

**CITY OF HAMILTON**

**PUBLIC WORKS DEPARTMENT**  
*Transportation, Energy and Facilities Division*

<b>TO:</b> Chair and Members Public Works Committee	<b>WARD(S) AFFECTED:</b> Ward 2
<b>COMMITTEE DATE:</b> May 7, 2012	
<b>SUBJECT/REPORT NO:</b> Quick Wins - Transit Passenger Information Technology at the MacNab Transit Terminal (PW11079a) - (Ward 2)	
<b>SUBMITTED BY:</b> Gerry Davis, CMA General Manager Public Works Department	<b>PREPARED BY:</b> Don Hull Director of Transit (905) 546-2424, Extension 1860
<b>SIGNATURE:</b>	Alan Kirkpatrick Manager, Transportation Planning (905) 546-2424, Extension 4173  Carol Wildeman Senior Project Manager, Transit Business Applications (905) 546-2424, Extension 1842

**RECOMMENDATION**

- (a) That the General Manager, Public Works, be authorized and directed to issue a Purchase Order to Trapeze Software Inc. for the necessary equipment and software for the Real Time Transit Passenger Information Technology at the MacNab Transit Terminal and arrange for the installation of the equipment described in Report PW11079(a) to an upset limit of \$565,000, including taxes and contingencies, to be charged to the Metrolinx Quick Wins Reserve #108047, Projectid 5300855100;
- (b) That the General Manager of Public Works be authorized and directed to execute all negotiated Agreements for the Transit Passenger Information Technology equipment and software with Trapeze Software Inc. in a form acceptable to the City Solicitor;

- (c) That the General Manager, Public Works, be authorized to provide a copy of report PW11079(a) to the Metrolinx CEO and Chair of the Metrolinx Board for their information.

### **EXECUTIVE SUMMARY**

Staff is recommending that Transit Passenger Information Technology, including real time visual display equipment and software from Trapeze Software Inc. be approved at the MacNab Transit Terminal including installation and all taxes and contingencies to an upset limit of \$565,000. Funding is available from the Quick Wins Fund, along with the additional necessary work for the installation services of the equipment and infrastructure at the terminal, is also funded from the Metrolinx Quick Wins Fund.

The Transit Passenger Information Technology project at the MacNab Transit Terminal is one of the five (5) Quick-Win projects the City received funding from Metrolinx to undertake. An Information Report outlining the status of the five Quick-Wins projects was approved by the Public Works Committee, November 7, 2011, Report PW11079.

This Transit Passenger Information Technology equipment and system will provide additional customer service and travel information for HSR customers for them to make informed travel plans. The recommendation to purchase the Trapeze Software Inc. system is because the equipment and software is compatible with other existing HSR computerized systems; therefore, there are no integration requirements. In addition, the system is expandable when we plan to provide similar equipment at other key transit facilities, such as the proposed Mohawk College Transit Facility, and at the existing Eastgate Square and Limeridge Mall Transit Terminals.

The Transit Passenger Information Technology equipment and system will be installed at the MacNab Transit Terminal by November 2012.

**Alternatives for Consideration - See Page 6**

### **FINANCIAL / STAFFING / LEGAL IMPLICATIONS**

#### **Financial:**

In 2008, the City of Hamilton received \$29.8 million from Metrolinx "Quick Wins" to be used for municipal capital expenditures for Transit Vehicles and Infrastructure to support A-Line and B-Line improvements. These monies were placed in a Metrolinx Quick Wins Reserve #108047. Transit Passenger Information Technology at the MacNab Transit Terminal was identified as a remaining Quick Wins project in Staff Report PW08074(b) and more recently, Information Report PW11079. As at December 31, 2011, the Quick Wins Reserve balance is approximately \$14.2 million. There are sufficient funds to accommodate Recommendation (a).

The current status of the Quick-Wins budget and project estimates includes:

<p align="center"><b>QUICK WINS - \$13.1 MILLION PROJECTS</b> <b>Cost estimates as of February 2012</b></p>
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<b>Project</b>	<b>Estimated Costs</b>
Mohawk College Transit Terminal	\$ 4,300,000
MTC Park-N-Ride	\$ 4,000,000
Transit Priority – King Street Transit-Only Lane	\$ 300,000
Technology - MacNab Terminal	\$ 565,000
A & B Line Amenities	\$ 1,400,000
Making the Case Project	\$ 500,000
Parking and Loading Study	\$ 127,000
Rapid Transit 2012 Workplan	\$ 1,170,000
HST and Contingency	\$ 250,000
	<hr/>
	<b>\$ 12,612,000</b>

This capital expenditure has an annual maintenance fee of \$34,000 in year one increasing to \$42,000 in year five which will have to be accommodated in future operating budgets.

