path between an origin and destination pair.

Deviations on FTN Routes should be avoided, but can be considered to service a major terminal or trip generator; to connect to another route for the purposes of accommodating a major transfer movement; match travel demands or to use a transportation corridor that will reduce travel time.

The configuration of Local Routes should be designed to provide as direct a service as possible between two points or communities, with deviations to serve local areas and major destinations as warranted by demand or to achieve the Proximity to Service standard. A higher deviation is permitted due to the more circuitous design of the local roadway network, which makes it difficult to maintain a close proximity to residential areas without deviating from the direct path. One way loops should only be used in the following circumstances:

- at the extremities of routes to allow for turn-around;
- to service a major terminal or trip generator;
- to connect to another route for the purposes of accommodating a major transfer movement; and/or
- to provide necessary coverage to achieve Proximity of Service standard.

As a guideline, Local Routes should be designed such that the maximum travel time around a one-way loop at the extremity should not exceed 5 minutes. Where Local Routes cannot meet this minimum design standard, consideration should also be made to introduce Dynamic Transit Services.

Special Services are expected to be more circuitous in order to provide service to area residences, terminals and schools. While the directness of service value should always be minimized, no specific directness of service standard for Special Services is recommended.

Dynamic On-Demand Transit Services are based on the average in-vehicle travel time of a person travelling with other customers compared to the time it would take for the same customer to travel alone on the same vehicle. This provides a balance between increasing service productivity (vehicle occupancy) versus service quality (travel time).

For Dynamic On-Demand Transit Services, trips are generally direct unless a ride is shared with another customer. The standard places a maximum target on the amount of time a customer is in a vehicle for a shared-ride service relative to the direct travel time if the person was travelling in the vehicle alone. As a general guideline, a customer sharing a ride with more than one customer should not be in a vehicle 1.5 times longer than the travel time of the customer travelling alone between their origin and destination.

7.3.5 Proximity to Service

The Proximity to Service standard is meant to address the accessibility of transit by targeting a maximum walking distance that a customer will have to travel to reach a transit stop. Metrobus will attempt to operate routes throughout the City, where economically and operationally feasible, so that this standard is met.

For FTN Routes, Local Routes, Community Bus Routes, Special Services and Dynamic On-Demand Transit Services, the maximum walking distance to the closest transit stop within the Transit Service Area (see **Section 6.1**) will be 400 metres for at least 80% of residences and/or businesses.

For new medium and high density residential developments as defined by the City's Planning Division, major activity centres, and large seniors' residences, the maximum walking distance to a transit stop will be 250 metres. This should be assessed when reviewing site plan applications to ensure they are within proximity of an existing Metrobus route.

The Proximity to Service Standard is important to maintain equity in the system, providing residents, students and employees within the City access to mobility. The maintenance of this service standard should be prioritized, even if the performance of an existing route or service does not meet minimum service utilization standards.

7.3.6 Bus Stops

Bus stops should be located to maximize convenience for customers and support the service coverage standard, according to the following guidelines:

- At intersections, transfer points, and key facilities and destinations in order to reasonably minimize walking distance;
- Not less than 250 metres apart and averaging 350 metres apart along the length of a route²;
- At locations that consider traffic and street conditions and, where possible, are close to signalized intersections, or pedestrian crosswalks; and
- At the far side of the intersection where there is reasonable room to accommodate the stop.

Bus bays will only be supported when there is a scheduled time point, a transfer point, or extremely busy stop location that may result in a bus stopping for an extended time at a bus stop. On streets where on-street parking creates a bus bay, designs that extend the sidewalk/customer waiting area to the travel lane and eliminate the bus bay will be supported.

² Note: Bus stop requests located closer than 250 metres apart will be considered at the discretion of Metrobus staff, balancing the operations of the route with customer convenience in areas where the topography or other factors make it difficult to access a bus stop.

A bus stop zone should be a minimum of 35 metres in length – 12 metres for a stopped bus plus 11 metres for the bus to pull into the zone and 12 metres for the bus to pull out of the zone. These dimensions may be altered for constrained sites, as applicable.

Amenities at bus stops such as benches and shelters will be located where they make the most sense, with the following used as guiding criteria:

- All terminals and transfer points;
- Busy customer boarding locations (> 20 daily boardings);
- Unique exposure to inclement weather; and
- Close to senior's residences, hospitals, and other institutional facilities.

7.3.7 Accessibility

All conventional transit buses used to operate FTN Routes will be low-floor, wheelchair accessible vehicles with automated stop announcements in order to accommodate all customers who may wish to use them. It is the objective of Metrobus to extend this standard to all routes over time as older buses are replaced.

Dynamic On-Demand Transit Services may use other types of smaller non-accessible vehicles as long as an accessible vehicle can be reasonably made available upon request during the span of service and service area. Only mobility aids that are appropriately sized and can safely fit on transit buses and Dynamic On-Demand Transit Service vehicles will be accommodated.

All transit terminals and other transit facilities will be barrier free and look to incorporate the principles of universal design where feasible.

New or reconverted bus stops and bus stop amenities and shelters will also look to incorporate the universal design where feasible. They will be linked to accessible pedestrian access points.

Snow clearing should be prioritized on arterial roads that have routes with accessible bus stops where possible.

7.4 Metrobus Performance Standards

Performance measures are used primarily to set desired and achievable goals for the performance of Metrobus and permit evaluation and feedback on how well these goals are met. The following section provides guidance on overall performance of the system in terms of the effectiveness of the service provided and the customer experience. This includes specific criteria for measuring trip denials/missed trips, customer comfort, service utilization, service reliability and guidelines for service expansion.

7.4.1 Trip Denial / Missed Trips

Trip denials /missed trips occur when a customer is unable to board a Metrobus vehicle at the requested or scheduled pick-up time. Missed trips occur when a customer is waiting at a bus stop for a scheduled service and their trip cannot be accommodated due to:

- Significant delays (vehicle is operating significantly behind schedule, resulting in the vehicle missing a scheduled trip); or
- Incidents or unplanned maintenance (vehicle is pulled from service due to an incident or unplanned maintenance, with no back-up vehicle available to accommodate the scheduled trip).

On Dynamic On-Demand Transit Services, trip denials occur if the customer's trip request made within the recommended booking window cannot be accommodated. This is typically due to a lack of available vehicles during each operating period or limited ability to share rides made during a similar period.

On FTN Routes, Local Routes and other fixed-route services, trips can also be denied if overcrowding occurs (buses that have reached peak occupancy on the vehicle and cannot accommodate additional customers waiting at the stop). **Table 16** illustrates the recommended performance standard for missed trips and trip denials.

Table 16: Trip Denials / Missed Trip Performance Standards

Service Type	Maximum Standard
FTN Route	Less than 1% of transit riders on a route reported being denied a trip due to overcrowding or being over 15 minutes late (FTN route) or 30 minutes late (Local route) (measured monthly)
Local Routes	
Special Services	
Dynamic On-Demand Transit Service	Less than 1% of trips booked within permitted booking window reported that they cannot be accommodated up to half hour before or after the time requested

When missed trips and trip denials consistently exceed the maximum standards in **Table 16**, Metrobus will identify opportunities to make better use of existing resources (e.g. increased ridesharing) or add system resources to the service. If a trip is denied due to overcrowding on a bus, customers will be required to wait at the bus stop for the next bus. This incurs an unexpected delay to a customer's trip. If the delay incurred due to crowding is more than 15 minutes for Frequent Transit Network services or 30 minutes for other services on a regular basis with multiple customers, corrective action should be considered (e.g. the dispatch of "overload" services during targeted periods).

7.4.2 Customer Comfort / Vehicle Occupancy

The customer comfort / vehicle occupancy standard monitors crowding on vehicles and the number of customers that are unable to board buses at a stop due to overcrowding. This standard is used to guide

the planning of service frequency over and above the minimum described in the previous section. If it is observed that acceptable customer comfort guidelines are exceeded, corrective actions can include adding trips to the schedule in the form of a frequency improvement or overloads and/or restructuring the service to distribute demand among several routes.

In order to maximize customer comfort, the level of service for FTN, Local and Special routes will be designed to not exceed 150% of seated capacity on standard buses in all time periods. Overload vehicles can also be used to ensure that this standard is met.

As Community Bus is, by its nature, catering to less mobile members of the community it is unreasonable for any users to not be seated on these services. They should be designed to not exceed 100% of seated capacity.

For off-peak periods, it is appropriate to strive to provide a seat for all customers in consideration of generally less frequent service. A threshold of 100% of seated capacity is appropriate on all services during weekday off peak and weekends.

Dynamic On-Demand Transit Services use smaller buses, vans or even cars to carry customers, and these vehicles are not typically designed to carry standing customers. No standing customers will be permitted during the design of these services.

Vehicle occupancy standards for each service type are summarized in **Table 17** below.

Table 17: Maximum Vehicle Occupancy Standards

Service Type	Weekday AM / PM Peak Periods	All Other Periods
FTN Routes	150% of seated capacity	100% of seated capacity
Local Routes		
Special Services		
Dynamic On-Demand Transit Service	100% of seated capacity	100% of seated capacity
Community Bus		

7.4.3 Service Reliability

Metrobus provides real-time bus information, allowing customers to conveniently plan their trip and monitor the location of their vehicle in real-time using their computers or mobile phones. The application of real-time data reduces the reliance of static paper or online schedules, decreasing the uncertainty that customers experience when waiting for their bus to arrive. However, there is still the need for buses to operate on schedule, particularly for customers that do not use real-time data (e.g. may not have access to a mobile phone). Additionally, real-time data allows Metrobus to better track the on-time performance of each route and make periodic adjustments to the schedule to match

ongoing realities (e.g., if a bus is constantly running late). This helps to maintain the Service Reliability standard noted below.

Based on the above, all Metrobus services will be expected to adhere to the following service reliability performance standards for on-time performance. This is identified in **Table 18** below:

Table 18: On-time Performance Standards

Service Type	Standard
FTN, Local and Special Routes	Depart from timed/scheduled stops 0 minutes early to 3 minutes late, 85% of the time
Dynamic On-Demand Transit Services	Vehicle arrives within the pre-defined pick-up window 99% of the time
	Vehicle arrives at the customer's destination within the pre-defined drop-off time 99% of the time
All Route and Service Types	Maintain accurate real-time automatic vehicle location (AVL) data of all vehicles in revenue service, to be on-line and accessible by customers 99% of the time

7.4.4 Service Utilization

Service Utilization is a measurement of the effectiveness of the application of the system's resources against established criteria. **Table 19** summarizes the minimum number of customer boardings per revenue vehicle hour that need to be achieved.

Table 19: Minimum Service Utilization Levels (Customer Boardings per Revenue Vehicle Hour)

Service Type	Weekdays (start to 6:30 pm)	Weekday Evenings (after 6:30 pm)	Weekend (all-day)
FTN Route	30	20	20
Local Route	20	15	15
Community Bus	10	N/A	N/A
Special Services	30	20	20
Dynamic On-Demand Transit Services	4 - 6	3 - 4	3 - 4

For Dynamic On-Demand Transit Services, the minimum utilization target will be dependent on the service model implemented. These services are typically operated using smaller capacity transit buses based on a fixed hourly cost. A mobile app is used to allow customers to request their ride and to optimize the number of customer boardings per revenue vehicle hour. The service is typically implemented in low demand areas where the introduction of Dynamic On-Demand Transit Services result in a reduction in fixed-route vehicles covering the same service area. This results in a lower cost per trip. The minimum utilization target is therefore dependent on the service design and the ability for

a single Dynamic On-Demand Transit Service vehicle to cover a larger service area than a fixed-route service. Minimum targets noted in **Table 19** reflect this concept and should be used as a starting point to service design. There is no maximum number of customer boardings per revenue vehicle hour in this model, but rather a trigger to increase the number of vehicles in service. This is dependent on the ability of the vehicle to accommodate trip requests while meeting the Trip Denial / Missed Trips standard.

7.4.5 Modifications to Existing Services

Modifications to existing routes and services will be guided by the following considerations:

- Frequency improvements or use of vehicle overloads will be considered when the Customer Comfort / Vehicle Occupancy standard is being exceeded for more than 15% of the daily service hours over three consecutive months, or when the Service Utilization standard for FTN Routes, Local Routes and Special Services is being consistently exceeded by more than 50% of each average performance for each service type over three consecutive months;
- Earlier start and later finish times will be considered if analysis forecasts that the minimum Service Utilization standard for the new service can be achieved and maintained during the new service period after one year of operation;
- Service reductions, restructuring or adoption of new service typologies (e.g. introduction of Dynamic On-Demand Transit Services) will be considered when the Service Utilization Standard is not being achieved on a consistent basis; and
- Service improvements on Dynamic On-Demand Transit Services will be considered when Trip Denial / Missed Trips standard is not being achieved over three consecutive months.

7.4.6 Introduction of Service to New Areas

For new developments within the City of St. John's, transit service should be considered as soon as the road network can accommodate appropriate service and there are at least 500 residences or jobs in the area. This target should be considered a starting point for Metrobus staff to further review the type of development and the ability to achieve the minimum service utilization targets noted in **Section 6.4.4** and is not meant to be a firm decision point for the introduction of service.

The following progressive growth of transit service can be anticipated once a more detailed assessment of transit service suitability is completed:

- Dynamic On-Demand Transit Service operating during weekdays introduced initially;
- Convert Dynamic On-Demand Transit Service to a Local Route if the minimum service utilization standard is forecast to be supported over the long-term. Otherwise, consider maintaining the Dynamic On-Demand Transit Service to support the proximity of service standard in lower demand areas.

Services introduced in new areas not previously served by transit should be guaranteed for a minimum 12 months of operation to ensure adequate time for travel patterns to adjust and for year round ridership patterns to be assessed. At the end of 12 months, the service must meet the minimum service utilization thresholds required for the type of service introduced.

Within this trial period, interim targets are set to ensure that a service which is clearly not capable of meeting the ultimate targets is identified as early as possible. Monitoring should be performed at three, six and nine month intervals to ensure that the new service is trending towards the appropriate standard. Targets for these interim periods are:

- Three months: 25% of the minimum target;
- Six months: 50% of the minimum target; and
- Nine months: 75% of the minimum target.

If the performance at the end of each period has not reached at least 75% of the target value, the route or service should be re-examined to identify potential changes to improve its performance. If the same standard is not met in the next period, the identified changes should be implemented.

7.5 GoBus Service Design Standards

Service Design Standards set out specific criteria for route design and service levels, including system eligibility, bookings, and span of service.

7.5.1 Eligibility

All applicants, in order to become registered, must have a disability which prevents the applicant from utilizing Metrobus, the conventional transit system. A disability for this purpose may include, but is not limited to:

- Physical disabilities;
- Vision disabilities;
- Hearing disabilities;
- Intellectual or learning disabilities;
- Mental health disabilities; and
- Neurological disabilities.

Eligibility is considered on a case-by-case basis and is not based on a specific health condition; but whether the applicant's disability prevents the use of Metrobus, the conventional transit system. Applicants will be required to have an assessment completed by a qualified health care professional(s) contracted by Metrobus. From a customer perspective, the assessment will also be arranged and paid for by Metrobus.

It is important to note that eligibility for GoBus is **not** based on the following factors **alone** (some might be factors along with consideration of the individuals' disability):

- The applicant's age;
- Loss of driver's license or inability to drive;
- The availability of others to travel with the applicant on conventional transit;
- Whether conventional services or bus stops are offered near the applicant's pick up/drop off locations and/or lack of sidewalks in area (unwillingness and/or reluctance to use conventional services); and
- Financial need or inability to pay for taxis, or other forms of transportation.

Three levels of eligibility exist for GoBus service. Levels of eligibility are provided to ensure that GoBus resources are allocated to individuals based on need, encouraging the use of accessible conventional transit services when appropriate.

1. *Unconditional eligibility* may be granted to individuals whose disability prevents them from using conventional transit (Metrobus) at all times.
2. *Temporary eligibility* may be granted to individuals with a temporary disability (e.g. recovering from surgery) that prevents them from using conventional transit for all or part of their trip.
3. *Conditional eligibility* may be granted to individuals whose disability comes about as a result of environmental or physical barriers that limit their ability to use conventional public transit (e.g. "in winter only", "in dark conditions only", or "for certain trips that do not have accessible bus stops").

7.5.2 Hours of Service

GoBus will provide service on all days of the year. Service will generally operate during the following periods illustrated in **Table 20**. Note that on holidays GoBus services operate the same hours as they otherwise would on that day of the week (e.g. Monday statutory holidays operates as a weekday service).

Table 20: Minimum Hours of Service

Service Type	Weekdays	Saturdays	Sundays
GoBus Services	7:00 am – 12:00 am (2:00 am on Fridays)	8:00 am – 2:00 am	8:30 am – 12:00 am

Note: minimum service hours reflected above represent the first departure and last arrival time of the vehicle

7.5.3 Trip Booking Window

For GoBus Services, customers must book a trip ahead of their desired pick-up time. Notice (booking window) is required to mobilize and optimize the vehicle to deliver the trip and accommodate similar shared-ride trips that may be requested at the same time.

The following minimum booking window will be planned:

Table 21: Booking Window Policies

Service Type	Minimum Booking Window
GoBus Services	Trips should be booked the day prior to the requested day of travel Same day trips will be accommodated when and where possible. Alternative times may be offered

7.5.4 Travel Time

Travel Time is a measure of service quality. The design of services should minimize the amount of time a customer needs to be in a vehicle compared to the direct path between an origin and destination pair.

For GoBus Services, trips are generally longer due to the ‘door-to-door’ level of service provided and the need for the operator to ensure the customer is escorted to and from the front of the door of their origin and destination. This results in longer trips for the operator for each customer trip. As a result, there is an expectation that travel times may be longer. As a general guideline, customer journeys should be 60 minutes or less in duration.

7.6 GoBus Performance Standards

7.6.1 Trip Denial

Trip denials occur when a customer is unable to board a GoBus vehicle at the requested or scheduled pick-up time.

On GoBus, trip denials occur if the customer’s trip request made within the recommended Booking Window cannot be accommodated. This is typically due to a lack of available vehicles during each operating period or limited ability to share rides made during a similar period.

Table 22: Trip Denials Performance Standards

Service Type	Maximum Standard
GoBus Service	Less than 2% of trips booked within permitted booking window (the day prior to trip request) reported that they cannot be accommodated up to one hour before or after the time requested

In addition to regular service analysis, when trip denials consistently exceed the maximum standards in **Table 22**, GoBus will identify opportunities to make better use of existing resources (e.g. increased ridesharing) or add system resources to the service.

7.6.2 Customer Comfort / Vehicle Occupancy

GoBus Services use smaller buses, vans or even cars to carry customers, and these vehicles are not typically designed to carry standing customers. No standing customers will be permitted during the operation of these services.

7.6.3 Service Reliability

Like fixed-route passengers, GoBus customers need to get to their destinations on time, without undue waiting to access their service. Since GoBus services are door-to-door it is imperative that they are scheduled and dispatched appropriately so that they can meet customer expectations. However, as these services are dynamic and unscheduled, they encounter a greater variety of operational challenges across the entire road network and cannot therefore be held to the same reliability standards as fixed-route and scheduled services.

GoBus services shall arrive based on pick-up window of 15 minutes before to 15 minutes after scheduled pick up time, 90% of the time.

7.6.4 Service Utilization

Service Utilization is a measure of the effectiveness of the application of the system's resources against established criteria. **Table 23** summarizes the target number of customer boardings per revenue vehicle hour that need to be achieved.

Table 23: Target Service Utilization Levels (Customer Boardings per Revenue Vehicle Hour)

Service Type	Weekdays (start to 7:00 pm)	Weekday Evenings (after 7:00 pm)	Weekend (all-day)
GoBus Services	3.0	2.0	3.0

Target utilization levels identified in **Table 23** represent a target for vehicle occupancy in an effort to promote shared-rides while balancing the Travel Time standard. Since GoBus is considered a core service within the entire City, the utilization target identified above should be considered an aspirational guideline, with no corrective measures required if the target is not achieved. The target identified is more in line with the peer group average and will help improve productivity of the service. GoBus can still take actions to achieve this target, including the implementation of improved scheduling software systems that are coordinated with Metrobus' Dynamic On-Demand Services, as long as those actions do not preclude GoBus from performing its core function.

8.0 Metrobus - Strategies to Optimize Existing Investments

The following section of the report presents a number of operational improvements for Metrobus that are designed to optimize existing services. This includes identifying potential efficiencies in routes and services, improvements in reliability of service and opportunities to simplify the network.

St. John's features a unique geography and a significant period of the year with inclement weather conditions. Roads are rarely straight and direct and the roadway network is not connected in a legible grid-pattern. Cold, snowy and icy weather makes walking on the often hilly terrain an unattractive option for many people for much of the year. These factors, combined with the low density nature of the St. John's region, provide significant challenges for the provision of efficient and attractive transit service. Metrobus' existing network reflects these challenges, with routes following the indirect road network in a circuitous manner to provide a high level of coverage to all parts of the city (to minimize walking distance).

In order to maintain the existing level of coverage, there are limited opportunities for improvements to service that can be achieved without investing in service. Existing resources are being stretched to maximize coverage, preventing investment in more attractive services at the expense of coverage.

However, it is necessary to continually review Metrobus services to assess whether the most is being made of existing resources and providing value to customers.

To this end, the following route changes have been identified as ways to optimize the network, based on the following factors:

- Route with limited ridership against approved service standards;
- Areas of service duplication;
- Service reliability concerns;
- Legibility of service; and
- Proximity to residents.

Recommendations have no operating or capital cost implications and are therefore recommended to be implemented in year one of the plan.

8.1 Strategy 1A – Modify Route 2/5

Issue/Opportunity

The current Route 2 service is a long U-shaped route that performs two distinct roles over the length of the route. Its length causes service reliability issues and makes it more challenging to understand, from a customer perspective, primarily because it connects Village Shopping Centre to Avalon Mall, but it is not the best way to get between these destinations by transit.

Recommendation

Route 2 should be split into two distinct routes at all times. Route 5 would operate from Avalon Mall to Montague Street, while Route 2 would continue to operate from Village Shopping Centre to Montague Street. During the majority of times when services are operating, the routes could be interlined. In this way, passengers in the Montague Street area would still be able to make shorter local trips using both Routes 2 and 5 without having to transfer.

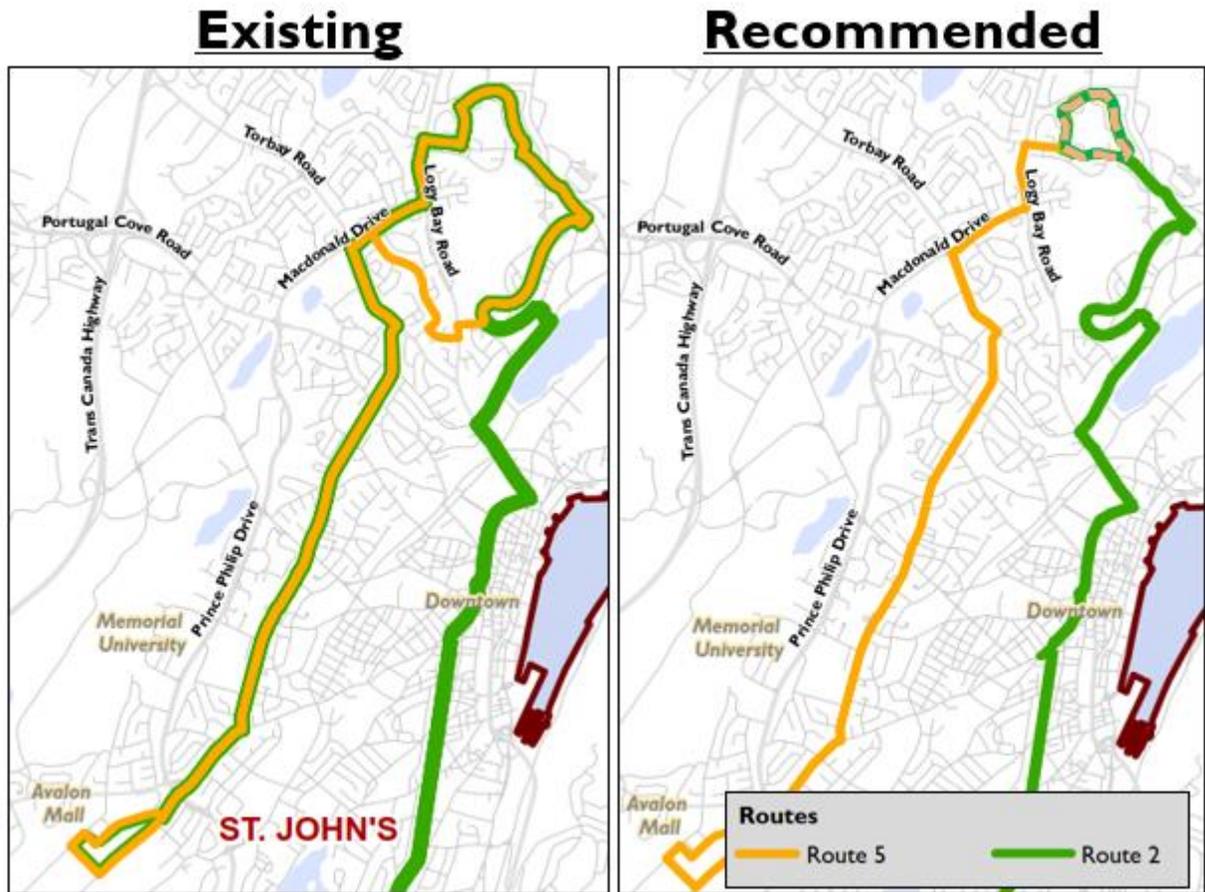
Benefits and Impacts

This change would make the route network more understandable, particularly with the on-line trip planner tool. The change would benefit existing customers and would not be a significant draw to attract new customers.

