



Groundwater  
Science Corp.

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Township of Puslinch

24 Erb Street East,  
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Fax

To: Colin Evans, CBM

From: Andrew Penney

Fax: (416) 423-6912

Pages: 2

Phone: (416) 423-1300

Date: April 8, 2013

Re: Puslinch Pit – Licence No. 17600  
March 2013 Monitoring Report

CC: MNR, Township of Puslinch,  
Harrington McAvan Ltd.

Urgent     For Review     Please Comment     Please Reply     For your information

● **Comments:** The content of this fax is confidential. If the reader is not the intended recipient (or its agent) then be advised that any dissemination, copying or distribution of this fax or content is prohibited. If you have received this fax by mistake please notify us immediately and return the original at our expense.

This Fax summarizes the results of the groundwater monitoring program for the CBM Puslinch Pit as per the Hydrogeological Recommendations of the current Pit Licence.

### Below Water Table Extraction

CBM reports no extraction in February 2013, and, approximately 44,410 tonnes of gravel was extracted from below water within the South Pond in March 2013.

### Water Level Monitoring and Threshold Status

Water level measurements have been generally obtained by CBM on a weekly basis during below water extraction at all of the on-site monitoring locations. The reported March weekly water level measurements, compared to threshold values, are summarized as follows:

Location	Threshold (mAMSL)	Measured Water Level Elevation (mAMSL)					
		Feb 18	Feb 25	Mar 6	Mar 12	Mar 20	Mar 28
MP1	-	306.43	306.48	306.55	306.62	306.63	306.64
MP2	-	305.92	305.95	306.01	306.06	306.11	306.13
MP3	305.27	305.86	305.90	306.04	306.00	306.05	306.08
MP4	305.27	305.85	305.88	305.95	306.00	306.07	306.12
MP7	-	306.07	306.12	306.17	306.21	306.26	306.31
North Pond	305.64	306.80	306.84	306.84	306.84	306.84	306.82
South Pond	305.34	#N/A	#N/A	306.57	306.40	306.34	306.27

April 8, 2013

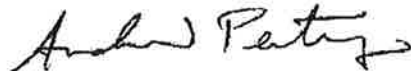
As indicated by the weekly measurements, there were no threshold exceedances observed and no Action Response in January 2013.

There is no current "Declared Low Water Condition" reported for Mill Creek and flows are currently shown to be above "Normal Summer Lowflow" as shown on the GRCA Low Water Response web site.

The monitoring program is proceeding as per the Licence requirements, and monthly summaries will continue to be provided during the operational season.

If you have any questions or require further information please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Pentney". The signature is written in a cursive style with a long horizontal stroke at the end.

Andrew Pentney, P.Geo.  
Hydrogeologist

5.2.9

**ROBERT GIBSON CONSULTING SERVICES INC.**

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March 22, 2013

Ministry of Natural Resources  
Guelph District Office  
1 Stone Road W., 1st Floor  
Guelph, Ontario  
N1G 4Y2

RECEIVED  
MARCH 22 2013  
Township of Puslinch

Attention: Steve May, Aggregates Technical Specialist

Dear Steve,

**SUBJECT:           Minor Site Plan Amendment Request  
                          Removal of Severed Lands from Licensed Area  
                          Licence # 625189 (Roszell Pit)  
                          Part Lots 1 & 2, Concessions 3 & 4  
                          Township of Puslinch**

As requested, we are enclosing six copies of the amended site plan, for your approval and distribution.

It is understood that you will distribute copies of the approved site plan to the lower and upper tier municipalities. I have enclosed an extra copy of the site plan and would appreciate if you could return it to my office once they are approved.

If you have any questions, or if you require any additional information, please call me at my office. Thank you for your assistance through the amendment process.

Yours truly,



Robert J. Gibson

Encl.

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Plans on file



**Stantec**

**Blackbridge Mill Inn  
4860 Townline Road, Cambridge  
Functional Servicing Report  
Revision 3**

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File	<input type="checkbox"/> <i>Executive Summary Only.</i>

Prepared for:

South River Developments Ltd.  
4860 Townline Road  
Cambridge ON N3C 2V3

*Executive Summary Only.*

Prepared by:

Stantec Consulting Ltd.  
49 Frederick Street  
Kitchener ON N2H 6M7  
Tel: (519) 579-4410  
Fax: (519) 579-6733

Project No. 1611 11010

August 2012

## **Executive Summary**

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The following describes the proposed servicing plan for Blackbridge Mill Inn, located in the North Hespeler area, Cambridge, Ontario. The proposed development is comprised of a combination of a hotel (up to 40 rooms), conference centre (up to 150 seats), and restaurant (up to 150 seats). The development is to be phased in as follows:

- Phase 1 refers to this site plan application, including up to 10 hotel rooms, 75 seat conference area, 75 seat restaurant, and 3 bedroom residence.
- Phase 2 refers to future development including up to 30 additional hotel rooms, 75 additional conference seats, and 75 additional restaurant seats.

This report has been completed in support of the Phase 1 planning application; however, servicing design has been completed to support the future Phase 2 development.

The subject site currently has no municipal water or sanitary servicing. Proposed sanitary servicing to the Inn includes the installation of an onsite grinder pump station and 50 mm diameter pressure sewer to convey sanitary flow from the site to the existing River Road Wastewater Pump Station (WWPS). It is expected that no upgrades are required to the River Road WWPS to accommodate the additional flows from the development.

Potable water is to be supplied to the Inn via private onsite water supply well. The water service will require a fire water reservoir onsite and connected to a sprinkler pump system and siamese connection on the exterior of the building, as well as a dry hydrant access for fire pumper truck. The building water service will be 40 mm (1.5" nominal diameter), with 20 mm (3/4" nominal diameter) automatic fill service to the fire reservoir. The fire reservoir shall be a minimum of 91 m<sup>3</sup> working volume for sprinkler service.

The alignment of the proposed pressure sewer is from the subject land, south on Townline Road to the intersection with River Road, and west on River Road to the existing municipal manhole upstream of the River Road WWPS, all within the existing municipal road allowance along the road shoulder. The servicing alignment requires a crossing of Irish Creek, a tributary of the Speed River, approximately 250 m south of Blackbridge Road on Townline Road. The preferred method for the watercourse crossing is directional drill beneath Irish Creek. An Environmental Impact Statement to document existing conditions and determine mitigation measures for the watercourse crossing has been completed and is included in Appendix A.

There are no upgrades anticipated for the existing municipal infrastructure to accommodate servicing to Blackbridge Mill Inn. The proposed Phases 1 and 2 of the Blackbridge Mill Inn development are estimated to account for 12 and 17 ERU (equivalent residential units) of sanitary servicing capacity under Region of Waterloo (Region) guidelines. Approvals are

**Stantec**

**BLACKBRIDGE MILL INN – 4860 TOWNLINE ROAD, CAMBRIDGE**

**FUNCTIONAL SERVICING REPORT- REVISION 3**

EXECUTIVE SUMMARY

August 2012

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required from the City of Cambridge (City) and the Grand River Conservation Authority (GRCA) to complete the proposed works.

Site grading, erosion and sedimentation control, and stormwater management (SWM) designs have been completed in accordance with GRCA and MOE guidelines. Two grassed swale infiltration facilities are proposed to provide water quality and erosion control protection. It is the opinion of Stantec that this SWM design meets enhanced level of protection as per MOE Design Guidelines.

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## **1.0 Introduction**

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Stantec Consulting Ltd. (Stantec) has been retained by South River Developments Ltd. to provide a Functional Servicing Report for the Blackbridge Mill Inn property, 4860 Townline Road, Cambridge, Ontario. The proposed development includes conversion of the existing building into a combination hotel, conference centre, and restaurant as per the planning application.

The following report describes the proposed servicing including, water and sanitary servicing, linear infrastructure requirements, grading, SWM, and Environmental Impact Statement (EIS). This report is intended to support planning applications, including Site Plan Control Plan application, Servicing Agreement, Encroachment Agreement with the City, Application for Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses Permit with the GRCA.

### **1.1 SITE LOCATION**

The Blackbridge Mill Inn is located at 4860 Townline Road in the City of Cambridge, Ontario as shown on Drawing C001, enclosed.

