REGIONAL MUNICIPALITY OF WATERLOO
PLANNING AND WORKS COMMITTEE
AGENDA

Tuesday, June 21, 2011
9:00 A.M.
Regional Council Chamber
150 Frederick Street, Kitchener, Ontario

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

2. DELEGATIONS
   a) Bil Ioannidis, City of Kitchener Councillor re: E-11-068, Traffic Signal Review at Victoria Street (Regional Road 55) and Westforest Trail and Victoria Street (Regional Road 55) and Stoke Drive/Oprington Drive, City of Kitchener
   b) Duane and Caroline Wolfe re: E-11-058, Weber Street (College Street to Union Street) Environmental Assessment and Preliminary design Study – Recommended Design Concept and Publication of Environmental Study Report
   c) Kevin Fergin, Stantec Consulting speaking on behalf of Activa Holdings re: E-11-069, South Boundary Corridor and Franklin Boulevard Extension Class Environmental Assessment, City of Cambridge and Township of North Dumfries – Recommended Design Alternative

3. REPORTS – PLANNING, HOUSING AND COMMUNITY SERVICES

   COMMUNITY PLANNING

   TRANSPORTATION PLANNING
   b) P-11-057, Amendment to Regional Municipality of Waterloo Controlled Access By-Law #58-87, for a Temporary Access to Regional Road #70 (Ira Needles Boulevard), City of Waterloo
   c) P-11-063, Grand River Transit Hespeler Area Service Improvements
   d) P-11-064, Passenger Information Display Sign Acquisition
   e) P-11-065, Amendments to the Region’s U-Pass Agreements

   INTER-DEPARTMENTAL REPORTS
   f) CR-CLK-11-010/E-11-074, Integrated Accessibility Regulation

REPORTS – TRANSPORTATION AND ENVIRONMENTAL SERVICES

DESIGN AND CONSTRUCTION
g) **E-11-050**, Additional Consulting Fees – Class Environmental Assessment, Design and Services During Construction, Manitou Drive Widening, Bleams Road to Fairway Road, Kitchener

h) **E-11-058**, Weber Street (College Street to Union Street) Environmental Assessment and Preliminary Design Study – Recommended Design Concept and Publication of Environmental Study Report

i) **E-11-066**, University Avenue Improvements, Lincoln Road to Weber Street, City of Waterloo

j) **E-11-069**, South Boundary Corridor and Franklin Boulevard Extension Class Environmental Assessment, City of Cambridge and Township of North Dumfries – Recommended Design Alternative

k) **Kitchener - Waterloo Zone 6 Elevated Tank, Pre-Construction Information Package** in Advance of Public Information Centre

**TRANSPORTATION**

l) **E-11-052**, GRT Onboard Mobile Surveillance Systems Policy

m) **E-11-068**, Traffic Signal Review at Victoria Street (Regional Road 55) and Westforest Trail and Victoria Street (Regional Road 55) and Stoke Drive/Oprington Drive, City of Kitchener

n) **E-11-073**, Revised 2011 Transportation Capital Base, System Expansion, and Airport Capital Budget

o) **CR-RS-11-047/E-11-076**, Region of Waterloo International Airport – Declaration of Surplus and Lease with Millard Properties Limited

p) **CR-RS-11-044**, Surplus Declaration and Conveyance at Ira Needles Boulevard and University Avenue, City of Waterloo

**WATER**

q) **E-11-056**, Baden-New Hamburg Water and Wastewater Master Plan Update – Notice of Completion

**ADMINISTRATION**

r) **E-11-006.1**, Consultant Selection – Transportation and Environmental Services Departmental Asset Management Strategy

4. **INFORMATION/CORRESPONDENCE**

a) **Memo re: Addition of iXpress Station at Victoria Street**
5. **OTHER BUSINESS**

a) Council Enquiries and Requests for Information Tracking List

6. **NEXT MEETING** – August 16, 2011 – 1:00 p.m.

7. **MOTION TO GO INTO CLOSED SESSION**

   THAT a closed meeting of the Planning & Works and Administration and Finance Committees be held on Tuesday, June 21, 2011 immediately following the Planning and Works Committee meeting in the Waterloo County Room in accordance with Section 239 of the Municipal Act, 2001, for the purposes of considering the following subject matters:

   a) proposed or pending disposition of land in the City of Kitchener
   b) proposed or pending acquisition of land in the City of Waterloo
   c) proposed or pending acquisition of land in the City of Cambridge
   d) receiving of legal advice and opinion that is subject to solicitor-client privilege related to a construction project
   e) labour relations and employee negotiations

8. **ADJORN**
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 16, 2011</td>
<td>1:00 P.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>September 6, 2011</td>
<td>1:00 P.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><strong>Transportation and Environmental Services</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 23, 2011</td>
<td>5:00 PM</td>
<td>KW Zone 6 Elevated Water Tower, Information Package in Advance of Pre-construction Information Centre</td>
<td>Westvale Public School 265 Westvale Drive, Waterloo</td>
</tr>
</tbody>
</table>
REGION OF WATERLOO
PLANNING, HOUSING AND COMMUNITY SERVICES
Community Planning

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

DATE: June 21, 2011

FILE CODE: D18-01

SUBJECT: MONTHLY REPORT OF DEVELOPMENT ACTIVITY FOR MAY 2011

RECOMMENDATION:


SUMMARY:

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

1. Approved the following part lot control exemption by-laws;
2. Accepted the following plans of condominium;
3. Draft approved the following plan of condominium;
4. Modified the following plans of subdivision;
5. Released for registration the following plans of subdivision; and
6. Approved the following official plan amendment.

REPORT:

City of Cambridge

1. Registration of Plan of Subdivision 30T-93015
   Draft Approval Date: March 23, 1995
   Phase: Phase 1
   Applicant: Brigadoon Holdings
   Location: Grand Ridge Drive
   Proposal: To permit the development of 1 single detached unit.
   Processing Fee: Paid May 27, 2011

City of Kitchener

1. Registration of Plan of Subdivision 30T-02201
   Draft Approval Date: January 12, 2009
   Phase: Stage 2
   Applicant: James Dickson
   Location: Sylvia Street
   Proposal: To permit the development of 3 single detached units.
   Processing Fee: Paid May 16, 2011
   Commissioner’s Release: May 17, 2011
City of Waterloo

1. **Plan of Condominium Application 30CDM-11403**
   - **Date Accepted:** May 9, 2011
   - **Applicant:** 1736095 Ontario Ltd.
   - **Location:** 100 Bluevale Street North
   - **Proposal:** To permit the conversion of 33 existing rental townhouse units to condominium ownership.
   - **Processing Fee:** Paid April 12, 2011

2. **Plan of Condominium Application 30CDM-11404**
   - **Date Accepted:** May 9, 2011
   - **Applicant:** 1736095 Ontario Ltd.
   - **Location:** 20 Mayfield Avenue
   - **Proposal:** To permit the conversion of 28 existing townhouse units to condominium ownership.
   - **Processing Fee:** Paid April 12, 2011

3. **Draft Approval of Plan of Condominium 30CDM-10403**
   - **Applicant:** K-W Palco Holdings Inc.
   - **Location:** 75 Rankin Street
   - **Proposal:** To permit the conversion of an existing 7 unit industrial building to condominium ownership.
   - **Processing Fee:** Paid April 29, 2011
   - **Commissioner’s Approval:** May 20, 2011
   - **Came Into Effect:** June 10, 2011

4. **Official Plan Amendment No. 80**
   - **Applicant:** Jameshill Developments Ltd.
   - **Location:** 221-223 Erb Street West
   - **Proposal:** To permit the re-designation of a parcel of land from “Medium High Density Residential” to “Medium High Density Residential” and “Special Policy Area 75”, to provide for an increase in the maximum density from 200 units per hectare to 224 units per hectare.
   - **Processing Fee:** Paid May 2, 2011
   - **Commissioner’s Approval:** May 17, 2011
   - **Came Into Effect:** June 7, 2011

Township of Wilmot

1. **Part Lot Control Exemption By-law 2011-26**
   - **Applicant:** Eastforest Homes Ltd.
   - **Location:** Captain McCallum Drive
   - **Proposal:** To modify the location of 22 separate access easements for several townhouse units.
   - **Processing Fee:** Paid May 24, 2011
   - **Commissioner’s Approval:** May 30, 2011
Township of Woolwich

1. Part Lot Control Exemption By-law 27-2011
   Applicant: Empire Communities (Riverland) LP
   Location: Trowbridge Street
   Proposal: To permit the creation of 6 townhouse units.
   Processing Fee: Paid April 19, 2011
   Commissioner’s Approval: May 3, 2011

2. Modification to Draft Plan of Subdivision 30T-97008
   Applicant: Empire Communities (Riverland) LP
   Location: Regional Road No. 17, Breslau
   Proposal: To replace 17 single detached lots with 23 townhouse lots and adjust the lot lines for lots 103 to 125 to provide for 4 additional single detached units.
   Processing Fee: Paid October 15, 2011
   Commissioner’s Approval: May 26, 2011

3. Modification to Draft Plan of Subdivision 30T-05701
   Applicant: Thomasfield Homes Limited
   Location: Fountain Street North and Victoria Street North, Breslau
   Proposal: To facilitate the development of 69 single detached dwelling with additional lands for open space and future development purposes.
   Processing Fee: Paid May 25, 2011
   Commissioner’s Approval: May 30, 2011

Residential Subdivision Activity January 1, 2011 to May 31, 2011

<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>*Kitchener</td>
<td>33</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Waterloo</td>
<td>16</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Cambridge</td>
<td>76</td>
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<td>Woolwich</td>
<td>64</td>
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</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>
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<tr>
<td>Region of Waterloo</td>
<td>189</td>
<td>0</td>
<td>10</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 1, 2010 to May 31, 2010

<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>Kitchener</td>
<td>1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Waterloo</td>
<td>0</td>
<td>616</td>
<td>0</td>
</tr>
<tr>
<td>Cambridge</td>
<td>99</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>Woolwich</td>
<td>38</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wilmot</td>
<td>74</td>
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<tr>
<td>North Dumfries</td>
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<td>0</td>
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<tr>
<td>Wellesley</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Region of Waterloo</td>
<td>212</td>
<td>634</td>
<td>21</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 associated 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 consistent with the streamlining objectives reflected in Focus Area A: Manage Regional Growth to Enhance Quality of Life in the Corporate Strategic Plan.

### FINANCIAL IMPLICATIONS:

NIL

### OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

NIL

### PREPARED BY: Andrea Banks, Program Assistant

### APPROVED BY: Rob Horne, Commissioner, Planning, Housing and Community Services
TO: Chair Jim Wideman and Members of the Planning and Works Committee  
DATE: June 21, 2011  
FILE CODE: T15-40/70/INB/C13-20/CA  
SUBJECT: AMENDMENT TO REGIONAL MUNICIPALITY OF WATERLOO  
CONTROLLED ACCESS BY-LAW #58-87, FOR A TEMPORARY ACCESS TO  
REGIONAL ROAD #70 (IRA NEEDLES BOULEVARD), CITY OF WATERLOO  

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve an amendment to Controlled Access By-law #58-87 for a temporary all movement construction access on the west side of Regional Road #70 (Ira Needles Boulevard), approximately 45 metres south of Thorndale Drive, in the City of Waterloo subject to the transfer of title of property to the Region of Waterloo, as described in Report No. P-11- 057, dated June 21, 2011.

SUMMARY:

The Region of Waterloo (via Water Services) will be acquiring a parcel of land abutting The Boardwalk commercial development for the construction of a Kitchener Waterloo Zone 6 Elevated Water Tank on the west side of Ira Needles Boulevard in the City of Waterloo. Water Services has requested consideration of a temporary all movement construction access on the west side of Ira Needles Boulevard approximately 45 metres south of Thorndale Drive for the construction of the proposed water tank. Upon completion of the construction of the water tank, interim access for operation and maintenance will be allowed through The Boardwalk Plaza pursuant to an existing blanket easement (previously granted to the Region). At such time as the lands on the west side of Ira Needles Boulevard develop and an extension of Thorndale Drive is approved and completed through these lands, access to the water tank will be directly from the extension of Thorndale Drive.

Region of Waterloo Transportation and Planning staff have reviewed the request for the temporary construction access and can support an all movement access to Ira Needles Boulevard as the access will be temporary and used only for construction of the water tower. Upon completion of the water tower, the access will be closed and the entire boulevard at the temporary access will be restored to its original condition.

The Region of Waterloo has not yet acquired title to the property for the water tank however, this process is underway. As a result, approval of the temporary construction access should be conditional upon the Region acquiring title to the lands.

City of Waterloo Planning staff is supportive of the proposed location of the Kitchener Waterloo Zone 6 Elevated Water Tank as well as installation of the temporary construction access.

As Ira Needles Boulevard is a Controlled Access – Prohibited Road under the Region’s Controlled Access By-law # 58-87, an amendment to this by-law is required to permit the proposed temporary access for construction purposes.
REPORT:

By-law No. 58-7, a By-law to Designate and Regulate Controlled – Access Roads, was enacted to control the construction or alteration to the geometric design of any private means of access to a Regional road. All Regional roads are included in either Schedule “A” or Schedule “B” of the By-law. Regional roads included in Schedule “A” (Controlled Access – Prohibited) include arterial roads and freeways where access to these roads must be restricted due to high traffic speed and volume. The main function of a Controlled Access – Prohibited road is to move through traffic. All requests for changes to existing accesses require an amendment to the By-law. All remaining roads are included in Schedule “B” (Controlled Access – Regulated). The function of a Controlled Access – Regulated road is to move through traffic and provide access to adjacent lands. Typically these are front lotted with access available only to the regional road or are comparatively lower volume rural roads.

The Region of Waterloo (via Water Services) will be acquiring property abutting The Boardwalk Plaza, a commercial development on the west side of Ira Needles Boulevard in the City of Waterloo for construction of the Kitchener Waterloo Zone 6 Elevated Water Tank. The location of the property is shown in Appendix A of this report. Water Services Division has requested a temporary all movement construction access on the west side of Ira Needles Boulevard approximately 45 metres south of Thorndale Drive for the construction of the water tank (Appendix B). The Region will have an easement for the proposed temporary all movement construction access and a second easement for a watermain to Ira Needles Boulevard. The proposed temporary construction access will only be used for the construction of the water tank and upon completion of construction, the temporary access will be closed and the entire boulevard at the access restored to its original condition. Interim access for operation and maintenance will be through The Boardwalk Plaza commercial development through an existing blanket easement (previously granted to the Region). When the lands on the west side of Ira Needles Boulevard develop and an extension of Thorndale Drive is approved and completed through these lands, access to the water tank will be from the extension of Thorndale Drive.

As Ira Needles Boulevard is a Controlled Access – Prohibited Road under the Region’s Controlled Access By-law # 58-87, an amendment to this by-law is required to permit the proposed temporary access for construction purposes.

Staff has reviewed the location of the proposed temporary access and concluded an all movement access is acceptable at this location on Ira Needles Boulevard as the access is temporary and will only be used for construction of the water tank.

Area Municipal Consultation/Coordination

City of Waterloo Planning staff is supportive of the proposed location of the Kitchener Waterloo Zone 6 Elevated Water Tank and installation of the temporary construction access to Ira Needles Boulevard. The Developer and Region of Waterloo staff has applied for Site Plan approval from the City of Waterloo.
CORPORATE STRATEGIC PLAN:

This access approval is aligned with Focus Area 5: Infrastructure: Provide high quality infrastructure and asset management to meet current needs and future growth. In addition, the provision of safe access is an operational activity used to assist in the implementation of the Region’s strategic objective of providing a safe community.

FINANCIAL IMPLICATIONS:

The Region of Waterloo Water Services 2011 Budget has provided funds for the construction of the Zone 6 elevated water tank and the access road.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Water Services has circulated a site plan which requires a temporary access to Ira Needles Boulevard.

Corporate Resources will prepare the Controlled Access By-law amendment.

ATTACHMENTS:

Appendix A - Map showing the location of the subject property.
Appendix B - Site Plan showing the location of the proposed amendment to the Controlled Access By-law #58-87

PREPARED BY: Bruce Erb, Supervisor, Corridor Management

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

DATE: June 21, 2011

FILE CODE: D28-50(A)

SUBJECT: GRAND RIVER TRANSIT HESPeler AREA SERVICE IMPROVEMENTS

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve the modifications to Route 65 FISHER MILLS, Route 66 WINSTON and Route 71 MELRAN, in Cambridge, effective September 5, 2011 as described in Report No. P-11-063, dated June 21, 2011.

SUMMARY:

As part of an ongoing Grand River Transit (GRT) route performance review, staff has evaluated service in the Hespeler area with the following goals:

- Extend service to new residential development in the Blackbridge Road area;
- Increase service coverage during evenings and on Sundays; and,
- Improve service quality without increasing operating costs to improve the overall productivity of routes in the area.

Staff held a Public Consultation Centre (PCC) at Hespeler Library on May 12, 2011 to discuss two service options, as discussed in report P-11-045, dated May 3, 2011 and shown in Figure 2. Of the approximately 30 comments received, most preferred Option 1 as it would provide more service coverage in the central part of Hespeler. Residents who preferred Option 2 felt that route structure would be easier to understand and would provide better connections to the Cambridge Centre. Based on this feedback, and in consultation with the Steering Committee, staff has modified Option 1 and recommends the following restructuring of GRT routes serving the Hespeler area of Cambridge:

- Extend Route 65 FISHER MILLS to serve new residential development in the Blackbridge Road area;
- Extend Route 66 WINSTON to serve commercial development in the Townline Road and Jamieson Parkway area; and,
- Extend Route 71 MELRAN during evenings and on Sundays to serve Winston Boulevard between Cooper Street and Franklin Boulevard with an hourly frequency during these periods, replacing the existing evening and Sunday service on Route 66.

These changes, shown in Figure 3, can be implemented within existing budgets. Staff estimates the net revenue increase from this restructuring would be approximately $22,000 annually.

The 2011 – 2014 GRT Business Plan will prioritize future service improvements including the implementation of a proposed express service in the Hespeler area. Based on this recommended timing, staff will undertake a more complete redesign of the Hesperel service that will incorporate all feedback about Hespeler residents’ service priorities. The GRT Business Plan is scheduled to be submitted to the Planning & Works Committee in the fall of 2011.
REPORT:

The Hespeler area is served by three Grand River Transit routes, as shown in Figure 1. Each route connects a portion of Hespeler with Route 51 HESPELER ROAD and with Route 53 FRANKLIN BOULEVARD at a transfer location at the intersection of Holiday Inn Drive and Groh Avenue.

As shown in Table 1 below, local routes serving the Hespeler area operate at a 30 minute frequency during weekdays. Evening and weekend service is provided at a frequency of every 60 minutes on Route 65 and Route 66. Route 71 does not operate during weekday evenings, Saturday evenings or on Sundays.

Table 1: Hespeler Area Routes Existing Level of Service

<table>
<thead>
<tr>
<th>Route</th>
<th>Weekdays</th>
<th>Weekday Evenings</th>
<th>Saturdays</th>
<th>Saturday Evenings</th>
<th>Sundays</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 Fisher Mills</td>
<td>Every 30 minutes from 6 a.m. to 8 p.m.</td>
<td>Every 60 minutes from 8 p.m. to midnight</td>
<td>Every 30 minutes from 6 a.m. to 7 p.m.</td>
<td>Every 60 minutes from 7 p.m. to midnight</td>
<td>Every 60 minutes from 11 a.m. to 7 p.m.</td>
</tr>
<tr>
<td>66 Winston</td>
<td>Every 30 minutes from 6 a.m. to 7 p.m.</td>
<td>Every 60 minutes from 7 p.m. to midnight</td>
<td>Every 30 minutes from 7 a.m. to 7 p.m.</td>
<td>Every 60 minutes from 7 p.m. to midnight</td>
<td>Every 60 minutes from 11 a.m. to 6 p.m.</td>
</tr>
<tr>
<td>71 Melran</td>
<td>Every 30 minutes from 6 a.m. to 6 p.m.</td>
<td>No service</td>
<td>Every 30 minutes from 6 a.m. to 6 p.m.</td>
<td>No service</td>
<td>No service</td>
</tr>
</tbody>
</table>

Staff has reviewed service in the Hespeler area with the following goals:

- Extend service to new residential development in the Blackbridge Road area;
- Increase service coverage during evenings and on Sundays; and,
- Improve service quality without increasing operating costs to improve the overall productivity of routes in the area.

Public Consultation

Staff held a Public Consultation Centre (PCC) at Hespeler Library on May 12, 2011 to discuss service options, as discussed in Report P-11-045, dated May 3, 2011. Service options shown at the PCC are included as Figure 2. Both options included extension of Route 65 to serve new residential development, but differed in their approach to improving evening and Sunday service. Option 1 included a proposed evening and Sunday only route that would replace Route 66 during those times but would provide greater service coverage. Option 2 included a modified Route 66 that would provide two way service to most residential areas and would be connected with both Route 51 and Route 53. Evening service would have been provided in one direction only on the same routing.

That evening staff discussed GRT service with over 50 residents of the Hespeler area, and received approximately 30 comments about the two options on display. A summary of all comments received is included as Appendix A. In general, the first option received slightly more support as it would provide more service coverage in the central part of Hespeler. Residents who preferred the other option on display felt that route structure would be easier to understand and would provide better connections to the Cambridge Centre. Based on this feedback, staff modified Option 1 and is recommending this modified option as a short-term service improvement.
A long-term vision for Hespeler area service was also displayed at the PCC including a limited stop express service connecting Hespeler with Sportsworld and the Cambridge Centre. The simpler route design and faster connections with the rest of the Region received positive feedback from residents. The 2011 – 2014 GRT Business Plan will prioritize future service improvements including the implementation of this proposed express. Based on this recommended timing, staff will undertake a more complete redesign of the Hespeler service that will incorporate all feedback about Hespeler residents’ service priorities. The GRT Business Plan is scheduled to be submitted to the Planning & Works Committee in the fall of 2011.

**Recommended Service Improvement**

Based on public feedback, the recommended service improvement (shown in Figure 3) includes the following modifications:

- Extend Route 65 to serve new residential development in the Blackbridge Road area, and relocate service from Franklin Boulevard to Queen Street to maintain the current route length.
- Extend Route 66 to commercial development in the Townline Road and Jamieson Parkway area.
- Extend Route 71 during evenings and on Sundays to serve Winston Boulevard between Cooper Street and Franklin Boulevard. This route would operate with an hourly frequency during these periods and would replace evening and Sunday service on Route 66.

The proposed schedules for the recommended service changes are shown below in Table 2.

<table>
<thead>
<tr>
<th>Route</th>
<th>Weekdays</th>
<th>Weekday Evenings</th>
<th>Saturdays</th>
<th>Saturday Evenings</th>
<th>Sundays</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 Fisher Mills</td>
<td>Every 30 minutes from 6 a.m. to 8 p.m.</td>
<td>Every 60 minutes from 8 p.m. to midnight</td>
<td>Every 30 minutes from 6 a.m. to 7 p.m.</td>
<td>Every 60 minutes from 7 p.m. to midnight</td>
<td>Every 60 minutes from 11 a.m. to 7 p.m.</td>
</tr>
<tr>
<td>66 Winston</td>
<td>Every 30 minutes from 6 a.m. to 7 p.m.</td>
<td>Partially served by Extended Route 71</td>
<td>Every 30 minutes from 7 a.m. to 7 p.m.</td>
<td>Partially served by Extended Route 71</td>
<td>Partially served by Extended Route 71</td>
</tr>
<tr>
<td>71 Melran</td>
<td>Every 30 minutes from 6 a.m. to 6 p.m.</td>
<td>Extended routing, Every 60 minutes from 7 p.m. to midnight</td>
<td>Every 30 minutes from 6 a.m. to 6 p.m.</td>
<td>Extended routing, Every 60 minutes from 7 p.m. to midnight</td>
<td>Extended routing, Every 60 minutes from 11 a.m. to 6 p.m.</td>
</tr>
</tbody>
</table>

The extension of Route 65 along Baldwin Drive increases service coverage in the newly developed residential area by 578 residences. During evenings and on Sundays, the extension of Route 71 improves service coverage in east Hespeler by 1,686 residences. Staff estimates the net revenue increase from this restructuring would be approximately $22,000 annually.

**Area Municipal Consultation/Coordination**

A Steering Committee was formed to oversee service planning in the Cambridge service area. Membership of the Steering Committees includes Regional and City of Cambridge staff and Council representatives. An ongoing dialogue has been maintained between Regional and City of Cambridge.
Cambridge staff regarding service planning. As the service plans move into implementation, and as future plans are developed, Regional Staff will continue to meet and consult with City of Cambridge staff and the members of the Steering Committee.

CORPORATE STRATEGIC PLAN:

The proposed redesign of Hespeler area GRT routes supports the implementation of Council’s Strategic Focus, identified under Focus Area 2: Growth Management: Manage and Shape Growth to Ensure a Livable, Healthy, Thriving and Sustainable Waterloo Region. The changes will aid with Strategic Objective 2.3 to enhance, develop, promote and integrate sustainable and active forms of transportation (public transit, cycling and walking).

The redesign of Hespeler area GRT routes also supports Focus Area 5: Infrastructure: Provide High Quality Infrastructure and Asset Management to Meet Current Needs and Future Growth.

FINANCIAL IMPLICATIONS:

The proposed restructuring of Hespeler area routes can be accommodated within the existing transit operating budget. Route 65 can be extended to serve new areas without increasing operating costs by modifying the route to operate along Queen Street instead of Franklin Boulevard. Evening service extensions on Route 71 would be created through a reallocation of service hours within the Hespeler area.

Staff estimates that the net ridership gain from the proposed restructuring will generate an annual increase of $22,000 to GRT operating revenue.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

This report was prepared in cooperation with staff from the Transit Services Division of Transportation and Environmental Services.

ATTACHMENTS:

Figure 1: Current Hespeler Area GRT Service
Figure 2: Service Options as Displayed at PCC on May 12, 2011
Figure 3: Proposed 2011 Hespeler Area GRT Service
Appendix A: Summary of Feedback from Public Consultation Centre

PREPARED BY: Gethyn Beniston, Principal Planner - Transit

APPROVED BY: Rob Horne, Commissioner, Planning, Housing and Community Services
Figure 1: Current Hespeler Area Grand River Transit Service
Figure 2: Service Options as Displayed at PCC on May 12, 2011

Option 1
- Extend Route 66 to serve new commercial development on Jamieson Plwy
- Route to operate on weekdays until 5 p.m.
- Extend Service to new residential area along Baldwin Drive
- Change Route 66 to operate along Queen St instead of Franklin Blvd to maintain 30 minute round trip time
- Continue Route 71 service along Franklin Blvd and Holiday Inn Dr, Route to operate on weekdays until 6 p.m.

Option 2
- Extend Route 66 to include current Route 71 service area and increase evening and weekend service
- Extend Service to new residential area along Baldwin Drive
FIGURE 3

Proposed modification to recommended Route 71 MELRAN
## Appendix A: Hespeler Service Area Community Response Summary

### Preferred Option 1

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of responses</th>
<th>Staff response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service to Jamieson Pkwy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Service to Townline Road</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Service to Rife &amp; Cooper</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Service on Cooper</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Service to Winston Blvd</td>
<td>3</td>
<td>Recommended service option incorporates all noted service priorities</td>
</tr>
<tr>
<td>Provides more options/ coverage</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Prefers a structure with many, smaller routes</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Would provide shorter travel time</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Like extended evening &amp; weekend service</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No reason given</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Preferred Option 2

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of responses</th>
<th>Staff response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simpler and easier to understand</td>
<td>3</td>
<td>Modified recommended service option to improve comprehension.</td>
</tr>
<tr>
<td>Extends Route 66 to Townline Road</td>
<td>1</td>
<td>Recommended service option will include service to Townline Road</td>
</tr>
<tr>
<td>Would help increase ridership</td>
<td>1</td>
<td>Remaining service priorities will be accommodated in future service review</td>
</tr>
<tr>
<td>Provides more opportunity to use transit</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Like extended evening &amp; weekend service</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Gets across the 401 faster</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>No reason given</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>11</strong></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix A (continued):

**Preferred neither/ both**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of responses</th>
<th>Staff response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Just leave the structure the same and add service to 66 &amp; 53</td>
<td>1</td>
<td>Resources to increase operating costs are not currently available to extend these routes</td>
</tr>
<tr>
<td>Provide service to Cooper/ Rife after 7 pm Monday – Saturday</td>
<td>1</td>
<td>Recommended service option includes service to these areas after 7 p.m. Monday - Saturday</td>
</tr>
<tr>
<td>Provide service to Franklin/ Holiday Inn after 7 pm Monday – Saturday</td>
<td>1</td>
<td>Option 2 is not recommended</td>
</tr>
<tr>
<td>Need improved service for seniors if Option 2 is recommended</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

### Other Comments

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of responses</th>
<th>Staff response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Night service option is great, even if it’s a longer walk to get to the route than during daytime</td>
<td>2</td>
<td>Recommended service option includes improved evening service</td>
</tr>
<tr>
<td>Evening service in Melran is a good idea</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Long term planned express to Sportsworld &amp; Cambridge Centre is good “the sooner the better”</td>
<td>6</td>
<td>Staff will continue to refine long-term plans and will implement when resources become available</td>
</tr>
<tr>
<td>Saturday service needs improvement</td>
<td>1</td>
<td>Recommended service option includes improved weekend service in Hespeler.</td>
</tr>
<tr>
<td>Sunday service needs improvement</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Hespeler Terminal is poorly located/ unnecessary</td>
<td>2</td>
<td>Remaining service priorities will be accommodated in future service reviews</td>
</tr>
<tr>
<td>What will happen to Route 75 BusPLUS?</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Wants service to continue on Winston Blvd</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Increase service levels throughout the area</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Provide quick access to iXpress</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: June 21, 2011

FILE CODE: D10-20 (A)

SUBJECT: PASSENGER INFORMATION DISPLAY SIGN ACQUISITION

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve the acquisition of real-time passenger information display signs from INIT Innovations in Transportation, Inc. at a total cost of $350,603 plus applicable taxes, as described in Report No. P-11-064, dated June 21, 2011.

SUMMARY:

In early 2007, Grand River Transit (GRT) began equipping buses with the Intelligent Transportation System (ITS) supplied by INIT Innovations in Transportation. The computer-aided dispatch and automatic vehicle location (CAD/AVL) system and automatic passenger counting (APC) systems have provided significant benefits relating to operational efficiency, service quality and customer service.

Currently, the provision of real-time bus arrival information occurs at 24 transit stops equipped with the passenger information displays from INIT. These displays show real-time arrivals for all iXpress buses and any other conventional buses that are equipped with the INIT system and use the same bus stop.

The new Fischer-Hallman express line (P-11-053) is the first of seven planned limited-stop express routes that would provide connections to proposed Rapid Transit stations and major destinations within the Region. It is proposed that enhanced passenger amenities, similar to those found at current iXpress stations, be included at each station on this new route including shelters and improved customer information through real-time next bus departure displays. The funds required for this sign acquisition are provided for in the approved 2011 GRT Capital Budget.

REPORT:

The provision of real-time bus arrival information is widely appreciated by transit customers as it removes the uncertainty of when the next bus will arrive. To facilitate this, and to implement automated stop announcements on-board each bus, the Region has been equipping the GRT fleet with an ITS provided by INIT. INIT’s system provides the following functionalities:

- In-vehicle next stop audio announcements and variable next stop display
- CAD/AVL system for real-time tracking of vehicles at the transit control centre
- Automatic passenger counters (APC)
- Central data processing and analysis software
- Passenger information displays at stops displaying next bus arrival information on a real-time basis
- Transit Signal Priority (TSP) at equipped intersections
Since implementation began in early 2007, the advanced technology has provided significant benefits including the automated announcement and visual display of next bus stops, greater operational efficiency and improved service reliability through central control, improved schedule reliability and the provision of real-time arrival information and schedule information through the EasyGo traveler information system.

A cost-benefit analysis conducted during the review for system-wide rollout of ITS compared capital costs and annual operating and maintenance costs of the advanced transit technologies to their associated benefits, for a ten year period, assuming a 3% discount rate. The analysis concluded payback would occur in year 8 and the suite of advanced transit technologies would have a net benefit of nearly $2.7 million after 10 years. The benefits derived from the passenger information displays is largely attributed to an increase in ridership due to improved information and information access.

The Region currently has real-time passenger information displays at all iXpress stops. Initially, these signs only displayed the estimated arrival times for the next two iXpress buses. Now that most of the GRT fleet is equipped with the INIT system, the signs are capable of displaying the arrival times of buses for all routes that use that stop. The use of these signs has allowed GRT to improve the attractiveness of the service to customers, in particular by reducing the uncertainty of using transit through enhanced customer information and increasing reliability.

With the implementation of the new Fischer-Hallman express line in September 2011 (P-11-053), the first of seven planned limited-stop express routes that would provide connections to proposed Rapid Transit stations and major destinations within the Region, real-time passenger information displays are to be installed at all station locations along this route. The Fischer-Hallman limited-stop express route is designed to provide higher speed, direct service along the Fischer-Hallman corridor and is proposed to provide most of the same customer amenities as the existing iXpress service.

**Area Municipal Consultation/Coordination**

As part of the 2011 transit service improvements planning, Area Municipalities were consulted through representation on Steering Committees. The new Fischer-Hallman express line and proposed associated amenities were included in circulated material related to service improvement proposals.

**CORPORATE STRATEGIC PLAN:**

The expansion of the provision of real-time information on next bus arrival times for GRT vehicles supports the implementation of Council’s Strategic Focus, identified under Focus Area 2: Growth Management: Manage and Shape Growth to Ensure a Liveable, Healthy, Thriving and Sustainable Waterloo Region. The displays will aid with Strategic Objective 2.3 to enhance, develop, promote and integrate sustainable and active forms of transportation (public transit, cycling and walking).

The acquisition also supports Focus Area 6: Infrastructure: Provide High Quality Infrastructure and Asset Management to Meet Current Needs and Future Growth.

**FINANCIAL IMPLICATIONS:**

The total cost of acquiring real-time passenger information display signs from INIT is $350,603 plus applicable taxes for 38 electronic passenger information displays, 2 spare units, spare components and related implementation services. These costs, on a per sign basis, are approximately 5% higher than the original signs purchased from INIT in 2006 for the iXpress service.
The approved 2011 GRT Capital Budget includes $1,548,000 to be funded from development charges and debentures for Transit Nodes and Station Development. The funds required for this sign acquisition are provided for in this budget.

The Purchasing By-Law provides that a “Purchase by Negotiation” is appropriate when it is “the extension of an existing or previous contract which would prove more cost effective or beneficial for the Region” and “the acquisition is required or is beneficial in regard to the standardization of goods or services for the Region”. Such negotiated acquisitions still require Council approval when the contract value exceeds $100,000.

In this case, staff feel that the cost of the equipment is considered to be fair and reasonable and reflect current market conditions. INIT Innovations has proven to be a reliable company and its technology effective for GRT use.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

This report was prepared in cooperation with staff from Transit Services, Transportation and Environmental Services and Purchasing, Finance.

ATTACHMENTS:

NIL

PREPARED BY: Neil Malcolm, Project Manager, Transportation Planning

APPROVED BY: Rob Horne, Commissioner, Planning, Housing and Community Services
REPORT:

Background

Universal transit pass programs (U-Pass) are founded on three governing principles: (1) universal participation, which allows the costs of transit service to be spread across a large population; (2)
economies of scale, which further reduce prices for students by pooling their buying power; and (3) financial sustainability for both students and the transit provider. WLU Undergraduate Students were the first to partner with Grand River Transit (GRT) to provide a U-Pass in September 2005. In September 2007, the UW Federation of Students and WLU GSA successfully launched their U-Pass programs. The UW GSA voted for a U-Pass starting in September 2010.

It is in the interest of each U-Pass partner to provide the best possible service at the best possible price. However, for the program to sustain existing and future service needs, it is also important that U-Pass pricing reflect U-Pass service costs. Since the program’s inception, the Region has been working annually with its U-Pass partners to develop a successful program. In 2010, U-Pass riders accounted for 23 percent of GRT’s ridership, or 4,189,098 rides. To address student experiences of crowded buses and instances of waiting passengers being left at stops in September 2010, GRT added 21 trips to routes servicing the university area. U-Pass ridership growth has also outpaced revenue growth, which has negatively impacted the cost recovery ratio of the program. To continue improving transit service in the universities area, GRT recommends setting a new base price for the U-Pass based on the cost recovery ratio of other adult riders in the system. This will be reviewed as part of the 2011 – 2014 GRT Business Plan.

U-Pass Prices as of September 1, 2011

Effective January 1, 2011, the U-Pass fee for all eligible students was $52.94 per school term (approximately 4 months). The UW Federation of Students, UW GSA and the WLU Undergraduate Students have agreed to a new price of $60.94 starting September 1, 2011. When compared to other Universities, the Region will continue to benefit from the most affordable U-Pass program in Ontario. Unlike other U-Pass programs, the Region’s U-Pass program is also valid for non-school or co-op work terms. Most students would therefore pay $121.28 (2 terms X $60.64) for 12 months of unlimited transit access. In comparison, annual access to the transit system based on the lowest adult fare would cost $720 (12 months X $60).

Although it is desirable to have all U-Passes at the same price, this is not always possible due to the different charters of each group. The WLU GSA constitution requires a referendum to approve the proposed $60.64 U-Pass price which is scheduled for fall 2011. In the interim, the U-Pass price for the WLU GSA would increase by CPI as per the current agreement to $54.26 effective September 1, 2011. If the referendum is not approved, staff will seek Regional Council’s direction on this matter.

Next Steps

The U-Pass agreements with the Region’s University and student partners will expire on August 31, 2011. Regional staff are working toward successor agreements with the Region’s U-Pass partners at the agreed upon rates. For the WLU GSA, the Region will continue to work on a further agreement pending the results of their upcoming referendum. The GRT Business Plan 2011-2014 will provide some direction to staff for a new U-Pass base price and proposed rate of price increases. At this point in time, the WLU Undergraduate Students have agreed to a further increase to $68.33, effective September 2012.

Area Municipal Consultation/Coordination

A copy of this report will be sent to the Cities of Cambridge, Kitchener and Waterloo for information.
CORPORATE STRATEGIC PLAN:

The U-Pass programs are aligned with Strategic Focus Area 2: Manage and shape growth to ensure a livable, healthy, prosperous and sustainable Waterloo Region. They are also related to the objective: Enhance, integrate and promote sustainable and active forms of transportation (public transit, cycling and walking).

FINANCIAL IMPLICATIONS:

The following chart, based on current enrolment figures, estimates Grand River Transit’s additional revenue based on the prices agreed to by the Region’s U-Pass partners.

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLU Undergraduates</td>
<td>$74,912.74</td>
</tr>
<tr>
<td>WLU Graduates</td>
<td>$168.76</td>
</tr>
<tr>
<td>UW Graduates</td>
<td>$20,561.18</td>
</tr>
<tr>
<td>UW Undergraduates</td>
<td>$127,282.98</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$222,925.65</strong></td>
</tr>
</tbody>
</table>

The impact of this revenue increase has not been included in the 2011 GRT budget but, if approved, the annual impact, estimated to be approximately $500,000, will be factored into the development of the 2012 GRT operating budget.

In 2010, the cost recovery of the U-Pass program was approximately 28% as detailed below. The additional $222,926 generated by the September 2011 U-Pass price of $60.64 is estimated to improve the cost recovery of the U-pass program to 30%, in 2011. Future U-Pass price increases have been discussed with U-Pass stakeholders and further direction regarding U-Pass pricing will be provided by the new GRT Business Plan.

<table>
<thead>
<tr>
<th>Ridership</th>
<th>Revenue</th>
<th>Cost to Serve</th>
<th>Cost Recovery</th>
<th>Proportion of Ridership</th>
<th>Proportion of Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,189.10</td>
<td>$4,087,000</td>
<td>$14,370,000</td>
<td>0.28</td>
<td>23.2%</td>
<td>18.6%</td>
</tr>
</tbody>
</table>

The additional revenue in 2011 will, all else being equal, increase the cost recovery ratio of University Students from 0.28 to 0.30.

This proposed revenue increase will support GRT’s continuing effort to improve transit service in the universities area.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Finance, Legal and Grand River Transit were consulted and are in concurrence with this report and its recommendations.

ATTACHMENTS:

NIL

PREPARED BY: Gethyn Beniston, Principal Planner, Transportation Planning
John Hill, Principal Planner, Transportation Planning

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

DATE: June 21, 2011

FILE CODE: L11-20

SUBJECT: INTEGRATED ACCESSIBILITY REGULATION

RECOMMENDATION:

For Information

SUMMARY:

NIL

REPORT:

Recently the Province of Ontario enacted the Integrated Accessibility Standards (Ontario Regulation 191/11) which is a regulation pursuant to the Accessibility for Ontarians with Disabilities Act, 2005. Along with a number of general requirements, this Regulation introduces standards to enhance accessibility in the following three areas: Information and Communication; Employment; and, Transportation.

The requirements of the Integrated Accessibility Regulation can be implemented over the next 10 years. Appendix A provides an overview of the requirements and the timelines for compliance. Many provisions under the Transportation Standards come into effect July 1, 2011. The Accessibility Directorate of Ontario will be providing workshops in July 2011 to review with Municipalities the compliance requirements of all Transportation Standards.

The following is a summary of the provisions under the Transportation Standards which come into effect on July 1, 2011 and the Region of Waterloo’s response to meeting compliance with these requirements. More information on meeting compliance with the other provisions in the Integrated Accessibility Standards will be provided to Regional Council in the coming months.

**Technical Requirements (section 53)**

All buses manufactured after January 1, 2013 need to be equipped with grab bars, handholds, handrails or stanchions at specific locations in the bus. Any buses ordered after July 1, 2011 will need to comply with these technical specifications. This technical information will be included in future bus orders.

**Fares (not charging more to persons with disabilities) (section 46)**

Any customers with a disability travelling on a conventional bus can’t be charged a fare higher than is charged to others without a disability. GRT offers free transit to registered MobilityPLUS customers as an incentive to travel on this more frequent and lower cost per trip service. In 2010 over 100,000 MobilityPLUS customer trips were taken on accessible conventional transit buses.
Non Functioning Accessibility Equipment (section 35)
In cases where the accessibility equipment is not working GRT will be required to take reasonable steps to accommodate customers who require this equipment and also repair the device as soon as it is practicable. This is the current practice. Employees will also be notified this is now a legislative requirement.

Origin to Destination Services (section 68)
This requires specialized transit providers to accommodate passengers with a “door to door” origin and destination service. Currently MobilityPLUS provides a “door to door” service rather than a “curb to curb” service.

Charging a Fare for Storage of Mobility Aids (section 48)
Where transit customers are travelling with a mobility device they can not be charged an additional fare for the storage of this device. GRT does not charge a fare for the storage of mobility devices.

Pre-Boarding Announcements – Verbal (section 51)
This standard requires that “upon request” bus operators provide information on routing, direction, destination or the next major stop. This is currently being done at GRT however employees will be notified this is now a legislative requirement. By January 2017 this pre-boarding information will need to be provided at each bus stop. GRT are investigating how the current automated announcement system can be adapted to meet this requirement for 2017.

On-Board Announcements – Verbal (section 52)
As of July 2011 the GRT base service fleet will be fully equipped with the technology to provide automated on-board announcements. Replacement buses used to supplement the base service vehicles as maintenance spares may not have this automated feature. Over the next four years as these supplemental buses are replaced all maintenance spares will be fully equipped as well.

Duties of Municipalities, taxicabs (section 80)
Under the Integrated Accessibility Regulation, municipalities must ensure that taxicab owners and operators do not charge higher fares or additional fees for people with disabilities, and that there are no fees for the storage of mobility aids or assistive devices. This is already current practice at the Region of Waterloo; however all taxi companies licensed by the Region of Waterloo have been notified of this requirement. Tariff cards have also been modified to clarify that mobility assistive devices are not personal items, and thereby taxicab owners and operators cannot charge additional fees or fares.

The remaining transportation regulations come into effect over the next 10 years. Other regulations include: training employees and contract employees on accessibility features; not charging fares for approved support companions; hosting an annual workshop for persons with disabilities to raise concerns and identify barriers; introducing a courtesy seating awareness campaign; improving the accessibility of bus stops and bus shelters; introducing improved onboard bus lighting, stop request, emergency response and slip resistant surfaces; providing more readily available taxicab identification information; and, consulting with people with disabilities to determine suitable number of accessible taxicabs in the community.

CORPORATE STRATEGIC PLAN:

The Region of Waterloo’s implementation of the Accessibility for Ontarians with Disabilities Act, 2005 Integrated Accessibility Regulation supports the Corporate Strategic Plan Focus Area 6, Objective 6.2: to increase access, fairness, and inclusion to all regional programs and services.
FINANCIAL IMPLICATIONS:

Grand River Transit is currently in compliance with the majority of the requirements of the Integrated Accessibility Standards Regulation to be implemented effective July 1, 2011. Additional costs to the Region of Waterloo associated with the implementation of the new transportation accessibility standards have already been included or can be accommodated in the existing Transportation and Environmental Services budgets. Costs associated with meeting compliance to provisions regarding taxicabs have also been accommodated within existing budgets.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

This report was prepared jointly by Transportation and Environmental Services and Corporate Resources.

