MEDIA RELEASE: Friday, April 5, 2013, 4:30 p.m.

REGIONAL MUNICIPALITY OF WATERLOO
PLANNING AND WORKS COMMITTEE
AGENDA

Tuesday, April 9, 2013
Immediately following Public Meetings
Regional Council Chamber
150 Frederick Street, Kitchener

1. DECLARATION OF PECUNIARY INTEREST UNDER THE MUNICIPAL CONFLICT OF INTEREST ACT

2. DELEGATIONS

CONSENT AGENDA ITEMS
Items on the Consent Agenda can be approved in one motion of Committee to save time. Prior to the motion being voted on, any member of Committee may request that one or more of the items be removed from the Consent Agenda and voted on separately.

3. REQUEST TO REMOVE ITEMS FROM CONSENT AGENDA

4. MOTION TO APPROVE ITEMS OR RECEIVE FOR INFORMATION COMMUNITY PLANNING

a) P-13-032, Monthly Report of Development Activity for February 2013 (Approval) 1

b) P-13-040, Amendment of Terms of Reference of Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee (Approval) 4

c) E-13-045, Consultant Selection – Preliminary Design, Detailed Design and Construction Administration and Inspection Services, for Ottawa Street Improvements, Highway 7 Eastbound Ramp to Lackner Boulevard, City of Kitchener (Approval) 8

d) E-13-049, Traffic Management for 2013 Road Construction Contracts (Information) 15

e) E-13-051, Consultant Selection – Class Environmental Assessment, Detailed Design and Services During Construction, Northumberland Street/Swan Street from the CPR Tracks to Hilltop Drive, Township of North Dumfries (Approval) 23

f) E-13-047, Consultant Selection for the New Hamburg Wastewater Treatment Plant Expansion Class Environmental Assessment and Preliminary Design (Approval) 30

g) Memo: Fairway Road Extension from East of Pebble Creek Drive to West of 35

1362203
Zeller Drive - Noise Barrier Assessment and Landscaping Features Review - City of Kitchener (Information)

REGULAR AGENDA RESUMES

5. REPORTS – TRANSPORTATION AND ENVIRONMENTAL SERVICES

DESIGN AND CONSTRUCTION
a) E-13-019, Hespeler Road / Canadian Pacific Railway Grade Separation Urban Design Enhancements, City of Cambridge

RAPID TRANSIT
b) E-13-048, Stage 1 Light Rail Project – Request for Proposal Technical Matters
c) E-13-050, Recommended Location and Access Modifications for Grand River Hospital Rapid Transit Stop

WATER SERVICES
d) Class Environmental Assessment for Biosolids Heat Drying Facility – Information Package in Advance of Public Information Centre No. 2 (Staff Presentation)

6. INFORMATION/CORRESPONDENCE
a) Council Enquiries and Requests for Information Tracking List

7. OTHER BUSINESS

8. NEXT MEETING – April 30, 2013

9. ADJOURN
## NEXT MEETINGS

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning and Works Committee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 30, 2013</td>
<td>9:00 A.M.</td>
<td>Planning and Works Committee</td>
<td>Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario</td>
</tr>
<tr>
<td>May 28, 2013</td>
<td>9:00 A.M.</td>
<td>Public Input Meeting for Walk Cycle Waterloo Region, Active Transportation Master Plan</td>
<td>Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario</td>
</tr>
<tr>
<td>May 28, 2013</td>
<td>9:10 A.M.</td>
<td>Planning and Works Committee</td>
<td>Council Chamber 2nd Floor, Regional Administration Building 150 Frederick Street Kitchener, Ontario</td>
</tr>
<tr>
<td>Transportation and Environmental Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wed., April 10, 2013</td>
<td>5:00 P.M.</td>
<td>Class Environmental Assessment for Biosolids Heat Drying Facility - Public Information Centre No. 2</td>
<td>Kitchener-Waterloo Bilingual School 600 Erb St West Waterloo, ON N2L 2Z4</td>
</tr>
<tr>
<td></td>
<td>7:30 P.M.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mon., April 15, 2013</td>
<td>5:00 P.M.</td>
<td>Class Environmental Assessment for Biosolids Heat Drying Facility - Public Information Centre No. 2</td>
<td>Cambridge Sports Park 1001 Franklin Blvd Cambridge, ON N1R 8B5</td>
</tr>
<tr>
<td></td>
<td>7:30 P.M.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Report: P-13-032

REGION OF WATERLOO
PLANNING, HOUSING AND COMMUNITY SERVICES
Community Planning

TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 9, 2013

FILE CODE: D18-01

SUBJECT: MONTHLY REPORT OF DEVELOPMENT ACTIVITY FOR FEBRUARY 2013

RECOMMENDATION:


SUMMARY:

In accordance with the Regional By-law 01-028, as amended, the Commissioner of Planning, Housing and Community Services has:

1. Accepted the following plan of subdivision;
2. Draft approved the following plans of subdivision; and
3. Released for registration the following plans of subdivision.

REPORT:

City of Cambridge

1. Plan of Subdivision Application 30T-13101
   Date Accepted: February 25, 2013
   Applicant: LVH (MC) Developments Inc.
   Location: 1395 Main Street East
   Proposal: To permit the development of 120 to 123 single detached units and 75 to 80 multiple dwelling units (cluster townhouses); a school and a park.
   Regional Processing Fee: Paid February 7, 2013

2. Draft Approval of Plan of Subdivision 30T-12101
   Applicant: Daiseyfield Developments Corp.
   Location: Fraserwood Court
   Proposal: To permit the development of 26 single detached units.
   Regional Processing Fee: Paid February 26, 2013
   Commissioner’s Approval: February 26, 2103
   Came Into Effect: March 19, 2013
3. **Registration of Draft Plan of Subdivision 30T-87023**
   - Draft Approval Date: September 14, 1989
   - Phase: Phase 2 and 3
   - Applicant: Grand Ridge Estates
   - Location: Salisbury Avenue
   - Proposal: To permit the development of 47 single detached units.
   - Regional Processing Fee: Paid January 30, 2013

4. **Registration of Draft Plan of Subdivision 30T-97003**
   - Draft Approval Date: December 9, 1997
   - Phase: Phase 3 (Final)
   - Applicant: Grand Ridge Estates
   - Location: Hardcastle Drive
   - Proposal: To permit the development of 41 single detached units.
   - Regional Processing Fee: Paid January 30, 2013

5. **Registration of Draft Plan of Condominium 30CDM-12102**
   - Draft Approval Date: December 20, 2012
   - Phase: Phase 1
   - Applicant: Deerfield Homes Ltd.
   - Location: 750 Lawrence Street
   - Proposal: To permit the development of 31 townhouse units.
   - Regional Processing Fee: February 14, 2013

**City of Waterloo**

1. **Draft Approval of Plan of Subdivision 30T-11403**
   - Applicant: Krissons Holdings Limited
   - Location: Maverick Street
   - Proposal: To permit the development of 4 street-fronting townhouse units and 21 medium density terrace townhouse units.
   - Regional Processing Fee: Paid January 23, 2013
   - Commissioner’s Approval: February 19, 2013
   - Came Into Effect: March 12, 2013

### Residential Subdivision Activity January 1, 2013 to February 28, 2013

<table>
<thead>
<tr>
<th>Area Municipality</th>
<th>Units in Residential Registered Plans</th>
<th>Residential Units Draft Approved</th>
<th>Pending Plans (Units Submitted)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Kitchener</em></td>
<td>27</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Waterloo</td>
<td>0</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Cambridge</td>
<td>88</td>
<td>26</td>
<td>203</td>
</tr>
<tr>
<td>Woolwich</td>
<td>0</td>
<td>0</td>
<td>531</td>
</tr>
<tr>
<td>Wilmot</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>North Dumfries</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wellesley</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Region of Waterloo</td>
<td>115</td>
<td>51</td>
<td>734</td>
</tr>
</tbody>
</table>

*The acceptance and/or draft approval of plans of subdivision and condominium processed by the City of Kitchener under delegated approval authority are not included in this table.*
For comparison, the following table has also been included:

### Residential Subdivision Activity January 2012 to February 29, 2012

<table>
<thead>
<tr>
<th>Area Municipality</th>
<th>Units in Residential Registered Plans</th>
<th>Residential Units Draft Approved</th>
<th>Pending Plans (Units Submitted)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Kitchener</em></td>
<td>91</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Waterloo</td>
<td>198</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cambridge</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Woolwich</td>
<td>0</td>
<td>0</td>
<td>154</td>
</tr>
<tr>
<td>Wilmot</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>North Dumfries</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wellesley</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Region of Waterloo</td>
<td>289</td>
<td>0</td>
<td>154</td>
</tr>
</tbody>
</table>

*The acceptance and/or draft approval of plans of subdivision and condominium processed by the City of Kitchener under delegated approval authority are not included in this table.*

### Area Municipal Consultation/Coordination

These planning approvals, including consultation with Area Municipalities, have been completed in accordance with the Planning Act. All approvals contained in this report were supported by the Area Municipal councils and/or staff.

### CORPORATE STRATEGIC PLAN:

This report reflects actions taken by the Commissioner in accordance with the Delegation By-law adopted by Council. The activities described in this report are operational activities with the objective of Focus Area 1: Growth Management and Prosperity.

### FINANCIAL IMPLICATIONS:

NIL

### OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

NIL

**PREPARED BY:** Andrea Banks, Program Assistant

**APPROVED BY:** Rob Horne, Commissioner of Planning, Housing and Community Services
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 9, 2013

FILE CODE: C05-20

SUBJECT: AMENDMENT OF TERMS OF REFERENCE OF LAUREL CREEK HEADWATERS ENVIRONMENTALLY SENSITIVE LANDSCAPE PUBLIC LIAISON COMMITTEE

RECOMMENDATION:

THAT the Regional Municipality of Waterloo amend section 4 of the Terms of Reference of the Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee, as described in Report No. P-13-040, dated April 9, 2013.

SUMMARY:

Council approved the Terms of Reference of the Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee on December 12, 2007, pursuant to Minutes of Settlement related to the appeal of Regional Official Policies Plan Amendment 22 (designation of two Environmentally Sensitive Landscapes). Section 4 of the Terms of Reference lists the committee members: nine residents or landowners within the Laurel Creek Headwaters Environmentally Sensitive Landscape and nominees of the Regional Ecological and Environmental Advisory Committee, an agricultural organization, and the Waterloo Stewardship Network.

Reductions in the 2012 Provincial budget resulted in the withdrawal of Ministry of Natural Resources support for the Waterloo Stewardship Network late in 2012. Nevertheless, the members decided to incorporate as a separate entity to continue the stewardship work of the former Waterloo Stewardship Network. The successor organization, known as the Waterloo Stewardship Council, was formally incorporated early in 2013, and has expressed an interest in continuing involvement with the Committee on the same basis as the former Waterloo Stewardship Network. It is therefore recommended that the Terms of Reference of the Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee be amended to replace the reference to the “Waterloo Stewardship Network” with the “Waterloo Stewardship Council.”

Although seemingly a minor edit, this amendment is being submitted for Council’s consideration because the Terms of Reference are part of Minutes of Settlement earlier approved by Council and the Ontario Municipal Board. Further, although the names of the two organizations are very similar, they are essentially different. The Waterloo Stewardship Network was an organization established and staffed by the Ministry of Natural Resources. The new Waterloo Stewardship Council is an independently constituted organization.

REPORT:

The Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee was established on December 12, 2007, when Council approved its Terms of Reference pursuant to Minutes of Settlement related to the appeal of Regional Official Policies Plan Amendment 22 (designation of two Environmentally Sensitive Landscapes). The Terms of Reference were originally attached to Report P-07-123 dated December 4, 2007, and are reproduced in Attachment A to this report.
Section 4 of the Terms of Reference lists the committee members. They include nine residents or landowners within the Laurel Creek Headwaters Environmentally Sensitive Landscape, along with nominees of the Regional Ecological and Environmental Advisory Committee, an agricultural organization, and the Waterloo Stewardship Network.

Reductions in the 2012 Provincial budget resulted in the Ministry of Natural Resources ceasing to support the Waterloo Stewardship Network toward the end of the year, and the organization was wound up. The members decided to incorporate as a separate entity to continue the stewardship work of the former Waterloo Stewardship Network. The successor organization, known as the Waterloo Stewardship Council, was formally incorporated early in 2013. The Waterloo Stewardship Council is interested in continuing involvement with the Committee on the same basis as the former Waterloo Stewardship Network, and has even nominated a member to serve on the Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee.

It is therefore recommended that the Terms of Reference of the Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee be amended to replace the reference to the “Waterloo Stewardship Network” with the “Waterloo Stewardship Council.”

Although seemingly a minor edit, this amendment is being submitted for Council’s consideration because the Terms of Reference are part of Minutes of Settlement earlier approved by Council and the Ontario Municipal Board. Further, although the names of the two organizations are very similar, they are essentially different. The Waterloo Stewardship Network was an organization established and staffed by the Ministry of Natural Resources. The new Waterloo Stewardship Council is an independently constituted organization.

Area Municipal Consultation/Coordination

The recommended change will not affect the Area Municipalities in which the Environmentally Sensitive Landscape is located.

CORPORATE STRATEGIC PLAN:

The Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee helps implement Action 1.5.3 of fostering partnerships to protect our environmentally sensitive lands such as ESLs.

FINANCIAL IMPLICATIONS:

NIL

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Council and Administrative Services will amend the Terms of Reference as directed by Council.

ATTACHMENTS:

Attachment A – Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee Terms of Reference

PREPARED BY: Chris Gosselin, Manager of Environmental Planning

APPROVED BY: Rob Horne, Commissioner of Planning, Housing and Community Services
ATTACHMENT A
Laurel Creek Headwaters Environmentally Sensitive Landscape
Public Liaison Committee

Terms of Reference

1. Purpose and Objectives

The Laurel Creek Headwaters Environmentally Sensitive Landscape Public Liaison Committee (the Committee) will provide a community-based forum to monitor, discuss and provide periodic advice to the Region on how best to implement the objectives of the Regional Planning Policies for the Laurel creek Headwaters Environmentally Sensitive Landscapes (ESL).

2. Mandate/Areas of Focus

The Committee shall monitor and provide periodic advice to Regional Staff (Planning, Housing and Community Services) on the following matters:

- Providing advice on the development of Implementation Guidelines referred to in Section 4.6.22 of the Regional Official Policies Plan;
- Developing tools for promoting diversity and connectivity of natural features and environmental linkages within the ESL;
- Protection of environmental resources within the ESL including impacts of increased water taking requiring the Region to undertake a Schedule B or C Class Environmental Assessment or full Environmental Assessment, or where a permit for taking water is submitted to the Region in its role as a commenting agency;
- Monitoring and assessing impacts resulting from recreational uses within the ESL;
- Monitoring and assessing impacts on farm viability and other land uses within the ESL in order to recommend if potential investigation is required as part of any future update to the Regional Official Policies Plan;
- Explore and report on opportunities to promote private land stewardship to achieve environmental protection and conservation objectives;
- Explore and report on options to fund and purchase lands for conservation purposes;
- How to address other relevant issues of concern that are raised by residents and property owners within the ESL;
- Provide comments on Regional Office Policies Plan amendments proposing changes to the ESL policies and/or mapping; and
- Proposing refinements to the Terms of Reference relating to procedural matters of the Committee.

3. Role and Responsibilities

To advise the Region and to foster constructive dialogue amongst the Region, property owners, farmers and farm business and other stakeholder and interested parties within the ESL (“Laurel Creek Stakeholders”) on both implementing the policy objectives of the ESL and addressing stakeholder issues that arise as these policies are implemented.

