Regional Municipality of Waterloo

Planning and Works Committee

Agenda

Tuesday, August 9, 2016

11:15 a.m. (Time approximate, immediately following A&F Committee)

Regional Council Chamber

150 Frederick Street, Kitchener

1. Declarations of Pecuniary Interest under the Municipal Conflict Of Interest Act

2. Delegations

<table>
<thead>
<tr>
<th>Consent Agenda Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items on the Consent Agenda can be approved in one motion of Committee to save time. Prior to the motion being voted on, any member of Committee may request that one or more of the items be removed from the Consent Agenda and voted on separately.</td>
</tr>
</tbody>
</table>

3. Request to Remove Items from Consent Agenda

4. Motion to Approve Items or Receive for Information

5. Reports – Transportation and Environmental Services

Transportation

5.1 **TET-TRP-16-17**, Erb Street (Regional Road 9) and Ira Needles Boulevard (Regional Road 70) By-Law Amendments

Recommendation: Pages 8-9

Reports – Planning, Development and Legislative Services
Administration

5.2 **PDL-16-04**, Assignment of Airport Land Lease from Imperial Oil Limited to World Fuel Services Canada, ULC

**Recommendation:**

That the Regional Municipality of Waterloo authorize the Commissioner of Planning, Development and Legislative Services to enter into a Consent to Assignment, and any related documentation, to assign the Lease between The Regional Municipality of Waterloo and Imperial Oil Limited from Imperial Oil Limited to World Fuel Services Canada, ULC as described in Report No. PDL-16-04, dated August 9, 2016.

Community Planning


**Recommendation:**


Regular Agenda Resumes

6. Reports – Transportation and Environmental Services

Design and Construction

6.1 **PDL-LEG-16-54**, Closing and Surplus Declaration of Part of Franklin Boulevard (Regional Road 36), City of Cambridge

**Recommendation:**

That the Regional Municipality of Waterloo close and declare surplus a portion of Franklin Boulevard, in the City of Cambridge described as Part of Lot 21, Registrar's Compiled Plan 1383, being Part 1 on Reference Plan 58R19010 Part of PIN 03796-0001(LT), as detailed in Report No. PDL-LEG-16-54 dated August 9, 2016, pursuant to the Region's property disposition by-law, to the satisfaction of the Regional Solicitor.

6.2 **PDL-LEG-16-58**, Authorization to Expropriate Lands (2nd Report) for Franklin Blvd Improvements (Regional Road 36) Project – Year 2 South, from Property Located at 250-270 Dundas Street South,
Cambridge, Ontario

**Recommendation:**

That Council of the Regional Municipality of Waterloo approve the expropriation of lands for the purpose of reconstruction of Franklin Boulevard from 200m North of Clyde Road to 200m North of Avenue Road (Year 2 North), and from 125m South of Champlain Boulevard to 200m South of Main Street (Year 2 South), in the City of Cambridge, in the Region of Waterloo as detailed in Report PDL – LEG -16-58 dated August 9, 2016, described as follows:

**Fee Simple Partial Taking:**

Part of Lot 5, Concession 10, being Part 4 on 58R- 18801 (Part of PIN 03842-0367 (LT)) (250-270 Dundas Street South, City of Cambridge);

**Permanent Easement – Hydro Aerial:**

The right and easement, being an easement in gross, for itself, its successors and assigns and anyone authorized by it, in perpetuity to, at any time enter upon the following properties for purposes of constructing, installing, inspecting, repairing, altering, enlarging, replacing, correcting, operating, and maintaining aerial hydro installations and infrastructure overhead, including cables, pipes, conduits of all kinds, all appurtenances thereto, and maintaining required clearance areas for same, herein referred to as the aerial utility plant, which may be determined necessary from time to time through, over, upon, along and across the lands, and for all such purposes together with the free, unimpeded and unobstructed access for itself, its successors and assigns, servants, agents, contractors, workmen and anyone authorized by it, and vehicles, supplies and equipment at all times and for all purposes and things necessary for or incidental to the exercise and enjoyment of the right and easement:

Part of Lot 5, Concession 10, being Part 5 on 58R- 18801 (Part of PIN 03842-0367 (LT)) (250-270 Dundas Street South, City of Cambridge);

And that staff be instructed to register a Plan of Expropriation for the property within three months of the granting of the approval to expropriate the property, as required by the *Expropriations Act*;

And that the registered owners be served with a Notice of Expropriation and a Notice of Possession for the property after the registration of the Plan of Expropriation and the Regional Solicitor is authorized to take any and all actions required to enforce such Notices including but not limited to any application pursuant to Section 40 of the *Expropriations Act*;
And that all above-referenced fee simple partial takings situated adjacent to an existing Regional public highway be acquired for road widening purposes and therefore be deemed to form part of the adjacent public highway in accordance with subsection 31(6) of the Municipal Act, 2001, S. O. 2001, c.25;

And that if no agreement as to compensation is made with an owner, the statutory Offer of Compensation and payment be served upon the registered owners of the property in the amount of the market value of the interests in the land as estimated by the Region’s appraiser in accordance with the Expropriations Act;

And Further That the Regional Solicitor be authorized to discontinue expropriation proceedings or any part thereof, in respect of the above described lands, or any part thereof, upon the registration on title of the required documentation to complete the transaction or if determined by the Commissioner of Transportation and Environmental Services that such lands, or any part or interest thereof, are not required for the subject Project.

Transit Services

6.3 **TES-TRS-16-17**, GRT Business Plan 2017-2021– Interim Report (Information) (Presentation) 34

6.4 **TES-TRS-16-18**, Electronic Fare Management – Master Services Agreement 64

**Recommendation:**

That the Regional Municipality of Waterloo enter into an agreement with Scheidt & Bachmann Canada Inc. (S&B) to implement a hosted and managed services solution for the Region’s Electronic Fare Management System for a three-year period commencing in August, 2016 with an option for two additional one-year periods, in a form satisfactory to the Regional Solicitor, as described in Report No. TES-TRS-16-18, dated August 9, 2016 at a cost of $360,000 per year plus all applicable taxes.

6.5 **TES-TRS-16- 20**, Transit Service to Family and Children’s Services 68

**Recommendation:**

That the Regional Municipality of Waterloo approve new transit service to serve areas along Hanson Avenue, Lennox Lewis Way and Fallowfield Drive in Kitchener, to be implemented effective Tuesday September 6th, 2016, as described in Report No. TES-TRS-16-20,
Transportation

6.6 **TES-TRP-16-11**, Northumberland Street (Regional Road 58) Posted Speed Review

**Recommendation:**

That the Regional Municipality of Waterloo amend the Traffic and Parking By-law 06-072, as amended, to:

a) Remove from Schedule 18, posted 70 km/h on Northumberland Street (Regional Road 58) from 150 metres north of Alps Road West to 594 metres north of Guthrie Street;

b) Add to Schedule 18, posted 70 km/h on Northumberland Street (Regional Road 58) from 150 metres north of Alps Road West to 433 metres south of Alps Road East;

c) Add to Schedule 18, posted 60 km/h on Northumberland Street from 433 metres south of Alps Road East to 25 metres north of Greenfield Road East;

d) Remove from Schedule 4, No Parking Anytime on the west side of Northumberland Street (Regional Road 58) from 58 metres north of Stanley Street (Regional Road 58) to Greenfield Road; and

e) Add to Schedule 4, No Parking Anytime on the west of Northumberland Street (Regional Road 58) from 58 metres north of Stanley Street (Regional Road 58) to Greenfield Street West.

f) Add to Schedule 4, No Parking Anytime on the east side of Northumberland Street (Regional Road 58) from 230 metres south of Broom Street to Greenfield Street West.

in the Township of North Dumfries as outlined in Report TES-TRP-16-11, dated August 9, 2016.

6.7 **TES-TRP-16-16**, Southbound Right-turn Restriction on King Street at Cedar Street, City of Kitchener

**Recommendation:**

That the Regional Municipality of Waterloo, amend Traffic Parking By-law 06-072, as amended, to add to Schedule 15, Prohibited...
Movements, Southbound Right-turn, 1:00 p.m. to 7:00 p.m. Monday to Friday at the intersection of King Street and Cedar Street in the City of Kitchener, as outlined in Report TES-TRP-16-16, dated August 9, 2016.

6.8 **TES-TRP-16-18**, Pedestrian Traffic Control Requirements on Church Street (Regional Road 86) at Killdeer Drive / Country Club Estates Drive, in the Township of Woolwich

**Recommendation:**

That the Regional Municipality of Waterloo amend Traffic and Parking By-law 06-072, as amended, to add to Schedule 10, Pedestrian Crossovers, Level 2 Pedestrian Crossover at Church Street (Regional Road 86) and Killdeer Road/Country Club Estates Drive, in the Township of Woolwich, as outlined in Report TES-TRP-16-18, dated August 9, 2016.

Reports – Planning, Development and Legislative Services

7. **Information/Correspondence**

7.1 Correspondence Township of Wellesley re: Ament Line/Herrgott Road Intersection

7.2 Council Enquiries and Requests for Information

8. **Other Business**

9. **Next Meeting – September 13, 2016**

**Motion to go into Closed Session**

That a closed meeting of the Planning and Works Committee be held on Tuesday, August 9, 2016 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 litigation and acquisition of land in the City of Kitchener

b) proposed or pending acquisition of land in the City of Waterloo

10. **Adjourn**
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<th>Date</th>
<th>Time</th>
<th>Description</th>
<th>Location</th>
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<tbody>
<tr>
<td>September 13, 2016</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>October 4, 2016</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>
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Region of Waterloo

Transportation and Environmental Services

Transportation

Design and Construction

To: Chair Tom Galloway and Members of the Planning and Works Committee

Date: August 9, 2016

File Code: T01-20/9 Erb Street; 07327

T01-20/70 Ira Needles Blvd; 07282

Subject: Erb Street (Regional Road 9) and Ira Needles Boulevard (Regional Road 70) By-Law Amendments

Recommendation:

That the Regional Municipality of Waterloo amend Traffic and Parking By-law 06-072, as amended, upon completion of construction to:

a) Add to Schedule 16, Lane Designation, West Waterloo Centre, southbound, left/through/right-turn, left-turn movements at Erb Street, (Regional Road 9);

b) Add to Schedule 16, Lane Designation, Erb Street (Regional Road 9) eastbound and westbound, through/right-turn and through/left-turn movements at West Waterloo Centre/Waste Management Centre Gate 1;

c) Add to Schedule 16, Lane Designation, Platinum Drive, southbound, left/through/right-turn and left-turn movements at Erb Street (Regional Road 9);

d) Add to Schedule 16, Lane Designation, Erb Street (Regional Road 9) eastbound and westbound, through/right-turn and through/left-turn movements at Platinum Drive/ Waste Management Centre Gate 2;

e) Remove from Schedule 18, Rate of Speed, Erb Street (Regional Road 9) from 310 metres west of Wilmot Line to 780 metres east of Wilmot Line, posted speed limit of 70 km/h;
f) Remove from Schedule 18, Rate of Speed, Erb Street (Regional Road 9) from 780 metres east of Wilmot Line to University Avenue (Regional Road 57) posted speed limit of 60 km/h;

g) Add to Schedule 18, Rate of Speed, Erb Street (Regional Road 9) from 310 metres west of Wilmot Line to University Avenue (Regional Road 57), posted speed limit of 60 km/h;

h) Add to Schedule 10, Level 2 Pedestrian Crossover, on Entry and Exits to north and west leg of roundabout on Erb Street (Regional Road 9) at Waste Management Centre Gate 1;

i) Add to Schedule 10, Level 2 Pedestrian Crossover, on Entry and Exits to north and west leg of roundabout on Erb Street (Regional Road 9) at Waste Management Centre Gate 2;

j) Add to Schedule 16, Lane Designation, Ira Needles Boulevard (Regional Road 70) southbound, through/right-turn and through/left-turn movements at Thorndale Drive;

k) Add to Schedule 16, Lane Designation, Thorndale Drive eastbound, through/right-turn and left-turn movements at Ira Needles Boulevard (Regional Road 70);

l) Add to Schedule 16, Lane Designation, Ira Needles Boulevard (Regional Road 70) northbound, through/right-turn and through/left-turn movements at Thorndale Drive;

m) Add to Schedule 16, Lane Designation, Thorndale Drive westbound, left/through/right-turn movements at Ira Needles Boulevard (Regional Road 70);

n) Add to Schedule 10, Level 2 Pedestrian Crossover, on All Entry and Exits at the Ira Needles Boulevard (Regional Road 70) and Thorndale Drive access;

o) Remove from Schedule 16, Lane Designation, Erb Street (Regional Road 9), all directions, at Ira Needles/Erbsville Road (Regional Road 70), through/right turn, through/left turn movements;

p) Add to Schedule 16, Lane Designation, Ira Needles/Erbsville Road (Regional Road 70), northbound and southbound directions, right-turn and through/left-turn movements at Erb Street (Regional Road 9);

q) Add to Schedule 16, Lane Designation, Erb Street (Regional Road 9), eastbound and westbound directions, through/right turn and through/left-turn movements at Ira Needles/Erbsville Road (Regional Road 70).
Summary:

In 2014 the West Waterloo Centre was approved for development which is located on the north side of Erb Street immediately opposite the Region of Waterloo’s Waste Management Centre.

In 2015, Regional Council approved 2 new roundabouts on Erb Street at the Waterloo Waste Management Centre Gates 1 and 2 to support the development.

In 2015, Regional Council also approved the installation of a new roundabout on Ira Needles Boulevard at Thorndale Drive to support growing development in this area.

In order to facilitate the intersection improvements above, amendments to the Region’s Traffic and Parking By-law must be approved for lane designations and to allow implementation of proposed Level 2 Pedestrian Crossovers.

Appendix A illustrates the locations requiring by-law changes; Gate 1/Platinum Drive, Gate 2/West Waterloo Centre, Ira Needles at Thorndale Drive and Erbsville/Ira Needles at Erb Street.

Report:

1. Background

In 2014 the West Waterloo Centre was approved for development which is located on the north side of Erb Street immediately opposite the Region of Waterloo’s Waste Management Centre.

At its regularly scheduled meeting on June 24, 2015, Regional Council approved the implementation of 2 roundabouts on Erb Street (Regional Road 9) at the Waterloo Waste Management Centre Gates 1 and 2, in the City of Waterloo, as outlined in Report TES-DCS-15-16.

At its regularly scheduled meeting on August 19, 2015, Regional Council approved the implementation of a roundabout on Ira Needles Boulevard (Regional Road 70) at Thorndale Drive, in the City of Waterloo, as outlined in Report TES-DCS-15-20.

The above road works are planned to be complete in the fall of 2016.

2. Level 2 Pedestrian Crossover

In January 2016 the Ministry of Transportation (MTO) issued a new regulation (402/15) under the Highway Traffic Act, which established a new traffic-control device called a Level 2 Pedestrian Crossover which consists of signs and pavement markings and
when used, provides pedestrians the right-of-way to cross roadways. These devices can be implemented on roadways with a posted speed of 60 km/h or less.

At its regular scheduled meeting on February 10, 2016 Region of Waterloo Council approved an implementation strategy for the Level 2 Pedestrian Crossover as outlined in Report TES-TRP-16-05, which planned for the installation of Level 2 Pedestrian Crossovers at all roundabouts in 2016.

3. Recommendations

In order to support the intersection improvements along Erb Street and Ira Needles Boulevard staff is recommending that the Region’s Traffic and Parking By-law be amended to enable installation of lane designation signs and Level 2 Pedestrian Crossovers at the 2 planned roundabouts on Erb Street that access the Regional Waste Management site, as well as the planned roundabout on Ira Needles Boulevard at Thorndale Drive.

Corporate Strategic Plan:

This project supports Focus Area 2 (“Sustainable Transportation”) of the Corporate Strategic Plan; specifically, Strategic Objective 2.4 which is to optimize road capacity to safely manage traffic and congestion.

Financial Implications:

The Region’s 2015 Ten year Transportation Capital Program includes a total budget of $6.58 Million for the widening of Erb Street from Ira Needles Boulevard to Wilmot Line in the years 2015 – 2019 to be funded from the Regional Development Charges Reserve Fund. This budget includes the Region’s cost for the roundabout at Waste Management Centre – Gate 2, including associated road improvements on Erb Street, estimated at $3.6 Million.

The Region’s approved 2016 Ten year Transportation Capital Program includes funding of $5.405 million in 2016 for completion of road widening and roundabouts on Ira Needles Boulevard from Highview Drive/Trussler Road to Erb Street. In 2014 the Region completed widening of Ira Needles Boulevard from Highview Drive/Trussler Road to 200 metres south of Thorndale Drive. This contract will complete the widening from 200 metres south of Thorndale Drive to Chablis Drive, in the City of Waterloo (Project #7282), to be funded from the Development Charge Reserve Fund. The north limits were extended from Erb Street to Chablis Drive to improve operational movements.

