



STAFF REPORT ACTION REQUIRED

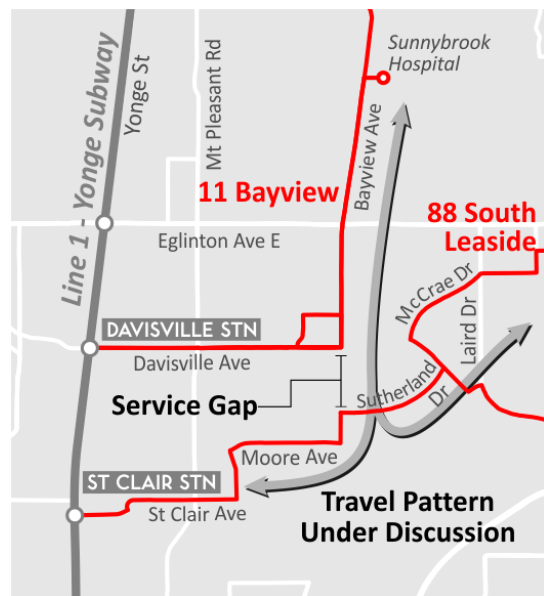
Community Request for Continuous Bus Service on Bayview Avenue

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|--------------|-------------------------|
| Date: | June 22, 2015 |
| To: | TTC Board |
| From: | Chief Executive Officer |

Summary

This report is in response to long-standing community requests for continuous transit service on Bayview Avenue, south of Davisville Avenue to facilitate travel between South Leaside and the commercial section of Bayview Avenue, between Davisville and Eglinton Avenues, and Sunnybrook Hospital. This is shown in the adjacent drawing. Three different routing options have been evaluated that would introduce continuous transit service along Bayview Avenue:

1. Operate the 11 BAYVIEW route to St Clair Station instead of Davisville Station; or
2. Switch the subway connections of the 11 BAYVIEW and 88 SOUTH LEASIDE routes, so that the 11 BAYVIEW route would operate to St Clair Station and the 88 SOUTH LEASIDE route would operate to Davisville Station; or
3. Operate a new route from St Clair Station north along Bayview Avenue to Sunnybrook Hospital, and make no changes to existing routes.



The options have all been evaluated against the TTC’s Service Standards. The effects on customers of all aspects of these options have been identified and quantified, and have been evaluated in a comparative manner illustrate and quantify the degree of benefit or inconvenience to customers. Where necessary, ridership changes on new services have been projected. The change in the cost of operating the services, if any, have also been determined.

Overall, the first two options would make service worse for customers, because the projected inconveniences to customers of the service changes would outweigh the projected benefits. The third option would satisfy the service objectives of the community, with no negative effects on existing customers. It would result in an increase in operating costs, and a duplication of service along Bayview Avenue. Very few new customers would be attracted, and the service would not meet the TTC's financial performance standards.

For these reasons, none of the three options are recommended for implementation.

A full description of all of the options and their effects on customers is presented in the appendix to this report.

It is worth noting that, as part of the report *More Off-Peak Service: Expansion of All-Day, Every-Day Network*:

http://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2015/May_27/Reports/More_Off_Peak_Service_Expansion_of_All_Day_Every_Day_Network.pdf

which was approved by the Board at its May 27, 2015 meeting, new service will be operated on the 28 BAYVIEW SOUTH route all day from Monday to Friday, and in the evening on Saturday, Sunday, and holidays. This change is part of the TTC's budgeted service improvements which are being introduced in late 2015 and early 2016.

Because this change requires two additional buses in the peak periods, it will be implemented in mid-2016, once additional peak buses are available. This new all-day, every-day service will provide continuous service on Bayview Avenue, as far south as the Evergreen Brick Works, will fill in the gap on Bayview Avenue that has no transit service, and will reduce the number of transfers required for some, but not all customers wanting to travel along the Bayview Avenue corridor.