ATTACHMENTS

Appendix A: Summary of Timelines for Large Designated Public Sector Organizations

PREPARED BY: Eric Gillespie, Director, Transit Services
             Vanessa Lopak, Social Planning Associate

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
              Gary Sosnoski, Commissioner, Corporate Resources
Appendix A: Summary of Timelines for Large Designated Public Sector Organizations

**All timelines are for January 1 of the specified year, except where indicated**

<table>
<thead>
<tr>
<th>Date</th>
<th>General</th>
<th>Information/Communication</th>
<th>Employment</th>
<th>Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1, 2011</td>
<td></td>
<td></td>
<td></td>
<td>• Fares</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Non-functioning accessibility equipment</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Origin to destination services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Pre-boarding announcements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• On-board announcements (verbal)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Duties of municipalities, taxicabs (fees)</td>
</tr>
<tr>
<td>2012</td>
<td>• Policies</td>
<td>• Emergency Procures, Plans, or Public Safety Information</td>
<td>• Workplace Emergency Response Information</td>
<td>• Availability of information on accessibility equipment, etc.</td>
</tr>
<tr>
<td></td>
<td>• Accessibility Plan</td>
<td></td>
<td></td>
<td>• Emergency procedures and response policies</td>
</tr>
<tr>
<td></td>
<td>• Procuring and Acquiring Goods, Services, Facilities</td>
<td></td>
<td></td>
<td>• General responsibilities</td>
</tr>
<tr>
<td></td>
<td>• Self-service Kiosks</td>
<td></td>
<td></td>
<td>• Courtesy seating</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Transit stops</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Storage of mobility aids, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Companions and children</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Duties of municipalities, taxicabs</td>
</tr>
<tr>
<td>2013</td>
<td>• Policies</td>
<td>• Public Libraries</td>
<td></td>
<td>• Accessibility Planning</td>
</tr>
<tr>
<td></td>
<td>• Accessibility Plan</td>
<td></td>
<td></td>
<td>• Alternative accessible method of transportation</td>
</tr>
<tr>
<td></td>
<td>• Procuring and Acquiring Goods, Services, Facilities</td>
<td></td>
<td></td>
<td>• Fares</td>
</tr>
<tr>
<td></td>
<td>• Self-service Kiosks</td>
<td></td>
<td></td>
<td>• Service Disruptions (July 1, 2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Fee parity (for the Region)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Visitors</td>
</tr>
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<td>Duties of municipalities – accessibility criteria for bus stops and shelters</td>
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<td>Duties of municipalities – accessible taxicabs</td>
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<td>• Feedback</td>
<td>• Recruitment</td>
<td>• Accessibility Training</td>
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<td>• Accessible Website Content – W3C WCAG 2.0 Level A (New websites)</td>
<td>• Notice to Successful Applicants</td>
<td>• Fares, support persons</td>
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<td>• Informing Employees of Supports</td>
<td>• Eligibility application process</td>
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<td>• Accessible Formats and Communication Supports for Employees</td>
<td>• Emergency or compassionate grounds</td>
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<td>• Criteria for eligibility</td>
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<td>2021</td>
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<td>• Accessible Website Content – W3C WCAG 2.0 Level AA (All websites)</td>
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RECOMMENDATION:

THAT the Regional Municipality of Waterloo enter into an amended Consulting Services Agreement with McCormick Rankin Corporation (MRC) of Kitchener, Ontario to provide engineering services for a Class Environmental Assessment, detailed design, contract administration and construction inspection for the Manitou Drive Widening, Bleams Road to Fairway Road in the City of Kitchener at a revised upset limit fee of $451,064 plus applicable taxes for the environmental assessment and detailed design phases, with contract administration and construction inspection to be paid on a time basis.

SUMMARY:

The Manitou Drive Widening Class Environmental Assessment (Class EA) is being undertaken to address existing traffic congestion and projected traffic capacity needs, as well as structural improvements at the Schneider Creek Bridge, on Manitou Drive from Bleams Road to Fairway Road in the City of Kitchener. (Please refer to the key plan in Appendix “A”.) In May 2004, Council approved the recommendation of Report E-04-077, to hire McCormick Rankin Corporation (MRC) to provide engineering services for the Class EA, detailed design, contract administration and construction inspection for Manitou Drive Widening, Bleams Road to Fairway Road.

During an early stage of the Manitou Drive Class EA study, the River Road Extension Class EA study was put on-hold due to the need to assess environmental issues, and in particular due to the discovery of Jefferson Salamanders near the preferred road alignment. As a result of the River Road Extension Class EA being put on-hold, the transportation network function of Manitou Drive widening could not be assessed without the determination of the status of the River Road/Bleams Road extension easterly from Manitou Drive at Bleams Road. As a result of the uncertainty of the status of the River Road project, the Manitou Drive widening Class EA study was also put on-hold. The regulatory requirements and the extent of Jefferson Salamanders’ protected habitat in Hidden Valley have now been determined. With this information the River Road Extension Class EA may now be resumed. Staff believe that the Manitou Drive Class EA study needs to be re-initiated now because so doing would:

- Put the Region in a position to immediately study the traffic capacity deficiencies on Manitou Drive; and
- Avoid a potential emergency requirement for major repairs to the Schneider Creek bridge by starting a planned replacement of the bridge with one that meets the long term requirements.
Because of the interdependence of the Manitou Drive Class EA with the River Road Extension Class EA, the scope of the Manitou Drive Class EA study needs to be increased to evaluate additional alternative traffic solutions. The alternative solution to be recommended by the Manitou Drive Class EA study will precede and be closely coordinated with the findings of the River Road Extension Class EA study.

As a result of the multi-year deferral of the Manitou Drive study and increase in study scope, MRC has requested an increase in fees and disbursements resulting in a revised upset fee estimate of $451,064, for the Class EA and design phases. Staff has thoroughly reviewed the revised scope of work and fee estimate and has concluded the increased fees are fair and reasonable and comparable with current market prices. Therefore, staff recommend that MRC’s current Consulting Services Agreement be amended to include a revised upset fee of $451,064 for the Class EA and design phases with construction inspection and contract administration to be paid on a time basis.

REPORT:

1.0 Background

Sections of Manitou Drive between Bleams Road and Fairway Road are currently experiencing high levels of traffic congestion during times of peak traffic demand. The 1999 and 2011 Waterloo Region Transportation Master Plans both identified the need to widen Manitou Drive between Bleams Road and Fairway Road in the City of Kitchener in order to reduce current traffic congestion and accommodate future projected traffic demand. In addition, annual structural assessments, of the Schneider Creek bridge on Manitou Drive north of Bleams Road, are indicating a need to rehabilitate or reconstruct the bridge. The existing bridge structure is of concern both for the narrow width limiting traffic capacity and for the age and potential deterioration of the structure. Staff are continuing to monitor the condition of the existing Schneider Creek bridge and will complete some minor repairs in 2011 to keep the structure in service.

In May 2004, Council approved the recommendation of Report E-04-077, to enter into a Consulting Services Agreement with McCormick Rankin Corporation (MRC) to provide engineering services for a Class Environmental Assessment (EA), detailed design, contract administration and construction inspection for widening Manitou Drive between Bleams Road and Fairway Road. Improvements at the Bleams Road intersection on Manitou Drive are also being considered as part of the separate River Road Class EA Study currently underway by the Region (being completed under a separate consultant assignment).The River Road Extension Class EA study was initiated to address transportation network improvement needs in the Fairway Road and Highway 8 area in south Kitchener and recommendations from that study were to be incorporated in the Class Environmental Assessment (Class EA) required for the Manitou Drive Project. The extension of River Road easterly from Manitou Drive to King Street would reduce the traffic demand and volumes on Manitou Drive between Bleams Road and Fairway Road.

During an early stage of the Manitou Drive Class EA study, the River Road Extension Class EA study was put on-hold due to the need to assess environmental issues, and in particular due to the discovery of Jefferson Salamanders near the preferred road alignment. As a result of the River Road Extension Class EA being put on-hold, the transportation network function of Manitou Drive widening could not be assessed without the determination of the status of the River Road/Bleams Road extension easterly from Manitou Drive at Bleams Road. As a result of the uncertainty of the status of the River Road project, the Manitou Drive widening Class EA study was also put on-hold. The regulatory requirements and the extent of Jefferson Salamanders’ protected habitat in Hidden Valley have now been determined. With this information the River Road Extension Class EA may now be resumed.
Staff believe that the Manitou Drive Class EA study needs to be re-initiated now because so doing would:

- Put the Region in a position to immediately study the traffic capacity deficiencies on Manitou Drive; and
- Avoid a potential emergency requirement for major repairs to the Schneider Creek bridge by starting a planned replacement of the bridge with one that meets the long term requirements.

Because of the interdependence of the Manitou Drive Class EA with the River Road Extension Class EA, the scope of the Manitou Drive Class EA study needs to be increased to evaluate additional alternative traffic solutions. The alternative solution to be recommended by the Manitou Drive Class EA study will precede and be closely coordinated with the findings of the River Road Extension Class EA study.

### 2.0 Revised Scope of Work and Consulting Fee Estimate

For the Manitou Drive consulting assignment, the consultant will: conduct a Schedule “C” Class EA; obtain all necessary background information; undertake traffic, drainage and archaeological studies; present preliminary design alternatives at Public Consultation Centre(s); complete final design of the road improvements including design of a new structure over Schneider Creek; 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.

The Consulting Services Agreement stipulates an upset fee for professional services to complete the Class EA and final design and an estimate of contract administration and construction inspection fees, to be paid for on a time-basis.

MRC’s estimated cost for fees and disbursements (as tabulated in Appendix “B”) to complete the Class EA and design services has increased from the original estimate in May 2004 as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Original Approved 2004 Upset Fee</td>
<td>$279,500.00</td>
</tr>
<tr>
<td>Increased Scope of work</td>
<td>$89,257.00</td>
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<tr>
<td>Cost to update previous work</td>
<td>$48,195.00</td>
</tr>
<tr>
<td>Increased wage cost resulting from multi-year deferral of the project</td>
<td>$34,112.00</td>
</tr>
<tr>
<td><strong>Total Revised Upset Fee</strong></td>
<td><strong>$451,064.00</strong></td>
</tr>
</tbody>
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**Increased Scope of Work**

The increased scope of work required to complete the study, totalling $89,257 includes:

- Additional traffic analysis, including additional scenarios at both the Bleams Road and Fairway Road ends of the study area;
- Development of additional alternative design concepts at both the Bleams Road and Fairway Road ends of the study area;
- Additional assessment, analysis and evaluation of alternatives;
- Additional technical meetings and public consultations in review of design alternatives;
Update Previous Work

Since initiation of the Manitou Drive Class EA in 2004, MRC has identified tasks which were previously completed either in full or in part but as a result of the multi-year project deferral, are now required to be updated, at an additional cost of $48,195. The tasks to be updated include the following:

- The transportation and traffic analysis was approximately 50% complete and now must be updated based on current traffic data.
- Several Project Team and technical meetings were previously held in preparation for the first Public Consultation Centre and must now be repeated.
- Data collection, field edits, and detailed topographic survey/base plan work must be updated.

Increased Wage Cost Resulting from Multi-year Deferral of the Project

MRC has identified a $34,112 increase in cost of the estimated 1664 hours of consulting staff time required to complete the work remaining in the original approved Consulting Services Agreement. This is based on actual current costs for wages and other expenses. This increase does not apply to the work which was completed prior to putting the project on-hold which comprised 1051 hours at a total cost of $91,890. The increased wage cost of $34,112 represents an average annual increase of approximately 3% and results in a fee amount comparable to market prices the Region is currently receiving for competitive proposals received on recently awarded consulting assignments. In reaching this conclusion, staff undertook a review of average hourly rates of other consultants currently providing services to the Region on similar projects and this review shows that the revised fee estimate provided by MRC for the Manitou Drive Class EA and design project is competitive with the rates charged on those similar projects.

For budgetary purposes, staff has obtained a revised estimated cost of contract administration and construction inspection services from MRC of $142,776, versus the original estimate of $126,500 which was based on the preliminary estimate of fees submitted by MRC in 2004.

The Region’s total budget for the road reconstruction and improvements on the Manitou Drive project is $4.25 million. Based on the total value of $4.25 million, the consultant’s upset fee limit for Class EA, design, together with the estimated fee for contract administration and construction inspection services represents approximately 14% of the estimated total cost for this project. This engineering cost is within the normal fee range for a project of this type and complexity. Staff have reviewed the revised work plan and fee estimate and find it fair and reasonable and consistent with current market price for the services required. Staff also considered the potential cost savings of hiring a different consultant to complete this assignment through a competitive process. Based on work already completed to date by MRC and the revised price submitted, staff concluded that opening this consulting assignment to a competitive process would result in several months delay due to “start-up” time for a new consultant and would not be expected to result in any cost savings to the Region. Therefore, staff recommend that the existing consulting services agreement with MRC be amended to increase the upset limit for MRC to undertake the Class EA and design phases to $451,064 (plus applicable taxes) for consultant fees and disbursements, with the fees for construction inspection and contract administration to be paid on a time basis.
3.0 Estimated Project Schedule

Subject to Council’s approval of the recommendation of this report, the proposed project schedule is now as follows:

- Class EA & Preliminary Design: Summer, 2011 – Spring, 2013
- Construction: June – December, 2015

CORPORATE STRATEGIC PLAN:

The project is consistent with the development of Strategic Focus Area 5 (Infrastructure) in terms of:

Providing infrastructure needed to accommodate planned growth.

FINANCIAL IMPLICATIONS:

The Region’s approved 2011 Transportation Capital Program and 10 Year Capital Forecast includes $4,250,000 over the years 2011 to 2016 for the Class Environmental Assessment, detailed design, and construction of this project to be funded from the Roads Capital Levy Reserve Fund and the Development Charges Reserve Fund.

MRC’s remaining fees for the consulting assignment in the amount of $359,174 are within the consulting fee allowance provided for in the total budget of $4,250,000 for this project.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE: NIL

ATTACHMENTS

Appendix “A” – Key Plan
Appendix “B” – McCormick Rankin Corporation, Upset Fee Breakdown

PREPARED BY: Wayne Cheater, Senior Project Manager

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

McCormick Rankin Corporation Revised Upset Fee Breakdown
Manitou Drive Widening – Bleams Road to Fairway Road, Kitchener

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<th>Description</th>
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<td>1. Data Collection</td>
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<td>6. General Project Management</td>
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<td>7. Disbursements</td>
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<tr>
<td><strong>Total Upset Fee</strong></td>
<td><strong>$451,064.00</strong></td>
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TRANSPORTATION AND ENVIRONMENTAL SERVICES
Design and Construction

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

DATE: June 21, 2011

FILE CODE: C04-30, 7101

SUBJECT: WEBER STREET (COLLEGE STREET TO UNION STREET)
ENVIRONMENTAL ASSESSMENT AND PRELIMINARY DESIGN STUDY – RECOMMENDED DESIGN CONCEPT AND PUBLICATION OF ENVIRONMENTAL STUDY REPORT

RECOMMENDATION:

THAT the Regional Municipality of Waterloo take the following actions with respect to the Environmental Assessment and Preliminary Design Study for Weber Street between College Street in the City of Kitchener and Union Street in the City of Waterloo:

a) Approve the Recommended Design Concept described in Report E-11-058 dated June 21, 2011 for the proposed reconstruction of Weber Street between College Street and Union Street.

b) Direct staff to file a Notice of Completion as required by the Municipal Class Environmental Assessment and place the Environmental Study Report on the public record for review for a period of 30 days.

SUMMARY:

The Region of Waterloo is undertaking a Class Environmental Assessment (EA) Study for the reconstruction of Weber Street between College Street and Guelph Street in the City of Kitchener. In addition, a Preliminary Design Study is being done for the reconstruction of Weber Street from Guelph Street to Union Street in the City of Waterloo. The study limits are shown on the Key Plan in Appendix A. This combined study is being guided by a Project Team consisting of staff and Councillors from the Region of Waterloo and the Cities of Kitchener and Waterloo.

The Preliminary Design Study for the section of Weber Street between Guelph Street and Union Street is being undertaken as a Schedule “A+” project in accordance with the requirements of the Municipal Class Environmental Assessment. This segment of the road consists of an existing four lane cross-section and further widening is not being contemplated. No significant environmental impacts from the proposed reconstruction are expected. As a result, the proposed work within this portion of the study area is pre-approved under the Environmental Assessment Act.

The Environmental Assessment component of the study between College Street and Guelph Street is being undertaken in accordance with the requirements for Schedule “C” projects outlined in the Municipal Class EA document. Public and agency consultation has been on-going since the study was initiated in 2009 and has contributed to the findings extensively.

The objective of the EA study is to determine the optimal solution to resolve existing traffic congestion on Weber Street within the study limits, provide additional capacity for future growth,
reduce delays to traffic and improve safety at the railway crossing north of Victoria Street. Improvements to pedestrian and cyclist facilities are also a key objective of this project.

The Project Team developed ten alternative solutions to resolve the transportation needs including intersection improvements, traffic operation improvements, road widening, transit system improvements, a grade separation at the railway crossing north of Victoria Street, access management, upgrades to adjacent roads and the construction of new roads. These solutions were compared to a "do nothing" alternative. Based on the input received from the public and a technical evaluation of each alternative and its ability to meet the project objectives, the Project Team concluded that a combination of road widening and the construction of a road/rail grade separation would be brought forward as the Preferred Solution for further consideration.

The Project Team subsequently prepared four alternative design concepts to implement the Preferred Solution for analysis. The concepts included widening towards the west, widening towards the east including parallel service roads and a combination of the second and third concepts including widening to the east south of Louisa Street and widening to the west north of Louisa Street. The alternative design concepts were evaluated based on technical factors including property impacts, pedestrian/cyclist access, traffic capacity and operations, safety and cost. Based on this evaluation and public input, the Project Team identified “Design Concept B – Widening towards the West including parallel Service Roads” as the Preferred Design Concept. This Concept was presented at a Public Input Meeting held in the Regional Council Chambers on March 8, 2011.

Public comments received by the Project Team are generally supportive of the evaluation methodology and the Preferred Design Concept. Several aspects of the Preferred Concept have been modified to address specific public comments raised at the Public Input Meeting. These modifications are described in Section 7 of Report E-11-058. As a result, the Recommended Design Concept endorsed by the Project Team for consideration by Council is “Design Concept B – Widening towards the West including a parallel service road east of Weber Street only”. Subject to approval of the Recommended Concept by Council, the Environmental Study Report for the project will be finalized and made available for a 30 day public review period and subsequent approval by the Ministry of the Environment.

Conditional on the receipt of all necessary approvals, detailed design and property acquisition are planned to begin in the fall of 2011. This will allow phased construction to begin in 2015. The phased construction of this project must be co-ordinated with the proposed construction of the Rapid Transit system on King Street, the grade separation of the CN Rail tracks at King Street and the Transit terminal between King Street and Weber Street.

REPORT:

1. Project Description and Background

1.1 Background

The Regional Municipality of Waterloo is undertaking a Class Environmental Assessment (EA) Study for the reconstruction of Weber Street between College Street and Guelph Street within the City of Kitchener. In conjunction with this, the Region is also preparing a Preliminary Design Study for the reconstruction of Weber Street between Guelph Street and Union Street in the City of Waterloo. The consulting engineering firm, Stantec Consulting Ltd., has been retained to carry out both studies in a comprehensive manner. This has allowed the Region to combine
some of the required tasks in order to reduce the overall consulting fees. The study area is shown in the Key Plan included in Appendix A.

Weber Street between Victoria Street and Guelph Street is currently two lanes wide. North of Guelph Street and south of Victoria Street, the road widens to four lanes. The objective of the combined study is to determine the optimal solution to resolve existing traffic congestion and reduce potential collisions on Weber Street within the study limits, provide additional capacity for future growth to a horizon year of 2031 and reduce delays to traffic and potential collisions at the railway crossing north of Victoria Street. Issues examined as part of the study include traffic congestion, a potential grade separation at the CN Rail railway tracks north of Victoria Street, traffic safety, access management, road widening and intersection improvement alternatives, and the impacts of various design solutions on the natural and social environments, including property acquisition needs. The study also assesses opportunities to enhance facilities for cyclists and pedestrians within the corridor.

1.2 Problem Statement

The following problem statement has been developed, identifying the traffic and transportation needs to be addressed by this study:

"The Region is currently experiencing traffic congestion on Weber Street. Transportation Studies in the Kitchener area have identified a need for north-south capacity improvements to accommodate future growth. Improvements to the Weber Street corridor, between College Street and Guelph Street are needed to reduce delays for vehicles and transit. There is also a need to assess opportunities to enhance facilities for cyclists and pedestrians and reduce traffic collisions. In addition, pending increases to rail traffic movements at the existing CN Rail tracks (north of Victoria Street) will further increase traffic delays at the existing level crossing, and produce appropriate warrants for a grade separation (underpass) at this location."

1.3 Project Team

The Class EA and Preliminary Design Study is being directed by the Regional Municipality of Waterloo through a Project Team consisting of staff from the Region and the Cities of Kitchener and Waterloo, plus Regional Councillors Jim Wideman and Tom Galloway and City of Kitchener Councillor Dan Glenn-Graham.

1.4 Class Environmental Assessment Process

The Environmental Assessment component of this project between Guelph Street and College Street is being undertaken in accordance with the requirements for Schedule “C” projects outlined in the Municipal Class Environmental Assessment document. Public and agency consultation has been on-going since the study was initiated in 2009 and has contributed to the findings extensively.

The Preliminary Design of Weber Street from Guelph Street to Union Street is being undertaken as a Schedule “A+” project under the Class EA. Since this section of the road is currently four lanes wide, further widening is not being contemplated. No significant environmental impacts from the proposed reconstruction are expected. As a result, the proposed work within this portion of the study area is pre-approved under the Environmental Assessment Act.
2. Transportation Requirements

2.1 Transportation Studies

Within the Weber Street corridor, vehicular traffic is constricted to two lanes between Victoria Street and Guelph Street. The roadway between these two intersections is presently experiencing significant traffic congestion and delays. This congestion is expected to continue to increase in the future as overall traffic volumes rise.

The need for traffic capacity improvements throughout the Weber Street corridor has been identified in the 1999 Regional Transportation Master Plan, 2010 Regional Transportation Master Plan Update Study and the Weber Street Transportation Study completed as part of this Class EA. These studies examined future transportation network requirements to accommodate rapidly increasing traffic growth and changing traffic patterns within and around the City of Kitchener and Region of Waterloo. Increasing the capacity of the Weber Street corridor supports the Master Plan goals of optimizing the Region's transportation system, promoting transportation mode choice and supporting sustainable development.

The recently updated Regional Transportation Master Plan (RTMP, 2010) provides a long range transportation system improvement plan for the Region, and identifies the nature and location of new or improved facilities required to achieve the Region's transportation and planning objectives and policies. It incorporates Transportation Demand Management (TDM) strategies focusing on public transit enhancements, bicycling and pedestrian programs/facilities, and TDM supportive land uses to affect a reduction in auto use through encouragement of opportunities for increased use of non-auto related modes of travel.

The Weber Street Transportation Study Report (March 2010) was completed specifically as part of this Environmental Assessment Study, and uses data contained in the RTMP, along with supplementary field counts, to focus on direct needs within the study corridor. The traffic forecasts for Weber Street have provided for the reductions associated with the TDM initiatives assumed by the RTMP. Despite the reductions, there is still a need to address capacity deficiencies on Weber Street and the section of Weber Street from Victoria Street to Guelph Street has been identified to be widened to four lanes. This report is the basis for the project Problem Statement and supporting improvement recommendations.

2.2 Road Needs

Existing traffic volumes on Weber Street within the study area are approximately 13,000 vehicles per day (average annual daily traffic (AADT)). This volume is approximately the maximum vehicle carrying capacity for a two lane arterial road. Traffic is expected to rise to approximately 20,000 AADT by the planning horizon of 2031. If Weber Street was not widened, this additional traffic would infiltrate into abutting neighbourhoods seeking ways around a gridlocked Weber Street.

At several intersections within the study area including Union Street, Louisa Street, Breithaupt Street and Victoria Street, the number of vehicular collisions that have occurred over the last 5 years is much higher than expected.

The traffic analysis justifies a need to widen Weber Street from 2 to 4 lanes within the Study Area. Benefits of widening the roadway would include:

- Reduction of traffic infiltration into adjacent neighbourhoods;
- Improvements in roadway safety and traffic operations;
• Potential for improvements to roadway geometry and,
• Potential for improvement to active transportation infrastructure.

2.3 Railway Needs

At the present time, there are 10 train “pass-bys” (4 freight and 6 passenger) per day at the dual track at-grade railway crossing just north of Victoria Street. These tracks are owned by CN Rail. The existing operators, Goderich/Exeter Railway and VIA Rail, have indicated that there is a potential to add 6 more train “pass-bys” per day by 2012 (all passenger). This will result in a total of 16 “pass-bys” per day at the existing crossing.

Go Transit has recently completed an Environmental Assessment and intends to add one additional track through Kitchener to accommodate new service to the community. Initial implementation will include 4 trains per day (8 “pass-bys”) providing service to Toronto using the existing CN Rail tracks.

As a result, train “pass-bys” are expected to rise from 10 to 24 per day within the next two years. Transport Canada uses as a general “rule of thumb” that if the product of AADT multiplied by the number of train pass-bys per day exceeds 200,000, a grade separation may be warranted. Existing train and traffic volumes on Weber Street result in a product equal to 130,000. However, by 2012 the product becomes 312,000 based on the increase in train traffic to 24 “pass-bys” assuming vehicular traffic does not increase. Therefore, the increase in train activity alone is sufficient to warrant a grade separation at this location, regardless of whether Weber Street is widened or not.

The at-grade crossing of the Waterloo Spur Line north of Louisa Street is not protected with gates or signals. This single track crosses Weber Street at an acute skew angle. There are currently 8 train “pass-bys” per week at this crossing. No future additional “pass-bys” are expected. Using the Transport Canada methodology, gates and/or signals are not warranted at this crossing based on future vehicular traffic volumes. However, the Region of Waterloo has a policy “adopting the principle of providing automatic protection of all railway crossings with Regional roads, subject to Regional Council approval of individual applications”. The installation of gates and/or signals would address potential safety concerns with respect to the poor visibility related to the angle of the crossing.

2.4 Pedestrian, Cyclist and Transit Needs

The Regional Official Plan gives direction to balance the design of new and reconstructed roads to meet the needs for all modes of transportation including walking, cycling, motorized vehicles and transit. Pedestrian traffic in the Weber Street corridor is typically lighter at the north end and heavier in the south, closer to downtown Kitchener. Pedestrian movements as high as 130 pedestrians per hour were measured at Weber Street and College Street. Sidewalks are present over most of the length of the Study Area. In many locations, the sidewalks are substandard in width and abut the roadside curbs. This is not a preferred location for sidewalks as the close proximity to the travelled roadway does not create a pedestrian-friendly environment. The lack of a boulevard between the curb and sidewalk leaves no place for snow storage during the winter or household garbage for roadside pickup without encroaching onto the sidewalk.

The current Cycling Master Plan (CMP) does not identify Weber Street within the study area as a planned cycling route. However, the Plan does identify the Waterloo Spur Line corridor which crosses the Weber Street right-of-way north of Louisa Street as a core off-road trail linking Downtown Kitchener and Uptown Waterloo. A study has recently been initiated to determine the
feasibility of constructing a multi-use trail within the Spur Line Corridor. An improved corridor, in conjunction with the encouragement of using alternative transportation forms, may result in increased cyclist activity on Weber Street.

Weber Street is serviced by bus Route 18 which provides 30 minute service in each direction within the study area. In the future, it is anticipated that this level of service will be improved. The existing congestion present on Weber Street impacts the ability of this bus to remain on schedule at certain times during the day.

3. Alternative Solutions to Address the Transportation Requirements

3.1. Alternative Solutions

For the EA component of the study area between College Street and Guelph Street, the Project Team developed ten alternative solutions to resolve the transportation needs including intersection improvements, traffic operation improvements, road widening, transit system improvements, a grade separation at the railway crossing north of Victoria Street, access management, upgrades to adjacent roads and the construction of new roads. These solutions were compared to a “do nothing” alternative. A detailed description of each alternative solution is included in Appendix B.

Based on the input received from the public and a technical evaluation of each alternative and its ability to meet the project objectives, the Project Team concluded that a combination of road widening and the construction of a road/rail grade separation would be brought forward as the Preferred Solution for further consideration.

3.2. Public Consultation Centre #1

The first Public Consultation Centre (PCC) for this project was held on April 15, 2010. Notices for this meeting were mailed out and/or hand-delivered to property and business owners within the project limits as well as appropriate regulatory agencies and stakeholders. Notices were also placed in the local newspaper and on road-side signs.

At this Centre, background information including the need and justification for the project was presented. Current and future traffic volumes and patterns were available for review. The alternative solutions being considered and the proposed evaluation methodology were also available for review. The potential need to acquire property was identified and the Region’s Property Acquisition Process (Appendix C) was explained. A listing of properties potentially impacted by each of the alternative solutions was presented for the information of property and business owners.

A total of 62 people signed the attendance register for the PCC. In general, the response to the potential widening of Weber Street and construction of a Grade Separation at the CN tracks, based on written comments and oral feedback, was favourable. For the most part, the public recognized the shortcomings of this 2 lane section of Weber Street, as well as the need to eliminate the conflicts associated with the at-grade railway crossing.

Following the PCC, 11 written comments were submitted to the Region’s Project Manager for consideration by the Project Team. Two of the written comments expressed no concerns about the project. Two comments were also made regarding the need for gates and/or signals at the Waterloo Spur Line crossing, the availability of access to property after construction and the need for an underpass at the CN Rail crossing. Single comments regarding property value impact, Weber Street becoming “one-way” and the purchase of remnant parcels were received.
The Pedestrian Charter Steering Committee also submitted a written list of comments. Staff contacted most of the respondents to discuss their concerns. A summary of the comments and Study Team responses are included in Appendix D.

3.3 Preferred Solution

The alternative solutions for the section of Weber Street between Guelph Street and College Street were assessed to determine which solutions, either on their own, or in combination with other solutions best addressed the problem statement. After the evaluation process and consideration of the public comments received, the Project Team identified **Widen Weber Street – widen to 4 lanes** combined with **Grade separation of CN railway tracks** as the Preferred Solution. This will be augmented with some aspects of the intersection improvements solution.

4. Alternative Design Concepts to Implement the Preferred Solution

4.1 Alternative Design Concepts

Weber Street within the study area is classified as a Neighbourhood Connector – Avenue in the Region’s Transportation Corridor Design Guidelines endorsed by Council. As such, it should support active transportation, transit and vehicular movement. Four design concepts for the widening of Weber Street between Guelph Street and College Street were prepared by the Project Team. Each concept includes the required elements of a Neighbourhood Connector – Avenue as described in the Corridor Design Guidelines. The concepts included;

- **Concept A** included widening to four lanes towards the west side of Weber Street.
- **Concept B** included widening to four lanes towards the west side of Weber Street. This concept included one way service roads on both sides of, and parallel to Weber Street between Breithaupt Street and Wellington Street.
- **Concept C** included widening to four lanes towards the east side of Weber Street. This concept included one way service roads on both sides of, and parallel to Weber Street between Breithaupt Street and Wellington Street.
- **Concept C/B,A** included a combination of various aspects of each of the other concepts. Widening would be towards the east south of Louisa Street and towards the west north of Louisa Street with one way service roads on both sides of, and parallel to Weber Street between Breithaupt Street and Wellington Street.

An alternative concept incorporating widening on both sides of the existing right-of-way was not considered. Given the amount of widening required to accommodate all of the required roadway elements, such a concept would double the number of properties that would need to be acquired by the Region.

In order to address the study problem statement and opinions expressed by the public, each of the alternative design concepts brought forward included a road-under-rail grade separation at the CN tracks sufficient to accommodate three tracks. Each concept also included improved sidewalk facilities (wider sidewalk and wider boulevard) on the east side of the road and portions of the west side as well as a multi-purpose trail on the remaining portions of the west side of the road between the Waterloo Spur Line crossing and Water Street to provide cyclist access to a potential Waterloo Spur Line multi-purpose trail.
4.2 Evaluation of Alternative Design Concepts

The selection of a Preferred Design Concept was based on a review of both quantitative and qualitative factors. Staff met one-on-one with major business owners to discuss the alternative design concepts and the potential impacts on access and the continued viability of their operations. These discussions, along with the development of construction and property acquisition cost estimates were all key inputs into the decision making process.

Key criteria in the evaluation of the design concepts included impact on traffic capacity, operations and safety, the natural and social environment and cost. Each concept was compared to the others and a relative ranking given under each criterion. An overall ranking was assigned based on the accumulated criteria ranking. The evaluation of the design concepts is shown in Appendix E.

Traffic Capacity, Operations and Safety – Each of the concepts will address the need for additional traffic capacity in the short and long terms since each includes widening the road to four lanes. Concepts B,C and C/B,A will provide improved operational effectiveness over concept A due to the availability of service roads to provide access to those properties impacted by the construction of the proposed grade separation. Without the service roads, alternate access locations would be required or additional properties purchased.

Widening of the road to the west north of Louisa Street and to the east south of Louisa Street will allow the alignment of the road in the vicinity of the Waterloo Spur Line crossing to be straightened somewhat thereby improving sight distances. Therefore Concept C/B,A would be preferred under this criterion.

Natural Environment – Each of the concepts will require the removal of most of the existing trees within the roadway corridor. More properties with a potential of contaminated soils are located east of the roadway. Therefore widening to the west, as envisioned with concepts A and B, is preferred under this criterion.

Social Environment – The only Designated Heritage Structure within the study limits is the Kitchener VIA Station. None of the concepts would adversely impact this building. Concept B would require the full or partial acquisition of 43 residential and commercial properties. The other concepts require as many as 54 property acquisitions. The proposed road/rail grade separation north of Victoria Street will significantly impact the commercial properties on one side of the road or the other due to the distance the road must be lowered to provide adequate vertical clearance to the railway bridge. Based on the number of properties impacted, Concepts A and B are preferred under this criterion.

Costs – The total estimated project cost, including property acquisition and the grade separation, for each concept is:

- Concept A - $52,520,000
- Concept B - $51,500,000
- Concept C - $59,300,000
- Concept C/B,A - $56,560,000
5. Selection of Preferred Design Concept

Following an assessment of the concepts, including the “Do Nothing” alternative, the Project Team identified Design Concept B – widening towards the west including service roads as the Preferred Design Concept. Concept B has the least impact on property acquisition and the lowest estimated project cost while having fewer negative relative impacts compared to the other concepts. The evaluation of the design concepts is summarized in Appendix E.

5.1 Public Consultation Centre #2

The second Public Consultation Centre for this project was held on November 30, 2010. Notices for this meeting were mailed out and/or hand-delivered to property and business owners within the project limits as well as appropriate regulatory agencies and stakeholders. Notices were also placed in the local newspaper and on road-side signs.

At this PCC, drawings and details of the alternative design concepts, results of the preliminary evaluation and the Project Team’s Preferred Design Concept were presented for public and stakeholder review and comment. A total of 47 people signed the attendance register. In general, the overall response by the public to the Preferred Design Concept for widening Weber Street was favourable. Opinions expressed at the PCC included questions about the project schedule, property disruptions and the process for property acquisitions and compensation. Several attendees expressed that the project is long overdue, particularly with respect to the grade separation at the railway tracks.

Following the PCC, 9 written comments were submitted to the Region’s Project Manager for consideration by the Project Team. Four of the written comments expressed no concerns about the project. Two comments were made supporting efforts to straighten the road as much as possible. Single comments regarding property value impact, the purchase of remnant parcels and the need for wider sidewalks were received. A summary of the comments and Study Team responses are included in Appendix D.

Design Concept B has been modified by the Project Team to incorporate the following detailed components to address specific issues raised by property and business owners and other stakeholders at, and following, PCC #2;

- The type of bridge (steel or concrete) to be incorporated into the grade separation has not been confirmed. However, the Project Team has recommended that the design of the bridge incorporate architectural and aesthetic enhancements due to its location in the downtown core. During the detailed design process, alternatives for architectural and aesthetic enhancements for the bridge will be presented for input from the public.

- Additional boulevard width on the west side of Weber Street between the Waterloo Spur Line north to Blucher Street was created to allow the proposed multi-use trail on the west side of Weber Street to be extended farther north. This will improve access to cyclists wishing to travel on Weber Street north of the Spur Line.

- Landscaping, including the planting of 107 large calibre trees, will be implemented to re-establish the character of the neighbourhood and create a more pedestrian friendly environment. Remnant parcels of land have been identified for potential enhanced landscaping. Implementation of some of these features will require the concurrence and funding of the City of Kitchener in accordance with Regional policy.
Based on the comments received from the second PCC, the Project Team confirmed its assessment that **Design Concept B - widening towards the west including service roads (as modified)** was the Preferred Design Concept.

### 5.2 Public Input Meeting

The Preferred Design Concept was presented at a Public Input Meeting held on March 8, 2011 in the Regional Council Chambers. Following a presentation by Regional staff, members of the public in attendance were asked to provide comments for the information of Committee members. A total of eight parties spoke at the meeting and raised the following issues;

- Several of the properties to be acquired by the Region are residential rental properties. Concern was raised about whether the tenants renting these properties would be able to find comparable accommodation in the area.

- During construction there may be a temporary increase in traffic on Ahrens Street (parallel to, and one block east of Weber Street). The potential that this could adversely impact safety at the Wellington Street/Ahrens Street intersection was expressed as was the fact that this could be made worse by the relocation of the access to the Via Station to Ahrens Street.

- The need for the proposed service road south of Wellington Street west of Weber Street to connect to the dead-end of Breithaupt Street was questioned. The concern was that the service road would introduce traffic adjacent to the newly exposed flankage of the house at #122 Breithaupt Street. Concern was also expressed about increased traffic noise from Weber Street.

- The need for and configuration of the proposed stairway and sidewalk ramp to be located at the dead-end of Breithaupt Street west of Weber Street was also questioned. This was seen as a potential location for loitering and vandalism.

A summary of these comments and the Study Team’s responses are included in Appendix D.

### 5.3 Heritage Planning Advisory Committee

The Preferred Design Concept and supporting Heritage Impact Assessment Study was presented to the Heritage Planning Advisory Committee (HPAC) on April 14, 2011. The Committee expressed concern with the proposed demolition of a number of older residential buildings and requested consideration for conservation through relocation or salvage of materials. In particular, the Committee requested that a second quote for the relocation of the commercial building located at #79 Weber Street be obtained. The project engineering consultant had requested quotes to relocate this building from four specialist contractors but only one submitted a quote. The quoted cost to relocate this building was estimated to be between $600,000 and $1,000,000. The contractor suggested by HPAC was unable to provide a quote. Given the limited number of companies able to relocate older buildings, the potential high cost of the relocation and the limited heritage value of the building, Regional Staff recommend that the building at #79 Weber Street not be relocated.
6. Main Concerns Raised by the Public and Other Stakeholders.

6.1. Property Acquisition

Concern - Several property and business owners within the study area have expressed concern over the need to acquire their property or the potential for loss of business. Questions have been asked about how a fair value for their property will be determined or how they will be compensated for recent improvements made to their property. Some other property owners have expressed a concern that their property has not been identified for acquisition. Concern has been expressed about the acquisition of residential properties presently used for rental purposes and whether it will be possible for current renters to find affordable alternative accommodation in the area.

Project Team Response - The existing Weber Street right-of-way within the study area varies in width between 12.0 metres and 21.0 metres. In order to accommodate a four lane roadway complete with curbs, sidewalks and space for streetlights and signage, a minimum right-of-way width of 21.0 metres would be required. The standard right-of-way width envisioned in the Regional Transportation Design Corridor Guidelines for roads such as Weber Street is 30.0 metres. This width would allow for the installation of turning lanes, landscaping, cycle lanes or off-road trails, utilities and transit facilities.

The proposed right-of-way width of the Recommended Design Concept for Weber Street within the study area varies between 21.0 metres and 50.0 metres at the proposed grade separation but in all cases is the minimum required to accommodate all components included in the Design Concept while minimizing the number of properties to be acquired.

Upon approval of the Recommended Design Concept by Regional Council, the process of property acquisition will be initiated by Regional staff. Affected property owners will be contacted by Region Real Estate staff to discuss the necessary property acquisitions and related issues. It is the Region’s standard practice to negotiate agreements of purchase and sale with the affected property owners, based on an independent appraisal of the land’s fair market value. If agreements cannot be reached in time to meet the project schedule, the Region can acquire the needed lands through expropriation. The Region takes into consideration any leasehold interests pertaining to the required lands in accordance with the Expropriations Act. The property acquisition process is explained in further detail in the handout provided to property owners at the first Public Consultation Centre for this project (refer to Appendix C).

6.2. Consideration of Pedestrian and Cyclist Needs

Concern – The Pedestrian Charter Steering Committee provided comments to the Project Team following the first PCC in April 2010. Subsequent to this, several of the Project Team members met with the Steering Committee to discuss their comments. The Committee’s comments are summarized below;

a) Roadworks should be designed based on the principles of “Complete Streets”

b) Connectivity to sidewalks and trails outside the study area should be considered

c) Sidewalks and trails should be accessible to people with disabilities
d) Provide a stairway connection from the closed section of Breithaupt Street to the proposed multi-use trail/sidewalk on Weber Street

e) Provide on-road cycling lanes on Weber Street

f) Provide mid-block pedestrian crossings

g) Incorporate wider sidewalks and boulevards and landscaping into the final design

The Regional Cycling Advisory Committee has also advised that they would support the provision of cycling lanes on both sides of Weber Street.

**Project Team Response** - The Recommended Design Concept includes a number of components designed to enhance the streetscape for pedestrians and cyclists. With specific regard to the comments made by the Pedestrian Charter Steering Committee, the following responses are provided by the Project Team:

a) The detailed design for this project will be undertaken in accordance with the Regional Transportation Corridor Design Guidelines which are based on the principles of “Complete Streets”.

b) The proposed multi-use trail on the west side of the widened Weber Street would connect to the potential Waterloo Spur Line Trail and provide a much needed linkage for pedestrians and cyclists between the downtown cores of Kitchener and Waterloo.

c) The Region’s Design Standards for sidewalks and trails are accessible to disabled persons.

d) An at-grade sidewalk ramp from Breithaupt Street to the proposed multi-use trail on the west side of Weber Street has been included in the Recommended Design Concept.

e) The Project Team is of the opinion that the proposed multi-use trail on the west side of Weber Street will provide adequate access for cyclists. Cycle lanes are not present on Weber Street north or south of the study area. The current Cycling Master Plan does not recommend on-road cycling facilities on Weber Street. However the Project Team is in agreement that an off-road cycling connection between College Street and the potential Waterloo Spur Line Trail should be made available.

Due to clearance standards, the widened roadway at the proposed grade separation will be wide enough to accommodate on-road cycle lanes. However, the additional cost to widen the remaining length of the proposed roadway to incorporate on-road cycle lanes is estimated to be approximately $3,000,000. This cost includes the construction of the lanes and the required acquisition of an additional ten residential properties. The Project Team considered that this additional cost and need for property could not be justified particularly when the current Cycling Master Plan does not recommend on-road cycling facilities on Weber Street. As a result, the Project Team recommends that on-road cycle lanes not be constructed within the study limits.

f) Mid-block crossings are usually provided in locations where a combination of high pedestrian volumes, large distances between intersections and significant
pedestrian destinations located between intersections creates an unsafe situation for pedestrians crossing the road. The Recommended Design Concept includes a pedestrian refuge at the Waterloo Spur Line Trail crossing south of Wilhelm Street to facilitate pedestrian and cyclist crossing at the future Waterloo Spur Line Trail.

g) The Recommended Design Concept includes wider grassed boulevards between the edge of the road and sidewalk/multi-use trail to increase the comfort of pedestrians and cyclists. This concept also includes the planting of large caliber boulevard trees to improve the appearance of the corridor, provide shade for pedestrians and help to lower the speed of vehicular traffic.

6.3. Service Road and Pedestrian Access at Breithaupt Street

Concern – The owners of 122 Breithaupt Street expressed concern over increased traffic noise from Weber Street since their property would be directly exposed to Weber Street once the neighbouring properties were demolished and the road widened. They were also concerned that the construction of a service road abutting their property as shown in the Preferred Design Concept would also result in vehicular and pedestrian traffic in close proximity to the side-yard and backyard of their property. The Preferred Design Concept presented at the March 8, 2011 Public Input Meeting included a stairway and ramp on the west side of Weber Street allowing pedestrian and cyclist access from the end of Breithaupt Street to the proposed multi-use trail on Weber Street. The owners of 122 Breithaupt Street expressed concern over potential loitering and vandalism at the stairway since it would not be visible from Weber Street or from Breithaupt Street.

Project Team Response – Following the Public Input Meeting, Regional staff met with City of Kitchener staff to discuss Breithaupt Street, the municipal lane parallel to Breithaupt Street and the need for the proposed service road west of Weber Street included in the Preferred Design Concept. Breithaupt Street, the lane and the proposed service road all fall under the jurisdiction of the City.

The existing intersections of Breithaupt Street and the municipal lane at Weber Street will be eliminated when Weber Street is reconstructed because the elevation of the reconstructed road is to be lowered substantially at the proposed CN Rail grade separation. In order to provide secondary access to Breithaupt Street and the lane and eliminate the need for service vehicles to turn around, City staff originally asked for the service road west of Weber Street to be constructed as part of this project. This service road would link Wellington Street to the dead-ended Breithaupt Street and lane.

However, given the low traffic volume on Breithaupt Street, City staff have indicated that the elimination of the proposed service road west of Weber Street between Wellington Street and Breithaupt Street is acceptable if a cul-de-sac is built at the terminus of Breithaupt Street and a hammerhead turn-around is built at the lane. The additional construction cost of these City conditions is negligible since the cost is offset by the elimination of the need to construct the service road.

With respect to the additional traffic noise, a Noise Assessment Study completed as part of the Environmental Assessment indicates that a noise mitigation wall is required abutting 122 Breithaupt Street. The details of this wall will be determined during the Detailed Design Process.
In order to eliminate the poor visibility for pedestrians at the proposed stairway, staff have adjusted the Preferred Design Concept to eliminate the stairway. Instead, the proposed sidewalk ramp has now been re-aligned so that it does not have “switchbacks” and is visible to pedestrians and vehicles on Weber Street along its entire length. This will assist in reducing the potential for loitering and vandalism at this location.