The cost of lane designation signs and Level 2 Pedestrian Crossovers at Erb Street/Waste Management Centre Gate 1, Erb Street/Waste Management Centre Gate 2 and Ira Needles Boulevard/Thorndale Drive is approximately $25,000.
Sufficient funding is provided in the abovementioned projects to implement the lane designation signs and Level 2 Pedestrian Crossovers.

**Other Department Consultations/Concurrence:**

Nil

**Attachments**

Appendix A - Illustrates the locations requiring by-law changes; Gate 1/Platinum Drive, Gate 2/West Waterloo Centre, Ira Needles at Thorndale Drive and Erbsville/Ira Needles at Erb Street.

**Prepared By:** Valerie MacQueen-Pearcey, Engineering Technologist (Traffic)

William Gilbert, Senior Project Manager (Transportation Expansion)

Justin Armstrong, Senior Project Manager (Transportation Expansion)

**Approved By:** Thomas Schmidt, Commissioner, Transportation and Environmental Service
Report:  PDL-16-04

Region of Waterloo
Planning Development and Legislative Services
Legal Services
Region of Waterloo International Airport

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: August 9, 2016  File Code:  L04-20
Subject: Assignment of Airport Land Lease from Imperial Oil Limited to World Fuel Services Canada, ULC

Recommendation:

That the Regional Municipality of Waterloo authorize the Commissioner of Planning, Development and Legislative Services to enter into a Consent to Assignment, and any related documentation, to assign the Lease between The Regional Municipality of Waterloo and Imperial Oil Limited from Imperial Oil Limited to World Fuel Services Canada, ULC as described in Report No. PDL-16-04, dated August 9, 2016.

Summary:

Nil.

Report:

The Regional Municipality of Waterloo (the “Region”) originally entered into a land lease for lands at the Region of Waterloo International Airport with Imperial Oil Limited (“Imperial Oil”) dated July 15, 1995 (the “Lease”) which allowed Imperial Oil to operate an aviation fueling business on the leased lands. The Lease has been recently renewed for a five year term from July 15, 2015 and ending on July 14, 2020. An Asset Purchase Agreement between Imperial Oil and World Fuel Europe, Ltd. has been entered into wherein World Fuel Europe, Ltd. will purchase Imperial Oil’s assets including the Lease, subject to the Region’s consent. Pursuant to the Asset Purchase Agreement, with regard to Imperial Oil’s Canadian assets, World Fuel Europe, Ltd. shall assign its rights to such assets to World Fuel Services Canada, ULC (“World Fuel
Canada). World Fuel Canada is a related company to World Fuel Europe, Ltd.

World Fuel Canada and Imperial Oil have requested that the Region enter into a Consent to Assignment assigning the Lease from Imperial Oil to World Fuel Canada. In addition, they have requested that the Region waive the requirement that an environmental audit of the leased lands be conducted by Imperial Oil prior to the assignment being effective in exchange for World Fuel Canada assuming all liabilities, covenants and obligations of Imperial Oil under the Lease, whether first accruing prior to, on or after the effective time of the assignment, including but not limited to any environmental liabilities, environmental claims or contamination of the leased lands by hazardous substances. Regional staff agrees that it is appropriate to waive the environmental audit requirement because World Fuel Canada has agreed to assume all liabilities of Imperial Oil and it has been confirmed that all fueling tanks on the leased lands are above ground with no leaking detected.

Regional staff recommends that Consent be provided to this Assignment in order that this business continues to operate at the Airport.

Corporate Strategic Plan:

The lease assignment meets the Corporate Strategic Objective to support existing businesses and attract new employers and investments (to stay, grow, thrive and prosper) under Focus Area 1, Thriving Economy.

Financial Implications:

The annual fees for 2015 paid by Imperial Oil pursuant to the Lease were $59,331.00. The annual fees for 2016 will total a similar amount based on fuel sales.

Other Department Consultations/Concurrence:

Nil.

Attachments:

Nil.

Prepared By: Liam Legate, Solicitor (Corporate)

Chris Wood, General Manager, Region of Waterloo International Airport

Approved By: Debra Arnold, Acting Commissioner, Planning Development and Legislative Services
Region of Waterloo
Planning, Development and Legislative Services
Community Planning

To: Chair Tom Galloway and Members of the Planning and Works Committee

Date: August 9, 2016  File Code: D18-01


Recommendation:


Summary:

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

- Approved the following part lot control exemption by-law;
- Draft approved the following plans of condominium;
- Modified the following plan of condominium; and
- Released for registration the following plans of subdivision and plans of condominium.

Report:

City of Cambridge
Part Lot Control Exemption By-law 93-16

Applicant: Chrisview Custom Homes Ltd.

Location: Kedwell Street

Proposal: To permit the creation of 2 single detached units
Draft Approval of Plan of Condominium 30CDM-16102

Applicant: Grand Willow Co-operative Development Corporation
Location: 155 Water Street South
Proposal: To permit the development of 80 residential condominium apartment units.

Commissioner’s Approval: June 21, 2016
Came Into Effect: July 5, 2016

Registration of Draft Plan of Condominium 30CDM-13104

Draft Approval Date: February 3, 2014
Phase: Stage 3
Applicant: Granite Homes Cambridge Inc.
Location: 635 Saginaw Parkway
Proposal: To permit the development of 17 residential condominium townhouse units.

Commissioner’s Release: June 15, 2016

Registration of Draft Plan of Condominium 30CDM-12102

Draft Approval Date: December 20, 2012
Phase: Phase 8
Applicant: Deerfield Homes Ltd.
Location: 750 Lawrence Street
Proposal: To permit the development of 20 residential condominium units.

Commissioner’s Release: June 15, 2016
City of Kitchener

Registration of Draft Plan of Subdivision 30T-08201

Draft Approval Date: July 18, 2012
Phase: Stage 5
Applicant: Tru-Villa Inc. and 2040796 Ontario Limited
Location: Fischer-Hallman Road
Proposal: To permit the development of 8 single detached residential units and 46 to 70 multiple dwelling residential units.

Regional Processing Fee: Paid May 13, 2016
Commissioner’s Release: June 24, 2016

Registration of Draft Plan of Subdivision 30T-08201

Draft Approval Date: July 18, 2012
Phase: Stage 7
Applicant: Tru-Villa Inc. and 2040796 Ontario Limited
Location: Fischer-Hallman Road
Proposal: To permit the development of 58 single detached residential units.

Regional Processing Fee: Paid May 13, 2016
Commissioner’s Release: June 24, 2016

Registration of Draft Plan of Subdivision 30T-08202

Draft Approval Date: August 25, 2014
Phase: Entire Plan
Applicant: Mattamy (Westmount) Limited and 2040796 Ontario Limited
Location: Fischer-Hallman Road
Proposal: To permit the development of 77 single detached residential units.

Regional Processing Fee: Paid May 13, 2016
Commissioner’s Release: June 9, 2016
Registration of Draft Plan of Subdivision 30T-11205

Draft Approval Date: June 30, 2014
Phase: Stage 1
Applicant: Sestan Building Group
Location: 250 Woolwich Street
Proposal: To permit the development of 11 single detached residential units.

Regional Processing Fee: June 22, 2016
Commissioner's Release: June 27, 2016

Registration of Draft Plan of Condominium 30CDM-15209

Draft Approval Date: January 25, 2016
Phase: Entire Plan
Applicant: 460 Belmont Avenue Inc.
Location: 460 Belmont Avenue
Proposal: To permit a vacant land condominium consisting of 412 multi residential units.

Regional Processing Fee: Paid May 30, 2016
Commissioner's Release: June 24, 2016

City of Waterloo

Draft Approval of Plan of Condominium 30CDM-15406

Applicant: IN8 (Sage II) Developments Inc.
Location: 318 Spruce Street
Proposal: To permit the development of 198 residential condominium apartment units, 19 office units, 8 commercial units and 49 locker units.

Regional Processing Fee: Paid June 3, 2016
Commissioner's Approval: June 6, 2016
Came Into Effect: June 28, 2016
Modification to Draft Plan of Condominium 30CDM-15401

Draft Approval Date: March 11, 2016
Applicant: JD Development Phillip Street Limited
Location: 256 Phillip Street
Proposal: To realign walkway to curve around the transformer; delete Parking Unit 1 on Level 2 and create a new Parking Unit adjacent to and immediately south of Unit 7, Level 2. Two Parking Units have also been added to Level 1 and six Parking Units to Level 2 for a total of 89 Parking Units.

Regional Processing Fee: Paid June 1, 2016
Commissioner’s Approval: June 8, 2016
Came Into Effect: Immediately

Registration of Draft Plan of Subdivision 30T-05301

Draft Approval Date: April 28, 2016
Phase: Phase 4
Applicant: Hilltop Development
Location: Brant-Waterloo Road, Ayr
Proposal: To permit the development of 4 single detached residential units, 21 residential townhouse units and 7 semi-detached residential units.

Regional Processing Fee: Paid June 3, 2016
Commissioner’s Release: June 22, 2016

Area Municipal Consultation/Coordination:

These planning approvals and releases, including consultations with Area Municipalities, have been completed in accordance with the Planning Act. All approvals included 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. Strategic objective: Improve environmental sustainability and liability intensifying urban and rural settlement areas.
Financial Implications:
Nil.

Other Department Consultations/Concurrence:
Nil.

Attachments:
Nil.

Prepared By: Andrea Banks, Program Assistant

Approved By: Debra Arnold, Acting Commissioner, Planning, Development and Legislative Services
Region of Waterloo
Planning Development and Legislative Services
Legal Services

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: August 9, 2016   File Code: L04-20
Subject: Closing and Surplus Declaration of Part of Franklin Boulevard (Regional Road 36), City of Cambridge

Recommendation:

That the Regional Municipality of Waterloo close and declare surplus a portion of Franklin Boulevard, in the City of Cambridge described as Part of Lot 21, Registrar’s Compiled Plan 1383, being Part 1 on Reference Plan 58R19010 Part of PIN 03796-0001(LT), as detailed in Report No. PDL-LEG-16-54 dated August 9, 2016, pursuant to the Region’s property disposition by-law, to the satisfaction of the Regional Solicitor.

Summary: NIL

Report:

As a result of the construction of a roundabout at Franklin Boulevard and Sheldon Drive in Cambridge, a portion of the subject road allowance is no longer required for road purposes and Region staff have advised will not be required in the future.

The subject lands have a total area of 670.98 square metres and are located at the south east corner of Franklin Boulevard and Sheldon Drive. There is utility infrastructure owned by Energy + Inc. (Cambridge North Dumfries Hydro Inc.), Rogers and Bell located within the subject lands.

When the subject lands have been closed as road allowance and the requirements of the Region’s property disposition by-law have been met, the subject lands are to be conveyed to the owner of the abutting lands known as 1201 Franklin Boulevard in order to mitigate parking lot loss to the Owner’s property resulting from the Region’s expropriation of land from the Owner for road improvements at the corner of Franklin Boulevard.
Boulevard and Sheldon Drive. Permanent utility easements will be conveyed to Energy+ Inc., Bell and Rogers Cable prior to the transfer to the abutting owner.

The subject lands are shown attached as Appendix “A”. The Region expropriated 687.80 square metres from the property owner which negatively impacted the lands and parking spaces. These surplus lands are to help mitigate such.

**Corporate Strategic Plan:**

One of the focus areas of the Corporate Strategic Plan is to optimize road capacity to safely manage traffic and congestion.

**Financial Implications:**

NIL

**Other Department Consultations/Concurrence:**

Corridor Management staff of Planning, Development and Legislative Services and Design and Construction Staff of Transportation and Environmental Services have been consulted in the preparation of this report.

**Attachments**

Appendix “A” – location map of lands.

**Prepared By: Brian Timm**, Property Agent

**Approved By: Debra Arnold**, Acting Commissioner, Planning Development and Legislative Services
Appendix “A”

Surplus Land
Region of Waterloo
Planning Development and Legislative Services
Legal Services

To: Chair Tom Galloway and Members of the Planning and Works Committee

Date: August 9, 2016  

File Code: L04-20

Subject: Authorization to Expropriate Lands (2nd Report) for Franklin Blvd Improvements (Regional Road 36) Project – Year 2 South, from Property Located at 250-270 Dundas Street South, Cambridge, Ontario

Recommendation:

That Council of the Regional Municipality of Waterloo approve the expropriation of lands for the purpose of reconstruction of Franklin Boulevard from 200m North of Clyde Road to 200m North of Avenue Road (Year 2 North), and from 125m South of Champlain Boulevard to 200m South of Main Street (Year 2 South), in the City of Cambridge, in the Region of Waterloo as detailed in Report PDL-LEG-16-58 dated August 9, 2016, described as follows:

Fee Simple Partial Taking:

Part of Lot 5, Concession 10, being Part 4 on 58R-18801 (Part of PIN 03842-0367 (LT)) (250-270 Dundas Street South, City of Cambridge);

Permanent Easement – Hydro Aerial:

The right and easement, being an easement in gross, for itself, its successors and assigns and anyone authorized by it, in perpetuity to, at any time enter upon the following properties for purposes of constructing, installing, inspecting, repairing, altering, enlarging, replacing, correcting, operating, and maintaining aerial hydro installations and infrastructure overhead, including cables, pipes, conduits of all kinds, all appurtenances thereto, and maintaining required clearance areas for same, herein referred to as the aerial utility plant, which may be determined necessary from time to time through, over, upon, along and across the lands, and for all such purposes together with the free, unimpeded
and unobstructed access for itself, its successors and assigns, servants, agents, contractors, workmen and anyone authorized by it, and vehicles, supplies and equipment at all times and for all purposes and things necessary for or incidental to the exercise and enjoyment of the right and easement:

Part of Lot 5, Concession 10, being Part 5 on 58R- 18801 (Part of PIN 03842-0367 (LT)) (250-270 Dundas Street South, City of Cambridge);

And that staff be instructed to register a Plan of Expropriation for the property within three months of the granting of the approval to expropriate the property, as required by the Expropriations Act;

And that the registered owners be served with a Notice of Expropriation and a Notice of Possession for the property after the registration of the Plan of Expropriation and the Regional Solicitor is authorized to take any and all actions required to enforce such Notices including but not limited to any application pursuant to Section 40 of the Expropriations Act;

And that all above-referenced fee simple partial takings situated adjacent to an existing Regional public highway be acquired for road widening purposes and therefore be deemed to form part of the adjacent public highway in accordance with subsection 31(6) of the Municipal Act, 2001, S. O. 2001, c.25;

And that if no agreement as to compensation is made with an owner, the statutory Offer of Compensation and payment be served upon the registered owners of the property in the amount of the market value of the interests in the land as estimated by the Region’s appraiser in accordance with the Expropriations Act;

And Further That the Regional Solicitor be authorized to discontinue expropriation proceedings or any part thereof, in respect of the above described lands, or any part thereof, upon the registration on title of the required documentation to complete the transaction or if determined by the Commissioner of Transportation and Environmental Services that such lands, or any part or interest thereof, are not required for the subject Project.

Summary: NIL

Report:

Regional Council has approved the reconstruction of the Franklin Boulevard (Regional Road 36) corridor from Pinebush Road to Myers Road, in the City of Cambridge (the “Project”). The Environmental Assessment was approved by Council in March 2010 and by the Ministry of Environment in July 2011. This study investigated the need to increase traffic capacity on Franklin Boulevard and approved constructing roundabouts at the major intersections and reconstructing Franklin Boulevard with 4 lanes and a
continuous raised centre median.

As a result of the potential for significant impacts of construction on traffic and the local community, the Franklin Boulevard improvements are planned and/or being completed in phases as follows (see attached Sketch Project Area in Appendix “A”):

**Year 1 South** – Main St. to Clyde Rd.
- Main Street roundabout – Currently under construction, to be completed by late Summer 2016
- Savage Drive roundabout – Currently open to traffic with surface course paving to be completed by late Summer 2016
- Clyde Road roundabout – Currently under construction, to be completed by late Summer 2016

**Year 1 North** – Bishop St. to Pinebush Rd.
- Bishop Street roundabout – Completed and open to traffic
- Sheldon Drive roundabout – Completed and open to traffic
- Pinebush Road roundabout – Currently open to traffic with surface course paving to be completed by late Summer 2016

**Year 2 South** – Champlain Blvd. to Main St.
- includes roundabouts at Champlain Blvd. and Dundas St.
- utility relocation planned in 2016, road construction start planned in 2017

**Year 2 North** – Clyde Rd. to Avenue Rd.
- includes roundabout at Avenue Rd.
- utility relocation planned in 2016, road construction start planned in 2017

**Avenue Rd. to Can-Amera Pkwy.** – On Hold
- includes potential roundabouts at Saginaw Pkwy. and Can-Amera Pkwy. and signals at Glamis Rd.
- Council decision on this section won’t be made until Year 1 roundabouts have been in place for a year and an operational analysis has been conducted.
- earliest construction 2020, potentially later if roundabouts are not recommended and EA Addendum is required
All of the Year 1 properties have been expropriated and possession of the required land was obtained on October 31\textsuperscript{st}, 2014.

