



Regular Council Meeting

To:	Mayor and Council
Date:	January 18, 2021
From:	Bill Balfour, Fire Department
Report Number:	Fire Department 2021-02
Subject:	Fire Station Design - Station One Replacement

Recommendation:

That Council approve Greenview Environmental Management Limited proposal in the amount of \$116,600.00 plus municipal HST in the amount of \$2,052.16, for a total amount of \$118,652.16, to be allocated in the 2021 Capital Budget to secure a site location and design for a new Fire Station.

Overview:

On July 4, 2016 Fire Department Report No. 2016-02 was received by Council regarding the design concept for Fire Station One at an estimated cost of \$4,900,000. The location for the Fire Station was 988 County Road 10 (Municipal Office). Staff was directed to review the proposal and provide Council with options with the intent to reduce the cost of the proposed Fire Station.

Over the past couple of years Council and staff have been touring Fire Stations in Peterborough County as well as in Northumberland County to ensure that the size and type of a new fire station is sized appropriately to meet the current needs as well as the future needs. Council and staff felt that the design in Trent Lakes was the best design and Council gave staff direction to contact the designers Greenview Environmental Management Limited and receive a proposal for a similar design for our Municipality for the Municipal Office site. The proposal was received in 2017 however; did not move forward during the capital budget process.

During the station tours in Northumberland County, it was noted that ambulance bases were incorporated into some of the designs of their fire stations. Staff was directed to ensure that staff have consideration should an ambulance base be required in our community. The Township CAO and Peterborough County CAO had discussions with regards to incorporating a future ambulance base into the fire station design. The Peterborough County-City Paramedics Master Plan which was presented and approved in May of 2016 by County Council indicated the following (From the Executive Summary):

- vi. By 2026 it was found that PCCP had to increase ambulance coverage by 504 hours per week. A new location is needed in the west of the City with a capacity for 4 vehicles, initially for some shifts currently deployed from HQ (note: this became the new Clonsilla station). The current Apsley crew should be based at a new on-bay facility at Burleigh Falls from where it can better respond and undertake standby. Improved locations for Lakefield and Norwood have been identified should capacity constraints at either existing site warrant a relocation in the future.
- vii. The recommended phasing for the extra ambulance hours/week required is as follows:
 - 2017 to 2020, +84 at the new City site and +84 at Lakefield
 - 2020 to 2023, +84 at the new City site and +84 at Norwood
 - 2023 to 2026, +84 at Lakefield and +84 at the new City site

While the County-City Paramedics Master Plan does not envision an ambulance base to be located in Cavan Monaghan at this time, as the plan was a service-wide demand review of the entire County. County and Township staff will continue to monitor the data and should changes in ambulance call volumes warrant the need for a base to be considered in our Township. Any proposed design should accommodate an ambulance however; should the need for fire services to expand based on service demands it would require additional footage being added to the building as well. Further discussions with the County are planned for January 15, 2021.

Fire Station One

The need for the replacement of Fire Station One has been annually appearing in the ten-year capital forecasts as well as previously identified in the following:

- PSAB (2009)
- Master Fire Plan 2020
- Service Delivery Review by Bellchamber (2013)
- The updated Asset Management Plan (2015)
- Fire Department Report 2015-05
- Fire Department Report 2016-02
- Council Facilitation and Priority Workshop 2019

Should Council approve the replacement of Fire Station One it will address a number of items recently identified in the Fire Master Plan which outlined an immediate need of upgrades to the current station estimated costing of \$750,000.00.

There are several factors that require consideration when choosing a fire station site:

1. Optimal coverage for residents to receive service in a timely manner.
2. Effects on resident's insurance rates.
3. Anticipated growth.
4. Capital cost of both the building and property acquisition costs.

5. Site suitability to accommodate proposed building now as well as future expansions.

Staff with the assistance of the Township's Planning department plotted possible site locations utilizing Township owned and non-Township owned lands and applied the above items to ensure that the items are considered and addressed. There were four properties identified as Fire Station Options (Attachment 1) 963 County Road 10 (Fallis/County Road 10), (Attachment 2) 986 County Road 10, (Attachment 3) 988 County Road 10 (Attachment 4) and a portion of 920 Larmer Line (Attachment 5).

Based on the internal review staff are considering all locations and support 963 County Road 10 property and the 986 County Road 10 as the top two. Finalizing the overall best option for Council consideration requires further work and detail to ensure that all the above locations are fully analyzed. To achieve this, it will require the technical expertise of Greenview.

Staff have requested from Greenview Environmental Management a proposal which will address the identified items however; to ensure that the project proceeds in the most efficient manner there are a number of technical items that must be addressed before providing Council with an accurate overall costings and location for this project build.

Staff is recommending that the proponent's proposal (Attachment 6) be accepted and Greenview Environmental Management Limited be retained. The acceptance of this proposal will allow staff to finalize the best overall building site to be selected on one of the identified properties, once the necessary background work can be completed by staff and Greenview, to ensure the project can move forward with the necessary information to ensure that the best overall selection can be recommended to Council. Further the Proposal received includes Preliminary Design, Detailed Design and Engineering, Final Design Construction Documents, Construction Tendering as well there is a \$15,000.00 Contingency.

Based on the fact that Greenview has the design of the Trent Lakes Fire Station, and is currently retained by the Township for the design of the Public Works Operations Centre and Millbrook Yard, staff received attached proposal (Attachment 6) and is recommending that it be sole sourced under By-law No. 2020-22 Procurement of Goods and Services for the Township of Cavan Monaghan under sections 5.6.2.