7. **Recommended Design Concept**

Following consideration of the opinions expressed by the public at the Public Input Meeting, Design Concept B has been refined by the Project Team. This refined Design Concept is now recommended for consideration by Regional Council. The Recommended Design Concept includes the following elements;

- Design Concept B as previously modified to include enhanced bridge design, additional boulevard width north of the Waterloo Spur Line and landscaping.
- Weber Street to be widened to 4 lanes, between College Street and Guelph Street. A typical cross-section of the proposed improvements is shown in Appendix F.
- A road-under-rail grade separation is proposed at the existing CN tracks, north of Victoria Street. An artist’s conceptual drawing of the grade separation is shown in Appendix G. This drawing shows a service road west of Weber Street which is not included in the Recommended Design Concept.
- Automatic protection of the Waterloo Spur Line crossing, including gates and/or signals.
- The majority of the right-of-way widening to accommodate the widened road will be on the west side of the existing Weber Street alignment. Between Water Street and the CN tracks, some localized widening will also be required on the east side of the existing right-of-way.
- A service road parallel to, and east of, Weber Street connected to Breithaupt Street to provide vehicular access to those properties impacted by the construction of the grade separation. The dead-end of Breithaupt Street west of Weber Street will be terminated with a cul-de-sac. The dead-end of the laneway west of Weber Street between Wellington Street and Breithaupt Street will be terminated with a “hammerhead” turn-around. An at-grade sidewalk ramp will be provided from the end of Breithaupt Street to the proposed multi-purpose pathway on Weber Street to provide access for pedestrians and cyclists at this location. A plan of this configuration is shown in Appendix H.
- Noise attenuation walls to protect outdoor living areas where required.
- Sidewalks on both sides of the roadway, over the entire length of the study area, constructed to Regional width standards. Increased boulevard width which will provide more separation between the travelled roadway and pedestrians.
- A multi-purpose pathway within the western boulevard of Weber Street from Water Street to the Waterloo Spur Line. This trail will connect to a potential multi-use trail within the Waterloo Spur Line corridor.
8. Estimated Project Cost

The capital cost for the Recommended Design Concept is estimated to be approximately $51,000,000. Some of this cost will be recovered from contributions from benefiting railway companies towards the cost of the proposed grade separation and from the re-sale of remnant parcels of land for re-development. At this stage, staff have initiated only very preliminary conversations regarding cost-sharing with the railway companies. Until Council approves the Recommended Design Concept, staff believe it would be premature to engage the railway companies in further cost-sharing discussions for this project. Once Council has approved the Recommended Concept, staff will work diligently with the rail companies to ensure cost-sharing arrangements are finalized well before the scheduled 2015 construction start date for this project. The Region’s share of the project estimate and the Ten Year Transportation Capital Program will be updated once these agreements are finalized.

9. Next Steps

Subject to receipt of Council’s approval of the Recommended Design Concept, the Environmental Study Report will be finalized and “filed” on the public record for a 30 day review period. This filing will be advertised by mail-outs and notices in newspapers. If a member of the public or any other stakeholder feels that the study did not fully address all the issues, they can request that the Minister of Environment order that the Project be scrutinized under a more detailed environmental assessment. The Minister of Environment must receive such requests in writing, with a copy sent to the Region’s Commissioner of Transportation and Environmental Services. The Minister will determine if a more detailed environmental assessment is required and the Minister’s decision will be final.

If there are no significant unresolved objections following the 30 day review period, detailed design and property acquisition are planned to begin in the fall of 2011. This will allow phased construction to begin in 2015. The construction of this project must be co-ordinated with the proposed construction of the Rapid Transit system on King Street, the grade separation of the CN Rail tracks at King Street and the Transit terminal between King Street and Weber Street.

CORPORATE STRATEGIC PLAN:

The proposed improvements to Weber Street support Focus Areas #2 (Growth Management) by enhancing active forms of transportation and #5 (Infrastructure) by providing infrastructure needed to accommodate planned growth.

FINANCIAL IMPLICATIONS:

The estimated cost of the improvements proposed in the Recommended Design Concept is approximately $51,000,000. The 2011 Ten Year Transportation Capital Program includes funding in the amount of $45,300,000 for this project with expenditures between 2011 and 2017 funded from the Region Development Charges and Roads Capital Levy Reserve Funds. The estimated project cost does not yet account for the value of remnant parcels of land (to be acquired for this project but eventually to be re-sold for possible re-development after construction) nor does the estimated cost account for any expected contributions towards the cost of the road/rail grade separation by the benefiting railway companies. The estimate and budget will be further refined during the detailed design phase of this project.
OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Nil

ATTACHMENTS

Appendix A – Project Key Plan
Appendix B – Alternative Solutions to Project Problem Statement
Appendix C – Property Acquisition Process Information Sheet
Appendix D – Public Comments from Public Consultation Centre’s, the Public Input Meeting and Project Team Responses
Appendix E – Evaluation of Design Concepts
Appendix F – Proposed Typical Road Cross-Section
Appendix G – Artist Concept of Proposed Grade Separation
Appendix H – Breithaupt Street Cul-de-sac

PREPARED BY: Peter Linn, Senior Project Manager, Design and Construction

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
APPENDIX A
PROJECT KEY PLAN

REGION ROAD No. 8
WEBER STREET
COLLEGE STREET TO GUELPH STREET AND GUELPH STREET TO UNION STREET EAST

Figure 1: Key Plan of Study Area
Region of Waterloo
Weber Street Improvements
Class Environmental Assessment
APPENDIX B-1

Alternative Solutions to resolve Project Problem Statement

The Project Team developed ten alternative solutions for consideration to address the Problem Statement. The following solutions were considered as “stand alone” alternatives and also in various combinations.

- **DO NOTHING**

  As part of any Class EA process, consideration must be given to the “Do Nothing” alternative as a comparator to assess what would happen if no action was taken to address the problem statement. This assessment provided a baseline against which the other alternative solutions can be measured. **Carried forward as a baseline for comparison.**

- **TRAFFIC OPERATION IMPROVEMENTS**

  By changing existing traffic signal timing and sequencing, the traffic capacity of the existing road could potentially be increased. This alternative was not brought forward as a stand-alone option for further consideration since the Weber Street corridor lacks through traffic capacity. **Not considered further.**

- **INTERSECTION IMPROVEMENTS**

  The addition of auxiliary lanes to reduce turning movement problems at intersections could reduce the delay times for through traffic and improve traffic flow along Weber Street. This alternative was not brought forward as a stand-alone option for further consideration since the Weber Street corridor lacks through traffic capacity. **Considered only in conjunction with other solutions.**

- **WIDEN WEBER STREET**

  Widening Weber Street by adding more traffic lanes within the study area would provide increased through traffic capacity, thereby addressing existing and future traffic congestion issues. Two widening scenarios were considered;

  1. **Two Through Lanes with a Two-Way Centre Turning Lane and an at-grade rail crossing.** This alternative was considered but not brought forward for further consideration since the Weber Street corridor lacks through traffic capacity. There is no demonstrated high incidence of collisions that could be mitigated with implementation of a two-way centre turning lane. **Not considered further.**

  2. **Widen Weber Street to 4 lanes with an at-grade rail crossing.** This alternative would increase overall capacity of the transportation corridor and improve operations of the corridor but would require more property than other alternatives. Considered as a stand-alone solution, this was not carried forward since it does not address the complete problem statement and because the analysis of projected road and rail traffic concluded that a grade separation is warranted. **Carried forward only in combination with a grade separation.**

- **GRADE SEPARATION OF CN RAILWAY TRACKS**

  A road-under-rail grade separation at the existing at-grade dual track crossing north of Victoria Street would relieve congestion at specific times during the day and eliminate the potential for vehicle/train collisions. As a stand-alone solution, this does not address the
APPENDIX B-2

need to increase the capacity of Weber Street. Carried forward only in combination with the widening of Weber Street.

- **ROUNDABOUTS**

  Roundabouts were considered at the Victoria Street, Water Street, Wellington Street and Guelph Street intersections. Due to the significant requirement to acquire property they were not carried forward. Not considered further.

- **ACCESS MANAGEMENT**

  Due to the congestion present on Weber Street, vehicular access to abutting properties is extremely difficult at certain times of the day and, in part, contributes to additional congestion. Consideration was given to consolidating or restricting accesses, or constructing a raised centre median to prohibit access to some properties. This option was not carried forward since restricting access could negatively impact the use and value of a property while not appreciably increasing the capacity of the road. Not considered further.

- **IMPROVING TRANSIT SERVICE**

  Measures to improve the level of transit service within the corridor were considered. These could potentially reduce reliance on vehicle travel and traffic on Weber Street if the widening of the road is implemented. To be considered further at a future date in conjunctions with Rapid Transit implementation.

- **UPGRADE OTHER ROUTES**

  By improving other existing north-south roadways that perform a similar arterial function, traffic could be potentially diverted away from Weber Street, thereby freeing up corridor capacity on Weber Street. The only Regional Road within a reasonable distance of Weber Street that could provide this function would be King Street. However, the vehicular capacity of this road is planned to be reduced with the implementation of Rapid Transit. Not considered further.

- **BUILD OTHER ROUTES**

  The planning, design and construction of new north-south road corridors may reduce the demands on existing roads by diverting existing and future traffic away from congested routes. However, in a built up urban environment, this option is not practical and was dismissed as an option. Not considered further.
APPENDIX C-1

Property Acquisition Process Information Sheet
(Projects requiring Class Environmental Assessment Approval)

The following information is provided as a general overview of the property acquisition process and is not legal advice. Further, the steps, timing and processes can vary depending on the individual circumstances of each case.

Once the Class Environmental Assessment is complete and the Environmental Study Report outlining the Recommended Design Concept has been approved, the property acquisition process and the efforts of Regional Real Estate staff will focus on acquiring the required lands to implement the approved design. Regional staff cannot make fundamental amendments or changes to the approved design concept.

Property Impact Plans
After the project has been approved and as it approaches final design, the project planners will generate drawings and sketches indicating what lands and interests need to be acquired from each affected property to undertake the project. These drawings are referred to as Property Impact Plans (PIP).

Initial Owner Contact by Regional Real Estate Staff
Once the PIPs are available, Regional Real Estate staff will contact the affected property owners by telephone and mail to introduce themselves and set-up initial meetings to discuss the project and proposed acquisitions.

Initial Meetings
The initial meeting is attended by the project engineer and the assigned real estate staff person to brief the owner on the project, what part of their lands are to be acquired or will be affected, what work will be undertaken, when, with what equipment, etc and to answer any questions. The primary purpose of the meeting is to listen to the owner and identify issues, concerns, effects of the proposed acquisition on remaining lands and businesses that can be feasibly mitigated and/or compensated, and how the remaining property may be restored. These discussions may require additional meetings. The goal of staff is to work with the owner to reach mutually agreeable solutions.

Goal – Fair and Equitable Settlement for All Parties
The goal is always to reach a fair and equitable agreement for both the property owner and the Region. Such an agreement will provide compensation for the fair market value of the lands and address the project impacts (such as repairing or replacing landscaping, fencing, paving) so that the property owner will receive the value of the lands acquired and the restoration of their remaining property to the condition it was prior to the Project.

The initial meetings will form the basis of an initial offer of settlement or agreement of purchase and sale for the required lands or interests.

Steps Toward Offer of Settlement or Agreement of Purchase and Sale
The general steps towards such an offer are as follows;

1) the Region will obtain an independent appraisal of the fair market value of the lands and interests to be acquired, and an appraisal of any effect on the value of the rest of the property resulting from the acquisition of the required lands and interests;
2) compensation will be estimated and/or works to minimize other effects will be defined and agreed to by the property owner and the Region;
APPENDIX C-2

3) reasonable costs of the owner will be included in any compensation settlement;
4) an offer with a purchase price and any other compensation or works in lieu of compensation will be submitted to the property owner for consideration; and
5) an Agreement will be finalized with any additional discussion, valuations, etc as may be required.

Depending on the amount of compensation, most agreements will require the approval of Council. The approval is undertaken in Closed Session which is not open to the public to ensure a level of confidentiality.

Expropriation
Due to the time constraints of these projects, it is the practice of the Region to commence the expropriation process in parallel with the negotiation process to insure that lands and interests are acquired in time for commencement of the Project. Typically, over 90% of all required lands and interests are acquired through the negotiation process. Even after lands and interests have been acquired through expropriation an agreement on compensation can be reached through negotiation, this is usually referred to as a ‘settlement agreement’.

Put simply, an expropriation is the transfer of lands or an easement to a governmental authority for reasonable compensation, including payment of fair market value for the transferred lands, without the consent of the property owner being required. In the case of expropriations by municipalities such as the Region of Waterloo, the process set out in the Ontario Expropriations Act must be followed to ensure that the rights of the property owners provided under that Act are protected.
## APPENDIX D-1

Public Comments from Public Consultation Centre’s, the Public Input Meeting and the Project Teams Responses

<table>
<thead>
<tr>
<th>Comment</th>
<th># of times comment made</th>
<th>Project Team Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>No concerns, proceed with project as shown in Preferred Design Concept</td>
<td>6</td>
<td>No response required</td>
</tr>
<tr>
<td>Will the Region provide compensation for loss in property value for</td>
<td>2</td>
<td>The Region will only purchase those properties which are physically required to accommodate the proposed widening of the road. The owners of properties from which a partial acquisition is required may choose to negotiate the selling price based on their perceived loss in overall property value. The proposed road improvements will include streetscaping and pedestrian and cyclist facilities meant to enhance the travelling environment for all modes of transportation resulting in an overall increase in property value. All reasonable efforts are made to minimize adverse impacts on remaining properties.</td>
</tr>
<tr>
<td>properties not purchased.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weber Street should be straightened north of Louisa Street</td>
<td>2</td>
<td>The Recommended Design Concept incorporates a straightening of the road at this location sufficient to meet Regional geometric standards</td>
</tr>
<tr>
<td>Will vehicular access be available to my property after construction</td>
<td>2</td>
<td>Access to all properties not acquired by the Region will be maintained after construction. In some cases, the location or configuration of some accesses may have to be changed. However, this will be done at the Region’s expense to a proper standard.</td>
</tr>
<tr>
<td>Install gates and warning signals at the Waterloo Spur Line crossing</td>
<td>2</td>
<td>Although gates and/or warning signals are not warranted at this location based on standard railway crossing criteria, the Region has a policy that all railway crossings of Regional roads should have automatic protection.</td>
</tr>
<tr>
<td>An underpass is required at the railway crossing north of Victoria</td>
<td>2</td>
<td>This is included in the recommended Design Concept</td>
</tr>
<tr>
<td>Street</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interested in Purchasing remnant parcels of land after the road is</td>
<td>2</td>
<td>Any remnant parcels will be disposed of in accordance with Regional policies and procedures</td>
</tr>
<tr>
<td>widened</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**APPENDIX D-2**

<table>
<thead>
<tr>
<th>Issue</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weber Street should be made one-way</td>
<td>1</td>
</tr>
<tr>
<td>Vehicular traffic on Weber Street is expected to increase by more than 60% over the next 20 years. If Weber Street was made a one-way road, approximately half of the traffic volume would have to be accommodated on surrounding roads necessitating widening on other roads.</td>
<td></td>
</tr>
<tr>
<td>Wider sidewalks and boulevards, including trees should be included</td>
<td>1</td>
</tr>
<tr>
<td>The Recommended Design Concept includes wide sidewalks and boulevards. Large calibre trees will be planted to enhance the walkability of the street environment.</td>
<td></td>
</tr>
<tr>
<td>Tenants of residential rental properties may not be able to find similar accommodations to those that are to be acquired and demolished by the Region to accommodate the widening</td>
<td>1</td>
</tr>
<tr>
<td>The Region’s property acquisition process includes negotiation with property owners, rather than tenants to acquire properties.</td>
<td></td>
</tr>
<tr>
<td>Changes in traffic patterns during and after construction may increase traffic on Ahrens Street</td>
<td>1</td>
</tr>
<tr>
<td>Ahrens Street falls under the jurisdiction of the City of Kitchener. City staff were consulted on this issue. Detour routes during construction will direct traffic to use arterial roads instead of local roads. Ahrens Street south of Breithaupt Street in the vicinity of the VIA Rail station will be closed due to the encroachment of GO trains onto the roadway until the new Transit Terminal is built. This closure will help to establish traffic patterns using streets other than Ahrens.</td>
<td></td>
</tr>
<tr>
<td>Service road west of Weber Street between Wellington Street and Breithaupt Street will generate traffic abutting #122 Breithaupt Street. Removal of adjacent houses will increase traffic noise.</td>
<td>1</td>
</tr>
<tr>
<td>Following discussions with City of Kitchener staff, this service road has been removed from the Recommended Design Concept. A noise barrier will be constructed as part of this project to protect residential properties.</td>
<td></td>
</tr>
<tr>
<td>Poor visibility to stairway connecting Breithaupt Street to Weber Street may lead to loitering and vandalism</td>
<td>1</td>
</tr>
<tr>
<td>The Recommended Design Concept has been changed to eliminate the stairway and instead install an at-grade sidewalk ramp that will improve visibility.</td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX E-1

#### Evaluation of Design Concepts

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Do Nothing</th>
<th>Design Concept A</th>
<th>Design Concept B</th>
<th>Design Concept C</th>
<th>Design Concept CBA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Road to remain as two lanes. Rail crossing to remain as-is.</td>
<td>Widening to four lanes towards the west</td>
<td>Widening towards the west with service roads on both sides of Weber Street south of Wellington Street</td>
<td>Widening towards the east with service roads on both sides of Weber Street south of Wellington Street</td>
<td>Widening towards the east south of Louisa Street and towards the west north of Louisa Street with service roads on both sides of Weber Street south of Wellington Street</td>
</tr>
<tr>
<td>Traffic Capacity, Operations and Safety</td>
<td>Accommodation of the forecasted traffic volumes</td>
<td>Road capacity not sufficient. Significant traffic delays and infiltration onto abutting roads</td>
<td>Widening to four lanes will increase capacity to accommodate traffic growth</td>
<td>Widening to four lanes will increase capacity to accommodate traffic growth</td>
<td>Widening to four lanes will increase capacity to accommodate traffic growth</td>
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<tr>
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<td><img src="Appendix_E-1_evaluation_of_design_concepts.png" alt="Score" /></td>
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<td><img src="Appendix_E-1_evaluation_of_design_concepts.png" alt="Score" /></td>
<td><img src="Appendix_E-1_evaluation_of_design_concepts.png" alt="Score" /></td>
</tr>
<tr>
<td>Transportation network requirements</td>
<td>Traffic diverted by implementation of Rapid Transit on King Street will add to congestion</td>
<td>Widening will provide capacity for traffic diverted by implementation of Rapid Transit on King Street</td>
<td>Widening will provide capacity for traffic diverted by implementation of Rapid Transit on King Street</td>
<td>Widening will provide capacity for traffic diverted by implementation of Rapid Transit on King Street</td>
<td>Widening will provide capacity for traffic diverted by implementation of Rapid Transit on King Street</td>
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### APPENDIX E-2

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<th>Design Concept C</th>
<th>Design Concept CBA</th>
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</thead>
<tbody>
<tr>
<td>Resolution of known safety issues</td>
<td>Increased rail and vehicular traffic will significantly degrade safety at existing level crossing. Existing concerns regarding the alignment of the Victoria Street intersection and Waterloo Spur Line crossing remain.</td>
<td>The proposed grade separation at the CN Rail crossing will greatly improve vehicular safety. The improved alignment of the Victoria Street intersection will improve vehicular and pedestrian safety.</td>
<td>The proposed grade separation at the CN Rail crossing will greatly improve vehicular safety. The improved alignment of the Victoria Street intersection will improve vehicular and pedestrian safety.</td>
<td>The proposed grade separation at the CN Rail crossing will greatly improve vehicular safety. The improved alignment of the Victoria Street intersection will improve vehicular and pedestrian safety. This concept will marginally improve the existing curve in the roadway alignment north of Louisa Street.</td>
<td></td>
</tr>
<tr>
<td>Impact on property access</td>
<td>Increased congestion will make access to abutting properties extremely difficult.</td>
<td>Several properties would be acquired due to loss of access in the vicinity of the proposed grade separation.</td>
<td>Service roads will provide access to properties that would otherwise be land-locked.</td>
<td>Service roads will provide access to properties that would otherwise be land-locked.</td>
<td>Service roads will provide access to properties that would otherwise be land-locked.</td>
</tr>
</tbody>
</table>

| score                                         | ◐                                                                           | ◐                                                                               | ●                                                                               | ●                                                                               | ●                                                                               |
| score                                         | ◐                                                                           | ◐                                                                               | ●                                                                               | ●                                                                               | ●                                                                               |
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<tbody>
<tr>
<td>Impact on future transit needs</td>
<td>Increased congestion will delay transit service</td>
<td>Less traffic congestion will improve transit service</td>
<td>Less traffic congestion will improve transit service</td>
<td>Less traffic congestion will improve transit service</td>
<td>Less traffic congestion will improve transit service</td>
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<td>●</td>
<td>●</td>
<td>●</td>
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<tr>
<td>Accommodation of pedestrian needs</td>
<td>Narrow curb-face sidewalk does not create pedestrian friendly environment</td>
<td>Wider sidewalk and boulevard will improve walkability of corridor</td>
<td>Wider sidewalk and boulevard will improve walkability of corridor</td>
<td>Wider sidewalk and boulevard will improve walkability of corridor</td>
<td>Wider sidewalk and boulevard will improve walkability of corridor</td>
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<tr>
<td>score</td>
<td>☐</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Accommodation of cyclist needs</td>
<td>No existing facilities</td>
<td>Multi-use pathway will connect to proposed Waterloo Spur Line trail</td>
<td>Multi-use pathway will connect to proposed Waterloo Spur Line trail</td>
<td>Multi-use pathway will connect to proposed Waterloo Spur Line trail</td>
<td>Multi-use pathway will connect to proposed Waterloo Spur Line trail</td>
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<tbody>
<tr>
<td>Natural Environment</td>
<td>Adverse impacts on the natural environment</td>
<td>Approximately 30% of trees proposed to be replaced are in poor condition would remain. Increased traffic congestion will create noise and poor air quality.</td>
<td>68 trees to be removed. More than 100 to be planted</td>
<td>72 trees to be removed. More than 100 to be planted</td>
<td>76 trees to be removed. More than 100 to be planted</td>
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<td>Score</td>
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<tr>
<td>Disturbance to any areas with potentially contaminated soils</td>
<td></td>
<td></td>
<td></td>
<td>Vicinity of Krug Furniture may cause soil disturbance</td>
<td>Vicinity of Krug Furniture may cause soil disturbance</td>
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<td>Social Environment</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impacts to Heritage or Archaeological Resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Score</td>
<td>◀</td>
<td>◀</td>
<td>◀</td>
<td>◀</td>
<td>◀</td>
</tr>
<tr>
<td>Impacts to Cultural or Recreational Resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provides connection to proposed Waterloo Spur Line Trail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Score</td>
<td>◀</td>
<td>◀</td>
<td>◀</td>
<td>◀</td>
<td>◀</td>
</tr>
<tr>
<td>Impacts on existing Businesses</td>
<td>Existing access difficult</td>
<td>Requires the full or partial acquisition of 10 commercial properties</td>
<td>Requires the full or partial acquisition of 10 commercial properties</td>
<td>Requires the full or partial acquisition of 9 commercial properties</td>
<td>Requires the full or partial acquisition of 9 commercial properties</td>
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<td>Score</td>
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<td>◀</td>
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<td>Design Concept B</td>
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<td>----------------------------------</td>
<td>--------------------------------------</td>
<td>-----------------------------------</td>
<td>-----------------------------------</td>
<td>-----------------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Impacts on existing Residences</td>
<td>Existing access difficult</td>
<td>Requires the full or partial acquisition of 38 residential properties</td>
<td>Requires the full or partial acquisition of 33 residential properties</td>
<td>Requires the full or partial acquisition of 45 residential properties</td>
<td>Requires the full or partial acquisition of 38 residential properties</td>
</tr>
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<td>score</td>
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<td>◔</td>
<td>◔</td>
<td>◔</td>
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</tr>
<tr>
<td>Constructability</td>
<td></td>
<td>Construction timeline similar to other alternatives</td>
<td>Construction timeline similar to other alternatives</td>
<td>Construction timeline similar to other alternatives. Temporary relocation of road requires additional property</td>
<td>Construction timeline similar to other alternatives. Temporary relocation of road requires additional property</td>
</tr>
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<td>score</td>
<td>◔</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Impacts on Community Character</td>
<td>Increased traffic congestion and infiltration to adjacent streets may degrade character</td>
<td>Opportunity present for streetscaping</td>
<td>Opportunity present for streetscaping</td>
<td>Greater opportunity for streetscaping due to larger number of remnant properties</td>
<td>Greater opportunity for streetscaping due to larger number of remnant properties</td>
</tr>
<tr>
<td>score</td>
<td>◔</td>
<td>◔</td>
<td>◔</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Overall Social Environment Score</td>
<td></td>
<td>●</td>
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## APPENDIX E-7

<table>
<thead>
<tr>
<th>Cost</th>
<th>Total construction cost including property acquisition</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>$52,520,000</td>
</tr>
<tr>
<td>$51,500.00</td>
<td>$59,300,000</td>
</tr>
<tr>
<td>$56,560,000</td>
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</table>

### OVERALL RELATIVE SCORE

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<tr>
<th>Do Nothing</th>
<th>Design Concept A</th>
<th>Design Concept B</th>
<th>Design Concept C</th>
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</tr>
</tbody>
</table>

- ![Score] = Most Preferred
- ![Score] = Least Preferred
APPENDIX F

Proposed Typical Road Cross-Section North of Wellington Street and south of Victoria Street
APPENDIX G

Artist Concept of Proposed Grade Separation
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: June 21, 2011

FILE CODE: CO4-20, 5501

SUBJECT: UNIVERSITY AVENUE IMPROVEMENTS, LINCOLN ROAD TO WEBER STREET, CITY OF WATERLOO

RECOMMENDATION:

THAT the Regional Municipality of Waterloo take the following actions with respect to proposed improvements on University Avenue (Regional Road No. 57) from Lincoln Road to Weber Street in the City of Waterloo:

a) approve the proposed improvements for University Avenue as outlined in Report E-11-066; and

b) amend Traffic and Parking By-law 06-072, as amended, to provide Reserved Lanes for bicycles on both sides of University Avenue from Lincoln Road to Weber Street.

SUMMARY:

The Region of Waterloo is currently considering improvements to University Avenue from Lincoln Road to Weber Street. (Please refer to Appendix ‘A’ for a Key Plan.) This project has been initiated to address the poor pavement condition on this section of University Avenue. The planning of the roadway improvements is being undertaken in accordance with the Regional Context Sensitive Transportation Corridor Design Guidelines, the Regional Cycling Master Plan, the 2011 Cycling Facility Map and other relevant Regional policies and practices.

A Project Team consisting of staff from the Region of Waterloo, the City of Waterloo, and City of Waterloo Councillor Mark Whaley was established to direct the planning of these improvements.

Plans for the Project Team’s proposed improvements were presented to the public at a Public Consultation Centre held on April 19th, 2011 at the Lincoln Heights Public School. Comments received from the public are addressed under Section 2.0 of this Report.

The Project Team is now recommending that Regional Council approve the proposed improvements to University Avenue described as follows:

- Complete replacement of the pavement structure on University Avenue from Lincoln Road to Weber Street;
- Construction of new designated left-turn lanes on University Avenue at Carter Avenue and at Glenridge Drive;
- Replacement of the existing storm sewer system on University Avenue from Lincoln Road to Weber Street;
• Increased storage capacity for all existing left-turn storage lanes within the project limits on University Avenue;
• Improved signal timing at all intersections within the project limits currently controlled by traffic control signals;
• Construction of 1.25 metre reserved on-road cycling lanes on each side of University Avenue from Lincoln Road to Weber Street;
• Construction of a pedestrian refuge island on University Avenue at Carter Avenue in order to facilitate pedestrian crossings for the Hillside Park Trail;
• Enhanced boulevard landscaping by planting trees where feasible; and
• Street lighting upgrades at all signalized intersections within the project limits.

The construction of reserved on-road cycling lanes on each side of University Avenue will require that Traffic and Parking By-law 06-072, as amended, be amended to provide Reserved Lanes for bicycles on both sides of University Avenue from Lincoln Road to Weber Street. Parking is not currently permitted on this section of University Avenue.

The Region’s Approved 2011 Transportation Capital Program and 10-Year Capital Forecast includes funds of $4,171,000 in years 2011 to 2014 inclusive in order to complete construction of the improvements to University Avenue from Lincoln Road to Weber Street, with reconstruction to base course asphalt in 2013 and placement of surface course asphalt in 2014, to be funded from the Roads Rehabilitation Reserve Fund. The City of Waterloo will fund its portion of storm sewer replacement at an estimated cost of $780,000.

REPORT:

1.0 Background

The Region of Waterloo is currently considering improvements to University Avenue from Lincoln Road to Weber Street. (Please refer to Appendix ‘A’ for a Key Plan.) This project has been initiated to address the poor pavement condition on this section of University Avenue. The planning of the roadway improvements is being undertaken in accordance with the Regional Context Sensitive Transportation Corridor Design Guidelines, the Regional Cycling Master Plan, the 2011 Cycling Facility Map and other relevant Regional policies and practices.

A Project Team consisting of staff from the Region of Waterloo, the City of Waterloo, and City of Waterloo Councillor Mark Whaley was established to direct the planning of these improvements.

The section of University Avenue from Lincoln Road to Weber Street is an urbanized four (4) lane roadway. As part of the planning for this Project, a traffic study was completed to identify the need for any traffic operational improvements. This traffic study found that new designated left-turn lanes were warranted on University Avenue at Carter Avenue and at Mayfield Avenue. Additionally, the traffic study recommended that increased storage capacity for left-turn lanes be provided at all existing signalized intersections and that the timing of the existing traffic control signals be optimized. The implementation of modern roundabouts was considered by the Project Team to replace the existing traffic control signals on University Avenue at the intersections of Lincoln Road, Glenridge Drive and Marsland Drive. The completed evaluations found that taking into account the estimated capital and operating costs of traffic control signals and roundabouts, collision histories at these intersections and property constraints, roundabouts were not recommended at these intersections.
The Region’s Context Sensitive Transportation Corridor Design Guidelines identify this section of University Avenue as a Neighbourhood Connector (Avenue) classification. Neighbourhood Connectors are designed to support active transportation (including walking and cycling) and transit. The proposed improvements to University Avenue are being planned to include facilities for cyclists and pedestrians. Additionally, enhanced boulevard landscaping is being considered as part of this project to encourage and promote walking. Grand River Transit facilities such as new bus stop landings are also being considered as part of the proposed improvements.

A raised concrete pedestrian refuge island is proposed immediately west of Carter Avenue in order to facilitate pedestrian crossings at the Hillside Park Trail. The Project Team consulted with the City of Waterloo’s Trail Advisory Committee to determine the preferred location of this pedestrian refuge island.

Based on technical studies and investigations completed, the Context Sensitive Transportation Corridor Design Guidelines, the Regional Cycling Master Plan, and other relevant Regional Policies and Practices, the Project Team developed the following proposed improvements for this project:

- Complete replacement of the pavement structure on University Avenue from Lincoln Road to Weber Street;
- Construction of new designated left-turn lanes on University Avenue at Carter Avenue and Mayfield Avenue;
- Replacement of the existing storm sewer system on University Avenue from Lincoln Road to Weber Street due to its poor condition and undersized capacity;
- Increased storage capacity for all existing left-turn lanes within the project limits on University Avenue;
- Improved signal timing at all intersections within the project limits currently controlled by traffic control signals;
- Construction of 1.25 metre reserved on-road cycling lanes on each side of University Avenue from Lincoln Road to Weber Street;
- Construction of a pedestrian refuge island on University Avenue at Carter Avenue in order to facilitate pedestrian crossings for the Hillside Park Trail;
- Enhanced boulevard landscaping by planting trees where feasible; and
- Street lighting upgrades at all signalized intersections within the project limits.

Please refer to Appendix ‘B’ for drawings of the Project Team’s proposed improvements to University Avenue. Implementation of the Project Team’s proposed improvements will require that small strips of property be required from approximately nine (9) abutting property owners on University Avenue.

2.0 Public Consultation

A Public Consultation Centre (PCC) was held at Lincoln Heights Public School, 270 Quickfall Drive in the City of Waterloo on Tuesday April 19th, 2011 from 5:30 p.m. to 8:00 p.m. Plans showing the Project Team’s proposed improvements were on display and Project Team representatives were present to answer questions and to receive feedback from members of the public. Approximately forty (40) members of the public attended the PCC and twenty six (26) members of the public formally signed in. Eleven (11) comment sheets were received. Please refer to Appendix ‘C’ for a summary of the written comments received.
The Project Team received many positive comments regarding the proposed improvements at the PCC. The main issues raised by the public are summarized as follows:

- Request for a new designated eastbound left-turn lane on University Avenue at Glenridge Drive; and
- Comments supporting the proposed on-road cycling lanes and comments expressing a preference for off-road cycling lanes. In reference to an off-road cycling facility or multiuse trail, the Project Team does not support this option for this section of University Avenue as the number of driveways and intersections exceed the Region’s standard practice of a maximum of three (3) driveways or intersections per kilometre.

The Project Team’s response to these comments is included in Appendix ‘D’.

3.0 Recommended Improvements

Based on a review of the technical information gathered for this project as well as a review of all public comments received, the Project Team is recommending that Regional Council approve the proposed improvements for University Avenue from Lincoln Road to Weber Street as presented at the April 19, 2011 Public Consultation Centre with the addition of a designated eastbound left-turn lane on University Avenue at Glenridge Drive and a modified left-turn area provided on University Avenue at Mayfield Avenue. Please refer to Appendix ‘D’ for further detail on the recommended improvements on University Avenue in the area of Mayfield Avenue and Glenridge Drive.

The construction of reserved on-road cycling lanes on each side of University Avenue will require that Traffic and Parking By-law 06-072, as amended, be amended to provide Reserved Lanes for bicycles on both sides of University Avenue from Lincoln Road to Weber Street. Parking is not currently permitted on this section of University Avenue.

Letters advising of the recommendations contained in this report were mailed to all those who attended the April 19th PCC and hand-delivered to all owners/residents abutting the University Avenue project limits (and on side streets within one block of University Avenue) on June 3rd, 2011.

4.0 Project Timing

Subject to Council approval of the recommended improvements for University Avenue, acquisition of all required property and receipt of all technical and financial approvals, construction to base course asphalt will commence in May 2013 and will be completed by November 2013. Surface course asphalt will be placed in 2014.

5.0 Construction Staging

It is tentatively proposed that construction be completed in two (2) separate stages in order to minimize disruption to traffic. These two (2) stages of construction are described as follows:

Stage 1 – University Avenue from Lincoln Road to Glenridge Drive; and

Stage 2 – University Avenue from Glenridge Drive to Weber Street.

Through traffic will be maintained on University Avenue at all times during construction and no detours for University Avenue are generally planned. It may be necessary to detour traffic on
local intersecting side streets for short periods of time during construction. Traffic will be restricted to one lane in each direction during each stage of construction. Existing left turn lanes will be maintained on University Avenue at Lincoln Road, Glenridge Drive, Marsland Drive and Weber Street during construction.

Grand River Transit Service will be maintained during construction through the implementation of temporary bus stop locations as required.

Pedestrian access will be maintained on one side of University Avenue (as a minimum) for the duration of the construction. Signage will be erected in order to direct pedestrians through the project area.

6.0 Project Cost

The Region of Waterloo is fully funding the road improvements on this project. The estimated total Regional project cost associated with the proposed University Avenue improvements, including engineering, construction, utility relocations, property and other project costs, is $4,100,000. The City of Waterloo’s share of the project costs for the replacement of the storm sewer is currently estimated to be $780,000.

CORPORATE STRATEGIC PLAN:

This project is in harmony with the Corporate Strategic Plan in that implementation of the University Avenue Improvements achieves Focus Area #5 (“Infrastructure”) and Strategic Objective 5.1 which is to optimize the use of existing infrastructure and ensure it is adequately maintained.

FINANCIAL IMPLICATIONS:

The Region’s Approved 2011 Transportation Capital Program and 10-Year Capital Forecast includes funds of $4,171,000 in years 2011 to 2014 inclusive in order to complete construction of the improvements to University Avenue from Lincoln Road to Weber Street, with reconstruction to base course asphalt in 2013 and placement of surface course asphalt in 2014, to be funded from the Roads Rehabilitation Reserve Fund. The City of Waterloo will fund its portion of the storm sewer replacement. The City’s share of the project costs for this storm sewer replacement is currently estimated to be $780,000.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Staff from the Transportation Planning Division of the Planning, Housing and Community Services Department were consulted for the preparation of this report.

The Council and Administrative Services Division of the Corporate Resources Department will be required to prepare the amending By-law to reflect reserved lanes for cyclists on both sides of Regional Road No. 57 (University Avenue) from Lincoln Road to Weber Street.
ATTACHMENTS

Appendix A  Key Plan
Appendix B-1 Typical Cross-Section – Existing Conditions
Appendix B-2 Typical Cross-Section – Recommended Design Alternative
Appendix C Written Comments Received From the April 19th, 2011 Public Consultation Centre
Appendix D Project Team Response to Comments Received From the April 19th, 2011 Public Consultation Centre
Figure 1 Drawing of Proposed Improvements on University Avenue from Mayfield Avenue to Glenridge Drive

PREPARED BY:  Jim Ellerman, Project Manager

APPROVED BY:  Thomas Schmidt, Commissioner Transportation and Environmental Services
Appendix A
Key Plan

UNIVERSITY AVENUE
REGIONAL ROAD No. 57
LINCOLN ROAD TO WEBER STREET
CITY OF WATERLOO
Appendix B-1

Typical Cross Section – Existing Conditions

UNIVERSITY AVENUE
LINCOLN ROAD to WEBER STREET
TYPICAL EXISTING CROSS SECTION
Appendix B-2

Typical Cross Section – Recommended Design Alternative

UNIVERSITY AVENUE
LINCOLN ROAD to WEBER STREET
RECOMMENDED DESIGN ALTERNATIVE
### Appendix C

**Written Comments Received From the April 19th, 2011 Public Consultation Centre**

<table>
<thead>
<tr>
<th>Name</th>
<th>Comment</th>
</tr>
</thead>
</table>
| Eugene J.  | Consider a left hand turn from University Ave onto Glenridge Drive.  
|            | Consider lengthening the right hand turn lane at Lincoln Road.  
|            | Decrease the waiting time at the lights at Glenridge Dr. in order to enter University Ave.                                                                                                                 |
| N/A        | I am very happy to see a refuge to aid pedestrians/cyclists crossing University to Hillside Park from Moses Springer Park. This fits Waterloo’s new TMP and supports active transportation.  
|            | I am a walker and cyclists and like trails in parks that connect to one another. I am also happy to see bike lanes proposed.                                                                                 |
| Tim C.     | Overall I see a lot of attention being paid to the road for motorists and cyclists but I see little being done to improve sidewalks on either side. Both are in need of repair and I feel this would be an excellent place for a multi-use trail, especially on the north side of the road. |
| Theresa F. | I am also concerned that the addition of the left turn lane will make the intersection at Mayfield worse than it already is.  
<p>|            | I would like to be sure that the water drainage is improved along University Ave. in front of Ecole Mere-Elisabeth-Bruyere.                                                                                  |
|            | It would be great if trees were planted along the north side of University in front of the school. It would help to create a better windbreak and shade along that stretch of road – it currently looks quite barren. |
| George S.  | This project should only be done if necessary. Are sewer and waterlines deteriorated?                                                                                                               |
|            | There should be no bike lanes on roadway due to high traffic volumes - makes it extremely dangerous. Construct a separate bike lane on one side next to roadway separated by a grass strip from road. Make it wide enough for bikes to travel in both directions. |
|            | Traffic islands are most times too narrow to be safe for pedestrians.                                                                                                                                 |
|            | Substructure for roadway needs to be improved for pavement to last due to heavy truck traffic.                                                                                                          |
| Leroy S.   | Left turn lane on University for Mayfield a very good idea. We currently find it dangerous to turn left at that location, especially at peak traffic.                                                         |
|            | Also support a left turn lane on University for Carter.                                                                                                                                                 |
|            | Strongly endorse a designated crosswalk on University at Carter. The walking trail/bike path gets a lot of use and that location is a “natural” crossing area. This would make it much safer.                   |</p>
<table>
<thead>
<tr>
<th>Name</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A</td>
<td>Support the idea of a bike lane being incorporated during the upgrade.</td>
</tr>
<tr>
<td></td>
<td>Bike lanes on both sides of University Ave. are good.</td>
</tr>
<tr>
<td></td>
<td>Strongly support pedestrian/bike island to facilitate crossing University at Carter Ave. This is important for trail connections.</td>
</tr>
<tr>
<td>Beatrice H.</td>
<td>Please let me know where my lines connect. Mayfield or University and if possible how old the sewage and water lines are?</td>
</tr>
<tr>
<td></td>
<td>Please email a section of the image/drawing @ 240 Mayfield (intersection @ University &amp; Mayfield) as PDF or JPEG to <a href="mailto:mayfield.mailbox@gmail.com">mayfield.mailbox@gmail.com</a></td>
</tr>
<tr>
<td></td>
<td>Please confirm that retaining wall @ 240 Mayfield (University side) is property of Region and please confirm if it will be required or replaced when corner of the property is acquired/modified.</td>
</tr>
<tr>
<td></td>
<td>Please don't include the island @ Mayfield &amp; University. Sightline is bad because of the hill for pedestrians and will make existing Mayfield onto University even more awkward and difficult into busy traffic from the Hwy as it is. Please consider removing the island from the plan.</td>
</tr>
<tr>
<td>William C.</td>
<td>I like that you’re adding a bike lane and making it wider.</td>
</tr>
<tr>
<td></td>
<td>I like that you’re leaving space for the drivers while you’re doing construction.</td>
</tr>
<tr>
<td>Julius B.</td>
<td>In spite of the wishes of the regional plan, building bike lanes in places like University Ave. only increases the chance of serious accidents involving cyclists.</td>
</tr>
<tr>
<td></td>
<td>University Ave. has a hill just east of Glenridge and the distance for a speeding vehicle for a safe stop just does not exist.</td>
</tr>
<tr>
<td></td>
<td>Further, the Mayfield intersection is so close to Glenridge that left turning vehicles are in rear end collision peril at all times.</td>
</tr>
<tr>
<td></td>
<td>Also this intersection is blocked by drivers that enter the intersection illegally.</td>
</tr>
<tr>
<td></td>
<td>Cutting down on University Ave. lanes East or West is a very bad idea especially with the traffic volume being so high.</td>
</tr>
<tr>
<td>Henry K.</td>
<td>I attended the information meeting at Lincoln Heights Public School Tuesday April 18/11. I presently live at 263 Glenridge Drive and are aware of problems trying to make a left-hand turn from University onto Glenridge Dr. This alone is a major flaw in the proposed plans! As is now, fast moving two lane traffic is choked off to one lane when someone is turning left onto Glenridge Dr. I would like to support a street jog similar to Dale Crescent &amp; Lincoln Rd! Purchasing the duplex on University &amp; Glenridge Dr, and or, triplex on McGregor Cres. Install traffic lights at this new intersection would improve traffic flow, lives and potential injuries!</td>
</tr>
</tbody>
</table>
Appendix D

Project Team Response to Public Comments Received From the April 19th, 2011 Public Consultation Centre

The main comments received at the Public Consultation Centre and the Project Team’s response to these comments are summarized as follows:

Comment No. 1 – Request for a Designated Left-Turn lane on University Avenue at Glenridge Drive

Project Team Response:

The intersections of University Avenue/Mayfield Avenue and University Avenue/Glenridge Drive are tee intersections with a distance of approximately 45 metres between the two intersections. The intersection of University Avenue and Mayfield Avenue has a Stop Sign on Mayfield Avenue. The intersection of University Avenue and Glenridge Drive is controlled by traffic control signals. There are currently no designated left-turn lanes on University Avenue at either Mayfield Avenue or Glenridge Drive. The traffic control signals at the intersection of University Avenue and Glenridge Drive provide for an advanced left-turn green signal for traffic turning left from University Avenue to Glenridge Drive.

The traffic study that was completed as part of the project planning found that a designated left-turn lane on University Avenue at Mayfield Avenue is warranted based on MTO Geometric Design Standards for Ontario Highways. The Traffic Study also found that the intersection of University Avenue and Glenridge Drive was operating at a satisfactory level-of-service in its current configuration without a designated left-turn lane on University Avenue. Accordingly, the plans presented at the Public Consultation Centre indicated only a proposed designated left-turn lane on University Avenue at Mayfield Avenue and no left-turn lane at Glenridge Drive. Based on the proximity of Glenridge Drive and Mayfield Avenue, it is not possible to provide for standard left-turn lanes on University Avenue at both Mayfield Avenue and Glenridge Drive.

At the Public Consultation Centre, there was support expressed by the public for both the proposed left-turn lane on University Avenue at Mayfield Avenue as well as for a proposed left-turn lane on University Avenue at Glenridge Drive. Following the Public Consultation Centre, staff reviewed both the benefits and feasibility of providing for left-turn lanes on University Avenue at Mayfield Avenue and Glenridge Drive. This review found that there are significantly more left-turn movements in the peak p.m. from University Avenue to Glenridge Drive than from University Avenue to Mayfield Avenue. Additionally, it was determined that there have been a higher number of rear-end vehicular collisions on University Avenue at Glenridge Drive than at Mayfield Avenue. Further, provision for a left-turn lane on University Avenue at Glenridge Drive would reduce queuing and traffic delays at this location.

Based on this review, the Project Team now recommends that a designated eastbound left-turn lane be provided on University Avenue at its intersection with Glenridge Drive as part of the proposed improvements to University Avenue. This 15 metre eastbound left-turn lane on University Avenue at Glenridge Drive is adequate to provide sufficient storage during peak traffic periods and would alleviate queuing and unnecessary delays during peak traffic times. In order to better accommodate left-turn movements from University Avenue to Mayfield Avenue, a small storage area for one (1) or two (2) vehicles will be provided on University Avenue for vehicles turning left onto Mayfield Avenue; however, this storage area will not be marked as a designated left-turn lane due to its substandard storage and taper length. Based on recent traffic counts, there are approximately 20 vehicles per hour turning left from University Avenue
on to Mayfield Avenue during peak traffic periods. Accordingly, although the available storage area for the left-turn movements can only accommodate one (1) or two (2) vehicles, it is expected to be generally adequate for the left-turn volumes.

The Project Team has reviewed the existing sight line distance on University Avenue east and west of Glenridge Drive and determined that it meets acceptable design standards.

Please refer to Figure 1 for a drawing of the proposed improvements on University Avenue in the area of Mayfield Avenue and Glenridge Drive.

