



# Background Context Report

NT Service and Facilities  
Master Plan

SUBMITTED BY:  
LEFT TURN RIGHT TURN LTD.

To the attention of:  
Niagara Transit Commission  
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# 1 Introduction

The Niagara Transit Commission (NTC) stems from a vision for a single regional transit agency in Niagara. This vision was achieved in February 2022, when council approved By-law No. 2021-96, granting authority to the Regional Municipality of Niagara (RMON) to provide region-wide public transit. This followed a series of successful momentum-building efforts since the formation of the Inter-Municipal Transit Working Group in 2015. In the July 2024, transit services across the region were unified under the banner of Niagara Transit (NT) with rebranding work ongoing.

A comprehensive Transit Facilities, Strategic Asset and Service Network Master Plan (“Plan”) provides an opportunity for NT to make its mark and prove the value that integrated planning can have for the region by transforming transit services over the first ten-years of operations. This document represents an interim report on the current state of transit services and will support the development of the Plan.

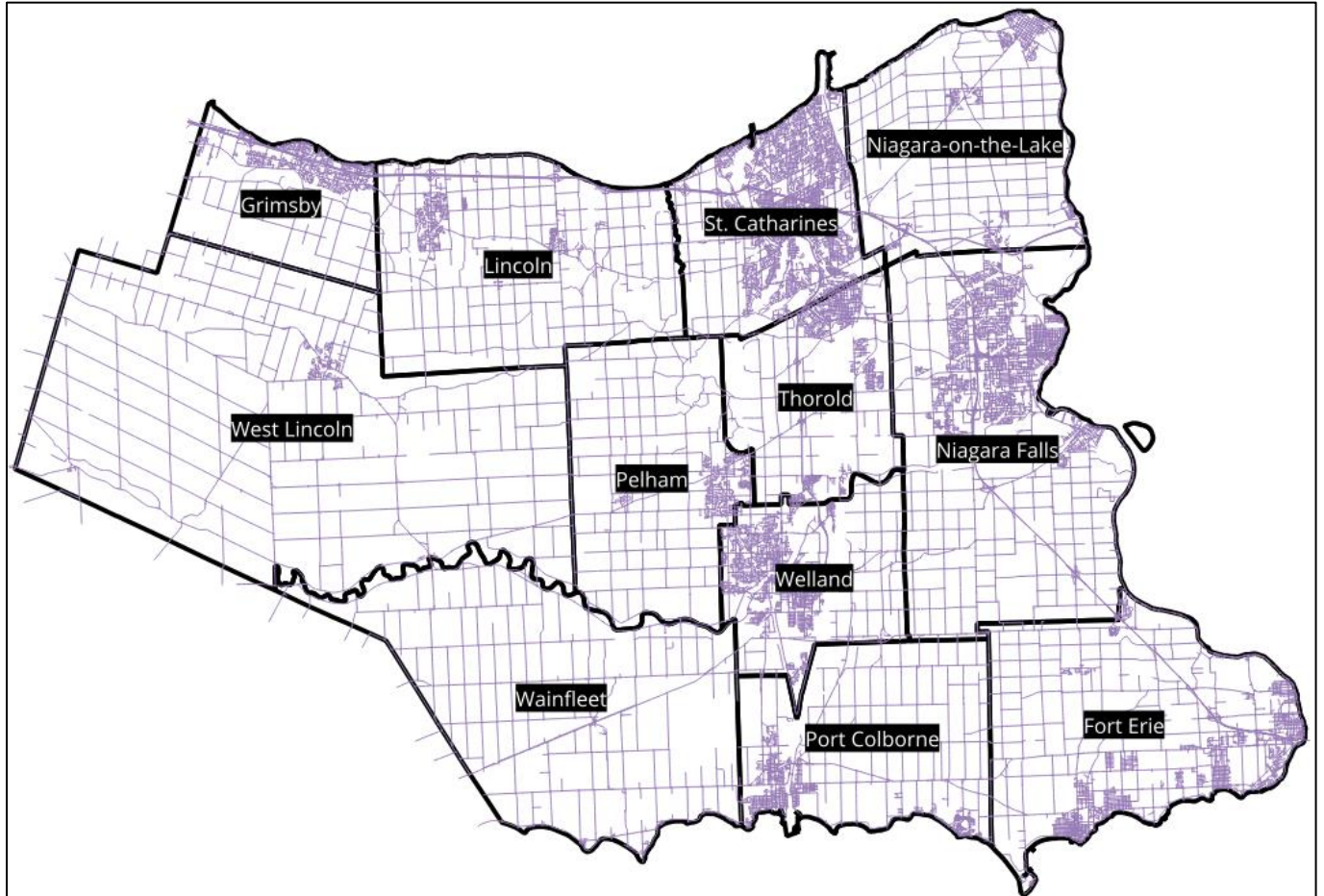
## 1.1 Project Information

To adequately capture the information required, the project’s approach ensures a comprehensive understanding and assessment of the current state through analysis, research and community engagement. This work is important in developing the appropriate understanding prior to exploring future options for NT. This interim report details those context-setting findings with regards to existing policy documentation, operations, and facilities. The interim report is organized as follows:

- **Section 1 - Introduction:** Laying out the purpose of the study and the information included in the interim report.
- **Section 2 - Background Document and Policy Review:** Thorough review and analysis of relevant planning documentation including the Niagara Region’s Official Plan, NT policies, and previous transportation and transit studies.
- **Section 3 - Current State Summary:** Summary and analysis of current transit service offerings provided by Niagara Transit (NT) including a review of current operating and capital expenditures.
- **Section 4 - Transit Assets and Facilities:** Review of capital assets and facilities along with review of current ICIP funding projects.
- **Section 5 - Community and Stakeholder Engagement:** Summary of key findings from engagement with Niagara Region and NT staff, key stakeholders, and the public. This round of engagement is key to understanding the current context of NT and will introduce the project to the public.
- **Section 6 - Guiding Framework:** Based on the previous sections of the interim report, a strengths, weaknesses, opportunities, and challenges (SWOC) analysis will be developed and summarize the project’s objectives and overall vision.
- **Section 7 - Next Steps:** This section will lay out how the information from the interim report will propel the study forward into developing the future service network.

## 1.2 Regional Municipality of Niagara Overview

The Niagara Region (“Region”), as shown in Figure 1-1, is comprised of 12 municipalities in Southern Ontario. With an estimated population of just under half a million, the Region’s growth has outpaced that of the province of Ontario between 2016 and 2021. While the two largest population centres in the Region are Niagara Falls and St. Catharines, residents are spread out across various municipalities.



**Figure 1-1: Municipal Boundaries of Regional Municipality of Niagara**

## 1.3 Why Now?

This Plan is an opportunity to chart a bold new path for transit in the region, beginning with a uniform understanding of the current state now that all assets and services are under NTC’s ownership. It is a chance for Niagara Transit Commission to make its mark and prove the value that integrated planning can have for the region by transforming transit services over the first ten-years of operations.

Niagara Region is experiencing significant and rapid growth. The 2021 Regional Official Plan has a significant goal of accommodating 694,000 people and 272,000 jobs by 2051. This growth stems from recent trends of individuals moving out of the GTA, an influx in newcomers to Canada, an increase in

students moving to the region and new health care facilities in the region, including the Niagara South Hospital. Recent expansion of GO Transit services to and from the region are also expected to contribute to this growth, where transit is needed to leverage and support this expansion.

NT strives to transform transit in the region by improving accessibility, reducing traffic congestion, improving environmental benefits, empowering economic advantages, and connecting vibrant communities, commercial areas and the tourism industry. This Plan will set the groundwork for supporting the transportation needs that will accompany that growth, and additionally help drive the region to a transit mode share target of 8-10% by 2045. To achieve these goals, the Region and NT must adopt transformative policies and investments in transit services.



## 2 Background Document and Policy Review

To inform the current state assessment, several documents were reviewed by LTRT to gain a holistic understanding of the transportation service and policy ecosystem in the Niagara Region. This chapter will center around discussion of the documents, key findings, and planning implications for the Transit Master Plan. Documents that have been reviewed were sent to LTRT by NTC or found online.

This chapter divides findings from this document review into four key categories:

- **Commission Background Documents:** These documents highlight background activities that helped to establish NTC. They include *Moving Transit Forward: Creation of a Consolidated Transit Commission* (November 2021), *Bill No. 2022-38 A By-law to establish the Niagara Transit Commission as a Municipal Service Board* (November 2021), and others that helped to guide the formal creation of NTC.
- **Planning and Policy Documents:** These documents provide the planning and policy framework under which this Facilities and Services Master Plan will operate. They also provide historical planning context under which the previous municipal transit systems operated. These include the *Niagara Official Plan* (November 2022) and the *Niagara Region Transportation Master Plan* (June 2017), among others.
- **Housing and Design Documents:** These documents provide context relevant to the current and future urban form, housing stock, and urban design in the Niagara Region. Key findings from these documents highlight links and possible implications between Niagara Region's housing and related transit, transportation and urban design needs. These documents include the *Niagara Region Affordable Housing Strategy* and the *Niagara Region Housing and Homelessness Action Plan*, among others.
- **Transportation and Transit Documents:** These documents provide insight into recent initiatives in transit, trends in mobility needs, and future policies and plans for transit and transportation across the Niagara Region. These may be crucial in informing the broader context for the consolidated service for informed decision-making. These documents include the *Niagara Transit Governance Study Final Report* (October 2020), the *2041 Regional Transportation Plan for the Greater Toronto and Hamilton Area* (2018), transit/ transportation plans for Welland, Grimsby, Niagara Falls, and St. Catharines (In progress, November 2017 and April 2021 respectively) and *Transit Systems of Niagara Bus Stop Accessibility Criteria & Guidelines* (December 2020).

A detailed breakdown of the documents reviewed can be found in Appendix A.

## 2.1 Commission Background Documents

This section investigates documents that pertain to the establishment and vision of the Niagara Transit Commission, as formed by the Niagara Region, for consolidated network services in the region. These documents were critical to provide a basis for this project, as they detail establishment, decision-making process, governance structures, and the future direction of the Niagara Transit Commission.

### 2.1.1 Background on Consolidated Service

Review began with documents published prior to the consolidation of transit services in the Niagara Region. The foundational document setting the process in motion is a council report titled *Moving Transit Forward in Niagara: Creation of a Consolidated Transit Commission (PW-55-2021)*. This report sought to gain regional authority to create a single consolidated transit system that would integrate all existing regional and municipal transit services in the Niagara Region.

The document provides recommendations made by the Governance Steering Committee, the body which initially investigated the feasibility of a consolidated transit commission. These recommendations include discussion of potential governance models – shedding light on available options and providing insight into how NTC’s governance model was selected. *Moving Transit Forward in Niagara* also proposes a structure for asset and personnel management through consolidation of existing transit agencies in Niagara Falls, St. Catharines, and Welland. The recommended structure relies upon Municipal Transfer Agreements to bring capital assets and human resources into the Commission. The document also introduces financial analyses and a budget for the first year after consolidation of the Commission:

A financial strategy was outlined in the report and detailed further in the LNTC-C 3-2021 document, which was also reviewed as part of this section. Findings are presented in section 2.1.2 below.

Following the initial report, *Moving Transit Forward in Niagara* progressed in 2022 through a council report recommending passage of a by-law establishing NTC. This document, titled *Moving Transit Forward - Establishing the Niagara Transit Commission (CSD-19 2022)*, describes a comprehensive plan and detailed recommendations for the establishment of the Commission. Building from the foundational *Creation of a Consolidated Transit Commission (PW 55-2021)*; this council report provides updates about the establishment of NTC as an MSB (Municipal Services Board) and the relationship between NTC and Niagara Region. As an MSB, NTC operates under the authority of the Niagara Regional Council but maintains a degree of autonomy to plan and operate services.

In successive sections, the document describes future steps for establishment of NTC and lists further studies and documents necessary for consolidation of services. Documents include processes for transition activities, steps for creation of a consolidated transit commission, integration with the Niagara Region, and governance considerations. This council report set the stage for future activities

needed to establish NTC through a set of recommendations, rationale, and considerations. Some key recommendations informing the consolidated service are listed below:

- “A Municipal Transfer Agreement (MTA) will be entered into on a joint basis between the Region, the Cities of St. Catharines, Niagara Falls, Welland, and NTC; to govern how current municipal transit personnel, contracts, assets and any related indebtedness, will transfer to the Region and/or Commission to support the assumption of operations on January 1, 2023”. It was proposed that all existing assets be transferred to NTC while facility buildings be transferred to the Region.
- For transit projects “in flight” (in progress) across different cities/ municipalities, these will be reviewed on an individual basis with discussions with local area municipalities to determine the timing and approach necessary for their completion and acquisition. One such project was Welland’s transit facility renovations which were estimated to be \$15M, and supported by approximately \$11M of ICIP funding.
- Unionized transit employees from Niagara Falls, St. Catharines, and Welland are expected to transfer to NTC while non-unionized employees would be offered positions or opportunities to compete for roles.

As a result of the report, Niagara Regional Council voted to approve By-law No. 2022-38 “A By-law to establish the Niagara Transit Commission as a Municipal Service Board”. This process formalized the NTC’s abilities, roles, and responsibilities and authority, catalyzing further studies and work from various stakeholders to bring NT to life by January 1, 2023.

### 2.1.2 Niagara Transit Governance

In advancing Niagara Transit, the Linking Niagara Transit Committee (LNTC) published a series of reports providing guidance for regional transportation policies and development strategies. Of particular interest to the TMP is Niagara Transit Governance - Revised Strategies Reflecting Phase 1 Municipal Consultation (LNTC-C 3-2021). This report explored the governance model of existing transit agencies in the Niagara Region, including St. Catharines Transit, Niagara Falls Transit, Welland Transit, and Niagara Region Transit. A primary aim of the report is to:

*“...present an updated financial strategy, service standards strategy, and revised board composition model supporting the creation of one consolidated transit Commission in Niagara.”*

The financial model and service standards are reflected in the figures provided in the LNTC-C-3 report. The following figures indicate high-level costs associated with amalgamation, and were provided to the Linking Niagara Transit Committee on June 30, 2021:

- The 2023 estimated baseline service budget will require a 7.3% increase to the Region’s budget, with reductions to Municipal budgets to reduce net residential impact. The base service costs were taken as \$44.2M for 2020 and projected to be \$46.4M for 2023. This figure includes \$28.7M for local municipal service, \$0.7M in local debt payments, \$15.8M for regional service and

## Niagara Transit: Background Context Report

\$1.3M in regional debt payments, showing projected 2023 costs of \$29.4M for local municipal service and \$17.1M for the regional service. The budget was increased for NTC with the consolidation of the municipal and regional services.

- The estimated 2023 Budget also included a transfer to capital reserve of \$2.17M for a total NTC consolidated budget of \$48.57 M.
- The final revised budget for NTC consolidated base service was \$56.6M, reported through the 2023 NTC Budget Department Summary.
- Special Levies were adopted in 2023 for each of the twelve municipalities based on the level of NT service. Each levy allocated 65% of 2023 net transit costs based on service hours.

Additional documentation within the report provided information on committees, consultations, information requests, and engagement activities related to governance of NTC. Key recommendations from the Governance Steering Committee include the following:

- Each municipality will have representation on the fifteen-person elected board.
- A governance review is to be undertaken in the third year of operation (2025).
- Short-term (1-3 years) enhancements and a longer-term network review (in year five) is to be expected.

This report highlights pre-consolidation transit services, budget allocations, projections, and special levies pertinent to the establishment of the Niagara Transit Commission. These considerations lay the foundation for the governance structure and operational processes of NTC.

### 2.1.3 Core Values of Niagara Transit

Establishment of NTC was advanced later in 2022 through the Landed NTC Vision Mission Value Pillars Workshop. This workshop sought to develop core values and guiding principles for the Commission to pursue. Following the workshop and the formalization of NTC through 2023, NTC's Vision, Mission, and Strategic Priorities for 2024 – 2026 were presented to the NTC Board in March 2024. Key insights from the report are included below:

- **Vision:** Connecting Niagara by moving forward together.
- **Mission:** To provide safe, reliable, and sustainable transit service in Niagara.
- **Guiding Principles:** Adopted from Niagara Region, these principles form the foundation of how the Niagara Transit Commission will deliver services to the Community.
  - Diversity, equity, inclusion, and Indigenous reconciliation.
  - Fiscal responsibility.
  - Innovation.
  - Sustainability and climate change.
  - Partnerships with government and community.
  - Transparency and accountability.

These are underpinned by NTC's **Strategic Core Values: Foundational Pillars**, including:

- **Service Excellence**
  1. Reliable and Consistent On-time Service.
  2. Investments in Innovative Technology to Improve the Rider Experience.
  3. Proactive Response to Community Needs.
  4. Seamless Community Connection.
  
- **Safety**
  1. Promotion of Work-Safe, Home-Safe Environment.
  2. Passenger and Public Safety and Awareness.
  3. Fleet in Good Working Order; well-maintained with on-time replacement cycles.
  4. Facilities that are Well-Designed, Well-lit, and Clean.
  
- **Customer Focus**
  1. Courtesy, Professionalism and Respect.
  2. Customer Bill of Rights (to be developed).
  3. Barrier Free: Accessible Vehicles, Facilities and Equipment.
  4. Community Engagement and Partnerships.
  
- **Affordability**
  1. Balancing the Cost to the Community with Affordability for Riders.
  2. Fair fare structure.
  3. Driving Equity Through Poverty Reduction.
  4. Breaking Down Financial Barriers for Inclusive/Universal Access.
  
- **Employee Success**
  1. Employer of Choice.
  2. Training and Development Opportunities.
  3. Work-Life Balance.
  4. Employee Recognition, Retention and Job-Security.

These pillars continue to be important, as they detail the core vision and values that guide NTC today. The priorities and key outputs for the project team, as they were used to develop service options, determine priorities, and establish standards for how NT should serve the Niagara Region.

Taken together, these background documents are key to understanding how the Niagara Transit Commission came to be and establish a clear vision for the future of transit in the region.

## 2.2 Planning and Policy Documents

This section investigates planning and policy documents relevant to the establishment of the Niagara Transit Commission. These documents were essential to understand the context of transportation, land-use change, and urban development in the Niagara Region as a whole.

## 2.2.1 Niagara Official Plan

The key roadmap for navigating transit and land-use planning in the Niagara Region is the 2022 Niagara Official Plan. As an official plan, the report is a comprehensive examination of current and future land use and transportation across the Niagara Region. The region is expected to accommodate 694,000 people and 272,000 jobs by 2051, marking a 40% and 45% increase respectively from 2021. Of particular interest to this project is section 5.1, Multimodal Transportation System, which highlights regional transportation priorities. This section was relevant to our team as it introduced the region's priorities from a transit perspective, one of the key goals is:

*“Support a connected and convenient public transit network throughout the region through the establishment of a Regional Transit Commission.”*

This demonstrates the region's commitment to supporting a viable, connected, and integrated transit system. The Official Plan further supports the new transit master plan through introducing valuable demographic and land-use information. These included population and employment projections, growth areas, employment sectors, housing development, infrastructure, and more. These informed our understanding of Niagara Region's future growth, enabling alternatives to be developed that support transit use in areas where growth is anticipated.

The Official Plan goes on to note that a transportation master plan is in development, emphasizing the Region's endeavour to prioritize more transit connections within municipalities and throughout the region. Maps and schedules at the end of the document were useful in providing geographic context for the project team. One of the key strengths of the Official Plan is the holistic perspective it takes in considering and determining local and regional transportation needs now and into the future. The 2022 Official Plan was a valuable reference document for the TMP, establishing the Region's priorities and long-term vision for transit.

## 2.2.2 Considerations for Constituent Areas of the Region

Complementary to the 2022 Official Plan, the 2051 Lands Needs Assessment is a technical report detailing future population, employment, and developed land projections for Niagara Region. The LNA incorporates population and employment forecasts to calculate the amount of land area each municipality requires to accommodate growth in the year 2051. Below are some crucial findings from the LNA that informed understanding of future growth in the Niagara Region:

It was determined through this process that 850 hectares of land across the region is needed to accommodate population increase to 694,000 people and 272,000 jobs. These figures are based on The Growth Plan (2020) and The Made-in-Niagara Forecast (endorsed in 2021) with refinements based on Greenbelt Restrictions.

Findings from the Lands Needs Assessment parallel findings from Niagara Region's report on population and employment growth in the Employment Area Strategy. This strategy identified and

mapped 31 employment areas across the region, providing geographic context to major employment trip generators in the region.

The methodology for the report includes stakeholder engagement, assessment of Niagara's employment areas, and municipal best practices review. These culminated in a set of recommendations and strategic policy directions for the Region to consider implementing in the future. This TMP incorporated the following recommendations from the Employment Area Strategy:

*“Concept plans should contain analysis that examines environmental systems and features, existing and planned municipal servicing, and transportation infrastructure that will affect future employment-related development within the strategic employment area.”*

This TMP recognizes the relationship between employment areas and transit demand and will identify appropriate ways to serve employment lands that help facilitate their access to a large, skilled workforce while improving transit ridership and efficiency. In addition, it recognizes that:

*“The Region should consider identifying locations for higher employment densities in the form of major office developments with permitted employment-supportive uses. Locations should be near higher order transit and retrofit existing building stock where possible.”*

This recommendation emphasizes the importance of having a clear definition of higher order transit in the Niagara Region and establishes higher order transit as a future priority for the Niagara Region. Planning and development of higher order transit in the region therefore should focus on employment lands and getting people to and from work.

The Lands Needs Assessment and Employment Area Strategy establish future land-use and demographic forecasts that will inform transit ridership projections and service area growth as part of the Transit Master Plan.

### 2.2.3 Development Charges Study and Bylaw for Transit

To support future growth of the Niagara Transit Commission, a Transit Charges Bylaw was established to create an additional revenue stream for capital transit investments. The document details how development charges generate revenue, the costs incurred by different forms of development, and the conditions of the development charges. An Addendum Report published for the Transit Development Charges Background Study further details development charges in the Niagara Region. Advancing the discussion on sustainable funding through introduction of capital plans to be funded by development charges. DC funding was a useful input to this TMP, enabling more detailed and holistic financial analyses to be undertaken.

Official Plans, land-use assessments, growth studies, and financial documentation are important inputs to understanding how transit interplays with future growth at the regional scale. The documents discussed in this section provide a strong foundation for the direction of the Niagara Region and were

foundational to our understanding of region-wide transit needs as we developed options for the Transit Master Plan.

## 2.3 Housing and Design Documents

In this section, reports and documentation relevant to the current and future urban form, housing stock, and urban design in the region were reviewed for discussion. These documents examine the link between Niagara Region’s housing and design characteristics to transit and urban form. The key findings from this section informed the current state assessment and development of future service options.

### 2.3.1 Affordable Housing and Reduction in Homelessness

In consideration of significant population and employment growth anticipated in the Niagara Region, ensuring the region remains affordable is a key area of focus. The Niagara Region Affordable Housing Strategy targets meeting the budgets of low to moderate-income households without compromising their basic living costs including food, clothing, transportation, medical care, and education. It recognizes the linkages between transit and affordable housing, and the power each have in improving the lives of lower-income individuals and families.

To address the current housing crisis, Niagara Region is considering ways in which transit and housing development can be mutually supportive, including through the transit development charges bylaw discussed in the previous section. The bylaw addresses housing by removing developmental charges for specific, affordable housing units.

This strategy lays out the Region’s targets for affordable housing, complementing a regional plan for addressing the growing issue of homelessness in Ontario. Complementary to the Affordable Housing Strategy is the Housing and Homelessness Action Plan Goals, a set of objectives outlined by Niagara Region to reduce the incidence of homelessness and improve conditions for the unhoused. The four goals seek to:

1. house people who do not have a home.
2. help people to retain a home.
3. increase housing options and opportunities for low- and medium-income households.
4. build capacity and improve the effectiveness and efficiency of the housing and homelessness system.

The strategy addresses the interconnections between transit supportive housing and the importance of mobility options for lower-income individuals, demonstrating the Regions’ commitment to equity of access to transit for the Transit Master Plan. Two action items in the strategy explored the relationship between affordable housing and transit, they can be found below:

- “Support inclusion of affordable housing options within focused areas of strategic growth, such as major transit station areas”.



- “Explore additional opportunities that help address transportation concerns of equity-seeking populations such as the Indigenous community by promoting better access to service, with a special focus on helping people in rural communities to access services”.

These documents addressed ongoing social equity and affordability considerations in the Niagara Region. Discussions highlighted the importance of transit provision, particularly for lower-income and marginalized peoples.

### 2.3.2 Accessible Transit Services

Transportation equity aims to improve mobility access not only for lower-income groups, but for individuals with physical and cognitive disabilities. In 2018, the Region sought to improve its specialized transit practices through an Accessibility Plan. A primary goal of the plan is to ensure the needs of all its residents are met as best as possible. The plan highlights the Region’s adoption of the AODA Transportation Standard and expansion of inter-municipal specialized transit services. The Transit Master Plan leaned on the outputs of the Accessibility Plan to ensure NT maintains and builds upon existing specialized services in the region.

In pursuit of goals outlined in the 2018 Accessibility Plan; the Region established Accessibility Design Standards for facilities based on standards adopted by the Town of Oakville. This document, published in August 2020, provides guidelines for Universal Design principles in the Niagara Region. The standards introduce five levels of passenger amenities for stops and stations, with successive levels building in complexity of amenities and infrastructure required, these include interior elements and amenities, exterior elements, and facility-specific requirements. These guidelines and principles were key to the TMP, as they supported understanding of accessibility requirements and aided in estimating terminal and stop capital costs.

The housing and design documents reviewed provide useful information about Niagara Region’s growth ambitions and objectives in advancing equity through housing, accessibility, and transit. The social goals outlined in these documents, combined with growth targets in the Planning and Policy section, contextualize and create linkages to the transit and transportation documents reviewed in the following section.

## 2.4 Transportation and Transit Documents

In this section, documents relevant to transit and transportation in the Niagara Region were investigated. These documents are most directly pertinent to the Transit Master Plan, therefore our focus when reading these documents was to understand recent initiatives in transit, trends in mobility needs, and future policies and plans for transit and transportation across the Niagara Region.

### 2.4.1 Transportation Master Plan for the Region

The keystone document providing context and direction for the transit and transportation review is the 2017 Niagara Region Transportation Master Plan. The plan introduces the Region’s overarching

principles relating to transit provision, including to improve social equity, foster economic development, and reduce environmental impacts. These priorities are considered alongside the state of transit in Niagara Region in 2015 – transit service per capita was 25% below the peer average. Identifying these needs and opportunities for improvement, the plan presents recommendations for growing transit in the Niagara Region. These include the following:

- Establishment of service standards.
- Creation of frequent transit networks.
- Fare and service integration.
- Micro-transit service planning.
- Consolidation of transit agencies operating in the Niagara Region.

These recommendations are supported by conceptual transit network services and maps. The following are recommended actions, specific to public transit, some of which may have already been implemented:

- Initiate and fund a transit demand-responsive system for low-density areas.
- Complete the framework process for a consolidated transit service in the region.
- Undertake a Business Case to review opportunities for extending the inter-municipal transit system beyond St. Catharines, Welland, and Niagara Falls.
- Conduct a study of potential transit priority measures along Regional roads.
- Continue to support the expansion of GO Transit passenger rail service to the Niagara Region, to ensure connections to the GTHA.
- Continue to support the development of major transit station areas, and connections to active transportation and community transit, to stimulate investment in adjacent areas.
- Introduce subsidized co-fares between Niagara Region Transit and GO Transit.
- Provide inter-municipal transit, with incremental service improvements, to all of Niagara's municipalities through a combination of fixed-route and demand-responsive transit.

Taken together, the findings from the Niagara Region 2017 Transportation Master Plan were critical to informing our background understanding of transportation in the region. Strategies, guiding principles, and recommendations were used to provide context and direction throughout development of the Transit Master Plan. Considerations from the 2017 Transportation Master Plan influenced the current TMP, particularly through establishing long-term goals and priorities that will continue to be pursued through the life of the plan.

#### 2.4.2 Transportation/ Transit Plans for Individual Municipalities

Following the Regional Transportation Master Plan, the City of St. Catharines published their Transportation Master Plan: 2041 Designed to Move in 2021. This plan detailed existing transit services and explored future transportation options through the 'mobility as a service' approach. This methodology facilitates shifting focus away from single occupancy vehicles as the primary mobility

option and towards a diversity of travel modes, including walking, biking, rolling, taking conventional transit, micro-transit, ride-hailing, or driving.

Discussion of travel modes was advanced through reclassification of the roadway network into ten street classifications, aligning with outputs from the Niagara Region Complete Streets Design Guidelines. The classifications aligned with municipal priorities including optimization of the transportation network and facilitating socially and environmentally sustainable transportation choices. The City of St. Catharines Plan furthers these initiatives through recommendations to further uptake and improve safety of active transportation, such as paved shoulders, bike lanes and trails, and connections to the transit network.

Optimizing St. Catharines Transit is another focus of the report, the following recommendations were made to improve SCT services – and remain relevant to NT services today:

- Recommendations are provided to improve routing, timing, frequency, and connectivity with the overall aim of improving efficiency and customer journeys.
- Areas deserving physical improvements were also identified, including the terminals at Fairview Mall and Downtown St. Catharines.
- Further into the future, the Plan outlines the municipalities interest in establishing other transit supportive infrastructure, including bus only lanes, transit signal priority, and rapid transit corridors.

The TMP provides a foundation upon which decision-making will be made in the short (0 to 5 years), medium (6 to 10 years) and long-term (11+ years), with detailed recommendations for each timeframe. This report was a key input to the TMP, providing a wealth of information about the current and future state of transit in the Niagara Region’s largest city, St. Catharines. It also elaborated on the specific priorities and goals of SCT, including to improve customer journeys, upgrade physical infrastructure, and study the feasibility of transit supportive infrastructure. These takeaways were key inputs to the TMP.

Parallel to the St. Catharines Transit Master Plan, The Town of Grimsby published a Transit Investigation Study in 2017. This document furthers the regional transit context through exploring linkages between the Niagara Region and Hamilton. The investigation includes existing and planned transit services, community consultation, peer review, transit network design and service options, demand forecasting, service delivery considerations, financial analysis, accessibility considerations, and next steps for future development. Some key recommendations from the study involve Niagara Region Transit’s services in Grimsby:

- A proposed inter-municipal link service to connect Grimsby and Beamsville to St. Catharines.
- An inter-municipal link service to connect Smithville in West Lincoln to Grimsby.
- The Plan recommends implementation of a fixed-route transit service in Grimsby, bringing the municipality closer to both Hamilton and the Niagara Region.

In November of 2020, IBI Group prepared TS-2020-35, the Transit Strategic Business Plan & Ridership Growth Strategy: Five-Year Update for the City of Niagara Falls. The study examined the state of Niagara Falls Transit (NFT) services in the City of Niagara Falls, but did not examine Niagara Falls Regional services or Chair-A-Van specialized services. A presentation of the report was delivered to council on December 8, 2020, and was forwarded for consideration as part of the 2021 Budget Deliberations.

The study's final report included findings from a needs assessment, current staffing challenges, route network, and service level needs for Niagara Falls Transit (NFT). Network and service recommendations were categorized by their horizon, with a detailed five-year Transit Service Plan and a higher-level ten-year service plan. The document also includes supporting plans for the agency, including an infrastructure plan, a transit technology plan, and a financial and staffing plan. The strategy document targets several areas of service enhancements and growth for NFT through the 2020s, providing an ambitious set of conclusions and recommendations, including:

- Replacement of the WEGO service with a conventional route to maintain service consistency across the network.
- Service frequencies be improved on- and off-peak to make the overall network more frequent and reliable for customers.
- Allocate additional service hours for a future on-demand transit system to serve growing areas of the City of Niagara Falls.
- Add approximately 31,000 revenue hours to the NFT network over five years, a 37.2% growth in service hours. These figures correspond to operating cost growth from \$10.4M to \$14.3M over the same timescale, an increase of \$3.9M (37.2%).

The City of Welland's 2010 Official Plan sets out high level targets for transportation in the city, stating the City's aim to reduce automobile dependence and support a diversity of sustainable travel modes. The Plan recognizes transportation's role in fostering economic development, social inclusion, environmental sustainability, and public safety. From a transit perspective, the plan seeks to promote transit usage through leveraging development in areas less than 400m from existing transit stops. The City also aims to encourage transit use for residents through intensifying land use, integrating with other travel networks, providing universal access, updating infrastructure to be more transit-supportive, and further investing in Welland Transit to create a robust service for residents. The 2010 Welland Official Plan serves as a guiding document that recognizes and highlights the importance of transit in the community – a sentiment widely shared by LAMs served by NT following consolidation.

