
Subject: Specialized Transit Study Report

Report to: Linking Niagara Transit Committee

Report date: Wednesday, January 29, 2020

Recommendations

1. That the recommendations of the Specialized Transit in Niagara Region study **BE ENDORSED**; and
2. That a copy of this report **BE CIRCULATED** to the local area municipalities.

Key Facts

- The purpose of this report is to provide the results of the Specialized Transit in Niagara Region study (IBI Group, 2020).
- The *Niagara Transit Governance and Service Strategy, 2017* by Dillon Consulting (Dillon Report) identified the need to undertake a further study to develop a strategy on specialized transit services within the larger governance framework of consolidated Regional transit services.
- The Inter-Municipal Transit (IMT) Service Implementation Strategy (LNTC 21-2018) endorsed this study as a key workplan item.
- This Study has been headed by a project team consisting of staff from the Inter-municipal Transit Working Group (IMTWG).
- The results of this study will serve as an input to the Transit Governance Study currently underway.

Financial Considerations

There are no financial impacts arising out of this report, however there will be financial impacts in carrying forward these recommendations. Staff will bring forward an update report once the recommendations contained in this report are resolved for further direction from LNTC.

Analysis

Study Team

The team was composed of staff members from St. Catharines, Niagara Falls, Welland, Niagara Region, and Fort Erie transit systems.

Stakeholder Consultation

Extensive stakeholder consultation was carried out as part of this Study including:

- Public Information Centres (PICs) – Two rounds of PICs, each involving two separate PICs were held. Round 1 was held upon completion of the exiting conditions and the common industry practices. Round 2 was held to get public feedback on the recommended approach. In total over 50 people attended these events.
- Surveys – Surveys were carried out using online and paper based methods. The paper-based survey was distributed to riders in specialized transit vehicles operated by Niagara Region and area municipalities. Additionally, off-board survey forms were distributed to the attendees of the Round 1 PICs, and through the area municipalities. In total 250 surveys were returned.
- Focus Group Meetings were held with Niagara Health and Community Organizations, Niagara Region's Accessibility Advisory Committee (AAC), the IMTWG, the LNTC, Niagara Region Seniors Services, and First Nations.

The public and stakeholder consultation, plus the review of peer transit systems and a review of specialized transit in Niagara informed the key recommendations of the study. In late 2019, it was identified that there was a need for additional consultation with the AAC. Staff completed this consultation on January 7th, 2020 and the AAC approved the recommendations of the report. Niagara Region staff have committed to ongoing consultation with the AAC on the implementation of the recommendations contained in the study.

The goals of this Study were to:

1. Review the specialized transit systems in Niagara;
2. Project ridership demand;
3. Develop financial forecasts; and,
4. Recommend service enhancements for specialized transit.

These goals were achieved through the following research, data collection and interpretation, and community consultation.

Baseline information on existing municipal specialized transit services was developed using: the operating data trends for Niagara Specialized Transit, Niagara Falls Chair-A-Van, St. Catharines Para Transit, WellTrans, Fort Erie Accessible Transit (FAST), Pelham Specialized Transit, and Niagara-on-the-Lake Accessible Transit Service; and a scan of the private and not-for-profit service providers.

Future specialized transit ridership demand was developed using a comprehensive demand forecast. Projected ridership was then used to estimate the future operating and capital costs.

A review of Niagara Specialized Transit operations was conducted to identify the current challenges with the system and provide recommendations on how to improve existing service. The key findings of this review are:

- Riders have a favourable view of drivers and staff
- Difficulty booking trips—including need to call multiple agencies (municipal & regional travel)
- Poor on-time performance or rides do not show up
- Excessive travel times
- Inconsistent eligibility criteria and processes
- Residents of communities without specialized transit (i.e. West Niagara) feel disadvantaged in terms of equity and access

These key findings as well as a review of the specialized transit systems for peer systems (Durham Region Transit, Grand River Transit, and York Region Transit) and technological trends in specialized transit inform the recommendations outlined below.