To address relevant issues that may be brought forward by Laurel Creek Stakeholders related to the implementation of the ESL in systematic way, and bring these matters forward to the Region for consideration.
To provide advice on how to disseminate information regarding land use activities within the ESL.

4. Committee Membership

Membership of the Committee will consist of twelve (12) persons to be appointed by Regional Council as follows:

- One (1) to be nominated by the Waterloo Stewardship Network;
- One (1) to be nominated from any of the three accredited farm organizations being the Waterloo Federation of Agriculture, the Christian Farmers Federation of Ontario, and the National Farmers Union, with such members being nominated by these organizations on a rotating basis, where possible;
- One (1) member to be nominated by the Ecological and Environmental Advisory Committee (EEAC);
- Nine (9) persons to be appointed who reside or own land in the ESL, with at least one from each of the City of Waterloo, Township of Wellesley, Township of Wilmot, and Township of Woolwich.

To ensure continuity in ongoing membership within the Committee, three of the nine members will initially be appointed for three-year terms, three for two-year terms, and three for one year terms. All subsequent appointments will be for three-year terms. If a member leaves the Committee before the stated expiry date of his or her term, a replacement shall be appointed by Regional Council to complete the balance of that term.

All members of the Committee are eligible to be considered for re-appointment up to a maximum of nine consecutive years.

5. Rules of order and procedure

The Chair and Vice-Chair of the Committee shall be elected from among the members at the first meeting of each calendar year. The Vice-Chair will chair the committee in the absence of the Chair.

Primary staff support for the Committee will be provided by the Region of Waterloo’s Planning, Housing and Community Services Department.

The Committee shall determine the frequency and subject matter of future meetings.

The Committee may select agenda items and advise staff.

Minutes of the meetings will be recorded and distributed to all Committee members to ensure follow-up on issues discussed.

6. Reporting to Regional Council

The Committee shall provide an annual report to Council which reports on the areas of focus outlined in section 2 above. At the discretion of the Committee, the Committee may also provide additional reports on specific matters within its mandate.

Approved by Regional Council, December 12, 2007
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 9, 2013

FILE CODE: C04-30, 5376

SUBJECT: CONSULTANT SELECTION – PRELIMINARY DESIGN, DETAILED DESIGN AND CONSTRUCTION ADMINISTRATION AND INSPECTION SERVICES, FOR OTTAWA STREET IMPROVEMENTS, HIGHWAY 7 EASTBOUND RAMP TO LACKNER BOULEVARD, CITY OF KITCHENER

RECOMMENDATION:

THAT the Regional Municipality of Waterloo enter into a Consultant Services Agreement with MTE Consultants Inc. of Kitchener, Ontario to provide consulting engineering services for the preliminary design, detailed design, contract administration and construction inspection for the Ottawa Street Improvements from Highway 7 Eastbound Ramp to Lackner Boulevard in the City of Kitchener at an upset limit of $261,572.66 plus applicable taxes, as per Report E-13-045 dated April 9, 2013, for the preliminary design and detailed design phases with contract administration and construction inspection to be paid on a time basis.

SUMMARY:

The Region of Waterloo wishes to proceed with the Ottawa Street Improvements from Highway 7 Eastbound Ramp to Lackner Boulevard in the City of Kitchener. This project is approximately 2.64 km in length and as such construction is planned to be staged in 2 separate construction seasons. The first stage from Highway 7 Eastbound Ramp to Old Chicopee Drive is scheduled for 2016 and the second stage from Old Chicopee Drive to Lackner Boulevard is scheduled for 2019. This project includes improvements to address poor pavement condition, replacement of some storm sewer sections due to deterioration, installation of infill sidewalks at various locations, new curb where none exists today, cycling facilities on both sides of the road and consideration of various intersection improvements throughout the corridor.

The Project Team includes staff representatives from the Region of Waterloo and the City of Kitchener as well as the local ward Councillor Scott Davey.

In order to meet the 2016 construction start timeline, an engineering consultant must be hired now to undertake the preliminary design, detailed design and construction administration. An invitation for Letters of Interest to provide engineering services was advertised in the Waterloo Region Record and posted on the Region’s website. Twelve (12) firms submitted proposals, out of which four (4) were short-listed.

Based on the evaluation criteria, review of the detailed work plans, schedules and upset fees provided by the shortlisted consultants, the Evaluation Team recommends that MTE Consultants Inc. be retained to undertake this assignment at an upset fee limit of $261,572.66 plus applicable taxes for the preliminary design and detailed design phases with contract administration and construction inspection to be paid on a time basis.
REPORT:

1. Background

Improvements on Ottawa Street from the Highway 7 Eastbound Ramp to Lackner Boulevard in the City of Kitchener are identified in the Region’s 2013 Ten Year Transportation Capital Program for construction in 2016 (Highway 7 Eastbound Ramp to Old Chicopee Drive) and in 2019 (Old Chicopee Drive to Lackner Boulevard) in order to address the deteriorated road condition, storm sewer replacement needs and various intersection improvements. Other improvements to be considered include new curb and gutter installation, repair/replacement of deteriorated sidewalks, new infill sidewalks at various locations including pedestrian and cycling refuge crossings to accommodate connections to local trails and pathways as well as the installation of cycling facilities as part of the proposed reconstruction. Planning of these improvements will be completed in accordance with the Schedule ‘A+’ requirements of the Municipal Class Environmental Assessment (Class EA).

The Ottawa Street project limits are from Highway 7 Eastbound Ramp to Lackner Boulevard as shown on the Key Plan in Appendix “A”. Ottawa Street within the project limits consist of a 4 lane rural cross section between Highway 7 and Dreger Avenue (across the Stanley Park Conservation Area frontage), a 4 lane urbanized road from Dreger Avenue to Breckinridge Drive and a 2 lane semi-urbanized road from Breckinridge Drive to Lackner Boulevard. The posted speed limit through the entire 2.64 km project length is 50 km/hr.

The Project Team includes staff representatives from the Region and the City of Kitchener as well as the local ward Councillor Scott Davey.

Under the Region’s Transportation Corridor Design guidelines, Ottawa Street is designated as an “Urban Neighborhood Connector – Avenue” and the abutting land on Ottawa Street is a mix of residential, institutional and commercial uses.

Within the project limits, Ottawa Street has signalized intersections at the Highway 7 Eastbound Ramp, Franklin Street, Midland Drive, Stanley Park Mall Entrance, River Road, Old Chicopee Drive, Heritage Drive and Lackner Boulevard. The following intersection improvements are under consideration as part of this project:

- Storage extension of the eastbound right turn lane on Ottawa Street at Franklin Street North;
- Storage extension of the westbound left turn lane on Ottawa Street at the Highway 7 Ramp in conjunction with intersection configuration changes at Nottingham Avenue;
- Storage extension of the northbound right turn lane(s) on River Road and on Franklin Street North;
- Installation of an east bound left turn lane at Hickson Drive;
- Improvements at Old Chicopee Drive (review of lane configurations, pedestrian function and geometrics); and
- Improvements to the Intersection Pedestrian Signal performance at Midland Drive.

Regional staff is fully committed to other capital projects at this time and therefore staff recommends that an external consultant be hired to complete this project. Staff has determined that it is necessary to commence the engineering for this project now, in order to provide sufficient time to complete the design phases, acquire any necessary property and complete utility relocations, if necessary, in advance of construction.
2. Consultant Selection

An invitation for Letters of Interest to provide engineering services for this project was advertised in the Waterloo Region Record and posted on the Region’s website on January 25, 2013. Twelve (12) consultants submitted Letters of Interest. Following a review of the submissions, four (4) firms were short-listed based on their qualifications. The detailed work plans and upset fee quotes for design activities, plus an estimate of fees for contract administration and construction inspection services from the short listed consultants were then reviewed and a final selection was made based on the evaluation criteria.

The four short-listed consultants were:
- IBI Group
- MTE Consultants Inc.
- Walter Fedy, and
- Delcan Corporation

The Evaluation Team involved with the consultant selection consisted of:
- Satinderjit Bahia, Engineering Technologist, Transportation Engineering
- Ken Carmichael, Interim Director, Transportation Services, City of Kitchener
- Gary MacDonald, Head, Transportation Rehabilitation Program, Design and Construction
- Mike Henderson, Project Manager, Design and Construction

The evaluation criteria used for selecting the successful consultant were in accordance with the Region’s Purchasing By-law and included price as a factor in the selection process. These evaluation criteria and their respective weightings were as follows:

**Quality Factors**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Approach and Understanding</td>
<td>35%</td>
</tr>
<tr>
<td>Experience of the Project Manager</td>
<td>20%</td>
</tr>
<tr>
<td>Experience of the Project Support Staff</td>
<td>10%</td>
</tr>
<tr>
<td>Experience on Similar Projects</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Equity Factors**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Workload for Region</td>
<td>3%</td>
</tr>
<tr>
<td>Local Office</td>
<td>2%</td>
</tr>
</tbody>
</table>

**Price Factor**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upset Price</td>
<td>15%</td>
</tr>
</tbody>
</table>

The Letters of Interest submitted by the four short-listed consultants demonstrated a good understanding of the project, capable project teams and experience on similar projects. When considering all quality, equity and price factors, the submission from MTE Consultants Inc. scored the highest. MTE Consultants Inc. had the lowest upset fee submission. Based on the above evaluation criteria, including the review of the detailed work plans, project approach, schedules and upset fees provided, the Evaluation Team recommends that MTE Consultants Inc. be retained to provide the preliminary design, detail design, contract administration and construction inspection services for this project.
3. **Scope of Work**

For this engineering assignment, the consultant will: undertake a complete review of required infrastructure for existing and future conditions; develop and assess transportation improvement/reconstruction alternatives; conduct a public participation program; complete the preliminary and detailed design for the road improvements/reconstruction; assess the advantages and disadvantages of different construction staging alternatives; make presentations to Regional Planning and Works Committee; prepare contract drawings, specifications and tender documents; obtain all necessary agency approvals; assist during the tendering period; provide contract administration and site inspection services during construction; prepare record drawings; and provide post-construction services during the warranty period. A breakdown of the successful consultant’s upset fee is included in Appendix B attached to this report.

4. **Schedule**

Subject to Council’s approval of the consultant assignment, the proposed implementation schedule is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Plan, Preliminary Design and Generation of Alternatives</td>
<td>Summer 2013</td>
</tr>
<tr>
<td>Public Consultation Centre</td>
<td>Fall 2013</td>
</tr>
<tr>
<td>Council Approval of Recommended Alternative</td>
<td>Spring 2014</td>
</tr>
<tr>
<td>Property Acquisition, Utility Relocations, Final Design and Tendering</td>
<td>Spring 2014 – Spring 2016</td>
</tr>
<tr>
<td>Construction - Highway 7 to Old Chicopee Drive</td>
<td>Spring - Fall 2016</td>
</tr>
<tr>
<td>Construction - Old Chicopee Drive to Lackner Boulevard</td>
<td>Spring - Fall 2019</td>
</tr>
</tbody>
</table>

5. **Consultant’s Upset Fee**

The short-listed consultants provided an upset fee for professional services for public consultation and engineering design, and also an estimate of contract administration and construction inspection fees. On road and bridge projects, the time required for contract administration and construction inspection can vary significantly depending on weather conditions, unforeseen developments during construction, contractor performance, and other unknown variables. Because an upset fee does not lend itself well to these types of services, it has been the Region’s practice on road and bridge projects to pay for contract administration and construction inspection services on a time basis. It is recommended that this same practice be followed for this project. For budgetary purposes, staff has estimated the cost of contract administration and construction inspection services to be $265,968.56 which is based on the preliminary estimate of fees submitted by MTE Consultants Inc. and a review of costs on similar projects.

The upset limit for MTE Consultants Inc. to undertake the preliminary and detailed design phases of this project is $261,572.66 (plus applicable taxes) for consultant fees and disbursements.

The total estimated construction cost for this overall project including both the Region’s and City work is $5,275,000. The upset fee for the design phases is $261,572.66 and approximately represents 4.9% of this estimated construction value which is considered competitive for a project of this magnitude and complexity. The upset fee includes the assembly of base plans,
investigation of various alternatives, coordination with concerned agencies, a public participation program, preliminary design, detail design and preparation of tender documents.

CORPORATE STRATEGIC PLAN:

This project meets the Region’s (2011-2014) Corporate Strategic Plan objective 2.2 to “Develop, optimize and maintain infrastructure to meet current and projected needs” under Focus Area 2 “Growth Management and Prosperity”.

FINANCIAL IMPLICATIONS:

The Region’s approved 2013 Transportation Capital Program includes funds of $5,275,000 in years 2013-2019 inclusive for this project to be funded from the Road Rehabilitation Reserve Fund.

Based on the $261,572.33 upset fee limit of MTE Consultants Inc. the net cost of this consulting assignment is $267,176.86 as per the following breakdown:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTE Consultants Inc.</td>
<td>$261,572.66</td>
</tr>
<tr>
<td>H.S.T (13%)</td>
<td>+$34,004.45</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>$295,577.11</td>
</tr>
<tr>
<td>Less: Municipal Rebate of 86.46% of HST</td>
<td>-$28,400.25</td>
</tr>
<tr>
<td>Total</td>
<td>$267,176.86</td>
</tr>
</tbody>
</table>

MTE Consultants Inc. total fees for the preliminary and detailed design and contract administration/construction inspection are within the consulting fee allowance provided for in the total budget for this project, which is all to be funded from the Roads Rehabilitation Reserve Fund. The approved 2013 Ten Year Transportation Capital Program includes $170,000 for this project in 2013, which is sufficient funding to cover the scheduled consultant expenditures in 2013.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

NIL

ATTACHMENTS:

Appendix A: Project Key Plan
Appendix B: Breakdown of Consultant’s Upset Fee

PREPARED BY: Mike Henderson, Project Manager, Design and Construction.

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services.
APPENDIX B

PRELIMINARY AND DETAILED DESIGN FOR OTTAWA STREET IMPROVEMENTS,
HIGHWAY 7 EASTBOUND RAMP TO LACKNER BOULEVARD
CITY OF KITCHENER

BREAKDOWN OF CONSULTANT’S UPSET FEE

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Project Initiation/Data Collection/Base Plan Preparation</td>
<td>$58,986.88</td>
</tr>
<tr>
<td>2. Class EA and Preliminary Design</td>
<td>$88,915.25</td>
</tr>
<tr>
<td>3. Detailed Design and Approvals</td>
<td>$94,811.28</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Sub-total</td>
<td>$261,572.66</td>
</tr>
<tr>
<td>HST</td>
<td>$34,004.45</td>
</tr>
<tr>
<td>Total Upset Fee</td>
<td>$295,577.11</td>
</tr>
</tbody>
</table>
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 9, 2013

FILE CODE: T04-20, 5555

SUBJECT: TRAFFIC MANAGEMENT FOR 2013 ROAD CONSTRUCTION CONTRACTS

RECOMMENDATION:

For Information Only

SUMMARY:

NIL

REPORT:

As has been customary in past years, staff has produced this report for information purposes to provide details on the major road construction activity in the Region of Waterloo in the current year. The attached tables provide information on projects greater than one month in duration that will be undertaken in 2013 on major arterial Regional roads or on major Area Municipal streets. The tables also include the on-going construction work on provincial highways within the Region of Waterloo that is being undertaken by the Ontario Ministry of Transportation (MTO).

Each year, Region staff consults with representatives of the three Cities to plan and coordinate the next year’s collective road construction programs. At these meetings staff:

• Confirm respective priorities and needs;
• Consider combining construction contracts to reduce costs and minimize public inconvenience;
• Coordinate the proposed work to optimize the number of key major roads that are open and available to traffic;
• Organize the sequence of construction and detours to minimize public disruption; and
• Coordinate public notifications.

