

TORONTO TRANSIT COMMISSION REPORT NO.

MEETING DATE: May 6, 2010

SUBJECT: PROCUREMENT AUTHORIZATION AMENDMENT – OPTION
TO PURCHASE 31 ADDITIONAL NEW SUBWAY TRAIN SETS
(FOR H6 SUBWAY CAR REPLACEMENT AND TYSSE)

ACTION ITEM

RECOMMENDATION

It is recommended that the Commission authorize:

- 1a) Staff to exercise the specified option in the Toronto Rockets (TR) Subway Train Contract with Bombardier Transportation Canada Inc. no later than May 31, 2010, to purchase 21 new six car subway train sets in the amount of \$269,957,249.73 (\$CDN) for delivery from September 2012 to June 2013 for the replacement of 126 H6 subway cars. This amount includes all applicable taxes and is subject to a one time adjustment for Foreign Currency Exchange Rate Variance plus applicable Escalation.
- 1b) The expenditure of funds up to a total allowance amount of \$47,255,000.00 (\$CDN), inclusive of all applicable taxes, with respect to the 21 train sets, for Escalation Adjustment, Contract Security, and Potential Contract Changes (including tooling and maintenance spares, most of which will be provided for in the base contract), resulting in a total authorized expenditure of up to \$317,212,249.73 (\$CDN). Net project costs will include tax recoveries under HST from this contract authorized amount.
- 1c) Staff to dispose of the 126 H6 subway cars being replaced and retired in the best interest of the Commission.
- 2a) Staff to exercise the specified option in the Toronto Rockets (TR) Subway Train Contract with Bombardier Transportation Canada Inc. no later than May 31, 2010, to purchase 10 new six car subway train sets in the upset amount of \$128,551,071.30 (\$CDN) for delivery from June 2013 to November 2013 for the Toronto York Spadina Subway Extension (TYSSE). This amount includes all applicable taxes and is subject to a one time adjustment for Foreign Currency Exchange Rate Variance plus applicable Escalation.
- 2b) The expenditure of funds up to a total allowance amount of \$34,157,000.00 (\$CDN), inclusive of all applicable taxes, with respect to the 10 train sets, for Escalation Adjustment, Spare Parts, Special Tooling and Test Equipment, Contract Security and Potential Contract Changes, resulting in a total authorized expenditure of up to

\$162,708,071.30 (\$CDN). Net project costs will include tax recoveries under HST from this contract authorized amount.

FUNDING

Sufficient funds were included under Project 4.12 - Replacement of 126 H6 Subway Cars (category State of Good Repair & Safety) as outlined on pages 983 to 985 of the TTC 2010–2014 Capital Program as approved by the City of Toronto Council on December 8, 2009. Full project cost commitment approval of \$311.514 million exists for the 126 Subway Cars from the City of Toronto to cover this award. Appendix 1 outlines the cash flows for this project (CTT046).

Sufficient funds were included under the Toronto York Spadina Subway Extension (TYSSE) as outlined on pages 1439 to 1442 of the TTC 2010-2014 Capital Program as approved by the City of Toronto Council on December 8, 2009. Full project funding exists for the TYSSE from the Move Ontario Trust, the Federal Government and the municipalities of the City of Toronto and Region of York. Formal project cost commitment approval for the TYSSE subway cars to cover this award was approved by the City Budget Committee at its meeting of March 29, 2010, by Executive Committee on April 19, 2010 and is anticipated to be confirmed by City of Toronto Council at its May 11-12, 2010 meeting. This anticipated Council approval will increase the project commitment to \$1,818.870 million which includes a revised project commitment requirement on vehicles of \$160.000 million.

BACKGROUND

In order to provide a reliable public transit service and meet future ridership forecasts, it is essential to maintain the existing subway car fleet in a state of good repair through timely replacement of existing fleets. The H6 fleet requires replacement as it reaches the end of its useful (30 year) life beginning in 2016. Delivery of H6 replacement cars was originally scheduled for 2017/2018; however, the current Toronto Rocket contract provides an option to purchase an additional 21 trains to replace the H6 fleet at a discounted cost which if exercised will result in net present value and EFC savings to the Commission.

Further, a production gap exists between the current TR base contract delivery schedule and the vehicle requirements of TYSSE (even with the addition of the H6 replacement trains). The price recommended is contingent on having a continuous production run rather than shutting down and restarting the production line for a year. Furthermore, the availability of the TYSSE vehicles is assured in time for the commissioning of the TYSSE line starting in early 2015. It is noted that all of the 10 train sets for the TYSSE project would be delivered in 2013, one year earlier than required.

The delivery of the first H6 replacement train is scheduled for 2012 immediately following delivery of the last train in the base order. These 21 trains will be placed on the Yonge-University-Spadina (YUS) line causing the cascading of the T1 fleet from the YUS line onto the Bloor-Danforth (BD) line. The end result will be only two subway fleets: TR's on the YUS and T1's on the BD line (Sheppard will continue to use 4 car T1 trains but will be supported from Greenwood). Exclusive operation of TR train sets on the YUS line will

reduce spare parts inventory, tooling and test equipment, technical training and incompatibility of cars for train marshalling. Reduced operating labour costs are also anticipated.