5.6.2 Single Source

Single Source means that there is more than one source of supply in the open market, but only one source is recommended due to predetermined and approved specifications.

The procurement may be conducted with valid and sufficient reasons for selecting one supplier in particular, as follows:

- a. An attempt to acquire the required goods and/or services by soliciting competitive bids have been made in good faith, but has failed to identify more than one willing and compliant supplier;

- b. The confidential nature of the requirement is such that it would not be in the public interest to solicit competitive bids;
- c. There is a need for compatibility with goods and/or services previously acquired or the required goods and/or services will be additional to similar goods and/or services being supplied under an existing contract (i.e. contract extension or renewal);
- d. The required goods and/or services are to be supplied by a particular supplier(s) having special knowledge, skills, expertise or experience;
- e. The goods are purchased under circumstances which are exceptionally advantageous to the Municipality, such as in the case of a bankruptcy or receivership;
- f. It is advantageous to the Municipality to acquire the goods or services from a supplier pursuant to the procurement process conducted by another public body;
- g. It is advantageous to the Municipality to acquire the goods or services directly from another public body or public service body;
- h. Another organization is funding or substantially funding the acquisition and has determined the supplier, and the terms and conditions of the commitment into which the Municipality will enter are acceptable to the Municipality; or
- i. Where due to abnormal market conditions, the goods, services or construction required are in short supply.

Staff's recommendation is based on items C and D of section 5.6.2 of the Procurement of Goods By-law No. 2020-22 and that Council support hiring Greenview Environmental Management Limited. By supporting staff's recommendation, it will allow staff to finalize the best site location and once the site is finalized and supported by Council, they will begin the design. The intent is to have this completed within the next 6 months. In consultation with Greenview and Mr. Hancock, Director of Public Works there would be a savings estimated at 10% for the combined should we tender for all three projects at one time. This savings has been confirmed by Environmental Management Limited.

Financial Impact:

Proceeding with the proposal in the amount of \$116,600.00 plus municipal HST in the amount of \$2,052.16, for a total amount of \$118,652.16. To secure site location and design for a new Fire Station would require an additional \$34,652.16 being added to the 2021 Capital budget as there was previously \$84,000.00 identified previously in approved Capital budgets.

Attachments:

1. Fire Station Options
2. 963 County Road 10 (Fallis/County Road 10)
3. 986 County Road 10
4. 988 County Road 10
5. A portion of 920 Larmer Line.
6. Greenview Environmental Management Proposal

Respectfully Submitted by,

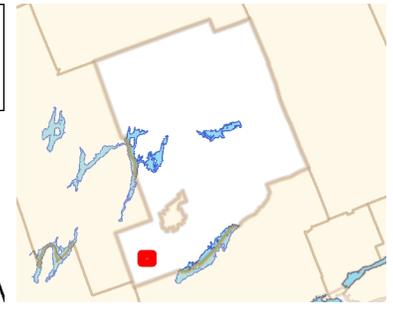
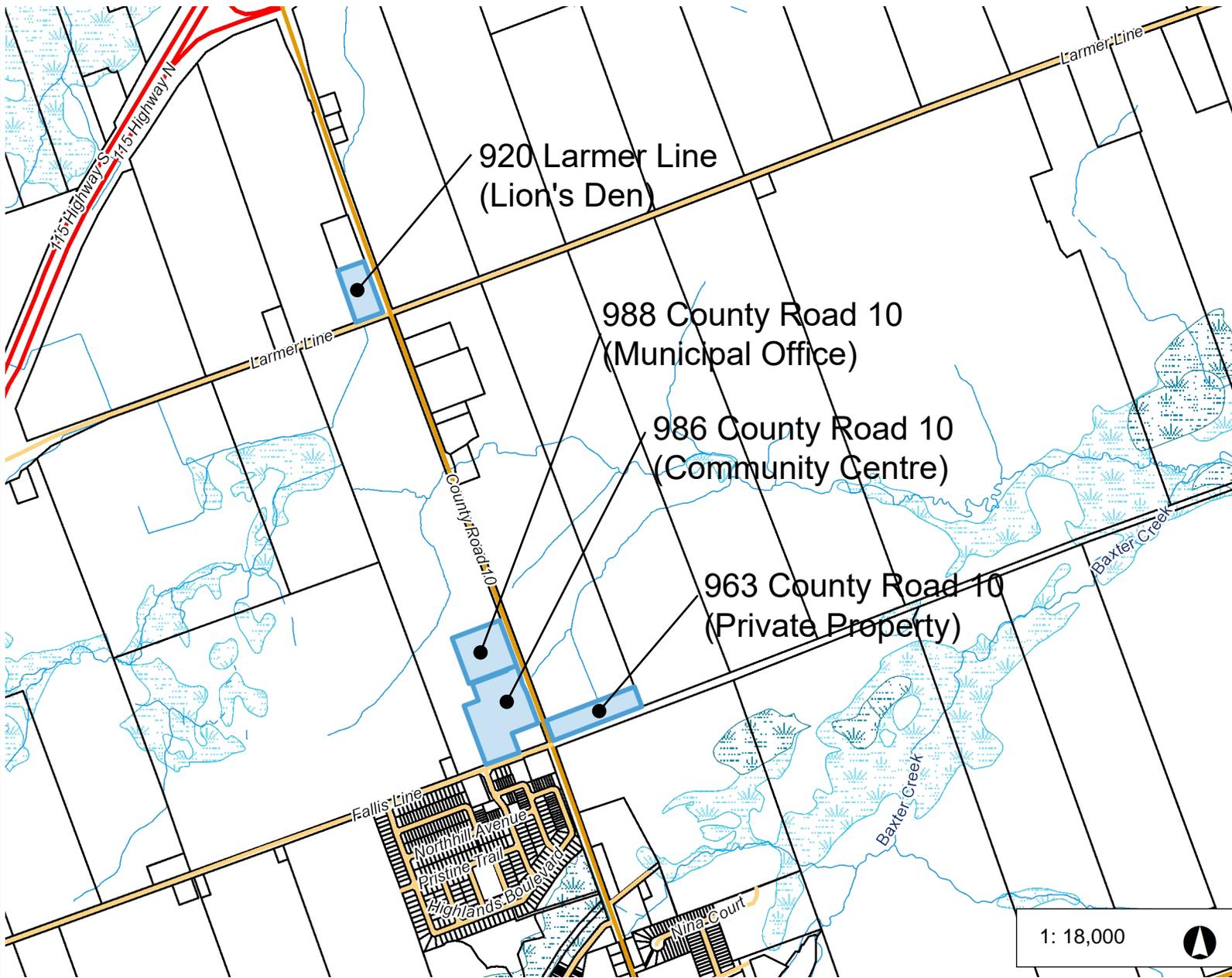
Reviewed by,