Region and City staff acknowledge that any road construction on an existing road will involve lane restrictions and a certain amount of disruption to traffic. In order to minimize the disruption while efficiently completing the required work, a number of basic traffic management principles are applied in the design of each individual construction project. All designs take into account the following traffic management principles:

• Accommodation of emergency services;
• Ensuring the safety of construction staff;
• Maintenance of safe passage through construction;
• Minimizing disruption (motorists, pedestrians, cyclists, transit);
• Maintaining accesses;
• Minimizing lane restrictions;
• Providing for Municipal garbage collection; and
• Minimizing overall construction duration.

As a result of the joint efforts of staff at the Region and the three Cities, the collective construction programs are planned and coordinated with the objective of minimizing overall public disruption while delivering the transportation needs of the broader community.

A list of the major construction activity for 2013 is contained in Appendix A. The list identifies construction contracts that affect area highways, major arterials or major Area Municipal streets and that are greater than one month in duration.

The Region’s website also provides a complete listing of all active 2013 Region construction projects for reference by the public. Included in the website listing are the limits and duration of each project as well as the traffic restrictions or detours in effect for each project.

CORPORATE STRATEGIC PLAN:

The Region’s coordination of construction programs with City staff is in harmony with Focus Area 5 – Service Excellence of the Strategic Plan by contributing to Objective 5.6 to strengthen and enhance partnerships with area municipalities.

The completion of the 2013 capital roads program will support Focus Area 2 – Growth Management and Prosperity of the Strategic Plan and in particular Strategic Objective 2.2 by continuing to develop, optimize and maintain infrastructure to meet current and projected needs.

FINANCIAL IMPLICATIONS:

NIL

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

NIL

ATTACHMENTS:

Appendix A - 2013 Construction on Major Roads

PREPARED BY:  Gary MacDonald, Head, Transportation Rehabilitation Program

APPROVED BY:  Thomas Schmidt, Commissioner, Transportation and Environmental Services
APPENDIX A-1

2013 Construction on Major Roads in the City of Kitchener

<table>
<thead>
<tr>
<th>Project</th>
<th>Managed by</th>
<th>Limits</th>
<th>Traffic Restrictions</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major projects</strong></td>
<td></td>
<td></td>
<td>2013 Traffic Restrictions:</td>
<td></td>
</tr>
<tr>
<td>(more than one month duration)</td>
<td></td>
<td></td>
<td>(March - November)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Westmount Road reduced to one lane each direction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Courtland Avenue reduced to one lane each direction</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Highway 7/8 nightly lane closures for paving</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Two separate weekend closures of Westmount Road and Courtland Avenue for bridge deck work (Spring)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Closure of eastbound 7/8 off-ramp at Courtland Avenue (Spring)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Closure of Courtland Avenue on-ramp to westbound 7/8 (Fall)</td>
<td></td>
</tr>
<tr>
<td>Highway 7/8 Widening</td>
<td>MTO</td>
<td>1.9 km West of Fischer-Hallman Road to Courtland Avenue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highway 7/85 Paving</td>
<td>MTO</td>
<td>Krug Street to Bridgeport Road</td>
<td>Nightly lane closures for paving</td>
<td>Summer 2013</td>
</tr>
<tr>
<td>Westmount Road Reconstruction</td>
<td>Region</td>
<td>Greenbrook Drive to Victoria Street</td>
<td>Reduced to one lane each way</td>
<td>Spring to Fall 2013</td>
</tr>
<tr>
<td>Victoria Street Bridge Rehabilitation</td>
<td>Region</td>
<td>Over the Grand River (west of Breslau)</td>
<td>Reduced to one lane each way</td>
<td>Spring to Fall 2013</td>
</tr>
<tr>
<td>Weber Street Widening</td>
<td>Region</td>
<td>College Street to Union Street</td>
<td>One lane maintained each way on new temporary road</td>
<td>Summer 2013 to Fall 2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Periodic short-term full intersection closures</td>
<td></td>
</tr>
</tbody>
</table>
## APPENDIX A-2

**2013 Construction on Major Roads in the City of Kitchener (continued)**

<table>
<thead>
<tr>
<th>Project</th>
<th>Managed by</th>
<th>Limits</th>
<th>Traffic Restrictions</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major projects (more than one month duration)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fairway Road Extension</td>
<td>Region</td>
<td>West of Old Zeller Drive to west of Pebble Creek Drive</td>
<td>Periodic lane closures. One lane each way maintained.</td>
<td>Spring 2013</td>
</tr>
<tr>
<td>New Dundee Road Watermain</td>
<td>Region</td>
<td>Reichert Drive to Executive Place</td>
<td>Reduced to one lane with flagging during working hours</td>
<td>Spring to Summer 2013</td>
</tr>
<tr>
<td>Queen Street Reconstruction</td>
<td>City</td>
<td>Charles Street to Courtland Avenue</td>
<td>Full closure</td>
<td>Spring to Fall 2013</td>
</tr>
<tr>
<td>Highland Road Reconstruction</td>
<td>City</td>
<td>Stirling Avenue to Hoffman Street</td>
<td>Full closure</td>
<td>Spring to Fall 2013</td>
</tr>
<tr>
<td>Glasgow Street Reconstruction</td>
<td>City</td>
<td>Westmount Road to Belmont Avenue</td>
<td>Full closure</td>
<td>Spring to Fall 2013</td>
</tr>
<tr>
<td>Blockline Road Extension</td>
<td>City</td>
<td>Lennox Lewis Way to Courtland Avenue</td>
<td>New Road</td>
<td>Spring to Fall 2013</td>
</tr>
<tr>
<td>Moore Avenue Reconstruction</td>
<td>City</td>
<td>Waterloo boundary southeryl 0.5km to Emma Avenue</td>
<td>Full closure</td>
<td>Spring to Fall 2013</td>
</tr>
</tbody>
</table>

**Note:** Other reconstructions managed by City staff are occurring on local City streets at various locations and may include full closures.
# APPENDIX A-3

## 2013 Construction on Major Roads in the City of Waterloo

<table>
<thead>
<tr>
<th>Project</th>
<th>Managed by</th>
<th>Limits</th>
<th>Traffic Restrictions</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major projects</strong> (more than one month duration)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highway 85 Bridge Rehabilitation and Paving</td>
<td>MTO</td>
<td>Bridgeport Road to King Street (Woolwich) Interchange</td>
<td>2013 Traffic Restrictions: (March - November)</td>
<td>Spring 2011 to Fall 2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Nightly lane closures on Highway 85 for paving</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Nightly ramp closures for paving</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Bridgeport Road westbound to southbound on-ramp closed for the season</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Highway 85 northbound off-ramp to Bridgeport Road closed late summer and fall</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• King Street westbound to southbound on-ramp closed for the season</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• King Street westbound to northbound on-ramp closed for the season</td>
<td></td>
</tr>
<tr>
<td>Father David Bauer Drive Reconstruction</td>
<td>City</td>
<td>Erb Street to Westmount Road</td>
<td>Full closure (Recreation Complex to Westmount Road)</td>
<td>Summer to Fall 2013</td>
</tr>
<tr>
<td>Westmount Road Trunk Sanitary Sewer</td>
<td>City</td>
<td>Father David Bauer Drive to University Avenue</td>
<td>Full closure</td>
<td>Fall 2013</td>
</tr>
<tr>
<td>Philip Street Reconstruction</td>
<td>City</td>
<td>University Avenue to Columbia Street</td>
<td>Full closure</td>
<td>Spring to Summer 2013</td>
</tr>
</tbody>
</table>

**Note:** Other reconstructions managed by City staff are occurring on local City streets at various locations and may include full closures.
# APPENDIX A-4

## 2013 Construction on Major Roads in the City of Cambridge

<table>
<thead>
<tr>
<th>Project</th>
<th>Managed by</th>
<th>Limits</th>
<th>Traffic Restrictions</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(more than one month duration)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hespeler Road Roundabout and Bridge</td>
<td>Region</td>
<td>250m south to 600m north of Queen Street / Beaverdale Road</td>
<td>• Hespeler Road reduced to one lane each way&lt;br&gt;• All access to/from Queen Street and Beaverdale Road closed except eastbound to southbound and northbound to eastbound</td>
<td>Spring to Summer 2013</td>
</tr>
<tr>
<td>Rehabsations</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concession Street Bridge Rehabilitation</td>
<td>Region</td>
<td>Grand Avenue to Chisholm Street</td>
<td>Reduced to one lane each way</td>
<td>Spring to Fall 2013</td>
</tr>
<tr>
<td>and Paving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hespeler Road Improvements</td>
<td>Region</td>
<td>Eagle Street / Pinebus Road to Bishop Street</td>
<td>One lane closed in each direction (day time). Two lanes closed in each direction (night time)</td>
<td>Summer 2013</td>
</tr>
<tr>
<td>Hespeler Road / CPR Grade Separation</td>
<td>Bell Canada</td>
<td>Avenue Road to Coronation Boulevard / Dundas Street</td>
<td>West side sidewalk closed and periodic lane closure</td>
<td>Spring to Summer 2013</td>
</tr>
<tr>
<td>Eagle Street Improvements</td>
<td>Region</td>
<td>Stage 1 – Hespeler Road to Industrial Drive</td>
<td>Periodic Lane closures</td>
<td>May 2013</td>
</tr>
<tr>
<td>Water Street Improvements</td>
<td>Region</td>
<td>Stage 2 – Industrial Drive to Concession Street / Speedsville Road</td>
<td>Reduced to one lane / direction. Eastbound traffic detoured.</td>
<td>June / July 2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ainslie Street to Coronation Boulevard / Dundas Street</td>
<td>Reduced to one lane each way</td>
<td>Summer 2013</td>
</tr>
<tr>
<td>Project</td>
<td>Managed by</td>
<td>Limits</td>
<td>Traffic Restrictions</td>
<td>Timing</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------</td>
<td>---------------------------------------------</td>
<td>-----------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Rich Avenue Reconstruction</td>
<td>City</td>
<td>From Oak Street to Lincoln Avenue</td>
<td>Full closure</td>
<td>Spring 2013</td>
</tr>
<tr>
<td>Pollock Avenue Reconstruction</td>
<td>City</td>
<td>From Oak Street to Lincoln Avenue</td>
<td>Full closure</td>
<td>Spring 2013</td>
</tr>
<tr>
<td>Queen Street Reconstruction</td>
<td>City</td>
<td>From Schofield Street to Harvey Street</td>
<td>Reduced to one lane</td>
<td>Late summer 2013</td>
</tr>
<tr>
<td>Rife Avenue Reconstruction</td>
<td>City</td>
<td>From Adam Street to Bella Street</td>
<td>Full closure</td>
<td>Summer 2013</td>
</tr>
<tr>
<td>Rose Street Sewer Replacement</td>
<td>City</td>
<td>At treatment plant</td>
<td>Reduced to one lane</td>
<td>Summer 2013</td>
</tr>
</tbody>
</table>

**Note:** Other reconstructions managed by City staff are occurring on local City streets at various locations and may include full closures.
# APPENDIX A-5

## 2013 Construction on Major Roads - Townships

<table>
<thead>
<tr>
<th>Project</th>
<th>Managed by</th>
<th>Limits</th>
<th>Traffic Restrictions</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major projects</strong> (more than one month duration)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nafziger Road Watermain, Wilmot</td>
<td>Region</td>
<td>Elmer Caster Court to Snyder’s Road</td>
<td>Periodic lane closures to one lane with flagging during working hours</td>
<td>Summer 2013</td>
</tr>
<tr>
<td>Floradale Dam Bridge Rehabilitation, Woolwich</td>
<td>Region</td>
<td>North of village of Floradale</td>
<td>One alternating lane with temporary traffic signals</td>
<td>Spring to Summer 2013</td>
</tr>
<tr>
<td>Church Street Improvements, Elmira</td>
<td>Region</td>
<td>Herbert Street to Barnswallow Drive</td>
<td>Periodic short-term lane closures</td>
<td>Summer to Fall 2013</td>
</tr>
</tbody>
</table>

**Note:** Other reconstructions managed by Township staff are occurring on local Township streets at various locations and may include full closures.
TO:        Chair Jim Wideman and Members of the Planning and Works Committee

DATE:     April 9, 2013

FILE CODE:  T04-20/7111

SUBJECT:  CONSULTANT SELECTION – CLASS ENVIRONMENTAL ASSESSMENT, DETAILED DESIGN AND SERVICES DURING CONSTRUCTION, NORTHUMBERLAND STREET/SWAN STREET FROM THE CPR TRACKS TO HILLTOP DRIVE, TOWNSHIP OF NORTH DUMFRIES

RECOMMENDATION:

THAT the Regional Municipality of Waterloo enter into a Consultant Services Agreement with WalterFedy to provide consulting engineering services for a Class Environmental Assessment, detailed design, contract administration and construction inspection for Northumberland Street/Swan Street from the CPR Tracks to Hilltop Drive in the Township of North Dumfries at an upset fee limit of $515,873.92 plus applicable taxes for the Class Environmental Assessment and detailed design phases with construction administration services to be paid on a time basis as described in Report E-13-051 dated April 9, 2013.

SUMMARY:

The Region of Waterloo wishes to proceed with the reconstruction of Northumberland Street/Swan Street from the CPR Tracks to Hilltop Drive in the Township of North Dumfries in 2016. In order to meet this timeline, an engineering consultant must be hired now to undertake the Class Environmental Assessment, detailed design and construction administration. Staff has determined that it is necessary to commence the engineering for this project now in order to provide sufficient time to complete the Class Environmental Assessment, detailed design and obtain all necessary approvals in advance of construction.

An invitation for Letters-of-Interest to provide engineering services was advertised in the Waterloo Region Record. Twelve (12) firms submitted proposals and four (4) firms were short-listed and invited to submit detailed work plans and fee estimates.

Based on the evaluation criteria, review of the detailed work plans, schedules and upset fees provided, the Evaluation Team recommends that WalterFedy be retained to undertake this consultant assignment at an upset fee limit of $515,873.92 plus applicable taxes for the Class Environmental Assessment and detailed design phases with contract administration and construction inspection to be paid on a time basis.

WalterFedy’s fees of $515,873.92 plus applicable taxes for the Class Environmental Assessment and detailed design phases are within the consulting fee allowance provided for in the total project budget of $5,525,000.
REPORT:

1. **Background**

Northumberland Street/Swan Street from the CPR Tracks to Hilltop Drive is identified in the Region’s approved 2013 Ten-Year Transportation Capital Program for reconstruction in 2016 to address the deteriorated pavement condition. This section of Northumberland Street/Swan Street is identified in the Region’s 2004 Cycling Master Plan as being planned for long-term on-road cycling facilities. Accordingly, the planning of these road improvements will include consideration of on-road cycling lanes as part of the roadway reconstruction. Other elements that will be considered during the planning phase of this project include traffic operational improvements within the Northumberland Street/Swan Street corridor, new sidewalk or multi-use trail, structural remediation of the existing bridge on Northumberland Street and replacement of underground infrastructure. Planning for these roadway improvements will be completed in accordance with the Schedule “B” requirements of the Municipal Class Environmental Assessment.

The Region’s approved 2013 Ten Year Transportation Capital Program includes funding in the amount of $5,525,000 in 2013-2017 inclusive for the Class Environmental Assessment, detailed design and construction of this project. Regional staff is fully committed to other capital projects and therefore staff recommends that an external consultant be hired to complete this project. Staff has determined that it is necessary to commence the engineering for this project now in order to provide sufficient time to complete the Class Environmental Assessment Study, detailed design, obtain any required property necessary, undertake utility relocations and obtain required approvals in advance of construction in 2016.