Council approved the commencement of expropriation of the properties for the Year 2 phase on February 23, 2016 as detailed in report PDL-LEG-16-12. The appropriate forms under the Expropriations Act were served in order to initiate formal proceedings under the Act for these properties. All of the affected property owners were previously contacted by Legal Services staff and informed of the project as well as the Region’s intention to commence the expropriation process and the Region’s Expropriation Information Sheet was provided to each of them. The affected property owners have also been provided with offers to purchase. Legal Services staff contacted all property owners and informed them of the Region’s intention to continue with the expropriation process in order to ensure that the construction timeline is maintained, including this report being presented to Council, as detailed in the Region’s Expropriation Information Sheet.

Notices of the application were served on the affected owners including the owners of the subject property.

A request for a hearing of necessity was received from the owners of 250-270 Dundas Street South, Cambridge on June 7, 2016. The hearing was scheduled for July 14, 2016.

With the exception of the subject property, the Council of the Regional Municipality of Waterloo approved the expropriation of lands for the purpose of reconstruction of Franklin Boulevard from 200m North of Clyde Road to 200m North of Avenue Road (Year 2 North), and from 125m South of Champlain Boulevard to 200m South of Main Street (Year 2 South), in the City of Cambridge, in the Region of Waterloo on June 22, 2016, as detailed in Report PDL –LEG -16-27 dated June 14, 2016.

Region staff met with the owner of 250-270 Dundas Street South, Cambridge and its representatives to review the design of the proposed road improvements at the subject property in detail, and to discuss any potential impacts to the property. On June 29, 2016, the solicitors for the owners of 250-270 Dundas Street South, Cambridge, advised Region staff that they were withdrawing their request for a hearing of necessity after receiving confirmation about the Region’s requirements at their property, including the operation of the existing drive-through for the Bank of Nova Scotia and retention of a full movement access to and from the plaza from Dundas Street South. With the withdrawal of the request for a hearing of necessity the scheduled hearing was cancelled. It is now in order to proceed with the approval of the expropriation of the required interests from the property at 250-270 Dundas Street, South, Cambridge.
The appropriate forms under the Expropriations Act were served in order to initiate formal proceedings under the Act for this property. The property owners were previously contacted by Legal Services staff and informed of the project as well as the Region’s intention to commence the expropriation process and the Region’s Expropriation Information Sheet was provided to them. The property owners have also been provided with an offer to purchase and of the Region’s intention to continue with the expropriation process in order to ensure that the construction timeline is maintained, including this report being presented to Council, as detailed in the Region’s Expropriation Information Sheet.

Council approval of the expropriations is being sought at this time to permit registration of the Plan of Expropriation this summer and possession of the required lands and interests in the fall of 2016 so that the majority of advance utility relocation work can be completed before winter which will facilitate the overall construction time line. Legal Services staff has been negotiating property acquisitions over the past several months and intends to continue negotiations with property owners in an effort to achieve a settlement of their claims under the Act.

Upon Council approval of the expropriation of the property, such approval will be endorsed upon on a certificate of approval on the Plan of Expropriation should this property not be acquired under agreement. The Plan will then be registered within three months of the approval. Ownership of the property vests with the Region upon the registration of the Plan. Notices of Expropriation and Notices of Possession are then served upon all registered owners, including tenants as shown on the assessment roll. The Region will take possession of the required lands at least 3 months after service of the Notice of Possession.

After the registration of the Plan of Expropriation and prior to the taking of possession of the property the expropriating authority is required to serve the registered owners with an offer in full compensation for their interests in the land. The offer must be accompanied by the immediate payment of one hundred (100%) of the appraised market value of the land to the registered owners as estimated by the Region’s appraiser. The registered owners are also to be served with a report appraising the market value of the property, which report formed the basis for the offer of compensation.

The expropriation process is proceeding to ensure that the Region has possession of the land for advance utility relocations in 2016 and construction of the Franklin Boulevard roadway improvements at this location in 2017.

The expropriation of the lands is on an “as is” basis and upon closing, the Region assumes all responsibility for the lands.
The Project Area showing anticipated construction starts for the various sections of Franklin Boulevard is shown attached as Appendix “A”. A drawing of the Subject Property showing the affected parts 4 and 5 on 58R-18801 is shown as Appendix “B”. A list of the individual and corporate owners of the fee simple interest in the subject lands is attached as Appendix “C”. Regional staff have conducted a corporate profile search of the affected corporate property owner and the directors and officers are listed for the property. This list does not include tenants, easement holders or holders of security interests in the subject lands.

**Corporate Strategic Plan:**

Implementation of this Project is in furtherance of Strategic Objective 2.4 which is to optimize road capacity to safely manage traffic and congestion.

**Financial Implications:**

The Region’s approved 2016 Transportation Capital Program includes a budget of $15,355,000 in 2016, $11,000,000 in 2017 and $980,000 in 2018 for Project 05549 RR36 Franklin Boulevard from Myers Road to Hwy 401 to be funded from Regional Development Charges. The estimated cost of the acquisition of this property is $10,000.00.

**Other Department Consultations/Concurrence:**

Transportation and Environmental Services and Financial Services staff have been consulted in the preparation of this Report.

**Attachments**

- Appendix “A” – Sketch of Project Area
- Appendix “B” - Affected Subject Property
- Appendix “C” – Corporate Profile

**Prepared By:** Brian Timm, Property Agent

**Fiona McCrea,** Solicitor, Property

**Approved By:** Debra Arnold, Acting Commissioner, Planning Development and Legislative Services
Appendix “C”

Corporate Profile

250-270 Dundas Street South, Cambridge
Owner: Contonis Holdings Ltd.
Annual Return: August 15, 2015
Directors/Officers: Alex Contonis; Effy Contonis; Chris Contonis
Partial Taking, and Permanent Hydro Easement
Region of Waterloo
Transportation and Environmental Services
Transit Services

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: August 9, 2016       File Code: D09-90
Subject: GRT Business Plan 2017-21 Interim Report

Recommendation:
For information.

Summary:
This report provides an update on the development of the new 2017-2021 GRT Business Plan. The new business plan will guide the planned improvements to the regional transit network and service levels required over the next five years to achieve the 2011 Regional Transportation Master Plan annual transit ridership target of 28 million by 2021.

In addition to mapping out the service improvement plan and ridership growth strategy, the new business plan addresses the key focus areas of service performance monitoring, GRT/LRT integration, customer service, marketing, transit technology and a financial plan that details operating and capital resource requirements and fare strategy.

Staff plan to bring the 2017-2021 GRT Business Plan to Planning and Works Committee and Regional Council for approval in Fall 2016.

Report:
Introduction
The 2017-2021 GRT Business Plan is currently being developed to identify the transit network changes and service level improvements required over the next five years to attain the
2011 Regional Transportation Master Plan transit ridership targets, support the Regional Official Plan growth and urban intensification goals, and to achieve seamless integration of ION LRT and BRT, and conventional bus services.
The new business plan addresses seven key focus areas:

1. Service Improvement Plan & Ridership Growth Strategy
2. Service Performance Monitoring Plan
3. GRT/LRT Integration Staging Plan
4. Customer Satisfaction Plan
5. Marketing Strategy and Implementation Plan
6. Transit Technology Strategy
7. Financial Plan

The purpose of this report is to provide an update on the development of the new GRT Business Plan 2017-21, in advance of the 2017 budget process. Initial results are being presented in this report on the draft 2021 Transit Network and proposed annual service improvements. A progress update on the other elements of the business plan is also provided.

### Background

#### Ridership Targets

The 2011 Regional Transportation Master Plan established transit ridership targets of 28 million rides in 2021 and 53 million annual rides in 2031. Increasing the share of travel by transit supports the regional goals of managing growth sustainably, improving air quality and contributing to a thriving and liveable community.

To achieve 28 million rides by 2021 requires ridership to increase an average of 7.2% annually. Since GRT was established in January 2000, ridership has increased an average of 5.1% annually. Past ridership growth would have been higher if not for recent declines of 1.7 million annual rides from 2013 to 2015 due to several factors: i) loss of school board funded high school trips, ii) service impacts due to construction detours, iii) significant annual fare increases starting in 2012 and iv) localized service reductions in 2013 and 2014. Other non-local factors include lower fuel prices and perhaps some transit trips shifting to Uber or similar services.

Recent transit ridership declines have also been experienced by other southern Ontario transit systems. There are several market fundamentals though in the Region that point to future ridership growth. Population continues to grow and a young and diverse work force has a greater propensity to use transit. Mixed-use development and intensification along the central transit corridor will support and benefit from higher-order transit service - ION LRT. Also, less construction detour impacts will again make conventional bus routes more convenient and reliable in the near future.
1. Service Improvement Plan & Ridership Growth Strategy

Service Growth

To achieve a 5.1% annual ridership growth rate between 2000 and 2015, the amount of transit service provided increased on average 4.6%. Maintaining historical ridership growth rates that are higher than service growth rates will be difficult. To date, service expansion has primarily served latent demand from the lack of transit growth during the nineties when population continued to grow. Two of the three major post-secondary educational institutions in the Region have also added a U-Pass program, Wilfrid Laurier University since 2005 and University of Waterloo since 2007. The earliest date a U-Pass program could be implemented at Conestoga College is September 2018 due to the College by-law governing the timing of the next student referendum. U-Pass programs contribute significantly to ridership growth, provide students universal access to affordable transportation and support campus intensification plans through reduced student parking demand.

While ION LRT will create a significant boost to ridership, the rest of the GRT bus network will need to continue to grow to achieve the RTMP ridership targets. Between 2017 and 2021 it is estimated that the annual bus service hours need to increase on average by 5.8% (50,000 hours) annually along with the implementation of ION LRT to achieve an annual ridership growth rate of 7.2%. This represents an increase of approximately 250,000 annual service hours, from 750,000 service hours in 2016 to 1,000,000 by 2022 (because service is implemented September 2021 the actual service hours in 2021 are 967,000).

2016 to 2021 Ridership and Service Growth Projections

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<tbody>
<tr>
<td>Ridership</td>
<td>19,800,000</td>
<td>20,161,000</td>
<td>22,098,000</td>
<td>24,388,000</td>
<td>26,118,000</td>
<td>27,960,000</td>
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<tr>
<td>Service Hours</td>
<td>750,000</td>
<td>767,000</td>
<td>817,000</td>
<td>867,000</td>
<td>917,000</td>
<td>967,000</td>
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<tr>
<td>Peak Buses (Fall Service)</td>
<td>195</td>
<td>210</td>
<td>205*</td>
<td>213</td>
<td>223</td>
<td>233</td>
</tr>
</tbody>
</table>

*decrease in peak buses attributed to streamlining and restructuring routes in the Central Transit Corridor in early 2018 when ION LRT begins revenue service. 15 buses would be made available with 10 buses planned for Fall 2018 service improvements outlined in the section below. Remaining available buses would be used for ‘Bus Bridge’ replacement service in case of disruption to ION LRT.
The year-to-year projected ridership and service growth between 2016 and 2021 is detailed in the table above. The expected start of ION LRT revenue service is early 2018. The first 12 months of LRT operation would be during 2018-2019 and have a projected annual ridership of 3.9 million. The implementation of 50,000 annual service hours would start in September 2017 and continue each subsequent September to 2021.

The implementation of ION LRT and BRT, annual iXpress and local route improvements will result in a fully integrated regional transit network in 2021 as described in the following section.

2021 Transit Network

The 2021 Transit Network will be updated for the final 2017-2021 GRT Business Plan report. Staff will continue with operational and technical analysis of route alignments, ridership forecasts, cost and bus requirement estimates, passenger infrastructure requirements, bus operator relief locations and overall customer service.

The draft 2021 Transit Network (Figure 1) has been developed based on three key principles: 1) completing the iXpress network, 2) realigning routes to more of a grid network focused on ION stations and 3) providing 10 minute frequency or better on high performance routes.

The iXpress network was developed to provide high-frequency, limited-stop service along major travel corridors to connect with ION rapid transit stations. Shelters and real-time passenger information displays are provided at each stop. The planned iXpress network of 8 routes was designed to be fully-integrated and complementary to rapid transit. Five iXpress routes are now operating. The first iXpress route - 200 was implemented in 2005 and will be replaced by ION LRT between Conestoga Mall and Fairview Park Mall, and ION BRT between Fairview Park Mall and the Ainslie Street Terminal. The most recent iXpress route – 204 Highland-Victoria was implemented in 2015.

i. It is proposed that the remaining iXpress routes be implemented by 2021. This would include: i) the introduction of the 205 Ottawa iXpress, an east-west corridor service travelling on Ottawa Street between the Sunrise Centre in the west and Lackner Boulevard in the east and connecting with the Mill and Borden ION stations, ii) extending the 201 Fischer-Hallman iXpress to the Block Line ION station and, if a Conestoga College U-Pass program is implemented, further to the college via Manitou Drive and Homer Watson Boulevard, iii) extending the 200 ION BRT to east Galt and iv) the introduction of the 206 Coronation iXpress traveling between west Galt and Fairview Park Mall via Coronation Boulevard where connections would be made with LRT and other bus routes (Figure 2).

ii. The implementation of ION rapid transit and the corresponding completion of the iXpress network will enable the continued realignment of local routes to be more grid-like and to connect with ION stations. The 2021 transit network reflects these design principles. Route alignments will be confirmed through the annual service improvement plan process based on public consultation feedback and detailed technical analysis, then presented to Council for consideration during the annual budget process.
iii. Today, only three GRT routes operate at 10 minute or better peak frequency. It is proposed by 2021 that eight GRT routes operate at 10 minute or better peak frequency. This is a key ridership growth initiative that will also address current peak overcrowding conditions (Figure 3

Township Services

In addition to urban transit service improvements, the draft 2021 Transit Network includes potential new and expanded services for the rural Townships. New route concepts have been identified for North Dumfries (Ayr) and Woolwich (Breslau), as well as an expansion of existing service to Elmira. Wellesley Township has been recognized in the 2017-2021 Business Plan as an area where lower densities and the lack of a significantly-sized settlement mean a fixed-route transit service would not be warranted; however, it could be a candidate for alternative or specialized transit options as described later in this report.

GRT staff have met with staff from the Townships to discuss what service improvements would be most useful to and supported by their residents, and will continue to meet with them to discuss options going forward. Since conventional and MobilityPlus services to the Townships are area rated, the timing of any future transit service improvements to Townships is dependent on the Township’s budget approval for the new service.

Service Improvement Phasing Strategy

The following section outlines the proposed annual service improvements between 2017 and 2021. ION LRT is expected to begin revenue service operation in early 2018.

September 2017 – Proposed Service Improvements (Figure 4)

Service changes in Fall 2017 would focus on (1) addressing capacity and demand pressures on existing routes, (2) continuing to expand the iXpress network, (3) implementing the UW Transit Plaza, and (4) improving schedule adherence with the opening of the new Cambridge Centre Terminal, and (5) mitigating service reductions implemented in April 2014 on two routes above GRT minimum performance thresholds. These changes would maintain ridership growth momentum ahead of the ION launch.

1. Proposed peak frequency improvements on four high-ridership routes would address passenger overcrowding and encourage ridership growth:
   - Service frequency would increase from every 15 minutes to 10 minutes on the 201 Fischer-Hallman iXpress and 202 University iXpress during weekday peak periods in the Fall, Winter and Spring.
   - Service frequency would increase from every 30 minutes to 15 minutes on Routes 10 and 110 which travel between Fairview Park Mall and Conestoga College during weekday peak periods in the Fall and Winter.
   - Service frequency would increase from every 60 minutes to 30 minutes on Route 10 during early morning and evening periods on Saturdays and during the midday on
Sundays.

- Route 110 service would operate during the spring and summer months (currently the route operates during Fall and Winter only).

2. A new 205 Ottawa iXpress route would provide an important, missing link connecting east and west Kitchener, integrating with ION LRT at the Borden and Mill stations. Today, crosstown travel between east and west Kitchener on GRT requires travelling to Downtown Kitchener first, which adds considerable out-of-direction travel to riders not destined to the downtown. As well, there is no continuous route along Ottawa Street, a major corridor crossing the city with concentrations of employment and dense residential areas. This route would fill that gap in the transit network with a frequent, limited-stop express service.