Bill Balfour
Fire Chief

Yvette Hurley
Chief Administrative Officer



Fire Station Options



Legend

- Roads < 50,000**
- PRIV ; Private; PRIV
- City Arterial
- City Collector and Local
- City Owned Unclassified
- Provincial
- County
- Township
- Water Access Only
- Outside Roads < 50,000**
- Major Roads
- Local Roads
- Parcel Fabric
- Rivers**
- Intermittent
- Permanent
- Clean Water Act Policies Apply
- Provincially Significant Wetland
- Locally Significant Wetlands
- Non-evaluated Wetlands

1: 18,000



914.4 0 457.20 914.4 Meters

Notes





963 County Road 10



Legend

- Hydro Lines
- Roads < 50,000**
 - PRIV ; Private; PRIV
 - City Arterial
 - City Collector and Local
 - City Owned Unclassified
 - Provincial
 - County
 - Township
 - Water Access Only
- Outside Roads < 50,000**
 - Major Roads
 - Local Roads
- Civic Address**
- Parcel Fabric
- Rivers**
 - Intermittent
 - Permanent
- Provincially Significant Wetland
- Locally Significant Wetlands
- Non-evaluated Wetlands
- Lakes - Local Scale
- 2 metres

963 County Road 10 (Private Property)

Roll No. 1509-010-030-05800

Site Area	Frontage	Official Plan Designation	Zone	Development Items of Note	Survey
~4.73 acres	~214.5 feet on CR 10 ~957 feet on Fallis Line (unopened)	Community Commercial	Community Commercial (C-5)	Watercourse within 120 m County ISD due to County Road No municipal services Known archaeological sites within 300 m	Not to the best of my knowledge

1: 3,600

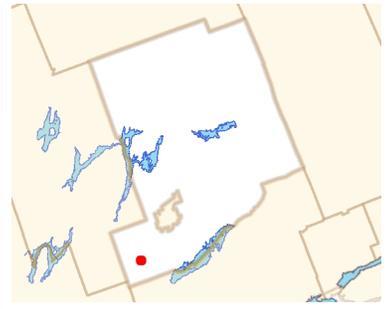


Notes

2018 air photo



986 County Road 10



Legend

- Hydro Lines
- Roads < 50,000
 - PRIV ; Private; PRIV
 - City Arterial
 - City Collector and Local
 - City Owned Unclassified
 - Provincial
 - County
 - Township
 - Water Access Only
- Outside Roads < 50,000
 - Major Roads
 - Local Roads
- Civic Address
- Parcel Fabric
- Rivers
 - Intermittent
 - Permanent
- Provincially Significant Wetlands
- Locally Significant Wetlands
- Non-evaluated Wetlands
- Lakes - Local Scale
- 2 metres

986 County Road 10 (Community Centre)
Roll No. None Assigned

Site Area	Frontage	Official Plan Designation	Zone	Development Items of Note	Survey
~10.06 acres	~623 feet on CR 10 ~360 feet on Fallis Line	Institutional	Institutional Exception One (I-1)	Watercourse within 120 m County ISD due to County Road Municipal Water and Sewer Known archaeological sites within 300 m	Not to the best of my knowledge

1: 3,600

Notes
2018 air photo



988 County Road 10



Legend

- Hydro Lines
- Roads < 50,000**
- PRIV ; Private; PRIV
- City Arterial
- City Collector and Local
- City Owned Unclassified
- Provincial
- County
- Township
- Water Access Only
- Outside Roads < 50,000**
- Major Roads
- Local Roads
- Civic Address**
- Parcel Fabric
- Rivers**
- Intermittent
- Permanent
- Provincially Significant Wetland
- Locally Significant Wetlands
- Non-evaluated Wetlands
- Lakes - Local Scale
- 2 metres

988 County Road 10 (Municipal Office)					
Roll No. 1509-010-030-06000					
Site Area	Frontage	Official Plan Designation	Zone	Development Items of Note Survey	
~5.80 acres	~490 feet on CR 10	Institutional	Institutional Exception One (I-1)	3 watercourses within 120 m County ISD due to County Road	Not to the best of my knowledge
				Municipal Water and Sewer	
				Known archaeological sites within 300 m	

