



Briefing Note

April 2017

New Streetcars – Revised Roll-Out Plan and 512 ST CLAIR

Background

The TTC is purchasing 204 new low-floor, high-capacity accessible streetcars. The first cars entered service in August 2014, and 33 cars were in service as of March 31, 2017. This briefing note provides an update on the roll-out plan for the new cars and identifies 512 ST CLAIR as the fourth route to be fully equipped with the new cars.

Discussion

Earlier roll-out schedule

Before deliveries began in 2014, a plan was developed for the roll out of the new cars to the routes. New cars are progressively introduced on a route as they become available, replacing legacy cars. Given the rate of new car delivery, this can take several months. When enough cars are available to fully operate one route, new cars are then added to the next route. The order of routes was chosen to maximize the customer and service impact of the high capacity cars; to ensure that new accessible service is introduced as quickly as possible; and to co-ordinate with planned platform, stop, overhead wire, and track work. The roll-out schedule as of mid-2016, when the new 514 CHERRY route was introduced, is shown below.

New car roll-out schedule, mid-2016		
<i>Route</i>	<i>First use of new cars</i>	<i>Fully equipped</i>
510 SPADINA	August 2014	Summer 2016
509 HARBOURFRONT	March 2015	2016
514 CHERRY	June 2016	2016
511 BATHURST	2016	2016
505 DUNDAS	2016	2016
501 QUEEN	2016	2017
504 KING	2017	2017
512 ST CLAIR	2018	2018
502 DOWNTOWNER	2018	2019
503 KINGSTON RD	2019	2019
506 CARLTON	2019	2019

Delivery issues

As is well known, the manufacturer had fallen behind in delivery of the new cars. A new delivery schedule was provided at the end of 2016 – see below – and since that time the manufacturer has met the delivery targets. The new schedule calls for all 204 cars in the initial order to be delivered by the end of 2019.

Deliveries per Month Summary

Yr\Month	1	2	3	4	5	6	7	8	9	10	11	12	Total
2017	0	2	1	1	3	2	3	2	4	7	8	7	40
2018	3	7	7	6	8	7	7	3	6	7	8	7	76
2019	5	7	6	8	7	6	8	3	7	1			58

Latest roll-out schedule – 512 ST CLAIR

Given the new schedule for delivery of the new cars, and other service and construction issues, the roll-out schedule for the new cars has recently been revised. The new schedule is shown below.

New car roll-out schedule, April 2017		
<i>Route</i>	<i>First use of new cars</i>	<i>Fully equipped</i>
510 SPADINA	August 2014	Spring 2016
509 HARBOURFRONT	March 2015	Spring 2017
514 CHERRY	June 2016	Summer 2017
512 ST CLAIR	September 2017	February 2018
504 KING	January 2017 (weekends); November 2017 (every day)	July 2018
511 BATHURST	May 2018 (Summer 2017 temporary operation)	September 2018
505 DUNDAS	June 2018	December 2018
501 QUEEN	October 2018	2019
502 DOWNTOWNER	2019	2019
503 KINGSTON RD	2019	2019
506 CARLTON	2019	2019

The most significant change in the new roll-out schedule is to move 512 ST CLAIR up the list, so that it will now be the fourth route to be fully converted to the new cars, instead of the eighth route. The first new cars should be introduced on this route in September 2017, and the route should be fully converted to the new cars in February 2018.

The 512 ST CLAIR route has been advanced for several reasons. Construction in 2016 has made the route fully ready to use the new cars. Recent ridership counts show that the route is at or over the crowding standard at busy times, including the morning peak period. More peak service cannot be added with the current legacy car fleet to deal with this overcrowding, and buses cannot be used to effectively supplement service, because the route operates on a dedicated streetcar right of way. As a result, the only way to add capacity is to convert the route to the new cars. Excellent accessible service will be provided by the new cars, as all stops have passenger platforms. The 511 BATHURST route, which was to be the next route to be converted, has been operated with buses for some time because of the shortage of streetcars, and this bus operation may continue to be required in the Fall of 2017.

The 512 ST CLAIR route will be moved by early September to operate from Leslie Carhouse, where the new cars are based, and assuming the planned car delivery dates are adhered to by the manufacturer, the first new car would enter service on the 512 ST CLAIR route on Sunday, September 3, 2017. By late September there should be several new cars on the route, and the number of new cars will progressively increase as deliveries are received. By mid-February 2018 the route should be fully converted to the new cars. A new 512 ST CLAIR route schedule would be introduced at that time. The service in the peak periods would be slightly less frequent with the new cars than

today, but the total capacity would increase – see the table below. There are no changes planned to the service levels at off peak times with the new cars.

Peak period service level changes		Service	Cars in service	Scheduled capacity (Passengers in peak hour)
Service today	Morning peak	2 min 50 s	24	1570
	Afternoon peak	3 min 20 s	22	1330
<i>2018 service with new cars (planned)</i>	Morning peak	<i>3 min 24 s</i>	<i>20</i>	<i>2290</i>
	Afternoon peak	<i>4 min 05 s</i>	<i>18</i>	<i>1910</i>

Latest roll-out schedule – other routes

Other changes to the roll-out schedule are noteworthy. This summer the 511 BATHURST route will be operated with streetcars displaced from construction on 501 QUEEN. Any low-floor cars that are available will be operated on this route, which requires additional capacity during the summer because of increased ridership to events at the waterfront and Exhibition Place. The route may return to bus operation in the fall, because of continuing streetcar fleet constraints. This will be confirmed later in this year. By the summer of 2018 sufficient new cars will be available to permanently convert the 511 BATHURST route.

The roll-out of new cars to 504 KING will also be advanced, with this route essentially taking the place of 501 QUEEN in the queue. The busy 504 KING route has similar capacity issues as the other busy streetcar routes, and so the additional capacity of the new cars is beneficial. The City is considering a pilot project of transit priority on King Street for this Fall, and so the operation of as many new cars as possible would support this pilot project. Operation of occasional new cars on 504 KING on the weekend has already begun, as more new cars are available on the weekends because of reduced training and maintenance activities, and so the cars have been put in service when possible. The 501 QUEEN route will be under construction all of 2017, and the new cars cannot be put to best use on this route in 2017. New cars will begin to be introduced to 501 QUEEN later in 2018, when construction is complete.

This roll-out schedule is based on current construction and fleet plans, and on the latest new car delivery schedule from the manufacturer. While no other changes to the route order are currently planned, the roll-out schedule may have to be further modified in the future if any of these circumstances change.

Conclusion

The new car roll-out schedule to the routes has been updated to match with the revised car delivery schedule from the manufacturer. The 512 ST CLAIR and 504 KING routes have been moved up in the roll-out schedule to provide additional capacity as soon as possible, and to better align the roll-out schedule with construction and bus substitution plans.

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