3. Four routes in Waterloo would be revised to serve the new Transit Plaza roadway at the University of Waterloo: Routes 9, 13, 31, and 201 iXpress. These routes would then be integrated with the University of Waterloo ION station.

4. An additional bus and service hours are required to improve the schedule reliability of Route 56 Dunbar (which serves the Preston area), and Route 75 Saginaw (which serves the Shades Mills area). Both routes serve the new Cambridge Centre transit passenger facility on Hespeler Road.

5. Midday service would be re-introduced on Routes 27 Chicopee and 57 Blair Road on weekdays in order to mitigate service reductions made in 2014. This reinstatement of service would improve transit accessibility to Freeport Hospital in the summer months and to West Galt year-round.

The proposed September 2017 service improvements would require approximately 50,000 additional annual service hours and 15 additional buses.

**Proposed Transit Network Changes With Launch of ION LRT** (Figures 5 & 6)

**Central Transit Corridor**

The implementation of ION LRT requires the restructuring of routes travelling in the Central Transit Corridor (CTC) to more directly connect with ION stations and minimize duplication of service. While many local routes have already been realigned to integrate with ION or iXpress routes, there are still many routes that need to be realigned including Routes 2, 4, 7, 8, 9, 12, 14, 29, 73 and 92. Other routes that have been revised in previous years, i.e. Routes 1, 20 and 204 iXpress, would require minor route adjustments in Downtown Kitchener to connect with ION stations once LRT revenue service is underway.
In addition, ION LRT will replace the existing 200 iXpress between Conestoga Mall and Fairview Park Mall, and the Route 7 Mainline branches that serve the University of Waterloo. The associated resources (service hours and peak buses) from the 200 and 7D and 7E branches would be redeployed to restructure and improve service on other CTC routes in conjunction with the start of ION revenue service as outlined below.

The proposed CTC route restructuring would include the following changes:

- A streamlined Route 7 would travel from Conestoga Mall to Fairview Park Mall via King Street and Connaught Street. A better-than-10-minute peak and midday frequency would be provided on King Street between Conestoga Mall and Downtown Kitchener. 30-minute service would be provided between Downtown and Fairview. Between Uptown Waterloo and Ottawa Street, Route 7 will provide access to areas beyond the catchment of ION stations, which currently produce approximately 1,100 daily boardings on GRT. New ridership will be generated as many of these areas are redeveloped with transit-supportive land uses. Similarly, the King Street corridor between Uptown and Conestoga Mall continues to intensify through redevelopment and will require a high level of service on Route 7. With the proposed changes, Route 7 will continue to be an important core route in the transit network.

A frequent and streamlined Route 7 from Conestoga Mall to Downtown Kitchener along the King Street corridor would also serve as an immediate alternative option for many ION riders should an incident temporarily disrupt ION service. Route 7 and ION are envisioned as complementary, core services that provide an attractive and competitive alternative to auto travel in the CTC.

- Route 8 University/Fairview, another major route in the CTC, would be restructured from one route with four branches that operate as a two-way ‘figure-8’ loop into 3 new routes.

The two northern branches (Westmount/Belmont and Weber/Margaret) would be shortened so that the Belmont section would connect with the Margaret section at the Grand River Hospital ION station, and operate as a smaller two-way loop connecting to the Queen and Frederick ION stations in Downtown Kitchener.

The Westmount and Weber sections would be incorporated into a revised Route 12 that would travel the length of Weber between University Avenue and Fairway Road, and follow most of the existing Route 12 alignment between Fairview Park Mall and University Avenue via Westmount Road. In effect, this combined routing would be a large two-way loop, operating north-south along Westmount Road and Weber Street and east-west along University Avenue and Bleams/Fairway Roads. Connections with ION would occur at Fairway, and potentially other ION stations in Downtown Kitchener (subject to further analysis). Both the Belmont-Margaret and Westmount-Weber routes would have 15-minute frequency during weekday peak periods with 30-minute frequency at other times.
The two southern branches (Courtland and Franklin) would become two new services. A revised Courtland route would operate between Downtown and Fairview Park Mall, serving multiple ION stations including Block Line Station. The Franklin branch would be incorporated into a revised Route 2 that would travel from the Forest Heights area to Fairview Park Mall via the Borden ION station. Both the Courtland route and revised Route 2 would have 30-minute frequency.

- Route 9 Lakeshore would be split into two routes to provide more direct and frequent service. One route would serve the Research and Technology and University of Waterloo ION stations, and the other route would serve the Hazel Street corridor. Both routes would serve the Northfield and Conestoga ION stations. The peak frequency of service on these new routes would be 10 minutes during the Fall, Winter and Spring schedule periods to accommodate existing ridership demand. The new route which would serve the Research and Technology ION station would also replace the 200 iXpress near the McCormick Community Centre, where LRT is not accessible.

- Route 29 Keats Way would be extended to become an east-west crosstown service following the existing Route 12 alignment between University/King and Conestoga Mall. This would provide continuous travel from the Keats Way area to East Waterloo and support the implementation of the revised Route 12 on the Westmount and Weber corridors, as described above.

- Route 92 University Loop would travel on University Avenue, Weber St, Columbia Street, Phillip St, the new Transit Plaza roadway and the University of Waterloo Ring Road. This revised route pattern would connect the University of Waterloo ION station with Wilfrid Laurier University, the Conestoga College Waterloo Campus, and improve service efficiency by removing duplication with the improved Routes 201 and 202 iXpress on Fischer Hallman Road and Erb Street West. The revised route would also replace Route 7D and 7E service on the west side of UW and other parts of the Ring Road. Route 92 would play a greater role in the redesigned transit network with longer hours of operation including midday, evening and weekend service. It would also expand from operating September-to-April to a year-round service.

- Other CTC routes would be realigned to terminate at an ION station (i.e., Route 4 Glasgow, Route 73 Northlake) or continue past a station as a crosstown route.

- Some downtown routes would by-pass the Charles Street Terminal and facilitate transfers at the Central, Queen, or Frederick ION stations. Detailed operational planning would determine if any downtown routes continue to temporarily use the Charles Street Terminal as a terminus or operator relief location. The Charles Street Terminal will continue to be used by intercity bus operators including GO, Greyhound and Coach Canada until the multi-modal hub at King Street and Victoria Street is operational.
Southwest Kitchener

In addition to CTC route restructuring, realigning routes in Southwest Kitchener is proposed for the launch of ION LRT revenue service. Routes would be oriented to the Mill, Block Line or Fairway ION stations, with only one route travelling to Downtown Kitchener. Routes in Southwest Kitchener are currently oriented towards Fairview Park Mall or Forest Glen Plaza, and three routes travel to Downtown Kitchener.

The following routes would be affected: 3, 11, 16, 22, 33, and 201 iXpress, as well as the upcoming BusPLUS route to Family & Children Services. In addition to ION integration, some highlights of the route changes include:

- Expanded local service to the Huron Village/Rosenberg communities;
- Extension of iXpress service along Block Line Road to Courtland Avenue;
- More direct service between the Huron Business Park and the ION corridor.

The restructured Southwest Kitchener routes would provide approximately the same level of service as current routes (with some variation due to the introduction of the Ottawa iXpress and ION LRT), so that the service change is cost-neutral. Overall, the restructuring of CTC routes and Southwest Kitchener routes could be done in early 2018 without any additional service hours or peak buses through the reallocation of existing service. The streamlining of Route 7 and cancellation of the 200 iXpress between Conestoga Mall and Fairview Park Mall will provide 22 peak buses and approximately 60,000 service hours which would be deployed as described above.

September 2018 – Proposed Service Improvements (Figure 7)

The two main service areas that would be addressed in Fall 2018 would be Conestoga College (Doon and Cambridge campuses) and Northwest Waterloo.

The Fall 2018 term is the next available opportunity to implement a universal bus pass (U-PASS) program at Conestoga College, taking into account student referendum rules and the Regional budget process. Accordingly, service improvements originally proposed for the Fall 2016 term (and not already implemented in Fall 2017) would be implemented:

- Service frequency would increase from every 30 minutes to 15 minutes during weekday peak periods in the Fall and Winter on Route 61, which travels between the Cambridge Centre and Conestoga College
- New evening and Saturday service on Route 61
- Service frequency would increase from every 40-45 minutes to 20 minutes during weekday peak periods in the Fall and Winter on Route 111, which travels between Ainslie Street Terminal and Conestoga College
- Other improvements being considered include:
- A streamlined Route 10 and 110 to provide more direct service between Fairway ION
and Conestoga College, with better-than-10-minute service during peak periods.

- New evening and weekend service on Route 16
- An extended Route 76 Doon South to provide additional service coverage and hours of operation with a conventional bus.
- An extension of the 201 iXpress from the Block Line ION station to Conestoga College Doon Campus, replacing the current Route 116 Express with all-day service.

Taken together with the ION launch improvements in Southwest Kitchener, these route changes would represent the completion of Phase 1 of transit improvements in this area of the Region. Further route extensions (and possible frequency improvements) are proposed in the draft 2021 Transit Network to serve new development/growth areas.

In Northwest Waterloo, service frequency on Route 13 Laurelwood would increase to provide 10-minute service all-day on weekdays. Route alignments would be analyzed and new routes may be developed to serve growth areas more effectively.

A contingency of hours and buses to address increased ridership, operational issues, or additional trips required to connect with ION would also be included for Fall 2018.

**September 2019 – Proposed Service Improvements**

Changes this year would centre around the completion of the Regional iXpress network by implementing the 206 Coronation iXpress and an extension of the 200 ION BRT in Cambridge.

The Coronation iXpress would provide a frequent, direct link between West Galt, Preston, Sportsworld and the Fairway ION station, providing a one-seat ride to LRT for some of the most dense, transit-supportive areas of Cambridge. Service would operate in the Cedar Street, Ainslie Street, Water Street, Coronation Boulevard, and King Street corridors.

An extended 200 ION BRT would connect East Galt directly to Hespeler Road also providing a one-seat ride to LRT. This would eliminate some transfers to ION BRT at the Ainslie Street Terminal and provide 10-minute, all-day service on weekdays to the area around the South Cambridge Shopping Centre.

Many of the local routes in Cambridge i.e., Routes 52, 53, 54, 55, 57, 58, 59, 62 and 63, that terminate at the Ainslie Street Terminal would be restructured to connect with ION BRT, provide more of a grid network, and reduce duplication of the iXpress network,

**September 2020 and 2021 – Proposed Service Improvements**

Changes in these years are still being determined, and would include implementing the remaining 2021 Transit Network routes not completed in previous years of the Business Plan. Possible improvements include:

- Southwest Kitchener Phase 2
  - Route extensions to serve the development of the Rosenberg and Doon South
communities

- Preston, L.G. Lovell Industrial Park, Cambridge Business Park
  - Implementation of a streamlined, grid-like network with two-way service
- Northwest Waterloo Phase 2
  - Route 31 Columbia extension to serve the development of the Clair Hills community
- Complete permanent transition of routes from Charles Street Terminal to Downtown ION Stations
- Expansion of the 10-minute peak network
- Additional services to new growth areas and the Townships

Challenging and Low-Density Areas

Historically, the Region has endeavoured to provide fixed-route transit service within 450 metres to 95% of residents and jobs in the urban municipalities. This target has not been met. Figure 8 illustrates 450-metre transit service coverage as of 2015 in the three urban municipalities, including areas that are beyond a 450-metre walk to a transit route. The current network provides service coverage for 87.5% of residents in the urban area. There are several reasons why achieving 95% service coverage with fixed-routes is challenging and not necessarily desirable. These include indirect, circuitous route patterns and less efficient, lower-performing service.

During the last five years, implementation of iXpress routes on major corridors and streamlining of local routes to travel more directly and frequently on arterial and collector roads has proven to be a more effective ridership growth strategy than trying to increase service coverage by deviating routes on local neighbourhood roads. Past experience in other jurisdictions has shown that focusing service on existing high-ridership corridors and areas with high transit propensity (based on their density, development pattern and demographics) results in higher ridership. This strategy is proposed to continue in the implementation of the draft 2021 Transit Network. However, this would have the impact of introducing longer walks to service in certain pockets of the Region, as shown in Figure 9.

While route design plays a role, longer walks to service are in part due to community design. There are some subdivisions where street patterns are circuitous, cul-de-sacs proliferate, and there are a limited number of connecting streets to back-lotted arterials. Pedestrian access from interior neighborhoods to transit stops is limited, and walk distances are lengthy even though a transit stop is geographically in close proximity.

Unfortunately, when transit-dependent facilities such as apartments, medical facilities, large employers or seniors’ complexes are located in challenging or low-density areas as described above, the ability to provide cost-effective fixed-route transit service to these locations is limited. Figure 10 illustrates seniors’ facilities throughout the urban municipalities of the Region. The majority are directly adjacent to or near transit service, and residents, employees
and visitors benefit from the close proximity to transit. There are a few of these facilities, however, that are located in challenging areas and beyond a 450-metre walk to transit.

There are also existing built-up areas where low residential or employment densities do not support a fixed-route service, and new growth areas where development (and the street network) is not built-out enough to deliver cost-effective service. New growth areas have been identified in the Business Plan, and some will be planned for service between 2017 and 2021. Other growth areas would be served beyond 2021.

In order to serve these existing built-up areas, new growth areas, and seniors’ facilities that are outside walking distance to conventional transit in a more cost-effective manner than fixed-route service, alternative service delivery options need to be considered.

Alternative Service Models

Five possible alternative transportation service delivery models that could be introduced include:

1. **Community Bus Route**

   GRT currently operates one route that could be classified as a ‘community bus’ - Route 77 Wilmot, between New Hamburg and the Boardwalk. There are several important characteristics of a community bus model that could serve as a template for other lower-density areas within the urban municipalities. First, the route is a pilot service funded through a grant. This allows GRT to test out the route with limited impact on other services. Second, it is customized to a specific time of day and travel pattern, based on the demands of the area. Third, a ‘flex-route’ option is offered, in which the bus may deviate within a set area to drop-off and pick-up customers who are not directly on the route alignment. Finally, it operates with a smaller vehicle instead of a conventional bus.

   These operational characteristics could be implemented as necessary in other low-demand, low-density areas to connect riders to the core GRT network. The flexibility of the community bus model means services can be customized to the individualized needs of a community, which minimizes operating costs. For example, in a community where the primary need is transportation for seniors and disabled people to attend daytime activities, go shopping or attend medical appointments, routes that operate only in the midday period (from approximately 10:00 am to 3:00 pm) may be appropriate. Further to this concept, the same bus could serve two, three or more communities on different days during the week.

2. **Home-to-Hub**

   This model offers door-to-door pick-up of customers in a specified area with a 24-hour or subscription reservation, similar to MobilityPLUS. The service will transport the customers to the nearest conventional transit hub or terminal where they can transfer to
other bus routes to complete their trip. Trips are provided by specialized transit buses and operators, and are scheduled and dispatched along with specialized trips over the course of the day. It is potentially more convenient than a community bus route, as it can be scheduled to arrive at a pre-arranged time (as opposed to operating on a fixed schedule) and comes directly to the customer’s door.

3. Subsidized Taxi

Many transit agencies in the US and Canada have entered into co-operative agreements with taxi operators to offer subsidized services to potential transit customers that need service in lower-demand areas or times of the day. Trips originating or ending within certain areas would be designated as eligible, while others would not. This concept has three elements: regulation of the service provided, negotiation with the taxi provider to achieve favourable rates for transit users, and setting subsidy rates to the taxi company. Because the transit agency is providing the taxi company with the opportunity to carry additional trips each year and guarantees payment on a lump sum basis, the agency may be able to negotiate lower rates or other concessions on trips which will allow them to provide more service. Customers can be required to pay a part of the cost of the taxi trip in much the same way as they pay the transit fare. GRT has experience with this model through the taxi scrip program for MobilityPlus clients.

4. Ridesharing

Services like Uber, RideCo and Lyft are a relatively new transportation option similar to taxis. However, these services are summoned (and paid for) using a mobile phone application, and those who drive are generally not professional drivers and perform the service on an ad-hoc basis. Prices of these ride-sharing services are generally lower than comparable trips using taxis. However, they use a demand-based pricing system in which customers pay higher prices for trips during periods of peak demand. There may be opportunities to integrate these services with public transit, such as supplementing transit service in locations and during periods when it cannot be provided efficiently. Most of the issues concerning the regulation, negotiation and subsidy discussed above with regard to taxi service also apply to ridesharing, with some additional caveats. Users must have smartphones and credit cards in order to use them. Many GRT customers, particularly older and lower-income users, lack one or both of these amenities.