2. **Consultant Selection**

An invitation for Letters-of-Interest to provide engineering services for this project was advertised in the Waterloo Region Record. Twelve (12) consultants submitted a Letter-of-Interest. From a review of the submissions, four (4) firms were short-listed based on their qualifications and these consultants were asked to submit a detailed work plan and upset fee for the Class Environmental Assessment and detailed design phases. The short-listed consultants were also requested to submit an estimate of fees for contract administration and construction inspection services.

The four short-listed consultants were:

- AECOM;
- IBI Group;
- MTE Consultants Inc.; and,
- WalterFedy.

The Evaluation Team involved with the consultant selection consisted of:

Delton Zehr, Project Manager, Design and Construction Division  
David Brown, Project Manager, Design and Construction Division  
Steve Yonemitsu, Project Manager, Transportation Engineering Division  
Garrett Donaher, Transportation Planning Engineer, Transportation Planning Division

The evaluation criteria used for selecting the successful consultant were consistent with the Region’s Purchasing Bylaw which includes price as a factor in the selection process. These evaluation criteria and their respective weightings were as follows:
Quality Factors

Project Approach and Understanding 35%
Experience of the Project Manager 20%
Experience of the Project Support Staff 10%
Experience on Similar Projects 15%

Equity Factors

Current Workload for Region 3%
Local Office 2%

Price Factor

Upset Limit Fee 15%

The Letters-of-Interest submitted by all four short-listed consultants demonstrated a good understanding of the project with capable project teams and experience on numerous similar projects. When considering the combination of quality, equity and price factors described above, WalterFedy scored the highest of the four short-listed consultants. WalterFedy’s upset fee of $515,873.92 plus applicable taxes for the Class Environmental Assessment and detailed design was the second lowest of the prices submitted and was 4.5% below the mean of the four submitted prices.

Based on the above evaluation criteria, including review of the detailed work plans, schedules and upset fees provided, the Evaluation Team recommends that WalterFedy be retained to undertake the Class Environmental Assessment, detailed design, contract administration and construction inspection of this project.

3. Scope of Work

For this engineering assignment, the consultant will complete the following tasks: review all background information, conduct a Schedule “B” Class Environmental Assessment Study, complete archaeological, built heritage, environmental, structural, drainage, parking and other required studies; conduct a public consultation program; develop and present design alternatives at Public Consultation Centres; complete final design of the road improvements; prepare contract drawings, specifications and tender documents; develop traffic staging plans; obtain all necessary agency approvals; assist during the tendering period; provide contract administration and site inspection services during construction; prepare record drawings; and provide post-construction services during the warranty period. A breakdown of the successful consultant’s upset fee is included in Appendix ‘B’ attached to this report.

4. Schedule

Subject to Council’s approval of this consultant assignment, the proposed project schedule is outlined below. This preliminary schedule is dependent upon the extent and timing of any property acquisitions necessary to implement the proposed improvements.

- Data collection and preparation of base plans May 2013 – July 2013
- Class EA, Preliminary Design and Public Information Centre(s) August 2013 – June 2014
- Detailed Design and Approvals July 2014 – December 2014
- Property Acquisition July 2014 – December 2015
- Construction 2016

DOCS #1361632
5. Consultant’s Upset Fee

The short-listed consultants were each requested to submit an upset fee for consulting engineering services to complete the Class Environmental Assessment and detailed design, and were also requested to submit an estimate for contract administration and construction inspection fees. For road and bridge projects, the time required for contract administration and construction inspection can vary significantly depending on weather conditions, the actual contractor hired for construction and other unknown variables. Because an upset fee does not lend itself well to these types of services, it has been the Region’s practice for road and bridge projects to pay for contract administration and construction inspection fees on a time basis. It is recommended that this same practice be followed for this project. For budgetary purposes, staff has estimated the cost of contract administration and construction inspection services to be $212,401.02 plus applicable taxes, which is based on the preliminary estimate of fees submitted by Walter Fedy and a review of costs on similar projects. The upset limit for Walter Fedy to undertake the Class Environmental Assessment and detailed design phases for this assignment is $515,873.92 plus applicable taxes for consultant fees and disbursements.

The Region’s total budget for the Northumberland Street/Swan Street Improvements from the CPR Tracks to Hilltop Drive is $5,525,000. Based on this total value of $5,525,000, the consultant’s upset fee limit for the Class Environmental Assessment and detailed design services of $515,873.92 plus applicable taxes represents approximately 9.3% of the estimated total cost for this project which is in the normal fee range for a project of this type and complexity.

CORPORATE STRATEGIC PLAN:

The Northumberland Street/Swan Street Improvements from the CPR Tracks to Hilltop Drive, when complete, will support Focus Area 2 – Growth Management and Prosperity and meets strategic objective number 2.2 to develop, optimize and maintain infrastructure to meet current and projected needs.

FINANCIAL IMPLICATIONS:

Based on the upset fee schedule received from Walter Fedy, the total costs for the Class Environmental Assessment and detailed design phases are as follows:

- Upset Consulting Fee: $515,873.92
- HST (13%): $67,063.61
- Sub-Total: $582,937.53
- Less Municipal HST Rebate of 86.46%: ($57,983.20)
- Net Cost of Consulting Assignment: $524,954.33

The Region’s approved 2013 Ten Year Transportation Capital Program includes $5,525,000 in 2013-2017 inclusive for this project to be funded from the Roads Rehabilitation Reserve Fund and the Development Charges Reserve Fund.

Walter Fedy’s fees for the Class Environmental Assessment and detailed design phases of this consulting assignment in the amount of $515,873.92 plus applicable taxes are within the consulting fee allowance provided for in the total budget of $5,525,000 for this project.
OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

NIL

ATTACHMENTS:

Appendix A: Project Key Plan
Appendix B: Breakdown of Consultant’s Upset Fee Estimate

PREPARED BY: *Delton Zehr*, Project Manager, Design and Construction

APPROVED BY: *Thomas Schmidt*, Commissioner, Transportation and Environmental Services
APPENDIX B

BREAKDOWN OF WALTERFEDY’S UPSET FEE LIMIT
CLASS ENVIRONMENTAL ASSESSMENT, DETAILED DESIGN AND SERVICES DURING
CONSTRUCTION, NORTHUMBERLAND STREET/SWAN STREET FROM THE CPR
TRACKS TO HILLTOP DRIVE, TOWNSHIP OF NORTH DUMFRIES

<table>
<thead>
<tr>
<th>UPSET FEE FOR CLASS EA, DETAILED DESIGN AND RELATED SERVICES BASED ON DETAILED TERMS OF REFERENCE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Class EA &amp; Preliminary Design</td>
<td>$323,705.50</td>
</tr>
<tr>
<td>2 Detailed Design</td>
<td>$142,950.00</td>
</tr>
<tr>
<td>3 Preparation of Drawings, Contract Documents &amp; Specifications</td>
<td>$20,972.50</td>
</tr>
<tr>
<td>4 Project Management</td>
<td>$22,100.00</td>
</tr>
<tr>
<td>5 Disbursements</td>
<td>$6,145.92</td>
</tr>
<tr>
<td><strong>TOTAL UPSET FEE LIMIT AND DISBURSEMENTS (excluding HST)</strong></td>
<td><strong>$515,873.92</strong></td>
</tr>
</tbody>
</table>
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 9, 2013

SUBJECT: CONSULTANT SELECTION FOR THE NEW HAMBURG WASTEWATER TREATMENT PLANT EXPANSION CLASS ENVIRONMENTAL ASSESSMENT AND PRELIMINARY DESIGN

RECOMMENDATION:

THAT the Regional Municipality of Waterloo enter into a Consulting Services Agreement with XCG Consultants Ltd. of Kitchener, Ontario, to provide consulting engineering services for undertaking the New Hamburg Wastewater Treatment Plant (WWTP) Expansion Class Environmental Assessment (EA) and Preliminary Design, at an upset limit of $550,000 plus applicable taxes, as per Report E-13-047, dated April 9, 2013.

SUMMARY:

The 2011 Baden and New Hamburg Wastewater Master Plan (WMP) recommended the expansion of the New Hamburg WWTP by 2018. The expansion of the WWTP requires completion of a Schedule ‘C’ Class Municipal EA, as well as updated assimilative capacity study for the Nith River to confirm the appropriate effluent quality criteria for discharge to this river.

A Request for Consulting Services was advertised in the Waterloo Region Record and on the Region’s website. Based on a selection process completed in accordance with the Region’s consultant selection policy and the Region’s Purchasing By-law, which included review of the consultants’ Letters of Interest, Detailed Work Plans, schedules, and upset fee costs, the project team recommends that XCG Consultants Ltd. of Kitchener, Ontario, be retained to undertake this assignment at an upset fee limit of $550,000 plus applicable taxes.

Completion of this assignment is expected to be in the spring of 2015, after which consultant selection will proceed for detailed design and construction administration of the preferred alternative for the expansion of the New Hamburg WWTP.

REPORT:

Background
An update to the Baden and New Hamburg Water and Wastewater Master Plan (MP) was completed in June 2011. In the MP and yearly Water and Wastewater Monitoring Reports, it was recognized that most of the available spare capacity of the New Hamburg WWTP has been allocated by the Township of Wilmot to planned developments, and there is limited ability for the Township to approve any new proposed developments until WWTP capacity is increased.
The MP recommended a 33 per cent treatment capacity increase by about 2018 as a key part of the plan to accommodate the Regional Official Plan 2029 population and employment growth forecasts for the Township of Wilmot. These forecasts provide for the future development of the vacant employment lands located adjacent to Nafziger Road. Implementation of this expansion requires a Schedule ‘C’ Class Municipal EA, including confirmation of effluent quality criteria acceptable to the Ontario Ministry of Environment (MOE).

Project Scope
The scope of this project is to complete the EA study for the New Hamburg WWTP expansion recommended in the 2011 MP and complete a preliminary design of the upgrade solution recommended by this study.

The consultant will:
- Carry out the activities required to comply with the requirements of the Class Municipal EA process for Schedule ‘C’ projects (as amended in 2011), including public and agency consultation, facilitating Public Information Centres (PICs), establishing evaluation criteria for alternative solutions, assessing environmental, social, technical, and economic aspects of the alternatives, evaluating the alternatives, recommending the preferred design solution, and preparing an Environmental Study Report (ESR);
- Optimize the existing works through improvement to the plant control programming;
- Update the Assimilative Capacity Study (ACS) for the Nith River at New Hamburg (including new field investigation and modeling) and establish appropriate effluent criteria for the expanded WWTP discharge in consultation with MOE; and
- Prepare preliminary design documents for the preferred design solution, including drawings, a preliminary design brief, cost estimates, implementation schedule, risk register, process monitoring and control strategy, equipment pre-purchase plan, and schedule of required approvals.

Consultant Selection
A Request for Consultant Services (C2012-33) for the New Hamburg WWTP Expansion Class EA and Preliminary Design was advertised in The Record and on the Region’s website in November, 2012.

Evaluation of the consultant submissions was conducted by the Region’s Project Team:

J. Cavalcante, Manager, Engineering and Planning, Water Services
J. Bicudo, Senior Project Engineer, Engineering and Planning, Water Services
T. Bellamy, Project Engineer, Wastewater Operations, Water Services
J. Borovicka, Project Manager, Environmental Project Management, Design & Construction.

Consultant submissions were evaluated in accordance with the Region’s consultant selection policy and the Region’s Purchasing By-law in order to select the consultant offering the best overall value to the Region. The criteria and their respective weightings were as follows:

Quality Factors (80%)
- Project Approach and Understanding (25 per cent)
- Experience of the Project Manager (20 per cent)
- Experience of Project Support Staff (20 per cent)
- Experience on Similar Projects (15 per cent)
**Equity Factors (5%)**
- Current Regional Workload (3 per cent)
- Local Office (2 per cent)

**Price Factor (15%)**
- Upset Price (15 per cent)

The Region received Letter of Interest submissions from seven consultant teams, and these were evaluated by the Project Team according to the above Quality and Equity factors. Five teams were short-listed, as follows:

- Aecom Canada Ltd.
- CIMA Canada Inc.
- CH2M HILL Canada Ltd.
- Stantec Consulting Ltd.
- XCG Consultants Ltd.

The five short-listed consulting firms were invited to submit detailed work plans, along with upset fee budgets in separate envelopes, for further evaluation.

The Letters of Interest and Detailed Work Plans submitted by four of the five short-listed consultants demonstrated a good understanding of the project, capable project teams and experience on similar projects. The fifth consultant submission demonstrated insufficient project understanding of the work scope and level of effort required to successfully undertake the project. This submission was disqualified as a result, and their upset fee envelope was returned unopened.

After the project team finalized their evaluation of the Letters of Interest, Detailed Work Plans, and schedules, the upset fee envelopes were opened and the overall scores including the Price Factor were calculated.

The XCG submissions received the highest overall score, and had the second lowest cost (10% below the average cost). Based on this evaluation, the project team recommends that XCG Consultants Ltd. be retained to undertake this assignment at an upset fee limit of $550,000 plus applicable taxes.

**Schedule**
Subject to Council’s approval of this assignment, the proposed schedule for the project is approximately twenty four (24) months commencing in May 2013 and ending in May 2015.

**Consultant Upset Limit**
The upset limit for consulting fees and disbursements for the New Hamburg WWTP Expansion Class EA and preliminary design is $550,000 plus applicable taxes. A breakdown of the successful consultant’s upset fee is included in Appendix A attached to this report.

**CORPORATE STRATEGIC PLAN:**
The New Hamburg WWTP Expansion Class EA and Preliminary Design supports the Corporate Strategic Focus Area 2: “Growth Management and Prosperity,” Strategic Objective 2.2: “Develop, Optimize and Maintain Infrastructure to Meet Current and Projected Needs,” and specifically, Strategic Action 2.2.1: “Continue to prioritize and implement capital program projects required to meet community needs and ensure sustainability.”
FINANCIAL IMPLICATIONS:

The 2013 Ten Year Wastewater Capital Program includes a total combined budget of $19,940,000 for the implementation of the New Hamburg WWTP Expansion, including $940,000 allocated over the period 2013 – 2015, which is sufficient for the completion of this assignment.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

NIL

ATTACHMENTS

Appendix A: Breakdown of Consultant’s Upset Fee

PREPARED BY: Dave Arsenault, Project Engineer, Water Services

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
Breakdown of Consultant’s Upset Fee

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1</td>
<td>Establish and Carry Out EA Process</td>
<td>$53,913</td>
</tr>
<tr>
<td>Task 2</td>
<td>Assimilative Capacity Study for Nith River</td>
<td>$209,554</td>
</tr>
<tr>
<td>Task 3</td>
<td>Preliminary Design Including Controls Optimization</td>
<td>$286,533</td>
</tr>
<tr>
<td><strong>Total Consultant Upset Fee:</strong></td>
<td></td>
<td><strong>$550,000</strong></td>
</tr>
</tbody>
</table>
To: Chair Jim Wideman and Members of the Planning and Works Committee  
From: Robert Gallivan, Manager, Transportation Program Development  
Subject: FAIRWAY ROAD EXTENSION FROM EAST OF PEBBLE CREEK DRIVE TO WEST OF ZELLER DRIVE - NOISE BARRIER ASSESSMENT AND LANDSCAPING FEATURES REVIEW - CITY OF KITCHENER  
File No: T04-02

Further to the Planning and Works meeting on November 6, 2012, staff will be holding an Information Meeting on Thursday, April 11, 2013 in Room 110, 150 Frederick Street with Colton Circle residents to provide information regarding the recent noise assessment and present options relating to the landscaping features in the area from east of Pebble Creek Drive to west of Zeller Drive on the north side of Fairway Road.

