

5 | Moving to 2020 YRT/Viva Strategic Plan Update

Moving to 2020 is YRT/Viva's 2016-2020 Strategic Plan that sets the direction for changes in the YRT/Viva network. As York Region grows, YRT/Viva service must adapt to the population it serves, and adjust where and how transit services should be provided in order to improve public transit in York Region.

As YRT/Viva moves through the GTA Rapid Transit Integration phase of the Transit Life Cycle, service will undergo significant network expansion and improvements that will better integrate transit services within York Region and the GTA.

5.1 | Viva Network Expansion Plan

Service reliability and travel times across the Viva network will be improved by implementing the Viva Network Expansion Plan (VNEP). The VNEP objectives are to enhance rapid transit service through construction of dedicated rapidways, and to expand the rapid transit network through implementation of new service. Enhanced and new/restructured services are planned along Yonge Street, Major Mackenzie Drive, Leslie Street, Jane Street, and Highway 7.

The Viva network in 2020 is shown in **Figure 3**. The timing of rapidway construction and service changes to the Viva routes are summarized in **Figure 4**.

Figure 3: Viva Network Expansion Plan

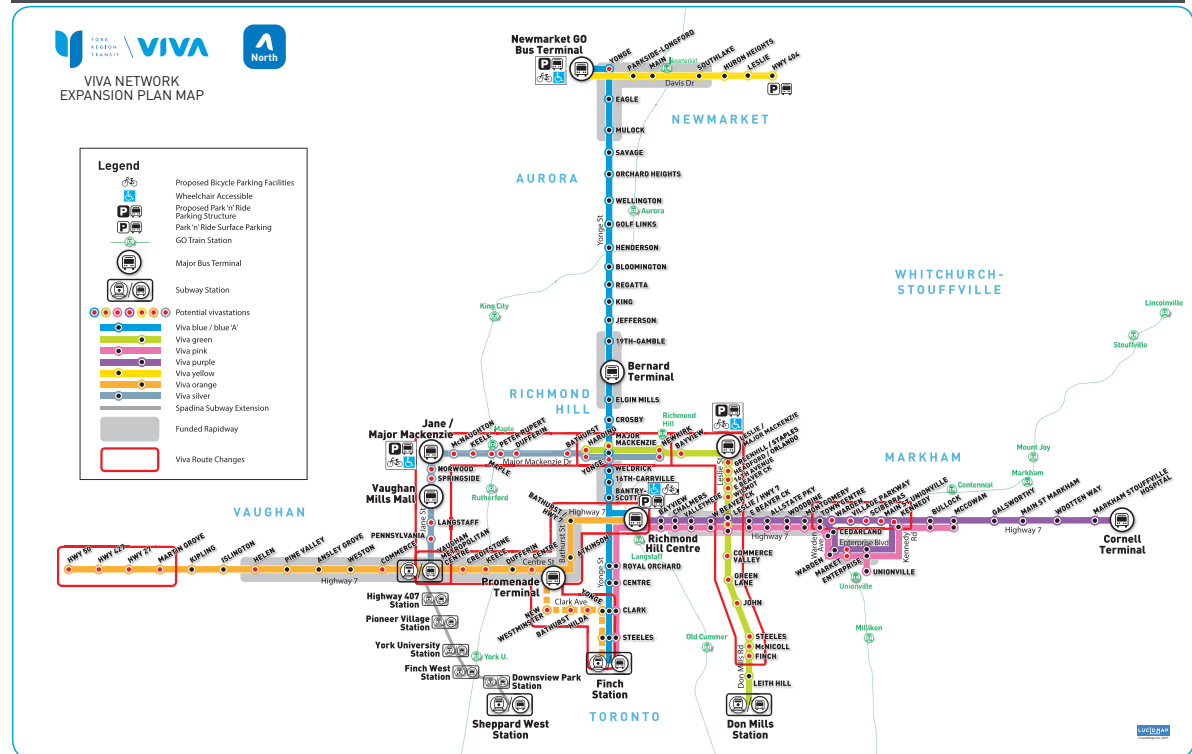
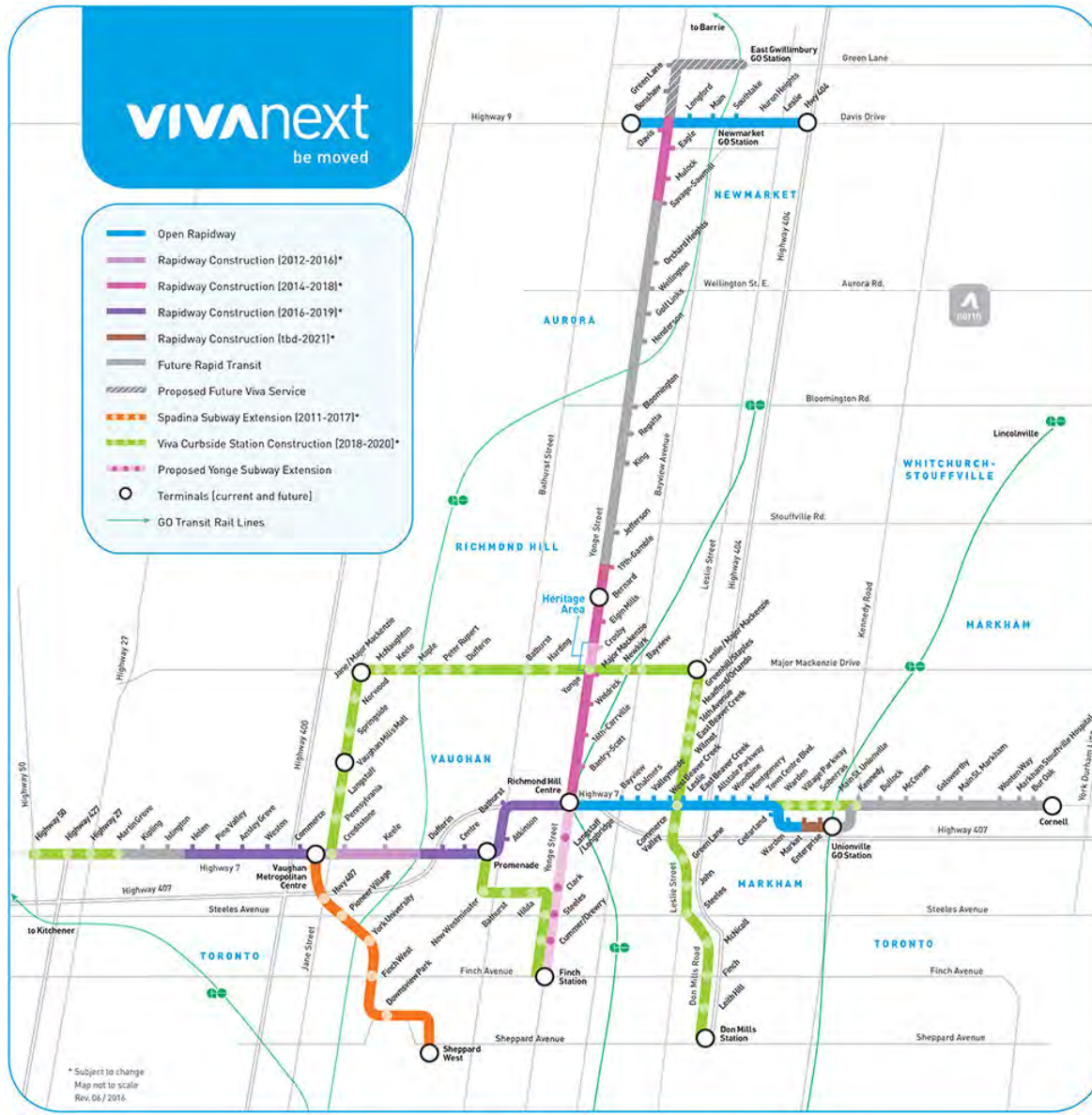


Figure 4: Viva Rapid Transit Network



Viva blue (Yonge Street)

From 2017 to 2018, Viva blue will continue current operation of two branches along Yonge Street, with one branch operating between Finch GO Bus Terminal and Newmarket GO Bus Terminal, and a second branch operating between Finch GO Bus Terminal and Bernard Terminal. Viva blue “A” operates in peak directions during weekday rush hours only, running southbound in the morning and northbound in the afternoon, between Newmarket GO Bus Terminal and Finch GO Bus Terminal, bypassing Richmond Hill Centre Terminal.

