
Subject: Niagara Specialized Transit Operations Review

Report to: Public Works Committee

Report date: Tuesday, July 9, 2019

Recommendations

1. That the findings and recommendations outlined in this report **BE CONSIDERED** in conjunction with the Niagara Specialized Transit Service Extension recommended in PW 40-2019.

Key Facts

- The purpose of this report is to present major findings and near-term recommendations based on an audit of Niagara Specialized Transit (NST) operations and related customer feedback.
- In December 2015, Niagara Region entered into a Service Agreement with The BTS Network Inc. (BTS) for delivery of NST Service.
- In December 2018, Niagara Region initiated a Specialized Transit Study that included a review of current NST operations and retained IBI Group (IBI) as the consultant. A summary of the key findings are as follows:
 - **Key Operational Issues Identified with BTS**
 - Deficiencies in on-time performance - 86.4% against required 95%
 - Inconsistencies with trip data including erroneous reporting and data-integrity issues
 - Inefficiencies with trip scheduling software indirectly affecting customer service
 - Deficiencies in NST client communication – missed trips (client believes the trip has been booked where BTS has no record of the trip request)
 - Non-compliance with the contractual requirements for signage (decal) on vehicles operating NST service
 - **Key Challenges**
 - High trip cancellation rate by service users (almost twice the industry average)
 - Continued and significant increase in the number of new applicants
 - Financial constraints due to Niagara Region budget pressures resulting in unattainable performance standards
 - Contractor compensation on a per passenger trip (and zone) basis may not be well suited to the current trip volumes and Niagara's geography

- **Key Recommendations**

- Wholesale or significant restructuring of the contract with BTS is not recommended in light of the Specialized Transit Study recommendations coming later in the year
- Reduce advance booking requirement from 48 hours to 24 hours, to reduce trip cancellation rates
- BTS to immediately improve upon the on-time performance, fully comply with timely supply of management reports, have a traceable log of all trip requests with any subsequent changes, fully comply with required decaling and signage on vehicles operating for NST trips

Financial Considerations

There are no financial impacts directly related to this report; however, there could be financial impacts arising out of changes to the NST Service Delivery due to this report's recommendations. Should these changes require funding over the approved annual NST budget, a subsequent report shall be brought for Committee's consideration.

Analysis

As part of the NST Operations Review, IBI carried out a comprehensive audit of NST policies, procedures, and processes as well as the contract compliance by the service provider, BTS. Additionally, IBI obtained feedback from NST customers through on-board surveys and Public Information Sessions.

The audit included consideration of service costs, effectiveness, business processes, data management and reporting, regulatory compliance, fleet suitability, and an analysis of performance measures/metrics. IBI, accompanied by Regional staff, made site visits to the BTS Operations Centre in Niagara, and Customer Service Center in Vaughan.

The findings, observations and the recommendations below are for the near-term. The longer-term recommendations will come as part of the Specialized Transit Review study that includes NST as well as local municipal specialized transit systems.

The findings of the audit and customer feedback need to be viewed in the context of some of the challenges outlined below for context:

- In December 2017, Niagara Region issued a termination notice effective January 1, 2019 per the NST Service Agreement terms and invited BTS to enter into negotiations and continuation of NST service delivery in the interim.
- In 2018, the service delivery parameters were adjusted to keep the operating expenses within the defined NST Operating Budget for the year. This resulted in the adjustment of the number of trips being delivered to an average daily maximum. This

was a change from the previous Service Agreement that did not place any limitation on average daily trips, however placed an upper threshold on the maximum trips that would be a trigger point for termination of the Service Agreement

- The NST client base continues to grow consistently and significantly each year through the application process, which continues to drive demand for the Regional service. Any effort to accommodate this increase will require corresponding investments in the program to meet the increasing needs of the community. This will be further reviewed as part of the Specialized Transit Review study.

- **Key Findings and Near-term Recommendations**

On-Time Performance (2018 Trips)	
Criteria 95% NST pick-ups operate within the on-time window of 10 min earlier or 10 min later (allowance of 5 minutes for early arrival)	Findings 2018 Trips <ul style="list-style-type: none"> • 0-10 min. (On-time) - 86.5% • 11-30 min. (Late) - 10.4% • > 30 min. (Late) - 3.1%
Observation: BTS is falling short of meeting the performance criteria	
Recommendation: BTS to immediately address this gap to bring up the on-time performance to 95% or better. To address this gap, BTS needs to improve its scheduling processes. For additional details refer below to the box on Trip Scheduling Process (Page 4 of this report).	

Data/ Management Reports (2018)	
Criteria Generate financial and operating reports for both accounting and general monitoring purposes	Findings <ul style="list-style-type: none"> • BTS has the ability to generate robust data management reports, maintains record of operator training, staffing schedules, etc. • Review of operating, call-log, staffing, complaint, etc. data revealed inconsistencies including erroneous reporting and missing data to Niagara Region <ul style="list-style-type: none"> ○ BTS recognized the need to hire a statistician to review and ensure data integrity • 'Missing' trip data was primarily attributed to human error (failure to hit 'perform' function on MDT/<i>Ridetrack</i>) • BTS misses deadlines in forwarding management reports to Niagara Region even after several reminders, sometimes with inordinate delays in forwarding key reports
Observations: BTS is falling short of meeting the performance criteria	
Recommendation: <ul style="list-style-type: none"> • BTS to immediately comply with the supply of the trip data records with the agreed upon data-fields properly populated 	