Based on the comments received from this meeting, Regional staff expects to be able to present to Planning and Works Committee a report recommending a preferred landscaping plan on May 28, 2013.
TO: Chair Jim Wideman and Members of the Planning and Works Committee  
DATE: April 9, 2013  
FILE CODE: CO4-30, 5334  
SUBJECT: HESPELER ROAD / CANADIAN PACIFIC RAILWAY GRADE SEPARATION URBAN DESIGN ENHANCEMENTS, CITY OF CAMBRIDGE

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve the following actions with respect to the Hespeler Road / Canadian Pacific Railway Grade Separation, City of Cambridge:

(a) Approve the Urban Design Enhancement concept for the Hespeler Road corridor, from Dundas Street / Coronation Boulevard (the “Delta”) to Avenue Road / Jaffray Street, as described in Report E-13-019, dated April 9, 2013;

(b) Approve Dufferin Construction Company to construct, in 2013, the urban design enhancements under a Change Order to the Region’s existing Hespeler Road / Canadian Pacific Railway Grade Separation Contract 2011-003, to a maximum of $225,000;

(c) Direct staff to develop and implement design of the permanent banners, including options for colours, materials and graphics; and

(d) Direct staff to continue discussions with City of Cambridge staff concerning timing, design, cost-sharing and implementation of parkettes with concentrated landscape/streetscape, all as described in Report E-13-019.

SUMMARY:

NIL.

REPORT:

1. Background

Construction of the Hespeler Road / Canadian Pacific Railway (“CPR”) Grade Separation is being undertaken by Dufferin Construction Company (“Dufferin”) under Region Contract 2011-003. Construction commenced in May 2011 and was substantially completed in December 2012. This project includes the following main elements:

- Construction of a new depressed rail corridor within the existing railway right-of-way to effect a lowering of the profile of the CPR track of approximately 5 metres (maximum) at Hespeler Road, with the depression tapering out to the east and west;
- Elevation of the profile of Hespeler Road by approximately 3 metres at the rail corridor (with the elevation tapering out to the north and south), including construction of an overpass bridge to carry the elevated Hespeler Road over the depressed CPR track;
Reconfiguration of the Brooklyne Road / Norfolk Avenue / Hespeler Road intersection to improve the geometry of this intersection; and
Modification or adjustment of existing driveway accesses to match the modified road profiles to preserve access to all properties within the project area.

Please refer to Appendix “A” for a key plan of the project area.

Dufferin substantially completed the major components of construction in December 2012. Final restoration and utility works will be completed in the Spring of 2013; however, these activities are not anticipated to affect traffic on Hespeler Road. Dufferin currently anticipates that it will be placing final surface asphalt in August 2013.

IBI Group (“IBI”) is the Region’s Consultant for design and contract administration for the Hespeler Road / CPR Grade Separation project.

The Hespeler Road / CPR Grade Separation project provides a number of benefits for area residents, including:

- Substantially improved traffic flow on Hespeler Road;
- Elimination of unattractive railway signal gates and overhead signal gantries;
- Improved residential vistas through significant reduction of the visibility of the rail yards and railway equipment;
- Clean-up and restoration of the back alley adjacent to the rail corridor at the back of the Norfolk Avenue properties; and
- Noise and vibration reduction through a collaborative effort of the Region, CPR, the Canadian Transportation Agency (CTA) and the Region’s consultants to incorporate design features to reduce noise and vibration transmission associated with rail operations.

2. Current Region Landscape / Streetscape and Architectural Policies

2.1 Landscaping and Streetscaping

The Region’s current policy with regard to median, boulevard and roundabout landscaping and streetscaping was established in Report E-07-094, as approved by Regional Council on November 14, 2007. The policy set out in Report E-07-094 provides for approved landscaping and streetscaping elements up to 3% of the road construction cost component of the Contract value.

The policy established in Report E-07-094 also sets out those landscaping and streetscaping elements that the Region will and will not fund under the target budget for landscaping or streetscaping. Where elements not eligible for Region funding are desired by an Area Municipality, those elements may be incorporated into the roadway provided that the Area Municipality provides the necessary funding.

Please refer to Appendix “B” for a copy of Report E-07-094.

2.2 Bridge Architecture

The Region currently does not have a specific policy to guide architectural design consideration for bridges. The Region has incorporated architectural enhancements for some bridges and grade separations on a case-by-case basis, as approved by Council.
The Hespeler Road / CPR Grade Separation incorporates a small (11 metre span) bridge. The function of this small bridge is to allow passage of the railway corridor under the elevated profile of Hespeler Road. Accordingly, the bridge structure is not visible to the users of Hespeler Road and any architectural features added to the bridge itself would not be visible to the general public. The grade separation currently incorporates several implicit architectural and aesthetic enhancements, including:

- Concrete parapets with aluminum “metro” style railings;
- Modern aluminum lamp standards on the west parapet and elimination of the previous overhead hydro feed for the west side streetlights;
- Coloured impressed concrete in select boulevard locations; and
- Textured finishes on the exterior surfaces of the concrete retaining panels supporting the elevated roadway.

3. Opportunities for Additional Urban Design Enhancement

Following discussions at Region Council on March 28, 2012, staff from the Region of Waterloo and City of Cambridge has worked with IBI to identify additional opportunities for urban design enhancements on the Hespeler Road / CPR Grade Separation project. IBI’s urban design architects have had previous local experience related to urban design enhancements, including the recent King Street redevelopment in Kitchener.

The IBI architects noted the following key observations with regard to the Hespeler Road corridor within the project area:

- There is a rich commercial, industrial and railway heritage in the Delta area;
- There is significant pedestrian traffic on Hespeler Road between the Delta and Avenue Road, resulting from the relative location of nearby residential, commercial and school zones; and
- The new elevated Hespeler Road profile has the potential to present a distinct “gateway” to the downtown Galt core.

IBI’s architects noted that the geometric constraints of the project area significantly limit the number of opportunities for urban design enhancement; however, the IBI architects identified the following feasible options for potential additional urban design enhancements for this project:

- **Textured Patterning on Concrete Parapet Walls** - This enhancement would add engraved patterns to the concrete parapets using stencilled etching or sandblasting techniques. Please refer to Appendix “C” for the IBI architect’s renderings of this urban design element;

- **Permanent “Gateway” Banners** - This enhancement would add banners installed on poles on each side of the road to establish a distinct visual corridor. On the west side of the road, banner arms would be installed on the existing aluminum lamp standards as well as on smaller intermediate banner poles mounted between successive lamp standards on the parapet, so as to produce an acceptable visual density for the banner group. On the east side of the road where high-voltage hydro distribution lines are carried on wooden poles set back from the grade separation structure, banner poles would be added to the parapet to match the lamp standards and banner poles on the west side of the road. The architects propose that the banners could draw upon themes taken from the rich history of the area. Please refer to Appendix “C” for the IBI architect’s renderings of this urban design element; and
- **Parkettes with Concentrated Landscape / Streetscape** - This enhancement would add concentrated landscaped and streetscaped parkette areas where space permits at key Hespeler Road intersections including Coronation Boulevard, Brooklyne Road and Jaffray Street. These parkettes would feature shrubs and grasses, walkable surfaces, pedestrian level lighting and stone benches. The benches could also incorporate interpretive panels describing salient historical features of the area. Please refer to Appendix “C” for the IBI architect’s renderings of this urban design element.


The parkettes with intensive landscape/streetscape could potentially be implemented in the longer term, but are dependent upon identification of Rapid Transit station stop locations, acquisition of property required to establish acceptable sightlines, and disposition of the former church property at the corner of Brooklyne Road and Norfolk Avenue. Additionally, the parkettes include a mix of elements that would normally be cost-shared between the Region and the City in accordance with the Region’s current landscape/streetscape policy.

Under the Region’s landscape/streetscape policy, the Region would normally fund the cost of sod, trees, shrubs and perennial plants, as well as coloured impressed concrete in certain residential environments, up to a maximum limit set out under the policy. The Region would not normally fund other items such as planters, annual planting beds, irrigation systems, decorative benches, decorative armourstone, coloured impressed concrete in commercial areas, decorative lighting and other decorative items, along with design and maintenance costs associated with these items. Accordingly, the Region and City of Cambridge would need to establish a suitable cost-sharing agreement for these parkettes.

A textured pattern on the parapets and installation of gateway banners can be readily incorporated within the existing project geometry. While the textured parapets and banners similarly do not strictly qualify as elements that would typically be funded through the Region’s current landscape/streetscape policy, staff notes that (i) the site constraints of the roadway corridor preclude most typical landscape/streetscape elements normally funded by the Region; and (ii) only limited funds have been expended to date under the current project construction budget for purely aesthetic purposes.

Accordingly, staff is currently recommending that Council approve the following Urban Design Enhancements for Hespeler Road between the Delta and Avenue Road.

(i) Textured patterning on concrete parapet walls; and

(ii) Permanent “Gateway” banner poles, banner mounting brackets and banners.

During the coming months, staff from the Community Services division of Planning, Housing and Community Services will explore, with City of Cambridge staff, options for design of the permanent banners, including colours, materials and graphics. The Public Art Advisory Committee will be requested to assist with the selection process.

Staff is also recommending that Council direct staff to continue discussions with City of Cambridge staff concerning timing, design, cost-sharing and implementation of parkettes with concentrated landscape/streetscape.

5. **Estimated Cost of Recommended Urban Design Enhancement Concepts**

The capital cost of these recommended urban design enhancements is estimated to be in the range of $175,000 to $225,000. These costs can be fully funded from savings realized in the currently approved project budget for the Hespeler Road / CPR Grade Separation.
The ongoing maintenance costs of the banner system are minimal. The Region would assume the cost of maintenance of the banner poles, banner mounting brackets and permanent banners.

The City of Cambridge has expressed an interest in installing temporary banners from time to time for special events. Should the City of Cambridge wish to install temporary banners associated with a special event, the Region’s Special Events Policy would require the City of Cambridge to apply for a permit to provide details regarding the size, material, colour and content of the banners. Additionally, the City of Cambridge would be required to assume the costs related to removal of the permanent banners, installation of the temporary banners, and reinstatement of the permanent banners.

6. Implementation

Staff notes that the project is still under the standard Contract warranty provisions with Dufferin Construction. Accordingly, in order to not risk rendering the warranty void, it would be advantageous to have the urban design enhancements implemented by Dufferin. Additionally, Dufferin has constructed the existing project, including the parapets, to a high level of quality and Dufferin has detailed knowledge of the parapet and railing elements that would be modified through implementation of the recommended Urban Design Enhancements. Staff notes that under the terms of the Purchasing Bylaw section 21(1)(g), the Chief Purchasing Officer may acquire any goods or services through negotiation where the extension of an existing or previous contract would prove more cost-effective or beneficial for the Region.

Accordingly, should Council approve the Urban Design Enhancements recommended in this Report E-13-019, staff would negotiate a price with Dufferin and authorize a Change Order to the existing Contract 2011-003 with Dufferin Construction Company to permit the urban design enhancements to be completed under the current contract.

7. Schedule

Should Council approve the recommendation of this Report E-13-019, the currently estimated timeline for implementation of the Urban Design Enhancements is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Estimated Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detailed Design</td>
<td>April – June 2013</td>
</tr>
<tr>
<td>Construction</td>
<td>Summer 2013</td>
</tr>
<tr>
<td>Banner Installation</td>
<td>By year-end 2013</td>
</tr>
</tbody>
</table>

CORPORATE STRATEGIC PLAN:

The recommendations of this Report E-13-019 are in harmony with Focus Area #2 (Growth Management and Prosperity) of the Corporate Strategic Plan and Strategic Objective 2.2.1 to prioritize and implement capital program projects required to meet community needs.

The recommendations of this Report E-13-019 are also in harmony with Focus Area #3 (Sustainable Transportation) of the Corporate Strategic Plan and Strategic Objective 3.2 to develop, promote and integrate active forms of transportation (cycling and walking).
FINANCIAL IMPLICATIONS:

The Region of Waterloo’s approved 2013 Transportation Ten-Year Capital Program includes funding of $5,550,000 in 2013 for the Hespeler Road / CPR Grade Separation project. There are sufficient uncommitted funds available in the project budget to fund the urban design enhancements recommended in this Report E-13-019. The Region would fully fund the initial capital cost and maintenance costs of the parapet texturing, banner poles, banner mounting brackets and banners. The City of Cambridge would be responsible for any costs related to supply, installation, maintenance and removal of any temporary banners installed under the Special Events Policy.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Planning, Housing and Community Services - Community Services staff will lead design and selection of colours, materials and graphics for the banners.

ATTACHMENTS

Appendix “A” - Key Plan of Project Area
Appendix “B” - Report E-07-094: Landscape and Streetscape Policy
Appendix “C” - Architect’s Renderings

PREPARED BY: John Stephenson, Senior Project Manager

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
Appendix “A” - Key Plan of Project Area
Appendix “B” - Report E-07-094: Landscape and Streetscape Policy

REGION OF WATERLOO
TRANSPORTATION AND ENVIRONMENTAL SERVICES
Transportation

TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: November 6, 2007
FILE CODE: C04-30

SUBJECT: MEDIAN, BOULEVARD AND ROUNDABOUT LANDSCAPING AND STREETSCAPING

RECOMMENDATION:

THAT the Regional Municipality of Waterloo endorse in principle the transportation engineering practice with respect to median, boulevard and roundabout landscaping and streetscaping attached to report E-07-094 dated November 6, 2007.

SUMMARY: NIL

REPORT:

Aesthetic streetscape treatments can enhance the livability and walkability of urban streets while enhancing roadway safety by affecting driver behaviour. Trees, landscaping and other streetscape features on a road help to make the road self-regulating with respect to managing speeds and driver behaviour. Drivers “read” the potential hazards of the road environment and adjust their behaviour in response, resulting in a net improvement in roadway safety.

Over the past several years, Regional road projects have included various landscaping and streetscaping components. The local municipalities have supplemented the Regional landscaping in certain situations. To ensure a consistent approach throughout the Region, Regional staff have developed a transportation engineering practice for aesthetic median, boulevard and roundabout landscaping and streetscaping, as contained in Appendix A. The practice addresses design issues and budget.

Staff have started working on development of Urban Design Guidelines on Regional road allowances which will give further direction and refine landscaping and streetscaping practice in the future. Staff recommend that the Region endorse in principle the transportation engineering practice in Appendix A with respect to median, boulevard and roundabout landscaping and streetscaping, as an interim step until the Region’s Urban Design Guidelines are fully developed and presented to Council for approval.

CORPORATE STRATEGIC PLAN:

This report addresses the Region’s objective to ensure a high quality Regional transportation system.

FINANCIAL IMPLICATIONS:

Approximately $800,000 per year is spent on median, boulevard and roundabout landscaping and streetscaping projects on Regional roads. These costs are included in the Transportation Capital Program.
November 6, 2007

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

This report was prepared in consultation with the Design and Construction Division, the Transportation Planning Division and the Community Planning Division.

ATTACHMENTS:

Appendix A – Transportation Engineering Practice with respect to Median, Boulevard and Roundabout Landscaping and Streetscaping

PREPARED BY: Nancy Button, Manager, Transportation Engineering

APPROVED BY: Thomas Schmidt, Commissioner of Transportation and Environmental Services

APPENDIX A

Region of Waterloo
Transportation Engineering Practice with respect to Median, Boulevard and Roundabout Landscaping and Streetscaping

Design

Aesthetic streetscape treatments can enhance the livability and walkability of urban streets while enhancing roadway safety by affecting driver behaviour. Trees, landscaping and other streetscape features on a road help to make the road self-regulating with respect to managing speed and driver behaviour. Drivers “read” the potential hazards of the road environment and adjust their behaviour in response, resulting in a net improvement in roadway safety.

