



Wheel-Trans Transformation Program 2022 Update

Date: June 23, 2022
To: TTC Board
From: Chief Operating Officer

Summary

This report provides an update on the implementation of the Wheel-Trans 10-Year Strategy and highlights some of the significant achievements since the last update to the TTC Board in June 2021. The report outlines accomplishments, impacts and next steps, including operationalization of Family of Services (FOS), Travel Training, documentation of policies, construction of remaining Access Hubs and rollout of new technology. This report also provides an update to the comprehensive review of cross-boundary Wheel-Trans service for riders travelling outside and into the city of Toronto.

Recommendations

It is recommended that the TTC Board:

1. Forward a copy of this report to City Councillors for information.

Financial Summary

The Wheel-Trans Transformation Program (WTTTP), originally approved by the TTC Board on November 21, 2016 and by City Council on February 15, 2017, includes a wide range of activities, from technology and infrastructure investments to various service improvements, and as such, funding has been approved in both the TTC's 10-year Capital Plan and Operating Budget to implement this program.

Funds for this expenditure are included in the TTC's 2022-2031 Capital Budget and Plan under Program 3.9 Buildings and Structures, as approved by the TTC Board on December 21, 2021 and City Council on February 17, 2022.

The total budget for the Wheel-Trans Transformation is \$49.8 million, comprising of costs to the end of 2021 of \$30.986 million and funding of \$18.809 million in the 2022-2031 Capital Budget and Plan. The WTTTP is expected to be on target with the Estimated Final Cost of \$49.8 million.

The WTTP formed part of the list of projects approved for the Federal Public Transportation Infrastructure Fund (PTIF) funding program, with the receipt of \$9.8 million in PTIF funding.

Based on long term continued growing demand for accessible transit services, the Wheel-Trans Transformation program has been essential in avoiding significant operating costs, estimated at \$14.9M in 2021, while continuing to meet the needs of Wheel-Trans customers.

The Chief Financial Officer has reviewed this report and agrees with the financial impact information.

Equity/Accessibility Matters

The goal of the Wheel-Trans 10-Year Strategy is to help make the TTC more accessible, equitable, inclusive and sustainable for existing and future customers. Towards achieving that goal, and in compliance with the Integrated Accessibility Standards Regulation (IASR) under the Accessibility for Ontarians with Disabilities Act (AODA), Wheel-Trans service and eligibility criteria have been expanded to include any persons who have a disability that prevents them from consistently using conventional transit for all or part of their trip.

Moreover, the FOS delivery model integrates specialized service into the TTC's broader suite of accessible conventional transit services, providing Wheel-Trans customers with greater access, flexibility and spontaneity of travel options. While some customers will continue to require door-to-door Wheel-Trans service as their primary or sole means of travel, others can access a combination of services and support tools through the FOS model.

The TTC has consulted extensively with Wheel-Trans customers, members of the public, community organizations and other stakeholders (i.e. UHN, OHRC, LHIN, OMA, etc.), including the TTC's Advisory Committee on Accessible Transit (ACAT), to ensure the Wheel-Trans 10-Year Strategy transformation is carried out in a manner that is accessible and inclusive.

Work with regional service providers also continues for the purpose of ensuring the elimination of barriers for cross-boundary travel. A guiding principle of the AODA and the IASR is to provide equitable access to services. The TTC wants to ensure that entering into a cost-share agreement is done equitably with all neighbouring regional transit service providers so that a consistent service level is available for all Wheel-Trans customers. All regional transit providers are committed to improving transfer locations, ensuring that they are safe and secure and that they support all transfers, including FOS transfers. This has been a priority for all accessible service providers through the work being done in the Greater Toronto and Hamilton Area (GTHA) Specialized Transit Working Group.

Decision History

In 2012, the Auditor General performed an Audit Work Plan, which included a review of Wheel-Trans operations with the objective to assess its effectiveness and efficiency, and identify areas of improvement.

[2012 Auditor General's Report – "Review of Wheel-Trans Services – Sustaining Level and Quality of Service Requires Changes to the Program"](#)

In February 2016, the Wheel-Trans 10-Year Strategy was first introduced and approved by the TTC Board.

[Wheel-Trans 10-Year Strategy - February 2016 Update](#)

The TTC Board was provided with a TTC Wheel-Trans 10-Year Strategy progress update in September 2016, and approved changes to Wheel-Trans eligibility, the ACAT mandate, commencement of the FOS pilot, and the FOS migration plan for existing customers.

[Wheel-Trans 10-Year Strategy – September 2016 Update](#)

The 2017 Accessibility Plan status update was presented to and approved by the TTC Board with the direction to have annual status updates on the progress of the Multi-Year Accessibility Plan, which includes the Wheel-Trans 10-Year Strategy and Transformation Program.

[2017 Accessibility Plan Status Update](#)

In April 2018 the TTC Board considered an update on the Wheel-Trans 10-Year Strategy. Subsequent updates were provided in May 2019, July 2020 and June 2021.

April 2018 Update: [Wheel-Trans 10-Year Strategy Update](#)

May 2019 Update: [Wheel-Trans 10-Year Strategy Update](#)

July 2020 Update: [Wheel-Trans 10-Year Strategy Update](#)

June 2021 Update: [Wheel-Trans 10-Year Strategy Update](#)

In May 2019, the TTC Board considered the 2019-2023 TTC Multi-Year Accessibility Plan, which includes several Wheel-Trans 10-Year Strategy objectives. Further updates to the Accessibility Plan were considered by the TTC Board in July 2020 and May 2021.

2019-2023 TTC Multi-Year Accessibility Plan:

[2019-2023 TTC Multi-Year Accessibility Plan](#)

2020 Accessibility Plan Status Update: [2020 Accessibility Plan Status Update](#)

2021 Accessibility Plan Status Update: [2021 Accessibility Plan Status Update](#)

The TTC Board, at its meeting on October 24, 2019, considered a report on the Wheel-Trans Cross-Border Travel Study.

[Wheel-Trans Cross-Border Travel Study](#)

Issue Background

In February 2016, staff summarized the underlying drivers for the Wheel-Trans 10-Year Strategy, and specifically laid out the changing eligibility requirements for specialized transit under the IASR, as well as the growing customer demand for improved transit service. This justified the development of a new on-demand service delivery model and the implementation of intermodal trip booking through a FOS program.

In September 2016, staff provided an update following months of customer, community and stakeholder consultations, which confirmed the need to implement the proposed approach. That Board report contained an overview of the newly scoped Wheel-Trans Transformation Program intended to deliver the changes called for in the Wheel-Trans 10-Year Strategy. It outlined the importance of implementing eligibility changes mandated by the IASR before January 2017, expanding the composition and Terms of Reference of ACAT to support these changes, launching a FOS pilot and implementing the migration plan for existing customers.

Implementation of the technological, operational and infrastructure changes to transform Wheel-Trans began in 2017 and will continue through to 2026. Benefits realization will be achieved in conjunction with broader accessibility investments as they are completed; namely, the new accessible streetcars that replaced the remaining non-accessible legacy fleet (completed in 2019) and the Easier Access Program Phase III, which will render all TTC subway stations accessible by 2025.

