

Supplementary Report: Cycling Network Plan - 2022 Cycling Infrastructure Installation and 2021 ActiveTO Cycling Network Expansion Project Updates

Date: April 5, 2022

To: City Council

From: General Manager, Transportation Services

Wards: 11 University-Rosedale and 12 Toronto-St.Paul's

SUMMARY

On March 29, 2022, the Infrastructure and Environment Committee requested the General Manager, Transportation Services to work with the Chief Executive Officer, Toronto Transit Commission, to compile all available data related to regular bus service and shuttle-bus service on Yonge Street during planned and unplanned Line 1 closures pre- and post-implementation of the ActiveTO Midtown Yonge Street Cycling Network Expansion project, and any other transit impacts, and to report directly to the April 6 and 7, 2022 meeting of City Council.

The following comments within this report provide information and data compiled directly from the Toronto Transit Commission.

FINANCIAL IMPACT

There is no financial impact arising from this report.

DECISION HISTORY

On March 29, 2022, the Infrastructure and Environment Committee requested the General Manager, Transportation Services to work with the Chief Executive Officer, Toronto Transit Commission, to compile all available data related to regular bus service and shuttle-bus service on Yonge Street during planned and unplanned Line 1 closures pre- and post-implementation of the ActiveTO Midtown Yonge Street Cycling Network Expansion project, and any other transit impacts, and to report directly to the April 6 and 7, 2022 meeting of City Council.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.IE28.7>

On March 20, 2022, the Infrastructure and Environment Committee recommended that City Council approve the continuation of the temporary ActiveTO 2021 Cycling Network Expansion Projects listed below to July 31, 2023, inclusive, in order to provide sufficient time for Transportation Services to undertake additional data collection, monitoring evaluation and report back with recommendations to Infrastructure and Environment Committee and Council prior to July 31, 2023 regarding these projects:

- a. Bayview Avenue: River Street to Front Street East (multi-use trail, Ward 13); and
- b. Yonge Street: Davisville Avenue to 100 m south of Bloor Street (cycle tracks, Ward 11 and 12).

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.IE28.7>

On April 7 and 8, 2021, City Council adopted recommendations from ActiveTO - Lessons Learned from 2020 and Next Steps for 2021. The ActiveTO temporary cycling network, in response to the COVID-19 pandemic, aims to allow people on bikes to move around Toronto safely, to better connect the city, and to mirror major transit routes.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.IE20.12>

In October 2020, City Council approved the report which provides an update on the work undertaken by the Toronto Office of Recovery and Rebuild (TORR), information on the response to COVID-19 by the City including coordination with our federal and provincial partners, and a roadmap towards recovery and rebuild. The report includes recommendations for areas necessary for effective recovery including municipal services that benefit the region, province and country, such as newcomer integration, poverty reduction, climate resilience, transportation and public transit.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.EX17.1>

In September 2020, City Council requested the City Manager to report to City Council on lessons learned from this year's CafeTO, CurbTO and ActiveTO programs, and, in consultation with residents and businesses, to include recommendations for modifications to these programs for 2021.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.EX16.27>

In April 2020, City Council requested the General Manager, Transportation Services and the Medical Officer of Health to pursue opportunities to provide, where possible and under the advice of public health and through the City-wide recovery planning process, more space for pedestrians, cyclists and public transit riders to allow for better physical distancing, and for the General Manager, Transportation Services to report back to City Council on the possibility of fast-tracking projects within the 10 Year Capital Plan for Vision Zero and cycling infrastructure.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.CC20.2>

COMMENTS

The following comments within this report provide information and data compiled directly from the Toronto Transit Commission:

The TTC focuses its efforts on our customers' experience while travelling, and that focus includes making trips as fast and efficient as possible, making trips as comfortable as possible by reducing crowding on vehicles and in stations, and making trips as seamless as possible. This approach is highlighted throughout the TTC's 2018 – 2022 Corporate Plan, Advancing to the Next Level, but specifically in Critical Path 3: Move more customers more reliably, and Critical Path 4: Making public transit seamless. It is also found in the TTC's Core Value, we value both the quality and quantity of time customers spend on the TTC.