Taken together, the long-range transit and transportation plans under review pointed to a need for a regional approach to transit provision in Niagara. Objectives and aims of the plans often pointed towards a greater need for service coherence, collaboration, and capacity to support transit across the Niagara Region. Throughout creation of the Transit Master Plan, these documents were referred to for insights about the current state and future objectives for transit in the Niagara Region.

### 2.4.3 Niagara Transit Governance

Establishment of a consolidated transit agency in Niagara was a recommendation initially introduced by the 2017 Transportation Master Plan. In the years that followed further research was conducted to determine how the agency would be governed. An exploration of consolidation process options was advanced in 2020 through the Niagara Transit Governance Study. The final report set the stage for transit consolidation in the Niagara Region through detailing and recommending steps toward consolidation. The document details the following key inputs:

- Capital assets.
- Expenses.
- Technology.
- Vehicles.
- Facilities.
- Human resources.
- Stakeholder engagement activities.
- Service hours.
- Service demand.
- Governance structure.

These inputs were key to creating a holistic understanding of transit assets in the Niagara Region. The recommendations made by the governance study are also important for the Transit Master Plan as they supported understanding of NTC's organizational structure, along with why and how the structure was selected. The recommended organizational structure for NTC is described below:

*A "hybrid governance structure" is recommended as it "allows a combination of elected officials and skills-based members to provide guidance and oversight of the Commission".*

The NTC Board composition model which was selected includes 15 members; 3 members from St. Catharines, 2 from Niagara Falls, and 1 representative from all other LAMs. This structure ensures representation from all parts of the Region, while preserving a balance between elected officials and skills-based members.

The Niagara Transit Governance Study goes on to introduce details of the phased consolidation transition plan and to discuss projected growth figures for conventional and specialized transit ridership, capital costs, and service hour needs by 2031. These figures are summarized below:

- "Ridership is expected to increase by nearly 90% region-wide by 2031 in the High-Growth Scenario". This reflects a growth in ridership from 6,140,000 in 2019 to 11,550,000 in 2031.
- "Demand for specialized transit service is expected to grow between 20% and 40%" over the period.
- Total capital funding of \$167M to \$260M between 2021 and 2031 is required to account for growth and fleet replacement. \$60M to \$153M of total capital funding is needed as incremental

investment to address service and demand growth, with regionwide capacity increasing by 100,000 to 400,000 service hours and increasing demands for intermunicipal services.

This document was instrumental moving forward with the Transit Master Plan as it features a comprehensive review of the current state of services, and details future needs building towards improved service and ridership.

#### 2.4.4 Connections to the Greater Golden Horseshoe (GGH)

At a regional scale, planning decisions surrounding regional transit trips into cities like Hamilton and Toronto are made by Metrolinx. As part of this activity two Metrolinx documents were reviewed, both the 2041 Regional Transportation Plan and the Niagara Falls Rail Service Extension Initial Business Case.

The RTP summarizes recent progress made in provision of rapid transit in the GGH and details associated challenges, including integration of transportation and land use, focusing on the traveller, coordinating decision making, integrating fares and service, and providing long-term funding. The RTP also discusses mobility as a service concept where public transit, bike-sharing, ridesharing, ride-sourcing, car-sharing, micro-transit, and taxis all fit together – mirroring the 2017 Niagara Region TMP. However, it only mentions the Niagara Region specifically as it pertains to the extension of GO service from Confederation GO in Hamilton to Niagara Falls GO in 2023.

Further elaboration on Metrolinx plans for service in the Niagara Region is found in the Niagara Falls Rail Service Extension Initial Business Case. This report examines and provides recommendation on service changes to the Lakeshore West GO Rail Line, including construction of additional stations, increased frequencies, and corridor infrastructure upgrades:

- New and upgraded stations within the Niagara Region considered by the study include Confederation GO, Grimsby GO, Beamsville GO, St. Catharines GO, and Niagara Falls GO.
  - It is noted that Niagara Region acquired the St. Catharines GO property in 2021 and the Niagara Falls GO property in 2022, enabling the Region to advance redevelopment of the stations and precinct areas.
- Frequency changes under study included upgrading the line from peak services to two-way all-day services, with the rail corridor requiring infrastructural upgrades corresponding to the level of service. Taking ridership and population projections, economic, social, and environmental benefit into consideration the following option was selected:

*“Operation of four extension trains per peak period with two trains beginning/terminating in Niagara Falls GO Station and two beginning/terminating at Confederation GO Station to/from Union. GO’s seasonal summer rail service would be extended to year-round daily operations of seven trips to provide service during off-peak hours. In addition, GO Rail would operate up to hourly all day between Confederation GO Station and Union week round.”*

The anticipated costs and benefits of this option are: \$651 million in total costs and 1.83 million annual riders. Though there has not been an official announcement about the level of service on the Niagara

Falls branch at the time of this business case, construction of Confederation GO and Grimsby GO and upgrading to St. Catharines GO and Niagara Falls GO was underway. While linkages between the Niagara Region and other locations in the Greater Golden Horseshoe rest outside the scope of this Transit Master Plan, NT is able to leverage connections between NT services and GO Transit to improve rider experiences and facilitate wider use of transit for trips across the Greater Golden Horseshoe.

## 2.5 Conclusion

The documents discussed above represent a significant proportion of the background research the project team undertook to inform the current state assessment. Additional documents were reviewed to various extents but were not selected for further discussion. A complete list of documents ingested as part of this review can be found in Appendix A. In the next chapter, findings from the document review were synthesized and incorporated into a holistic discussion of the current state of transit in Niagara.

## 3 Current State Summary

### 3.1 2023 Service Overview

Throughout the region, NT offers a variety of fixed and micro-transit services. Prior to amalgamation, some of these services were delivered by the Region, while others were delivered by the local municipalities. As of 2023, these services are now provided by NT.

Please note that this summary provides a snapshot of NT services as of December 2023 and does not account for the operational changes in 2024.

#### 3.1.1 Fixed-Route Network

The routes on the fixed-route bus network are divided into four groupings: three municipality-specific and one Intermunicipal. As shown in Table 1, St. Catharines and Thorold routes account for most NT routes, while there are only a handful of routes in Welland. Additionally, the Intermunicipal routes connect to many of the same key destinations as the municipal routes for Intermunicipal riders.

**Table 1: NT Route Overview**

Group	Number of Routes	Key Destinations
<b>Intermunicipal</b>	19	Niagara College (NOTL) GO Bus Niagara College (Welland) Seaway Mall Pen Centre Brock University Niagara Health (Welland)
<b>Niagara Falls</b>	26	Niagara Health System Health Care Complex Tourism Core GO Train Morrison Dorchester Hub
<b>St. Catharines and Thorold</b>	56	Brock University Pen Centre St. Catharines GO Station Niagara Health – St. Catharines Site Fairview Mall (GO bus) Downtown Terminal
<b>Welland</b>	8	Welland County General Hospital Niagara College (Welland) Seaway Mall Welland Terminal



### Inter-Municipal Routes

Inter-Municipal routes (identified by their 0-99 numbering, and lettered A,B or C for increased frequency) provide intermunicipal connections between the largest municipalities in the Region. As shown in Figure 3-1, most of the connections are between St. Catharines, Niagara Falls, and Welland with additional connections to Fort Erie and Port Colborne. Bus service is typically provided from Monday to Saturday with some exceptions that only provide weekday service. Note that not all routes, such as the Niagara College Campus Link (Route 34) are illustrated in Figure 3-1.

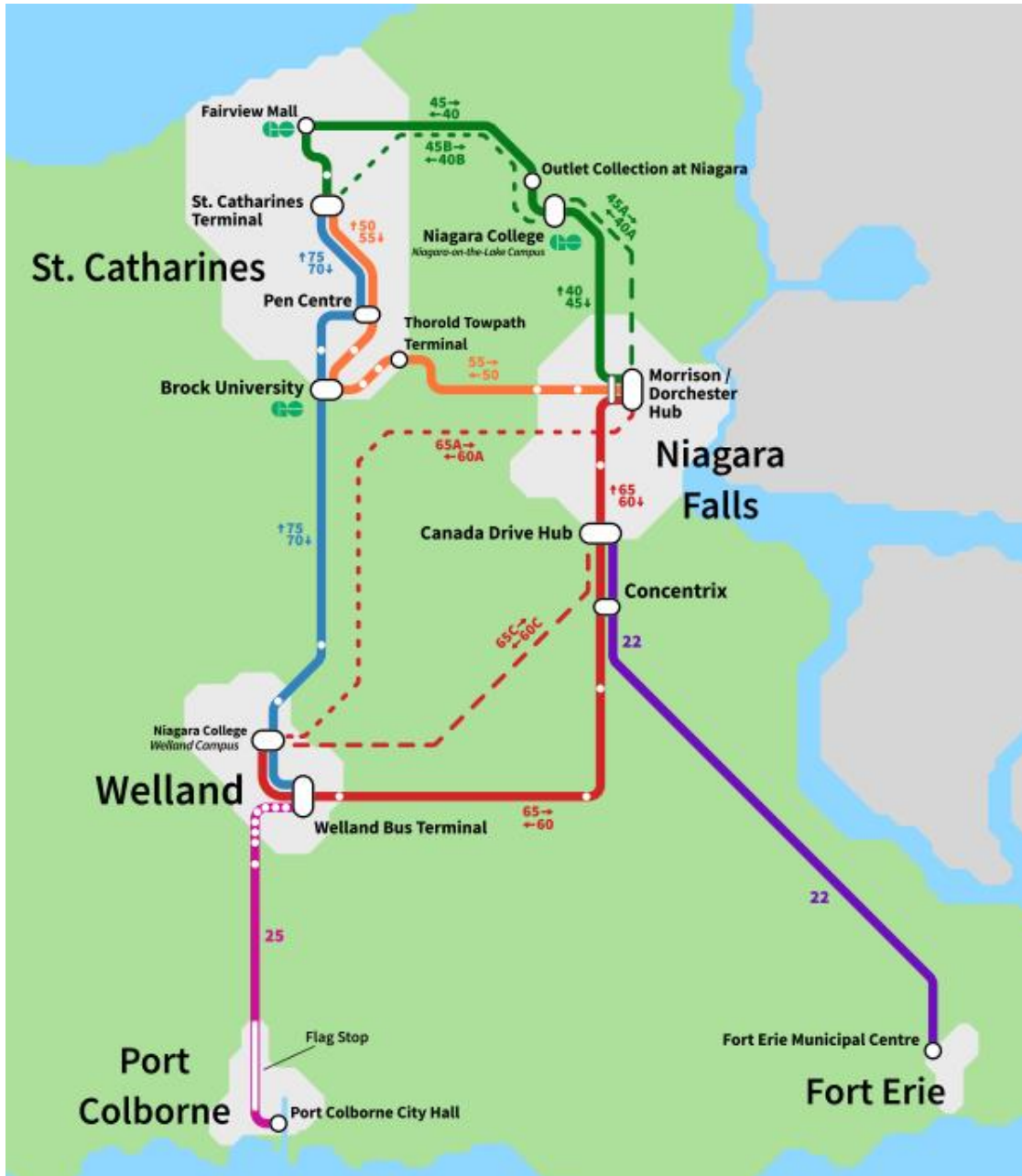


Figure 3-1: Map of Key Inter-Municipal Route Network (Source: Niagara Transit)

### ***Niagara Falls***

Niagara Falls routes provide connectivity within the municipality throughout the week. The routes are classified into two groups:

- 100 Series: Daytime scheduling and routing for Monday-Saturday.
- 200 Series: Evening scheduling and routing for Monday-Saturday and all-day scheduling on Sundays and holidays.

As shown in Figure 3-2, the route network has several hubs throughout the city including along Canadian Drive to the south and Morrison/Dorchester and Mt. Carmel to the north. Not included in Figure 3-2 are the WEGO bus routes that operate throughout most of the year. These routes, primarily targeted for tourists, are commonly used by NT riders, particularly on Lundy's Lane and the Tourism Core.

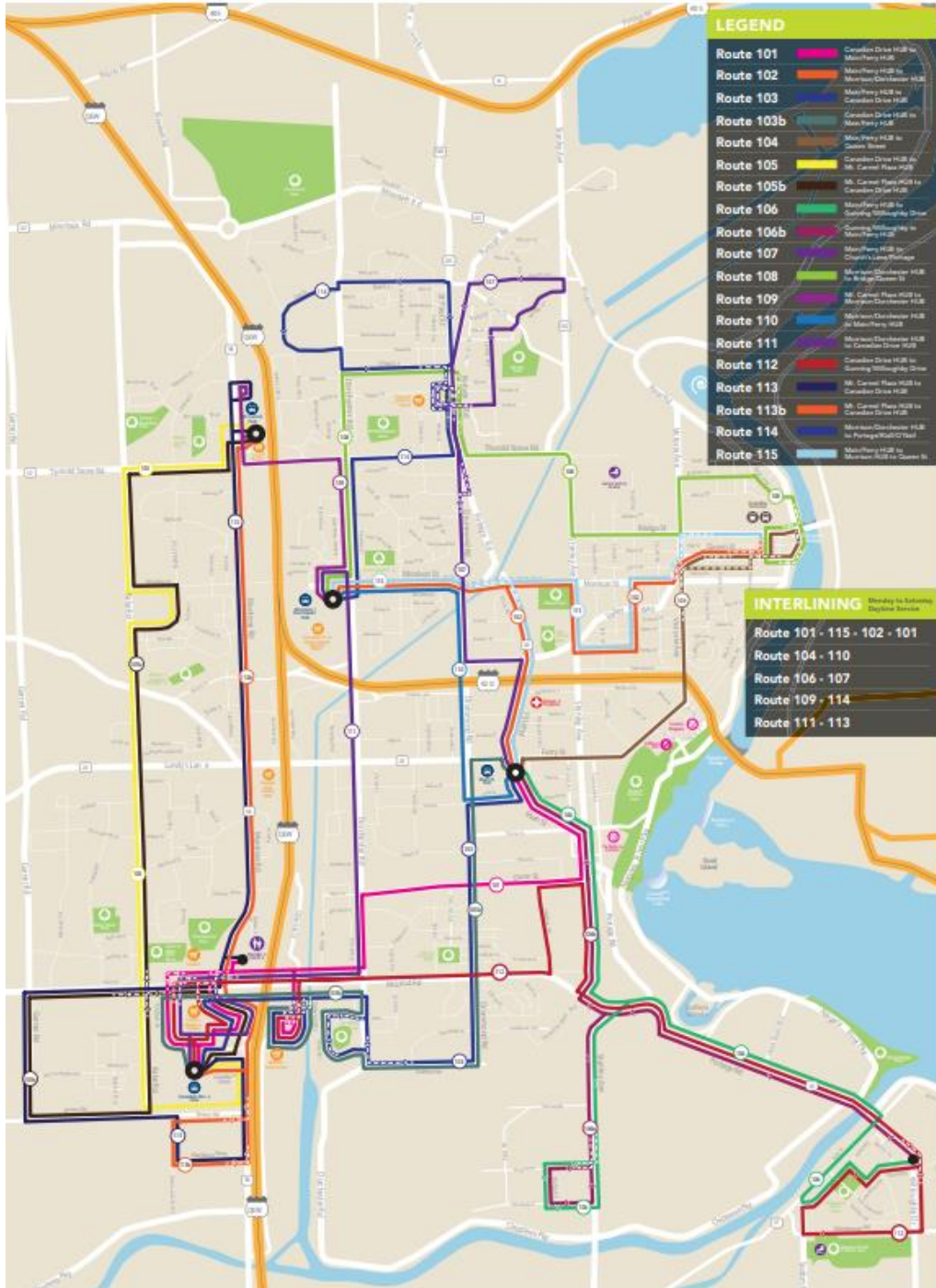


Figure 3-2: Niagara Falls Daytime Route Network (Source : Niagara Transit)

**St. Catharines and Thorold**



Figure 3-3: St. Catharines and Thorold Route Network (Source: Niagara Transit)

Like Niagara Falls, the St. Catharines and Thorold route network is classified into two groups. Note the main difference between the two route networks is that the daytime scheduling applies from Monday to Saturday for Niagara Falls, while it only applies for Monday to Friday for St. Catharines and Thorold:

- 300 Series: Daytime scheduling and routing for Monday-Friday.
- 400 Series: Evening scheduling and routing for Monday-Friday and all-day scheduling on Saturday, Sundays and holidays.

As shown in Figure 3-3, the northern portion of the route network operates as a grid with eventual consolidation as the routes approach the downtown terminal. Other key destinations such as Brock University and Fairview Mall are serviced by multiple routes throughout the day.

### ***Welland***

All Welland routes, identified across the region by the 500 series numbering, operate with consistent Monday to Friday scheduling (including evening routes). Different scheduling is provided for Saturdays, Sundays, and holidays, but route numbering remains consistent, similar to the inter-municipal routes. As shown in Figure 3-4, the route network provides coverage throughout the City of Welland. Many routes, including inter-municipal Route 25, have stops along Division Street just east of the Welland Canal and provide connection within both the municipal and regional network.

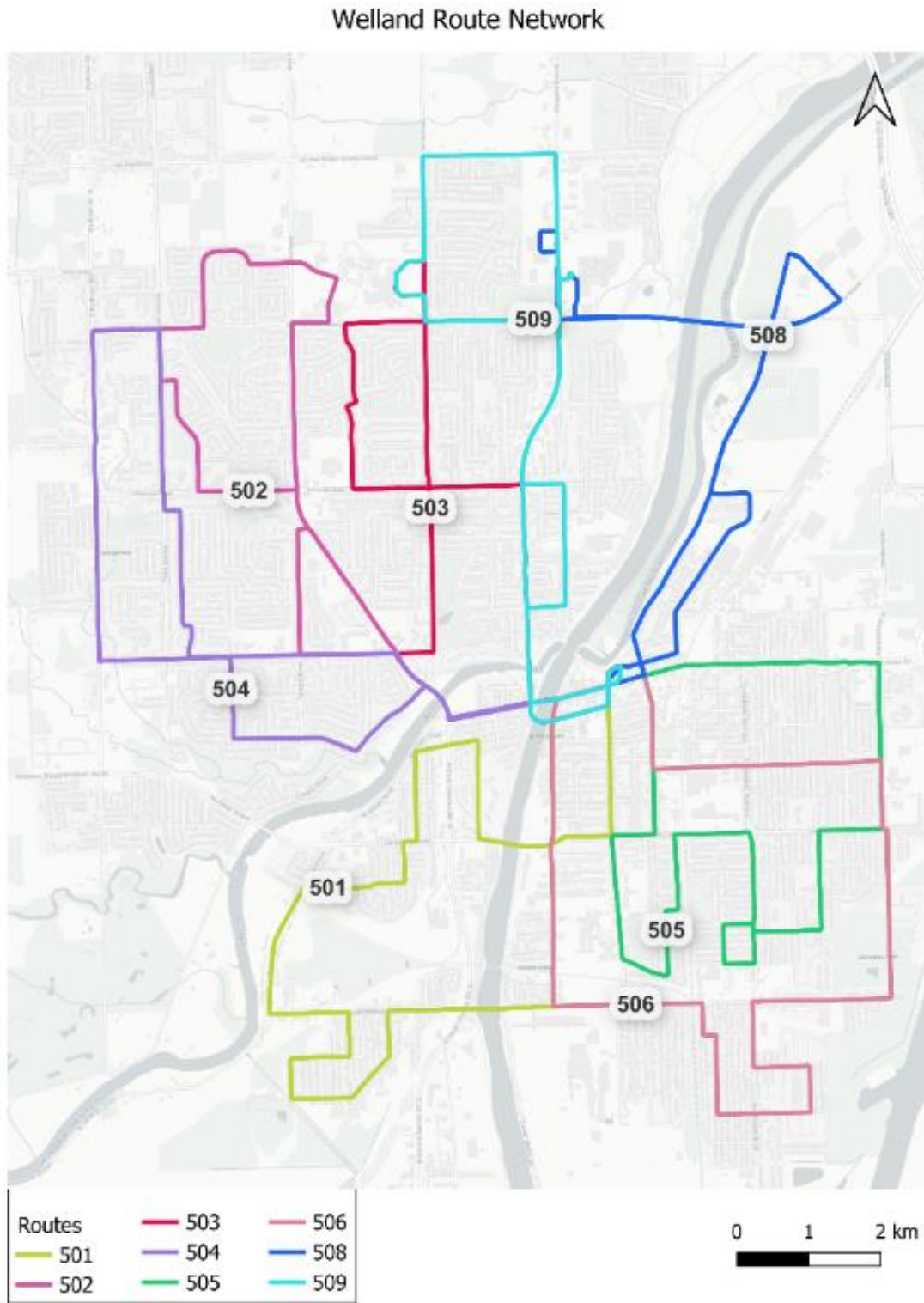


Figure 3-4: Welland Route Network (Source: City of Welland)

### 3.1.2 Micro-Transit

Both specialized and conventional micro-transit is provided throughout the region. In 2023, there were four different service providers for specialized services:

- Niagara Specialized Transit: Grimsby, Lincoln, Niagara-on-the-Lake, Pelham, Port Colborne, Wainfleet, and West Lincoln.
- FAST: Fort Erie.
- Transcab: St. Catharines, Thorold, and Welland.
- Chair-A-Van Niagara Falls

As for conventional micro-transit, NT micro-transit (formerly NRT On-Demand) was provided to the municipalities that did not have access to the fixed route network except for Fort Erie who had their own municipal micro-transit (formerly Fort Erie On-Demand). Residents of Fort Erie could only use the service to move around their municipality but were required to use the regional route service to connect to the rest of the region. Limited micro-transit, provided by TransCab, was provided to residents within Niagara Falls, St. Catharines, Thorold, and Welland. The service was provided to areas within those municipalities that are not serviced by the fixed route network. The purpose of the service is to transport riders to a nearby transit stop within the network.

## 3.2 Network Analysis

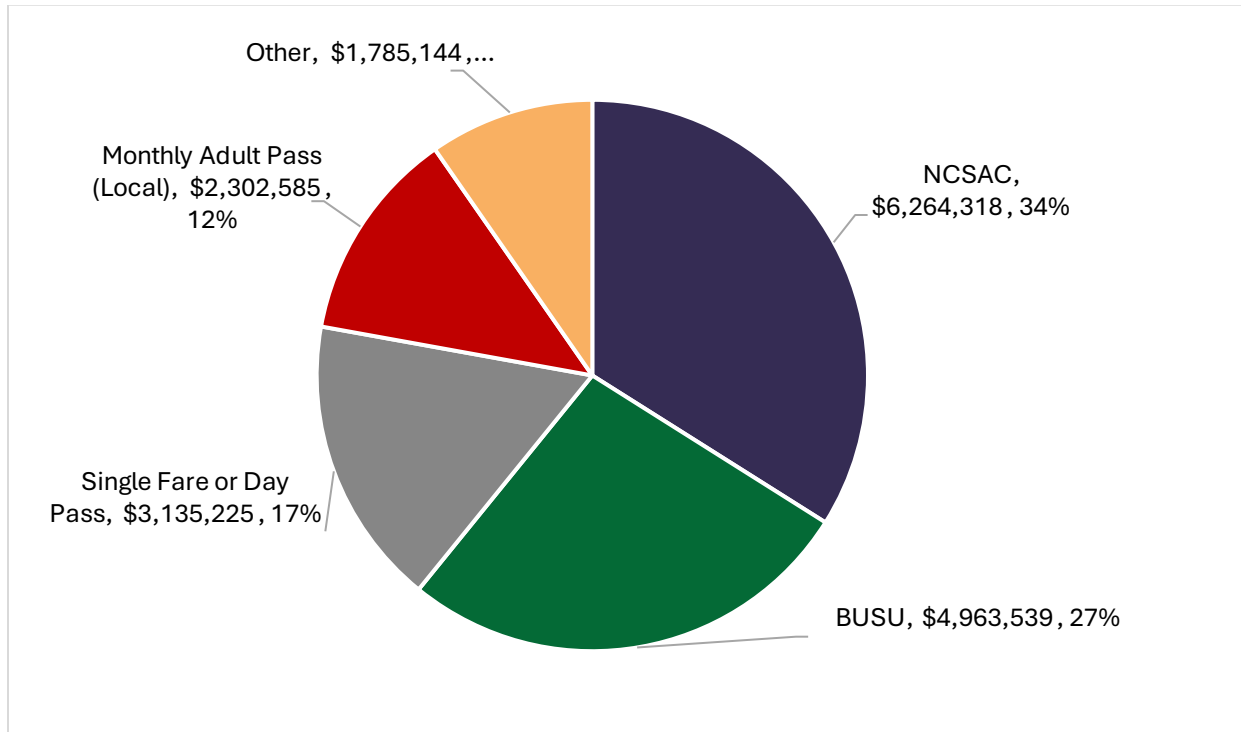
### 3.2.1 System-Wide Performance

In 2019, conventional route ridership across the region was just over 9.2 million linked trips. Over the past few years, NT ridership increased and in 2023 it fully recovered with over 9.3 million linked trips, which was also nearly double the 5.7 million trips in 2022. Table 2 compares multiple system-wide key performance indicators (KPI) between 2019 and 2023 to ascertain the difference between not only pre- and post-pandemic performance, but also pre- and post-consolidation performance. While ridership has increased, most of the KPIs have slightly reduced due to an increase in population, service hours and cost.

**Table 2: System-Wide KPI Comparison: 2019 and 2023 (Source: Niagara Transit)**

KPIs	2019	2023
Passengers/Capita	20.1	18.9
Passengers/Revenue Vehicle Hour	19.7	18.3
Average Speed (km/h)	21.6	19.0
Revenue Service Hours/Capita	1.08	1.03
Revenue/Cost Ratio	0.44	0.33
Municipal Subsidy/Capita	\$68.72	\$104.62
Cost Effectiveness/Trip	\$5.33	\$6.97
Cost Effectiveness/Service Hour	\$104.91	\$127.43

As stated in Section 3.1.1, both Brock University and Niagara College are two key destinations within the region. An analysis of the estimated fare usage in 2024, as shown in Figure 3-5, shows that over 60% of fare revenue can be attributed to the U-Pass agreements with both post-secondary institutions.



**Figure 3-5: Projected 2024 Farebox Revenue**

Aside from the student population, Table 3 indicates how adults are more likely to use the service for municipal connectivity rather than intermunicipal, whereas both seniors and youth are significantly more likely to use the Intermunicipal service.

**Table 3: Projected Average Monthly Sales of 2024 Non-Student Monthly Passes**

User	Municipal	Intermunicipal
Adult	1,670	940
Seniors	20	270
Youth	15	200

### 3.2.2 Micro-Transit Performance

Like the fixed-route network, both conventional and specialized micro-transit services experienced an increase in ridership in 2023. For instance, specialized services in Niagara Falls and Thorold ridership increased by 40% in 2023. As shown in Table 4, Fort Erie MT has been a very popular service for residents, which may factor into its on-time performance being the lowest among the MT services.



**Table 4: 2023 Micro-Transit KPI organized by service type**

	NT	Fort Erie	NST	FAST	NF & Thorold	St. Cath. & Welland
Service Type	Conven.	Conven.	Spec.	Spec.	Comingled	Comingled
<b>KPIs</b>						
<b>Trips</b>	135,986	86,200	33,495	3,919	26,348	64,268
<b>Average Trip Time</b>	16.83	14.55	31.65	15.63	-	-
<b>On-time Performance</b>	-	86%	95%	95%	97%	91%
<b>Boardings per Vehicle Hour</b>	-	3.60	1.18	1.70	1.60	2.35

### 3.2.3 Network Performance

A network performance analysis was conducted to understand travel patterns, alignment of service to demand, travel times (and impact of congestion), and any overall gaps in the existing transit network.

#### **Network Ridership**

At the time of analysis, data availability for the St. Catharines and regional transit systems was more robust as compared to other municipalities. Notably, stop-based ridership data was more extensive for St. Catharines and the regional service, while comprehensive and dependable route-level ridership data available for all services including Niagara Falls and Welland services. This divergence in data quality at the stop-level has been addressed at the time of writing.

#### **Analyzing Stop-Based Ridership in St. Catharines**

Figure 3-6 shows 2023 annual boardings for St. Catharines by stop. The St. Catharines downtown terminal emerges as the hub with the highest boardings, primarily due to its role as a major transfer point. This characteristic potentially inflates demand figures for this location. Other significant nodes include Brock University and the Pen Centre, which also see substantial ridership. A distinct linear high ridership pattern is observed between downtown and Brock University, reflecting strong commuter flows along this corridor.

Further analysis reveals notable ridership clusters at Fairview Mall, Niagara College NOTL, and the West St. Catharines Smart Centres and hospitals. Ridership patterns around Niagara College NOTL are notable as there is significant spatial gap between the College and any significant adjacent ridership. However, the implications of this on ridership productivity are likely not significant due to its

accessibility via high-speed roadways. Lastly, the northern part of the city exhibits relatively sparse ridership, with large areas showing minimal boarding activity.

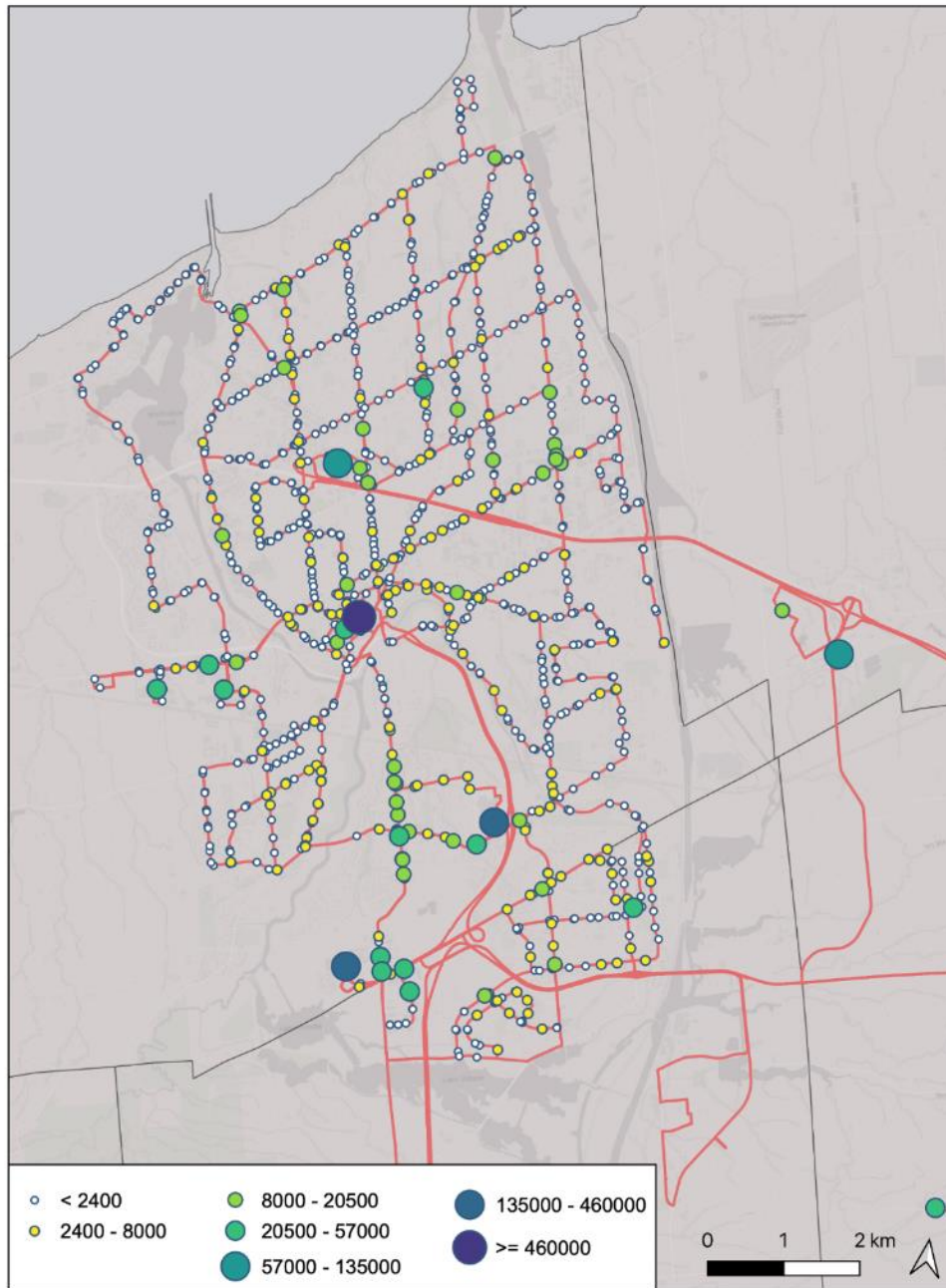


Figure 3-6: Map of 2023 Stop boardings in St. Catharines

**St. Catharines Ridership Productivity Assessment**

Figure 3-7 on the following page displays boardings against revenue service hours by dissemination area, providing insights into ridership productivity and spatial demand alignment. Areas shaded in thicker orange blocks indicate higher boardings per revenue hour, indicating efficient use of service resources. Conversely, green-shaded areas denote lower productivity, suggesting potential mismatches between service provision and demand.