### **1.2 SITE DESCRIPTION**

The site is located in an unserviced section of the North Hespeler area of Cambridge, approximately 500 to 650 m from municipal sewage and water services. Planned upgrades are to occur in phases, with Phase 1 comprising the zoned 10 room hotel, with dining and conference facilities for a maximum of 75 persons. The ultimate development is expected to comprise a combination of hotel (up to 40 rooms), conference centre (up to 150 seats), and restaurant (up to 150 seats). The development is expected to be serviced by private onsite water supply, and municipal sewage connection as outlined in Section 2.

### **1.3 GEOTECHNICAL INVESTIGATION**

LVM Naylor was retained by the Owner to investigate the subsurface conditions along the proposed water and sanitary sewer alignment. This investigation was completed by drilling eight (8) boreholes at the locations shown on Drawing 001, Sanitary and Water Servicing Plan. Details of the boreholes are described in the Geotechnical Investigation report by LVM Naylor provided in Appendix B.

The subsurface stratigraphy comprises asphalt overlying fill and native silt, sand and gravel deposits, overlying dolostone bedrock. The fill, comprised of silty sand and gravel to sandy silt with trace gravel was contacted in Boreholes 1, 4 and 8, extending to depths of 0.30 m to 2.30 m below ground surface (BGS). Wood fragments and organics were also found in the fill,

at depths of 1.80 m to 2.20 m BGS. Granular deposits were encountered in all boreholes at depths of 1.70 m to 2.20 m BGS. Samples of the granular material were obtained and the grain size distribution curves are shown in the geotechnical report provided in Appendix B. The relative density of the granular deposits, were found to be compact to very dense. Glacial till, comprised of silty fine sand with trace fine gravel and clay was found at a depth of 2.30 m in Borehole 6 and extended beyond the borehole termination depth of 3.51 m. The density of the glacial till was found to be compact. Bedrock was encountered in Boreholes 1 through 4, and Borehole 8 at depths of 2.30 m to 3.70 m. A previous geotechnical investigation by LVM Naylor (then Naylor Engineering) showed the bedrock to be weathered dolostone.

Groundwater was encountered in Boreholes 2 through 5 at depths of 1.20 m to 2.30 m BGS (elevations 293.4 m to 295.2 m AMSL [above mean sea level]). On July 6, 2009 the water level and creek bed level at Irish Creek was measured at 292.9 m and 292.3 m AMSL, respectively.

#### **1.4 ENVIRONMENTAL IMPACT STATEMENT**

An aquatic risk assessment of Irish Creek was completed by Stantec to support the proposed construction of municipal water and sanitary servicing for the Blackbridge Mill Inn. The aquatic risk assessment and Environmental Impact Statement (EIS) is provided in Appendix A.

As the preferred method to install the services is by directional drilling beneath Irish Creek, there is a low risk of detrimental effects to the existing watercourse. The risk assessment was completed to document conditions and determine mitigation measures that should be taken for alternate watercourse crossings should the directional drilling option prove infeasible or fracture the creek bottom. The survey focused on the creek within the road allowance immediately east and west of the existing bridge crossing and identified the sensitivities of the aquatic environment and provided recommendations for the installation of services to minimize the potential impact on the natural environment. The existing fish habitat and fish community for Irish Creek is designated as a cool water habitat for a variety of fish species. It was noted that northern pike inhabit the Speed River and utilize Irish Creek, west of the dam as a spawning habitat. According to the Fisheries and Oceans Species at Risk Act (SARA) mapping, none of the known inhabiting fish species utilize Irish Creek, therefore no Fisheries and Oceans SARA permit is required.

Service crossings of Irish Creek are to be constructed using directional drilling methods to cross beneath the existing creek. Contingency plans detailed in the attached Aquatic Risk Assessment will be followed according to the procedure utilized to install the sanitary service.

#### **1.5 APPROVALS PROCESS**

Approvals are required from the City to complete the proposed development and servicing for Blackbridge Mill Inn. The City must release the holding provision on land zoning, as well as provide site plan approval and a development agreement with regard to building renovations, lot grading, and municipal services. Additionally, an encroachment agreement is required for

aligning the sewage service within the municipal right-of-way between the subject land and existing services on River Road.

The proposed alignment for the servicing corridor crosses Irish Creek, a tributary of the Speed River, approximately 250 m south of Blackbridge Road. A site visit by the GRCA confirmed that approval is required for the Irish Creek river crossing. An EIS was completed to evaluate alternatives for the watercourse crossing. The EIS determined that a Department of Fisheries and Oceans (DFO) review is not required for the watercourse crossing as long as the specified conditions, as outlined in the study, are met. Additionally, a development permit is required from the GRCA for the site construction, grading, and parking areas, and a cut/fill permit will be required where development is to encroach into the defined floodplain area.

As the services are deemed to be privately owned, no Ministry of the Environment (MOE) approvals are required.

## **2.0 Servicing Plan**

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### **2.1 PROPOSED SERVICING**

The Blackbridge Mill Inn site currently has no municipal water or sanitary servicing. An onsite septic tank and subsurface disposal system currently provides sanitary servicing to the site; however, this system is deemed to be under-sized and in questionable condition to service the proposed upgrades. An onsite well provides water supply for the existing building. Due to the limited available area onsite, private sanitary servicing is not deemed to be feasible for this development. For economic and schedule reasons, a municipal water service is not deemed to be feasible for the proposed scale of development, therefore, a private water supply, including onsite fire protection water supply, is the preferred means of water servicing. Proposed servicing for the Inn therefore includes the installation of a sanitary forcemain connection from the site to existing municipal services on River Road and private well water service.

The servicing objective for the Blackbridge Mill Inn is to provide municipal sanitary servicing and private water supply to the development site. An onsite pumping station is required to pump sewage from the Inn to the existing River Road WWPS. Sewage will be conveyed to the River Road WWPS via a 50 mm forcemain aligned on Townline Road to River Road, and down River Road to the last manhole upstream of the River Road WWPS as shown in the servicing plan in Drawing C001 enclosed. A new termination manhole is to be added in the road allowance having a 200 mm diameter gravity connection to the existing manhole in order to dissipate the energy of the proposed forcemain discharge.

Water supply will be obtained from the existing onsite drilled well and proposed fire reservoir. The existing well is capable of supplying water demands for the proposed Phase 1 and Phase 2 of the development, and filling the fire reservoir at a restricted flow over several days.

### **2.2 SANITARY SERVICING**

#### **2.2.1 Sanitary Design Flow**

The sanitary design flow (Maximum Day Flow) was estimated based on the Ontario Building Code (OBC) - Code and Design for Sewage Systems where the design flow is interpreted to be the Maximum Day Flow. Average Day and Peak Hourly Flow rates were calculated using peak factors of 2.0 for Maximum Day and 6.0 for Peak Hour. Table 1 provides a summary of the design flow calculations.

**Table 1: Sanitary Design Flow Rates**

Description	Unit Count	Unit Volume (L/d)	Maximum Day Flow (L/d)	Average Day Flow (L/d)	Peak Hourly Flow (L/s)
<b>Phase 1</b>					
Assembly Occupancy	75 People	36	2,700	1,350	0.0938
Hotel Rooms	10 Rooms	250	2,500	1,250	0.0868
Restaurant	75 Seats	125	9,375	4,688	0.3255
Residential Occupancy	3 Bedroom Unit	1,600	1,600	800	0.0555
<b>Total Phase 1 Flow</b>			<b>16,175</b>	<b>8,088</b>	<b>0.5616</b>
<b>Phase 2</b>					
Conference Area	75 Seats	36	2,700	1,350	0.0938
Restaurant	75 Seats	125	9,375	4,688	0.3255
Hotel Rooms	30 rooms	250	7,500	3,750	0.2604
<b>Total Phase 2 Flow</b>			<b>19,575</b>	<b>9,788</b>	<b>0.6797</b>
<b>Overall Ultimate Design Flows</b>			<b>35,750</b>	<b>17,876</b>	<b>1.2413</b>

As indicated above, the average day flows for Phase 1 and Phase 2 of the development are expected to be 8,088 L/d and 13,188 L/d respectively; which equates to 7.4 and 16.3 Equivalent Residential Units (ERU) at the end of each phase. ERU has been calculated using the *Region of Waterloo 2009 Water and Wastewater Monitoring Report*, April 2009, which indicates a unit flow rating of 372.3 L/capita·d at 2.939 persons per unit, equating to 1,094 L/ERU·d for the Hespeler Wastewater Treatment Plant (WWTP) sewer area. The peak hourly design flows for Phase 1 and ultimate build-out (Phase 2) are 0.56 and 1.24 L/s respectively.