Resource and Financial Implications

Service Hour Change:	0	Revenue Change:	+ Small
Ridership Change:	+ Small	Operating Cost Change	0
Peak Vehicle Requirement Change:	0	Capital Cost Change	0

Figure 18: Route 2/5 Proposed Changes



8.2 Strategy 1B – Remove Duplication on Route 6

Issue/Opportunity

Route 6 is a local service that connects Village Shopping Centre with Downtown via Waterford Hospital and Waterford Bridge Road. It currently performs below service standards and duplicates much of the more frequent Route 3 service to/from the downtown. The section of the route between Waterford Hospital and downtown, via Waterford Bridge Road, performs particularly poorly, seeing very few boardings and alightings. This is due to the low level of development along Waterford Bridge Road and customers preferring the more frequent and direct Route 3 service between Village Shopping Centre and downtown.

Recommendation

Route 6 should be removed from downtown to allow for resources from the unproductive Waterford Bridge Road segment to be reinvested elsewhere. It is recommended that the local portions of Route 6 be combined into a one-way collector route to and from Village Shopping Centre. Passengers who wish to travel downtown would transfer to Route 3 at Village Shopping Centre and the new route should be

timed to ensure seamless connections. The route would operate at a 60 minute headway all-day. No changes to hours of service are recommended.

As this new Route 6 would be shorter (30 minutes versus 60 minute travel time), the remaining resources from the old Route 6 are recommended to be reinvested by providing a new hourly express service from the Village Shopping Centre to the Galway Commercial Area in Southlands. The route would service employees and customers to a number of big box retailers (including the new Costco) and provide limited service to Southland residents that require service into the rest of the Metrobus network.

It is recommended that Metrobus further explore this new route option, including the impact on ridership and revenue. If ridership on the new Route 6 increases or the route to the Galway Commercial Area does not generate the anticipated ridership, an alternate recommendation would be to reinvest the downtown portion of the existing Route 6 hours to provide a reverse direction loop on the new Route 6. This would minimize travel time for existing residents on this loop and improve service frequency (to every half hour). This alternative is only recommended if a review of ridership and customer comments on the new Route 6 / Galway Commercial Area route warrant.

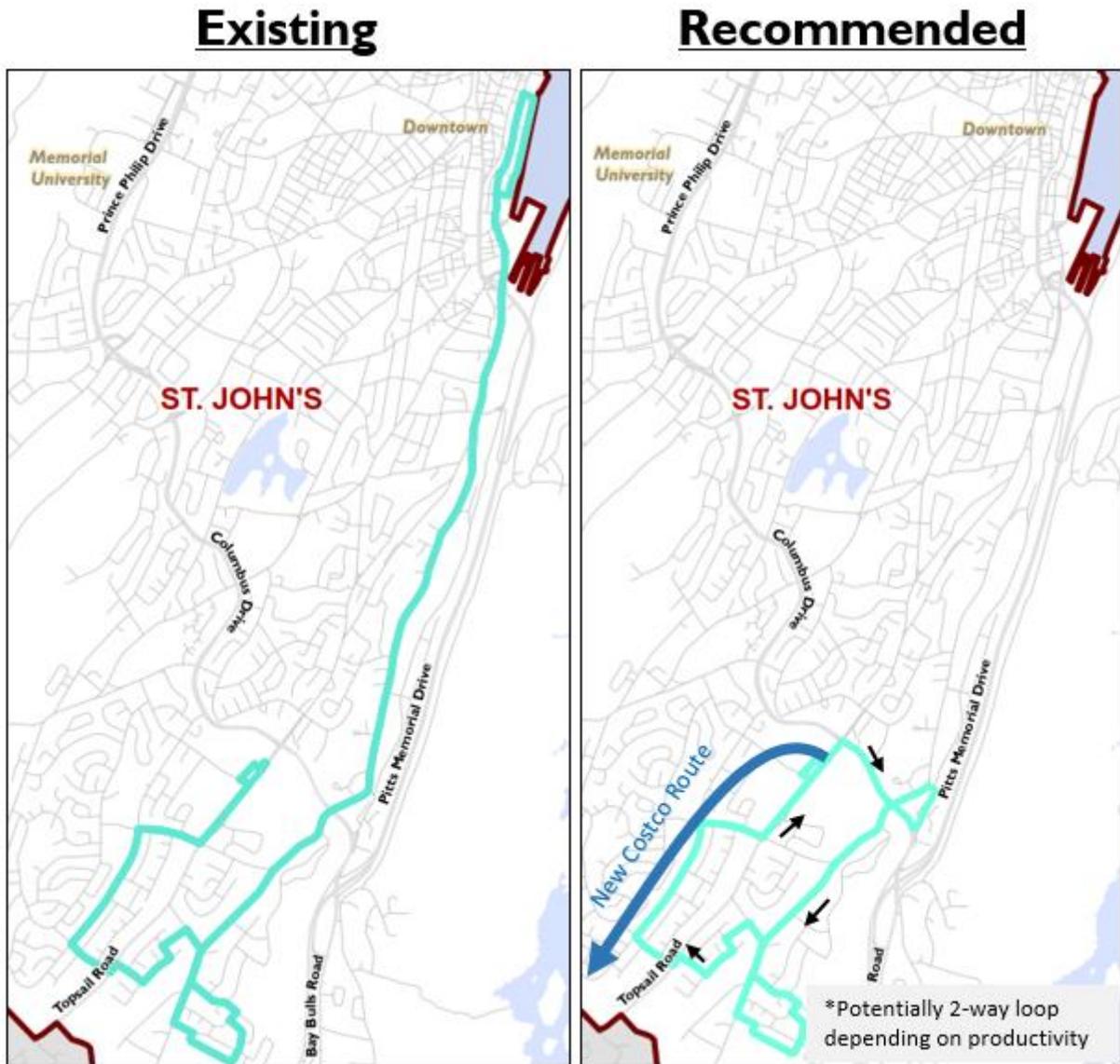
Benefits and Impacts

This change would remove duplication in the route network and free up resources to be dedicated to a new route to the Galway Commercial Area without any impact to the operating costs or peak vehicle requirements. It is anticipated that the new route to the Galway Commercial Area could generate 10 to 15 boardings per revenue vehicle hour (depending on the time of day and day of week). There would be some anticipated ridership loss on Route 6 as a result of the need to transfer at Village Shopping Centre onto Route 3 as well as the slight increase in walking distance for residents that used to board Route 6 between on the Waterford Bridge segment (which represents approximately only 4 daily passengers). This overall ridership loss is anticipated to be minimal and should be off-set by the gains in ridership from serving the Galway Commercial Area in Southlands.

Resource and Financial Implications

Service Hour Change:	0	Revenue Change:	+ Small
Ridership Change:	+ Small	Operating Cost Change	0
Peak Vehicle Requirement Change:	0	Capital Cost Change	0

Figure 19: Route 6 Proposed Changes



8.3 Strategy 1C – Improve Schedule Adherence on Route 10

Issue/Opportunity

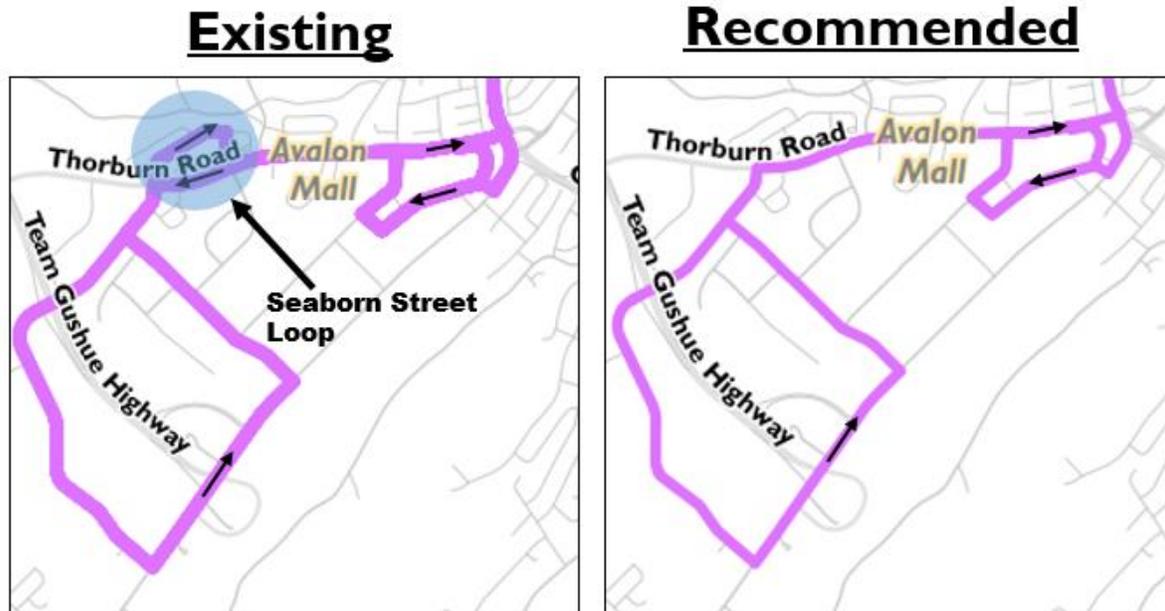
Currently Route 10 faces operational reliability issues, often coming in behind schedule. As St. John’s grows, the ability for the service to operate on time is expected to decrease. While current issues generally only affect peak times, there is the potential for these impacts to spread over time. Additionally, the service does not follow the same routing in both directions along Thorburn Road, making it less legible to potential passengers.

Recommendation

To address reliability concerns for the short and medium term, it is recommended that schedule adherence be further reviewed on this route and opportunities to improve on-time performance be explored. One option that Metrobus should explore to improve schedule adherence is to make a small route modification to Route 10 as noted below.

In this option, the Seaborn Street loop, which is currently only serviced in the downtown direction, would be removed. Customers currently boarding the service on Seaborn Street would have to walk to Thornburn Road instead, just as they currently do for trips in the other direction. To accommodate this change, shelters would need to be installed on Thornburn Road, close to adequate pedestrian crossing facilities.

Figure 20: Route 10 Proposed Changes



Benefits and Impacts

The potential change in the Seaborn loop should improve operational reliability and service legibility, making it more attractive for customers that do not board or alight the route on Seaborn Street.

As Route 10 currently serves Seaborn Street in only one direction, most passengers in this section will already be using the service on Thornburn Road at some times. Boardings that occur on Seaborn Street only represent 4% of all customer boardings on the route and therefore the vast majority of passengers would benefit from the improved reliability of the service. However, the change will increase walking distance for passengers on Seaborn Street, which may impact the customer experience. This modification should only be made if no other operational improvements are found to improve schedule adherence.

Resource and Financial Implications (Optional Seaborn Loop Modification)

Service Hour Change:	0	Revenue Change:	+ Small
Ridership Change:	+ Small	Operating Cost Change	0
Peak Vehicle Requirement Change:	0	Capital Cost Change	0

8.4 Strategy 1D – Merge Route 18/25

Issue/Opportunity

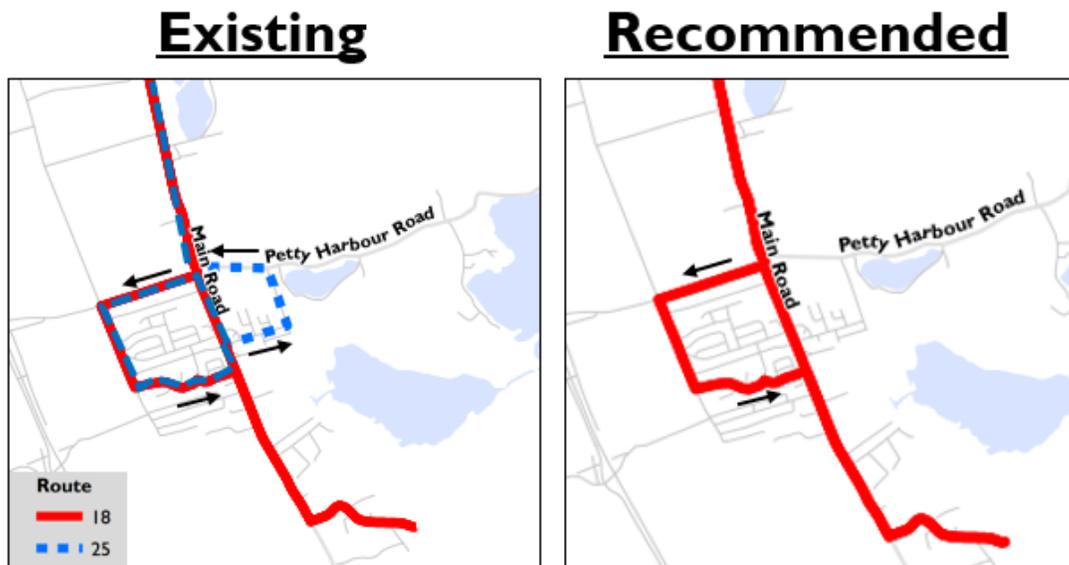
Route 18 and Route 25 are currently very similar. Both routes run from Village Shopping Centre to Goulds via Kilbride. The slightly shorter Route 25 operates only during peak periods, while Route 18 operates during most of the day. The services are scheduled in an alternating manner, providing a combined 30 minute frequency over the common section of both routes during the weekday peak periods.

Operating two near-identical routes can be unnecessarily confusing for customers. Furthermore, the small part of Route 25 that is not covered by Route 18 sees extremely low boardings and alightings, at levels that do not justify service. This section is also within walking distance of the core part of Route 18.

Recommendation

In order to simplify the network, Route 25 should be discontinued and replaced with trips on Route 18. This will offer the same level of service as today in an easier to understand way and allow Metrobus to tailor frequency and service hours on the single route more effectively in future.

Figure 21: Route 25/18 Proposed Changes



The existing headways of both routes and the proposed new combined headways recommended are also illustrated in **Table 24** below.

Table 24: Recommended Headway for Route 18

	AM Peak	Midday	PM Peak	Evening	Saturday	Sunday
Existing 25	1 trip	-	60 min	-	-	-
Existing 18	60 min	60 min	60 min	60 min	60 min	60 min
Recommended 18	60 min (30 min - 1 trip)	60 min	30 min	60 min	60 min	60 min

Benefits and Impacts

This change would simplify the network and make it easier to understand by new customers. Customers using the unique section of Route 25 represent less than one (1) daily boarding. All but one of these stops is within a 400 metre walking distance to Main Road where Route 18 would continue to operate. The modification will also see an increase in frequency in Goulds, where Route 18 would operate more often.

Resource and Financial Implications

Service Hour Change:	0	Revenue Change:	+ Small
Ridership Change:	+ Small	Operating Cost Change	0
Peak Vehicle Requirement Change:	0	Capital Cost Change	0

9.0 Metrobus – Ridership Growth Strategies

While **Section 7.0** focused on strategies to optimize the existing network, the following section identifies strategies to help grow ridership over the next five years. With the City of St. John’s about to embark on their first ever Transportation Master Plan, Metrobus should be seen as a key tool to reduce congestion and mitigate the need for roadway expansion, reduce GHG emissions and improve access to employment, education, retail and services. To this end, a number of ridership growth strategies have been identified as part of this transit master plan that will have a more significant impact on how residents, employees and visitors move throughout the city.

Four key strategic directions are identified below, each with a number of strategies to growth ridership and improve service. For four themes include:

1. **Foster a Transit Culture.** These strategic directions focus on passenger fare-based solutions that are designed to further entice new residents to the system and encourage existing customers to use the system more often. The key focus of these strategies is on youth, as a means of changing the perception of transit by encouraging them to try the service and ultimately change their travel behaviours as adults. Changing culture and the perception of transit is critical to attracting new ridership, and is required to make the most of future investments.
2. **Invest in Service.** Travel behaviours will not change unless there Metrobus provides a service that is more convenient and reduces travel time. Investing in service is critical to growing ridership, and this strategy direction outlines priorities for service investment. St. John’s currently provides one of the lowest financial contributions per capita for transit service in its peer group. As a result, many Metrobus buses continue to operate a low frequencies during both peak and off-peak periods. Increasing this level of investment per capita will help make transit more competitive with private automobile travel.
3. **Enhance the Customer Experience.** While services are the core of what transit offers to the community, they are supported by many other factors that combine to form the overall customer experience. Working on these non-service factors offers an opportunity to improve ridership through an improved transit experience. Transit systems with higher ridership are customer-focused, anticipating and responding to customer needs.
4. **Improve Regional Connections.** The City of St. John’s is not isolated from the rest of the Region. There a thousands of residents that enter the city each day from outer municipalities to go to work, school or to access goods, services and the rich culture the city has to offer. These residents use the City’s roadway network and contribute to congestion and delays. To reduce

this impact, it is important that Metrobus and GoBus are set up to service the entire Region in a way that is seamless. This initiative requires partnerships with participating municipalities.

All strategies will result in an increase in net operating costs and potential increase in peak vehicle requirements. As a result, these strategies are laid out as a menu of options to be considered by Council in each year. Priorities and impact on ridership, revenue and operating and capital costs is identified and summarized in the phasing and financial plan (**Section 13.0**).

9.1 Strategy 2 – Foster a Transit Culture

The following strategies are recommended to be considered to foster a culture of transit use now and into the future.

9.1.1 Strategy 2A – Student Fare Strategies

Issue/Opportunity

Secondary school students offer a significant opportunity to encourage transit familiarity, increase ridership and establish travel patterns that may continue into post-secondary student and adult life. Only about 5 to 6% of rides occur by youth in St. John's, who represents just over 12% of the population (according to the 2016 census). While many students receive school bus transportation to/from school, this only accommodates part of their travel needs. Metrobus provides the opportunity for youth to travel to/from after school activities, work in part-time employment or travel with parents and guardians around the City.

While Metrobus does offer a slight fare reduction for youth between 5 and 17 years of age, the discount has not translated into a significant portion of youth using the Metrobus service. For youth with limited incomes, providing a more affordable or even a free fare may increase the spontaneity of travel and allow youth to become more familiar with the service and how to use it to get around the City. This may help change the culture of transit use early and shape travel behaviours later in life. It may also encourage more families to take transit, as traveling in a party of three to four (e.g. two parents and two children) becomes more affordable on transit.

There are several examples of transit systems that have attempted to change the culture of transit use through student fare strategies. Kingston Ontario is the most notable example. The City implemented a free secondary student pass program in 2012. The program started with Grade 9 students only and has since extended to all high school student between grade 9 and grade 12. Children under the age of 14 also received free transit. The program has translated into a 300% increase in student ridership. Up to 50% of their foregone revenue covered by increased provincial gas tax funding arising from significant ridership growth, while 25% of the lost revenue was provided by school board funding. For Metrobus, who does not have access to provincial gas tax funding or school board revenue, finding alternative revenue sources to cover the loss in student revenue would need to be explored.

Recommendation

To help foster a culture of transit use by students, it is recommended that Metrobus initiate a pilot program to provide a deeply discounted or free pass to students in grade 12 and under. The strategy includes the following recommendations:

1. Provide a student pass program for enrolled students between grade 7 and grade 12. Two options should be considered for this student program:
 - a. Option A: Discount monthly m-Card by 50% and annual m-Card by 60%; or
 - b. Option B: Provide free transit.

Students should be requested to enroll in the program the beginning of each school year. These types of discount student passes have been adopted in other Canadian transit systems, and this experience indicates that usage rates are highest with grade 12 students and that around 50% of trips are unrelated to schooling – an indication of positive behavior change. The pass should be priced at a level affordable to families and students, if not free.

2. Develop a transit familiarization outreach program for grade 7 students (or the year the student pass program begins). This will help students better understand the transit system and how to use it to access various activities.
3. Use the m-Card for this program to allow Metrobus to track update and monitor growth in student ridership (including times of day and routes that are used).
4. Extend free transit for children from age 5 to age 12. This will ensure continuity between the free fare Metrobus currently provides for children under 5 years of age and the recommended student pass. The free fare would be valid for all youth and for all periods of the day.

Benefits and Impacts

Table 25 outlines the forecasted impact of the Student Pass Program on ridership, revenue and net operating cost. Currently, revenue from students only generates approximately \$273,000 annually. This represents only 3% of annual system-wide revenue.

Option A (discounted student fare) is anticipated to result in a moderate 1% increase in system-wide ridership (or 9 to 25% increase in youth ridership). The cost would be a \$120,000 to \$140,000 loss in annual revenue (2% of system-wide revenue).

Option B (free student fare) is anticipated to result in a more significant ridership increase, representing 3 to 6% increase in system-wide ridership, or a 40% to 100% increase in youth ridership. The cost would result in a \$273,000 (3%) decrease in system-wide revenue.

Table 25: Forecasted Impact of Student Pass Program (Full Implementation)

	Existing Fare	Option A: Discount Fare	Option B: Free Fare
Student Ridership	172,800	190,000 – 215,000	245,000 – 345,000
Student Revenue	\$273,000	\$135,000 - \$150,000	\$0
Loss in Revenue	--	- \$120,000 - \$140,000	- \$273,000
Operating Cost Increase	--	\$50,000 - \$100,000	\$75,000 - \$150,000
Net Operating Cost Increase	--	\$190,000 - \$220,000	\$350,000 - \$420,000
Increase in Peak Buses		1	1 - 2

To be conservative, it was assumed that an increase in peak period service would be required to accommodate peaking characteristics of increased student travel. For Option A, one peak period bus was assumed and for Option B one to two peak period buses was assumed. This would result in an increase in both capital and operating costs.

Adding the increased operating cost to the loss in revenue, the net operating cost increase for both options would be \$190,000 to \$220,000 for Option A and \$350,000 to \$420,000 for Option B. Both are considered a minimal investment for the ridership gains that are anticipated to be achieved from the program.

To mitigate any potential operating or capital cost increases of this program, there are a number of actions that Metrobus can take during program implementation.

1. Implement the program as a pilot and phased in over time. The phasing should begin the program for grade 7 students for the first year. In the following year, open up the program to grade 8 students. Each subsequent year that the pilot is extended should open it up to the next grade up to grade 12. This will allow Metrobus staff to monitor the impacts on ridership, vehicle occupancy and crowding and adjust service levels accordingly).
2. If a “free” transit pass program is selected (Option B), consider making it valid only on weekends, holidays and weekdays after 4:00 pm. Allowing students to use the free transit pass to go to/from school can be a challenge, as student transportation is very peak oriented and would likely require an increase in vehicle fleet to prevent overloading of buses. Transit trips to and from school should continue to be operated by Student Transportation, unless the school board fully funds Metrobus to take this role (both capital cost of new vehicle purchases and operating costs).
3. Approach the school board about the program and the benefit to students and request partial funding for lost revenue. Communicate clearly to the school board that the program would only

be in place if there is no reduction in student transportation (yellow-school bus) services without a corresponding increase in funding to support the student pass program.

It should be noted that while the above noted operating strategies will help mitigate costs, keeping students on transit will only result by investing in service levels (Strategy 3), particularly as students become adults are no longer eligible for the student pass program.

As Option B (free student pass) was felt to have the largest impact on ridership and culture change, this option was carried forward in the financial plan strategy (**Section 13.2**)

9.1.2 Strategy 2B – Continue to Pursue a U-Pass Opportunity with MUN

Issue/Opportunity

An increasingly common feature of transit systems in Canada is a “U-Pass” – a transit pass for university students that all students pay for, regardless of use. Cities that have introduced these passes have seen significant student ridership growth. This growth is complemented by increased revenue from the mandatory pass sales, allowing transit systems to improve service levels and introduce new routes and improve the level of service on existing routes to cater to the increased student demand.

The success of the U-Pass programs is evidenced by the peer systems noted in St. John’s peer group that have established U-Pass programs in place. As noted in **Section 4.1**, systems with U-Passes in place (Thunder Bay, Kingston, Sudbury, Kelowna, Guelph, St. Catharines and Regina) have significantly higher levels of ridership than systems without these programs in place. U-Pass systems in Metrobus’ peer group have a ridership per capita that is 93% higher on average than Metrobus.

While Memorial University of Newfoundland (MUN) does not currently have a U-Pass agreement with Metrobus, this initiative was proposed to the student body by Metrobus and University administration in 2018 as a method to improve service levels, reduce student costs and reduce parking demand on campus. Since the pass is universal and requires all eligible students to participate in the program, approval from the student body was sought. A vote was held with the student body in February 2019, with the majority of the student body voting ‘no’ to the initiative.

Recommendation

Despite the current student body’s reluctance to adopt a U-Pass scheme, this is a significant opportunity for Metrobus to improve transit service in the greater St. John’s region and should continue to be pursued by Metrobus over subsequent years. Many transit agencies that have adopted a U-Pass program have had to go through more than one vote to get the U-Pass implemented.

