

Streetcar Service on Queen Street - Supplementary Report (PW 22.9)

Date: July 4, 2017

To: City Council

From: General Manager, Transportation Services

Wards: Wards 5, 6, 13, 14, 18, 19, 20, 27, 28, 30, 32

SUMMARY

This report responds to a request from the Public Works and Infrastructure Committee for the General Manager, Transportation Services to report directly to City Council regarding the cost and implementation considerations of a comparative evaluation of streetcar service versus bus service on Queen Street.

Due to TTC scheduling constraints, it is not recommended that this study be carried out in September 2017.

FINANCIAL IMPACT

The anticipated cost to conduct the requested comparative evaluation of streetcar service versus bus service on Queen Street is estimated at \$681,100. This is comprised of:

- survey data collection by an external consultant conducted for Transportation Services totaling \$191,500;
- staff time costs for the TTC totalling \$51,600; and
- the incremental cost of operating the bus service of approximately \$438,000.

These costs do not include the value of streetcar service already scheduled that cannot be reallocated and therefore would not be operated, which is approximately \$279,000.

These costs also exclude the cost of Transportation Services existing staff time to tender, oversee, evaluate and report on the survey data collected. Any staff assigned to this work will need to be reallocated from existing prioritized work in order to conduct this analysis.

The costs for data collection and staff time for Transportation Services and the TTC referenced above represent the costs for a standalone evaluation and data collection program. Subject to Council approval of the King Street Transit Pilot, there may be

opportunities to realize synergies with background data collection required for the King Street Transit Pilot, which will require data collection on Queen Street as a parallel route to King Street. The potential costs savings associated with a combined data collection effort have not been fully estimated, and would be subject to the approval and timing of both projects.

DECISION HISTORY

The Public Works and Infrastructure Committee, at its meeting of June 8, 2017, in dealing with item PW22.9 - Streetcar Service on Queen Street, requested the General Manager of Transportation Services report directly to City Council regarding the cost and implementation considerations of the requested comparative evaluation of streetcar service versus bus service on Queen Street.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.PW22.9>

COMMENTS

Background

The TTC has historically operated the "501- Queen" streetcar on Queen Street, from the Long Branch Loop in the west, through downtown, to the Neville Park Loop in the east, carrying approximately 43,000 passengers daily.

From May 7, 2017 through September 3, 2017, regular streetcar service on Queen Street has been replaced by buses. This replacement has been undertaken in response to a number of construction and road work projects along Queen Street this summer. Maintaining streetcar operations would have required diversions at many of these locations, representing a significant operational impact. To maintain the route's capacity, approximately 65 buses are used during peak periods.

As of September 3, 2017, streetcars will return to 501 Queen between Roncesvalles Avenue and Russell Carhouse. Ongoing construction at the east and west end of the routes will result in continued partial bus replacement on the route. This service is already approved through the TTC's service change process and schedules are finalized in advance of work selection by operators.

Study Request

At the June 8th meeting of the Public Works and Infrastructure Committee, a motion was introduced requesting that the return of streetcar service on Queen Street be delayed by a period of two weeks in order to complete a comparative study of the relative merits of bus service versus streetcar service on Queen Street, including:

- a) Schedule reliability of transit vehicles;
- b) Delays to other users of the road;
- c) Collisions at transit stops involving transit vehicles and cars, pedestrians, or cyclists;
- d) Collisions at transit stops between cars, pedestrians and cyclists not including transit vehicles;
- e) Ridership satisfaction;

- f) Fleet maintenance costs;
- g) Fleet operator and operation costs; and
- h) Incidences of driver assault.

In approving this motion, the Public Works and Infrastructure Committee requested a report directly to Council outlining the cost and implementation considerations associated with the conduct of this study.

Implementation Considerations

TTC

From an operational and scheduling perspective, the TTC plans and operates service schedules in four-to six-week board periods, of which there are 10 in each year. These board periods are defined several months prior to the start of the year; accommodating a two-week board period in September 2017 is not possible.

As a result, extending bus operation on Queen Street beyond September would need to be done on an unscheduled (overtime) basis. An unscheduled service would require increased route supervision and service quality would be compromised.

In addition, there are several constraints that limit the ability for a full bus replacement on 501 Queen to extend beyond September 3, 2017:

- **Resource Planning:** Fleet and workforce is planned by board period. In the September 2017 Board Period, all 1575 buses and 165 streetcars have been scheduled. An extension of bus service on 501 Queen would require additional buses over and above maximum capacity. These buses would need to be reallocated from other routes, which would worsen service elsewhere in the city.
- **Continued Construction:** Various construction projects continue through Fall 2017, including TTC track and City watermain work at Queen Street and Coxwell Avenue (scheduled through September), continuing TTC and City construction on Lake Shore Boulevard and The Queensway (until the end of 2017), and TTC track work at Queen Street and McCaul Street (scheduled for October). These projects will have a continuing impact on traffic and transit operations.
- **Special Events and Road Closures:** The Toronto International Film Festival takes place in September and has a significant impact on TTC services in downtown Toronto. This would impact the assessment of operations in the area.
- **Customer Information:** TTC's real-time and static customer information tools, such as the trip planner and NextBus, rely on TTC schedules to provide customer information. Schedules for September are finalized and therefore, an extended and unscheduled bus replacement on Queen Street would not be reflected to customers using these tools.

Proceeding with an extension of bus service for two weeks would require an additional 33 morning peak buses that would need to be reallocated from bus routes elsewhere in the city. As unscheduled work, operating these buses would be on an overtime basis.

The incremental cost of operating this service with buses would be approximately \$438,000. The value of streetcar service already scheduled that cannot be reallocated and therefore would not operate is approximately \$279,000.

Due to these constraints and the resulting negative impacts of extending bus service on Queen Street beyond September, the TTC does not support proceeding with this trial.

Transportation Services

If Council were to direct that this study be undertaken, Transportation Services believes that the requested two-week study period (preceding two weeks of baseline data collection) would not represent a sufficient sample period in order to properly evaluate the effects of replacing streetcar service with buses. A longer evaluation period would help offset short-term or temporary impacts, such as poor weather, collisions, special events, and construction. Transportation Services would recommend that a study length of at least four weeks (as well as four weeks of baseline data collection) would be required. However, even this extended period would not be sufficient to properly evaluate and compare collision data.

Data Collection Plan

Conducting a 4-week study would require the collection of 4-weeks of background data, for a total of 8-weeks of monitoring.

Transportation Services is able to collect and monitor vehicle travel times and collisions for Queen Street, as well as parallel routes, via existing data collection programs. However, the tracking of traffic volumes on Queen Street and parallel routes would require a specialized collection program, which would use video analytics to provide counts. These counts would be conducted by an external consultant via an RFQ process. This effort is estimated to cost \$191,500.

It is estimated that it will require approximately 155 hours of existing internal staff time in order to collect, analyze and report on the required data associated with delays to other road users, collisions, and traffic volumes. These costs have not been included in the financial impacts of conducting this study. While these hours would not represent an actual cost to the project, they do represent hours where staff would need to be reallocated from existing prioritized work in order to conduct this analysis.

The TTC routinely collects some of the data required to evaluate this study, including travel times, reliability data, collisions and operating costs. However, there would be an incremental staff time impact to perform the assessment. This is estimated at approximately 700 person hours in staff time to coordinate, collect information, and report on the results which is estimated at \$51,600.

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SIGNATURE

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