1: 3,600

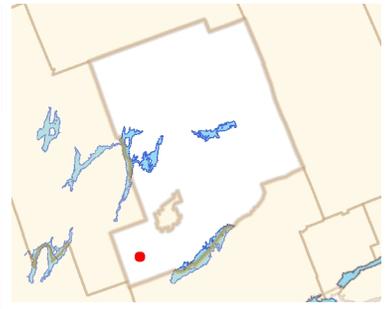


Notes

2018 air photo



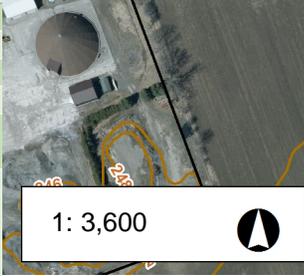
920 Larmer Line



Legend

- - - Hydro Lines
- Roads < 50,000**
- PRIV ; Private; PRIV
- City Arterial
- City Collector and Local
- City Owned Unclassified
- Provincial
- County
- Township
- Water Access Only
- Outside Roads < 50,000**
- Major Roads
- Local Roads
- Civic Address**
- Parcel Fabric
- Rivers**
- Intermittent
- Permanent
- Provincially Significant Wetland
- Locally Significant Wetlands
- Non-evaluated Wetlands
- Lakes - Local Scale
- 2 metres

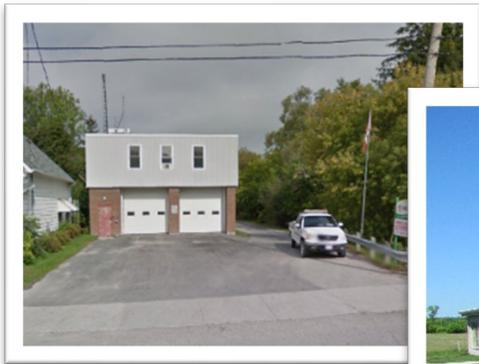
920 Larmer Line (Lion's Den)					
Roll No. 1509-010-030-12600					
Site Area	Frontage	Official Plan Designation	Zone	Development Items of Note	Survey
3.64 acres	~268.15 feet on Larmer Line ~533.3 feet on CR 10	Agricultural and Natural Linkage Area	Institutional (I) and Agricultural (A)	Watercourse within 120 m ORCA Regulated Area - applies to small portion along Larmer Line where NLA exists and watercourse to south County ISD due to County Road No municipal services	Yes



Notes
2018 air photo

Proposal for Professional Engineering Services

Site & Building Design for New Fire Station #1



January 11, 2021
Proposal: P20-0111

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Section 1 – Introduction and Understanding of Project Objectives

The Township of Cavan Monaghan (Township) has requested a proposal from Greenview as an experienced and qualified building design and engineering consultant, for the design of a new fire station on a site/property anticipated in be in the general vicinity of the existing Municipal Office near Millbrook, Ontario.

Greenview has provided fee proposals in the past for this particular project, in an effort to assist the Township in achieving a “shovel-ready” design product to replace Fire Station #1, located in downtown Millbrook. We understand that the Township has viewed the Municipality of Trent Lakes’ new fire hall at Nogies Creek (Station #4), and prefer its layout and function, which Greenview designed, and provided construction contract administration services for. Based on this, the Township has requested a design proposal for a generally comparative building to Trent Lakes’ Station #4, with some amendments and planned fire apparatus needs.

Based on meetings with the Township as recent as January 7, 2021, the following are the key space needs and design criteria are to be considered for this project:

- Total building area of approximately 7,500SF, in a single-storey, detached building configuration. Planning for future building expansion to be included.
- Apparatus Bays to include space for up to five (5) apparatus, including a drive-through double-bay configuration.
- Administration space to include a training room for up to 60 persons, not open to the public.
- Administration space to include offices, officer’s/radio room, reception space, kitchen, washrooms, and related ancillary space needs.
- Building to be generally suitable as an operational facility during municipal emergencies (not specifically as a designated Emergency Operations Centre [EOC]).
- Depending on site selection, municipal servicing (water, sewer) may exist at the site location, and is readily available for service connections.
- An overall site master plan will need to be developed, based on a confirmed building site/property location and preferred configuration. A formal municipal site planning process is not required.
- Design is to generally follow the principles of LEED, including site planning, water conservation/management, energy management, sustainable material use, and indoor environmental quality. Formal LEED certification, review, or compliance is not required.

As noted above, Greenview’s design for the Municipality of Trent Lakes provides an excellent starting point for a building layout and program, and initial site planning. Once a site is determined by the Township, Greenview would work closely with the Township to advance a schematic design and a general site plan, complemented by a conservative-level cost estimate at the initial phases of the project. This will allow sufficient presentation of the feasible site redevelopment options and expected costs to inform the Township’s decision on how to move forward into the (detailed) design development phase.

The Township’s delivery method for this project appears to be design-bid-build, with the detailed design phase to be undertaken currently, complete with cost estimation and value engineering, as required. The scope of this assignment is to cover all aspects of the engineering, design, and construction document preparation, for a future construction tendering process, as determined by the Township in the future.

Section 2 – Experience of Firm

Our Company

Greenview Environmental Management Limited (Greenview) was established in 2005 to serve the growing engineering and infrastructure needs in eastern Ontario of small, rural municipalities. Greenview's new professional office is home to a diverse group of nine (9) staff, including professional engineers, project managers, professional geoscientists, designers, technologists, and contract administrators. We are very pleased to be celebrating our 15th year in business in 2021.



Greenview's approach to business is founded predominantly within the small Municipal sector of central and eastern Ontario, where legislative downloading from upper levels of government has called for the unique, client-focused services of Greenview. A more recent need in the rural municipal sector has been municipal building upgrades and replacements, including public works facilities, fire and rescue stations, and other operations building-related assets. Greenview prides itself as one of the premier consulting firms in this aspect of municipal service delivery to smaller municipalities in the region.