**2.2.2 Proposed Service**

Due to the topographic relief between the site and existing municipal services approximately 650 m from the site, sewage must be pumped via forcemain. The sewage forcemain shall generally be placed at a minimum 1.8 mBGS to pipe obvert for frost protection. The forcemain pipe shall be continuous roll or fused joint high-density polyethylene (HDPE).

The preferred method to install sanitary servicing across Irish Creek would be by directional drilling beneath the creek, as City comments precluded the use of a suspended crossing. Should this method not be feasible, an open-cut crossing will be considered subject to the GRCA permit requirements. Details of the potential environmental impact and mitigating measures for the creek crossing are contained in the EIS provided in Appendix A. The

forcemain will continue southward on Townline Road up the hill to an air-vacuum release chamber, and then flow downhill to the existing termination manhole east of the River Road WWPS. All sanitary servicing infrastructure is to be installed within the existing road allowance, on the road shoulder outside the existing edge of pavement where possible. Installation of the sanitary services is expected to be completed using open cut excavation and limited directional drilling.

To address odour potential concerns, the new termination manhole on River Road shall be equipped with an activated carbon based air filter (Filter Innovations Sewer-Pure Manhole Filter or approved equivalent) mounted below the cover, which is recommended to be inspected on an annual basis. Odour potential is expected to be minimal in any case, as the sewage retention time in the forcemain is only approximately 3.5 hours at average day flow in Phase 1 and 1.7 hours in Phase 2. In our experience, retention times below 4 – 5 hours generally do not have significant potential to generate anaerobic off-gasses such as hydrogen sulfide, therefore ongoing monitoring is not deemed to be warranted.

The onsite pump station design and sewage forcemain sizing is based on the above Peak Hourly Flow, and calculations are provided in Appendix C. A 50 mm diameter forcemain is proposed in order to achieve the minimum velocity of 0.6 m/s at design flow; the velocity at design duty point of 2.0 L/s is 0.92 m/s. This provides substantial reserve capacity within the permissible velocity range of 0.6 to 2.5 m/s. Forcemain piping is to be DR17 HDPE (100 psi rated) to CSA B137.1.

As detailed in Appendix C, the proposed onsite pump station shall be an 1,800 mm diameter pre-cast concrete or pre-fabricated fiberglass manhole complete with duplex pumping system, with each pump rated at minimum of 1.24 L/s at 13.3 m total dynamic head (TDH). The pump specification shall be a grinder type, ITT-Flygt model MP3068.170 HT, 1.7 kW (2.5 HP), 230 VAC/1-phase/60 Hz, 3325 RPM, or approved equivalent, complete with guide-rails, isolation valves, check valves, and pump discharge hardware. The design duty point of this pump is 2.0 L/s at 18 m TDH, which exceeds the minimum specification. The pump station wet well is to have a nominal depth of 4.25 mBGS, a working depth of 0.6 m, a working volume of 1.53 m<sup>3</sup>, which equates to an active storage capacity of 20.5 minutes at peak hourly flow. The pump station shall be equipped with all required pump level controls, and high and low level alarms to alert facility staff to potential problems.

### **2.2.3 Existing Wastewater Collection System and Treatment Plant Capacity**

The River Road WWPS was constructed in 2005 to service the Hoflinger subdivision; the sanitary design flows for the subdivision were not available for this study. The station is equipped with two ITT Flygt model 3153 submersible pumps, rated for approximately 33 L/s at a TDH of 26 m (assumed to be the station firm pumping capacity). Although the design calculations for this station could not be obtained, the proportion of capacity can be approximated using a peak hour factor of four times average day flow for the firm pumping

capacity, equating to a station capacity of 713 m<sup>3</sup>/d average daily flow. The proposed development accounts for only 1.1% of this in Phase 1 and 2.5% in Phase 2. This flow is minor in comparison with the pump station capacity; therefore, no station upgrades are expected to accommodate the additional flow generated by the development.

It is known that Hespeler WWTP is near capacity; however, it is our interpretation that this development falls under the Industrial-Commercial-Institutional allowance which is already accounted for in the allocated capacity for residential units. In any case, the additional ERU values proposed above are deemed to be minimal in this regard.

## **2.3 WATER SERVICING**

### **2.3.1 Water Demand**

The water demand was estimated for the development based on the sanitary design flow, noting however, that this is to be supplied via the onsite well. It was assumed that the water demand will be approximately 15% greater than the sanitary flows as a result of water loss and activities such as lawn watering. The calculated water demands are provided below as follows.

**Table 2: Water Demand Rates**

<b>Description</b>	<b>Maximum Day Flow (L/d)</b>	<b>Average Day Flow (L/d)</b>	<b>Peak Hourly Flow (L/d)</b>
Total Phase 1 Flow (L/d)	18,601	9,301	55,807
Additional Phase 2 Flow (L/d)	22,511	11,256	67,536
Total Phase 2 Flow (L/d)	41,112	20,557	123,343

As indicated above, the average day water demands for Phase 1 and Phase 2 of the development are expected to be 9,301 L/d and 20,557 L/d respectively; which equates to 7.9 and 17.6 Equivalent Residential Units (ERU) at the end of each phase. ERU has been calculated using the *Region of Waterloo 2009 Water and Wastewater Monitoring Report*, April 2009, which indicates a unit flow rating of 422.9 L/capita-d at 2.77 persons per unit, equating to 1,171 L/ERU-d for the Integrated Urban System water distribution area. The peak hourly design flow for ultimate build-out (Phase 2) is 123,343 L/d (1.43 L/s).

### **2.3.2 Water Service**

The proposed water supply for this development will be the existing 150 mm drilled well located behind the building, which is deemed to be able to meet peak building demand plus restricted flow filling of the fire reservoir. Review of well data supplied by Hanlon Well Drilling indicate this is a drilled well installed in 2000 in accordance with Ontario Regulation 903 to a depth of 49.7 m (163') below ground surface. A 1-hour pump test was used to confirm static level at 5.8 m (19')

below ground surface, and a pumping level of 15.2 m (50') below ground surface at a test rate of 1.26 L/s (20 USgpm), with immediate recovery after pumping. As recommended by Hanlon, a 0.56 kW (0.75 HP) Grundfos submersible well pump rated at 0.63 L/s (10 USgpm) was installed at 24.4 m (80') below ground surface. This pump was shown to deliver a consistent flow of 0.76 to 0.88 L/s (12 to 14 USgpm) at 60 psi at the installed conditions. This water supply is deemed to be sufficient to supply the Phase 1 design flow without upgrade, and the Phase 2 development with pump upgrade to a minimum 1.43 L/s (23 USgpm), with adequate pressure retention tanks installed to buffer system flow and pressure fluctuations. The minimum water supply pipe size is 40 mm (1.5" nominal) diameter.

### **2.3.3 Water Treatment Requirements**

The treatment of the water supply for public facilities is regulated by O. Reg. 318/09 under the Health Protection and Promotion Act, and administered locally by the Region of Waterloo Public Health. As such, treatment requirements, operation, and monitoring will be defined by a Directive issued by the Public Health Inspector. In the absence of this Directive, and due to location of the well within 30 m of surface water (Speed River), it is assumed that the water supply will be considered groundwater under the direct influence of surface water (GUDI). For this reason the following minimum treatment system requirements are recommended to meet Ontario Regulation 170/03 under the Safe Drinking Water Act for GUDI water supplies:

- Cartridge Filter (25 µm)
- Cartridge Filter (5 µm)
- Cartridge Filter (1 µm absolute) certified to meet or exceed 3-log removal (99.9%) reduction of cyst-sized particles under NSF Standard 53
- Ultraviolet (UV) Disinfection System certified under ANSI/NSF Standard 55A c/w outlet Solenoid Shutoff Valve and Flow Restrictor

All above treatment equipment shall be rated at the maximum system design flow, and include pre-treatment for any parameters not meeting the quality requirements for the UV system. Pre-treatment may include a water softener to control inlet hardness for certain UV systems.

### **2.3.4 Fire Protection Water Supply**

It is proposed that fire protection will be supplied by a combination of fire protection reservoir and automatic sprinkler systems. In accordance with Region and Ontario Building Code standards, fire protection water supply using a private onsite water supply for sprinklered buildings shall meet the National Fire Protection Agency (NFPA) 13 standard. To minimize storage requirements, we recommend that the automatic sprinkler system has proper system supervision, including water flow and control valve alarm service, and buildings are constructed of non-combustible materials to the maximum practical extent.



