SUBJECT: Queen Elizabeth Way Pedestrian Crossing/Gateway (PW06109a) - (City Wide)

RECOMMENDATION:

(a) That staff be directed to initiate detailed design of the enhanced pedestrian bridge gateway feature to ensure that the construction of the centre bridge pier on the Queen Elizabeth Way (QEW) can be coordinated with the Ministry of Transportation (MTO) works related to the QEW improvements currently underway;

(b) That the budgeted design costs of $500,000 for the QEW Crossing/Gateway be referred to the 2007 Capital budget for Council’s consideration as previously submitted, and;

(c) That the budgeted construction costs for the QEW Crossing/Gateway of $6,800,000 be referred to the 2008 Capital Budget for Council’s consideration;

(d) That staff be directed to continue to pursue funding partners and other funding sources to offset the cost to the taxpayers of Hamilton for the enhanced pedestrian bridge gateway feature;

(e) That staff be directed to work with the City’s Purchasing Section to negotiate (under Policy 11) with the existing Red Hill Valley Parkway design engineer (McCormick Rankin Corporation and appropriate gateway design sub consultant) for a favourable price to complete the detail engineering design and construction supervision of the enhanced pedestrian bridge and gateway feature.
EXECUTIVE SUMMARY:

August 9, 2006 Council’s direction to staff (Report PW06109), stated that staff be directed to further investigate an enhanced design alternative for the pedestrian bridge to have it also function as a signature gateway feature to the East end of Hamilton. Council also directed staff to ensure the investigations of an enhanced design alternative for the pedestrian bridge gateway feature not delay its construction and the coordination of such with Ministry of Transportation works related to the RHVP/Queen Elizabeth Way improvements. The MTO contract on the QEW requires a final decision on the design of the center pier for the crossing to be located within the median. If delays to the contract are created due to delays in design of the center pier support then the projected $100,000 in traffic control costs will be incurred by the City. Staff are seeking direction to proceed with the detail design of the enhanced pedestrian bridge and gateway to avoid any delays to the coordinated works with MTO.

In the proposed 2007 Capital Budget for Council’s consideration, the total amount budgeted for this project is $500,000 for detailed design of the QEW Gateway with proposed funding from the Capital Levy. Given the Capital project commitments and Capital Levy financing constraints, the affordable capital program significantly decreases, starting in 2008 (2007 - 2016 City Capital Budget Report FCS07022). Therefore, the construction costs of this project ($6.8m), if approved, would be funded from the Capital Levy, which would in turn, decrease from present levels, funds earmarked for infrastructure repair and rehabilitation.

That is why, further to Council’s direction of August 9, 2006, staff have been pursuing potential funding partners for contributions to the Pedestrian Bridge Crossing with Gateway features over the Queen Elizabeth Highway. Conversations with the Waterfront Regeneration Trust, with senior officials at the Ministry of Transportation (MTO), Public Health officials, have not garnered the financial support anticipated. Staff are seeking direction to continue to identify and obtain alternative sources of funding in concurrence with the construction of the enhanced pedestrian bridge and gateway in order to reduce the burden on the taxpayers of Hamilton.

BACKGROUND:

August 9, 2006 Council’s direction to staff (Report PW06109), stated that staff be directed to further investigate an enhanced design alternative for the pedestrian bridge to have it also function as a signature gateway feature to the East end of Hamilton. Further to the direction of Council dated August 9, 2006 (Report PW06109), staff have been pursuing possible additional funding partners to support an enhanced pedestrian bridge gateway feature that will span the Red Hill Marsh and cross the Queen Elizabeth Way. In the previous August 9th report PW06109, staff presented two options for a crossing, a strictly functional crossing and an enhanced crossing that would serve as a gateway feature for the east end of the City. Staff have investigated the enhanced design alternative Staff are asking for Council approval to begin detailed design for an enhanced gateway feature bridge which will serve to connect the Red Hill Valley Trails to the Lake Ontario waterfront.

The trail alignment will provide a barrier-free (slope <1:20) route from the parking area off Brampton Street within the Works Yard of the former Rennie and Brampton Streets Landfill, over the QEW to the Waterfront Trail. This alignment takes advantage of the
topography of the former Brampton Street landfill to meet an elevated crossing over the QEW. The crossing and the associated asphalt trail connection to the Waterfront and Brampton Street parking lot will allow for winter maintenance. In anticipation of a potential crossing, the MTO included the provision for construction of a support pier for a pedestrian bridge in the QEW median in their current construction contract.