There are several things that Metrobus can do to help change the result for subsequent votes:

1. **Implement the Student Pass Program (Strategy 2A):** The introduction of a Student Pass Program should improve student attitudes towards transit over time as MUN students that have participated in the Student Pass Program may be more familiar with Metrobus services and likely to vote ‘yes’ on a U-Pass program when they reach post-secondary school.
2. **Increase service levels (Strategic Direction 3):** Improving service levels system-wide will improve the attractiveness of the service and may result in more MUN students seeing the value of the U-Pass program (particularly if it results in even more service improvements).
3. **Stage U-Pass implementation:** Since the U-Pass would take one to two years to implement (time required to order new buses to accommodate increased service levels), third and fourth year students that vote on the U-Pass may no longer be in school by the time the U-Pass was in place. The biggest beneficiaries of the U-Pass would be future students who are still in high school. Working with university administration to take this into account or potentially stagger the service to begin with future first-year students may help to see the service implemented over time.

Benefits and Impacts

The successful implementation of the program will have the most significant impact on ridership and will provide funding to improve the level of service, which will benefit not just MUN students, but all residents. This may result in additional service improvements beyond what is in the U-Pass arrangement, to address crowding and increasing customer demands.

9.1.3 Strategy 2C – Low Income Fare Pilot

Issue/Opportunity

Approximately 28% of the population in St. John’s is considered to be low-income. This is defined as an individual with a net income less than \$19,411 or \$32,824 for a household. Providing affordable mobility is a key factor in providing individuals with low household incomes with the opportunity to access employment, education, retail and necessary services.

The current way of accessing low-income transit passes through the province is not clear and restrictive. Under the current system, the province purchases transit passes from Metrobus and then provides them to individuals. The eligibility for these passes is not clearly linked to any City, GoBus or Metrobus policy and has little regard for other assistance or support being provided at the municipal level. It requires applicants to engage with a different agency, at a different level of government, to receive a municipal level benefit, creating a barrier for at-risk individuals. Furthermore, provincial oversight reflects little of

the City or Metrobus’ views of transit access. These barriers to access result in low uptake and restricts opportunities to eligible members of the community.

Recommendation

It is recommended that Metrobus work with the province to design and implement a new subsidized low-income pass program. Under this new program, the province would be responsible for determining eligibility and fare reduction, and providing the subsidy to Metrobus for the purchase of low-income passes. Metrobus would be responsible for administering the program, including identifying processes that limits potential for fraud (e.g. recipients selling passes to non-eligible residents at a reduced rate). Options that Metrobus could consider in administering the pass include:

1. Tying the pass to an m-Card and having eligible participants register the card under their name. This could be tied to a random screening program to monitor use by the eligible participant.
2. Require the use of a photo-ID with the use of the card. This approach should be used with caution to ensure pass holders are not singled-out each time they board the bus.

Benefits and Impacts

The program will have the largest impact on individuals with low incomes that qualify for the pass as well as community groups that raise money to support mobility for low-income residents. Providing individual funding to support mobility can help improve access to employment, education and essential services.

The cost of the program (subsidized fare revenue) should be fully funded by the province, and is estimated to be between \$1.6 and \$2.1 million. While ridership is anticipated to increase with this new pilot, the extent of ridership growth is not known at this time as there is little data collected on existing low-income passengers or the number of low-income residents that currently do not take transit and would use the service as a result of the pass. Metrobus should monitor the uptake of the pass, including impacts on ridership.

9.2 Strategy 3 – Invest in Service

The following strategies are recommended as priorities to invest in the service and grow ridership in the system.

9.2.1 Strategy 3A – Modify Route 3/14/23

Issue/Opportunity

The northeast area of St. John’s contains three routes which provide service to various destinations, including the St. John’s International Airport, MUN and the downtown. Currently Route 3 operates as two distinct branches (3A and 3B), providing limited and less direct service north of MacDonald Drive.

Route 14 follows a circuitous route from the airport to MUN, increasing overall travel time for passengers. Route 23 operates as an after-hours only service that tries to serve many different travel demands. This arrangement is complicated and confusing for passengers, as they need to take different routes at different times of the day, each with their own benefits and downsides, depending on one's journey.

One of the drivers behind the current route network is the medical centre on Major's Path and the need to provide transit to this facility. As Major's Path is long and has few intersections, the only way to serve this facility is to run Route 14 along this road, creating a lengthy diversion for passengers traveling to and from the airport. However, with an extension of Hebron Way to Major's Path due to open by the end of 2019, this will no longer be necessary and the network can be made more direct.

All three routes currently perform well and exceed the minimum productivity targets identified in the service standards document. In particular, Route 3's role as a future FTN route along a direct corridor provides an important higher-patronage spine against which other services in the area relate. Route 23's current after hours success underscores its potential for success across all hours of the day. Similarly, Route 14's current performance is expected to improve as a reroute would allow it to perform its primary function of connecting the airport and surrounding areas to the rest of the network in a more attractive and efficient way. Any improvement to the service level is anticipated to continue to meet the service standard requirement.

Recommendations

To take advantage of the Hebron Way extension, it is recommended that:

5. All Route 3 services operate along an alignment similar to current Route 3B, modified to travel over the Hebron Way extension and service the medical centre.
6. In conjunction with this change, Route 14 should be removed from Major's Path and Torbay Road and instead continue along Portugal Cove Road to Higgins Line directly. The time saved by operating directly should be used to extend Route 14 to Avalon Mall, which would provide greater connectivity to the airport from the rest of the Metrobus network.
7. Operate Route 23 all-day and shorten the route to end at MUN. This will reduce the time required for each trip and thereby minimising the cost to operate it all day. This all day operation is critical to allow for the simplification of Route 3 onto a single alignment and to maintain a connection between Torbay Road and MUN, replacing Route 14.

The existing and recommended route alignment is illustrated in **Figure 22**. The revised schedule and service hours is illustrated in **Table 26**.

Figure 22: Route 3/14/23 Proposed Changes

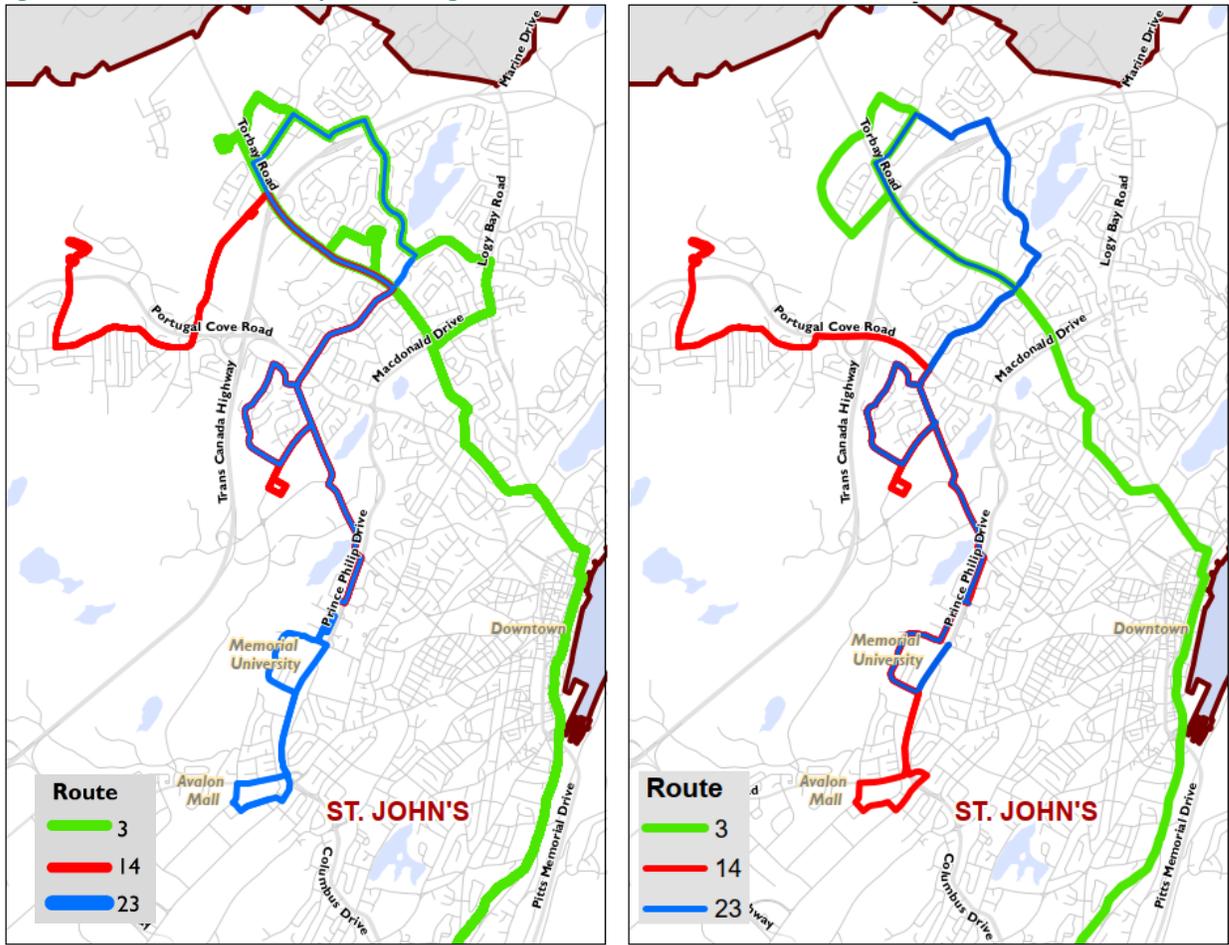


Table 26: Existing and Proposed Route 3, 14 and 23 Schedule

	AM Peak	Mid-day	PM Peak	Evening	Saturday	Sunday
Existing 14	60	60	60	60	60	60
Existing 3A	30	60	60	60	60	90
Existing 3B	30	60	60	60	60	90
Existing 23	-	-	-	60	60	60
Proposed 14	60	60	60	60	60	60
Proposed 3	15	30	30	30	30	45
Proposed 23	60	60	60	60	60	60

Benefits and Impacts

This change would simplify the network, reduce travel times to the airport and improve service levels on core parts of the route. The change in service hours noted below would be to operate Route 23 all-day.

Resource and Financial Implications

Service Hour Change:	3,400
Ridership Change:	+ 29,000 (86%)
Peak Vehicle Requirement Change:	0

Revenue Change:	+ Moderate
Operating Cost Change	\$331,000
Capital Cost Change	0

9.2.2 Strategy 3B – Implement a Frequent Transit Network

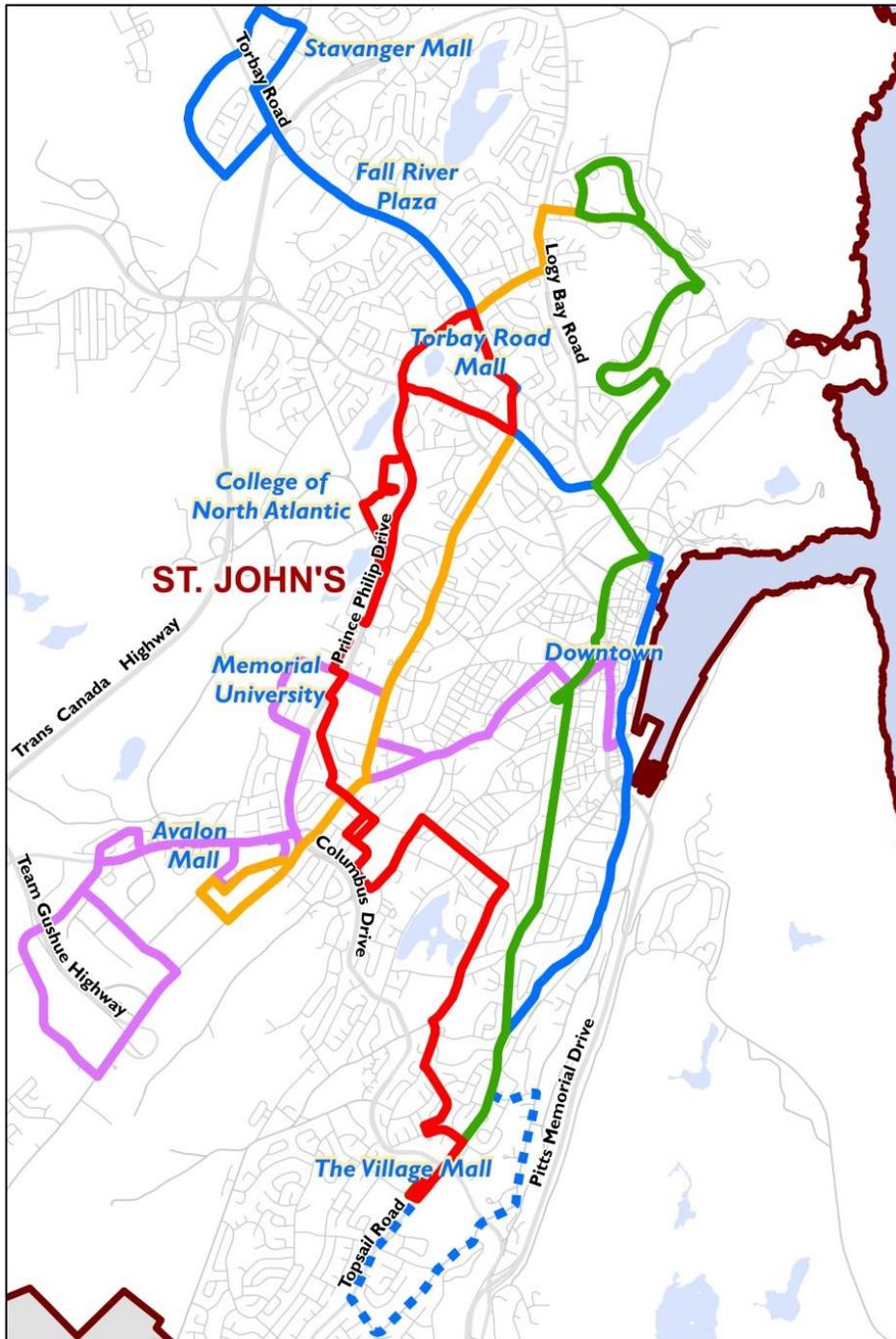
Issue/Opportunity

The single biggest factor in determining transit usage is frequency. Systems across the world have demonstrated that higher frequency and direct services are more useful, flexible and attractive to passengers. This is generally reflected in higher ridership as transit customers appreciate the convenience and will walk further to a direct, high frequency service than a slow, infrequent local service. A frequent network with more direct routes and is also easy to remember (as customers no longer need to rely on schedules to access a service). In this way there are less barriers to infrequent transit customer and, with branding, such networks drive ridership growth.

The Metrobus system already has a set of core routes that are generally more direct and operate at higher frequencies, connecting to major destinations within the city. These routes can act as the base of such a transit network that can grow to offer a convenient service that customers can rely on. Routes 1, 2³, 3, and 10 already operate every 15 minutes during the afternoon peak periods and a short portion of the morning peak period, and every 30 minutes at most other times. These routes connect to major destinations and transfer points in the city, including downtown, MUN, CONA, Avalon Mall, Village Shopping Centre and Torbay Mall. Additional service hours can be added to create a defined Frequent Transit Network (FTN) that can be marketed to the public.

³ Note: Route 2 is recommended to be split into Route 2 and 5, which will mean both segments operate every 15 minutes during the afternoon peak if this recommendation is adopted.

Figure 23: Frequent Transit Network



Recommendations

It is recommended that Metrobus formally define a Frequent Transit Network and market it as a fast convenient option to access key destinations in the City. This will involve increasing the level of service on existing routes to meet the minimum frequency requirements for a Frequent Transit Network.

The implementation of the network should be completed in two phases based on budget availability. The first phase of the Frequent Transit Network would define a minimum headway of every 15 minutes during afternoon peak periods and every 30 minutes during weekday and Saturday AM and midday periods. In order to meet this standard, additional service hours would be required on Route 1 on Saturdays and on all FTN routes during the evening peak. Increases in frequency for Phase 1 are noted in **Table 27** below.

Table 27: Proposed Frequency

Route	Weekday AM Peak	Weekday Midday	Weekday PM Peak	Weekday Evening	Saturday	Sunday
Existing Service						
Route 1	15	30	15	60	60	60
Route 2	15	30	15	60	30	30
Route 3A	30	60	60	60	60	90
Route 3B	30	60	60	60	60	90
Route 5 ⁴	-	-	-	60	60	60
Route 10	30	30	15	30	30	45
Phase 1 Recommendation						
Route 1	15	30	15	60	30	60
Route 2	15	30	15	60	30	30
Route 3	15	30	15	30	30	45
Route 5	15	30	15	60	30	30
Route 10	30	30	15	30	30	45
Phase 2 Recommendation						
Route 1	15	30	15	30	30	30
Route 2	15	30	15	30	30	30
Route 3	15	30	15	30	30	30
Route 5	15	30	15	30	30	30
Route 10	15	30	15	30	30	30

Note: Red text suggests proposed headway change

To realise the full benefits of a frequent transit network, the system should be expanded in a second phase. This would see the standard improved to services operating every 15 minutes during the full morning and afternoon peak periods and every 30 minutes during weekday evenings and on weekends. Service improvements at non-peak times are important to ensure that the FTN is useful for all trip

⁴ Note: Represents frequency of Route 5 prior to the recommendation in Strategy 1A to split Route 2 and extend Route 5.

purposes, beyond peak-centric work and study commutes. The proposed headway for Phase 2 is also noted in **Table 27** above. This second phase should also include a marketing and awareness campaign that aims to inform the public of the new system and set their expectations appropriately. The FTN should be easily recognizable and useful for most of the community, connecting key centres quickly and easily.

Benefits and Impacts

The increase in frequency for both Phase 1 and Phase 2 of the Frequent Transit Work would require an increase in revenue vehicle hours and (during Phase 2), peak vehicle requirements. This is noted in **Table 28** below.

Table 28: Additional Service Hours Required for Frequent Transit Network

Route	Phase 1			Phase 2				
	Saturday	PM Peak	Total	AM Peak	Evening	Sunday	Total	Vehicles
Route 1	+380	+500	+880	-	-	-	-	-
Route 2	-	+680	+680	+440	+370	+190	+1,000	-
Route 3	-	+1,570	+1,570	+1,260	+190	+470	+1,920	1
Route 5	-	+680	+680	+440	+370	+190	+1,000	-
Route 10	-	-	-	+1,490	-	+430	+1,920	1
Total	+380	+3,430	+3,810	+3,630	+930	+1,280	+5,840	2

Overall, Phase 1 would require an increase in approximately 3,810 annual revenue service hours, or \$371,000 in annual operating costs. Ridership is anticipated to increase by 7% as a result of this change, which would add \$80,000 in passenger revenue and off-set operating cost increases. Phase 2 would require an additional increase in 5,840 annual revenue vehicle hours plus two peak period vehicles. This would translate into an operating cost of \$569,000.

Phase 1 Resource and Financial Implications

Service Hour Change:	3,810
Ridership Change:	+ 40,000 (3%)
Peak Vehicle Requirement Change:	0

Revenue Change:	+ Moderate
Operating Cost Change	\$371,000
Capital Cost Change	0

Phase 2 Resource and Financial Implications

Service Hour Change:	5,840
Ridership Change:	+ 50,000 (4%)
Peak Vehicle Requirement Change:	2

Revenue Change:	+ Moderate
Operating Cost Change	\$569,000
Capital Cost Change	\$1,250,000

9.2.3 Strategy 3C – Minimize 60 Minute Headways on Key Routes

Issue/Opportunity

Hourly service is not considered an attractive level of service and will do little to attract new customers. Such a low frequency is simply too inconvenient for those with other options and, for those with limited options, using transit becomes a time-consuming and unpleasant experience. If transit is to be considered a mode of choice for many people, frequencies of 30 minutes or better should be encouraged on routes that show ridership potential.

Metrobus currently has several routes that operate every 60 minutes but perform above productivity standard minimum requirement as noted in the Metrobus service standards document. These routes have the potential to support higher frequencies and grow over time.

Recommendation

Several routes were reviewed that operate at a 60 minute headway or worse. Routes were assessed against minimum productivity targets and their strategic importance in the network (e.g. connect to key destinations). Based on this review, it is recommended that:

1. Routes 11, 14, 16 and 23 be targeted to improve weekday service frequency from every 60 minutes to every 30 minutes (as noted in **Table 29**).

The implementation of the above noted frequency improvements are recommended to be completed in two phases based on budget availability. The first phase focuses on moving from a 60 minute to a 30 minute headway during weekday peak periods only. The service improvement is recommended to operate year-round (including during the summer).

Phase 2 would see an increase in weekday midday service levels on the same routes from 60 minute headway to a 30 minute headway. This would be subject to growing ridership as a result of Phase 1 improvements meeting minimum productivity targets noted in the proposed service standards. Route performance should only be analysed more than a year after frequency improvements have been introduced, as the public will take some time to adjust their travel behaviour and consider the improved services as part of their mobility decision-making.

Table 29: Proposed Frequency

Route	Weekday AM Peak	Weekday Midday	Weekday PM Peak	Weekday Evening	Saturday	Sunday
Existing Service						
Route 11	60	60	60	-	60	-
Route 14	60	60	60	60	60	60
Route 16	60	60	60	60	60	60
Route 23	60	60	60	60	60	60
Phase 1 Recommendation						
Route 11	30	60	30	-	60	-
Route 14	30	60	30	60	60	60
Route 16	30	60	30	60	60	60
Route 23	30	60	30	60	60	60
Phase 2 Recommendation						
Route 11	30	30	30	-	60	-
Route 14	30	30	30	60	60	60
Route 16	30	30	30	60	60	60
Route 23	30	30	30	60	60	60

Note: Red text suggests proposed headway change

Benefits and Impacts

The increase in frequency for both Phase 1 and Phase 2 of the above noted routes would require an increase in revenue vehicle hours and peak vehicle requirements (during Phase 1 only). This is noted in **Table 30** below. The order of priority for each route is also identified in the table below, with Route 16 being the preferred priority to improve service levels.

Table 30: Additional Service Hours Required for Priority Frequency Improvements

Route	Phase 1: Weekday Peak Hours	Phase 2: Weekday Midday Hours	Total	New Peak Buses (Phase 1)
Route 16	+1,200	+1,300	+2,500	+1
Route 23	+1,200	+1,500	+2,700	+1
Route 14	+1,200	+1,600	+2,800	+1
Route 11	+1,200	+1,700	+2,900	+1
TOTAL	+4,800	+6,100	+10,900	+4

Overall, Phase 1 would require an increase in approximately 4,800 annual revenue service hours, or \$470,000 in annual operating costs. Ridership is anticipated to increase by 15% as a result of this change, which would add \$80,000 in passenger revenue and off-set operating cost increases. Phase 2 would increase annual revenue service hours by 6,100.

Phase 1 Resource and Financial Implications

Service Hour Change:	4,800
Ridership Change:	+ 40,000 (15%)
Peak Vehicle Requirement Change:	4

Revenue Change:	+ Moderate
Operating Cost Change	\$470,000
Capital Cost Change	\$2,500,000

Phase 2 Resource and Financial Implications

Service Hour Change:	6,100
Ridership Change:	+ 55,000 (20%)
Peak Vehicle Requirement Change:	0

Revenue Change:	+ Moderate
Operating Cost Change	\$590,000
Capital Cost Change	0

9.2.4 Strategy 3D – Pilot a Dynamic On-Demand Transit Service

Issue/Opportunity

A number of transit systems across North America are rethinking how transit services are delivered. Customers are demanding greater customization of their mobility options; seeking more adaptable and flexible services that adjust to when they want to travel in real-time, without relying on a published schedule. Similarly, municipalities continue to seek solutions to reduce costs and improve productivity of services and develop more direct arterial-based routes without sacrificing connectivity and access to low density neighbourhoods.

Fixed-route transit solutions do not always meet these goals, particularly during evening and weekend periods when ridership demand is lower, and in low demand areas characterized by low density neighbourhoods, employment areas designed around the private automobile and large tracts of open or greenfield space. This combination of factors makes it difficult to provide fixed-route service cost-effectively and in a manner that meets rising customer expectations.

To address these circumstances, a number of transit agencies are exploring the implementation of new Dynamic On-Demand Transit service models. Dynamic on-demand transit services are shared-ride demand-responsive services that use smaller vehicles and mobile app technology to provide mobility to customers. The mobile app allows customers to plan, book, track and pay for their ride in real-time. This increases the convenience and reliability of the service. The mobile app is also used to help optimize trips, increasing the number of shared rides that can be accommodated without sacrificing service quality.

It is important to note that Dynamic on-demand transit services are not applicable in every context. Fixed-route transit will continue to have a strong role in providing mobility within St. John’s. This first involves an assessment of where fixed-routes are more effective, and which areas of the City or periods

of the day should be considered for a dynamic on-demand service. A summary of typical service level criteria for identifying dynamic on-demand services is presented in **Table 31** below:

Table 31: Service Level Criteria for Fixed-Route versus Dynamic On-Demand Transit

	Fixed-route	Dynamic On-Demand
Proximity to Service	Majority of residents in close proximity to transit stops (less than 400 m walking distance)	Residents are outside of 400m walking distance of a fixed-route service
Route Structure	The route is relatively direct with minimal deviations that increase travel times	The route is fairly circuitous or has large one-way loops
Headway	Route provides headways of 30 minutes or better	Route has low headway (60 minutes or greater)
Key Origins and Destinations	There is a high demand for service between similar origins and destinations along the route	There are minimal origin / destination pairs on the route that have a high demand (ridership is more scattered)
Productivity*	Ridership above 15 boardings per revenue vehicle hours	Ridership below 12 boardings per revenue vehicle hour

**Note: The exact productivity rate is dependent of the geographic area and the operating model and cost implemented for dynamic on-demand service and should be used as a guide.*

Each route that operates within the City of St. John’s was assessed for their potential to be converted to a dynamic on-demand transit service. The goal of the assessment was to identify poor performing routes where the conversion to a dynamic on-demand service would improve both productivity and the level of service (by reducing waiting times and travel times during low-demand periods).