By 2019, rapidway construction on Yonge Street will be complete. Viva blue will operate in rapidways between Highway 7 and 19th Avenue/Gamble Road, and between Mulock Drive and Davis Drive.

Viva purple (Highway 7 East)

In 2017, Viva purple will continue current operations between York University and Markham Stouffville Hospital, along the completed rapidways on Highway 7 between Bayview Avenue and Warden Avenue.

Upon opening of the Spadina Subway extension, Viva purple will be restructured to operate between Richmond Hill Centre Terminal and Markham Stouffville Hospital. Viva orange will be restructured to serve Highway 7, west of Richmond Hill Centre Terminal. Existing Viva purple service between York University and Richmond Hill Centre Terminal will be replaced by a conventional service, the York University Shuttle.

By 2018, Viva purple will be restructured to operate two branches of service between Town Centre Boulevard and Kennedy Road. While the current branch operates along Enterprise Boulevard, a new branch will be added along Highway 7. Viva purple will operate only on the Highway 7 branch during weekday rush hours, and will alternate between the Highway 7 and Enterprise Boulevard branches at all other times. Viva purple will also be extended from Markham Stouffville Hospital to the Cornell Terminal when construction is complete in 2018.

Viva pink (Yonge and Highway 7 East)

From 2017 to 2019, Viva pink will continue current operations between Finch GO Bus Terminal and Unionville GO Station, along the completed rapidways on Highway 7 between Bayview Avenue and Warden Avenue.

In 2020, Viva pink will be extended eastward to operate between Finch GO Bus Terminal and Highway 7/McCowan Road, along Enterprise Boulevard.

Viva orange (Highway 7 West)

Prior to the opening of the Spadina Subway extension, Viva orange will continue current operations between Martin Grove Road and York University, with a weekday rush hour branch operating between York University and Downsview Subway Station.

Prior to the opening of the Spadina Subway extension, a new branch of Viva orange will operate between Martin Grove Road and Promenade Terminal, along the completed rapidways on Highway 7 West, between Edgeley Boulevard and Bowes Road. Upon opening of the Spadina Subway extension, the York University branch will be restructured to operate between Martin Grove and Richmond Hill Centre Terminal.

In 2019, Viva orange will operate along the completed rapidways on Highway 7 from Edgeley Boulevard to Yonge Street. Viva orange will be extended to operate between Highway 50 and Richmond Hill Centre Terminal, with a branch operating between Highway 50 and Finch GO Bus Terminal.

Viva green (Leslie Street/Major Mackenzie Drive)

From 2017 to 2019, Viva green will continue current operations between Don Mills Subway Station and Highway 7/McCowan Road, during weekday rush hours only.

In 2020, Viva green will be restructured to operate along the Leslie Street and Major Mackenzie Drive corridors. Viva green will operate all day service on Leslie Street between Don Mills Subway Station and Major Mackenzie Drive, and on Major Mackenzie Drive between Leslie Street and Yonge Street. The route will operate in mixed traffic with transit priority measures and curbside vivastations.

Viva silver (Jane Street/Major Mackenzie Drive)

In 2019, a new service will be implemented along the Jane Street and Major Mackenzie Drive corridor. Viva silver will operate all day between Vaughan Metropolitan Centre and Richmond Hill GO Station. The route will operate in mixed traffic with transit priority measures, and curbside vivastations.



Cornell Terminal

The Cornell Terminal is being constructed near Highway 7 and 9th Line in Markham.

The terminal is being built to facilitate connections between YRT/Viva routes and future connections with Durham Region Transit and GO Transit bus service. The facility will act as the eastern terminus for YRT/Viva routes.

In 2017, route alignments will be reviewed to restructure service into the terminal. Detailed service plans will be included under the 2018 Annual Service Plan.

Construction Mitigation

During construction of the rapidways along Highway 7 West in Vaughan, and along Yonge Street in Richmond Hill and Newmarket, YRT/Viva services will be monitored to ensure continued reliability.

Management of construction impacts may include the following measures:

- > Operational adjustments in construction corridors
- > Operation of additional fleet along construction corridors to maintain frequency
- > Adjustments to scheduled travel times to reflect on-street conditions

Implementation schedule, fleet requirements, and annual difference in hours and cost for VNEP are shown in **Table 8**.