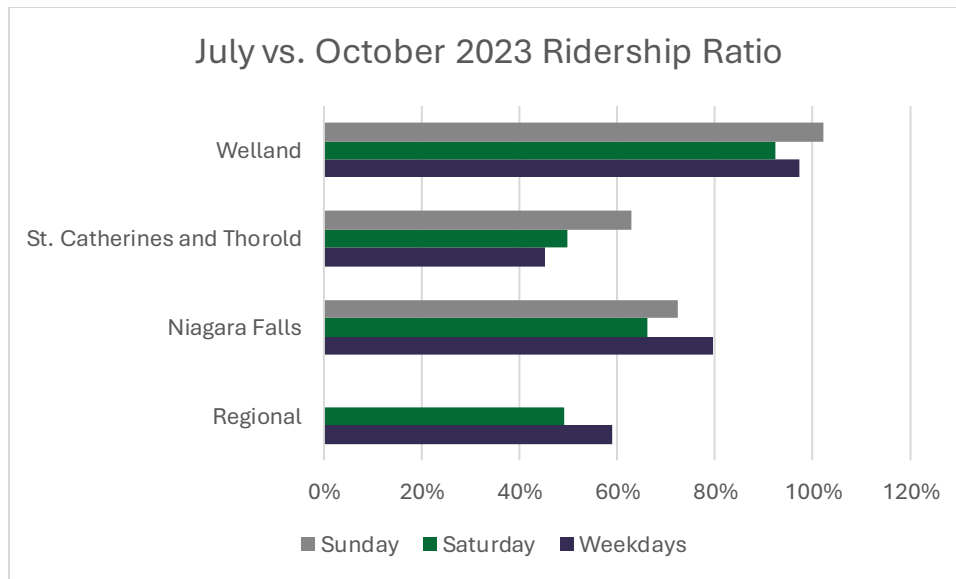
**Figure 3-7: Map of 2023 boardings per revenue service hour in St. Catharines. (Areas shaded in thicker orange blocks indicate higher boardings per revenue hour, green-shaded areas denote lower productivity)**

A clear disparity is evident between the northern and southern regions of the transit system. Southern areas consistently demonstrate higher ridership productivity compared to their northern counterparts. Key areas with the highest productivity include Thorold east of Highway 406, west of the Pen Centre, and Glenridge Ave. between Lockhart Ave. and the railway tracks. Other notable areas with higher boardings per revenue service hours include a continuous path south of the Queen Elizabeth Way between Niagara College NOTL and downtown St. Catharines and the east bank of Twelve Mile Creek between Welland Ave. and Queen Elizabeth Way.

The analysis underscores the uneven distribution of ridership and ridership productivity across the St. Catharines transit system, primarily divided between the north and south by two distinct lines: one along the Queen Elizabeth Way and another bisecting the area south and north of downtown. The presence of Brock University in the far southern part of the city likely contributes to this division with the highest ridership productivity occurring in this far southern area.

**System-wide seasonal ridership**

Figure 3-8 compares July to October ridership in 2023 across NT various fixed route services and municipalities to understand summer vs. fall variation. Welland saw little variation between the two months while St. Catharines, Thorold and the regional service see ridership declines of around 50% in the summer. The decline in summer student ridership is likely driver of this decline. Niagara Falls had a more modest summer ridership decline of approximately 25%.



**Figure 3-8: Ridership Ratio for July vs. October**

**Travel Speed Performance**

Travel speeds were assessed for various periods throughout an average week in January to help inform potential scheduling practices. Overall, significant variations in travel speeds were observed between

different times of the day, and to a lesser extent, between weekdays and weekends. There was little differentiation between weekday travel speeds on most days, with the exception of Friday, which experienced slightly slower speeds from 10 a.m. to 5 p.m., and Monday, which experienced slightly faster speeds during the day but slower in the early evenings. Figure 3-9 on the following page shows travel speeds by hour for weekdays, Saturdays and Sundays. There is little variation between the three-day periods except during peak period travel delay during weekdays. In general, travel speeds decline slowly throughout the day before climbing more rapidly in the evening. On weekends, travel speeds start to climb around 3 or 4 p.m. On weekdays, they drop considerably around the same time before starting to climb again around 6 p.m.

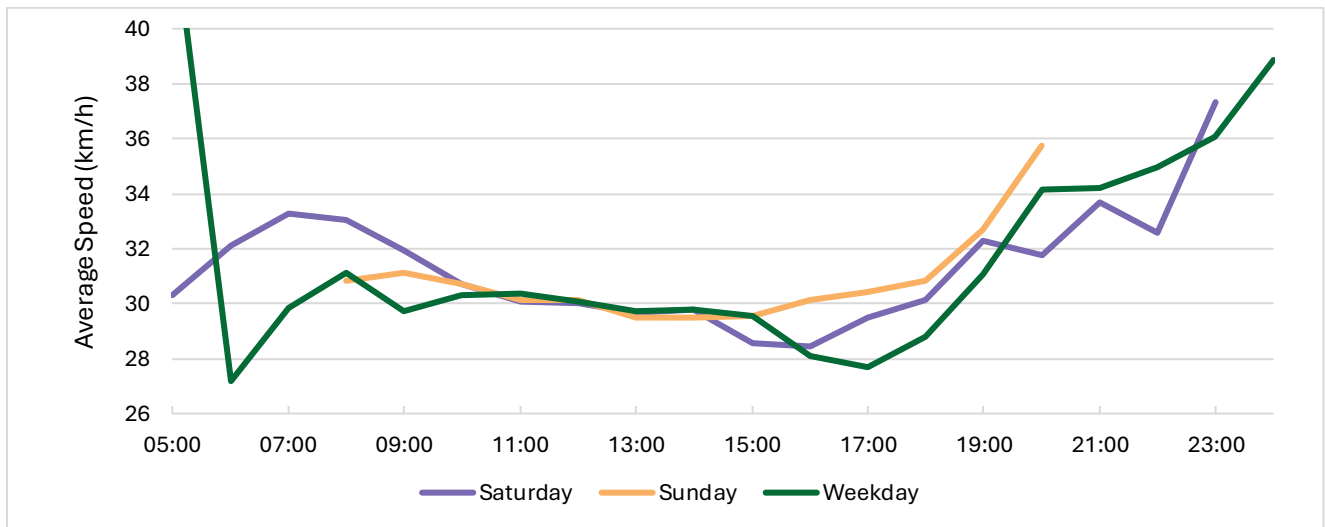


Figure 3-9: Travel Speeds by Time of Day

**Car vs. Transit Trip Time Comparison**

To identify patterns of significant travel where transit travel times significant exceeds car travel times, an analysis of trip times between 14 of the highest ridership stops was conducted. This analysis, represented in Figure 3-10 on the following page, helps identify areas with connectivity gaps and excessive travel times within the NT network. The car vs. transit trip time analysis will be further refined upon receipt of origin-destination travel information.

While we await more detailed origin-destination travel data for further refinement, this preliminary analysis indicates notable connectivity gaps. Specifically, there are significant transit vs. car travel time disparities between the Niagara College NOTL Campus and Thorold, Lundy’s Lane/Kalar Rd. and most other major ridership locations in other municipalities and between Brock University and the West St. Catharines Smart Centre. These findings suggest potential opportunities to improve system-wide passenger transit times, enhancing overall transit accessibility and making transit a more competitive option compared to car travel.

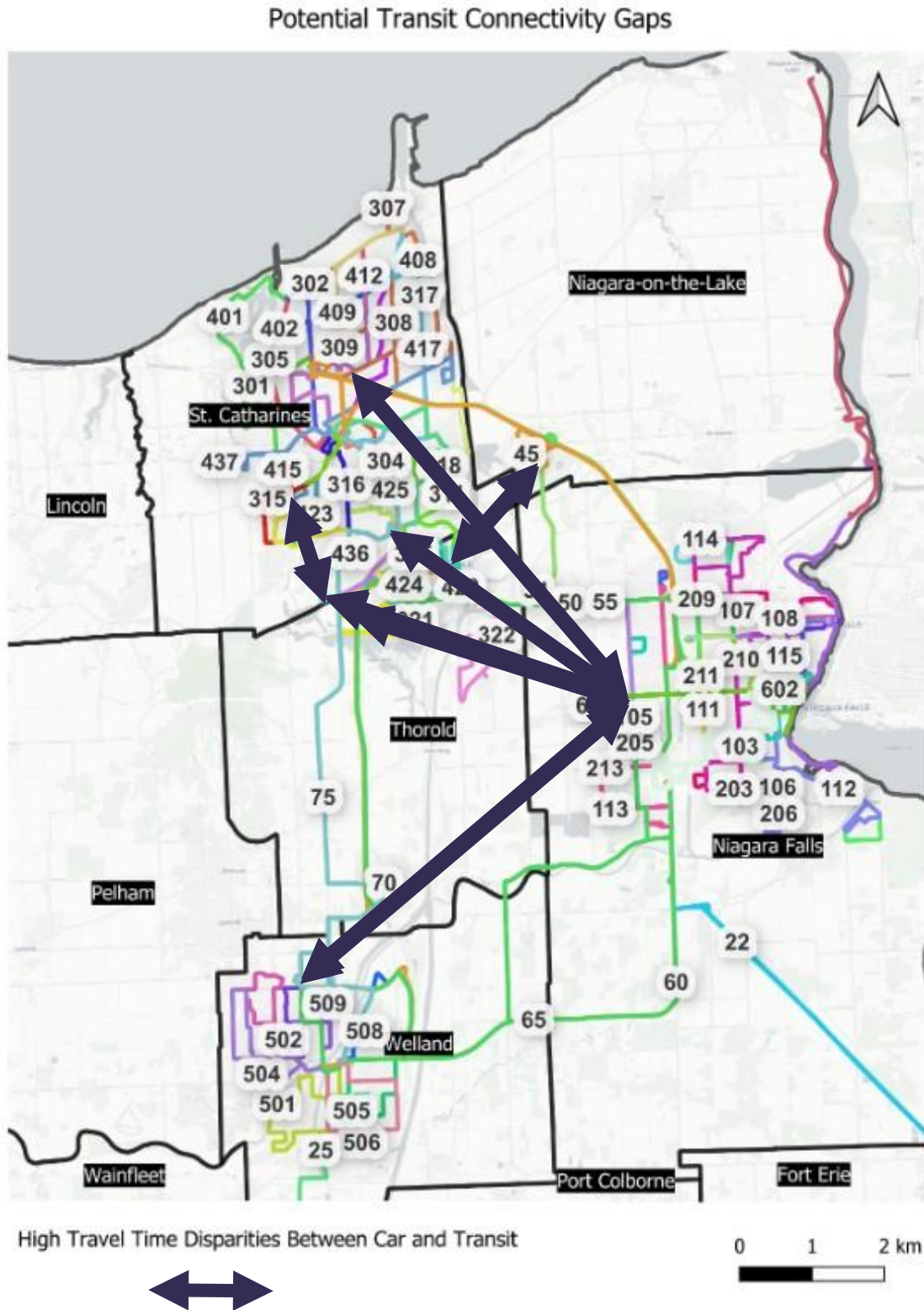


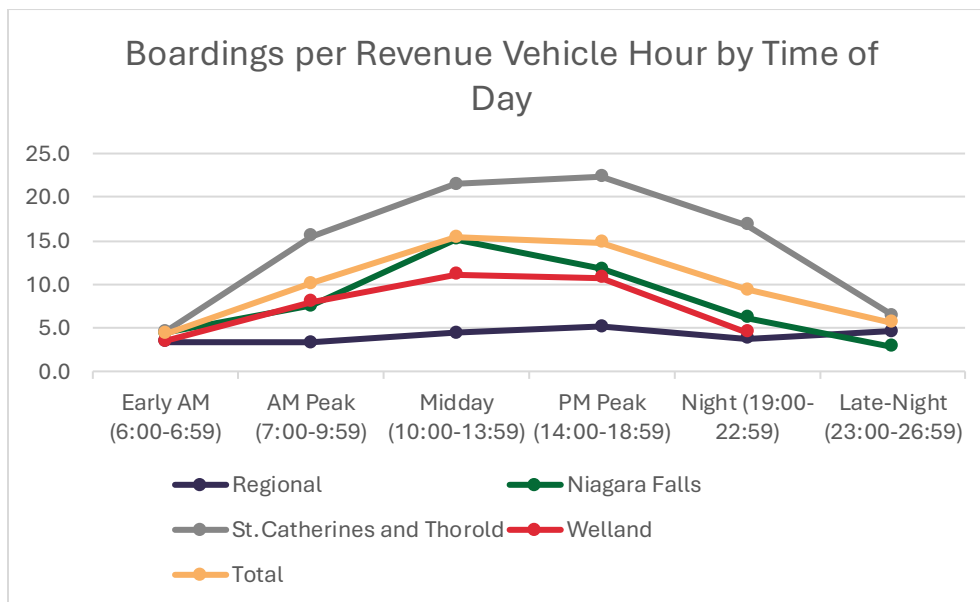
Figure 3-10: Map showing high car vs. transit travel time disparities

### 3.2.4 Route-Based Performance

Route-level ridership was analyzed to provide a greater understanding of ridership across the Niagara network. This analysis shows a significant divide in ridership productivity between the various services and municipalities served by NT. Table 5 shows boardings per revenue vehicle hour (B/RVH) for March 2024 weekdays for each of NT’s four conventional services. St. Catharines and Thorold exceed Welland’s B/RVH by nearly 10, while productivity on the inter-municipal service is half that of Welland’s. Figure 3-11 shows that B/RVH by time of day.

**Table 5: Ridership productivity by NT service March 2024 weekday average**

Service	Boardings per Revenue Vehicle Hour
Niagara Falls	11.08
St. Catharines and Thorold	18.81
Welland	8.92
Inter-Municipal	4.28



**Figure 3-11: Ridership productivity by time of day**

Route-level ridership productivity data reinforces the findings from the St. Catharines’ stop level data. Figure 3-12 on the following page shows route-level boardings per revenue vehicle hour (B/RVH) for March 2024. The southern part of St. Catharines, particularly around Brock University, exhibits the lowest level of service relative to demand across the entire network. Except for Route 602 in Niagara Falls, the routes in southern St. Catharines are the only NT routes that exceeded an average of 20 B/RVH. Many of them surpass 30 B/RVH, with a peak of 73 B/RVH.

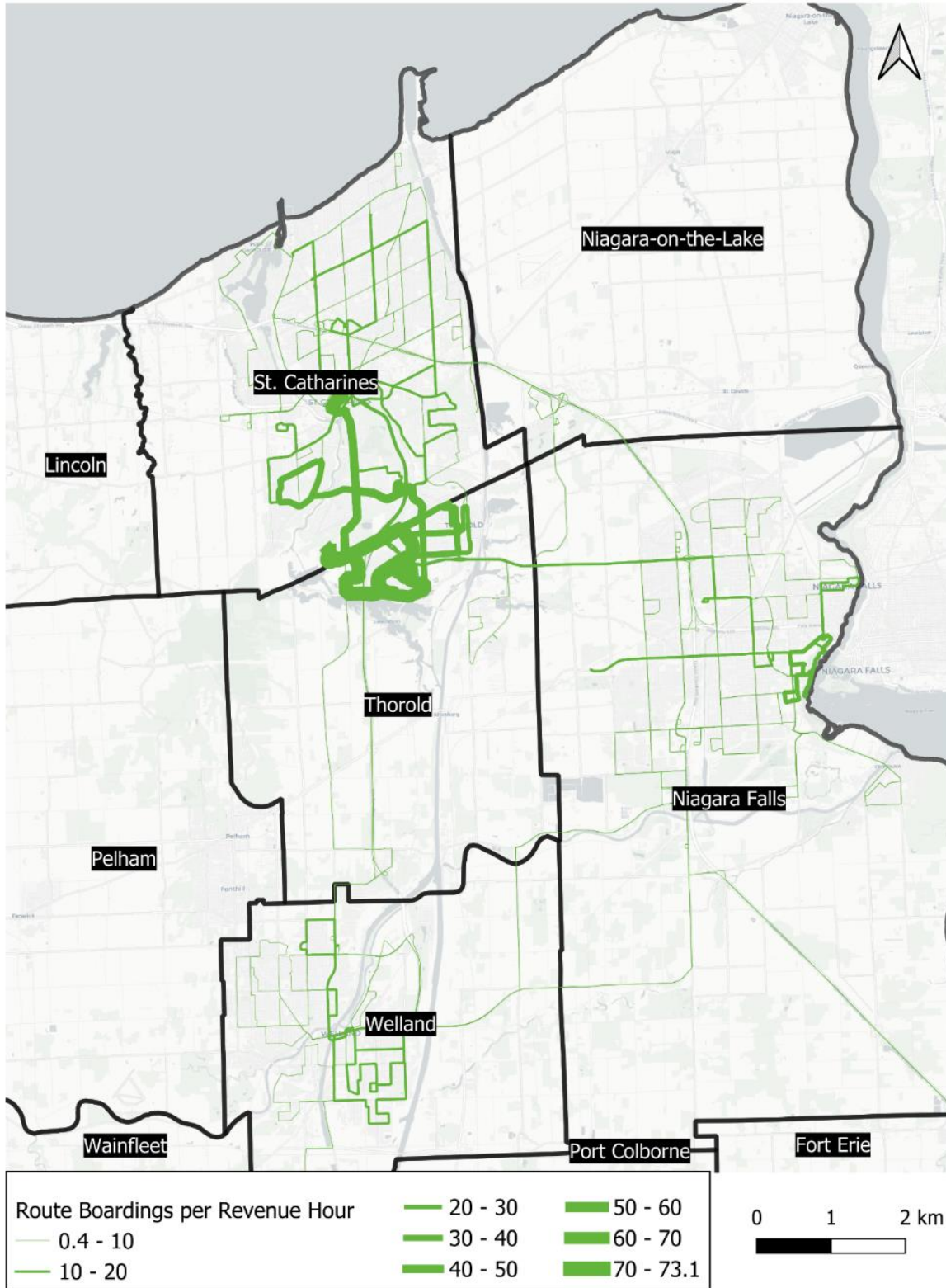


Figure 3-12: Route-level boardings per vehicle hour for March 2024



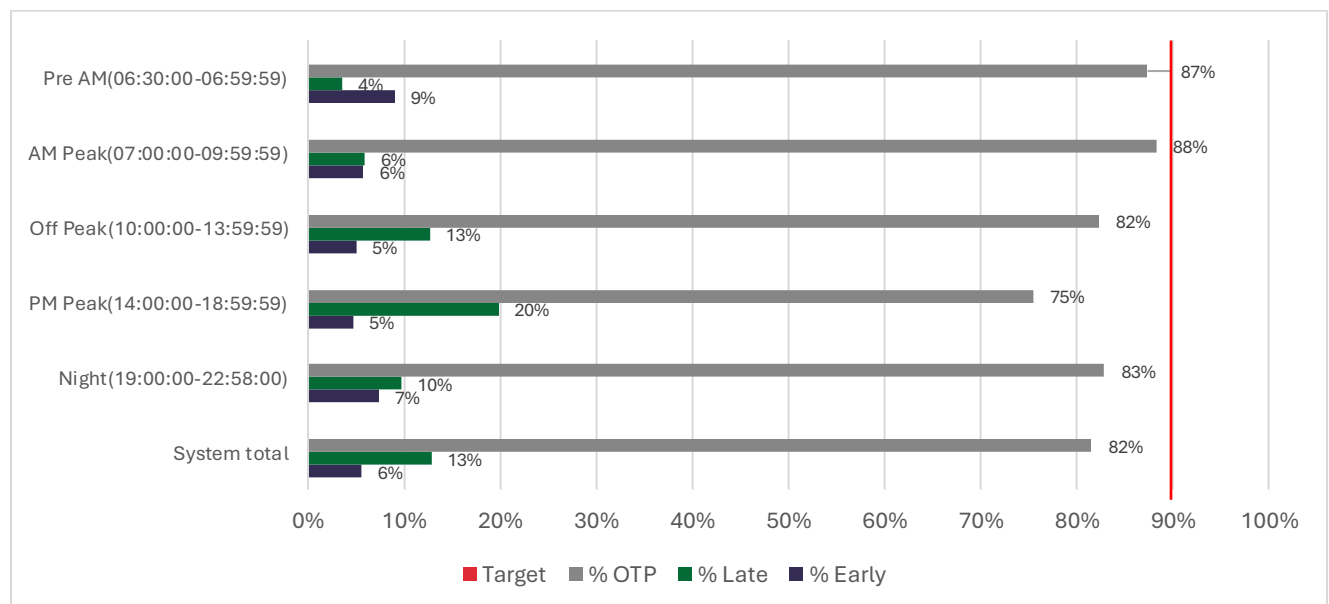
In Niagara Falls, routes connecting through the Falls-adjacent tourist area (including 104 and 110) show the highest ridership productivity ranging from 15 to 25 B/RVH. The long strip along Lundy’s Lane with the Red Line (rebranded in 2024 to the 116) also stands out for its higher productivity. Routes 114 and 214, serving the northern tip of Niagara Falls have very low B/RVH.

Generally, Welland routes have much lower ridership productivity. However, several routes average over 10 B/RVH , mainly covering the southeast of the city, and one northern route that connects the Welland Campus of Niagara College with downtown Welland. Route 504, serving the western part of the city, shows relatively low productivity.

Regionally, the routes connecting Niagara Falls and St. Catharines demonstrate good productivity, averaging over 10 B/RVH. However, numerous routes have extremely low productivity. Route 34 connecting Niagara College – NOTL with Welland, exhibits the lowest B/RVH in the system. Routes connecting Welland with Niagara Falls and Niagara Falls with Fort Erie also show much lower productivity. It should be noted that, when calculating U-Pass prices, routes serving Brock University and Niagara College are allocated a portion of their costs to be covered by student funding. For certain routes, students cover full funding coverage, ensuring guaranteed service throughout the U-Pass contract. While students do not contribute to the costs of routes not serving Brock University or Niagara College, they still have access to those routes.

**On-Time Performance**

Overall, the system’s on-time performance (OTP) is lagging behind the system-wide target of 90%. As shown in Figure 3-13, the on-time performance decreases throughout the morning and into the afternoon, only to recover after 7 p.m. Additionally, there is a considerable percentage of early departures throughout the day and a system total of 6%.



**Figure 3-13: On-time Performance by Time of Day**

As identified in Table 6, more than a quarter of Welland routes run behind schedule. The percentage of late arrivals increases throughout the day and are most prominent in the PM Peak (2 pm. to 7 p.m.) where only 52% of scheduled trips are on-time. The other three fixed-route networks' on-time performance are quite similar. However, inter-municipal routes having a slightly higher proportion of early departures and slightly lower proportion of late arrivals.

**Table 6: On-Time Performance by Service**

Service	Early	Late	On-Time
<b>Inter-Municipal</b>	7%	9%	84%
<b>Niagara Falls</b>	6%	11%	83%
<b>St. Catharines</b>	5%	12%	83%
<b>Welland</b>	2%	26%	72%

Given the values in Table 6, it is unsurprising that five of the ten worst performing routes are based in Welland. As shown in Table 7, these routes are accompanied by many of the WEGO routes. In contrast, the best performing routes are primarily 400-series St. Catharines routes (evenings, weekends, and holidays).

**Table 7: Worst and Best On-Time Performance Routes**

Ten Worst Performing Routes	OTP	Ten Best Performing Route	OTP
<b>508 - Woodlawn</b>	66%	<b>425 - Brock Bullet Express</b>	97%
<b>WEGO - Green Line</b>	68%	<b>436 - Pen - Glendale - Brock</b>	97%
<b>505 - Lincoln - Wellington</b>	69%	<b>431 - Brock - Richmond</b>	96%
<b>502 - Rice Road</b>	69%	<b>435 - Pen - Brock</b>	95%
<b>504 - Fitch St</b>	70%	<b>424 - Brock - Tupper</b>	95%
<b>WEGO - Red Line Express</b>	70%	<b>336 - Pen - Glendale - Brock</b>	95%
<b>509 - Niagara St</b>	71%	<b>432 - Brock - Richmond - Towpath</b>	95%
<b>WEGO - Blue Line</b>	71%	<b>331 - Brock - Richmond</b>	94%
<b>WEGO - Red Line</b>	72%	<b>22 - Fort Erie Link</b>	94%
<b>317 - Bunting Rd.</b>	73%	<b>335 - Pen - Brock</b>	94%

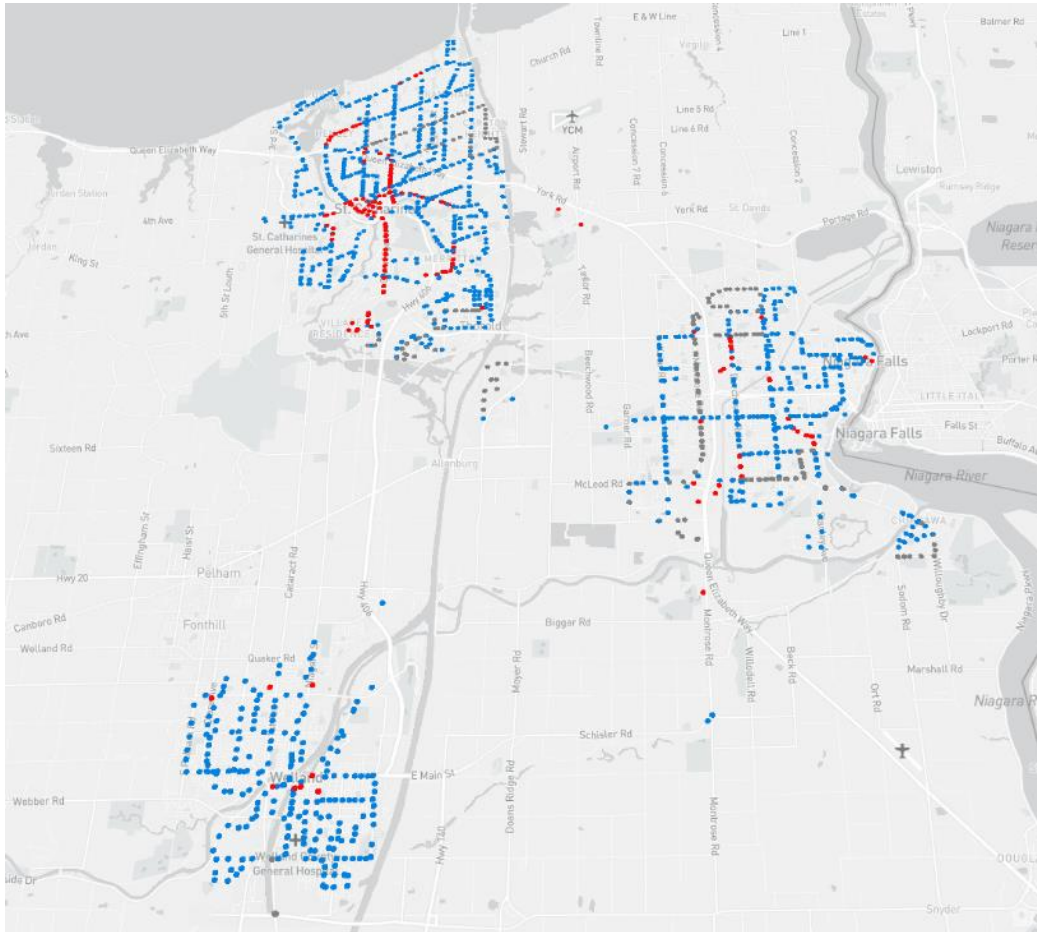
### 3.2.5 Coverage Area

The coverage of the existing fixed route network was assessed to evaluate resident's access to the NT network. The analysis considers all population living within a 400m walking distance from a bus stop as within the network's coverage area. Additionally, the analysis reviewed coverage throughout the week by time of day, and day of week. Note that this analysis only considered St. Catharines, Thorold, Niagara Falls, and Welland as they are the only municipalities with both municipal and Intermunicipal fixed route service.

Niagara Transit: Background Context Report

The coverage area of the fixed route network on a typical weekday account for 89% of the population. It should be noted that much of the population outside of the coverage area have access to the micro-transit service that connects residents to the nearest fixed route stop.

While the coverage area appears strong, it is important to consider bus headways at each stop to assess their relative usefulness. As shown in Figure 3-14, most of the stops in the fixed route network have a headway of at least 30 minutes (shown in blue). Limited stops (shown in red), mostly associated with post-secondary institutions, have 15 minute or better headway. All remaining stops (shown in grey) have a headway of greater than 30 minutes (typically 60 minutes).



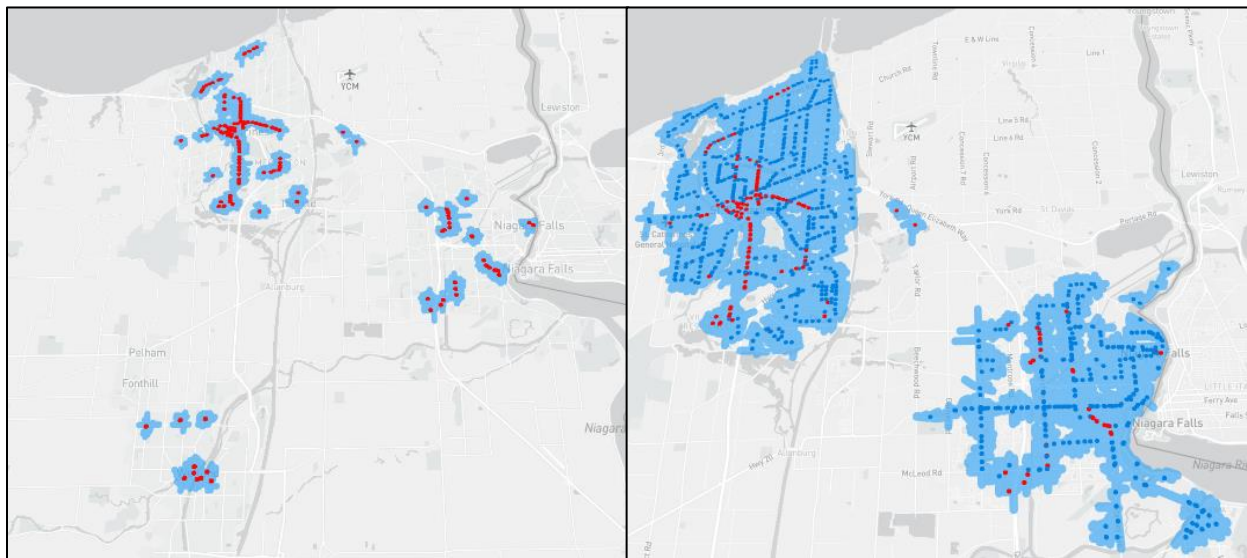
**Figure 3-14: NT Stops by Headway (Weekday AM Peak)**

From Table 8 on the following page, less than a quarter of the population has access to a stop with 15 minute or better headway. The percentage of the population remains consistent throughout the morning and into the evening but drops off considerably at night. Meanwhile, there is limited fluctuation in 30-minute headway between Weekdays and Weekends.

**Table 8: Service Coverage by Time and Day**

	Weekday	Saturday	Sunday
<b>15 min (AM Peak)</b>	22%	15%	14%
<b>15 min (Midday)</b>	20%	14%	13%
<b>15 min (PM Peak)</b>	23%	17%	14%
<b>15 min (Night)</b>	12%	8%	6%
<b>30 min (AM Peak)</b>	83%	69%	60%
<b>30 min (Midday)</b>	73%	65%	60%
<b>30 min (PM Peak)</b>	80%	72%	60%
<b>30 min (Night)</b>	37%	32%	22%

Most of the stops with 15-minute or better headway are in St. Catharines along Glenridge Avenue, Geneva Street, and Queenston Street. As shown previously in Figure 3-14 as well as in Figure 3-15 below, 30-minute or better headways are dispersed consistently throughout St. Catharines, Niagara Falls, and Welland.