**Staffing:** N/A

**Legal:**

The Province required a municipal by-law to be passed and enacted that reaffirmed the funding would be used for the intended purposes of the grant.

Legal Services staff will become involved to assist with an agreement between the City and Trapeze Software Inc. to purchase, licence and maintain the equipment and software.

<p><b>HISTORICAL BACKGROUND</b></p>
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In 2008, the City of Hamilton received \$29.8 million in capital funding from the *Metrolinx Quick Wins* initiative, to be used specifically for municipal capital expenditures related to the purchase of transit vehicles and the provision of infrastructure to support the HSR initiatives related to the A-Line and B-Line.

As of 2011, \$16.7 million has been utilized for:

- Vehicle Purchase: Eighteen (18), 18.3m (60 ft) Low-floor articulated buses
- Engineering Survey: Ground Control & Topographic mapping for design purposes
- B - Line: Photo & Mapping inventory
- A - Line: Bus Rapid Transit Feasibility Study

The remaining \$13.1 million has been allocated to the following projects:

1. Transit Passenger Information Technology at the MacNab Transit Terminal
2. Park-and-Ride facility at the HSR Headquarters on Upper James Street
3. Transit Terminal at Mohawk College
4. Customer Service amenities on the A-Line and B-Line
5. Transit Priority Measures program
6. Making the Case Project
7. Parking and Loading Study
8. 2012 Rapid Transit Workplan
9. Contingency

### **Transit Passenger Information Technology at the MacNab Transit Terminal**

The intention of this project is to install large display screens, both inside the MacNab Transit Terminal building and in strategic positions along the outside platform, to provide transit passengers with transit schedule information to facilitate their transit travel planning decisions.

Transit Passenger Information Technology infrastructure was included during the construction of the MacNab Transit Terminal to facilitate when the equipment and system was to be installed at a later date.

Staff has negotiated with their Transit Scheduling software provider, Trapeze Software Inc. integrating the HSR real-time vehicle data information with the existing customer information software. This technology integration will permit the HSR to combine the technical solutions resulting in improved and timely messages to be displayed on the new screens so that transit customers will have the most up-to-date transit information available to them for their travelling decisions and status of the bus they wish to take.

The information displayed on the screens will be the various bus schedules for the routes utilizing and providing connections at the MacNab Transit Terminal and the anticipated arrival time and scheduled departure if it is different than the scheduled time.

This type of transit customer service feature is currently in operation at Union Station for GO Bus and Trains, the *VIVA* Transit system in the Region of York, the *MiWay* Transit service in the City of Mississauga and *ZUM* Transit service in the City of Brampton.

The outcome of introducing this technology will be improved HSR customer service for passengers to make travel decisions.

The recommended project includes the following visual display equipment to be installed at the MacNab Transit Terminal:

- Display of bus stop information on seven (7) double sided LED stop level displays;
- Extension of real-time bus information onto an LED display within the bus terminal building consisting of four (4) LED Monitor panels; (See Appendix A).

The compatible system needs will include:

- An interface from HSR's CAD/AVL (Mentor) system to the Trapeze Software Inc. system (TransitMaster and INFO) to receive AVL and Prediction data;
- Extension of HSR's INFO suite to allow for display of real-time bus information by route on a Google layered map via the LCD signs and in the future the INFO-Web application.

An agreement between the City of Hamilton and Trapeze Software Inc. for the operation, maintenance, warranty and five (5) years of support will also be included as part of this project.

Future steps anticipated in providing transit passengers with travel planning information are providing "smart phone apps". This system provides transit passengers/customers with mobile access to transit schedules and information. This application is not part of this proposal but staff will continue to research these enhanced electronic applications and keep the Committee updated as this is clearly the trend of providing information to passengers/customers.

Finally, staff is recommending the Trapeze Software Inc. as the HSR are extensively using a variety of Trapeze applications and therefore integration of this Transit Passenger Information Technology system will be easily implemented this year.