The road landscaping design should accommodate pedestrians (except in roundabout central islands) and avoid pedestrian barriers such as continuous raised planters and poor walking surfaces such as small boulders. Avoid hard surface treatments where natural surface cover can be used that is maintainable, is more aesthetically pleasing and contributes to traffic calming.

Only native species of plants are acceptable as plantings as defined in the guide entitled “Trees and Shrubs Native to the Regional Municipality of Waterloo”, 1993. Exceptions to the species noted in the guide must be approved by the Region’s Environmental Planner. Community Planning. Appropriate species of plants should be hardy, require little watering and should be as salt tolerant as possible.

Budget

The Region’s current practice for landscaping on a Regional road project is to provide a budget up to 3% of the total construction cost, depending on space limitations. In special circumstances, the landscaping budget may be higher on projects identified through the public consultation process and authorized by Council. For a road with a rural cross-section, the budget for landscaping/streetscaping is typically 0% because rural streetscapes are generally more naturalized to start with.

Funding of Landscaping and Streetscaping Capital and Maintenance Costs

With respect to the supply, installation and ongoing maintenance costs for landscaping or streetscaping for a median, boulevard or roundabout on a Regional road, within budget constraints, and space limitations and in consultation with local municipal staff, the Region will provide for:

- Grass, trees, shrubs and perennial plants that are included in the Region’s designated plant species list. The plant materials will be installed where the location is suitable including centre medians;
- Coloured or coloured-impressed concrete in a predominantly front-lotted residential area at least 100 m in length. A residential area can include multi-unit residential buildings as well as single family dwellings; and
- Coloured or coloured-impressed concrete where required to provide consistency in a mixed-use area combining commercial and front-lotted residential land use.

The local municipality, under their Maintenance Agreement with the Region, performs the maintenance of landscaping within medians, boulevards and roundabouts on Regional roads at Regional cost.
With respect to the supply, installation and ongoing maintenance costs for landscaping or streetscaping for a median, boulevard or roundabout on a Regional road, the Region will not provide for:

- Annual plants and planting beds;
- Irrigation systems including pipes, leads, fittings, valves, chambers, meters, aeration systems, etc.;
- Electric service to support automated irrigation systems, ornamental lighting, etc.;
- Non-functional, decorative armourstone seating walls;
- Coloured or coloured-impressed concrete in a commercial area (except at roundabouts);
- Elements required to create raised planting beds;
- Any incidental costs related to the above items;
- Engineering and contract administration for the above items; or
- Any items beyond the Region’s budget limit for the project.

The above items may be included in a Regional contract at the cost of the local municipality, providing the local municipality assumes on-going operating and maintenance costs. The local municipality is responsible for arranging and paying for any connections to the hydro system.

Where the local municipality wants to add additional features to median or boulevard landscaping, the Region’s project manager should confirm scope and financial commitment by the local municipality for the supply, installation and ongoing maintenance costs. To facilitate this process, Regional staff will:

- Meet with the project contact from the local municipality to develop a proposed landscaping plan, in the context of the Region’s practice with respect to landscaping and streetscaping;
- Ask the project contact to discuss the proposed landscaping plan at the appropriate local municipal staff and political levels;
- Work with the project contact to develop a memorandum of understanding, documenting the proposed landscaping plan and commitments by each municipality;
- Provide budget estimates updates and draft design drawings for review through the detail design stage; and
- Proceed to construction.

**Roundabouts**

Appropriate landscaping is vital to the proper operation of a roundabout and needs to be in place when the roundabout is opened to traffic. The purposes of roundabout landscaping are to:

- Make the central island conspicuous to drivers as they approach the roundabout and clearly indicate that drivers cannot pass straight through the intersection;
- Discourage pedestrian traffic through the central island; and
- Improve the aesthetics of the intersection while complementing the surrounding streetscapes as much as possible.
A-3

When designing landscaping for a roundabout it is important to:

- Minimize the introduction of fixed objects such as trees, poles, walls, guardrail, statues or large rocks in the approach to the intersection;
- Place plants and hardscape materials in locations that avoid obscuring the form of the roundabout or the directional signs; and
- Maintain adequate sight distances. Sight distance requirements dictate the appropriate size and types of landscaping materials.

Wherever possible, avoid large, fixed objects such as rocks, poles or art pieces within 3 m of any roadway or in areas vulnerable to run-off-the-road collisions. Embed large rocks or armour stone with no more than 300 mm protruding above ground level. Taller landscaping or other features such as public art may be possible within the inner portion of the central island depending on the diameter of the central island. Public art may be incorporated, subject to Regional Council approval, provided that it does not violate visibility guidelines and provided that it also meets additional criteria related to public art in roundabouts.

For roundabouts, the capital cost to provide plant material and other hard-surface landscaping (except the coloured concrete for the maintenance and truck aprons) within the central island can vary considerably depending on the size of the roundabout and the location. More landscaping may be desirable in urban areas depending on the level of landscaping on the adjacent properties and road allowance. General guidance for a maximum allowable landscaping and streetscaping capital cost is 5% of the total capital cost of the intersection unless otherwise authorized by Council.

Where the local municipality wants to add suitable additional features to roundabout landscaping, the Region’s project manager will confirm scope and financial commitment by the local municipality for the supply, installation and ongoing maintenance costs of the additional landscaping and streetscaping features.
Appendix “C” - Architect’s Renderings

Delta Gateway & Parkettes: Retracing Memory
Proposed Brooklyne / Norfolk Parkette Concept Perspective

- FORESTED BUFFER (CONIFEROUS & DECIDUOUS TREES)
- ORNAMENTAL FLOWERING TREES
- STREET TREES IN BOULEVARD
- SHRUB & PERENNIAL UNDER STOREY PLANTING
- ARMOURSTONE AMPHITHEATRE SEATING
- GRANITE SEATWALLS; W/ PUBLIC ART SIGNAGE
- SOD BOULEVARD
- DECORATIVE UNIT PAVING
- GRANITE SEATWALL (WITHOUT PUBLIC ART)

EXISTING SITE

PEDESTRIAN LIGHT COLUMNS
SODDED FEATURE BERM
VINE PLANTING & RIVERSTONE STRIP
EXISTING RETAINING & PARAPET WALL
EXISTING SIDEWALK

DELTA GATEWAY & PARKETTES
FEBRUARY 1, 2013

DOCS #1374968
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 9, 2013       FILE CODE: A02-30/PW

SUBJECT: STAGE 1 LIGHT RAIL PROJECT – REQUEST FOR PROPOSAL TECHNICAL MATTERS

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve the Request for Proposal Technical Matters and a Design and Bid Fee of $200,000 for each unsuccessful qualified proponent as described in Report E-13-048 dated April 9, 2013:

SUMMARY:

In February 2012, Regional Council approved the delivery model for Stage 1 of the Light Rail Project as a Design-Build-Finance-Operate-Maintain (DBFOM).

In October 2012, the Region issued the Request for Qualification (RFQ) document and subsequently received submissions from seven teams interested in delivering the project on behalf of the Region.

In February 2013, Council approved GrandLinq, Kitchener Waterloo Cambridge Transit Partners and TriCity Transit System as the three pre-qualified teams selected to submit proposals for the project.

Region staff and the Rapid Transit (RT) Consulting Team are preparing the procurement documentation package, consisting of the Request for Proposal (RFP) and the Project Agreement (PA), to be issued to these three teams (Proponents).

This report describes the nature of the procurement documentation and how Region Staff recommend the roles and responsibilities relating to the project be allocated between the Region and the successful bidder (Project Co).

Staff are preparing two reports to Planning and Works Committee concerning the RFP documentation and process. This is the first report and addresses primarily technical issues related to the RFP. A second report addressing financial matters, evaluation criteria and process issues is planned for April 30, 2013.

REPORT:

Background:

In February 2013 Council pre-qualified three Design-Build-Finance-Operate-Maintain (DBFOM) teams (Proponents) to submit proposals for the Stage 1 Light Rail Transit (LRT) system. The procurement documentation, consisting of the Request for Proposal (RFP) and the Project Agreement (PA) is scheduled to be issued in early May 2013.
In order to issue the RFP to the Proponents, a significant number of activities and documents are needed to outline the submittal requirements and procedures to be followed through the various stages of proposal preparation, submittal, evaluation and selection of Project Co.

The RFP document sets out the terms and conditions of the procurement process. This includes the general governing procurement policies and procedures, along with the project specific features, requirements and various schedules.

The Proponents will also be provided the draft Project Agreement (PA) and the Project Specific Output Specifications (PSOS) as an integral part of the RFP. The PA is a series of interconnected legal agreements and schedules that provide the commercial terms and form of Contract to be executed between the Region and Project Co. The PA articulates the responsibilities, obligations, and risk transfer between the parties. Within the PA, the PSOS provides the Proponents with all the design, technical quality, operations and maintenance requirements they need for their submission. The PSOS defines the project scope and objectives which are essential to the enabling of private sector innovation, and acts as the source document for design evaluation and technical compliance.

Region staff and RT Consulting Team have developed the technical submission requirements, compliance checklists, and are finalizing the RFP evaluation framework. These documents are critical to ensure that the Region can appropriately and transparently evaluate each Proponent’s submission and select the best overall submission.

Staff are preparing two reports to Planning and Works Committee concerning the RFP documentation and process. This is the first report and addresses primarily technical issues related to the RFP. A second report addressing financial matters, evaluation criteria and process issues is planned for April 30, 2013.

**Allocation of Roles and Responsibilities between the Region and Project Co:**

Part of the RFP preparation process is the identification of which responsibilities are most appropriately transferred to Project Co. and which are most appropriately retained by the Region.

Clarifying the Region’s expectations to the Proponents with respect to which responsibilities will be transferred to them during the term of the PA will:

- Reduce their uncertainty about roles and responsibilities
- Will allow the teams to more accurately price the project
- Lower the overall bid price as clearly defined roles and responsibilities will result in clearly understood risks and lower costs associated with risk.

Over the past six months RT staff and RT Consulting Team have conducted a number of workshops with other departments and stakeholders to assess the appropriate allocations of roles and responsibilities between the Region and Project Co.

**Region:**

On the basis of this comprehensive consultation and evaluation, it is recommended that the Region retain the following key roles and responsibilities:
Vehicle Procurement

Region Staff is currently negotiating to procure 14 Light Rail Vehicles (LRVs) as part of an existing contract between Metrolinx and Bombardier Transportation Services. The Region will be responsible for the procurement and acceptance testing of the LRVs. After acceptance by the Region the vehicles will be turned over to Project Co. for their use in system integration, testing and commissioning of the LRT system. Once revenue service commences, Project Co. will operate and maintain the vehicles over the life of the PA.

Fares and Fare Technology

The Region will set the fares for the LRT. Grand River Transit (GRT) currently has a project underway to develop and procure an electronic fare media system that will integrate fares between the LRT, Adapted Bus Rapid Transit (aBRT) and conventional GRT bus routes. This is envisioned to involve a smart card technology where fare media is purchased prior to boarding. It is anticipated that the Ticket Vending Machines (TVMs) will be installed on the LRT station stops by a third party fare media contractor, who will also operate, maintain and service the TVMs on the Region’s behalf. The LRT budget includes a provision for the purchase and installation of TVMs at all LRT station stops.

Project Co. will provide electrical and communication connections for the TVMs at each LRT station stop and will provide the overall communications network and connections to a central control system to enable Region staff to manage fare revenues.

Fare Enforcement, Safety and Security

The LRT is expected to have a Proof of Payment (POP) system where Regional staff, with by-law or partial law enforcement abilities, would monitor and patrol the system and randomly check fare media presented to them using handheld devices to determine if the transit user has purchased a valid fare prior to boarding. It is expected that Region fare enforcement officers will also respond to security incidents that may occur on the Light Rail Vehicles (LRV) and at LRT station stops. Serious incidents would require involvement of Waterloo Regional Police Services. GRT is currently developing an overall transit security plan that will include fare enforcement, safety and security for the LRT.

Traffic Operations

The Region currently manages and operates all traffic signals through a Traffic Control Center located at the Regional Headquarters. The planned Traffic Signal Priority (TSP) system for street running portions of the LRT will be designed and constructed to be fully integrated with the Region’s existing traffic signal system. This TSP system and associated hardware will be designed and constructed by Project Co along the LRT corridor to Regional Standards. Once LRT revenue service commences the TSP system will be handed over to the Region for operations, maintenance and repair. Project Co. will continue to play a supporting role in managing the TSP over the PA period by providing regular input to the Region Traffic Control staff that will help improve operations along the LRT corridor for all modes of transportation.

Voice Radio Infrastructure

The LRT system will make use of the Region’s existing voice radio infrastructure to facilitate communication between the LRVs, the Central Control Facility (CCF), the Operations, Maintenance and Storage Facility (OMSF), wayside maintenance crews and the existing GRT Control Center. This radio infrastructure is currently managed and maintained by Region staff,
and capacity is available on the existing infrastructure to accommodate the LRT. Project Co. will purchase and install mobile and on-board radio units that are compatible with the Region's infrastructure. Should the Region's system be upgraded or replaced over the life of the PA, Project Co. will be required to work with Region staff to ensure a seamless transfer to the upgraded system, including the procurement of radios that are compatible with the new infrastructure.

Advertising and Retail Space

The Region will retain all rights, responsibility and revenue for any advertising placed on the LRVs and station stops on the LRT system.

Property Acquisition

The Region will acquire the necessary property and access rights to facilitate construction, maintenance and operations of the LRT system. This process is underway and is expected to be completed by mid 2014.

RT on City Roads

Regional staff are working with staff at the Cities of Kitchener and Waterloo to discuss and determine the appropriate approach for dealing with LRT on City roads including possible transfer of City roads to the Region. Transferring the roads would simplify and improve construction, operating and maintenance of the Region's LRT system by having one level of government responsible for all the roads LRT is on. Transfer of the roads would also eliminate any liability that the Cities of Kitchener and Waterloo would have as the owners of a road. Discussions are ongoing with Cities of Kitchener and Waterloo staff. Region Staff will report back to Regional Council on this issue in the near future.

Project Co.:  

The following are key roles and responsibilities that are most appropriately transferred to Project Co:

**Light Rail Vehicle Operation and Maintenance**

LRV operations will be managed by Project Co. for the first 10 years with potential for renewals. The maintenance, including all on board equipment and systems will also be the responsibility of the Project Co., who will hire and train the necessary staff.

**Wayside Infrastructure Operation and Maintenance**

Maintenance of wayside systems, which includes track, structures, traction power substations, the overhead catenary system, communications infrastructure, and the Operations, Maintenance, and Storage Facility (OMSF) require specialized staff that will be hired and trained by Project Co.

LRT wayside signals on non-street running portions (for example the Waterloo Spur) that are part of the train control system will be the responsibility of Project Co.
Operation of the Central Control Facility (CCF)

The OMSF will contain a CCF for dispatching trains, responding to operational contingencies, and overall day to day management of the LRT system. This CCF will be staffed by resources hired and trained by Project Co., who will operate the CCF and the OMSF over the life of the PA.

Lifecycle Rehabilitation

Project Co. will be responsible for replacement and refurbishment of infrastructure (except vehicle replacement) to ensure hand back requirements are met at the end of the PA. The Region will perform checks to ensure lifecycle rehabilitation is being performed as agreed upon and to the appropriate level. In particular towards the end of the 30 year period it is critical to ensure that infrastructure has been maintained and rehabilitated.

Operating Agreements

Project Co., in coordination with the Region, will enter into appropriate agreements with the various stakeholder agencies (Police, Fire, public utilities, Cities etc.) that will need to interface with the LRT system on a daily basis, or access the guideway as part of the agencies’ day-to-day business activities.

Design and Bid Fees

Region staff have been reviewing different approaches to providing a design and bid fee to the unsuccessful proponents, in recognition of the effort required to complete and submit a compliant RFP proposal. Completion of a compliant RFP is estimated to require approximately $2 million of effort by each proponent. The following summarizes staff’s investigations:

Infrastructure Ontario Approach To The Design And Bid Fee:

Historically, Infrastructure Ontario (IO) projects with a design component have offered proponents design and bid fees in recognition of their efforts. The design and bid fees vary based on project specific criteria, but generally range in the $500k to $2.0 million range per proponent, with complex civil infrastructure projects being represented at the higher end of the band.

Other reasons given by IO for offering design and bid fees on their previous projects include the following:

1. Retains the interest of developers and contractors on a given project thus increasing competition;
2. Enables proponents to invest more in their designs to drive innovation which will result in lower whole life costs;
3. Encourages bidder participation by recognizing the high bid costs inherent in these complex projects;
4. Enables the owner to acquire the intellectual property rights of submissions, which allows the use of design innovations from losing bids into the project or other projects;
5. Demonstrates a commitment to see the project through to completion; and
6. Provides protection from future legal action with regard to the procurement process by requiring proponent to sign a waiver upon receipt of payment.
Below is a list of IO projects where a range of design and bid fees were granted to qualified proponents based on project complexity:

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Delivery Model</th>
<th>RFP Issue</th>
<th>Design &amp; Bid Fee to Qualifying Proponent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oak Ridge Facility – Penetanguishene</td>
<td>DBFM</td>
<td>Jan-10</td>
<td>$800,000</td>
</tr>
<tr>
<td>Quinte Courthouse</td>
<td>DBFM</td>
<td>Jul-10</td>
<td>$400,000</td>
</tr>
<tr>
<td>Halton Health Services</td>
<td>DBFM</td>
<td>May-10</td>
<td>$800,000</td>
</tr>
<tr>
<td>Halton Health Services</td>
<td>DBFM</td>
<td>May-10</td>
<td>$800,000</td>
</tr>
<tr>
<td>Humber River Regional Hospital</td>
<td>DBFM</td>
<td>Sep-09</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Windsor Essex Parkway</td>
<td>DBFM</td>
<td>Apr-11</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>Ottawa Light Rail Transit</td>
<td>DBFM</td>
<td>Nov-11</td>
<td>$6,000,000</td>
</tr>
</tbody>
</table>

For the RT project, IO has suggested that the Region consider $800,000 as the design and bid fee for the unsuccessful qualified proponents during the RFP stage. Proponents are required to submit a fully compliant proposal to be qualified.

**Other Considerations**

Region’s General Engineering Consultant (GEC) has advised that the project is being brought to the market at a very good time given the weak North American rail transportation market. Consequently, there is strong interest in this project as evident from the seven FRQ responses received. Adding to this is the fact that the Region has opted to purchase the Light Rail Vehicles separately from the DBFOM contract which will increase competition and reduce risk through the next stage of the procurement process.

Moreover, the project is not considered by the market as overly complex. There are certainly complicated staging, utility and railway coordination issues as well as the King Street grade crossing. This project is viewed as a technically uncomplicated and attractive commercial venture with a reasonable risk profile.

In light of the above, it is the opinion of the GEC that the Region could proceed without providing a design and bid fee and this will not have any appreciable impact on the overall level or quality of effort during the in-market period. This is an attractive project and there is a strong contracting community with the precise appetite for this scale of project.

The GEC has identified a few similar-sized projects they have worked on previously where no design bid fee was provided:

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Delivery Model</th>
<th>Project Completion</th>
<th>Final Construction Cost</th>
<th>Total Design &amp; Bid Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hudson Bergen LRT</td>
<td>DBOM</td>
<td>Sep-96</td>
<td>$1.40 Billion</td>
<td>$0</td>
</tr>
<tr>
<td>Airtrain JFK</td>
<td>DBOM</td>
<td>Feb-97</td>
<td>$1.23 Billion</td>
<td>$0</td>
</tr>
<tr>
<td>L. A. Eastside LRT</td>
<td>DB</td>
<td>Nov-09</td>
<td>$800 Million</td>
<td>$0</td>
</tr>
</tbody>
</table>
After reviewing all of the information collected, staff are recommending that the Region pay a design and bid fee of $200,000 to the unsuccessful qualified proponents. This would provide some of the benefits that IO has listed (in particular access to innovative ideas and sign off on waivers) but also have the amount sufficiently low to recognize current market conditions.

CORPORATE STRATEGIC PLAN:

This report supports Focus Area 3.1 of Council’s Strategic Focus: Implement a light rail transit system in the central transit corridor, fully integrated with an expanded conventional transit system.

FINANCIAL IMPLICATIONS:

In 2011, the capital cost of Stage 1 of the RT project was estimated to be $818 million (in 2014 dollars). On June 15, 2011 Council approved the funding for the Region’s portion of the Stage 1 capital costs ($253 million), as well as for estimated long term operating and maintenance costs, subject to annual budget deliberations.

Regional staff are in the process of developing an updated funding model that will reflect all capital, operating, maintenance and financing costs over the 30-year life of the PA.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Finance, Corporate Resources and Planning, Housing and Community Services were consulted and had input to this report.

ATTACHMENTS

PREPARED BY:  Derick Finn, Manager, Rapid Transit Engineering
Darshpreet S. Bhatti, Director, Rapid Transit

APPROVED BY:  Thomas Schmidt, Commissioner, Transportation and Environmental Services
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: April 9, 2013 FILE CODE: A02-30/PW

SUBJECT: RECOMMENDED LOCATION AND ACCESS MODIFICATIONS FOR GRAND RIVER HOSPITAL RAPID TRANSIT STOP

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve the recommended location and access modifications for the Grand River Hospital Rapid Transit station stop, as per Report E-13-050, dated April 9, 2013.

REPORT:

The Region of Waterloo’s Rapid Transit Project (RT) is moving forward, with construction starting in 2014 and service beginning in 2017. As part of the early functional design, an RT stop was identified on King Street at Pine Street, across from Grand River Hospital (GRH) to serve the hospital and surrounding residential, commercial, and institutional areas.

Regional staff have been working with GRH, Emergency Services and the Cities of Kitchener and Waterloo to develop a design that will maintain key access points to the hospital, maintain traffic circulation, and provide safe and efficient RT service in the area. The evaluation was based on the following general considerations:

- Access to GRH emergency entrance and internal circulation
- Rapid Transit operations and safety
- Non-vehicular traffic operations and safety
- Neighbourhood access and traffic circulation
- Property acquisition, construction cost and staging impacts

A number of variations of station stop locations for traffic signal locations and GRH access points were developed, considered and evaluated. Based on those reviews by Region, GRH and City of Waterloo and Kitchener staff, the following access modifications on King Street between Union and Green Streets are recommended:

- Shift the RT station stop from Pine Street to a new intersection at the existing main entrance to the hospital;
- A new traffic signal to be added at the existing main entrance to the hospital to maintain left turn access and the existing fire route;
- A new traffic signal to be added at Mount Hope Street to accommodate the proposed relocation of the hospital’s emergency entrance via Mount Hope Street;
- The existing traffic signal at Pine Street to be removed, with the intersection becoming right-in and right-out only. Existing left turn movements at Pine Street will be accommodated via U-turns at Green Street and Mount Hope Street.
This design will result in minimal neighbourhood cut-through traffic and out of direction travel. Attachment A illustrates the access modifications being recommended.

Public Consultation

A Public Information Centre (PIC) to present these modifications was held on March 20, 2013.

Location: Knox Presbyterian Church
Address: 50 Erb Street West, Waterloo
Time: 4 p.m. to 8 p.m.

In advance of the PIC, letters were sent to residents and business owners in the adjacent neighbourhoods in the Cities of Kitchener and Waterloo. The letters, which were mailed out on March 6, 2013, invited them to participate in the PIC. Staff also hand delivered letters to the businesses and tenants along Pine Street.

Newspaper advertisements promoting the PIC were included in the Waterloo Chronicle (March 13, 2013), Waterloo Region Record (March 15, 2013), and the Kitchener Post (March 15, 2013). Road signs advertising the PIC were posted from March 13-20, 2013.

Results

The PIC was well attended. In total, 40 residents and business owners from the study area participated in the PIC, with 29 completing comment forms. A summary of the comments received is as follows:

- Support the modifications – 22 responses (76%)
- Against the modifications – 3 responses (10%)
- Suggested concerns with the modifications – 4 responses (14%)

Summary of written comments received from the public are provided in Attachment B

The following is a brief summary of the concerns raised by the participants and the recommended mitigation measures:

- **Traffic infiltration on to Herbert and Mary Streets:** proposed changes to the Pine Street intersection at King Street including the elimination of left turns will be mitigated by the availability of U-turns at Green Street and Mount Hope Street intersections. Any potential diversion of traffic to adjacent local residential streets is expected to be minimal.

- **Pedestrian and Bicycle access:** proposed modifications will provide crosswalks at the signalized Mount Hope Street, Grand River Hospital driveway and Green Street intersections. These crosswalks will enable pedestrians and bicyclists to cross King Street and to access the hospital and the RT stop in a safe and efficient manner.

**CORPORATE STRATEGIC PLAN:**

The report supports Focus Area 3.1 of Council’s Strategic Focus: Develop an implementation plan for light rail transit including corridor and station area planning.
FINANCIAL IMPLICATIONS:

The design and construction of the location and access modification for the GRH rapid transit stop and its associated costs is included in the RT budget and contract.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Finance was consulted during the preparation of this report.

ATTACHMENTS

Attachment A – GRH Rapid Transit Stop Location and Access Modifications
Attachment B – Summary of written comments submitted during PIC

PREPARED BY:  Masood Mirza, Senior Project Manager

APPROVED BY:  Thomas Schmidt, Commissioner, Transportation and Environmental Services
GRH Rapid Transit Stop Location and Access Modifications

New signalized intersection at Mt. Hope St. & King St.

New signalized intersection at the main entrance to Grand River Hospital & King St.

New EMS/ Emergency Access

Existing signal removed from the Pine St. intersection and changed to right-in/ right-out only (i.e. no left turns)

No changes at the Green St. intersection
<table>
<thead>
<tr>
<th>Record</th>
<th>City</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kitchener</td>
<td>I live on Mary St. &amp; I do not believe that there will be minimal cut thru traffic. It is very difficult now to turn left off Mary onto Union in the morning &amp; the plan will make it even more difficult.</td>
</tr>
<tr>
<td>2</td>
<td>Kitchener</td>
<td>Generally support the change. I would like the region to focus on improving cyclists’ ability to cross the RT line legally &amp; without dismounting. Pine St &amp; other intersections that are important to cyclists (because they are secondary roads or connect to trails) are being cut off. U-turns &amp; left turns from King will be challenging - consider bike boxes &amp; other measures. Would like to see marked pedestrian access at pine St. to the end of platform, (North side), may reduce jaywalking.</td>
</tr>
<tr>
<td>3</td>
<td>Not Provided</td>
<td>Concerned about traffic on Mary St/Herbert access to Union difficult - Union traffic heavy makes left turn hazardous. Consider a signal at Mary &amp; Union?</td>
</tr>
<tr>
<td>4</td>
<td>Waterloo</td>
<td>My concern includes the addition of more street lights and no roundabouts (more roundabouts are preferred!!!). As well, the large addition to the Sorbrara Law firm which has access to Herbert is an immediate concern contributing more congestion. Additionally, the removal of the left turn lane on pine will contribute to greater wait times when turning left onto Union from Mary, Herbert, Bowman, Lucan etc.</td>
</tr>
<tr>
<td>5</td>
<td>Kitchener</td>
<td>I like the change. I live on Mary St and we get a lot of cars using Mary a short cut to King St (from Union to Pine). This will reduce the traffic on Mary St. The legal U-turns will be a learning curve (roundabouts come to mind!)</td>
</tr>
<tr>
<td>6</td>
<td>Kitchener</td>
<td>Should consider continuing pedestrian crossing at Pine - human behaviour being what it is, you’re not going to stop pedestrians who find crossing there more convenient - best to make sure that happens safely rather than potentially penalizing them for doing what we expect them to.</td>
</tr>
<tr>
<td>7</td>
<td>Kitchener</td>
<td>Mainly concerned about traffic implications for Mary Street</td>
</tr>
<tr>
<td>8</td>
<td>Kitchener</td>
<td>I live on Mary Street and take Pine to King &amp; for turn left --&gt; will no longer be able to do this. I understand why this is the case --&gt; Will not be a problem.</td>
</tr>
<tr>
<td>9</td>
<td>Waterloo</td>
<td>Solution is workable - Actually very little direct impact on of Waterloo traffic. Egress &amp; Access to main entrance is improved with signal</td>
</tr>
<tr>
<td>Record</td>
<td>City</td>
<td>Comments</td>
</tr>
<tr>
<td>--------</td>
<td>------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>10</td>
<td>Waterloo</td>
<td>Missing details about traffic study conducted --&gt; would like more detailed information on the methodology. Concerns over adding additional traffic signals to King --&gt; slowing traffic flow. Concerned about additional traffic being added to Herbert St --&gt; was additional traffic from Sorbara Law considered (once finalized)? I doubt people will do a U-turn when there are thru-way options available. Concerned about safety issues for cycling on roads with train tracks --&gt; bike turns get caught in tracks (did we consider a monorail/skytrain type of system to not have big impacts to traffic?). Concerned about additional wait times when trying to turn left from Herbert to Union.</td>
</tr>
<tr>
<td>11</td>
<td>Waterloo</td>
<td>No, more informations about traffic flow on Park St, Allen St, Caroline. Traffic from sunlife could cause problems. Should have had more boards for surrounding areas. The region has just created a Traffic nightmare</td>
</tr>
<tr>
<td>12</td>
<td>Not Provided</td>
<td>Having driver for the cancer society for three years I am familiar with the area. At the detail design stage I hope the 'new' south to west turn at Green will allow for the large buses used to move hospital employees to and from their parking lot on Park St. Moving the lights to the driveway is long overdue.</td>
</tr>
<tr>
<td>13</td>
<td>Not Provided</td>
<td>reasonable compromise/solution</td>
</tr>
<tr>
<td>14</td>
<td>Waterloo</td>
<td>it seems to be a good solution. I don’t live in the affected area, but I use the bus daily. I'm just interested to know, what's coming up in the near future and how the whole thing is unfolding.</td>
</tr>
<tr>
<td>15</td>
<td>Not Provided</td>
<td>I'm sure the people using the Pine St. But won't be impressed by the changes &amp; The U-turns might be questionable.</td>
</tr>
</tbody>
</table>
CLASS ENVIRONMENTAL ASSESSMENT FOR BIOSOLIDS HEAT DRYING FACILITY

Public Information Centre No.2

5:00 – 7:30 p.m.
April 10, 2013 (KW Bilingual School, Waterloo)
April 15, 2013 (Cambridge Sports Park, Cambridge)
Why are we here tonight?

The Region is completing a Schedule B Class Environmental Assessment to select the preferred location for a new biosolids heat drying facility.

At the facility, dewatered biosolids from Kitchener, Waterloo, Galt and Preston Wastewater Treatment Plants will be processed to form a dried product.

Public participation is an integral part of the Class EA study process.

