

2021 ANNUAL SERVICE PLAN

# RE: 2021

RESTART, RECOVER, REBUILD



 **TORONTO**



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## 1. From the Chair



I am pleased to present the TTC's 2021 Annual Service Plan.

The COVID-19 pandemic has underscored the critical importance of safe, accessible and reliable public transit service. Going forward, the TTC will play an integral role in Toronto's restart and recovery.

Throughout the pandemic, the TTC and City of Toronto have adapted and innovated to advance key improvements to our transportation network. In 2020, priority bus lanes were introduced on the Eglinton East corridor, new streetcars were deployed on 505 Dundas and bike parking has expanded at stations across the city. At the same time, the TTC has advanced critical state-of-good-repair work on our subway and streetcar infrastructure to ensure that our transit system continues to be safe and reliable for years to come.

The 2021 Annual Service Plan is the TTC's blueprint for public transit service over the coming year. The Plan advances actions identified in the 5-Year Service Plan & 10-Year Outlook and makes adjustments to respond to our customers' dynamic and evolving needs.

This Plan is based on technical analysis, operational insights and extensive consultation with transit riders and stakeholders. Through this process, TTC passengers have made their priorities clear: sustain the demand-responsive service plan, improve regular scheduled service and advance key strategic initiatives.

I would like to thank TTC staff for their excellent work on the 2021 Annual Service Plan. I would also like to thank my colleagues on the TTC Board for their continued support.

The 2021 Annual Service Plan will be an important road map for the TTC as we navigate Toronto's recovery over the next year.

A handwritten signature in black ink that reads "Jaye Robinson". The signature is written in a cursive, flowing style.

**Jaye Robinson**  
TTC Chair  
December 2020

## 2. From the Chief Executive Officer



The COVID-19 pandemic has impacted the lives of all residents in Toronto and the region. And while demand for public transit has decreased significantly, we recognize that safe, accessible and reliable public transit service is critical to the recovery and prosperity of our great city.

The TTC has implemented important measures during the COVID-19 pandemic to ensure the health and safety of our customers and employees. We are cleaning and sanitizing our buses, streetcars and trains daily, we have made masks mandatory for customers and employees, and we have implemented workplace protocols, such as COVID-19 screening, to ensure our workforce is healthy and ultimately available to continue to deliver high-quality public transit service to our customers.

We have also implemented a demand-responsive service plan to ensure that transit is accessible and reliable across the city. The demand-responsive service plan allows us to adjust service capacity in response to evolving customer demand.

The 2021 Annual Service Plan outlines our focus and priorities for the coming year. Our focus is to continue to respond to customers' dynamic and evolving demand for public transit service by:

- Sustaining demand-responsive service to provide flexibility and protect against fluctuations in COVID-19 cases.
- Improving regular scheduled service to optimize capacity, improve service reliability and address customer travel patterns.
- Advancing key strategic initiatives including surface transit priority measures, service integration with neighbouring transit agencies and piloting an automated shuttle service.

I am proud of the work we have accomplished in this difficult year. I am also confident that this plan will continue to dynamically respond to customer demand while pushing forward with initiatives that provide both immediate and long-term benefits for our customers across Toronto and throughout the region.

A handwritten signature in black ink, appearing to read "Richard J. Leary". The signature is fluid and cursive.

**Richard J. Leary**  
Chief Executive Officer  
December 2020

### 3. About the plan

We developed our first 5-Year Service Plan & 10-Year Outlook (5YSP) in 2019. The 5YSP is a blueprint to improve our customers' journeys and a business plan that identifies the resource and funding requirements to do it.

The 5YSP identifies a vision that focuses on improvements that enhance the TTC's core-competency: mass transit – moving large volumes of customers safely, reliably and swiftly across Toronto. The vision takes shape around five pillars of opportunity:

1. Enhance the transit network
2. Enhance customer experience at key surface transit stop areas
3. Improve service reliability
4. Prioritize surface transit
5. Accelerate integration with transit partners and complementary modes of transport

**Figure 1: Five pillars of opportunity**



Each pillar of opportunity has specific action items. In total, there are 20 action items that include various initiatives to be implemented between 2020 and 2024. This report presents the 2021 Annual Service Plan (2021 ASP) which applies the framework established in the 5YSP while sustaining the principles of the demand-responsive service plan that was implemented in 2020 in response to the COVID-19 pandemic.

#### 3.1 Plan preparation

The 2021 ASP is our blueprint for transit service over the next year. The 2021 ASP is not a business as usual plan. It has been developed through technical analysis, operational insights and customer and stakeholder discussions. In addition to this, the 2021 ASP takes into account other important factors such as public health guidance for mass transit during the pandemic and new funding challenges brought on by reduced ridership revenue and sustained operating costs to maximize capacity for customers. Overall, the 2021 ASP includes initiatives previously identified in the 5YSP and new initiatives that have emerged in 2020 over the course of the global pandemic.

### 3.2 Customer and stakeholder engagement

The 2021 ASP has been prepared with customers and stakeholders through an extensive engagement program, as shown in **Figure 2**.

**Figure 2: Customer and stakeholder engagement facts**



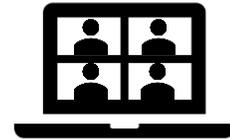
**3,560+**

customers and stakeholders



**12+**

weeks of engaging customers through online, mail, e-mail, phone and youth-led consultations



**4**

virtual meetings with stakeholders

**88%**

**of customer and stakeholder survey respondents highly support the 2021 ASP's focus and priorities**

*"Thank you very much for providing me the opportunity to provide my feedback. I believe if the TTC can reduce passenger overcrowding across its network with new express services, it would allow riders to feel safe, comfortable and enjoy a positive travel experience. I feel that if TTC also considers further service integration between subway, streetcars and buses, and along with GO Transit services, more people will use the TTC to travel. I hope these major improvements can be implemented as soon as possible to maximize these benefits for people".*

– Survey respondent

*"Keep up the good work. I understand the difficulties of keeping this essential service running especially during a pandemic. So, thank you very much for all you have done and continue to do".*

– Survey respondent

*"Based on the current situation these priorities will help much more with travellers' safety. Yes, I regularly travel (everyday) the need for more flexible resources that will accommodate us without comprising health, this will be our most important priority at this time and through the following years. "Safety" by putting more resources to help more people is desperately needed. This will help passengers to travel comfortably without worrying about their health."*

– Survey respondent

The 2021 ASP engagement program reached approximately 3,500 customers and stakeholders through four online surveys, mail-in survey, email, phone and youth-led consultations. Approximately 60 representatives of stakeholder groups and transit advocates participated in four stakeholder meetings in September and November.

Customers and stakeholders expressed strong support for the 2021 ASP's focus, priorities and initiatives. Customers and stakeholders also suggested that they would like to see the following initiatives prioritized:

- Greater capacity on busy corridors to support customers' health and safety
- Improve service reliability and increase service frequency
- Re-instate operation of express bus service as they are valuable to customers and the effects of their temporary suspension during the pandemic were felt
- Improve service accessibility and equity-focused approaches to planning and delivering transit service given that low-income and marginalized communities tend to be more affected by these decisions
- Improve communication and outreach with customers about service updates and service changes before they are implemented
- Improve service integration with neighbouring transit agencies and other modes

Customers were also asked about RapidTO through dedicated surveys. Highlights of their feedback include:

- **Eglinton East:** Participants generally prefer service that combines local routes serving local stops and express routes serving major stops to support the travel needs of local residents and customers travelling long-distances. There was also mixed support for the consolidation of local bus stops and some concerns over the priority bus lanes' impact on traffic.
- **Jane Street:** Participants want to see local service reliability balanced with increased speed of express service. They also want to see long-standing service issues addressed and accessible service provided for high-density residential areas and lower-income communities along Jane Street.

### **Youth-led engagement**

The youth-led engagement initiative is one way we are applying an equity lens to our service planning process. The approach is new and intended to engage young people between the ages of 18 to 29, a demographic typically underrepresented in city-building consultations. A diverse team of four youth from Neighbourhood Improvement Areas in the east and west ends of Toronto were recruited and trained to engage their local communities. The youth team were provided paid work and skill development opportunities to lead consultations about select 2021 ASP initiatives that they considered the most important in their communities. Within two weeks of consultation, more than 130 people were engaged by the youth team through social media, online surveys, in-neighbourhood posters and online discussion tools. Overall, the one common theme that all youth engagement team members shared was to focus on improving service reliability. One youth team member shared this insight: "The TTC has a major influence on how people feel throughout the day – if you start your day with a bad experience, it stays with you."

## 4. 2020 service review

In response to rising cases of COVID-19, in mid-March the Province and City of Toronto declared a state of emergency and implemented measures to protect the health and well-being of residents. To minimize the spread of COVID-19, the majority of businesses, education and cultural activities shifted to a virtual format that continued for the remainder of 2020 and is expected to continue well into 2021, in effect decreasing demand for public transit service.

Despite ridership declining to 14% of pre-COVID demand at its lowest point in April, the TTC continued to carry more than 200,000 customers per weekday with customers making trips to access essential destinations.

This section provides a summary of our demand-responsive service plan, a ridership update and outlook for 2021 and a summary of improvements implemented in 2020 that will benefit customers today as well as in the future.