Based on this assessment, it was determined that most of the routes operated by Metrobus are fairly productive, operating above the productivity threshold identified in **Table 31** that would warrant a dynamic on-demand service. Since dynamic on-demand transit can carry less capacity than a fixed-route with a 40-foot bus, these were not seen as potential candidates to improve service productivity.

Weekday evening and weekend services were also assessed, as there are some routes that no longer operate or that operate below the productivity threshold when demand for services begins to decrease (particularly during the late evening period after 10:00 pm). A number of transit systems have initiated dynamic on-demand transit pilots starting with weekday evening and weekend service. Belleville Transit in Ontario replaced its fixed-route evening service with a fully on-demand service and saw a 300% increase in ridership. Sault Ste. Marie Transit in Ontario also recently replaced its Sunday evening service with an on-demand service model.

In St. John’s, the average system-wide weekday early evening productivity noted in **Section 3.1** is 23.9 boardings per revenue vehicle hour, dropping to 14.8 boardings per revenue vehicle hour after 10:00

pm. This level of ridership may not justify full replacement of the fixed-route network similar to what other transit systems exploring. However, there are certain routes, particularly in the northeast area of St. John's that see a drop in productivity that may warrant consideration of an alternative service delivery model.

Other areas that may warrant the exploration of dynamic on-demand transit services include areas without service our were a significant number of residents are outside a 400 metre walk of a transit stop. Within the urban area of St. John's, Metrobus does a very good job at providing coverage. Approximately 78% of the population of St. John's are within a 400 metre walk of a Metrobus stop, with the majority of these outside the walking distance criteria residing in the more rural areas. The one area in St. John's without service is in Southlands / Galway. This is a growing area of the City, but does not have enough population density at this point to justify a fixed-route service.

Strategy 1B recommends a potential new semi-express route from the Village Shopping Centre to the Galway Commercial Area in Southlands, providing hourly service on weekdays. While this route would be the first introduction of service to the area, the route benefits patrons to a number of big box retailers and does not service the residential area in Southlands and Galway. The implementation of a dynamic on-demand service pilot in this area may be a good opportunity to test the service concept prior to the introduction of a fixed-route service.

Service to adjacent municipalities may also benefit from the introduction of a dynamic on-demand service. There are several municipalities outside of St. John's that may benefit from a transit connection to the City, but may not have enough demand to off-set the operating costs of a fixed-route service. The introduction on a dynamic on-demand service model within St. John's could provide 'proof of concept' which could help initiate discussions with outer municipalities to introduce a transit service connection to St. John's. This also benefits the City, as it reduces roadway congestion from residents outside of St. John's community into the City daily for work and education opportunities.

Recommendation

It is recommended that Metrobus pilot a dynamic on-demand transit for a one-year period to assess the applicability of this service model. The introduction of dynamic on-demand services should be done in several stages. The first stage of the pilot should focus on the introduction of service to Southlands / Galway. The service should be designed initially using non-dedicated vehicles (GoBus or taxi vehicles), where Metrobus would pay a fixed rate per kilometre rate for each trip delivered. If there is available capital dollars, consideration may also be made to operating a dedicated services using a smaller vehicle owned by Metrobus.

To minimize costs, the service should be designed as a scheduled on-demand service to connect passengers to fixed routes services at:

- the Galway Commercial Area in Southlands, where passengers would have an opportunity to connect to the new route from the Village Shopping Centre (Strategy 1B); and/or
- the intersection of Smallwood Drive and Old Placentia Road in Mount Pearl, where passengers could connect to Route 21 and 22 to the Village Shopping Centre).

The connection to these stops would minimize travel time and increase the opportunity for trips to be coordinated, thereby maximizing vehicle occupancy. The travel times to these stops from any origin in Southlands and Galway would be under six minutes for a direct trip, which should minimize the per km rate negotiated with a third-party service provider.

The use of a third-party ride hailing mobility app is recommended with this service to help optimize trips and improve the customer experience. Mobile apps are used with the majority of dynamic on-demand services as an interface for customers to book rides, while a back-end processor optimizes trips in real time, balancing customer convenience with ridesharing. The customer interface allows customers to use their mobile phone to book their ride, track their ride and in certain cases, pay for their ride in real-time. The driver uses a mobile phone or tablet in their vehicle to receive trip instructions. The driver only sees one trip at a time, as the mobile app continuously optimizes in real-time to add trip requests. A call centre option would also be required provided for customers that do not have access to a smart phone.

The selection of a mobile app provider should be selected with a number criteria in mind:

1. **Scalability:** ability to be used for other types of trips in St. John’s should the pilot be successful
2. **Integration with GoBus:** ability to use the mobile app to deliver an integrated customer experience, with the potential of using GoBus vehicles for both accessible paratransit trips and shorter dynamic on-demand trips
3. **Integration with the Metrobus network:** this includes ability to seamless plan trips and integrates fares and fare media (use of the m-Card)
4. **Optimization:** ability to optimize rides in real-time to promote ridesharing and maintain cost control.
5. **Accessibility:** simple and easy to use, including for persons with a visual impairment.
6. **Access to Data:** provide access to data on trips taken, trips denied and trip requests that were not initiated by the customer). This will help with future service planning.

There are a number of mobile app providers that are currently working with transit agencies across North America to implement on-demand service models that would meet the above noted criteria. The pilot should be in place for one year and periodically monitored to ensure it is achieving its desired objective. This should include a review of costs, passenger waiting time and denials and a review of the overall customer experience (through a survey). If demand for the service grows beyond expectations and the operating cost (per trip) exceeds the fixed hourly rate of a Metrobus vehicle, consideration should be made to convert the operations to a dedicated vehicle based on an hourly fixed-rate.

Should the pilot be successful, it is recommended that Metrobus explore the opportunity of:

- Approaching adjacent municipalities that may not warrant a fixed route bus to initiate a dynamic on-demand service model;
- Replacing some of its evening and early morning weekend and weekday services with a dynamic on-demand service model; and
- Exploring opportunities to better integrate GoBus with dynamic on-demand transit service. This may help improve the level of service for GoBus passengers while increasing the ability to optimize trips (by only dispatching one vehicle to pick-up a dynamic on-demand customer and a GoBus customer that live in the same area instead of two separate vehicles).

Benefits and Impacts

It is anticipated that a pilot dynamic on-demand service would utilize an existing GoBus vehicle and driver. The key to the pilot would be the on-demand scheduling software, which is priced differently depending on the provider. Based on common software pricing strategies and an assumption of 7-8 service hours per day (subject to the type of dynamic on-demand service selected) it is assumed that the pilot would cost approximately \$150,000 in the first year. If additional GoBus vehicles are required, the capital cost of those vehicles would be in addition to the operating cost.

Resource and Financial Implications

Service Hour Change:	On-demand	Revenue Change:	+ Small
Ridership Change:	+ 15,000	Operating Cost Change	\$150,000
Peak Vehicle Requirement Change:	1	Capital Cost Change	\$75,000

9.3 Strategy 4 – Enhance the Customer Experience

9.3.1 Strategy 4A – Bus Stop Snow Clearing

Issue/Opportunity

Bus stop infrastructure is generally designed around the summer season, when access between the bus and the curb and stop is usually free from obstruction. However, the winter season presents challenges in the form of snow deposits, particularly from road plowing. These typically pile up on and between the curb and the road – the crucial area traversed when boarding buses. Obstructed stops and curbs are a significant barrier to winter transit usage, particularly for those with limited personal mobility. Besides reducing the attractiveness of conventional transit services, this barrier pushes eligible members of the community to specialized transit services, placing additional demands on GoBus.

The current snow clearing policy does not prioritise the clearing of transit stops. The City’s first priority is arterial roads and steep hills, followed by Metrobus routes, school areas and collector roads, then local streets and finally city-maintained private lanes. While many Metrobus routes travel along arterial roads, the remainder of the network is not a top priority. Furthermore, this hierarchy relates primarily to the road surface itself, with little regard for the clearing of transit stop areas so passengers can board buses without climbing over snow banks.

Recommendation

To address bus stop access during winter conditions, the existing snow clearing policy should be updated to further prioritise the transit network. While Metrobus routes should be elevated to the top priority, the policy should also include specific provisions for stop access. These should speak to the need for access through snow banks so that passengers can safely board and alight buses and that the accessibility ramps can be deployed. Stops on the network should be prioritized based on usage, with all stops on the Frequent Transit Network given the highest priority. Further to having the strategy, standards should be defined relating to when stops will be cleared, as well as mechanisms put in place to ensure that the clearing does occur in a timely manner.

Benefits and Impacts

It is expected that stop clearing would be coordinated by and funded through the City of St. John’s’ existing budgets, as they currently manage road and sidewalk snow clearing.

9.3.2 Strategy 4B – Continue to Improve Accessibility

Issue/Opportunity

Metrobus is currently implementing an Accessibility Plan, gradually moving towards a fully accessible system. The plan includes:

- Replacing all non-accessible buses with low-floor accessible buses
- Phasing in of wheelchair accessible routes;
- Retrofitting existing stops and shelters to meet accessibility requirements;
- Building new stops, shelters and terminals to meet accessibility requirements;
- Introduction of automated stop announcements; and
- Continuing to undertake sensitivity training for staff that interact with the public.

Accessible routes are designated when there are enough low-floor accessible vehicles ensure continuous operation by an accessible vehicle. To date, Routes 1, 2, 3, 5, 14 and 23 have been defined as being accessible.

With an aging population, the demand for accessible services will continue to rise. This is not only for persons with disabilities, as accessibility improves the customer experience for everyone. Low floor

accessible buses are easier to board, particularly with parents using strollers and seniors, and accessible stops are particularly important during inclement weather conditions.

Recommendation

It is recommended that Metrobus continue to move towards a goal of full accessibility. Key recommendations include:

1. Prioritize the designation of accessible routes on the Frequent Transit Network and other key routes. Routes 1, 2 and 3 on the Frequency Transit Network are already accessible⁵. The next priority should be Route 10 (as old vehicles are replaced with accessible buses).
2. Continue to work with the City and coordinate road retrofit assignments with an opportunity to retrofit existing non-accessible stops based on new accessibility standards.
3. Explore the introduction of an automated stop announcement system.
4. Prioritise stop upgrades along routes with accessible buses, further highlighting the premium nature of these routes.

Benefits and Impacts

The introduction of accessible buses is expected to be funded through the existing bus replacement budget as these are now standard features for urban transit vehicles. Stop retrofits and upgrades are expected to be staged and accommodated within existing capital budgets, with a focus on doing work when other road changes are being made to minimise cost and disruption.

9.3.3 Strategy 4C – Improve Integration with Land Use and Transportation

Issue/Opportunity

Transit's biggest asset is the land use and community design it operates in. Transit services that operate along mixed-use high density corridors that are walkable and pedestrian friendly with good connectivity to the places where people live, work and play offer the highest potential to grow ridership. In this way, transit, land use and urban design are inexorably linked. This includes providing effective links to other sustainable modes of travel, including walking, cycling and micro-mobility (e.g. bikesharing, eScooters, etc.).

Recommendation

Metrobus already has a good relationship with the City's Planning, Engineering and Regulatory Services Department. To strengthen this connection as well as the development of a multi-modal transportation network, it is recommended that Metrobus:

⁵ Note: Route 5 will also be accessible if Strategy 1A is implemented and Route 2 is split with Route 5.

- Play an active role in strategic land-use planning decisions, highlighting the need for high levels of pedestrian amenities, active transportation connections, design of walkable streets and access to the arterial roadway network.
- Continue to work with the City’s Planning, Engineering and Regulatory Services Department on the alignment of development with transit investment and service by reviewing development applications and other strategic planning plans and policies.
- Formalized the proximity service standard (**Section 3.6.5**) with the City’s Planning, Engineering and Regulatory Services Department. This standard should define a five-year target for population and employment growth that is within a five-minute walk of transit bus stops, in particular, the Frequent Transit Network. Once established, onus should be placed on the City’s Planning, Engineering and Regulatory Services Department to achieve the target based on growth.
- Continue to work with the City’s Planning, Engineering and Regulatory Services Department to coordinate transit interests in roadway capital improvement programs (e.g. new stops, shelters, accessibility improvements, transit priority features).
- Work with the City’s Planning, Engineering and Regulatory Services Department as a key stakeholder in the upcoming City-wide Transportation Master Plan and identify strategies to help meet the transit mode share target.

Benefits and Impacts

Ongoing communication between these departments will help to create a more effective environment which balances the needs of all sustainable transportation modes and provide choice to members of the community. It will also position the City to respond to future recommendations that will arise from the upcoming Transportation Master Plan.

9.4 Strategy 5 – Improve Regional Connections

Issue/Opportunity

The City of St. John’s is the largest city and the administrative heart of Newfoundland. However, the greater urban area extends beyond the boundaries of the St. John’s, reflecting the centre’s size and regional significance. Residents travel between adjoining municipalities, irrespective of municipal boundaries, to access employment and education opportunities, as well as goods, services and culture.

The Metrobus and GoBus system is funded by and administered by the City of St. John’s, focused on travel opportunities within the City of St. John’s. While servicing travel needs within the City, the network does not truly accommodate inter-municipal travel needs in the Region.

Metrobus does provide some limited service under contract to the City of Mount Pearl and the Town of Paradise. While extending services to these municipalities helps improve Metrobus ridership as well as inter-municipal mobility, there are a number of surrounding municipalities that do not have a transit service.

To gain access to Metrobus service, a contracting municipality would need to pay the full-cost recovery of a new inter-municipal route to the City of St. John's. This would provide their residents will full access to the rest of the Metrobus system without paying an additional fare. Metrobus looks after operations, marketing, fare technology, etc.

As evidenced by the recent U-Pass vote with MUN, one of the major service improvements suggested by the student union if a U-Pass were implemented was to extend Metrobus service to a number of adjoining municipalities. Unfortunately, without a U-Pass agreement and associated funding, the cost of the service and on-street infrastructure can be high for some of the small municipalities just outside the City of St. John's. Alternative service delivery models could be explored that may provide more cost-effective options to connect to the Metrobus network in the City.

There are also issues with the current contracting model with adjacent municipalities. Under the current model, the service design, level of service and hours of service are dictated by the contracting municipalities and Metrobus is hired as an operator. While the service design provides full fare integration, allowing passengers to travel between municipalities under a single fare, Metrobus has little control over the design of the service. This results in two issues:

1. **Lack of Service Integration:** While there is full fare integration under the existing model, services are not always integrated. As an example, the most logical way to service Southlands and Galway is to connect these communities with a bus through the City of Mount Pearl. However, the current service contract does not accommodate this, making it difficult to service these two communities.
2. **Impacts on Customer Service:** Different municipalities may have different policies on shelter placement, level of service, walking distance, etc. that may not be in line with how Metrobus operates its service. If these policies result in a poorer level of service, passengers may associate this with Metrobus, instead of the funding municipality, impacting the overall Metrobus brand.

Finding additional funding sources, exploring alternative service delivery options and promoting full service integration will be important to help connect the region.

Recommendation

For Metrobus to operate more efficiently and provide better, more useful services to the greater St. John's area, a number of strategies are recommended:

5. **Ensure the Concept of Inter-municipal Transit is Addressed in the St. John's Transportation Master Plan:** The demand and strategies accommodate inter-municipal travel on transit should be a key strategy explored in the upcoming City of St. John's Transportation Master Plan. Traffic from the surrounding region has an impact on the St. John's roadway network, and the

extension of transit should form part of the solution to reduce growing congestion and mitigate the need for roadway expansion.

6. **Explore Alternative Service Delivery Models:** Following the completion of the dynamic on-demand pilot in Southlands / Galway (Strategy 3D), Metrobus should explore the potential to use this model to provide more cost effective service to adjacent municipalities as a more cost-effective approach in low-demand areas. This operating model should be presented to adjacent municipalities as a potential solution to reduce costs.
7. **Modify Contract Model:** The contract model that other municipalities enter into with St. John’s to receive Metrobus service should be modified to provide Metrobus with more authority to plan a more integrated and seamless service, within the minimum service requirements and performance standards outlined in the approved service standards document (**Section 6.0**). Contracting municipalities would be presented a plan along with the associated cost of providing the service. This should include the provision of on-street infrastructure as this forms a key component of Metrobus service.

Contracting municipalities would have say into adjustments to service as long as the adjustment maintains minimum service standards. Metrobus should also have the ability to better integrate routes to service multiple municipalities instead of forcing a transfer. This would require a funding model that allows new routes servicing multiple municipalities to be cost-shared.

8. **Approach Province for Sustainable Funding:** Recognizing the significance of the greater St. John’s area to the provincial economy, the City of St. John’s should approach each of the municipalities in the Region to coordinate and develop a united advocacy plan to receive sustainable provincial transit funding. This will help develop a more comprehensive inter-municipal transit network for both Metrobus and GoBus and help support provincial objectives of economic activity, immigration, quality of life, public health and access to health services for an aging population.

Benefits and Impacts

There are no immediate operating or capital costs associated with this strategic direction as the current structure requires approval from participating municipalities that contract service to St. John’s. Maintaining a full-cost recovery approach continue to be recommended for any service outside of the City of St. John’s.

Moving towards this type of model would also help to reorganize some of the routes through Mount Pearl, offering a high level of service and allowing integration with other services (e.g. a connection to Southlands and the Galway Commercial Area).

Investment from other regional municipalities would fund longer routes to new destinations like Torbay, providing transit access to these established commuter and student areas. This network growth would result in greater ridership, as many more trips would become possible by transit. Furthermore, by being a more viable option for students in the greater St. John's area, there would be greater support for U-Pass. If U-Pass were subsequently introduced the funding it provides could be used to strengthen the regional network.

10.0 GoBus Service Strategic Directions

Strategic directions for GoBus developed for GoBus focus on opportunities to improve cost control through modifications in the contract, ensure service is being prioritized for persons with disabilities that require it, and opportunities to improve the level of service for passengers.

Strategic directions were split into both immediate and short-term recommendations. Immediate-term recommendations were developed in January 2019 during the transit master plan process to address immediate actions that could be taken to improve the quality of the service and increase cost control. These strategies were approved by Council in early 2019 to allow for the realization of benefits as soon as possible.

Additional short-term recommendations were also developed that build on the immediate-term recommendations and are subject to approval by Council as part of this Transit Master Plan. Both types of recommendations are documented in the strategic directions below.

10.1 Strategy 6A – Eligibility Criteria Change

Issue/Opportunity

The existing eligibility criteria for GoBus is based upon an individual's inability to use the conventional transit system (Metrobus) independently and with dignity due to their disability or health condition. The criteria is too broad as currently written and not well defined.

While it is important to ensure that the eligibility criteria is open to individuals that have various types of disabilities that prevent them from using the conventional transit system, providing more specific definition to those disabilities around the ability to use conventional transit will help ensure that the GoBus service is strictly used by individuals that need it. This will help improve the level of service for GoBus customers (by managing demand).

Immediate-term Recommendations

It is recommended that the existing eligibility criteria be modified to read as follows:

GoBus provides specialized transit services to the City of St. John's, overseen by the St. John's Transportation Commission. All passengers of GoBus must be registered with the service in order to use it. All applicants, in order to become registered, must have a disability which prevents the applicant from using Metrobus, the conventional transit system.

A disability for this purpose, could include but is not limited to:

- Physical disabilities;
- Vision disabilities;
- Hearing disabilities;
- Intellectual or learning disabilities;
- Mental health disabilities; and
- Neurological disabilities.

The United Nations recognizes that “disability is an evolving concept and that disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others.”

The nature or degree of a disability might also render it non-evident or invisible to others. Chronic fatigue syndrome, chronic back pain, and heart ailments, are just a few examples of non-evident or invisible conditions.

Still, other disabilities might remain hidden because they are episodic. Epilepsy is just one example of this. As well, environmental sensitivities can flare up from one day to the next, resulting in significant impairment to a person’s health and capacity to function, while at other times, this disability may be entirely non-evident.

Eligibility is considered on a case-by-case basis and is not based on a specific health condition; but whether the applicant’s disability prevents the use of Metrobus, the conventional transit system. Applicants will be required to have an assessment completed by a qualified health care professional(s) contracted by Metrobus. From a customer perspective, the assessment will also be arranged and paid for by Metrobus.

It is important to note that eligibility for GoBus is **not** based on the following factors **alone** (some might be factors along with consideration of the individuals’ disability):

- the applicant’s age;
- loss of driver’s license or inability to drive;
- the availability of others to travel with the applicant on conventional transit;
- whether conventional services or bus stops are offered near the applicant’s pick up/drop off locations and/or lack of sidewalks in area (unwillingness and/or reluctance to use conventional services); and
- financial need or inability to pay for taxis, or other forms of transportation.

For eligible customers, three levels of eligibility are recommended for GoBus service. Levels of eligibility are provided to ensure that GoBus resources are allocated to individuals based on need, encouraging the use of accessible conventional transit services when appropriate.

1. **Unconditional** – An individual with a disability that prevents them from using conventional transit at all times.
2. **Temporary** – An individual with a temporary disability (e.g. recovering from surgery) that prevents them from using conventional transit for all or part of their trip.
3. **Conditional** – An individual with a disability for which environmental or physical barriers limit their ability to use conventional public transit (e.g., "in Winter only," "in dark conditions only" or "for certain trips that do not have accessible bus stops").

Benefits and Impacts

When changed, the eligibility criteria will provide an opportunity to focus more on those that most require the GoBus service, and also allow for a third party assessment to be made, which will assist in managing the demand for GoBus services.

There is no cost associated with changing the eligibility criteria. Over time, the change should result in less approvals for GoBus by those that do not require the service, which may lead to a slight reduction in operating costs.

10.2 Strategy 6B – Application Process / Third Party Assessment

Issue/Opportunity

The application form for the existing GoBus service is in need of a revamping, to reflect the changes/recommendations to the eligibility criteria. The existing application process relies on an individual's physician to determine the applicant's eligibility. This can result in an inconsistent assessment, as not all physicians fully understand how an accessible Metrobus service can accommodate the needs of their patients. This physician's recommendation will, under the new method, still form part of the process, but not be the final determination for eligibility on GoBus.

Immediate-term Recommendations

Third-Party Assessment

It is recommended that Metrobus staff begin to find one or more parties (through RFP) that would be interested and available to conduct assessments on behalf of Metrobus for GoBus registration based on the revised eligibility criteria noted in Strategic Direction 6A above.

The third-party assessment will take the responsibility for making assessments away from the staff at Metrobus (who arguably are not qualified) and place it into the hands of medical professionals who will

report their findings to Metrobus staff. Third-party assessments will also help manage the growing demand by determining who needs the service and who does not.

Suggestions for organizations to conduct the third-party assessments could include:

- The Canadian Red Cross;
- Independent Living Centers; or
- Various others through the Network of Disability Organizations.

Contracted third-party organizations would typically employ a registered occupational therapist, nurse, M.D. etc., (retired with current licence).

When developing an RFP to hire an organization to conduct the third party assessment process, the RFP should lay out the new expected changes to eligibility criteria, application and process. There should be agreement on a contract, performance standards, and fee for services. Fee for services could be based on a per-person (applicant) basis, per hour basis, or a daily rate.

Updated Application Form

The recommended application process/form should include:

- a) Assessment process/policy: New policy should identify how an individual can apply for GoBus. This should include:
 - Application form General Information (Part A);
 - Healthcare Professional form (Part B); and
 - Requirement for assessment by a third-party professional if the applicant is not confined to a wheelchair or scooter at times.

Existing Registered Clients

Based on the new eligibility criteria, process and application form that has been recommended, all existing clients of the GoBus should be required to reapply for the GoBus service. This reapplication will involve having the third-party assessment completed.

Benefits and Impacts

The immediate-term recommendations noted above were actioned in January 2019 and an RFP was issued for a third-party assessor. A successful proponent was awarded the contract and the contract is currently being negotiated. It is anticipated that this system will be in place by November 2019. The cost of the third-party assessment is approximately \$340,000 over a three year period. Since the average cost per passenger trip on GoBus is \$25, this initiative will be cost-effective if it reduces inappropriate referrals to the system by approximately 53 registrants per year.

10.3 Strategy 6C – Revamp Existing GoBus Contract

Issue/Opportunity

There are a number of issues with the existing GoBus contract that require modification. These include the high cost of ‘no show’ payments to the private operator, the lack of restriction and high cost of taxis used by the private contractor and challenges collecting Go-Card payment on taxi vehicles.

Modifications to the contract under its existing form would be too onerous as it would require a major overhaul and it is recommended that the contract with the existing contractor be terminated and reissued.

Immediate-term Recommendations

Termination of Existing GoBus Contract

It is recommended that Metrobus prepare for termination of existing GoBus contract with the existing contractor (MVT) by preparing a written notice on a date (approximate four months) to terminate the contract and reissue the service under a new contract. The new contract should be for a period of 18 months to allow for long-term goals to more thoroughly develop and proceed in a timely manner. Termination will be based on existing contract clause 14.3 *Termination for convenience, without cause*. There are two options to reissue the contract:

- a. Plan A: Reissue the new contract to current provider (MVT) as a short-term goal – provided MVT is interested in a new contract.
- b. Plan B: Failing the above Plan A, prepare to go out for tender for services. This plan requires MVT’s current contract to be in force during the RFP process, so that there is no service disruption. The RFP would need to be issued, responses evaluated, and a new contract be awarded to a new contractor.

