

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: May 11, 2011

SUBJECT: 510 SPADINA – ADDITIONAL SERVICE SOUTH OF KING
STREET – THIRD FOLLOW-UP

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission forward this report to Councillor Vaughan, noting that:

- Based on most-recent ridership data, additional service south of King Street on the 510 SPADINA streetcar route is not warranted at this time;
- As requested by the Commission at its March 1, 2011, TTC staff met with Councillor Vaughan to discuss his concern about service reliability and adequacy south of King Street;
- At that meeting, it was agreed that, in order to respond to the service issues raised by Councillor Vaughan and to allow evaluation of alternate operating arrangements, all service on the 510 SPADINA streetcar line could be operated south of King Street, as a pilot project, in the morning peak period, from June 20 to September 2, 2011; and
- There is a long-standing significant operational problem, regarding all service south of King Street, which has long been in need of attention, but which will be accentuated by the extension of all 510 SPADINA service to Queen's Quay. The traffic signal at Lake Shore Boulevard West through which all these streetcars must travel is programmed with the primary objective of facilitating eastbound automobile traffic from Lake Shore Boulevard and from the Gardiner off-ramp to northbound Spadina Avenue. Streetcars have only a 16-second window every signal cycle during which they can travel through the intersection, and a signal cycle can be as long as 2 minutes and 24 seconds. This means they regularly get caught at this intersection, causing bunching and irregular service. It is possible to alter these signal operations to eliminate this problem without having perceptible effects on traffic operations. TTC staff have been in discussions with City Transportation Services, and will report to the Commission when this report is being considered.

FUNDING

Operating additional service between King Street and Queens Quay on the 510 SPADINA route in the morning peak period in the summer would increase annual TTC operating costs by approximately \$11,000 in 2011. The additional costs have not been included in the 2011 operating budget.

BACKGROUND

At the Commission meeting of February 2, 2011, the Commission considered the report 510 SPADINA STREETCAR – REQUEST FOR ADDITIONAL SERVICE SOUTH OF KING STREET – FOLLOW UP. The report followed up a request from Councillor Vaughan that additional 510 SPADINA service be operated south of King Street. The report recommended no change to the service. Councillor Vaughan made a deputation at the meeting. The Commission moved that staff report back at the next meeting on the route change proposals made by Councillor Vaughan.

Subsequently, a report was presented to the Commission meeting of March 1, 2011, but that report was deferred until the May meeting to allow consultation between TTC staff and Councillor Vaughan.

Those discussions have taken place, and this report is an updated version of the previous report, which recaps the current status.

DISCUSSION

Background

The 510 SPADINA streetcar route operates at most times of the week with two branches: the main branch operates between Spadina Station on the Bloor-Danforth Subway and Union Station on the Yonge-University-Spadina Subway line at all times; and a supplemental short-turn branch operates between Spadina Station and King Street using the on-street looping via Adelaide Street, Charlotte Street, and King Street at most times of the week. This supplemental branch is operated in order to provide more-frequent service on the busiest part of the route, between King Street and Spadina Station. Service between Spadina Station and King Street is scheduled to operate every two-to-three minutes throughout the daytime, and every two-to-six minutes in the evenings. Service south of King Street to Union Station is scheduled to operate every five-to-seven minutes, at almost all times of the week. Service early in the mornings on Sundays operates every 15 minutes along the entire route.

In the summer, in two stages, the short-turn service at King Street is extended to the Queens Quay and Spadina Loop, to accommodate increased ridership to Harbourfront and along Queens Quay. From early May to Labour Day, the Saturday, Sunday, and holiday

short-turn service is extended after 9:30 a.m. from King Street to Queens Quay. From late June to Labour Day, the Monday-Friday short-turn service is extended after 9:30 a.m. from King Street to Queens Quay. The resources for these seasonal extensions are included in the budget and these changes will be made, as planned, again this year.

