SUBJECT: Radio Communications, Next Stop Announcement and Automated Vehicle Location Contract (GPS) (PW08038a) - (City Wide)

RECOMMENDATION:

(a) That the General Manager of Public Works or his designate be authorized and directed to enter into a contract in a form satisfactory to the City Solicitor with Glentel Inc. to provide Transit with a replacement radio communications, automated next stop passenger information and GPS solution;

(b) That Council authorize additional capital funding of $530,000 from the Transit dedicated Federal Gas Tax Capital Reserve, to an upset budget limit of $3,730,000, project ID: 5300883808 to expand the scope of the previously approved budget.

Gerry Davis, CMA
Acting General Manager
Public Works Department

EXECUTIVE SUMMARY:

Staff report PW08038 presented to Public Works Committee on April 14, 2008, sought and received Council approval for the replacement of HSR’s radio communications equipment, implementation of automated next stop announcement (audio and visual) and replacement of the automated vehicle location (AVLC) system with global position satellite (GPS):
The staff recommendation is driven by:

- The requirement to replace radios on the Transit fleet and the AVLC system software application, both of which are well beyond their life expectancy;

- The Ontario Human Rights Commission (OHRC) requirement to provide audio and visual announcements of all Transit stops.

Staff issued a Request for Quotation (RFQ) to local suppliers of Motorola radio communications hardware and selected Glentel Inc.

Staff, including ATU Local 107 representatives, attended vendor presentations for the proposed solution. A two day workshop was held with representatives from Glentel, Transit Operations, Maintenance, Safety and Training, ATU Local 107 Union executive representatives, and a Transit Joint Health and Safety Committee representative to view the equipment. Management received the support for the staff recommendation from the ATU and the Joint Health and Safety representatives for the various devices and their placement on the buses.

Staff is recommending expansion of the scope of the previously approved project based on stakeholder input from the vendor, Transit staff, ATU and Health and Safety Committee representatives.

**BACKGROUND:**

The information and recommendations contained within this report have City wide implications.

Transit’s existing voice and automated vehicle location system was originally installed in 1982 and is well beyond its expected life. There have been lengthy delays incurred as a result of ensuring that the replacement of radio communications was coordinated on a Corporate-wide basis to ensure the most effective use of Capital funds. The replacement of the transit radio system at this time is critical.

The Ontario Human Rights Commission now requires that public transit providers announce all transit stops. The London Transit Commission (LTC) and York Regional Transit (YRT) have installed fully automated systems. In addition to the direction from the Ontario Human Rights Commission, the proposed *Accessibility for Ontarians with Disabilities Act (AODA) - Final Proposed Transportation Accessibility Standard* requires that vehicles must provide audible announcements of route, direction, or destination of the vehicle and stops, as well as visual announcement of stops. In order to meet those requirements, the replacement system must also provide Automatic Vehicle Location (AVL).

Staff has relied on the experience of other municipalities with both automated and manual systems in arriving at the recommendations included in this report. A survey of Ontario municipalities attempting to provide next stop announcements in accordance with the OHRC requirements has confirmed for staff that the only sustainable and reliable means of achieving the OHRC requirement for next stop announcements is with a fully automated technology.
ANALYSIS/RATIONALE:

York Region Transit (YRT) and London Transit Commission (LTC) have recently implemented similar systems and have realized costs in line with this solution.

Glentel Inc. is HSR’s current radio system support provider and the local supplier of Motorola hardware.

The addition of key components has resulted in the requirement for additional funding. These components include:

- an additional radio tower site for redundancy in the case of failure of a single site,
- upgraded radio console hardware to allow seamless integration between the radio system and the GPS/CAD/AVL system for ease of use,
- radio transmitters at the Mountain Transit Centre and receivers at the tower sites to eliminate the reliance on leased telephone lines for communications to the radio towers,
- integration between HSR’s existing operations software and the GPS/CAD/AVL system to avoid duplicate manual entry into the GPS/CAD/AVL system,
- onboard visual displays for next stop information.

ALTERNATIVES FOR CONSIDERATION:

Council could direct that staff complete the project within the existing budget and eliminate the redundant radio equipment, software integration and onboard visual signage however this is not recommended as it will require future expenditures to comply with OHRC and AODA requirements.

FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

Financial - Council previously approved a budget of $3,200,000 in the predecessor report (PW08038) that included $2.2 million in funding from the Transit Dedicated Federal Gas Tax account and $1.0 million from the consolidation with previously approved Capital projects. The Table below identifies the recommended funding source of the additional $530,000 to expand the scope of this Capital project and the resulting Federal Gas Tax balance.

<table>
<thead>
<tr>
<th>Description</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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<tbody>
<tr>
<td>Balance Forward</td>
<td>(7,705,429)</td>
<td>(1,397,641)</td>
<td>(765,047)</td>
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<tr>
<td>Rapid Transit Office</td>
<td>307,834</td>
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<tr>
<td>Downtown Terminal</td>
<td>3,264,916</td>
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<tr>
<td>Bus Wash Upgrade</td>
<td>114,000</td>
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<tr>
<td>Transit Conventional Review</td>
<td>99,530</td>
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<tr>
<td>Transit Radio Communication Project</td>
<td>2,200,000</td>
<td>530,000</td>
<td></td>
</tr>
<tr>
<td>Installation of 2 Artic Bus Hoists @ MTC</td>
<td>350,000</td>
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<td></td>
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<tr>
<td>Bus Landing Pads</td>
<td>150,000</td>
<td>145,000</td>
<td>145,000</td>
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<tr>
<td>Investment Income:</td>
<td>(178,492)</td>
<td>(42,406)</td>
<td>(27,702)</td>
</tr>
</tbody>
</table>

Total: 6,486,279  675,000  145,000

(1,397,641)  (765,047)  (647,748)
POLICIES AFFECTING PROPOSAL:

The Public Works Strategic Plan identifies seventeen interconnected strategic priorities in four categories: Communities, People, Processes and Finances to move the Department forward. The Department will focus on seven such priorities over the next three years. One such priority is “Smart Processes that Match Our Needs” and a key activity within this commitment is integrating technologies across all Divisions.

RELEVANT CONSULTATION:

Staff has consulted with Information Services, Purchasing, Legal Services and ATU Local 107.

CITY STRATEGIC COMMITMENT:

By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced. ☑ Yes ☐ No
Public services and programs are delivered in an equitable manner, coordinated, efficient, effective and easily accessible to all citizens.

Environmental Well-Being is enhanced. ☑ Yes ☐ No
Human health and safety are protected.

Economic Well-Being is enhanced. ☑ Yes ☐ No
Safe and secure public transit provides increased mobility supporting central business districts, access for students to education, and a means of transportation allowing people to work or shop.

Does the option you are recommending create value across all three bottom lines? ☑ Yes ☐ No

Do the options you are recommending make Hamilton a City of choice for high performance public servants? ☐ Yes ☑ No