Recommendations

It is recommended that the Board:

1. Endorse the decision of staff, based on the evaluations set out in this report, noting that the approved all-day every-day service on the 28 BAYVIEW SOUTH route, which will begin in 2016, will resolve the issue of a gap in transit service along Bayview Avenue, between Davisville Avenue and Sutherland Drive but not fully address the stated travel objective of residents in South Leaside.

Financial Impact

This report has no effect on the TTC's operating or capital budgets.

Decision History

In 2013, then-Councillor John Parker requested that the TTC examine ways of providing a more-direct connection for residents in the South Leaside area to the shops on Bayview Avenue and to Sunnybrook Hospital. Similar requests have also been received directly by the TTC from customers. In early 2015, Councillor Jon Burnside of Ward 26 Don Valley West made a similar request and asked TTC staff to re-examine the matter. TTC staff met with Councillor Burnside and with TTC customers from the community on February 26, 2015 to discuss the matter.

Issue Background

The 11 BAYVIEW bus route currently operates between Davisville Station on Line 1 (Yonge-University) and Steeles Avenue via Sunnybrook Hospital. Buses on the 88 SOUTH LEASIDE route operate between St Clair Station on Line 1, the South Leaside area, and Thorncliffe Park. This current route configuration leaves the section of Bayview Avenue, south of Davisville Avenue, with no continuous transit service and, between Davisville Avenue and Sutherland Drive, no transit service at most times of the week. Residents in the South Leaside or the Bennington Heights areas, heading north on Bayview Avenue, have to either walk to the stop on Bayview Avenue at Davisville Avenue to catch the 11 BAYVIEW bus, or take the 88 SOUTH LEASIDE bus to St Clair Station, transfer to a northbound Line 1 train, and then alight at Davisville Station to get on the 11 BAYVIEW bus to travel north on Bayview Avenue, or at Lawrence Station to get the 124 SUNNYBROOK route. In both cases, two transfers are required.

Currently, there is a limited direct service along Bayview Avenue, south of Davisville Avenue, provided by the 28 BAYVIEW SOUTH route. Saturday daytime service on this route was introduced in the summer of 2008 as a seasonal service to the Evergreen Brick Works at 550 Bayview Avenue. Sunday daytime service was introduced in the summer of 2011. Ridership is high enough on both the Saturday and Sunday services that they have been operated year-round, on a trial basis, since 2014. As noted earlier in the report, additional periods of operation on this route, so that it operates all day, every day, were approved by the Board in May 2015, to start in 2016 when two additional peak buses are available.

The present route network has been in place for many years, and has been substantially unchanged in these neighbourhoods since the Yonge Subway opened. The bus route network was developed to get customers to the subway in the fastest, most-direct way possible, and to efficiently and effectively serve local travel along the way. The 88 SOUTH LEASIDE route goes south to St Clair Station, as most of the subway-bound riders on this route are headed southbound on the subway. Operating north to Davisville Station would take these customers out of their way. The 11 BAYVIEW route operates to Davisville Station as this is a fast and most-direct connection from the busy commercial part of Bayview Avenue while, at the same time, providing frequent high-capacity bus service to the high-density residential areas along Davisville Avenue. The gap in service along Bayview Avenue, between Davisville Avenue and Sutherland Drive, is primarily

because this area is adjacent to Mount Pleasant Cemetery, so there is only limited development and ridership demand from the east side of the street.

Changes to the routes along Bayview Avenue have been evaluated several times. In the early 1990s, changes were made to service on Bayview Avenue north of Davisville Station. South of Davisville Avenue, with the exception of the new 28 BAYVIEW SOUTH route, no changes have been identified over the years that would make service better, overall, for customers.

Accessibility Issues

All TTC bus services are operated using accessible, low-floor buses, so the recommendations in this report have no accessibility issues. The gap in continuous all-day every day transit service along Bayview Avenue, between Davisville Avenue and Sutherland Drive, poses a challenge for people with disabilities, as they have a lengthy walk to their nearest bus service.