### 4.1 Demand-responsive service plan

In the spring, the TTC implemented the demand-responsive service plan to serve our customers and their evolving need for public transit service. The plan was developed based on the following two principles:

1. Regular scheduled service will focus on protecting high-ridership corridors and service to essential employment areas, grocery stores, pharmacies, healthcare facilities and Neighbourhood Improvement Areas. Service will continue to be provided in all areas of the city every 30 minutes or better based on demand.
2. Flexible bus service will be available daily to deploy to routes where additional capacity is required to meet known and growing demand.

The demand-responsive service plan initially delivered approximately 85% of pre-COVID service hours at the outset of the pandemic and through the summer. In fall 2020, service increased to approximately 95% of pre-COVID service hours with variation by mode based on demand. **Figure 4** shows a map of the demand-responsive service network highlighting essential destinations.

### 4.2 Ridership update and outlook

Revenue ridership has increased since its low in April and is at approximately 31% of pre-COVID levels as of the week ending November 27. Revenue ridership indicates the number of customers the TTC serves. Recognizing that one customer may board multiple vehicles to complete their journey, we also measure boardings by mode. The number of boardings indicates the amount of service needed by customers. **Figure 3** presents average weekday boardings and service levels by mode for the week ending November 27.

**Figure 3: Average weekday boardings by mode (week ending Nov. 27, 2020)**

| Mode         | Pre-COVID<br>(March 2-6) | Current<br>(Nov 23-27) | % of<br>Pre-COVID<br>Demand | % of<br>Pre-COVID<br>Service Level |
|--------------|--------------------------|------------------------|-----------------------------|------------------------------------|
| Bus          | 1,381,000                | 615,000                | 45%                         | 97%                                |
| Streetcar    | 350,000                  | 99,000                 | 28%                         | 86%                                |
| Subway       | 1,492,000                | 395,000                | 26%                         | 86%                                |
| <b>Total</b> | <b>3,223,000</b>         | <b>1,109,000</b>       | <b>34%</b>                  | <b>95%</b>                         |

Early on in the pandemic, it became evident that customer demand for bus service was greater than other modes. Our bus network serves the city’s neighbourhood improvement areas and industrial employment lands where essential work continues through the pandemic while our streetcar and subway network serves, for the most part, the downtown where the majority of work has shifted to a virtual format. **Figure 5** and **Figure 6** present customer demand by mode by planning district comparing the week ending October 2, 2020 to pre-COVID demand as a baseline.

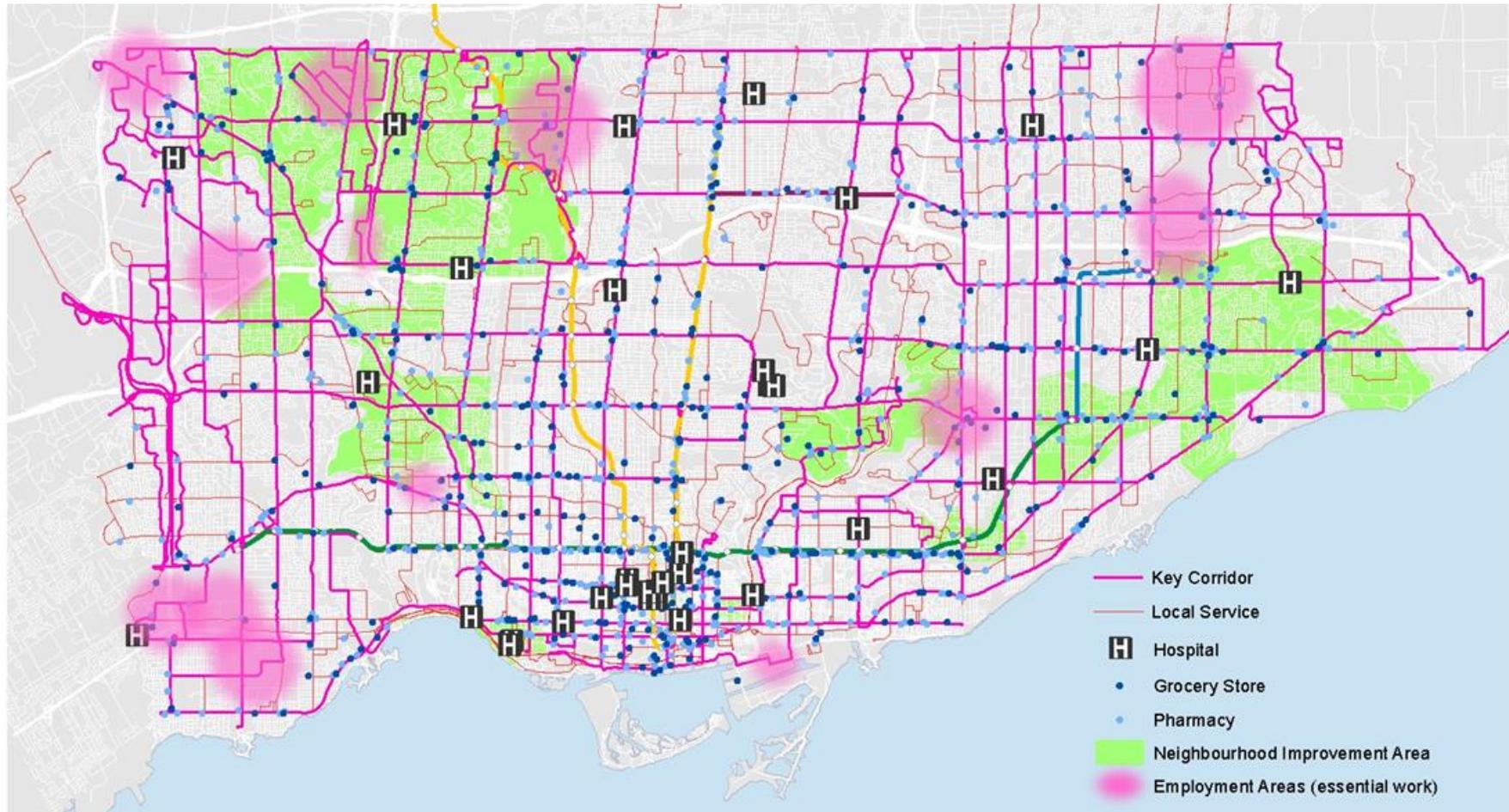
We are monitoring demand and capacity utilization daily on all modes with particular attention to bus services to inform where we deploy flexible buses and where additional capacity is required for customers. This includes bus trips with more than 15 people per bus at any given time (i.e. 30% of regular capacity) and bus trips with more than 25 people per bus at any given time (i.e. 50% of regular capacity). As of the week ending November 27, more than 75% of trips were below the 30% capacity threshold and nearly 95% of trips were below the 50% capacity threshold.

Our outlook for 2021, based on available and evolving information, is that ridership will steadily increase from 35% to 50% of normal levels by year end. We estimate that ridership will increase above 50% when COVID-19 vaccinations begin and the pandemic subsides. Demand will continue to vary by mode with bus service being the greatest until activity in the downtown core significantly increases. **Figure 7** presents our activity-based ridership projection.

### 4.3 2020 action plan

The 5YSP established a 20-point action plan to deliver improvements between 2020 and 2024. In 2020, we identified 16 initiatives. Overall, six initiatives were implemented, six have been started and four have been deferred. **Figure 8** presents a status summary for initiatives planned for 2020. Of all the initiatives implemented, the introduction of priority bus lanes on the Eglinton East corridor, known as RapidTO, has been the greatest achievement. This transit priority measure will improve the overall journey for customers by increasing service reliability and decreasing in-vehicle travel time.