### **POLICY IMPLICATIONS**

The Transit Passenger Information Technology at the MacNab Transit Terminal project relates to the implementation of enhancements to the A-B Line services related projects previously reported to Metrolinx. The Transit Passenger Information Technology project aligns with a number of Public Transportation initiatives including the HSR Transit

Operational Review (2010) to improve communications and travel information to passengers, supports the Corporate Strategic Plan to encourage increased transit ridership, supports the Public Works Business Plan to enhance HSR services to support efficient transit service and provide customers and passengers with transit information and supports the Transportation Master Plan towards promoting and increasing public transit as a means to reduce traffic congestion, improve air quality and work towards a 20% modal share by 2031.

### **RELEVANT CONSULTATION**

As this is an in-house system dedicated to the HSR, Information Systems staff at HSR has consulted with the City's Information Systems staff to ensure the connections/links and system compatibility between the City's network and the Trapeze Software Inc. system are achievable. Both IS staff have also discussed the way in which expansion can occur in the future at other HSR terminal sites throughout the City.

Metrolinx has been advised of the City's intention of proceeding with the Transit Passenger Information Technology project at the MacNab Transit Terminal and support its implementation under the Quick-Wins program.

### **ANALYSIS / RATIONALE FOR RECOMMENDATION**

Most major transit operators are continually adding facilities and services to enhance their customers travel needs and decisions. Both audible and visual facilities are being introduced for customer service reasons but also to comply with the Accessibility for Ontarians with Disabilities Act (AODA). The recommended Trapeze Software Inc. system is compatible with the systems presently in operation at the HSR. The recommended visual display equipment is designed to withstand the outside elements.

### **ALTERNATIVES FOR CONSIDERATION**

Should the project not proceed, the funds must be allocated to another Metrolinx Quick Wins initiative and be expended prior to December 31, 2013. This is not recommended.

### **CORPORATE STRATEGIC PLAN**

Focus Areas: 1. Skilled, Innovative and Respectful Organization, 2. Financial Sustainability, 3. Intergovernmental Relationships, 4. Growing Our Economy, 5. Social Development, 6. Environmental Stewardship, 7. Healthy Community

#### ***Skilled, Innovative & Respectful Organization***

- ◆ More innovation, greater teamwork, better client focus

#### ***Financial Sustainability***

- ◆ Delivery of municipal services and management capital assets/liabilities in a sustainable, innovative and cost effective manner

#### ***Growing Our Economy***

- ◆ An improved customer service
- ◆ A visitor and convention destination

#### ***Social Development***

- ◆ Residents in need have access to adequate support services

### **APPENDICES / SCHEDULES**

Appendix "A" - Hardware Description

## Hardware Description

1 Line 16 x 192 Pixel Display - (16 x 8 Font)

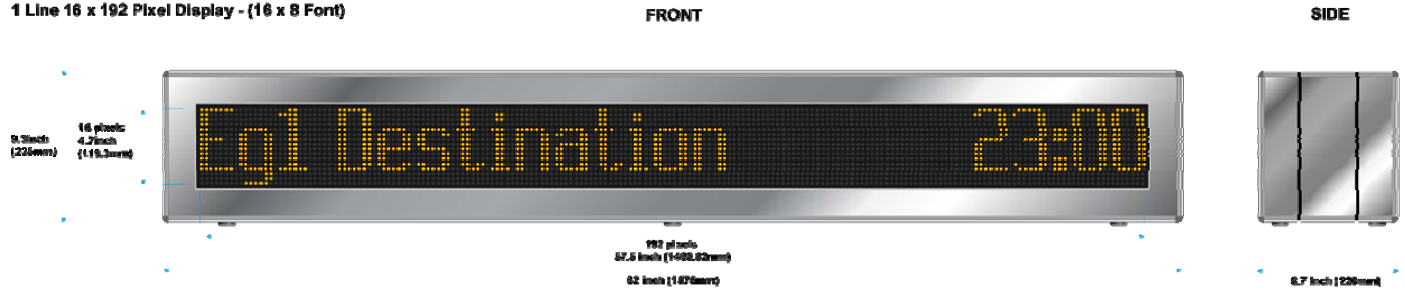


Illustration of Interior Transit Passenger Information Technology inside the MacNab Transit Terminal:

