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YORK REGION TRANSIT AND VIVA AUTOMATED FARE COLLECTION EQUIPMENT MAINTENANCE CONTRACT EXTENSION

The Transportation Services Committee recommends the adoption of the recommendations contained in the following report dated September 1, 2010, from the Commissioner of Transportation Services.

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council authorize the extension of the current contract with Cubic Transportation Systems for York Region Transit and Viva automated fare collection equipment maintenance at a total cost not exceeding \$3,146,862, excluding taxes, pursuant to the sole source provisions of the purchasing by-law.
2. The term of the contract be for a period of three years, commencing on December 1, 2010.
3. The Commissioner of Transportation Services be authorized to execute the contract, subject to the approval of Legal Services as to form and content.

2. PURPOSE

This report seeks Regional Council authorization for a three-year extension of the current contract with Cubic Transportation Systems for York Region Transit (YRT) and Viva automated fare collection equipment maintenance, commencing on December 1, 2010. The contract is required to perform the preventive and emergency maintenance services on the Viva fare collection equipment. The maintenance contract will also be used for the preventive and emergency maintenance services on the Presto smart card system scheduled to be implemented in March of 2011. Cubic Transportation Systems is the only contractor equipped with the necessary proprietary skills and equipment to undertake this maintenance activity.

3. BACKGROUND

Regional Council had authorized an extension of the York Region Transit Viva automated fare collection equipment maintenance contract in September 2007

On September 27, 2007, Regional Council authorized an extension of the York Region Transit and Viva automated fare collection equipment maintenance contract with Cubic Transportation Systems. Their contract is expiring on November 30, 2010.

Cubic Transportation Systems is the original manufacturer of the automated fare collection system

The off-board fare collection system was provided by Cubic Transportation Systems as part of the original supply contract with Kiewit EllisDon, the Viva design-build contractor. The Viva fare collection system is based on proof-of-payment (POP). The system requires customers to retain proof that the correct fare has been properly paid. Customers can accomplish this by either purchasing a single journey validated ticket at a ticket vending machine (oneRide) installed at each Viva stop, or by validating a ticket at a ticket validator (vivaNow) previously purchased at a terminal ticket vending machine (multiRide) or merchant before boarding.

These fare collection devices are complex electro-mechanical machines that require specialized regular preventive maintenance and periodic emergency maintenance service. York Region Transit's ability to collect fares from Viva passengers depends on this equipment working properly.

4. ANALYSIS AND OPTIONS

Cubic Transportation Systems has provided a quote for preventive maintenance services and a labour rate for emergency services of the fare collection equipment, which is summarized in the following sections.

Cubic Transportation Systems will provide preventive and emergency maintenance services for Viva Fare Collection System

Cubic Transportation Systems' proposed increase for the preventive and emergency maintenance rates is summarized in Table 1 below.

Table 1
Percentage Increase in Preventive and Emergency Maintenance Rates

Description	Percentage Increase from Previous Year
Extension Year 1	3%
Extension Year 2	6%
Extension Year 3	3%

The current unit rates for the preventive and emergency maintenance were negotiated and approved by Council in September 2007 for an initial three-year period. The proposed unit rates for preventive and emergency maintenance are 3% higher for the first year, 6% higher for the second year and 3% higher for the third year as compared to the previous years. The proposed increase in the unit rates for first year (3%) and third year (3%) are comparable to the increases previously approved by Council in September 2007.

Implementation of the Presto smart card system in March 2011 will lead to the removal of existing ticket validators towards the end of 2011 or early 2012 as the paper tickets will be eliminated after a transition period of six to nine months. Cubic Transportation Systems representatives have insisted on a higher increase (6%) in the second year after the ticket validators are removed as it will significantly reduce their fixed revenue due to the reduction in preventative maintenance work. Cubic Transportation Systems will still have to cover the current fixed establishment base costs.

Ongoing maintenance of the automated fare collection system is critical in order to ensure that there is no loss in transit revenues. An extension of the existing contract at the rates negotiated with Cubic Transportation Systems is required in order to ensure the ongoing reliability of the fare collection system.

Cubic Transportation Systems will provide preventive, on-going and emergency maintenance for the Presto Smart Card System

Implementation of the Presto smart card system in March 2011 will require preventive, on-going and emergency maintenance work to be performed on equipment installed on YRT buses and at Viva stations and terminals. Emergency maintenance on the Presto equipment installed on YRT conventional buses will be performed by the respective contractors who are responsible for the operations and maintenance of buses.

Preventive, on-going and emergency maintenance on the Presto equipment installed at Viva stations and terminals including refilling paper rolls, attending equipment failures and vandalism, etc. will be added to the responsibility of the Cubic Transportation Systems contract. There are numerous advantages of dealing with one contractor who will then be responsible for all the fare equipment installed at Viva stations and terminals.