Analysis

In order to evaluate the benefits and inconveniences of the suggested changes, TTC staff examined the current ridership data and the levels of service on both the 11 BAYVIEW and 88 SOUTH LEASIDE routes. Origin-destination information from the most-recent Tomorrow Transportation Survey (TTS) was also used, to determine the typical travel patterns of customers, and to help project future ridership on the proposed route changes.

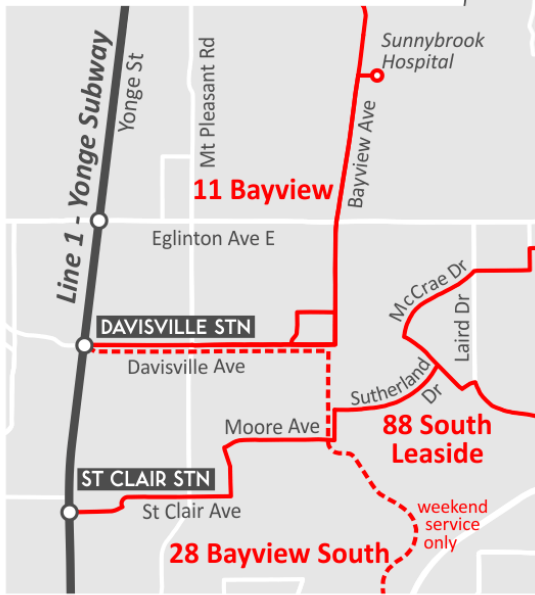
The options are illustrated in the graphic on the following page. They have all been evaluated against the TTC's Service Standards, which say, in simple terms, changes to services should be made only if they will result in a net benefit or improvement to customers. The effects on customers of all aspects of these options have been identified and quantified, and have been evaluated in a consistent, weighted, and comparative manner that allows them to reflect the degree of benefit or inconvenience to customers. The net benefit is measured by determining the net change in weighted travel time for customers. Each of the four components of a trip -- walking to the stop, waiting for the bus to arrive, riding in the vehicle, and transferring from one vehicle to another -- is weighted differently, according to how each is perceived by customers and how it affects customers' travel decisions.

These weights were developed from TTC research based on several surveys of travel behaviour. One minute of walking time is weighted as equivalent to two minutes of in-vehicle travel time. One minute of waiting time is weighted as equivalent to 1.5 minutes of in-vehicle travel time. One transfer is weighted as equivalent to 10 minutes of in-vehicle travel time. The change in weighted travel time is calculated for each group of customers who are affected by a change, both those for whom the change would improve their service and those for whom the change would cause an inconvenience. The change in travel time of each component is multiplied by the number of customers affected by the change and by the weight of the component. The numbers.