For the purposes of fire reservoir and pump sizing, NFPA 13 minimum standards have been used, noting the specification for an automatic sprinkler system having proper system supervision. In consultation with Spira Fire Protection Ltd., it was determined that NFPA 13 requires a minimum 400 USgpm (91 m<sup>3</sup>/h) pumping system and 60 minutes of water storage for up to 52,000 ft<sup>2</sup> (4,830 m<sup>2</sup>) of building finished floor area. For the total finished floor building area of 1,859 m<sup>2</sup> as indicated on the architectural drawings, this system is deemed to meet NFPA 13.

The fire reservoir shall be a minimum 91 m<sup>3</sup> (24,000 USgal), and shall be installed in front of Building A, below the proposed deck. Tank internal dimensions are to be 4.47 m (14'8") wide and 9.91 m (32'6") long (surface area = 44.3 m<sup>2</sup>) assuming 200 mm (8") thick walls. Minimum tank working depth to lowest point of pump suction will be 2.1 m (6'11").

The pumping system shall consist of a 53 kW (71 HP) diesel powered, horizontal end-suction centrifugal pump, rated for 400 USgpm at 80 psi, located in the basement of Building A, complete with diesel fuel tank and control system conforming to NFPA 13. The tank will be filled via 20 mm (3/4") connection to the raw water supply, which is connected to an automatic mechanical float valve set at the tank high level. The pump will be connected to the reservoir via a 100 mm (4") diameter suction intake located at the reservoir bottom. Exhaust and ventilation systems shall be provided in accordance with OBC. A single dry hydrant will be provided at the reservoir in front of Building A (south side of tank), in addition to a standard Siamese connection at the building main entrance as per Region of Waterloo standards. A design schematic of the proposed fire protection system is provided in Appendix C (Spira Fire Protection Ltd.), noting that the tank layout has been revised as described above and as per the revised engineering drawings (Appendix E).

## **3.0 Storm Drainage and Stormwater Management**

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### **3.1 OVERVIEW**

The Blackbridge Mill Inn property is located within the Lower Speed River Watershed in the City. The proposed upgrades to the site include an expansion to the building footprint and addition of a formal parking lot.

This section of the report documents the grading and SWM strategy for the site.

#### **3.1.1 OBJECTIVES AND APPROACH**

The objective of this SWM plan is to ensure that the proposed redevelopment works include the necessary controls to protect the hydrology and water quality of the receiving water systems. Furthermore, this plan also ensures that the proposed Site Plan provides the necessary space for SWM measures while integrating with the proposed servicing and landscaping plans. The approach involved the following study components:

- Establishment of appropriate SWM criteria.
- Hydrologic analysis of the ultimate site conditions.
- Preliminary design of the grading plan and SWM measures to control site runoff in a manner consistent with current requirements.
- Conclusions and recommendations.

#### **3.1.2 BACKGROUND INFORMATION**

The following sources have been referenced during the preparation of the SWM analysis:

- *DRAFT Low Impact Development Stormwater Management Manual*, Toronto and Region Conservation Authority (TRCA), October, 2009.
- *Geotechnical Investigation, Blackbridge Mill Inn Servicing Project*, LVM-Naylor, July, 2009.
- *Stormwater Management Planning and Design Manual (SWMPD Manual)*, Ontario Ministry of the Environment, March, 2003.
- *Soils Association Map Waterloo County, Ontario, Soil Survey Report No. 44*, Agriculture and Agri-Food Canada, 1971.

## **3.2 STORMWATER MANAGEMENT (SWM) DESIGN CRITERIA**

SWM criteria were established based on review of background material, discussions with the GRCA, and recommendation contained in the EIS. The proposed expansion works are of limited scale in the context of the overall watershed, as the contributing drainage area is less than 1 hectare (8,973 m<sup>2</sup>). The site is located on the banks of the Speed River with a portion of the undeveloped lands within the regulatory floodplain. There is no storm drainage infrastructure currently in place.

Given the above, the SWM criteria for the site are as follows:

- Water Quality – provide MOE enhanced water quality protection for the disturbed site area (as per City comments).
- Erosion Control – mitigate erosion impacts from the site on the receiving watercourse.
- Water Quantity – discharge from the site currently travels by sheet flow to the downstream portion of the Speed River watershed, approximately 9 km from the confluence with the Grand River. The proposed changes to the site result in a 0.23 ha increase in impervious area contributing to the Lower Speed River. Given the minor change in land use, small fraction of contributing area relative to the watershed, and resulting delay between the site and watershed peak timing, it is recommended that lot level and conveyance controls be implemented in lieu of site specific quantity control SWM practices.
- Erosion and Sediment Control – provide appropriate erosion and sediment control during construction to protect adjacent properties and watercourses from migration of sediment-laden runoff.

## **3.3 EXISTING CONDITIONS**

### **3.3.1 Topography and Surface Drainage**

The existing site is comprised primarily of the former mill site, existing stone/wooden structures and gravel driveways. The ground surface is gentle with elevations ranging between approximately 291 m and 297 m AMSL. The site can generally be divided into two drainage areas with separate outlets. The northern portion of the site slopes north westerly towards Blackbridge Road and low-lying marsh lands, while the southern portion of the site drains westerly. The entire site ultimately drains overland to the adjacent Speed River.

### **3.3.2 Soil Information**

Waterloo Soils Survey Report No. 44 indicates that the site is situated upon Burford Gravelly Loam with gentle slopes less than 3.5%, with well drained soils and a hydrologic soil group (HSG) classification of "A". The geotechnical investigation for the site confirmed these

conditions, noting that the stratigraphy of the upper (0 to 0.3 m BGS) and lower (approximately 0.3 to 2.7 m BGS) layers consist of sand, some silt, topsoil, cobbles and gravel. While the soils were found to be moist, groundwater was not encountered within the 2.7 m deep observation well. Given the proximity to the Speed River, season fluctuations in water table elevations is likely to occur.

### **3.4 STORMWATER MANAGEMENT DESIGN**

#### **3.4.1 Stormwater Management Plan and Drainage**

The proposed site redevelopment incorporates the renovated mill buildings, three main parking lots, and asphalt laneways. To mitigate the impact of increased runoff and pollutants on the receiving Speed River and surrounding vegetation, the following SWM plan has been devised.

The site grading plan has been developed to mimic existing topography as close as possible (with slopes ranging from 2% to 6%), maintaining the natural overland drainage path to the Speed River (see Drawing C006 enclosed). Two distinct subcatchments exist, directing drainage around the building footprint along the north and south access road. Appropriate low points and high points were established to help create overland flow paths to the SWM facilities and away from the buildings. A minimum 2% slope is maintained around all building frontages.

To achieve the water quality and erosion control objectives, two SWM facilities have been proposed to capture and retain runoff from all impervious areas, excluding rooftops. As roof drainage can be considered clean for the purposes of water quality, all roof leaders are to convey flow to the back of the property and discharge to the surface. The northern SWM Facility (SWMF-N) is located on the northwest corner of the site receiving drainage from 2,502 m<sup>2</sup> (72% imperviousness), while the southern facility (SWMF-S) receives 2,669 m<sup>2</sup> (60% imperviousness).

The proposed SWM plan is to control runoff generated by the standard water quality storm (25 mm, 4-hour event), using a treatment train approach. A combination of grassed swales, rock-check dams, infiltration and vegetated buffer strips are used to promote complete infiltration of the 25 mm event, thereby mimicking the natural function of the existing low-lying wet areas currently on site. By infiltrating the entire 25 mm storm event (first flush), the proposed SWM design is deemed to inherently meet the enhanced level of quality control requirements as per MOE Guidelines. From the available geotechnical information, infiltration measures are feasible given the high permeability of the underlying soils (sands and gravel) and the depth to the water table. Detention has the secondary benefit of providing erosion control, as the majority of everyday rainfalls will not directly contribute erosive flows to the river. Under larger events, runoff will traverse overland through vegetation before reaching the watercourse.

**3.4.2 Stormwater Management Design**

A hydrologic model was developed using SWMHYMO to simulate drainage conditions for the subject development and to ensure sufficient sizing of the grassed swale detention/infiltration facilities. The 25 mm, 4-hour Chicago Storm derived using the City of Kitchener IDF (Intensity-Duration-Flow) parameters is provided below.