The preference would be to reissue the new contract directly with the existing contractor (MVT) (Plan A), if they are willing to participate again under the new contract. This would require Metrobus to begin discussions with MVT about their intent, including challenges with the existing contract, modifications to the new contract and Metrobus’ desire to continue to work with the contractor to deliver GoBus service to registered clients.

The new contract should address the following key issues:

- reduce the no show payments and reducing the actual amount paid for no shows;
- reduce the number of taxis trips per day (by setting a limit);
- reduce the cost of taxi trips (reducing amount paid per trip); and
- set a shorter-term length for the contract to enable further changes/evaluation.

Recommended Elements of the New Contract:

The new contract should include the following elements:

- Lower the rate paid for no shows to the contractor from \$25 currently to \$12. Under the new rate, this should result in an annual savings of \$100,000 approximately (based on 2017 data);
- Establish different pay scales for different modes of transportation. The existing rate per trip for all modes is \$25.30 (effective January 1, 2019). It is recommended that the new contract establish a new rate for bus and a new rate for taxis. For example, the Taxi rate could be \$18 per passenger trip to MVT (Canadian average for 2017 is \$15.61), and the Bus rate could be \$25 per passenger trip (Canadian average for 2017 is \$29.71). The Taxi rate reduction based on existing 2017 data, could result in \$300,000 savings annually if the same number of taxi trips are made moving forward. This change in the contract would also incentivize MVT to make better use of buses, with multiple passengers on board; and
- Change definition of no shows from the passenger requiring 90 minutes notice to cancel their trip to requiring 45 minutes notice. Discontinue paying for no shows at 90 minutes immediately. In addition, lower the rate paid for no shows from \$25 to \$12 (as noted above).

Modifications to Policies and Procedures

While the above changes should be included in the new contract, the following changes to GoBus procedures can be made before the new contract is issued in order to improve quality of service for passengers and reduce costs:

- Implement a limit on taxi usage immediately – determine a budget for taxi use – apply it daily/weekly – deny trips if not able to service within the budget. Should target no more than a 2% trip denial rate;
- Change definition of no shows from 90 minutes to 45 minutes – discontinue paying for no shows at 90 minutes immediately. In addition, lower the rate paid for no shows from \$25 to \$12 (within new contract);
- Implement new no show policy, which includes a charge to passenger of \$7.50 per no show (\$2.50 fare + \$5.00 administration fee), and develop a new policy/method for collection;
- Identify a maximum time a passenger can be on a GoBus vehicle of 60 minutes to minimize the amount of time passengers need to spend in a vehicle (needs to be incorporated into scheduling software); and
- Allow same day bookings to occur if and when space is available on buses – change current policy that requires 24 hour advance notice.

Short-term Recommendations

A number of additional recommendations were made following the initial immediate-term recommendations presented to Council in January 2019. These are designed to help improve service and better manage operating costs against budgets.

Use of Taxis

- Taxi usage currently is used by MVT as an additional service option, even when there may be space available on existing buses. The current software provider needs to examine the parameters set within the scheduling software program and allow better utilization of existing resources (buses). Also, the change in contract (**Section 9.3.1.2**), should incentivize MVT to make better use of buses, with multiple passengers on board, because of the higher rate of payment per bus passenger. The policy should be changed to reflect that taxi usage is for overflow or emergency use, not for regular service.
- There are passengers who may have a disability that may prevent them from using a specialized transit bus (GoBus). Those passengers, once properly identified by the third-party assessor, should continue to have access to taxis as their primary mode of transportation.
- It is further recommended that Metrobus staff examine the possibility of entering into a contract *directly* with the taxi cab service provider (currently Newfound Cabs). The goal would be to set a service standard with the provider, and to reduce costs. Currently, the taxis have an agreement with MVT, who then bills Metrobus a higher rate. Even with the recommended changes to the payment structure (see above), there may be more to be gained with a direct contract with a taxi company. Were that to occur, Metrobus would compensate MVT at a rate per person, for making the booking. As an example, if the taxi rate were reduced to \$12 to \$16 per trip, this could save Metrobus on average an additional \$120,000 to \$360,000 per year.

Supervision

- There currently are no on road supervisors working for Metrobus that supervise the GoBus drivers. Additionally, there are no road supervisors working for MVT. This essentially means that GoBus drivers (unionized employees of MVT) are performing their daily duties, with no supervision. It is essential that a supervisor be available during peak hours, to supervise the GoBus drivers. It is recommended that all Metrobus supervisors be trained on GoBus policies and procedures, safety procedures and the door-to-door nature of GoBus to be able to provide on-street assistance if there is an incident. This would be a non-dedicated support role provided to MVT rather than a dedicated 'control' role (where Metrobus supervisors are specifically assigned to GoBus and have the authority to provide direction directly to MVT employees). When the current contract with MVT expires, a new provision should be put in place in the new contract to ensure there is appropriate supervision of GoBus operators by contractor staff.

Benefits and Impacts

The immediate-term recommendations noted above were actioned in January 2019 and the existing contractor was approached to change the contract. To date, the only recommendation that was implemented and has seen measurable results is changing the no-show rate from \$25 to \$12. This resulted in approximate savings of \$10,000 a month. As other recommendations are implemented, this is expected to result in additional savings that can be reinvested back into the network.

10.4 Strategy 6D – Go-Card Use on Taxis

Issue/Opportunity

GoBus passengers can use both cash and Go-Card to pay for all GoBus services. One of the challenges with the existing system is that taxi cabs do not have portable Go-Card readers and therefore no ability to debit a transaction when a customer pays for their trip using a Go-Card. This is due to the high cost of Go-Card readers and the fact that taxis are not dedicated to GoBus service (the taxi operator under contract with MVT has over one hundred taxis and any one of them could be called on to deliver a GoBus trip).

When a passenger books a trip through MVT, the scheduler will record the trip, but money from the Go-Card is not debited until it is tapped on a Go-Card reader. Under the current practice, some passengers routinely are driven on taxis (due to a requirement or circumstance). Since there is no ability to debit their Go-Card on a taxi, this has resulted in a situation where Metrobus is short thousands of dollars of uncollected fares. This results in a loss in revenue and an increase in administrative time for Metrobus staff to collect passenger fares.

Short-term Recommendations

Metrobus has begun working with the Go-Card provider (BEA) to develop a Go-Card app that can be downloaded on a cellphone or tablet. If this initiative can be implemented, all contracted taxis that provide GoBus trips would be required to download the app which would allow them to use their cellphones to read and debit the Go-Card of all GoBus passengers when using a Go-Card to pay for their trip. If this solution is not viable (e.g. the Go-Card provider is not able to create the app), then other solutions should continue to be explored. One solution could include identifying a policy that sets a limit on unpaid GoBus trips from a customer's GoBus by requiring GoBus vehicles to be dispatched to transport a passenger once the limit is reached. This would require a clear communication strategy with the client to inform them of this policy and to make sure they have enough funds debited to the Go-Card account. Another would be to explore a simple billing/invoicing system of GoBus customers.

Benefits and Impacts

The recommendation will help increase revenue collected by Metrobus for the GoBus service and also help optimize service (if passengers can no longer request certain vehicles types, there is a greater ability to share rides).

10.5 Summary of GoBus Benefits and Impacts

There are several cost savings that should result from the above noted strategic recommendations. Based the proposed changes in the contract, it is anticipated that Metrobus can save between \$610,000 and \$850,000 annually in the short-term horizon. This is further summarized in the financial plan in **Section 13.2**. These savings may be reinvested into service improvements for the entire Metrobus system, or just the GoBus system, where the savings originated from.

It should be noted that the recommendations should also help improve the level of service for passengers. A number of recommendations aimed at improving service include:

1. Better defining eligibility to ensure only those that need the service are eligible and would be permitted to use GoBus.
2. Limiting in-vehicle travel time to 60 minutes.
3. Setting a maximum trip denial target of 2% for trip requests made the previous day or earlier
4. Permitting same day trip-booking trip requests (pending resource availability).

11.0 Recommended Fare Structure

Issue/Opportunity

Metrobus' current cash fare is \$2.50 for all passengers, except children under 5, who can purchase a \$2.00 cash fare. Ten-ride passes are discounted for seniors and children at \$18.00 each and monthly passes are available for \$78.00 for adults or \$53.00 for seniors or children. Post-secondary students can purchase a four-month Semester Pass for \$275.00 (\$68.75 per month). This mix of fares and Metrobus' utilization rates result in an average fare of \$2.03.

As explored in **Section 4.0**, Metrobus' cash fare is lower than the average of its peers, but its average fare is higher. For the peer systems analyzed, Metrobus' nearest major system is Halifax Transit. It is notable that Halifax's fares are the same as Metrobus', except for some small variances in fare levels for seniors.

As St. John's concession fare prices are generally similar to its regional and similar-sized peers, the higher average fare is likely a result of more passengers paying full fare compared to its peers. Many of these peer systems feature higher service hours and rides per capita which, coupled with monthly pass use, would result in a lower average fare. A common feature of peer systems is some sort of employer or employee pass incentivization program that provides further discounts on monthly passes to promote commuter transit use. Another common feature of peer systems is a U-Pass program for post-secondary students, which would also lower the average fare per trip.

Recommendations

Given that Metrobus' fare prices are comparable to that of its regional and similar-sized peers, it is not recommended that fare prices be changed at this time (outside of fare modifications noted in **Section 8.1** (Strategy 2A, B and C)). However, the system's higher average fare is indicative of lower utilization rates and a goal should be to improve this. While **Section 8.0** details service strategies to improve ridership in St. John's, these can be coupled with some fare product changes to further boost utilization.

As the key difference between Metrobus and peer systems is in the range of fare products available, it is recommended that new opportunities be explored. In particular, Metrobus should investigate if employer/employee transit pass programs can be provided to encourage greater monthly pass use. Pass holders are incentivised to travel more frequently as per trip costs are reduced as more trips are taken. Therefore, a greater number of pass holders would significantly improve Metrobus' utilization rates.

12.0 Community Comments on the Draft Plan

In June 2019, the draft recommendations for the new Public Transit Master Plan for the City of St. John’s were presented to the public. The draft recommendations included service improvements and investment, changes in fare policy, GoBus improvements, and on-demand transit. The purpose of the community engagement activities were to get feedback from members of the public, and use this feedback to adjust or improve on the draft recommendations.

Open house events were held at City Hall on June 26th, 2019 from 4:30 pm to 8:30 pm and at the 348 Water Street Welcome Centre on June 27th, 2019 from 12:30 pm to 2:30 pm. Sign-in sheets were included at both events, with 22 residents that signed in. It should be noted that actual attendance at both events was higher, as not all attendees signed in to the event (estimated attendance at both events was between 45 and 50 people).

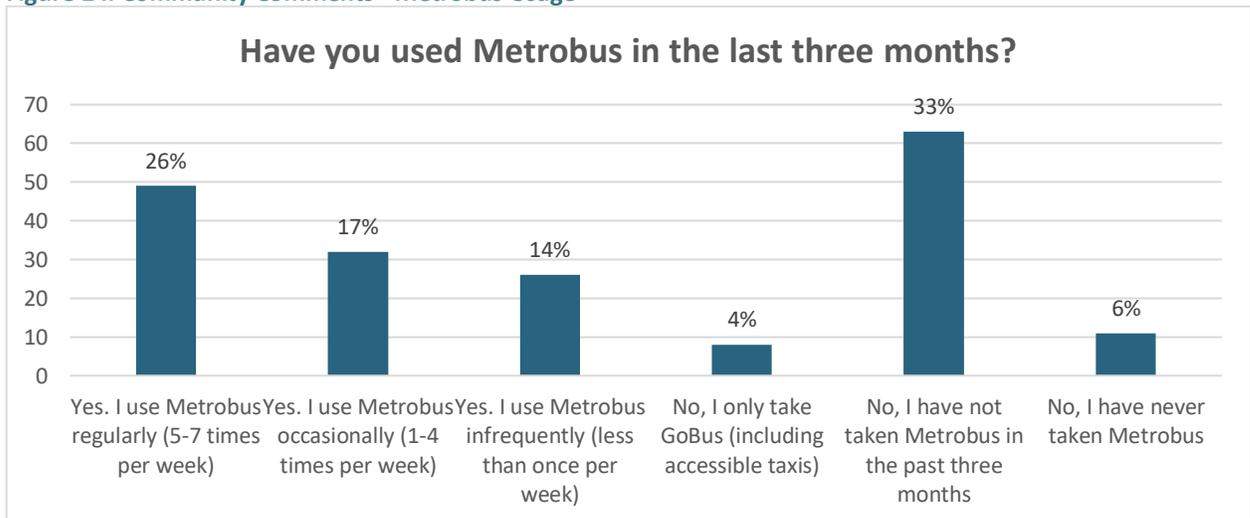
Residents were also able to express their opinions via a survey that was distributed at both the open house events and through an online survey that was available at engagestjohns.ca/transit from June 25 to July 23, 2019. There were a total of 189 responses.

The feedback from the survey is summarized below and will be used in creating the final recommendations for the Public Transit Master Plan.

12.1 Who Answered the Survey?

Most of the survey respondents had used Metrobus or GoBus in the past three months, while only 6% had never used either service.

Figure 24: Community Comments - Metrobus Usage



As noted above, 57% of respondents are Metrobus customers, 4% are GoBus customers and 39% have never or have not recently taken Metrobus.

Respondents of all age groups completed the survey, however there were proportionally more responses from those aged 25-64 than that under 24 or over 65.

Almost a quarter of respondents were students, most of which were from Memorial University of Newfoundland, however other schools were also represented.

12.2 Route Changes

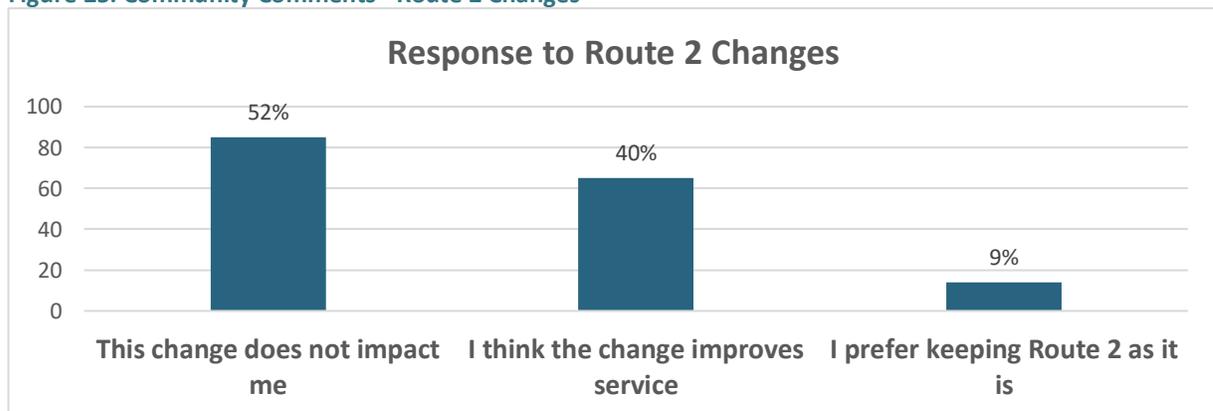
The draft plan included several changes to routes to increase the directness, simplify the network, improve reliability and reduce duplication of resources. Respondents were asked their opinion on each route change as described below.

Route 2/5

Route 2 is proposed to be shortened and only operate between downtown and Montague Street, while Route 5 would increase to all-day service. Route 2 and Route 5 would connect at Montague Street to eliminate the need for a transfer. This would not result in any service reduction, but would help simplify the route network (by having two shorter routes instead of one long route).

Of those impacted, over half of respondents said they would not be impacted and 40% were in favour of the change.

Figure 25: Community Comments - Route 2 Changes



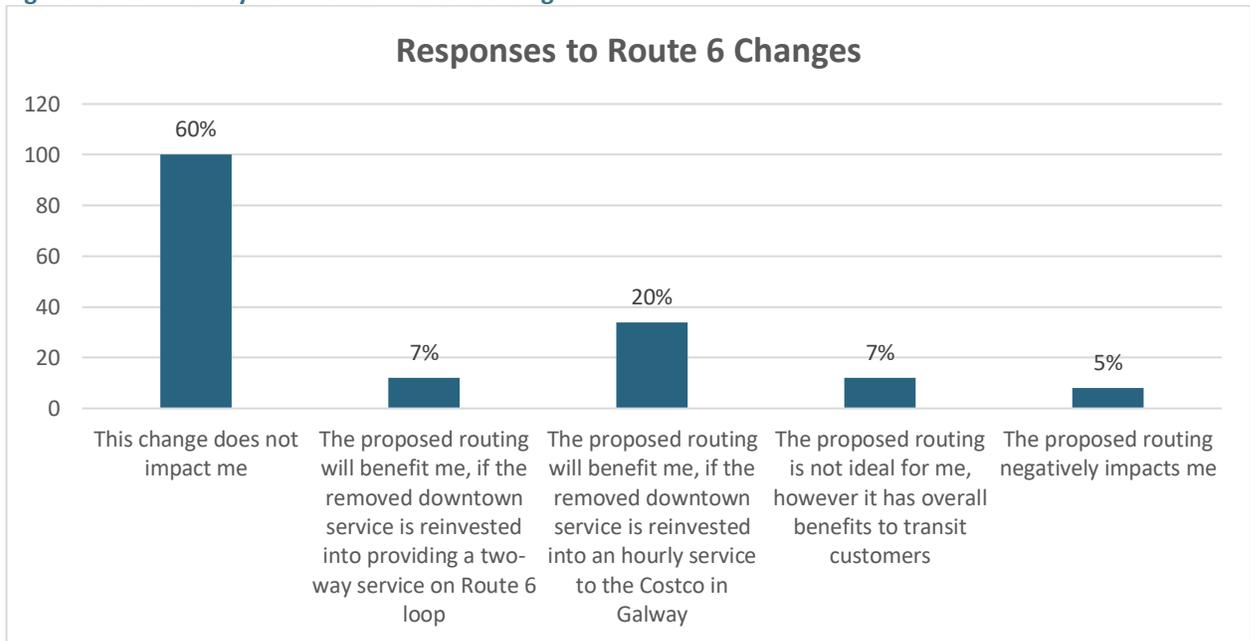
Route 6

Route 6 is proposed to be removed from downtown as it duplicates much of Route 3. Instead, Route 6 would be a much shorter one-way collector route with a connection to the Village Shopping Centre where customers travelling downtown can still transfer onto Route 3. The removal of service will either

be reinvested into providing two-way service on Route 3, or providing a new hourly service to the Galway Commercial Area in Galway.

A majority of respondents were not impacted by the change. Of those who were impacted, most were in favour of the change and would like to see service reinvested in an hourly service to the Galway Commercial Area.

Figure 26: Community Comments - Route 6 Changes

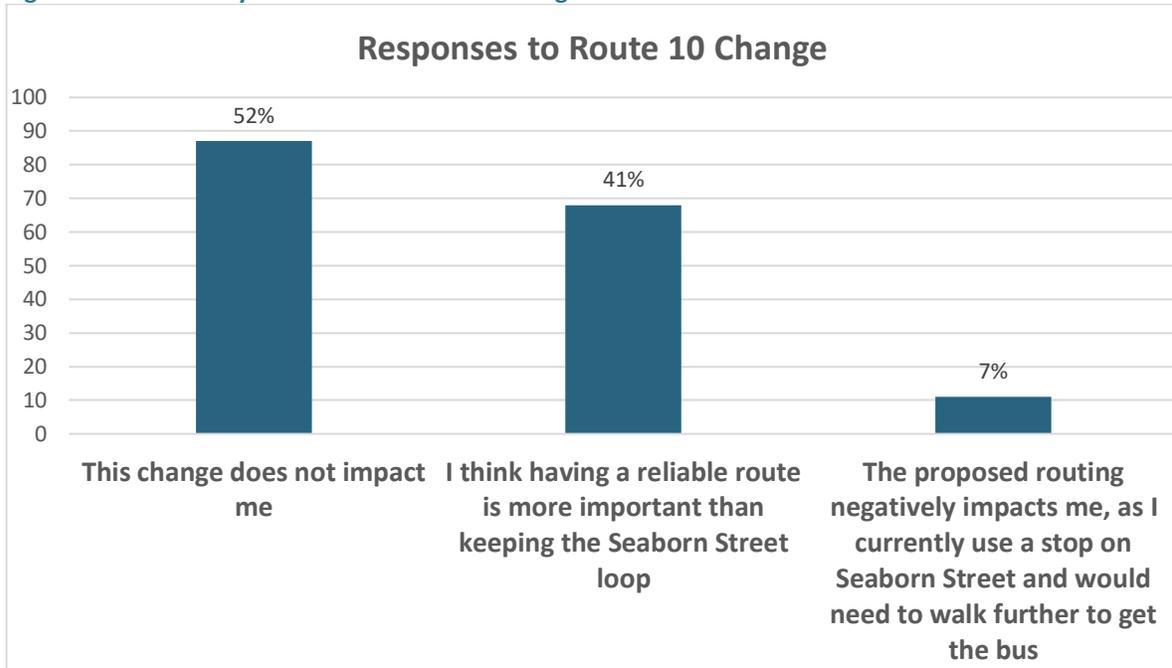


Route 10

Route 10 is a busy route which often has difficulties staying on schedule. One way to improve the reliability of the route is to shorten the route and make it more direct. The draft plan suggests one option of removing the Seaborn Street loop if the route continues to struggle to stay on schedule. This would help the route run more efficiently and on time.

Only 11 respondents were not in favour of removing the Seaborn Street loop.

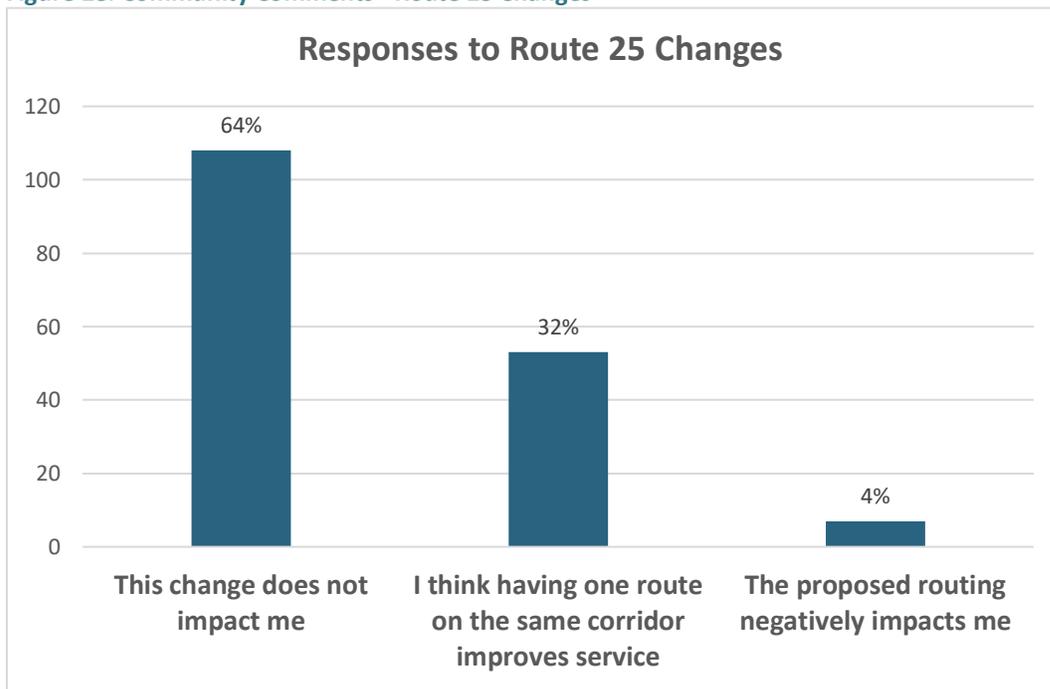
Figure 27: Community Comments - Route 10 Changes



Route 25

Route 25 is proposed to be removed, with all Route 25 trips added to Route 18 to simplify the network and increase frequency. Of those impacted by the change, most were in favour of combining Route 18 and Route 25.