Table 8: VNEP Annual Operating Cost and Fleet Projections

Route	Peak Fleet Difference	Annual Hours Difference	Annual Cost Difference (\$)
2017			
orange (Martin Grove to Promenade)	6	36,169	\$3,616,900
Sub-Total	6	36,169	\$3,616,900
2018			
purple (to Richmond Hill Centre Terminal)	-10	-44,971	-\$3,372,825
orange (Martin Grove to Richmond Hill Centre Terminal)	-1	2,498	\$187,350
purple (Hwy 7 branch between Town Centre Blvd and Kennedy Rd)	0	0	\$0
Sub-Total	-11	-42,473	-\$3,185,475
2019			
orange (Finch station to Hwy 50)	5	46,599	\$4,659,900
silver	10	59,066	\$5,906,600
Sub-Total	15	105,665	\$10,566,500
2020			
green	3	24,697	\$2,469,700
pink (extension to McCowan Rd)	2	4,564	\$456,400
Sub-Total	5	29,261	\$2,926,100
Grand Total	15	128,622	\$13,924,025

As of July 2016

5.2 | Spadina Subway Transit Strategy

The TTC Spadina Subway extension is planned to be operational by year-end 2017, extending the existing Spadina Subway northwards by 8.6 kilometres from Downsview Station to the Vaughan Metropolitan Centre in York Region, as shown in **Figure 5**.

This extension brings high-capacity, frequent transit service into the Region, seamlessly crossing the municipal boundary between York Region and Toronto. YRT/Viva bus routes will be restructured to support connections to the three new subway stations (Pioneer Village Station, Highway 407 Station, and the Vaughan Metropolitan Centre Station), along with York University.

Upon opening of the Spadina Subway extension, the YRT/Viva network will be restructured to provide integrated service along, and connecting to, the subway. The integration will focus on route directness, service frequency, and ease of fare payment. Proposed route changes are shown in **Table 9**. Additional fleet, and annual difference in hours and costs are shown in **Table 10**.