**Figure 3-15: 15- and 30-minute Headway Coverage Areas**

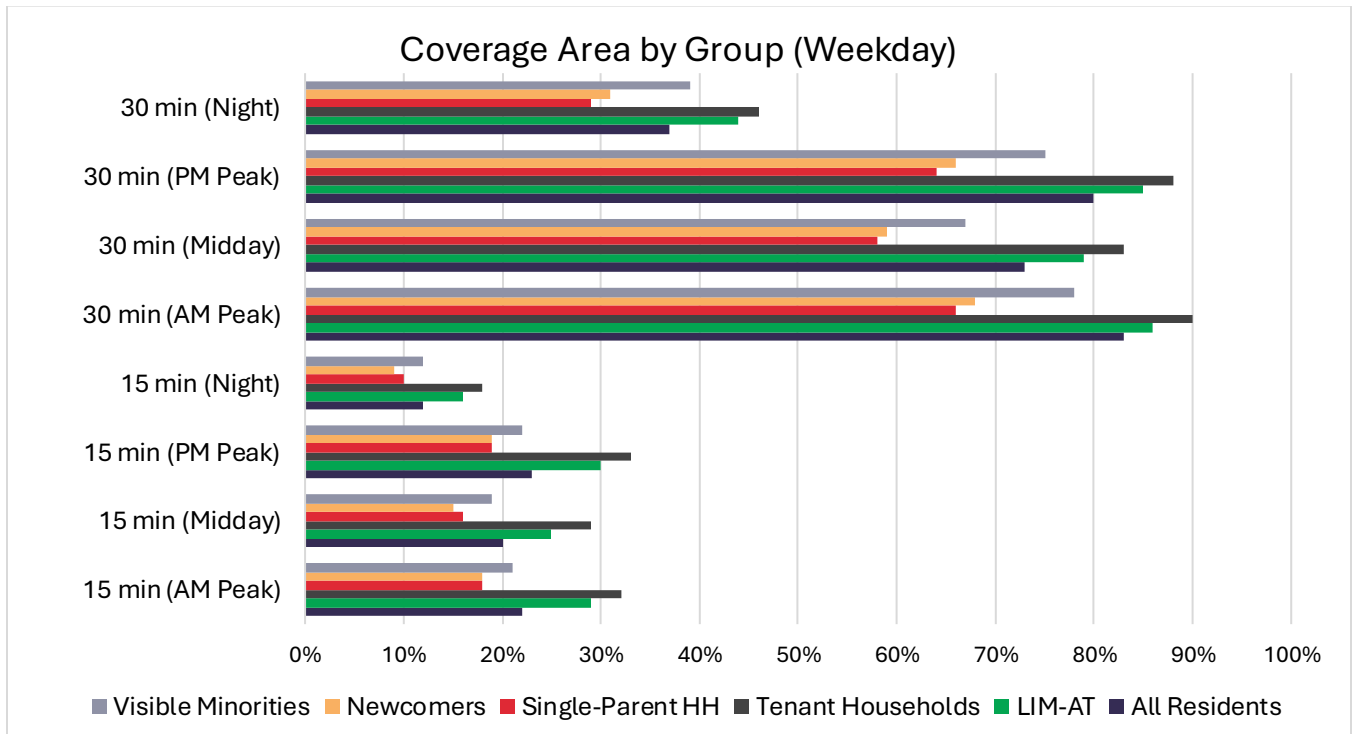
### 3.2.6 Equity Assessment

The coverage area analysis provided an opportunity to better understand access to transit for specific demographic groups. By incorporating 2021 Census information to the coverage area analysis, service coverage for the following groups was assessed:

- Visible Minorities
- Tenant Households
- Newcomers
- Single-Parent Households

- Low-Income Residents

Statistics Canada holds several definitions for low-income residents. To align with Niagara Region Public Health and Emergency Services, the 2021 Census low-income after-tax cutoff (LIM-AT) was chosen, which uses income and household size as variables. The results of the equity-based coverage area analysis, shown in Figure 3-16, indicate that single-parent households and newcomers are most affected by current service offerings compared to other groups.



**Figure 3-16: Coverage Area by Group**

The same trend continues when assessing coverage area compared to the general population. As shown in Figure 3-17, single-parent households and newcomers consistently have a lower relative coverage area compared to the rest of the population. While not as drastic, visible minority groups also experience lower relative coverage. In contrast, both low-income residents and tenant households experience a higher relative weekday coverage area compared to the rest of the population since both group types have a large representation in the city centre’s in St. Catharines, Welland, and Niagara Falls, whereas the other groups are typically more spread out throughout the Region.

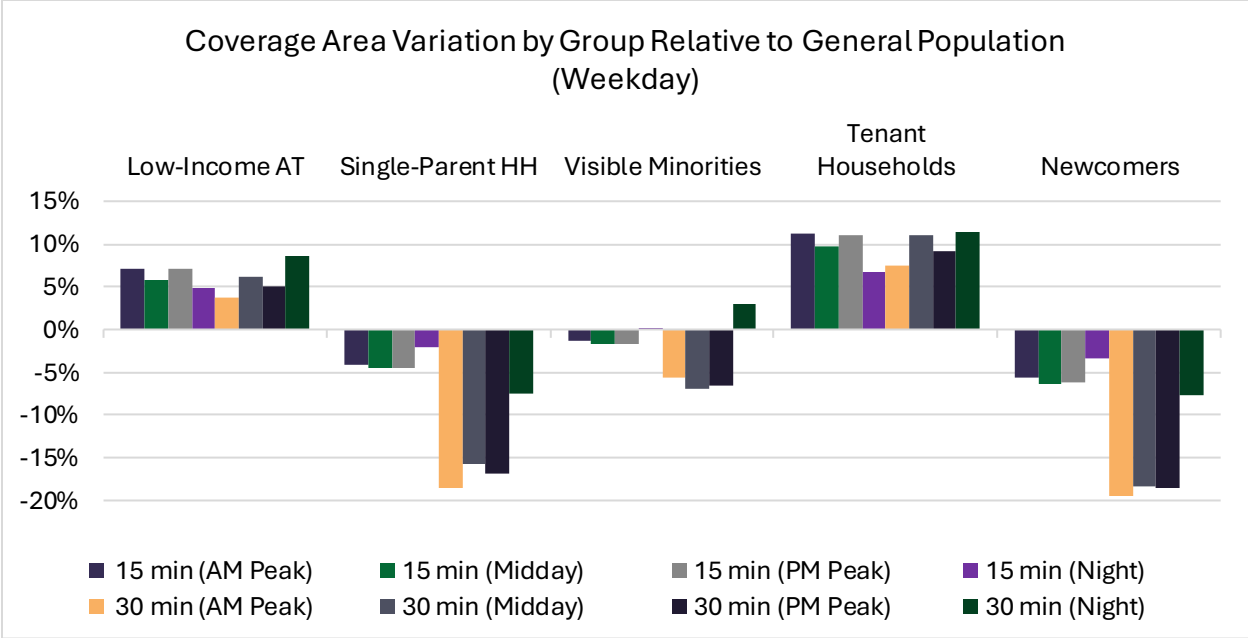


Figure 3-17: Coverage Area Variation by Group Relative to General Population (Weekday)

Assessing access to employment provides an additional method to better understanding NT’s fixed-route network through an equity lens. A comparative analysis was undertaken to determine if there are noticeable differences in the number of jobs within a 30-minute commute on a typical weekday at 10 a.m. between marginalized communities and the region on average. The marginalized communities were identified using the Public Health Ontario’s Marginalization Index (MI). This tool provides multiple demographic indicators by dissemination areas (DAs) from the 2021 Census and groups them into four distinct factors:

- Households and dwellings
- Material resources
- Age and labour force
- Racialized and newcomer populations

Furthermore, employment data was accessed via the Region’s Open Data portal as well as directly through the Region. The analysis assessed access to employment for the region’s most marginalized areas compared to the municipal average. For each of the three largest municipalities (Niagara Falls, St. Catharines, and Welland), the five DAs with the highest MI rating were grouped as a representative sample of the marginalized communities.

The results, displayed in Table 9 on the following page, indicate that there is very limited difference in access to employment opportunities for marginalized communities within the region. In fact, for each municipality, marginalized DAs had access to a greater number of jobs within a 30-minute commute than the representative sample.

**Table 9: Access to Employment – Jobs within 30-minute Travel by Transit**

Municipalities	Marginalized Communities	Municipal Average
Niagara Falls	66,424	65,888
St. Catharines	110,583	107,623
Welland	30,593	28,228

### 3.3 Key Themes

The current state assessment revealed several key themes to be carried forward for the future state development.

- Robust 30-minute service coverage:** At peak periods during the week, NT service coverage area covers over 80% of the population. Additionally, there is only a slight decrease in service coverage on Saturdays (70%). While 15-minute coverage area is noticeably smaller, it should be mentioned that there is limited capacity at many of the terminals for additional bus service which affects NT’s ability to provide increased service frequency.
- Inconsistent Scheduling:** There is a lack of schedule cohesion across the region across the four fixed-route networks. Route numbering for services offered is inconsistent, and day-of-week scheduling varies. For instance, Niagara Falls and St. Catharines have specific route numbers for their late evening/night service, whereas Welland and the inter-municipal routes do not. Additionally, the timetables for St. Catharines are differentiated between weekdays and weekends/holidays, whereas Niagara Falls holds the same scheduling for weekdays (daytime) and Saturdays, but different for Sundays and holidays.
- Poor on-time performance:** Across the region, OTP is lower (82%) than NT’s targets (90%). The analysis showed that OTP worsens throughout the day and that Welland routes are the primary culprit for late arrivals. While late arrivals are a large cause for the poor OTP, there is also a noticeable amount (6%) of early arrivals throughout the network. A review of the scheduling indicated that NT rarely varies their scheduling by time of day. The travel speed analysis uncovered noticeable variation in time periods, specifically during the mid-afternoon peak, which is a likely cause for some of the shortcomings of the service’s OTP.
- Service coverage is more equal than equitable among marginalized groups:** The analysis indicated that NT’s existing service coverage provides similar coverage to marginalized groups compared to the general population. In some instances, such as tenant and low-income households, those groups were found to have better service coverage than the rest of the region. In contrast, single-parent and newcomer households were found to have worse service coverage. Visible minorities were found to have mostly equal coverage. Finally, the access to

employment analysis indicated that marginalized groups had slightly better access to employment, although the difference in some circumstances may be considered negligible.

Overall, considering some of its limitations, NT provides fair service offerings to its riders on weekdays and Saturdays. Nonetheless, it possesses a very limited 15-minute network, and its Sunday and night coverage can be limiting. Additionally, it's lack of consistent scheduling and struggles with on-time performance across certain routes could lead to confusion and frustration among riders.



## 4 Transit Assets and Facilities

### 4.1 Baseline Capital Assets Condition Assessment

#### 4.1.1 Introduction

This section presents the results of the asset condition assessment, highlighting the current state, replacement costs and probability of failure. The evaluation aims to provide an understanding of the financial implications of maintaining and replacing different asset types from NT. This information will be instrumental in prioritizing investments, budgeting for future expenses, and help guide sustainable asset management practices that support the long-term goals of NT.

#### 4.1.2 State of Existing Assets

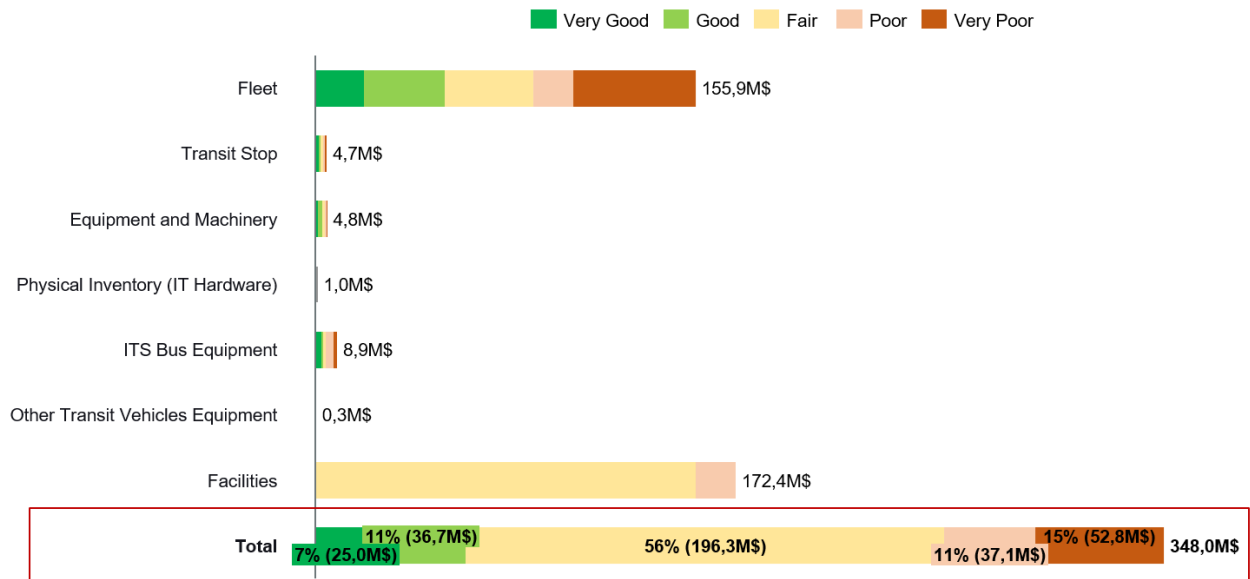
Prioritizing the replacement and maintenance of assets in poor and very poor conditions, while sustaining those in good and very good conditions, will ensure the reliability and efficiency of the transit system. Strategic investments need to focus on high-risk areas to prevent operational disruptions and optimize long-term service quality.

The analysis reveals that the total replacement value of NT's assets is distributed across various conditions, with the majority in fair condition (56%, \$196,3M) (see Figure 4-1 on the following page). A significant portion is in very poor (15%, \$52,8M) and poor (11%, \$37,1M) conditions, while a smaller segment is in good condition (11%, \$36,7M). A minor portion is in very good condition (7%, \$25M). The Fleet and Facilities categories represent the largest share of the total replacement value.

This distribution highlights the need for strategic planning in asset maintenance and replacement to address with a large share of asset values (26%) in the poor and very poor categories.

#### **Replacement Cost vs Capital Expenditures (CAPEX)**

It is important to mention that the replacement cost is a financial indicator that allows for attributing the replacement value of one asset to another, like for like, factoring in depreciation and market factors. It provides a basis for deciding whether to reinvest in an asset. This differs from the CAPEX envelope, which represents the funds allocated based on this decision to reinvest in the selected assets.



**Figure 4-1: Summary of Assets Replacement Value, per Asset Condition**

The Current Replacement Value Weighted Portfolio Condition shows a mixed health profile (see Figure 4-2). The Fleet category, for example, has a significant portion of assets in very poor condition (32%, \$50,2M) and a notable segment in fair condition (23%, \$36,2M). Physical Inventory (IT Hardware), ITS Bus Equipment and Other Transit Vehicles Equipment (radio, filters, batteries, software, etc.) have substantial portions of assets in poor to very poor condition, indicating a need for upgrades. Transit Stops and Equipment Machinery assets are overall in fair/good condition, reflecting lower immediate replacement needs. Facilities are in fair condition; however, the Welland transit office and garage and the Welland transit terminal are in very poor condition. Section 4.1.5.6 provides more details on the specific replacement cost estimations for these two facilities.

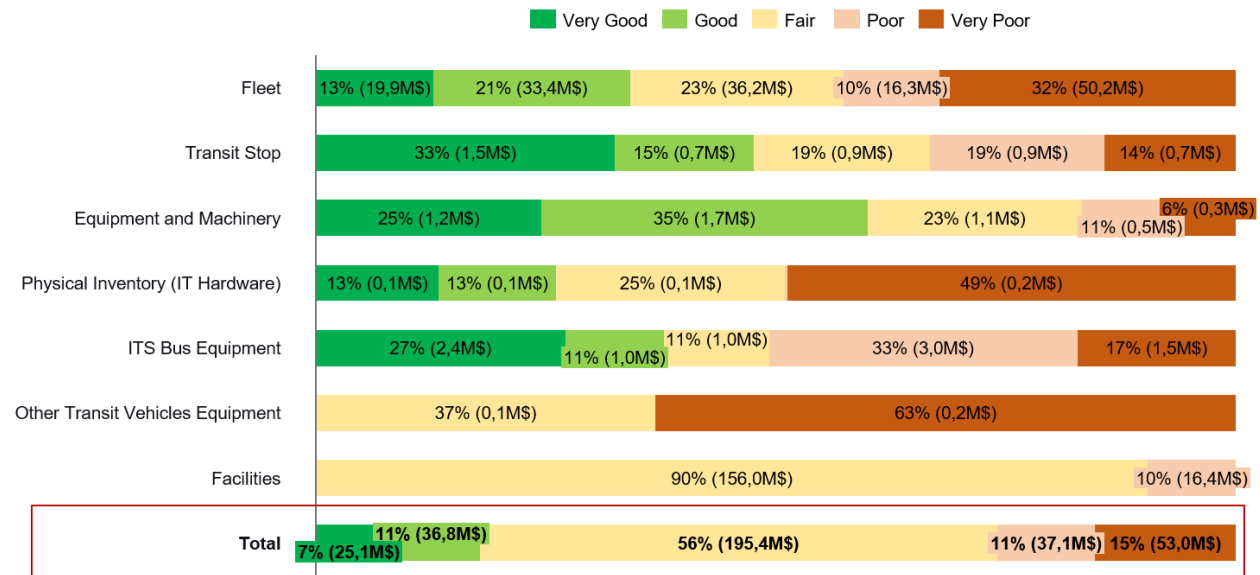


Figure 4-2: Current Replacement Value Weighted Portfolio Condition

The probability of failure analysis indicates varied risk levels across asset categories (Figure 4-3). The Fleet category shows a balanced distribution with portions at low and high risks of failure. Equipment and Machinery, along with ITS Bus Equipment and Physical Inventory, also exhibit a balanced distribution. Transit Stops have a high probability of failure (45% at high risk), necessitating attention. Other Transit Vehicles Equipment predominantly falls into the high-risk category, suggesting immediate attention (Figure 4-3).

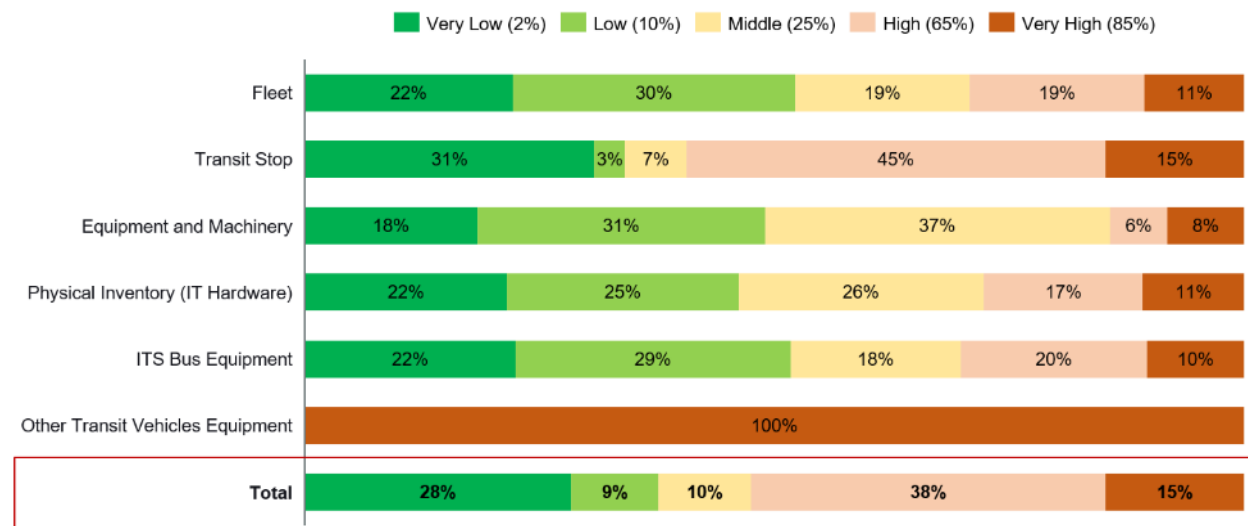
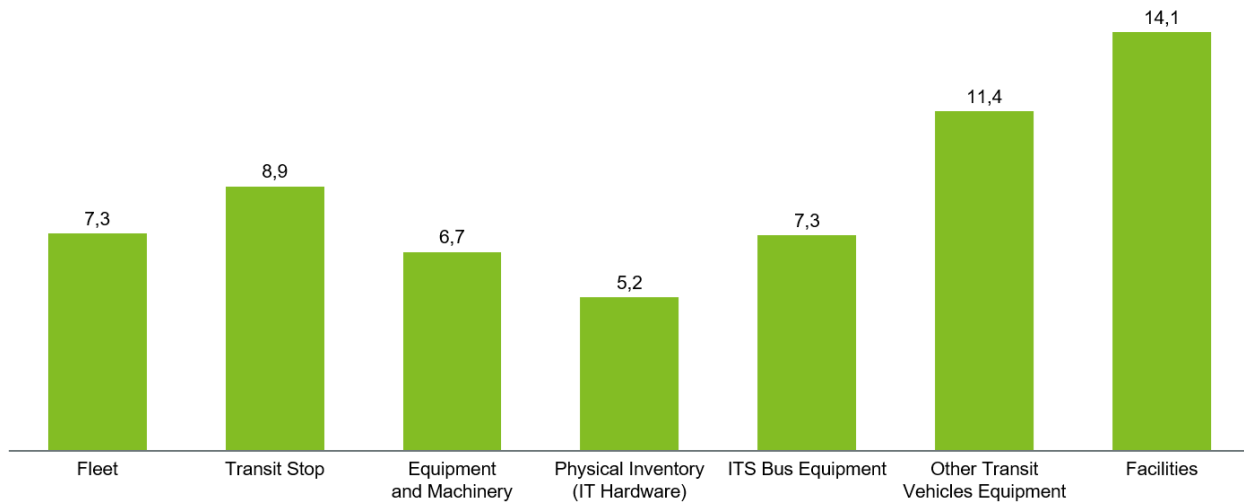


Figure 4-3: Probability of Failure per Asset Category<sup>1</sup>

<sup>1</sup> Exclude Facilities. Probability of failure assessment hasn't been conducted for facilities.

The weighted average age of the various asset categories for the transit commission highlights a range of asset conditions, with Facilities having the highest average age at 14.1 years, indicating a potentially older infrastructure. Other Transit Equipment follows with an average age of 11.4 years, suggesting older auxiliary systems or tools. Transit Stops and ITS\_Bus Equipment are relatively newer, with averages of 8.9 and 7.3 years, respectively. The Fleet also has an average age of 7.3 years, similar to ITS equipment. Equipment and Machinery show an average of 6.7 years, while Physical Inventory (IT Hardware) has an average age of 5.2 years, reflecting more recent technological upgrades.



**Figure 4-4: Weighted Average Asset Age per Asset Category**

### 4.1.3 Asset Hierarchy

The Niagara Transit Commission's assets are categorized into five primary groups:

- **Fleet:** This category includes the extensive range of NT's vehicles (transit buses, paratransit vehicles and non-generating revenue vehicles). As transit buses form a major part of revenue-generating assets and replacement value in this report, they have been further analyzed by type (40-ft and 60-ft buses).
- **Transit Stop:** These are the bus stops and shelters used by passengers through the transit network. Evaluating their condition and replacement costs helps to maintain a safe and accessible environment for NT's users.
- **Equipment and Machinery:** This category involves various machinery and equipment critical for maintenance and operations (e.g., seats, fuel tanks, maintenance equipment). Their condition and replacement costs are evaluated to ensure seamless operational support.
- **Physical Inventory (IT Hardware):** This category encompasses the IT infrastructure that supports NT's operations, including servers, workstations, and other critical hardware. The

current condition state and replacement cost analysis of these assets ensure the technological backbone of NT’s services remains robust and up to date.

- **ITS Bus Equipment:** This category includes the Intelligent Transportation Systems (ITS) equipment installed on NT’s buses, such as GPS devices, communication tools, and other technologies that enhance the efficiency and safety of NT’s services. A detailed evaluation of these assets is essential for ongoing innovation and improvement in service delivery.
- **Other Transit Vehicles Equipment:** This category encompasses all non-bus vehicle-related equipment. These assets are essential for the smooth operation and maintenance of the transport fleet, such as radio, filters, batteries, software, etc.
- **Facility:** This category covers NT’s buildings and facilities, including garages, administrative offices, and passenger facilities. This category includes the condition assessment and the replacement value estimation for Welland Transit Terminal, St Catharines Transit Commission Office, Wego Facility and Welland Transit Office and Garage. The assessment of facilities’ condition and replacement costs is also critical for maintaining operational continuity and ensuring the longevity of NT’s physical assets. It is worth noting that the Downton Terminal of St Catharines and the Morrison-Dorchester Hub are leased spaces, excluded from this analysis.

#### 4.1.4 Applied Assumptions and Limits of the Analysis

##### 4.1.4.1 Assumptions and Inputs

Several assumptions were made about the input data collected and maintained by the NT. All results (except for facilities) were extracted from a database shared by NT team, dated May 2024: “NTC Asset Management Plan– Final CEMA May 28 2024.xlsx”. The replacement value for each asset (except for facilities) has been estimated by the Niagara Transit Commission’s team. This value represents the cost of replacing an asset with a new one. Additionally, the current condition state of each asset (except for facilities) is based on the percentage of its estimated remaining life<sup>2</sup>. Assets (except for facilities) are categorized into the following condition levels based on the descriptions indicated in Table 10.

**Table 10: Asset Condition Scale for All assets, Except for Facilities.**

<b>Very Good</b> 70 – 100%	The asset is fit for the future. It is well maintained, in good condition, new or recently rehabilitated.
<b>Good</b> 50 – 70%	The asset is adequate. It is acceptable and generally within the mid stage of its expected service life.
<b>Fair</b> 30 – 50%	The asset requires attention. The asset shows signs of deterioration, and some elements exhibit deficiencies.

<sup>2</sup> % of remaining life is estimated by dividing expected life left by average expected life duration.

<b>Poor</b> 15 – 30%	There is an increasing potential for its condition to affect the service it provides. The asset is approaching the end of its service life, the condition is below the standard and a large portion of the system exhibits significant deterioration.
<b>Very Poor</b> Under 15 %	The asset is unfit for sustained service. It is near or beyond its expected service life and shows widespread signs of advanced deterioration. Some assets may be unusable.

As per the previous table, the estimated average useful life of the main evaluated assets is presented as follows:

- Transit buses: 12 years.
- Paratransit vehicles: 8 years.
- Non-revenue-generating vehicles: 8 years.
- Transit stops: 20 years.
- Equipment and machinery: 5-25 years.
- Physical inventory: 4-7 years.
- ITS bus equipment: 8 or 12 years.
- Other transit Equipment: 7 years.

Finally, the NT has assigned a specific probability of failure to each asset (except for facilities). These probabilities help assess the risk associated with each asset:

- 2%: 1 (very low risk of failure).
- 10%: 2 (low risk of failure).
- 25%: 3 (middle risk of failure).
- 65%: 4 (high risk of failure).
- +85%: 5 (very high risk of failure).

#### 4.1.4.2 Limits of the Analysis

The main limitation of this analysis is the different methods used to calculate the replacement value and condition of facilities versus other asset categories. For facilities, replacement value was based on cost per square foot (455\$ for the Welland Transit Terminal and \$800 for the three other facilities) times total square footage. For other asset categories, it was based on the cost to replace each one with a new one. Despite these differences, the team still compared the condition and replacement values across all assets.

It is important to note that the methodology used to estimate facility replacement costs for Welland Transit Office and Garage, St Catharines Transit Commission Office and Wego facility—based on an assumption of \$800 per square foot—is consistent with the approach used by the Niagara Region to estimate the replacement costs of their own facilities. This assumption has also been confirmed by CIMA+s cost estimation experts. However, specifically for the Welland Transit Terminal, CIMA+ applied

an assumption of \$455 per square foot, given that this facility is a commercial building with less equipment and assets (to ensure vehicles operation) to be replaced.

These assumptions per square foot serve as a general average for high-level cost estimation and come with four key limitations:

- This assumption does not account for site works or infrastructure (e.g., asphalt, stormwater management), and NT's facilities are surrounded by asphalt and concrete parking lots.
- It does not replace a detailed assessment of replacement costs for individual asset types within the facilities (e.g., roofs, foundations, exterior walls, etc.). To accurately estimate the replacement costs for each facility, multiple site visits by building engineers would be required. During these visits, engineers would also identify asset types at high risk of failure that would need prompt replacement.
- For budgeting purposes, relying on these replacement cost estimates may present a risk of over- or under-estimation due to their lack of accuracy. To ensure accurate CAPEX allocation for facility replacements, CIMA+ suggests basing replacement cost estimates on more thorough assessments.
- As mentioned earlier, the \$800 per square foot assumption was applied to be consistent with the approach used by the Niagara Region (except for the Welland Transit Terminal, where the assumption used was \$455 per square foot, given the building's different nature and function) to estimate the replacement costs of their own facilities. The \$800 assumption could be particularly less accurate for the Welland transit office and garage. Indeed, this facility presents high risks of failure, as it is a very old facility that has been actively operated by NT. For this particular site, the 800\$ per square foot assumption may not be high enough.

The condition assessment for each facility is calculated by dividing the annual estimated deferred maintenance costs (Outstanding + Deferred + Scheduled Repair & Maintenance Cost) over a 10-year period by the current total replacement value. This calculation allows to attribute an overall condition rating to the facility, based on the following thresholds:

- < 5% of replacement cost: Good.
- ≥5% - <10% of replacement cost: Fair.
- ≥10% - <30% of replacement cost: Poor.
- ≥30% of replacement cost: Very Poor.

Due to the lack of data on the remaining useful life for certain assets within the Physical Inventory (IT Hardware) category, it was not possible to assign a condition to them, even if their replacement cost was known. Consequently, the total replacement cost was calculated by summing up the replacement costs of all assets, rather than aggregating the replacement values per condition category. As a result, the replacement cost per condition does not accurately represent the total replacement value (accounting for only 41% of the total replacement value).

#### 4.1.5 Assets Current Condition, Replacement Value and Probability of Failure Assessment Results

##### 4.1.5.1 Fleet

The total replacement cost for all vehicles is \$155,905,000 (Figure 4-5). Most of the replacement value for fleet assets is associated with vehicles in poor or very poor condition (42%) with a replacement value of \$66,500,000. By contrast, vehicles in good or very good condition represent 34% of the fleet by replacement cost. This highlights an urgent need for replacements to address the deteriorating condition of the fleet.

**Buses:** The 40-ft buses category has the highest replacement cost at \$124,250,000 for a fleet of 142 vehicles, with the most of these vehicles in very poor or poor condition (46% by replacement value). 34% of the replacement value of this fleet represents vehicles in good or very good condition. The 60-ft buses have a total replacement cost of \$22,800,000 (19 vehicles), with most (47%) in fair condition. 37% are in good or very good condition, while 17% are in poor or very poor condition.

**Paratransit Vehicles:** Paratransit Vehicles account for \$6,800,000 and are by and large in the poorest condition of all revenue-generating vehicles. The majority of the replacement value (56%) are in very poor condition. The total fleet includes 26 vehicles.

**Non-revenue Generating Vehicles:** NT owns 39 non-revenue generating vehicles. Most of these vehicles are in poor or very poor condition. Only the Hybrid SUV category (4 vehicles) is in overall good condition with a total replacement value of \$60,000. Pickups (7 vehicles), with a replacement value of \$595,000, are mostly in very poor condition, with some in good. Vans (28 vehicles) total \$1,400,000 in replacement value, with the highest proportion in very poor condition.

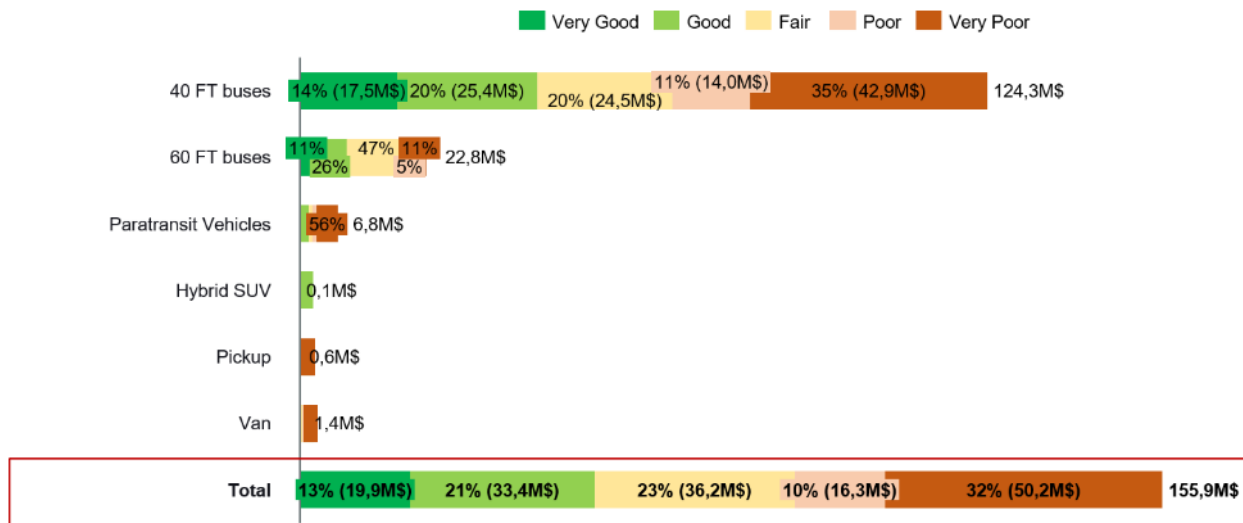


Figure 4-5: Summary of Fleet Assets Replacement Value, per Asset Condition



Overall, the fleet of 226 assets has a broad distribution of failure probabilities, with a significant portion in low and middle categories, but also a noteworthy number in high and very high categories, necessitating strategic management or replacement to mitigate risks (Figure 4-6).

