

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: July 23, 2014

SUBJECT: Procurement Authorization Amendment to the Toronto Rocket Train Sets – Purchase Order No. C31PD05761

ACTION ITEM

RECOMMENDATION

It is recommended that the Board authorize staff to:

- 1) Proceed with a Purchase Order Amendment to the Toronto Rocket (TR) Subway Train Contract with Bombardier Transportation Canada Inc. (Bombardier) for the retrofit of the TR fleet with low ceiling handholds in the amount of \$4,309,070.81 CDN, and external door chimes in the amount of \$10,936,249.61 CDN. The total aggregate of the two changes is \$15,245,320.42 inclusive of all applicable taxes;
- 2) Settlement of items shown in Table B totalling \$14,781,041.02 as a result of the commercial settlements with Bombardier, resulting in a net increase in this contract of \$464,278.58 including applicable HST.

FUNDING

Funds for expenditures for the base 39 plus 21 H6 replacement train sets are included under Project 4.12 – Purchase of 234 New Subway Cars (H4 & H5 Replacement & Growth) and Replacement of 126 H6 Subway Cars as outlined on pages 719 to 721, in the “State of Good Repair & Safety” category of the TTC 2014-2023 Capital Budget as approved by the City of Toronto Council on January 29/30, 2014.

Funds for the 10 train sets were included under the Toronto York Spadina Subway Extension (TYSSE) as outlined on pages 1007 to 1009 of the TTC 2014-2023 Capital Budget as approved by the City of Toronto Council on January 29/30, 2014. Full project funding exists for the YYSSE from the Move Ontario Trust, the Federal Government, the City of Toronto and the Region of York. Full project cost commitment approval of \$2,634.171 million exists for the YYSSE project.

BACKGROUND

In 2006, the TTC awarded a contract to Bombardier for the purchase of 39 TR train sets to replace the existing H4 and H5 subway vehicles that were approaching the end of their service life. Minutes of the meeting are available on the TTC website. Refer to agenda item 4 in the following link:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2006/Sept 20 2006/Minutes/index.jsp](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2006/Sept_20_2006/Minutes/index.jsp)

Subsequently, the TTC accepted option 1(B) in the contract for the purchase of 21 TR train sets to replace the H6 subway vehicles, which were also approaching the end of their service life, and option 1(A) for the purchase of 10 TR train sets to support the TYSSE program. Minutes of the meeting are available on the TTC website. Refer to agenda item 5b in the following link:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2010/June 2 2010/Minutes/index.jsp](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2010/June%202010/Minutes/index.jsp)

On March 26, 2014, the Board approved the purchase of an additional 10 TR train sets to meet existing service standards for ridership and reduce crowding on the Line 1 (YUS) upon completion of the ATC project. Minutes of the meeting are available on the TTC website. Refer to agenda item 5a in the following link:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meeting s/2014/March 26/Agenda/index1.jsp](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meeting%20s/2014/March%2026/Agenda/index1.jsp)

This resulted in the purchase of a total of 80 TR train sets from Bombardier under the existing contract. Table A shows the Board approved authority for these train orders.

Table A

	Item	Total Authorization
Original Contract	Base Order (39 Train Sets – H4/H5 Replacement)	\$674,787,602.52
Previous Amendments	Option 1(A) (10 Train Sets - TYSSE)	\$162,708,071.30
	Option 1(B) (21 Train Sets – H6 Replacement)	\$317,212,249.73
	ATC Integration (70 Train Sets)	\$34,784,863.92
	Spares, Special Tools and Test Equipment (Option 1(A) and 1(B) Train Sets)	\$28,000,000.00
	All Other Amendments (Design changes, etc.)	\$20,643,595.88
	Additional 10 Train Sets	\$216,788,870.00
Current Amendment	Low Ceiling Handholds and Exterior Door Chime	\$15,245,320.42
	Credits from Bombardier (as a result of this commercial settlement, see Table B below)	(\$14,781,041.02)
Total Authorization Amount		\$1,455,389,532.75

These amounts include all applicable taxes. Exclusive of base order vehicle price, all other vehicle pricing is prior to a one-time adjustment for foreign currency exchange rate variance and net project costs will include tax recoveries under HST from the contract authorized amounts.

DISCUSSION

High amounts of customer concerns and complaints have been received due to the lack of areas there are to brace for balance in the low ceiling areas where the heating ventilation and air-conditioning units are located in the TR Trains. As this is a safety issue for customers, TTC has installed a prototype on train set number 9 and as a result of positive customer feedback, TTC has decided to proceed with the retrofit of the remaining fleet to install more handholds in the low ceiling areas as they are necessary for customer comfort and safety during peak periods.

Regarding the exterior door chimes, there has been a large volume of customer concerns and complaints about the current warning system on the TR trains that notify customers that doors are about to close. The Accessibility for Ontarians with Disabilities Act (AODA) has specifically requested this change to ensure that passengers with visual disabilities at station platforms will be able to audibly discern the movement of the passenger side door (both opening and closing). TTC also installed a prototype on two cars on train set number 9 (i.e. the first two cars of numbered: 5461 and 5462) and as a result of positive customer feedback the TTC determined that the exterior door chime is an enhanced safety feature that will provide a better warning system, as well as serve as an accessibility aid. Moreover, with the above exterior door chimes in place, noticeable savings in the station dwell times may be achieved.

Over the past several months the project teams for TTC and Bombardier have been negotiating in a trade-off of various TTC claims accumulated to date in exchange for the low ceiling handholds and exterior door chimes on the TR fleet. Table B outlines the finalized exchange of claims for changes.

Table B

Items Negotiated	TTC Credits	Bombardier Credits
Contract Penalties – Liquidated Damages for Delay of Deliverables and Train set delays	\$7,228,384.00	
TTC Runway Costs – Carhouse Labour and Training	\$797,554.00	
Reduction in Ordering of Capital Spare Trucks	\$8,136,000.00	
Bombardier Claims for Extra Labour/Rental Costs due to Disruptions of Delivery Ramp at Wilson Yard		\$1,380,896.16
Low Ceiling Handholds (for 70 TR trainsets)*		\$4,309,070.81
Exterior Door Chimes (for 70 TR trainsets)*		\$10,936,249.61
Totals	\$16,161,938.00	\$16,626,216.58
Difference		\$464,278.58

- * The captioned negotiations involved the costs of modifying 70 TR train sets only; Change Orders for the remaining 10 TR train sets will be managed separately.

The costs for both the low ceiling handholds and the exterior door chimes have been verified by the TTC as reasonable for the level of effort required in completing each change; estimates are consistent with the installation of the prototypes. All rates have been verified per the contract documents, no work has commenced. If approved, staff estimate the fleet can be retrofitted by the end of 2016.

JUSTIFICATION

This contract amendment, in the amount of \$15,245,320.42 which will be offset by the credits of \$14,781,041.02 as a result of the above commercial settlements with Bombardier i.e. the net cost of \$464,278.58 including applicable HST, is required to update the 70 TR train sets with the low ceiling handholds and exterior door chimes to conform to AODA and other safety requests.