**Table 3: Design Rainfall Event – City of Kitchener IDF Parameters**

Return Period	IDF Parameters			
	A	B	C	Depth (mm)
25 mm, 4-hr	508.5	6	0.799	25.0

Model parameters were derived based on physical site conditions and typical values for the NRCS (formerly SCS) hydrologic methodology. Design Chart 1.09 from the MTO Drainage Management Manual suggests an SCS curve number of 58 based on a land use type of “pasture & other unimproved lands” with the hydrologic soil group “A”. The SWMHYMO input and output files are presented in Appendix D.

The SWM facilities are trapezoidal, grass-lined swales augmented with rock-check dams to reduce flow velocities, encourage sedimentation, and promote detention. Based on the available grades, the following swale dimensions in were achieved.

**Table 4: SWM Treatment Facility Dimensions and Design Parameters**

Facility	Design Depth (m)	Bottom Width (m)	Volume (m <sup>3</sup> )	Longitudinal Slope (%)	Length (m)	Side Slope (H:V)		Manning's n
						Left	Right	
North	0.04	0.75	41	1.2 to 1.5	30	3:1 to 6:1	2:1	0.035
South	0.035	0.75	39	1.5 to 4.0	45	2:1 to 5:1	3:1 to 12:1	0.035

The MOE guidelines suggest this configuration with appropriate channel dimensions is capable of achieving adequate water quality improvements. Table 5 below compares the proposed facility configurations to the guidelines, and demonstrates that the proposed design parameters meet or exceed the recommendations.

**Table 5: Grassed Swale Design vs. Guidelines Criteria**

Criteria Parameter	Guideline	North Swale	South Swale
Max Drainage Area for % Imp	1.5 ha (75% Imp.)	0.25 ha	0.27 ha
25 mm 4-Hour Storm Flow	$Q_{25mm} \leq 0.15 \text{ m}^3/\text{s}$	$Q_{25mm} = 0.012 \text{ m}^3/\text{s}$	$Q_{25mm} = 0.010 \text{ m}^3/\text{s}$
25 mm 4-Hour Storm Velocity	$v \leq 0.5 \text{ m/s}$	$v = 0.3 \text{ m/s}$	$v = 0.45 \text{ m/s}$
Channel Slope	$S_o \leq 0.04 \text{ m/m}$	$S_o \leq 0.015 \text{ m/m}$	$S_o \leq 0.04 \text{ m/m}$

It should be noted that the maximum drainage area of 1.5 ha is for basins with 75% imperviousness. As discussed previously, the imperviousness levels for the contributing drainage areas are 72% and 60% for the north and south areas respectively.

The technical effectiveness of swale systems for water quality treatment is highly dependent on their design and maintenance. Given this uncertainty and the favourable soil conditions, it was decided to utilize the infiltration potential of the site to further provide water quality control.

To estimate the long-term capability of the available soil medium to infiltrate stored water, a stage-storage-discharge relationship was developed using a modified version of the soakaway pit rating curve equation (Equation 4.17 MOE, 2003) as follows:

$$Q \text{ (infiltration rate, m}^3/\text{s)} = f \times (P/3,600,000) \times (A_s) \times n$$

where  $f = 0.75$  (longevity factor)

$P = 60 \text{ mm/h}$  (native soil percolation rate based on Table 4.4 for loamy sand)

$A_s =$  surface area of bottom (assume infiltration only through bottom)

North Facility =  $150 \text{ m}^2$  and South Facility =  $235 \text{ m}^2$

$n = 1.0$  (100% void space since storage is above ground)

The resulting rating curve was input into the ROUTE RESERVOIR command in SWMHYMO to simulate the required storage volume for each of the SWM facilities and the results are summarized in below:

**Table 6: SWM Facility Modeling Storage Volume Results**

Facility	SWMHYMO	Provided
North	$31 \text{ m}^3$	$41 \text{ m}^3$
South	$24 \text{ m}^3$	$39 \text{ m}^3$

As has been demonstrated, the SWM facilities provide sufficient storage to infiltrate the 25 mm water quality event.

### **3.5 MONITORING, MAINTENANCE AND MITIGATION PROGRAM**

Monitoring and maintenance activities are an important part of a SWM plan to ensure that the designed features continue to operate as intended. Long term monitoring and maintenance should involve annual inspections of the SWM facilities and downstream areas throughout its life span. The following section is intended to provide guidance for long term maintenance of the SWM facilities following construction:

- Grass should be allowed to grow higher than 75 mm to enhance the filtration of suspended solids.
- Swales need to be maintained periodically by the removal of accumulated sand and addition of mulch to the soil structure in order to maintain their ability to infiltrate.
- No design modifications are warranted for these swales during winter due to their inherent simplicity. However should the decision to incorporate an underdrain be made during the detailed design stage, the underdrain should have a minimum diameter of 200 mm and should be bedded in gravel.

### **3.6 EROSION & SEDIMENTATION CONTROL PLAN**

Erosion and sedimentation control during construction can easily be achieved through the following timing of construction procedures, as shown on Drawing C006 enclosed:

- Install silt fencing along the downstream portion of the site to prevent the migration of sediment-laden runoff off site to the Speed River.
- Utilize the proposed SWM facility locations as temporary sediment basins during grading activities, providing swales and berms to direct overland flow to these basins.
- Clean out temporary basins after completion of all other works which disturb the soil.
- Finalize SWM facilities by adding topsoil layer and vegetation.

## **4.0 Conclusions and Recommendations**

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### **4.1 CONCLUSIONS**

Based on the foregoing assessment, we provide the following opinions:

- The Average Day Sewage Flow for Phase 1 of the Blackbridge Mill Inn development (as per current site plan application) is 8,088 L/d, which equates to 7.4 ERU. Allocation of this hydraulic capacity within the Hespeler WWTP sewer area may be considered as included in existing residential allocations. The ultimate design (Future - Phase 2) Average Day Sewage Flow is 17,876 L/d, which equates to 16.3 ERU. Ultimate Peak Hourly Design Flow is 1.24 L/s.
- The existing private onsite water supply well is deemed to be sufficient to provide for potable water demand and restricted rate fire protection reservoir filling without upgrade in Phase 1, and with an upgraded pump rated for 1.43 L/s (23 USgpm) in Phase 2. Water treatment is required to meet Ontario Regulation 318/09 under the Health Protection and Promotion Act as administered by Region of Waterloo Public Health.
- Fire protection can be supplied using a minimum 91 m<sup>3</sup> water reservoir and emergency fire pump system in conjunction with a building sprinkler system and system supervision, including available dry hydrant and siamese connection, all in accordance with NFPA 13.
- The preferred watercourse crossing of Irish Creek is directional drill beneath the creek. Mitigation measures will be employed to ensure minimal impact to the watercourse, including a contingency plan to use an open cut crossing should directional drilling be infeasible.
- Grading and site development are generally to occur outside of the existing floodplain area as defined by the GRCA below elevation 293.0 m AMSL. Minor encroachments are to be subject to GRCA cut-fill permit process.
- SWM quality controls consist of infiltrating the first 25 mm flush through grass swales with subsequent treatment provided by treatment facilities consisting of vegetated filter strips, grassed swales, and reduced lot grading to decrease peak surface runoff and achieve the required SWM quality criteria. It is the opinion of Stantec that the proposed SWM design inherently meets enhanced level quality control as per MOE Design Guidelines.
- Erosion and sedimentation control during construction will be provided by silt fences placed along the western perimeter and temporary SWM facilities. Upon completion of all earthworks and site disturbing construction activities, SWM facilities are to be finalized.



## **4.2 RECOMMENDATIONS**

It is recommended that servicing via municipal sanitary service and private water supply be approved for the proposed Blackbridge Mill Inn development. Sanitary servicing may be provided using an onsite grinder pump station, 50 mm pressure sewer to convey sewage to the existing River Road WWPS. The existing private water service is deemed sufficient to supply potable and fire protection water to the development. The alignment of the services along Townline Road and River Road within existing municipal right-of-way, with a service crossing beneath Irish Creek is recommended.

All of which is respectfully submitted,

**STANTEC CONSULTING LTD.**



Miles MacCormack, P. Eng.