Data/ Management Reports (2018)	
<ul style="list-style-type: none"> BTS needs to deliver agreed upon management reports within the scheduled timeframe as dictated by the Reporting Requirements Tracker 	
Trip Scheduling Process	
Criteria NST pick-ups operate within a window of ± 10 min (5 min. allowance on early arrival time) Passenger on-board time shall not exceed two (2) times the direct travel time, and at no time exceed 90 minutes in total	Findings <ul style="list-style-type: none"> Around 13.5% trips not picked-up within scheduled window Passenger on-board time exceeds two times travel time and exceeds 90 minutes
Observations: <ul style="list-style-type: none"> BTS scheduling processes including building of operator runs appear to present an opportunity for enhanced scheduling efficiencies (route optimization) BTS' own scheduling software is used to schedule/build runs - it does not appear the scheduling algorithm runs optimization based on the spatial and temporal distribution of trips Google Map Services is used to determine 'typical' travel times. There does not appear to be user defined parameters reflecting performance metrics that may trigger violations noted by scheduling staff 	
Recommendation: <ul style="list-style-type: none"> BTS to review on-board client duration time with Regional staff Establish trip booking and scheduling parameters in predefined time increments Develop performance metrics (including max. travel times) reflecting zonal service delivery parameters Although not a contract requirement, BTS is advised to review its scheduling software for operational efficiencies as this indirectly affects customer service 	

NST Client Communication	
Criteria Provide a means of notifying passengers in the event of delay, planned and unplanned service disruptions, and a means of recording missed trips and cancellations.	Findings <ul style="list-style-type: none"> Clients complain regarding lack of information when trip changes are made Issue with "missing trips" seem to be common, where a customer believes they have a trip

NST Client Communication	
	scheduled but Service Provider has no record of trip
Observations: <ul style="list-style-type: none"> According to BTS staff, routing is completed 48 hours in advance, so CSRs can issue a text, email, or phone call to all riders of their pending scheduled trips. CSRs make three (3) attempts to reach each rider (two (2) at 48 hours, and one (1) at 24 hours) BTS scheduling policy indicates that if a time change is needed, said change is scheduled within the original pick-up window Client-based feedback suggest that these policies/processes are not being followed fully 	
Recommendation: <ul style="list-style-type: none"> BTS to review and update NST client notification procedure to have a traceable communication log of the requested trip and any subsequent changes 	

BTS Vehicles Used for NST Operations	
Criteria Ensure signage approved by the Region appears on each vehicle to enable it to be readily recognizable as an NST vehicle	Findings <ul style="list-style-type: none"> Branding and signage (decal) on vehicles indicating NST service, has not been in compliance with contract requirements
Observations: <ul style="list-style-type: none"> BTS is not in compliance with the contract 	
Recommendation: <ul style="list-style-type: none"> BTS to review with Regional staff the appropriate signage to appear on the NST service delivery vehicles and ensure compliance 	

- Additional Observations**

- Trip cancellations are at 23%, with 20.6% on-time cancellations (close to twice industry norm) resulting in service capacity going unused and unnecessary administrative effort being expended. Reduction in the advance booking requirement will help reduce cancellation rates (i.e. reducing trip booking time from 48 hrs. to 24 hrs.)
 - NST drivers are courteous and professional
 - Significant growth in the number of new clients – for 2018 an average of 61 new approved applicants per month
 - Region could consider revising the basis of Service Provider compensation – per trip basis may not be in the best interest of Niagara Region given the

- size/area of service, distribution of trip origins/destinations, and the need to reflect the *shared-ride* nature of specialized transit service delivery. Alternatives including per revenue hour may be considered.
- It is difficult for the contractor to fully comply with the requirement to accommodate 97.5% of trip requests (as per the Original Agreement) given the financial constraints including limits placed on total trip volume resulting in an unaccommodated trip rate averaging close to 14%. As such, both parties agreed to remove this requirement in the Amending Agreement (PW 40-2019).

Alternatives Reviewed

Based on the NST Operations Review, it is possible to go through a formal procurement process with minor updates to the current service delivery model. This alternative is not recommended at this time for the reasons outlined below:

- The Specialized Transit Study is reviewing the future service delivery models that will feed into conventional transit governance review (currently under initiation) which will consider all of Niagara's specialized transit systems as part of a consolidated transit model. The outcome from this review is anticipated by the first quarter of 2020.
- Any new procurement process ahead of the governance review will require a short-term duration for the agreement. This would create logistical issues in terms of start-up time and resource commitments for potential suppliers of the service and would likely require financial offsets.

Other Pertinent Reports

PW 40-2019 NST Service Agreement 2019-2020

PW 51-2017 Niagara Specialized Transit (NST) Program Change Options

PW 61-2015 Niagara Specialized Transit Service Delivery – Contract Award

Prepared by:

Kumar Ranjan, P.Eng.
Transportation Lead GO Implementation
Public Works Department

Recommended by:

Catherine Habermehl
Acting Commissioner
Public Works Department

Submitted by:

Ron Tripp, P.Eng.
Acting Chief Administrative Officer

This report was prepared in consultation with Robert Salewysch, Program Manager – Transit Services, and reviewed by Matt Robinson, Director GO Implementation Office.