Figure 28: Community Comments - Route 25 Changes



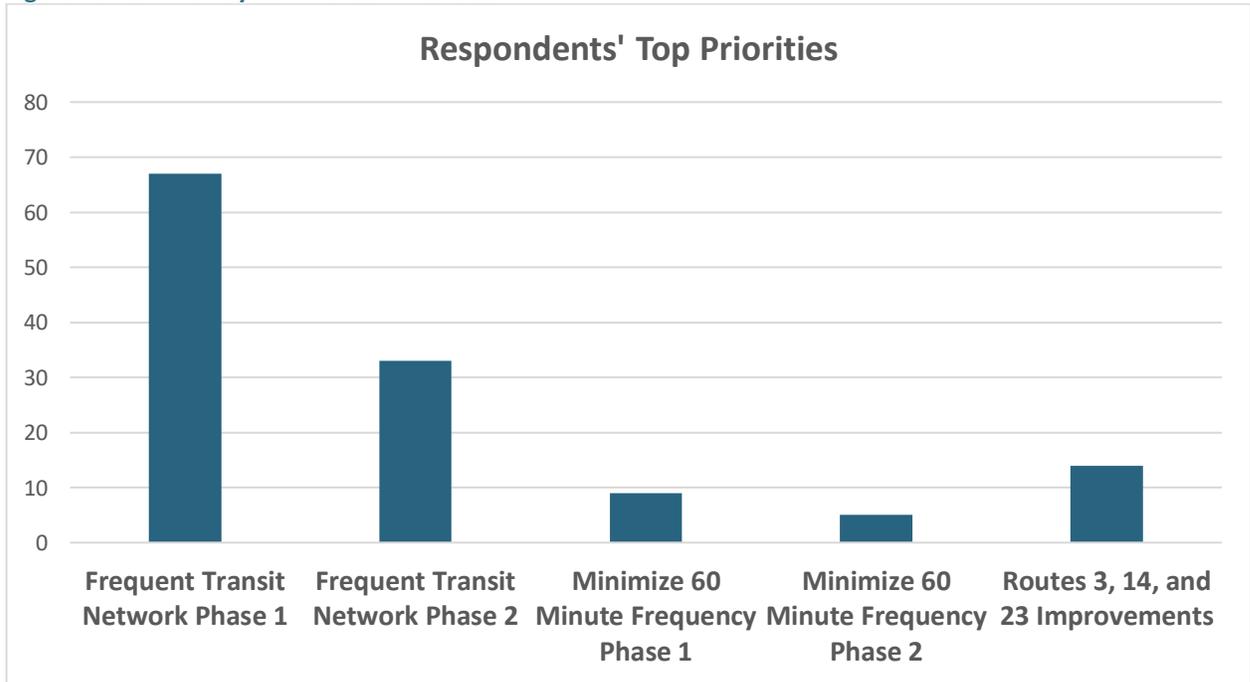
12.3 Service Improvement Priorities

Some of the recommendations from the draft plan have cost implications, so respondents were asked to rank those recommendations from highest to lowest priority. The options were as follows:

- **Frequent Transit Network Phase 1:** Operate 15 minute frequency service during the weekday afternoon peak and 30 minutes during the weekday and Saturday morning and midday periods on Routes 1, 2/5, 3 and 10.
- **Frequent Transit Network Phase 2:** Extend 15 minute frequency service during the weekday morning peak and 30 minute service during others times on Routes 1, 2/5, 3 and 10.
- **Minimize 60 Minute Frequency Phase 1:** Improve frequency on Routes 11, 14, 16, 23 from 60 minutes to 30 minutes during the weekday morning and afternoon peak periods.
- **Minimize 60 Minute Frequency Phase 2:** Improve frequency on Routes 11, 14, 16, 23 from 60 minutes to 30 minutes during the weekday midday periods.
- **Routes 3, 14 and 23:** With the opening of Hebron Way, redesign Route 14 to make it more direct, simplify Route 3 by operating on the Route 3A alignment all-day and extend Route 23 to operate all-day. This will help make the routes more direct, simplify the network and add more service on Route 23.

Most respondents picked the frequent transit network as their top choice. The average ranking indicated that in general, residents prioritized investment in both phases of the frequent transit network over minimizing 60 minute frequency route improvements (to 30 minute frequency) and making modifications to Routes 3, 14, and 23.

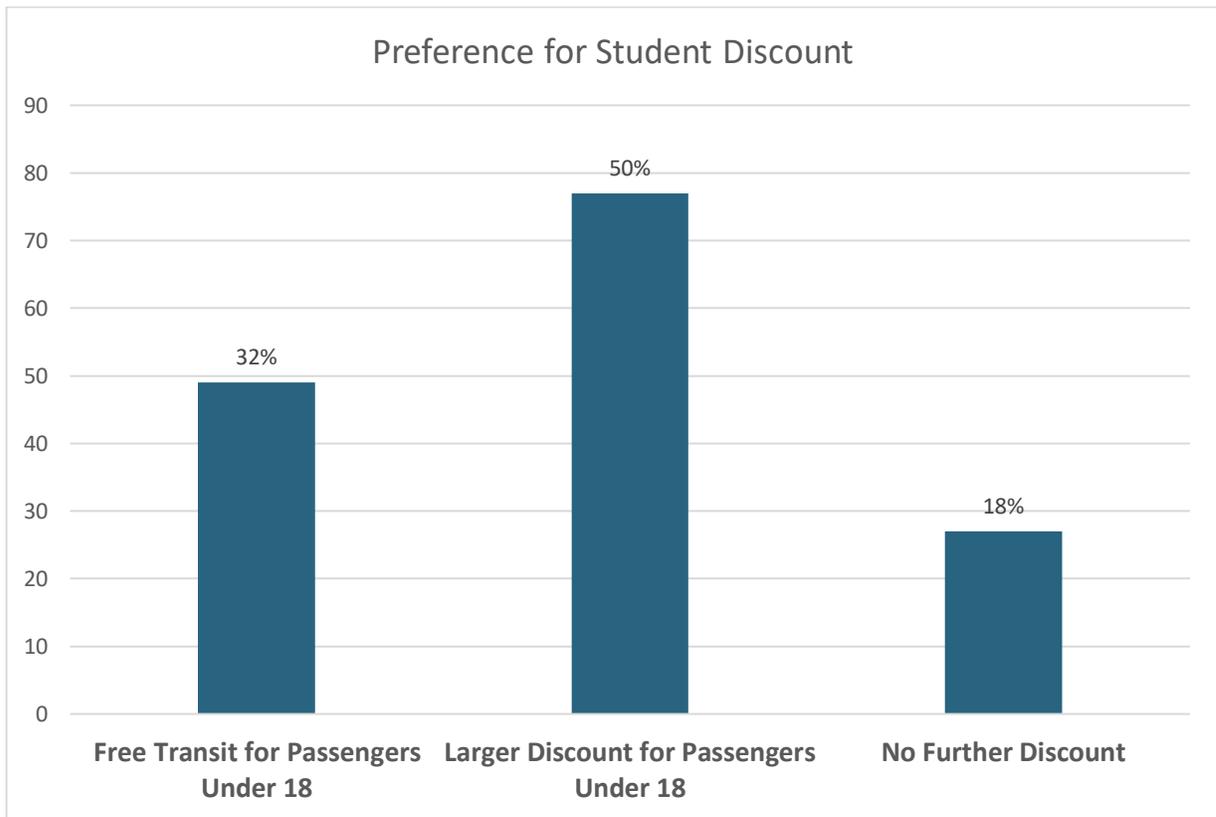
Figure 29: Community Comments - Priorities



- I support having free transit for students under 18 to help foster a stronger culture of transit use. This has the highest ridership growth potential, but will lead to a reduction in passenger fares used to fund growth in the system.
- I support providing a larger discount to students under 18 years of age (e.g. 50% discount on monthly m-Card; 60% discount on annual pass). While this will not have the same level of ridership growth as free fares, the loss in passenger fare revenue needed to invest in the system will not be as high.
- I don't support further student fare reductions as the current student discount is high enough.

Eighty-two (82) percent of respondents agreed with a strategy of further fare reductions for students over what exists today, with the majority electing for the larger discount option over free transit.

Figure 31: Community Comments - Student Discount



12.6 Additional Feedback

The end of the survey gave residents the opportunity to give feedback on anything they felt was not covered in the survey questions. There were 101 responses to this question as well as a number of written and verbal comments received directly at both public open house. While the responses touched

on a wide range of topics that are all being considered by the project team, a number of themes emerged from comments provided by respondents. The table below illustrates the comments that were provided, and how the plan responds each comment.

Table 32: Community Comments - Additional Comments and Responses

Comments	Response
<p>Many respondents wanted more bus shelters in the transit system, specifically noting concern for cold weather and people with mobility issues that cannot stand for an extended period of time.</p>	<p>Metrobus is currently investigating the provision, maintenance of and access to shelters across the network through its strategic planning process. It should be noted that installing shelters can be difficult, as many locations that may warrant a shelter do not have an adequately sized right-of-way available to place a shelter.</p>
<p>Some respondents noted that using transit is inconvenient due to limited service hours, particularly on Saturdays, Sundays, and holidays.</p>	<p>The draft plan includes a focus on improving transit frequency on weekdays first, followed by weekends. Based on initial public feedback, improving service within the core hours was felt to be a priority over extending the weekend and holiday hours of service when ridership is lower. Frequency improvements are focused on the Frequent Transit Network and certain core routes that currently operate on a 60 minute headway (reducing waiting time). These recommendations will be recommended to Council as a menu of service improvements and discussed during each budget cycle.</p>
<p>While there were many suggestions for better transit service on specific routes or specific parts of the city, the airport was mentioned multiple times. It was suggested that Route 14 travel from the airport to downtown in a direct way, eliminating the need for a transfer and making it a more convenient service for residents and visitors.</p>	<p>Route 14 was analyzed as part of this study. The recommended route structure would make the route more direct and extend it to both MUN and the Avalon Mall, reducing travel time to the downtown for those transferring. At this time there are insufficient resources to provide a direct route to downtown.</p>
<p>Reliability and adherence to schedules was noted as a concern, particularly when transfers are involved and a missed connection results in a long wait.</p>	<p>The plan includes some route changes designed to simplify and shorten some overall routings to improve on-time performance. Further reliability improvements are subject to the availability of resources. Improvements to frequencies on the Frequent Transit Network and other core routes should also reduce waiting time if connections are missed.</p>

Comments	Response
<p>Respondents wanted more information at stops and on vehicles. Some suggestions include more stops with schedules, bus route numbers on the stops that they serve, and stop announcements on vehicles.</p>	<p>Metrobus is currently investigating improved information services through its strategic planning process.</p>
<p>The mobile application should be improved to include real time bus tracking in addition to schedules.</p>	<p>Real time bus tracking is currently available through an existing mobile app.</p>
<p>Several respondents expressed concern over the price of transit fares. Specifically, they were concerned about the cost of transit for low-income earners, the elderly, and students due to the U-Pass not being implemented.</p>	<p>The transit master plan includes recommendations to provide a low-income pass as well as free or discounted trips for high-school students. Metrobus will continue to work with the Memorial University administration and student union on the adoption of a future U-Pass.</p>
<p>Respondents desired more direct routes that could get them to their destinations with fewer detours. Some comments were general, but several were discontent with the need to travel through MUN on route to their destination.</p>	<p>The route structure was reviewed in detail to assess opportunities to improve the directness of routes. Route 14 was modified to make the route more direct to the airport. Other routes were more difficult to modify without sacrificing proximity to residents (e.g. taking then off local and collector roadways). To improve the level of service, frequency improvements were proposed on the most direct routes (the Frequent Transit Network) that connect key destinations in the City.</p>
<p>Many commented that low frequency makes transit less convenient including three comments about Route 3 specifically.</p>	<p>The Frequent Transit Network concept aims to improve service hours, frequency and routing by focusing on core routes. Route 3 forms part of the Frequent Transit Network and recommendations were made to improve the frequency of service on this route.</p> <p>Additional recommendations were to reduce the number of routes with a 60 minute headway.</p>
<p>Respondents wanted better coverage to destinations they felt are difficult to access on the transit network. In particular, Goulds, Southlands, and communities outside the core were mentioned.</p>	<p>The draft plan includes alternative service delivery as a solution to serve neighbourhoods where it is not currently cost effective to run fixed route service. If successful in the Southlands, it could be used to other neighbourhoods in the St. John’s area. A new route is also proposed to the Galway Commercial Area.</p>

13.0 Organizational and Administrative Process Review

13.1 Existing Organizational Arrangements

13.1.1 Governing Body

The St. John's Transportation Commission, a wholly-owned subsidiary of the City of St. John's established in 1958, is the governing body for conventional transit services provided by Metrobus and for specialized transit services provided by GoBus.

The Commission is comprised of nine (9) members:

- Three (3) City Councillors;
- Four (4) Citizens; and
- Two (2) City of St. John's senior managers (City Manager; Deputy City Manager, Financial Management).

All members of the Commission are appointed by City Council for two-year terms.

At least two members of the Commission must be City Councillors, one of which may be appointed as Chair of the Commission. If the Chair is a City Councillor, then a third City Councillor may be appointed to the Commission. The Vice-Chair can be a City Councillor member or a Citizen member of the Commission.

In advance of the expiry of terms for Citizen members, the City publishes on its website a request for Expressions of Interest from "individuals in the private sector who have an interest in sitting on the Commission." Preference is given to individuals with experience in finance, accounting, marketing, human resources, specialized transit or other business related disciplines. From these applications, City Council appoints new Citizen members to succeed those who have completed their terms.

The Commission provides general oversight of Metrobus and GoBus services. In particular, its formal approval is required for:

- Annual operating and capital budgets;
- Fare policy and transit fares;
- Routings and service levels;
- Staff establishment levels, salary scales, and benefit programs;
- Collective agreements; and

- Tendered contracts.

13.1.2 Organization Structure

The **General Manager**, reporting directly to the Commission, has overall responsibility for the planning, delivery, and management of conventional and specialized transit services.

There are seven positions that directly report to the General Manager:

- **Manager, Operations** – responsible for conventional transit operations;
- **Manager, Maintenance** – responsible for vehicle servicing, vehicle maintenance, fleet management, and building/equipment maintenance;
- **Manager, Marketing & Information Services** – responsible for planning, scheduling, customer services, advertising, and information systems;
- **Manager, Accessible Services** – responsible for administration of the GoBus contract;
- **Manager, Finance** – responsible for accounting, payroll, and budgeting;
- **Manager, Human Resources** – responsible for employee/management relations, collective agreement administration, recruitment, benefit administration, occupational health and safety, claims management, human resource policy development, and employee welfare programs; and
- **Administrative Assistant** – provides administrative support for management and the Commission.

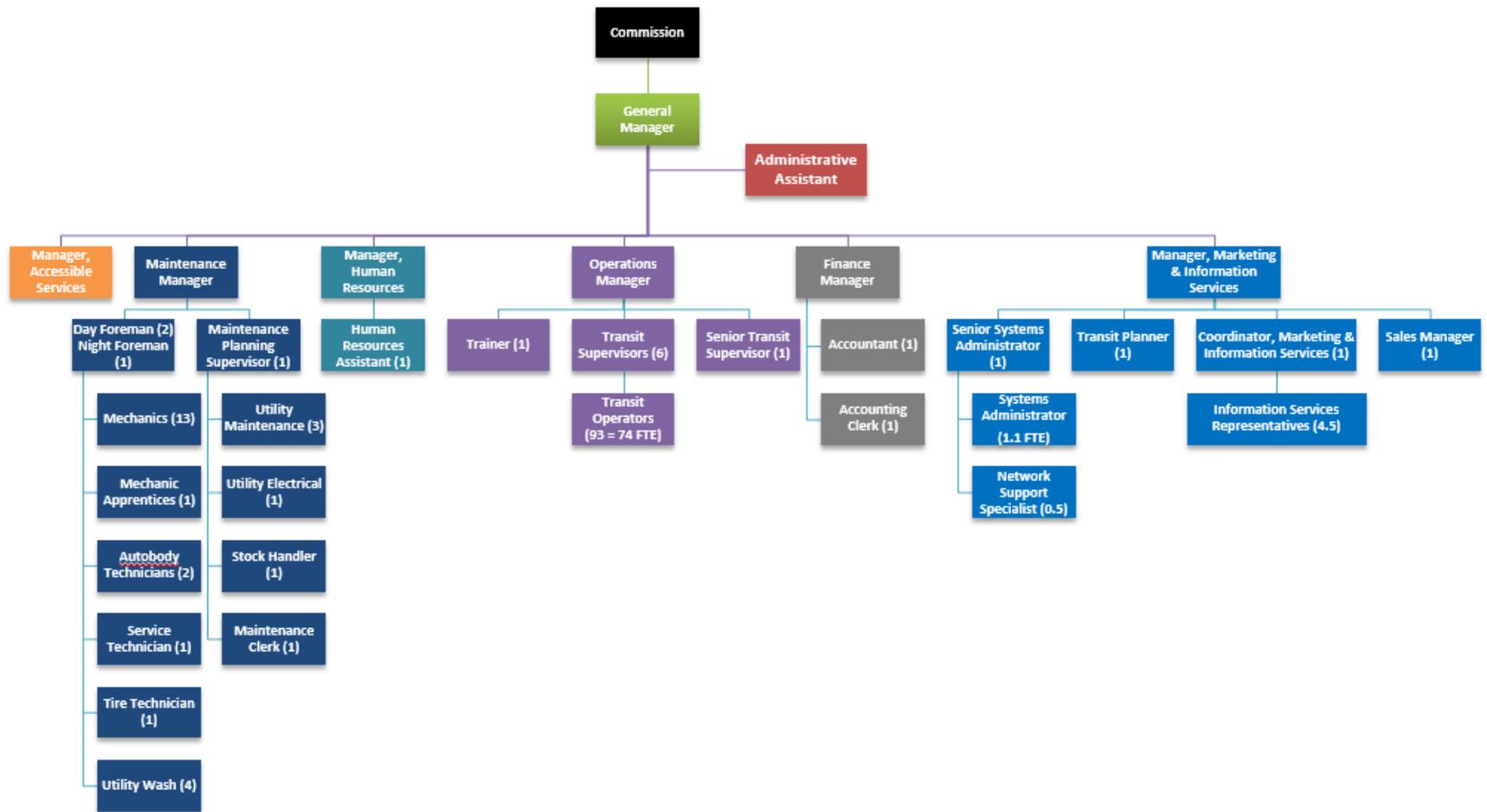
Note that the Manager of Accessible Services is a position that was recently added to the organization structure. The position is responsible for passenger registration and eligibility assessment and to provide oversight of the GoBus contractor. The contractor is currently responsible for trip reservations, scheduling, and service delivery. The contractor deploys both Commission-owned buses and sub-contracted taxi-operated vehicles for passenger trips.

The organization chart, detailing reporting relationships and the number of full-time equivalent positions (FTE), is shown in **Figure 33**.

Figure 32: Current Organization Chart



St. John's Transportation Commission Organization Chart



13.2 Organization Structure Comparisons with Peer Systems

13.2.1 Generic Transit Functions

There are generic functions that must be carried out to develop, deliver, and manage a public transit service. While there are variations in how these functions are organized and coordinated, they are common to any jurisdiction that provides public transportation.

To facilitate analyses and comparisons, these functions are named and defined here for clarity.

In general, these functions are divided into two types:

- **Line Functions** are ones that directly advance the core mandate of the transit organization (e.g. planning, scheduling, operations, fleet management, passenger information, customer service); and,
- **Staff Functions** are ones that assist the transit organization with specialized advisory and support services (e.g. human resources, finance, information technology, occupational health and safety).

Table 33 lists the name and descriptions of generic functions (and, in some cases, sub-functions) for public transit used in this report.

Table 33: Generic Functions for Public Transit

Type	Function	Sub-Function	Generic Description
Line Functions	General Management		<ul style="list-style-type: none"> • Overall direction and management of the public transit organization
	Service Development	Transit Planning	<ul style="list-style-type: none"> • Long range planning and coordination of transit planning with urban planning • Route network planning, service monitoring, stop/shelter location planning • Special projects
		Scheduling	<ul style="list-style-type: none"> • Timetabling and vehicle blocking • Run-cutting and rostering
	Marketing		<ul style="list-style-type: none"> • Creation and distribution of passenger information materials • Development and execution of marketing programs • Design of transit identity (logo, bus livery, bus stop graphics) • Preparation of internal and external communication programs
	Customer Service		<ul style="list-style-type: none"> • Passenger assistance (customer call centre) • Commendations/complaints administration • Lost and found administration • Fare media sales

Type	Function	Sub-Function	Generic Description
	Transit Operations	Division Management	<ul style="list-style-type: none"> Overall responsibility for transit operations Creation and maintenance of positive relationships with internal and external stakeholders
		On-Street Inspection	<ul style="list-style-type: none"> Day-to-day regulation, supervision, and adjustment of on-street transit service Provision of on-street support and direction to bus operators Investigation and resolution of operational concerns of customers, business owners, and residents
		Control Centre	<ul style="list-style-type: none"> Provides day-to-day guidance and assistance to bus operators and inspectors via the transit radio communications system Provides leadership and direction to bus operators to ensure safe, efficient, high quality bus service to customers
		Dispatch	<ul style="list-style-type: none"> Preparation and coordination of the daily dispatch of bus operators and buses to scheduled and unscheduled transit service
		Bus Operator Supervision	<ul style="list-style-type: none"> Provision of ongoing supervision, counsel, guidance, coaching, mentoring, performance review, and career development for the bus operator workforce
		Training	<ul style="list-style-type: none"> Training of new bus operators in the knowledge, skills, and expectations required to safely and efficiently operate a transit vehicle and to provide customer service. Provision of refresher and continuing education for bus operator workforce
		Operations Planning	<ul style="list-style-type: none"> Planning and coordination of temporary routings for detours Planning and coordination of special event service
	Specialized Transit		<ul style="list-style-type: none"> Planning and delivery of specialized transit service (including passenger registration, trip reservations, trip scheduling, trip confirmation, vehicle dispatch, passenger pickup and drop-off) Public outreach, travel training, customer service and complaint resolution
	Plant and Equipment	Division Management	<ul style="list-style-type: none"> Overall responsibility for plant and equipment functions
		Bus Maintenance	<ul style="list-style-type: none"> Preventative maintenance, repair and overhaul, and refurbishing of transit vehicles
Bus Servicing		<ul style="list-style-type: none"> Daily fueling, exterior cleaning, and interior cleaning of transit vehicles 	
Stops, Shelters, Terminals		<ul style="list-style-type: none"> Installation and maintenance of bus stops, transit shelters, bus loops, and transit terminals (including supplementary snow clearing) Installation of accessibility features for stops, shelters, and terminals 	

Type	Function	Sub-Function	Generic Description
		Building Maintenance	<ul style="list-style-type: none"> Maintenance and cleaning of garages, transit centres, and transit offices
Staff Functions	Finance	Budget and Finance	<ul style="list-style-type: none"> Financial planning and preparation of operating and capital budgets Financial analysis and reporting Accounting/financial activities Fare Policy development and administration Fare agreement administration (e.g. U-Pass)
		Treasury	<ul style="list-style-type: none"> Design, production, and distribution of fare media Accounting of fare receipts Cash management and deposits
	Human Resources		<ul style="list-style-type: none"> Provides support for employee recruitment and selection, employee development, organizational development, compensation and benefits administration, and other HR policy development
	Information Systems		<ul style="list-style-type: none"> Identification of opportunities for application of information technology to improve business processes and customer service Application development and support for internal information systems Integration services for external information systems and for vendor-supplied systems Development of strategy for the integration of data amongst applications
	Occupational Health and Safety		<ul style="list-style-type: none"> Collaborates with other divisions to identify and resolve safety issues Administers occupational health and safety programs

13.2.2 Peer Systems Overview

Based on information contained in the 2017 edition of the CUTA Fact Book (and updated with the peer systems), **Table 34** provides an overview of key indicators of the peer systems compared to those of St. John’s Transportation Commission.

While there are a limited number of Canadian transit systems that are directly comparable to the one in St. John’s, the selected peers are those with similar scales of operation, in terms of annual revenue hours and organization size, to Metrobus.

A Commission is the governing authority for two of the systems (St. John’s and St. Catharines) while, in the other three systems (Oakville, Guelph, and Strathcona County), transit is delivered through a municipal department responsible to City Council or a Committee of Council.

Table 34: Peer Systems Comparison of Key Indicators (Conventional Transit)

Indicator	St. John's	Oakville	Guelph	St. Catharines	Strathcona County
Organization Type	Commission	Town Department	City Department	Commission	County Department
Conventional Transit	Yes	Yes	Yes	Yes	Yes
Specialized Transit	Yes	Yes	Yes	Yes	Yes
Buses in Fleet ⁶	54	95	102	78	75
Annual Revenue Hours	134,107	212,008	205,820	168,774	112,219
Number of Employees ⁷	132 FT 16 PT	183 FT 32 PT	199 FT 21 PT	167 FT 5 PT	139 FT 23 PT
Number of Bus Operators ⁶	74 FT 12 PT	125 FT 28 PT	144 FT 19 PT	123 FT	79 FT 21 PT
Operators per Bus	1.59	1.61	1.60	1.58	1.33
Annual Revenue Hours per Operator	1,559	1,386	1,263	1,372	1,122

13.2.3 Mapping of Transit Functions

This section maps generic transit functions listed above to the organization structures of the peer systems. The following information is summarized for each function across the six transit systems:

Item	Description
Manager Responsible	<ul style="list-style-type: none"> The management or supervisory position directly responsible for the function
Manager Level	<ul style="list-style-type: none"> The level in the organization of the <i>Manager Responsible</i> The General Manager (or equivalent) is considered to be Level 1 in the transit organization Those reporting directly to the General Manager are considered Level 2, etc.
# of Staff	<ul style="list-style-type: none"> Number of staff assigned to the function, <i>exclusive of the Manager Responsible</i>
Staffing Indicators	<ul style="list-style-type: none"> Various indicators provided where appropriate

Table 35 shown on the following two pages, summarizes this information for each transit system.