Figure 5: Spadina Subway Extension

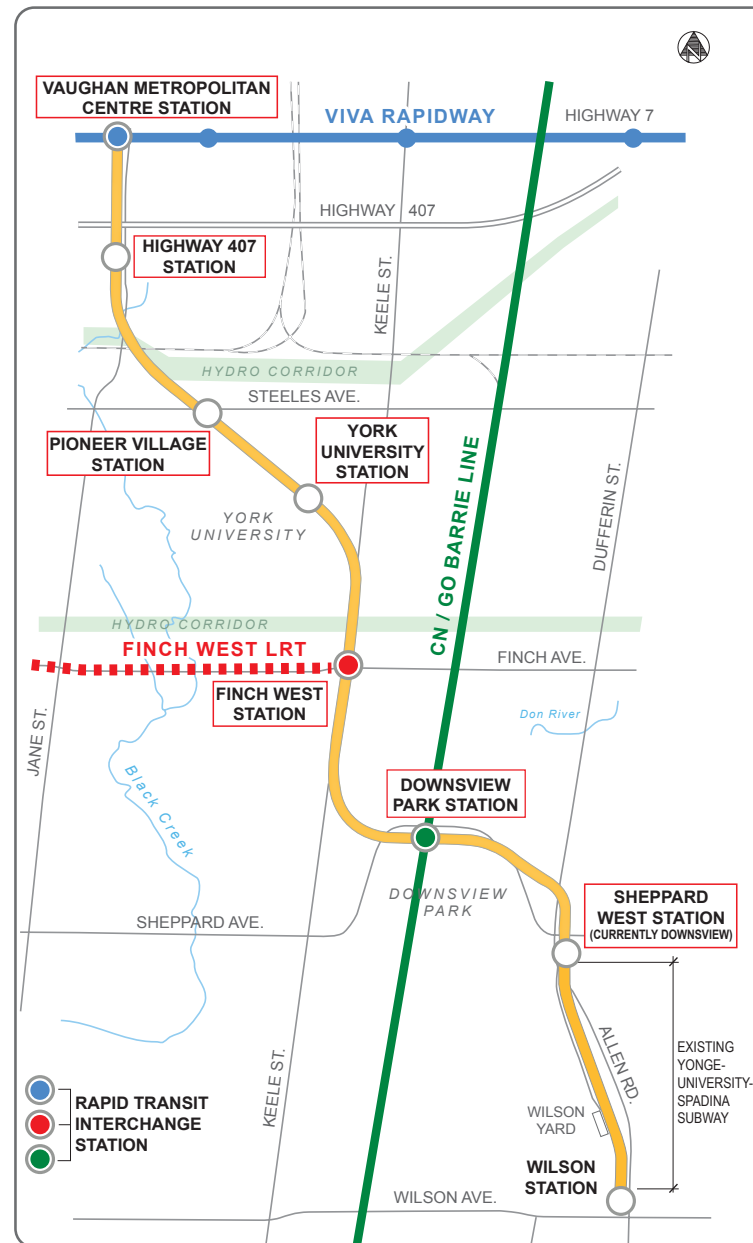


Table 9: Restructured Routes under the SSTS

Route	Subway Station Connection	Restructuring
3 – Thornhill	Pioneer Village	Restructure to service Pioneer Village Station
10 – Woodbridge	VMC	Discontinue portion south of Highway 7; restructure to service VMC Station
20 – Jane	Pioneer Village, Highway 407, VMC	Restructure to service Pioneer Village Station, Highway 407 Station, and VMC Station
22A – King City	Pioneer Village	Restructure to service Pioneer Village Station
26 – Maple Local	VMC	Restructure to service VMC Station
TTC 35D – Jane	VMC	Assume service from TTC; restructure to serve lands adjacent to VMC Station
77 – Highway 7	VMC	Maintain existing routing; stop on-street at VMC Station
101 – York U Shuttle	Pioneer Village	New conventional service from Richmond Hill Centre Terminal to York University (as per VNEP)
TTC 105 – Dufferin	Pioneer Village	Assume service from TTC; restructure to service Pioneer Village Station
TTC 107 – Keele	Pioneer Village	Assume service from TTC; restructure to service Pioneer Village Station
TTC 165 – Weston	Pioneer Village	Assume service from TTC; restructure to service Pioneer Village Station
360 – Vaughan Express	N/A	Discontinue service
Viva purple	N/A	Discontinue service to York University (as per VNEP)
Viva orange	VMC	Discontinue service to York University (as per VNEP)

Table 10: SSTS Annual Operating Cost and Fleet Projections*

Route	Peak Fleet Difference	Annual Hours Difference	Annual Cost Difference (\$)
3 – Thornhill	0	30	\$3,042
10 – Woodbridge	0	1,066	\$106,645
20 – Jane	0	246	\$24,608
22A – King City	0	25	\$2,510
26 – Maple Local	0	39	\$3,920
TTC 35D – Jane	2	-2,284	-\$228,400
77/77A – Highway 7	0	0	\$0
101 – York U Shuttle	8	22,226	\$2,222,600
TTC 105 – Dufferin	5	6,388	\$638,756
TTC 107 – Keele	8	10,948	\$1,094,768
TTC 165 – Weston	5	8,387	\$838,652
360 – Vaughan Express	-2	-3,707	-\$278,025
Total	26	43,364	\$4,429,075

*As of July 2016

5.3 | Frequent Transit Network

YRT/Viva 2016-2020 Strategic Plan identifies the development of a Frequent Transit Network (FTN). Customers can expect reliable services that are so frequent they do not need to use a schedule.

The FTN will consist of Viva and Base services along key corridors in the urban areas of the Region. The ultimate vision is that the FTN would operate at frequencies of 15 minutes or less, seven days a week, from 6 a.m. to 10 p.m., and that it would be complemented by other Local, Express, Shuttle and Community bus services.

The Frequent Transit Network will be implemented in multiple phases. The initial phase of the FTN implementation will include 15 minute service during weekday rush hours. The FTN for 2020 is shown in **Figure 6**.

The process for transitioning the existing services to the FTN will involve expanding the current Viva network and redefining base services into a core network of major travel corridors. Routes were selected for inclusion under the FTN using the following factors: route ridership; the relationship of the route to the Viva Network Expansion Plan (VNEP); the opening of the Spadina Subway extension; and the Regional Express Rail (RER) network and connection to GO Stations.

As VNEP is implemented and Viva service is developed on new corridors, the frequency on base routes will be reduced to remove duplicated service.