Project Manager, Water

Tel: 519-585-7499

Fax: 519-579-8806

miles.maccormack@stantec.com



### UPPER GRAND DISTRICT SCHOOL BOARD

500 Victoria Road North, Guelph, Ontario N1E 6K2  
Phone: (519) 822-4420 Fax: (519) 826-9534

**Martha C. Rogers**  
Director of Education

April 10, 2013

Karen Landry, CAO/Clerk  
Town of Puslinch  
7404 Wellington Road 34  
RR #3  
Guelph, Ontario N1H 6H9

CLERK'S DEPARTMENT	
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Council Agenda	✓ April
File	

PLN: 13-13  
File Code: R14  
Sent by: Mail & Email

Dear Mrs. Landry:

**Re: Draft Plan of Subdivision 23T-08001, Morriston Estates, Puslinch, County of Wellington**

Staff at the Planning Department of the Upper Grand District School Board *does not object* to the draft plan of subdivision subject to the following conditions;

- Education Development Charges shall be collected prior to the issuance of a building permit;
- The developer agrees to provide the Upper Grand District School Board with a digital file of the plan of subdivision in either ARC/INFO export or DXF format containing parcel fabric and street network;
- That adequate sidewalks, lighting and snow removal (on sidewalks and walkways) is provided to allow children to walk safely to school or to a designated bus pickup point.

Should you require additional information, please feel free to contact me at (519) 822-4420 x821.

Thank you,  
  
Jackie Hope  
Planning Department

Cc: Gary Cousins – County of Wellington



400 Clyde Road, P.O. Box 729 Cambridge, ON N1R 5W6

Phone: 519.621.2761 Toll free: 866.900.4722 Fax: 519.621.4844 Online: www.grandriver.ca

CLERK'S DEPARTMENT	
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For Your Information	<input checked="" type="checkbox"/> no application at this time
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APR 08 2013

Township of Puslinch

April 3<sup>rd</sup>, 2013

R.J. Burnside and Associates  
292 Speedvale Ave. West  
Unit 20  
Guelph, Ontario  
N1H 1C4

Attention: Tricia Radburn, MCIP, RPP

**Re: Puslinch Industrial Development Environmental Impact Study Terms of Reference**

Lot 26 and 27 *L. Ferraro Inc.* *Lambda*  
Concession 7  
Township of Puslinch *6-117-60*

We have reviewed the Terms of Reference submitted to this office. The Terms of Reference submitted are satisfactory to the GRCA subject to the inclusion or agreement of the following comments.

1. GRCA field verification of wetland boundaries will commence after the initial evaluation of wetland delineation has been completed, not concurrently.
2. The wetland on the subject property should be evaluated using the OWES and reviewed with the MNR to determine if the Wetland should be complexed with any adjacent wetlands.
3. Collection and Review of Background Information should include the Mill Creek Subwatershed Plan.

**Background Information**

The site location is located within the Mill Creek Subwatershed, specifically sub-catchment 126. Please refer to the Mill Creek Subwatershed plan in the collection of Background information and in stormwater management report and water budgeting for the site.

Should you have any questions please contact Nathan Garland at 519-621-2763 ext. 2236

Yours truly,

Fred Natolochny  
Supervisor Resource Planner  
Grand River Conservation Authority



## COUNTY OF WELLINGTON

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### COMMITTEE REPORT

**To:** Chairman and Members of the Roads Committee  
**From:** Gordon J. Ough, P. Eng., County Engineer  
**Date:** April 9, 2013  
**Subject:** Flooding Issue on WR32 at WR33 (Waterloo/Wellington Boundary)

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#### BACKGROUND:

In 2004, as part of a reconstruction of the Hwy. 401 interchange at the Waterloo/Wellington boundary, WR32 was realigned to connect into the Pinebush Road/Towline Road intersection.

The County has derived a benefit from this construction project through the vastly improved traffic flow affecting WR32 and WR33.

In the winter of 2004/2005 and in the summer of 2005 serious flooding issues on WR32 exposed some drainage design deficiencies and for many years a resolution to the drainage deficiencies have been pursued by the MTO and the Region of Waterloo, the proponents and funding partners of the interchange improvements/realignment. The only costs incurred to date, by the County include staff time at meetings and dealing with periodic flooding situations on WR32.

A preferred design enhancement to resolve the flooding issues that affect WR32 has now been identified.

The design enhancement involves the construction of a storm sewer from the intersection through a treed area to the east and outletting into a depression that outlets to an existing wetland west of Puslinch Lake. It is proposed that an easement over GRCA lands in favour of the County of Wellington be put in place to accommodate the storm sewer and that the County own and maintain the storm sewer. The GRCA and the Puslinch Lake Cottagers Association (PLCA) have given it their blessing.

The County is being asked to assume ownership of the storm sewer and to commit to cover the future maintenance requirements associated with the drainage solution. It is also proposed that the present worth of the cost of replacing the storm sewer, 75 years out, would be paid to the County.

The Region and the MTO are funding the construction of the storm sewer facility and they have been working to secure an easement from the GRCA to accommodate the sewer works. The direct benefit to the County to have the storm sewer built relates to eliminating periodic flooding caused by not having adequate drainage on WR32 east of the Towline Road intersection.

Costs to essentially be custodian of the proposed outlet storm sewer will be minimal and easily accommodated in the County Roads operation.

**RECOMMENDATION:**

It is recommended that the County agree in principle to own and maintain the proposed storm sewer, on easement over GRCA lands, to provide a positive outlet for drainage from the ditches of WR32 east of the WR32/WR33 Townline Road/Pinebush Road intersection.

Respectfully submitted,



Gordon J. Ough, P.Eng.  
County Engineer



## COUNTY OF WELLINGTON

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### COMMITTEE REPORT

**To:** Chairman and Members of the Roads Committee  
**From:** Gordon J. Ough, P. Eng., County Engineer  
**Date:** April 9, 2013  
**Subject:** Puslinch COP Committee Media Release

---

#### **BACKGROUND:**

A copy of the March 27, 2013 Puslinch COP Committee media release entitled "By-Pass Ultimate Traffic Calming Measure" is attached for information.

Respectfully submitted,

A handwritten signature in cursive script that reads "Gordon J. Ough".

Gordon J. Ough, P.Eng.  
County Engineer



## MEDIA RELEASE

March 27, 2013

### By-Pass Ultimate Traffic Calming Measure

“Traffic Calming Measures” are being considered by the MTO for Morriston but they will not solve the congestion and safety problems on the remaining 7.6 km of Highway 6 in Puslinch Township.

“These calming measures have absolutely no impact on the cause of the daily pain and frustration endured by motorists and residents all of which is created by the growing volume of traffic squeezing into the Morriston bottleneck.”, commented Puslinch resident, Brian Bonn. “You can put lipstick on a pig, but you still have a pig!”

Resident Sandra Solomon likened it “... to doing minor cosmetic surgery on life-threatening stomach cancer.”

MTO officials have indicated their “support” for the planting of some trees; “a few small/low plantings within the entrance islands in front of the Morriston Village Plaza”; “Decorative Municipal Identification Display” signs as you enter the village; and improved roadway “illumination”. Each would require “review/approval” of submitted Municipal plans prior to the issuing of an “Encroachment Certificate” by the MTO. Each would be financed by Municipal coffers.

It is the opinion of the Puslinch Community Oriented Policing (COP) Committee that:  
**The most effective “Calming Measure” for the Highway-6-Morriston Corridor, is the construction of the By-Pass!**

It will :

- Calm the nerves of young parents and calm the noise and air pollution experienced by Morriston residents 24/7.
- Calm the frustrations of motorists.
- Calm the concerns of companies using the Corridor to bring their product to market.
- Calm the amount of family-life time that is robbed by the present traffic congestion.
- Calm members of Duff's Church who try to exit North onto Brock Road.
- Calm Great Wall customers who are forced to travel south to Church Street and then circle around to the traffic lights at Calfrass to go safely north on Highway 6.
- Calm the alarming line of Highway 401 motorists exiting at Exit 299 south onto Highway 6 at rush hour.

- Calm the high volume of traffic on Victoria Road as motorists attempt to skirt the Morriston bottleneck.
- Calm the horrific nightmare of ETR use of Highway 6 when 401 is closed.
- Calm Picards and Change of Pace Restaurant customers who attempt to exit onto the north-bound lanes of Highway 6.
- Calm the growing volume of traffic that flows through Road 46/Gordon Street.
- Calm the high volume of traffic that tries, for 7.8 km, to enter or exit from Highway 6 between the Flamborough-Puslinch Townline and Wellington County Road 34.

To this end the Puslinch COP Committee continues with its petition, both on-line at [www.hwy6bypass.ca](http://www.hwy6bypass.ca) and in paper form at various outlets in Puslinch. This petition has nothing to do with the Traffic Calming Measures being requested by a Morriston resident for Morriston alone. This Puslinch petition deals with the entire 3.4 km two-lane section of Highway 6 South and the 4.4 km route North to Wellington County Road 34.