With pre-pandemic (2019) weekday ridership on Line 1 Yonge-University at over 825,000, this line is the busiest rapid transit line in Canada and is one of the busiest in all of North America. Pre-pandemic weekend ridership on only the Yonge side of Line 1 is also significant, with Saturday ridership at 285,000 customers and Sunday ridership at 207,000.

As a result of ongoing maintenance projects impacting Line 1, to improve reliability, increase capacity, improve system accessibility, and expand the network, the TTC must periodically suspend rail service along portions of the line and use shuttle buses to keep our customers moving. In 2022, for Line 1 the TTC has planned 27 full weekend closures (a section of the line is closed for two days from end of service Friday night to the start of service on Monday morning) and 104 nights (a section of the line is closed early, at 11 p.m. on weeknights, Monday to Thursday) to support those projects. The remainder of the 2022 Line 1 subway closure plan is reflected in Table 1. As shown, 15 full weekend and 3 full day closures affect the Yonge side of Line 1, and as a result, shuttle buses will be required to operate in the Lawrence to St. Clair corridor of Yonge Street.

In addition to the planned use of shuttle buses along this corridor, there are serious incidents that occur on the line that result in rail service suspension and the use of shuttle buses in an unplanned capacity. So far in 2022, these incidents have impacted the Lawrence to St. Clair portion of Line 1 six times, and there were 28 such incidents in 2021 and 20 in 2020.

TABLE 1 – Line 1 Planned Closures April 2022 to December 2022

Month	Location	Closure Type	From	To	Days
April	Lawrence to St Clair	FULL WEEKEND	2-Apr-22	3-Apr-22	2
	Spadina to King*	EARLY ACCESS	4-Apr-22	7-Apr-22	4
	Lawrence to St Clair	FULL WEEKEND	9-Apr-22	10-Apr-22	2
	Spadina to King*	EARLY ACCESS	11-Apr-22	14-Apr-22	4
	Lawrence to St Clair	SINGLE FULL DAY	16-Apr-22	16-Apr-22	1
	King to Osgoode*	EARLY ACCESS	18-Apr-22	21-Apr-22	4
	Lawrence to St Clair	FULL WEEKEND	23-Apr-22	24-Apr-22	2
	Finch West to Lawrence West*	EARLY ACCESS	25-Apr-22	28-Apr-22	4

Month	Location	Closure Type	From	To	Days
	Lawrence to St Clair	SINGLE FULL DAY	30-Apr-22	30-Apr-22	1
	Lawrence to St Clair	SINGLE FULL DAY	7-May-22	7-May-22	1
	Lawrence to St Clair	FULL WEEKEND	21-May-22	22-May-22	2
	Finch to St Clair	FULL WEEKEND	28-May-22	29-May-22	2
	Lawrence to St Clair	FULL WEEKEND	4-Jun-22	5-Jun-22	2
	Eglinton to Bloor	EARLY ACCESS	6-Jun-22	9-Jun-22	4
	Lawrence to St Clair	FULL WEEKEND	11-Jun-22	12-Jun-22	2
	Eglinton to Bloor	EARLY ACCESS	13-Jun-22	16-Jun-22	4
	Eglinton to Bloor	EARLY ACCESS	20-Jun-22	23-Jun-22	4
	Sheppard West to St Clair West*	EARLY ACCESS	27-Jun-22	30-Jun-22	4
	Sheppard West to St Clair West*	EARLY ACCESS	4-Jul-22	7-Jul-22	4
	Lawrence to St Clair	FULL WEEKEND	9-Jul-22	10-Jul-22	2
	Sheppard West to St Clair West*	EARLY ACCESS	11-Jul-22	14-Jul-22	4
	Lawrence to St Clair	FULL WEEKEND	16-Jul-22	17-Jul-22	2
	Sheppard to St Clair	FULL WEEKEND	23-Jul-22	24-Jul-22	2
August	Lawrence to St Clair	FULL WEEKEND	13-Aug-22	14-Aug-22	2
	Sheppard West to Wilson*	FULL WEEKEND	20-Aug-22	21-Aug-22	2
	Finch to St Clair	FULL WEEKEND	27-Aug-22	28-Aug-22	2
September	Finch to St Clair	FULL WEEKEND	17-Sep-22	18-Sep-22	2
	Finch to Eglinton*	EARLY ACCESS	19-Sep-22	22-Sep-22	4
	Finch to St Clair	FULL WEEKEND	24-Sep-22	25-Sep-22	2
	Finch to Eglinton*	EARLY ACCESS	26-Sep-22	29-Sep-22	4
October	Bloor to Osgoode	EARLY ACCESS	3-Oct-22	6-Oct-22	4
	Bloor to Osgoode	EARLY ACCESS	11-Oct-22	13-Oct-22	3
	Finch to Eglinton*	EARLY ACCESS	17-Oct-22	20-Oct-22	4
	Finch to St Clair	EARLY ACCESS	24-Oct-22	27-Oct-22	4
November	Finch to Eglinton*	EARLY ACCESS	21-Nov-22	24-Nov-22	4
	Sheppard to Eglinton*	FULL WEEKEND	26-Nov-22	27-Nov-22	2
December	Finch to Eglinton*	EARLY ACCESS	5-Dec-22	8-Dec-22	4
	Finch to Eglinton*	EARLY ACCESS	12-Dec-22	15-Dec-22	4