Exercising these options will create a modern, efficient and high capacity transit system on the YUS line with the following new features:

- 6 car semi-permanently coupled train with open intercar gangways and full width cabs
- Increased passenger capacity
- Increased safety and security features and reduced fire load
- Increased customer information systems
- Increased reliability
- Reduced energy consumption
- ATC compatible

DISCUSSION

In December 2006, a contract for the supply of 39 new subway trains was awarded to Bombardier. In addition to the base order of 39 train sets, the contract also included options that must be exercised by July 31, 2010 for supplying 21 train sets for the replacement of the 126 H6 subway cars (delivered between 1986 and 1990) at a base price of \$11,276,142.00 (taxes extra) per train set and for supplying 8 train sets for the TYSSE at a base price of \$11,777,184.00 (taxes extra) per train set. As a result of recent negotiations, Bombardier has agreed to provide all 10 TYSSE train sets now required for the project for the same base unit price per train set as the 21 H6 optional train sets (ie. \$11,276,142.00 per train set – taxes extra) resulting in a savings of approximately \$4 million to the Commission.

Subsequent to the award of the base contract, a number of design changes have been incorporated into the 39 base order train sets. Bombardier has agreed to incorporate all design changes approved to date for \$106,722.00 (taxes extra) per train set. Bombardier also offered a credit amount of \$661.80 (taxes extra) per train set for tariff reductions, effective March 15, 2010, as announced in the latest federal budget, as well as a credit amount of \$6,000.00 (taxes extra) if the option is exercised by May 31, 2010 (with the 25% down payment of the total option price for the TYSSE train sets and 10% down payment of the total option price for the H6 replacement train sets by June 30, 2010). This results in a new negotiated option price of \$11,376,201.00 (taxes extra) per train set for a total of \$238,900,221.00 for the 21 train sets required to replace the H6 fleet, which when applicable taxes of \$31,057,028.73 are added, totals \$269,957,249.73. With respect to the TYSSE project, this results in the same negotiated option price of \$11,376,201.00 (taxes extra) per train set for a total of \$113,762,010.00 for 10 train sets, which when applicable taxes of \$14,789,061.30 are added, totals \$128,551,071.30.

These prices are subject to adjustment for escalation, in accordance with the terms stated in the contract documents and 65% of the price is subject to a one-time adjustment for foreign exchange rate variance between Bombardier's proposed base exchange rate of the

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Canadian Dollar versus the U.S. Dollar and the noon spot exchange rate quoted by the Bank of Canada, on the date of the exercise of the specified options for the new train sets. Funds to cover foreign exchange rate variance, in case the Canadian dollar weakens to below the base rate quoted in Bombardier’s Proposal (1 CAD=0.94 USD), have not been provisioned for; however, it is anticipated by staff that in fact this adjustment will be of benefit to the Commission, as long as the currency exchange rate remains close to its current level.

Contract details are as follows:

Contract C31PD05761

Original Contract Amount	\$624,567,602.52
Previous Approved Amendments	\$ 7,987,094.22
Amount of this Amendment (H6 Replacement)	\$269,957,249.73
Amount of this Amendment (TYSSE)	<u>\$128,551,071.30</u>
Revised Contract Amount	\$1,031,063,017.77

JUSTIFICATION

The new negotiated unit pricing for these specified option train sets (21 to replace the H6 fleet and 10 for the TYSSE) is considered very reasonable and it is recommended that these options with Bombardier be exercised to take advantage of the favourable pricing (on average approximately 12% lower unit price compared to the base order unit price per train set). In addition, there are benefits of having a common model operate on the YUS line.

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Appendix 1

2010
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Ref.	CTT No.	WO #	DESCRIPTION	CITY	PROBABLE							2011-2015	2010-2019	EFC	
					2009	2010	2011	2012	2013	2014	2015				
			VEHICLES												
			REVENUE VEHICLES												
973			4.12 Purchase of Subway Cars												
			Existing Projects												
979	CTT046	6231	Purchase of 234 New Subway Cars (H4 & H5 Replacement & Growth)	B	372,165	217,586	78,737	23,912	-	-	-	320,235	320,235	692,400	
	CTT046			P	359,806	189,823	81,149	55,951	-	5,671	-	332,594	332,594	692,400	
	CTT046			C	(12,359)	(27,763)	2,412	32,039	-	5,671	-	12,359	12,359	-	
963	CTT046	6002	Replacement of 126 H6 Subway Cars	B	-	300	30,384	204,358	73,571	1,701	1,200	311,514	311,514	311,514	
	CTT046			P	-	28,063	4,078	145,359	122,590	1,224	10,200	311,514	311,514	311,514	
	CTT046			C	-	27,763	(26,306)	(58,999)	49,019	(477)	9,000	-	-	-	
Sub-Total Purchase of Subway Cars				SB	372,165	217,886	109,121	228,270	73,571	1,701	1,200	631,749	631,749	1,003,914	
				SP	359,806	217,886	85,227	201,310	122,590	6,895	10,200	644,108	644,108	1,003,914	
				SC	(12,359)	-	(23,894)	(26,960)	49,019	5,194	9,000	12,359	12,359	-	

B Approved 2010 Capital Program (Commission Oct 29 City Dec 8, 2009)
P Probable as at April 9, 2010, Period 2 PSRs plus Revisions