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YORK REGION TRANSIT ON-BOARD SECURITY CAMERA SYSTEM CONTRACT EXTENSION

The Transit Committee recommends the adoption of the recommendations contained in the following report, May 22, 2008, from the Commissioner of Transportation Services:

1. RECOMMENDATIONS

It is recommended that:

1. Regional Council authorize extension of the current contract with SEON Design Inc. for the supply and installation of on-board security cameras and associated systems on York Region Transit and Viva buses, and Mobility Plus buses, sedans and taxis at a total cost of \$468,200, including all applicable taxes.
2. The Region enter into a further agreement with SEON Design Inc. and INIT Innovations Inc. for the supply and installation of an interface between on-board security camera and computer aided dispatch and automatic vehicle location system at an estimated cost of \$192,600, including all applicable taxes pursuant to the sole source provisions of the purchasing by-law.
3. The term of the contract be for a period of three years, commencing on July 1, 2008.
4. The Regional Chair and Regional 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 the current contract with SEON Design Inc. for the supply and installation of on-board security cameras and associated systems on York Region Transit (YRT) and Viva buses. This is required to extend the existing on-board security camera system to the rest of YRT and Viva fleets, as well as sedans and taxis operated by Mobility Plus contractors.

This report also seeks Regional Council authorization to enter into a further agreement with SEON Design Inc. and INIT Innovations Inc. for the supply and installation of an interface between the on-board security camera system and the computer aided dispatch/automatic vehicle location system pursuant to the sole source provisions of the purchasing by-law. This interface will allow exchange of data and images over the existing wireless network installed on Viva and some YRT buses.

3. BACKGROUND

Installation of security cameras on all YRT, Viva and Mobility Plus transit buses was approved by Council on April 27, 2006

The primary purpose of an on-board security camera system was to improve driver and passenger safety and security. It was expected that the system would also help resolve fare-related disputes and help investigate fraud and passenger complaints, as well as assist with the monitoring of contractor performance. It was also felt that the camera system would promote safe driving practices since one of the cameras was proposed to be installed facing oncoming traffic.

Installation of security cameras has been completed on 150 buses

The contract to install security cameras on 150 buses was approved by Regional Council on January 25, 2007. The security cameras on 150 buses, including all Viva buses and 60 YRT and Mobility Plus buses, have been in operation since September 2007 at an original contract value of \$573,439. As anticipated in the report to Council on April 27, 2006, the video captured on security camera system has been providing the following benefits:

- Assisting York Regional and Toronto Police in dealing with criminal investigations.
- Helping York Region Risk Management group with claims investigation.
- Assisting YRT Operations staff in dealing with safety and performance issues.

The YRT Enforcement group has received numerous requests from these agencies for video retrieval and review.

Council authorized the installation of security cameras on rest of YRT, Viva and Mobility Plus transit buses

On January 25, 2007, Regional Council also authorized staff to enter into a further agreement with SEON Design Inc. for the supply and installation of on-board security cameras and associated systems for the rest of the fleet in the amount of \$800,000, including all applicable taxes. This was to cover approximately 210 buses. The Request for Proposal documents, based on which the contract with SEON Design Inc. was finalized, had included the intention of YRT to extend the system to the rest of the fleet. It was discussed and agreed during the Transit Committee meeting on January 18, 2007 that YRT staff will monitor the performance of on-board security cameras and associated systems for six months and extend it to the rest of the fleet only when they are satisfied with the performance of the system.

4. ANALYSIS AND OPTIONS

4.1 INSTALLATIONS ON THE REST OF YRT, VIVA AND MOBILITY PLUS TRANSIT BUSES

SEON Design Inc. has provided a quote for the installation of security cameras on the rest of YRT, Viva and Mobility Plus transit buses

YRT staff has monitored the performance of the on-board security camera system since going in operation in September 2007. The quality of video during day and night time has been good and is usable for investigation purposes. There have not been any major issues with the hardware. The software provided with the system is user-friendly and meets the requirements as described in the request for proposal and specification documents. YRT staff are satisfied with the on-board security camera system. Therefore, it is proposed to be extended to the rest of the fleet. SEON Design Inc. has agreed to install the security cameras on rest of the fleet on the same terms and conditions as the original contract. They have quoted an increase of two percent on the hardware and services cost which is consistent with the contract where they were allowed an annual increase based on the Consumer Price Index. Hence, the quoted rates are considered reasonable and acceptable.

It is recommended that we extend the installation of security cameras on sedans and taxis operated by Mobility Plus contractors

There have been recent incidents on the Mobility Plus service that have led staff to conclude that security cameras should likewise be installed in all Mobility Plus vehicles, including sedans and taxis, that are owned and operated by private contractors. There are approximately fifty-one such vehicles where security cameras will have to be installed. Staff of York Region Legal Services and Risk Management groups have reviewed this proposal and agree with this recommendation.

Additional authorization is required for the installation on new YRT and Viva transit buses

Staff also require authorization to install security cameras on an additional sixty-five new YRT and Viva buses that are projected to be received by the end of 2008.

4.2 SUPPLY AND INSTALLATION OF AN INTERFACE BETWEEN SECURITY CAMERA AND COMPUTER AIDED DISPATCH/AUTOMATIC VEHICLE LOCATION SYSTEM

YRT has been exploring the option of developing an interface between the existing Viva computer aided dispatch/automatic vehicle location system (being extended to conventional YRT buses also) and the on-board security camera system. This would allow the following to be achieved in a very cost-effective manner:

- When the emergency button is activated by the driver, the security camera system will send a few still images over the existing wireless network to the control centre. There are some transit agencies which have installed similar systems but it requires a dedicated wireless network for the security camera system only. YRT's approach would allow the existing wireless network to be used for this purpose, thereby saving significant operating cost.
- The control centre staff will be able to request images from the bus over the existing wireless network on an as needed and restricted basis.
- YRT staff will be able to review and download the video over existing wireless local area network at maintenance garages, thereby saving significant staff resources for downloading the video when requested by police and others.
- Transfer Global Positioning System information from computer aided dispatch and automatic vehicle location system to security camera system to determine the speed of bus and capture the information on video.