11 Bayview and 88 South Leaside Review of Suggested Changes

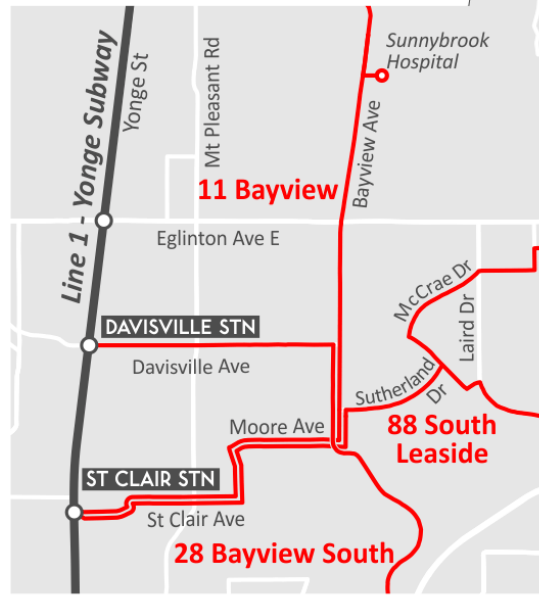
Existing

11 Bayview to Davisville Stn
88 South Leaside to St Clair Stn



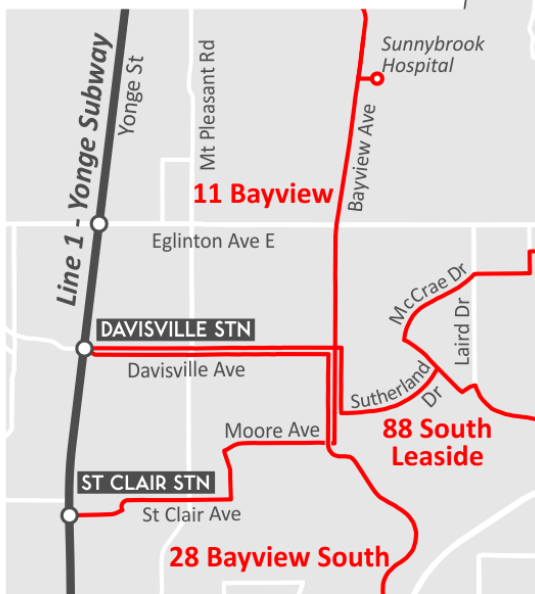
Option 1

11 Bayview to St Clair Stn
88 South Leaside to St Clair Stn



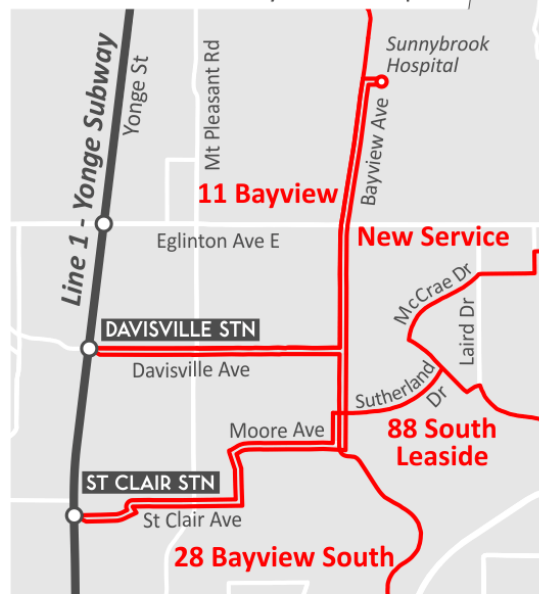
Option 2

11 Bayview to St Clair Stn
88 South Leaside to Davisville Stn



Option 3

Existing with new service between
St Clair Stn and Sunnybrook Hospital



TTC SP 01-05-2015 DRG. No. 12354

for all the groups are then added, to arrive at a change in weighted travel time. An overall reduction in weighted travel time would indicate that the service change would be an improvement in service for customers, and should be implemented. An overall increase in weighted travel time would indicate that the service change would make transit service worse for customers, and so the change should not be made

At the February meeting convened by Councillor Burnside, the representative from the South Leaside residents expressed the concern that, in the TTC's previous evaluations of this matter, TTC staff may have assumed that all customers who are transferring to and from the 11 Bayview bus route at Davisville Station would be inconvenienced by a change in that route's subway connection from Davisville Station to St Clair Station. The representative said that such a change in connection to a station further south would have only small negative effects on current customers if many of those customers were travelling to and from the south. In order to investigate this, staff reviewed the origin and destination information for customers of the 11 Bayview bus route, using the Transportation Tomorrow Survey (TTS) data, which is a large travel behaviour survey which provides information on peoples' actual travel patterns. According to this data, just over 60 percent of these customers are travelling to and from the south. For these customers, the effects of a change in the connecting subway station to a location further south would be relatively minor. The remaining 40 percent of customers of the route, who travel to and from destinations north of Davisville Station, would be inconvenienced by a total of an extra five-to-six minutes of additional travel time.