5. Partnership with Volunteer Transportation Services

Volunteer-run, community organizations such as Community Support Connections (CSC) currently offer escorted transportation for seniors or adults with a disability to attend medical or daily living appointments in the Region. The cost for the user is about 50% greater than a transit fare. Benefits of this model are that door-to-door service can be provided, passenger assistance is offered, and these service providers are well
established in the community. There would also be no cost to the Region to implement this service. However, there would be no on-demand, spontaneous trip-making as is possible with a fixed-route transit service.

Prioritization of Areas

Because there are multiple areas in all three urban municipalities of the Region that are outside walking distance to transit, and limited resources to serve them all, staff are in the process of developing a ‘prioritization matrix’ to catalogue and prioritize areas for alternative service model implementation as part of the 2017-2021 Business Plan. Unserved areas that currently exist (see Figure 8) or that would exist with implementation of the draft 2021 Transit Network (see Figure 9) will be considered. These areas include established urban neighbourhoods that are beyond the walk distance standard due to realignment of routes, that never had GRT service, and new growth areas that are currently developing.

Areas can be prioritized for service based on various service, density and demand criteria, including: residential and employment density, presence of a seniors’ facility, customer requests for service, whether a future conventional route is planned in the draft 2021 Transit Network. Primary or ‘A’ priorities would become candidates for a community bus route, and secondary or ‘B’ priorities would become candidates for a more ‘on-demand’ alternative service model such as subsidized taxi or ridesharing, as discussed above. Areas that do not meet the prioritization criteria would not be considered for transit service.

Fall 2017 Pilot

Staff are working with the consultant to develop an alternative service model pilot for a Fall 2017 implementation. One of the following three ‘Priority A’ areas will likely be selected for the pilot:

- Columbia Forest in Waterloo (roughly bounded by Erbsville Road, Columbia Forest Boulevard, Munich Circle and Columbia Street)
- Highland West/Blackwell in Kitchener (roughly bounded by Blackwell Drive, Westheights Drive, and Victoria Street)
- Central Hespeler in Cambridge (roughly bounded by Rife Avenue, Cooper Street, Gunn Avenue, and Franklin Boulevard)

These areas have: a residential and employment density to support a community bus type service; a population greater than 1,000 outside the walk distance to transit once the proposed 2018 network changes take place; no fixed-route service planned in the draft 2021 Transit Network; a seniors’ facility present; and rank in the top 50% of areas with customer requests for new service.

Serving one or all of these areas would come at an extra cost beyond the proposed service improvements already identified in Figure 4. Staff are preparing a separate 2017 budget issue paper for the alternative service delivery pilot.
2. Service Performance Monitoring Plan

The 2017-2021 GRT Business Plan will review and recommend updated GRT service standards. Staff are working with consultants to develop draft standards which will be reviewed and incorporated into the final Business Plan report. 2014 GRT service performance will be evaluated by service type and compared to current service standards in order to recommend strategies to improve service delivery and performance. Lastly, the consultants will work with staff to develop a Service Performance Management Plan to assist with service management and oversight. This plan will describe how GRT can better use APC/AVL data and how to design service performance reports in order to better optimize service delivery. GRT has developed a transit data reporting system which takes APC/AVL data and produces reports on service utilization and schedule adherence by route and direction. This section of the Business Plan will identify which performance indicators should be used to monitor service delivery and which ones should be shared publicly on the GRT website.

3. GRT/ION LRT Integration Staging Plan

The successful launch of ION service depends on a coordinated and seamless transit customer experience. In order to accomplish this staff and the consultants are working to identify tasks that need to be completed prior to the launch of LRT, as well as the project teams needed to complete the tasks on time and in the preferred succession.

Nearly 40 GRT related tasks have been identified to date, many of which are well underway with project teams that have been in place for some time. Building on the success of these teams a number of additional project teams will be assigned in order to transition the ION project to operations and integrate GRT with LRT service, including potentially:

- On Street Infrastructure: tasked with the construction of on street GRT passenger amenities by Grandlinq, through the GRT capital program, and in partnership with developers;
- Passenger Facilities: tasked with the implementation of new transit passenger facilities such as the University of Waterloo Transit Plaza, Cambridge Centre Transit Facility, Fairway Transit Facility;
- Operational Procedures: tasked with the development of operational and communications protocols needed to implement LRT service, development of ‘Bus Bridging’ plans to supplement ION service in the event of disruptions, security integration and coordination;
- Passenger Information & Marketing: tasked with design of coordinated customer information, schedules, maps, way-finding, rider education and promotions;
- Service Design & Implementation: tasked with implementing GRT service changes, coordinating stop information, audio announcements, technology required for real time feeds, LRT and GRT schedule coordination.
By developing ION LRT Station Profiles staff are working with the consultants to identify any additional tasks required to support a seamless customer experience in the pedestrian environment surrounding the ION LRT stations. The Station Profiles will document the proposed GRT service changes in response to ION LRT, focus on the passenger amenities and pedestrian facilities planned to support passengers making transfers between ION LRT and GRT, and incorporate information on active transportation and the land use environment from the station area planning work of the Area Municipalities. Figure 11 provides a draft of the pedestrian environment component of the Mill ION Station Profile as an example. The completed Station Profiles will be used to communicate the changes expected to occur to the GRT system to the public during engagement processes as well as to regional staff and other stakeholders.

4. Customer Satisfaction

Staff and the consultants are working to review the 2014 customer satisfactions surveys and recommend strategies that enhance customer satisfaction for GRT services. A number of customer improvement initiatives will be developed and prioritized (such as: bus stop snow clearing, garbage cans, lights inside buses at night, communication needs, etc.) The consultants will review industry best practices and develop a detailed plan for the introduction of a Customer Service Charter.

5. Marketing Strategy & Implementation Plan

As outlined previously, the Regional Transportation Master Plan has set a transit ridership goal of 28 million rides annually by 2021, and 53 million by 2031 to relieve congestion on the roadway network. While the investment in ION rapid transit coupled with the continued expansion of GRT bus service will attract ridership growth, there is a need to further invest in marketing efforts to attract more transit customers to achieve these ambitious ridership targets.

Based on insights and recommendations generated from recent Audience Analysis and Brand Analysis, a strong actionable marketing strategy with tactical recommendations is being proposed within the Business Plan for GRT. The purpose of the Marketing Plan is to merge the insights and recommendations generated from this analysis into actionable marketing strategies with corresponding tactical recommendations for key audiences which are a strong representation of who GRT needs to engage with, now and in the future, to entice more people to become transit customers.

To successfully market to GRT’s key audiences, and to enhance our brand and service positioning, the proposed plan encourages GRT to leverage all media opportunities to deliver the marketing strategies so they are seamless, integrated, and consistent in the pursuit of the following five key achievement areas; customer awareness, education, service credibility, travel mode conversion and customer loyalty.
The Marketing Plan also includes: the ION launch events, promoting ION integration with GRT routes and services, digital and direct marketing, employee engagement, awareness advertising on owned media, social media, owned and paid marketing, guerilla and event marketing, loyalty marketing, community outreach and cooperative marketing, search engine marketing; and mobile display marketing all geared toward both sustaining and attracting new transit customers.

GRT has traditionally branded transit as one service, while allowing individual brands such as iXpress, busPLUS, MobilityPLUS to be positioned within the brand architecture. The Business Plan recognizes an opportunity with the launch of ION rapid transit to further leverage the master brand, by keeping GRT front and centre. This will build and strengthen the brand equity of GRT, making it easier for the community to understand the various transit options provided by the Region of Waterloo through GRT.

The ongoing efforts to improve the perception of transit and to create greater awareness of the GRT master brand, programs and services, while increasing ridership year over year and ensuring customer loyalty – is a significant marketing task. For the long-term marketing strategy to be successful, the Business Plan recommends an increased investment to build a stronger GRT organizational brand, to better engage riders, and to promote travel mode conversion.

The proposed plan is robust, aggressive and necessary to achieve the target ridership goals. In addition to the current staff and program area budget and a combination of the ION marketing budget, one additional FTE and an incremental marketing budget increase of $450,000 in 2017, $550,000 in 2018, and $750,000 in 2019 will be needed to provide for the strategy developments, production of materials, and paid media buys of the plan.

6. Transit Technology Plan

Staff and the consultants are working to generate an inventory of all current GRT technology applications and evaluate them based on their usefulness and if they need to be upgraded, replaced or discarded. This includes current traveler information systems, fare management, ridership, service performance, security, transit management and associated operational systems. The objective is to determine an integration approach for the current transit IT components, such as what makes sense, and where we should place future efforts and dollars. The consultants will identify emerging and innovative transit technologies and any accompanying rationale if they should be considered for future implementation, in particular applications to make transit information easier to access, especially for potentially new transit riders.

7. Financial Plan

Staff and the consultants are working to review the structure of the GRT financial model developed for the previous Business Plan, and document the model’s parameters and
functionality for current Business Plan. The Financial Plan in the 2017-2021 GRT Business Plan will develop an operating and capital budget plan to support the Transit Service Improvement Plan and Ridership Growth Strategy, a fare strategy including Revenue/Cost ratio targets (for the system and by service type), and recommend financial performance targets for the overall system and for the various service types that comprise the GRT family of services.

Next Steps

Following this update report the consultant will continue developing a final Business Plan report to document the study findings. An additional Steering Committee meeting would be scheduled for September 2016 to review the draft report before the final report is submitted to the Planning and Works Committee in November 2016.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
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<tbody>
<tr>
<td>GRT Update to P&amp;W Committee</td>
<td>Tuesday August 9, 2016</td>
</tr>
<tr>
<td>Business Plan Steering Committee #2</td>
<td>September/early October 2016 (TBC)</td>
</tr>
<tr>
<td>2017 Budget Issue Paper</td>
<td>Early September 2016 (TBC)</td>
</tr>
<tr>
<td>Final Report to P&amp;W Committee</td>
<td>Tuesday Nov 1, 2016</td>
</tr>
<tr>
<td>Public Consultation on 2017 Service Plan</td>
<td>Fall 2016</td>
</tr>
<tr>
<td>Proposed Implementation of 2017 Service Plan</td>
<td>Fall 2017</td>
</tr>
<tr>
<td>Launch of ION LRT and Transit Network Changes</td>
<td>Early 2018</td>
</tr>
<tr>
<td>Proposed Implementation of Future Service</td>
<td>Fall 2018, 2019, 2020, 2021</td>
</tr>
</tbody>
</table>

**Corporate Strategic Plan:**

Supports the implementation of Council’s Strategic Focus area objective 2.1: Create a public transportation network that is integrated, accessible, affordable and sustainable.

**Financial Implications:**

The following list highlights the major elements of the 2016 GRT operating and capital budgets:

- Total operating expenditures of $112 million funded from property taxes ($53.9 million – 48%), fare revenue ($33.6 million – 30%), provincial subsidy ($11 million – 9.8%),
RTMP reserve fund ($12.4 million – 11.1%), and other operating revenue ($1.4 million – 1.1%)

- GRT staffing complement is 679.5 FTE’s
- GRT capital spending over the current 10 year planning horizon includes $226.6 million funded from debentures (57.9%), reserves and reserve funds (33.4%) and development charges (8.7%)

The draft 2017-2021 GRT Business Plan proposes the implementation of an additional 50,000 annual bus service hours and 38 additional buses (plus 8 maintenance spares). This will require the addition of approximately 30 – 35 FTE’s each year with an annual property tax impact estimated in the range of $4 - $4.5 million. A budget issue paper will be submitted as part of the 2017 budget process for the proposed service enhancement next year. Further financial impacts will be detailed in the final GRT Business Plan and future reports to Council.

Other Department Consultations/Concurrence:

The 2017-2021 GRT Business Plan Steering Committee includes staff from the Rapid Transit, Transportation and Finance Divisions.

Attachments:

Figure 1: Draft 2021 Transit Network
Figure 2: iXpress Network
Figure 3: 10 Minute Peak Network
Figure 4: Proposed September 2017 Service Improvements
Figures 5 & 6: Proposed Transit Network Changes Following Launch of ION LRT
Figure 7: Proposed September 2018 Service Improvements
Figure 8: 2015 Transit Service Coverage in Kitchener, Cambridge and Waterloo
Figure 9: 2021 Transit Service Coverage in Kitchener, Cambridge and Waterloo
Figure 10: Seniors’ Housing and GRT Routes in Kitchener, Cambridge and Waterloo
Figure 11: Example Mill ION Station Profile

Prepared By: Eric Gillespie, Director Transit Services

John Cicuttin, Manager Transit Development

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services
Figure 1: Draft 2021 Transit Network
Figure 2: iXpress Network
Figure 3: 10 Minute Peak Network
Figure 4: Proposed September 2017 Service Improvements

- Increase 202 weekday peak frequency to 10 minutes in Fall/Winter/Spring
- Implement transit plaza roadway to connect routes 9, 13, 31, 201 to UWO/ON
- 205 Ottawa xPress introduced
- Route 27 midday service reinstated in Summer
- Saturday morning and evening frequency for Route 10 increased to 30 minutes
- Additional service for Routes 56/75 to improve schedule adherence
- Increase 201 weekday peak frequency to 10 minutes in Fall/Winter/Spring
- Sunday midday frequency for Route 10 increased to 30 minutes
- Fall/Winter peak frequency for Routes 10/110 increased to 15 minutes
- Route 110 30 minute peak service added in Spring and Summer
- Route 57 midday service reinstated year round

Potential Community Bus Route(s) as alternative service models to be determined
Figures 5 & 6: Proposed Transit Network Changes Following Launch of ION LRT
Figure 7: Proposed September 2018 Service Improvements

- Northwest Waterloo route alignments and new route development to be considered
- Route 13 increased frequency to 10 minutes all-day
- Streamlined Routes 10/110 with additional service
- Route 201 extended to Conestoga College from Block Line to replace Route 116
- Route 16 increased weekend service and improved evening service
- Route 61 increased weekday peak frequency in Fall/Winter; added evening and Saturday service
- Route 111 increased weekday peak frequency to 20 minutes in Fall/Winter
- Extended Route 76 with all-day service and a conventional bus
Figure 8: 2015 Transit Service Coverage in Kitchener, Cambridge and Waterloo
Figure 9: 2021 Transit Service Coverage in Kitchener, Cambridge and Waterloo
Figure 10: Seniors’ Housing and GRT Routes in Kitchener, Cambridge and Waterloo
Figure 11: Example Mill ION Station Profile
Region of Waterloo
Transportation and Environmental Services
Transit Services

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: August 9, 2016
File Code: D28-60(A)
Subject: Electronic Fare Management – Master Services Agreement

Recommendation:

That the Regional Municipality of Waterloo enter into an agreement with Scheidt & Bachmann Canada Inc. (S&B) to implement a hosted and managed services solution for the Region’s Electronic Fare Management System for a three-year period commencing in August, 2016 with an option for two additional one-year periods, in a form satisfactory to the Regional Solicitor, as described in Report No. TES-TRS-16-18, dated August 9, 2016 at a cost of $360,000 per year plus all applicable taxes.

Summary:

The Region’s upcoming Electronic Fare Management System (EFMS) requires significant resources to operate a new smart card fare payment system for both GRT and LRT customers starting in 2017. The EFMS back-office system, including the customer web payment portal and credit/ debit card authorization processes will be essential to support new fareboxes, retail terminals and Ticket Vending Machines. Downtime of these critical systems in excess of four hours could impact transit revenue.

Staff has worked with the EFMS vendor, Scheidt & Bachmann Canada Inc. (S&B) to develop a managed services and hosting plan that would provide:

- the resources, skills and expertise to manage the EFMS back office system on a 24x7 basis;
- the resources, skills and expertise to guarantee no more than 3.6 hours of downtime per month for these critical back office systems;
- the resources, skills and expertise to maintain compliance with Payment Card Industry Data Security Standards (PCI/ DSS), and;
- the hosted infrastructure and hardware required to support the system and meet all of the above requirements.

Report:

The Region is currently working with Scheidt & Bachmann Canada (S&B) to implement the Electronic Fare Management System (EFMS). The system requires IT resources and a number of servers to operate the main application, the web payment portal, and credit/debit card authorization (the EFMS Back Office System).

Reliable 24x7 operation of this system will be required to support transit revenue operations and customer activities. While the Region’s ability to deliver transit service will not suffer should the EFMS system fail, a period of down time longer than four hours could begin to impact transit revenue. For example, a failure of the customer web portal would impair the ability of customers to reload EasyGO Fare Cards over the internet. The servers associated with the customer web portal and credit/debit authorization must have the lowest possible downtime to create a dependable customer service.