Comments

The WTTP

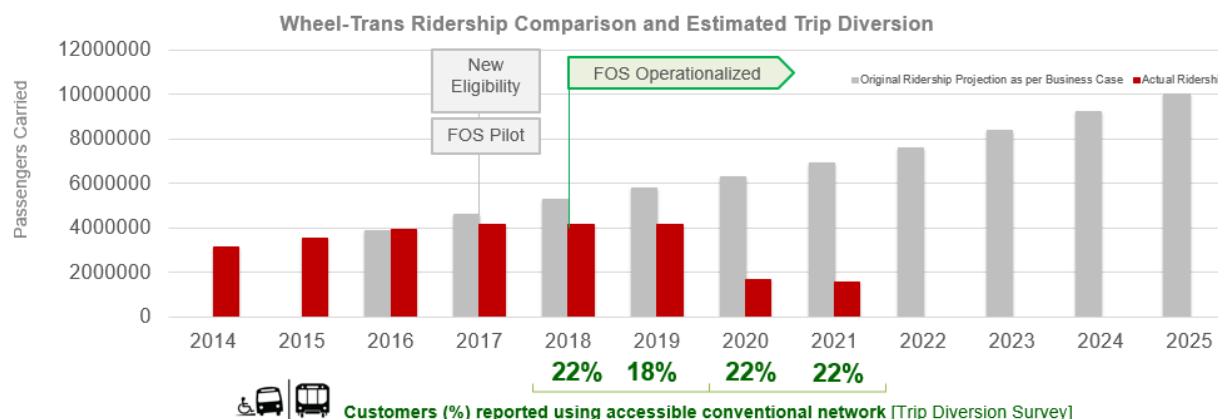
The WTTP was established to implement the Wheel-Trans 10-Year Strategy. The program was designed within the TTC's Project Management Framework for effective and transparent management of scope, schedule and budget. The TTC frequently consults with ACAT and the public on all facets of the WTTP, gaining valuable feedback and ensuring that the changes being undertaken have all our customers in mind.

Benefits Realization

Aside from some of the Wheel-Trans transformation customer benefits to date (i.e. self-booking website, online chat feature, customer e-mail/text/mobile alerts, reduced contact centre wait times, newer and larger bus fleet, more Access Hubs, etc.), the other significant benefit is the avoidance of pre-transformation program anticipated cost escalation by incorporating conventional transit with an many Wheel-Trans trips as possible (Family of Services).

Based on both confirmed FOS rides and Trip Diversion surveys with Wheel-Trans customers, below is a table that estimates total cost avoidance (in millions) from all FOS trip types from 2017 to 2021. An annual return on investment of approximately 30% is being achieved, based on WTTP estimated final cost of \$49.8 million and estimated cost avoidance of \$14.9 million.

Table 1: Estimated Total Cost Avoidance (in millions) from all Family of Service (FOS) trip types from 2017 to 2021.



(In Millions)	2017	2018	2019	2020	2021	TOTAL
Total Cost Avoidance (From all FOS trip types)	\$ 1.45	\$ 6.50	\$ 25.28	\$ 17.17	\$ 14.91	\$ 65.33

Program Progress to Date

Since the last update was provided in June 2021, the TTC has achieved the following milestones:

- **ACAT [Q1-Q4 2021]**
 - Provided WTTP updates at ACAT meetings and/or during subcommittee review meetings.
- **Access Hubs [Q1-Q4 2021]**
 - To support the FOS model, the TTC implemented a network of Access Hubs.
 - These are enhanced bus shelters that serve as transfer points between Wheel-Trans service and accessible conventional bus service.
 - The Access Hub project is now complete. Construction and operationalization of 14 Access Hubs in nine locations was completed in 2020, bringing the total number of Access Hubs in service to 16 at 11 locations. Modifications to the roadway to support the Access Hub at Neilson and Ellesmere were completed in October 2021.
- **Contact Centre Review [Q1-Q4 2021]**
 - To improve the customer experience when booking a trip over the phone, the WTTP included the Contact Centre Review project. This project explored various opportunities to improve response times for Reservations calls.
 - As part of completing this project, Wheel-Trans entered into a contractual relationship with Telus to obtain call overflow support for peak volumes to

ensure that response times for Wheel-Trans customers are always within the Board-approved standard for Reservations calls of an average wait time of two minutes or less.

- The first year of this contract has resulted in vastly improved average wait times and record low abandonment rates.
- *Technology Improvements [Q1 and Q4 2021]*
 - Successfully launched both Phase 3 and Phase 4 of the Reservations, Scheduling and Dispatch (RSD) system upgrade in support of FOS and Conditional Trip Matching. The Wheel-Trans Mobile App pilot was expanded and will continue in 2022.
 - Introduced new technology using the TTC's standard Customer Relationship Management (CRM) system that allows customers to submit their Wheel-Trans applications through a web portal. The CRM system was also further upgraded and integrated with GIRO Hastus on Demand software to prepare CRM to become the customer book of record.
 - Introduced new Chat Tool on self-booking website, allowing customers to live chat with Customer Service Representatives.
- *Fleet Replacement Planning [2021]*
 - In support of FOS, the WTPP established the Fleet Replacement project to diversify its fleet mix to match new customer profiles, trip patterns and travel behaviour.
 - As of the end of 2021, there were 148 Pro Master (six-metre) vehicles in service. These mini-buses are smaller, more fuel efficient and can easily access more destinations.
 - The TTC also explored the option of a vehicle that would supplement the six-metre Pro Master mini-bus. In order to provide service efficiencies, the emphasis of the search requirements was to maintain a smaller-sized vehicle while increasing customer capacity.
 - Through a joint procurement process with Metrolinx, a seven-metre demonstrator bus was obtained and a pilot was executed and successfully completed.
 - One hundred and nine 7m Pro Master vehicles will be delivered in 2022.
- *FOS [Q1-Q4 2021]*
 - Continued the process of FOS expansion and established that 81 surface routes (bus and streetcar) are viable for use as FOS routes.
 - 67 of the 81 (82.7%) established surface routes were operational at the end of 2021.
 - A survey was completed in June 2021 with results shared in September 2021. Over 29% of customers travelling on any given week are using FOS.