All of these effects have been taken into account in the quantitative evaluation of options presented in the appendix to this report, and all the results reflect the net effects of these changes.

Conclusion

The proposed routing changes described as options 1 and 2 are not recommended, because the changes would cause an overall net inconvenience to customers. The proposed new service, described as option 3, is not recommended because it would attract very-few new customers to the TTC and would not meet the TTC's financial standard.

Service on the 28 BAYVIEW SOUTH route will be operated starting in 2016, providing all-day, every-day service on Bayview Avenue south of Davisville Avenue to the Evergreen Brick Works. This change will eliminate the gap in service on Bayview Avenue, and will provide improved travel opportunities for customers along Bayview Avenue.

Contact

Mitch Stambler, Head of Strategy and Service Planning
416-393-4460
mitch.stambler@ttc.ca

Appendix A: Evaluation of Options for Continuous Service on Bayview Avenue

Option 1: Extend the 11 BAYVIEW bus route to St Clair Station

An option was examined to extend the 11 BAYVIEW route to St Clair Station, instead of operating the route to Davisville Station. Buses on the 11 BAYVIEW route would continue on Bayview Avenue south of Davisville Avenue, and would operate to St Clair Station over the same routing used by the 88 SOUTH LEASIDE route, via Moore Avenue, Welland Avenue, St Clair Avenue, Avoca Avenue, and Pleasant Boulevard. Service would continue to be provided along Davisville Avenue, between Davisville Station and Bayview Avenue, at a reduced frequency compared to today, by the 28 BAYVIEW SOUTH route.

This change would provide the requested continuous service along Bayview Avenue, between Moore Avenue and Steeles Avenue. Customers would have a direct connection from south of Davisville Avenue to the shops on Bayview Avenue and Sunnybrook Hospital. This extension would directly benefit residents of the Bennington Heights area, and would reduce the number of transfers for residents of the South Leaside area.

The change would be made with no change in the number of buses on the routes.

This service change would make service better for these customers:

- Customers who now travel along Bayview from south of Sutherland to north of Davisville, as they would have at least one fewer transfer; this includes customers who now take the 88 SOUTH LEASIDE to St Clair Station, the subway to Davisville Station, and the 11 BAYVIEW to points along Bayview Avenue.
- Customers who would use the new stops on Bayview between Sutherland and Davisville, as they would have a shorter walk to the nearest bus stop.
- Customers who now travel locally between Moore Avenue/Welland Avenue / St Clair Avenue and St Clair Station, as they would have a shorter wait as they would now have more-frequent service on both the 88 SOUTH LEASIDE and 11 BAYVIEW routes

This service change would make service worse for these customers:

- Customers who now use the 11 BAYVIEW route between Steeles Avenue and Davisville Avenue, as they would have a longer wait. Because the 11 BAYVIEW route would be made longer, but no buses would be added, the service would be less frequent.
- Customers who now travel locally between Davisville Avenue and Davisville Station, as they would have a longer wait. Because the 11 BAYVIEW route would be removed, and service would be provided only by the 28 BAYVIEW SOUTH route, the service would be less frequent.

- Customers who now travel between stops on Davisville Avenue and stops on Bayview Avenue north of Davisville Avenue, including Sunnybrook Hospital, as they would have one additional transfer. These customers now have a direct trip.
- Customers who now use the 11 BAYVIEW route to travel to the subway, as they would have a longer trip. The travel time to St Clair Station would be longer than the present travel time to Davisville Station.