**Buses:** For the 40-ft buses, which consist of the largest fleet with 142 assets, the majority have low and middle risk of failure, indicating a stable fleet with some risk areas, even if most of them are in very poor condition. The 60-ft buses, totalling 19 assets, mostly have a low probability of failure, suggesting moderate reliability (Figure 4-6). Overall, these vehicles have a lower probability of failure than their condition assessment would indicate, suggesting strong maintenance practices for the revenue fleet.

**Paratransit Vehicles:** Paratransit Vehicles, with 26 assets, predominantly fall into the high probability of failure category, highlighting a significant risk and need for attention (Figure 4-6).

**Non-generating revenue Vehicles:** The Hybrid SUV category, consisting of 4 assets, is entirely in the very low probability category, suggesting excellent reliability. Pickups, with 7 assets, are mainly split between very low and high probabilities, showing a mix of newer and older assets with varying reliability. Vans, totalling 28 assets, have a diverse distribution across all categories, with a notable presence in low, high, and very high probabilities, indicating a range of reliability. It is worth mentioning pickups and vans have an overall limited probability of failure, considering most are in very poor condition (Figure 4-6).

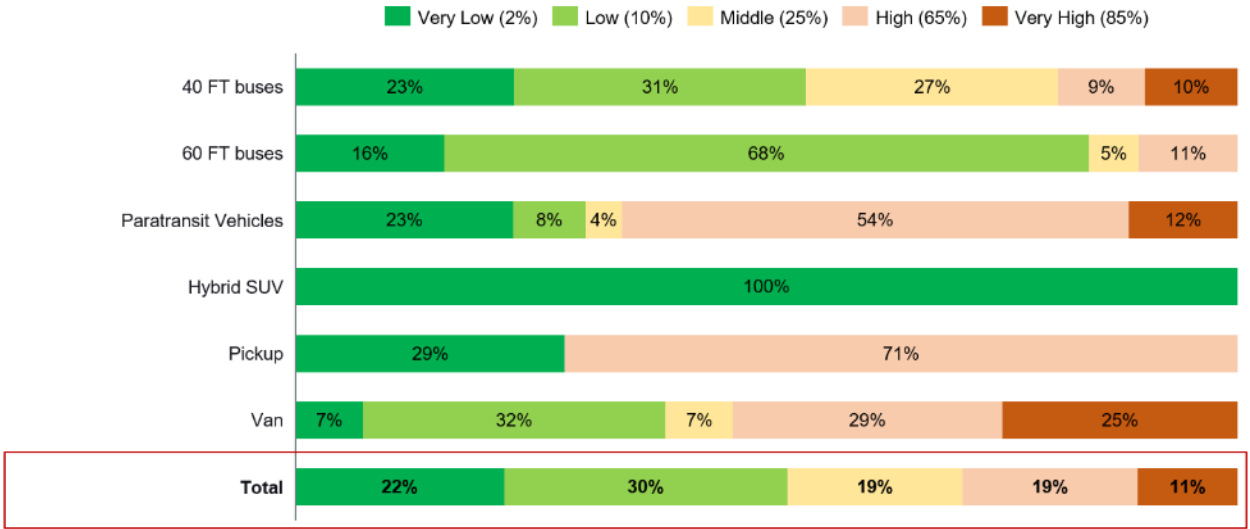


Figure 4-6: Probability of Failure for Fleet Assets

The Hybrid SUV subcategory has the newest average age at 1.3 years, suggesting a recent addition or upgrade in this area. 60 Ft vehicles are relatively newer with an average age of 5.3 years, while Paratransit Vehicles have a slightly older average of 6.1 years. The Van subcategory shows a moderate age of 7.3 years, and 40 FT buses have an average age of 8.0 years, indicating a more established fleet. The oldest subcategory, Pickup, has an average age of 8.7 years, which might point to a need for potential replacement or upgrade in the near future.

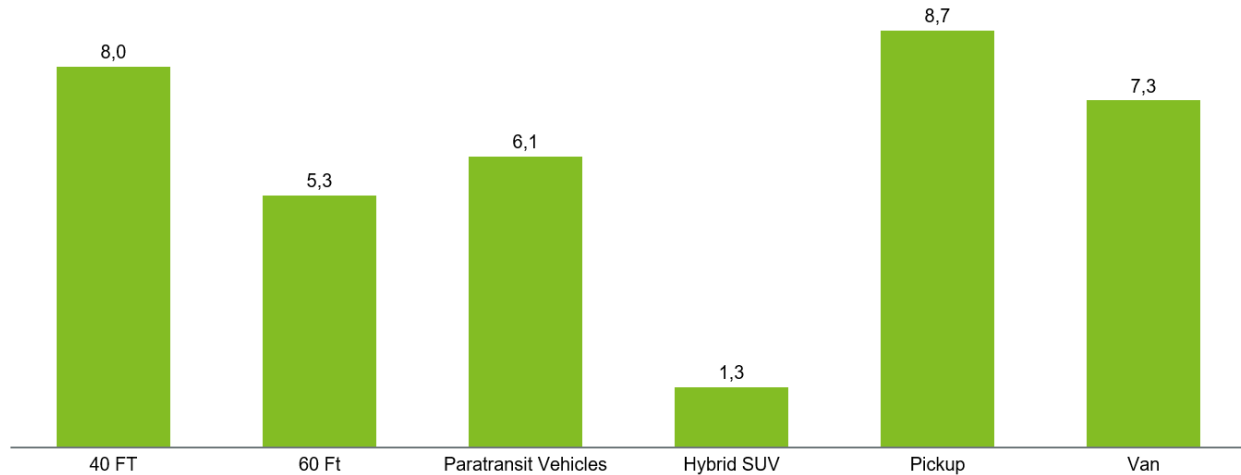


Figure 4-7: Weighted Average Age of Fleet Assets

#### 4.1.5.2 Transit Stop

The overall total replacement costs are distributed as follows: \$1,542,500 for very good, \$715,000 for good, \$910,000 for fair, \$900,000 for poor, and \$677,500 for very poor, demonstrating a mixed state of assets across conditions (Figure 4-8).

The "Other Type of Transit Stop" category, totalling \$2,180,000, has the highest costs in fair and poor conditions, indicating a significant portion needing upgrades or replacements. "Chair Access" stops total \$1,687,500, with the majority of costs in very good and good conditions, but also notable amounts in poor and very poor. "Concrete Pad" stops, with a total of \$60,000, have most of their costs in good condition, showing they are relatively well maintained. "Concrete Pad and Chair Access" stops, totalling \$637,500, are predominantly in very good condition, reflecting a well-maintained asset group. The "Concrete Pad, Chair Access and Shelters" category, with \$180,000 total, is entirely in good condition, indicating excellent overall condition (Figure 4-8).

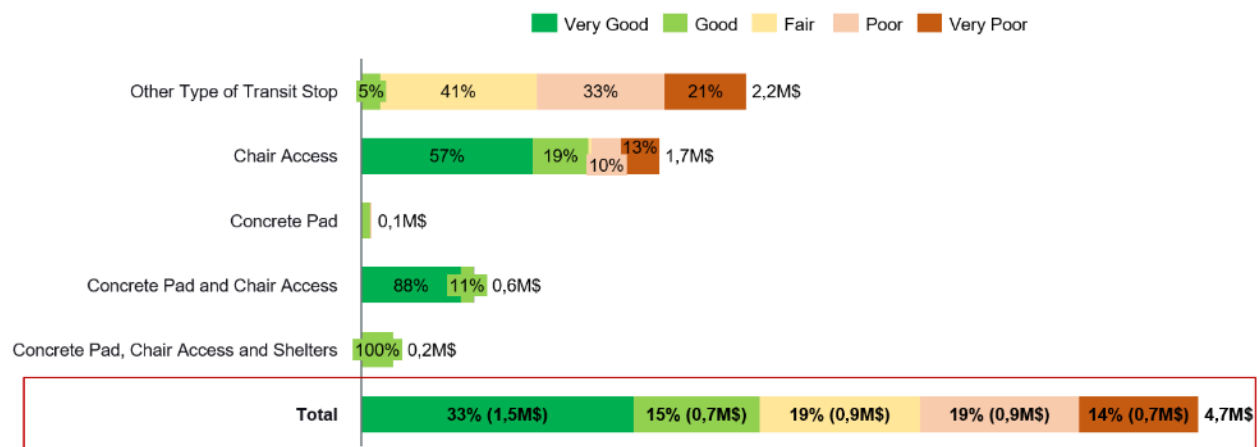
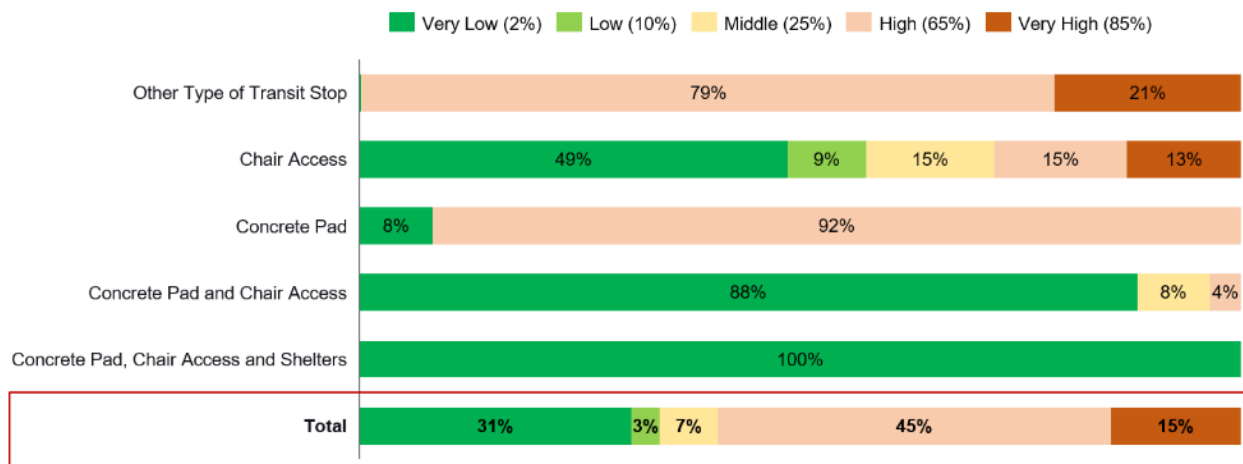


Figure 4-8: Summary of Transit Stop Replacement Value, per Asset Condition

Overall, the total distribution across all categories includes the majority of assets in the very low and high probability of failure categories. While a large portion of the transit stops are reliable, there is a notable number at high risk of failure, indicating areas where targeted maintenance and upgrades are necessary. The total assets per probability of failure levels are 566 in very low, 60 in low, 120 in middle, 818 in high, and 271 in very high, out of a total of 1,835 assets, highlighting the overall need for strategic management of these assets (Figure 4-9: Probability of Failure for Transit Stop)

The "Other Type of Transit Stop" category, totalling 872 assets, shows the highest risk of failure, indicating a significant portion of these stops are at risk with all assets ranking as high or very high risk. The "Concrete Pad" category, comprising 24 assets where the only additional infrastructure is a concrete pad, is mostly in the high probability category, indicating a higher risk of failure for these stops. "Concrete Pad and Chair Access" stops, totalling 255 assets, are mainly in the very low probability category, reflecting a generally low risk of failure. Stops with "Chair Access" but no other infrastructure are in relatively good condition, but still have 27% of stop locations that fall into High or Very High failure categories. The "Concrete Pad, Chair Access and Shelters" category, with 9 assets, is entirely in the very low probability of failure category, indicating these assets are in excellent condition (Figure 4-9: Probability of Failure for Transit Stop)



**Figure 4-9: Probability of Failure for Transit Stop**

The subcategory Other Type of Transit Stop has the highest average age at 13.3 years, indicating the oldest infrastructure among the transit stops. Concrete Pad follows with an average age of 8.8 years, suggesting a mature condition for these stops. Chair Access facilities have a moderate average age of 6.1 years. In contrast Concrete Pad, Chair Access, and Shelters, have a newer average age of 4.0 years, while Concrete Pad and Chair Access have the newest installations at an average age of 1.7 years, reflecting recent upgrades or installations to improve accessibility and comfort.

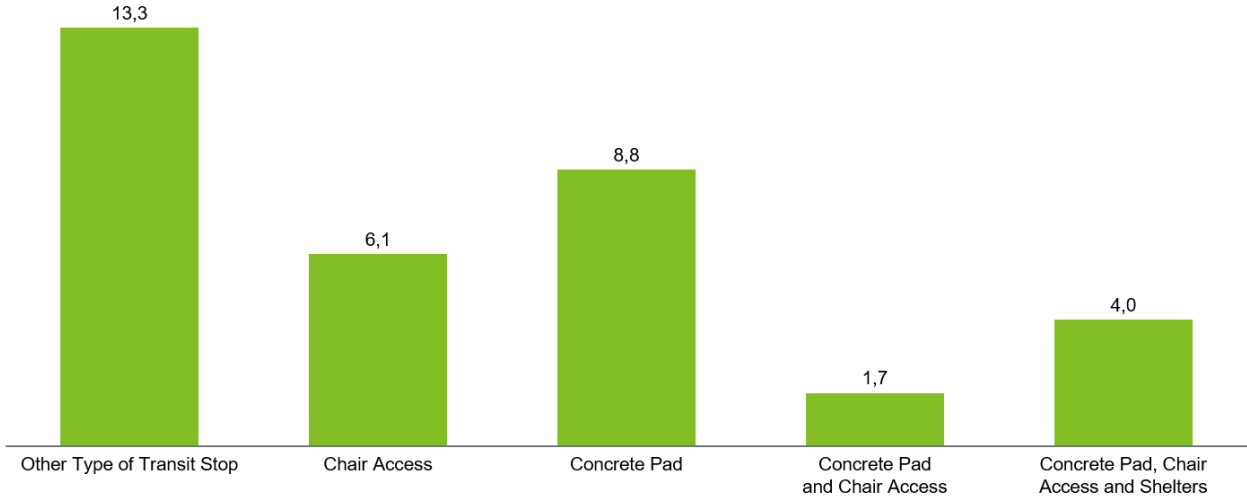
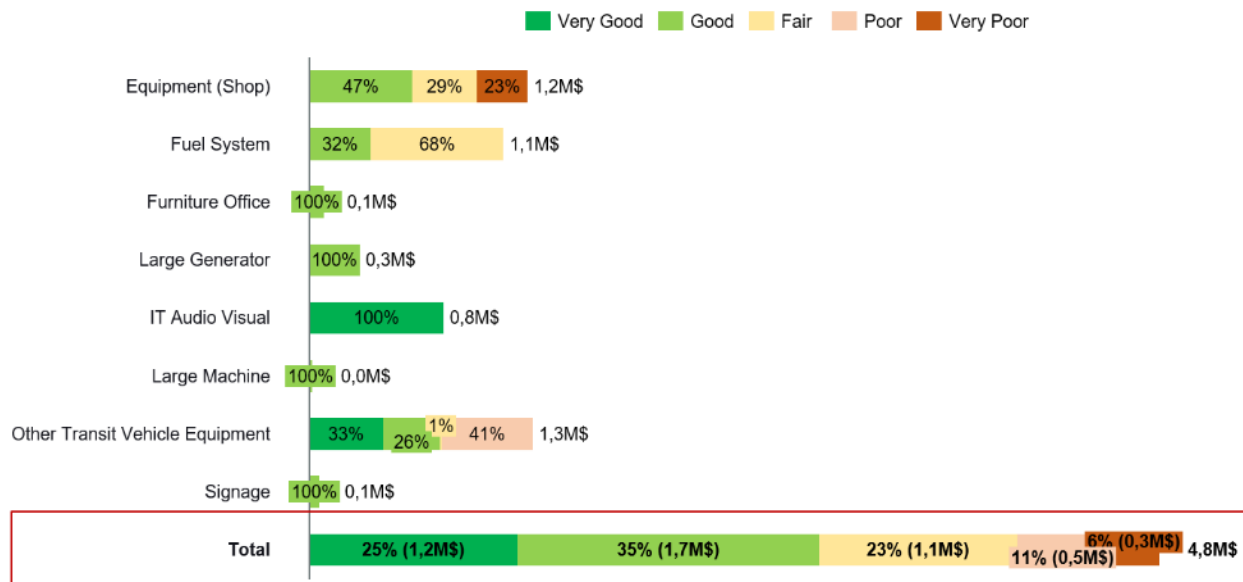


Figure 4-10: Weighted Average Age of Transit Stops

4.1.5.3 Equipment and Machinery

Overall, the total replacement value for equipment and machinery is \$4,832,849 with most of the replacement value (60%) in assets in good or better condition. 17% of assets are in poor or very poor condition, by asset replacement value. This distribution highlights a significant proportion of assets in good condition (Figure 4-11).

The "Equipment (Shop)" category has a total replacement cost of \$1,242,169, with the majority in good and fair conditions, and a significant portion (23%) in very poor condition, indicating a need for investment to maintain the overall condition of these assets. The "Fuel System" category, totalling \$1,105,424, is all in fair and good conditions, suggesting stability, but a need to plan for future investments. "Furniture Office" has a total of \$84,622, all in good condition, showing well-maintained assets. "Other Transit Vehicle Equipment" with a total of \$1 272 203, has replacement costs spread across very good, good, fair, and poor conditions, showing a mix of asset states with some needing attention. All other asset categories are in good or very good condition, indicating that the assets are reliable and relatively recent.



**Figure 4-11: Summary of Equipment and Machinery Assets Replacement Value, per Asset Condition**

The highest number of assets fall into the very low and low risk of failure categories, indicating that a significant portion of the assets are reliable. However, there are some assets in the middle and a few in the high and very high probability of failure categories, highlighting areas where attention may be needed to ensure continued operational efficiency. The distribution per probability of failure shows a focus on maintaining high reliability, with strategic planning to address the replacement of assets with higher failure probabilities (Figure 4-12).

The "Equipment (Shop)" category, with a total of 27 assets, has the majority in the middle probability of failure category, followed by low and very high probabilities, indicating a mix of reliability with some assets at higher risk of failure. The "Fuel System" category totalling 3 assets is with two assets in the middle risk, suggesting moderate reliability. However, with the limited number of devices, this could represent a risk should a single device require significant maintenance or replacement. The "Other Transit Vehicle Equipment" category, totalling 10 assets, has the majority in very low and low risk of failure, with a small portion with middle and high risk of failure, indicating overall good reliability but with some potential risk areas. All other areas have low or very low risk of failure.

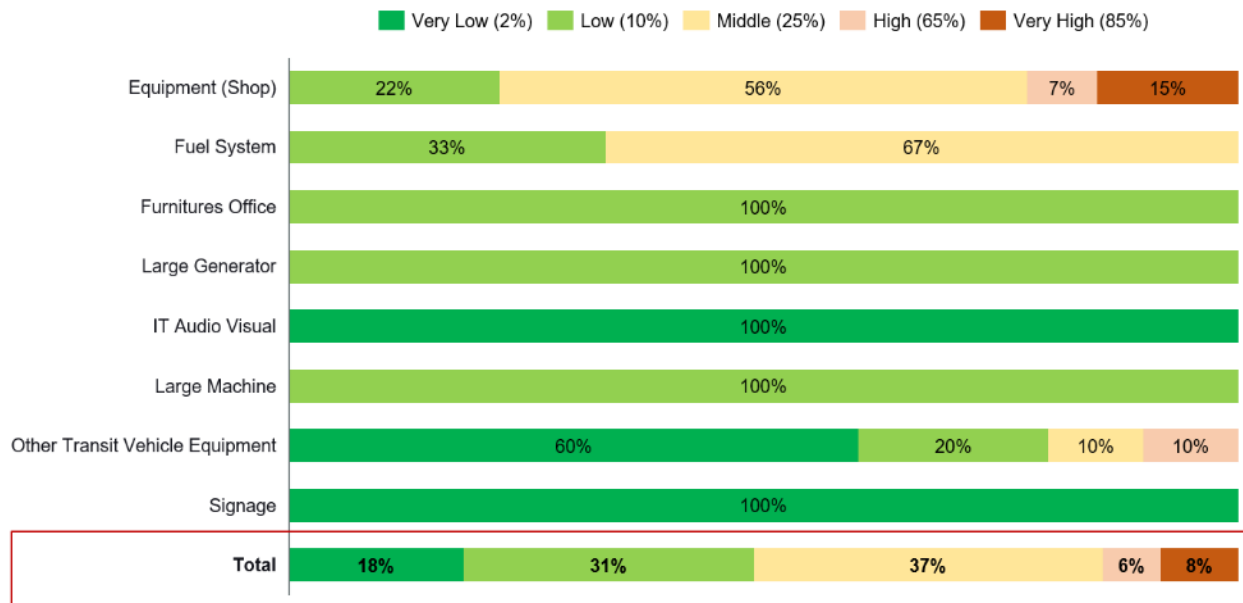


Figure 4-12: Probability of Failure for Equipment and Machinery Assets

Fuel System assets are the oldest, with an average age of 9.3 years, closely followed by Signage and Large Machine, each with an average of 9 years. Equipment (Shop) also has a high average age of 8.8 years, indicating well-used assets. Large Generator has a moderate age of 6 years, while Other Transit Vehicle Equipment and Furniture Office are relatively newer, with averages of 2.1 and 2 years, respectively. The newest assets are in the IT Audio Visual category, with an average age of 1 year, suggesting recent investments in technology upgrades.

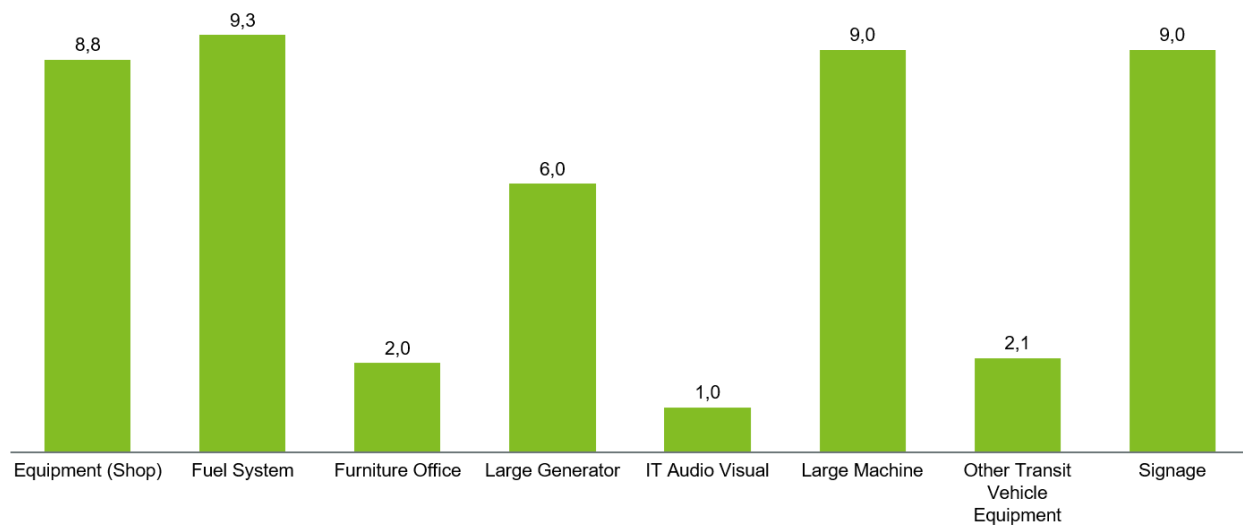


Figure 4-13: Weighted Average Age for Equipment and Machinery Assets

#### 4.1.5.4 Physical Inventory

The Figure 4-14 outlines the replacement costs for Physical Inventory (IT Hardware)<sup>3</sup>, showing a significant portion is in very poor condition, indicating many assets need immediate replacement. The fair condition category also holds a notable amount, suggesting some aging IT hardware. Replacement costs in good and very good conditions are lower, reflecting fewer immediate needs for a minority of assets (Figure 4-14).

Most items fall into the middle risk of failure category, indicating moderate risk, while a significant number are in low and very low risk of failure categories, suggesting good reliability. However, there are also notable quantities in high and very high risk of failure categories, highlighting areas needing urgent attention. Overall, the inventory has a mixed reliability profile (Figure 4-14).

### Summary of Physical Inventory (IT Hardware) Replacement Value

### Probability of Failure for Physical Inventory (IT Hardware)

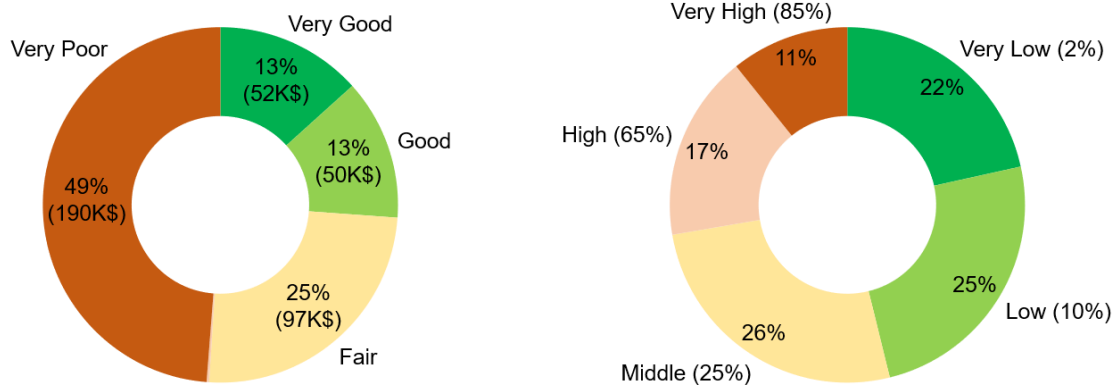


Figure 4-14: Summary of Physical Inventory (IT Hardware) Replacement Value, per Asset Condition and Probability of Failure.

#### 4.1.5.5 ITS Bus Equipment

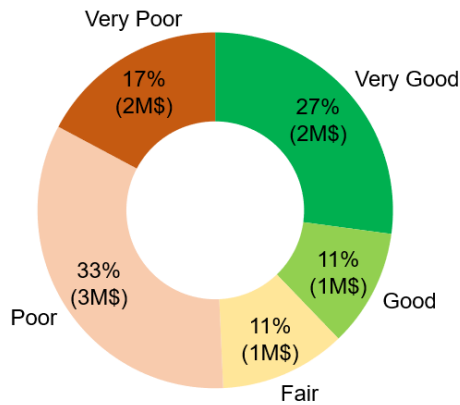
The Figure 4-15 shows the replacement value for ITS Bus Equipment, totalling \$8,927,374, which represents one of the most significant non-fleet asset values for the NT. Most assets are in very poor conditions, indicating a need for significant upgrades. There is also a substantial portion of assets in very good condition, reflecting a mix of well-maintained and aging assets. The smallest portions are in good and fair conditions. Overall, the data highlights the need for targeted investments in poorer condition equipment.

The Figure 4-15 shows the probability of failure for ITS Bus Equipment, totalling 618 assets. The analysis reveals that 48% of sub-assets fall into the high-risk category, indicating a critical need for maintenance or replacement to prevent failure. Meanwhile, 4% are at a very high risk, requiring immediate attention. On the lower end, 31% of sub-assets are classified as having a very low risk of failure, suggesting that a

<sup>3</sup> As outlined in the section “**Error! Reference source not found.**”, this breakdown only covers 41% of Physical Inventory (IT Hardware).

significant portion of the equipment is in good condition. The remaining assets are distributed between the low-risk (11%) and middle-risk (6.8%) categories, which may benefit from regular monitoring and preventative measures.

### Summary of ITS Bus Equipment Replacement Value, per Asset Condition



### Probability of Failure for ITS Bus Equipment

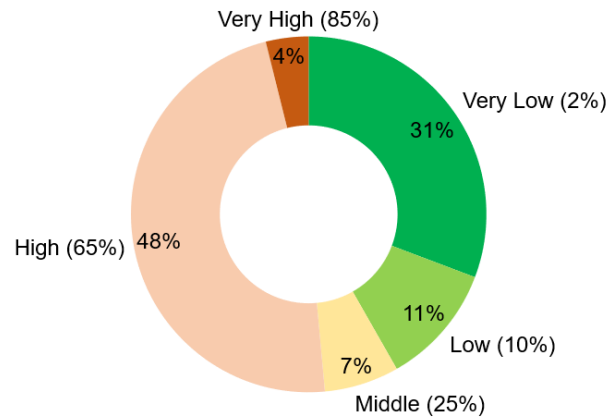


Figure 4-15: Summary of ITS Bus Equipment Replacement Value and Probability of Failure

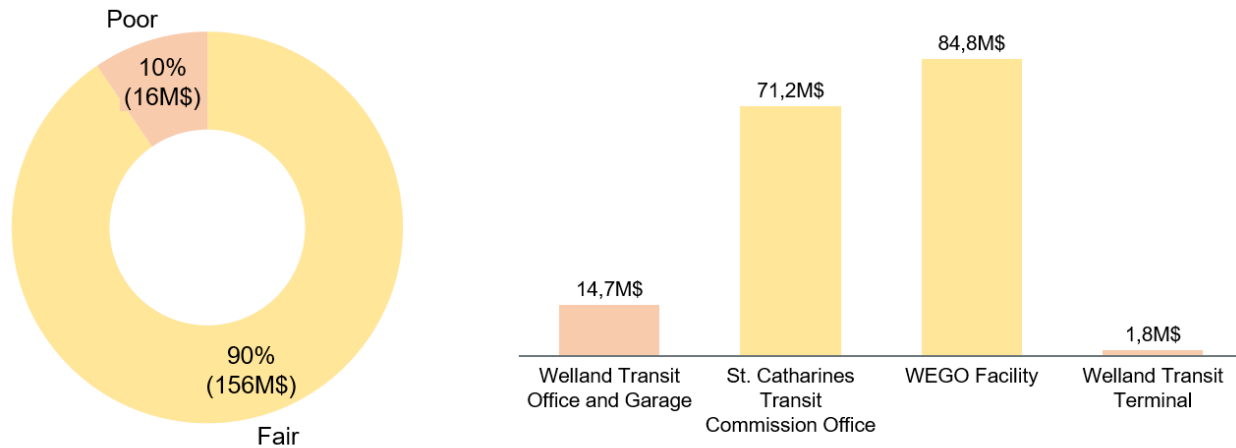
#### 4.1.5.6 Facilities

The Figure 4-16 presents the replacement cost for the four facilities categorized by the current condition state. Notably, all facilities are in fair or poor condition by replacement value. The majority of the replacement costs are associated with the St. Catharines Transit Commission Office and the WEGO Facility, which are in fair condition, totalling \$155,965,600. The remainder is for facilities in Welland, including the Transit Office and Garage and the Transit Terminal, which are both in overall poor condition, amounting to \$16,436,100. The total replacement cost for all facilities is \$172,401,700. This distribution highlights that most facilities require significant improvements, with a substantial portion classified as fair condition, indicating a need for future investments to prevent them from deteriorating further.

As already explained in section 4.1.2: State of Existing Assets, the Welland transit office and garage presents a high risk of failure. An in-depth assessment of this facility is recommended to determine whether it should be decommissioned and rebuilt at a new location, or if strategic asset replacements intended to extend its operational life would be relevant. This should be supported by a detailed cost-benefit analysis and an assessment of the potential impact on NT's operations.

The replacement cost estimates for the Welland Transit Office and Garage should only be used within the context of the current asset management plan, knowing the limits of this estimation. This data is not applicable for other purposes, such as CAPEX budgeting.