<30>

For further information contact:

**Glenna Smith**, Chair, Puslinch COP Committee: (519) 824-0217 or [dgsmith@sympatico.ca](mailto:dgsmith@sympatico.ca)

**Sandra Solomon**, Puslinch COP Committee (By-Pass Petition committee member.): (905) 659-2709 or [sandra.solomon@xplornet.ca](mailto:sandra.solomon@xplornet.ca)

**Brian Bonn**, Puslinch resident at (519) 837-0166 or [bbonn@sympatico.ca](mailto:bbonn@sympatico.ca)

**Ted Arnott, MPP**: (519) 787-5247 or 1-800-265-2366 or [ted.arnott@pc.ola.org](mailto:ted.arnott@pc.ola.org)

Paper Petitions have been distributed to community sites for people to sign. They will be presented to the Provincial Legislature by MPP, Ted Arnott.

Outlets include:

- Change of Pace Restaurant (Morriston)
- Laidlaw Transport (Aberfoyle)
- Arctic Cat (Aberfoyle.)
- Milburn's Sales & Service (Puslinch)
- Township Office (Aberfoyle)
- Car Store (Aberfoyle)
- Petro Canada (Aberfoyle)
- Duff's Church (Aberfoyle)
- Puslinch Library (Aberfoyle)
- Mt.Carmel Zion United Church (Morriston)
- Great Wall Restaurant (Morriston)
- Schneider National (Aberfoyle)
- Dufferin Aggregates (Puslinch)
- TransX International (Aberfoyle)
- Integrative Natural Medicine (Morriston)
- Pioneer Gas Station (Aberfoyle)
- Subway (Aberfoyle)



## The Highway 6 Realignment Journey

1. In the late 1970's, early 1980's the whole Highway #6 corridor from Hamilton to the 401 was being evaluated. The stretch from Clappison's Corner to Freerton was widened and completed in 1981. Attention then focused on the remaining portion.
2. Because there were more environmental concerns that needed to be addressed for the Puslinch-Flamborough Townline to the 401 portion (Section B) than for the Freerton to Puslinch-Flamborough Townline portion (Section A), it was decided to divide the section into two and deal with each portion separately. Section A has been completed for several years.
3. Originally, it was only intended to realign Highway #6 around Morriston but in 1984 the Hamlet of Puslinch was added to the bypass.
4. Many options in dealing with this portion of Highway #6 were addressed: leaving it as it was, encouraging use of other forms of transportation, etc. but all were rejected in favour of building a bypass. Five different alignments were examined and ranked according to feasibility. The current proposed routing was selected by the Ministry of Transportation (MOT) in 1986.
5. In 1990, the Ministry of Natural Resources raised concerns regarding the interchange at the Hanlon and Concession 34. They did not raise any other concerns, certainly not in the Morriston area. At this stage the Morriston Tract, a man-made forest of pine trees which could only have been a couple of feet high at the time, was obviously of no significance.
6. As required by the Environmental Assessment (EA), six public meetings were held to address the various issues raised by the proposed realignment.
7. More studies were done to address the concerns of commenting agencies and the public and, in 1994, the final EA was presented to the MTO - presumably for action.
8. In January, 2002, after a few residents had contacted the MTO and current Minister regarding the lack of action, the matter seemed to have been resurrected. An article in the Wellington Advertiser resulted in a group from Telfer Glen protesting the realignment. They managed to delay matters for 2 ½ years and, in the end, minor adjustments were made to the plans - all which could have been done during the design phase (which is still in the future).
9. In June, 2004 MTO officials meet with Puslinch Township Council. It was their hope for the MOE Government Review to be completed in 12 weeks (September, 2004) and assuming EA approval, detail design and property acquisition would take place over the next two years.
10. January, 2005 still saw the matter inching slowly along. EA requirements kept changing but we were told that the project would be grandfathered and it would not have to face a full review by the First Nations. Further investigation over the next 6 months revealed that this was now not the case and a full review was required. The MTO made a presentation to the First Nations in August, 2005.
11. In 2006, Minister of Transportation (Harinder Takhar) is quoted in newspapers as saying, "investment is crucial because Highway 6 is the most direct route to Hamilton from 401 and 12% of truck traffic in the province uses this highway section."
12. In 2006, after a Cabinet shuffle, the new Minister of Transportation (Donna Cansfield) writes Puslinch Councillor Susan Fielding stating the MTO, "is committed to providing a safe and efficient highway

connection between the municipalities of Hamilton and Guelph. We appreciate that improvements to the Highway 6 corridor through Puslinch Township are required.”

13. In September, 2006 the MTO was asked why there was still no answer from the First Nations. To assist the MTO, local residents wrote letters directly to the First Nations and in very short time approval was given. Apparently, the paperwork had been misfiled and never sent to the MTO.
14. In January, 2007 the EA was finally sent to the MOE for approval and in August, 2007 the Government Review was published.
15. In March, 2008 Minister of Transportation Jim Bradley writes, "once MTO has secured the necessary environmental approvals, we will be prioritizing this work in relation to other projects across the province and establish construction timing accordingly."
16. In May, 2008 Puslinch Township Council has a meeting at Queen's Park with Minister of the Environment, John Gerretsen. Minister Gerretsen shares the Township's frustration with the slow progress of the EA and assures us his ministry will prioritize this project.
17. In September, 2008 the Guelph Mercury News Services prints a story naming Highway 6 as having the highest number of fatalities of any highway in Ontario (22 people since 2000).
18. In October, 2008, due to this investigation, MTO orders safety improvements, but where the highway narrows from five lanes to two and along the narrow stretch no safety improvements are made.
19. In November, 2008 yet another fatal head on collision occurs in Puslinch village. A 22 year old man loses his life
20. The MOE held the EA approval up for another 2 years. During that time, Puslinch Council and Township residents continued to put pressure on them to get the EA approved. Finally, in January, 2009 the EA was approved and the matter reverted back to the MTO.
21. In February, 2009, Council met with Jim Bradley, Minister of Transportation, and he was very supportive of the project - he has experienced this road on many occasions. However, he did not make any promises.
22. In mid-March, 2009 it was reported in a newspaper that the realignment was in the current Five Year Plan. It was subsequently found not to be true. We were informed that, even though the project was not within the 5-year plan, work could still be done on it. Some work has been done.
23. A PIC regarding all of Highway 6 from Clappison's Corners to the 401 was held on April 16, 2009 to allow the public input on their safety concerns. It took almost a year and much prodding of the MTO before this safety document was made public and a presentation took place on June 2, 2010 before Puslinch Township Council. Only information relating to the stretch of Highway 6 South from the 403 to just before where the highway narrows to single lanes was included in the presentation and was, therefore, a waste of time. We were informed by the presenter that reflectors were going to be placed along the middle line of the road, upgrades were going to be made on the shoulders and larger speed signs would be installed. To date, only the reflectors have been installed.
24. At the presentation in June, Ann Baldwin, Regional Director (Western), promised that the data related to the narrow section of Highway 6 South would be looked at and a follow-up presentation be made to Council within a couple of months. Nothing has happened, despite Councillor Fielding's e-mails to Ms. Baldwin asking for an update on the situation.
25. During 2010, Councillor Fielding and a resident kept in close contact with Mr. Robert Bakalarczyk, Project Manager for the realignment up until the end of 2010. Robert seemed to be making progress: firming up the proposed route and issuing protection documents for it. "Willing sellers" were supposed to be approached but, to my knowledge, none of this has been done. Robert also

proposed dividing the project into two sections, with the Maddaugh Road to Highway 401 in Morriston section being done first.