Figure 4: Demand-responsive service plan



**Figure 5: Bus and streetcar demand by planning district (PRESTO taps, week ending Oct. 2, 2020 vs. pre-COVID)**

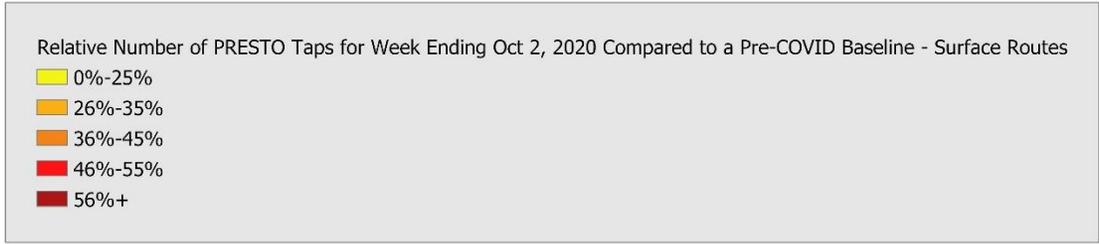
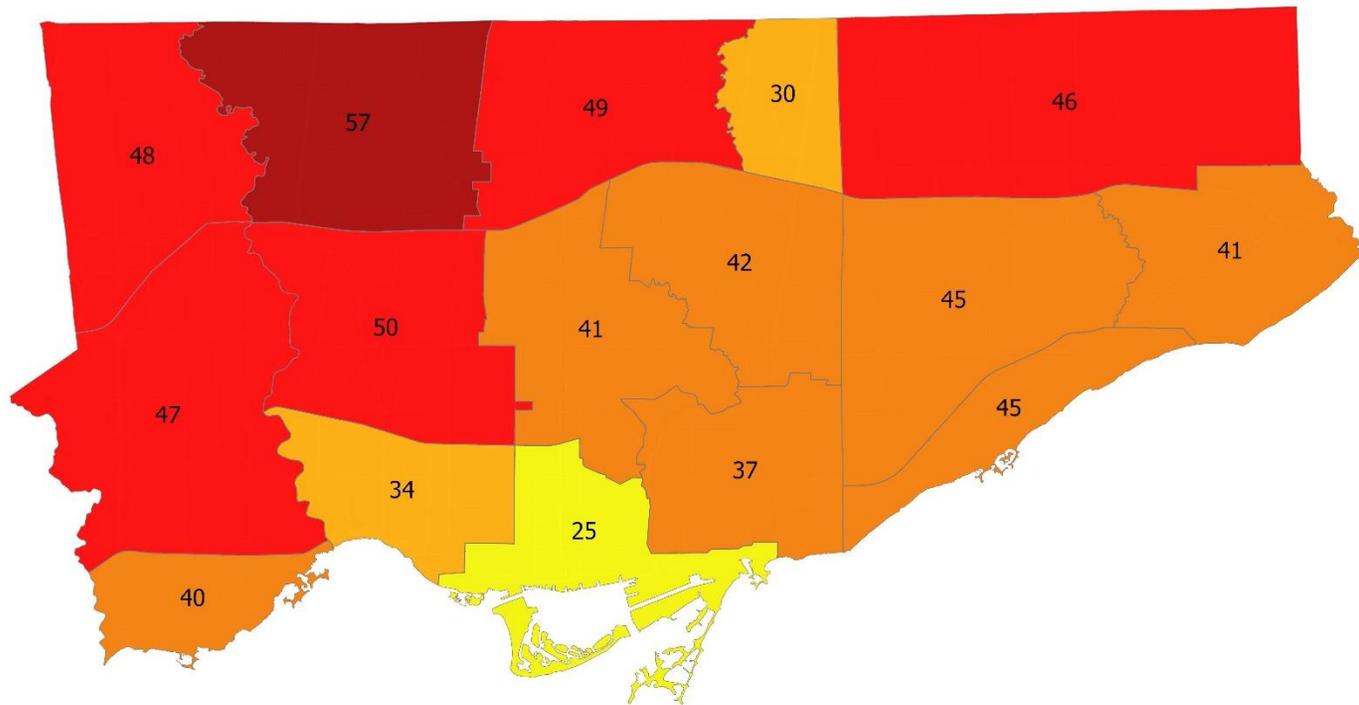
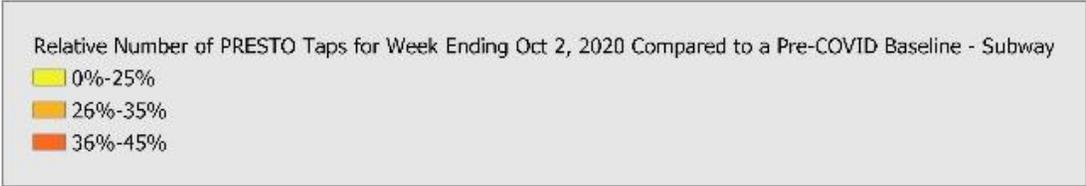
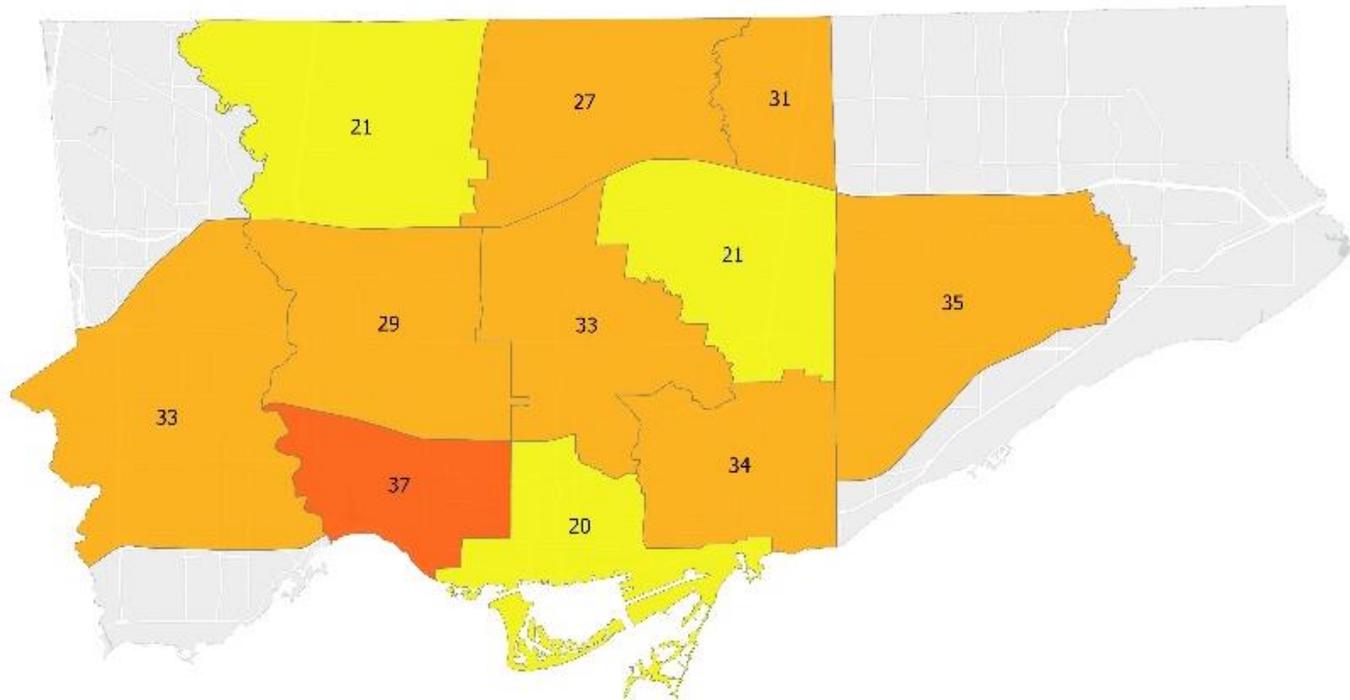
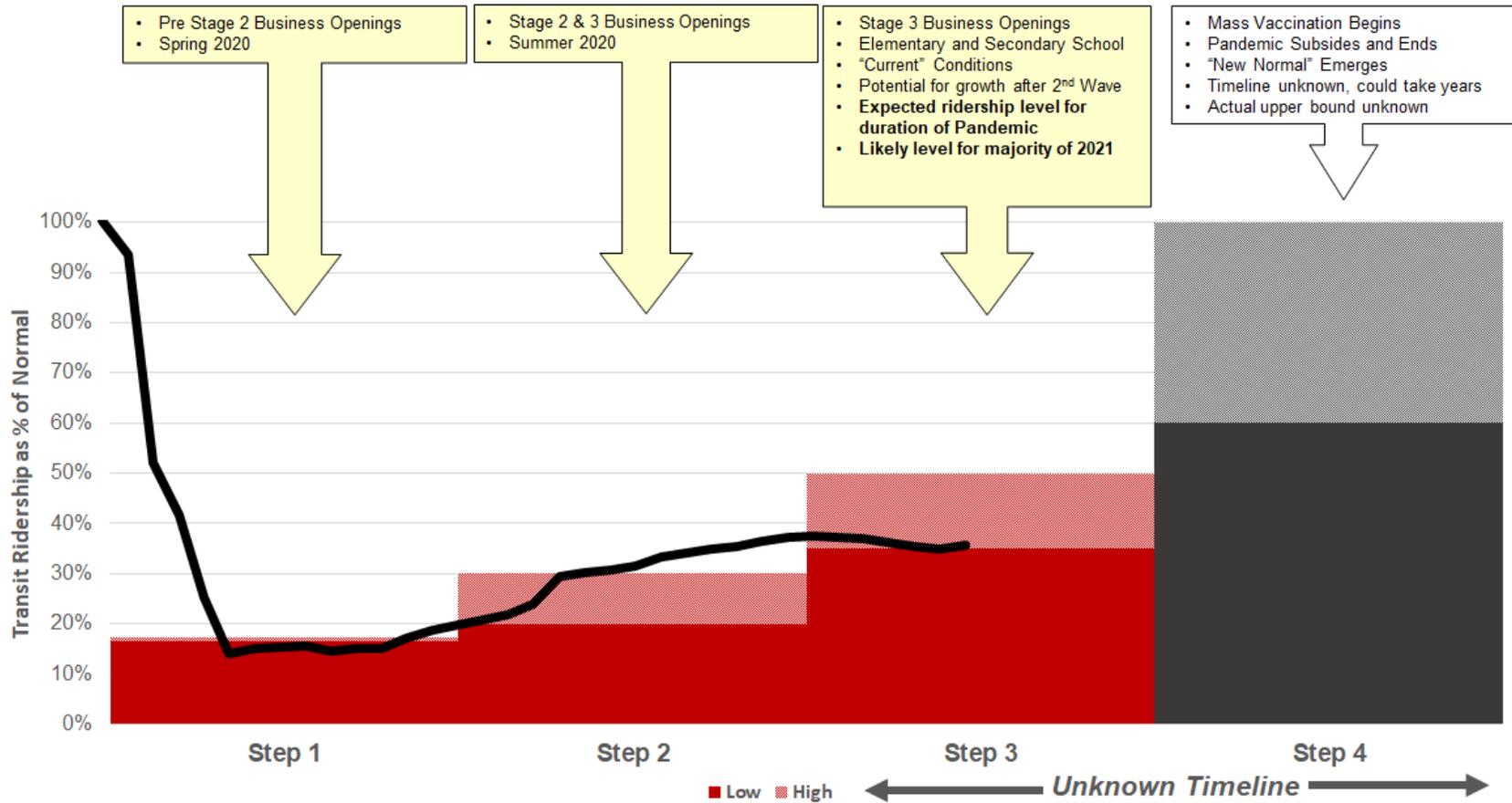