⁶ For Conventional Transit (i.e. Fixed Route service) only

⁷ Includes Bus Operators, Other Transportation Operations, Mechanics, Other Vehicle Maintenance and Servicing, Plant and Other Maintenance, and Administration

Table 35: Mapping of Generic Functions Across Transit Systems

Function	Characteristics	St. John's	Oakville	Guelph	St. Catharines	Strathcona County
General Manager	Title: Reports to: # Direct Reports:	General Manager Commission Chair 7	Director of Transit Commissioner of Community Services 4	General Manager Deputy Chief Administrative Officer 4	General Manager Commission Chair 5	Director of Transit Associate Commissioner 6
Service Development: Transit Planning	Mgr Responsible: Mgr Level: # of Staff:	Manager, Marketing & Information Services 2 1	Mgr, Planning & Demand Responsive Svcs 2 1, Transit Analyst	Supervisor, Planning & Scheduling 2 1	Manager of Transportation 2 1	Manager, Planning & Customer Service 2 2
Service Development: Scheduling	Mgr Responsible: Mgr Level: # of Staff:	Manager, Marketing & Information Services 2 0, Performed by Transit Planner	Mgr, Planning & Demand Responsive Svcs 2 1, Transit Scheduler	Supervisor, Planning & Scheduling 2 1	Manager of Transportation 2 0, Performed by Transit Planner	Manager, Planning & Customer Service 2 1
Marketing	Mgr Responsible: Mgr Level: # of Staff:	Manager, Marketing & Information Services 2 1	Mgr, Planning & Demand Responsive Svcs 2 1, Marketing/Customer Svc Coordinator	Supervisor, Transit Business Services 2 1	Supervisor, Marketing & Customer Service 2 0	Coordinator, Comm & Customer Experience 3 1
Customer Service	Mgr Responsible: Mgr Level: # of Staff:	Coordinator, Marketing & Information Services 3 4.5	Mgr, Planning & Demand Responsive Svcs 2 Performed by Mktg/Customer Svc Coordinator	Supervisor, Transit Business Services 2 Performed by Coordinator, Sales & Market Development	Supervisor, Marketing & Customer Service 2 1 FT, 3 PT	Coordinator, Comm & Customer Experience 3 2 FT, 1 PT
Transit Operations: Division Management	Mgr Responsible: Mgr Level: # Direct Reports:	Operations Manager 2 8	Manager, Operations 2 5	Manager, Transit Operations 2 17	Manager of Transportation 2 5	Manager, Conventional Transit 2 4
Transit Operations: On-Street Inspection	Mgr Responsible: Mgr Level: # of Staff: Operators per Staff:	Operations Manager 2 4 23	Senior Transit Supervisor 3 7 19	Manager, Transit Operations 2 9 (Route Supervisors) 19	Manager of Transportation 2 2 68	Supervisor, Inspectors 3 5 16
Transit Operations: Dispatch / Control Centre	Mgr Responsible: Mgr Level: # of Staff: Operators per Staff:	Operations Manager 2 2 47	Senior Transit Supervisor 3 5 27	Manager, Transit Operations 2 5 (Route Supervisors) 34	Manager of Transportation 2 2 68	Supervisor, Dispatch 3 4 20
Transit Operations: Bus Operator Supervision	Mgr Responsible: Mgr Level: # of Staff: Operators per Staff:	Senior Transit Supervisor 3 1 93	Senior Transit Supervisor 3 Performed by this position 135	Manager, Transit Operations 2 0, performed by Route Supervisors	Manager of Transportation 2 1 136	Manager, Conventional Transit 2 0, Shared with Supervisors 26
Transit Operations: Training	Mgr Responsible: Mgr Level: # of Staff: Operators per Staff:	Operations Manager 2 1 93	Manager, Operations 2 1 135	Manager, Transit Operations 2 2, but also act as Route Supervisors 85	Manager of Transportation 2 0, Performed by Transit Supervisors	Manager, Conventional Transit 2 1 79
Transit Operations: Operations Planning	Mgr Responsible: Mgr Level: # of Staff:	Manager, Marketing & Information Services 2 0, Performed by Transit Planner	<ul style="list-style-type: none"> • Detours: Manager, Operations • Special Events: Manager, Planning 	<ul style="list-style-type: none"> • Detours: Route Supervisors • Special Events: Coordinator, Sales & Market Development 	Manager of Transportation 2 0, Performed by Transit Supervisors	Joint function shared amongst Dispatch and Transit Planner

Function	Characteristics	St. John's	Oakville	Guelph	St. Catharines	Strathcona County
Specialized Transit	Mgr Responsible: Mgr Level: # of Office Staff: # of Operators:	Manager, Accessible Services 2 0 0, Contracted Out	Demand Responsive Supervisor 3 7 15, but 50% of Trips Contracted Out	Mobility Supervisor 3 2 11	Paratransit Supervisor 3 3 8	Manager, Specialized Transit 2 3 7 FT, 4 PT
Plant & Equipment: Division Management	Mgr Responsible: Mgr Level: # Direct Reports:	Maintenance Manager 2 4	Manager, Fleet & Maintenance 2 4	Function provided by City's Fleet Services Department • Project Manager, QA and CI provides liaison	Manager of Maintenance 2 2	Function provided by County's Fleet Services Department
Plant & Equipment: Bus Maintenance	Mgr Responsible: Mgr Level: # of Staff:	Day/Night Foremen (3) 3 18	Maintenance Supervisor 3 16	Function provided by City's Fleet Services Department	Maintenance Supervisor 3 20	Function provided by County's Fleet Services Department
Plant & Equipment: Bus Servicing	Mgr Responsible: Mgr Level: # of Staff:	Day/Night Foremen (3) 3 4 (duties include farebox handling)	Maintenance Supervisor 3 9	Function provided by City's Fleet Services Department	Maintenance Supervisor 3 8	Supervisor, Support Services 3 8
Plant & Equipment: Stops / Shelters / Terminals / Buildings	Mgr Responsible: Mgr Level: # of Staff:	Maintenance Planning Supervisor 3 6	Mgr, Planning & Demand Responsive Svcs 2 • Stops: Roads & Works Dep't • Shelters: Contracted	Project Manager, QA and CI 2 • Coordinates installations with other City departments / contractors	Maintenance Supervisor 3 1 • Coordinates installations with other City departments / contractors	Supervisor, Support Services 3 2
Finance: Budget & Finance	Mgr Responsible: Mgr Level: # of Staff:	Finance Manager 2 1	Director of Transit 1 Accounting: Town Finance Dep't	General Manager 1 • Support provided by Supervisor, Transit Business Services	Manager, Finance & Administration 2 2 FT, 2 PT	Coordinator, Finance 2 2
Finance: Treasury	Mgr Responsible: Mgr Level: # of Staff:	Finance Manager 2 1 (shared with Maintenance Clerk)	Administrative Assistant 2 1 Presto: Business Systems Coordinator	Supervisor, Transit Business Services 2 1 (shared with Fleet Services)	Manager, Finance & Administration 2 Performed by Budget & Finance Staff	Coordinator, Finance 2 1
Human Resources	Mgr Responsible: Mgr Level: # of Staff:	Manager, Human Resources 2 1	Function provided by Town's HR Department	Function provided by City's HR Department	Function provided by City's HR Department	Function provided by County's HR Department
Information Systems	Mgr Responsible: Mgr Level: # of Staff:	Senior Systems Administrator 3 1.6	Function provided by Town's Information Services & Solutions Department	Function provided by City's IT Department	Manager, Finance & Administration 2 1	Function provided by County's IT Department
Occupational Health and Safety	Mgr Responsible: Mgr Level: # of Staff:	Shared Responsibility between Manager, Human Resources and Maintenance Manager	Manager of Operations 2 One Transit Supervisor is member of joint Union-Management OHS Committee	Manager of Operations 2 Function shared with Project Manager and Manager of Fleet Services	Manager of Maintenance 2 0, Performed by Manager of Maintenance	Coordinator, OHS 2 0, Performed by Coordinator, OHS

13.2.4 Common Features of Peer System Organization Structures

Based on the information contained in **Table 35** and on discussions held with the General Managers, common features and preferences across the four peer system organization structures are summarized as follows for each major transit function:

Generic Function	Common Features
General Manager	<ul style="list-style-type: none"> • 4 to 7 direct reports, including administrative assistance. • Largely determined by number of line and staff functions assigned to the transit organization. Some functions (e.g. Plant and Equipment, Human Resources, Information Technology) are the responsibility of other municipal departments in some peer systems. Metrobus, on the other hand, has responsibility for a full range of transit functions. Consequently, the number of direct reports to the General Manager is somewhat higher for Metrobus than it is in other systems.
Service Development	<ul style="list-style-type: none"> • Responsible Manager reports directly to General Manager • Manager usually directly involved in planning and scheduling technical work • Average of 1 to 2 planning/scheduling technical staff • Metrobus staffing is consistent with common industry practice
Marketing, Customer Services Transit Operations	<ul style="list-style-type: none"> • Common for these two functions to be the responsibility of a single Manager • Responsible Manager usually reports directly to General Manager • Manager often directly involved in marketing work • An additional marketing position is common if Manager is responsible for other major functions • Range of 2 to 5 front-line positions for customer service function • Metrobus staffing is consistent with common industry practice • Responsible Manager reports directly to General Manager • Manager typically has overall responsibility for Dispatch, Control Centre, On-Street Inspection, Training, and Bus Operator Supervision/Development functions • Common practice is to assign responsibility for Dispatch/Control Centre and On-Street Inspection to a single Senior Supervisor position (i.e. an “Assistant Manager”) • Common practice is for transit supervisors to rotate amongst Dispatch/Control Centre and On-Street Inspection roles • Common practice is for Training function to report directly to Manager • Operations planning role varies (detour planning and implementation usually included in Operations function; special events planning often shared between Operations and Service Development functions) • Peer systems expressed need to improve Bus Operator Supervision/Development function (current practice is diverse – split amongst Responsible Manager, Supervisors, and Trainer) • Range of 4 to 12 positions for Dispatch/Control Centre and On-Street Inspection functions (St. John’s at lower end of this range) • Common practice is for 1 position for Training in peer systems

Generic Function	Common Features
Specialized Transit	<ul style="list-style-type: none"> • Daily service 100% contracted out in St. John's, approximately 50% contracted out in Oakville, and 100% operated by transit staff in Guelph, St. Catharines, and Strathcona County • All systems, except St. John's, retain responsibility for passenger registration, trip reservation, and scheduling functions • Specialized Transit function is separate from Conventional Transit Operations in Oakville, and Strathcona County. In St. John's, Specialized Transit is also separate from Conventional Transit. While St. John's retains responsibility for passenger registration and assessment, the scheduling, dispatching, and service delivery functions are assigned to the contractor rather than being undertaken by the transit organization • In St. Catharines and Guelph, Specialized Transit function reports to Transit Operations Manager
Plant and Equipment	<ul style="list-style-type: none"> • Bus Maintenance, Bus Servicing, and Stops/Shelters/Loops is responsibility of other City departments (e.g. Fleet Services) in Guelph and Strathcona County • Responsible Manager reports directly to General Manager in St. John's, St. Catharines, and Oakville • Average of 4 direct reports to Maintenance Manager in St. John's and Oakville • Common practice is for Bus Servicing staff to be assigned farebox handling • Location/site planning for stops and shelters usually coordinated with Service Development function; installations performed by contractors or Plant and Equipment staff • Metrobus staffing is consistent with common industry practice
Finance	<ul style="list-style-type: none"> • Common for Budget/Accounting/Treasury functions to be assigned to a single Manager • Responsible Manager reports directly to General Manager in St. John's, St. Catharines, Guelph, and Strathcona County • In Oakville, General Manager has responsibility for budgeting and revenue room operation, with Town Finance Department providing day-to-day accounting functions • An average of 1 to 2 positions for Budget and Accounting function • An average of 1 to 2 positions for Treasury function • Metrobus staffing is consistent with common industry practice
Human Resources	<ul style="list-style-type: none"> • Services are provided by centralized municipal Human Resources Department in peer systems, with designated staff assigned exclusively for transit • HR function provided directly within Metrobus organization
Information Systems	<ul style="list-style-type: none"> • Services are provided by centralized municipal Information Technology Department in Oakville, Guelph, and Strathcona County • In St. John's and St. Catharines, Responsible Manager supervises other major functions and reports directly to General Manager • In systems with significant on-board technology, an electronics support position is provided (usually within the Plant and Equipment function)
Occupational Health and Safety	<ul style="list-style-type: none"> • Function is usually included in duties of others (e.g. Maintenance Manager or Trainer) or provided by OHS staff in the Human Resources function • Common for peer systems to have a joint Union-Management OHS committee, with management representatives from Transit Operations and Plant and Equipment divisions.

13.3 Key Organizational Issues

Based on information gained during interviews in November 2018, on a review of the existing organization structure, and on comparisons with organizational approaches used in other Canadian transit systems, a number of key issues have been identified that warrant review. These issues, accompanied by some suggestions for improvement, are summarized below by major category.

13.3.1 Governance

Amongst the peer systems, a Transit Commission governance model is used in St. John's and St. Catharines, with members of the Commissions appointed by the local Councils. In the other three systems, the transit service is managed by a department within the municipality's administrative organization, with a direct reporting relationship to the jurisdiction's senior administration.

Commissions are commonly used if one or more of the following circumstances exist:

- The transit organization delivers services to multiple municipalities within a geographic region;
- The organization has authority for multiple components of the urban transportation system; and/or
- There is a requirement or a desire to include citizen representatives on the governing board.

In large Canadian urban areas, examples of Commission structures include Translink in Vancouver and Metrolinx in the Greater Toronto and Hamilton area.

In smaller urban areas, the Commission model is often used so that governing boards can include direct citizen representation. Commissions typically include Councillors appointed from the constituent municipalities as well as representatives of the public.

When services are operated within a single municipality, it is common for the transit service to be delivered by a municipal department, with operational oversight provided by senior municipal management and policy oversight provided by elected representatives on City Council or on a committee of Council.

Neither form of governance is necessarily superior to the other. As a recent review of governance structures states, *"A shared vision and values among those with decision-making authority matter more than the actual governance structure . . . positive engagement with locally elected representatives is essential."*⁸

⁸ *Governance of Regional Transit Systems*, Anne Golden, PhD, Public Policy Scholar, Wilson Centre, Ryerson University, 2014

Given that transit services are currently delivered on a regional basis in St. John's, Mount Pearl, and Paradise, that there is significant population and employment growth in the municipalities surrounding St. John's, and that the public engagement revealed interest in the expansion of transit services in other municipalities, the existing Commission form of governance is an appropriate one to guide the future development of public transit in the Greater St. John's area. The delivery of transit service on a regional basis (which would be consistent with the forthcoming Transportation Master Plan) will increase ridership, reduce demands on the regional road network, improve access to jobs and higher education, and expand the pool of workers for employers. Moreover, a Commission model will support the evolution of Metrobus from an "operator" of transit service to a "mobility manager" that coordinates and integrates a wider breadth of transportation services (e.g. conventional transit, specialized transit, on-demand services, contracted services, U-Pass programs, etc.) to meet the travel needs of regional residents.

A particular attribute of the Commission approach is that the transit service is delivered in an "arms-length" manner. This enables City Council to focus on policy direction and transit integration with overall land use and transportation planning, with the Commission and its managers responsible for delivering the service and resolving operational and customer issues that arise. This model allows transit staff to respond quickly, flexibly, and consistently to the needs of the thousands of citizens it serves each day and builds a strong ethic of customer service within the organization.

There are, however, some issues that warrant consideration:

1. The existing services operated to Mount Pearl and Paradise (Routes 21, 22 and 30) are contracted from the Commission by those municipalities, with the municipalities designating the route alignments, bus stop locations, and service levels. This precludes opportunities to design an efficient route structure that serves trips across municipal boundaries. This situation will become more problematic if transit is extended to serve new developments in outlying municipalities (e.g. Conception Bay South and Torbay). As an initial step, the routes operated in the regional municipalities (Mount Pearl, Paradise, and others) should be designed by the Commission's planning staff to optimize network integration and efficiency. For routes that serve multiple jurisdictions, operating costs can be allocated by the scheduled service-kilometres within each municipality to an upset budget agreed by the participating jurisdictions. Importantly, this suggests that the participating regional municipalities transition from being contractors of transit services to providing political and/or citizen representation on the Commission. A Commission with broader representation will provide a forum to develop an integrated system that best meets the overall public transit needs of the Greater St. John's area. This issue is particularly relevant should the Transportation Master Plan identify that regional growth will continue to be significant beyond St. John's boundaries. In such a scenario, a regional approach to public transportation will be a key element to manage traffic levels on the City's street network and to provide effective transportation options for residents.

2. While public participation on the Commission board is an attribute that should be maintained, some participants in the public engagement expressed a need for more transparent information on the application and selection process used to appoint members to the board. In particular, the invitation to apply should be made more prominent on the City’s website, the role, responsibilities, and term lengths of Commission members should be more fully described, a standardized application form should be used (e.g. reasons for applying, related community experience, relevant skills/organizational experience, etc.), and the appointment process and time lines should be outlined in more detail.
3. While the Commission has been in existence since 1958, the City Solicitor reported that the Commission is not yet a legal entity, which can potentially create issues in the context of contracting. It is recommended that the City Solicitor undertake the necessary actions to create a formal legal identity for the Commission at the earliest opportunity.

13.3.2 Organization Structure

The organization structure for St. John’s, like that of Strathcona County, is quite flat, with major line and staff functions reporting directly to the General Manager. In the other three systems, the structure is more hierarchical with responsibility for Specialized Transit within the Operations Division and/or responsibility for certain functions (e.g. Plant and Equipment, Human Resources, Information Technology) assigned to other parts of the municipal administrative structure.

Staffing levels for St. John’s are quite similar to those of the other systems for the line functions of Service Development, Marketing, Customer Service, and Occupational Health and Safety, and for the staff functions of Budget/Finance/Treasury, Information Systems, and Human Resources.

13.3.2.1 Line Functions

Transit Operations

For Transit Operations, the number of non-driving staff is influenced by the number of bus operators which, in turn, is determined by the amount of scheduled service. Amongst the peer systems, there is some variation in the ratio of bus operators to the total number of non-driving staff (e.g. On-Street Inspection, Dispatch/Control Centre, Bus Operator Supervision), with St. John’s and St. Catharines having significantly higher ratios of operators to non-driving staff in comparison to the ratios in the other three systems.

Given the breadth of the transit service area and a growing need to assist bus operators and passengers for incidents (particularly related to personal safety), the current staff complement for on-street supervision is not adequate. Consequently, it is recommended that additional full-time supervisors be added to the staff establishment. See the Recommendations section below for further discussion.

Plant & Equipment

The Plant & Equipment function is within the transit organization in St. John's, Oakville, and St. Catharines while, in Guelph and Strathcona County, that function is part of the municipal Fleet Services Department.

The integration of transit fleet management within a municipal fleet services organization does not necessarily result in cost savings. The major cost drivers for vehicle maintenance are parts costs, labour costs, fuel costs, and procurement costs. As the maintenance requirements for buses are quite different and distinct from other types of vehicles (trucks, vans, automobiles, heavy equipment, etc.), the costs for bus parts, bus mechanics, and bus maintenance supervision are the same no matter where the transit fleet function is located. Bus procurement is also very customized (much more so than for other types of vehicles) and is typically managed by transit fleet managers. If not already in place, though, there may be potential savings that could be realized from joint procurement of diesel fuel amongst the various municipal departments and from maintenance of non-revenue transit vehicles within the City's fleet services organization.

Notwithstanding the organizational arrangements for bus fleet maintenance, the critical issue is that effective communications between Plant & Equipment staff and Transit Operations staff is essential in daily operations to ensure that bus availability meets operating requirements in a timely manner. It is very important that the two functions be located in close proximity to one another, preferably in the same operating centre. For example, the physical arrangements between Maintenance and Operations in St. John's, where both Maintenance and Operations are part of the transit organization, work well. It also works well in Strathcona County, where Transit Maintenance is part of Fleet Services. In the latter case, however, the bus maintenance and operations functions are located in the same facility and the Transit Department includes one staff person to coordinate daily logistics with the dedicated bus maintenance staff in Fleet Services. If the maintenance and operations functions are physically isolated from one another, however, the daily logistics of ensuring sufficient buses to meet dispatch requirements is put at risk.

Amongst the three systems in which the Plant & Equipment function is within the transit organization (St. John's, St. Catharines, Oakville), the total number of staff for Bus Maintenance, Bus Servicing, and Stops/Shelters/Buildings is quite similar.

Other than joint procurement of diesel fuel amongst the various municipal departments and the maintenance of non-revenue transit vehicles within the City's fleet services organization (if not already in place), no other changes are recommended for the Plant and Equipment function at Metrobus.

13.3.2.2

Staff Functions**Budget, Finance and Treasury**

It is common industry practice for transit systems to include dedicated Budget, Finance, and Treasury functions within their organization structures. The peer systems, including St. John's, are consistent with this approach. While some of the accounting functions in Oakville are performed by the Town Finance Department, the Director of Transit is directly responsible for budgeting and financial management, and transit staff perform the Treasury function. As the number of staff for Budget, Finance, and Treasury is quite similar across all peer systems, no changes are recommended for the Budget, Finance, and Treasury function at Metrobus.

Information Systems

Organizational arrangements for Information Systems are very dependent on the breadth and complexity of information technology deployed by the transit system. In comparison to the peer systems, the technology portfolio deployed in St. John's is quite advanced (e.g. Automated Vehicle Location, Automatic Passenger Counting, Smart Card Fare Collection, Electronic Passenger Information, Business Intelligence Systems, etc.), and dedicated staff to support the "on-board" and "back office" components of these systems is required. It is quite important that, as new technology applications are developed, they be properly integrated with existing ones. Resident information technology staff that fully understand detailed transit business processes are vital to ongoing technology development in the organization. Metrobus has developed an impressive capacity in this regard which is important to maintain.

Human Resources

Organizational arrangements for the Human Resources (HR) function vary with the size of the transit operation. The HR function for transit systems with smaller scales of operations is often assigned to a municipal HR department, with an individual HR specialist providing services to transit. As a transit system's scale of operations expands and HR requirements become more complex, it is usual for specific HR staff to be exclusively dedicated to transit. In some instances, these dedicated resources remain in the municipal organization; in others, they are resident in the transit organization and report to the transit General Manager. In either case, there is little difference in staffing levels required for the HR services. Amongst the peer systems, the HR function is housed within transit in St. John's and within the municipal HR department in the other systems. Notwithstanding the organizational arrangements, the staffing levels for HR services across the peer systems are quite similar.

Centralization vs. Decentralization of Staff Functions

During the interviews, there were some queries as to whether staff savings might be realized if some transit staff functions were centralized within the City of St. John's organization.

Based on common industry practice and on comparisons with the peer systems, the staffing levels in St. John’s for Finance, IT, and HR are well within industry norms. It is unlikely that the reassignment of all or a portion of these services to the City organization would result in a reduction in overall staffing. Importantly, given the unique operational and labour characteristics of public transit, housing these functions directly within the transit organization provides for more effective collaboration and communication amongst the transit management team, permits a fuller understanding of transit business needs amongst personnel serving in staff functions, and enables more timely response to issues.

Although there are examples of both centralized and decentralized approaches for staff functions in the Canadian transit industry, there are several instances (e.g. Halifax, Hamilton, Windsor, Winnipeg) where a move to a centralized approach was subsequently fully or partially reversed to a decentralized arrangement to improve the organization’s capacity to manage in a consistent and timely manner the distinct operational environment of public transit. In particular, experience has shown that, for the centralized model, it is challenging to provide continuity in staff assignments that result in full understanding of transit business needs and the management of issues in a consistent manner over time.

For these reasons, it is recommended that the staff functions in Metrobus continue to be housed within the transit organization.

Recommendations

Based on our review, the following initiatives are recommended for the organization structure:

1. **Supervision of Bus Operators:** Amongst the peer systems, there is general consensus that the supervision of bus operators is under-resourced in many transit organizations. This includes the daily supervision of on-street service, as well as the development role of counselling, guiding, coaching, and mentoring the bus operator workforce. In comparison to the peer systems, St. John’s is particularly under-resourced. For example, its current complement of supervisory staff permits only the following coverage (number of staff on duty shown in brackets):

Function	Mon, Fri	Tue, Wed, Thu	Saturday	Sunday
Dispatcher	05:00 – 01:00 (1)	05:00 – 01:00 (1)	06:00 – 01:00 (1)	07:30 – 21:00 (1)
On-Street Supervisors	05:00 – 19:30 (1)	05:00 – 15:00 (1) 15:00 – 17:00 (2) 17:00 – 22:30 (1)	14:00 – 18:00 (1)	No Coverage

While one Dispatcher is available to bus operators via radio during the transit operating day on weekdays, Saturdays, and Sundays, there is very limited on-street supervisory coverage throughout the week. There is no weekday evening coverage on Mondays and Fridays, no late

night coverage on all weekdays, no morning or evening coverage on Saturdays, and no coverage at all on Sundays. Even during the times that there is coverage, the number of supervisors is quite low (usually only one supervisor, with two supervisors on duty during the PM Peak on Tuesdays, Wednesdays, and Thursdays).

Given the breadth of the transit service area and a growing need to assist bus operators for incidents (particularly related to personal safety for both passengers and bus operators), the current staff complement for on-street supervision is not adequate. The limited supervisory coverage makes it quite challenging for Metrobus to respond effectively to service disruptions caused by traffic accidents and congestion, fires, road construction, bus breakdowns, and other events that directly affect service quality. Not only does this result in inefficient operations, but from the perspective of customers, confidence in the service is compromised and a corresponding negative impact on long term ridership results.

Consequently, it is recommended that two to three additional full time supervisors be added to the staff establishment. This would improve the ratio of supervisors to bus operators to a level similar to peer systems. The additional complement would also permit the supervisory staff to devote more time to their development role for the bus operator workforce.

2. **Clarity of Senior Staff Position Name:** To more accurately reflect current responsibilities, it is recommended that the title of “Manager, Marketing & Information Services” be changed to “Manager, Service Development”.