Because the EFMS accepts credit and debit card payment, the Region will be subject to Payment Card Industry Data Security Standards (PCI/DSS). Requirements related to PCI/DSS compliance include the most up to date virus and firewall protection, monitoring and patching of operating systems and databases, and protection of customer credit card data privacy as well as regular third party audits to maintain PCI/DSS certification.

Based on the above, staff has evaluated the costs and risks associated with supporting the system at the required level of service. Contracting the managed services and hosting to S&B is advantageous because of a significant reduction in risk to the Region, especially with respect to ensuring PCI/DSS compliance. The skills and expertise required to build, operate and maintain a 24x7 PCI/DSS compliant EFMS system are not currently present at the Region. By having S&B provide managed services and hosting for 3 years, the Region can evaluate the costs and benefits of bringing the resources and infrastructure in house in the future. The Region is currently assessing the resources and changes required to maintain and support PCI/DSS complaint systems like EFMS in house, including the requirement for regular third party PCI/DSS audits. Finally, the hardware and infrastructure required would need to be procured and deployed if the system was in house.

Staff worked with S&B to develop a proposed approach to manage and host the system at existing PCI/DSS compliant datacentres in Massachusetts and Indiana. The managed and hosted system would minimize the risk that the web portal or credit/debit card handling functions would not be available to meet customer needs by providing a guaranteed 99.5% level of availability. Total unplanned downtime of the system would be no more than 3.6 hours per calendar month. Should S&B commission datacentres in
Canada, the Region’s system can be transitioned to the new location.

The scope of the managed services would include:

- 24x7 System Monitoring and Operations
- Installation and testing of Application, Operating System and Database Patches and Upgrades
- Administration and optimization of Databases
- Virus Protection
- Managing all of the above in compliance with PCI/DSS standards

The scope of the hosting services would include:

- Physical hosting (infrastructure and hardware) of the EFMS Back Office System in a PCI/DSS compliant data center.

To minimize risk of data loss the system would include backup servers within the primary datacentre. Should a server fail, the system would switch automatically to a backup server with no reduction of service. To provide disaster recovery, a second datacentre would be provisioned with duplicate servers to provide redundancy for web and credit/debit card services in the event of a disaster at the primary datacentre.

The system would include a production (main) environment, which would process all fare system tasks. This environment would support all customer facing equipment including the web portal and connect to fareboxes, retail terminals and Ticket Vending Machines in the Region. A test environment would be configured and maintained for Region staff to test hardware or software changes before roll out to the public, and to test future fares before implementation.

The agreement would be for a period of three years, with options to continue for two successive one year periods at the same price.

Cost of Hosted and Managed Services:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Environment at 99.5% level of availability</td>
<td>$ 310,000 per year</td>
</tr>
<tr>
<td>Test environment at 98.5% level of availability</td>
<td>$ 50,000 per year</td>
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<tr>
<td>Total Annual Cost (excluding taxes)</td>
<td>$ 360,000 per year</td>
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<tr>
<td>Net HST (1.76%)</td>
<td>$ 6,336 per year</td>
</tr>
<tr>
<td>Total Annual Cost (including taxes)</td>
<td>$ 366,336 per year</td>
</tr>
</tbody>
</table>
Corporate Strategic Plan:

Supports the implementation of Council’s Strategic Focus area 2.1: Create a public transportation network that is integrated, accessible, affordable and sustainable.

Financial Implications:

It is expected that the term of the first year of the annual hosting contract will commence August 2016. The 2016 costs associated with this contract are estimated to be $153,000 and will be charged to the GRT operating budget. Annual hosting costs of approximately $366,336, including net HST, will be provided for in the development of the 2017 GRT operating budget.

The Purchasing By-Law provides that a “purchase by negotiation” is appropriate when the “acquisition involves ongoing maintenance and service requirements for Regional property”. Such negotiated acquisitions still require Council approval when the contract value exceeds $100,000.

Other Department Consultations/Concurrence:

The proposed EFMS Hosted and Managed Services agreement was developed with the assistance of the Information Technology Services, Treasury Services and the Legal Services Department.

Prepared By: Gethyn Beniston, Project Manager, Transit Services

Approved By: Thomas Schmidt, Commissioner Transportation & Environmental Services
Region of Waterloo
Transportation and Environmental Services
Transit Services

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: August 9, 2016 File Code: D28-50
Subject: Transit Service to Family and Children’s Services

Recommendation:

That the Regional Municipality of Waterloo approve new transit service to serve areas along Hanson Avenue, Lennox Lewis Way and Fallowfield Drive in Kitchener, to be implemented effective Tuesday September 6th, 2016, as described in Report No. TES-TRS-16-20, dated August 9th, 2016.

Summary:

Regional Council approved a proposed new transit service for the 2016 budget that would serve the area around Family & Children’s Services and The Family Centre facilities on Hanson Avenue in Kitchener. Currently the shortest walk distance from these facilities to the closest bus stop is over 700 metres.

A Public Consultation Centre (PCC) was held in June 2016 where 45 people attended and 52 people provided comments in person or online. Largely feedback to the proposed service that was received was very positive.

The new service, Route 78 Hanson, would be operated as a part of the contracted GRT busPLUS service using small vehicles and would begin operation on September 6th, 2016. It would operate weekdays only (Monday to Friday), 12 hours a day on a 30 minute frequency.
Report:

Background

At the Planning and Works Committee meeting on September 15th, 2015, “it was requested that an issue paper come forward during this year’s budget regarding providing some sort of transit service to [Family and Children’s Services and surrounding area] whether it be busPLUS or another bus service.” This was in response to the Report TES-TRP-15-20, Pedestrian Access Improvements for the Hanson/Hayward Industrial and Alpine Village Area, Kitchener, Class Environmental Assessment – Project Update.

A Budget Issue Paper approved for the 2016 Budget, outlined a new transit service to address this issue using the busPLUS service contracted by GRT. The new service would operate using smaller buses and pending final approval, would operate for approximately 12 hours per day, Monday to Friday.

Public Consultation

On June 23rd, 2016, a Public Consultation Centre (PCC) was held to obtain feedback on three route options to serve the area around Family and Children’s Services and The Family Centre (Appendix 2). All options evaluated by GRT provided new service directly to Family and Children's Service, The Family Centre, the Activa Sportsplex, St. Mary's High School, Country Hills Community Library, and residential areas along Fallowfield Drive.

Forty-five people signed in at the PCC and staff received 52 written comments either at the meeting or via the on-line comment form. In general, feedback was very positive regarding transit service being introduced to the area. In looking specifically at the question that asked about a preferred routing, 62% of survey respondents preferred option 3, 19% option 2 and 8% option 1. The remaining feedback indicated either multiple options, no opinion or indicated another option as the most preferential. No significant issues were raised about any of the three options presented.

In general, the hours of service available was a topic that was raised by several members of the public who provided written and verbal comments. The availability of a transit route for at least 12 hours a day with service available after 8:00 pm was emphasized by a number of individuals. Feedback specified that many programs offered at The Family Centre in particular, finish around 8:00 pm. Several requests were also received for this service to be offered on weekends as well as weekdays.

Issues regarding increased traffic and on-street parking along Fallowfield Dr. were also raised during public consultation. Staff from the City of Kitchener and GRT are aware of the issues that have been raised by residents and will continue to monitor the situation.
Preferred Option

After reviewing all comments and the reasons each option was preferred, option 3 was chosen as the preferential option for this service. This route (Appendix 1) would travel a one-way loop via Bleams Road and Homer Watson Boulevard to Family and Children’s Services and the Family Centre facilities. It would continue south along Lennox Lewis Way and travel the full length of Fallowfield Drive. Passengers will be able to transfer to and from this route at Forest Glen Plaza. Connections can be made here with the following routes: 3, 11, 12, 16, 22, 33, 116 and 201. This option would also provide customers with connections to Route 12 in both directions along Bleams Road without having to travel all the way to Forest Glen Plaza.

This busPLUS service would begin operation on Tuesday September 6th, 2016 and be called Route 78 Hanson. Service would be provided Monday to Friday with the first trips departing at 8:15 am from Forest Glen Plaza. The last trip is scheduled to depart at 8:25 pm and would return to Forest Glen Plaza by 8:40 pm. To begin, service would be available on a 30 minute frequency throughout the day.

A busPLUS service would build ridership in the area and it is anticipated that with the start of ION in 2018, other routes would begin traveling along Homer Watson Boulevard and Block Line Road to connect to the Courtland and Block Line ION Station. At that time, the busPLUS service would be reviewed with all the other routes in the area.

Corporate Strategic Plan:

The service meets the Strategic Plan objective 2.1 – Create a public transportation network that is integrated, accessible, affordable and sustainable.

Financial Implications:

This new transit route, to be operated as part of the busPLUS service contracted by GRT, was approved during the 2016 budget process with planned implementation in September 2016 at a net annual cost of $156,000. The 2016 GRT operating budget includes net operating costs of $52,000 for this route with service planned from September to December.

The contract to provide busPLUS services to GRT was recently tendered and the hourly cost of service will be higher than the cost used to determine the 2016 budget. The 2016 net operating cost for this route is expected to increase to $60,000. The additional $8,000 in net costs will be absorbed in the 2016 GRT operating budget. The estimated net annualized cost of $220,000 to $225,000 for this route, based on the new busPLUS contract rate, will be included in the development of the 2017 GRT base budget.
Other Department Consultations/Concurrence:

Budget and financing for this service has been reviewed with the Finance Division.

Attachments

Appendix 1 – Route 78 Hanson - Preferred Route

Appendix 2 – Route Options Presented at Public Consultation Centre

Prepared By: Chantelle Thompson, Planner, Transit Development

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services
Appendix 1: Route 78 Hanson - Preferred Route
Appendix 2: Route Options Presented at Public Consultation Centre

Option 1

Option 2

Option 3
Region of Waterloo
Transportation and Environmental Services
Transportation

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: August 9, 2016
File Code: T01-20/58
Subject: Northumberland Street (Regional Road 58) Posted Speed Review

Recommendation:

That the Regional Municipality of Waterloo amend the Traffic and Parking By-law 06-072, as amended, to:

a) Remove from Schedule 18, posted 70 km/h on Northumberland Street (Regional Road 58) from 150 metres north of Alps Road West to 594 metres north of Guthrie Street;

b) Add to Schedule 18, posted 70 km/h on Northumberland Street (Regional Road 58) from 150 metres north of Alps Road West to 433 metres south of Alps Road East;

c) Add to Schedule 18, posted 60 km/h on Northumberland Street from 433 metres south of Alps Road East to 25 metres north of Greenfield Road East;

d) Remove from Schedule 4, No Parking Anytime on the west side of Northumberland Street (Regional Road 58) from 58 metres north of Stanley Street (Regional Road 58) to Greenfield Road; and

e) Add to Schedule 4, No Parking Anytime on the west of Northumberland Street (Regional Road 58) from 58 metres north of Stanley Street (Regional Road 58) to Greenfield Street West.

f) Add to Schedule 4, No Parking Anytime on the east side of Northumberland Street (Regional Road 58) from 230 metres south of Broom Street to Greenfield Street West.
in the Township of North Dumfries as outlined in Report TES-TRP-16-11, dated August 9, 2016.

**Summary:**

In late 2015, the Township of North Dumfries requested that the Region consider extending the current 50 km/h speed zone on Northumberland Street north of Greenfield Road West. The Township of North Dumfries further requested that the Region restrict parking on both sides of Northumberland Street fronting the new plaza development located in the northeast corner of the Northumberland Street/Greenfield Road East intersection.

Staff reviewed motorist speeds and parking operations along Northumberland Street. Based on staffs review and consultation, it is recommended that the posted speed limit along Northumberland Street between Guthrie Street and Alps Road East be modified based on the Region’s practice for setting speed limits. Staff, therefore, recommend that speed limits along Northumberland Street be modified as follows based on Regional practice:

- 70 km/h speed limit from 150 metres north of Alps Road West to 433 metres south of Alps Road East;
- 60 km/h speed limit from 25 metres north of Greenfield Road East to 433 metres south of Alps Road East; and
- 50 km/h speed limit from 25 metres north of Greenfield Road East to Stanley Street.

The recommended speed limits along Northumberland Street would meet the Region’s practice on setting posted speed limits, align with the built-up area of the Town of Ayr and would expect to yield:

- A speed zone that better reflects the changing roadway environment;
- More uniform traffic speeds; and
- Fewer collisions.

It is further recommended that no parking signs be installed along Northumberland Street fronting the plaza located in the north east corner of the Northumberland Street/Greenfield Road east intersection. The signage would compliment no parking within a reserved cycling lane and assist in addressing Township staff concerns.
1.0 Background

Regional staff received a request from the Township of North Dumfries to review the posted speed limit and concerns with heavy trucks parking on Northumberland Street between Greenfield Road East and Greenfield Road West. It was suggested by Township of North Dumfries staff that the parking concern is likely due to the recent development of a plaza located within the northeast corner of Northumberland Street and Greenfield Road East.

2.0 Existing Conditions

Northumberland Street is a north/south roadway with one lane in each direction. Northumberland Street has a posted speed limit of 70 km/h from 150 metres north of Alps Road West to 594 metres north of Guthrie Street. South of this location the posted speed limit is 50 km/h. The Average Annual Daily Traffic (AADT) along Northumberland Street north of Greenfield Road East is 7,858 vehicles per day.

There are reserved cycling lanes on both sides of Northumberland Street from 230 metres south of Broom Street to Greenfield Road West. Due to the existence of reserved cycling lanes, on-street parking is not permitted along this section of Northumberland Street.

A no parking designation is also in place on the west side of Northumberland Street from 58 metres north of Stanley Street to Greenfield Road East. Figure 1 shows the existing posted speed limit, cycling lane limits and the no parking designation along Northumberland Street.
2.1 Collision Analysis

Staff undertook a review of the five-year (2010 to 2014) collision history along Northumberland Street between Guthrie Street and Greenfield Road West. This review did not determine any unusual collision patterns. There were a total of 10 collisions within this section of Northumberland Street (1.7 km). Of the 10 collisions, five occurred within the midblock road sections and the remaining 5 collisions occurred at the intersections within this section of Northumberland Street. The following table summarizes the observed and expected collisions by location.
Table 1 – Observed and Expected Collisions Along Northumberland Street

<table>
<thead>
<tr>
<th>Location</th>
<th>Observed Collisions</th>
<th>Expected Collisions</th>
<th>Location Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northumberland Street at Greenfield Road West</td>
<td>3</td>
<td>3</td>
<td>939</td>
</tr>
<tr>
<td>Btwn Greenfield Road W and Greenfield Road E</td>
<td>2</td>
<td>3</td>
<td>1222</td>
</tr>
<tr>
<td>Northumberland Street at Greenfield Road East</td>
<td>1</td>
<td>2</td>
<td>1775</td>
</tr>
<tr>
<td>Btwn Greenfield Road E and Guthrie Street</td>
<td>3</td>
<td>4</td>
<td>2322</td>
</tr>
<tr>
<td>Northumberland Road at Guthrie Street</td>
<td>1</td>
<td>3</td>
<td>2731</td>
</tr>
</tbody>
</table>

The information provided in Table 1 indicates that all locations along Northumberland Street under consideration are operating as or better than expected.

2.2 Speed Study Results

On November 11, 2015, speed studies were undertaken along Northumberland Street between Guthrie Street and Alps Road. Staff assessed the operating speed of approximately 9,250 motorists. The results of the study indicated that southbound motorists are slowing down to an average travel speed of 56 km/h by the time they reach Guthrie Street. Northbound motorists are travelling slightly faster at approximately 59 km/h. Appendix A shows the average travel speeds of motorists by direction.

3.0 Regional Practice for Establishing Speed Limits

Generally, staff recommend that speed limits be set at or about the average speed because this is most likely to produce a uniformly moving traffic stream. Traffic moving at a uniform speed results in increased safety and fewer collisions. With uniform speed, drivers are less impatient, pass less often, and are less likely to tailgate, which reduces both head-on and rear-end collisions.

The posting of an appropriate speed limit also simplifies the work of enforcement officers because most of the traffic is moving at or near the posted speed limit. With an appropriate speed limit, blatant speeders are easily spotted, safe drivers are not penalized, and police officers are not asked to enforce and defend unrealistic and arbitrary speed limits.
Based on the review and the Region’s practice for setting speed limits, Region staff initially recommended the following posted speed limits:

- 80 km/h speed limit from 433 metres south of Alps Road East to 140 metres south of Roseville Road;
- 60 km/h speed limit from 25 metres north of Greenfield Road East to 433 metres south of Alps Road East; and
- 50 km/h speed limit from 25 metres north of Greenfield Road East to Stanley Street.