The table below shows the number of customer-trips each weekday that fall into each of these categories, and the resulting change in weighted customer-minutes. The change in weighted travel time shows that the net benefits to some customers of a shorter walk, shorter wait, and fewer transfers is outweighed by the inconvenience of a longer wait, longer travel time, and additional transfers for a much-larger number of customers. Overall, this service change would make service worse for customers. For this reason, it is not recommended.

| Option 1: Extend 11 BAYVIEW to St Clair Station | | | |
|--|---|---|--|
| Effects of the Proposed Routing Changes | Customer-Trips Affected Each Day | Benefit or Inconvenience to Customers? | Customer Impact, in Weighted Person-Minutes |
| Fewer transfers <i>Customers who now use Rte 88/Line 1/Rte 11 to travel along Bayview</i> | 820 | Benefit | -8,210 |
| Shorter walk to bus stop <i>Customers projected to use new stops on Bayview between Sutherland and Davisville</i> | 110 | Benefit | -1,130 |
| Shorter wait <i>Customers on Moore/St Clair with more frequent service</i> | 240 | Benefit | - 1,020 |
| Longer wait <i>Customers along Bayview with longer wait because of longer route</i> | 6,140 | Inconvenience | +9,200 |
| Longer wait <i>Customers along Davisville with longer wait because of removal of Rte 11</i> | 2,910 | Inconvenience | +7,400 |
| Additional transfers <i>Customers on Davisville who lose direct service to Bayview Avenue</i> | 300 | Inconvenience | +3,010 |
| Longer travel time <i>Customers on Rte 11 with longer travel time because of longer trip to subway</i> | 940 | Inconvenience | +2,620 |
| Net overall change for customers | | Inconvenience | +11,870 |

Option 2: Switch the subway connections of the 11 BAYVIEW and the 88 SOUTH LEASIDE Bus Routes

A second option was examined that would switch the subway connections of the 11 BAYVIEW and the 88 SOUTH LEASIDE routes: buses on the 11 BAYVIEW route would operate to St Clair Station, as described in Option 1, and buses on the 88 SOUTH LEASIDE route would operate to Davisville Station, via west on Sutherland Drive, north on Bayview Avenue, and west on Davisville Avenue. The 28 BAYVIEW SOUTH route would continue to operate, although not as frequently as in Option 1.

As in Option 1, this change would provide the requested continuous service along Bayview Avenue, between Moore Avenue and Steeles Avenue. Customers would have a direct connection from south of Davisville Avenue to the shops on Bayview Avenue and Sunnybrook Hospital. This extension would directly benefit residents of the Bennington Heights area, and would reduce the number of transfers for residents of the South Leaside area. The service change would provide new direct travel for customers along Davisville Avenue to locations in the South Leaside area, east of Bayview Avenue.

This option would cause less inconvenience to customers on Davisville Avenue, as the frequent service provided on the 88 SOUTH LEASIDE route would compensate for the removal of the 11 BAYVIEW route from Davisville Avenue.

The change would be made with a net reduction of one peak bus, on the 28 BAYVIEW SOUTH route, compared to Option 1.

This service change would make service better for these customers:

- Customers who now travel along Bayview from south of Sutherland to north of Davisville, as they would have at least one fewer transfer; this includes customers who now take the 88 SOUTH LEASIDE to St Clair Station, the subway to Davisville Station, and the 11 BAYVIEW to points along Bayview Avenue.
- Customers who would use the new stops on Bayview, between Sutherland and Davisville, as they would have a shorter walk to the nearest bus stop.
- Customers who now use the 88 SOUTH LEASIDE route to travel to the subway, as they would have a shorter trip on the bus. The travel time to Davisville Station would be slightly shorter than the present travel time to St Clair Station.

This service change would make service worse for these customers:

- Customers who now use the 11 BAYVIEW route between Steeles Avenue and Davisville Avenue, as they would have a longer wait. Because the 11 BAYVIEW route would be made longer, but no buses would be added, the service would be less frequent.

- Customers who now travel between stops on Davisville Avenue and stops on Bayview Avenue north of Davisville Avenue, including Sunnybrook Hospital, as they would have one additional transfer. These customers now have a direct trip.
- Customers who now travel locally between Davisville Avenue and Davisville Station, as they would have a longer wait. The 88 SOUTH LEASIDE route has less frequent service than on the 11 BAYVIEW route.
- Customers who now travel between stops on the 88 SOUTH LEASIDE route east of Bayview Avenue and stops on Moore Avenue/Welland Avenue/St Clair Avenue, as they would have one additional transfer. These customers now have a direct trip.
- Customers who now use the 11 BAYVIEW route to travel to the subway, as they would have a longer trip. The travel time to St Clair Station would be longer than the present travel time to Davisville Station.