Comment No. 2 - Comments Supporting the Proposed On-Road Cycling Lanes and Comments Expressing a Preference for Off-Road Cycling Lanes

Project Team Response:

The plans presented at the Public Consultation Centre indicated proposed 1.25 metre wide on-road cycling lanes on each side of University Avenue from Lincoln Road to Weber Street. This section of University Avenue is identified as a ‘Core’ On-Road Cycling location in the Region’s Cycling Master Plan. At the Public Consultation Centre, public comments were expressed both in support of the proposed on-road cycling facilities and in support of an off-road cycling facility rather than on-road. There were generally a similar number of public comments supporting both alternatives.

During the planning of the proposed improvements to University Avenue, the Project Team considered the possibility of providing for an off-road cycling facility rather than on-road cycling facilities. The Project Team supported the on-road cycling facilities for the following reasons:

- University Avenue is identified as a ‘Core’ On-Road Cycling location in the Region’s approved Cycling Master Plan
- There are existing on-road cycling facilities on each side of University Avenue both westerly and easterly of the project area. The provision for on-road cycling facilities on University Avenue from Lincoln Road to Weber Street is consistent with existing cycling facilities on University Avenue
- An off-road cycling facility on University Avenue would require significant relocation of existing utilities
- The Region’s practice has been to consider an off-road multiuse trail for both pedestrian and cyclist use only when there are no more than three (3) driveways or intersections within a one (1) kilometre stretch of the location under consideration. The section of University Avenue from Lincoln Road to Weber Street exceeds these requirements, having an average of eight (8) driveways/intersections on the north side and twelve (12) driveways/intersections on the south side per kilometre
- There are already existing sidewalks on both sides of University Avenue from Lincoln Road to Weber Street which are in good condition and there would be additional cost incurred to remove sidewalk for an off-road cycling facility.

Following the Public Consultation Centre, the Project Team reviewed the option of providing for an off-road cycling facility; however, for the reasons noted above, the Project Team supports the provision of on-road cycling lanes on each side of University Avenue from Lincoln Road to Weber Street as presented at the Public Consultation Centre.
REGION OF WATERLOO
TRANSPORTATION AND ENVIRONMENTAL SERVICES
Design and Construction

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

DATE: June 21, 2011

FILE CODE: C04-30, 7128

SUBJECT: SOUTH BOUNDARY CORRIDOR AND FRANKLIN BOULEVARD EXTENSION
CLASS ENVIRONMENTAL ASSESSMENT, CITY OF CAMBRIDGE AND
TOWNSHIP OF NORTH DUMFRIES – RECOMMENDED DESIGN ALTERNATIVE

RECOMMENDATION:

THAT the Regional Municipality of Waterloo take the following actions with respect to the
Class Environmental Assessment for South Boundary Corridor and Franklin Boulevard Extension, in
the City of Cambridge and the Township of North Dumfries:

a) Approve the preliminary design for construction of the South Boundary Corridor and
Franklin Boulevard Extension as described as the Recommended Design Alternative
outlined in Report E-10-088, dated November 16, 2010;

b) Direct staff to file the Notice of Completion for this Class Environmental Assessment Study
by means of advertisements in the local newspapers and mailings to adjacent property
owners, tenants, and agencies, and place the Environmental Study Report on the public
record for a period of 30 days.

SUMMARY:

This report is supplemental to the previous Planning and Works Committee Report E-10-088 of
November 16, 2010 and Supplemental Memo of February 15, 2011 for recommendations of the
South Boundary Corridor and Franklin Boulevard Extension Class Environmental Assessment.

The Region of Waterloo is undertaking a Class Environmental Assessment (EA) Study for the
South Boundary Corridor, from Water Street (Highway 24) to Dundas Street (Highway 8), and
Franklin Boulevard Extension, from Myers Road to the South Boundary Corridor, in the City of
Cambridge and the Township of North Dumfries (Please refer to Appendix “A” for a key plan of the
Study Area). The South Boundary Corridor and Franklin Boulevard Extension Class EA was
initiated in 2007 to address the need for improvements to the transportation network in the south
Cambridge area. This project is being planned as a Schedule ‘C’ Class EA project as per the
Municipal Class EA guidelines.

There has been extensive public consultation during the course of this study, summarized as
follows:

- Public Consultation Centre (PCC) #1 on April 10, 2007
- PCC #2 on June 25, 2008
- Public Input Meeting (PIM) #1 on February 3, 2009
- Council Approval of the Corridor Alignment on April 8, 2009
- PCC #3 on March 10, 2010
- PIM #2 on May 6, 2010
Staff note that concerns raised by the public regarding selection of the corridor alignment for the South Boundary Road and Franklin Boulevard Extension were responded to and resulted in Regional Council’s approval in April, 2009 of the Hybrid 1 Corridor Alignment as the Recommended Corridor Alignment for the South Boundary Corridor and Franklin Boulevard Extension. (Please refer to Report E-10-088 in Appendix “B” for a plan of the approved Hybrid 1 Corridor Alignment.)

In consideration of the technical information gathered for this project and public comments received, the Project Team presented a Recommended Design Alternative at the November 16, 2010 Regional Planning and Works Committee which included: initial construction of the South Boundary Road and the Franklin Boulevard Extension to a two lane urban cross-section with provision to accommodate four lanes in the future; raised centre medians on both South Boundary Corridor and Franklin Boulevard; multi-use trails along both sides of the Franklin Boulevard Extension and along the north side of the South Boundary Corridor; roundabouts at the intersections of Water Street, Franklin Boulevard, Branchton Road, Dundas Street, and Myers Road and Franklin Boulevard; and an overpass bridge carrying South Boundary Road over Cheese Factory Road. For full technical details (and concerns raised by the public) regarding the various corridor alignments, roadway cross-sections and intersection control options which were developed and evaluated as part this Class EA study please refer to the November 16, 2010 Report E-10-088 attached as Appendix “B”.

At the November 16, 2010 Planning and Works Committee meeting several delegations were received expressing concerns about the project. In response, Regional Council deferred a decision on the Recommended Design Alternative and requested staff report back in addressing the concerns raised. Subsequent to the November 16, 2010 Committee meeting, staff met/had discussions with each of the delegations and reported back by supplemental memo at the February 15, 2011 Planning and Works Committee meeting at which time delegations again attended expressing concerns with respect to the corridor alignment and property impacts. Regional Council subsequently referred the project back to staff to address the concerns of these delegations. Please refer to Section 2 of this report for details on concerns of the delegations and response from the Project Team.

Based on a review of the technical information gathered for this project, consideration of the evaluation for environmental impacts and benefits/opportunities, a thorough review of all public comments received and issues raised by the delegations on November 16, 2010 and February 15, 2011, the Project Team is confirming its recommendation that Council approve the proposed South Boundary Road and Franklin Boulevard Extension improvements, as per the recommendation within Report E-10-088 dated November 16, 2010.

REPORT:

1. Background

The Class Environmental Assessment (Class EA) study for the South Boundary Road and Franklin Boulevard Extension has been guided by a Project Team consisting of staff from the Region of Waterloo, City of Cambridge, Township of North Dumfries, and Grand River Conservation Authority, as well as Regional Councillor/Township of North Dumfries Mayor Rob Deutschmann (previously Kim Denouden), former Township of North Dumfries Councillor Ted Higgins, and City of Cambridge Councillor Gary Price.

This Report E-11-069 is supplemental to the previous Planning and Works Committee Report E-10-088 of November 16, 2010 and Supplemental Memo of February 15, 2011 for recommendations of the South Boundary Corridor and Franklin Boulevard Extension Class Environmental Assessment.
The Region of Waterloo is undertaking a Class Environmental Assessment (EA) Study for the South Boundary Corridor, from Water Street (Highway 24) to Dundas Street (Highway 8), and Franklin Boulevard Extension, from Myers Road to the South Boundary Corridor, in the City of Cambridge and the Township of North Dumfries (Please refer to Appendix “A” for a key plan of the Study Area). The South Boundary Corridor and Franklin Boulevard Extension Class EA was initiated in 2007 to address the need for improvements to the transportation network in the south Cambridge area. This project is being planned as a Schedule ‘C’ Class EA project as per the Municipal Class EA guidelines.

There has been extensive public consultation during the course of this study, summarized as follows:
- Public Consultation Centre (PCC) #1 on April 10, 2007
- PCC #2 on June 25, 2008
- Public Input Meeting (PIM) #1 on February 3, 2009
- Council Approval of the Corridor Alignment on April 8, 2009
- PCC #3 on March 10, 2010
- PIM #2 on May 6, 2010

Staff note that concerns raised by the public regarding selection of the corridor alignment for the South Boundary Road and Franklin Boulevard Extension were responded to and resulted in Regional Council’s approval in April, 2009 of the Hybrid 1 Corridor Alignment as the Recommended Corridor Alignment for the South Boundary Corridor and Franklin Boulevard Extension. (Please refer to Appendix “B” for a plan of the approved Hybrid 1 Corridor Alignment.)

In consideration of the technical information gathered for this project and public comments received, the Project Team presented a Recommended Design Alternative at the November 16, 2010 Regional Planning and Works Committee which included: initial construction of the South Boundary Road and the Franklin Boulevard Extension to a two lane urban cross-section with provision to accommodate four lanes in the future; raised centre medians on both South Boundary Corridor and Franklin Boulevard; multi-use trails along both sides of the Franklin Boulevard Extension and along the north side of the South Boundary Corridor; roundabouts at the intersections of Water Street, Franklin Boulevard, Branchton Road, Dundas Street, and Myers Road and Franklin Boulevard; and an overpass bridge carrying South Boundary Road over Cheese Factory Road. For full technical details (and concerns raised by the public) regarding the various corridor alignments, roadway cross-sections and intersection control options which were developed and evaluated as part this Class EA study please refer to the November 16, 2010 Report E-10-088 attached as Appendix “B”.

At the November 16, 2010 Planning and Works Committee meeting, several delegations were received expressing concerns about the project. In response, Regional Council deferred a decision on the Recommended Design Alternative and requested staff report back in addressing the concerns raised.

Subsequent to the November 16, 2010 Planning and Works Committee meeting, staff met and discussed the issues with the delegations and a summary of the issues and staff responses is provided in Appendix “C”.

**Planning and Works Committee February 15, 2011**

Based on a review of the technical information gathered for this project, evaluation of the environmental impacts and benefits/opportunities of the alternatives, a thorough review of all public comments received and consideration of the issues raised at Committee on November 16, 2010, staff reported back to Planning and Works Committee on February 15, 2011 confirming the Project
Team’s November 16, 2010 Report E-10-088 recommendation for South Boundary Corridor and Franklin Boulevard Extension improvements. Please refer to the memorandum to Regional Planning and Works Committee dated February 15, 2011 and titled “Supplementary Information to Report E-10-088” attached as Appendix “C”.

At the February 15, 2011 Planning and Works Committee meeting, delegations again attended expressing concerns with respect to the corridor alignment and property impacts. Regional Council subsequently referred the project back to staff to address the concerns of the delegations.

The Project Team has fully reviewed the concerns expressed at the February 15, 2011 Committee meeting and a summary of the concerns and the Project Team’s response is provided in Section 2 below.

2. **Issues Raised by the Public at the February 15, 2011 Planning and Works Committee Meeting**

Two delegations appeared before Committee on February 15, 2011 and their concerns together with the Project Team’s responses are as follows:

2.1 **Delegation from Susan Shackleton, Langlaw Drive resident, with respect to health impacts from the proposed South Boundary Corridor alignment and its proximity to existing homes on Langlaw Drive**

At the February 15, 2011 Planning and Works Committee meeting, Susan Shackleton, a local resident of Langlaw Drive in the City of Cambridge, appeared before Committee. She stated concerns about the health-related impacts from traffic on roads in close proximity to residential homes, particularly with respect to noise, emissions, and lighting from the proposed alignment of the South Boundary Corridor directly behind the existing homes on Langlaw Drive. Ms. Shackleton requested consideration for relocating the road in providing greater separation from the existing homes on Langlaw Drive, such as would be provided with the Waynco Road alignment alternative. Similar health-related concerns have been received from several other property owners in the Langlaw Drive area. Staff have discussed these concerns with Ms. Shackleton and other area property owners, by telephone or email, and responses by the Project Team are as follows:

**Project Team Response:**

In April of 2009 Regional Council approved a Recommended South Boundary Corridor Alignment which included for placing the western portion of the corridor adjacent to Langlaw Drive and along the City of Cambridge municipal boundary. The alignment for this segment of the corridor was recommended because it would have significantly fewer impacts on the natural environment, would reduce fragmentation of farmland south of the municipal boundary, and would perform well in terms of future traffic operations (would serve to alleviate vehicular and truck traffic on Myers Road). The Recommended Corridor Alignment also prevents additional pressures for future southerly development by avoiding the segregation of land between the Cambridge municipal boundary and the approved corridor. Previous consideration was given to alignment options further south of the Langlaw Drive area, such as the use of Waynco Road. These options, however, were not recommended as they would be less effective in serving the traffic operations needs and would create additional impacts to environmentally sensitive wetlands in the area, as well as creating increased land fragmentation and higher construction costs. In evaluating the “Social Environment” impacts of the Recommended Corridor Alignment, consideration was given to the potential for adverse impacts to the local community, such as noise impacts, air quality and visual impacts. As part of development of design alternatives by the Project Team and
completion of preliminary design for the corridor alignment, mitigation measures are being proposed in addressing these social environmental concerns as follows:

Shifting the Road

In recognition of concerns received regarding the proximity of the proposed roadway adjacent to the Langlaw Drive homes, the Project Team is recommending the roadway be shifted within the corridor to be as far as possible away from the homes. The corridor is proposed to be a minimum of 50 metres wide in this area, with additional width for grading as required. Shifting the road further to the south side of the corridor will maximize the buffer opportunity between the roadway and existing Langlaw Drive residences. This shifting of the roadway will create approximately 12 to 18 metres of boulevard separation between the rear property line of the homes on Langlaw Drive and the edge of the travelled roadway. The Region’s standard practices for road construction incorporate natural landscaping components such as tree planting and low level vegetation which will provide a visual buffer to adjacent properties and create a green space within the corridor. The 12 to 18 metre wide boulevard (adjacent to the Langlaw Drive residents) for the project will provide enhanced opportunities for possible buffering such as earth berms and additional landscaping along the north side of the road corridor. The amount, type, and location of landscaping as well as earth berms will be addressed during the detail design in consideration of cross-section grades and infrastructure needs.

Noise Impacts

A noise impact assessment for the corridor alignment and recommended design alternative has been completed to determine the need for mitigation measures such as noise barriers, in accordance with MOE guidelines and the Region’s Noise Policy and Implementation Guidelines (1999). The noise impact assessment is based on calculated levels and not on field measurements. The noise analysis calculations are based on projected volume of traffic and the type of traffic, such as trucks, as an average over the day. The calculated noise level is not a peak or a one time incident volume of noise from specific vehicles such as with the motorcycle without baffles or the use of truck engine brakes. Calculations also include for the distance of separation from the traffic to the rear yard area of the property, as well as the difference in elevation between them. The noise impact assessment was completed assuming the full 4-lane construction of the South Boundary Road. The results of the noise impact assessment indicate that projected noise levels along the rear of properties on Langlaw Drive are calculated to be 59 dBA, which is less than a 5 dBA increase from the existing ambient levels associated with the Outdoor Objective of 55 dBA, and less than 65 dBA being the threshold for requiring noise barriers per Regional policy. As a result of these noise assessment study results, under the Region Noise Policy no additional mitigation is warranted and the Project Team is not recommending noise walls as part of this project.

Roadway Lighting

The Project Team is recommending partial lighting of the corridor in accordance with current Region Policies, requiring roadway illumination only at intersections and hazard areas along this section of South Boundary Road. In addition, the Region’s standard practice for illumination utilizes full cut-off luminaries which minimize light trespass beyond the roadway. Since the Langlaw Drive properties are not adjacent to a proposed intersection or potential hazard area, no roadway illumination is planned for this section of South Boundary Road immediately behind the Langlaw Drive residences.
Air Quality Impacts

Adverse air quality impacts depend on a number of factors, including prevailing winds, area topography and traffic flow characteristics such as speed, acceleration and congestion. The South Boundary Corridor would generally improve air quality in the greater Study Area to the extent that it would reduce congestion on Myers Road and on other arterial roads such as Water Street in Galt.

2.2 Delegation from Mr. Kevin Fergin, Stantec Consulting Ltd., with respect to impacts of the proposed South Boundary Corridor alignment on the Activa Holdings Inc. proposed Plan of Subdivision

At the February 15, 2011 Planning and Works Committee meeting, Kevin Fergin of Stantec Consulting, on behalf of Activa Holdings, appeared before Committee. He stated concerns about the impacts of the Council-approved South Boundary Corridor alignment on Activa’s proposed plan of subdivision south of Dundas Street. Stantec requested that Region staff consider an alignment shift for the Dundas Street intersection with the South Boundary Road and work with Activa in minimizing the loss of developable land within Activa’s proposed plan of subdivision. Stantec’s requests as expressed at the February 15, 2011 Planning and Works Committee meeting and the Project Team’s responses are as follows:

a) That the approval of the South Boundary Road (SBR) EA be deferred until all issues have been resolved and documented in an Environmental Study Report (ESR), and that the ESR report be made available for review prior to Committee approval of the final recommended alignment.

Project Team Response:

Stantec’s request for review of the Environmental Study Report (ESR) prior to Committee approval is a deviation of how the Region and most municipalities conduct their Class EA’s under the Province’s Class EA Guidelines. The Region and most municipalities in Ontario typically have Council approve the filing of a Class EA as a first step, followed by the second step of placing the ESR on the public record for review. In accordance with the Municipal Class Environmental Assessment guidelines, an Environmental Study Report (ESR) is a report documenting all the activities undertaken throughout the Class EA as a traceable and easily understood record of the proponent’s (Region) decision making process. The ESR does not introduce any new information not already identified or produced throughout completion of the Phases for the Class EA. Once completed, a Notice of Study Completion is to be provided to the public and review agencies and the ESR is required to be placed on record, “filing”, for a mandatory 30 day public and agency review period. During this filing period, anyone concerned that the study did not follow the appropriate requirements of the Class EA process or did not address all of the issues, may request that the Minister of Environment order the Project to a more detailed environmental assessment, referred to as a Part II Order request. The Minister will determine if a more detailed environmental assessment is required and the Minister’s decision will be final.

Since the sole purpose of the mandatory 30 day review period is to provide interested parties (such as Stantec and Activa) sufficient opportunity to review the completed ESR and provide comments/concerns to the Minister of Environment, staff sees no merit in the request of Stantec/Activa to have an opportunity to review the ESR before Council approves placing the ESR on the public record for review. In fact, staff is concerned that abiding by Stantec’s/Activa’s request will result in a delay to the Class EA filing and a delay to the overall project schedule.
The Project Team notes that Region staff has met with Stantec and Activa on several occasions throughout this study in discussing/addressing their concerns. Region staff and the Project Team have reviewed the concerns of Stantec and Activa and have responded as noted within this report. All comments and responses will be incorporated within the ESR. Region staff will continue to meet and discuss any concerns with Activa throughout the filing period in completion of this Class EA, and afterwards in completion of detailed design.

b) That the Project Team meet with Activa to review a suggested southerly alignment shift across the Activa Lands, resulting in a shifted location of the proposed roundabout at Dundas Street.

Project Team Response:

In the development of design alternatives for intersection control options and refinements to the corridor alignment, the Project Team considered the opportunities and impacts of various options of the location of the roundabout intersection of the South Boundary Corridor at Dundas Street, and selected the option that minimizes the overall net impacts to the properties on all four quadrants of the intersection. Further to Activa’s request as presented by Stantec at the February 15, 2011 Planning and Works Committee meeting, Region staff has thoroughly reviewed Activa’s request for a southerly shift in the roundabout location at Dundas Street. Staff has also assessed and evaluated the potential impacts of this requested roundabout shift on the project environment as compared to the currently recommended alignment location. (Please see Appendix “D”).

It is estimated that Activa’s requested shift in the roundabout location at Dundas Street would adversely impact approximately 5 properties with existing homes, of which 4 would require total purchase. In addition the requested shift would require one property to have driveway access restrictions limited to right-in and right-out movements only. In comparison, the Project Team’s recommended roundabout location is also estimated to adversely impact 5 properties with existing homes, with 1 property expected to have driveway access restrictions limited to right-in and right-out movements only; however, the Project Team recommended alternative would only require 3 total purchases. Region staff subsequently met with the Project Team and having thoroughly reviewed Activa’s request for a southerly shift of the South Boundary Corridor and Dundas Street intersection and its potential impact on the project environment, the Project Team is not supporting this alignment shift as it would increase project costs (by approximately $900,000) by requiring acquisition of additional property along Dundas Street, potentially requiring the additional full buy-out of an existing residential house. As such, the Project Team is confirming its recommendation for the roundabout alignment of the South Boundary Road Corridor at Dundas Street as previously presented in Report E-10-088.

Region staff will work with Activa and its representatives during detailed design of the South Boundary Corridor to explore opportunities for minor refinements to the corridor alignment across the Activa property to reduce the extent of undevelopable parcels on its property, as long as any change in the corridor alignment does not adversely affect adjacent lands. As part of detailed design and property negotiations/acquisition for the South Boundary Corridor, any remnant parcels on the Activa lands and resultant appraisal values for injurious affection will be taken into consideration by Region staff.

c) That the SBR Project Team provide acknowledgement in the text of the ESR of a consolidated Region/Activa SWM facility that is provided on the south side of City/Township municipal boundary and that supporting conceptual land use diagrams be included in the ESR to illustrate same.
Project Team Response:

To date Activa has not submitted a development plan or servicing report for approval that identifies and supports their request for a joint Stormwater Management (SWM) facility located on lands within the Township of North Dumfries and therefore external to their development lands in the City of Cambridge. Approval of such a SWM facility in support of their development application can only be considered as part of their future development application, review and approval process.

The Project Team notes that joint use Stormwater Management (SWM) facilities have been successfully undertaken between the Region and developers in the past. As such, Region staff will work with Activa during the detail design phase of South Boundary Road to explore the potential for a joint SWM facility that will be mutually beneficial to both the Region and Activa; however, (as part of their normal development application process) Activa would have to obtain approval of both the City of Cambridge and the Township of North Dumfries regarding locating any SWM facility in North Dumfries to service Activa’s development lands in Cambridge. Therefore staff is not in a position to support Activa’s request that a joint use SWM facility on the south side of City/Township municipal boundary be identified within the South Boundary Road Class EA.

d) That in addition to reviewing the grading design of Phase 2 in conjunction with the detailed design of Phase 1 of the SBR, staff is to work with Activa to provide surplus material from the construction grading of Phase 1 of the SBR to the Activa Lands.

Project Team Response:

Region staff have previously agreed to Activa’s November 16, 2010 request for advancing the grading design for Phase 2 of the South Boundary Corridor by including it as part of detailed design for Phase 1 in order to assist Activa in finalizing the grading plans for its development. Advancement of the grading design for Phase 2 will also determine if there is surplus grading material from the South Boundary Corridor road allowance that can be used as fill on Activa’s lands. The availability of surplus material from construction of the South Boundary Corridor and Franklin Boulevard Extension will depend on completion of detailed design and the timing of construction. Considerations during detail design of the South Boundary Road and Franklin Boulevard Extension will include for geotechnical investigations, cross-section and profile adjustments, and project phasing and timing needs associated with balancing the needs and benefits of the earthworks, property acquisitions and costs.

The Project Team has thoroughly reviewed Activa’s request to provide surplus grading material from Phase 1 of the South Boundary Road project to Activa’s lands and can support this request only should surplus material be available from the overall project (being Phases 1 and 2), only should the provision of such material provide a cost-savings benefit to the Region, and only on the basis that the timing of providing such surplus material does not adversely affect the construction schedule for the Region’s South Boundary Road project. Region staff are prepared to work with Activa during detailed design of the South Boundary Road and Franklin Boulevard Extension to determine the availability of surplus fill and if so to coordinate the provision of such material to Activa’s lands. To this extent, the Project Team recognizes that such determination a) of the availability of material and b) of the timing of construction is subject to detailed design by the Region, and only after sufficient detailed design has been completed then can material and timing availability be determined by the Region.
Despite numerous attempts by staff to meet with Stantec and Activa to address the requests raised by Stantec at the February 15, 2011 meeting of Planning and Works Committee, neither Stantec nor Activa are prepared to meet without their complete prior review of the Region’s assessment and evaluation details for their requested southerly shift in location of the roundabout at Dundas Street. On May 13, 2011 Region staff forwarded the requested assessment and evaluation information completed for the shift of the roundabout at Dundas Street to Stantec. As of the time of writing this report, Region staff are still attempting to arrange a meeting with Activa and Stantec to discuss their concerns and the Project Team’s responses as noted above.

2.3 Committee members concerns with respect to driveway access impacts on the Forward Baptist Church property at the proposed Myers Road and Franklin Boulevard Roundabout

At the February 15, 2011 Planning and Works Committee meeting, several members of Committee expressed concerns regarding the potential impacts of the proposed roundabout at Myers Road to the Forward Baptist Church property and in particular concerns related to alterations to Church property accesses. As a result of these concerns, Committee requested staff to explore with Church representatives provision of a new access to the Church property off the extension of Franklin Boulevard. Staff have discussed this idea with representatives of the Church and a response by the Project Team is as follows:

Project Team Response:

Region staff have thoroughly reviewed the preliminary design for the proposed roundabout at Myers Road and Franklin Boulevard and had previously identified that because of the proximity of the new roundabout to the westerly access of the Church property on Myers Road, this westerly access would have to be significantly reconstructed and limited to a right-in/right-out operation only. This westerly access is the access used most often by the Church. In consideration of this access impact, Regional staff and the Project Team support the provision of an additional new access to Franklin Boulevard to help mitigate the change in site circulation caused by limiting the west access on Myers Road. The additional new access to Franklin Boulevard would have to be right-in/right-out only as the proposed Franklin Boulevard includes a raised median in this vicinity.

Region staff have discussed the access issues with representatives of the Forward Baptist Church who are supportive of the new access to Franklin Boulevard. Further concerns of the Church with respect to property impacts and responses by the Project Team are attached in Appendix “C”. Region staff will continue to work with the Church during detailed design and property acquisition to identify the location of the new access to Franklin Boulevard, as well as any opportunities for reconfiguring the Church parking lot and replacing any resulting lost parking, so as to absolutely mitigate any adverse impacts caused by the adjacent road improvements.

8. Project Team Recommended Design Alternative

Based on a thorough review of all public comments received, the technical information gathered for this project, and the evaluation of environmental impacts and benefits/opportunities of the alternatives, the Project Team has confirmed the Recommended Design Alternative for this Class EA study as recommended in Report E-10-088 and detailed as follows: initial construction of the South Boundary Road and the Franklin Boulevard Extension to a two lane urban cross-section with provision to accommodate four lanes in the future; raised centre medians on both South Boundary Corridor and Franklin Boulevard; multi-use trails along both sides of the Franklin Boulevard Extension and along the north side of the South Boundary Corridor; roundabouts at the
intersections of Water Street, Franklin Boulevard, Branchton Road, Dundas Street, and at Myers Road and Franklin Boulevard; and an overpass bridge carrying South Boundary Road over Cheese Factory Road.

Roundabouts are recommended by the Project Team at each of the major intersections within this project as they would result in a reduction in the number and severity of future collisions, and would assist in providing speed control, with slightly lower overall life-cycle costs despite higher initial construction costs as compared to the signalized Intersection alternatives. Specifically, the construction of roundabouts at the five major intersections would increase the estimated cost of this project by approximately $800,000 (an increase of 3% in overall project costs) but is expected to avoid $900,000 in injury collisions while reducing delays, fuel consumption and emissions. As a result, staff are confident of the benefits of providing roundabouts in this project. In addition, the Region’s Roundabout Coordinating Committee endorsed the implementation of roundabouts for this project.

An overpass bridge carrying South Boundary Road over Cheese Factory Road has been identified as the Project Team’s Recommended Design Alternative at this intersection location as it would provide better overall traffic operations, minimize impacts on the existing Cheese Factory Road and would result in fewer impacts on the natural environment.

The Project Team’s recommended roadway cross-section for both South Boundary Road and Franklin Boulevard includes for a raised centre median which would provide access management in restricting driveway and local street access to right-in and right-out movements, while maintaining accessibility through the ability to make U-turns at the roundabouts. The centre median would reduce the risk of collisions associated with motorists making left-turns on-to and off-of the roadway, as well as the potential for head-on collisions from opposing traffic along South Boundary Road and Franklin Boulevard. The centre median would provide additional opportunities to enhance landscaping which would improve aesthetics and may also help reduce operating speeds in the corridor.

The Project Team also believes that through incorporation of off-road multi-use trails, the recommended cross-sections of the South Boundary Road and Franklin Boulevard Extension support the Region’s Transportation Master Plan in providing a balanced transportation facility that better serves the needs of the active transportation users in the community, such as cyclists and pedestrians. The proposed multi-use trails have been reviewed and supported by the Region’s Cycling Advisory Committee.

The South Boundary Corridor is proposed to be constructed in phases. The first phase would include the South Boundary Corridor from Water Street to Franklin Boulevard and Franklin Boulevard Extension from Myers Road to South Boundary Corridor. Initially this phase will involve constructing the preferred design in the interim as a 2 lane urban roadway with widening to the ultimate 4 lanes when future traffic capacity needs are reached. The second phase would include the South Boundary Corridor from Franklin Boulevard to Dundas Street which is currently not projected to be needed until after the 10 year traffic projection horizon of 2021.

9. Project Cost

The capital cost for the Recommended Design Alternative for this project is estimated to be approximately $36 million, with Phase 1 works estimated at $22 million, and Phase 2 works estimated at $14 million. The final cost will be further refined as part of detailed design and will depend on costs associated with property acquisition and utilities relocations.
10. **Next Steps**

All members of the public who have expressed an interest in this project have been notified directly of the opportunity to comment before a final decision is made for this project.

Subject to Regional Council approval of the Recommended Design Alternative, the Environmental Study Report (ESR) documenting the planning and decision process for the project will be completed and a “Notice of Study completion” will be filed in the public record for a 30 day review period. This filing will be advertised by mail-outs and notices in newspapers. During this filing period, anyone concerned that the study did not follow the appropriate requirements of the Class EA process or did not address all of the issues, may request that the Minister of Environment order the Project to a more detailed environmental assessment, referred to as a Part II Order request. The Minister of Environment must receive such requests in writing, with a copy sent to the Region’s Commissioner of Transportation and Environmental Services. The Minister will determine if a more detailed environmental assessment is required and the Minister’s decision will be final. If there are no significant unresolved objections following the 30 day review period, the project will be considered approved and proceed to detailed design and construction. It is anticipated that the construction of the first phase could commence in 2016, pending detail design, property acquisitions, and utility relocations. The construction timing of this project needs to be coordinated with the construction of the Franklin Boulevard project to ensure that capacity improvements on Franklin Boulevard are complete before South Boundary Road and Franklin Boulevard Extension are opened up to traffic.

**CORPORATE STRATEGIC PLAN:**

This project is consistent with the Strategic Focus Area 2 (Growth Management) in terms of enhancing, developing, promoting and integrating sustainable and active forms of transportation (public transit, cycling, and walking), and with the development of Strategic Focus Area 5 (Infrastructure) in terms of providing infrastructure needed to accommodate planned growth.

**FINANCIAL IMPLICATIONS:**

The 2011 Transportation Capital Program and Ten Year Forecast currently includes $20 million over the years 2011 to 2017 for the design and construction of Phase 1 of this project to be funded from the Region Development Charges Reserve Fund.

The updated project cost will be incorporated into the development of the 2012 Transportation Capital and Ten Year Forecast as part of Council’s 2012 budget deliberation.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

The Transportation Planning Division of the Planning, Housing and Community Services Department has been consulted in the preparation of this report.

**ATTACHMENTS**

Appendix A – Key Plan of Study Area
Appendix B – Report E-10-088 dated November 16, 2010
Appendix C – February 15, 2011 Memorandum to Planning and Works Committee
Appendix D – Dundas Street Alignment Review

**PREPARED BY:** William Gilbert, Senior Project Manager, Transportation Expansion

**APPROVED BY:** Thomas Schmidt, Commissioner, Transportation and Environmental Services
Figure 1: Key Plan of Study Area
Region of Waterloo
South Boundary Corridor and Franklin Boulevard Extension
Class Environmental Assessment
APPENDIX B-1

REGION OF WATERLOO
TRANSPORTATION AND ENVIRONMENTAL SERVICES
Design and Construction

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

DATE: November 16, 2010

FILE CODE: T04-20, 7128

SUBJECT: SOUTH BOUNDARY CORRIDOR AND FRANKLIN BOULEVARD EXTENSION CLASS ENVIRONMENTAL ASSESSMENT, CITY OF CAMBRIDGE AND TOWNSHIP OF NORTH DUMFRIES – RECOMMENDED DESIGN ALTERNATIVE

RECOMMENDATION:

THAT the Regional Municipality of Waterloo take the following actions with respect to the Class Environmental Assessment for South Boundary Corridor and Franklin Boulevard Extension, in the City of Cambridge and the Township of North Dumfries:

a) Approve the preliminary design for construction of the South Boundary Corridor and Franklin Boulevard Extension as described as the Recommended Design Alternative outlined in Report E-10-088, dated November 16, 2010;

b) Direct staff to file the Notice of Completion for this Class Environmental Assessment Study by means of advertisements in the local newspapers and mailings to adjacent property owners, tenants, and agencies, and place the Environmental Study Report on the public record for a period of 30 days.

SUMMARY:

The Region of Waterloo is undertaking a Class Environmental Assessment (EA) Study for the South Boundary Corridor, from Water Street (Highway 24) to Dundas Street (Highway 8), and Franklin Boulevard Extension, from Myers Road to the South Boundary Corridor, in the City of Cambridge and the Township of North Dumfries (Please refer to Appendix “A” for a key plan of the Study Area). The South Boundary Corridor and Franklin Boulevard Extension Class EA was initiated in 2007 to address the need for improvements to the transportation network in the south Cambridge area. This project is being planned as a Schedule ‘C’ Class EA project as per the Municipal Class EA guidelines.

There has been extensive public consultation on this project, including for previous considerations of corridor alignments. In April of 2009 Regional Council approved a Recommended Corridor Alignment for the South Boundary Corridor and Franklin Boulevard Extension (Please refer to Appendix “B” for a plan of the approved Hybrid 1 Corridor Alignment). In addition, Region staff were directed to proceed with preliminary design of the corridor and continue consultation with the public in determining opportunities to minimize and/or mitigate impacts to the natural and social environment in completion of the Class EA.
Design alternatives for traffic control options at the intersections and standards for roadway cross-sections were developed by the Project Team and assessed with respect to impacts on the project environment related to; traffic operations and safety, social environment, natural environment, and costs. These design alternatives include traffic signals and roundabouts at the proposed intersections in meeting the traffic operation needs for the corridor. The design alternatives and their evaluations were presented to the public along with identification of the Project Team’s Preferred Design Alternative for Roundabout Intersections. Comments received from the public are generally supportive of the evaluation of alternatives, but some concerns were expressed regarding increases in traffic noise, pedestrian and emergency access at Carpenter Drive associated with the proposed raised centre median, property impacts, traffic operations at roundabouts, impacts to natural areas, and opportunities for landscaping within the corridor.

In consideration of the technical information gathered for this project and public comments gathered for this project, the Project Team is recommending Roundabout Intersections be incorporated in the Recommended Design Alternative. The Recommended Design Alternative includes: initial construction of the South Boundary Road and the Franklin Boulevard Extension to a two lane urban cross-section with provision to accommodate four lanes in the future; raised centre medians on both South Boundary Corridor and Franklin Boulevard; multi-use trails along both sides of the Franklin Boulevard Extension and along the north side of the South Boundary Corridor; roundabouts at the intersections of Water Street and South Boundary Road, Franklin Boulevard and South Boundary Road, Branchton Road and South Boundary Road, Dundas Street and South Boundary Road, and Myers Road and Franklin Boulevard; and an overpass bridge carrying South Boundary Road over Cheese Factory Road.

The implementation of roundabouts instead of traffic signals on this project would result in a 3% increase in overall construction costs; however, the Project Team believes the benefits of the roundabouts, such as 75% fewer injury collisions, reduced delay, reduced fuel consumption and emissions, far outweigh the increased construction cost.

Initial construction of the South Boundary Corridor from Water Street to Franklin Boulevard and Franklin Boulevard Extension from Myers Road to South Boundary Corridor is planned as a 2 lane urban roadway and is scheduled to commence in 2015 or 2016 to coincide with the completion of capacity improvements on Franklin Boulevard. The completion of the South Boundary Corridor construction from Franklin Boulevard to Dundas Street is currently not projected to be needed until after the 10 year traffic projection horizon of 2021.

The cost for the Project Team’s Recommended Design Alternative is estimated to be up to $36 million, and will depend on costs for property acquisition and relocation of utilities.

REPORT:

1. Background

Transportation network improvement needs in the south Cambridge area have been identified in a number of Cambridge area traffic and transportation studies completed over the past several years. These studies looked at future transportation network requirements to address the rapidly increasing traffic growth and changing traffic patterns within and around the City of Cambridge and Region of Waterloo. These studies identified a need to better manage traffic growth on the key roadways by dispersing traffic away from the most congested parts of the road network and diverting through traffic away from the downtown core and residential areas.
APPENDIX B-3

As a result of the existing traffic conditions and projected growth, the Regional Municipality of Waterloo is undertaking a Class Environmental Assessment (EA) study of the South Boundary Corridor, from Water Street (Highway 24) to Dundas Street (Highway 8), and Franklin Boulevard Extension, from Myers Road to the South Boundary Corridor, to identify a recommended solution that would provide required traffic and transportation network capacity for the south Cambridge area. Please refer to Appendix "A" for a Key Plan of the Study Area. This project is being planned as a Schedule ‘C’ Class EA project as per the Municipal Class EA guidelines.
The study is guided by a Project Team consisting of staff from the Region of Waterloo, City of Cambridge, Township of North Dumfries, and Grand River Conservation Authority, as well as Regional Councillor/Township of North Dumfries Mayor Kim Denouden, City of Cambridge Councillor Gary Price, and Township of North Dumfries Councillor Ted Higgins. The engineering consulting firm of Delcan has been retained to assist with this Class EA Study.

2. Corridor Alignment

Initial stages of the Class EA Study identified corridor alignment alternatives which were assessed with respect to their ability to meet the traffic and transportation needs in the south Cambridge area, as well as their potential impact to the social environment, natural environment, cultural/heritage environment, traffic operations and cost. Several public consultation sessions were held to solicit public input on the transportation needs and potential impacts of the alternatives on the project environment. Comments received generally supported the need for traffic and transportation improvements and expressed concerns regarding impacts to the natural and social environment.

After due consideration of the public comments received, Regional Council approved Hybrid 1 as the Recommended Corridor Alignment for the South Boundary Corridor and Franklin Boulevard Extension Class Environmental Assessment, as recommended by Regional Planning and Works Committee at their meeting of March 31, 2009. Please refer to Appendix "B" for a plan view of the Hybrid 1 alignment and details regarding the approval process. In addition, Region Council directed staff to proceed with preliminary design of the corridor and continue consultation with the public in determining opportunities to minimize and/or mitigate impacts to the natural and social environment in completion of the Class EA.

3. Design Alternatives

Following Regional Council’s approval of the Hybrid 1 corridor alignment, design elements for a preferred roadway cross-section and alternatives for traffic control options at intersections were developed by the Project Team.

Preferred Roadway Cross-Section

The Project Team considered various roadway cross-section elements for this study and identified a preferred roadway cross-section with features as follows:

- Initial construction of the South Boundary Road and the Franklin Boulevard Extension to two lanes with a raised centre median and ability to accommodate a future ultimate requirement for four lanes.
- A multi-purpose trail on the north side of the roadway for the South Boundary Road, and both sides of the roadway for Franklin Boulevard to accommodate cyclists and pedestrians.
- Roadway illumination at intersections.
- Curb and gutter on both sides of the roadway.
**APPENDIX B-4**

- Stormwater drainage control (quantity and quality) by storm sewers and stormwater management facilities where necessary, and via catchbasins and piping under the roadway draining to enhanced drainage ditches along sections of South Boundary Road.
- Some possibility for provision of a vegetated buffer along the north side of South Boundary Road adjacent to the rear yard of residential properties where cross-section grades and offsets permit.
- Potential for aesthetic features such as roadside trees and vegetative plantings.

**Traffic Control Options at Intersections**

In consideration of the future forecasted travel demands within the study area, and with the exception of the future South Boundary Road / Branchton Road and South Boundary Road / Franklin Boulevard intersections, it was determined that all intersections meet the warrants for traffic signals. In accordance with the Region of Waterloo policy, a review of the appropriate traffic control was undertaken (i.e. stop control, signalization or roundabouts) for all major intersections along the South Boundary Road Corridor.

**Summary of Design Alternatives for Traffic Control Options at Intersections**

<table>
<thead>
<tr>
<th>Intersection Location</th>
<th>Traffic Control Options at Intersections</th>
</tr>
</thead>
</table>
| South Boundary Road at Water Street    | • Signalized Intersection
                                             • Roundabout                           |
| South Boundary Road at Franklin Boulevard | • Stop Controlled Intersection
                                               • Roundabout                           |
| South Boundary Road at Branchton Road  | • Stop Controlled Intersection
                                               • Roundabout                           |
| South Boundary Road at Dundas Street   | • Signalized Intersection
                                               • Roundabout                           |
| Franklin Boulevard at Myers Road       | • Signalized Intersection
                                               • Roundabout                           |

As part of the earlier Council approval of the Hybrid 1 corridor alignment, the public were presented with 3 intersection alternatives for the South Boundary Road and Cheese Factory Road intersection. These alternatives were: At-Grade Intersection, At-Grade Intersection with Limited Access, and Grade Separated Intersection. Based on an evaluation of these 3 intersection alternatives at this location, the Project Team has identified a grade separated overpass bridge carrying South Boundary Road over Cheese Factory Road as the preferred Design Alternative at this intersection location. Compared to other alternatives for this intersection this configuration would provide better overall traffic operations, minimize impacts on the existing Cheese Factory Road and would result in less impacts on the natural environment.

**4. Assessment and Evaluation of Traffic Control Options at Intersections**

The Design Alternatives for traffic control options at the intersections were assessed and evaluated by the Project Team using the following criteria:
APPENDIX B-5

- Traffic Operations & Safety (ability to accommodate the expected vehicular, transit, pedestrian and cycling traffic needs)
- Social Environment (impacts on the local community and property)
- Natural Environment (effect on existing vegetation, storm drainage, wildlife and wildlife habitat)
- Estimated 20 Year Life-Cycle Costs (construction cost, maintenance, and injury collisions)

The results of the comparative evaluation and cost analysis undertaken for the traffic control options at project intersections are provided in Appendix “C”. Appendix “C-6” includes a detailed comparison of the estimated 20 Year Life-Cycle Costs for each traffic control option at each location.

5. Public Consultation

The following is a summary of the public consultation process undertaken for consideration of Design Alternatives for the Region-approved Corridor Alignment for this project. All public comments received and Project Team responses will be included in the final Class EA Study Report for the project.

Design Alternatives Public Consultation Centre (Project PCC #3)

The Preferred Roadway Cross-section for South Boundary Road and Franklin Boulevard Extension, and the Traffic Control Options at intersections and their preliminary evaluations, were presented to the public for comments on March 10, 2010 at the Cambridge Christian School in the City of Cambridge. Roundabout Intersections were presented as part of the Project Team’s Preliminary Preferred Design Alternative. Approximately 105 people attended the PCC and comments received generally supported the preferred roadway cross-section and roundabout intersections; however, specific concerns were expressed with respect to pedestrian crossing and emergency access at the Carpenter Drive intersection of Franklin Boulevard, property impacts at the roundabout intersections, traffic operations at roundabouts, impacts to natural areas, and opportunities for landscaping within the corridor. Other concerns received were similar to those received at previous public consultations with respect to the corridor alignment and increase in traffic noise associated with the proximity to adjacent residential homes.

Design Alternatives Public Input Meeting

After review of all technical information gathered for this project and after consideration of all public comments received, the Project Team identified Roundabouts as the Preferred Traffic Control Option at all intersections. This assessment was presented to the public at a Public Input Meeting (PIM) of the Regional Municipality of Waterloo Planning and Works Committee on May 6, 2010. Advance notices of the PIM were advertised in the local newspapers and signboards were erected within the study area. Notices of the PIM were also mailed, and/or delivered to area residents, property owners, businesses, agencies and interest groups.

The Public Input Meeting was a formal meeting of the Region of Waterloo Planning and Works Committee which incorporated an informational report to Committee and a formal presentation by Region staff followed by questions from the Committee and delegations from the public. The meeting was well attended with 46 people signing the attendance register, and 8 delegations from the public. Appendix “D” outlines the summary of public comments received at the PIM and responses by the Project Team.
APPENDIX B-6

Comments received from the meeting were similar to those received at the previous public consultation centre. All comments received and Project Team responses will be included in the final Environmental Study Report for the project.

6. Main Concerns Raised by the Public

Comments received from the public consultations relate to increases in traffic noise; safety of pedestrian crossing and emergency access at the Carpenter Drive intersection of Franklin Boulevard; property impacts; traffic operations at roundabouts; impacts to natural areas; and opportunities for landscaping within the corridor. A summary of the main concerns raised by the public and responses by the Project Team is included in Appendix “E”.

It is recognized that implementation of the proposed corridor alignment and intersection control design alternatives would require acquisition of portions of private property for the new road allowance, widening onto private property, and the total purchase of some properties. In order to help property owners better understand the Region’s process for acquiring property for this project, an Information Sheet was made available to the public (see Appendix “F”). This Property Acquisition Process Information Sheet is intended to better familiarize the public with the Region’s property acquisition practices and describes the steps of notice, negotiation, appraisal, and expropriation as necessary.