4.0 On-street Parking

As previously noted, reserved bike lanes exist on both sides of Northumberland Street from Greenfield Road West to 230 metres south of Broom Street. As such, there is an accompanying “no parking” restriction. Where a reserved bike lane exists, no one shall park within a reserved lane during the hours and days the reserved lane is in effect. Any motorist parking within the reserved lanes along Northumberland Street is subject to a fine. No signs are currently present to compliment this restriction.

On Thursday, March 10, 2016 and Saturday, March 12, 2016 a survey was undertaken between the hours of 7:00 a.m. and 7:00 p.m. to observe any illegal parking along Northumberland Street between Guthrie Street and Greenfield Road East. Through the observations, a total of 22 motorists were observed parking or stopped along Northumberland Street. The majority of vehicles stopped or parked were buses (14) and the remaining vehicles (8) were classified as trucks. Staff believe that operators of the trucks and buses are stopping and/or parking to access the new Tim Horton’s located in the northeast corner of the Northumberland Street/Greenfield Road East intersection.

5.0 Public and Area Municipality Consultation

Information signs were installed on Northumberland Street for two weeks starting April 22, 2016 requesting comments from residents through the Region’s website or via telephone. An Internet questionnaire was also set up to receive comments and a phone number was provided.

The questionnaire asked interested parties whether they were in support of, or in opposition to, the proposed posted speed limit changes along Northumberland Street.
A total of 83 responses were received and of those responses, 42 were in support of the proposed posted speed limit changes and 41 opposed the proposed changes. Those that opposed the posted speed limit changes cited the following:

- The posted speed limit along Northumberland Street should remain as is; and
- The posted speed limit should be increased, not decreased.

At its regular scheduled meeting on May 2, 2016, Township of North Dumfries Council passed a resolution not supporting the Region’s proposed speed limits. A copy of the resolution is included in Appendix C.

To address the concerns and comments received through the Region’s consultation, staff reassessed the proposed posted speed limits along Northumberland Street and considered revising the proposed speed limits as follows:

- 70 km/h speed limit from 150 metres north of Alps Road West to 433 metres south of Alps Road East; and
- 60 km/h speed limit from 25 metres north of Greenfield Road East to 433 metres south of Alps Road East;
- 50 km/h speed limit from 25 metres north of Greenfield Road East to Stanley Street.

The above proposal would maintain the existing 70 km/h posted speed limit on Northumberland from Alps Road West to 433 metres south of Alps Road East and would reduce the posted speed limit to 60km/h from 433 metres south of Alps Road East to 25 metres north of Greenfield Road East.

6.0 Recommendations

Based on staff’s assessment, consultation, and Regional practice for setting speed limits, it is recommended that the posted speed limit along Northumberland Street be changed to better align with the average travel speeds of motorists. It is proposed that the posted speed limit along Northumberland Street reflect the following:

- 70 km/h speed limit from 150 metres north of Alps Road West to 433 metres south of Alps Road East;
- 60 km/h speed limit from 25 metres north of Greenfield Road East to 433 metres south of Alps Road East; and
- 50 km/h speed limit from 25 metres north of Greenfield Road East to Stanley Street.
Please refer to Figure 2 which illustrates the proposed speed limits. Revising the speed limits as recommended would yield:

- Speed zones that better reflect the changing roadway environment;
- More uniform traffic speeds; and
- Fewer collisions.

**Figure 2: Proposed Posted Speed Limit along Northumberland Street between Alps Road and Guthrie Street**

Reserved cycling lanes exist along both sides of Northumberland Street from 230 metres south of Broom Street to Greenfield Street West. As such, parking is not permitted on both sides of Northumberland within the limits of the reserved lanes. However, it is further recommended that the Region’s Traffic
and Parking By-law be amended to include no parking anytime on both sides of Northumberland Street from 230 metres south of Broom Street to Greenfield Street West. This amendment will further reinforce that parking is not permitted within the reserved cycling lanes. At the same time, it is recommended that no parking signs be installed on both sides of Northumberland Street fronting the plaza located in the northeast corner of the Northumberland Street/Greenfield Road intersection. The signs would compliment the no parking restriction. Appendix B illustrates the proposed amendments.

Those wishing to be advised of when this matter will be dealt with by Regional Planning and Works Committee have been notified.

**Corporate Strategic Plan:**

This report addresses the Region’s goal to optimize road capacity to safely manage traffic and congestion (Strategic Objective 2.4).

**Financial Implications:**

The cost to change the posted speed limit signs and implement no parking signs is approximately $3000, and funding is provided in the Transportation Operating budget.

**Other Department Consultations/Concurrence:**

The Council and Administrative Services Division will be required to prepare the amending by-law.

**Attachments**

Appendix A – Average Speed of Motorists along Northumberland Street

Appendix B - Existing and Proposed No Parking Along Northumberland Street

Appendix C – Township of North Dumfries Council Resolution

**Prepared By:** Mike Jones, Supervisor, Traffic Engineering

**Approved By:** Thomas Schmidt, Commissioner, Transportation and Environmental Services
Average Speed of Motorists along Northumberland Street

- Greenfield Rd West: 59 km/h
- Greenfield Rd East: 59 km/h
- Northumberland St: 66 km/h
- Plaza: 83 km/h
- Guthrie St: 50 km/h
- West: 60 km/h
- East: 70 km/h

Direction of Travel: West to East
Existing and Proposed No Parking Along Northumberland Street

- **Existing By-law - No Parking West Side Only**
- **Proposed By-law Changes - No Parking East and West Side**

![Map of Northumberland Street showing proposed limits for no parking signs.]

- **Dotted Line**: Proposed Limits for No Parking Signs
- **Dashed Line**: Existing By-law - No Parking West Side Only
- **Solid Line**: Proposed By-law Changes - No Parking East and West Side

Plaza
Appendix C

Patricia Heft
Engineering Technologist (Traffic)
Region of Waterloo
150 Frederick Street
Kitchener, ON N2G 4J3

At its regular Council meeting held May 2nd, 2016, The Township of North Dumfries Council adopted the following resolution with respect to the speed limits on Northumberland Street:

C-168-16 Moved by Councillor Rollman
Seconded by Councillor Ostner

THAT Council advise the Region of Waterloo’s Transportation and Environmental Services that the Township does not endorse the Region’s proposal for revisions to the posted speed along the Northumberland Street corridor between Alps Road West and Guthrie Street:

AND THAT Council believes that further reductions in the posted speed limit are necessary in recognition of the emerging land use development framing the Northumberland St corridor;

AND THAT Council does not believe it is appropriate under any circumstance to increase the posted speed limit to 80 Kmph, which the Region has proposed in the Northern portion of the speed study area;

AND THAT Council requests the posted speed limit on Northumberland St, from Alps Road West to 433 metres south of Alps Road East be maintained at 70 km/hr;

AND THAT Council requests the posted speed limit on Northumberland St, from 433 metres west of Alps Road East to Guthrie Street be reduced to 50 km/hr

CARRIED

I certify the above to be a true copy of the original resolution.

Lorraine Pedersen
Customer Service Representative lpedersen@northdumfries.ca
on behalf of
Mark Smuck, Director of Public Works msmuck@northdumfries.ca

Telephone: 519-632-8800 Fax: 519-632-8700 Website: www.northdumfries.ca
Region of Waterloo
Transportation and Environmental Services
Transportation

To: Chair Tom Galloway and Members of the Planning and Works Committee

Date: August 9, 2016   File Code: T01-20/KIT

Subject: Southbound Right-turn Restriction on King Street at Cedar Street, City of Kitchener

Recommendation:

That the Regional Municipality of Waterloo, amend Traffic Parking By-Law 06-072, as amended, to add to Schedule 15, Prohibited Movements, Southbound Right-turn, 1:00 p.m. to 7:00 p.m. Monday to Friday at the intersection of King Street and Cedar Street in the City of Kitchener, as outlined in Report TES-TRP-16-16, dated August 9, 2016.

Summary:

Each year staff reviews the top-ranked locations listed in the Region’s annual collision report to determine the causes of cycling collisions. Staff then identify potential countermeasures in an effort to reduce those collisions. The King Street and Cedar Street intersection was reviewed in more detail as it was ranked number 1 in 2014 for having the highest number of cycling collisions.

Based on the review, staff determined that the most common type of collision involving cyclists involved southbound right-turning motorists turning in front of southbound straight through cyclists. This type of collision is commonly called a “right-turn hook” collision. Staff therefore recommends to restrict southbound right-turns on King Street at Cedar Street, Monday to Friday between 1:00 p.m. and 7:00 p.m.
Report:

1.0 Background

Each year staff assess collisions to determine the highest ranked locations related to motor vehicle, cycling and pedestrian collisions. Through the assessment, staff rank the top 100 vehicle collision locations, top 20 cycling collision locations and the top 20 pedestrian collision locations. Staff then review the potential to reduce collisions at the top ranked locations through the implementation of countermeasures to help prevent similar collisions from occurring in the future.

Through this process, the King Street and Cedar Street intersection was ranked number 1 in 2014 for cycling collisions. Staff therefore reviewed the collision history at the King Street and Cedar Street intersection to determine if any countermeasures could be implemented to mitigate future collisions involving cyclists.

2.0 Existing Conditions

King Street intersects Cedar Street at a right angle creating a 4-leg intersection. The intersection is controlled by traffic control signals.

The King Street and Cedar Street intersection has an Average Annual Daily Traffic (AADT) volume of 14435 vehicles per day and the posted speed limit approaching the intersection along both King Street and Cedar Street is 50 km/h.

In May of 2013, the City of Kitchener installed “Sharrows” along King Street between Madison Avenue and Francis Street. Sharrows are road markings, meant to remind motorists to share the road with cyclists and to advise cyclists where they should position their bicycle in the lane. Figure 1 illustrates the King Street and Cedar Street intersection and sharrow locations.
3.0 King Street at Cedar Street Collision Review

A review of the collision history between 2010 and 2014, shows that the King Street at Cedar Street intersection experienced 7 collisions involving cyclists. The collision history shows that 6 cyclists travelling in the southbound direction were involved in collisions. Of the 6 collisions, 4 cyclists were sideswiped by a southbound vehicle making a right-turn and 2 cyclists rear-ended vehicles stopped at the intersection.

The collision history shows that the majority of the cyclists (4 of 7) are being struck by motorists making a southbound right-turn from King Street onto Cedar Street and colliding with a cyclist going straight through the intersection. This type of collision is commonly called a “right-turn hook” collision. The majority of “right-turn hook” collisions were reported as occurring on weekdays between the hours of 1:00 p.m. and 7:00 p.m.

Staff suspects that the “right-turn hook” collision pattern at this intersection may be associated with the downhill grade (southbound) on King Street approaching Cedar Street causing higher cyclist speeds. Figure 2 illustrates the 5-year cycling
collisions.

Figure 2 – 5-year Cycling Collisions

4.0 Potential Measures to Address “Right-turn Hook” Collisions

The following countermeasures were considered to address “right-turn hook” collisions.

4.1 Right-turn (Time-of-day) Prohibition

A time-of-day right-turn turn prohibition may be considered when collisions are higher than predicted and occur in a predictable manner during particular days of the week and or time of day.

4.2 Full-time Right-turn Prohibition

A full time right-turn turn prohibition may be considered when collisions are higher than predicted, but lack evidence of predictable collision pattern by time or day or day of week.
4.3 Dedicated Bicycle Signal

A dedicated bicycle signal may be considered when specific cycling facilities are present at an intersection (e.g. on-street cycling lane, segregated cycling lane, multi-use trail). Cyclist collisions may be preventable by operating specific bicycle phasing at a traffic signal that would separate motor vehicle and cyclist movements. Since this intersection does not have dedicated cycling facilities, it is not feasible to operate this type of signal operation.

4.4 Exclusive Right-turn Lane

Right-turn lanes permit vehicles to turn right out of the oncoming path of straight through vehicles, including bicycles. Dedicated on-road cycling lanes are typically designed and implemented to reside between the through lane and exclusive right-turn lane at intersections. This lane configuration removes the potential for “right-turn hook” collisions as straight through cyclists, by design are positioned to the left of right-turning motorists. The right-of-way available to the City of Kitchener however prohibits the ability to implement an exclusive right-turn lane.

4.5 Green Pavement Markings

Green pavement markings may be considered to delineate the path of a cycling lane (highlighting a potential conflict zone) through an intersection, however the markings are usually provided to highlight the natural pathway of an on-road or segregated cycling lane through an intersection. As there is no on-road or segregated cycling lane along King Street through this intersection, green pavement markings cannot be considered.

5.0 Preferred “Right-turn Hook” Collision Countermeasure

Following a review of all potential “right-turn hook” collision countermeasures, staff is proposing to mitigate these collision through the use of a right-turn (time-of-day) prohibition. The collision analysis determined that the majority of “right-turn hook” collisions were occurring on weekdays between the hours of 1:00 p.m. and 7:00 p.m. Staff therefore prefers that a right-turn prohibition reflect these particular weekdays and times.

6.0 Public and Area Municipal Consultation

Information signs were installed on King Street approaching Cedar Street for two weeks starting June 14, 2016 requesting comments from residents through the Region’s website or via telephone. An Internet questionnaire was also prepared to receive comments and a phone number was provided. The questionnaire asked interested parties whether they were in support of, or in opposition to, the proposed southbound right-turn (time-of-day) restriction on King Street at its intersection with Cedar Street.
A total of 16 responses were received and of those responses, 11 were in support of the proposed southbound right-turn time of day restriction and 5 opposed the proposed changes. The majority of those that opposed the southbound right-turn (time-of-day) restriction from King Street onto Cedar Street cited that the “right-turn hook” collisions will move to the King Street/Eby Street intersection because of the right-turn (time-of-day) restriction at King Street/Cedar Street.

Staff does not anticipate that “right-turn hook” collisions would increase at Eby Street due to increased right-turns because westbound Eby Street will be forced to turn right at Charles Street following the completion of the LRT construction. Rather, staff anticipates that motorists will reroute to Charles Street or Duke Street to gain access to Cedar Street. Also, southbound cyclists riding on King Street are more likely to follow cars on King Street as they approach Eby Street because King Street is narrower at this point, therefore mitigating the probability of “right-turn hook” collisions

Staff also consulted with City of Kitchener staff on the proposal to restrict southbound right-turns on King Street at Cedar Street and City staff support the proposed restriction.

### 7.0 Recommendations

Based on staff’s assessment and consultation, it is recommended that a southbound right-turn restriction be implemented on King Street at Cedar Street, Monday to Friday between the hours of 1:00 p.m. to 7:00 p.m. The proposed right-turn restriction will mitigate conflicts between right turning motorists and cyclists travelling straight through the intersection during periods of the day when these conflicts are most likely to occur. Staff anticipates a significant reduction (50%) in “right-turn hook” collisions, similar to collision reductions that the Region has seen with left-turn prohibition signs. Although compliance may not be 100%, staff believe the collision reduction benefits going forward far outweigh any compliance concerns.

The low volume of right-turns throughout the day (140 AADT) has a negligible effect on the operations at the intersection. Due to the low volume of right-turning traffic, the nearby intersections will accommodate the additional right-turns re-routed from King Street and Cedar Street.

**Corporate Strategic Plan:**

The implementation of right-turn restrictions supports the following objectives of the Corporate Strategic Plan:

2.3 Build infrastructure for, and increase participation in, active forms of transportation (cycling and walking); and

3.3 Optimize road capacity to safely manage traffic and congestion.
Financial Implications:

The Region’s 2016 Transportation Capital Program includes $100,000 for Pedestrian and Cycling Countermeasures funded from the Roads Rehabilitation Reserve Fund. The cost to install a prohibition sign is approximately $500.

Other Department Consultations/Concurrence:

The Council and Administrative Services Division will be required to prepare the amending by-law.

Attachments

Nil

Prepared By: Ashfaq Rauf, Engineering Technologist (Traffic)

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Service
Region of Waterloo
Transportation and Environmental Services
Transportation

To: Chair Tom Galloway and Members of the Planning and Works Committee
Date: August 9, 2016
File Code: T01-20/86
Subject: Pedestrian Traffic Control Requirements on Church Street (Regional Road 86) at Killdeer Road/Country Club Estates Drive, in the Township of Woolwich

Recommendation:

That the Regional Municipality of Waterloo amend Traffic and Parking By-law 06-072, as amended, to add to Schedule 10, Pedestrian Crossovers, Level 2 Pedestrian Crossover at Church Street (Regional Road 86) and Killdeer Road/Country Club Estates Drive, in the Township of Woolwich, as outlined in Report TES-TRP-16-18, dated August 9, 2016.