The Program has faced the following challenges:

- *Customer Apprehension with Conditional Trip Matching*
 - The goal of Conditional Trip Matching is ensuring that customers always receive trip bookings that match their travelling capabilities based on their

- eligibility. That could be door-to-door or a drop-off/pick-up at a subway station or bus/streetcar stop.
 - To support the successful adoption of FOS by our customers, we created an initiative to provide Travel Training to any customer who may feel apprehensive about using the TTC's accessible conventional services. We have received very positive feedback from customers who have completed Travel Training sessions.
 - In September 2021, we once again began to offer in-person Travel Training and Vehicle Familiarization sessions to customers, continued to offer Travel Training to our Wheel-Trans customers that will be using the accessible conventional system.
 - In October 2021, a FOS video for customers demonstrating FOS travel was completed.
 - Of the Wheel-Trans customers who received Travel Training, 68% were over the age of 60.
 - Travel Training will continue in 2022, and more routes and travel stops will be added.
- *Reservations, Scheduling and Dispatch (RSD) system upgrade*
 - As the second phase of the RSD project was tracking late in 2019, the initiative underwent a program reset, which included a decision to pause Phases 5 to 8. The decision to pause allows the TTC to ensure that the scope and requirements that were defined in 2016 are still valid and beneficial in today's operating climate. A further review and assessment will be conducted in 2022.
 - Looking ahead past the first four phases of the RSD project, we will be re-evaluating the requirements for future phases.
 - Procurement was completed at the end of 2021 and an external third party transit consulting firm will conduct a solution assessment and provide a recommendation for those future phases in 2022.
 - Once the assessment is completed and the recommendations are approved and accepted, new technology projects under the WTTP will be established.
 - Now that Phase 4 has been implemented, we can provide customers with FOS solutions that involve two conventional system transfers and we have added 2,000 walking stops for even more convenience.
- *COVID-19 impact to WTTP*
 - Since the onset of the COVID-19 pandemic, a number of operational changes have been made to ensure the safety of our customers. For example, providing solo-rides exclusively (still with a support person, if required) to limit potential exposure to the virus for both customers and staff.
 - Self-booking website and booking processes were updated to ensure proper screening of trips is completed.
 - This resulted in deferring the implementation of Conditional Trip Matching into 2022 in order to minimize the number of changes our customers were experiencing during these unprecedented times.
 - As with all other areas of the TTC, Wheel-Trans employees have been mandated to work from home if able to do so. This includes Reservations and Customer Service employees.

By the end of this year, several critical goals will be accomplished:

- *FOS*
 - Additional surface routes will be added to the scheduling system to accommodate FOS trips. The target to have 80% of the established surface routes in service by the end of 2021 was met.
- *Conditional Trip Matching and Customer Re-Registration*
 - Customer surveys, along with guidance from Toronto Public Health, will inform the timing of a move to Conditional Trip Matching. This will be evaluated in 2022.
- *Reservations, Scheduling, and Dispatch*
 - The Wheel-Trans Mobile App pilot will continue in 2022.

The above accomplishments, impacts and goals will be shared at upcoming public meetings where the public will be provided the latest information and given the opportunity to provide feedback on important topics, such as customer re-registration and Conditional Trip Matching. ACAT will continue to be updated and provide feedback.

The appendices provide further detail on what was accomplished and the next steps required to effectively implement the Wheel-Trans 10-Year Strategy.

Cross-Boundary Travel Initiatives

Due to the pandemic, cross-boundary service focused on ensuring all trips were completed in a safe and timely manner. With the closure of businesses and the requirement for physical distancing at other public facilities, transfer points were condensed to locations managed by the service providers. For 2021, there are six transfer points, which use two subway stations and four TTC Access Hubs. This has reduced service due to the pandemic from our 11 established points normally available.

In 2019, cross-boundary travel represented less than 1% of all trips provided by Wheel-Trans, with 9,500 trips to and from these transfer points. We have seen a 15% increase since 2020 which is an indication that customers feel safe enough to wait at these cross border transfers from those locations. The GTHA Specialized Transit Working Group has been meeting weekly over the past year and has committed to continue these weekly meetings throughout the pandemic in order to ensure consistent and safe service levels.

The TTC has completed Stage 1 of the future full integration of trip booking services. There have been recent upgrades in the Scheduling and Dispatching software that allows a customer to calculate the full trip time while scheduling the portion within Toronto. The trip will take the rider to the most efficient transfer point and will provide contact information and trip details to allow them to book the balance of the trip with the other service provider. This is the first of many stages of software development that will provide the customer with the ability to book an entire trip at once.

The TTC, regional transit providers and the GTHA Specialized Transit Working Group have continued to work together on other projects as follows:

- Engaged the University of Toronto in discussions around expansion and enhancement of the transit terminal at the Scarborough Campus for regional and FOS transfers between the TTC and Durham Regional Transit – further development delayed due to the pandemic.
- Used the TTC Access Hubs as cross-boundary transfer locations during the pandemic.
- A regional video project on cross-boundary travel has been postponed. Preliminary work on this initiative is complete, with filming to occur post pandemic.
- Developed how-to guides on accessible travel within the GTHA. The guides are available in print and online for all regional transit providers and in an accessible format for customers – printing and circulation delayed as some content may not be relevant/accurate due to changes in operating procedures in response to the pandemic.
- Continue to collaborate with Accessible Committees, including ACAT, and the GTHA Accessible Advisory Committees in order to address customer needs in a consistent manner.

The TTC continues to maintain active partnerships with regional GTHA specialized transit service providers in furthering our common objectives of reducing wait times and improving transfer locations. This supports the continued collaborative approach to develop new and innovative ways to provide a fair, accessible and equitable service to all customers requesting cross-boundary travel to and from Toronto.

Next Update

Significant work was completed to advance the Wheel-Trans 10-Year Strategy in 2021 and will continue through 2022 and beyond. This report has summarized many of these successes and also laid out some of the key upcoming activities to be undertaken over the next year.

The TTC expects to return to the Board and provide an update on the Wheel-Trans 10-Year Strategy and Cross-Boundary initiatives in Q2 2023, which will cover:

- FOS status;
- Impacts on customers and operations related to Conditional Trip Matching, re-registration and other policy changes;
- Status of the technology modernization efforts;
- Collaboration initiatives to improve cross-boundary travel; and
- Progress on the requirements and IT solutions assessment being conducted by an external third party transit consultant

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Attachments

Appendices	Summary
Appendix 1 – Eligibility Definitions	<ul style="list-style-type: none">• Unconditional, conditional, temporary
Appendix 2 – Family of Services	<ul style="list-style-type: none">• Project objectives• Lessons learned: stakeholder engagement, travel training, route planning, service integration, customer experience• Improvements are recommended in the areas of IT, training, route expansion, conditional trip matching and re-registration
Appendix 3 – Contact Centre Review – Telus Performance to date	<ul style="list-style-type: none">• Call overflow contract implemented on November 22, 2020• Call abandonment rate decreased to 7% from 26%• Average call wait time decreased to 3m13s from 9m22s
Appendix 4 – A New Customer Experience	<ul style="list-style-type: none">• 20 new policies implemented in 2020 with one updated policy in 2021• Eligibility re-defined with re-registration initiated• FOS and CTM
Appendix 5 – Travel Training	<ul style="list-style-type: none">• 2020: 35 in person and 92 remotely• 2021: 9 in person and 36 virtual sessions; introduced conventional system vehicle (bus) familiarization sessions.