7. Project Team Recommended Design Alternative

Based on a thorough review of all public comments received, the technical information gathered for this project, and the evaluation of environmental impacts and benefits/opportunities of the alternatives, the Project Team has confirmed the Recommended Design Alternative for this Class EA study as follows: initial construction of the South Boundary Road and the Franklin Boulevard Extension to a two lane urban cross-section with provision to accommodate four lanes in the future; raised centre medians on both South Boundary Corridor and Franklin Boulevard; multi-use trails along both sides of the Franklin Boulevard Extension and along the north side of the South Boundary Corridor; roundabouts at the intersections of Water Street and South Boundary Road, Franklin Boulevard and South Boundary Road, Branchton Road and South Boundary Road, Dundas and South Boundary Road, and Myers Road and Franklin Boulevard; and an overpass bridge carrying South Boundary Road over Cheese Factory Road. Please see Appendix “G” – Recommended Cross-Section and Traffic Control Options at Intersections – Recommended Design Alternative.

Roundabouts are recommended by the Project Team at each of the major intersections within this project as they would result in a reduction in the number and severity of future collisions, and would assist in providing speed control, with slightly lower overall life-cycle costs despite higher initial construction costs as compared to the signalized Intersection alternatives. Specifically, the construction of roundabouts at the five major intersections would increase the estimated cost of this project by approximately $800,000 (an increase of 3% in overall project costs) but is expected to avoid $900,000 in injury collisions while reducing delays, fuel consumption and emissions. As a result, staff are confident of the benefits of providing roundabouts in this project. In addition, the Region’s Roundabout Coordinating Committee endorsed the implementation of roundabouts for this project.
APPENDIX B-7

An overpass bridge carrying South Boundary Road over Cheese Factory Road has been identified as the Project Team’s Recommended Design Alternative at this intersection location as it would provide better overall traffic operations, minimize impacts on the existing Cheese Factory Road and would result in fewer impacts on the natural environment.

The Project Team’s recommended roadway cross-section for both South Boundary Road and Franklin Boulevard includes for a raised centre median which would provide access management in restricting driveway and local street access to right-in and right-out movements, while maintaining accessibility through the ability to make U-turns at the roundabouts. The centre median would reduce the risk of collisions associated with motorists making left-turns on-to and off-of the roadway, as well as the potential for head-on collisions from opposing traffic along South Boundary Road and Franklin Boulevard. The centre median would provide additional opportunities to enhance landscaping which would improve aesthetics and may also help reduce operating speeds in the corridor.

The Project Team also believes that through incorporation of off-road multi-use trails, the recommended cross-sections of both roadways support the Region’s Transportation Master Plan in providing a balanced transportation facility that better serves the needs of the active transportation users in the community, such as cyclists and pedestrians. The proposed multi-use trails have been reviewed and supported by the Region’s Cycling Advisory Committee.

The South Boundary Corridor is proposed to be constructed in stages. The first stage would include the South Boundary Corridor from Water Street to Franklin Boulevard and Franklin Boulevard Extension from Myers Road to South Boundary Corridor. Initially this stage will involve constructing the preferred design in the interim as a 2 lane urban roadway with widening to the ultimate 4 lanes when future traffic capacity needs are reached. The second stage would include the South Boundary Corridor from Franklin Boulevard to Dundas Street which is currently not projected to be needed until after the 10 year traffic projection horizon of 2021.

8. Project Cost

The capital cost for the Recommended Design Alternative for this project is estimated to be up to $36 million, with stage 1 works estimated at $22 million, and stage 2 works estimated at $14 million. The final cost will be further refined as part of detailed design and will depend on costs associated with property acquisition and utilities relocations.

9. Next Steps

All members of the public who have expressed an interest in this project have been notified directly of the opportunity to comment before a final decision is made for this project.

Subject to Regional Council approval of the Recommended Design Alternative, the Environmental Study Report (ESR) documenting the planning and decision process for the project will be completed and a “Notice of Study completion” will be “filed” in the public record for a 30 day review period. This filing will be advertised by mail-outs and notices in newspapers. During this filing period, anyone concerned that the study did not follow the appropriate requirements of the Class EA process or did not address all of the issues, may request that the Minister of Environment order the Project to a more detailed environmental assessment, referred to as a Part II Order request. The Minister of Environment must receive such requests in writing, with a copy sent to the Region’s Commissioner of Transportation and Environmental Services. The Minister will determine if a more
detailed environmental assessment is required and the Minister’s decision will be final. If there are no significant unresolved objections following the 30 day review period, the project will be considered approved and proceed to detailed design and construction. It is anticipated that the construction of the first stage could commence in 2015/2016, pending detail design, property acquisitions, and utility relocations. The construction timing of this project needs to be coordinated with the construction of the Franklin Boulevard project to ensure that capacity improvements on Franklin Boulevard are complete before South Boundary Road and Franklin Boulevard Extension are opened up to traffic.

CORPORATE STRATEGIC PLAN:

This project is consistent with the development of Strategic Focus Area 2 (Growth Management) in terms of:

- Enhancing, developing, promoting and integrating sustainable and active forms of transportation (public transit, cycling, and walking).

It is also consistent with the development of Strategic Focus Area 5 (Infrastructure) in terms of:

- Providing infrastructure needed to accommodate planned growth.

FINANCIAL IMPLICATIONS:

The 2010 Transportation Capital Program and Ten Year Forecast currently includes $20 million over the years 2010 to 2019 for the design and construction of this project to be funded from the Region Development Charges Reserve Fund.

The updated project cost of $36 million will be incorporated into the development of the 2011 Transportation Capital and Ten Year Forecast as part of Council’s 2011 budget deliberation.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

The Transportation Planning Division of the Planning, Housing and Community Services Department has been consulted in the preparation of this report.

ATTACHMENTS

Appendix A – Key Plan
Appendix B – Corridor Alignment Options Hybrid 1 (approved by Regional Council March 31, 2009)
Appendix C – Comparative Evaluation and Cost Analysis – Intersection Control Design Alternatives
Appendix D – PIM Summary of Public Comments Received and Project Team Responses
Appendix E – Summary of Main Concerns Raised by the Public and Project Team Responses
Appendix F – Property Acquisition Process Information Sheet (Projects Requiring Class EA Approval)
Appendix G – Recommended Cross-Section and Traffic Control Options at Intersections – Recommended Design Alternative

PREPARED BY: William Gilbert, Senior Project Manager, Transportation Expansion

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

Figure 1: Key Plan of Study Area
Region of Waterloo
South Boundary Corridor and Franklin Boulevard Extension
Class Environmental Assessment
Public Consultation Centre (PCC #1)

An initial Public Consultation Centre (PCC #1) was held for this project on April 10, 2007 and presented the reasons for the study, reviewed the Class EA process, detailed the study area and current conditions, and described the implications of doing nothing to address the current issues. An information package was made available at the meeting, explaining the EA process, the need and justification for the study and the alternatives under consideration.

Alternative Corridor Alignments

Following the identification of the Study Problem Statement, detailed inventories of the natural and social environments were undertaken within the study area and four corridor alignments for the South Boundary Corridor were developed. Each of the alternative corridor alignments for the South Boundary Corridor and Franklin Boulevard Extension were assessed and evaluated with respect to their potential impacts on the project environment including: the natural environment; social environment; heritage/archaeological/cultural environment; traffic capacity/operations and safety; and costs.

In accordance with the Class EA process, the study has also evaluated the “Do Nothing” alternative to determine the effect of implementing none of the above alternatives to address the identified problems/opportunities.

Based on an evaluation of all four corridor alignments and the “Do Nothing” alternative, Hybrid 1 corridor was identified as the Project Team’s preliminary preferred alignment alternative. The Hybrid 1 alignment was identified as the preliminary preferred alignment because it was shown to have significantly fewer impacts on:

- Natural Environment: Avoids direct impacts to natural features that contain ecologically sensitive or significant habitat functions; and
- Land Fragmentation: Least amount of land fragmentation as compared to other alternatives.

Public Consultation Centre (PCC #2)

The four alternatives, their assessments, evaluations, and the Project Team’s preliminary preferred corridor alignment was presented to the public and reviewing agencies at a Public Consultation Centre on June 25, 2008 to solicit input into the selection of the recommended corridor.

Approximately 70 individuals attended the PCC. All comments received were summarized and reviewed by the Project Team for consideration of a preferred corridor alignment. In general there were numerous comments in support of the preferred corridor, but there were also concerns regarding impacts to the natural environment, social environment, and traffic operations.

Based on the public input and additional comments from external agencies, the Project Team confirmed the Hybrid 1 alternative as the Preferred Corridor Alignment.

Public Input Meeting

A Public Input Meeting (PIM) of the Planning and Works Committee was held on February 3, 2009 to present the Project Team’s Preferred Corridor Alignment and to receive further public input about the study.
APPENDIX B-3

Approximately 75 people signed in at the meeting. Concerns expressed at the PIM were reviewed by the Project Team and responses were mailed to all those who had attended. Comments received at the PIM were generally of the following themes: use of Waynco Road, shifting western portion of corridor further away from the Municipal Boundary, noise impacts, lighting impacts, air quality impacts, traffic assessments, Municipal Boundary adjustments for development, property impacts, and Highway 8 at Vanier Drive access impacts.

Regional Council Approval of the Corridor Alignment

After due consideration of the public input received at the February 3, 2009 PIM, the Project Team confirmed its assessment of the Hybrid 1 alternative as the Recommended Corridor Alignment for presentation to Regional Planning and Works Committee for endorsement to Regional Council for approval.

On March 31, 2009, the Regional Planning and Works Committee approved the Hybrid 1 corridor as the Recommended Corridor Alignment for the South Boundary Corridor and Franklin Boulevard Extension Class Environmental Assessment. In addition, Region staff were also directed to proceed with preliminary design of the corridor and continue consultation with the public in determining opportunities to minimize and/or mitigate impacts to the natural and social environment in completion of the Class EA.
## APPENDIX C-1
### Comparative Evaluation – Intersection Control Design Alternatives

### Water Street / South Boundary Road

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>Signalized Intersection</th>
<th>Roundabout</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRAFFIC OPERATIONS &amp; SAFETY</strong></td>
<td>Provides a high level of service for traffic operations. Adequately addresses safety needs for motorists, cyclists and pedestrians.</td>
<td>Provides a high level of service for traffic operations. Adequately addresses safety needs for motorists, cyclists and pedestrians. Fewer expected injury collisions than signalized intersection. Provides speed control along roadways.</td>
</tr>
<tr>
<td><strong>SOCIAL ENVIRONMENT</strong></td>
<td>Compatible with adjacent land use. Minor property impacts.</td>
<td>Compatible with adjacent land use. Moderate property impacts.</td>
</tr>
<tr>
<td><strong>NATURAL ENVIRONMENT</strong></td>
<td>No impacts to embankment on the west side.</td>
<td>Minor impacts to embankment on west side. Results in lower pollutant output due to reduced starts and stops.</td>
</tr>
<tr>
<td><strong>HERITAGE / ARCHAEOLOGICAL / CULTURAL IMPACTS</strong></td>
<td>No impacts to built heritage, cultural or archaeological features.</td>
<td>No impacts to built heritage, cultural or archaeological features.</td>
</tr>
<tr>
<td><strong>COST (Estimated Construction Cost + 20yr Injury Collision Cost)</strong></td>
<td>$1,190,000</td>
<td>$1,185,000</td>
</tr>
<tr>
<td><strong>Overall Rank</strong></td>
<td>2nd</td>
<td>1st</td>
</tr>
</tbody>
</table>

[Scale for Least Desirable to Most Desirable]
### APPENDIX C-2
Comparative Evaluation – Intersection Control Design Alternatives

#### Franklin Boulevard / South Boundary Road

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>Stop Controlled Intersection</th>
<th>Roundabout</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRAFFIC OPERATIONS &amp; SAFETY</strong></td>
<td>Provides a good level of service for traffic operations. Adequately addresses safety needs for motorists, cyclists and pedestrians.</td>
<td>Provides a high level of service for traffic operations. Adequately addresses safety needs for motorists, cyclists and pedestrians. Potential to reduce the number and severity of injury collisions. Provides speed control along roadway. Provides U-turn movement for Franklin Blvd traffic.</td>
</tr>
<tr>
<td><strong>SOCIAL ENVIRONMENT</strong></td>
<td>Compatible with adjacent land use. Minor property impacts.</td>
<td>Compatible with adjacent land use. Minor property impacts.</td>
</tr>
<tr>
<td><strong>NATURAL ENVIRONMENT</strong></td>
<td>Moderate intrusion into the natural area immediately south of the intersection.</td>
<td>No intrusion into the natural area immediately south of the intersection. Results in lower pollutant output due to reduced starts and stops.</td>
</tr>
<tr>
<td><strong>HERITAGE / ARCHAEOLOGICAL / CULTURAL IMPACTS</strong></td>
<td>No impacts to built heritage, cultural or archaeological features.</td>
<td>No impacts to built heritage, cultural or archaeological features.</td>
</tr>
<tr>
<td><strong>COST</strong> (Estimated Construction Cost + 20yr Injury Collision Cost)</td>
<td>$675,000</td>
<td>$855,000</td>
</tr>
<tr>
<td><strong>Overall Rank</strong></td>
<td>2nd</td>
<td>1st</td>
</tr>
</tbody>
</table>

---

**Legend:**
- 0: Least Desirable
- 5: Desirable
- 10: Most Desirable
### APPENDIX C-3
Comparative Evaluation – Intersection Control Design Alternatives

#### Branchton Road / South Boundary Road

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>Stop Controlled Intersection</th>
<th>Roundabout</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRAFFIC OPERATIONS &amp; SAFETY</strong></td>
<td>Provides a good level of service for traffic operations. Adequately addresses safety needs for motorists, cyclists and pedestrians.</td>
<td>Provides a high level of service for traffic operations. Fewer expected injury collisions than stop-controlled. Would provide increased speed control along South Boundary Road consistent with lower desired operating speeds east of Branchton Road.</td>
</tr>
<tr>
<td><strong>SOCIAL ENVIRONMENT</strong></td>
<td>Compatible with adjacent land use. Moderate to high property impacts.</td>
<td>Compatible with adjacent land use. Would provide a visual gateway into the residential area north of the intersection. Moderate to high property impacts.</td>
</tr>
<tr>
<td><strong>NATURAL ENVIRONMENT</strong></td>
<td>No impacts to environmentally sensitive areas.</td>
<td>No impacts to environmentally sensitive areas. Results in lower pollutant output due to reduced stops and stops.</td>
</tr>
<tr>
<td><strong>HERITAGE / ARCHAEOLOGICAL / CULTURAL IMPACTS</strong></td>
<td>No impacts to built heritage, cultural or archaeological features.</td>
<td>No impacts to built heritage, cultural or archaeological features.</td>
</tr>
<tr>
<td><strong>COST</strong> (Estimated Construction Cost + 20yr Injury Collision Cost)</td>
<td>$280,000</td>
<td>$1,200,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall Rank</th>
<th>2nd</th>
<th>1st</th>
</tr>
</thead>
</table>

![Graph showing evaluation criteria ratings](image)
# APPENDIX C-4
Comparative Evaluation – Intersection Control Design Alternatives

## Dundas Street / South Boundary Road

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>Signalized Intersection</th>
<th>Roundabout</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRAFFIC OPERATIONS &amp; SAFETY</strong></td>
<td>Provides a high level of service for traffic operations. Adequately addresses safety needs for motorists, cyclists and pedestrians.</td>
<td>Provides a high level of service for traffic operations. Adequately addresses safety needs for motorists, cyclists and pedestrians. Fewer expected injury collisions than signalized intersection.</td>
</tr>
<tr>
<td><strong>SOCIAL ENVIRONMENT</strong></td>
<td>Compatible with adjacent land use. Moderate to high property impacts.</td>
<td>Compatible with adjacent land use. Moderate to high property impacts. Higher project impacts than signalized intersection.</td>
</tr>
<tr>
<td><strong>NATURAL ENVIRONMENT</strong></td>
<td>No impacts to environmentally sensitive areas.</td>
<td>No impacts to environmentally sensitive areas. Results in lower pollutant output due to reduced starts and stops.</td>
</tr>
<tr>
<td><strong>HERITAGE / ARCHAEOLOGICAL / CULTURAL IMPACTS</strong></td>
<td>No impacts to built heritage, cultural or archaeological features.</td>
<td>No impacts to built heritage, cultural or archaeological features.</td>
</tr>
<tr>
<td><strong>COST</strong> (Estimated Construction Cost + 20yr Injury Collision Cost)</td>
<td>$1,529,000</td>
<td>$1,450,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall Rank</th>
<th>2nd</th>
<th>1st</th>
</tr>
</thead>
</table>
## Comparative Evaluation – Intersection Control Design Alternatives

### Myers Road / Franklin Boulevard

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>Signalized Intersection</th>
<th>Roundabout</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TRAFFIC OPERATIONS &amp; SAFETY</strong></td>
<td>Provides a high level of service for traffic operations. Adequately addresses safety needs for motorists, cyclists and pedestrians.</td>
<td>Provides a high level of service for traffic operations. Adequately addresses safety needs for motorists, cyclists and pedestrians. Fewer expected injury collisions than signalized intersection.</td>
</tr>
<tr>
<td><strong>SOCIAL ENVIRONMENT</strong></td>
<td>Compatible with adjacent land use. Minor property impacts.</td>
<td>Compatible with adjacent land use. Significant property impacts. Potential for mitigation.</td>
</tr>
<tr>
<td><strong>NATURAL ENVIRONMENT</strong></td>
<td>No impacts to environmentally sensitive areas.</td>
<td>No impacts to environmentally sensitive areas. Results in lower pollutant output due to reduced starts and stops.</td>
</tr>
<tr>
<td><strong>HERITAGE / ARCHAEOLOGICAL / CULTURAL IMPACTS</strong></td>
<td>No impacts to built heritage, cultural or archaeological features.</td>
<td>No impacts to built heritage, cultural or archaeological features.</td>
</tr>
<tr>
<td><strong>COST (Estimated Construction Cost + 20yr Injury Collision Cost)</strong></td>
<td>$1,270,000</td>
<td>$1,225,000</td>
</tr>
</tbody>
</table>

**Overall Rank**

- **Signalized Intersection**: 2nd
- **Roundabout**: 1st
## APPENDIX C-6

### 20-Year Life-Cycle: Intersection Control Alternatives

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Estimated Capital Cost</th>
<th>Projected 20-Year Injury Collision Cost</th>
<th>Total - Estimated Overall Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Franklin Blvd./Myers Rd.</td>
<td>-----</td>
<td>$880,000</td>
<td>$1,270,000</td>
</tr>
<tr>
<td></td>
<td>-----</td>
<td>$1,070,000</td>
<td>$1,225,000</td>
</tr>
<tr>
<td>South Boundary Rd./Water St.</td>
<td>-----</td>
<td>$863,000</td>
<td>$1,190,000</td>
</tr>
<tr>
<td></td>
<td>-----</td>
<td>$1,078,000</td>
<td>$1,185,000</td>
</tr>
<tr>
<td>South Boundary Rd./Franklin Blvd.</td>
<td>$617,000</td>
<td>$772,000</td>
<td>$855,000</td>
</tr>
<tr>
<td></td>
<td>-----</td>
<td>$772,000</td>
<td>$855,000</td>
</tr>
<tr>
<td>South Boundary Rd./Branchon Rd.</td>
<td>$884,000</td>
<td>$1,065,000</td>
<td>$1,200,000</td>
</tr>
<tr>
<td></td>
<td>-----</td>
<td>$1,065,000</td>
<td>$1,200,000</td>
</tr>
<tr>
<td>South Boundary Rd./Dundas St.</td>
<td>-----</td>
<td>$1,210,000</td>
<td>$1,450,000</td>
</tr>
<tr>
<td></td>
<td>-----</td>
<td>$1,262,000</td>
<td>$1,450,000</td>
</tr>
<tr>
<td>Totals</td>
<td>$4,454,000</td>
<td>$5,247,000</td>
<td>$5,915,000</td>
</tr>
</tbody>
</table>

*Note: Values are in $.*
### SOUTH BOUNDARY RD AND FRANKLIN BLVD EXTENSION CLASS ENVIRONMENTAL ASSESSMENT

**PUBLIC INPUT MEETING**

**SUMMARY OF PUBLIC COMMENTS RECEIVED AND PROJECT TEAM RESPONSES**

Region of Waterloo Planning and Works Committee, May 6, 2010

Cambridge Christian School, 229 Myers Rd, Cambridge, Ontario

<table>
<thead>
<tr>
<th>NAME</th>
<th>SPEAKER QUESTIONS / CONCERNS</th>
<th>REGION / PROJECT TEAM RESPONSE</th>
</tr>
</thead>
</table>
| 1    | Jan Liggett                   | ・ Region staff advised that the Waynco Rd alternative was considered and not recommended based on potential impacts such as:  
  ○ Franklin Blvd would need to be extended further south to intersect South Boundary Rd at Waynco Rd, at additional costs and through environmentally significant areas  
  ○ Additional property takings would be required to widen South Boundary Rd on the Wanyco Rd alignment  
  ○ Local access would not be permitted on a controlled access roadway, requiring either buyouts of a number of properties, or the construction of service roads  
  ○ Lengthy structures would be required to span the wetland areas, and would result in significant environmental impact due to the construction of piers and abutments. |
| 2    | David Falle                   | ・ Meetings have been held with Church officials to review the design issues.  
  ・ The Region will continue to meet with Church officials to further review any impacts and concerns, and potential for mitigation. |

Expressed concern that construction of a Roundabout at Franklin & Myers will result in significant impacts to the Church at that location, including property, parking and access.
# APPENDIX D-2

## South Boundary Corridor and Franklin Boulevard Extension Class EA

**PIM Summary of Public Comments Received and Project Team Responses**

<table>
<thead>
<tr>
<th>NAME</th>
<th>SPEAKER QUESTIONS / CONCERNS</th>
<th>REGION / PROJECT TEAM RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Len Stuiver</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Speaker preferred Waynco Rd alignment.</td>
<td>● A Noise Study has been completed for the proposed SBR in accordance with MOE guidelines and Region policies.</td>
</tr>
<tr>
<td></td>
<td>● Concern was expressed regarding the steep grade (5%) on SBR west of Cheese Factory Rd, and the impact of noise from truck engine brakes on the residents of Langlaw Drive.</td>
<td>● The projected noise level along the rear of properties on Langlaw Dr is calculated to be 59 dBA which is less than a 5 dBA increase from the existing noise level of 55 dBA, being the threshold for requiring noise barriers per Regional policy. As such no additional noise mitigation is proposed.</td>
</tr>
<tr>
<td></td>
<td>● Questioned whether the impact of the future widening of SBR to 4-lanes has been considered in the noise study?</td>
<td>● The noise study is based upon calculating existing and projected noise levels using traffic volumes, topography and other parameters. The Noise Study was completed assuming the full 4-Lane construction. The noise model does not consider the impact of the specific vehicles such as the motorcycle without baffles or the use of truck engine brakes.</td>
</tr>
<tr>
<td></td>
<td>● Questioned when the SBR, from Cheese Factory Rd to Water St will be constructed?</td>
<td>● The proposed preliminary design for SBR includes for a multi-use trail and the potential for landscaping on the north side which could assist in providing a buffer along the rear of properties on Langlaw Drive. Landscaping opportunities will be identified during detail design.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Initial construction of SBR, from Franklin Blvd to Water St, and Franklin Blvd extension, is currently proposed for 2015/2016, subject to detail design, property acquisition, and approvals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Widening of SBR and Franklin Blvd to four lanes, and the extension of SBR from Franklin Blvd to Dundas St, will be constructed when future traffic capacity needs are required.</td>
</tr>
</tbody>
</table>
## APPENDIX D-3

### South Boundary Corridor and Franklin Boulevard Extension Class EA

**PIM Summary of Public Comments Received and Project Team Responses**

<table>
<thead>
<tr>
<th>NAME</th>
<th>SPEAKER QUESTIONS / CONCERNS</th>
<th>REGION / PROJECT TEAM RESPONSE</th>
</tr>
</thead>
</table>
| 4  Alexander Dammert      | ● Requested clarification on the alignment of SBR from Cheese Factory Rd to Water St and how close it would be to the properties on Langlaw Dr.                                                                                       | ● Region staff advised that the SBR corridor would be a minimum of 50 metres in width and wider for required grading.  
● Region staff advised that the corridor would be directly adjacent to the rear property lines along Langlaw Dr; however, the road will be slightly shifted to the south side of the corridor to provide opportunities for a vegetated buffer and landscaping along the north side adjacent to the rear of private properties. |
| 5  Ben Tucci              | ● Expressed concern regarding noise levels.  
● Requested Regional Council consider providing noise barriers including allocation of funds as he believes they will be required.                                                                 | ● Region staff identified that the Regional Noise Study guidelines allow affected property owners to request another noise study to be done within 5 years of the road being constructed. The need for noise barriers would again be reviewed and considered as per the Region's Policies. |
| 6  Cesar Fernandes        | ● Expressed concern regarding noise levels and property impacts.  
● Requested clarification on how noise levels were determined.                                                                                                     | ● Region staff identified that the Noise study was completed in accordance with the Ministry of Environment Noise Guidelines and Regional Policies (see response to #3 above).  
● The noise analysis calculations are based on volume of traffic and the type of traffic as an average over the day, identifying that it is not a peak or a one time incident volume of noise. Calculations are also based on a distance of separation from the travelling traffic to the rear yard area of the property as well as the difference in elevation between them.  
● The Noise study is based on calculated levels and not on field measurements.                                                                                       |
## APPENDIX D-4

**South Boundary Corridor and Franklin Boulevard Extension Class EA**

**PIM Summary of Public Comments Received and Project Team Responses**

<table>
<thead>
<tr>
<th>NAME</th>
<th>SPEAKER QUESTIONS / CONCERNS</th>
<th>REGION / PROJECT TEAM RESPONSE</th>
</tr>
</thead>
</table>
| 7    | Nancy Fabbro               | - Region staff advised that the Waynco Rd alternative was considered and not recommended based on potential impacts as identified per the response to Speaker #1 above.  
- Region staff advised that the SBR is proposed to alleviate traffic that travels from the south end of Cambridge/north end of the Township of North Dumfries to the north end of Cambridge/hwy 401 area.  
- Emergency detour routes for accidents on Water St/Hwy 24 south of SBR would still consider existing side roads, such as Waynco Rd and Cheese Factory Rd, as detour alternatives. |
| 8    | Keith Gosse                | - Region staff advised that speed limits will be posted on these roads and the provision of roundabouts will cause drivers to slow down to yield to traffic and also to negotiate the geometric design of the roundabout. |

*Note:*
The comments and concerns noted above are also available from the Regional Planning & Works Committee Minutes.
APPENDIX E-1

South Boundary Corridor and Franklin Boulevard Extension Class EA
Summary of Main Concerns Raised by the Public and Project Team Responses

Noise Impacts

A number of comments were received with respect to concerns about an increase in noise levels associated with traffic, especially trucks, and the close proximity of both the South Boundary Road and Franklin Boulevard Extension to residential properties. Many have requested consideration for providing noise walls.

Project Team Response:

A Noise Study has been undertaken for the proposed corridor alignment and intersection control design alternatives for assessment of mitigation requirements such as noise barriers, in accordance with the Region’s Noise Guidelines and MOE guidelines. The results of the noise study indicate that projected noise levels along both the South Boundary Road and Franklin Boulevard Extension are predicted to be less than 5 dB over the existing ambient levels associated with the Outdoor Objective of 55 dBA, and less than 65 dBA as the maximum threshold requiring mitigation considerations. In addition, a previous noise study completed as part of the Empire Homes Development identified that noise walls would not be required along Franklin Boulevard with the exception of recommending noise mitigation on the west side of Franklin Boulevard north of Bloomington Road, which is to be provided by the developer. As a result of these noise assessment study results, under Region Noise Guidelines no additional mitigation is warranted and the Project Team is not recommending noise walls as part of this project.

Franklin Boulevard/Carpenter Street Pedestrian Crossing and Emergency Access

Many comments expressed concern with the lack of a proposed controlled pedestrian crossing at the existing local Carpenter Street crossing of the future Franklin Boulevard. In addition, some expressed concern associated with the proposed raised centre median and resulting access restrictions on Franklin Boulevard, and the potential impacts on emergency service access and response times at this location.

Project Team Response:

The Project Team’s Preferred Design Alternative includes improved pedestrian facilities for multi-use trails along both sides of Franklin Boulevard including crossings at roundabout intersections. No additional road crossings are proposed by the Project Team at this time; however, the Preferred Design Alternative includes a centre median which may provide future opportunities for a mid-block pedestrian crossing at the existing local Carpenter Street crossing of the future Franklin Boulevard (e.g. pedestrian refuge island). The need for a mid-block crossing, based on pedestrian warrants, at the Franklin Boulevard/Carpenter Street location will be reviewed during detail design.

Access requirements for emergency vehicles will be provided at the Carpenter Street intersection of Franklin Boulevard through incorporation of a proposed emergency access break in the centre median and will be determined during detail design through consultation with the Cambridge Fire Department, Regional Emergency Medical Services (EMS) and Regional Police Services.
APPENDIX E-2

Property Impacts

Many concerns have been received regarding the property impacts of the land requirements to facilitate the proposed South Boundary Road, Franklin Boulevard Extension, and proposed roundabouts. Specific concerns were received related to the roundabout proposed at Franklin Boulevard and Myers Road. These concerns questioned the layout of the proposed roundabout, its impact on property access and the amount of land required.

Project Team Response:

In the development of concept plans for the preliminary layout and design of the roundabout intersections, the Project Team considered options for shifting the roundabouts to minimize the overall net impacts to the properties on all corners of each intersection. During detail design further refinements to the proposed road improvements and roundabouts will be considered with a view to minimizing impacts and development of potential mitigation options where feasible.

Property Impacts at the Franklin Boulevard/Myers Road Roundabout:

The recommended roundabout at Franklin/Myers will require significant land from each of the properties on the southeast and southwest corners of the existing intersection; the former being a church and the latter being a residential farm property. Please refer to the plan view in Appendix “G-7”. The Project Team acknowledged the significant impacts to these properties but agreed to shift the roundabout to the south side of the road to avoid the total purchase of several existing homes on the north side of Myers Road. Staff had several discussions with church representatives and learned their concerns include: loss of one of their two accesses on Myers Road, impacts to traffic circulation on site, the loss of parking spaces and the relocation of their existing sign. Staff note the site has considerable undeveloped additional property on the south side of the existing church with frontage on the new Franklin Boulevard extension and on a proposed local road connected to the new Franklin Boulevard extension. In discussions with church representatives staff assured the church that during detail design all efforts will be made to maintain site circulation and the existing access. It these cannot be maintained, staff will consider allowing new accesses and parking lot modifications/expansions as part of the property negotiations.

Property Impacts at the South Boundary Road/Dundas Street Roundabout:

Concerns have also been raised about the need to buy three homes for the proposed roundabout at the intersection of South Boundary Road and Dundas Street. Through detail design, staff will look to minimize the amount of property required. It is important to note that regardless of whether traffic signals or a roundabout are constructed at this location, a minimum of three homes will have to be purchased to accommodate the alignment of the proposed South Boundary Road Corridor and the potential extension of a future East Boundary Road easterly of Dundas Street.

General Property Issues:

Some minor modifications have been made to the roundabout layouts and accesses as a result of specific concerns received from the public consultation. Access impacts associated with property acquisitions at roundabouts and alternatives for mitigation will be reviewed as part of detail design and property negotiations. Alternatives for mitigation may include modification or relocation of an existing access and/or construction of a new access as necessary.
APPENDIX E-3

Implementation of the Recommended Design Alternative would require acquisition of portions of private property for the new road allowance, widening onto private property, obtaining temporary easements during the construction period, and the total purchase of some properties. Exact property acquisition requirements will depend on completion of detail design. Once the detail design is completed the affected property owners will be contacted by Regional Real Estate staff to discuss the necessary property acquisitions and related issues. It is the Region’s standard practice to negotiate agreements of purchase and sale with the affected property owners, based on an independent appraisal of the land’s fair market value. If agreements cannot be reached in time to meet the project schedule, the Region can acquire the needed lands through expropriation. Please see Appendix “F”, the Property Acquisition Process Information Sheet (Projects Requiring Class EA Approval), for more detailed information. Any lands disturbed as a result of construction, such as with working easements, will be restored to their current condition or better. Proposed property acquisitions associated with the Recommended Design Alternative are shown on the plans in Appendix “F”.

Traffic Operations at Roundabouts

Comments received from the public expressed concern for the ability of roundabouts to safely accommodate traffic including trucks, pedestrians and cyclists.

Project Team Response:

The capacity analysis of the proposed roundabouts on the South Boundary Road Corridor and Franklin Boulevard Extension indicates the roundabouts will provide the needed capacity for the projected traffic growth to beyond the 10 year horizon.

Roundabouts would result in lower delays for all users than traffic signals. These lower delays also result in lower fuel consumption and lower vehicle emissions. More importantly, roundabouts would result in fewer injury collisions than traffic signals. Data from North American studies and data from the Region’s existing 14 roundabouts confirm that 75% fewer injury collisions occur at roundabouts than at traffic signals. Pedestrians are also less likely to be injured at roundabouts than at traffic signals by a ratio of 2:1.

All of the proposed roundabouts will be designed to accommodate the turning movements of tractor-trailers: staff acknowledges that this does not mean that trucks can “stay in a lane” as they go through the roundabout. Truck operators need to straddle two lanes as they enter the roundabout; a practice that has already become quite common at the Region’s existing roundabouts and has not resulted in any operational problems.

Impacts on Natural Areas

Several respondents expressed concern for the potential impact on the natural environment and wildlife.

Project Team Response:

The Project Team recognizes the significant natural environmental features and wildlife that exists within the study area and has undertaken extensive studies to identify these features and evaluate the potential for impact from the Preferred Design Alternative. These studies have been coordinated with the Grand River Conservation Authority and Ministry of Natural Resources and have considered alternatives for minimizing impacts where feasible.
APPENDIX E-4

For the most part, the Recommended Design Alternative avoids direct impacts to natural features identified as core areas that contain ecologically sensitive or significant habitat functions. The potential for direct and indirect impacts to the natural areas within the study limits have been investigated and evaluated for identification and consideration of potential mitigation needs and measures. Mitigation measures, such as woodland edge pre-stressing, habitat compensation, and incorporation of a naturalized barrier with contour grading and landscaping, will be considered during the detail design and approvals phase in order to minimize and offset any direct and indirect impacts on the natural areas. In areas where existing wetlands are impacted and/or fragmented, mitigation measures such as wildlife crossings are being proposed to ensure that the ecological linkage is maintained. In addition, areas of wetland loss will be assessed in greater detail as part of a Scoped Environmental Impact Study (EIS) to be undertaken during the detail design. The Scoped EIS will consider the need for compensatory mitigation (i.e. "no net loss of habitat") which would involve replacing/recreating an equal amount of lost wetland. These measures will be further discussed in the Environmental Study Report for this project and will be considered during detail design through necessary approvals from the Grand River Conservation Authority and Ministry of Natural Resources.

Landscaping Opportunities

Comments received from the public indicated a desire for a significant level of landscaping along the corridor in order to provide a buffer to adjacent properties and create a green space within the centre median.

Project Team Response:

The Region’s standard practices for road construction incorporate natural landscaping components such as tree planting and low level vegetation which can provide a visual buffer to adjacent properties and create a green space within the centre median. The amount, type, and location of landscaping will be addressed during the detail design.
APPENDIX F-1

Property Acquisition Process Information Sheet
(Projects requiring Class Environmental Assessment Approval)

The following information is provided as a general overview of the property acquisition process and is not legal advice. Further, the steps, timing and processes can vary depending on the individual circumstances of each case.

Once the Class Environmental Assessment is complete and the Environmental Study Report outlining the Recommended Design Concept has been approved, the property acquisition process and the efforts of Regional Real Estate staff will focus on acquiring the required lands to implement the approved design. Regional staff cannot make fundamental amendments or changes to the approved design concept.

Property Impact Plans
After the project has been approved and as it approaches final design, the project planners will generate drawings and sketches indicating what lands and interests need to be acquired from each affected property to undertake the project. These drawings are referred to as Property Impact Plans (PIP).

Initial Owner Contact by Regional Real Estate Staff
Once the PIPs are available, Regional Real Estate staff will contact the affected property owners by telephone and mail to introduce themselves and set up initial meetings to discuss the project and proposed acquisitions.

Initial Meetings
The initial meeting is attended by the project engineer and the assigned real estate staff person to brief the owner on the project, what part of their lands are to be acquired or will be affected, what work will be undertaken, when, with what equipment, etc and to answer any questions. The primary purpose of the meeting is to listen to the owner and identify issues, concerns, effects of the proposed acquisition on remaining lands and businesses that can be feasibly mitigated and/or compensated, and how the remaining property may be restored. These discussions may require additional meetings. The goal of staff is to work with the owner to reach mutually agreeable solutions.

Goal – Fair and Equitable Settlement for All Parties
The goal is always to reach a fair and equitable agreement for both the property owner and the Region. Such an agreement will provide compensation for the fair market value of the lands and address the project impacts (such as repairing or replacing landscaping, fencing, paving) so that the property owner will receive the value of the lands acquired and the restoration of their remaining property to the condition it was prior to the Project.

The initial meetings will form the basis of an initial offer of settlement or agreement of purchase and sale for the required lands or interests.

Steps Toward Offer of Settlement or Agreement of Purchase and Sale
The general steps towards such an offer are as follows:

1) the Region will obtain an independent appraisal of the fair market value of the lands and interests to be acquired, and an appraisal of any effect on the value of the rest of the property resulting from the acquisition of the required lands and interests;

2) compensation will be estimated and/or works to minimize other effects will be defined and agreed to by the property owner and the Region;
APPENDIX F-2

3) reasonable costs of the owner will be included in any compensation settlement;
4) an offer with a purchase price and any other compensation or works in lieu of compensation will be submitted to the property owner for consideration; and
5) an Agreement will be finalized with any additional discussion, valuations, etc as may be required.

Depending on the amount of compensation, most agreements will require the approval of Council. The approval is undertaken in Closed Session which is not open to the public to ensure a level of confidentiality.

Expropriation
Due to the time constraints of these projects, it is the practice of the Region to commence the expropriation process in parallel with the negotiation process to insure that lands and interests are acquired in time for commencement of the Project. Typically, over 90% of all required lands and interests are acquired through negotiation process. Even after lands and interests have been acquired through expropriation an agreement on compensation can be reached through negotiation, this is usually referred to as a ‘settlement agreement’.

Put simply, an expropriation is the transfer of lands or an easement to a governmental authority for reasonable compensation, including payment of fair market value for the transferred lands, without the consent of the property owner being required. In the case of expropriations by municipalities such as the Region of Waterloo, the process set out in the Ontario Expropriations Act must be followed to ensure that the rights of the property owners provided under that Act are protected.

For information on the expropriation process, please refer to ‘Expropriation Information Sheet’.
APPENDIX G-1
Recommended Design Alternative
APPENDIX G-2
Recommended Design Alternative
APPENDIX G-3
Traffic Control at South Boundary Road and Water Street – Roundabout
Recommended Design Alternative
APPENDIX G-4
Traffic Control at South Boundary Road and Franklin Boulevard – Roundabout
Recommended Design Alternative

Legend
- Proposed Property Line
- Existing Property Line
- Limit of Grading

Roundabout at
South Boundary Road and Franklin Boulevard
APPENDIX G-5
Traffic Control at South Boundary Road and Branchton Road – Roundabout
Recommended Design Alternative
APPENDIX G-6
Traffic Control at South Boundary Road and Dundas Street – Roundabout
Recommended Design Alternative
APPENDIX G-7
Traffic Control at Franklin Boulevard and Myers Road – Roundabout
Recommended Design Alternative
APPENDIX G-8
Traffic Control at South Boundary Road and Cheese Factory Road – Grade Separated Overpass
Recommended Design Alternative
APPENDIX C-1
TRANSPORTATION AND ENVIRONMENTAL SERVICES
Design and Construction

Date: February 15, 2011

MEMORANDUM

To: Chair Jim Wideman and Members of the Planning and Works Committee
From: William Gilbert, Senior Project Manager, Design and Construction
Signature: ____________________________________________________________

Subject: South Boundary Corridor and Franklin Boulevard Extension Class Environmental Assessment Study, City of Cambridge and Township of North Dumfries Recommended Design Alternative - Supplementary Information to Report E-10-088

File No: 7128.E

SUMMARY:

The Region of Waterloo is undertaking a Class Environmental Assessment (EA) Study for the South Boundary Corridor and Franklin Boulevard Extension to address the need for improvements to the transportation network in the south Cambridge area. Please refer to Appendix “A” for a Key Plan of the Project Limits.

Extensive public consultation has been undertaken on this project, including previous considerations of corridor alignments. In April of 2009 Regional Council approved a Recommended Corridor Alignment for the South Boundary Corridor and Franklin Boulevard Extension and directed staff to proceed with preliminary design of the corridor and continue consultation with the public in completion of the Class EA. Please refer to Appendix “B” of Report E-10-088 for a plan of the Council approved Hybrid 1 Corridor Alignment.

Subsequent to Council’s approval of the corridor alignment, the Project Team developed alternative design concepts for preferred roadway cross-sections and traffic control options at the intersections, including consideration of stop controlled, traffic signals and roundabouts. The Project Team, after consideration of the technical issues and considerable public consultation, identified Roundabout Intersections to be incorporated in the Recommended Design Alternative.

The Project Team’s Recommended Design Alternative was presented and considered at Regional Planning and Works Committee on November 16, 2010 (Report E-10-088). At the November 16, 2010 meeting, several members of the public attended as delegations and expressed concerns about the project. In response, Regional Council deferred a decision on the Recommended Design Alternative to a meeting of Planning and Works Committee early in 2011 to allow staff to meet with individuals and address issues raised. The issues raised at the November 16, 2010 Planning and Works Committee meeting and staff responses are provided in Section 2.0 of this Memo.
Based on a review of the technical information gathered for this project, consideration of the evaluation for environmental impacts and benefits/opportunities of the alternatives, a thorough review of all public comments received, and consideration of the issues raised by delegations on November 16, 2010, the Project Team is confirming its recommendation that Regional Council approve the proposed South Boundary Corridor and Franklin Boulevard Extension improvements, as per the recommendations within Report E-10-088.

REPORT:

1. Background

This Memo serves to supplement the information contained in Report E-10-088 presented to Regional Planning and Works Committee on November 16, 2010. Please refer to Report E-10-088 for additional information.

The Region of Waterloo is undertaking a Class Environmental Assessment (EA) Study for the South Boundary Corridor, from Water Street (Highway 24) to Dundas Street (Highway 8), and Franklin Boulevard Extension, from Myers Road to the South Boundary Corridor, in the City of Cambridge and the Township of North Dumfries. Please refer to Appendix A for a Key Plan of the project limits. This Class EA was initiated in 2007 to address the need for improvements to the transportation network in the south Cambridge area.

This Class EA study is guided by a Project Team consisting of staff from the Region of Waterloo, City of Cambridge, Township of North Dumfries, and Grand River Conservation Authority, as well as Regional and Local Municipal Councilors from the City of Cambridge and Township of North Dumfries.

In the initial stages of the Class EA Study, the Project Team considered corridor alignment alternatives which were assessed with respect to their ability to meet the traffic and transportation needs in the south Cambridge area, as well as their potential impact on the project environment. Several public consultation sessions were held and after due consideration of the comments received, in April 2009 Regional Council approved Hybrid 1 as the Recommended Corridor Alignment for the South Boundary Corridor and Franklin Boulevard Extension. Please refer to Appendix “B” of Report E-10-088 for a plan view of the Hybrid 1 alignment. In addition, Region Council directed staff to proceed with preliminary design of the corridor and continue consultation with the public in determining opportunities to minimize and/or mitigate impacts to the natural and social environment in completion of the Class EA.

As part of preliminary design, the Project Team developed minor refinements to the road alignment, design elements for a preferred roadway cross-section, and alternative design concepts for traffic control options at intersections. The Design Alternatives for traffic control options at Intersections included consideration of stop controlled, signalized and roundabout intersections, which were assessed and evaluated with respect to their potential impacts on the project environment.

There has been extensive public consultation for this project including several Public Consultation Centres, Public Input Meetings with Regional Planning and Works Committee, and various additional consultation meetings with directly-affected property owners. The Project Team, after consideration of the technical issues and all public input, identified Roundabouts as part of the Recommended Design Alternative for this project.
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The Project Team’s Recommended Design Alternative for this Class EA study includes: initial construction of the South Boundary Road and the Franklin Boulevard Extension to a two lane urban cross-section with four lanes in the future; raised centre medians on both South Boundary Corridor and Franklin Boulevard; multi-use trails along both sides of the Franklin Boulevard Extension and along the north side of the South Boundary Corridor; roundabouts on South Boundary Road at the intersections of Water Street, Franklin Boulevard, Branchton Road and Dundas Street, and at the intersection of Myers Road and Franklin Boulevard. The Recommended Design Alternative also includes an overpass bridge carrying South Boundary Road over Cheese Factory Road. Please see Appendix “C” of Report E-10-088 for plans of the Recommended Design Alternative - Cross-Sections and Traffic Control at Intersections.

The South Boundary Corridor is proposed to be constructed in two phases with Phase 1 of the South Boundary Corridor from Water Street to Franklin Boulevard and Franklin Boulevard Extension from Myers Road to South Boundary Corridor to be constructed in 2016. Initially this stage will involve constructing the preferred design in the interim as a 2 lane urban roadway with widening to the ultimate 4 lanes when future traffic capacity needs are reached. Phase 2 would include the South Boundary Corridor from Franklin Boulevard to Dundas Street which is currently not projected to be needed until after the 10 year traffic projection horizon of 2021.

The Recommended Design Alternative was presented to Regional Council and members of the public at the November 16, 2010 Regional Planning and Works Committee meeting. At the November 16 meeting, several members of the public attended as delegations and expressed concerns about the project. In response, Regional Council deferred a decision on this project to a meeting of Regional Planning and Works Committee early in 2011. This deferral was made to allow for staff to further meet with individuals and to report back with additional information in addressing the specific issues raised by the November 16, 2010 delegations.

Subsequent to the November 16, 2010 meeting, staff have met and discussed the issues with the delegations and a summary of staff responses is provided in Section 2.0 below.