Pilot Project

At the February 2, 2011 Commission meeting, Councillor Vaughan requested that the TTC schedule more streetcars south of King Street, to Union Station or to Queens Quay, without adjusting the number of streetcars. In particular, he requested that this change be made in the morning peak period, and late at night, when the clubs get out.

In the late evening, when the clubs get out, a short-turn service is not operated, and all streetcars are scheduled to operate between Spadina Station and Union Station. It is feasible to extend the morning peak period short-turn service from King Street to Queens Quay, from late June to Labour Day, at the same time as other summer-related changes are made to the route.

Compared to the service normally operated in the morning peak period in the summer, the service between King Street and Queens Quay would be improved from every 7 minutes 30 seconds to every 2 minutes 50 seconds. Service on Queens Quay to Union Station on the 510 SPADINA route would be improved from every 7 minutes 30 seconds to every 5 minutes 40 seconds (additional service is also operated on this part of the route on the 509 HARBOURFRONT route). Service between King Street and Spadina Station would be changed from every 2 minutes 30 seconds to every 2 minutes 50 seconds.

The average number of customers on each streetcar between King Street and Queens Quay would be reduced from 29 to 11 in the morning peak period. These crowding levels are well below the maximum planned level of 74 people per streetcar in the peak periods and, so, based on ridership levels, the additional service is not warranted.

The average number of customers at the busiest point on the route, at Spadina Station, would be increased from 71 to 81 (unlike on many TTC routes, morning peak ridership on the 510 SPADINA route does not decline during the summer months). This is above the maximum planned level of 74 people per streetcar in the peak periods. Service for the majority of customers on the route would become more crowded and less comfortable. Both Councillor Vaughan and TTC Operations staff have expressed operational concerns about the King/Charlotte short-turn loop which is used by the King branch of the 510 SPADINA route. In particular, the south-to-west right turn onto King Street can often be obstructed by traffic queues, and the west-to-north right turn can often be obstructed by pedestrians, both of which can slow the service down or cause irregularities to the service. So, for reasons other than ridership, there would be some merit to trying a pilot test of extending the King branch of the route down to Queen's Quay.

The extension of the short-turn service from King Street to Queens Quay would require the addition of one streetcar to the route. Annual direct operating costs would increase by approximately \$11,000 in 2011 if the service change were made between June 20 and September 2.

There is a long-standing significant operational problem, regarding all service south of King Street, which has long been in need of attention, but which will be accentuated by the extension of all 510 service to Queen's Quay. The traffic signal at Lake Shore Boulevard West through which all these streetcars must travel is programmed with the primary objective of facilitating eastbound traffic from Lake Shore Boulevard West and the Gardiner off-ramp to northbound Spadina Avenue. Streetcars have only a 16-second window every signal cycle during which they can travel through the intersection, and a signal cycle can be as long as 2 minutes and 24 seconds. This means they regularly get caught at this intersection, causing bunching and irregular service. It is possible to alter these signal operations to eliminate this problem without having perceptible effects on traffic operations. TTC have been in discussions with City Transportation Services to get these signals changed, and will report on progress to the Commission when this report is being considered.

Replacement of the 22-year old track between King Street and Queens Quay is currently planned for the period September 6 to November 19, 2011. During this necessary track work, a temporary replacement service will be operated, and it will not be possible to operate an extended King Street short turn service. If a trial morning peak extension of the King Street short turn service to Queens Quay is operated from June 20 to September 2, it would be evaluated during the summer, and the results of that trial operation would be used to make decisions for year-round operation starting in November 2011 or January 2012.

SUMMARY

A summer-only morning peak extension to Queens Quay of the King Street short-turn service on the 510 SPADINA route is not justified by existing ridership levels, but it would allow testing of alternate operating arrangements which might help achieve a higher level of service reliability. Such a trial extension could be operated this summer at a small cost, and the various effects could be measured. For this reason, staff support doing such a trial.

February 18, 2011
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