SEON Design Inc. and INIT Innovations Inc. (supplier of computer aided dispatch/automatic vehicle location system) have agreed to develop this interface at an estimated cost of \$192,600. YRT has negotiated the scope of work and associated cost over the last few months and the quoted cost is considered reasonable. It is estimated that YRT will be able to recover the initial development cost within a short period of time due to savings in staff resources required for downloading the video.

Table 1 provides a summary of the previous authorization received from Council on January 25, 2007 and additional authorization required for the various work included in this report.

Table 1
Previous Council Authorization Received and Additional Authorization Required

Description	Council Approval	Project Cost	Project Status
1. Installation on 150 Buses	Approved on January 25, 2007	\$573,439	Completed
2. Installation on 210 Buses	Approved on January 25, 2007	\$800,000	Commencing June, 2008
3. Installation on additional Mobility Plus sedans, taxis and new YRT and Viva buses (116 Buses)	Not Yet Approved	\$468,200	Not Started
4. Interface between the existing Viva computer aided dispatch and automatic vehicle location and security camera systems	Not Yet Approved	\$192,600	Not Started
Total =		\$2,034,039	

4.3 JUSTIFICATION FOR EXTENDING THE CURRENT CONTRACT

It is recommended that YRT extend the current contract with SEON Design Inc. for the supply and installation of on-board security cameras and associated systems and enter into a sole source contract with INIT Innovations Inc. (supplier of computer aided dispatch/automatic vehicle location system) for the following reasons:

YRT will achieve savings in the terms of cost and time

It is estimated that there will some savings due to the following:

1. The existing contract with SEON Design Inc. was entered through a competitive bid process and the quoted rates are very reasonable.
2. Approved System Design Documentation (SDD) and testing procedures from the original contract can be used.
3. All proposed in-vehicle hardware and software have been vigorously tested and accepted through the original contract; hence the Region will save significant time in system testing and acceptance.
4. One set of spare parts could be used which will ensure consistency of components throughout the system.
5. Savings in terms of project management costs as INIT Innovations Inc., SEON Design Inc. and YRT teams are familiar with each other.
6. Any future upgrades will need to be done on one system only.
7. Overall savings in the terms of tendering, contract negotiations, etc.

YRT operations and maintenance staff are already trained on the existing system

The on-board security cameras system has been in operation since September, 2007. Installation of a similar system on other buses will have the following operational advantages:

- YRT staff are very well acquainted with the system features, capabilities and issues.
- YRT staff are fully trained in troubleshooting software and hardware related issues.

Some additional training may be required for the interface between the existing Viva computer aided dispatch/automatic vehicle location system and the on-board security camera system but no additional training will be required for others components.

YRT will take the advantage of installing a proven system

By extending the technology already installed, the Region will be taking advantage of proven technology. Adding additional buses with on-board security cameras system will allow the Region to provide a consistent and reliable service to its customers.

The central system for downloading and archiving the video already exists

All of the central software and hardware is already installed and in operation. All in-vehicle hardware and software have been vigorously tested and accepted by the Region, so minimal effort will be required in hardware and software testing.

It is worth noting for future technology related acquisitions that the selection of one vendor may constrain future software support, maintenance or expansion options. This observation will be taken into account future technology acquisitions.

Relationship to Vision 2026

Installation of on-board security cameras and associated systems is supportive of the Vision 2026 goal to "... have effective, efficient and environmentally sensitive transportation, waste management and water systems", and the action areas around that goal, including "developing an integrated transportation network " and "making transit accessible".

5. FINANCIAL IMPLICATIONS

The cost for the supply and installation of on-board security cameras and associated systems on the rest of YRT and Viva fleets, and Mobility Plus sedans, taxis and buses (in total, approximately 326 vehicles) is \$1,268,200, all taxes included. This is approximately two percent higher than the original contract rates and is considered

reasonable as the contract allows the annual increase to be limited to the Consumer Price Index.

The cost for the development of an interface between the existing computer aided dispatch/automatic vehicle location system and on-board security camera system is estimated at \$192,600, all taxes included. Based on the total estimated effort required for this kind of interface and hourly rates for the development, the cost is considered reasonable and acceptable.

Sufficient capital and operating funding is contained in the 2008 Business Plan and Budget to complete the installation.

6. LOCAL MUNICIPAL IMPACT

Passengers and drivers feel an enhanced sense of security with the presence of security cameras. A reduction in false injury claims is also expected as a result of the cameras.

7. CONCLUSION

It is recommended to extend the current contract with SEON Design Inc. for the supply and installation of on-board security cameras and associated systems on York Region Transit and Viva buses, and Mobility Plus buses, sedans and taxis at a total cost of \$468,200, including all applicable taxes.

It is also recommended that YRT enter into a further agreement with SEON Design Inc. and INIT Innovations Inc. for the supply and installation of an interface between the on-board security camera system and the computer aided dispatch and automatic vehicle location system at an estimated cost of \$192,600, including all applicable taxes, pursuant to the sole source provisions of the purchasing by-law.

For more information on this report, contact Rajeev Roy, Manager, Transit Management System (ext. 5682), of the Transit Branch of Transportation Services.

The Senior Management Group has reviewed this report.