The project team established guiding principles to help develop the key recommendations. These principles were:

- **Preserve the integrity** of the Region's specialized transit services for those with no alternative
- **Maximize the benefits from investments** made in accessible fixed route transit and provide flexible mobility options
- **Compliance with the Accessibility for Ontarians with Disabilities Act (AODA)** and principles of universal design
- **Be fiscally responsible and accountable**

The guiding principles were coupled with the objectives of maximizing use of existing resources, increasing efficiency in service delivery, enhancing the customer experience,

and leveraging use of technology to improve future services to create recommendations for change that do not compromise service to the ridership.

Key Recommendations

The key recommendations are grouped into six areas and are as follows:

1. Eligibility & Certification of Riders

- Process be centralized under a single entity
- A single application form be used by all specialized transit operators in the region
- Digital application form available to applicants with the ability to complete and submit on-line
- Remove the requirement for validation by a health care professional and in-person assessments be introduced as part of this process
- Applicant's certification reflect categories of: *unconditional, temporary, and conditional (trip-by-trip)*
- Re-certification every five years for all applicants

2. Trip Reservation & Scheduling

- The reservations/trip request and scheduling functions be centralized under a single entity
- Enable registrants to make reservations/trip requests by telephone, mobile app and/or web-portal (*One-Call/One-Click* capability)
- Scheduling (route optimization, allocation of resources) to use state-of-the-art, commercially available software with a robust scheduling algorithm

3. Development of Policies, Procedures, and Performance Metrics

- Governing entity develops a robust set of policies, procedures and performance metrics. Policies and procedures to include but not be restricted to:
 - Advance booking requirements
 - Scheduling windows
 - Cancellations and no-shows
 - Fare policy
- Performance metrics to reflect industry norms regarding key performance indicators (KPIs) including requirements for service monitoring, contract compliance and CUTA reporting

4. Service Delivery (Dispatch and Trip Management)

- Core specialized transit services to be provided by, and to a level of service as currently provided by the aggregate of the municipal and regional specialized transit providers
- Supplement existing core services by the use of taxis and/or transportation network companies (TNCs) to accommodate trip requests during times of day, days of week, or areas of service, when the deployment of hourly service would not meet prescribed performance metrics or to provide 'overflow' capability
- Use supplemental services, as described above, to accommodate future travel demand/expansion of specialized transit services

5. Greater Link/Integration with Fixed-Route Transit Services

Recognizing that specialized transit is shared ride public transit for those unable to use accessible fixed route transit, and with an eye on a greater link or integration with accessible fixed-route transit, the following are recommendations:

- Apply conditional/trip-by-trip eligibility whereby for specialized transit registrants categorized as 'conditional' and where conditions can be determined (e.g. seasonal, climate/weather, topography, accessible paths of travel, proximity of trip origin/destination to fixed-route service, etc.)
- Develop incentives and policies to address travel/mobility demand management strategies that may include but not be restricted to: travel/mobility training, fare policy, trip discovery/planning capabilities, etc.

6. Next-Generation Mobility

The following next-generation mobility (operations, service delivery, and technology) strategies be advanced:

- Introduce a Specialized Transit Same-Day Pilot Program through partnerships with taxi and/or transportation network companies (TNCs)
- Technology enhancement that include:
 - Real-time passenger information including the broadcast (text message or telephone call) of vehicle arrivals
 - Self-service capabilities through an app and/or web portal to address registration, trip planning, reservations, confirmations and cancellations
 - Introduction of mobile (cashless) payment

Recommendations have been outlined under short-term (0 to 2 years), and medium-term (2 to 5 years).

Short-Term (0 to 2 years)	Medium-Term (2 to 5 years)
<ul style="list-style-type: none"> • Harmonized application form • Centralized eligibility & certification process • Development of policies, procedures, and performance metrics • Centralized scheduling • Expanded use of supplemental services • Same-Day Pilot Program 	<ul style="list-style-type: none"> • Technology – real-time information, self-serve capabilities, cashless payment • Greater integration with fixed-route transit

It is worth noting that the Specialized Transit in Niagara Region report (IBI 2020) and its recommendations will serve as an input to the Transit Governance Study currently being undertaken by Optimus SBR under the direction of a CAO Working Group consisting of municipal CAO's.

Alternatives Reviewed

The specialized transit travel demand forecast was developed to inform the future operating and capital needs with the growth projected under the Business as Usual (BAU), and High Growth scenarios. These forecasts project specialized transit clients and trips for the two scenarios for the years 2018 (Base), 2021, 2026, and 2031.