**Figure 4-16: Summary of facilities Replacement Value, per Asset Condition**

## 4.2 ICIP Project Review

In 2016, the Federal Government launched the Investing in Canada Plan (ICIP) funding stream for public transit infrastructure. This initiative aims to support the construction, expansion, and upgrading of urban and rural transit networks, enhancing service and transforming the way Canadians live, move, and work.

Originally, the Public Transit Infrastructure Fund had a total allocation of \$3.4 billion. However, a Budget 2022 decision returned \$326 million to the fiscal framework, reducing the fund to \$3.074 billion.

The NT has successfully leveraged this fund multiple times by applying through the program prior to amalgamation. The following sections provide a review of current ICIP funding requests and their status.

### 4.2.1 Current Funding Request and Business Case for Niagara Transit

Upon its formation, the NT inherited \$75 million in transit operating expenditures and \$158 million in assets from previous municipal transit operators. With a total fleet of 166 conventional buses that averages 8 years old, there is a need to replace, on average, 14 vehicles annually to remain a steady-state replacement cycle and decrease the fleet age to 6 years. This will reduce operating and maintenance costs and improve service reliability by reducing the need for spare buses.

For its fleet replacement, the NT requested \$78M of ICIP funding to partially cover conventional fleet replacement over the next 10 years. This represents the federal portion of the required investment (\$136.6M) to meet a lifecycle replacement target of 12 years. The funding request also included budget allocated to onboard transit ITS systems including real time tracking information, cameras, fare collection technology, audible and visual announcements and designs that meet or exceed accessibility standards. It should be noted that NT is currently part of Metrolinx Joint Procurement initiative and therefore benefits from buy-in power from the group, which might get reconducted for another year.

In its funding application, the NT emphasized the urgent need for financial support to avoid reducing existing transit services relied upon by many residents, especially families. Approximately 20-40% of community members do not drive due to age, income, ability, or personal choice, making reliable public transit essential for their mobility. With an aging fleet, increasing reliability issues would take vehicles out of service, and result in a reduction of service for these residents across the region.

The business case highlighted numerous benefits the community, including improved health benefits, reduced costs, and increased efficiency. Table 11 provides an overview of the total eligible costs planned for the replacement of the 40-ft diesel vehicles between 2024 and 2031.

**Table 11: Total eligible costs incurred by fiscal year and by component for the 40-ft diesel bus replacement (2024-2032)**

Name of Project Component	Total Eligible Costs Incurred per Fiscal Year (\$)								
	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32	Total
8-yr 40-ft Diesel Replacement Forecast (#)	21	11	8	13	15	19	13	11	111
Application for 40-ft diesel vehicle replacement (#)	21	11	8	13	15	19	13	2	102
40-ft diesel vehicle replacement (million \$)	17.51	9.36	6.94	11.5	13.54	17.49	12.21	1.92	90.47
1% project contingency (million \$)	0.18	0.09	0.07	0.12	0.14	0.17	0.12	0.02	0.9
<b>Total (million \$)</b>	<b>17.69</b>	<b>9.45</b>	<b>7.01</b>	<b>11.62</b>	<b>13.68</b>	<b>17.66</b>	<b>12.33</b>	<b>1.94</b>	<b>91.37</b>

Other funding requests included the progressive replacement of specialized/paratransit buses, starting in 2024 and ending in 2030, with similar add-ons as the 40-ft buses. Additionally, the funding request covered the replacement of six 60-ft diesel buses, beginning in 2026 and ending in 2030.

It is worth noting that the application was submitted in November 2022, at a time when future inflation estimates were lower than the actual price increases that occurred in January 2023. This has reduced the portion of ICIP funding available for fleet replacement, even if the subsidy amount was the same. Additionally, as prices continue to rise, if the ZEB transition takes place within the ICIP funding timeframe, the proportion of ICIP funding allocated for fleet replacement will further diminish. The

increasing costs of vehicles, charging stations, and other essential equipment will widen the gap between projected and actual expenses, making the allocated ICIP funding less effective in covering the full costs and potentially creating a funding shortfall.

Another key component of the funding request was for comprehensive operational reviews, including facility and strategic asset assessments, service network evaluations, and fleet electrification reviews. These reviews aim to drive a five-year consolidated NT operational optimization and long-term growth plan.

As of now, all applications have received approval. However, INFC has yet to transfer the Municipal Transfer Payment Agreement (TPA) for previously approved projects in Local Area Municipalities (LAMs) to the Region; this transfer is still pending. Additionally, all applications for the third intake were submitted through the Region and are under the authorization of NTC.

#### 4.2.2 Past Applications

Previous to the amalgamation multiple standing funding requests were carried out by Niagara Falls Transit, St Catharines Transit, Welland Transit as well as the Region. The key requests for funding included:

- For the Region: a new fare payment system, new cameras and radio, new fareboxes, and the procurement of two new buses.
- For Niagara Falls: bus cameras, post hoist, an automotive lift, a fuel system upgrade, installation of new VOIP radio system and, for the largest project, a 2,185 m<sup>2</sup> expansion of indoor parking facility and an additional 10 outdoor parking spots at current Transit facility. The construction was expected to be completed by 2023, for a total of \$3.5M.
- For St. Catharines: new bus stops and shelters, hoists, and multiple large-scale requests including a facility expansion with 53 additional parking spaces (853m<sup>2</sup> in the maintenance area, and 2,868m<sup>2</sup> in the bus storage area, additional office space, and new hoist) for total eligible costs of \$7.85M. Lastly, a few upgrades to the downtown terminal, summing up to a funding request of \$500,000 was provided.
- Welland: significant reconstruction of the transit operations facility, including design and construction of a 50,000 square foot facility capable of housing and maintaining 40 municipal and regional conventional and specialized buses. The design was expected to begin in 2019 and construction to be completed by 2022 for a total of \$15M. This work was paused pending the creation of the NTC.

The most recent information shared by the NTC on the status of ongoing funding applications was shared on June 18<sup>th</sup>, 2024, and presented in the Figure 4-17 below. These projects sum up to a total of \$57.5 million of project, with \$23.01 million from the federal (40%) and \$19,17 million (33%) from the province. Note that the schedules of these projects will likely have to be updates based on the current progress of each of the activities.

Niagara Transit: Background Context Report

Legend

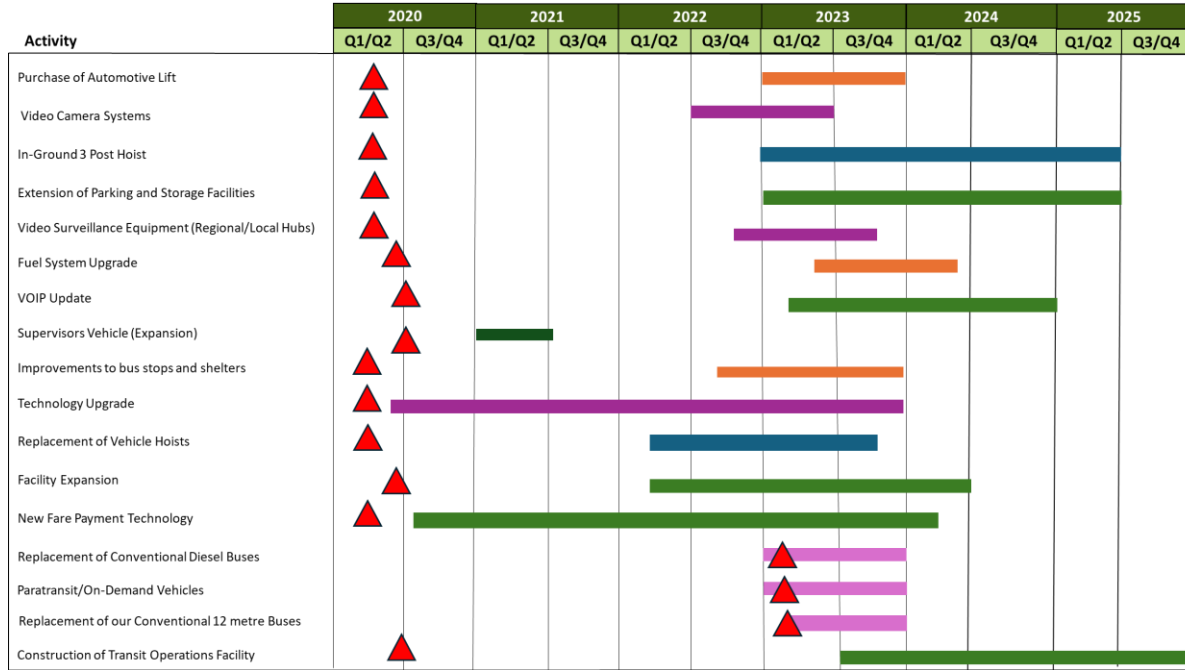


Figure 4-17: Pre-Amalgamation ICIP Project List and Status

## 5 Staff, Community, and Stakeholder Engagement

Hearing directly from staff at NT, Region, and Local Area Municipalities (LAM), as well as the community, and stakeholders provides important perspectives on the current state of NT and what should be prioritized in the future. The results discussed in this section correspond to the first round of engagement, NT Today and Tomorrow, that focuses on the current state and direction setting for the future. Several engagement strategies were leveraged to meet with identified groups. Each subsection delves into engagement strategies and synthesizes ideas and perspectives that were shared.

### 5.1 NT, Region of Niagara and LAM Staff

NT, Regional and LAM staff were engaged to provide perspective on NT’s operations, strategy, and the organization itself. Engagement tactics leveraged were discovery meetings and garage pop-ups.

#### 5.1.1 Discovery meetings

Early in the project, different groups within NT and the Region were identified to have discovery meetings virtually between 30 min to an hour. In total, ten meetings were held with the following groups:

**NT only**

- Leadership
- Customer Service
- Facilities
- Finance – Performance/Business Services
- Fleet Maintenance
- Operations
- Service Planning

**NT and Regional Staff**

- Shared Services
- Transportation Planning

**NT, LAM, and Regional Staff**

- Planning and Housing

Five key findings emerged from synthesizing the results of the discovery meetings:

- 1. Desire to show vision and boldness through the first NT Transit Master Plan.** Since this is the first transit master plan since the establishment of NT, there was direction and a desire from the discovery meetings to be bold and leverage the plan as an opportunity to establish a strong vision for transit in the region.
- 2. Need to catalyze LAM and stakeholder support at Regional Council to support funding investments.** In order to realize increased investment and improvements in transit, both LAMs and key stakeholders need to show support at Regional Council and advocate for transit. Currently, the need for transit is being communicated from LAMs and stakeholders to NT and expanding that communication to Regional Council would be more effective.
- 3. Growth in transit service across the region needs to be purposeful, increase consistency; requires establishment of service standards.** Pre-amalgamation, each agency was responsible for their own service planning and growth, which resulted in inconsistent service spans and frequencies, for example. Within the context of a unified, regional NT, a more consistent approach and a common set of service standards are required.
- 4. Internal policies, budgeting, and operational practices create staffing challenges.** There is a shortage of key personnel within NT, including operators and maintenance technicians. The constraints associated with current operational practices and policies exacerbate retention and hiring challenges.
- 5. NT's three facilities have constrained capacity and interoperability is limited; specific questions regarding Welland facility.** A lack of a long-term vision for facilities has led to outstripped maintenance capacity, needs for capital upgrades, and potentially an additional facility. With very limited interoperability currently, there is an opportunity to make improvements. The Welland facility, which is now closed at the time of writing, is of particular concern.

### 5.1.2 Garage Pop-ups

Input from frontline staff, like operators, provides an important and unique perspective, especially on the details of current operations. Pop-ups were held at two of the three NT facilities, St. Catharines and Niagara Falls in the afternoon of June 3, 2024 approximately during the afternoon shift change. Overall, about 35 operators shared their perspectives between the two pop-ups. Their comments focused on the current state primarily and reflected the following ideas and concerns:

- There is not enough runtime on certain routes (315, 415, 209, 109, 110). Delays are also caused by the number of people boarding at stops, leading some to share that they don't think frequent service is as possible. 416 – nighttime run is 30 mins vs 45 mins at daytime.... Not enough runtime for night time run
- Several operators shared that they feel their concerns are not being listened to, taken seriously or actioned. Others suggested that management and the project team should ride buses to understand what is happening on the ground.

- Specific challenges related to roads and municipal infrastructure/maintenance. There needs to be improved roads, signal timing (e.g., less advance greens for summer travel patterns), painting lines on road, and trimming trees.
- Operators identified specific opportunities to adjust service based on:
  - Areas that have low ridership at certain times of day
  - Stop spacing is too small (e.g., Tasker/Queenston, Glendale @ Penn Centre, Library stop near the terminal, stops on Pelham 303)
  - Straighten routes, less meandering (e.g., 301, 303, 305)
  - Improve consistency of routing across days of week
  - 337 requires shuttling to get either to or from the start of shift
  - 303 – goes to same location as 315/415; opportunity due to current construction
  - Crew 111 and 107 “really painful”
  - Lots of issues at South Ridge stop
  - Specific streets that are not safe or have not enough traffic lights for safe intersections (e.g., Culp Street)
  - Need to increase Sundays/holiday services, especially on regional routes
- Operators identified specific bus, technology, and facility challenges:
  - No turn-by-turn directions available on-board. This is challenging when operating different routes in one day, and especially for a new driver.
  - Stop announcements not always occurring in advance
  - Buses need better maintenance
  - 2200 and 2300 series buses were ordered without windows at the top that opened
  - Better washrooms @ Brock and at Fairview Mall (especially for women operators)
- Common customer challenges and feedback (as received by front line staff):
  - Customers don’t know about fare products and cause boarding delays as a result
  - Fare evasion (e.g., people claiming they are 12 years old when they are clearly not)
  - Specialized transit customers have to wake up at 2am to book – not enough capacity for subscription/recurring trips
  - Not enough accessible parking spaces at the St. Catharines facility – 3 people have a permit but there is only 1 spot

### 5.1.3 Amalgamated Transit Union Local 846

The Amalgamated Transit Union (ATU) Local 846 was also engaged to provide insights into the current state during an hour-long introductory meeting where LTRT shared about the project and posed questions about priorities, without focusing on the Collective Bargaining Agreement (CBA) as it is outside the scope of this project. ATU representatives shared about some key operational challenges to be tackled as well as relevant customer concerns that have arisen:

- Union has not seen many benefits from amalgamation yet. There are challenges related to the current CBA and differences between properties related to operational policies. Amalgamation has made it slightly easier for employees looking to transfer between cities.

- Broader planning needs to be more integrated with transit planning. There are several developments that have been announced without any allocation for transit. As Niagara grows and more housing becomes available, transit should also be planned for.
- Customers are taking very long trips around the region. Some origin-destinations are poorly served (e.g., Port Colborne to Fort Erie has to go through Welland and Niagara Falls). More intercity express routes should be prioritised to help address these long travel times.
- A past study related to employment in the region showed that 65% of people living in Niagara worked on Sunday. More consistency between weekday and Saturday and Sunday schedules would be beneficial for people who work on the weekends.
- The Niagara Region, especially Niagara Falls, has a large tourism industry. Transit service does not currently serve tourism employees very well, in terms of limited service at night.
- The availability of terminals more broadly and also places to purchase transit passes and tickets are very poor for customers. Niagara Falls isn't open on weekends, and only 8:30am-4pm on weekdays<sup>4</sup>.
- Building repairs and maintenance is an overly lengthy process
- Need more transit priority especially in Niagara Falls
- Need a real terminal in Niagara Falls
- A strong communication plan is critical for NT. Currently, customers aren't getting the information they need. More people in the region don't speak English fluently, which should also be accounted for.
- Two of three garages are too small and understaffed<sup>5</sup>.

## 5.2 Key Stakeholders

NT has a number of key stakeholders, including partner post-secondary institutions in the region and various advisory committees that represent the interests of a broader community. NT struck a new Public Advisory Committee (PAC), the timing of which corresponded with the beginning of engagement related to this project which was very beneficial for this project.

### 5.2.1 Brock University Student Union

Student ridership is a significant portion of NT's overall ridership and the cost-sharing agreement between Brock University Student Union (BUSU) and NT makes them an important partner and stakeholder. In addition to their representation on the NT PAC, a one-hour discovery meeting was held with two BUSU representatives to deep dive into the current state of transit and future priorities of BUSU that NT should account for. The following bullet points summarize key points of the discussion:

- BUSU is highly satisfied with the current partnership and responsiveness of NT to raised issues. Many students are transit users and are generally satisfied with some specific challenges:

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<sup>4</sup> This statement was shared based on the individual's particular experience. It is not known if this reflects current hours.

<sup>5</sup> This statement was shared based on the individual's particular experience. They did not expand on which two garages they meant.



- Capacity issues at the beginning of the school year, which are resolved by NT adjusting service
- Students who live further from campus or who are working part-time jobs face long travel times and difficult connections
- Historically, Brock students have lived very close to campus. Current trends have more students living further from campus, in Thorold and St. Catharines, which may impact future travel patterns. There are also more students living in Welland and Grimsby, but there has not been feedback to BUSU to increase transit specifically in those areas.
- Future projections of student population (10 years out) are similar to current population; big increases are not anticipated. The current amount of online teaching (about 20%) is likely to remain the same.
- Recent years have shown some changing trends in student demographics, including more mature students and more students with disabilities. These changes are likely to impact travel patterns and the types of services needed by students.
- Affordability is a pressing issue for students, which is impacting their decisions about where to live and how to travel. More students are choosing to live at home or wherever accommodations are economical and commute. This year saw unused capacity in both campus residences and parking passes, which has not happened in previous years. These students may look to transit to meet these different and additional transportation needs.
- Anticipated development that may impact travel demand and patterns:
  - New student union building on campus may encourage students to be on campus later
  - Brock is considering switching to trimesters, which would increase student population in the summer
  - Slow growth anticipated for a new engineering faculty
- New and expanded transportation options, like GO and a new Flix bus route may encourage regional travel and beyond.

### 5.2.2 Niagara College Student Administrative Council

The Niagara College Student Administrative Council (NCSAC) is an important partner of NT given the large student ridership population and the cost-sharing agreement between the parties. In addition to their representation on the NT PAC, a one-hour discovery meeting was held with one NCSAC representative to deep dive into the current state of transit and future priorities of NCSAC that NT should account for. The following bullet points summarize key points of the discussion:

- NCSAC is satisfied with the partnership with NT and transit is well-supported by Niagara College students.
- Previously, enrolment was unpredictable. Especially in light of the federal government decision to reduce international student visas, enrolment numbers will be more consistent leading to a relatively stable student population in the future.
- Niagara College leverages the off-campus housing resources developed by Brock University and so students living off campus often live in the same areas as Brock students. Current off-campus housing is focused in Niagara Falls, St. Catharines, Thorold, and Niagara on the Green.

- More recruitment is focused in the region (St. Catharines, Thorold, Welland) but is starting to expand to Hamilton. More students may be commuting from further away in the future.
- Anticipated development that may impact travel demand and patterns:
  - Welland campus expansion, plans are public
  - Niagara-on-the-Lake
  - Glendale campus expansion, planning is starting
- There is potential for synergy between the needs of NCSAC, BUSU, and the broader community. NCSAC is interested in pursuing transit planning that is efficient and meets student and community needs.

### 5.2.3 NT Public Advisory Committee

NT recently struck a Public Advisory Committee (PAC) that represents the Local Area Municipalities (LAMs)<sup>6</sup>, post-secondary partners, chamber of commerce, the regional accessibility advisory committee, and youth. The project was introduced in the first ever PAC meeting (April 23) and the second PAC meeting (June 10) focused on soliciting the PAC's perspective on specific engagement questions.

Across both meetings, committee members shared their perspectives and identified key priorities and considerations for NT moving forward:

- **Accessibility and freedom of movement:** Full accessibility of the conventional service has not been achieved. People with disabilities don't necessarily feel safe accessing the service and using it (e.g., accessible sidewalks leading to bus stops, drivers that know how to use the ramp and do, crowding on buses).
- **Rural transit:** There is some tension in rural communities in the region between the desire for transit (or more transit) and a refusal of transit. Micro-transit operating in smaller communities is not necessarily seen as a full transit service and can be difficult to book reliably and understand.
- **Regional connectivity and direct routes:** Getting directly from one place in the region to another is challenging, especially for people going to or from a smaller community. Connections across the different services is a challenge. A lot of routing for individuals' trips are circuitous and indirect. The lack of regional Sunday service is a problem.
- **Customer experience and facilities:** Attracting new users to the system is important and considering the customer experience will help in that. Poor facilities do not promote a good customer experience (e.g., "St. Catharines Bus Terminal feels sad and punishing").
- **Connections outside of Niagara:** Connecting outside of the region is likewise important. Specifically connecting into the GO network and to Hamilton.

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<sup>6</sup> At the time of writing, 10 of 12 LAMs are represented on the PAC. The Port Colborne and Welland representative positions are vacant.

A series of trade-offs were also presented to the PAC for discussion. The first trade-off was between more frequency or more coverage. Some of the sentiments of the PAC included:

- Difficult to pick one or the other, as it may also depend on the context. At times or for certain trips, one or the other is more important. Additionally, some committee members disagreed they were in direct competition and that they need to be balanced.
- Frequency is really important to attract new ridership and establish trust in the service. It is also a key priority for student riders.

The second trade-off was between more connections within local community or more connections within Niagara Region. Sentiments shared included:

- Acknowledgement that the region is very large with a lot of different transportation needs. It is a challenge to provide transit both within and to rural communities (e.g., Wainfleet, West Lincoln).
- Micro-transit efficiency was raised as an issue and the idea of it being more of a stop gap solution than a long-term one.
- Transit hubs can be leveraged as a way to provide connectivity in a safe and comfortable way for riders.

The third trade-off was between fewer transfers and longer travel times vs. more transfers and shorter travel times. Diverse opinions were shared, including:

- Lots of transfers “suck” and there is not a lot of trust that connections will work out between different services.
- Perspective changes depending on a number of factors. Shorter travel times would be better, unless you are already looking at 3-4 transfers. The experience of transfers is better if they are happening at a location with facilities and depending on whether a rider is young and able-bodied.
- Shorter travel time is key to attracting new users.
- Sometimes people don’t care about how long the travel time is, once they are comfortably seated on a bus (this is the case in micro-transit according to one member).

The last question posed to the PAC was related to funding, including if funding for transit should be increased and what mechanisms should be considered to increase that funding. All the PAC members agreed that funding should be increased through a mix of taxes, and funding from all levels of government. Additionally, one member emphasized the role of transit in achieving climate change goals and the possibility that more funding could be unlocked through that connection. Members were not in favour of increasing fares as a means of increasing transit funding. A final idea from the PAC was to start with a plan that best meets the needs of the region and then show it to people to get buy-in and the required funding.

#### 5.2.4 Regional Accessibility Advisory Committee

The Region has established an Accessibility Advisory Committee (AAC) to consult with and advise on various activities the Region undertakes related to accessibility<sup>7</sup>. The project was introduced to the AAC at their April 23 meeting, and the committee raised the following considerations for the project moving forward:

- Engagement strategy, especially related to non transit users and building support for transit throughout the communities.
- Pushing for accessibility more broadly and within transit cannot only be a burden for people with disabilities. Need allies and champions.
- Current specialized transit requires booking ahead and sometimes feels like a luck of the draw of if you are able to book a ride. Wait times on the phone to book trips or get information are long.
- Rural communities have less or poorer access in their city and across the region.
- There are specific accessibility concerns that are not being addressed and are barriers to using transit (e.g., fragrance-free and smoke-free environment).

Further discussion related to the current state of transit is planned for a future AAC meeting.

#### 5.2.5 Regional Chair's Youth Advisory Panel

The Regional Chair has struck a Youth Advisory Panel (RCYAP) consisting of 16 youth that represent different communities within the Region<sup>8</sup>. NT staff and LTRT attended the first meeting of this year's cohort on June 11. When asked about overall perspectives on transit and priorities for the future, youth shared the following considerations:

- Transit is not generally seen as the most attractive transportation option. There is some stigma around using the service and concerns about safety, so it is not an option youth use frequently. Instead, they think about who can give them a ride, whether it be friends or family (or some youth have vehicles and drive themselves). One youth identified that their household has one car, which their parent takes, and so the children and other parent use transit or active modes to get around. Youth also emphasized the difference in travel time between transit and other options like a car.
- With respect to safety, youth highlighted that this is a concern from their parents' perception that discourages them using transit or based on personal experiences. Youth highlighted that using transit in downtown locations feels less safe, and youth discussed that some feel safer on micro-transit vehicles compared to long buses, and vice versa. A couple ideas around being able to share a tracked ride with parent (like Uber) or having cameras may make them feel more safe.

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<sup>7</sup> The Terms of Reference for the AAC can be found here: <https://www.niagararegion.ca/living/accessibility/tor.aspx>

<sup>8</sup> The Terms of Reference for the RCYAP can be found here: <https://www.niagararegion.ca/chair/youth-advisory-panel/terms-of-reference.aspx>

- Youth highlighted that transit is difficult to access in specific areas (Grimsby, Fenwick, Fonthill) and at specific times (gaps during the day, low frequency in evening). One youth mentioned they tried to access micro-transit and it was not available.
- More and better information should be available about transit and NT should do more to engage with youth. Youth highlighted that information on fares and how to use the apps are challenging to find. Even finding an up-to-date route map is challenging. In terms of engaging youth, they recommended using social media (TikTok, snapchat), and education/training in schools (high school and even middle school).
- Other opportunities to improve transit were related to service reliability, tracking of buses, and connectivity between transit and other modes (e.g., bike loading education).

A series of trade-offs were also presented to the RCYAP for discussion. The first trade-off was between more frequency or more coverage. Almost all the youth indicated that more coverage and connecting to more communities should be the priority. Those that selected frequency said that their area already has good transit coverage. One youth noted that though they chose coverage, if the frequency is very bad, it is not worth having transit at all.

The second trade-off was between more connections within local community or more connections within Niagara Region. Most of the youth indicated that more regional connections would be their priority. Their rationale for this preference varied, some indicated that it was easier for them to find rides or an alternative mode of transportation within their local community, but travelling further was more challenging. The few who would prioritize local connections felt that they would use more or better transit within their community more frequently.

The third trade-off was between fewer transfers and longer travel times vs. more transfers and shorter travel times. The panel was almost evenly split on this topic. Some youth felt that they were newer to transit and would worry about more transfers being confusing or the services would not connect properly. Those that were in favour for more transfers felt more confident about navigating the service and wanted less travel time. All youth agreed that having more education on transfers and making them more seamless for riders would be beneficial.

The last question posed to the RCYAP was related to funding, including if it funding for transit should be increased and what mechanisms should be considered to increase that funding. The youth agreed for the most part in increasing transit funding, but recognized that since they do not currently pay property taxes directly, they don't have the full context. Youth were concerned about the overall cost of living and generally did not want to increase fares. Some youth also wondered if a fundraising mechanisms could be leveraged for transit.

### 5.2.6 Additional Stakeholders

The following additional stakeholders were identified in engagement planning but were not able to be met with at the time of writing.

- Local Health Units and Medical Institutions

- Member Municipalities (CAOs, etc.)
- Local and regional Chambers of Commerce
- Economic Development’s Community Leader Group

### 5.3 Public Engagement

Three engagement tactics were leveraged to engage with the public: a survey, pop-ups, and virtual zoom drop-ins. The Table 12 on the following page describes each of the tactics, when they were available and approximately how many people were reached.

**Table 12: Round 1 Public Engagement Summary**

Event Description	Date	Who Participated
<p><b>Public Survey:</b>                      This was delivered online via Microsoft Forms and was entitled “Niagara Transit Today and Tomorrow”. It was promoted by Niagara Transit as well as Left Turn Right Turn via engagements. This survey intended to determine residents’ thoughts on the current transit service and opportunities for future priorities.</p>	<p>May 20 to June 21, 2024</p>	<p>739 persons completed the online survey.</p>
<p><b>Public Pop-Up Engagements:</b>                      A series of pop-up engagements were conducted in various parts of the region to talk to customers about their current experiences with the service and gain insights into what they would want from the service in the future. Locations for these engagements were as follows:</p> <ul style="list-style-type: none"> <li>• Niagara on the Lake - NCC campus</li> <li>• Brock University</li> <li>• St. Catharines Transit terminal</li> <li>• Welland terminal</li> </ul>	<p>May 30, 2024:</p> <ul style="list-style-type: none"> <li>• Niagara on the Lake - NCC campus: 10:00 to 11:30 am</li> <li>• Brock University: 12:30 to 2:00 pm</li> <li>• St. Catharines Transit terminal: 4:00 to 5:30 pm</li> </ul> <p>May 31, 2024:</p> <ul style="list-style-type: none"> <li>• Welland terminal: 8:00 to 9:30 am</li> <li>• Niagara Falls terminal: 10:30 am to 12:00 pm</li> </ul> <p>June 20, 2024</p>	<p>In total, over 100 responses were received, in the form of oral feedback or delivered in writing on post-it notes that participants were allowed to fill out and place on the appropriate part of boards/ posters. Participants included individuals, families, and different groups of people across the region.</p>

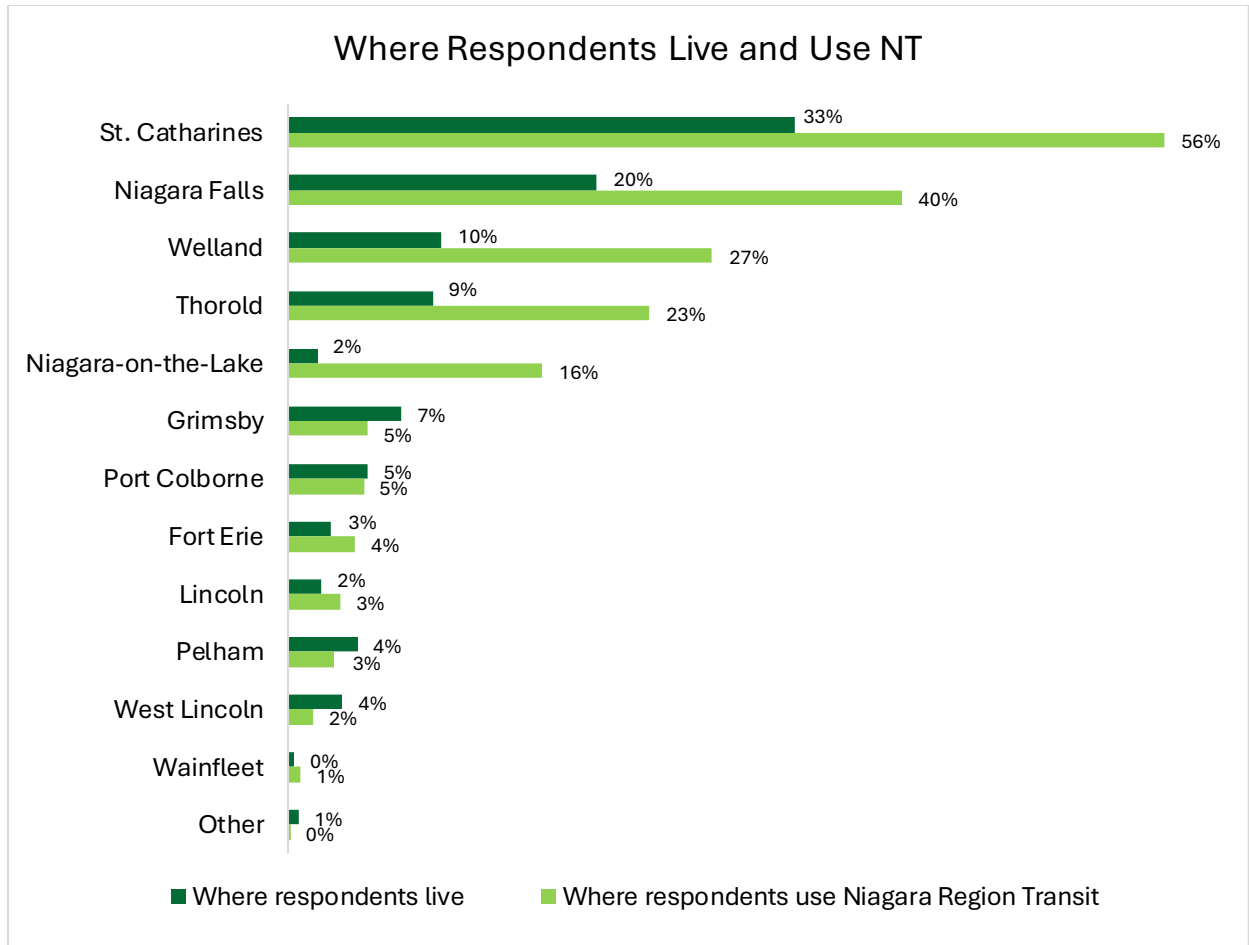
Event Description	Date	Who Participated
<ul style="list-style-type: none"> <li>Niagara Falls terminal</li> <li>Lincoln</li> </ul>	<ul style="list-style-type: none"> <li>Lincoln Fleming Center: 1:30 to 3:30 pm</li> </ul> <p>June 21, 2024</p> <ul style="list-style-type: none"> <li>Fort Erie LeisurePlex: 10:00 am to 12:00 pm</li> </ul>	
<p><b>Virtual Engagement:</b>                  Zoom meetings were set up to allow for participants to “drop in” virtually and share any feedback that they had about the service. A slide deck was prepared to provide participants with more context about the ongoing project and engagements.</p>	<p>June 5, 2024: 3:30 to 5:00 pm</p> <p>June 6, 2024: 6:00 to 7:30 pm</p>	<p>One person briefly attended the second meeting, but did not give any insights. No one attended the first meeting.</p>

### 5.3.1 Who We Heard From

Overall, we heard from several persons over the course of multiple engagements with Niagara Region residents/visitors and Niagara Region Transit customers. Respondents’ thoughts from the pop-ups and open-ended feedback from the survey were captured and compiled as responses from “engagement participants” (across all mentioned engagements). In discussions about data captured from the survey, these perspectives/ findings are noted as being from “survey respondents”.