* Not operating in the ActiveTO Midtown Pilot zone

The TTC has compiled data on travel times through this corridor, including one weekend prior to the installation of the ActiveTO bicycle lanes between Davisville and St. Clair, and five since its implementation.

TABLE 2 - Shuttle Bus Travel Times between Lawrence and St. Clair Stations and City of Toronto Travel Time Index Data

Date	Southbound Average Travel Time (min:seconds)	Northbound Average Travel Time (min:seconds)	Weekend Midday TTI	COVID-19 Pandemic Restrictions Status
Nov. 28-29, 2020 (Before ActiveTO)	19:02	15:45	1.058	Grey-Lockdown
Feb. 27-28, 2021 (Before ActiveTO)	16:15	15:23	1.050	Stay-at-Home-Order
Pre-Implementation Average	17:39	15:34	1.054	
Jul. 17-18, 2021	21:42	22:46	1.180	Step 3 Reopening
Aug. 28-29, 2021	18:23	22:28	1.290	Step 3 Reopening
Sept. 25-26, 2021	18:25	17:32	1.289	Step 3 Reopening
Oct. 23-24, 2021	18:02	16:33	1.266	Step 3 Reopening
Mar. 12-13, 2022	18:09	17:12	1.168	Phase 2 Reopening
Sept 2021- March 2022 Average	18:12	17:05	1.241	

As shown in Table 2, there was a significant increase in shuttle bus travel times when comparing July 17-18, 2021 (post-implementation) and pre-implementation data from November 28-29, 2020 & February 27-28, 2021. Average southbound travel time increased 23% from pre-implementation (17:39 to 21:42), while average northbound travel time increased 46% (15:34 to 22:46). The TTC identified that congestion appears to build most significantly at the intersection of Yonge St. and St. Clair Ave., and as a result, initiated efforts to improve travel times by using an alternate routing along Davisville and Mt. Pleasant for approximately half of the southbound shuttle bus trips. Travel times have improved through the corridor in subsequent subway closures. Since September 2021, average travel times appear to have stabilized with southbound travel times 3% higher than the pre-implementation average with northbound travel times 10% higher than the baseline.

With the limited data available, analysis to date has focussed on the average travel times. Averages are imperfect in measuring effects like this on customers, as they mask the extreme cases of longer travel time that occur throughout a weekend. During the busiest times on Saturdays and Sundays, extremely long delays to transit customers are observed, especially as buses navigate the Yonge-St Clair intersection. These delays contribute to poor customer service for customers and increase the likelihood that customers will avoid travelling on Line 1, or on the TTC, when there is a subway closure. Further work will be done to examine travel time data on a more detailed basis.

Closing part of the subway and requiring customers to use shuttle buses, while done with careful planning and customer service, is an inconvenience for transit customers, as it lengthens their travel time and makes the trip less convenient. Minimizing this inconvenience is very important to TTC customers, and the best way of doing this is keeping the travel time on the shuttle buses as short, and as consistent, as is possible, to ensure that the service is as good as it can be. Longer travel time on the bus, especially while customers are stuck in traffic delays, results in worse customer experience and will, over time, reduce TTC ridership on the subway when trains are replaced with buses.