The direction sought in this report is time sensitive to allow initiation of detailed design pending the 2007 capital budget approval of $500,000. The design of the center pier within the median of the Queen Elizabeth Highway will be specific to the pedestrian bridge crossing style. The center pier needs to be designed based on which alternative is chosen for the pedestrian crossing structure. The design and engineering solutions for the center pier are not transferable between crossing alternatives.

The information required by the MTO for the construction of the pier must be communicated this spring in order to meet their contractor’s schedule. The pier will be constructed by the existing RHVP/QEW improvements contractor (Aecon Construction and Materials Limited). By taking advantage of the current contractual obligation between the MTO and Aecon, traffic control costs on the QEW will be covered under the existing MTO contract. If delays to the contract are created due to delays in design of the center pier support, then traffic control costs in excess of $100,000 would be incurred by the City when construction does proceed.

Staff have contacted other levels of government and community organizations to gauge interest in funding partnerships for the enhanced gateway feature. The response has been positive to the idea of this gateway project; however there has been no offer of financial contribution at this time. Conversations with the Waterfront Regeneration Trust led to a joint submission: Funding the Gaps for Provincial Infrastructure funding. The Waterfront Regeneration Trust has not yet had any success to date although they are still pursuing this matter. With a provincial election pending they are still optimistic. Meetings with senior officials at the Ministry of Transportation and, Public Health officials have not garnered the financial support anticipated. The MTO has indicated that at this time they are not prepared to contribute any additional funding to this initiative, save and except, the cost of the construction of the center pier in their current contract.

Staff have also been investigating alternative funding sources (e.g. grant programs) and would request Council authorization to continue seeking new funding sources to offset the cost to the taxpayers of Hamilton for this worthwhile project. In January 2005, Council identified the top 6 budget priorities which included the Waterfront and the pedestrian QEW bridge, this was reconfirmed on March 5, 2007 Liuna Station meeting.

**ANALYSIS/RATIONALE:**

In addition to the section of bridge that will cross the QEW, the QEW pedestrian bridge will span the Red Hill Creek and the approximately 40 metres of marsh between the creek and the QEW for a total span of 90 metres (shown in Appendix A). This pedestrian crossing can be maintained throughout the winter with special design provisions being included in order to prevent snow from falling onto the QEW. Accent lighting will also be included to create a visual asset at night without creating a potential for impact to wildlife. The crossing will provide a barrier free route connecting the Waterfront Trail to the Red Hill Valley creating a multi-use recreational trail for the
broadest range of trail users that include: pedestrians, cyclists, roller blades and a
universal design to be useable by all people to the greatest extent possible.

An enhanced gateway feature and pedestrian bridge achieves the following goals:

- Connects the Red Hill Valley Trail and surrounding neighbourhoods to the
  Waterfront Trail with a pedestrian bridge over the QEW.
- Creates a gateway feature visible to vehicles traveling in both directions along the
  QEW as shown in Appendix B.
- Provides a positive visual asset - a Signature - for the east end of Hamilton
  (Gateway Feature).
- Provides an accessible link to the waterfront with a maximum 1:20 slope (barrier-
  free access), per the recently approved Barrier-Free Guidelines (Report
  PW06056/FCS06045).
- Ensures a design that is aesthetically consistent across the entire bridge.
- Includes illumination to enhance this asset at night, without impact on wildlife.

As a comparison, other municipalities have embraced the concept of expressing
gateways through the design of bridges. The City of Toronto created a gateway feature
at the Humber River pedestrian crossing along the waterfront trail (Appendix C).
Toronto could have chosen to construct a strictly functional crossing. The functional
crossing would not stand out to motorists from the Gardiner Expressway and it would
not create a sense of entry for pedestrians along the Waterfront Trail. In addition, the
City of Mississauga will be including accent lighting in their future Confederation
Parkway bridge project over the 403 through the incorporation of pencil style luminaires.
The design of the bridge is to “encourage and attract pedestrians and cyclists” and
provide a gateway “befitting the main entrance to Mississauga’s City Centre” (The
Mississauga News, December 24, 2006)

**ALTERNATIVES FOR CONSIDERATION:**

Strictly Functional Pedestrian Crossing - The pedestrian bridge can be designed as a
simple truss structure, which would not include a gateway design component. The
estimated cost for this alternative is $3.678 million. Although the functional design would
provide a barrier free route the structure would not contribute positively to the visual
character of the east end of Hamilton nor would it contribute to creating a sense of entry
into the City as identified in the Planning and Economic Development Department’s
Gateway Study. Engineering design for the centre support within the QEW will require a
specific solution for this alternative and would not be transferable to another style of
bridge.