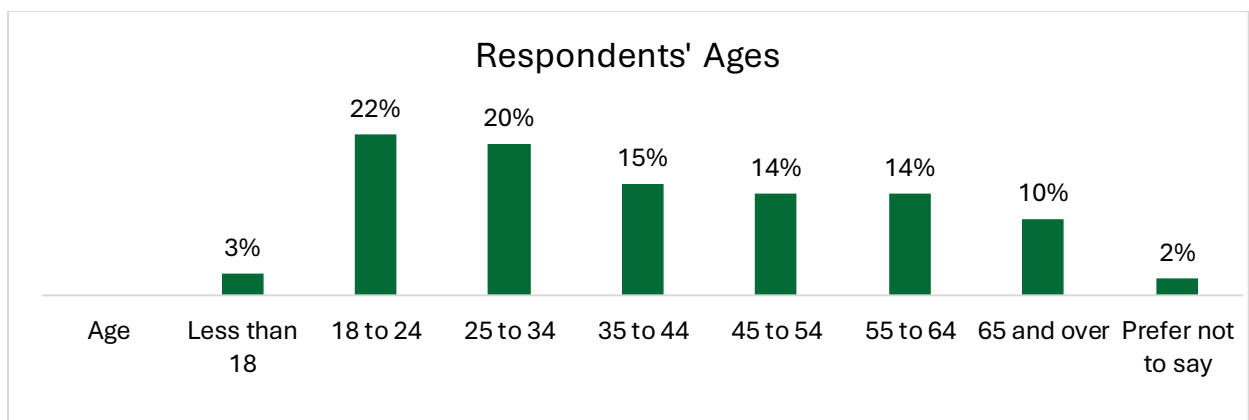
Engagement participants reflected a broad diversity in age, ethnicity, employment status, income, transportation modes used/ preferred and other factors. This diversity was reflected among participants during in-person engagements at Niagara College, Brock University, the Welland Bus Terminal, the St. Catharines Bus Terminal and the Niagara Falls Bus Terminal, but no demographic data was recorded for these participants as the focus was extracting customer insights on the service. The diversity was also reflected in the survey conducted. This sample of 739 respondents may not be wholly representative of the entire Niagara Region, but may offer valuable insight into the current and future needs and wants of residents and transit users. More information about persons in this sample was captured by the survey and provided as follows.

Respondents were asked to indicate in which municipality they live as well as in which municipality/ municipalities they used Niagara Region Transit services in the past year. The percentage of respondents who indicated each option are represented on the figure below.



**Figure 5-1. Distribution of Municipalities in Which Survey Respondents Live and Use Transit**

Respondents' diversity was heavily reflected in the age groups captured from the survey. This breakdown is shown in the figure below. The majority of respondents were in the 18 to 24 and the 25 to 34 age groups as shown.

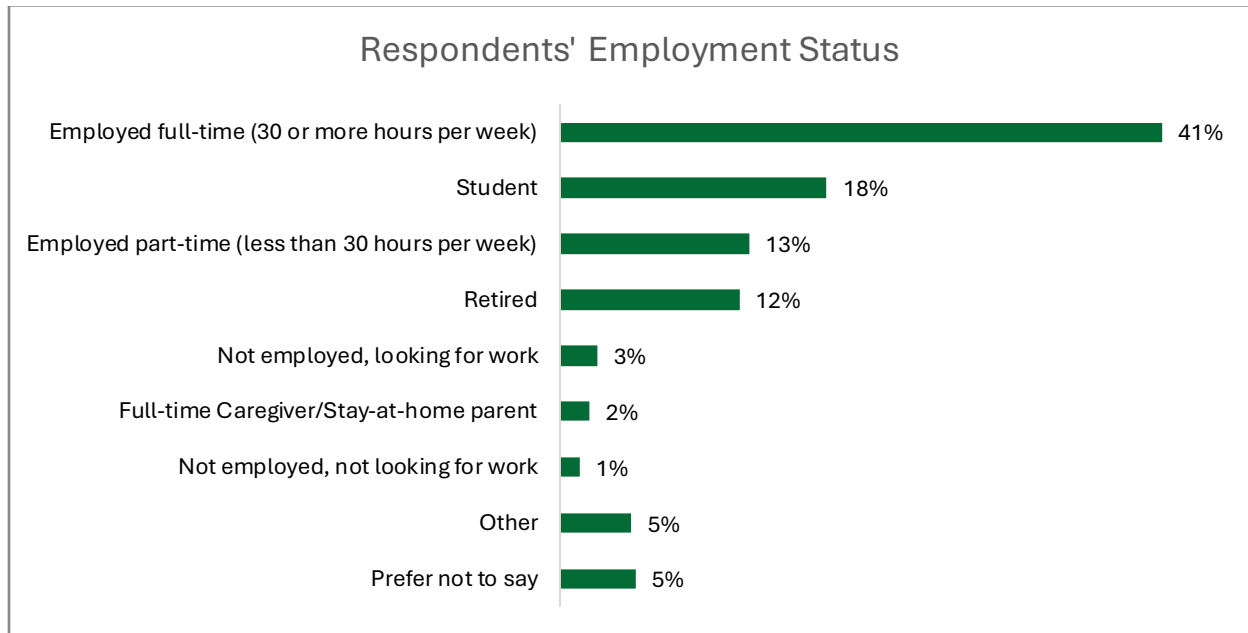


**Figure 5-2. Breakdown of Respondents' Ages**



The majority of survey respondents (54%) identified as women while 36% identified as men. Of the remaining respondents, 3% identified as non-binary or gender fluid, 1% identified as “other” and 6% preferred not to say.

Respondents were from a variety of employment and socio-economic backgrounds. The figure below presents the distribution of respondents across varying employment categories.



**Figure 5-3. Breakdown of Respondents' Employment across Varying Categories**

Respondents were asked whether they had an annual income below the following thresholds:

- Individual: \$25,303
- Family of two: \$31,304
- Family of three: \$38,484
- Family of four: \$46,726
- Family of five: \$52,996
- Family of six: \$59,771
- Family of seven or more: \$66,546

35% of respondents answered “Yes” to this question, indicating that a large portion of this sample fell below these thresholds.

Respondents were asked to self-identify their racial or ethnic identities, and were allowed to select multiple options or self-describe. 4% of respondents were Indigenous (including First Nations, Inuk/ Inuit and Métis), 1% were Arab, 4% were Black, 3% were Latin American/ Caribbean, 17% were Asian/ Pacific Islander (including East Asian, South Asian, South-East Asian, West Asian and Pacific Islander) and 59% were White (including European descent). 6% of respondents chose to self-identify as “Other” or self-describe while 12% respondents indicated that they preferred not to say.

Out of all of the survey respondents, 15% indicated that they identify as someone with a disability that impacts their ability to use transit or as someone who has mobility challenges. This group of people included those with mobility challenges/ inability to walk long distances, persons who use wheelchairs or walkers, persons who are visually impaired, persons who are deaf, persons with cognitive disabilities, seniors and persons with developmental, neurological and muscular disorders, among others.

Respondents were also asked to indicate the main purpose of their most frequent trip, with the modal option being work for persons within the survey sample. The percentage of respondents who indicated each choice (out of the 706 respondents who answered this question) is shown in the figure below.

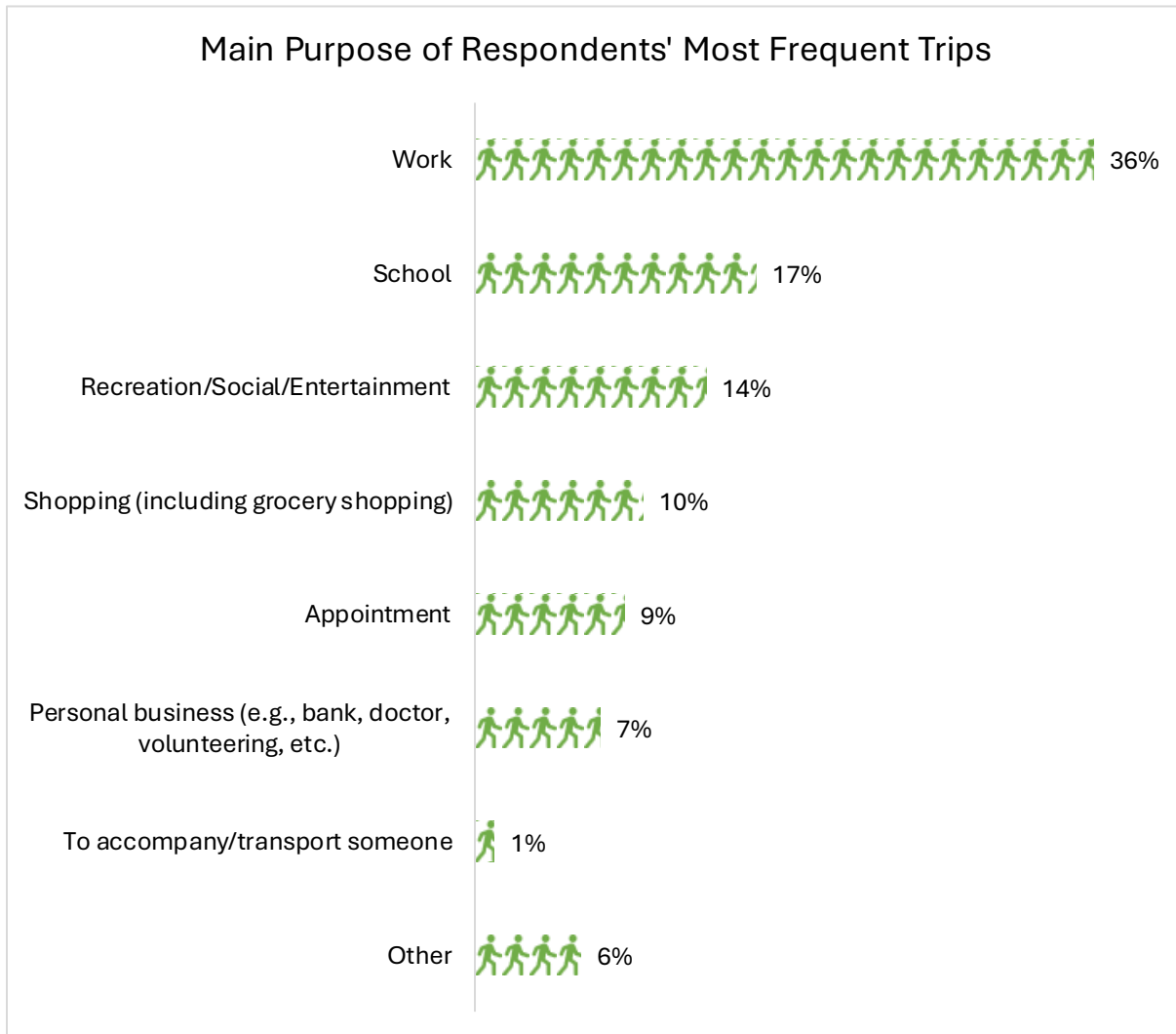
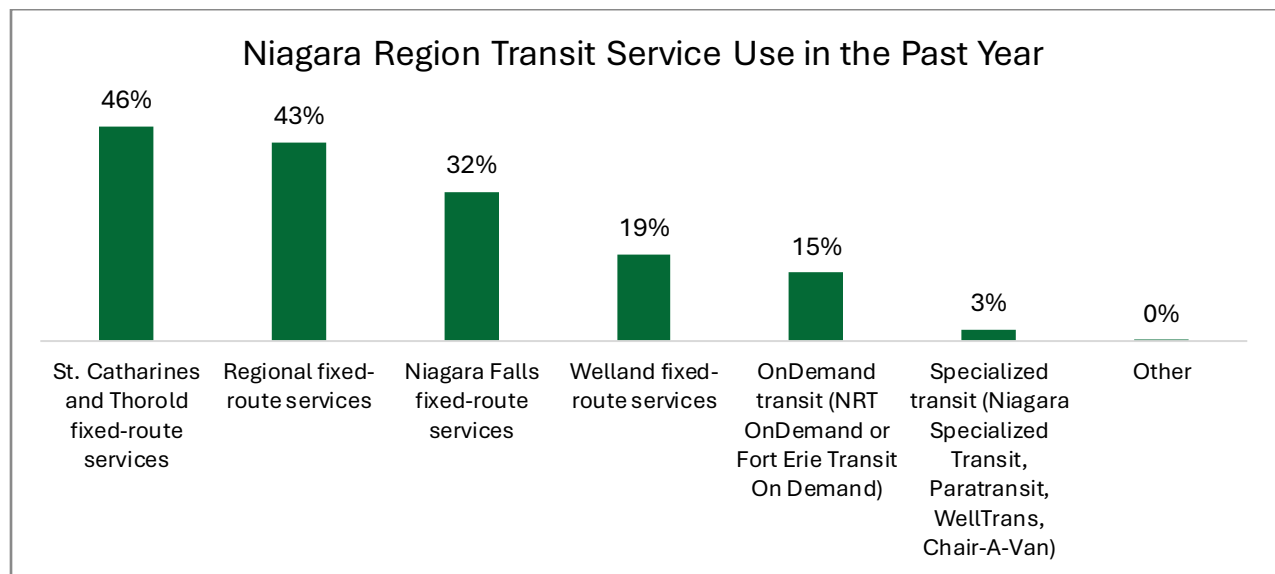


Figure 5-4. Distribution of Respondents' Main Purposes of their Most Frequent Trips

### 5.3.2 Current Experience

The current experience of riders was a major focus of each engagement, and we heard many insights from both the survey and the pop-up engagements.

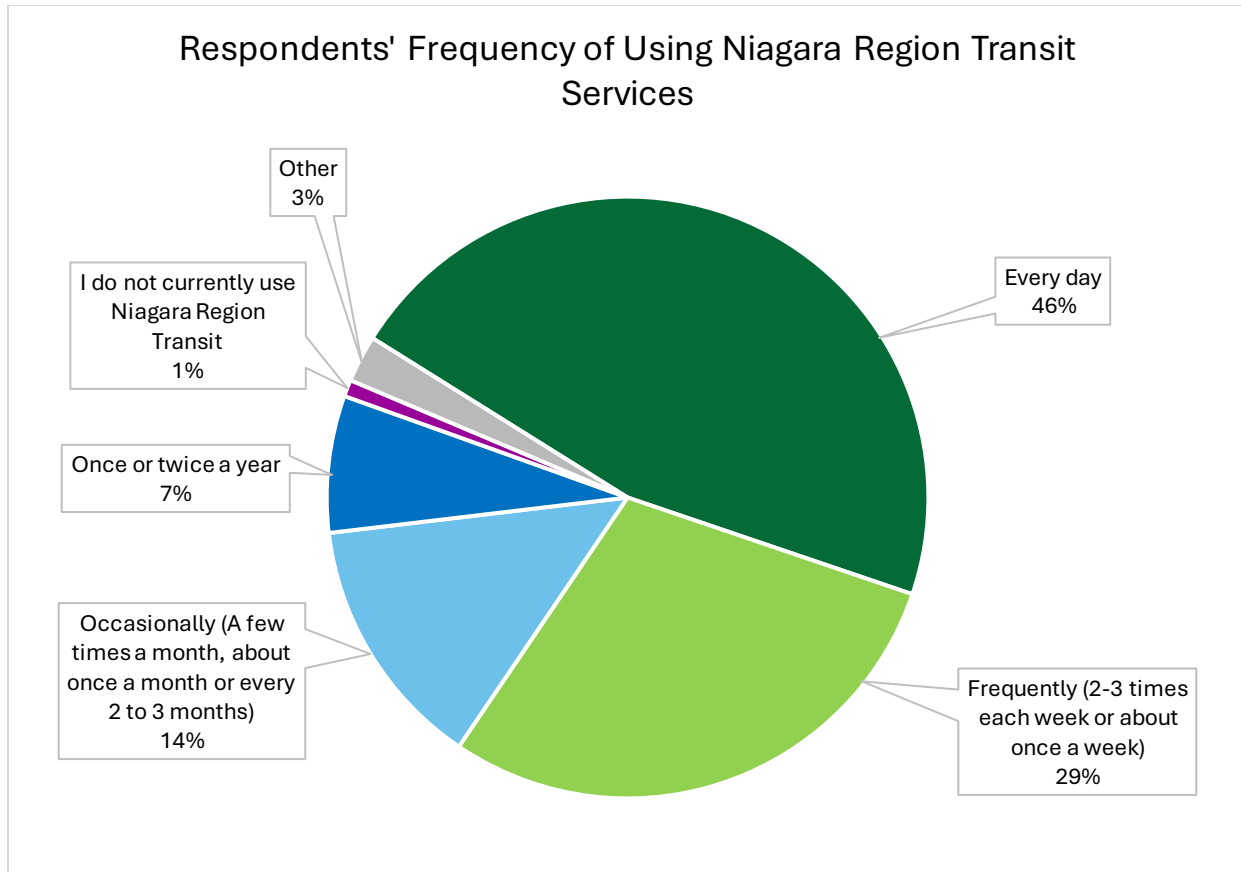
From the survey, respondents indicated which NT services they used in the past year. The distribution of service use of those surveyed is displayed below. The distribution fairly aligns with the graphs showing where respondents lived and used transit.



**Figure 5-5. Distribution of Respondents' Use of Niagara Region Transit Services in the Past Year**

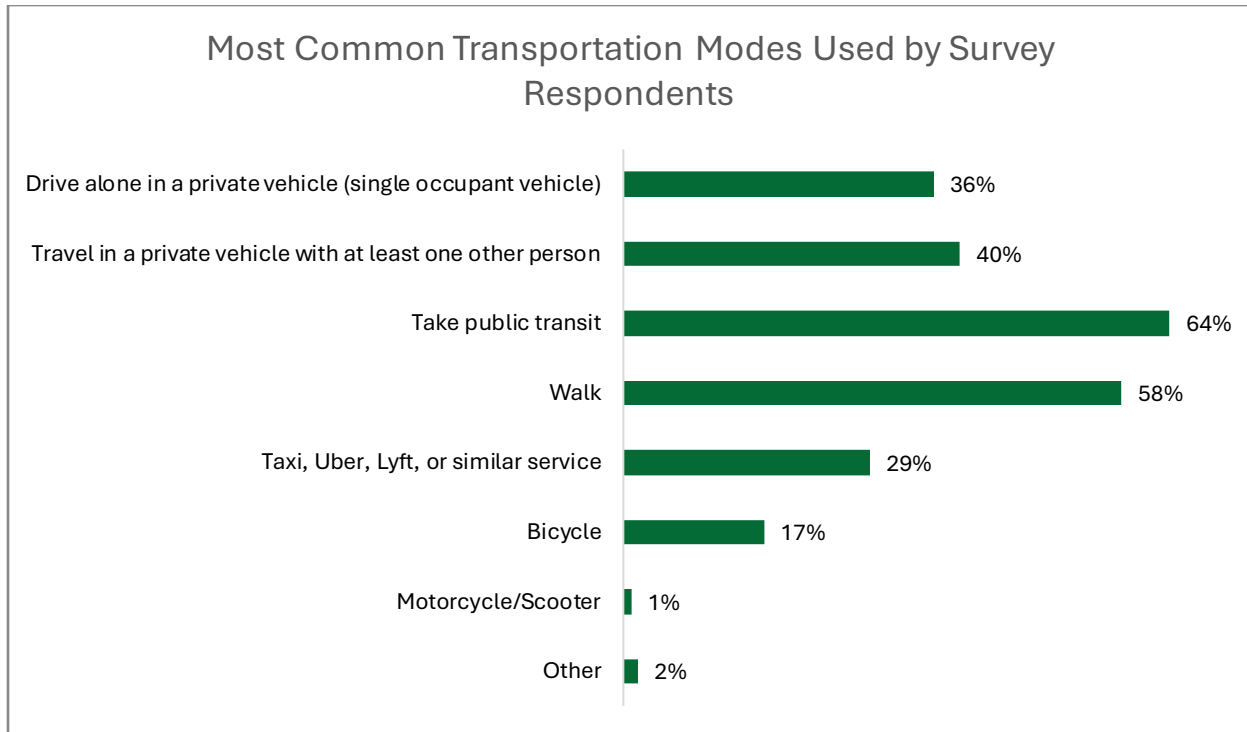
Across all respondents, 75% of respondents (557 persons) indicated that they had used the service in the past year. This included any of the services reflected in the figure above. The remaining 25% of respondents did not use the service over the year.

Among the respondents who use the service, the majority of respondents (69%) used the service frequently (every day or 2-3 times each week), as shown below.



**Figure 5-6. Frequency of Respondents' Use of Niagara Region Transit Services**

It must be noted that while the many survey respondents utilized NT's service, several modes are available to them, informing the larger transportation network of the region. In particular, 46% of respondents indicated that they regularly have access to a car, van or truck as a driver or passenger for the trips that they make (the remaining 54% indicated that they did not). This inequity may further inform trends in travel patterns. The most common modes among survey respondents (who were allowed to select up to three) are shown below as percentage usage out of all respondents. Using a private vehicle, as a driver or passenger, accounted for a common mode of 76% of respondents.



**Figure 5-7. Respondents' Most Commonly Used Modes of Transportation**

To discover user perspectives on the current state of the service, survey respondents were asked to indicate their level of agreement with different statements about transit. A summary of these responses is provided via the figure below.

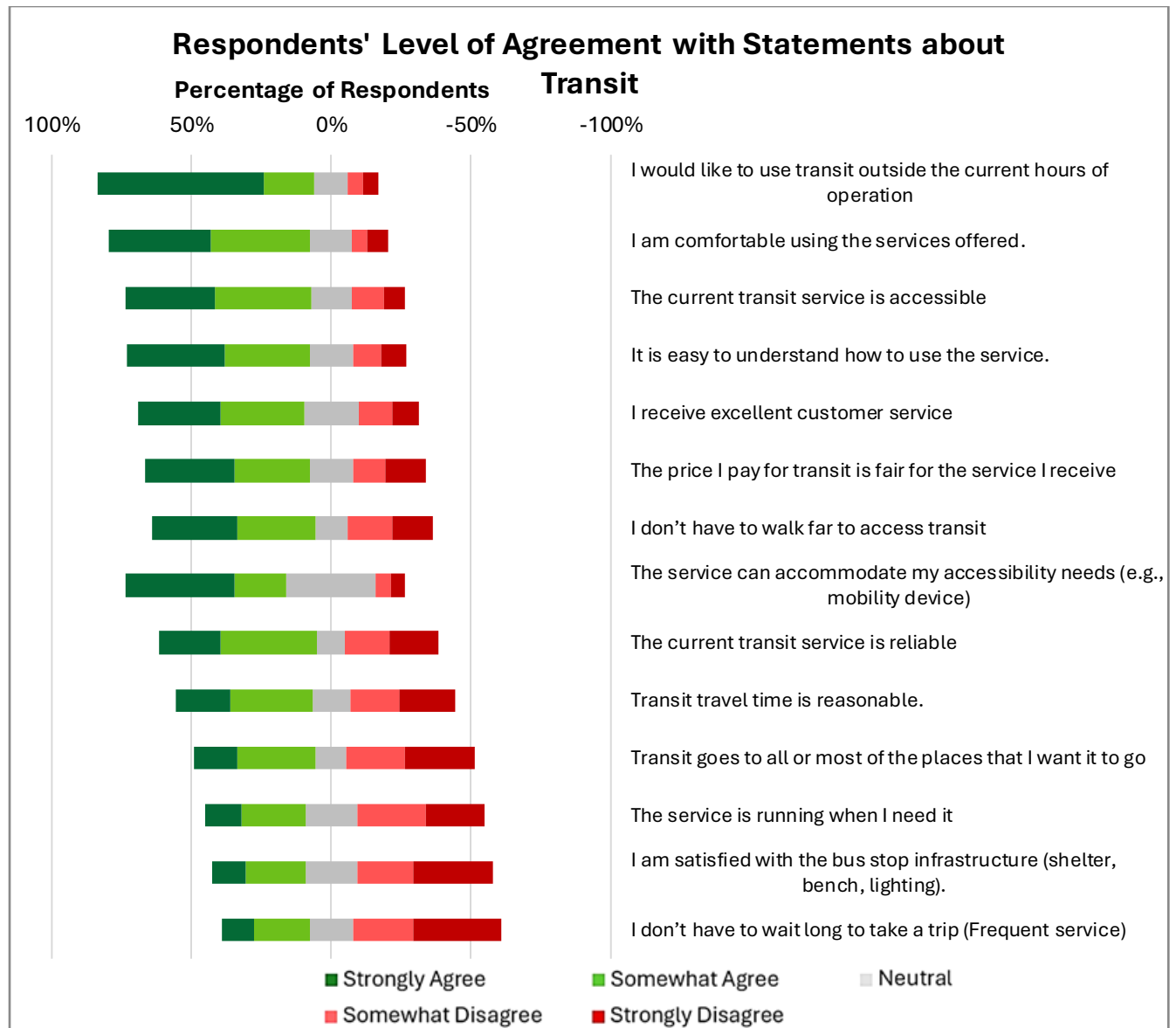


Figure 5-8. Respondents' Level of Agreement with Statements about Transit

Major considerations from current customer experiences, as noted from engagement participants from the pop-ups and the survey are explored as follows:

- There is an overwhelming majority of participants who indicated the same level of agreement or disagreement with certain statements about transit as displayed in the figure above. These results from the survey were reinforced by open-ended responses/ feedback received. In some cases, some open-ended responses contrasted with the majority agreement, and are also valuable considerations and insight into potential inequities in the service.
- In particular, **participants would like to use transit outside of the current hours of operation.** Longer hours are needed daily, both on mornings and later at night to better meet customer

needs. In addition, participants wanted there to be Sunday service, increased Saturday service (frequency and routes), holiday service and summer service.

- **There was a trend of agreement among participants' opinions about some aspects of the service.** The majority of participants find the service comfortable, accessible, accommodating, easy to understand how to use, reliable and fair in price. Most participants agree that they receive excellent customer service and don't have to walk far to access transit.
- **Despite the majority agreement noted in the above point, some participants shared opposing viewpoints.** Participants expressed their need for improved timeliness of the service, increased access to accessible service (fixed route and specialized), improved customer service, more affordable fares or discount options, improved safety while riding/ waiting on vehicles and buses that are less crowded, unclean or broken, as well as their experiences with rude or inconsiderate drivers. Overall, these show that service is working well, but improvements can be made to better accommodate and alleviate the concerns of all users and potential users.
- **Participants had mixed opinions about travel time being reasonable.** Many persons found that their travel or wait times were too long, with many people waiting over an hour, or having a total commute longer than two hours.
- **Participants indicated a need for improved connections/ transfers and more direct routes.** In particular, participants wanted more direct, faster routes between municipalities as well as more connections to GO Transit and neighbouring cities/ areas, including in the GTHA. From the feedback received, many of the "long trips" are those that involved many transfers or connections. An in-depth analysis may be required to determine areas repeatedly affected by these so that routes/ service can more equitably accommodate residents of the region.
- **Increased route coverage is heavily requested by participants.** Having route coverage in all areas in which there is strong demand for service is crucial to achieving equity and access to the service. However, many participants indicated that transit does not go to all of the places that they want to go. Participants specifically referred to a lack of coverage or reliable service in Thorold, Port Colborne, smaller municipalities and rural areas, as they indicated that there were no stops/ routes close enough to them. The lack of stops within reasonable distance from homes/ destinations also presents a lack of accessibility which can be particularly challenging to navigate for persons with disabilities.
- **Participants believe that current bus stop infrastructure is insufficient and can be improved in many areas.** According to participants, the infrastructure currently is inconsistent, as some stops lack shelters, seating, lighting, accessible/ clear signage and associated visuals as well as fixed and real-time information about the service. These can be crucial in assuring passengers' safety and comfort and can greatly aid passengers' ability to use the service, especially for those who may have long wait times, may not be able to stand for long periods of time or those who may not have cellular data/ apps to know transit information.

- **Frequency is a major issue identified by participants.** Many participants noted infrequent service, and many persons noted that their wait time was too long. Some even shared anecdotes of having to wait more than an hour for service, or having added wait times for connections due to one system not being as frequent as the other/ as needed. This is a complex issue as it is widespread across the service, but seems to disproportionately have a drastic impact on persons having multiple connections or persons travelling from/ to smaller municipalities. In addition, customers noted the inconsistency in frequency on weekends as compared to weekdays, which makes taking the service more unreliable, confusing or unattractive to riders.

While a large number of survey respondents and engagement participants used the service(s) offered by NT, a large proportion of them do not. The following are some reasons why people are not using transit (as compiled from engagement participant feedback and direct responses from survey respondents to a close-ended question with potential options of why they do not use the service):

- **Many persons indicated that they had access to a better alternative** (such as biking, walking or taking another option (91 respondents). Possible reasons for other means being “better” may have included the service taking too long (49 engagement participants) and the wait time being too long (64 engagement participants). For many of these participants, transit is their only means of transportation, while those who can may opt for alternatives.
- **Several participants noted that there were no stops close to where they live or want to go.** This sentiment was shared by 77 survey respondents and 38 engagement participants.
- **Participants noted that route coverage and directness was insufficient across the region.** Overwhelmingly, 236 persons, a large proportion of engagement participants (transit users and non-users), noted that there is currently insufficient route coverage and route directness across the region, and they find that they cannot use the service as they would like to (or to a greater extent) in all cases. In particular, 18 participants noted the need for transit in rural areas.
- **Operating times do not always align with when participants want to travel.** This was a major factor hindering/ affecting transit use for 50 respondents and many engagement participants. 107 participants noted a need for longer hours of operation of the service, with 85 persons noting the need for night/ evening service. In addition, 110 participants pointed out the lack of service on Sundays and 56 participants highlighted the need for increased frequency on the weekends. In particular, 8 participants explained the issue of inconsistency across weekday and weekend schedules, and how this affects workers, families, recreation and more.
- **There is a lack of awareness for some persons as to how the service can benefit them or how to navigate the service.** A total of 49 survey respondents indicated that they don’t know how to navigate the transit system while 25 respondents were not aware of Niagara Transit’s service that could benefit them. This may be rectified through public education about the service and guides for related processes and technology, as suggested 21 participants.



- **Some users find that the service is too expensive.** Overall, 13 survey respondents and 74 engagement participants noted that the service is too expensive, with many persons not being able to access transit at all due to the high cost.

### 5.3.3 Future Needs

Overall, survey respondents and engagement participants care about addressing issues affecting the current state of NT services. This is evident in their provided responses and supported by survey respondents classifying many factors as important and motivating for them to use the service, as shown in the figure below.