The increase in shuttle bus travel times cannot be taken in isolation, however. The TTC has also consulted the City of Toronto Travel Time Index (TTI) to understand the impact of traffic congestion on shuttle bus travel times. The TTI helps track congestion using values, and as an example, a value of 1.3 represents average travel times that are 30 per cent higher than conditions in which there are no cars on the road. As reflected in Table 2, when reviewing the City of Toronto Travel Time Index, overall levels of traffic congestion across the City increased when comparing pre-implementation to July 17-18, 2021 and the subsequent subway closure weekends. This data is for the weekend midday (11 a.m. to 7 p.m.) average for both Saturday and Sunday on the weekends noted.

Average travel time for journeys according to the TTI increased by 12% between the pre-implementation and July 17-18, 2021 closures, however the travel times for shuttle buses in the Lawrence to St. Clair corridor increased by between 23% and 46%.

Meanwhile, average travel time for journeys according to the TTI increased by 18% from pre-implementation to the three closure weekends analyzed since September. However, the travel times for shuttle buses in the Lawrence to St. Clair corridor increased by between 3% and 10%.

The TTC is working with Transportation Services to isolate the Yonge St. corridor and its changes in congestion weekend to weekend, but at this time that data is not available.

The number of customers impacted by these subway closures, and the use of shuttle buses along the corridor, has also changed for the subject weekends. For the closure dates, the TTC estimated the following Shuttle Bus and Line 1 – Yonge (i.e. Yonge Only) boardings in Table 3. During the November 28-29, 2020 closure, the bus shuttles served 33,000 customers per day. However due to the public health situation with respect to COVID-19, the number of customers served during the February 27-28, 2021

closure was lower with 25,000 customers per day using the shuttles for a closure that extended north to Finch. Since February 2021, demand across the system has steadily increased as a result of the improving public health situation with respect to COVID-19. The bus shuttles returned to serving about 35,000 customers per day between July and September 2021, and increased to over 42,000 per day most recently.

When we link the customer boarding data with the travel time data, we conclude that 34,700 TTC customers experienced shuttle bus trip times during the July 17-18, 2021 weekend that were (on average) 4:03 to 7:12 slower than the pre-implementation closure weekends. Most recently, during the March 12-13 closures about 42,000 customers experienced travel times that were 0:30 to 1:38 slower than the pre-implementation closure weekends.

TABLE 3 – TTC Ridership on Line 1 Yonge

Customer Boardings	Closure Limits	Total Line 1 Shuttle Bus Boardings			Total Line 1 Yonge (Subway + Shuttle Bus) Boardings		
		Sat	Sun	Avg	Sat	Sun	Avg
Nov. 28-29, 2020 (Before ActiveTO)	Lawrence to St Clair	33,800	32,600	33,200	109,000	97,000	103,000
Feb 27-28, 2021 (Before ActiveTO)	Finch to St Clair	28,400	20,000	24,200	69,000	52,000	60,500
July 17 – 18, 2021	Lawrence to St Clair	38,400	31,000	34,700	146,000	122,000	134,000
August 28 -29, 2021	Lawrence to St Clair	39,900	28,800	34,350	170,000	122,000	146,000
September 25 – 26, 2021	Lawrence to St Clair	39,700	30,700	35,200	172,000	129,000	150,500
October 23-24, 2021	Finch to St Clair	51,400	38,300	44,850	166,000	118,000	142,000
March 12-13, 2022	Lawrence to St Clair	50,300	34,400	42,350	168,000	114,000	141,000

TTC is supportive of improved active transportation options, which will allow people to move about the city without having to use a private vehicle. However, the provision of active transportation has to be carefully balanced against the effects on surface transit operations, especially at this time as we try to reacquire lost ridership as a result of the pandemic. In the case of Yonge Street, north of St Clair Avenue, the large number of planned subway shuttle bus operations means that maintaining excellent travel times for transit customers in buses is important to ensure that transit service on this key corridor is kept as attractive as possible.

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