The table below shows the number of customer-trips each day that fall into each of these categories, and the resulting change in weighted customer-minutes. Overall, the inconvenience to customers under Option 2 is less than in Option 1. However, the change in weighted travel time shows that the net benefits to some customers of a shorter walk, shorter travel time, and fewer transfers is still outweighed by the inconvenience of a longer wait, longer travel time, and additional transfers to a larger number of customers. Overall, this service change would make service worse for customers. For this reason, it is not recommended.

| Option 2: Switch subway connections of 11 BAYVIEW and 88 SOUTH LEASIDE | | | |
|--|---|---|--|
| Effects of the Proposed Routing Changes | Customer-Trips Affected Each Day | Benefit or Inconvenience to Customers? | Customer Impact, in Weighted Person-Minutes |
| Fewer transfers <i>Customers who now use Rte 88/Line 1/Rte 11 to travel along Bayview</i> | 820 | Benefit | -8,210 |
| Shorter walk to bus stop <i>Customers projected to use new stops on Bayview between Sutherland and Davisville</i> | 110 | Benefit | -1,130 |
| Shorter travel time <i>Customers on Rte 88 with shorter travel time because of faster trip to subway</i> | 2,900 | Benefit | -7,870 |
| Longer wait <i>Customers along Bayview with longer wait because of longer route</i> | 6,140 | Inconvenience | +9,200 |
| Longer wait <i>Customers along Davisville with longer wait because of less frequent service on Rte 88</i> | 1,980 | Inconvenience | +4,500 |

| Option 2: Switch subway connections of 11 BAYVIEW and 88 SOUTH LEASIDE | | | |
|---|---|---|--|
| Effects of the Proposed Routing Changes | Customer-Trips Affected Each Day | Benefit or Inconvenience to Customers? | Customer Impact, in Weighted Person-Minutes |
| Additional transfers <i>Customers on Davisville who lose direct service to Bayview Avenue</i> | 300 | Inconvenience | +3,010 |
| Additional transfers <i>Customers on Rte 88 who lose direct service to Moore Ave/St Clair Ave</i> | 150 | Inconvenience | +1,500 |
| Longer travel time <i>Customers on Rte 11 with longer travel time because of longer trip to subway</i> | 940 | Inconvenience | +2,620 |
| Net overall change for customers | | Inconvenience | +3,620 |

Option 3: New service from St Clair Station to Sunnybrook Hospital

A third option was evaluated, that would introduce a new service from St Clair Station to Sunnybrook Hospital. This new service would be in addition to the existing 11 BAYVIEW, 88 SOUTH LEASIDE, and 28 BAYVIEW SOUTH routes, which would not be changed.

This new service would provide the same new direct connections for customers along Bayview Avenue, as far as Sunnybrook Hospital, as the first two options, and would cause no inconvenience to existing customers. The service would operate every 20 to 30 minutes, and would require two buses during the peak periods, and one or two buses at other off-peak times. It is projected that approximately 770 customer-trips would be made on the new service each day, of which 30 would be new to the TTC. This projection of few new riders is because the current route configuration -- while not best-suited to everyone's travel needs -- allows all customers to travel between South Leaside and the Bayview commercial district and Sunnybrook Hospital. Most people wanting to make such trips are already doing so, albeit with some inconvenience. Few new trips would be attracted to the TTC by such a more-convenient service.

Because additional resources would be required for the new service, a financial assessment was carried out. The comparison of the operating costs with the projected increase in ridership (ie – new customers attracted to the TTC) indicates that the service would not meet the TTC's financial performance standard. For this reason, the proposal is not recommended.