Figure 6: Subway demand by planning district (PRESTO taps, week ending Oct. 2, 2020 vs. pre-COVID)



**Figure 7: Activity-based ridership projection**



**Figure 8: 2020 action plan – status summary**

| Action   | Status      | Initiative  |
|--|-------------|---|
| 1.1: Accommodate population and employment growth      |             |   |
| 1.2: Implement new services to address travel patterns | Implemented | 1. New branch of 43 Kennedy to Village Green                    |
| 1.3: Open Line 5 – Eglinton                            |             |   |
| 1.4: Relieve crowding on Line 1                        |             |   |
| 1.5: Open Line 6 – Finch West                          |             |   |
| 1.6: Enhance streetcar network                         | Implemented | 2. New streetcars deployed on 505 Dundas                        |
| 1.7: Apply an equity lens to service planning          | Implemented | 3. Youth-led engagement process as part of 2021 ASP             |
| 2.1: Expand customer amenities at stops                | Deferred    | 4. Deferred to 2021 due to COVID-19                             |
| 2.2: Improve wayfinding at stops                       | Started     | 5. Wayfinding Strategy started to guide improvements            |
| 2.3: Improve placemaking at key stop areas             | Deferred    | 6. Deferred to 2021 due to COVID-19                             |
| 3.1: Improve surface transit schedules                 | Started     | 7. Ongoing schedule refinement throughout COVID-19              |
| 3.2: Mitigate delays & disruptions to service          | Implemented | 8. Flexible buses added in January and continue to operate      |
| 4.1: Explore bus transit lanes                         | Implemented | 9. RapidTO on Eglinton East corridor                            |
| 4.2: Implement more queue jump lanes                   | Started     | 10. Surface Transit Network Plan completed to guide future work |
| 4.3: Implement more transit signal priority            | Started     | 11. Developed MoveTO Plan                                       |
| 5.1: Expand service integration                        | Started     | 12. Multi-agency service plan is being developed                |
| 5.2: Integrate microtransit services                   | Deferred    | 13. Deferred to 2021 due to COVID-19 pandemic                   |
| 5.3: Enhance integration with cycling                  | Implemented | 14. Expanded bike share and bike parking at stations            |
| 5.4: Enhance pedestrian pathways to TTC                | Started     | 15. Study complete: pathways in North York                      |
| 5.5: Implement Mobility as a Service (MaaS) strategy   | Deferred    | 16. Deferred to 2021 due to COVID-19 pandemic                   |



**Figure 9: Benefits of Eglinton East priority bus lanes**



| Icon   | Benefit  | Description  |
|--|--|--|
|    | <b>Tactical Transit Improvements</b>                         | Convert HOV & general purpose lane with red paint, signage   |
|    | <b>Increased Access</b>                                      | Faster travel times allow longer distance travel   |
|    | <b>Real Improvements for Existing Customers</b>              | Improved reliability and speed for 56,000 customers  |
|   | <b>Advance Equity Initiatives</b>                            | Advances Poverty Reduction Strategy by serving 7 of 8 NIA's in Scarborough   |
|  | <b>Improve Transit Speed</b>                                 | Average travel time savings of 2-5 minutes per trip  |
|  | <b>Advance Approved Strategic Documents and Action Plans</b> | TransformTO, Resilience Strategy, Corporate Strategic Plan, TTC Corporate Plan, 5YSP, MoveTO, Surface Transit Network Plan |

## 5. 2021 Annual Service Plan

### 5.1 Focus and priorities

The 2021 ASP has been developed around a specific focus and three key priorities based on the 5YSP, public health guidance, technical analysis and customer and stakeholder guidance.

Our focus is to continue to respond to customers' dynamic and evolving demand for public transit service.

Our priorities are to:

1. Sustain the demand-responsive service plan
  - Sustain some flexible service to respond dynamically to customer demand
  - Ensure the TTC is ready for fluctuations in COVID-19 cases
2. Improve regular scheduled service by reallocating and restructuring services
  - Balance service levels, on all routes, at all times of day, based on demand
  - Improve service reliability to reflect actual operating conditions as they evolve
  - Address travel patterns and capacity requirements by restructuring existing services and introducing new services
3. Advance key strategic initiatives
  - Continue implementing surface transit improvements
  - Advance service integration with neighbouring municipalities
  - Pilot the automated transit shuttle and connect with microtransit shuttle services



## 5.2 Pillar 1 – Transit network

Pillar 1 focuses on actions that help customers get to where they want to go, when they want to go.

### **Optimize capacity by rebalancing service levels**

In 2021, we will balance service levels across the network to match capacity with demand. Customer engagement throughout the 2021 ASP identified the increased importance of continuing to provide adequate capacity for customers on transit vehicles through the pandemic and during recovery. At the outset of the pandemic, we applied a capacity threshold of 30% of pre-COVID levels (e.g. 15 customers per bus). As ridership increased, we adjusted to 50% of pre-pandemic levels (e.g. 25 customers per bus).

Moving into 2021, we will focus on rebalancing and optimizing capacity on all routes, in all times of day. As shown in **Figure 10**, there is sufficient opportunity to reallocate from low demand to high demand routes in all periods of the day. As ridership increases, we will increase the capacity threshold to 70% of pre-COVID levels (e.g. 35 customers per bus) and continue the process of rebalancing capacity to meet customer demand.

### **Improve route productivity and performance by modifying schedules**

In 2021, we are adjusting service to improve performance on low-demand routes. Every year we review the productivity of our services through the annual performance review process to ensure we are allocating resources efficiently. Every route, in every period of operation, is assessed to identify opportunities for improvement as seen in **Figure 11**. This evaluation identifies changes that can be made to route structures or to hours of operation. In some instances, where service is no longer financially sustainable, service is discontinued.

In 2021, we will make routing changes to improve the productivity and performance on the following routes: 107 St Regis, 117 Alness-Chesswood and 121 Fort York-Esplanade. We will also modify hours of operation by scheduling the “last bus” earlier on the following routes: 28 Bayview South, 33 Forest Hill and 167 Pharmacy North. And, we are continuing to suspend service on the following routes to continue to allocate these resources to flexible demand-responsive buses: 141 Downtown Mt Pleasant Express, 142 Downtown Avenue Rd Express, 143 Downtown Beach Express, 144 Downtown Don Valley Express, and 145 Downtown Humber Bay Express.

### **Restore most Express Bus service**

In 2021, we are restoring most express services to improve customer travel times. Customers have continuously told us that they value express bus services because they are simply faster than their local bus counterpart. In 2021, we will restore the majority of the express bus network that was suspended early in the pandemic and implement express service on Kennedy Road and Warden Avenue to optimize capacity efficiently on these corridors, as noted in the 5YSP. As express bus services are restored, we will review service levels, as noted by customers and stakeholders, to ensure that capacity matches demand on shared corridors where both express and local buses operate.

**Figure 12** shows the 2021 Express Bus Network.

### **Implement service changes in Scarborough East**

In 2021, we are making service adjustments in Scarborough East to improve travel times, increase access and optimize capacity for customers. The service changes make use of the RapidTO improvements on the Eglinton East corridor and maximizes connections to major activity centres in the community. As shown in **Figure 13**, these route improvements include:

- Extending service on Lawrence Avenue East to Morningside Avenue and extending bus service to the Kingston Road and Sheppard Avenue East area.
- Proving bus service along Brimorton Drive to improve transit accessibility.
- Adjusting local service to the Scarborough Golf Club Road and Manse Road areas.
- Implementing express service to the Conlins Road area and along Ellesmere Road to connect to University of Toronto Scarborough Campus from Scarborough Centre Station.