Appendices	Summary
Appendix 6 – Changes to Eligibility	<ul style="list-style-type: none"> • 2020: 7,325 applications processed • 2021: 6,074 applications processed
Appendix 7 – Access Hubs	<ul style="list-style-type: none"> • 14 deployed in 2020, 16 operational • Access hub locations
Appendix 8 – Fleet Replacement	<ul style="list-style-type: none"> • 2018: 128 Pro Master vehicles in service • 2020: Metrolinx awarded a contract to Creative Carriage for the development of the 7m Pro Master vehicle as part of the Provincial joint procurement process • 2021: One hundred and nine 7m vehicles budgeted for 2022 delivery
Appendix 9 – Technology Modernization	<ul style="list-style-type: none"> • Customer Relationship Management (CRM) System • Reservations, Scheduling and Dispatch (RSD) System • BI Reporting and Analytics System • New Chat Tool on self-booking website
Appendix 10 – Reservations, Scheduling and Dispatch System Upgrade Project	<ul style="list-style-type: none"> • Project background and timelines • Customer benefits
Appendix 11 – COVID-19 Impact to Wheel-Trans	<ul style="list-style-type: none"> • Operational changes since the onset of the pandemic

Appendix 1 – Eligibility Definitions

In accordance with the Integrated Accessibility Standards Regulation (IASR) under the Accessibility for Ontarians with Disabilities Act (AODA), there are three levels of eligibility:

1. **Unconditional service** for customers who have a disability that always prevents them from using the TTC's accessible conventional services. These customers will require door-to-door service for all of their trips.
2. **Conditional service** for customers who have a disability that limits their ability to consistently use the TTC's accessible conventional services. These customers may be able to use conventional transit for all or part of a trip, but may also qualify for door-to-door service under specific circumstances (e.g. weather, travelling to an inaccessible location).
3. **Temporary service** is provided to customers who have a temporary disability that prevents them from using the TTC's accessible conventional services. Customers will be provided Wheel-Trans for all or part of a trip for a defined period of time (e.g. following an injury or surgery).

Appendix 2 – Family of Services

Integrating Wheel-Trans door-to-door service with the TTC's accessible conventional services is the cornerstone of the Wheel-Trans 10-Year Strategy and was enabled by the eligibility changes enacted on January 1, 2017 (see Appendix 4 for more details on changes to eligibility). Termed Family of Services (FOS), it involves inter-modal trip bookings and travel by customers between Wheel-Trans service and accessible conventional services.

To facilitate the necessary operational changes, as well as ensure customers were fully involved in the changes, the TTC conducted a FOS pilot from May 2017 to April 2018 (see below for pilot project objectives and lessons learned). The purpose was to gradually test service integration and to assess operational and process requirements needed to make full integration successful. Pursuant to the FOS pilot, Wheel-Trans customer volunteers were recruited to take FOS trips. Customers who qualified with conditional eligibility for Wheel-Trans service (e.g. can use the conventional TTC service when their conditions related to physical, sensory, cognitive or mental health disabilities are not present) were asked by staff if they were interested in scheduling this type of trip.

The TTC analyzed subway stations and bus stops to assess their accessibility features for the FOS service model and hired a consultant to complete an audit of accessible subway stations and bus stops along the pilot routes. This FOS pilot was conducted from a Wheel-Trans customer's perspective and served to evaluate the compliance of these stations and stops as defined by the IASR.

Project Objectives

The FOS pilot was conducted in phases in order to gradually introduce customer pick-ups and drop-offs from Wheel-Trans vehicles to the TTC accessible conventional network, starting with subway stops and then progressing to bus stops. The FOS pilot simultaneously allowed the TTC to: 1) work through any challenges or impediments related to service integration and delivery; and 2) develop a Wheel-Trans customer base that can serve as ambassadors of the FOS program. Next steps were identified and a post-pilot business implementation plan was developed.

During the FOS pilot, we focused on five bus routes (45 stops) and those subway stations that were accessible at the time (45 in total).

In 2021, we were able to offer 60 routes and 450 transfer stops. In 2022, we will be able to offer 76 routes and 530 transfer stops.

Project Lessons Learned and Recommendations

Lessons Learned

To date, the FOS pilot yielded five very important lessons learned that must be addressed to enable widespread adoption of FOS:

1. Employee and Stakeholder Engagement
2. Training
3. Route Planning
4. Integration with the Conventional Fixed-Route Service
5. Customer Experience

Recommendations

Based on the lessons learned throughout the FOS pilot, and in order to ensure a successful implementation and adoption of FOS across the TTC, among customers and other external stakeholders (i.e. LHIN, UHN, OMA, etc.), the following changes and improvements are recommended in the areas of information technology (IT), route expansion, conditional trip matching and re-registration:

IT

The Reservations, Scheduling and Dispatch (RSD) system upgrades will continue to be rolled out to support automated trip booking of FOS trips. In March 2020, changes were required due to the effect of COVID-19, and the Self-Booking website was modified as well as the scheduling system to only schedule “solo rides”. Screening questions were implemented for occasional one-time trips and regular recurring trips, such as dialysis, can only be booked by calling the Reservations office. Further system improvements were realized since Phases 1 to 4 were implemented. All the new features and improvements are listed in Appendix 12. The Mobile App Pilot has also been rolled out and will be further expanded in 2022.

Future Route Expansion

A working group consisting of expertise from Service Planning and Schedules, Project Development and Planning, Wheel-Trans Operations, Bus Transportation, Wheel-Trans Transportation and Streetcar Transportation has been created to identify appropriate routes and transfer stops that can be used for FOS transfers. Routes and vehicle transfer stops are being introduced in phases, with the final phase being operationalized in 2022 for a total of 76 routes and 530 stops.

Conditional Trip Matching Based on Customer Eligibility

With the implementation of Phases 1 to 4 of the IT Wheel-Trans Scheduling and Dispatch project, the Self-Booking website was upgraded and now provides customers with conditional eligibility to be assigned a FOS trip when their condition is not present with the option to switch to a door-to-door trip. However, given the restrictions of operating Wheel-Trans during the COVID-19 pandemic (e.g. one passenger per ride), it is anticipated that the earliest this feature (option to switch to a door-to-door trip) could be turned off sometime in 2022.

Re-registration of Customers registered for Service Pre-January 1, 2017

As detailed in Recommendation 4 of the September 2016 Board report update, and in order to comply with IASR requirements, the eligibility review strategy for the migration of existing customers (registered prior to January 1, 2017) has been finalized and the customer re-registration process is well underway with approximately 7,000 customers voluntarily re-registering.

FOS Route Expansion Strategy

Waves	Implemented/Target	Approx. # of conventional bus/streetcar routes	Approx. # of bus/streetcar/subway transfer stops
Pilot	May 2017	5	90
Waves 1-4	June 2020	42	310
Wave 5	May 2021	60	450
Wave 6	Feb 2022	76	530

This table shows the waves (components) of the FOS expansion strategy along with the implementation/target date and the approximate number of conventional bus/streetcar routes and approximate number of bus/streetcar/subway transfer stops. The first wave was the pilot, which was implemented in May 2017, and added five routes and 90 stops. The second wave included Waves 1 through 4, which was implemented in June 2020, and increased the totals to 42 routes and 310 stops. The third wave includes Wave 5, which was implemented in May 2021, and increases the totals to 60 routes and 450 stops. The final wave includes Wave 6 and will increase the totals to 76 routes and 530 stops in 2022.

Appendix 3 – Contact Centre Review – Telus Performance to date

On November 22, 2020, we successfully implemented our soft launch of the Wheel-Trans Reservations Overflow Contract after completing rigorous testing of the call transfer solution along with development of Standard Operating Procedures (SOP), recruitment, training and internal employee engagement. The Overflow Contract was considered a soft launch as we wanted to still provide some on-the-job coaching, periodic call reviews and SOP adherence auditing on a more frequent basis. During the soft launch, the overflow threshold was set at five minutes and provided time for the TTC and TELUS to review progress/performance indicators, listen to calls and collaborate on areas/techniques for improvement. On December 13, 2020, after a successful soft launch period, we implemented a full launch of the call transfer solution. This allowed more calls to be routed to the overflow with TELUS answering approximately 20% of Reservations calls. This number has now increased to approximately 70% of Reservations call as we continue to see attrition of our internal Reservations staff.