Summary:

The Region retained the services of Paradigm Transportation Solutions to assess the need for enhanced pedestrian traffic control at the intersection of Church Street and Killdeer Road/Country Club Estates Drive, in the Township of Woolwich. The traffic control assessment was conducted to assess traffic control alternatives to assist students who will be crossing Church Street at this location to attend a new school planned to be open in the Fall of 2016. Based on the assessment completed by Paradigm Transportation Solutions, and support from staff at the Township of Woolwich, Regional staff recommends the installation of a Level 2 Pedestrian Crossover on the east leg of Church Street and Killdeer Road/Country Club Estates Drive to complement the existing pedestrian refuge island. Staff anticipates that the Level 2 Pedestrian Crossover could be implemented prior to the beginning of the 2016/17 school year.
1.0 Background

In April 2008, a detailed Transportation Impact Study (TIS) was completed by Paradigm Transportation Solutions for the Lunor Group Development. The development under consideration would be located in northwest Elmira north of Church Street. The site would encompass an area of approximately 72 hectares and would be comprised largely of residential land uses. A small amount of commercial land would be situated just north of Church Street with no direct access to Church Street. The site would also include an elementary school with approximately 55 employees.

Due to concerns raised in 2008 by local residents, Township and Regional staff, the proposed draft plans of subdivision were revised to discourage travel to/from Arthur Street and to encourage travel to/from Church Street. Access to the subdivision was therefore revised providing two connections from Church Street via Street “O” now named Country Club Estates Drive (opposite Killdeer Road) and Street “A” now named Kissing Bridge Drive (opposite Raising Mill Gate). A figure illustrating the phasing plan is provided in Appendix A.

The TIS was updated accordingly in 2009 by Paradigm Transportation Solutions, and a TIS peer review was completed by HDR iTrans on behalf of the Township of Woolwich. The TIS was then updated in 2010 to address comments from the peer review. Paradigm Transportation Solutions’ final TIS report provided the following recommendations based on the assessment of site traffic impacts:

- That traffic control signals were not required at either proposed new Church Street access to the new subdivision;

- That an eastbound left-turn lane with 55 m of storage is required on Church Street at the intersection Kissing Bridge Drive/Raising Mill Gate upon full build-out of the subject site;

- That an eastbound left-turn lane with 30 m of storage is required on Church Street at the intersection of Killdeer Road/Country Club Estates Drive prior to full build-out of the subject site;

- That horse and buggies be considered as part of improvements along Church Street; and

- When development plans are prepared for the commercial components of the site, that further studies should be undertaken to confirm necessary improvements to accommodate the commercial site generated traffic in an efficient manner.
In addition to the TIS recommendations, Regional staff further recommended that a pedestrian refuge island be installed on the east side of the Church Street and Killdeer Road / Country Club Estates Drive intersection to make crossing Church Street more convenient for pedestrians and to enhance pedestrian safety. In 2016, Township of Woolwich staff made arrangements to supplement the intersection with two crossing guards to assist students crossing the east leg of the intersection at Killdeer Road / Country Club Estates Drive and to further enhance student safety. The development as planned is approximately 25% constructed, and is anticipated to be fully constructed by 2025. The elementary school is set to open in September 2016.

More recently, Regional staff met with the Mayor, Township staff, Waterloo Region District School Board staff, concerned parents, Waterloo Regional Police Services staff and the principal of the new school on two occasions in the first half of 2016 to discuss the planned pedestrian control at the intersection. In order to address the concerns that were raised, Regional staff retained Paradigm Transportation Solutions to reassess the need for additional traffic control at the intersection.

2.0 Existing Conditions

The intersection of Church Street and Killdeer Road / Country Club Estates Drive is situated in Elmira, in the Township of Woolwich. The intersection has an Average Annual Daily Traffic (AADT) volume of approximately 6,900 vehicles entering the intersection per day. Approximately 91% of the traffic volume at this intersection enters the intersection along Church Street (free-flow) and the remaining 9% enters the intersection from the stop-controlled roads of Killdeer Road and Country Club Estates Drive. The intersection consists of a single through lane in each direction. The eastbound approach to the intersection includes an exclusive left-turn lane. A pedestrian refuge island also resides within the median of the westbound approach.

3.0 Collision History

Between 2010 and 2014 inclusive, the intersection had experienced 0 collisions where 4 were predicted. It currently ranks 2394th in the Region for the worst collision costs. The intersection experienced 2 collisions in 2015 (1, angle, 1 turning) after being converted from three to four legs in 2014 as part of development works. There were 0 incidents involving pedestrians over this review period.

4.0 Updated Pedestrian Traffic Control Review

In April 2016, Paradigm Transportation Solutions was retained by the Region to reassess the need for enhanced pedestrian traffic control at the intersection of Church Street and Killdeer Road / Country Club Estates Drive. A reassessment of pedestrian control was considered appropriate since the School Board was able to provide Paradigm Transportation Solutions up-to-date student numbers, total number of
potential students living south of Church Street and total potential students that may walk to school by way of crossing Church Street. The Highway Traffic Act was also recently updated in 2016 to provide road authorities the ability to consider a new pedestrian control device (Level 2 Pedestrian Crossover). During the original TIS assessments between 2008 and 2010, Paradigm Transportation Solutions was not able to consider a Level 2 Pedestrian Crossover as such a device did not exist at the time.

5.0 2016 Consultant Assessment

5.1 Pedestrian Crossing Volume

Paradigm Transportation Solutions was able to prepare student crossing estimates at the intersection of Church Street and Killdeer Road / Country Club Estates Drive based on new information provided to them by the Waterloo Region District School Board. The new information indicated that 242 students living south of Church Street were registered to attend the new school. Based on information provided, Paradigm Transportation Solutions estimated that, based on their location, 200 of the 242 registered students would be likely to cross Church Street at Killdeer Road / Country Club Estates Drive if 100% of these students walked to school. Applying mode share statistics from the Transportation Tomorrow Survey (TTS), 50% or 100 students were therefore predicted to walk to the new school at the subject crossing. Since the children attending the school need to cross twice daily to get to and from school, Paradigm Transportation Solutions predicted that approximately 200 students will cross the intersection on a typical weekday.

5.2 Motorist Travel Speeds

Paradigm Transportation Solution completed speed reviews in June 2016 to determine the average and 85th percentile speeds of motorists travelling along Church Street through the intersection of Killdeer Road / Country Club Estates Drive. Paradigm Transportation Solutions concluded that its observations closely matched 2015 Regional observations and that the average speed of motorists travelling through the intersection was 51-53 km/h and the 85th percentile speed was 60-61 km/h. Based on this information and Regional practice for setting posted speed limits, the existing 50km/h speed limit that encompasses this intersection was considered appropriate.
5.3 Sight Distances

The intersection is located in an area with straight and relatively flat roads. There is a crest along Church Street west of the intersection, with the apex near Barnswallow Drive. To the east, Church Street has minimal vertical road curvature. The observed sight distances extend approximately 200 metres to the west and approximately 400 metres to the east of the intersection. The sight distances at the intersection were deemed sufficient based on Paradigm Transportation Solutions review of Transportation Association of Canada’s sight distance design standards.

5.4 Traffic Control Signal Warrants

5.4.1 Intersection Pedestrian Signals

An Intersection Pedestrian Signal (IPS) should be considered when pedestrian volumes exceed 199 and when pedestrians experience sufficient delay to cross the road. Paradigm anticipated that the volume warrant would be met, however that pedestrians would be able to cross Church Street with minimal delay, and as such an IPS would not be warranted at this location.

5.4.2 Full Traffic Signals

Paradigm Transportation Solutions concluded that full-traffic signals would not be required under existing conditions or when the Lunor development is fully completed. In order to justify full traffic signals under existing conditions, either Warrant 1 – Minimum Vehicular Volume or Warrant 2 – Delay to Cross Traffic must be met 100% or both must exceed 80%. The results of Paradigm Transportation Solutions assessment determined that Warrants 1 and 2 were met 81% and 58% respectively, which indicated that full traffic control signals would not be required.

5.5 Level 2 Pedestrian Crossover Warrants

As outlined in Report TES-TRP-16-05, Level 2 Pedestrian Crossover (PXO) Implementation Strategy, Regional staff would consider the installation of a Level 2 Pedestrian Crossover at midblock and intersection locations in 2017. Installation of the Level 2 Pedestrian Crossover at these locations would follow efforts to educate the public, and successful implementation and operation of the Level 2 Pedestrian Crossover at all roundabouts in 2016. Therefore it was Regional staff’s intent that intersection and midblock locations would be considered in 2017 subject to the following conditions being met:

- 100 or more pedestrians (or equivalent) observed crossing over an 8 hour period;
- No other controlled crossing within 200 m;
- Adherence to Ontario Traffic Manual Book 15 lane configuration and traffic volume conditions;
- Posted Speed ≤ 60 km/h; and
- All above subject to an assessment using engineering judgement.

Paradigm Transportation Solutions determined that the abovementioned criteria were satisfied in order to consider a Level 2 Pedestrian Crossover at this location. The guidelines prescribed in the Ontario Traffic Manual, Book 15, Pedestrian Facilities, recommends that a Level 2 Pedestrian Crossover at this location would include ground mounted signs and pavement markings. The anticipated traffic conditions at this intersection suggest the use of overhead and or rapid rectangular flashing beacons (RRFB) would not be required in September 2016.

Drivers approaching a Level 2 Pedestrian Crossover shall stop before entering a crossover when a pedestrian is crossing on the roadway within a pedestrian crossover, shall not overtake another vehicle already stopped at a crossover, and shall not proceed into the crossover until the pedestrian is no longer on the roadway. The driver of any vehicle approaching another vehicle from the rear shall not pass another vehicle within 30 metres of a crossover. Drivers deemed not adhering to the new rules associated with a Level 2 Pedestrian Crossover would be subject to receiving a fine of up to $500 and 3 demerit points.

### 6.0 Area Municipality Consultation

Staff from the Township of Woolwich were provided Paradigm Transportation Solutions final report. Following their review of the report, Township staff advised that they were in agreement with Paradigm Transportation Solutions’ recommendation to consider the implementation of a Level 2 Pedestrian Crossover.

### 7.0 Recommendations

The installation of a Level 2 Pedestrian Crossover at this location in 2016 would not adhere to the Region’s implementation strategy as described in Report TES-TRP-16-05. The implementation strategy includes the installation of Level 2 Pedestrian Crossovers at non-roundabout locations starting in 2017. Region staff, in consideration of the new school opening in 2016, are recommending this installation in 2016 prior to the start of school in September. After the implementation, Region staff will monitor operations at this new crossover and will make adjustments as necessary.

Based on the assessment completed by Paradigm Transportation Solutions, and support from staff at the Township of Woolwich, Regional staff recommends the installation of a Level 2 Pedestrian Crossover on the east leg of Church Street and Killdeer Road / Country Club Estates Drive intersection to complement the existing
pedestrian refuge island. Staff anticipates that the Level 2 Pedestrian Crossover could be implemented prior to the beginning of the 2016/17 school year. The implementation of a Level 2 Pedestrian Crossover ensures that pedestrians would be afforded right-of-way at the crosswalk 24 hours a day, and 7 days a week. Should a Level 2 Pedestrian Crossover not be approved by Regional Council, pedestrians as a result, would only be afforded right-of-way when a crossing guard is present and displaying a stop sign. A plan illustrating the Level 2 Pedestrian Crossover is provided in Appendix B.

Corporate Strategic Plan:

This report addresses the Region’s goal to build infrastructure for, and increase participation in, active forms of transportation (cycling and walking) (Strategic Objective 2.3) and to optimize road capacity to safely manage traffic and congestion (Strategic Objective 2.4).

Financial Implications:

The cost to install signs and pavement markings associated with a Level 2 Pedestrian Crossover is approximately $1500. The Region’s Transportation Operations Budget has sufficient funds to cover the cost of these signs and pavement markings.

Other Department Consultations/Concurrence:

Nil

Attachments

Appendix A – Lunor Development Phasing Plan

Appendix B – Level 2 Pedestrian Crossover Plan

Prepared By: Bob Henderson, Manager, Transportation Engineering

Approved By: Thomas Schmidt, Commissioner, Transportation and Environmental Services
Appendix A
Appendix B

![Diagram of road intersection with signage indicating stop for pedestrians.](image-url)
June 22, 2016

Region of Waterloo
150 Frederick Street, 7th Floor
Kitchener, Ontario
N2G 4J3

Attention: Bob Henderson, Manager, Transportation Engineering

Regarding: Ament Line/ Herrgott Road Intersection - Resolution No. 1

Please be advised that the following resolution was passed at the Regular Committee Meeting held on June 7th, 2016 and later ratified at the Regular Council Meeting of the Wellesley Township Municipal Council held on June 21st, 2016 at the Council Chambers in Crosshill:

“That the Council of the Township of Wellesley
WHEREAS, serious collisions are still occurring at the intersection of Herrgott Road and Ament Line regardless of the improvements and upgrades that have been put in place;
AND WHEREAS, a local citizen has appeared as a delegation at the May 24, 2016 Council Meeting to speak on the intersection with a signed petition on the safety of the intersection at Herrgott Road and Ament Line;
AND WHEREAS, the Township of Wellesley staff supports a roundabout to improve the safety of the travelling public;
NOW THEREFORE BE IT RESOLVED, that the Council of the Township of Wellesley support and forward the report and petition to Waterloo Regional Council for the consideration of a roundabout.” Carried

If you have any questions or concerns, please feel free to contact me at (519) 699-3946 at your earliest convenience.

Yours truly,

Grace Kosch, Clerk
Township of Wellesley
P: 519.699.3946 F: 519.699.4540
gkosch@wellesley.ca
cc: Kevin Beggs, Director of Public Works, Township of Wellesley
    Thomas Schmidt, Commissioner, Transportation and Environmental Service, Region of Waterloo
    Kris Fletcher, Director Council and Administrative Services/Regional Clerk, Region of Waterloo
    LeeAnn Wetzel, Manager Council and Administrative Services/Deputy Clerk, Region of Waterloo
    Regional Council
Recommendation:
WHEREAS, serious collisions are still occurring at the intersection of Herrgott Road and Ament Line regardless of the improvements and upgrades that have been put in place;

AND WHEREAS, a local citizen has appeared as a delegation at the May 24, 2016 Council Meeting to speak on the intersection with a signed petition on the safety of the intersection at Herrgott Road and Ament Line;

AND WHEREAS, the Township of Wellesley staff supports a roundabout to improve the safety of the travelling public;

NOW THEREFORE BE IT RESOLVED, that the Council of the Township of Wellesley support and forward the report and petition to Waterloo Regional Council for the consideration of a roundabout.

Summary:
There have been concerns from local citizens over the past years and a recent petition submitted to Township of Wellesley Council about the collisions at Herrgott Road and Ament Line intersection. Township staff and the local residents would request that the intersection at Herrgott Road and Ament Line be improved for the safety of the travelling public.

Report:
There have been some serious concerns by local residents and Township staff about the collisions that are happening at the intersection of Herrgott Road and Ament Line. The intersection is owned and maintained by the Region of Waterloo. The Region of Waterloo did a study in 2014 on the intersection and at the time it didn’t warrant any improvements but would continue monitoring the traffic in the area. Township staff in February 2015 circulated a letter to the local businesses in the area of Herrgott Road and Ament Line for comments or concerns of the speed of traffic in the area. Comments were reviewed by staff and a recommendation was presented to the Wellesley Council to support a reduction in speed on Herrgott Road through the intersection of Ament Line and also through the built up area. Wellesley Township Council supported the recommendation and letters from local businesses were forwarded to the Region of Waterloo. Region of Waterloo accepted the motion and further studied and reviewed the section of road and reduced a section of the road from 80KM/H to 60KM/H. The reduction of speed has improved the traffic coming and going from businesses in the area. The intersection at Herrgott Road and Ament Line has a flashing warning light that was installed several years ago,
red and amber in the middle of the intersection, red alerting people to stop at Ament Line and amber alerting people on Herrgott Road about caution going through the intersection. Rumble strips have been in place for several years on Ament Line west and east of the intersection alerting traffic about a warning of a stop sign ahead. Traffic collisions are still occurring at the intersection ranging from minor injuries, serious injuries and fatalities. Township staff and the local residents would like the Region of Waterloo to install a roundabout at the intersection of Herrgott Road and Ament Line. Roundabouts have been installed throughout the Region of Waterloo and work very effectively for the travelling public to use and also reduce the severity of an accident.

**Township Strategic Plan:**
This report aligns with the initiative of Healthy Communities and Environments with the strategic goal to maintain our community’s healthy lifestyle and safe environment.

**Financial Implications:**
N/A

**Other Department / Agency Comments:**
N/A

**Legal Considerations:**
N/A

**Attachment(s):**
N/A

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Department Head: ____________________________________________

Treasurer:  ____________________________________________

Corporate Management Team (date):  _______________________________

Approved by:  
Chief Administrative Officer:  _________________________________

June 2, 2016
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