**FINANCIAL/STAFFING/LEGAL IMPLICATIONS:**

Financial Implications

August 9, 2006 Council’s direction to staff stated that staff report back on any proposed
increase to the current approved budget for an enhanced pedestrian bridge gateway
feature. Public Works has an existing functional design budget of $150,000 and a 2007
capital budget request for $500,000. (The original 2006 budget forecast of an additional
$1,350,000 was intended to cover the capital cost of construction for a strictly functional
style bridge over the QEW that would not be constructed to the Public Works Barrier
Free guidelines. The revised estimate for this alternative is $3.678 million and includes the barrier free route.)

The original budget of $1,350,000 was identified to Council in the 2005 Capital Budget program. A revised projection was identified in the 2007 Capital Budget program showing $3,400,000 in 2008 and $3,300,000 in 2009 for the enhanced pedestrian bridge and gateway feature (Table 1). In the proposed 2007 Capital Budget for Council’s consideration, the total amount budgeted is $500,000 for detailed design of the QEW Gateway with proposed funding from the Capital Levy. Table 1 compares the 2007 – 2009 total budgeted cost contained in the City’s 2007 Budget Report and supporting schedules with the most current budgeted costs to completion.

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<tr>
<th>Revised Capital Budget QEW Pedestrian Crossing/Gateway</th>
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<tr>
<td>$( $)</td>
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<tr>
<td>2007 capital submission</td>
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<td>Revised 2008 projection</td>
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The 2007 - 2016 City Capital Budget Report FCS07022 explains to Council, that based on existing senior government subsidy programs (most set to expire in 2007), current Capital project commitments and Capital Levy financing constraints, the affordable capital program significantly decreases, starting in 2008. Therefore, the construction costs of this project ($6.8m), if approved, would be funded from the Capital Levy, which would in turn, decrease from present levels, funds earmarked for infrastructure repair and rehabilitation.

The estimated cost of completing the design and construction of the enhanced pedestrian bridge is $150,000 program development; $500,000 for design and engineering; $350,000 environmental controls and mitigation; and $6,450,000 for construction, totalling $7,450,000 in 2008 dollars. This requires approval from Council of an additional $6,800,000 budget for this project. The contractor award would be a multi-year construction project, projected for two years starting in fall 2008 with construction through 2009.

Costs incurred for engineering drawings will not be recoverable if Council chooses to opt for the strictly functional design after design begins on the enhanced gateway crossing design. If delays to the contract are created due to delays in design of the center pier support then the projected $100,000 traffic control costs will be incurred by the City.

**Staffing and Maintenance Implications**

The annual operating impacts upon completion will be $136,000 to maintain the pedestrian crossing and trail extension year round and will be identified as part of the capital budget submissions for the construction funding. The annual operating costs of $136,000 will be added to the 2008 capital budget showing a projection a 2009 onward.
Legal Implications
There is no land purchase requirement. There is an existing contract between MTO and the contractor Aecon Construction and Materials Limited for the Queen Elizabeth Highway improvements.

POLICIES AFFECTING PROPOSAL:
City of Hamilton Barrier Free Design Guidelines which outlines the requirement for City projects to adhere, where possible, to various principles for accessibility, including exterior pedestrian routes.

Vision 2020 the barrier free Red Hill Valley - Waterfront recreational trail connection

Purchasing Policy Section 4.11, Policy for Negotiations - Single Source, subsection (f) allows for City staff to enter into negotiations when a single source for the supply of a particular Good and/or Service is recommended due to its increased cost effectiveness.

Council strategy planning session January 2005 and March 2007, top 6 City priorities and initiatives

RELEVANT CONSULTATION:
Internal
Budgets & Finance Division, Corporate Services Department
Operations & Maintenance Division, Public Works Department
Red Hill Valley Project Office, Public Works Department
Capital Planning & Implementation Division, Public Works Department

External
Conversations are continuing with the Ministry of Transportation, Hamilton Conservation Authority, and Waterfront Regeneration Trust.

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
Partnerships are promoted and outdoor educational opportunities are enhanced.

Environmental Well-Being is enhanced. ☑ Yes ☐ No
Ecological function and the natural heritage system are protected.

Economic Well-Being is enhanced. ☑ Yes ☐ No
Hamilton's high-quality environmental amenities are maintained and enhanced.

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
Simulated view of pedestrian crossing and tilted arch as seen from QEW traveling Westbound to Niagara (ABOVE)

Simulated view crossing the arch travelling north toward Lake Ontario (ABOVE)

Simulated view crossing the arch travelling south over the QEW (ABOVE)

Gateway arch facing North (ABOVE)