2. Issues Raised at the November 16, 2010 Planning and Works Committee Meeting

2.1 Delegation from Mr. Kevin Fergin, Stantec Consulting Ltd., with respect to impacts of the proposed South Boundary Corridor alignment on the Activa Holdings Inc. proposed Draft Plan of Subdivision south of Dundas Street

At the November 16, 2010 Planning and Works Committee meeting, Kevin Fergin of Stantec Consulting, on behalf of Activa Holdings, appeared before Committee. He stated concerns about the impacts of the Council-approved South Boundary Corridor alignment on Activa’s proposed Draft Plan of Subdivision south of Dundas Street. Mr. Fergin requested that Region staff work with his client to optimize the amount of developable land within the proposed Draft Plan of Subdivision. Region staff met with representatives of Stantec and Activa on November 26, 2010, and January 19, 2011 to discuss and clarify their concerns raised at the November 16, 2010 Committee meeting. At these meetings, Activa expressed its concerns as follows:

   e) Activa would like the Region to shift the South Boundary Corridor alignment at Dundas Street further to the south to optimize the amount of developable lands within the proposed Draft Plan of Subdivision;
APPENDIX C-4

f) Activa would like the Region to undertake a joint Stormwater Management (SWM) facility to service both the South Boundary Corridor and Activa development;

g) Activa’s lands are in Phase 2 of the South Boundary Corridor project which is currently not projected to be needed until after 2021. Activa has expressed a need for additional earth fill in the future development of their lands and has requested the Region to advance the grading design of Phase 2 to fix the elevation of the South Boundary Corridor across their lands and determine if there is surplus grading material from the road allowance that can be used as fill on Activa’s future development lands; and

h) Activa requested that the existing Countryside Line between the City of Cambridge and Township of North Dumfries be moved to the south into North Dumfries to allow Activa’s currently-zoned agricultural lands between the Municipal boundary and the north side of the South Boundary Corridor to be re-zoned for additional residential development as an expansion of its proposed Draft Plan of Subdivision.

Project Team Response:

The Project Team’s responses to Activa’s requests are as follows:

a) Regarding Activa’s request for a southerly shift of the South Boundary Corridor and Dundas Street intersection, the Project Team is not recommending this alignment adjustment as it would increase project costs by requiring acquisition of additional property along Dundas Street, potentially requiring the additional full buy-out of an existing residential house. Also, a shift of the Dundas Street intersection would unduly constrain options for the future connection of the South Boundary Corridor to the future East Boundary Road.

b) Joint use Stormwater Management (SWM) facilities have been successfully undertaken between the Region and developers in the past. As such, staff are prepared to work with Activa during the detail design phase of South Boundary Road to explore the potential for a joint SWM facility that will be mutually beneficial to both the Region and Activa.

c) Regarding Activa’s request for advancing the grading design for Phase 2 of the South Boundary Corridor, staff are prepared to advance to 2011 the grading design of Phase 2 by including it as part of detailed design for Phase 1 of the South Boundary Corridor. This advancement will assist Activa in finalizing the grading plans of its development lands adjacent to Phase 2. Advancement of the grading design for Phase 2 will also determine if there is surplus grading material from the South Boundary Corridor road allowance that can be used as fill on Activa’s low lying lands.

d) Throughout this Class EA study, representatives of Activa have expressed on several occasions that the Countryside Line between the City of Cambridge and Township of North Dumfries should be amended to permit the lands between the City of Cambridge municipal boundary and the north side of the South Boundary Corridor within the Township of North Dumfries to be re-zoned for use as residential development. Activa’s proposal for an adjustment to the Countryside Line was reviewed by Region staff in connection with the Regional Official Plan (ROP) review process. Activa further appeared as a delegation before
APPENDIX C-5

Regional Council at its meeting of June 16, 2009 in presenting its proposed adjustment to the Countryside Line as part of Regional Council’s consideration of the Regional Official Plan (ROP). Activa’s proposal was subsequently not supported as part of the Regional Official Plan (ROP) by Council at the June 16, 2009 meeting at which the Regional Official Plan (ROP) was approved.

On January 21, 2011 Activa filed an appeal against the Region’s Official Plan (ROP). Region staff will be reviewing and responding to this appeal as part of the ROP appeal process which is expected to take place in 2011 and 2012.

2.2 Delegation from Mr. Jim Collishaw with respect to initiating the East Boundary Road Class EA for future development planning north of Dundas Street

At the November 16, 2010 Planning and Works Committee meeting, Jim Collishaw of Cambridge Planning Consultants, appeared before Committee on behalf of development interests within the Southeast Galt Community area north of Dundas Street. He stated there is a current need for completing an East Boundary Road Corridor study north of Dundas Street within the Southeast Galt Community area. Mr. Collishaw requested that Region staff commit to the timing for an East Boundary Road Corridor study, or permit area developers to undertake the study. Region staff met Mr. Collishaw on January 18, 2011 to discuss and clarify concerns raised at the November 16, 2010 Committee meeting. At the January 18th meeting, Mr. Collishaw expressed an urgency for the Region to initiate the East Boundary Road Corridor study in 2011 and complete it as soon as possible so that area developers can prepare development plans for the Southeast Galt Community area.

Project Team Response:

The Project Team’s response to Mr. Collishaw’s request is as follows:

The need for the East Boundary Road is identified in the 2010 Region Transportation Master Plan. It is also identified in the Region’s Official Plan as a “Proposed Regional Corridor” within the area of future development to the north-east of Dundas Street, known as the Southeast Galt Community area. As identified within the 2010 Region Transportation Master Plan, the East Boundary Road is not projected to be needed until after 2031. Region planning staff has received many requests for advancing development within the Southeast Galt Community area and have met on several occasions with representatives of local land developers including Mr. Collishaw. Mr. Collishaw is quite correct that the location of the East Boundary Road corridor needs to be verified through appropriate studies before development plans can be prepared within the Southeast Galt Community area.

In consideration of current and anticipated future land use planning pressures in the Southeast Galt Community area, Regional staff is planning to initiate a Corridor Planning Study in 2011 for the East Boundary Road that would determine the alignment for this road. It is expected that completion of this study would take until 2014 after which development plans in the Southeast Galt Community area can be prepared.
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2.3 Delegation from Mr. Steve Adams, Forward Baptist Church, with respect to property impacts at the proposed Myers Road and Franklin Boulevard Roundabout

At the November 16, 2010 Planning and Works Committee meeting Steve Adams of the Forward Baptist Church appeared before Committee. He indicated that his Church is in favour of roundabouts but stated concerns about the adverse impacts the proposed roundabout at Franklin Boulevard and Myers Road would have on the Church’s property at the southeast corner of this intersection. Mr. Adams requested Region staff minimize the property required from the Church and resolve adverse impacts to the property. Region staff met with representatives of the Forward Baptist Church on January 11, 2011 to discuss and clarify their concerns raised at the November 16, 2010 Committee meeting. At the January 11th meeting, Church representatives expressed their concerns as follows:

a) The Church requested the Region design the roundabout to minimize the loss of Church lands;

b) The Church is concerned that one of its two existing full-movement accesses on Myers Road will become a right-in/right-out because of the new roundabout. The Church requested that this westerly access be shifted to the east to allow it to remain full movement. In addition, the Church also requested a new additional access to the new Franklin Boulevard on the west side of the Church property;

c) The Church requested that any trees identified to be removed for the construction be moved to other areas on their property;

d) The Church requested that the existing electronic sign be moved to an area on the west side of their property;

e) The construction of the roundabout intersection will result in some removal of parking spaces on the Church property. In addition to providing fair compensation for any property acquisition required by the road improvements, the Church also asked the Region to reconfigure their parking lot to replace the removed parking spaces as well as to address any change in circulation patterns on the site.

Project Team Response:

The Project Team’s responses to the Church’s requests are as follows:

a) The Project Team’s Recommended Design Alternative for the roundabout at the Franklin Boulevard and Myers Road intersection will require property from the Forward Baptist Church property at the southeast corner of the intersection. In the development of the preliminary layout of the proposed Roundabout, the Project Team considered options for shifting the location of the roundabout within the road allowance and selected the recommended option because it is the layout that results in the least amount of overall net adverse impact to all of the surrounding properties at the intersection. The concept plan for the proposed Roundabout at the Franklin Boulevard and Myers Road intersection as recommended by the Project Team is shown in Appendix C. During detailed design Region staff will consider minor refinements to the proposed roundabout with a view to further minimizing adverse impacts on the Church property.
APPENDIX C-7

b) Currently, the Church has two full-movement accesses to Myers Road. The westerly access is the access used most often. The proposed roundabout would require significant reconstruction of this access and will likely require it to be limited to a right-in/right-out operation because of its proximity to the new roundabout. During detailed design, staff will consider shifting this westerly access to the east away from the roundabout to allow it to be a full movement access. Should this shift not be feasible, staff support the provision of an additional new access to Franklin Boulevard to help mitigate the change in site circulation caused by limiting the west access on Myers Road to a right-in/right-out operation. Should a new access to Franklin Boulevard be permitted by the Region, it would have to be right-in/right-out only as the proposed Franklin Boulevard includes a raised median in this vicinity.

c) The roundabout construction will result in the loss of parking spaces and the loss of trees at the Church. Region staff commit to relocating or replacing at the Region’s full expense any trees impacted by the roundabout construction. Region staff will work with the Church during detailed design and property acquisition to determine the location and type of any trees to be replaced.

d) The Church’s existing electronic sign is within the area of their property needed for the Region’s road improvements and will be required to be moved by the Region. During detailed design and property acquisition Region staff will work with the Church in identifying an appropriate location on the Church property for relocating the sign at Region cost.

e) Exact property acquisition requirements will depend on completion of detailed design and once this is completed the Church will be contacted by Regional Real Estate staff to discuss the necessary property acquisitions and related issues. For any property to be acquired, the Church will be reimbursed by the Region of Waterloo for the required land at fair market value. An independent appraisal will be completed for the land based upon recent local sales to determine fair market value. The Region’s Property Acquisition Process Information Sheet, which explains the Region’s property acquisition process, has been made available to the Church and is attached as Appendix “E” to Report E-10-088.

Region staff have met on several occasions with representatives of the Forward Baptist Church in identifying and discussing potential parking, access, and traffic circulation impacts to its property. Region staff will work with the Church during detailed design and property acquisition to identify all potential adverse impacts to its property as a result of the road improvements. Staff will then explore opportunities for reconfiguring the Church parking lot and replacing any resulting lost parking so as to absolutely mitigate any adverse impacts caused by the adjacent road improvements.

2.4 Delegation from Mr. Thomas Hardacre, IBI Group, with respect to severance and land use impacts of the proposed South Boundary Corridor on the Sunvest lands west of Cheese factory Road

At the November 16, 2010 Planning and Works Committee meeting, Thomas Hardacre of IBI Group, on behalf of Sunvest Developments, appeared before Committee. He stated concerns about the impacts of the April 2009 Council-approved alignment of the South Boundary Corridor on Sunvest lands westerly of Cheese Factory Road. Mr. Hardacre requested that Region staff work with his client to minimize the amount of undevelopable lands created as a result of the road alignment. Region staff met with representatives of IBI and Sunvest on January 13, 2011 to discuss and clarify their concerns raised at the November 16, 2010 Committee meeting. At the January 13th
meeting, Sunvest requested that the South Boundary Corridor alignment be shifted across Sunvest lands to the south to minimize the extent of undevelopable lands on the north side of its property.

**Project Team Response:**

The Project Team’s response to Sunvest’s request is as follows:

The alignment for the South Boundary Corridor in the area of Sunvest’s lands at Cheese Factory Road is heavily constrained by existing wetlands, existing gas infrastructure, and roadway geometry. Staff are not recommending any significant shift of the road alignment to the south in this area as this would create additional adverse encroachment into adjacent wetlands and would increase project costs by requiring the acquisition of additional property to the east of Sunvest’s lands.

Region staff will work with Sunvest during detailed design of the South Boundary Corridor to explore opportunities for minor refinements to the corridor alignment across the Sunvest property to reduce the extent of undevelopable parcels on their property, as long as any change in the corridor alignment does not adversely affect adjacent lands. As part of detailed design and property negotiations/acquisition for the South Boundary Corridor, fragmented parcels on the Sunvest lands will be reviewed by Region staff with respect to their viability and if any remnant parcel is found to be non-viable based on its approved land-use designation, the Region will consider full acquisition of the remnant parcel.

3. **Project Team Recommended Design Alternative**

Based on a review of the technical information gathered for this project, consideration of the evaluation of the environmental impacts and benefits/opportunities of the alternatives, a thorough review of all public comments received and consideration of the issues raised at Committee on November 16, 2010, the Project Team is confirming its recommendation for South Boundary Corridor and Franklin Boulevard Extension improvements, as per the recommendations within Report E-10-088.

4. **Next Steps**

Subject to Regional Council approval of the Recommended Design Alternative, the Environmental Study Report (ESR) documenting the planning and decision process for the project will be completed and a “Notice of Study Completion” will be ‘filed’ in the public record for a 30 day review period. This filing will be advertised by mail-outs and notices in newspapers. During this filing period, anyone concerned that the study did not fully follow the appropriate requirements of the Class EA process or address all of the issues, may request that the Minister of Environment order the Project to a more detailed environmental assessment, referred to as a Part II Order request. The Minister of Environment must receive such requests in writing, with a copy sent to the Region’s Commissioner of Transportation and Environmental Services. The Minister will determine if a more detailed environmental assessment is required and the Minister’s decision will be final. If there are no significant unresolved objections following the 30 day review period, the project will be considered approved and will proceed to detailed design and construction.
APPENDIX C-9

ATTACHMENTS:

Appendix A – Key Plan of Project Limits

PREPARED BY: William Gilbert, Senior Project Manager, Design and Construction

cc: Mike Murray, Chief Administrative Officer
APPENDIX A-1

Figure 1: Key Plan of Study Area
Region of Waterloo
South Boundary Corridor and Franklin Boulevard Extension
Class Environmental Assessment
APPENDIX D-1
Dundas Street Alignment Review

ORIGINAL PREFERRED ALIGNMENT
SOUTH BOUNDARY ROAD @ DUNDAS

PROPOSED ACTIVA ALIGNMENT
SOUTH BOUNDARY ROAD AT DUNDAS
### Required Property Comparison
#### At Dundas Street

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Project Team Alignment</th>
<th>Activa Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Developed Lands (Properties with Homes)</td>
<td>6425</td>
<td>8750</td>
</tr>
<tr>
<td>Vacant to be Developed Land (Residential Designation)</td>
<td>34110 (Including approx. 6380 Fragmented Activa lands)</td>
<td>31280 (Including approx. 790 Fragmented Activa lands)</td>
</tr>
<tr>
<td>Open Space</td>
<td>12110</td>
<td>12050</td>
</tr>
<tr>
<td><strong>Total Area</strong></td>
<td><strong>52645</strong></td>
<td><strong>52080</strong></td>
</tr>
</tbody>
</table>

### Property Impact Comparison
#### At Dundas Street

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Region Project Team Alignment</th>
<th>Activa Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Properties with Existing Homes</td>
<td>5 Properties With 3 Total Purchases (2 on north side and 1 on south side) and one partial taking for road widening +One access reduced to right in/out</td>
<td>5 Properties With 4 Total Purchases (1 on north side and 3 on south side) +One access reduced to right in/out</td>
</tr>
<tr>
<td>Number of Vacant Parcels</td>
<td>1 parcel on the north</td>
<td>1 parcel on the north</td>
</tr>
<tr>
<td>Overall Property Required for roadway (m²)</td>
<td>52,645 m²</td>
<td>52,080 m²</td>
</tr>
</tbody>
</table>
APPENDIX D-3

Property Cost Comparison at Dundas Street

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Region Project Team Alignment</th>
<th>Activa Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Developed Lands (Properties with Homes)</td>
<td>$1,250,000</td>
<td>$1,700,000</td>
</tr>
<tr>
<td>Vacant Land to be Developed (Residential Designation + Open Space)</td>
<td>$1,490,000</td>
<td>$1,385,000</td>
</tr>
<tr>
<td>Additional Capital Costs (retaining wall)</td>
<td>-----</td>
<td>$500,000</td>
</tr>
<tr>
<td>Total Cost</td>
<td>$2,740,000</td>
<td>$3,585,000</td>
</tr>
</tbody>
</table>

Evaluation of Original Project Team Recommended and Activa Alignment at Dundas Street

<table>
<thead>
<tr>
<th>EVALUATION CRITERIA</th>
<th>Original Recommended Alignment</th>
<th>Modified Activa Alignment*</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRAFFIC OPERATIONS &amp; SAFETY</td>
<td>● Satisfies operation and safety requirements.</td>
<td>● Satisfies operation and safety requirements.</td>
</tr>
<tr>
<td></td>
<td>Requires purchase of 3 homes &amp; 1 vacant parcel and potential for a right in/out driveway.</td>
<td>Requires purchase of 4 homes &amp; 1 vacant parcel and potential for a right in/out driveway. Higher overall Property requirement.</td>
</tr>
<tr>
<td>SOCIAL ENVIRONMENT</td>
<td>◇ Meets setback requirements from woodlot and wetland (NA 21). Allows for indirect impact mitigation measures.</td>
<td>◇ Encroaches on woodlot and wetland (NA 21). Does not allow for indirect impact mitigation measures.</td>
</tr>
<tr>
<td>NATURAL ENVIRONMENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HERITAGE / ARCHAEOLOGICAL / CULTURAL IMPACTS</td>
<td>● No impacts to built heritage, cultural or archaeological features.</td>
<td>● No impacts to built heritage, cultural or archaeological features.</td>
</tr>
<tr>
<td>COST</td>
<td>◇ Least construction and property costs</td>
<td>◇ Higher construction and property costs Retaining walls required to respect environmental buffer areas.</td>
</tr>
<tr>
<td>OVERALL SCORE</td>
<td>3.4</td>
<td>2.6</td>
</tr>
<tr>
<td>RANK</td>
<td>1st</td>
<td>2nd</td>
</tr>
</tbody>
</table>

Ranking
KITCHENER - WATERLOO
ZONE 6 ELEVATED TANK

CITY OF WATERLOO

PRE-CONSTRUCTION
INFORMATION PACKAGE

Public Information Centre
Thursday, June 23, 2011
5:00 PM to 9:00 PM

at

Westvale Public School,
265 Westvale Drive,
WATERLOO
1. **What is the Purpose of this Public Information Centre?**

The Region of Waterloo (Region) plans to construct a new elevated water tank northwest of the intersection of Ira Needles Boulevard and University Avenue. (Please refer to the attached plan). The Region has scheduled to start construction of the elevated water tank in September 2011.

This evening’s Public Information Centre (PIC) is an opportunity for local residents and businesses to:

- Review and discuss with Region/City staff the project background;
- Review the construction schedule and limits of work;
- Review construction impacts on the local residents and traveling public;
- Discuss impacts to local businesses and private residences;
- Ask Region/City personnel any questions related to the construction project.

2. **Has the Construction of the Elevated Water Tank Been Approved under the Class Environmental Assessment Process?**

Yes. In 2001 the Region completed the Kitchener-Waterloo Zone 5 & 6 Water Supply Project, a Municipal Class Environmental Assessment (Class EA), Schedule B. This Public Information Centre (PIC) is not a requirement under the Class EA but gives the Region opportunity to further inform the public about this construction project and answer questions related to this project.

3. **Why is the Elevated Water Tank Being Constructed?**

The above noted Municipal Class Environmental Assessment (Class EA) found that existing water systems in south-western Kitchener and western Waterloo may have difficulties meeting flow and pressure requirements under future population growth scenarios. Therefore, the Region proceeded with the recommendations of the Class EA to design and construct a new pumping station, several new watermains and a new elevated water tank. This elevated water tank is the last of the Class EA recommendations that needs to be constructed. The elevated water tank will enhance water supply operations by “smoothing” out the high water demand peaks and will make the water pumps in the pumping station work more efficiently and economically. Under low water demand conditions, the water tank will be filled and water will be drawn out of tank under high water demand conditions. The new water tank will also provide supplementary equalization and fire storage volumes for Kitchener and Waterloo.
4. What will the Elevated Tank Look Like?

The photograph above shows the Baden Elevated Tank that was completed in the Township of Wilmot in 2008. The proposed Kitchener-Waterloo Zone 6 Elevated Tank will have a similar shape with an approximate height of 40 metres (approximately 130 feet) and a capacity of 7,200 cubic meters (approximately 1,600,000 imperial gallons). The Region has retained a landscaping consultant to design landscaping features such as trees and shrubs around the base of tank. Detailed landscaping drawings will be available for viewing at this Public Information Centre.

5. How Much will the Elevated Water Tank Cost and How is it Funded?

The estimated cost of the project is $7,000,000, which includes construction of the elevated water tank, two 450 mm diameter watermains from Ira Needles Boulevard to the proposed tank, an access driveway, landscaping (including removal of old damaged trees and planting new trees) and all engineering costs.

All costs for this project will be paid through Regional Development Charges.

6. What is the Expected Duration of the Construction Project?

Construction is expected to take approximately two years, from September 2011 to November 2013.

7. Will Traffic be Disrupted During Construction?

All construction traffic will access the site via Ira Needles Boulevard. Accordingly, there will be some additional truck traffic on Ira Needles Boulevard at times during construction. Motorists may notice slightly higher truck traffic hauling construction materials in and out of the construction site during certain stages of construction. All lanes of traffic on Ira Needles Boulevard will remain open to traffic during the construction with the exception of a one week period in 2013 when there will be temporary lanes restriction on Ira Needles Boulevard to connect the new watermains.
8. **How will Private/Commercial Properties be Affected During Construction?**

No private or commercial properties will be affected by the construction. The truck traffic will access the construction site from Ira Needles Boulevard. There are no direct impacts to the commercial plaza south of the construction site or any other properties in this area.

9. **Will Water Service be Disrupted During Construction?**

No water service disruption is expected during the construction.

10. **Will Water Pressure be Affected After Construction?**

Existing water pressures will not be affected after construction.

11. **How Will Noise, Vibration, and Dust be Controlled During Construction?**

There will be some potential for noise, vibration, and dust during construction of the elevated water tank and watermains. In general, the Contractor will be required to undertake the following measures during construction:

- Restrict construction activities to normal working hours from 7 a.m. to 7 p.m. Monday through Friday. (It is possible that the contractor will work some Saturdays);
- Establish and maintain site procedures such that noise generated from construction areas are minimized and comply with the City of Waterloo Noise By-law and Ministry of the Environment (MOE) standards;
- Minimize dust nuisance resulting from construction activities at all locations on the site by using water and other dust suppressing measures;
- Fully comply with the Occupational Health and Safety Act.

12. **Next Steps?**

The Region plans to tender this project in July 2011. The construction is expected to comments in September 2011.

13. **How Can I Voice my Comments at This Stage?**

The Region of Waterloo and the City of Waterloo value your comments and concerns and are interested in receiving feedback from property owners and business owners about this construction project. If you wish to provide comments, or to further discuss your specific situation, you can contact the Region’s Project Manager as noted below by phone, mail, fax or email. We thank you for your involvement and should you have any questions or concerns at any time during the project, please contact:

Mr. Jerry Borovicka, CET, rcca
Project Manager, Design & Construction
Regional Municipality of Waterloo
150 Fredrick Street, 6th Floor
Kitchener, Ontario N2G 4J3
Tel: 519-575-4092, Fax: 519 575 4430
E-mail: jborovicka@regionofwaterloo.ca
RECOMMENDATION:

THAT The Regional Municipality of Waterloo approve the Grand River Transit Policy – Onboard Mobile Surveillance Systems, attached as Appendix A to this Report.

SUMMARY:

In June 2010, Regional Council approved the purchase of a mobile video surveillance system to be installed on GRT vehicles (Report F10-065). In February, 2011 Council directed Staff (Report E-11-025) to consult the public in relation to the draft Onboard Mobile Surveillance Systems Policy prior to activating the Onboard surveillance systems.

The use of video surveillance equipment is permitted under legislation provided safeguards are put in place to protect information that is captured. In recognition of the privacy rights of transit customers, the Onboard Mobile Surveillance Systems Policy was developed in accordance with the Information and Privacy Commissioner of Ontario’s Guidelines. This policy addresses the privacy safeguards of storage, retention and access to any images or information captured through the onboard video surveillance system. Should Council approve the Onboard Mobile Surveillance System Policy, installations would begin during the summer months with a fall target date for the systems to be operational.

This report summarizes the result of the public outreach and identifies recommended revisions to the policy based on the community feedback received and staff input.

REPORT:

1) Background

In a recent decision by the Province’s Information and Privacy Commissioner titled Privacy and Video Surveillance in Mass Transit Systems (a 2008 report regarding video surveillance use on the TTC), the Commissioner concluded that based on the unique and multifaceted nature of mass transit systems, a full range of safety and security options are available and permitted including the use of video surveillance equipment. The Commissioner determined that video surveillance was permissible, in general, under the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA) since safety and security are essentials components to the proper functioning and administration of a public transit system.

Grand River Transit (GRT), like many transit systems, has experienced safety and security related issues on transit vehicles. At times, staff and riders experience unwelcome and inappropriate
behaviour while riding transit. Onboard incidents between customers are not tracked; however each year an average of 12 assaults or threats of violence are reported by Transit Operators onboard vehicles.

Similar problems have been experienced on other public transportation systems across North America and there has been an increasing installation and use of video surveillance systems on public transportation vehicles. Major centres such as Toronto, Montreal, Vancouver, Ottawa, Edmonton and Calgary have installed cameras on all or a portion of their fleets. Closer to the Region of Waterloo, smaller urban transit systems such as Guelph Transit and St. Catharines Transit have also deployed onboard video surveillance systems.

This technology will enhance the onboard safety and security of travelling customers and employees since transit vehicles are vulnerable to risks which can threaten the health and safety of passengers and employees. In conjunction with existing GRT security staff and the video surveillance available at Regional facilities including transit terminals; these onboard surveillance systems provide the following additional benefits:

- Deter and investigate onboard vandalism, violence and other potential criminal activities;
- Create a feeling of enhanced security among passengers;
- Discourage intimidating and other unwelcome behaviour;
- Help to investigate vehicle collisions and incidents that could result in legal proceedings.

TransLink in Vancouver recently indicated it is adding 600 security cameras to its bus fleet with a goal of protecting drivers and customers, reviewing incidents, and investigating claims. The agency placed cameras in 244 buses in 2006 and says they have helped protect drivers and solve crimes. According to TransLink, the number of bus driver assaults has dropped 20% on buses equipped with cameras, from 44 assaults in 2009 to 35 in 2010, compared to a 7% drop on buses without cameras (from 82 to 76).

2) Public Information Centres (PIC)

In April three Public Information Centres were held to review and discuss the draft Onboard Mobile Surveillance Policy.

April 5  2:30pm-6:00pm    Charles St. Transit Terminal
April 6  2:30pm-6:00pm    Ainslie St. Transit Terminal
April 7  4:00pm-7:30pm    Region of Waterloo Headquarters

The information materials presented at the PICs consisted of display boards describing the draft policy, and the proposed locations of vehicle cameras. Take-away materials included Frequently Asked Questions regarding the draft policy and a comment sheet requesting input on the draft policy in several areas.

In addition to the Security Camera PICs, the display boards and materials were available for review at the Service Improvements PICs held;

March 29  4:00pm-8:00pm    University of Waterloo, WG Davis Centre
March 30  4:00pm-8:00pm    Real Canadian Superstore, Highland Hills Mall
March 31  4:00pm-8:00pm    King St. Baptist Church, Cambridge

Information was also available on GRT.ca, through GRT Rider and Media Alerts, Newspapers and Twitter. Printed, television, and radio media carried stories regarding cameras on buses. The PIC information materials are presented in Appendix B.
In total 113 people provided comments regarding the draft policy and the surveillance system.

3) Concerns Raised by the Public

Overall the majority of comments received supported the draft policy and having cameras on GRT vehicles, recognizing the benefits the mobile surveillance systems provides transit users. Approximately 30% of the people commenting indicated they were not in favour of cameras on buses, primarily citing privacy concerns. Appendix C provides a summary of the input received.

The main issues raised by the public relate to:

a) Audio Recording should not be permitted

Response:  
As most incidents occur in the immediate driver’s area the recommended Onboard Mobile Surveillance Systems Policy has been revised to restrict audio recording to the immediate area around the driver where incidents occur. Audio recording would not be permitted in the passenger compartment of the vehicle.

Recording audio is intended to support and protect employees involved in verbal disagreements with customers. Experience has shown verbal disagreements can escalate into more serious conflicts including threats of violence and altercations. Under recent changes to the Ontario Health and Safety Act, the definition of workplace violence includes verbal threats to exercise physical force against a worker. Audio recording will assist with determining the nature and intent of those involved in disputes with employees.

b) Cameras should also record the Bus Operator Area

Response:  The camera system provides an over the head view of the area immediately adjacent to the driver and would include audio recording of the driver’s conversations. Equipment will not be used for the purpose of monitoring employee performance as outlined in the relevant Collective Agreement or Regional policy.

c) GRT should not be recording/collection/accessing any information

Response:  
In a recent decision by the Province’s Information and Privacy Commissioner titled Privacy and Video Surveillance in Mass Transit Systems (a 2008 report regarding video surveillance use on the TTC), the Commissioner concluded that based on the unique and multifaceted nature of mass transit systems, a full range of safety and security options are available and permitted including the use of video surveillance equipment. The Commissioner determined that video surveillance was permissible, in general, under MFIPPA since safety and security are essentials components to the proper functioning and administration of a public transit system.

The use of video surveillance equipment is permitted under legislation provided safeguards are put in place to protect information that is captured. In recognition of the privacy rights of transit customers, the Mobile Video Surveillance Policy was developed in accordance with the Information and Privacy Commissioner of Ontario’s Guidelines. This policy addresses the privacy safeguards of storage, retention and access to any images or information captured through the onboard video surveillance system.
d) Information Retention Time

Response:
The Information and Privacy Commissioner’s guidelines recommend information not accessed be routinely erased between 48 and 72 hours. The GRT retention time of 60 hours was selected to allow recording of information for approximately three service days for in-service GRT buses. As buses are out for varying durations during the day, 60 hours was selected to capture information for the buses out during the longest service days. Information recording occurs at all times when the vehicle is turned on and is recorded over after the hard drive space for recording is full. Information is not removed after a specific period of time but rather recorded over when space for more recent information is needed. Since buses have varying daily operational times and some may be withheld from service for inspection or repair information can remain on the vehicle for more than the time suggested by the Information and Privacy Commissioner’s office. As an additional safeguard, the recommended policy has been revised to require requests for information to be received within 72 hours of the date of the alleged incident unless the information is required for a warrant, summons, court order or other legal process that requires disclosure of surveillance images or information.

e) Maintain strict control over access and ensure the information collected is secure

Response:
The information is saved/recorded in a vendor proprietary format. This ensures data is unalterable, unable to be corrupted by tampering and circulation of information is limited. Recorded images are watermarked. The Digital Video Recorders (DVR) are in a locked metal case on the vehicle, transported in a secure carrying case by authorized employees and uploaded using proprietary readers to password protected computers.

Several revisions to the policy are recommended to further clarify how information is used, to adjust authorization levels to ensure clarity of responsibility and control of information and to require the disposal of old devices according to methods outlined by the Office of the Information and Privacy Commissioner of Ontario.

4) Recommended revisions to the draft policy

In response to the aforementioned concerns the draft policy has been revised to include the following revisions into the recommended policy:

- Restricting audio recording to the immediate area around the bus operator and not permitting audio recording in the passenger compartment of the vehicle.
- Clarifying how information is used by removing the term “transit service issues” and identifying in the policy statement and other locations in the policy that “Surveillance system recordings will be used only for the purposes of: detecting, deterring and investigating unlawful activity which includes possible contraventions of any Federal or Provincial legislation or municipal by-laws; investigating and resolving personal injury and other legal claims; and investigating and resolving employee discipline proceedings.”
- Requiring the disposal of old devices according to methods outlined by the Office of the Information and Privacy Commissioner of Ontario.
- Adjusting authorization levels to tighten access and ensure clarity of responsibility.
- Adding Schedule “A” which provides a list of Designated Personnel
- Requiring requests for information be received within 72 hours of the date of the alleged incident unless required for a warrant, summons, court order or other legal process that requires disclosure of surveillance images or information.
Edits to the policy to increase the control of information and limit access

The recommended policy is attached as Appendix A.

CORPORATE STRATEGIC PLAN:

The implementation of the Mobile Video Surveillance system on GRT buses supports Focus Area 3: Healthy and Safe Communities and Focus Area 5 Service Excellence by ensuring a safe environment for employees and customers while safeguarding their right to privacy.

FINANCIAL IMPLICATIONS:

The approved 2010 GRT Capital Budget included $1,773,000, to be funded from debentures for the purchase and installation of the mobile video surveillance system. The initial capital purchase of the surveillance system to outfit 162 (of 218) GRT buses and all MobilityPLUS vehicles was outlined in Report F-10-065 based on the proposal accepted from Seon Design Inc. at a cost of $755,777.90 including all applicable taxes. It is estimated that over the next four years an additional $750,000 will be required to outfit the remainder of the fleet and to install system communications components and cover extended warranties on the equipment.

It is anticipated that the costs associated with the development and implementation of the GRT Onboard Mobile Surveillance System Policy can be accommodated within the existing capital budget approval.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:
Consultation occurred with Corporate Resources staff with assistance from both the Information Access & Privacy Advisor and Legal Services

ATTACHMENTS

Appendix A - Onboard Mobile Video Surveillance Systems Policy
Appendix B – Public Information Center Information Materials
Appendix C - Summary of public comments received

PREPARED BY: Peter Zinck, Assistant Director, Transit Services

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
POLICY STATEMENT:

Public transit vehicles are vulnerable to a number of risks, including violent acts that can threaten the health and safety of passengers and employees, criminal activities that occur on transit vehicles, vandalism and theft of property, and injuries related to the operation of the vehicles or collisions. Onboard mobile surveillance systems are one method of deterring inappropriate actions, investigating criminal activities or resolving personal injury claims. Surveillance systems may also impact the privacy expectations of transit users if there are inadequate controls on their use. The Regional Municipality of Waterloo respects the rights of individuals to have their personal information handled in accordance with applicable laws, including the Municipal Freedom of Information and Protection of Privacy Act (MIFPPA). This policy outlines the procedures used by Grand River Transit (GRT) and responsible Regional staff to ensure compliance with MFIPPA. Surveillance system recordings will be used only for the purposes of: detecting, deterring and investigating unlawful activity which includes possible contraventions of any Federal or Provincial legislation or municipal by-laws; investigating and resolving personal injury and other legal claims and proceedings; and investigating and resolving employee discipline proceedings.

OPERATING DETAILS:

Vehicles with Surveillance Systems

- Grand River Transit (GRT) may utilize mobile surveillance systems on all conventional transit and specialized transit (MobilityPLUS) vehicles.
- Mobile surveillance systems may include the use of video and audio recording equipment.
- The mobile surveillance systems shall not be monitored by GRT staff while equipment records activities on the vehicles.

PROCEDURES:

Installation
1. Surveillance systems installed at Regional buildings including transit facilities, which are managed by Facilities Management, are not included in this policy.

2. Mobile surveillance systems will be installed or configured to prevent or limit the ability to record beyond the immediate vicinity of the vehicle. Audio recording shall not occur in the passenger compartment and is therefore restricted to the immediate driver’s area.

3. Surveillance system recordings will be used only for the purposes of: detecting, deterring and investigating unlawful activity which includes possible contraventions of any Federal or Provincial legislation or municipal by-laws; investigating and resolving personal injury and other legal claims; and investigating and resolving employee discipline proceedings.

4. The mobile surveillance systems shall not be monitored by GRT staff while equipment records activities on the vehicles.

5. Equipment will not be used for the purpose of monitoring employee performance as outlined in the relevant Collective Agreements or Regional policy.

6. Surveillance recording equipment monitors, and information storage media will be in a controlled access area restricted from any public or unauthorized viewing.

7. On all vehicles where surveillance systems are used, the signage shown in Appendix 1 will be prominently displayed at all entrances and on the inside of the vehicle. The signage may vary to suit the circumstances of the type of vehicle being monitored.

A Notice of Collection, required under section 29 of MFIPPA, will also be available to the public (see Appendix 2). The Notice of Collection shall be made available through the GRT website (www.grt.ca), public directories, or alternate formats such as pamphlets or signage based on the nature of the public’s use of specific facilities.

8. All proposed new installations of surveillance systems onboard GRT vehicles and revisions to existing locations are to be submitted for approval by the Director, Transit Services or designate. The approval process will examine the need for the equipment recognizing MFIPPA and will consult as required with Labour Relations regarding employee/labour relations concerns. Notification will be sent to all employees at any given location prior to the new installation of surveillance systems indicating the location of installations.

9. All recording equipment will be reasonably obvious to persons using the vehicle.
10. Surveillance systems shall only be operated when the vehicle in use by the general public. For greater certainty, surveillance systems shall not be operated when the vehicle is in use for private charter or off-site at contracted services.

11. Vehicle operators shall not have the ability to alter the location of surveillance cameras or have the ability to adjust, zoom or manipulate the surveillance system components.

Policy Distribution

All GRT employees will be advised of and required to read and comply with this policy. Recorded documentation in the form of a Communication Record will be circulated with this policy, and any subsequent revisions, to ensure staff awareness and compliance.

Viewing

Images or information obtained by way of a surveillance system on a GRT vehicle shall only be used by the Region for a purpose that is consistent with the rationale for this Policy.

Only authorized persons identified in Schedule “A” may access surveillance images or information to support a proper and necessary function. At each site where systems are in operation, an Assistant Manager/Manager has been designated to maintain the list of authorized persons. This designate is responsible for ensuring only the listed people have access to video surveillance images or information, recording or storage equipment.

All authorized Regional employees and Regional agents / contractors will be advised of and required to read and comply with this policy. Recorded documentation in the form of a Communication Record will be circulated with this policy, and any subsequent revisions, to ensure awareness and compliance. Regional employees and Regional agents / contractors who access or obtain images and information will be required to execute an undertaking of confidentiality.

All Regional contracts to install / maintain the surveillance systems as well as Regional security contracts will require adequate provisions to protect privacy and maintain Regional control over the surveillance equipment and surveillance images and information.

Disclosure and Requests for Copies of Images

Release of surveillance images or information must support the purposes of this policy and requires the approval of the Director, Transit Services or designate. The Director will consult, as required, with the Region’s Information Access and
Privacy Advisor in Council and Administrative Services, Supervisor, Security Services or Manager, Labour Relations prior to releasing surveillance images or information.

All requests for release of information and all released information will be logged for tracking purposes. Copies of surveillance information will only be released with the signed authorization of the Director, Transit Services or designate.

Requests from law enforcement agencies or regulatory agencies will be in writing and must identify the legal authority under which the agency is requesting disclosure unless the agency requests immediate access for reasons including imminent danger, hot pursuit or serious threat to public and/or worker health and safety. In this case, provided the images and information are logged for tracking purposes, the information may be may be disclosed by the Director, Transit Services or designate without a written request.

An individual whose personal information has been recorded has a right to request access to those images or information in accordance with MFIPPA. These requests will be directed to the Region’s Freedom of Information & Privacy office in Council and Administrative Services which will process the request in accordance with the legislation.

All other persons requesting access to images or information under MFIPPA will be directed to the Region’s Freedom of Information & Privacy office in Council and Administrative Services which will process the request in accordance with the legislation.

The Region shall comply with any warrant, summons, court order or other legal process that requires disclosure of surveillance images or information, subject to consultation with the Regional Solicitor and Information Access and Privacy Advisor in Council and Administrative Services.

Storage

These procedures relate to the storage of information from surveillance systems including use of information, filing, retention, copies, security and disposal. The overriding process is that persons with authorized access must ensure security of surveillance information; responsible supervisors/managers must tightly control access to video surveillance images and information.

Surveillance system recordings will be used only for the purposes of: detecting, deterring and investigating unlawful activity which includes possible contraventions of any Federal or Provincial legislation or municipal by-laws; investigating and resolving personal injury and other legal claims; and investigating and resolving employee discipline proceedings.

All information storage devices will be located in a controlled access area. Storage media capable of being removed from the recording device will be kept in a locked storage container within the controlled access area. Where images
are captured on computer drives these are to be password protected so only authorized persons can obtain access. Information sent via the web or wifi to remote monitoring locations will also be password protected.

Old storage devices will be securely disposed of in such a way that the personal information cannot be reconstructed or retrieved. Disposal methods include overwriting electronic records or magnetically erasing the personal information as outlined by the Office of the Information and Privacy Commissioner of Ontario.

Access to the recordings is the responsibility of Director, Transit Services unless this Policy states otherwise. The Director, Transit Services or designate shall maintain a record that sets out all persons, with applicable dates, who access and / or obtain images or information obtained by way of a surveillance system on a GRT vehicle.

**Retention**

Requests for information collected by the recording systems on GRT vehicles will not be accepted or the information retrieved and viewed unless the request is received within 72 hours from the date of the alleged incident or is required for a warrant, summons, court order or other legal process that requires disclosure of surveillance images or information. Information collected by recording systems on GRT vehicles will, unless otherwise requested, be routinely erased or recorded over after a period of 60 hours of vehicle operational time. If required for investigative purposes by the Region or a law enforcement agency specific images will be copied and retained for a minimum period of one (1) year and shall be maintained thereafter for so long as necessary based on any ongoing investigation or legal proceeding.

**Breach of Policy**

The Director, Transit Services, Information Access and Privacy Advisor, Human Resources and Legal Services as needed will investigate and respond to any breach or alleged breach of this Policy.

The Director, Transit Services shall ensure that an audit is conducted on an annual basis to ensure compliance with this Policy.

**Reporting**

The Manager, Business Services and Supervisor, Security Services (Facilities) will prepare an annual report for Regional Council summarizing all new onboard installations, as well as all requests for surveillance information and any other related security issues of import.

The Director, Transit Services, Supervisor, Security Services (Facilities) and Assistant Manager, Passenger Facilities and Terminals will review this Policy every two years and report to Regional Council concerning any amendments
that are required.

A summary in the form of a pamphlet concerning the rationale for this Policy and safeguards implemented thereto shall be made available to the public, upon request. A summary concerning the rationale for this Policy and safeguards implemented thereto shall also be posted on the Regional / GRT website.

Responsibilities

Director, Transit Services or designate

- Approves all onboard mobile surveillance systems and installations
- Responsible for the overall program of mobile surveillance on transit vehicles
- Maintains a record of all requests for copies of surveillance images or information
- Approves the release of information for law enforcement or legal proceedings, grants approval to retrieve and view information.

Assistant Manager, Passenger Facilities and Terminals

- Assists the Director with audits to ensure all system operations are in compliance with Regional policy and MFIPPA.
- Responsible for the review and update of this Policy every two years in conjunction with the Supervisor, Security Services (Facilities)
- Supervises the activities of the Coordinator, Transit Security
- Reviews all mobile surveillance system and camera installations
- Maintains and circulates to GRT Management, the approved list of authorized persons who, as a requirement of their position may access surveillance images and information to support a proper and necessary function.

Supervisor, Transit Security

- In collaboration with the Supervisor, Security Services provides technical advice on types of cameras, storage devices, etc.
- Reviews storage and retention procedures for all surveillance system records
- Ensures all operators of surveillance equipment are trained including safe storage, retention, privacy requirements, and release of images and information
- Examines the necessity of specific surveillance system expansions respecting privacy requirements.
- In collaboration with the Supervisor, Security Services, recommends locations for surveillance systems and specific camera locations
- Develops rules for circumstances where images and information may be obtained by authorized persons
Supervisor, Security Services (Facilities)

- Assists the Director, Transit Services or designate in regards to the release of video surveillance images and information to law enforcement agencies or in response to a subpoena or other court order
- Assists Information Access & Privacy Advisor if access to images is requested under MFIPPA

Manager, Transit Fleet Maintenance

- Monitors all installation and maintenance work of contractors of the onboard surveillance system components
- Supervises maintenance work on surveillance system components and ensures recording systems are maintained in a state of good repair
- Ensures confidentiality of images and information during maintenance
- Responsible for posting signage on vehicles

Manager, Transit Operations

- Ensures only authorized persons access surveillance images
- Ensures Assistant Managers and Transit Supervisors have the up to date list of authorized persons and comply with notification requirements on all requests to view surveillance images or information.

Assistant Manager, Transit Operations

- Authorizes the retrieval of recorded information.
- Maintains a log of those authorized persons accessing surveillance images and information and also emails the details of each occurrence to the Manager, Transit Operations and Director, Transit Services
- Monitors equipment operation and recording activity
- Retain, store, label and dispose of images and information as according to the Information Retention and Disposal By-law (93-076)
- Ensures confidentiality of images and information

Transit Supervisor

- Secures access to recording equipment and labeled storage at GRT facilities
- When retrieving information, ensures only authorized persons access the information.

Information Access & Privacy Advisor

- Handles Freedom of Information requests for images with assistance of Supervisor, Security Services
● Provides advice on the compliance of surveillance systems with applicable privacy statutes

Manager – Labour Relations

● In consultation with the Director, Transit Services or designate, authorizes release of surveillance information where employee information has been captured, when appropriate
● Provides guidance on use of surveillance recordings in investigations where employee information has been captured.

SEE ALSO:

Facilities Management Policy Video Surveillance Policy (3.8)
Building Security (3.4)
Information Retention and Disposal By-law 93-076, as amended
Municipal Act
Municipal Freedom of Information and Protection of Privacy Act
Appendix 1

NOTICE

Activities on the bus are recorded with video/audio surveillance devices. For more information and to provide feedback about the use of these devices, visit www.grt.ca
Appendix 2

Notice of Collection Regarding the Mobile Surveillance Systems

The collection of personal information by surveillance systems is authorized under the Municipal Act. Surveillance systems will be used to deter vandalism, criminal activity, or any actions which could cause damage or injury to Regional property, staff or other persons. Surveillance system information will be used to investigate any incident and for auditing purposes related to facility and systems security. Access to system equipment and recorded information is restricted to authorized staff. Surveillance information may be disclosed to law enforcement or other public agencies to assist in authorized investigations. Questions about the collection of personal information may be directed to: Director, Transit Services, 250 Strasburg Road, Kitchener, Ontario N2E 3M6; telephone 519-575-7555.
SCHEDULE “A” - DESIGNATED PERSONNEL

For the purpose of this policy, the personnel designated as authorized agents shall be as follows and includes any successor positions and other Regional employees or agents authorized under privacy legislation.