### **Continue to modernize streetcar network**

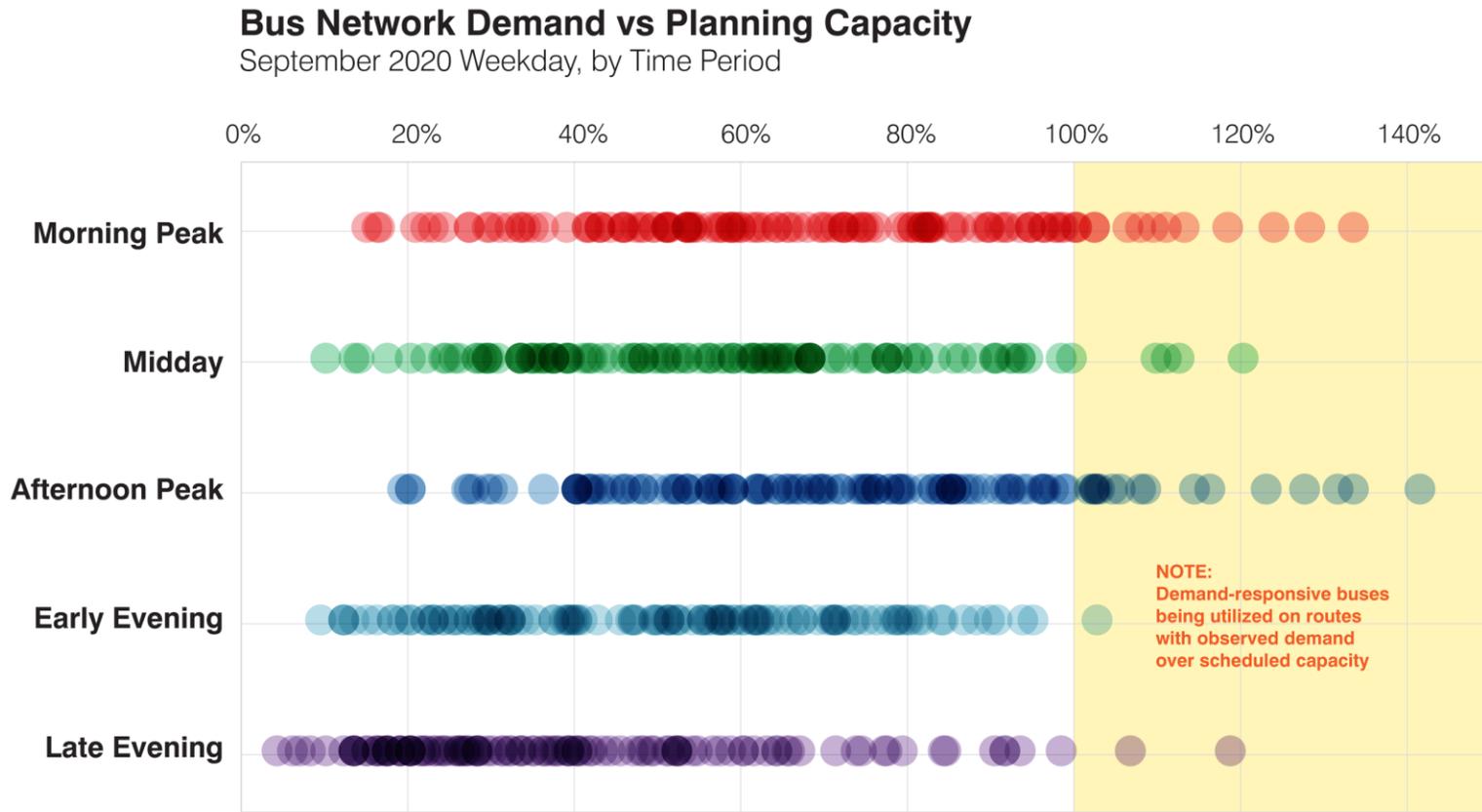
In 2021, we will continue to modernize the streetcar network to ensure streetcar service is reliable and its infrastructure is in a state-of-good-repair. There are a number of projects planned for 2021 that include upgrading overhead power and replacing streetcar tracks. During construction, the streetcar service network will be modified with alternate construction-related service throughout the year. These services are intended to maintain connections and minimize inconvenience for customers. **Figure 14** shows the planned capital projects in 2021.

### **Apply an equity lens to service planning**

In 2021, we will implement service changes and expand our customer and stakeholder engagement program. In 2021, we will increase corridor capacity and community access to Neighbourhood Improvement Areas by adding service to the Stanley Greene neighbourhood and midday service on 12D Kingston Rd and 119 Torbarrie bus routes. We also recognize the importance of reaching out and consulting with customers who are traditionally underrepresented in the planning process and may also be disproportionately affected by planning decisions. In 2021, we will expand our youth-led engagement initiative as we develop the 2022 Annual Service Plan.

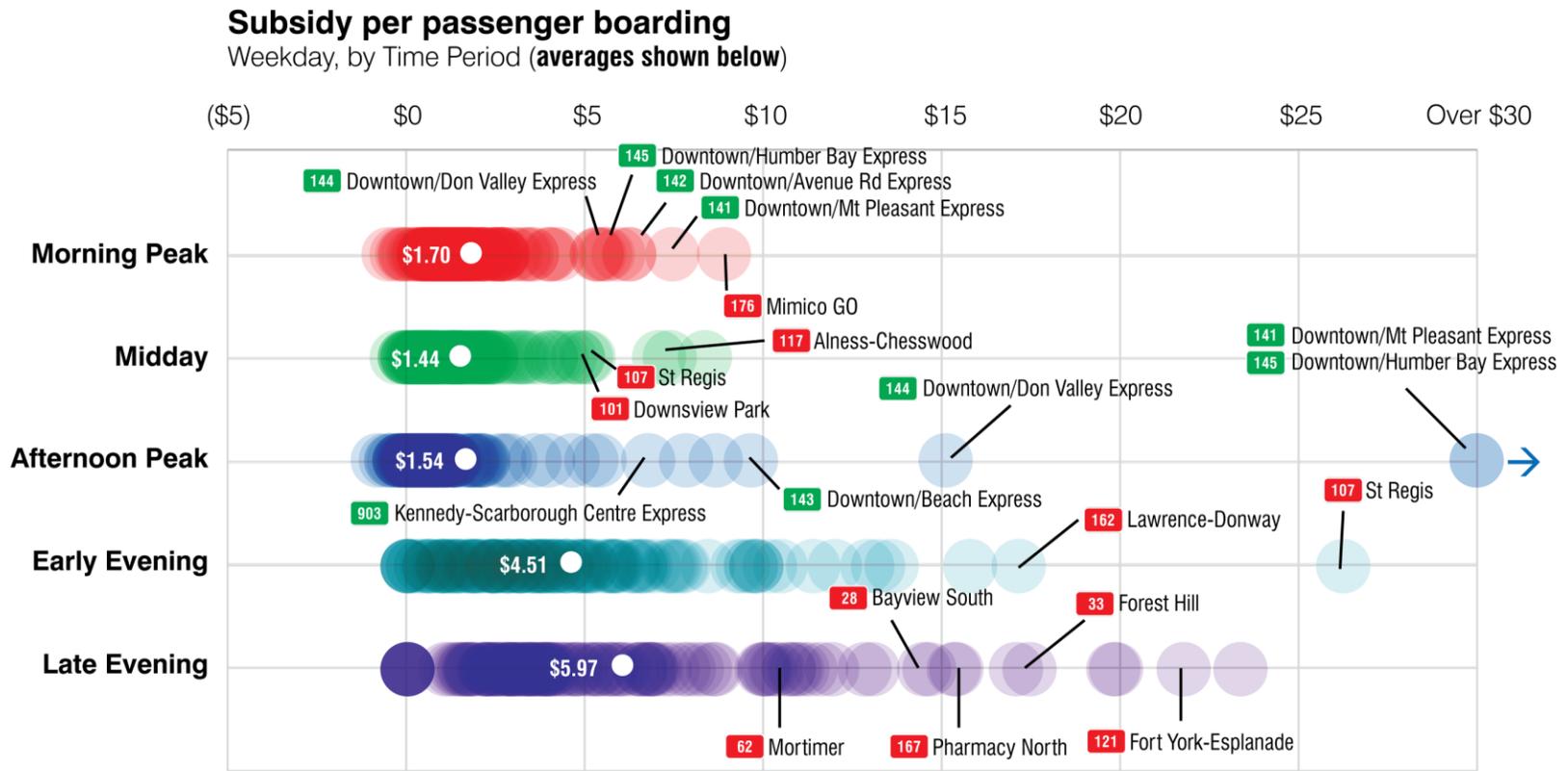


**Figure 10: Weekday bus network demand and planning capacity, as of September 2020**



**September 2020 Planning Capacity = 25 (12m bus) and 39 (18m bus)**  
 Demand based on observed September 2020 automatic passenger counter system data, each circle represents one route  
 Planning capacity is determined by observed demand and policy, such as minimum 30-minute service and frequent service standards

**Figure 11: Weekday operating periods net cost per passenger, as of October 2019**

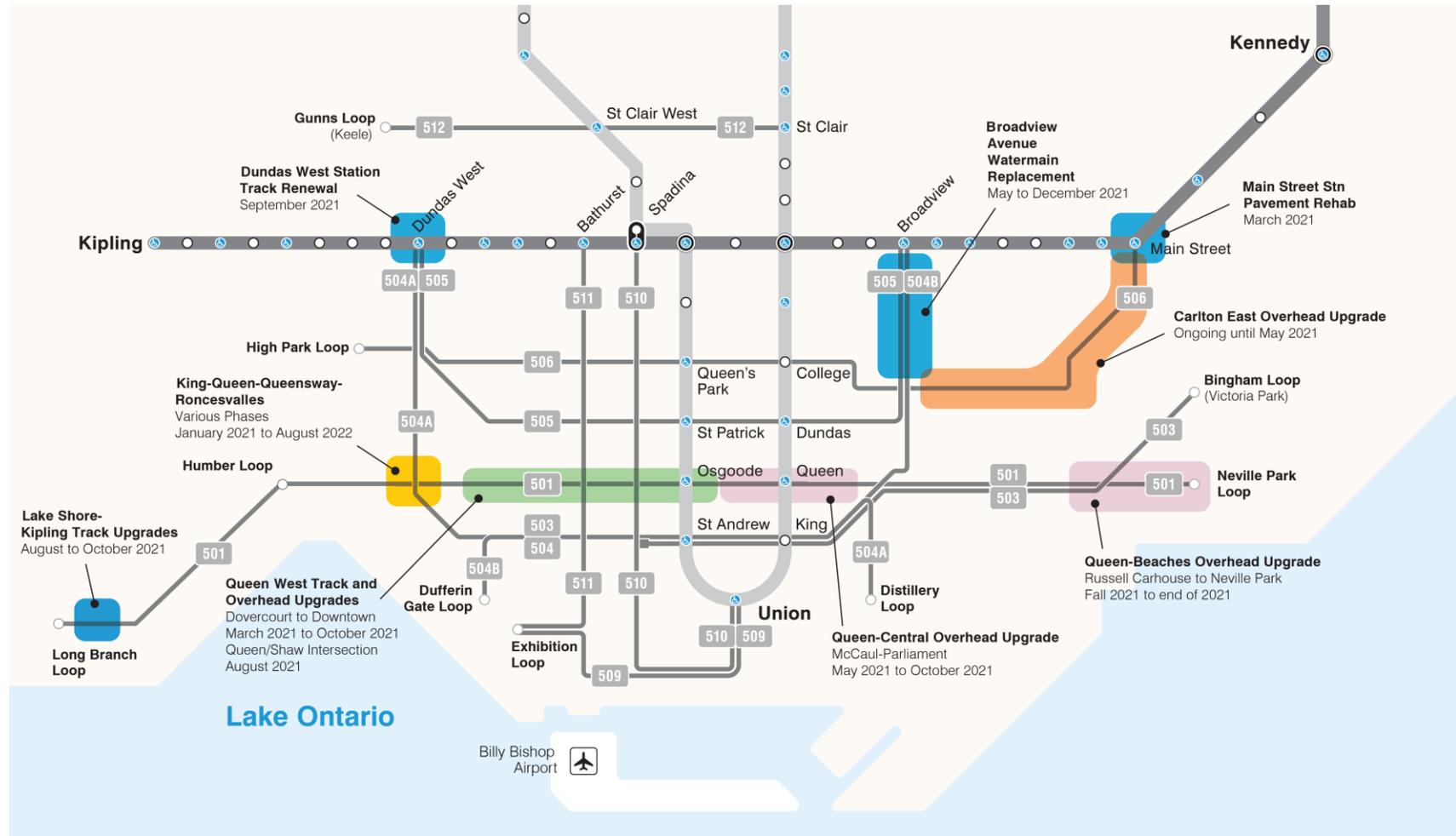


**NOTE:** Statistics reflect pre-pandemic ridership and service levels  
 Each circle represents one route operating in the weekday service time period





**Figure 14: Streetcar capital projects in 2021**



### 5.3 Pillar 2 – Customer experience at key surface transit stops

Pillar 2 focuses on actions that improve customer experience at key surface stop areas, providing our customers with a pleasant experience that begins before they get on a vehicle.

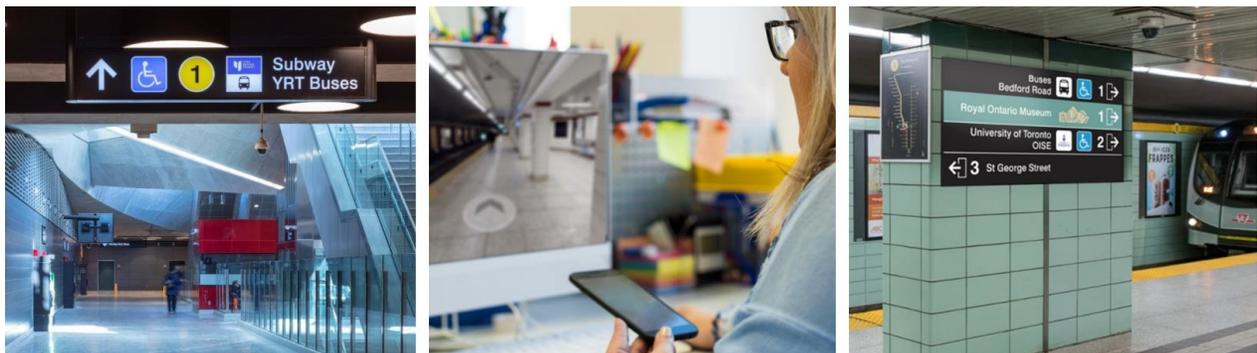
#### **Implement accessibility improvements and identify customer amenities at stops**

In 2021, we will implement accessibility and operational improvements at stops and identify customer amenities at key stops across the city. In 2021, customers will benefit from 16 Access Hubs that were installed and opened across Toronto in 2020 to facilitate comfortable connections between Wheel-Trans and conventional route services. In addition, in order to support customers during winter months, Transportation Services staff, in consultation with the TTC, are testing the efficacy of heated transit shelters in 5 locations across the City, and will determine whether the program has been sufficiently successful to add additional locations. We will also upgrade 220 stops to improve accessibility and accommodate approximately 68 new high-capacity articulated buses that are scheduled to be delivered starting in 2022.

In 2021, we will also continue to work with our City partners to plan and prioritize customer amenities to be implemented in 2022 and beyond. We will review feedback received through the 2021 ASP customer and stakeholder engagement process where customers identified that shelter from precipitation was the most important aspect for customers at transit stops followed by lighting, protection from traffic, shelter from wind, accessibility and cleanliness. In 2021, we will also work with partners at the City to identify placemaking improvements on key corridors.

#### **Implement wayfinding strategy system-wide**

In 2021, we will improve wayfinding information to help customers find where they want to go. Our Wayfinding Strategy identifies wayfinding-related improvements to be made to the TTC system. The strategy's scope includes key priorities intended to provide customers with improvements that promote an optimal customer experience while using public transit in Toronto and the surrounding region. In 2021, the strategy complements ASP initiatives with improvements to system route maps, updates to out-of-date signage, the introduction of virtual models of TTC stations and improved wayfinding between the TTC and its transit partners at busy regional hubs like Kipling Station.



## 5.4 Pillar 3 – Service reliability

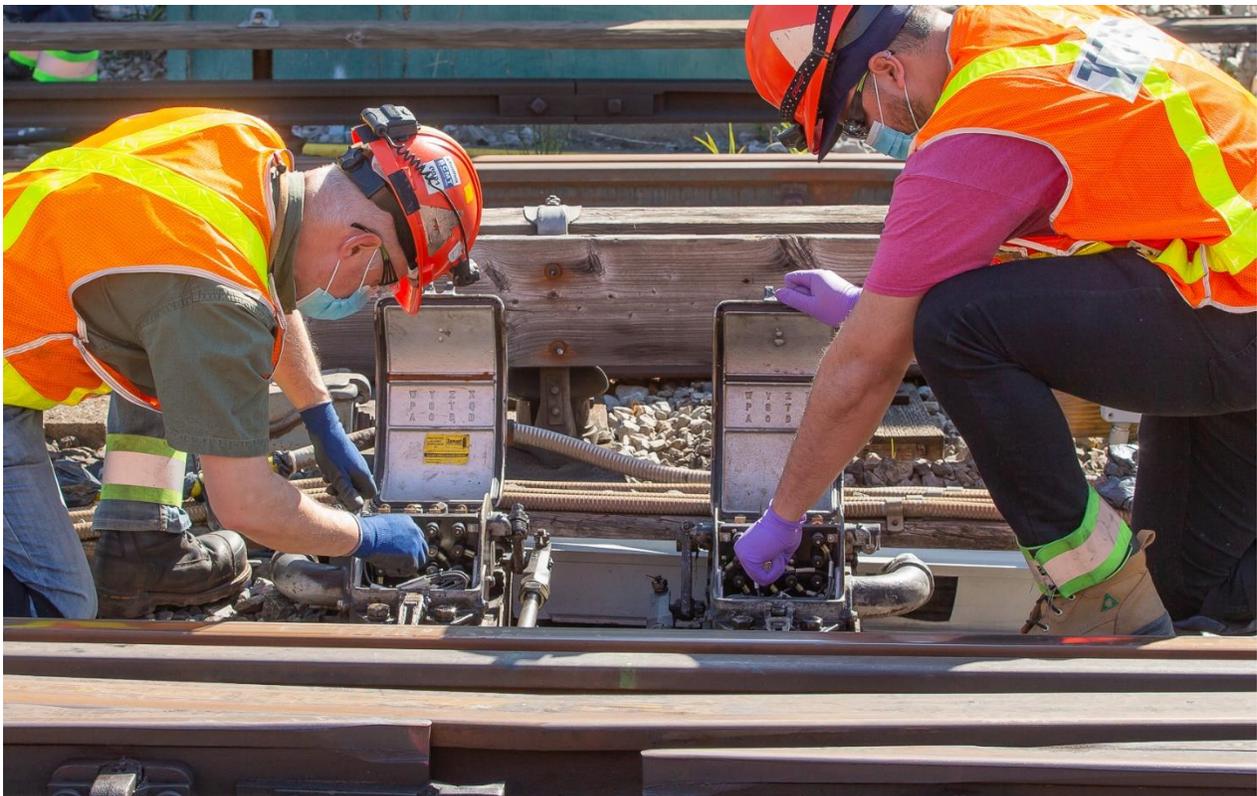
Pillar 3 identifies actions to provide a reliable service that our customers can count on.

### **Improve surface transit schedules**

In 2021, we will improve weekday bus and streetcar schedules to ensure we deliver the service we advertise. Throughout the 5YSP and 2021 ASP process, customers consistently indicated that improving service reliability is a key improvement that would result in a predictable experience. We will achieve this by updating schedules to reflect actual operating conditions that account for shifts in traffic patterns during the pandemic. We will also reduce non-revenue service when vehicles leave and return to maintenance facilities to maximize capacity for our customers. And, we will begin exploring opportunities to pilot “timed bus connections” at high-demand locations on the overnight network to reduce customer wait times.

### **Mitigate disruptions to service**

In 2021, we will continue to mitigate the impacts of planned and unplanned service disruptions. More buses will be available to sustain service while late-evening and weekend subway closures advance state-of-good-repair work that is critical to keep our subways operating safely and reliably. More buses will be available to respond to unplanned service disruptions, such as short-term road works, collisions and emergencies. Our goal is to minimize the effects of service disruptions on our customers’ journeys.



## 5.5 Pillar 4 – Surface transit priority

Pillar 4 aims to provide fast service that values our customers' journey time.

### **Explore bus transit lanes or a bundle of priority measures on key corridors**

In 2021, we will advance work on exploring transit priority measures on key corridors. On October 11, 2020 the TTC and the City introduced Toronto's first RapidTO corridor on Eglinton Avenue East, Kingston Road and Morningside Avenue. The priority bus lanes are reserved for buses and bicycles 24-hours a day, seven days a week and identified using red road markings and signage. Jane Street is the second corridor to be reviewed based on high ridership, slow transit speeds and challenges with service reliability. In 2021, we will focus on consultation, community outreach and technical analysis. We will examine the section from Steeles Avenue West to Eglinton Avenue West which serves seven Neighbourhood Improvement Areas and York University. The Jane Street corridor is among our most heavily used corridors and, even during COVID-19, continues to play a significant role in moving people around the city.



### **Implement more queue jump lanes**

In 2021, we will continue to work with our partners at the City to build queue-jump lanes at key locations. These short lane extensions allow bus and streetcar customers to bypass traffic congestion at major intersections, while speeding up service and improving reliability. We will work closely with City staff to build these cost-effective and targeted transit improvements starting in 2021, with a streetcar queue jump lane at Lake Shore Boulevard and Brown's Line (westbound) followed by three bus queue jump lanes per year for the next three years.

### **Implement more transit signal priority**

In 2021, we will work with the City and trial new transit signal priority technology in an effort to improve bus and streetcar service. As part of the City's new MoveTO action plan, we will continue to collaborate with City staff on the rapid roll-out of Advanced Transit Signal Priority (ATSP) at locations with high transit ridership and along key TTC routes identified in the City's Surface Transit Network Plan (STNP). The strategy will integrate smart traffic signal technologies with our vehicle location system to provide advanced transit signal priority. The initial trial installation of ATSP will be at 100 locations over the next two years where our legacy transit priority system has not been installed. The objective is to develop a strategy to enable ATSP at all traffic signals along TTC routes within Toronto.

## 5.6 Pillar 5 – Integration with transit partners and complementary modes

Pillar 5 focuses on accelerating integration with regional transit partners and complementary modes of transportation so that our customers experience a seamless connection to and from our services.

### **Advance service integration with partner agencies**

In 2021, we will advance service integration with regional transit partners to improve cross-boundary trips for the 15% of TTC customers that either start or end their trip outside of the city. We will start where the opportunity is greatest and expand on the concept that is already in place today; the TTC working in collaboration with York Region and Mississauga to optimize service along key regional corridors. We will expand this concept to integrate service with all of our neighbouring transit agencies including Brampton Transit, Durham Region Transit, MiWay and York Region Transit. There are more than 20 shared corridors where improvements to cross-boundary service will benefit customers by providing a more seamless service and providing transit agencies with efficiencies that can be reinvested across the region. In 2021, we will advance work to pilot cross-boundary service integration with regional transit partners.

### **Integrate microtransit services**

In 2021, we will implement an automated shuttle trial with partner agencies and improve connections with private microtransit shuttle providers. On October 14, 2020, the City announced that it had signed an agreement with Local Motors to provide the temporary trial service with an automated shuttle called the Olli 2.0. While the Automated Shuttle Trial has been delayed as the City continues to respond to COVID-19, we are working with our partners towards implementation in spring 2021.

Also in 2021, we will improve connections with private microtransit shuttle services, such as employee, condominium and retail shuttles to and from TTC subway stations. This includes implementing physical improvements to improve traffic flow at Don Mills Station's passenger pick up and drop off area and improvements to wayfinding, such as signage and integrating retail shuttle schedules on the TTC website.



### **Integrate cycling and transit networks**

In 2021, we will enhance integration with the cycling network. We will continue to partner with the Toronto Parking Authority with whom we installed new Bike Share stations at five TTC subway stations (St Clair West, Jane, Pape, Greenwood and Rosedale) in 2020. In 2021, we will continue to work with Bike Share Toronto and Transportation Services to identify further opportunities to integrate cycling and transit trips for customers by coordinating and maximizing connections between the cycling network and transit network.

In 2020, we expanded bike parking at stations across the city. In 2021, we will complete the installation of high-capacity bike racks, bike repair stations and 10 bike shelters at stations.

### **Improve pedestrian pathways to TTC stations and key stops**

In 2021, we will continue to partner with the City to identify improvements to pedestrian pathways to subway stations and key stops. Earlier this year, in partnership with the City, we completed a spatial review of the pedestrian network, the desire lines and sidewalk gaps within an 800 metre radius of subway stations and key stops. Areas with apparent pedestrian footpaths through unpaved routes and missing sidewalks were assessed and identified. The following gaps/missing links were identified:

- Sheppard West Station
- Finch West Station
- York University Station
- McCowan Station
- Ellesmere Station
- Downsview Park Station
- Jane Street and Finch Avenue West
- Don Mills Road and Finch Avenue East
- Ellesmere Road and Markham Road
- Keele Street and Wilson Avenue

In 2021, we will continue to evaluate the pedestrian network with our partners at the City to identify missing links/gaps in the network to improve overall connections to our services. Funding requirements for improvements will be identified in the 2022 Annual Service Plan.

### **Implement Mobility as a Service (MaaS) strategy**

MaaS brings together mobility services like transit, taxi, bike share and parking under one smartphone app to plan trips, get real-time info and make payments. In 2021, we will establish a MaaS working group with partners at the City. The establishment of a MaaS working group was deferred in 2020 as our efforts were focused on responding to the global pandemic.

## **5.7 2021 action plan**

In 2021, our focus is to continue to respond to customers' dynamic and evolving demand for public transit service and our priorities are to sustain the demand-responsive service plan, improve regular scheduled service and advance key strategic initiatives. To achieve this, we plan on implementing 22 initiatives over the course of the year. **Figure 15** presents the 2021 action plan.

**Figure 15: 2021 action plan**



| Action   | Initiative   |
|--|--|
| 1.1: Accommodate population and employment growth      | 1. Optimize capacity by rebalancing service levels                                   |
| 1.2: Implement new services to address travel patterns | 2. Improve route productivity and performance by modifying schedules                 |
| 1.3: Open Line 5 – Eglinton                            | 3. Implement service changes in Scarborough East                                     |
| 1.4: Relieve crowding on Line 1                        | 4. Restore most Express Bus service  |
| 1.5: Open Line 6 – Finch West                          | • <b>Opening of Line 5 has been deferred to 2022</b>                                 |
| 1.6: Enhance streetcar network                         | 5. Continue to modernize the streetcar network with SOGR work                        |
| 1.7: Apply an equity lens to service planning          | 6. Make transit accessible in neighbourhood improvement areas                        |
| 2.1: Expand customer amenities at stops                | 7. Expand equity-based consultation as part of 2022 ASP                              |
| 2.2: Improve wayfinding at stops                       | 8. Implement accessibility improvements & identify customer amenities at stops       |
| 2.3: Improve placemaking at key stop areas             | 9. Implement wayfinding strategy system-wide   |
| 3.1: Improve surface transit schedules                 | 10. Identify placemaking improvements on key corridors                               |
| 3.2: Mitigate delays & disruptions to service          | 11. Improve weekday schedules by reflecting actual operating conditions              |
| 4.1: Explore bus transit lanes                         | 12. Minimize non-revenue service to maximize capacity                                |
| 4.2: Implement more queue jump lanes                   | 13. Minimize customer inconvenience during planned and unplanned disruptions         |
| 4.3: Implement more transit signal priority            | 14. Advance consultation, community outreach and analysis on key corridors           |
| 5.1: Expand service integration                        | 15. Implement queue jump lane at Lake Shore and Brown's Line                         |
| 5.2: Integrate microtransit services                   | 16. Install 100 Advanced Transit Signal Priority at key locations over 2 years       |
| 5.3: Enhance integration with cycling                  | 17. Advance service integration "pilot" with partner agencies                        |
| 5.4: Enhance pedestrian pathways to TTC                | 18. Implement automated shuttle trial  |
| 5.5: Implement Mobility as a Service (MaaS) strategy   | 19. Improve connections with private microtransit shuttle providers                  |
|  | 20. Integrate cycling and transit with more bike parking and 10 shelters at stations |
|  | 21. Advance design work to implement "missing links" pathways in 2022                |
|  | 22. Establish Mobility as a Service working group                                    |

## 6. 2021 investment summary

The 2021 ASP identifies 22 initiatives that sustain the demand-responsive service plan, improve regular scheduled service and advance key strategic initiatives. This section presents annual service hours, fleet and facility, operating budget and capital budget requirements in 2021.

### 6.1 Annual service hours

The 2021 ASP identifies initiatives based on current and projected demand and travel behaviour trends by mode. These initiatives will be implemented by reallocating capacity from low-demand to high-demand service areas.

The 2021 ASP proposes 9,359,000 annual service hours for regular (operating) service and a further 138,000 hours to mitigate service delays associated with Eglinton and Finch West LRT construction, as seen in **Figure 16**. Regular operating service will decrease by 303,000 annual service hours as compared to the budgeted annual service hours in 2020. Of this, 226,000 annual service hours are related to capacity based service adjustments on streetcar and subway services and, 77,000 annual service hours are related to implementing operating efficiencies and other changes that do not result in a decrease in service capacity. This includes the following:

- Open McNicoll Garage which reduces deadhead service hours
- Implement RapidTO on the Eglinton East corridor
- Partial implementation of Automatic Train Control on Line 1
- Conversion of low-capacity bus service to high-capacity streetcar service
- Adjustments for calendar changes (2020 was a leap year)

**Figure 16: 2021 annual operating service hours by mode (regular service)**

| Mode  | 2020 Budget      | 2021 Plan        | Change in Service Hours |
|---|------------------|------------------|-------------------------|
| Bus   | 7,416,000        | 7,358,000        | (58,000)                |
| Streetcar   | 1,048,000        | 921,000          | (127,000)               |
| Subway  | 1,198,000        | 1,080,000        | (118,000)               |
| <b>Total (Regular Service)</b>                    | <b>9,662,000</b> | <b>9,359,000</b> | <b>(303,000)</b>        |
| LRT Construction (supplemental bus)               | 199,000          | 138,000          | (61,000)                |
| <b>Total (Regular Service + LRT Construction)</b> | <b>9,861,000</b> | <b>9,497,000</b> | <b>(364,000)</b>        |

## 6.2 Fleet and facility

In the coming year, the required number of buses, streetcars and subway trains are available to deliver the 2021 ASP. Beyond 2021 and over the next five years, we plan to operate more vehicles in-service as outlined in the TTC Fleet Procurement Strategy and Plan.

As seen in **Figure 17**, we will operate more buses, streetcars and trains on Line 1 & 2 and new trains on Line 5 Eglinton and Line 6 Finch West, based on demand. We will also expand our maintenance and storage capacity with the opening of the McNicoll Bus Garage in 2021 and a future facility to support more streetcars, if funded.

**Figure 17: Planned in-service vehicles**

| Mode                      | 2021 | 2022 | 2023 | 2024 | 2025 |
|---------------------------|------|------|------|------|------|
| Buses                     | 1650 | 1650 | 1660 | 1660 | 1660 |
| Streetcars                | 145  | 168  | 190  | 214  | 214  |
| Line 1 - Trains (6 cars)  | 65   | 68   | 68   | 70   | 70   |
| Line 2 - Trains (6 cars)  | 46   | 46   | 46   | 48   | 48   |
| Line 3 - Trains (4 cars)* | 5    | 5    | 5    | 5    | 5    |
| Line 4 - Trains (4 cars)  | 4    | 4    | 4    | 4    | 4    |
| Line 5 - Trains (2 cars)  |      | 17   | 18   | 18   | 20   |
| Line 6 - Trains (1 car)   |      |      | 15   | 15   | 15   |

\* Line 3 life extension is currently under review



### 6.3 Financial summary

#### 2021 Operating Budget

The 2021 ASP identifies a decrease of 303,000 annual service hours that results in an operating cost savings of approximately \$20.5 million in the 2021 Operating Budget relative to the 2020 Operating Budget.

#### 2021-2030 Capital Plan

The 2021 ASP includes initiatives to meet the transit needs of our City in 2021. Vehicles are available to implement the 2021 ASP, however capital funding is required to procure replacement and growth vehicles in future years, improve key stop areas and implement transit priority measures.

Approximately \$282.7 million is required in 2021. Of this, \$173.6 million will be requested as part of the TTC's 2021-2030 Capital Plan, while \$109.1 million is not funded due to funding constraints. The majority of the unfunded amount is related to the procurement of 47 additional streetcars, additional streetcar maintenance and storage capacity as well as major operational improvements at key bus stop locations which excludes improvements to upgrade stops for accessibility and to accommodate articulated buses which is planned to proceed.



## 7. Outlook

Looking ahead, we must continue to improve the speed, reliability and frequency of our service to ensure we remain a competitive travel option in Toronto. This will ensure we are doing our part to achieve the City's goals: keep Toronto moving, invest in people and neighbourhoods and tackle climate change and build resilience. The following section outlines planned surface and rapid transit improvements over the next 10 years.

### 7.1 Near-term improvements

#### Line 5 Eglinton

In 2022, we will begin to operate Line 5 Eglinton which will offer customers a new fast and frequent east-west rapid transit service across Toronto's Eglinton Avenue from Etobicoke to Scarborough. We will also modify service on more than 50 bus routes to connect to the 25 new Line 5 stations to maximize connectivity. The opening of Line 5 and changes to the surrounding bus network will have a transformational effect on our customers' journey – more frequent, faster and reliable service. The conversion from bus to train service will also allow us to reinvest buses back into the network.



#### Line 6 Finch West

In 2023, we will begin to operate Line 6 Finch West between Humber College and Finch West Station. More than 20 bus routes will connect at 18 new stations. The new light rail service will reduce travel times and make service more comfortable for customers living in the Neighbourhood Improvement Areas it serves.

## 7.2 Long-term improvements

Beyond these near-term rapid transit improvements, there are planned improvements to the streetcar network and rapid transit over the next 10 years.

The streetcar network will grow with a number of new expansion projects that will necessitate additional streetcars, a new facility and modifications to existing terminals and loops.

Several key streetcar projects would improve service along Toronto's waterfront. These include improvements to the streetcar loop at Union Station; extension of streetcar service east along Queens Quay to the East Bayfront area, and beyond; a new streetcar connection between Exhibition Loop and Dufferin Street, serving the GO and Ontario Line station; and future improvements in the Humber Bay, West Donlands and Portlands areas.

The rapid transit network will grow with a number of planned expansion projects requiring additional fleet and facilities and new connections to TTC surface routes.

Four provincial priority rapid transit projects are being planned, funded and delivered by the Province and would be operated by the TTC. These projects would expand the rapid transit network in Toronto.

### **Ontario Line**

This line would provide new rapid transit service between Eglinton and Don Mills and Exhibition Place, connecting with Line 5, Line 2, Line 1, the downtown core and the Lakeshore East and West GO lines. The line would provide vital relief to crowding on Line 1 and bring new rapid transit to many Toronto neighbourhoods

### **Line 1 Yonge Subway Extension**

This subway extension would extend Line 1 from Finch Station up to Highway 7. The project would expand the rapid transit network along the Yonge Street corridor and would improve connections to the TTC bus network.

### **Line 2 East Extension**

This subway extension of Line 2 would replace Line 3 Scarborough with a three-stop extension of Line 2 from Kennedy Station to McCowan Road and Sheppard Avenue. The project would expand the rapid transit network in Scarborough and would improve connections to the TTC bus network.

### **Line 5 Eglinton West Extension**

This extension of Line 5 Eglinton would extend service on the under-construction Eglinton line west of Mount Dennis Station to Renforth, and Pearson Airport. The project would expand the rapid transit network in Etobicoke. These projects will support the GTA's growth and build stronger regional connections.

There are a number of other surface and rapid transit projects in the planning stage that improve the speed, access and reliability for customers in the city and region.

### **SmartTrack/GO Expansion**

Up to 12 new GO Transit rail stations are planned to be built in Toronto. These stations would be served by more-frequent GO trains, would improve access to higher order transit and would offer excellent connections to TTC rapid transit, streetcar and bus services. Some of the stations would be funded by the City of Toronto as part of the SmartTrack project.

### **Line 5 Eglinton East Extension**

This extension of Line 5 Eglinton would extend service on the under-construction Eglinton line east of Kennedy Station to the University of Toronto Scarborough, Sheppard Avenue and the Malvern neighborhood. The project would expand the rapid transit network in Scarborough.

### **Durham-Scarborough Bus Rapid Transit**

This bus rapid transit corridor is currently being planned by Metrolinx and the Region of Durham. The project involves the provision of a higher order bus rapid transit facility along Highway 2 and Ellesmere Road to Scarborough Centre Station. The corridor would be used by TTC, Durham Region Transit and GO Transit buses.

### **Dundas Bus Rapid Transit**

This bus rapid transit corridor, which is currently being planned by Metrolinx and the City of Mississauga, involves the provision of a higher order bus rapid transit facility along Dundas Street through Mississauga to Kipling Station. The corridor would be used by MiWay, GO Transit and TTC buses.

### **Bloor-Yonge Capacity Improvement project**

This project would provide crucial upgrades to Bloor-Yonge Station, the busiest in the subway system. Expanding capacity and improving passenger circulation is required to safely accommodate future transit expansion and projected growth in demand. Other benefits of the project would include less frequent overcrowding, reduced train dwell time and support for more frequent trains on Line 1 and Line 2.

### **Airport Transit Hub**

The Greater Toronto Airports Authority (GTAA) plans to build a new Regional Transit Centre (RTC) at Toronto Pearson International Airport. TTC is working with the GTAA and other transit partners to plan and design the future requirements for transit connections at the RTC.