Greenview's business model and operations are highly-professional, and client-focused, with a unique small-municipal approach and delivery 'style'. Established relationships with the Township of Cavan Monaghan, and a number of nearby clients in Peterborough and other rural Ontario counties, a proven track record of successfully delivered projects, and a specialization in complete municipal infrastructure solutions is confirmed with the confidence of our municipal clients in Greenview's design team.

For this assignment, Greenview is fully qualified and experienced to undertake all of the site and building engineering, design, and consulting services required per applicable legislation governing the project. Greenview would be the prime consultant for this assignment, and would only retain specialist subconsultants as may be warranted.

Our Experience

For Greenview and our clients, the value of a Consultant is best measured in the ability to produce the required deliverables, both in a high quality of content and in a manner that supports progress/development on a particular project need. Greenview takes pride in our proven ability to produce high-quality deliverables that consistently exceed Client expectations on a number of levels.



With Greenview's experience with municipal buildings, Greenview's team experience spans a number of industrial occupancy and public works building design projects, in varying size and configuration, in a number of site locations, and unique requirements.

Related to this particular assignment, we offer the following selected projects to demonstrate Greenview's design team qualifications and experience for the new PW facility, which include the following design criteria:

- Industrial occupancy spaces (OBC Group F), sizing from 3,000SF to 26,000SF.
- New fire and rescue service building engineering and design, and associated site planning.
- New public works building and site developments, expansions, and redevelopments.

- All facets of project site and building design and engineering, including site review, investigation, and servicing, building schematic design and cost estimation, multi-disciplinary team detailed design development and coordination, construction specification and documentation preparation.
- Complete, turn-key engineering, design, tendering/contracting, and contract administration services for municipal building new builds, renewals, and redevelopments.

Greenview has selected a number of past projects with direct association with this project to showcase our team's experience, qualifications, and direct benefit to the Township as the design consultant for this project. These sample projects are included in Appendix A to this proposal.

We trust the above selection of projects clearly showcase Greenview's focused experience directly related to this project. Our team would be very pleased to meet with the Township to discuss how these projects relate to the Township's needs in this regard.

Our Values

Greenview is an established and successful consulting engineering company focused almost exclusively on serving the infrastructure needs of smaller, rural municipalities in central and eastern Ontario – full stop, this is what we do, and we take pride in doing it very well.

Greenview approaches each and every opportunity with an understanding that projects are inherently different and with due respect to individual Client needs and requirements. At the project's initiation, we solicit and gather feedback from our Clients, in a concerted effort to ensure a more in depth understanding of the needs for the project, and to be able to integrate goals, objectives, and preferences at all levels of interest from our Clients.

We encourage you to contact our Client references and to ask how we do business and serve our clients. That's the best way to learn about what we do, and how we do it, and we're positive that the Township of Cavan Monaghan will want to learn more about how Greenview can make this project a success, adding to our growing list of others.

Greenview's staff are duly registered with a number of professional organizations, governing bodies, and associations, including the following that apply to the services associated with this project.



Section 3 – Qualifications and Experience of Team Members

Our Team

This section presents primary design team personnel with relevant experience and qualifications with respect to this assignment. Selected primary team member and subconsultant resumes are included with this proposal in Appendix A.

Tyler Peters, P.Eng. – Project Director / Civil - Tyler fulfills the role as the design team's overall Project Director, coordinating and scheduling the required resources for the project to ensure milestones and the overall design of the project remain on schedule. Supported by the other members of Greenview's multi-disciplinary team, Tyler coordinates and facilitates all project meetings and consultation events, internal/external progress reporting, and other administrative aspects related to the project's development. Tyler also provides the senior

technical role for the civil engineering and any site servicing requirements for the project.



Tyler is President of Greenview Environmental Management and is a registered Professional Engineer (P.Eng.) in the Province of Ontario with diversified experience in the rural Ontario municipal sector extending over twenty (20) years. Tyler has extensive infrastructure project planning, consultation, and implementation experience with municipalities, private enterprises, and regulatory agencies in a number of project delivery methods, with proven success. Tyler's small, rural, municipal roots and corresponding planning and engineering experience on rural Ontario municipal projects provides real benefit to Greenview's clients.

Henry Hutchison, P.Eng., B.Arch. – Senior Design Engineer / Structural - Henry will provide the OBC code and holistic design review and work closely with Greenview's design team to develop the project's design phases. Regarding design development of the project, Henry brings a balanced approach to building design, science, and engineering, developed over his twenty plus (20) years of technical engineering, and building experience. Managing Greenview's in-house design group, Henry will supervise the overall design and engineering aspects of the project and ensure coordination in the design is maintained throughout.

Henry is a registered Professional Engineer in the Province of Ontario (P.Eng.), and is Greenview's engineering and design team leader, with a specialisation in site planning/development, and municipal building design and engineering projects.

Steve Stranaghan – Senior Mechanical Designer, Mechanical - Steve will lead and be responsible for fulfilling the engineering and design of the heating, ventilation, air conditioning (HVAC), and plumbing services, for the project, utilizing his 35 years of mechanical systems design from a variety of building types and conditions, in a variety of project types and occupancies.

Steve is a graduate of Sir Sandford Fleming College's Mechanical Engineering Technology program and brings vast design and implementation experience in HVAC technologies, energy conservation and demand management, as a technical leader at Otonabee Technical Services Ltd. in Peterborough, Ontario. Steve's mechanical team is supported by Senior Mechanical Engineer, Bob Baker, P.Eng.