26. In January, 2011 a resident and Councillor Fielding met with a representative of Challenger Trucking. He was extremely supportive and helpful and was instrumental in getting the Ontario Trucking Association to write a letter to the Minister. We were very hopeful this would create some momentum but it appears the letter was "buried" and no Minister had ever seen it until the Mayor met with Minister Chiarelli in May, 2012 and presented him with a copy.
27. In January, 2011, Roger Ward took over as the Project Manager. There was an *in camera* meeting with Township of Puslinch Council about 18 months ago and in May, 2012 the Mayor and some Councillors met with the Minister of Transportation, Bob Chiarelli. The Minister requested that the Mayor return in a few months for another meeting, bringing economically-impacted stakeholders with him. For whatever reason, the Mayor has decided to have an economic study done before going back to the Minister. This has delayed the matter considerably and now there has been a cabinet shuffle and we have a new Minister to deal with.
28. In January, 2013 larger speed signage was installed in the village of Morriston. Still needs to be done in the hamlet of Puslinch.
29. In February, 2013 the COP Committee of Puslinch formed a sub-committee to undertake a petition to provide the community and users of the road with an opportunity to express their opinions. The petition is due to run the first 2 weeks in April and will be presented, through our MPP, to the Minister of Transportation and the government (hopefully) in May, 2013.
30. Thirty three years ago this project was deemed necessary. In 2006 statistics showed that 12% of all truck traffic used this portion of the Highway. Today it is closer to 30%. The situation has got worse, not better.
31. Finally, you might be interested to know that the horizon year for the completion of this bypass according to the EA was 2004! Since that time 4 people have been killed in head-on collisions - if there had been a few extra lanes, they might still be alive today.



RECEIVED

APR 09 2013

Township of Puslinch

April 4, 2013

Mayor Dennis Lever  
Township of Puslinch,  
7404 Wellington Road 34  
Guelph Ontario N1H 6H9

Dear Mayor Lever,

A situation has recently come to our attention in the Regional Municipality of Waterloo that could threaten the ability of that municipality to openly tender municipal projects to all eligible contractors in the Region. The situation impacting the Region of Waterloo is not unique. A similar situation has already happened in Hamilton and could be replicated in other municipalities throughout the province.

If your municipality is targeted in the future you will likely be classified as a construction employer and subject to strict contracting out restrictions for municipal projects. These contracting out restrictions can increase the costs on large infrastructure projects by up to 40% and ban between 70-90% of all union and non-union contractors and workers from participating in taxpayer funded projects.

The Christian Labour Association of Canada (CLAC) and the Progressive Contractors Association of Canada (PCA) are currently advocating for a change to the existing legislation. The change we are seeking would ensure municipalities and other public employers are not forced to adopt the province wide agreement and the restrictive contracting out restrictions if they are organized by a construction union. It is a solution that respects the constitutional rights of individual workers; ensures fairness and participation rights for all workers and contractors regardless of private affiliation; and, prevents construction monopolies that drive up costs for taxpayers.

We are bringing this issue to your attention to raise awareness and to gain your support in calling on the province to change the legislation. For your consideration, we have drafted a sample resolution that could be tabled at a council meeting in the near future. If the resolution is passed we ask that you forward a copy to the Minister of Labour and the Premier of Ontario. The Province needs to hear from all impacted parties that a legislative change is needed to ensure procurement in Ontario remains fair and open and to protect our hard earned tax dollars.

More information about the case in the Region of Waterloo and the current legislative framework has been provided in the attached documents. If you have any further questions please do not hesitate to contact us. We will be in touch to follow up in the next couple weeks.

Thank you for your consideration of this important matter.

Sincerely,



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Sean Reid  
Director, Federal and Ontario  
Progressive Contractors Association of Canada  
289-335-1181 or [sreid@pcac.ca](mailto:sreid@pcac.ca)



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Ian DeWaard  
Regional Director  
Christian Labour Association of Canada  
519-653-3002 or [idewaard@clac.ca](mailto:idewaard@clac.ca)

***About PCA***

The PCA is the voice of progressive unionized employers in Canada's construction industry. PCA member companies employ more than 25,000 skilled construction workers across Canada, represented primarily by the Christian Labour Association of Canada (CLAC). Their member companies are responsible for 40% of energy and natural resource construction projects in British Columbia and in Alberta and are leaders in infrastructure construction across Canada.  
*Mailing Address: 1100 South Service Road, Suite 220, Stoney Creek, Ontario, L8E 0C5*

***About CLAC***

CLAC is an independent Canadian labour union representing over 55,000 workers in a wide range of sectors — construction, health care, retail, service, transportation, manufacturing, and others. Based on principles that promote the values of respect, dignity, fairness, and integrity, CLAC's approach to labour relations stresses membership advocacy, cooperation, and the long term interests of the workplace community. CLAC provides training support for its members to acquire, maintain and upgrade their skills. Courses are designed to keep members up to date with legislative requirements and codes, as well as provide them with applicable health and safety training.

*Mailing Address: 64 Saltsman Drive,, Preston, Ontario, N3H 4R7*

# Open Tendering Overview

## *The Region of Waterloo Issue*

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Late last year two workers erecting a plastic garden shed on a Saturday were organized by the Carpenters Union and a certification bid was filed with the Ontario Labour Relations Board. The Region of Waterloo is currently fighting the certification attempt but if they are unsuccessful at the Labour Relations Board the municipality will be forced to adopt the Carpenter's province wide collective agreement which contains strict contracting out language. The contracting out restrictions will effectively create a labour monopoly.

For the Region of Waterloo, or any other public employer in a similar situation, there are drastic cost and fairness implications associated with closed tendering on large projects. Closed tendering can escalate the costs of projects by up to 40% and reduce the number of contractors who can bid and work on projects by up to 90%. In a fiscal environment where dollars are forced to stretch farther than before and a labour market where elected officials are working hard to create opportunities, it is not in the interest of the public to drive up costs with no value add and reduce opportunities for local individuals and companies.

## *The Legislative Problem*

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An employer, who is certified as a construction employer under the Labour Relations Act (LRA), is bound to a provincial-wide collective agreement. Many of these provincial agreements, the Carpenters agreement specifically, contain a requirement that any contracted out work must be performed by unionized construction employees represented by the union that certified the employer. The implication of this is that only select union contractors would be able to bid on industrial commercial or institutional projects that are funded by tax dollars. For example, projects like bridges, water treatment upgrades, courthouses etc. could only be tendered to contractors who have been organized by a particular union.

Public employers like municipalities can argue that they should not be considered a construction employer under the Act. The definition of a "non-construction employer" is an employer who does no work in the construction industry for which the employer expects compensation from an unrelated person. There are multiple criteria considered by the Ontario Labour Relations Board when making a determination about the status of a construction vs. non-construction employer. These criteria put municipalities and other public employers at serious risk of being deemed construction employers by the Board.

There is a solution that can fix this problem in Ontario and ensure that public employers are able to openly contract projects to eligible bidders and keep the costs competitive for publicly procured projects. The solution requires the Government to introduce a bill that would amend existing legislation.

## Additional Resources

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CARDUS COMPETITIVENESS MONITOR – An in depth review of the impact of construction labour monopolies in Ontario compiled by the independent think tank Cardus in October 2012.

LINK: <http://www.cardus.ca/research/workandeconomics/publications/>

CARDUS COMPETITIVENESS BRIEF – A recent document produced by the independent think tank Cardus that details the impact of potential Carpenters Union certification of the Regional Municipality of Waterloo.

LINK: <http://www.cardus.ca/research/workandeconomics/publications/>

LUMCO RESOLUTION - A copy of similar resolution calling for changes to the existing legislation that was passed by the Large Urban Mayors Caucus of Ontario in June of 2008.

LINK: <http://www.hamilton.ca/NR/rdonlyres/200D8A05-D997-47B2-9345-38CBEFD598C8/0/Jul09item45.pdf>

CITY OF HAMILTON STAFF REPORT – The City of Hamilton composed a report for Council to evaluate the impact of the certification of the Carpenters Union on the municipality. The staff report contains the cost inflation estimate on large projects of 40%.

LINK: <http://www.hamilton.ca/NR/rdonlyres/6C0B1909-8E7B-41FB-A607-5F00B21FCCCA/0/Sep12LS07012.pdf>

# Proposed Resolution

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*WHEREAS MUNICIPALITIES* are not businesses and have a different purpose and mandate from commercial enterprises

*WHEREAS* the OLRB treats municipalities as businesses for the purpose of the construction industry provision of the Labour Relations Act, 1995.

*WHEREAS MUNICIPALITIES REQUIRE AN AMENDMENT* to the Labour Relations Act 1995 and other key pieces of legislation governing public employers would ensure municipalities are able to tender construction work in a free and open competitive environment to maximize fairness and value for construction expenditures.

*BE IT RESOLVED THAT* the City/Township of \_\_\_\_\_ asks the Province of Ontario to amend the Labour Relations Act to add a “Public Employers” clause and amend other key pieces of legislation governing public employers to restrict public employers from conferring on any person the exclusive right of carrying on any business, trade or occupation.