Approves the release of information for law enforcement or legal proceedings, grants approval to retrieve and view information.

- Director, Transit Services or his or her designate
- Regional Solicitor

Approved to view information and retrieve information

- Chief Administrative Officer
- Commissioner, Human Resources
- Commissioner, Transportation and Environmental Services
- Director, Transit Services or his or her designate
- Assistant Director, Transit Services, or his or her designate;
- Manager, Labour Relations
- Manager, Transit Operations
- Manager, Transit Fleet
- Manager, Corporate Health and Safety
- Manager, Risk Management Services
- Assistant Managers, Transit Operations;
- Assistant Manager, Passenger Facilities and Terminals;
- Assistant Manager, Specialized Services;
- Supervisor, Security Services
- Supervisor, Transit Security

Approved to retrieve information

- Commissioners and Corporate Leadership Team
- Director, Transit Services or his or her designate
- Assistant Director, Transit Services, or his or her designate;
- Manager, Labour Relations
- Manager, Transit Operations
- Manager, Transit Fleet
- Assistant Managers, Transit Operations;
- Assistant Manager, Passenger Facilities and Terminals;
- Assistant Manager, Specialized Services;
- Supervisor, Security Services
- Supervisor, Transit Security
- Transit Supervisors;
- Supervisor, Transit Fleet Maintenance
- Project Manager, Transportation Planning
Appendix B - PIC Information Materials

Grand River Transit
2011 Security Cameras on Buses

Your Comments Are Important To Us

Complete this form electronically at www.grt.ca or provide detailed comments and leave this form so that your opinions can be considered. If you cannot complete your comments today, please take this form home, then mail or fax by Friday April 8th to:

Grand River Transit
250 Strasburg Rd.
Kitchener, ON N2E 3M6

Fax: 519 585-1060

Please provide your comments on the following:

1. How the security camera information is collected.

2. How the security cameras images are stored.

3. Length of time the security camera recordings are stored.
4. Access to system records.

5. Do you have any additional comments?

Optional:

Gender:  □ Male  □ Female  Age:  □ 15-19  □ 20-24  □ 25-54  □ 55-64  □ 65+

Name: ____________________________________________________________
Address: __________________________________________________________
Email: _____________________________________________________________

Thank you for your participation in this important project!

COLLECTION NOTICE: Personal information requested on this form is collected under the authority of the Municipal Act and will be used to assist the Region of Waterloo in making a decision on this project. Any personal information such as name, address, telephone number, and property location included in a submission from the public may become part of the public record file for this matter.
Security Cameras Policy for GRT Vehicles

Policy Statement:

The Region of Waterloo - Grand River Transit will begin installing security cameras on all GRT vehicles used to provide conventional transit service and specialized (MobilityPLUS) transit service, 12 years old and newer. The Region of Waterloo makes use of security cameras to assist in protecting the safety of employees, residents and visitors and to monitor and protect physical assets.

Security cameras will be used within certain defined procedures as a deterrent, to record significant events, to monitor criminal activity, and to meet legislative requirements as set by provincial law. Security cameras images will not be continuously monitored on a real time basis. The systems may include the use of video and audio recording equipment.

Purpose of the policy:

This policy establishes procedures which balance safety and security with an individual’s right to privacy. Specifically, the policy addresses the following:

- The installation and operation of security cameras on Grand River Transit vehicles;
- The use of the information obtained through security cameras on Grand River Transit vehicles; and
- Control, access to and retention of records created through security cameras on Grand River Transit vehicles

Camera location and installation:

- Security cameras will be installed to prevent or limit the ability to record images beyond the immediate vicinity of the vehicle
- On all GRT vehicles where security cameras are in use, signage will be prominently displayed at all entrances and in the inside of the vehicle. The signage may vary to suit the circumstances of the vehicle being monitored. All security cameras will be reasonably obvious to persons using the vehicle
- Security cameras, monitors, and image storage will be in a controlled access area restricted from any public or unauthorized viewing

All procedures will comply with the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA), or any other applicable law.
The following Frequently Asked Questions will help to explain Grand River Transit’s use of security cameras onboard GRT vehicles.

Q. How is the information collected by cameras to be used?

A. Any information obtained by security cameras may only be used to assist in protecting the Region, their employees, residents or visitors, assessing a threat to safety and security, or to investigate transit service issues and to protect assets.

Q. How are the security camera images stored?

A. All information storage devices will be located in a controlled access area. Storage media capable of being removed from the recording device will be kept in a locked storage container within the controlled access area. Where images are captured on computer drives these will be password protected so only authorized persons can obtain access. Information sent via web or wifi to remote monitoring locations will also be password protected. Access to the recordings is the responsibility of the Supervisor, Security Services or the Director, Transit Services. Old storage devices will be securely disposed of in such a way that the personal information cannot be reconstructed or retrieved.

Q. What length of time are the security camera images stored?

A. Information collected by a security camera recording system will, unless otherwise requested, be routinely erased or recorded over after a period of 60 hours of vehicle operational time. If required for investigative purposes by a law enforcement agency or for public safety, or for the defence of liability claims against the Region specific images will be copied and retained for more than one (1) year.

Q. Who has access to system records?

A. Only authorized persons as determined by the Director, Transit Services or designate may access security camera images or information. Where systems are in operation, a supervisor/manager has been designated to maintain the list of authorized persons. This designate is responsible for ensuring only the listed people have access to video surveillance.

Q. Do other Transit systems use security cameras?

A. Security camera systems are in use all over the world. In Canada, transit systems using security systems include: Winnipeg Transit, Guelph Transit, Mississauga Transit and the Toronto Transit Commission (TTC).

We would like your feedback!

Please provide your comments to this policy, by completing the online survey by April 8, 2011.
Security Cameras on GRT Vehicles

Camera locations on GRT Buses

1. Mounted over bus operators head - captures entire front door and most of the fare box area.

2. Mid-mounted camera - captures entire rear door and entire seating area behind the rear door.

3. Mounted either on front panel over bus operators area or on ceiling behind front door - captures entire cabin from the front looking to the back.

4. Mounted either at top edge of windshield or on dash in the centre of the bus - captures the exterior top of bike rack (including any bikes) and road immediately in-front of bus.

5. Mounted at the rear of the bus on the ceiling - captures entire cabin from rear to front expect for the last few rows of seats.

6. Mounted above or directly behind and above front door on exterior - captures entire side of bus from front door back including part of front wheel, rear door and rear wheel areas.

Camera locations are approximate and will vary with vehicle make and model.
Security Cameras on GRT Vehicles

Camera locations on MobilityPLUS Vans

1. Mounted over bus operator - captures entire front door and as much of the fare box as possible.

2. Mounted on ceiling just behind front door - captures most of the cabin from the front looking to the back.

3. Mounted either at top edge of windshield or on dash in the centre of the bus - captures hood and road immediately in-front of vehicle.

4. Mounted on ceiling opposite rear door / lift - captures entire rear door and lift as well as a portion of vehicle from back facing forward.

Camera locations are approximate and will vary with vehicle make and model.
Security Camera Locations on GRT Vehicles

MobilityPLUS Van

GRT Bus
Security Cameras on GRT Vehicles

Purpose of the security cameras:

- Assist in protecting the safety of employees, residents and visitors and to monitor and protect physical assets.

- Cameras will be used within certain defined procedures, to record significant events, to monitor criminal activity, and to meet legislative requirements as set by provincial law.

- Video surveillance will not be continuously monitored on a real time basis.

Information collected by security cameras:

- Be routinely erased or recorded over after a period of 60 hours of vehicle operational time.

- Specific images will be copied and retained for more than one (1) year, if required for investigative purposes by a law enforcement agency or for public safety, or for the defence of liability claims against the Region.
Appendix C - Summary of public comments received

Overall, 113 people provided comments regarding the draft policy. Not all people commenting included comments on each question resulting in question totals of less than the 113.

Q. 1 Please provide your comments on how the security camera information is collected.

<table>
<thead>
<tr>
<th>Number</th>
<th>Staff Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>Agrees with draft policy or cameras</td>
</tr>
<tr>
<td>8</td>
<td>Agrees with policy or cameras but has concerns about recording audio</td>
</tr>
<tr>
<td></td>
<td>The surveillance system and policy are proposed to be modified so audio recording does not occur in the passenger compartment. One camera in the driver’s area will record audio of the driver compartment and fare box area.</td>
</tr>
<tr>
<td>8</td>
<td>Agrees with policy or cameras but equipment should also record the driver’s area</td>
</tr>
<tr>
<td></td>
<td>Cameras will record the fare box area immediately adjacent to the driver and audio is proposed for this area as well.</td>
</tr>
<tr>
<td>1</td>
<td>Agrees with policy or cameras but GRT needs to ensure images are not recorded outside bus</td>
</tr>
<tr>
<td></td>
<td>Cameras are positioned to limit the ability to record beyond the immediate vicinity of the vehicle.</td>
</tr>
<tr>
<td>15</td>
<td>Disagrees with collecting this information and the use of cameras and audio</td>
</tr>
<tr>
<td></td>
<td>The use of video surveillance equipment is permitted under legislation provided safeguards are put in place to protect information that is captured. The draft policy is designed to protect personal information.</td>
</tr>
<tr>
<td>Total Comments</td>
<td>71</td>
</tr>
</tbody>
</table>

Q. 2 Please provide your comments on how the security camera images are stored.

<table>
<thead>
<tr>
<th>Number</th>
<th>Staff Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Agrees with draft policy</td>
</tr>
<tr>
<td></td>
<td>Agrees – ensure information is secure (encrypted, passwords, limited access)</td>
</tr>
<tr>
<td></td>
<td>The information is saved/recorded in a vendor proprietary format. This ensures data is unalterable, unable to be corrupted by tampering and circulation of information is limited. Recorded images are watermarked. The DVRs are in a locked metal case on the vehicle, transported in a secure carrying case by authorized employees and uploaded using proprietary DVR readers to password protected computers.</td>
</tr>
<tr>
<td>11</td>
<td>Agrees – clarify list of persons who have access and disposal of old devices</td>
</tr>
<tr>
<td></td>
<td>Schedule A of the draft policy identifies authorized personnel. The draft policy has been modified to clarify the disposal of old devices.</td>
</tr>
<tr>
<td>5</td>
<td>Agrees – however put images on server for the public to access.</td>
</tr>
<tr>
<td></td>
<td>This is not permitted under privacy legislation.</td>
</tr>
<tr>
<td>10</td>
<td>Disagrees with storing this information</td>
</tr>
<tr>
<td></td>
<td>Storing video surveillance information is permitted under legislation provided safeguards are put in place to protect information that is captured. The draft policy is designed to protect personal information.</td>
</tr>
<tr>
<td>3</td>
<td>Other</td>
</tr>
<tr>
<td>59</td>
<td>Total Comments</td>
</tr>
</tbody>
</table>
Q. 3 Please provide your comments on the length of time the security camera recording are stored.

<table>
<thead>
<tr>
<th>Number</th>
<th>Staff Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agrees with draft policy</td>
<td>28</td>
</tr>
<tr>
<td>Store for only a few minutes or as little as possible</td>
<td>3</td>
</tr>
<tr>
<td>The draft policy has been modified to not permit information retrieval more than 72 hours after an alleged incident unless the information is required for a warrant, summons, court order or other legal process that requires disclosure of surveillance images or information.</td>
<td></td>
</tr>
<tr>
<td>24-72 hours</td>
<td>1</td>
</tr>
<tr>
<td>Vehicle operation time is not an appropriate measure. Use 48-72 hours.</td>
<td>4</td>
</tr>
<tr>
<td>60 hours is not long enough</td>
<td>8</td>
</tr>
<tr>
<td>Images will be automatically erased over after 60 hours of vehicle operation time.</td>
<td></td>
</tr>
<tr>
<td>More than one week and less than a month</td>
<td>2</td>
</tr>
<tr>
<td>More than one month</td>
<td>4</td>
</tr>
<tr>
<td>Disagrees with storing this information</td>
<td>7</td>
</tr>
<tr>
<td>Storing video surveillance information is permitted under legislation provided safeguards are put in place to protect information that is captured. The draft policy is designed to protect personal information.</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
</tr>
<tr>
<td>Total Comments</td>
<td>67</td>
</tr>
</tbody>
</table>

Q. 4 Please provide your comments on the access to system records.

<table>
<thead>
<tr>
<th>Number</th>
<th>Staff Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agrees with draft policy</td>
<td>27</td>
</tr>
<tr>
<td>Make information accessible to everyone and release it to the public</td>
<td>3</td>
</tr>
<tr>
<td>Not permitted under privacy legislation.</td>
<td></td>
</tr>
<tr>
<td>Maintain strict control over access</td>
<td>12</td>
</tr>
<tr>
<td>The information is saved/recorded in a vendor proprietary format. This ensures data is unalterable, unable to be corrupted by tampering and circulation of information is limited. Recorded images are watermarked. The DVRs are in a locked metal case on the vehicle, transported in a secure carrying case by authorized employees and uploaded using proprietary DVR readers to password protected computers.</td>
<td></td>
</tr>
<tr>
<td>Policy needs to be clarified in the areas of; who has access, when is access granted and information released.</td>
<td>6</td>
</tr>
<tr>
<td>The draft policy has been revised to clarify which staff are authorized to access the information, when information can be accessed and when information can be released.</td>
<td></td>
</tr>
<tr>
<td>Audit all release of information</td>
<td>1</td>
</tr>
<tr>
<td>The draft policy requires an annual audit be conducted to ensure compliance with policy.</td>
<td></td>
</tr>
<tr>
<td>Disagrees with anyone having access to this information</td>
<td>7</td>
</tr>
<tr>
<td>Collecting and accessing video surveillance information is permitted under legislation provided safeguards are put in place to protect information that is captured. The draft policy is designed to protect personal information.</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
<tr>
<td>Total Comments</td>
<td>57</td>
</tr>
</tbody>
</table>

Q. 5 Do you have any additional comments?
<table>
<thead>
<tr>
<th>Comment Type</th>
<th>Number</th>
<th>Staff Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive comment on the idea of surveillance systems on GRT vehicles</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>Negative comment on the idea of surveillance systems on GRT vehicles</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Other comments</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Total Comments</td>
<td>93</td>
<td></td>
</tr>
</tbody>
</table>

The text of all of the comments submitted will be available in Clerk’s office for 30 days.
TO: Chair Jim Wideman and Members of the Planning and Work Committee

DATE: June 21, 2011

FILE CODE: T08-50/255K, T08-40/KIT

SUBJECT: TRAFFIC SIGNAL REVIEW AT VICTORIA STREET (REGIONAL ROAD 55) AND WESTFOREST TRAIL AND VICTORIA STREET (REGIONAL ROAD 55) AND STOKE DRIVE/OPRINGTON DRIVE, CITY OF KITCHENER

RECOMMENDATION:

THAT the Region of Waterloo approve proceeding with the installation of traffic signals at Victoria Street (Regional Road 55) and Westforest Trail in the fall of 2011, when it is anticipated that traffic signals will become warranted, as outlined in Report E-11-068, dated June 21, 2011.

SUMMARY:

NIL

REPORT:

At the January 11, 2011 Planning and Works Committee meeting, committee members asked staff for an update regarding the need for additional traffic control at the intersection of Victoria Street (Regional Road 55) and Westforest Trail, in the City of Kitchener. Staff also advised members of Planning and Works Committee that staff would reassess the need for traffic signals at the intersection of Victoria Street and Stoke Drive/Oprington Drive as per report E-11-004 dated January 11, 2011.

Victoria Street and Westforest Trail

Victoria Street and Westforest Trail is currently operating as a 2-way stop controlled intersection with stop signs on Westforest Trail. Traffic control signals are also installed on the east approach of the intersection to assist pedestrians crossing Victoria Street (intersection pedestrian signal). The Victoria Street and Westforest Trail intersection is shown in Figure 1 below.
Figure 1 – Victoria Street and Westforest Trail

As per the January 11, 2011 Planning and Works Committee meeting, Traffic Engineering staff has reviewed the need for full traffic control signals at the Victoria Street and Westforest Trail intersection.

The Region considers the installation of traffic control signals when traffic and pedestrian volume entering an intersection meet the Region’s traffic control signal warrant. Criteria used to establish the need for traffic control signals includes main-street volumes, side-street volumes, pedestrian volumes, delay, collisions and roadway characteristics.

On May 9, 2011, a turning movement count was conducted to capture both vehicular and pedestrian volume entering the intersection of Victoria Street and Westforest Trail during the busiest 8 hours. The traffic and pedestrian volumes captured from the May 2011 turning movement count and collision history were applied to the Region's traffic control signal warrant.

Our review indicates that traffic and pedestrian volume entering the intersection of Victoria Street and Westforest Trail intersection is nearing the need for additional traffic control measures but is not warranted at this time. Below is a summary of the signal warrant results.

- Warrant 1: Minimum Vehicular Volume - 85%
- Warrant 2: Delay to Cross Traffic Warrant - 73%
- Warrant 3: Collision Warrant - 47%

In order for traffic control signals to be met, one of the above warrants must satisfy 100% or Warrants 1 and 2 must both satisfy 80%. Warrant 3 may justify a signal should an intersection experience an average of 5 angle or turning collisions per year over 3 years. This intersection experienced 7 angle or turning collisions over the past 3 years, therefore, Warrant 3 is only satisfied 47%. It is anticipated that a 10% increase in the 8 hour traffic volume on Victoria Street will warrant the installation of traffic control signals. Staff is aware of ongoing development that will eventually contribute to additional traffic in the area. This reason will undertake a follow-up assessment in the fall of 2011 as new development along Ira Needles Boulevard becomes operational. Staff recognize traffic in this area is growing steadily as depicted in Figure 2. In 2007, staff anticipated a need for full signals within 5 years and therefore decided that it was appropriate to install
underground provisions to accommodate a full set of traffic signals. This intersection is therefore ready to be signalized quickly once signals are deemed required.

Figure 2 - Victoria Street at Westforest Trail Historical Traffic Volume

![Victoria Street at Westforest Trail](image)

Staff anticipate that signals will become warranted in the fall of 2011 and recommend that Regional Council approve the installation of these signals as soon as they become warranted.

A review of 5-year collision history (2006 to 2010) yielded 9 turning or angle collisions at this intersection. There were 3 other collisions during this timeframe. Based on the Region’s collision prediction model, staff would expect 6 collisions in total over 5 years if this intersection were signalized.

Recent changes at this intersection include the following:

- The installation of a “stop here on red” sign for westbound motorist;
- The installation of signs on Victoria Street and Westforest Trail noting right-of-way rules pertaining to the intersection pedestrian signal; and
- City of Kitchener staff adjusted the standing location of the crossing guard for better visibility.

Victoria Street and Stoke Drive/Oprington Drive

As per Report E-11-004 dated January 11, 2011, Traffic Engineering staff has reassessed the need for full traffic control signals at the Victoria Street and Stoke Drive/Oprington Drive intersection. The location of this intersection is illustrated in Figure 3.
On March 28, 2011, a turning movement count was conducted to capture both vehicular and pedestrian volume entering the intersection of Victoria Street and Stoke Drive/Oprington Drive during the busiest 8 hours. The traffic and pedestrian volumes captured from the March 2011 turning movement count were applied to the Region’s traffic control signal warrant.

Our review indicates that traffic and pedestrian volume entering this intersection does not justify the installation of traffic control signals. Below is a summary of the signal warrant results.

- **Warrant 1: Minimum Vehicular Volume** - 71%
- **Warrant 2: Delay to Cross Traffic Warrant** - 60%
- **Warrant 3: Collision Warrant** - 7%

In order for traffic control signals to be met, one of the above warrants must satisfy 100% or Warrants 1 and 2 must both satisfy 80%. The primary reason why traffic signals are not fulfilling justification criteria is due to the low volume of minor road crossing traffic throughout the day. Furthermore, a review of pedestrian activity determined that a total of 56 pedestrians crossed Victoria Street over 8 hours with the majority of pedestrians (48) crossing the west leg where a school crossing exists. To consider the need for intersection pedestrian signals, pedestrian crossing volumes must exceed 200 crossings over 8 hours. At present, the City of Kitchener has a crossing guard assisting pedestrians at this intersection. Of the 48 pedestrians crossing at the school crossing, 37 pedestrians (77%) crossed with the assistance of the crossing guard. Past studies determined that as many as 135 pedestrians cross Victoria Street over 8 hours with the majority of pedestrians (107) crossing at the school crossing. Of the 107 pedestrians crossing at the school crossing, 84 pedestrians (79%) crossed with the assistance of the crossing guard.

A review of collision history (2006 to 2010) determined that there was only 1 turning or angle collision at this intersection. There was only one other collision during this timeframe. Based on the Region’s collision prediction model, staff would expect 9 collisions in total over 5 years if this intersection were signalized. Staff would expect more collisions at this intersection compared to Victoria Street/Westforest Trail because the Average Annual Daily Traffic (AADT) is higher.
(11000 vs. 9800) and average collision rates tend to increase as volumes increase at traffic signals.

It is important to note that the function of traffic control signals is to assign the right-of-way between conflicting movements. Installing traffic control signals for reasons other than assigning the right-of-way may lead to a higher delay to vehicular traffic. In some instances, the collision frequency may increase with the installation of traffic control signals. Regional staff examined collisions that occurred before and after the installation of 47 traffic control signals in urban areas within the Region of Waterloo. Although traffic control signals are generally successful in reducing angle collisions, overall collisions increased by approximately 20% and excluding angle collisions injury collisions increased by 70% after the installation of traffic control signals. Regional staff were also able to identify that most vehicle/pedestrian collisions occur at signalized intersections. For this reason, traffic control signals are rarely warranted as a safety measure alone.

**CORPORATE STRATEGIC PLAN:**

This report addresses the Region’s goal to optimize the use of existing infrastructure (Strategic Objective 5.1).

**FINANCIAL IMPLICATIONS:**

The 2011 Transportation Capital System Expansion Program includes sufficient funding for the installation of traffic signals at Victoria Street and Westforest Trail if they become warranted in 2011.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

NIL

**ATTACHMENTS:**

NIL

**PREPARED BY:** Mike Jones, C.E.T., Supervisor, Traffic Engineering

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

Background

Each year a mid-year review of the Transportation Capital Base, System Expansion, and Airport Budgets is carried out so that variations caused by actual tender results, revised project estimates based on detailed design and changes in project scheduling can be reported.

Appendix A summarizes the revisions to the previously approved 2011 Transportation Capital Base, System Expansion, and Airport Budgets.
Project Variations

The following are projects that have been added or projects that have had their budget revised to a value greater than $100,000 and a summary of the reasons are provided below. Projects in which tenders or Council reports have been approved by Regional Council are included in the project details (Appendix A) but are not addressed in this report.

1. Revised 2011 Transportation Capital Base Budget as it relates to the approved 2011 Transportation Capital Base Budget

The 2011 Transportation Capital Base Budget includes project improvements relating to ensuring the safe, efficient operation and maintenance of the existing road transportation infrastructure and is primarily funded from the Roads Rehabilitation Reserve Fund and Gas Tax funding. These projects include resurfacing, reconstruction, bridge and drainage works, traffic signal modernizations, non-growth related intersection improvements, infill sidewalk installations and system management.

a) Regional Road #17, Fountain Street, 250 meters North of Maple Grove Road to Banat Road, Cambridge (+$115,000); Regional Road #17, Sawmill Road, Northfield Drive to Musselman Crescent, Woolwich (+$65,000); Regional Road #41, Bishop Street, 50 meters West of Hespeler Road to Cambridge Public Works Yard, Cambridge (+$90,000); Regional Road #5, Hutchison Road, from West of Crosshill curve to West Limits of Crosshill, Wellesley (+$150,000); and Regional Road #17, Sawmill Road, St. Charles Street to Snyder’s Flat Road, Woolwich (+$85,000);

These minor resurfacing projects have been added in order to extend serviceability of these roads until major reconstruction and operational improvements can be completed.

b) Regional Road #15, Lobsinger Line, 0.6 km West of Kressler Road to Anita Drive, Wellesley (-$840,000);

This rehabilitation project has been deferred to assess and incorporate requirements from the Region’s corridor design guidelines, including possible cross section improvements for pedestrians.

c) Regional Road #1, Snyder’s Road, Nafziger Road to Baden Water Tower, Wilmot (-$390,000);

This resurfacing project has been deferred at the request of the Waterloo District School Board. The Board is considering relocating part of their driveway access, and would like time to consider various alternatives.

d) Various Urban Spot Resurfacings (+$232,000); and Various Rural Spot Resurfacings (+$481,000);

Annually Region staff undertake a review of the Regional road system to identify candidate spot improvements and crack sealing locations in order to extend the serviceability on these roads before major rehabilitation is required. Based on this review, a large number of locations have been identified resulting in the need to increase these budgets significantly.
The significant increase is directly related to the severe winter and the number of locations with severe potholes and pavement failures.

e) Regional Road #70, Trussler Road, New Dundee Road to Bleams Road, Wilmot (+$123,000);

This 2012 reconstruction project cost has increased due to the appraised property values for land acquisition being higher than originally allocated in the budget.

f) Regional Road #70, Ira Needles Boulevard, Noise Barrier Installation from North of University Avenue to North of Heathcliffe Place, Waterloo (+$300,000);

This noise barrier installation project was originally estimated using a benchmark cost due to time constraints required to provide a report to Council. Since that time, through the geotechnical investigation and detailed design process, the cost estimate has been increased in order to remove and replace the existing retaining wall, including drainage facilities and relocate utilities which were not included in the original benchmark cost estimate.

g) West Montrose Covered Bridge, Woolwich (+$135,000);

This bridge repair project has been added to address repairs to the covered bridge.

h) Preliminary Design and Post Construction Expenditures, Various Locations (+150,000);

Additional funds are requested to further optimize the timing of projects in the Capital Program and undertake a preliminary design review of projects currently scheduled for rehabilitation.

i) Regional Road #43, Myers Road, West of Branchton Road to Clover Avenue, Cambridge (+130,000);

This infill sidewalk installation project has been added to coincide with the construction of a new public school in the area.

j) Regional Road #55, Victoria Street, Forfar Avenue to Frederick Street, Kitchener (+110,000);

The estimate for this in-fill sidewalk project has increased through the detailed design process to accommodate utilities and the restoration of commercial driveways.

2. Revised 2011 Transportation Expansion Capital Budget as it relates to the approved 2011 Transportation Expansion Capital Budget

The Transportation Expansion Capital Budget includes project improvements related to the population and employment growth within the Region of Waterloo and is funded from the Roads Capital Levy and Regional Development Charge Reserve Funds. These projects include intersection improvements, traffic signal installations, road widenings and road system expansions (new roads and bridges).
a) Regional Road #4, Ottawa Street, at Trussler Road, Kitchener (+$140,000);

This intersection improvement project budget has increased to address minor interim improvements to reduce vehicle queuing at the intersection in advance of the proposed roundabout construction in 2014, and the proposed Ministry of Transportation work on Highway 7/8 near Fischer Hallman Road in 2012.

b) Regional Road #8, Coronation Boulevard, North of Barrett Avenue, Cambridge (+$275,000);

This developer related intersection improvement project (100% developer cost) has been added to provide centre median modifications to accommodate new medical plaza entrance locations.

c) Regional Road #12, New Dundee Road, at Robert Ferrie Drive, Kitchener (-$380,000);

Construction of road improvements at this intersection have been deferred to coordinate with other infrastructure works in the vicinity, including City of Kitchener sanitary sewers, and Regional watermain work, planned for 2013.

CORPORATE STRATEGIC PLAN:

This report addresses the Region’s Strategic Focus Area 5: Infrastructure and the following Corporate Strategic Objectives.

- 5.1 – optimize the use of existing infrastructure and ensure it is adequately maintained, and
- 5.2 – provide infrastructure needed to accommodate growth

FINANCIAL IMPLICATIONS:

A mid-year review of the Transportation Capital Base, System Expansion, and Airport Budgets is carried out each year so that variations caused by actual tender results, revised project estimates based on detailed design and changes in project scheduling can be reported.

The revised 2011 Capital Base Budget has a funding decrease of $164,000 (total revised budget $46.760 million) which is primarily attributable to competitive contract pricing identified in Appendix A. These funds will reduce the amount required from the Roads Rehabilitation Reserve Fund.

The revised 2011 Capital System Expansion Budget has a funding decrease of $8,651,000 (total revised budget $89.454 million) which is primarily attributable to competitive contract pricing and project deferrals identified in Appendix A. These funds will reduce the amount required from the Development Charge and Roads Capital Levy Reserve Funds.

The revised 2011 Capital Airport Budget has a net funding decrease of $22,000 (total revised budget $22.108 million) which is primarily attributable to revised project estimates.

Overall the revised 2011 Transportation Capital Base, System Expansion, and Airport Capital Budgets have a funding decrease of $8,837,000 (total revised budget $158.322 million) as identified in Appendix A.
OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

Staff from Design and Construction, Finance and Transportation Planning has been directly involved in the preparation of this report.

ATTACHMENTS:

Appendix A – Revisions to the 2011 Transportation Capital Base, System Expansion and Airport Capital Budget.

PREPARED BY: Shawn Buckley, Senior Transportation Infrastructure Engineer

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
## APPENDIX A
### REVISIONS TO THE 2011 TRANSPORTATION CAPITAL BASE, SYSTEM EXPANSION, AND AIRPORT BUDGET

<table>
<thead>
<tr>
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<th>CFWD</th>
<th>2011 BUDGET</th>
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<th>2011 REVISED BUDGET</th>
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### REVENUES:

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<td><strong>TOTAL</strong></td>
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<td>72,872</td>
<td>167,159</td>
<td>158,322</td>
<td>-8,837</td>
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### LEGEND:

AG = ABOVE GROUND; BG = BELOW GROUND; CF = CYCLING FACILITY; CG = CURB & GLITTER; CIP = COLD-IN PLACE RESURFACING; D = DRAINAGE IMPROVEMENTS; DE = DESIGN; DK = BRIDGE DECK REPAIR; DSA = DEEP STRENGTH ASPHALT; EA = ENVIRONMENTAL ASSESSMENT; EXP = EXPANDED ASPHALT; IPS = PEDESTRIAN SIGNAL INSTALLATION; L = LAND PURCHASE; LA = LANDSCAPING; MOD = TRAFFIC SIGNAL MODERNIZATION; NC = CONSTRUCTION; PAD = PAVING; PL = PLANNING; RE = RECONSTRUCTION; RH = REHABILITATION; RSC = RECONSTRUCTION WITH STORM SEwers; RW = ROAD WIDENING; R1 = RESURFACING-SINGLE LIFT; R2 = RESURFACING-DOUBLE LIFT; RM = RESURFACE MAJOR; SA = SURFACE ASPHALT; SI = INTERSECTION IMPROVEMENT; SIG = TRAFFIC SIGNAL INSTALLATION; SL = STREET LIGHTING; ST = STORM SEWER INSTALLATION; SW = SIDEWALK INSTALLATION; U = UTILITY RELOCATION
# Revisions to the 2011 Transportation Capital Base Budget

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<th>2011 Total Budget</th>
<th>2011 Revised Budget</th>
<th>Variance</th>
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<td>Rural Resurfacing</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>13,834</strong></td>
<td><strong>33,090</strong></td>
<td><strong>46,524</strong></td>
<td><strong>46,760</strong></td>
<td><strong>-164</strong></td>
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| REVENUES: |      |             |                   |                     |          |
| Subsidy (Federal Gas Tax) | 0    | 14,666      | 14,666            | 14,666              | 0        |
| Development Charge Reserve Fund | 28   | 446         | 474               | 443                 | -31      |
| Roads Rehabilitation Capital Reserve Fund | 12,756 | 13,940     | 26,596            | 26,163              | -433     |
| Cycling Facility Capital Reserve Fund | 0    | 603         | 603               | 603                 | 0        |
| Noise Barrier Reserve Fund | 0    | 550         | 550               | 550                 | 300      |
| Municipal Cost Sharing | 67   | 2,685       | 2,752             | 2,752               | 0        |
| Debentures | 983  | 300         | 1,283             | 1,283               | 0        |
| **Total** | **13,834** | **33,090** | **46,524**        | **46,760**          | **-164** |

**Legend:**
- AG = Above Ground
- BG = Below Ground
- CF = Cycling Facility
- CG = Curb & Gutter
- CIP = Cold-In-Place Resurfacing
- D = Drainage
- I = Intersection Improvement
- IPG = Pedestrian Signal Installation
- LA = Land Purchase
- MOD = Traffic Signal Modernization
- N = Construction
- PL = Planning
- RB = Rehabilitation
- RSS = Reconstruction with Storm Sewers
- RW = Road Widening
- RL = Resurface-Single Lift
- RM = Resurface-Major
- SA = Surface Asphalt
- SI = Sidewalk Installation
- SL = Street Lighting
- ST = Storm Sewer Installation
- SW = Sidewalk

Page 7 of 28
### REVISIONS TO THE 2011 TRANSPORTATION CAPITAL BASE BUDGET

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<th>2011 REVISED BUDGET</th>
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**TOTAL URBAN RESURFACING** | 5.28 | 90 | 1,830 | 1,920 | 1,672 | -248 |

### RURAL RESURFACING

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<th>PROJECT NO.</th>
<th>PROJECT DESCRIPTION</th>
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<th>LENGTH (KM)</th>
<th>CFWD</th>
<th>2011 BUDGET</th>
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<th>VARIANCE</th>
<th>REMARKS</th>
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<tr>
<td>5912</td>
<td>REG. RD. 5 (HUTCHISON ROAD), WEST OF CROSSHILL CURVE TO WEST LIMITS</td>
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<td>0.46</td>
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<td>REG. RD. 8 (KING STREET), LOBSINGER LN. (RR15) TO PRINTERY RD.</td>
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<td>REG. RD. 9 (ERBS ROAD), W. OF IRA NEEDLES BLVD. (RR70) TO E. LIMITS OF ST. AGATHA</td>
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June 21, 2011
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<th>REMARKS</th>
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<td>5438</td>
<td>REG. RD. 12 (NEW DUNDEE ROAD), FISCHER-HALLMAN RD. (RR58) TO TRUSSLER RD. (RR70)</td>
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<td>5665</td>
<td>REG. RD. 14 (MOSER-YOUNG ROAD), WEIMAR LN. (RR14) TO GERBER RD. (RR12) / NOTRE DAME DR. (RR12)</td>
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<td>1.58</td>
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<td>815 DE EXP SW</td>
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<td>REG. RD. 15 (LOBSINGER LINE), MOSER YOUNG RD. TO HACKBART RD.</td>
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<td>REG. RD. 17 (SAWMILL ROAD), WOOL ST. CHARLES ST. W. (RR26) TO SNYDER'S PLAT RD.</td>
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<td>REG. RD. 17 (SAWMILL ROAD), WOOL SNYDER'S PLATS RD. TO KATHERINE ST. (RR23)</td>
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<td>REG. RD. 22 (NORTHFIELD DRIVE), WATERL00/WOOLWICH BDRY. TO SCOTCH LINE RD.</td>
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<td>REG. RD. 22 (NORTHFIELD DRIVE), LINE 88 (RR86) TO WATERL00/Wellington BDRY.</td>
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<td>6.26</td>
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<td>REG. RD. 23 (KATHERINE STREET), COX CREEK BRIDGE TO LINE 88 (RR86)</td>
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<td>640</td>
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<td>5457</td>
<td>REG. RD. 23 (KATHERINE STREET), TRIBE RD. TO WATERL00/Wellington BDRY.</td>
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<td>1145 DE EXP</td>
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<td>5668</td>
<td>REG. RD. 24 (HESKELER ROAD), BEAVERDALE RD., QUEEN ST. W. TO GUELPH AVE.</td>
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<td>PROGRAM ADDITION</td>
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June 21, 2011
### REVISIONS TO THE 2011 TRANSPORTATION CAPITAL BASE BUDGET

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<tr>
<th>PROJ. NO.</th>
<th>PROJECT DESCRIPTION</th>
<th>AREA MUN.</th>
<th>PROJ. LEN (KM)</th>
<th>CFWD 2011 BUDGET</th>
<th>2011 TOTAL BUDGET</th>
<th>2011 REVISED BUDGET</th>
<th>VARIANCE</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td>5669</td>
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<td>40 PROGRAM ADDITION</td>
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<td>REG RD. 28 (FOUNTAIN STREET), PRESTON PKWY. TO DICKIE SETTLEMENT RD. (RR71)</td>
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<tr>
<td>5461</td>
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<td>5464</td>
<td>REG RD. 51 (WILMOT CENTRE ROAD), BLEAMS RD. (RR4) TO HWY 7/8</td>
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**TOTAL RURAL RESURFACING** | **68.25** | **1,928** | **5,885** | **7,813** | **7,929** | **116** |

### RECONSTRUCTION AND MAJOR REHABILITATION

<table>
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<tr>
<th>PROJ. NO.</th>
<th>PROJECT DESCRIPTION</th>
<th>AREA MUN.</th>
<th>PROJ. LEN (KM)</th>
<th>CFWD 2011 BUDGET</th>
<th>2011 TOTAL BUDGET</th>
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<th>VARIANCE</th>
<th>REMARKS</th>
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<tr>
<td>5213</td>
<td>REG RD. 1 (WATERLOO STREET), HURON ST. (RR1) TO 255M N. OF LASCHINGER BLVD.</td>
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June 21, 2011
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<th>PROJ. NO.</th>
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<tr>
<td>5483</td>
<td>REG. RD. 5 (MANSER ROAD) S. LINWOOD TOWN LIMITS TO 65 M. N. O. ADELAIDE ST. AND REG. RD. 17 (AMENT LINE) MANSER RD. TO TOWN LIMITS</td>
<td>WELL</td>
<td>0.95</td>
<td>50</td>
<td>375</td>
<td>425</td>
<td>400 SA LA</td>
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### REVISIONS TO THE 2011 TRANSPORTATION CAPITAL BASE BUDGET

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<th>PROJ. NO.</th>
<th>PROJECT DESCRIPTION</th>
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<th>PROJ. LEN (KM)</th>
<th>CFWD</th>
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<th>2011 TOTAL BUDGET</th>
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<th>VARIANCE</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td>5613</td>
<td>REG. RD. 9 (ERBS ROAD), E. LIMITS OF ST. AGATHA TO NOTRE DAME DR. (RR12) AND REG. RD. 12 (NOTRE DAME DR.). S. LIMITS OF ST. AGATHA TO ERBS RD. (RR9)</td>
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<tr>
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<tr>
<td>5393</td>
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### REVISIONS TO THE 2011 TRANSPORTATION CAPITAL BASE BUDGET

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# Revisions to the 2011 Transportation Capital Base Budget

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**SYSTEM MANAGEMENT / OTHER**

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June 21, 2011
## REVISIONS TO THE 2011 TRANSPORTATION CAPITAL BASE BUDGET

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<tr>
<th>PROJ NO.</th>
<th>PROJECT DESCRIPTION</th>
<th>AREA MUN</th>
<th>PROJ LEN (KM)</th>
<th>CFWD</th>
<th>2011 BUDGET</th>
<th>2011 TOTAL BUDGET</th>
<th>2011 REVISED BUDGET</th>
<th>VARIANCE</th>
<th>REMARKS</th>
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<td>120</td>
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| TOTAL SYSTEM MANAGEMENT / OTHER | 0.00 | 1,808 | 2,860 | 4,668 | 4,668 | 200 |

## TRAFFIC SIGNAL MODERNIZATIONS

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<tr>
<th>PROJ NO.</th>
<th>DESCRIPTION</th>
<th>AREA</th>
<th>PROJ LEN (KM)</th>
<th>CFWD</th>
<th>2011 BUDGET</th>
<th>2011 TOTAL BUDGET</th>
<th>VARIANCE</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td>9601</td>
<td>REG. RD. 8 (WEBER STREET), AT MONTGOMERY RD.</td>
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<td>19</td>
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<tr>
<td>9638</td>
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<td>9600</td>
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<tr>
<td>9626</td>
<td>REG. RD. 24, WATER ST. AT DANDO AVE.</td>
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<td>50</td>
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<tr>
<td>9627</td>
<td>REG. RD. 43, MYERS RD. FRANKLIN BLVD. TO WATER ST.</td>
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<td>9605</td>
<td>DRIFTWOOD DR. AT WESTHEIGHTS DR.</td>
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June 21, 2011
<table>
<thead>
<tr>
<th>PROJ. NO.</th>
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<th>PROJ. LEN (KM)</th>
<th>CFWD</th>
<th>2011 BUDGET</th>
<th>2011 TOTAL BUDGET</th>
<th>2011 REVISED BUDGET</th>
<th>VARIANCE</th>
<th>REMARKS</th>
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<tr>
<td>9635</td>
<td>CONCESSION ROAD, KING ST. (RR8) TO EAGLE ST. (RR39)</td>
<td>CAM</td>
<td>0</td>
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<td>20</td>
<td>20</td>
<td>20 MOD</td>
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<tr>
<td>9602</td>
<td>HIGHLAND RD. AT SPADINA ST.</td>
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<td>70</td>
<td>70 MOD</td>
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<td>90</td>
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<td>9565</td>
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<td>22</td>
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<tr>
<td>9599</td>
<td>WIRE REPLACEMENT</td>
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<td>100</td>
<td>100</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

| TOTAL TRAFFIC SIGNAL MODERNIZATIONS | 0.00 | 627 | 230 | 857 | 997 | 130 |

| TRAFFIC ENGINEERING GENERAL | |
|-------------------------------|---|---|---|---|---|---|
| 9415 BARRIER FREE SIGNAL REQUESTS | 23 | 25 | 48 | 48 | 0 |
| 9582 CENTRAL TRAFFIC CONTROL SYSTEM | 983 | 300 | 1283 | 1283 | 0 |
| 9423 COUNTERMEASURES | 0 | 30 | 30 | 30 | 0 |
| 9548 HYDRO POLE RELOCATIONS | 2 | 15 | 17 | 17 | 0 |
| 9256 MTCS SYSTEM (NON-TCA) | 41 | 130 | 171 | 171 | 0 |
| 9565 MTCS SYSTEM (TCA) | 99 | 80 | 179 | 179 | 0 |
| 9614 OVERSIZED STREET SIGNS | 32 | 80 | 112 | 112 | 0 |
| 9598 PEDESTRIAN REFUGE ISLANDS TO BE DETERMINED | 0 | 45 | 45 | 45 | 0 |
| 9637 SIGNAL DESIGN UPGRADES | 0 | 0 | 0 | 25 | 25 PROGRAM ADDITION |
| 9474 TRAFFIC CONTROLLER REPLACEMENTS | 27 | 200 | 227 | 227 | 0 |

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## REVISIONS TO THE 2011 TRANSPORTATION CAPITAL BASE BUDGET

<table>
<thead>
<tr>
<th>PROJ. NO.</th>
<th>PROJECT DESCRIPTION</th>
<th>AREA MUN</th>
<th>LEN (KM)</th>
<th>CFWD</th>
<th>2011 BUDGET</th>
<th>2011 TOTAL BUDGET</th>
<th>2011 REVISED BUDGET</th>
<th>VARIANCE</th>
<th>REMARKS</th>
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<td><strong>TOTAL TRAFFIC ENGINEERING GENERAL</strong></td>
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<td>2,137</td>
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<td><strong>INFILL SIDEWALK FACILITIES</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>5421</td>
<td>16% REG. RD. 1 (WATERLOO STREET / SNYDER’S ROAD), 255 M. N. OF LASCHINGER BLVD. TO BADEN WATER TOWER</td>
<td>WIL</td>
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<td>130 PROGRAM ADDITION</td>
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<td>5905</td>
<td>16% REG. RD. 55 (VICTORIA STREET), FREDERICK ST. (RR6) TO FORGE AVE.</td>
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<td>0.40</td>
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<td>110</td>
<td>220 SW</td>
<td>110 REVISED ESTIMATE</td>
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<td>5742</td>
<td>16% REG. RD. 58 (FISCHER-HALLMAN ROAD), 40M S. OF LAURELWOOD DR. TO LAURELWOOD DR.</td>
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<td>45</td>
<td>45</td>
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<td>5918</td>
<td>16% REVIEW OF ONTARIO TRAFFIC MANUAL 18</td>
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<td>5779</td>
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<td><strong>TOTAL INFILL SIDEWALK FACILITIES</strong></td>
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<td>803</td>
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June 21, 2011
# REVISIONS TO THE 2011 TRANSPORTATION CAPITAL SYSTEM EXPANSION BUDGET

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<th>(500’S)</th>
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<th>2011 BUDGET</th>
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<td><strong>EXPENDITURES:</strong></td>
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<td>TRANSPORTATION CAPITAL SYSTEM EXPANSION PROGRAM</td>
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<td>4,970</td>
<td>5,342</td>
<td>4,454</td>
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<td>359</td>
<td>289</td>
<td>30</td>
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<td>21,339</td>
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<td>13,125</td>
<td>35,403</td>
<td>35,548</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>71,360</td>
<td>26,745</td>
<td>98,105</td>
<td>89,454</td>
<td>-8,651</td>
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| **REVENUES:**                                |      |             |                   |                     |          |
| DEVELOPMENT CHARGE RESERVE FUND              | 39,657 | 25,728 | 65,385 | 63,737 | -1,658 |
| ROAD CAPITAL LEVY RESERVE FUND               | 3,670 | 722 | 4,402 | 3,661 | -541   |
| THIRD PARTY - CP RAIL                         | 28,033 | 0 | 28,033 | 21,216 | -6,817 |
| THIRD PARTY - OTHER                          | 0 | 265 | 265 | 650 | 365    |
| DEBENTURES - RDC                             | 0 | 0 | 0 | 0 | 0      |
| DEBENTURES                                  | 0 | 0 | 0 | 0 | 0      |
| **TOTAL**                                    | 71,360 | 26,745 | 98,105 | 89,454 | -8,651 |

**LEGEND:**
- AG = ABOVE GROUND
- BG = BELOW GROUND
- CF = CYCLING FACILITY
- CG = CURB & GUTTER
- CIP = COLD-IN-PLACE RESURFACING
- D = DRAINAGE IMPROVEMENTS
- DE = DESIGN
- DK = BRIDGE DECK REPAIR
- DSA = DEEP STRENGTH ASPHALT
- EA = ENVIRONMENTAL ASSESSMENT
- EXP = EXPANDED ASPHALT
- IPS = PEDESTRIAN SIGNAL INSTALLATION
- L = LAND PURCHASE
- LA = LANDSCAPING
- MOD = TRAFFIC SIGNAL MODERNIZATION
- NC = CONSTRUCTION
- PAD = PADDING
- PL = PLANNING
- REC = RECONSTRUCTION
- RH = REHABILITATION
- RSS = RECONSTRUCTION WITH STORM SEWERS
- RW = ROAD WIDENING
- RS = RESURFACE - SINGLE LIFT
- RI = RESURFACE - DOUBLE LIFT
- RM = RESURFACE - MAJOR
- SA = SURFACE ASPHALT
- SI = INTERSECTION IMPROVEMENT
- SIG = TRAFFIC SIGNAL INSTALLATION
- SL = STREET LIGHTING
- ST = STORM SEWER INSTALLATION
- SW = SIDEWALK INSTALLATION
- U = UTILITY RELLOCATION
## Intersections Improvements (Growth-Related)

<table>
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<tr>
<th>PROJ. NO.</th>
<th>RDC%</th>
<th>PROJECT DESCRIPTION</th>
<th>AREA MUN</th>
<th>PROJ. LEN (KM)</th>
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<th>2011 TOTAL BUDGET</th>
<th>2011 REVISED BUDGET</th>
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<th>REMARKS</th>
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<tr>
<td>7212</td>
<td>100%</td>
<td>REG. RD. 1 (WATERLOO STREET), ARNOLD ST. TO STEINMAN ST.</td>
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<td>11</td>
<td>11</td>
<td>11</td>
<td>0</td>
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<tr>
<td>7294</td>
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<td>300</td>
<td>300 DE</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>7272</td>
<td>100%</td>
<td>REG. RDS. 4 &amp; 70, OTTAWA ST. AT TRUSSLER RD.</td>
<td>KIT</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>240 DE</td>
<td>240 DE</td>
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<tr>
<td>7308</td>
<td>0%</td>
<td>REG. RD. 8 (DUNDAS STREET), ELGIN STREET TO MCLAREN AVE.</td>
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<td>0</td>
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<td>90</td>
<td>PROGRAM ADDITION</td>
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<tr>
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<tr>
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<td>230</td>
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<tr>
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<td>REG. RDS. 12 &amp; 58, NEW DUNDEE RD. AT FISCHER-HALLMAN RD.</td>
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<td>400 DE</td>
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<tr>
<td>7216</td>
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<td>REG. RD. 15 (KING STREET) AT CONESTOGA RD.</td>
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<td>20</td>
<td>20 DE</td>
<td>0</td>
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</tr>
<tr>
<td>5334</td>
<td>55%</td>
<td>REG. RD. 24 (HESPELER ROAD) AT RAILWAY N. OF DUNDAS ST. (RR8) - GRADE SEPARATION</td>
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<td>50</td>
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<td>100 DE</td>
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June 21, 2011
# Revisions to the 2011 Transportation Capital System Expansion Budget

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**TOTAL INTERSECTION IMPROVEMENTS (GROWTH-RELATED)**

|                                                   | 1.34 | 33,829 | 1,310 | 35,238 | 27,724 | -7,515 |

**Development Related Left and Right Turn Lanes**

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<td>100</td>
<td>100</td>
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<td>100</td>
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June 21, 2011
# REVISIONS TO THE 2011 TRANSPORTATION CAPITAL SYSTEM EXPANSION BUDGET

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**TOTAL DEVELOPMENT RELATED LEFT AND RIGHT TURN LANES**

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<tr>
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**TOTAL TRAFFIC SIGNAL INSTALLATIONS**

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<td>1500</td>
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### REVISIONS TO THE 2011 TRANSPORTATION CAPITAL SYSTEM EXPANSION BUDGET

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June 21, 2011

Page 25 of 28
## REVISIONS TO THE 2011 TRANSPORTATION CAPITAL SYSTEM EXPANSION BUDGET

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| TOTAL ROAD SYSTEM EXPANSION | 18.28 | 22,276 | 13,125 | 35,403 | 35,548 | 145 |

June 21, 2011
# Revisions to the 2011 Airport Capital Budget

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June 21, 2011
## REVISIONS TO THE 2011 AIRPORT CAPITAL BUDGET

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**TOTAL AIRPORT EXPENDITURES** 9,093 13,037 22,130 22,198 -22

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June 21, 2011
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: June 21, 2011

FILE CODE: L07-30

SUBJECT: REGION OF WATERLOO INTERNATIONAL AIRPORT – DECLARATION OF SURPLUS AND LEASE WITH MILLARD PROPERTIES LIMITED

RECOMMENDATION:

THAT the Regional Municipality of Waterloo declare a leasehold interest of greater than twenty-one (21) years in approximately 4.95 acres situate in the northwest corner of Part 1 on Registered Plan WR-70802 in the Geographic Township of Woolwich, Regional Municipality of Waterloo, being the easterly portion of Lot 1 on the Plan of Survey attached to Report CR-RS-11-047/E-11-076 dated June 21, 2011 as Appendix A (the Lands), surplus to its needs, in accordance with the Region's Property Disposition By-law;

AND THAT the Regional Municipality of Waterloo authorize the Commissioner of Transportation and Environmental Services to enter into a Lease with Millard Properties Limited (the Lessee) as described in Report CR-RS-11-047/E-11-076 dated June 21, 2011 with the form of the lease to be to the satisfaction of the Regional Solicitor.