Based on the average cost for the Viva fare equipment and the estimated number of maintenance calls for the Presto equipment, a budgetary amount of \$185,400 for year one, \$196,524 for year two and \$202,420 for year three is recommended to be included in the contract. Payment will be based on the actual work performed by Cubic Transportation Systems.

Cubic Transportation Systems will supply consumables, and spare parts and will repair defective equipment

Cubic Transportation Systems' quoted rate for consumables and spare parts is approximately seven percent higher than the current contract. The current rates were finalized in 2007 and were frozen for three years. The proposed unit rates for spare parts will be frozen until 2013.. The majority of the spare parts are proprietary in nature and cannot be supplied by any other supplier. Cubic Transportation Systems will not benefit from the Harmonized Sales Tax (HST) and will not be able pass any credit to the Region as their manufacturing unit is located in the United States of America.

Based on the quoted rates and the actual consumables and spare parts ordered in the previous year, a budgetary amount of \$278,200 for year one, \$260,000 for year two and \$240,000 for year three is recommended to be included in the contract.

Cubic Transportation Systems will manage the storage of spare parts and consumables

Cubic Transportation Systems is proposing to charge a rate of \$40,000 per year for the administration and management of spare parts inventory on behalf of York Region Transit. This is comparable to \$35,000 per year paid during the current contract.

Contracting the preventive and emergency maintenance services for the Viva Fare Collection System with the original manufacturer is recommended

The fare collection component of any transit system is one of the most critical system components. Any failure of the fare collection system will lead to a loss in revenue. As the original manufacturer of the fare collection equipment, Cubic Transportation Systems is uniquely positioned to provide maintenance services on this equipment. Cubic Transportation Systems has been providing these services satisfactorily for over five years. It is recommended that the existing contract be extended for another three years at the newly-quoted labour and material rates. Further justification for the contract extension is outlined below.

Specialized Skills

Because the maintenance of this sophisticated machinery requires specialized training and equipment, any service contractor that works on these devices must be suitably

trained and equipped. It is expected that the manufacturer has incorporated proprietary technology into their equipment.

Single Point of Responsibility

By having the original manufacturer perform planned and emergency maintenance services for the fare collection devices, there will be a single point of responsibility. Cubic Transportation Systems already has a maintenance service facility in the Greater Toronto Area (GTA) to provide maintenance services.

Shop Maintenance Services

Repair of damaged parts or replacement of defective parts at the manufacturer's repair facility, which involves the use of specialized tools and employment of specialized skills, will be supplied under this contract.

YRT Focus Capabilities

While YRT has some technical knowledge to undertake technical maintenance services, it does not have enough manpower to undertake the maintenance during all bus service hours.

Emergency Maintenance

Emergency maintenance service of sophisticated electro-mechanical machinery involves a significant level of troubleshooting and technical diagnosis to be able to return the machinery to revenue service as expeditiously as possible. The original manufacturer will be able to troubleshoot and diagnose more rapidly than any other vendor.

Update to Software

Part of a planned maintenance program will be providing updates and latest revisions for the Revenue Management Software, which could only be provided by the original manufacturer.

5. FINANCIAL IMPLICATIONS

Table 2 provides a summary of the estimated costs for the preventive and emergency maintenance, consumables, spare parts and repair costs for each year of the proposed contract.

Table 2
Total Contract Cost

Description	Current	Extension Year 1	Extension Year 2	Extension Year 3
Viva Preventive and Emergency Maintenance	\$621,926	\$640,584	\$552,720 ¹	\$439,214 ¹
Presto Emergency Maintenance	-	\$185,400	\$196,524	\$202,420
Consumables, Spare Parts and Repair Cost	\$260,000	\$278,200	\$260,000 ¹	\$240,000 ¹
Spare Parts and Consumables Inventory, Storage and Management	\$35,000	\$40,000	\$40,000	\$40,000
Removal of Ticket Validators (vivaNow)			\$31,800	
Total Cost	\$916,926	\$1,144,184	\$1,081,044	\$921,634
Grand Total Cost				\$3,146,862

¹ It is assumed that the ticket validators (vivaNow) will be removed six months into Year Two after the implementation of Presto smart card system which reduces the cost of preventive and emergency maintenance.

Sufficient operating funding will be included in the 2011, 2012 and 2013 Business Plans and Budgets to cover the respective costs.

6. LOCAL MUNICIPAL IMPACT

There is no municipal impact associated with this report. It is anticipated that the quality of transit services will be improved as a result of providing reliable automated fare collection equipment to our customers. Reliable automated fare collection equipment will also protect the revenue collected through transit fares.

7. CONCLUSION

Based on the analysis and options as described above, it is recommended that the current contract with Cubic Transportation Systems, the original manufacturer, for preventive and emergency maintenance, consumables, spare parts and repair costs for the Viva fare collection equipment and Presto equipment be extended for a period of three years, commencing on December 1, 2010, at a total cost of \$3,146,862, excluding taxes.

For more information on this report, please contact Rajeev Roy, Manager, Transit Management Systems, at Ext. 5682.

The Senior Management Group has reviewed this report.