Figure 6: Frequent Transit Network in 2020

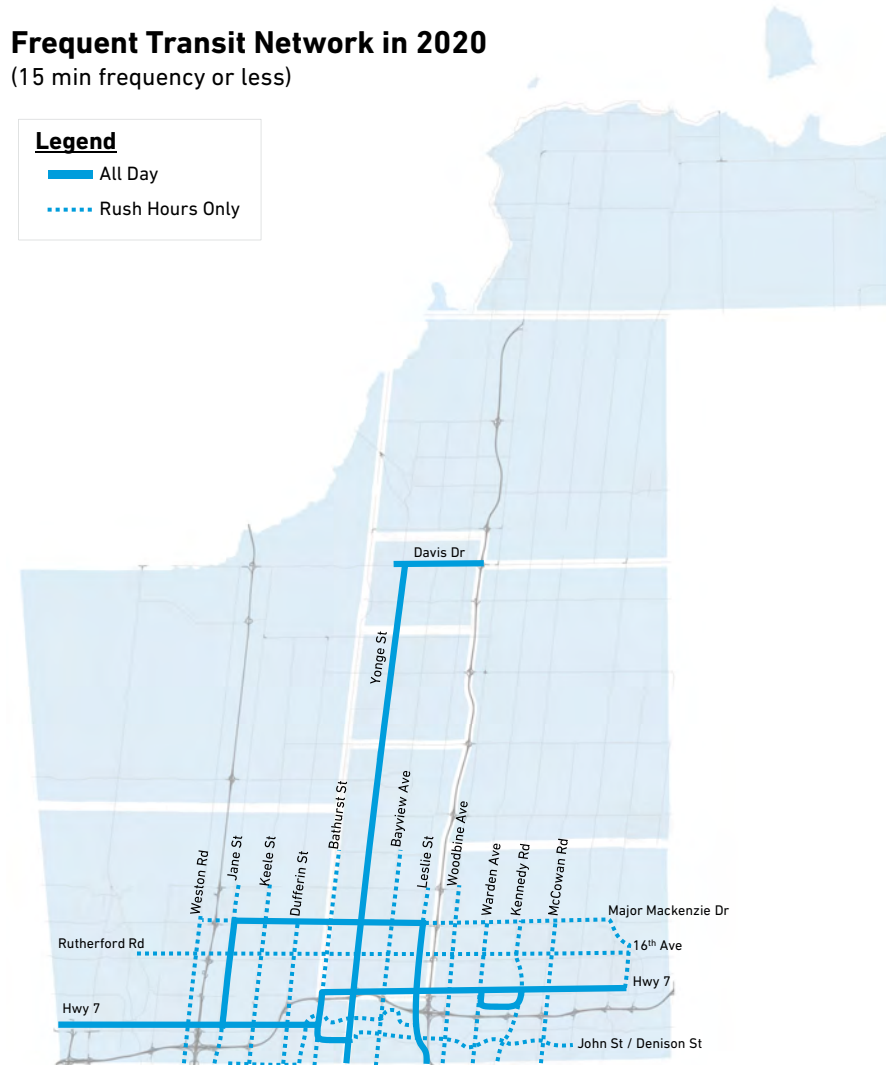


Table 11: Frequent Transit Network Annual Operating Costs and Fleet Projections

Route	Annual Difference		
	Fleet	Hour	Cost
2 - Miliken	2	3,853	\$376,642
3 - Thornhill	6	10,926	\$1,092,603
4 - Major Mackenzie(reduction)	-2	-3,792	-\$379,219
8 - Kennedy^	0	0	\$0
16 - 16th Avenue	5	7,474	\$739,773
20 - Jane (reduction)	-1	-1,468	-\$146,751
24 - Woodbine	4	7,028	\$702,800
25 - Major Mackenzie	5	9,026	\$902,554
68B - Warden	2	2,513	\$409,101
85/85C - Rutherford	0	1,780	\$163,585
88 - Bathurst ^	0	0	\$0
91/91A/91B/91E - Bayview^	0	0	\$0
105/105B - Dufferin North ^	0	0	\$0
107C - Keele North	1	3,012	\$496,980
129A - McCowan North ^	0	1,004	\$165,660
165 - Weston Rd. North	2	3,765	\$621,225
Sub-Total	24	45,120	\$5,144,953
Contingency	3	4,512	\$514,495
Total	27	49,632	\$5,659,449

Note:

As of July 2016

^ Peak frequency currently operates at 15 minutes or better