13.3.2.3 Future Service Delivery Model for GoBus

In St. John’s, the Manager of Accessible Services position has been added relatively recently to oversee the GoBus contract. As the passenger needs, the required skillsets of staff, the types of vehicles deployed, and the level of attention by elected officials for specialized transit are very distinct from those of conventional transit, it is appropriate that the organizational responsibility for specialized transit to report to the General Manager, rather than through another Manager.

Whether or not service delivery is contracted out or is operated directly by transit staff, it is common industry practice for the passenger registration, trip reservation, and scheduling functions to be performed by the transit system. By managing these functions, the transit system can control the amount of service operated, optimize the scheduling of trips and the utilization of vehicles, and respond more effectively and directly to issues raised by customers.

Currently, GoBus passenger registration and eligibility assessment is undertaken and managed by Metrobus. The trip reservation and scheduling functions are performed by the GoBus contractor.

Though the Commission has overall responsibility for the GoBus service, the authority to deploy resources has been effectively assigned to the contractor through the delegation of the trip reservation and scheduling functions.

To improve the effectiveness of GoBus, some changes are required to the registration process and to the existing contract between MVT and Metrobus. These include an update of the eligibility criteria, the use of third party assessment to determine passenger eligibility, an update of the definition of “no shows”, a reduction in the rate paid for taxi trips, and a budget cap on the number of trips assigned to taxis. These changes are discussed more fully in **Section 9.0**.

These recommended changes will reduce expenditures on GoBus operations, incentivize the contractor to use existing resources more effectively, and allow Metrobus more control over the daily operations.

Recommendations

1. **Travel Training:** To encourage GoBus customers to use Metrobus services for trips that can be accommodated by conventional transit, consideration should be given to enhancing and providing more frequent Travel Training sessions and to exploration of potential partnerships with community organizations in the delivery of the Travel Training program.
2. **Governance:** At the conclusion of an 18-month evaluation period following implementation of the policy and contract changes for GoBus referenced above and described in **Section 9.0**, it is recommended that Metrobus assess the impact of the changes on GoBus operating costs, scheduling efficiencies, the ratio of trip assignments to buses and taxis, the number of “no-shows”, and passenger satisfaction. Should significant improvements not be realized by the end of the evaluation period, it is recommended that consideration be given to bringing all GoBus management and administrative functions in house. This includes scheduling and dispatching of service and on-road supervision. The operation and maintenance of the service can continue to be contracted out to a third-party operator with buses continuing to be owned by the City of St. John’s. This will help to better integrate the service with other accessible services offered by Metrobus and future Dynamic On-demand transit service, which should look to be co-mingled with GoBus vehicles.

Integration with Future Dynamic On-Demand Services

A key recommendation in the service plan is for Metrobus to trial a new dynamic on-demand service in one or more low-density areas within St. John’s or in an outlying municipality. This type of service has many features in common with Specialized Transit. Passengers make requests for service; the requested trips are assembled into the most efficient pick-up/drop-off schedules; and a manifest of pick-ups and drop-offs are assigned to service vehicles.

In concept, an argument can be made to integrate on-demand services with Specialized Transit so that a common scheduling system and a common set of service vehicles are used to service trips. In practice, however, this is complicated by:

1. **Differences in Service Area Boundaries:** Specialized Transit serves a broader geographic area than individual on-demand services. This can lead to perceptions of inequities when some passengers are provided through-trips between origin and destination without transfer, while others are required to transfer to/from conventional transit at a transit centre.
2. **Use of Scheduling Software:** GoBus uses its own scheduling software package to schedule and dispatch trips. The integration of dynamic on-demand services with GoBus would require Metrobus to abandon this scheduling software package in favour of the dynamic on-demand mobile app technology.

Recommendation

1. Once Metrobus gains experience with dynamic on-demand service, some consideration can be given to the integration of dynamic on-demand service with GoBus. In the short-term, it is recommended that Metrobus operate any new dynamic on-demand services separately from GoBus. This will allow Metrobus to test small-scale on-demand services in selected areas, to perfect operating procedures, to assess service productivity, and to determine whether such services meet passenger needs at an affordable cost. Once this experience is gained, then consideration can be given to the advantages and disadvantages of integrating the two services.

13.4 Transit Service Performance Monitoring

This part of the review focused on performance monitoring for Metrobus services.

The staff have put in place excellent databases generated by the scheduling and automatic passenger counting (APC) systems to monitor route performance. During the review, scheduling data in GTFS (General Transit Feed Specification) format was combined with weekday passenger count data by trip and stop for the Fall 2018 booking to generate reports at different levels of aggregation (route and time period). The reports generated by this analysis, provided under separate cover to Metrobus staff, illustrate a number of performance measures that can be used to measure route productivity.

It is recommended that this type of productivity analysis be undertaken regularly to monitor performance over time, to determine trends, and to identify opportunities to balance service supply with service demand. The reports on route performance should be submitted to the Commission on a regular basis.

The analysis conducted during the review was for non-contracted routes on weekdays only. To make an ongoing performance monitoring system more comprehensive, it is recommended that:

1. Analysis be conducted for all schedule types and time periods (e.g. weekday, Saturday, Sunday);
2. Contracted services operated in Mount Pearl and Paradise be included in the analysis;
3. Consistent data values for Trip Number, Stop Sequence Number, and Stop ID be used in the GTFS and APC databases.

There is staff capability to undertake this work. Some further training in database management and programming may be warranted to extend the skill set to others in the organization.

While key performance indicators for service reliability are well established at Metrobus (e.g. definition of on-time performance, standards for the percentage of departures within the on-time performance definition), additional monitoring of bus running times from terminal to terminal (and using the results to update route schedules) should be considered.

14.0 Phasing and Resources

14.1 Phasing Plan

This plan contains a number of strategies and projects that Metrobus and GoBus can undertake to grow ridership and improve productivity. While some projects are cost-neutral, the greatest potential to grow ridership and change the culture of transit use in the city require an investment in additional resources or a reduction in transit fares targeted to youth. Recognizing the need to further invest in the service, the plan is split into three phases:

- Immediate-term (2019 – 2020);
- Short-term (2021 – 2022); and
- Medium-term (2023+).

The recommended strategies identified in the sections above are prioritized in each of the above three horizon years. The proposed phasing is illustrated in **Table 36**.

It should be noted that the approval of strategies should be subject to an annual service plan process along with budget approval from council.

14.1.1 Immediate-term (2019 - 2020)

Immediate-term strategies should occur as soon as possible as they involve minimal capital or operating cost investment and are designed to improve productivity, reliability, customer service and begin to set the stage for future ridership growth strategies. The following strategies are recommended to be included as part in the immediate-term.

Strategy 1 - Optimize Existing Investments: These strategies help improve the reliability of the service, reduce duplication of service and enhance legibility. For Strategy 1B, there is also an opportunity to add service to the Galway Commercial Area in Southlands without an increase in revenue vehicle hours. These improvements should increase ridership slightly, but not at a rate that will see a notable difference in how people move in the city. This requires an investment in service.

Strategy 2A - Student Fare Strategies: Changing the culture of transit use in the City is an important initiative to ridership growth, and this starts with youth. As student fare revenue represents only a small portion of total annual fare, piloting this strategy will not significantly increase the net operating costs of the Metrobus service. In the immediate-term, it is recommended to extend the age of the free child fare from 5 to 12 and pilot Option B of the Student Pass program for grade 7 students (free transit). This will result in minimal revenue loss and will likely not require an increase in revenue service as it is expected there is sufficient capacity in the system to accommodate an increase in demand. The results of this

pilot should be monitored and reported to the Commission and Council by Metrobus staff, with a recommendation of whether to extend the pilot for future years.

Table 36: Proposed Phasing of Strategic Directions

Strategic Directions	2019-2020	2021-2022	2023+
Strategy 1: Optimize Existing Investments			
1A – Modify Route 2/5			
1B – Remove Duplication on Route 6			
1C – Improve Schedule Adherence on Route 10			
1D – Merge Route 18/25			
Strategy 2: Foster a Transit Culture			
2A - Student Fare Strategies Option B – Phase 1 (extend free pass to age 12; grade 7 student pilot)			
2A - Student Fare Strategies Option B – Phase 2 (extend to grade 8 - 12)			
2B – Continue to Pursue U-Pass with MUN			
2C - Low Income Fare Pilot			
Strategy 3: Invest in Service			
Strategy 3A: Modify Route 3/14/23			
Strategy 3B: Implement Frequent Transit Network Phase 1			
Strategy 3B: Implement Frequent Transit Network Phase 2			
Strategy 3C: Minimize 60 Minute Headways Phase 1			
Strategy 3C: Minimize 60 Minute Headways Phase 2			
Strategy 3D: Pilot a Dynamic On-Demand Transit Service (Southlands / Galway)			
Strategy 3D: Extend Dynamic On-Demand Transit Service to other areas			
Strategy 4: Enhance Customer Experience			
4A - Stop Snow Clearing			
4B – Continue to Improve Accessibility			
Strategy 5: Improve Regional Connections			
Strategy 6: Improve GoBus Service			
6A - Eligibility Criteria Change			
6B - Application Process / Third Party Assessment			
6C - Revamp Existing GoBus Contract			

Strategy 2B – Continue to Pursue U-Pass with MUN: While the pursuit of a U-Pass with MUN was not successful in its first attempt, Metrobus should continue to support this initiative as the implementation of a U-Pass can drive ridership growth and provide the necessary revenue to improve service levels. No costs or revenue have been assumed with this strategy as this is an ongoing initiative and there is no indication of if and when the U-Pass will be approved by the Student Union.

Strategy 2C – Low Income Fare Pilot: This initiative helps support mobility for persons with low incomes that may have difficulty accessing employment and education opportunities, as well as services. Discussions with the province should continue. The initiative is meant to be revenue neutral (province pays for the subsidy). Ridership increases are not known at this time.

Strategy 3B – Implement Frequent Transit Network Phase 1: This service improvement will help define the spine of the system and allow Metrobus to start marketing a rapid and frequent service that connects to major destinations in the City. This would require some initial investment, but is implementing early as a strategy to grow ridership.

Strategy 3D: Pilot a Dynamic On-Demand Transit Service (Southlands / Galway): The Dynamic on-demand pilot should be piloted in Southlands/Galway for a one year period with results monitored. This will involve producing an on-demand technology provider to help develop the mobile-app interface and optimization software.

Strategy 4: Enhance the Customer Experience: These strategies are important to continue to ensure passengers have a comfortable experience while using the service. Establishing priorities for snow clearing during inclement weather is particularly important and may result in an increase in the City's budget to accommodate this. Discussion with the City should take place as soon as possible. Accessibility continues to be a core mandate for Metrobus, and this initiative should be ongoing throughout the five year life of this plan.

Strategy 6 - GoBus Service Improvements: Many of these strategic directions were already approved in January 2019. Of these, the change in the No-Show rate already saw a reduction in cost of up to \$60,000 over the first six months of the change. Further changes to the contract should be a key point of focus to bring cost control to the system and allow St. John's to focus on service improvements. This will include refining eligibility to ensure the service is used by only those who truly require it, setting limits on travel time and allowing same-day booking.

14.1.2

Short-term (2021-2022):

These strategies require some level of investment in service and implementation of fare strategies to help change the culture of transit use. This will help bring St. John's more in line with the level of investment experienced by its peer group systems. The following strategies are recommended to be included as part in the short-term.

Strategy 2A - Student Fare Strategies: Based on the success of the Student Pass pilot for Grade 7 students, extend the student pass to subsequent grades (e.g. Grade 8, 9, etc.). The number of grades extended each year depend on the level of uptake from students and the potential need to add service to accommodate an increase in demand.

Strategy 3A: Modify Route 3/14/23: With the extension of Hebron Way to Major's Path, consideration should be made to modifying these routes to improve the directness of service.

Strategy 3B – Implement Frequent Transit Network Phase 2: Phase 2 should build on the Phase 1 improvements to the Frequent Transit Network throughout the day. The timing of this should be partially based on growth in ridership from the Phase 1 improvements.

Strategy 3C: Minimize 60 Minute Headways Phase 1: Metrobus should begin to reduce the number of routes with 60 minute headways during peak periods. The four routes identified in this strategy should be considered first. It should be noted that not all routes need to be adjusted in one calendar year, and these can be phased based on budget and performance.

Strategy 3D: Extend Dynamic On-Demand Transit Service to Other Areas: Based on the success of the dynamic on-demand pilot, consideration to be made to extending the service to other areas or during evening periods (replacing poor performing fixed-route services). **Note: The financial plan did not assume any revenue service hours for this extension.**

6C - Revamp Existing GoBus Contract: Additional modifications as recommended should be made to the GoBus contract following a review the initial immediate-term recommendations that were made.

14.1.3 Medium-term (2023+):

These strategies further enhance the ridership growth strategy and should be tied with key recommendations from the upcoming Transportation Master Plan. The following strategies are recommended to be included as part in the medium-term.

Strategy 3C: Minimize 60 Minute Headways Phase 2: Following the implementation of 30 minute peak period headways on the four identified routes, consideration should be made to also improving the midday period to a 30 minute headway. The decision to do this should be based on the route achieving acceptable productivity targets in Phase 1 and subject to available funding.

14.2 Financial Plan

The tables below summarize the resource requirements for the recommended strategies in this report. **Table 37** presents the ridership, service hour and financial summary for Metrobus if each of the route

and service recommendations were implemented over a five-year period. All figures are in 2019 dollars and are subject to change as part of detailed service implementation planning.

It should be noted that ridership forecasts noted below are considered conservative and ridership growth is expected to continue to occur beyond the 2023 time horizon as it will take time for the full ridership forecast to materialize due to changing travel behaviours. For example, by 2025, it is anticipated that ridership will grow to an additional 205,000 trips to 4.03 million as more residents realize the benefits and adapt to the service and fare strategy improvements made in prior years.

Table 37: Summary – Metrobus Financial Performance

	2018	2019	2020	2021	2022	2023
Revenue Service Hours	135,886	135,886	142,616	155,256	160,056	166,156
Ridership ¹	2,999,802	3,239,800	3,383,200	3,546,600	3,682,800	3,826,600
Revenue ²	\$5,600,000	\$5,600,000	\$6,038,400	\$6,357,600	\$6,494,100	\$6,635,700
Other Revenue ³	\$1,900,000	\$1,940,000	\$1,890,000	\$1,890,000	\$1,890,000	\$1,890,000
Operating Cost ⁴	\$19,560,000	\$19,980,000	\$20,497,100	\$21,728,200	\$22,195,700	\$22,789,800
Net Operating Cost (Municipal Investment)	\$12,060,000	\$12,440,000	\$12,568,700	\$13,480,600	\$13,811,600	\$14,264,100
Boardings per Capita ⁵	21.92	23.52	24.40	25.40	26.20	27.04
Boardings per Revenue Vehicle Hour	22.08	23.84	23.72	22.84	23.01	23.03
Municipal Investment per Capita	\$88.14	\$90.31	\$90.64	\$96.56	\$98.27	\$100.81
Revenue / Cost Ratio	38%	38%	39%	38%	38%	37%

¹ Assume average fare decreased by 3 cents annually

² Assume 60% of ridership forecast for each improvement achieved in first year, 75% in second year and 100% in third year.

³ Funding from Mount Pearl and Paradise Contract, charters, advertising, etc. Assume constant beyond 2020

⁴ Use of \$97.40 variable operating for new revenue vehicle hours starting in 2020. No increase in hourly rate assumed.

⁵ Assume population growth continues based on 2011-2016 trend

⁶ Assumes 2% annual growth in ridership from general system growth starting in 2020

⁷ Assumes that free fares for students are phased in from 2020-2024

A sensitivity test was completed to better understand the financial implications of the plan if the full ridership forecast was not realized. Between 2019 and 2023, ridership is forecasted to grow by 18%.

Table 38 illustrates the change in municipal investment by 2023 under the following scenarios:

- Ridership growth occurs at 3% over five years (based on maintaining the 2019 boardings per capita);

- Ridership growth at 9% over five years (half of the 18% projected growth rates in **Table 37**);
- Ridership growth at 18% as noted in **Table 37**; and
- Ridership growth at 27% (one and a half times the projected ridership growth of this plan).

Table 38: Ridership Growth Scenario Testing

Scenario (ridership growth over 5 years)	Ridership	Revenue	Net Operating Cost	Investment per capita	R/C Ratio
3% (existing per capita)	3,327,900	\$7,713,800	\$15,076,000	\$106.55	34%
9%	3,531,400	\$8,070,000	\$14,719,800	\$104.03	35%
18% (Table 37)	3,826,600	\$8,525,700	\$14,264,100	\$100.81	37%
27%	4,114,500	\$9,090,400	\$13,699,400	\$96.82	40%

Table 39 illustrates the fleet expansion capital costs associated with this plan. The estimate is based on a unit cost of \$625,000 for an accessible 40-foot bus and \$75,000 for a GoBus (2019 dollars). It should be noted that the table below does not include any fleet replacement costs or an increase spare vehicles to maintain an effective spare ratio.

Table 39: Five Year Vehicle Expansion Costs

Strategy	Vehicles	Unit Cost	2020	2021	2022	2023
Phase 2 Frequent Transit Network	2	\$625,000		\$1,250,000		
Phase 1 60 Minute Frequency Improvements	4	\$625,000			\$2,500,000	
Dynamic On-Demand Transit Pilot	1	\$75,000	\$75,000			
Student Pass Program - Free	1	\$625,000				\$625,000
TOTAL	8		\$75,000	\$1,250,000	\$2,500,000	\$625,000

Table 40 illustrates the operating changes to GoBus service operating costs based on the recommendations in this plan.

Table 40: Summary of Anticipated GoBus Cost Savings

Recommendation	Immediate-term		Short-term
	2019	2020	2021 - 2023
Third-Party Assessment ¹	\$28,000	\$112,000	\$112,000
Reduction in Inappropriate Eligibility Criteria ²	-\$14,000	-\$83,900	-\$112,000
Change No-Show Rate to \$12 ³	-\$60,000	-\$120,000	-\$120,000
Charge Passengers for No-Shows at \$7.50		-\$70,000	-\$70,000
Change Taxi Per Trip Rate to \$18		-\$300,000	-\$300,000
Metrobus to take on Taxi Contract and Change Rate to \$12-\$16			-\$120,000 to -\$360,000
Total	-\$46,000	-\$461,900	-\$610,000 to -\$850,000

¹ Assume contract initiated in October 2019

² Assume ineligible new registrants gradually reduced over three year period

³ Assume savings of \$10,000 per month, with change beginning in June 2019

Appendix A

Peer System Data from 2017 CUTA Fact Book

2017 CUTA Fact Book Conventional Transit Peer Benchmarking

	Service Area Population	Annual Ridership	Service Area (sq.km)	Active Buses (Total)	Active Buses (Accessible)	Revenue vehicle hours/ Capita	Direct Operating Cost	Total Revenue vehicle hours	Operating Cost / Revenue Vehicle Hour	Regular Service Passenger Trips
St. John's	135,000	2,880,114	491.0	54 (32)	(32)	0.99	\$15,715,368	134,115	\$131.12	2,880,114
Saint John	108,400	2,054,643	500.0	42 (36)	(36)	0.86	\$9,609,872	92,962	\$103.37	2,054,643
Moncton	116,940	2,350,022	231.4	31 (9)	(9)	0.89	\$10,419,159	103,927	\$100.25	2,350,022
Barrie	135,543	2,677,396	113.0	50 (50)	(50)	1.27	\$19,027,367	171,570	\$110.90	2,677,396
Thunder Bay	107,909	3,779,172	323.0	48 (48)	(48)	1.35	\$16,260,777	145,157	\$112.02	3,779,172
Kingston	121,133	6,145,809	131.7	74 (74)	(74)	1.97	\$21,535,065	238,688	\$90.22	6,145,809
Sudbury	149,667	4,178,983	225.4	59 (58)	(58)	1.12	\$19,990,359	167,095	\$119.63	4,062,532
Kelowna	141,674	5,239,650		81 (81)	(81)	1.37	\$19,674,101	193,623	\$101.61	5,239,650
Guelph	131,794	6,476,108	87.0	78 (78)	(78)	1.56	\$27,054,852	205,820	\$131.45	6,476,108
St. Catharines	149,331	5,312,346	179.1	78 (78)	(78)	1.13	\$19,743,943	168,774	\$116.98	5,124,463
Regina	224,974	5,208,671	182.4	112 (112)	(112)	1.21	\$31,933,511	272,793	\$117.06	5,208,671
Average	138,736	4,342,280	219.22			1.27		176,041	\$112.24	4,181,689

	Regular Service Passengers/Revenue Vehicle Hour	Regular Service Passengers/Capita	Adult Cash Local Fare	Average Fare	Municipal Operating Contribution	Provincial Operating Contribution	Municipal Operating Contribution/ Capita	Revenue/ Cost Ratio
St. John's	21.47	21.33	\$2.50	\$2.03	\$11,059,286	\$187,708	\$81.92	37%
Saint John	22.10	18.95	\$2.75	\$1.82	\$5,521,621	\$0	\$50.94	39%
Moncton	22.61	20.10	\$2.50	\$1.67	\$6,944,800	\$0	\$59.39	38%
Barrie	15.65	19.75	\$3.00	\$2.08	\$11,214,441	\$1,950,000	\$82.74	29%
Thunder Bay	26.04	35.02	\$2.75	\$1.46	\$9,916,839	\$702,500	\$91.90	34%
Kingston	25.75	50.74	\$3.00	\$1.17	\$14,226,961	\$2,494,608	\$117.45	33%
Sudbury	24.31	27.14	\$3.20	\$1.89	\$11,507,202	\$927,929	\$76.89	40%
Kelowna	27.06	36.98	-	\$1.30	\$3,688,558	\$9,185,838	\$26.04	35%
Guelph	31.46	49.14	\$3.00	\$1.81	\$14,884,732	\$0	\$112.94	43%
St. Catharines	30.36	33.73	\$3.00	\$1.89	\$9,378,623	\$0	\$62.80	51%
Regina	19.09	23.15	\$3.25	\$1.77	\$20,475,598	\$0	\$91.01	29%
Average	24.49	31.08	\$2.94	\$1.72			\$77.64	37%

2017 CUTA Fact Book Specialized Transit Peer Benchmarking

	Service Area Population	Total Ridership	Trips per Capita	Dedicated Ambulatory Ridership	Non-Ambulatory Dedicated Ridership	Non Dedicated Ridership	Unaccommodated trips	Percent of trips unaccommodated*	Expense per Passenger	Expense per Hour (Dedicated Service)	Revenue vehicle hours/ Capita
St. John's	131,817	152,968	1.16	92,229	-	60,739	1,377	1.1%	\$25.01	\$48.94	0.34
Saint John	122,389	25,682	0.21	15,864	9,818		85	0.5%	\$19.65	\$24.16	0.05
Barrie	152,000	51,302	0.34	33,622	17,680		2,758	8.2%	\$21.16	\$38.19	0.16
Thunder Bay	146,048	75,932	0.52	49,819	22,435	3,678	1,066	2.1%	\$29.05	\$52.57	0.21
Sudbury	149,667	117,295	0.78	61,641	40,376	15,278	1,315	2.1%	\$24.02	\$49.40	0.35
Kelowna	183,349	172,099	0.94	147,661		24,438		0.0%	\$19.12	\$74.66	0.22
Guelph	131,794	41,982	0.32	27,414	11,100	3,468		0.0%	\$47.74	\$144.82	0.10
St. Catharines	131,400	34,062	0.26	18,129	12,011	3,922	2,392	13.2%	\$40.94	\$85.95	0.11
Regina	221,407	186,513	0.84	110,909	73,427	2,177	1,260	1.1%	\$28.30	\$64.20	0.31
Average	154,757	95,315	0.60	58,132.38			1,479.33	3.2%	\$28.33	\$64.77	31,392

	Revenue Vehicle Hours	Adult Cash Fare	Net Operating Cost / Capita	Revenue/ Cost Ratio	Passengers/ Registrant	Passengers/ hr	Operator	Minimum Notice required (hours)	Eligibility Criteria	Additional Registrants
St. John's	44,394	\$2.50	\$27.19	6.3%	95.25	2.08	Contractor	24	Cognitive, Sensory, Physical	Ambulatory, Attendants
Saint John	5,980	\$5.00	\$2.97	28.5%	84.70	4.31	Non-Profit	2	Cognitive, Physical	Ambulatory, Attendants
Barrie	24,359	\$3.00	\$7.47	4.4%	-	2.31	Contractor	24	Environmental, Sensory, Physical	Ambulatory
Thunder Bay	31,350	\$2.75	\$13.70	14.9%	80.70	2.46	Transit Agency/ Municipality	0	Cognitive, Age, Environmental, Sensory, Physical	Ambulatory
Sudbury	52,924	\$3.20	\$19.32	7.1%	63.33	2.15	Contractor	48	Physical	Ambulatory
Kelowna	39,916		\$15.29	174.7%	-	3.70	Contractor			
Guelph	13,755	\$3.00	\$14.01	3.0%	32.68	3.33	Transit Agency/ Municipality	2	Cognitive, Other	Ambulatory
St. Catharines	14,458	\$3.00	\$10.96	6.1%	29.79	2.29	Transit Agency/ Municipality	0	Physical, Environmental	Ambulatory
Regina	68,394	\$3.25	\$22.54	11.7%	105.65	2.89	Transit Agency/ Municipality	0	Cognitive, Sensory, Physical, Environmental	Ambulatory
Average	\$3.25	\$14.77	10%	0.29	70.30	2.84				