Paul Berthelot, P.Eng. – Senior Engineer, Electrical - Paul will lead and be responsible for fulfilling the engineering and design of the project's electrical systems and services for the project, utilizing over 30 years of

electrical engineering and design experience from a variety of projects, including industrial, commercial, institutional and residential.

Paul is a registered professional engineer in the Province of Ontario (P.Eng.) and a graduate of Queen’s University in Electrical Engineering. Paul brings an extensive electrical engineering and design experience in electrical systems, servicing, illumination, and renewable energy as technical leader at Berthelot Engineering Ltd. in Peterborough, Ontario.

Noella Floyd-Foulds – Project Designer / Contract Administration / CAD – Noella will support Greenview’s design team in a variety of roles, including architectural, mechanical and electrical CAD, coordination reviews, construction document preparation, material and fixture selection, and project administration.

Noella is a graduate of architectural technology and has experience with a significant number of building design and contract administration projects with Greenview, including in the municipal, institutional, and commercial sectors.

Recent & Past Projects & Client References

As noted above, our team has assembled a number of representative examples of projects in support of our proposal for this assignment in Appendix A. Other projects are listed on team member resumes, or our company website at greenview-environmental.ca.

Regarding client references, we encourage the Township to contact the following selections relative to this particular project.

Client Name & Municipality	Relevant Projects	Contact Information
Barry Wannamaker, Special Projects Coordinator <i>Township of Wollaston, ON</i>	<ul style="list-style-type: none"> • Planning, Design, Engineering, Construction Administration of New Wollaston Fire Hall • Municipal Engineer of Record Services • Building & Facility Strategic Plan Development • Building & Facility Condition Reviews, Repurposing & Cost Estimation • Asset Management Planning, including OSIM Bridges/Culverts, Building Condition, Road Needs 	Tel: 613-337-5731
Steve Brockbank, Fire Chief <i>Municipality of Trent Lakes, ON</i>	<ul style="list-style-type: none"> • Building and Site Renewal Assessment, Buckhorn Fire Hall • Design, Engineering, Cost Estimation for Renovations to Cavendish Fire Hall • Design, Engineering, Tendering, Contract Administration, New Fire Station No. 4 – Nogies Creek 	Tel: 705-738-3800

<p>Dale Thompson, Asset Manager</p> <p>Dean Holly, PW Manager</p> <p><i>Township of Killaloe-Hagarty- Richards, ON</i></p>	<ul style="list-style-type: none"> • New Killaloe Fire Hall – Site & Building Design and Engineering • Coll Street Drainage Municipal Servicing Study • Waste Management Planning, Compliance, Monitoring and Reporting (2006 – Current) • Asset Management Planning • Engineering Technical Support for Various Municipal Projects 	<p>Tel: 705-757-2300</p>
<p>Allison Holtzhauer, CAO</p> <p><i>Township of Greater Madawaska, ON</i></p>	<ul style="list-style-type: none"> • Planning, Design, Engineering, Construction Administration for Reconstruction of Ferguson Lake Road • Planning, Design, Engineering, Construction Administration for Rehabilitation of Barrett Chute Road • Building Condition, Design & Engineering, Municipal Office Retrofit (Calabogie Public School) • Building & Facility Condition, Design & Engineering, Ginza Recreation Centre • Building & Facility Condition Assessment, Former Municipal Office and Community Library • Asset Management Planning • Municipal Energy Conservation and Demand Management Planning 	<p>Tel: 613-752-2222</p>
<p>Wayne Hancock, Director of Public Works</p> <p><i>Township of Cavan Monaghan, ON</i></p>	<ul style="list-style-type: none"> • New Public Works Operations Centre Expansion / Redevelopment Project (2 Facilities) • Public Works Operations Centre Expansion Study 	<p>Tel: 705-932-9327</p>
<p>Allan Broek, Public Works Manager</p> <p><i>Municipality of Tweed, ON</i></p>	<ul style="list-style-type: none"> • 2019 Asset Management Planning, including Road Needs, Municipal Water/Wastewater/Stormwater Services • Planning, Design, Permitting and Approvals for Greatrix Bridge Replacement • Planning, Design, Permitting and Approvals for Rapids Bridge Replacement 	<p>Tel: 705-652-8392</p>
<p>Chuck Pedersen, Fire Chief</p> <p><i>Township of Douro-Dummer, ON</i></p>	<ul style="list-style-type: none"> • Building & Facility Strategic Plan Development • Building & Facility Condition Reviews, Repurposing & Cost Estimation • Site & Building Design, Engineering, Cost Estimation, Funding Application for New Centralized Public Works Depot & Fire Station 	<p>Tel: 705-652-8392</p>

If additional references are requested, we'd be pleased to present you with additional information.

Value-Added Services

In addition to the fundamental base expertise we offer, Greenview's team has specific, value-added, unique qualities that present us as the ideal design consultant for this particular project, as follows:

- Greenview's Nogies Creek Fire Hall design for the Municipality of Trent Lakes is the preferred configuration for the Township. Efficiencies in retaining Greenview for the new Station #1 are inherent in moving this project forward.
- Greenview has project experience for a number of smaller, rural fire and rescue stations. With a clear understanding of the Township's needs, our team is ideally suited to undertake this important assignment for the Township.
- Greenview is currently commissioned by the Township to engineer and design the renewal of its public works operational facilities. Related project planning, execution, and coordination efficiencies are presented in this proposal and its fees.
- Specific team knowledge and understanding of the existing site/property, associated site and building needs of public works and fire/rescue facility developments, and related constraints.



