

5
YORK REGION TRANSIT
VIVA AUTOMATED FARE COLLECTION EQUIPMENT
MAINTENANCE CONTRACT EXTENSION

The Transit Committee recommends the adoption of the recommendations contained in the following report, August 24, 2007, from the General Manager, Transit:

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council authorize extension of the current Viva automated fare collection equipment maintenance contract with Cubic Transportation Systems at a total cost of \$2,316,733, excluding taxes.
2. The term of the contract be for a period of three years, commencing on December 1, 2007.
3. The Regional Chair and Clerk 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 the extension of current Viva automated fare collection equipment maintenance contract with Cubic Transportation Systems, the original manufacturer, for a period of three years, commencing on December 1, 2007. The contract is required to perform the preventive and emergency maintenance services on the Viva fare collection equipment.

3. BACKGROUND

The Viva 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) that was 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.

On June 23, 2005, Regional Council authorized a contract with Cubic Transportation Systems pursuant to the sole source provisions of the purchasing by-law. The current contract is due to expire on November 18, 2007. The current contract had made provision for three additional one-year extensions subject to satisfactory negotiations and mutual agreement of York Region Transit (YRT) and Cubic Transportation Systems.

YRT has been in discussion with Cubic Transportation Systems to exercise the three additional one-year contract extension options.

4. ANALYSIS AND OPTIONS

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

4.1 Preventive and Emergency Maintenance

Cubic Transportation Systems' preventive and emergency maintenance rate and estimated yearly costs are summarized in Table 1. Supporting calculations are provided in Tables 1, 2 and 3 of Attachment 1.

Table 1
Preventive and Emergency Maintenance Rates and Cost

Description	Total Preventive Maintenance Cost (Per Year)	Total Emergency Maintenance Cost (Per Year)	Percentage Increase from Previous Year
Current Contract	\$245,880	\$233,280	-
Extension Year 1	\$265,550	\$251,942	8%
Extension Year 2	\$273,517	\$259,501	3%
Extension Year 3	\$281,722	\$267,286	3%

The proposed unit rates for emergency maintenance are eight percent higher for the first year and increase at a rate of three percent per year for the second and third years.

4.2 Consumables and Spare Parts

Cubic Transportation Systems' quoted rate for consumables and spare parts rate is approximately 36.44% lower than the current contract. Supporting calculations are provided in Tables 4 and 5 of Attachment 1.

Cubic Transportation Systems proposes to review the consumables and spare parts rates at the end of year two as they are not willing to hold the prices beyond two years.

Based on the reduction in the quoted rates for consumables and spare parts, a budgetary amount of \$200,000 per year for year one and two and \$220,000 for year three is recommended to be included in the contract.

4.3 Spare Parts and Consumables Inventory, Storage and Management

Cubic Transportation Systems is proposing to charge a rate of \$35,000 per year for the administration and management of spare parts inventory on behalf of York Region Transit. This is comparable to \$31,500 per year paid by Kiewit EllisDon, the design-build contractor for Viva, for the initial two year period.

4.4 Analysis of Rates

The current unit rates for the preventive and emergency maintenance were finalized in 2005 and were fixed for an initial two-year period. The proposed unit rates are eight percent higher for the first year with an increase at a rate of three percent per year for the second and third years. The unit rates for the first year are a little higher than the yearly Consumer Price Index (CPI); however, considering the reduction in the spare parts cost, the overall contract cost is considered reasonable.

4.5 Contract Extension Justification

The fare collection component of any transit system is one of the most critical system components. Any failure of the fare collection system leads to loss in revenue and negatively impacts customer satisfaction. Ideally, these services should be provided by the most capable vendor, which is clearly Cubic Transportation Systems, the original manufacturer of the equipment. Since Cubic Transportation Systems has been providing these services satisfactorily, 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.

4.5.1 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.

4.5.2 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 GTA to provide maintenance services.

4.5.3 Continuity

The extension will maintain the continuity and avoid any administrative issues due to a change in vendor. This will also save administrative costs associated with issuing an RFP and selecting another contractor to perform these services.

4.5.4 Shop Maintenance Services

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

4.5.5 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 bus service hours.

4.5.6 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. It is expected that the original manufacturer will be able to troubleshoot and diagnose more rapidly than another outside vendor.

4.5.7 Update to Software

Part of a planned maintenance program will be providing updates and latest revisions for the RMS/RMMS software, which could only be provided by the original manufacturer.

5. FINANCIAL IMPLICATIONS

Table 2 provides a summary of the estimated cost for the preventive and emergency maintenance, consumables, spare parts and repair costs for the year one, two and three extensions.

The proposed new contract rates (combined items) are actually lower in Year One (1.9%) versus current rates due to initial start-up and component engineering costs. Years Two and Three rates are only marginally higher, 0.07% and 3.8% respectively. Therefore, the extension option is recommended.

Table 2
Total Contract Cost

	Current	Extension Year 1	Extension Year 2	Extension Year 3
Description		Cost	Cost	Cost
Preventive Maintenance	\$245,880	\$265,550	\$273,517	\$281,722
Emergency Maintenance	\$233,280	\$251,942	\$259,501	\$259,501
Consumable, spare parts and repair cost	\$256,500 ¹	\$200,000	\$200,000	\$220,000 ²
Spare Parts and Consumables Inventory, Storage and Management	\$31,500	\$35,000	\$35,000	\$35,000
Total Cost	\$767,160	\$752,493	\$768,018	\$796,223
Grand Total Cost				\$2,316,733

¹ Year-end estimate – proposed new rates lower than current rates.

² Estimate – to be confirmed at the end of Year Two.

Sufficient funding is contained in the 2007 Business Plan and Budget and in the proposed 2008 Business Plan and Budget to cover these costs. Sufficient operating funding will also be included in 2009 and 2010 Business Plans and Budgets to cover the respective costs.

6. LOCAL MUNICIPAL IMPACT

There is no municipal impact associated with this report.

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 be extended for a period of three years, commencing on December 1, 2007, at a total cost of \$2,316,733, excluding taxes.

For more information on this report, contact Rajeev Roy, Manager, Transit Management Systems (Ext. 5682), of the Transit Branch in the Transportation and Works Department.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)