Wheel-Trans Reservations had an abandonment rate of **26%** and an average wait time of **9m22s** (nine minutes and 22 seconds) prior to the launch of the Overflow Contract in November 2020. Since we launched, we have seen a significant improvement in the Abandonment Rate as we have achieved an average abandonment rate of **7%** in the first full year of the contract. This low of an Abandonment Rate has never been seen in Wheel-Trans Reservations since the inception of call stats tracking. Additionally, our Average Wait Time has been **3m13s** (three minutes and 13 seconds) on average over the first full year of the contract.

Overall, we are happy to report a smooth transition and implementation of the Overflow Contract. The vendor has been performing well in most areas and we expect performance to improve as we continue to strengthen our partnership. As we continue through these unprecedented times, this flexible and scalable overflow solution will assist us in meeting the ever-changing demands of our customers.

Appendix 4 – A New Customer Experience

The Wheel-Trans 10-Year Strategy aims to create an experience that provides customers with freedom, dignity and spontaneity of travel. A new Wheel-Trans Customer Experience Strategy was developed to ensure consistency and clarity in customer interaction and employee service delivery. The strategy is supported by new customer-centric policies that define a clear and transparent set of expectations – from trip booking through trip delivery. It is our goal to create policies that are simple and flexible, and to create a safe and respectful environment for everyone using Wheel-Trans services. By defining clear rules and guidelines for all persons using or interacting with TTC Wheel-Trans, our customers will know what to expect and how Wheel-Trans will support them on their journey.

There are now a total of 20 customer-facing policies that have been implemented. Each policy was designed in consultation with the Advisory Committee on Accessible Transit (ACAT) and with the TTC's Legal and Diversity and Human Rights departments. Wheel-Trans customer policies are divided across four categories: eligibility, trip-booking, travelling with Wheel-Trans and safety. Policy implementation began in 2017 and completed in 2019.

Wheel-Trans has started the Re-registration process of all customers who registered with Wheel-Trans prior to January 1, 2017. Eligibility criteria and associated processes for specialized transportation services were subject to legislated requirements in the IASR that came into effect on January 1, 2017. To be compliant, Wheel-Trans defined three categories of eligibility (see Appendix 1), a new application for service, and new application and appeal processes. These changes applied to all new customers from the effective date moving forward. However, a migration plan for existing customers prior to the effective date has been developed, called Re-registration. A detailed process to re-register these customers was developed while working closely with key stakeholders, including ACAT and the Legal and Diversity and Human Rights departments.

In conjunction with our Re-registration process and implementing our new reservations and scheduling system, we will also begin to better trip match. The system now offers a FOS or a door-to-door trip solution based on a customer's eligibility, and whether or not a customer's conditions are present (e.g. winter service). This conditional trip matching provides greater variety and spontaneity, for customers with conditional eligibility by offering them a FOS trip when their conditions are not present. Conditional Trip Matching (CTM) was delayed in 2020 as a result of the pandemic and was paused in 2021. All customers with unconditional and temporary eligibility will be offered a door-to-door trip, but the customer will be able to request a FOS trip if they prefer. The plan is to introduce Conditional Trip Matching in 2022.

Providing an FOS trip as the only option for conditionally eligible customers, only when their condition is not present, will be a major change for those customers. To assist with this transition, the TTC has operationalized a Travel Training program for our customers that will provide one-on-one training of our accessible conventional transit system.

Appendix 5 – Travel Training

On March 25, 2020, during the pandemic, Travel Training was adapted in order to offer customers training remotely. Customers were able to schedule a one-on-one phone call with the TTC's Travel Trainer directly, and were taken through a presentation that reviewed accessibility features throughout the conventional TTC network, how to travel using FOS, and safe and independent travel techniques based on the customer's personal needs. For customers that had access to the internet, the information was shared via e-mail, which provided customers with the information and accompanying visuals. The information sent through e-mail was available in several formats, including PDF, PowerPoint, Microsoft Word and Microsoft Word with text only.

In the earlier part of 2020, a total of 35 customers participated in an in-person session, followed by 92 customers that participated in a session remotely. In 2021, nine customers were trained in person and 36 via virtual training, resulting in 557 total customers having received Travel Training to date. Also in 2021, conventional system vehicle (bus) familiarization sessions for customers was newly introduced.

Travel Training Handbook

The Travel Training Handbook is an instructional guide for customers with disabilities on how to use the TTC's accessible conventional network. The handbook describes the various accessibility features found throughout the TTC system, and provides instructions and helpful travel tips to assist customers with varying disabilities and needs. The Travel Training Handbook is used as a supplemental resource for customers with disabilities to be able to travel on the TTC to the best of their abilities, safely and independently.

A hard copy of the Travel Training Handbook is given to customers during any in-person Travel Training session, and can be requested through Wheel-Trans Customer Service or TTC Customer Service. The Travel Training Handbook was last updated in 2020 and can be found via the following link:

<https://ttc-cdn.azureedge.net/-/media/Project/TTC/DevProto/Documents/Home/Accessibility/Travel-training-handbook-accessible.pdf?rev=be53fdec57f14e7a91d0c5784953cad5>

The Travel Training Handbook touches on the following topics:

- Plan an accessible trip (Triplinx, Google Maps, TTC Customer Information).
- Understanding maps, signage and wayfinding features.
- Resources with up-to-date service information (Lift Line, e-alerts, social media, Next Vehicle).
- Accessibility features onboard TTC conventional vehicles and in stations (ramps, elevators, emergency buttons, DWA, internal/external announcements, etc.).
- Different operators and staff can provide assistance throughout a customer's trip.
- Priority seating and boarding/disembarking (with or without a mobility device).
- Fare payment, PRESTO and proof of payment.
- Emergency procedures and handling the unexpected (closures, turn backs, service changes).