Order of Magnitude financial impacts were assessed under the same two service delivery scenarios:

BAU Scenario	Business as Usual—No change in how service is delivered
Intervention Scenario	<p>Interventions/ Alternate Delivery Framework</p> <ul style="list-style-type: none"> • accommodating an increasing number of trips on accessible fixed-route transit services • greater use of supplemental (taxis or transportation network company) services to accommodate trip requests when the deployment of regular service would not meet prescribed performance metrics or to provide 'overflow' capability • accommodating future service expansion with the use of supplemental service providers

Table 1 and Table 2 demonstrate the order of magnitude with respect to operating cost impacts under the two scenarios described above.

As shown in Table 1 under a BAU scenario, the ridership grows by 20% to 2031 however, the operating cost grows by 38%. In the event of high growth scenario the ridership grows by 40% but operating cost increases by 61%. The exponential growth in operating cost under a high growth scenario could be unsustainable, therefore, alternatives should be examined to determine if there are solutions for containing operating costs while ridership increases.

Table 1: Operating Costs – BAU Scenario					
	Base Year		Medium Growth		High Growth
	2018	2021	2026	2031	2031
Specialized Transit Trips	124,700	129,900	139,200	149,500	174,100
Growth over Base		4%	12%	20%	40%
Net Operating Cost	\$5,667,000	\$6,082,000	\$7,012,000	\$7,811,000	\$9,142,000
Variance over Base		7%	24%	38%	61%

Table 2 shows how specific interventions can result in a reduction in the net operating cost due to increasing number of trips being delivered through alternative methods such as increased integration with conventional transit and use of technology enabled Transportation network companies (TNCs) and taxi-cabs. Under the Intervention Scenario, the actual impact to Specialized Transit is reduced. Ridership growth to 2031 only increases by 8% and net operating costs are partially offset resulting in a lower variance over base by 2031 because ridership is shifted to conventional transit in the range of 4%-12% and 30-40% of the ridership also shifts to TNCs or taxis.

Table 2: Operating Costs – Intervention Scenario				
	Base Year	Medium Growth		
	2018	2021	2026	2031
Specialized Transit Trips Alternative Delivery¹		4,400	9,900	15,300
Specialized Transit Trips	124,700	126,600	132,100	136,700
Growth over Base		1%	6%	10%
Net Operating Cost	\$5,667,000	\$5,348,000	\$5,769,000	\$5,953,000
Variance over Base		(6%)	2%	5%
1 Estimated trips to be delivered through alternative means (Taxis & TNCs)				

Table 3 shows the aggregated 10 Year Capital Forecasts based on their fleet replacement and expansion projections by major municipal transit service providers (St. Catharines Transit, Niagara Falls Transit, and Welland Transit) under the BAU Scenario. It is assumed the fleet requirements would still apply under the Intervention Scenario to form part of the core operations with the growth in demand handled through an alternative delivery framework. Specialized transit scheduling software was identified as a short term need under the Intervention Scenario and included in the forecasts.

Table 3: Specialized Transit Capital Costs				
	Short Term	Medium Term	Long Term	10 Year Total
	2020-2021	2022-2024	2025-2028	
# Vehicles	9	8	8	25
Vehicle Cost	\$1,620,000	\$1,325,000	\$1,610,000	\$4,555,000
Technology Costs (Scheduling Software)	\$400,000			\$400,000
Total	\$2,020,000	\$1,325,000	\$1,610,000	\$4,955,000

Continuing with business as usual was considered as an alternative, however this would result in a missed opportunity to optimize the current specialized transit services in light of jurisdictional barriers and recent technological changes. Additionally, the service cost increases due to the future ridership demand would not be sustainable.

Relationship to Council Strategic Priorities

- Responsible Growth and Infrastructure Planning

Objective 3.1: Advancing Regional Transit and GO Rail Services

Advance and advocate for Niagara's effort towards integrated and efficient conventional, specialized and higher order transit, enabling seamless and connective travel for all people throughout Niagara, the Hamilton area and the Greater Toronto area.

Other Pertinent Reports

LNTC-C 5-2019	Specialized Transit Study Update
LNTC-C 12-2019	Transit Governance Study Update
LNTC-C 9-2018	Niagara Specialized Transit Review Terms of Reference

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