What is heat drying?
A process that removes water from the biosolids and inactivates pathogens. The volume and mass is reduced thus, the cost for subsequent handling.

Dewatered Biosolids
25% Dry Substance Content
40 to 80% Organic

Dried Biosolids
>90% Dry Substance Content
40 to 80% Organic

The end product is a clean, dry, stable, granular material that can be used as an organic fertilizer or biofuel.
Objectives of this Public Information Centre

This Public Information Centre provides an opportunity for the public to:

- Review the results of the detailed evaluation process used to select the preferred site for the new heat drying facility
- Review and provide input on the preliminary preferred site
- Review and provide input on the potential impacts associated with the new facility and the proposed mitigation measures
- Review and discuss the project with Region staff and their consultants

Please review the information presented tonight and provide us with any comments which you may have.
What are biosolids?

- Residuals from wastewater treatment are further treated to stabilize them (reduce mass, odors and pathogens), producing liquid 'biosolids'.
- Although organic- and nutrient-rich, the volume is 96% water.
- Biosolids are thickened and dewatered to reduce volume and produce biosolids cake consisting of 75% water.
- Dewatered biosolids can be heat dried to further reduce volume consisting of less than 10% water.
- Dried biosolids are suitable for end uses that can take advantage of nutrient, soil conditioning or fuel properties.

Agricultural use as fertilizer
Biofuel use
How are biosolids generated?

**Preliminary Treatment**
- **Bar Screens**: Removal of large, coarse, heavy objects from wastewater to protect equipment.

**Primary Treatment**
- **Primary Clarifiers**: Removal of settleable solids, including scum and grease that float.

**Secondary Treatment**
- **Aeration Tanks and Secondary Clarifiers**: Further removal of solids and nutrients. Aeration is usually required to help with degradation of organic matter.

**Tertiary Treatment**
- **Filtration**: Removal of additional suspended solids.

**Disinfection**
- **Inactivate harmful bacteria, viruses and other pathogens**
- **Effluent to receiving water**

**Biosolids Treatment**
- **Biosolids Stabilization**: Reduction of mass, odours and pathogens.
- **Digester**
- **Biosolids Processing**: Reduction of volume.
- **Thickening/Dewatering**: Trucking of dewatered biosolids to be processed at heat drying facility.

**Landfill**
- Residuals (solids) stream, also known as biosolids.
How much Biosolids will the Region Manage?

In 2041, the Region will manage the equivalent of 19,000 dry tonnes of solids (excluding water) per year.

- 90% will be heat dried
- 6% will be hauled to Ayr WWTP for further processing
- 4% will be disposed by landfilling

1,600 m³/day will be generated at Galt, Kitchener, Waterloo and Preston WWTPs.

- 4% Solids
- 96% Water

260 m³/day of dewatered biosolids will be hauled to the new drying facility.

- 25% Solids
- 75% Water

73 m³/day of dried biosolids will be hauled from the new drying facility.

- > 90% Solids

Liquid Biosolids

Dewatered Biosolids

Dry Biosolids
**Heat Drying Benefits**

**Environment**
- Reduced volume of biosolids minimizes complexity in management and hauling of biosolids
- Greenhouse gas emissions from hauling are minimized

**Sustainability:**
- Use of waste heat to minimize fuel requirements
- Use of nutrient or fuel value of biosolids
- Need to manage biosolids outside of the Region is minimized

**Reliability**
- Beneficial end-uses of the dried product provides diversity and flexibility in management of biosolids

**Community**
- New facility will create employment opportunities in the Region
- New facility will include engineered odour control system

**Cost:**
- Costs for biosolids hauling and disposal are minimized

---

Class Environmental Assessment for Biosolids Heat Drying Facility
Overview of the Municipal Class EA Process

We are completing Phase 2 for this Class EA study.
After reviewing all Region-owned properties, 11 sites were identified to have more than 4 ha required for the facility and not be in sensitive areas (e.g., residential/institutional areas).

The 11 sites were screened against the ‘must-meet’ criteria:

- Sufficient space within the site to construct the facility including access road, odour control, storage and buffer zones.
- Waste-heat availability

Sites that didn’t meet the ‘must-meet’ criteria were eliminated. Sites that met the criteria were short-listed and subjected to a more detailed evaluation.

Two sites were short-listed for further consideration:

- Waterloo Region Emergency Services Training and Research Complex (WRESTRC)
- Cambridge Waste Management Centre
## Preliminary Screening Results

<table>
<thead>
<tr>
<th>Site ID</th>
<th>Alternative Sites</th>
<th>“Must-meet” Criteria</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Crosshill Waste Transfer Station</td>
<td>✓ X</td>
<td>Not recommended – No heat recovery potential</td>
</tr>
<tr>
<td>2</td>
<td>Waterloo Airport</td>
<td>✓ X</td>
<td>Not recommended – No heat recovery potential</td>
</tr>
<tr>
<td>3</td>
<td>Heidelberg Operations Yard</td>
<td>X X</td>
<td>Not recommended – Insufficient footprint available on-site. No heat recovery potential</td>
</tr>
<tr>
<td>4</td>
<td>New Hamburg WWTP</td>
<td>✓ X</td>
<td>Not recommended – No heat recovery potential</td>
</tr>
<tr>
<td>5</td>
<td>Dutton Industrial Property</td>
<td>✓ X</td>
<td>Not recommended – No heat recovery potential</td>
</tr>
<tr>
<td>6</td>
<td>WRESTRC</td>
<td>✓ ✓</td>
<td>Recommended for short list</td>
</tr>
<tr>
<td>7</td>
<td>Cambridge Waste Management Centre</td>
<td>✓ ✓</td>
<td>Recommended for short list</td>
</tr>
<tr>
<td>8</td>
<td>Waterloo WWTP</td>
<td>X X</td>
<td>Not recommended – Insufficient footprint available on-site. Minimal opportunity for heat recovery.</td>
</tr>
<tr>
<td>9</td>
<td>Kitchener WWTP</td>
<td>X X</td>
<td>Not recommended – Insufficient footprint available on-site. Minimal opportunity for heat recovery.</td>
</tr>
<tr>
<td>10</td>
<td>Ayr WWTP</td>
<td>X X</td>
<td>Not recommended – Insufficient footprint available on-site. No heat recovery potential</td>
</tr>
<tr>
<td>11</td>
<td>Galt WWTP</td>
<td>X X</td>
<td>Not recommended – Insufficient footprint available on-site. Minimal opportunity for heat recovery.</td>
</tr>
</tbody>
</table>

**Note:**
Wastewater treatment plants not shown in the table did not have a property size >4 ha; thus, did not make the long list of potential sites.
Short-Listed Sites for Heat Drying Facility – Key Features

**WRESTRC Site**
- Adjacent to operating Waterloo Waste Management Centre landfill
- WRESTRC property is about 1.3 km from nearest residential community; however, landfill is closer to residences
- Potential community concerns with odours, traffic and noise
- Waste heat is available from electricity generator engines and exhaust, powered by landfill gas

**Cambridge Waste Management Centre**
- Closed landfill, currently operating as solid waste transfer station and composting facilities
- Surrounded by industrial development and agricultural land
- Waste heat source from reheat furnace stack – partially powered by landfill gas
- A few small significant wetland areas on property
Two short-listed sites were evaluated considering a long list of criteria to maximize benefit or minimize impact to:

- Community/Social 40%
- Natural/Technical Environment 40%
- Financial 20%

Each short-listed site was evaluated against each criterion and scored based on its ability to meet the criterion. Sites were evaluated relative to each other.

The site with the highest overall score is recommended as the preliminary preferred site for the heat drying facility.
Detailed Evaluation Results
Community/Social Criteria

Key Considerations:
- Potential for odour, noise and traffic generation during biosolids transport, as well as unloading and processing at heat drying facility
- Proximity to sensitive receptors
- Character of neighbouring areas, truck travelled routes and surrounding land uses
- Presence of features that will help to reduce visual impacts
- Existing and potential for future public concerns

Key Differentiators:
- Lower averaged travel distance to Cambridge WMC from WWTPs
- Synergies with some of the existing infrastructure at the Cambridge WMC results in smaller footprint requirement
- Higher public concerns raised for the WRESTRC site than the Cambridge site

Community/Social Criteria Evaluation Results

Higher score means higher ranking, lower impact
Class Environmental Assessment for Biosolids Heat Drying Facility

Detailed Evaluation Results
Natural/Technical Environment Criteria

Key Considerations:

- Potential for contamination of air, surface water (i.e. wetlands, watercourses) and groundwater
- Need for vegetation removal, grading alterations and potential for disturbance of existing ecosystems
- Risk to operations staff
- Infrastructure and operational requirements (e.g., utilities, heat source recovery system)
- Heat source availability, energy use and greenhouse gas contributions from natural gas usage and biosolids transport

Key Differentiators:

- Higher presence of vegetation on site requiring additional environmental investigations and site mitigation measures
- Upgrades to Gerdau in Cambridge to capture waste heat are less complex, reducing monitoring and operational requirements
- At the Cambridge site, about 70% of 2041 heat needs for drying can be provided by waste heat; at WRESTRC it is only about 25%

Natural/Technical Environment Criteria Evaluation Results

Higher score means higher ranking, lower impact
Key Considerations:
- Infrastructure needs, including access roads, truck weight stations, equipment, utilities, etc.
- Complexity of new heat recovery system and associated maintenance
- Natural gas usage and truck travel distances

Key Differentiators:
- Cambridge WMC capital cost lower:
  - Less complex heat recovery system
  - Less infrastructure required for wastewater servicing of drying facility, due to shorter distance to existing municipal system
- At WRESTRC, discharge of wastewater has a cost associated with acceleration of expansion of the Waterloo WWTP by at least a year
- Cambridge WMC O&M cost lower:
  - More waste heat available to offset natural gas cost
  - Lower maintenance cost associated with less complex heat recovery system
The highest ranking site with respect to social, natural, technical and financial considerations is the Cambridge Waste Management Centre.

Comparative Evaluation Summary Results:
- Cambridge Site: Total Score = 82
- WRESTRC Site: Total Score = 71

Legend:
- Community/Social
- Natural/Technical Environment
- Financial
The recommended site for the heat drying facility is the **Cambridge Waste Management Centre** in the City of Cambridge.
Key advantages of this site compared to the WRESTRC site are:

- Site mostly surrounded by industrial development
- Lower greenhouse has generation due to:
  - More significant waste heat source
  - Shorter travel distance from wastewater treatment plants
  - Reduced fuel usage
- Required upgrades and synergies with existing site use facilitate project implementation and minimize operational and monitoring complexity
- Lowest capital, operation and maintenance costs and life cycle cost.
## Anticipated Impacts and Proposed Mitigation Measures

### Community/Social

#### Potential Impacts and Mitigation Measures:

**Odours**
- Use of treatment equipment such as biofilters to treat air from facility and prevent release of odours
- Unloading and processing of dewatered biosolids will be carried out within enclosed facilities to minimize release of odours

**Noise**
- Facility will be sound insulated to minimize noise from facility

**Traffic**
- By 2041, approximately 33 trucks per week (6 to 7 trucks/day based on 5 day operation) carrying biosolids cake are expected into the heat drying facility and 1 to 2 trucks/day carrying dried product are expected to leave the facility
- Truck traffic will comply with local City by-laws and restricted to truck designated routes

### Natural/Technical

#### Potential Impacts and Mitigation Measures:

**Water, Air, Soil, Natural Heritage**
- Additional stormwater run-off will be managed at the existing stormwater ponds at the Cambridge WMC
- Desire to avoid source water protection areas
- Proper design and planning will minimize the alteration/impact to wetlands during construction
- Erosion and sediment control measures will be implemented to mitigate any impacts to surface water sources and the surrounding environment
- An Environmental Impact Assessment Study of the proposed site will soon be initiated.
- The adjacent wood lot will be protected with a no construction zone

**Operations Staff Health and Safety**
- Truck drivers will be properly certified and licensed
- Implementation of spills response strategies in the event of an accidental spill
- Air emissions from facility will be treated to remove particulates to meet air regulatory requirements
- Good design of facility and incorporation of safety systems to minimize operational risks
Examples of Heat Drying Facilities

Chambers Creek, Pierce County Washington, USA

Cary, North Carolina, USA
Next Steps

- The Project Team will consider the comments received from this Public Information Centre, and from a project Steering Committee and Stakeholders Group, to confirm the results of the evaluation process.

- Initiation of an Environmental Impact Assessment Study for the Cambridge site in April 2013 to identify and mitigate any impact to environmental features of the site.

- Upon confirmation of the preliminary preferred site for the heat drying facility, an Environmental Study Report, presenting the Class EA study, will be prepared and made available for a 30-day public review period, where you will have a final chance to comment on the recommendations.

THANK YOU FOR YOUR INPUT!
Project Contacts

Please complete a Comment Sheet and leave it here today, or return it to the Region by April 29, 2013.

For more information about this project, or to view the Public Information Centre displays online
Please visit our website:
www.regionofwaterloo.ca/en/aboutTheEnvironment/BiosolidsHeatDryingFacilityClassEAStudy.asp

Should you have any questions or concerns at any time during the project, please contact either of the following individuals:

Kaoru Yajima  
Senior Project Engineer, Water Services  
Region of Waterloo  
150 Frederick Street, 7th Floor  
Kitchener, Ontario, N2G 4J3  
Telephone: 519-575-4757 Ext.3349  
Fax: 519-575-4452  
Email: ykaoru@region.waterloo.on.ca

Deborah Ross  
Project Manager  
CIMA  
7880 Keele Street, Suite 201  
Vaughan, Ontario, L4K 4G7  
Telephone: 905-695-1005 Ext. 6704  
Fax: 905-695-0525  
Email: deborah.ross@cima.ca
<table>
<thead>
<tr>
<th>Meeting date</th>
<th>Requestor</th>
<th>Request</th>
<th>Assigned Department</th>
<th>Anticipated Response Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>28-Mar-12</td>
<td>D. Craig</td>
<td>Report on possible enhancements similar to what is proposed for Weber Street in Kitchener at the railway overpass for the Delta construction in Cambridge.</td>
<td>Transportation and Environmental Services</td>
<td>April. 2013</td>
</tr>
<tr>
<td>28-Mar-12</td>
<td>Council</td>
<td>Staff to review the operation of the Homer Watson Boulevard/Block Line Road roundabout and report back to Council in 2013.</td>
<td>Transportation and Environmental Services</td>
<td>Sept. 2013</td>
</tr>
<tr>
<td>08-May-12</td>
<td>P&amp;W</td>
<td>Report detailing the rationale for the Injury Crash Cost calculation used by staff in reports for roadway improvements. (E-12-045 page 48 authored by Frank Kosa)</td>
<td>Transportation and Environmental Services</td>
<td>Spring 2013</td>
</tr>
<tr>
<td>08-May-12</td>
<td>P&amp;W</td>
<td>Staff to review options for signalized vehicle lights and signalized pedestrian crosswalks in Roundabouts in the detailed design report prepared later in 2012 for Franklin Boulevard Improvements.</td>
<td>Transportation and Environmental Services</td>
<td>May 28, 2013</td>
</tr>
<tr>
<td>19-Mar-13</td>
<td>G. Lorentz</td>
<td>Staff were requested to look into noise barriers on Bleams Road in the City of Kitchener</td>
<td>Transportation and Environmental Services</td>
<td>30-Apr-2013</td>
</tr>
<tr>
<td></td>
<td>J. Haalboom</td>
<td>Staff continue to lobby the Province for changes to the Highway Traffic Act providing right of way to pedestrians and on an as needed basis provide an update to Council</td>
<td>Transportation and Environmental Services</td>
<td>as required</td>
</tr>
</tbody>
</table>