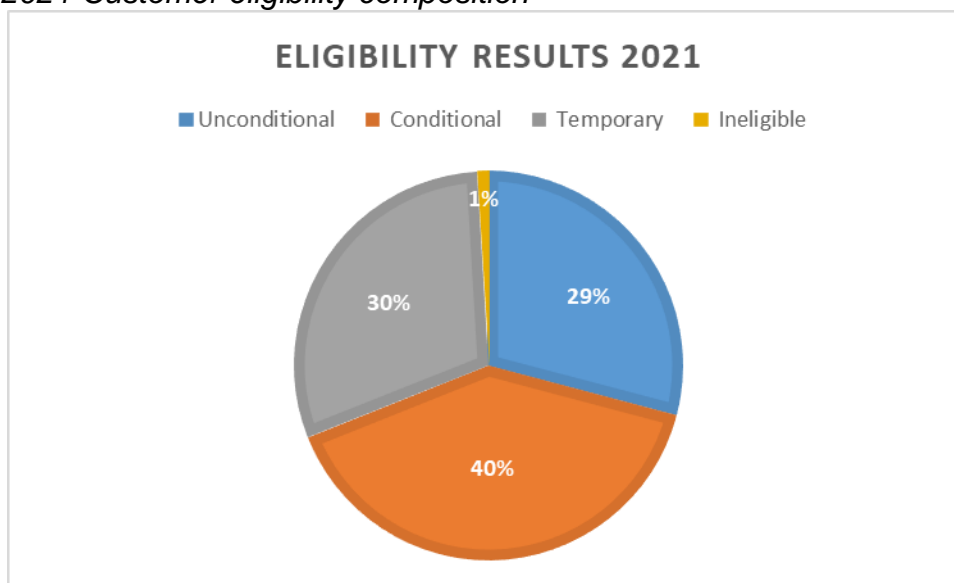
Appendix 6 – Changes to Eligibility

Effective January 1, 2017, the TTC expanded its Wheel-Trans eligibility criteria and service model, in compliance with the IASR. Prior to 2017, Wheel-Trans eligibility was based on a person's physical mobility. The expanded criteria extended eligibility to any person who has a disability that prevents them from taking conventional transit for all or part of their trip, including persons who have cognitive, sensory and/or mental disabilities. The TTC also introduced new eligibility categories, consistent with the IASR: Conditional, Unconditional and Temporary; as well as the necessary framework of policies and processes to support these changes.

The new application process was developed through a diversity and inclusion lens, with extensive consultation with customers and community groups. Over an eight-week period in June and July 2016, the TTC held 40 meetings with 55 organizations/agencies representing individuals who may be impacted by the eligibility changes, and in close alignment with peer agencies in the GTA for the convenience of customers registering in multiple jurisdictions. Previously, every customer was required to attend an in-person interview to assess their eligibility for Wheel-Trans service. Now, customers submit an application with a section to be completed by a healthcare professional. In limited cases, where a decision cannot be reached, the customer is requested to attend a functional assessment conducted by a licensed occupational therapist.

The new assessment method has proven both successful and efficient. The number of applications received and processed in 2020 was 7,325. The number of applications received and processed in 2021 was 6,074. We were able to process 100% of the applications within the 14-day timeframe mandated by the IASR. The majority of customers who applied for Wheel-Trans were granted conditional eligibility (Figure 1).

Figure 1: 2021 Customer eligibility composition



This graph shows the percentage of customers in the three eligibility categories: Unconditional (29%), Conditional (40%), Temporary (30%), and the percentage of customers found to be Ineligible (1%).

Appendix 7 – Access Hubs

To support the FOS model, the TTC has implemented a network of Access Hubs. These are enhanced bus shelters that serve as transfer points between Wheel-Trans service and accessible conventional bus service (Figure 2). The first Access Hub was successfully installed at the Meadowvale location (Meadowvale Rd. and Sheppard Ave. E.) in Q1 2018 with another installed in 2019 at Humber College North Campus. Fourteen additional Access Hubs were deployed in 2020 at nine locations across the city. In constructing the Access Hubs, the TTC engaged with key partners and aligned with public works and other development projects, wherever possible. The Access Hubs project is now closed.

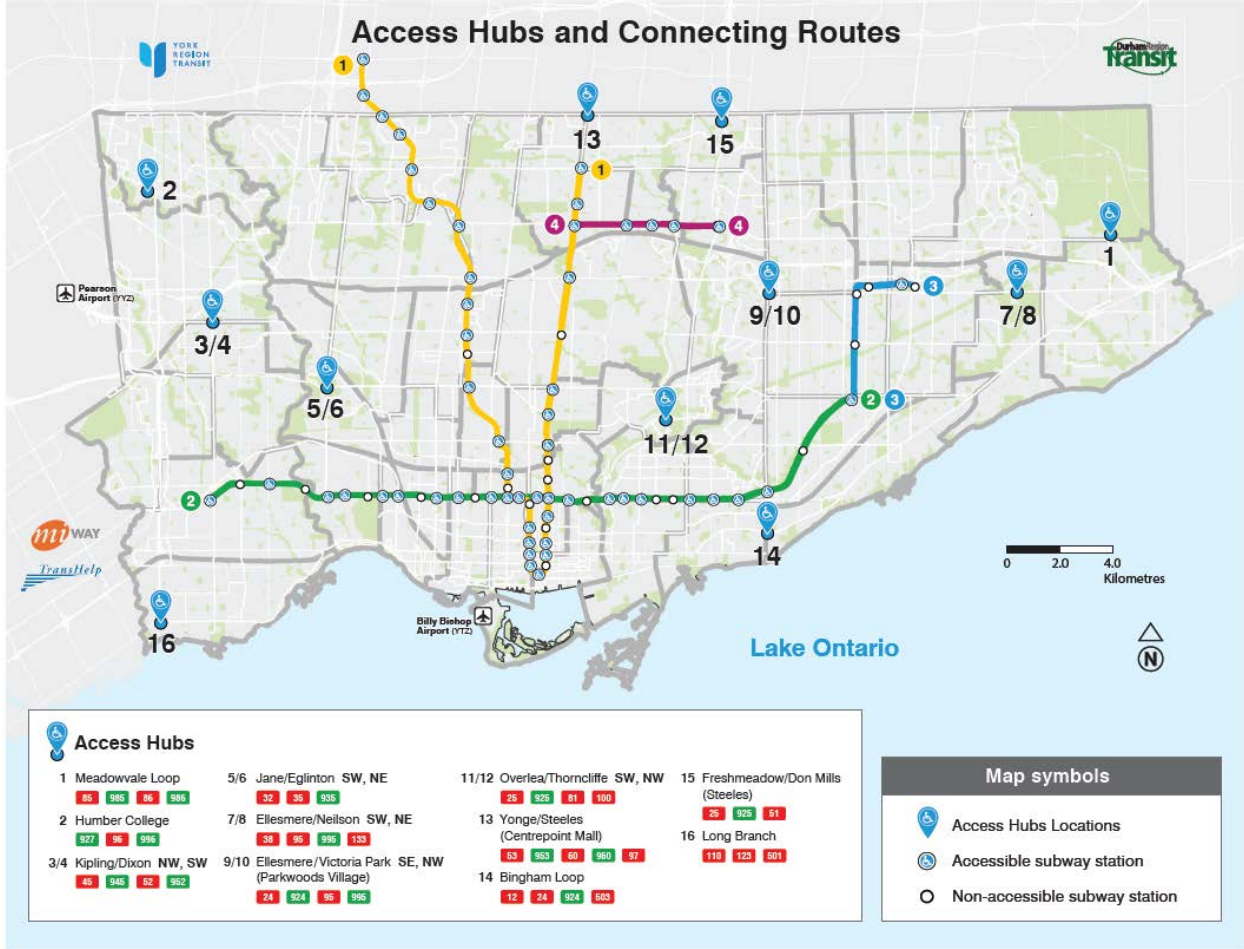
Figure 2: Access Hubs



Photo 1 (left) is a picture of the Meadowvale Access Hub taken from outside the Access Hub. There is one customer in a wheelchair inside the Access Hub and another customer with their guide dog entering the Access Hub.

Photo 2 (right) is a picture of the same customers taken from inside the Access Hub. In both pictures there is a Wheel-Trans Pro Master mini-bus in the background.

Figure 3: Access Hub locations



This chart shows the locations of the Access Hubs on a map of Toronto along with connecting conventional transit routes.

Milestones

Activity	Date
Access Hubs Site 1 (Meadowvale Loop) Approval	March 2017
Access Hubs Site 1 (Meadowvale Loop) Go live	January 2018
Access Hubs Site 2 (Humber College) Approval	March 2018
Access Hubs Site 2 (Humber College) Go live	May 2019
Access Hubs Site 3 & 4 (Kipling & Dixon NW, SW) Go live	July 2020
Access Hubs Site 5 & 6 (Jane & Eglinton SW, NE) Go Live	July 2020
Access Hubs Site 7 & 8 (Ellesmere & Neilson SW, NE) Go live (required changes to roadway (NE) completed October 2021)	August & December 2020
Access Hubs Site 9 & 10 (Ellesmere & Victoria Park SE/NW) Go Live	August 2020
Access Hubs Site 11 & 12 (Overlea & Thorncliffe SW, NW) Go live	August & December 2020
Access Hubs Site 13 (Yonge & Steeles SW) Go Live	July 2020
Access Hubs Site 14 (Bingham Loop) Go Live	August 2020
Access Hubs Site 15 (Freshmeadow & Don Mills) Go Live	August 2020
Access Hubs Site 16 (Long Branch Loop) Go Live	July 2020

This table above shows the milestones by site location of the Access Hubs along with their implementation date.

Appendix 8 – Fleet Replacement

Wheel-Trans has begun to diversify its fleet mix to match new customer profiles, trip patterns and travel behaviour. As of the end of 2021, there were 146 6M Pro Master vehicles in service. These mini-buses are smaller, more fuel efficient and can easily access more destinations (Figure 4).

Figure 4: Dodge Pro Master mini-bus



Photo 1 (left) shows the Wheel-Trans Dodge Pro Master mini-bus facing the front, driver's side of the vehicle.

Photo 2 (right) shows the same vehicle facing the passenger side with the side doors open and the ramp deployed.

The TTC also explored the option of a vehicle that would supplement the Pro Master mini-bus. In order to provide service efficiencies, the emphasis of the search requirements was to maintain a smaller-sized vehicle while increasing customer capacity. Through the joint procurement process with Metrolinx, a seven-metre demonstrator was reviewed by ACAT, the Wheel-Trans Joint Health and Safety Committee (JHSC) and the Operational Training Centre (OTC) in January 2020. ACAT members were taken for test rides in February 2020 and they approved the concept vehicle for consideration.

On February 25, 2020, the TTC Board authorized the purchase of one, seven-metre Pro Master vehicle as a pilot vehicle. This authorization also included the approval of purchasing 90 additional vehicles once the pilot program was endorsed by ACAT.

In March 2020, Metrolinx awarded a contract to Creative Carriage for the development of the seven-metre Pro Master vehicle as part of the Provincial joint procurement process. Design review meetings commenced and the TTC received the seven-metre Pro Master pilot vehicle in September 2020. This vehicle was reviewed by the JHSC and ACAT, and members completed solo test rides. The vehicle was placed into regular service and all customers over a four-week period completed a questionnaire that was also completed by ACAT members. All findings were presented to ACAT and on December 17, 2020, ACAT endorsed the purchase of the 7M Pro Master vehicle. By the end of 2022, there will be a procurement of 109 7M Pro Master vehicles.

Figure 5: Seven-metre Pro Master Pilot Vehicle



Photo 3 shows the seven-metre Pro Master pilot vehicle.

Appendix 9 – Technology Modernization

Modernizing our supporting technology is a fundamental component to ensuring the TTC's ability to deliver on the vision and commitments of the Wheel-Trans 10-Year Strategy:

1. **Customer Relationship Management (CRM) System**

The TTC successfully launched Phase 2 of the CRM rollout for Wheel-Trans that included a new Self-Serve Portal. The Portal allows customers to register or re-register online, eliminating the need for customers to fax or mail a paper application. Customers can also appeal their eligibility decision through the Self-Serve Portal. In 2021, CRM was further expanded and integrated with GIRO- Hastus on Demand product to be able to start the transition of CRM to be the “customer book of record”. New applications and main customer profile information is now being captured using CRM.

2. **Reservations, Scheduling and Dispatch (RSD) System**

An automated, multi-modal trip-booking system is crucial for the success of the new service model as it enables high volumes of FOS trips to be booked and delivered. The TTC upgraded the existing system using a phased approach between 2018 and 2021. The modernized reservations systems are mobile friendly and include conventional transit schedules when offering trip options. In 2021, both Phase 3 and 4 were launched. A number of new features and upgrades to the customer Self-Booking website, Scheduling system and Touch Tone systems were implemented. Below are a list of the main updates:

- Automated Scheduling of Regional Trip Requests to Transfer Points
- Selecting Locations by a Droppable Pin on a Map
- Ability to select different notification options, such as Phone, E-mail and Mobile Application and SMS
- Self-Booking Improvements in screen designs with ability to edit contact info and instructional trip notes
- More FOS Routes and Stops and more FOS trips offered for a total of 2,000 stops and transfer locations
- Scheduling Improvements of FOS trips to reduce total travel times and schedule more consistent return trips
- OTP- On-Time Performance Dashboards for Dispatch and Management to Monitor Service in real time

- Scheduling Optimization improvements to improve efficiencies
- Ability to Request an early pick-up
- “Where is my ride” added to Self-Booking
- Customer Service Web Chat option
- Receive a Vehicle Arrival Notification at Pick-up Location
- Travel Training with Mode, Route and Stop Restrictions
- Automated Trip Re-Assignment when trips are late
- Dispatch Vehicle Status Update
- Mobile Application – Ability to Opt-in to location tracking
- IVR upgraded with Ability to select Notification preferences, book FOS trips and play back of FOS trip detail

3. Reporting and Analytics System

A new Reporting and Analytics system was delivered in multiple phases during 2020, 2021 and early 2022. Phase 1, which launched in December 2020, included the introduction of a new reporting technology application along with more robust data collection, storage processes and hardware. Also included in the first phase was the conversion of existing Excel-based Wheel-Trans operations management reports to the new dynamic reporting tool. Subsequent phases were delivered in 2021 and include the introduction of new Key Performance Indicators to better manage existing Wheel-Trans operations and to support expanded FOS capabilities.

Phase 2 – Implemented April 2021

Dashboard 1 – No Show and Cancellations at the Door
 Dashboard 4 – Mean Distance between Failure

Phase 3 – Implemented August 2021

Dashboard 2 – CRM (Complaints), Dashboard 3 – Family of Service (FOS)

Phase 4 – Part 1 implemented November 2021

Dashboards 6, 7 – Ridership (Annual and Periodic)
 Dashboard 10 – On-Time Performance

Phase 4 – Part 2 implemented May 2022

Dashboards 8, 9 – Operational Efficiency (Passengers per Hour) Weekly
 Dashboard 5 – Daily Service Summary

Appendix 10 – Reservations, Scheduling and Dispatch System Upgrade Project

Project Background

The Wheel-Trans 10-Year Strategy was developed in response to legislative requirements of the Integrated Accessibility Standards Regulation (IASR) under the Accessibility for Ontarians with Disabilities Act (AODA), recommendations provided by the City of Toronto Auditor General, and the resulting anticipated surge in demand for specialized transit services in the city of Toronto.

To meet the anticipated surge in demand for its service, in April 2017, the TTC introduced the FOS concept, a new service delivery model that allows Wheel-Trans customers to take intermodal trips combining specialized and conventional, fixed-route services.

The RSD project will deliver and support updated computer systems with various media channels, such as website trip booking, Mobile Application with multi-modal trip planning (FOS), on-demand trip booking, dynamic scheduling, cross-boundary scheduling and an Interactive Voice Response (IVR) touch-tone telephone system.

The upgrading and adding of new media channels provides real-time information to customers, communication of door-to-door vehicle arrival times, service alerts and vehicle location. In addition, conventional transit operations of subways and surface fixed-route vehicles and systems will be integrated and used to provide information to customers. The system will be able to identify and reroute FOS trips during service disruptions.

This system will create the opportunity for customers to make independent choices of how they book their trips and how they communicate with TTC Wheel-Trans their channel of choice: website, mobile device, contact centre, online chat and IVR, while at the same time meeting the demand for service.

Project Time Lines

Phase 1 – Completed December 9, 2018

Phase 2 – Completed June 7, 2020

Phase 3 – Completed January 24, 2021

Phase 4 – Completed November 28, 2021

Phase 1: Implemented December 9, 2018

Phase 1 focused on enhancing the current customer trip booking website functionality to include easier and simpler navigation with the ability to book FOS trips as an option. The system currently supports 500 FOS trips/day.

Customer benefits:

- Improved ability to do their own trip planning, rather than relying on a booking agent.
- No longer have to wait for a Reservationist to book a FOS trip.
- Ability to book FOS trips any time at their convenience and available 24/7.
- Faster and quicker way to book trips, review, update and/or cancel existing bookings.

- Map view – customers are able to see a map when looking up addresses.
- More user-friendly. Customers can:
 - View up to 18 months of trip history.
 - Change their own website password.

Customer Communications

Customer Help Pages and videos were created by Design and Wayfinding, and posted online by the Marketing and Customer Experience Department.

Phase 2: Implemented June 7, 2020

This Phase improved the current website with a redesign of the trip booking page and immediate trip booking results, if available, of regular trip requests. A new mobile smartphone application was introduced as a pilot and changes were made to the Dispatch and Scheduling systems to allow for improved management of FOS trips during service events and disruptions.

The Scheduling system was expanded by adding more accessible conventional routes and is able to support 3,000 FOS trips/day.

The Scheduling system was upgraded to allow for Conditional Trip Matching and to ensure customers who are capable of using the conventional network can only book FOS trips.

Customer benefits:

- Updated website trip booking page.
- Able to receive immediate trip results for regular bookings.
- Ability to book monthly regular trips.
- Receive e-mail notifications.
- Book trips using a Mobile Application.
- View Trip History on Mobile Application.
- View, cancel or modify upcoming trips on the Mobile Application.
- See vehicle location arriving to pick them up in real-time (pilot of buses only).
- Receive service alerts.
- Receive e-mail messages.
- Receive phone “Call Ahead” when vehicle is within 10 minutes.
- Receive a phone call if customer has been “No-Showed”.
- A telephone call will be made to the Receiving Person of the Customer.
- Ability to reset passwords.

Phase 3: Implemented January 24, 2021

Phase 3 further expanded FOS trips with more stops to support more transfers between fixed routes, and more defined eligibility conditions to improve trip matching as well as other software improvements.

The initiatives now include:

- More FOS routes available to customers.
- Expanded Conditional trip matching.
- Cross-Boundary Regional Trips transfers scheduled at time of booking.

- Real-time service updates available via phone in addition to mobile application and e-mail notifications.
- Option to set up notifications and edit communication preferences over the phone and on the website.
- Option to change e-mail address and contact phone numbers online.
- Dashboard Reporting with Visual for Dispatch Centre.

Customer benefits

- More connections between conventional services.
- Users can book more complex FOS trips.
- Improved FOS solutions provided.

Phase 4: Implemented November 2021

The focus of this phase was scheduling optimization, whereby trips will be based on real-time vehicle availability. This allows Wheel-Trans to be more efficient, which will result in more trip availability for customers and make room for spontaneous, same-day bookings.

Enhancements included:

- Option to request an early pick-up time
- “Where is my ride” feature (displays vehicle status and allows customers to track a vehicle on a map on Self-Booking)
- Ability to see estimated “real-time” pick-up time (when GPS is available)
- Customer Service “Web Chat” option
- Option to select “SMS” as a notification preference
- Improvements in screen designs with address drop-down of entrances and buildings with the same address
- Additional user-friendly Help pages
- Additional FOS routes, walking stops and stop details

In addition, the improved, integrated Customer Relationship Management software will support online customer applications and allow Customer Service agents to better service customers, as they are now able to access detailed and specific information about the customer’s trip and their disability from one source. As well, customers are able to communicate directly with a Reservationist via an online chat feature on the booking website.

Phase 4 expanded FOS trips with more stops and ability to transfer between fixed routes. The Scheduling system was further expanded and capable to schedule and support 5,000 FOS trips/day.

Customer benefits:

- Expand FOS trips capability.
- Customers able to use conventional transit for more than one leg of their FOS trip.
- More conventional routes and stops added for improved trip solutions.
- More trip availability and spontaneity

Appendix 11 – COVID-19 Impact to Wheel-Trans

Since the onset of the COVID-19 pandemic and the impact that followed, particularly in March 2020 and onward, a number of operational changes have been made to ensure the safety of our customers, as reported to the TTC Board in June and September 2020.

Examples of operational changes:

- Temporary shut down to the Self-Booking website, which was later reopened and included a health screening questionnaire.
- Introduction of solo rides (still with support person if required), which will continue as long as operationally feasible due to lower ridership levels and physical distancing requirements.
- Regular/recurring trip bookings only available by calling Wheel-Trans Reservations.
- Delay of the mandatory Conditional Trip Matching in order to minimize the number of changes our customers were experiencing during unprecedented times.
- Personal Protective Equipment requirements and additional vehicle cleaning implemented.
- As with all other areas of the TTC, Wheel-Trans employees have been mandated to work from home if able to do so. This includes Reservations and Customer Service employees who are currently working from home.

June report to TTC Board:

https://ttc-cdn.azureedge.net/-/media/Project/TTC/DevProto/Documents/Home/Public-Meetings/Board/2020/July_14/Minutes/Minutes_TTC_Board_June_17_2020_updated.pdf?rev=b2c74447ece64384bdc9e3e2b5e4789f

September report to TTC Board:

https://ttc-cdn.azureedge.net/-/media/Project/TTC/DevProto/Documents/Home/Public-Meetings/Board/2020/October_22/Minutes/Minutes_TTC_Board_September_24_2020.pdf?rev=64e7a57e745d4a8f9626ac6937e35c02