Fire Station 4 - Nogies Creek, Municipality of Trent Lakes

Section 4 – Approach & Methodology

Further to our general description of our clear understanding of the Township's request in Section 1, this section presents, in detail, our carefully-planned approach and associated methodology in undertaking this important project for the Township. As the Township is aware, we have engaged the Township on a number of aspects of your request, to ensure that we are clear on the project's requirements, to ensure the Township's objectives for this project can be met.

Background / General

The scope of services has been developed in consultation with the Township Fire Chief. It is understood that the project site has not been confirmed by the Township, however a determination is imminent. IN good faith to this, Greenview has included base assumptions for civil engineering fees in this proposal that would be consistent with other similar-sized projects.

Phase 1.0 – Work Planning, Administration, Authority/Agency Consultation

Upon award of the project, Greenview's design team would meet with the Township to confirm our proposed scope of services and project milestones, review Greenview's work plan and timelines, confirm deliverables, and initiate the overall project.

As an initial task, Greenview would work with the Township to develop an overall site masterplan with due consideration of site and building space needs and functionality, with due account for site conditions and constraints for the building development alternatives identified. Initial site plan sketches would be advanced for review and development consultation purposes and carried forward as part of Phase 2.0.

Recognizing that the project site may be subject to County of Peterborough and Conservation Authority jurisdiction, specific development permitting and approvals are anticipated from relevant agencies/authorities. Greenview would initiate a focused pre-consultation program with relevant approval authorities to confirm permit application requirements and timelines, for overall project planning and execution. The outcomes of this consultation would be reviewed with the Township for direction, accordingly.

Phase 2.0 – Preliminary Design

With Phase 1.0 initiated and continuing throughout the pre-construction phases of the project, and with a clear understanding of the Township's needs and development permitting and approval requirements, Greenview would initiate the development of site and building schematic design aspects for the project. Schematic designs would consider the site's operational access, use, and safety, relative to planned building uses, and Council's prescribed direction relative to the building's primary size components.

Block floor plans, and a coordinated concept site plan and related enhancements would be included, with due consideration of updated site servicing and applicable environmental considerations. For the schematic designs, an initial Class D-level construction cost estimate would be prepared, inclusive of the list of building requirements, recommended site and building services, preliminary building programs, and other pertinent considerations. Review (working) meetings to review preliminary design alternative aspects would be facilitated to coordinate and collaborate with the Township.

Also advanced at this early stage, Greenview would undertake a holistic review of sustainability and energy-related aspects of the project, assessing energy conservation opportunities in the design, capital and operating costs associated with the conceptual configurations, site locations, building energy consumption and demand management, and the advantages and disadvantages of each. Opportunities for passive solar

heating/illumination, low-energy/high-efficiency HVAC and illumination, renewable energy harvesting, among other current/leading energy considerations, would be assessed. This work would be aligned with the Township's energy conservation and demand management goals from other strategic planning guidelines and programs.

At/near the completion of this phase, a second working meeting would be held with the Township's project team to review all aspects developed, alternatives considered and confirm the scope of work, constraints, and required overall deliverables and timelines in moving forward with a preferred development alternative for the project.

Also at this stage would be the expectation for the preparation of required technical submissions in support of anticipated site development permits and subsequent approvals.

Phase 3.0 – Detailed Design & Engineering

Upon completion of the review and feedback from Phase 2.0, Greenview would proceed to design development of the site and building, inclusive the following disciplines and related work:

- Building Design – including overall site and building utilization and optimization, detailed building programming and OBC matrix, floor plans, elevations, fire and life safety, and related design criteria for the development alternative selected. Inclusion of sustainable principles, energy efficiency, accessibility, and other beneficial environmental aspects would be incorporated.
- Structural – based on the building program and design, structural engineering for foundations, building structure would be advanced in concert with the building program and overall design development.
- Mechanical – with the building design and structural progressed, the engineering and design of the building's heating, ventilation, and cooling (HVAC) plant(s), required plumbing services, and associated works would be undertaken. Preferences of the Township for heating and cooling systems and locations would be included. Energy-efficiency and sustainability measures would be included in the HVAC and plumbing designs.
- Electrical/Energy – interior and exterior/site illumination, daylight harvesting, interior electrical services, electrical distribution and building independent/joint servicing, energy conservation and demand management measures would be considered.
- Civil/Servicing Design – site master planning, including grading, drainage, stormwater management, water, sewage treatment (septic), and electrical servicing, site access/entrances, parking, landscaping, snow removal, utility relocations, etc.

As required, Greenview would assist the Township with the coordination of supportive technical studies relative to the project's design preferences, and final project site selection (to be determined by Township).

Initially, the building's design development would be advanced to approximately 50% complete. These deliverables would be presented to the Township for review and comment at a suitable meeting venue of the Township's project team.

Upon receipt of review comments on the 50% design deliverable, Greenview would set the building programs and space elements, and proceed to the approximate 85-90% design progress stage, for all design disciplines. The designs would be presented to the Township for review and comment during a working meeting, complete with complementary construction cost estimate updates.

A formal presentation to Municipal Council has been included as the detailed design phase concludes for information and direction to proceed to the next phases.

Phase 4.0 – Final Design & Construction Documents

Upon completion of the Phase 3.0 deliverables and review meetings with the Township, Greenview's team would finalize the building's design development incorporating all comments and finish selections from the Township.

Greenview would coordinate the process of specification for building fit-outs, including furniture, fixtures, and equipment (FF&E). General FF&E needs and preferences would be provided by the Township.