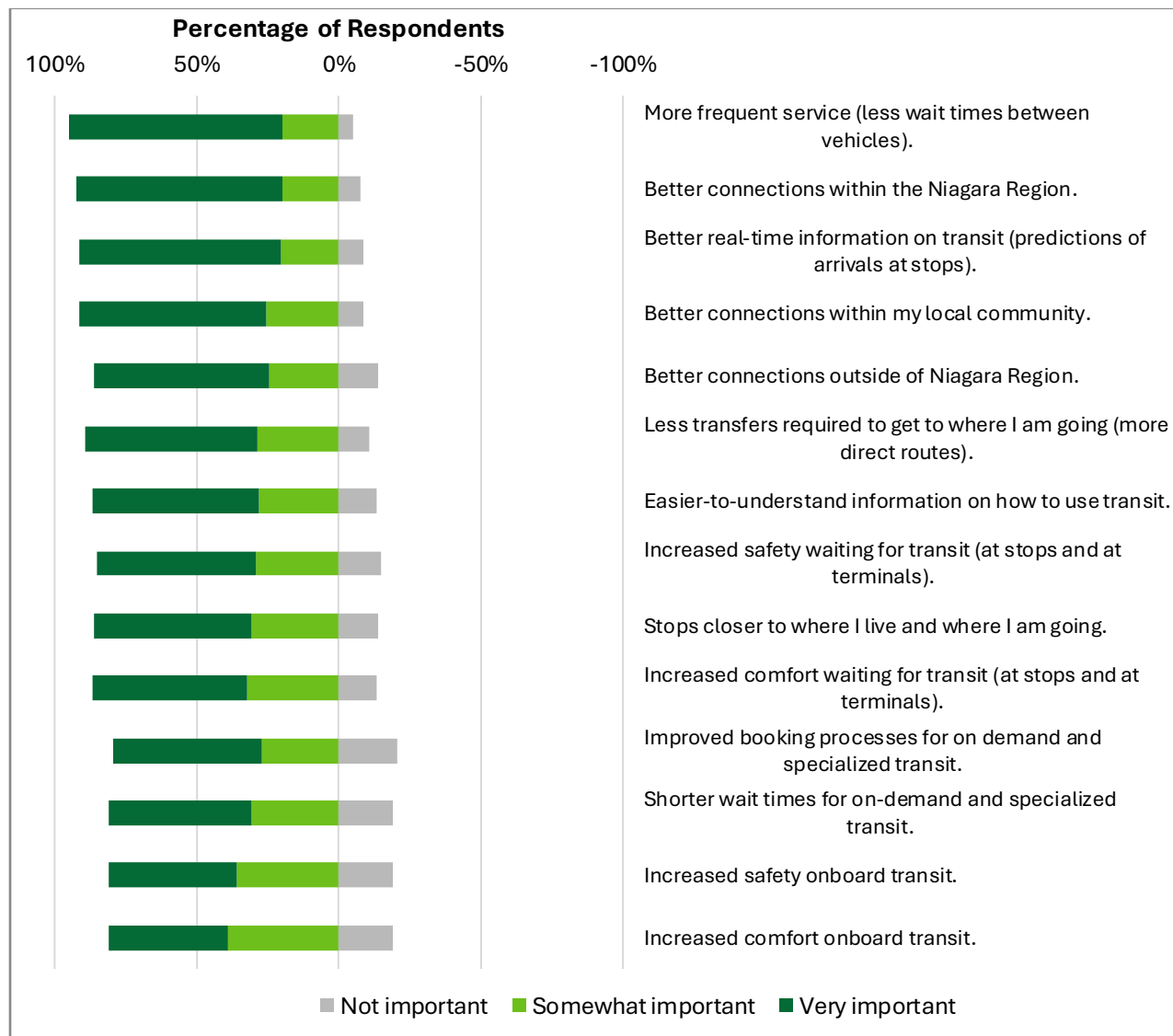


Figure 5-9. Importance of Transit Features in Influencing Respondents to Use Transit More<sup>9</sup>

<sup>9</sup> Language in the figure reflects that which was used in public survey. It is noted that NT has changed its terminology from "on-demand" to "micro-transit" in 2024.

While there are many areas in which customers want to see improvements, there are a few major factors that can be prioritized to best meet the needs of customers:

- **Increased hours of operation:** Overwhelmingly, customers wish for extended service on mornings, evenings, late nights, weekends (particularly Sundays), holidays and during the summer. Having increased hours may be drastically beneficial for the region as a whole as it offers residents safe travel, boosts productivity and comfort, enables more recreational activities, fosters more independence among persons, encourages more people to use transit rather than a private vehicle and benefits the environment.
- **Increased route coverage:** There are many areas in which new service is needed, or that are not currently serviced even though there is a strong demand for it. Many non-users of the service expressed a desire to gain improved access to transit. Additionally, some routes exist but may need improvements to accommodate demand or extend into new areas. As Niagara grows and changes, so too must its transit service adapt. In particular, there is a great demand for service in Thorold and Port Colborne as many areas are not currently served by transit or may require route updates.
- **Improved frequency, timeliness and connectivity:** Many respondents and engagement participants expressed issues with buses not being frequent enough and not being on time, which in turn affect their connections. Small delays may have massive consequences for some users, resulting in commutes of over two hours in many cases or being late to school or work. This also seems to be skewed to more greatly affect residents of smaller municipalities or those commuting at night. Upgrades may be needed to facilitate more frequent service, complemented by improved schedules and plans to deliver on-time service.
- **Access to information:** Many customers noted gap in information about the service, particularly while they are on the go. Primarily, survey respondents seem to get information about the service from the Transit App (51%) and the Niagara Transit website (31%), so these should be updated continually with up-to-date information. 35 engagement participants noted the need for app improvements while 14 participants noted the need for more (real-time) information and updates in buses. Additionally, only 10% of survey respondents reported mainly getting information from transit stops, indicating a potential gap in knowledge there. 21 participants explained the need for physical signage including schedules and maps at stops, particularly for users without cellular data/ the required apps/ cellular phones, as well as the need for these to be accessible (unobstructed, clear in visuals/ graphics and easy to understand). 22% of survey respondents said that transit maps, signs and other information in Niagara Region are not easy to understand, indicating a need for increased clarity and accessibility in this signage. In addition, 21 participants suggested that NT should educate the public more about the service as well as related processes/ technologies and how to use them. In this way, current non-users or limited users may feel more confident and informed, and thus more motivated to use the service.

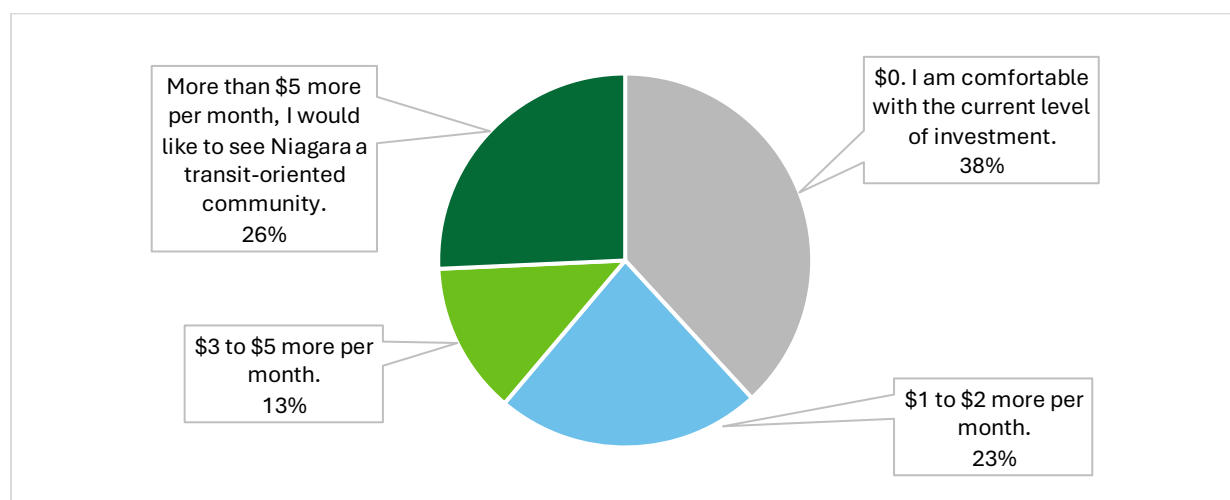
- Improved comfort and safety:** Many participants indicated that major improvements could be made to bus stop infrastructure, including the addition of shelters, seating, accessible and clear signage and real-time and fixed information such as maps, schedules and updates. These could make a drastic difference for customers in terms of comfort waiting for the service as well as their comfort level with being able to know what is happening with the service while they wait for a bus. This may be especially helpful during inclement weather. Additionally, 25 respondents regarded the buses as being too crowded or not being clean/ safe enough. To alleviate these concerns, upgrades can be made to vehicles as well, and careful allocation of vehicles to routes can be periodically done based on demand.

Overall, there is room for improvement and investment across many areas of the service and of the region. Tackling these issues as soon as possible will be to the benefit of all Niagara Region residents, as noted by many engagement participants, and will allow for NT services and customers to thrive.

### 5.3.4 Transit Fares and Funding

A major issue both plaguing the current state and informing the future state is financial considerations, in the forms of fares and funding. For customers, many found that the current service is too expensive (74 responses) and smaller municipalities tend to be disproportionately affected by multiple fares being in place. One customer noted the injustice of someone in a city paying less to travel the same distance while they have to pay more to get around their area/ to a different municipality covering the same distance. These financial concerns are especially important especially as 35% of survey respondents self-identified as being below outlined income thresholds.

In terms of funding, Niagara Region households contribute to funding transit through property taxes. Increasing that contribution can lead to major improvements to transit. Survey respondents were asked whether they would be willing to increase the monthly contribution and by how much. A summary of their responses is as follows.



**Figure 5-10. Respondents' Willingness to Increase Monthly Contribution to Transit by Specific Amounts**

While many survey respondents and engagement participants expressed the importance of transit for the community overall, there are varying levels of support for investments directly coming from persons. For some, it may not be affordable, as many people struggle financially with paying fares, and for some, investment in transit from their own pockets seems like a waste because they don't use the service. Another juxtaposition was in participants suggestions to obtain funding from primary users such as students, while many students are asking for discounted fares and passes as their commute is a strain on them financially. All upgrades will require capital input, which is not possible without funding. Hence, there will have to be a balance in pricing transit to be affordable while also generating enough money to afford improvements.

Another major consideration from both the customer and operations point of view is initializing fare integration. 19 participants expressed a desire to be able to pay with their Debit/ Credit/ PRESTO card as well as to pay a flat rate across all services, reducing charges for connections. With the consolidation of services and branding in the region, this may be a future step towards a more harmonious NT service and may be greatly appreciated by residents of the region and tourists alike, especially if integrated with the GO service and cities including Toronto and Hamilton. Such a step would be a major one and may require extensive research and development before it can be integrated, but it is one that is strongly requested by customers.

## 6 Guiding Framework

On June 3, 2024, NT staff gathered for a workshop facilitated by LTRT. The purpose of the workshop was to assess current state conditions through several interactive activities including a Strengths, Weaknesses, Opportunities, and Challenges (SWOC) assessment and affinity mapping to define strategic objectives for the 10-Year Plan.

### 6.1 SWOC Assessment

The first SWOC assessment, shown in Figure 6-1, focused on NT services. Post-secondary ridership was viewed favourably by the group, but with some slight concerns that service may be overly reliant on student ridership. While staff agreed that there were strong connections between the larger municipalities, frequency of the intermunicipal routes along with unclear service alignment throughout the region, and especially for micro-transit services, were discussed as weaknesses of the existing system.

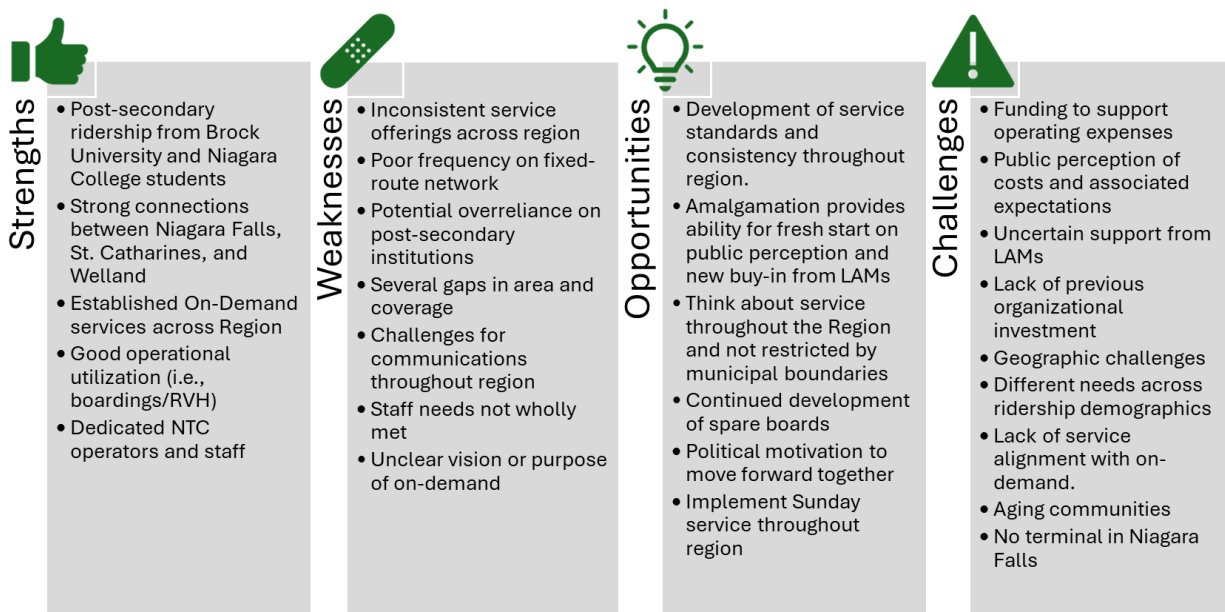


Figure 6-1: Services SWOC Summary

Overall, the group was optimistic about the opportunities presented by the amalgamation process to develop a more cohesive service but acknowledged that there will be challenges with attaining buy-in from the LAMs. Many of the concerns from the LAMs stem from the fact that there are different needs and expectations across Niagara. These differences also create difficulties with communication throughout the region based on the services provided in each LAM. Inconsistency in service options from municipality-to-municipality can create confusion and will have to be strongly considered as NT move forward with a unified approach.

As with any transit service, there is always a concern about funding for operational expenses, but this is amplified for NT since funding is based on a special levy that is apportioned to Municipalities based on their proportion of service hours and therefore support from the LAMs is crucial for NTs success. However, NT staff do believe that there is political motivation from all municipalities to move forward and enhance service across Niagara. A unified approach from both a planning and financial perspective would provide the opportunity for NT to provide quality service across the Region.

Finally, staff have identified the continued development of spare boards, currently only at St. Catharines, as an opportunity to maintain service quality. With a robust spare board there is additional cost, but providing similar staffing coverage could help improve service quality across the region.

The second SWOC assessment, shown in Figure 6-2, evaluated NTs assets. One of the most common discussion items throughout the assessment surrounded the operability and suitability of the Welland Garage and its place in NTs plans. Unsurprisingly, subsequent to the workshop NT announced that the Welland Garage would cease being used to dispatch and maintain buses. There is now an opportunity to reassess how to move forward with it and how the ICIP funding that was initially set aside for Welland could be otherwise spent on other critical assets throughout the region. Beyond Welland, NT staff viewed both the Niagara Falls and St. Catharines facility positively and also shared that the existing fleet’s preventative maintenance program has been successful.

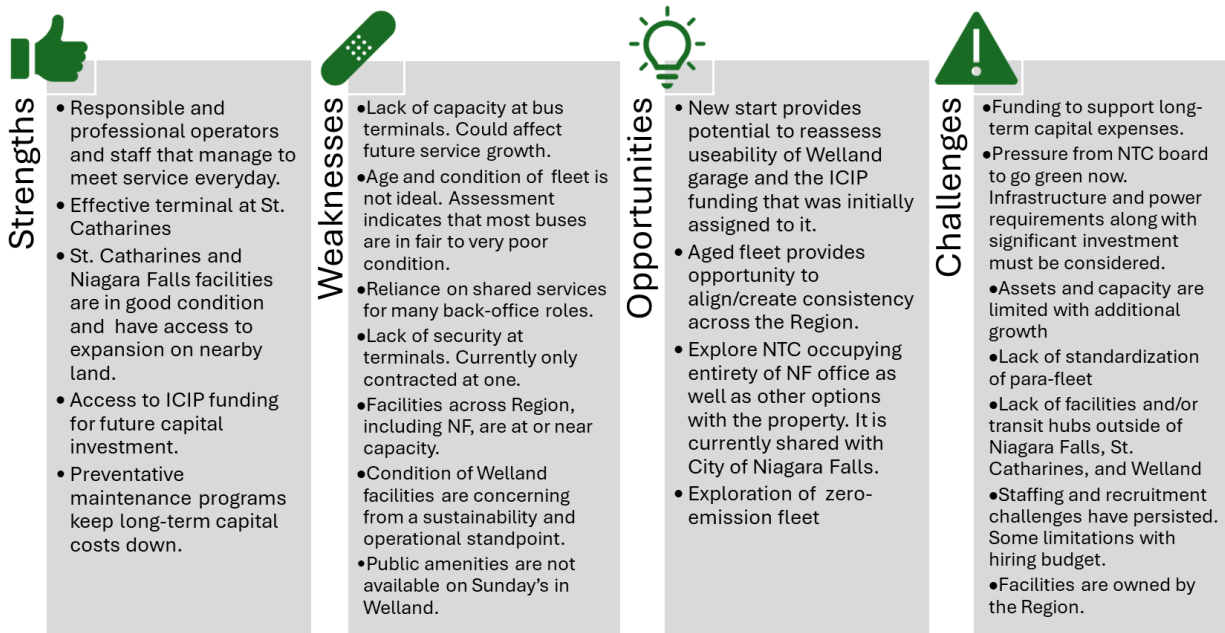


Figure 6-2: Assets SWOC Summary

One crucial weakness that was identified is the lack of available capacity at bus terminals. This restraint limits future service growth at these terminals and increases reliance on existing facilities. Like the terminals, the three garages at Niagara Falls, Welland, and St. Catharines are nearly at capacity from both a staffing and operational perspective (preference to have buses parked indoors). Any increase to fleet would result in all properties being at their maximum capacity from a footprint standpoint. An

identified opportunity to assist with staffing constraints at the existing facilities is to reassess staffing at the Niagara Falls office for just NT staff rather than shared with the City of Niagara Falls.

While the age and condition of the existing fleet are not ideal, it does provide NT with an opportunity to create consistency across the region. Furthermore, fleet electrification was observed as both an opportunity and challenge by staff. While NT understand the importance of investing in a green fleet, there are significant hurdles with regards to procurement, infrastructure, and investment that are to be considered.

## 6.2 NT Strategic Objectives

After the SWOC assessment and through an affinity mapping exercise, NT staff were asked to develop strategic objectives for the 10-Year Plan through the lens of three different user groups:

- Customers and external stakeholder (e.g. universities)
- Staff and Niagara Region
- Local Area Municipalities (LAMs)

These distinctions were made to ensure that the perspective of these groups was considered for the 10-Year Plan. Following the workshop, the output from this exercise was refined into eight strategic objectives for NT. As shown below, the objectives have been arranged into two groups. The first is focused on the role that transit can and should play in the region, while the second set of objectives focuses on how NT as an organization can strive to be a leader in transit.’

**Objective 1 –**  
*Transit in the region shall be consistent and easy to understand*



A consistent and convenient transit service that is easy to use and understand should be an early focus for NT. An early finding from the current state analysis was the lack of cohesion between the schedules of existing services. For instance, schedules for fixed-route service are sometimes presented as weekday, Saturday, and Sunday, whereas other times it is presented as Monday-Saturday, and Sunday. Other inconsistencies included different route numbers for evening or weekend routes for Niagara Falls and St. Catharines, while they remain the same for regional routes and Welland.

Providing uniformity across the region should make information easier to digest among existing riders and potentially reduce any information barriers for prospective riders.



**Objective 2 –**  
*Transit is frequent and reliable across the region and meets residents’ needs now and into the future*

Transit should strive to be a reliable, high-quality service that satisfies the needs of the community and residents throughout the region. While existing service excels at serving post-secondary institutions with 15-minute frequency, many other routes throughout the fixed-route network operate hourly.

Beyond the need for frequent service is reliability. As shown in the current state analysis, the existing service does not meet the target of 90% on-time performance. While most of that delay can be attributed to Welland routes, the entire fixed-route network struggles to meet its desired goal.

Finally, NT should ensure that fixed and micro-transit services are built with future growth in mind, including a dependable fleet, and sufficient space at terminals and garages to support more frequent service.

**Objective 3 –**  
*Transit is a viable transportation option, contributes to the vibrancy of the region, and is a trusted service in the community*



In any community, transit strives to provide economic, environmental and social value to its residents. By becoming a trusted and respected service in Niagara, transit can become a part of the conversation for promoting sustainability including becoming a viable option to a second car for households.

Through strong stakeholder relations programs, NT can engage with businesses and residents to ensure that they feel listened to. This will help NT and transit integrate with Niagara culture so that it is viewed as a legitimate option to support modal shift.



**Objective 4 –**  
*Transit is safe, comfortable, and accessible so that all riders can be confident using transit*



An effective transit service should empower all residents with the confidence to use their system. Implementing stop amenities, such as bus shelters and benches, as well as considering design options that promote safety such as overhead lighting and other technology-based solutions like emergency call boxes can help improve comfort among riders. Moreover, the needs of riders with accessibility needs must be considered. These needs must not only be considered through the existing specialized micro-transit service, but also through customer service, ongoing engagement, and bus stop design.

**Objective 5 –**

*NT is an innovate and financially sustainable agency that strives for high quality service*



As an organization, NT should strive to position itself as an exemplary system across both the province and country by balancing a high-quality service with fiscally-responsible practices. There is a strong desire among NT and LAMs to maximize the budget to ensure that both affordable fares and affordable taxes are maintained across the region. As with any budget, there will be cost-related interests that compete with service quality such as maintaining appropriate staffing levels among operators. Overall, responsible governance from NT should provide opportunities for striking the appropriate balance.



**Objective 6 –**

*NT is a choice employer, with employees that reflect the diversity and strength of the region*

NT shall position itself as an employer of choice throughout the region. By emphasizing strong labor relations and continuous employee engagement, NT could strengthen its standing as an employer in the region that minimizes the need for recruitment through staff retention but has the capacity to easily attract new employees.

**Objective 7 –**

*NT is supported by local municipalities throughout the region by fostering a collaborative and integrated planning*



NT must ensure that the LAMs are all engaged and supportive of NTs vision, mission and values. NT shall support local

transportation plans and create trust with the LAMs by ensuring strong regional connections and seamless service. In turn, the LAMs support for NT through Local and Regional council would provide direction for the region to support further transit service and asset improvements.

Overall, NT's desire is to develop support for transit from the LAMs to the Region to support regional growth at the municipal level.



**Objective 8 –**

*NT data reporting shall be integrated, consistent, and accurate to support data-driven decision making for transit in the region*

Going forward, NT shall strive to streamline their data processes through consistent data and ridership collection methods. By doing so, NT will be able to develop robust and reliable reports and metrics/KPI to strengthen their decision-making.

## 7 Appendices

### 7.1 Appendix A: Detailed Breakdown of Documents Reviewed

The table below gives a detailed breakdown of key documents reviewed as part of the TMP. Within the discussion, only documents which had findings that were utilized in the development of the TMP were listed and explored. Documents within the table marked with an asterisk (\*) were not mentioned, but were reviewed during the research process.

**Table A1: Detailed Breakdown of Documents Reviewed**

Background Document		Type	Date
<b>Commission Background Documents</b>			
1	PW 55-2021 Moving Transit Forward in Niagara: Creation of a Consolidated Transit Commission	Council Report	November 25, 2021
2	CSD 19-2022 Moving Transit Forward: Establishing the Niagara Transit Commission as a municipal service board and Update regarding the transfer of municipal transit assets to the Commission	Council Report	May 26, 2022
3	LNTC-C 3-2021 Niagara Transit Governance - Revised Strategies Reflecting Phase 1 Municipal Consultation	Committee Report	June 30, 2021
4	Bill No. 2022-38 A By-law to establish the Niagara Transit Commission as a Municipal Service Board	By-law	
5	Landed NTC Vision Mission Value Pillars Workshop Final	Document from Workshop	Unknown
6	NTC 6-2024 Niagara Transit Commission - Vision, Mission, and Strategic Priorities	Report	March 19, 2024
<b>Planning and Policy Documents</b>			
7	Niagara Official Plan	Official Plan	November 4, 2022
8	Niagara Official Plan 2051 Land Needs Assessment	Plan/ Appendix	June 2022
9	PDS 14-2020: Niagara Region's Employment Area Strategy: Background Report and Recommendations	Committee Report	May 13, 2020
10	Niagara Region's Employment Area Strategy: Background Report and Recommendations	Report	March 20, 2020

11	A By-Law to Establish Transit Development Charges for the Regional Municipality of Niagara	Official/ Council Document	2022
12	Transit Development Charges Background Study Addendum Report Addendum #2 to May 30, 2022 Development Charges Background Study Regional Municipality of Niagara	Addendum Report to Study	September 23, 2022
13	Niagara Region 2022 - 2031 Development Charge Study Revised Transit Technical Appendix for Addendum*	Appendix	September 2022
<b>Housing and Design Documents</b>			
14	Niagara Region Affordable Housing Strategy	Webpage	Live site/ Unknown
15	The Updated Action Plan Housing and Homelessness Action Plan Goals (2019-2023)	PDF Document	Unknown
16	Niagara Region Accessibility Plan: 2018 – 2023	Webpage	Live site/ Unknown
17	Oakville Universal Design Standards v2.1 for town facilities	Design Standards/ Guidelines	August 2020
18	Niagara Region Transportation Master Plan Niagara Region Complete Streets Design Guidelines*	Design Guidelines	June 2017
<b>Transportation and Transit Documents</b>			
19	Niagara Region Transportation Master Plan	Final Report	October 2017
20	City of St. Catharines Transportation Master Plan 2041 Designed to Move	Master Plan Document	April 2021
21	TS-2020-35 Transit Strategic Business Plan & Ridership Growth Strategy: Five-Year Update (2021-2025)	Transit Service Plan	November 20, 2020
22	The Corporation of the City of Welland Official Plan	Official Plan	May 2010
23	Town of Grimsby Transit Investigation Study Draft Final Report	Draft Final Report from Study	November 7, 2017
24	Niagara Transit Governance Study Final Report	Final Report from Study	October 2, 2020
25	2041 Regional Transportation Plan For the Greater Toronto and Hamilton Area	Transportation Plan document	2018

26	Niagara Falls Rail Service Extension Initial Business Case Update	Report	November 2019
27	City of Welland Transportation Master Plan: City on the Move - Transportation Master Plan Study* <i>Note: This is currently in progress at the time of writing this report.</i>	Webpage	08 Feb 2024
28	Transit Systems of Niagara Bus Stop Accessibility Criteria & Guidelines*	Guideline Document	December 2020

## 7.2 Appendix B: Detail of Each Facility's Assets Current Condition State and Replacement Value.

As mentioned in the section 4.1 Baseline Capital Assets Condition Assessment, most assets inspected for each facility doesn't have an attributed replacement cost, which makes the calculation of total replacement value per facility incomplete, even if the current condition state of all assets inspected has been assessed. Based on each facility's inspection, a previous contractor was able to attribute a current condition state to each inspected asset (amounting to 746 different assets, across the four facilities).

For informative purposes, the team has listed the current condition assessment for each asset, per facility and per asset subcategory in the tables below.

Facility 142 (Welland Transit Office and Garage)	Condition assessment per subasset category for facility 142			
	Very Good	Good	Fair	Poor
Communication Systems	-	1	-	-
Electrical - Distribution System & Equipment	-	33	-	2
Electrical - Distribution System & Equipment – Lighting	-	8	2	1
Electronic Safety and Security	-	-	-	-
Exterior Horizontal Enclosure	-	-	-	-
Exterior Vertical Enclosure	-	-	-	-
Exterior Walls	-	2	1	-
Fire & Life System - Safety & Security Systems	-	3	-	1
Foundations	-	-	-	2
Interior Construction	-	7	-	1
Interior Finishes	-	5	1	1
Mechanical - Domestic Water Distribution	-	-	-	-
Mechanical - Fire Protection System	-	-	-	-
Mechanical – HVAC	-	17	1	12
Mechanical - Plumbing	-	12	1	-
Pavement Sidewalks & Landscaping	-	5	3	-
Roof	-	4	3	-
Safety & Security Systems	-	-	-	-
Site Improvements	-	-	-	-
Site Utilities	-	9	4	-
Slabs-on-Grade	-	2	-	1
Special Construction	-	-	-	-
Substructure	-	-	-	-
Superstructure	-	2	3	2
Windows & Doors	-	13	2	-
<b>Total (%)</b>	<b>0%</b>	<b>74%</b>	<b>13%</b>	<b>14%</b>

**Figure A1: Current Condition Assessment per Sub-asset Category for Welland Transit Office and Garage, per Asset**

Facility 143 (St. Catharines Transit Commission Office)	Condition assessment per subasset category for facility 143			
	Very Good	Good	Fair	Poor
Communication Systems	-	1	-	-
Electrical - Distribution System & Equipment	-	39	-	1
Electrical - Distribution System & Equipment – Lighting	-	4	3	-
Electronic Safety and Security	-	-	-	-
Exterior Horizontal Enclosure	-	-	-	-
Exterior Vertical Enclosure	-	-	-	-
Exterior Walls	-	5	2	1
Fire & Life System - Safety & Security Systems	-	6	-	-
Foundations	-	2	1	-
Interior Construction	-	5	1	1
Interior Finishes	-	3	2	-
Mechanical - Domestic Water Distribution	-	-	-	-
Mechanical - Fire Protection System	-	4	1	-
Mechanical – HVAC	2	44	28	1
Mechanical - Plumbing	-	13	4	-
Pavement Sidewalks & Landscaping	-	10	3	-
Roof	-	5	2	1
Safety & Security Systems	-	-	-	-
Site Improvements	-	-	-	-
Site Utilities	-	1	1	-
Slabs-on-Grade	-	3	1	-
Special Construction	-	-	-	-
Substructure	-	-	-	-
Superstructure	-	5	-	-
Windows & Doors	-	18	10	-
<b>Total (%)</b>	<b>1%</b>	<b>72%</b>	<b>25%</b>	<b>2%</b>

**Figure A2: Current Condition Assessment per Sub-asset Category for St. Catharines Transit Commission Office, per Asset**

Facility 144 (WEGO Facility)	Condition assessment per subasset category for facility 144			
	Very Good	Good	Fair	Poor
Communication Systems	-	1	-	-
Electrical - Distribution System & Equipment	-	102	-	-
Electrical - Distribution System & Equipment – Lighting	-	4	2	-
Electronic Safety and Security	-	-	-	-
Exterior Horizontal Enclosure	-	-	-	-
Exterior Vertical Enclosure	-	-	-	-
Exterior Walls	-	3	1	-
Fire & Life System - Safety & Security Systems	-	5	-	-
Foundations	-	1	-	-
Interior Construction	-	7	1	-
Interior Finishes	-	5	4	-
Mechanical - Domestic Water Distribution	-	-	-	-
Mechanical - Fire Protection System	-	-	2	-
Mechanical – HVAC	-	44	-	-
Mechanical - Plumbing	-	16	1	-
Pavement Sidewalks & Landscaping	-	6	4	-
Roof	-	7	-	1
Safety & Security Systems	-	4	-	-
Site Improvements	-	-	-	-
Site Utilities	-	1	1	-
Slabs-on-Grade	-	1	1	-
Special Construction	-	-	-	-
Substructure	-	-	-	-
Superstructure	-	3	1	-
Windows & Doors	-	26	-	-
<b>Total (%)</b>	<b>0%</b>	<b>93%</b>	<b>7%</b>	<b>0%</b>

Figure A3: Current Condition Assessment per Sub-asset Category for Wego Facility, per Asset



<b>Facility 145 (Welland Transit Terminal)</b>	Condition assessment per subasset category for facility 145			
	Very Good	Good	Fair	Poor
Communication Systems	-	-	-	-
Electrical - Distribution System & Equipment	-	-	-	-
Electrical - Distribution System & Equipment – Lighting	-	11	4	-
Electronic Safety and Security	-	2	4	-
Exterior Horizontal Enclosure	-	5	2	3
Exterior Vertical Enclosure	-	3	2	2
Exterior Walls	-	-	-	-
Fire & Life System - Safety & Security Systems	-	-	-	-
Foundations	-	1	-	1
Interior Construction	-	6	-	-
Interior Finishes	-	5	2	1
Mechanical - Domestic Water Distribution	-	6	-	1
Mechanical - Fire Protection System	-	-	1	1
Mechanical – HVAC	-	3	11	5
Mechanical - Plumbing	-	-	-	-
Pavement Sidewalks & Landscaping	-	-	-	-
Roof	-	-	-	-
Safety & Security Systems	-	-	-	-
Site Improvements	-	-	-	1
Site Utilities	-	-	-	-
Slabs-on-Grade	-	1	-	-
Special Construction	-	2	-	2
Substructure	-	2	-	-
Superstructure	-	-	-	-
Windows & Doors	-	-	-	-
<b>Total (%)</b>	<b>0%</b>	<b>52%</b>	<b>29%</b>	<b>19%</b>

**Figure A4: Current Condition Assessment per Sub-asset Category for Welland Transit Terminal, per Asset**