SUMMARY: NIL

REPORT:

Introduction

The Region of Waterloo has entered into a conditional offer to lease lands located within the LL4 development area of the airport. LL4 refers to the leased land area so-called in the Master Plan approved for the airport in 2000. Construction of the servicing infrastructure, taxiway and access roads to enable development on these lands is currently underway and expected to be completed later this year to accommodate new commercial development at the airport including the development described in this report. The land that is intended to be leased is in the northwest corner of the LL4 area (the leased land will be approximately 4.95 acres being the easterly portion of the 8.5 acre parcel depicted as Lot 1 shown on Appendix “A” attached to this report). A Reference Plan of Survey will be prepared for the lands once the construction intended for the Lands is completed and the dimensions and area of the Lands may change pending final development approval of the new facility proposed for the Lands.

The lands will be leased to Millard Properties Limited, an Ontario corporation that had formerly operated a facility at Pearson International Airport (the Lessee). The Lessee intends to construct a hangar and aviation maintenance facility. The facility will be used for commercial aviation purposes and storage of aircraft up to and including the size of a Boeing 757-300. It is anticipated that approximately twenty (20) persons will be employed at the facility in the field of aircraft handling and maintenance. The Lessee has expressed interest in additional development at the airport and
accordingly the lease will also contain a right of first refusal over the westerly or remainder of Lot 1 shown on Appendix “A” attached to this report. The proposed lease will contain a number of terms and conditions relating to fuel handling and storage consistent with the Region’s source water protection mandate. The Lessee requires a lease with a term of fifty (50) years with further options for renewal provided the lease is in good standing at the time of renewal.

Pursuant to the provisions of the Region’s Property Disposition By-law, a lease of municipal property for a period of more than twenty-one years (including a renewal period) is deemed to be a disposition of property and accordingly such a leasehold interest must first be declared surplus to the needs of the Region of Waterloo. The Property Disposition By-law also requires that the disposal of surplus interest in land be advertised in the local newspaper. A ground lease with the Lessee will be executed by the Region of Waterloo after the requirements of the Region’s Property Disposition By-law have been met.

It is anticipated that the lease will take effect on July 15th, 2011. The building of the facility will commence in the Summer of 2011 subject to final site plan and Nav Canada approval. The proposed lease rates would be in accordance with the Region’s Fees and Charges By-law which provides for a commercial lease rate of $0.22 per square foot for land used for buildings and a rate of $0.04 for vacant and parking lands. The combined lease revenue per year will depend upon the final approved site plan and building dimension. The area of the building is anticipated to be in excess of 50,000 square feet subject to final design. These rates will increase annually taking into consideration changes in the cost of living index. The lease rates are determined in accordance with the Region’s Fees and Charges by-law.

The total amount of space that will be leased is approximately 4.95 acres, subject to confirmation once the construction of the facility is completed and registration of the final reference plan for the Lands. The Lands are fully serviced and the Lessee will pay a service fee of $7.43 per square foot of building area plus HST or approximately $372,000 subject to the final design of the building which fees are intended to contribute to the overall cost of providing services for the LL4 area.

CORPORATE STRATEGIC PLAN:

The Region of Waterloo International Airport is one of the essential infrastructure components needed to create and support a climate that encourages prosperity in the Region. The provision of adequate leasehold facilities for corporate aviation will enhance business in the Region of Waterloo.

FINANCIAL IMPLICATIONS:

The lease revenue that is received from these Lands is estimated to be approximately $19,000 per year subject to approval of final building design.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

NIL

ATTACHMENTS:

Appendix A – lot plan depicting the Lands to be leased within the LL4 lease area of the Airport.
Leased Land Area 4 – Region of Waterloo International Airport – Lands to be leased will include the easterly 4.95 acre portion of Lot 1 with a right of refusal over the remainder of Lot 1.
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: June 21, 2011

FILE CODE: L07-90(A)

SUBJECT: SURPLUS DECLARATION AND CONVEYANCE AT IRA NEEDLES BOULEVARD AND UNIVERSITY AVENUE, CITY OF WATERLOO

RECOMMENDATION:

THAT the Regional Municipality of Waterloo declare the lands described as Part Lot 40, German Company Tract, being Parts 1, 2 and 3, Reference Plan 58R-15538, in the City of Waterloo surplus to the needs of the Region, as detailed in Report No. CR-RS-11-044 dated June 21, 2011, and provide the standard public notification as required by the Region’s property disposition by-law.

SUMMARY: Nil

REPORT:

On May 11, 2011, Regional Council approved a land exchange with Gregory U. Voisin and/or INCC Corp for the construction of the Kitchener-Waterloo Zone 6 Elevated Water Tank at Ira Needles Boulevard and University Avenue in the City of Waterloo. The lands described as part Lot 40, GCT, being Parts 1, 2 and 3 on Reference Plan 58R-15538, containing approximately 1.59 acres are being exchanged for the lands described as Part Lot 40, GCT described as part of Part 1 on Reference Plan 58R-16930, together with easements for access, services and water main purposes, containing approximately 1.89 acres.

The land exchange was conditional upon the satisfactory completion of the Region’s property disposition procedures. The Region’s property disposition by-law requires advertising of any proposed conveyance of Regional land in a local newspaper. When the requirements of the Region’s property disposition by-law have been met, and the Reference Plan describing the land being conveyed to the Region has been completed, the subject land conveyances will be registered on title. Mr. Gregory U. Voisin will be responsible for all associated costs, such as preparation of Reference Plan, advertising and registration of all documentation.

The subject lands are shown attached as Appendix ‘A’.

CORPORATE STRATEGIC PLAN:

One of the goals of the Corporate Strategic Plan is to ensure adequate infrastructure capacity to meet current needs and planned growth.
FINANCIAL IMPLICATIONS:

The proposed land exchange is at no cost to the Region.

OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:

The Transportation and Environmental Services Department staff and the Planning, Housing and Community Services Department have been consulted in the preparation of this report.

ATTACHMENTS

Appendix “A” – location map of lands.

PREPARED BY: Joan Moore, Property Agent

APPROVED BY: Gary Sosnoski, Commissioner, Corporate Resources
TO: Chair Jim Wideman and Members of the Planning and Works Committee

DATE: June 21, 2011

FILE CODE: C06-60/PWC/WS.11

SUBJECT: BADEN–NEW HAMBURG WATER AND WASTEWATER MASTER PLAN UPDATE – NOTICE OF COMPLETION

RECOMMENDATION:

THAT the Regional Municipality of Waterloo approve the Baden–New Hamburg Water and Wastewater Master Plan Update Report including its recommended actions as itemized in Report E-11-056, dated June 21, 2011;

AND THAT the Commissioner of Transportation and Environmental Services is authorized to issue the Notice of Completion, and to provide the Baden–New Hamburg Water and Wastewater Master Plan Update Report for public review and comment for a 30-day period in accordance with the Municipal Class Environmental Assessment Process.

SUMMARY:

In 2008, the Region commenced with the Baden – New Hamburg Water and Wastewater Master Plan Update (MP Update). The MP Update examined the current status of the Region’s water and wastewater infrastructure, examined future needs, and identified preferred alternatives for addressing those needs. Specifically on the water side, water sources, water storage and water distribution was analyzed while on the wastewater side, wastewater treatment capacity and wastewater pumping capacity was analyzed. In addition, possible consolidation of the Foxboro Green wastewater system with the Baden-New Hamburg system was analyzed.

The preferred alternative for water includes the immediate pursual of a third well at the K50’s well field (standby well), continued pumping and monitoring at the K50’s well field, provision for additional water storage by 2018, and construction of water mains, primarily in the lands designated for industrial use between the two communities.

The preferred alternative for wastewater includes a multi-phase expansion at the New Hamburg Wastewater Treatment Plant (WWTP). This includes Phase 1 - optimizing the operational controls at the New Hamburg WWTP and Phase 2 - expansion of the New Hamburg WWTP. Minor adjustments to the Region’s wastewater pumping stations are also recommended.

Consolidation of the Foxboro Green wastewater system was not technically feasible in the short term due to capacity restrictions at the New Hamburg WWTP to accommodate the additional flows. This may become technically feasible in future years, as capacity becomes available.
REPORT:

Background

In 1996, the Region completed the Baden-New Hamburg Water Supply Master Plan, which outlines the long term water supply strategy for the communities of Baden and New Hamburg in the Township of Wilmot. The components of this master plan included the replacement of wells NH1 and NH2 with a new well NH3, replacement of the Baden Standpipe with a new Baden Elevated Tank, as well as construction of various water mains within the two communities.

For wastewater, the Region completed the New Hamburg Baden Wastewater Treatment Class Environmental Assessment in 1997, which examined the wastewater treatment needs for the two communities. The components of the study recommended that the Baden WWTP be converted to the Baden Wastewater Pumping Station (P/S), where wastewater collected from Baden would be pumped to a new New Hamburg WWTP, via the new Morningside P/S. The new New Hamburg WWTP was to operate as a modular reactor process, together with tertiary filtration and ultraviolet (UV) disinfection.

Most of the work proposed in the above Master Plans has been completed. However, planning, regulatory and technical changes impacting these communities necessitated an update. In July, 2008, the Baden-New Hamburg Water and Wastewater Master Plan Update (MP Update) was commenced. The MP Update will cover population growth in the communities until the year 2041.

Master Plan Update

The MP Update follows the Municipal Class Environmental Assessment process of the Municipal Engineers Association (2007 updated version). The MP Update focused on the Region’s responsibilities of water supply and wastewater treatment in these communities. For water supply, the MP Update included analysis of:

- current and future water demands,
- current water supply sources and future needs,
- current water storage and future water storage needs, and
- current water distribution and future distribution needs.

For wastewater treatment, the MP Update included analysis of:

- current and future wastewater flows,
- current wastewater treatment capacity and future needs,
- current wastewater collection infrastructure (Region-owned) and future needs, and
- the possibility of integrating wastewater flows from the community of Foxboro Green.

The MP Update included several points of contact with the general public, as detailed below, and two workshops with stakeholders, including Township of Wilmot staff, to discuss and analyze infrastructure requirements, to develop alternatives and to propose solutions to meet these needs. Details on the findings and recommendations for the water supply and wastewater treatment system in Baden and New Hamburg are provided below.

Water Supply and Distribution: Findings and Recommendations

Water is presently supplied to both Baden and New Hamburg from two sources, namely well NH3 in New Hamburg and wells K50/K51 (K50’s) in Wilmot Centre. Examination of alternatives to meet maximum day demands showed that the current supplies are sufficient to meet the demands up to the year 2041. However, the following actions were recommended as part of the water supply strategy for the MP Update:

1. Monitoring of environmental impact as a result of pumping at K50’s: Similar to the previous master plan, the MP Update has recommended that pumping levels at K50’s wells be
increased from current levels of approximately 105 L/s to the permitted level of 158 L/s in stepped increments. The Region will continue to work with local stakeholders to monitor local environmental impacts as a result of pumping at the K50’s.

2. Monitoring of nitrate concentration: The previous master plan identified increasing nitrate concentrations from wells in the vicinity of the K50’s and noted that levels in the K50’s are to be monitored. The Region has been actively monitoring concentrations and at the present time, results continue to be stable and well below MOE drinking water guideline levels. In the event that nitrate concentrations near the MOE guidelines, the Region will need to take mitigation measures such as treatment or alternative sources. At this time, the Region will continue to monitor the nitrate concentrations as the stepped increases in pumping continue.

3. Installation of redundancy at the K50’s: An operational constraint was identified where whenever either well at the K50’s would require repair or maintenance, supply from the wellfield would be compromised. In order to provide more flexibility to the operation, a third back up well should be constructed.

Water storage for the two communities is presently provided at two locations: the New Hamburg Water Treatment Plant (WTP) reservoir and the new Baden elevated tank. There is presently sufficient storage until around 2018. The MP Update identified that increase of water storage would be possible at the existing WTP location or elsewhere. Details on the future water storage will be part of a separate study.

Water distribution for the two communities consists of an interconnected pipe distribution network where the Region owns and operates larger trunk mains while the Township is responsible for smaller tertiary mains and residential service connections. All areas within the serviced area receive water in adequate supply and pressure however buildings in low-lying areas close to the Nith River bank are susceptible to higher pressures due to their low elevation.

Future development plans call for growth mainly in the area between the two communities (bounded approximately by Snyder’s road to the north, Highway 7/8 to the south, the general eastern boundary of New Hamburg to the west and Foundry Street to the east). To strengthen water distribution to this growth area, a new trunk water main connecting the new Baden elevated tank to the existing distribution network in the vicinity of the New Hamburg WTP has been proposed. This water main has been completed from the Baden elevated tank to Nafziger Road. The remaining section of the water main will be constructed concurrently with development of industrial lands west of Nafziger Road. The MP Update also recommended the creation of a separate pressure zone to reduce high pressure at lower elevations. Details on the creation of this new pressure zone will be part of a separate study.

Wastewater Treatment and Collection: Findings and Recommendations

Wastewater treatment for both communities is provided by the New Hamburg WWTP. This WWTP was constructed in 2000. It has a design capacity of 5,200m$^3$/d and is equipped with headworks, three reactor tanks, tertiary filtration and UV disinfection before discharge to the Nith River. The current WWTP capacity is expected to be reached at about 2018.

The preferred alternative for the New Hamburg WWTP consists of a phased approach to expansion of the plant as follows:

1) Phase 1: Optimization of process controls of the WWTP to incorporate adequate operating procedures under elevated precipitation episodes.

2) Phase 2: Expansion of the plant by introducing a fourth reactor tank and installing tertiary filter and UV units. This activity was envisaged in the original design of the New Hamburg WWTP. This expansion work is expected to increase the rated capacity of the plant to a total of 7,140m$^3$/d.

The expanded WWTP will service both communities until the year 2028.
Phase 3 of the WWTP expansion will be required after the year 2028. Depending on the treatment requirements at the time, higher levels of treatment may be required. Details on future treatment requirements will be part of other studies.

Biosolids management has been addressed separately under the Region’s Biosolids Master Plan, part of report E-11-067 of June 21, 2011. As recommended by the Biosolids Master Plan, biosolids from the Region’s other WWTP’s that aerobically digest sludge (Wellesley WWTP, St. Jacobs WWTP and Hespeler WWTP) will no longer be processed at the New Hamburg WWTP. Instead, a new facility is proposed for the Ayr WWTP which will accept and process this material. Therefore, aerobically digested biosolids at the New Hamburg WWTP will also be sent to the new Ayr facility for dewatering.

Wastewater collection in both communities is operated by the Township. However, two wastewater P/S’s, namely the Morningside P/S and Baden P/S, along with the adjoining trunk sewer are the responsibility of the Region. Results showed that the following actions should be undertaken by the Region in the future:

- **Baden P/S:** During rain events, the Baden Creek next to the Baden P/S has surcharged the P/S in the past. A backflow prevention device should be installed.
- **Morningside P/S:** As incoming wastewater flow increases, pump impellers at the Morningside P/S should be replaced to accommodate this increased flow, as indicated in the original design.

The Region is responsible for wastewater treatment in the Foxboro Green community at the Foxboro WWTP. Wastewater flows are approximately 150m$^3$/d and new growth is not planned for this community. The wastewater system was examined for possible consolidation with the Baden – New Hamburg wastewater collection systems, primarily due to its geographical proximity but also due to the possibility of efficiencies to be gained from optimizing infrastructure.

Analysis showed that in order to undertake the consolidation, provision of a new wastewater P/S and additional wastewater piping (between 3.5 and 7.5km, depending on the alternative) would be required. Furthermore, the above-noted wastewater flows would need to be accommodated by the New Hamburg WWTP. As servicing of Baden and New Hamburg must be prioritized, and due to capacity limitations at the Hamburg WWTP, consolidation at this time would not be technically feasible. Considerations for consolidation can be made in the long-term future, should the community of Baden develop further to the north thereby minimizing piping distance, and should additional treatment capacity at the New Hamburg WWTP become available.

**Public Notification**

The following is a chronology of public notifications conducted during the MP Update.

- **November 2008:** Notice of Commencement – Advertisements were placed in the New Hamburg Independent newspaper informing the public of the commencement of this MP Update. In additional, notification letters were mailed to area municipalities, related provincial and federal agencies, First Nations and the Grand River Conservation Authority (GRCA).
- **Steering Committee Meetings:** Three Steering Committee meetings were held to provide input and advice on the direction of the MP Update. The Steering Committee consisted of the consultant undertaking the Update, Regional and Township staff and Councilors, GRCA and MOE.
- **November 2010:** Notice of Public Information Centre (PIC) – Advertisements was placed in the New Hamburg Independent newspaper informing the general public of the PIC.
Notification letters were also mailed out to identified agencies and members of the public who had expressed interest in the MP Update.

- December 2010: Public Information Centre – The PIC was held at the Township office to present the methodology and preferred alternative for the Update. Attendees were invited to submit feedback, after which any questions were responded to in writing.

Upon Council approval, a “Notice of Completion” advertisement will be placed in the New Hamburg Independent newspaper informing the general public of the 30 day review period for the Final Report, in accordance with the Municipal Engineers Association Class Environmental Assessment process. All reports will be made available for viewing at one location each in Baden and New Hamburg, and electronic files of all reports will be available on the Region’s website. All comments received will become part of the MP Update project file.

**Implementation Schedule**

The proposed implementation schedules for the above recommended actions are shown in Figure 1 of Appendix A. As mentioned, the schedule is dependent on many factors, necessitating the need for continuation of existing monitoring programs and close collaboration with the Township and stakeholders.

**CORPORATE STRATEGIC PLAN:**

This MP Update will contribute to the Strategic Objective to provide infrastructure needed to accommodate planned growth in Focus Area 5: Provide High Quality Infrastructure and Asset Management to Meet Current Needs and Future Growth.

**FINANCIAL IMPLICATIONS:**

The MP Update has shown that additional water and wastewater infrastructure will be needed to maintain projected growth. The 2012 Water and Wastewater Ten Year Capital Program will be updated to reflect the implementation of necessary infrastructure and/or for additional studies.

**OTHER DEPARTMENT CONSULTATIONS/CONCURRENCE:**

The Region’s Planning, Housing and Community Services Department has been involved in the MP Update.

**ATTACHMENTS**

Appendix A – Figures

**PREPARED BY:** Kaoru Yajima, Senior Project Engineer

**APPROVED BY:** Thomas Schmidt, Commissioner, Transportation and Environmental Services
## Appendix A - Figures

### Figure 1 – Implementation Schedule

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<tr>
<td><strong>Additional mains</strong></td>
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<td>Modify as land is developed in Baden and New Hamburg</td>
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<td>Foxboro Green integration</td>
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**Notes:**
- studies, tests, environmental assessment, design work
- construction
- monitoring

*DOCS#983378 Page 6 of 6*
RECOMMENDATION:

THAT the Regional Municipality of Waterloo enter into a Consulting Services Agreement with GHD Inc., of Markham, Ontario to provide consulting services for Phase 1 and 2 of the Asset Management Strategy for the Transportation and Environmental Services Department, at an upset fee limit of $2,384,577.23 plus applicable taxes;

AND THAT upon successful completion of Phase 1 and 2 of this Consultant assignment, staff report back to Planning and Works Committee to request approval to enter into a Consultant Services Agreement with GHD Inc. of Markham, Ontario for 4 of this project.

REPORT:

At the May 3, 2011, Planning and Works Committee, Committee members requested further information relating to the Transportation and Environmental Services (TES) Department Asset Management Implementation Project. The information requirements identified by Committee members will be addressed by answering the following questions outlined below:

1. What is Asset Management?
2. What are the Current TES Department Asset Management Practices and the Differences and Benefits of Implementing the Advanced Asset Management Strategy?
3. What are the Expected Costs of an Asset Management Information and Data System?

The following are the answers to the above noted questions:

1. **What is Asset Management?**

   The TES Department assets include all physical infrastructure (roads, bridges, street lights, water treatment plants, waste management facilities, recycling centre, airport facilities, etc. – a more complete list is in Appendix A) that is necessary to support the services provided by the Region. Each of these assets has a value, current condition, and service life. In its simplest form asset management reviews each of these assets individually and answers the following questions:

   1. What is it worth?
   2. What condition is it in and what is its remaining service life?
   3. What is the level of service expectation and what needs to be done maintain that level of service?
   4. What do we own?
5. What is the infrastructure deficit or gap?

From the information that is collected a basic asset management approach would involve developing individual programs to maintain and replace the individual assets in the most efficient manner. There is a wide range of ways and levels of sophistication that this could be done at. Approaches can be very rudimentary and require very little information. For watermains a very simple asset management program could be to provide regular routine maintenance (flushing, swabbing, valve turning etc) and plan for replacement of the watermain for 80 years after construction. Asset management can also be very sophisticated and require significant amounts of information. For watermains this could include monitoring water quality to determine when maintenance is required, monitoring watermain breaks, physical inspection of the watermain and a flexible approach to replacement based on various data to determine when a watermain needs to be replaced.

The next step in asset management is starting to look at not only individual assets but whole groups of assets. For groups of assets all of the information collected for each of the assets needs to be considered plus each of the assets needs to be reviewed relative to and in combination with the other assets in the group. This can result in tradeoffs being made. Some assets may be maintained or replaced sub-optimally so that the overall infrastructure deficit can be minimized. A watermain example might be that a watermain is replaced after 75 years of service because road infrastructure and sanitary sewer infrastructure needs to be replaced at that time rather than waiting till the 80 year point. Again various levels of sophistication and information can be used to make the overall asset management decisions.

Another important aspect of asset management is setting appropriate level of service expectations. For watermains some examples of different levels of service expectation could be that watermains are replaced once they reach a certain age or that watermains are replaced when a certain amount of leakage occurs or when a certain number of watermain breaks occur per km or combinations of all the parameters. Choosing the right level of service expectations is critical to ensuring that service is maintained but also that infrastructure isn’t over-maintained or replaced too soon at significant cost. Part of implementing the proposed Asset Management Plan is to decide on and to document the level of service expectations for assets and asset groups.

As the number, value and complexity of assets being managed increases and the amount of information being collected and used to make decisions on assets increases the importance of having standardized engineering, business and financial practices also increases. The management of a large and complex set of assets requires improved and standardized engineering, business and financial practices to ensure that appropriate decisions are made.

With TES Department assets (Appendix A) totalling $4.1 billion covering a wide range of different assets, the Region needs to improve the processes that are currently being used to make asset management decisions. Currently, the TES Department has an annual capital budget of $315 million and operating budget of $135 million. Ensuring that the right projects are done at the right time requires more standardization and improved financial and business practices that are implemented in conjunction with an up-to-date asset management system.

2. What are the Current TES Department Asset Management Practices and the Differences and Benefits of Implementing the Advanced Asset Management Strategy?

The TES Department has already taken significant steps to implement Asset Management practices, including maintenance procedures, data and information maintenance systems and staff competencies. Current accomplishments include:
Establishing maintenance procedures and systems;
Compliance to regulatory and reporting requirements;
Plans to address current and future service demands;
Compliance with Public Services Accounting Board (PSAB) Tangible Capital Assets;
Assessments on asset condition and a replacement plan;
Using an informal risk based approach to make decisions;
Prioritization of capital projects for the Ten Year Capital Programs based on age and condition of assets;
Participation in Ontario Municipal Benchmarking Initiative (OMBI) Performance Measures benchmarking; and
Substantial investment has been made in data collection, storage and spatial display.

The current state of asset management at the Region is very typical of municipalities, including area municipalities, in the province. Currently projects and programs are developed and managed using basic asset management approaches. Some of the other areas that would be addressed during the implementation of this project are (including some examples):

- **Optimized capital and maintenance activities to achieve best value to the community:**
  - Determine appropriate monitoring for various assets.
    - Bridges and culverts are monitored and condition assessed every two years to determine overall maintenance and capital needs, existing structural capacity and identify capital and maintenance activities
  - Develop standardize reports for management decision making
    - Annual reports are developed for pavements, bridges and culverts that identify overall capital and maintenance needs, overall system structural adequacy and improvements are prioritized.
  - Provide periodic reporting to Regional Council and the public on the state of infrastructure and the activities being undertaken
    - State of the infrastructure report can be prepared for Council that provides an overall scorecard for the Region’s infrastructure. Future infrastructure reports can also provide performance measurement trend lines over time.
  - Ensure the right project is being done at the right time in the context of all of TES’s infrastructure and capital and maintenance programs.
    - Prior to inserting a project in a Capital 10 Year Program a Preliminary Design Report will be completed outlining project scope, priority, rational and costs to minimize project scope creep and capital cost fluctuations.
  - Standardized and coordinated best practices in the TES department
    - By moving from asset management being done at a Division level or even at a specific asset level to a Department level asset management strategy, staff throughout the Department will be involved in creating this strategy ensuring buy-in at a Departmental level. By expanding the scope to involve the whole Department, there are opportunities to share and adopt some of the best practices already adopted with various groups within the Department.

- **Determine the right service level;**
  - Make asset management decisions based on maintaining that service level
    - Establishing service levels that are acceptable to Council and the public is key to assisting in making the right asset management decision. Once in place, maintenance and capital programs can be produced to meet these expectations. This will also assist making sure the right projects are being done at the right time.

- **Define maintenance and capital improvement plans based on our unique infrastructure and comprehensive risk and life cycle analysis;**
  - Using risk management principles maximizes the use of infrastructure while minimizing the costs and maintaining an appropriate level of risk.
For every key asset within the Department the risk framework will be developed (set objectives, develop criteria and identify key issues), risks will be identified and evaluated (probability and consequence of risk, risk ranking, existing controls in place) and risk treatment (treatment options and selection, develop and implement future improvement plan)
- Better integration of decisions made on maintenance (operating budgets) and replacement or significant maintenance (capital budgets)
  - By adhering to the risk management principles appropriate improvement decisions can be made. For example, it may not be as critical to replace a directional information sign before a roadway regulatory sign (stop sign, yield sign, etc.).

- **Benchmarking processes to measure infrastructure performance over time;**
  - Continuous improvement by benchmarking to measure performance and identify opportunities
    - The development of a Department Asset Management Plan will identify our current baseline on where the Region is relative to asset management. As part of updating this plan every two years a review and evaluation will be undertaken for each process, practice and policy in the plan to look for opportunities for improvement.

- **Establish long range, comprehensive financial plans;**
  - Establish financial plans that extend beyond the 10 year plans that currently form part of the Region’s budget process to align better with assets that have service lives of 50 years or more.
    - By extending the financial plan to mirror the service life of the asset will provide a long term view on how the Region’s assets will perform over time and will identify financial requirement peaks and valleys that can be addressed through a financial strategy.

- **Improved data collection and information systems to support asset management decisions; and**
  - Standardize data collection protocols
    - How data will be collected for a watermain, airport runway, waste management facility or road will be standardized throughout the Department.
  - Determine appropriate update period for the asset inventory (probably annually) and then ensure accurate and timely data is available for the update
    - Decisions will be made at an asset level the frequency of updating data based on the risk identification and level of service.
  - Improved ability to share information and respond quickly to queries
    - By the Department establishing an asset data structure and information system, the information can be accessible to all employees within the Department.

- **Enhance staff asset management skills and corporate memory.**
  - Ensure that corporate knowledge is retained
    - As part of developing best practices and policies, corporate knowledge will be extracted from Department staff and will be incorporated into the Department Asset Management Plan. This Plan will be updated every two years to ensure it is kept relevant.

Based on the experiences that other organizations have had implementing advanced asset management approaches savings of up to 5% of the annual capital program have been achieved. TES department’s annual capital program is $315M. If even an annual savings of 1% ($3.2M) is achieved, this will cover the full cost of this project in the first year. Over a 10 year period a saving of 1% would be approximately $32M.

Appendix B includes further information relating to this project, including examples of benefits some organizations have achieved from advanced Asset Management Strategies and a list of the key project deliverables.
The most important deliverables are a completed Asset Management Plan and the structure and processes in place to complete further plans with Regional resources.

3. What are the Expected Costs of an Asset Management Information and Data System?

Once the asset management approach discussed in this report has been implemented it will be necessary to embed the practices and standards developed into a software program designed to allow the asset management plan to be more easily revised, updated, reported on and used. Based on discussions with Information Technology Division staff, it is estimated that the capital cost for Phase 3 of the Asset Management Strategy (purchase of software package and implementation) could be between $1.25M and $3.75M.

Staff Review of Consultant Upset Fee and Scope of Work

It should be noted, since the May 3, 2011 Planning and Works Committee meeting, Region staff have undertaken a review of the Consultant’s upset fee and scope of work for this project and have identified reductions by removing and deferring work. These reductions relate to:

- reducing the number of asset groups being piloted from each TES Department Division and Section from three to one (reduction from 12 to 4 asset groups being piloted); and
- deferring Phase 4 of the project (Continuous Improvement and Asset Management Plan #2) from this Consultant assignment for future approval.

The total reductions achieved from removing this work from the Consultant assignment is $905,616.27 for a revised total Consultant upset fee of $2,384,577.23 plus applicable taxes (Appendix C).

The following are the pros and cons of removing the above work from the Consultant assignment.

Pros
- initial Consultant assignment costs are reduced significantly;
- a measured and phased approach will be used on this assignment, and
- Council will be informed on how successful Phase 1 and 2 are on this project prior proceeding to approving Consultant assignment for Phase 4 of this project or to piloting additional asset groups.

Cons
- if further Consultant assistance is not provided to pilot additional asset groups, this work will require staff time which will mean this project will take longer to implement, and
- Phase 4 of this project is being deferred but will ultimately require Consultant assistance once Phase 1 and 2 of this project has been completed.

Overall staff feel that making these reductions is reasonable but it may be necessary to reassess as the project moves forward. Changes to budget on the project would require Council approval.

CORPORATE STRATEGIC PLAN:

The project meets the Corporate Strategic Plan Focus Area 5: “Provide high quality infrastructure and asset management to meet current needs and future growth” regarding the following Strategic Objectives:

1. Optimize the use of existing infrastructure and ensure it is adequately maintained, and
2. Provide infrastructure needed to accommodate planned growth.
FINANCIAL IMPLICATIONS:

Ten Year Capital Programs for the Transportation and Environmental Services Department Divisions prior to 2011 included funds for infrastructure inspections, for completing preliminary work for the implementation of Asset Management such as PSAB Tangible Capital Assets compliance, Gap Analysis and Assessment studies, and other related work. Based on the results of the Gap Analysis and Assessments for the Transportation (Roads) and Water Services Divisions in 2009 and 2010 and the Airport Section and Waste Management Division requirements as part of this project, funds have been allocated for the implementation of Asset Management in the Council approved 2011 Ten Year Capital Programs.

The original GHD Consultant upset fee for this project was $3,290,193.50 plus applicable taxes; however Region staff have undertaken a review of the Consultant’s upset budget limit for this project and have identified reductions by removing and deferring work. The revised total Consultant upset fee limit is now $2,384,577.23 plus applicable taxes. The 2011 Ten Year Capital Programs for the Transportation, Water Services and Waste Management Divisions includes a combined total funding of $3,400,000 for this project over the years 2011 to 2013 and will be funded from the Roads Rehabilitation, Water and Development Charge Reserve Funds and debentures. This will be adequate funding to cover GHD’s revised upset fee of $2,384,577.23 plus applicable taxes. For a detailed breakdown of the Consultants revised upset fee see Appendix C.

OTHER DEPARTMENT CONSULTATION/CONCURRENCE:

NIL

ATTACHMENTS:

Appendix A – Transportation and Environmental Services Department Current Assets
Appendix B - Examples of benefits organizations have achieved from advanced Asset Management Strategies and list of key project deliverables
Appendix C – Revised Consultant Fee Breakdown

PREPARED BY: Robert Gallivan, Manager, Transportation Program Development
               Richard Pinder, Senior Project Engineer, Asset Management

APPROVED BY: Thomas Schmidt, Commissioner, Transportation and Environmental Services
Transportation and Environmental Services Department Current Assets

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</table>

1 – Not including Waste Water Operations performed by OCWA

**Water Services ($1.9 billion)**
- 116 wells
- 17 water treatment plants
- 36 storage facilities
- 38 pumping stations
- 13 waste water treatment plants
- 6 sewage pumping stations
- 2 biosolids storage lagoons
- 1 biosolids transfer facility
- 218 km of Regional water mains
- 73 km of co-owned water mains

**Waste Management ($0.1 billion)**
- 2 waste management facilities
- Recycling centre
- Maintenance buildings
- 2 landfill gas collection system
- Retention ponds
- Waterloo Region Emergency Fire Training and Research Center (WRESTRC)

**Transportation ($2.1 billion)**

**Roads ($2.05 billion)**
- Approximately 700 kilometres of road
- 169 bridges
- 478 signalized intersections
- 7,543 street lights
- Approximately 15 kilometres of noise walls
- 11 maintenance operations buildings

**Airport ($0.05 billion)**
- 360,000 square meters of asphalt which consists of 2 runways, 5 taxiways, 5 Aircraft parking aprons and a series of groundside roads and vehicle parking lots
- 49,000 metres of storm sewer
• 500 edge lights, 40 guidance signs, 4 precision approach path indicator (PAPI) systems, 2 approach lighting systems, 8 constant current regulators including approximately 28,392 metre of underground cabling including 2 emergency generators and a computerized control system located in a dedicated field electric centre
• 2,233 metres of overhead and 442 metres of underground 3 phase hydro distribution including 13 pole mount transformers, 5 pad mount transformers, 3 load break switches and 46 hydro consumption meters
• 32 street lights and light standards including underground cabling 2,258 meters of underground fibre optic telecommunication cabling.
• 5 administration and maintenance operations buildings
• 32 camera CCTV security system including cabling and digital video recording system
• 24,000 metres security / wildlife fencing network including 50 security gates
• 2,600 metres water pipeline network including 22 gate valves, 8 curb stops and 13 fire hydrants.
• 1,700 metres sanitary pipeline including 21 sanitary manholes and 1 pumping station
Examples of Benefits Achieved From an Advanced Asset Management Strategy

- Orange County Sanitation District (California), saw the reduction of capital expenditures/budget by 18% over three years resulting in a $475 million cost saving as a result of project deferrals resulting from undertaking a risk analysis and capital program review.
- City of Vancouver made a multi-million dollar budget reduction for regional wastewater services through implementation of effective asset management. Specifically, Vancouver achieved their savings by undertaking risk and level of service assessment of their capital program resulting in project deferrals.
- City of Calgary recently reported a cost savings of $1.8 million in one of their business units attributed to implementing Asset Management practices. Specifically, the City found
  - business process improvements such as developing proactive vs. reactive maintenance programs (i.e. Developing a group street light replacement program based on service life vs. replacing the street light as it goes out);
  - implementing effective asset management systems to improve data access for reporting or responding to queries; and
  - using level of service targets and risk assessments for prioritizing projects and allowing the deferral of major rehabilitation projects by increasing the asset life with improved maintenance.
- Through applying Asset Management business cases for Capital Investment Programs many North American cities have been able to reduce their capital budgets. A capital program that guarantees new assets are added only if they are really needed and the right assets are modified, upgraded in a timely manner based on solid economical rationale can lead to a 5% reduction in the Capital Improvement Program annual budget by the second year of implementation. (Columbus OH ($22 million), Palm Beach ($14 million) Saskatoon CA ($34 million)). Specifically, Palm Beach, Columbus and Saskatoon achieved their savings by undertaking a risk assessment of their capital projects and by undertaking a Capital Improvement Program (CIP) project business case review that resulted in project deferrals.
- Seattle’s Department of Roads has reported savings of $350 million by implementing level of service targets and assessing risk on all capital programs resulting in project deferrals and improved maintenance practices.

What are the Key Deliverables?

As the TES Department implements this Asset Management Strategy, the Department will work with Council and all affected business units and operating areas within the Region towards the development of Department wide asset management best practices and policies. These practices could be extended to other Departments within the Region.

The TES Department Asset Management Program will provide the following deliverables:

- Gap Analysis and Assessment for Airport and Waste Management (July 2011);
- Strategic Asset Management Planning Framework and Department Processes (August 2011);
- Initial TES Asset Management Plan (September 2011);
- Performance Measurement and Continuous Improvement Framework and Department Processes (October 2011);
- Data Registry and Standards (January 2012);
- Training and Development Strategy and Plan (March 2012);
- Levels of Service, Failure Mode and Risk Analysis (April 2012);
- Capital Programming Framework, Processes and Pilots (April 2012);
- Organizational Roles and Responsibilities Review and Strategy (April 2012);
Knowledge Management Strategy and Plan (June 2012);
Information and Data Management Systems Review (July 2012);
Renewal Planning Processes and Pilots (January 2013);
Maintenance Planning Processes and Pilots (January 2013);
Change management and Communication Strategy and Plan (January 2013);
Continuous Improvement Plan (December 2013); and
Asset Management Plan # 2 (December 2013).
# GHD Inc. – Revised Upset Fee Breakdown

## Transportation and Environmental Services Department

## Asset Management Implementation Project

<table>
<thead>
<tr>
<th>Phase</th>
<th>Total Fee</th>
<th>Revised Total Fee</th>
<th>Variance</th>
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<tbody>
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<td>Project Initiation</td>
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<td>Section and Waste Management</td>
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<td>Division</td>
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<td>Business Process Framework</td>
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<td>Asset Management Plan</td>
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<td>Phase 3 - Not Part of this</td>
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<td>Consultant Assignment</td>
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**Total** $3,290,193.50  $2,384,577.23  $905,616.27
The addition of a new iXpress station at Victoria Street is planned as part of 2011 transit service improvements. Planned iXpress improvements effective June 27, 2011 include the increase of weekday frequency from 15 minutes to 10 minutes between 6:30 AM and 6:30 PM, the addition of five trips in each direction during early weekday evenings, and the increase of Saturday frequency between Fairview Park Mall and Ainslie Street terminals from 30 minutes to 15 minutes. The increase of iXpress frequency will add 50% more passenger capacity during peak times and provides a rationale for considering additional iXpress stations.

Since the launch of iXpress in 2005 customers have requested additional stations at the following locations:

- the intersection of King Street and Victoria Street in Kitchener,
- on Charles Street at Cameron Heights Collegiate Institute in Kitchener,
- on King Street near Eastwood Collegiate Institute in Kitchener,
- at Sportsworld Crossing in Kitchener, and
- on Water Street at Galt Collegiate Institute in Cambridge.

Staff have evaluated these locations and found that ridership growth potential is limited at most additional station locations requested by customers. Travel demand at most of these locations is oriented towards peak times only and would serve a limited variety of destinations. The addition of a station at Sportsworld Crossing would require the deployment of additional buses due to the amount of time required to access the site from Highway 8. Discussions with GO Transit and the Ministry of Transportation of Ontario (MTO) about the development of a terminal at this location are ongoing. Staff will continue to investigate adding a station at this location.

However, an iXpress station at King Street and Victoria Street is a valuable system addition because it will:

- replicate a future Rapid Transit station,
- encourage transit ridership growth from the recently redeveloped Tannery District, the University of Waterloo Health Sciences Campus, and the soon to be redeveloped Breithaupt Block,
• reduce travel times for customers travelling from west Kitchener to destinations in the Central Transit Corridor by providing more transfer connections to Route 19 – VICTORIA SOUTH and Route 20 – VICTORIA HILLS, and
• provide an interim connection to the VIA/GO Transit rail station located approximately 500 metres to the north at Weber Street.

It is planned to implement this station at existing bus stops on King Street at Victoria Street in September 2011. Please see below for a map of this location. A new shelter and a variable message sign displaying real time bus arrival times will be added at the southbound stop in order to improve customer amenities. Limited sidewalk space at the northbound stop prevents the installation of a shelter, however a stand alone variable message sign attached to a pole can be provided. Staff evaluated locating the northbound stop on the far side of the intersection but Rapid Transit related construction could interfere with the station in a short period. Staff will monitor the schedule reliability impacts of ridership growth and on street conditions of this new iXpress station and, if required, develop plans for further adjustments.

Map 1: VICTORIA STATION AND SURROUNDING AREA
<table>
<thead>
<tr>
<th>Meeting date</th>
<th>Requestor</th>
<th>Request</th>
<th>Assigned Department</th>
<th>Anticipated Response Date</th>
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<tr>
<td>01-Dec-09</td>
<td>P&amp;W</td>
<td>Staff report on obtaining changes to Highway Traffic Act to give right of way to pedestrians</td>
<td>Transportation and Environmental Services</td>
<td>May-2011</td>
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<td>12-Apr-11</td>
<td>P&amp;W</td>
<td>Staff report on Policy for Smoking Around GRT Buses</td>
<td>Transportation and Environmental Services</td>
<td>16-Aug-2011</td>
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<td>24-May-11</td>
<td>P&amp;W</td>
<td>Staff report on emerging technology and current technology being used for traffic signal control</td>
<td>Transportation and Environmental Services</td>
<td>Fall - 2011</td>
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