Further, Greenview would develop the associated technical specifications and other construction documentation needs for the project's construction. Final specifications would form part of the final construction document package, including 100% design development drawings, with relevant permits and approvals completed. The final 100% design packages would be sealed by respective members of Greenview's professional engineering team and be presented to the Township.

Phase 5.0 – Construction Tendering

Upon completion of the design and construction documentation, and with all required approvals in-hand, Greenview would coordinate with the Township for public tendering of the project for construction purposes. Greenview understands that the project is planned for construction start in spring 2022.

Greenview would prepare industry-standard tender documents based on a *Canadian Construction Documents Committee (CCDC) 2 - 2008 Stipulated Price Contract* format. The public tendering process is assumed to not include pre-qualification phase, and would be tendered electronically, using the Township's internet-based tendering platform (i.e. Biddingo, Bids&Tenders, etc.).

Greenview understands that the Township may wish to tender the construction of this project possibly with other building infrastructure projects. If this is confirmed, Greenview would review the scope of fees of this joint tendering process with the Township and make any adjustments to fees accordingly.

Provisional / Contingency Items

As requested by the Township, and/or as anticipated by Greenview, select services have been accounted for in the form of provisional and/or contingency tasks for inclusion in the scope of services and related fees. Prior to initiating any of these noted tasks, Greenview would supply a fee estimate and obtain Municipal approval to proceed, as required.

The Provisional / Contingency tasks identified include, but are not limited to:

- Civil and site servicing engineering and design associated with the Township's selection of a preferred site.
- Technical support to the Township for the selection of a suitable project site. Greenview understands that at the time of this proposal, the number of sites the Township is considering is short-listed down to two locations.
- Municipal site plan approval application, submission, and technical support.
- General contingency for any project unknowns that may arise during the scope of services, and related works, based on approach, assumptions, and related needs.

As may be required by the Township, Greenview would provide construction contract administration services to the Township during the anticipated construction phase expected to be initiated in year 2022.

Section 5 – Financial Summary

Based on our experience and understanding of the project's objectives as reviewed with the Township's project team, Greenview has carefully developed our work plan with the Township's anticipated timeframe as per recent consultations. Greenview itemized work plan with associated fee structure is presented below.

Task	Fee Estimate
Phase 1 – Work Planning, Administration, Authority/Agency Consultation	\$ 7,250
Phase 2 – Preliminary Design	\$ 8,500
Phase 3 – Detailed Design and Engineering	\$ 59,850
Phase 4 – Final Design & Construction Documents	\$ 18,500
Phase 5 – Construction Tendering	\$ 7,500
Total (excluding HST)	\$ 101,600
Contingency / Provisional Work Allowance	\$ 15,000
Grand Total	\$ 116,600

Greenview's work plan and corresponding fee estimate as presented above is based on our current understanding of the work and Greenview's proven experience in undertaking similar projects, and any assumptions noted. The estimated fees are exclusive of applicable taxes (i.e. HST) and any external fees not specifically identified, but do include professional fees, subconsultant fees, and other minor disbursements with the proposed work.

A resource schedule for hourly rates and external disbursements is provided as follows. Rates shall be subject to annual CPI increases as applicable, adjusted on January 1st of each year.

Role / Item	Unit Rate
Project Director	\$ 165 / hour
Professional Engineer (P.Eng.)	\$ 165 / hour
Junior Engineer / Engineering Intern (EIT)	\$ 125 / hour
Senior Technologist / CAD / Surveyor	\$ 95 / hour
Junior Technologist	\$ 78 / hour
Administration	\$ 50 / hour
Disbursements:	
Drawing Plots (Arch D, 24x36")	\$8.00 per sheet
Drawing Plots (Arch E, 36x48")	\$10.00 per sheet
Mileage	\$0.55/km
Other	Cost plus 15%

Greenview will openly engage in consultation with the Township to develop an appropriate approach to addressing any additional services not included in this proposal.

List of Proposal Assumptions

Based on our current understanding of the project, the following assumptions are specifically noted in the preparation of this proposal.

1. Greenview would have access to all available documentation related to and potentially pertinent to the project. It is assumed that this documentation is complete and accurate, and readily available from the Township.
2. Greenview would have full access to any existing base engineering and cadastral survey information already established by the Township, or others. This information would be in an AutoCAD-usable format (*.dwg), in full 3D format (X, Y, Z coordinates), with geodetic control reference.
3. Geotechnical consulting and investigations and land surveying (legal boundary and topographic) will be required to inform the site and building design. As discussed at our recent meeting, these services would be retained independently by the Township once a schematic design and preliminary site plan are confirmed, to focus these services and associated costs accordingly.
4. Site planning, zoning, and/or civil engineering and design has been included on a preliminary/presumed basis as the project site has not been fully determined by the Township. Once the site is determined, Greenview can review site planning/servicing/civil engineering fees and make any adjustments with the Township accordingly.
5. Based on past and current consultations with the Township, Greenview understands that the new fire station building would be classified as a Group F (industrial), Division 2 (repair garage) occupancy per OBC. As per OBC requirements, Greenview has assumed that the services of an Architect are not required for this project.
6. A pre-engineered or metal building system and associated works is the basis for the primary structural design for Greenview's design approach to this project. Any deviation from this approach may result in additional engineering and/or design fees.
7. Environmental impact studies (EIS), environmental site assessments (ESA), traffic, or other planning-related studies/works are specialised and are not included in the scope of work of this proposal. It is understood that the Township will contract these services independently.
8. The new building will not require specialised fire protection alarm/monitoring systems, or sprinklering equipment. Any special building-related fire protection systems would be reviewed if/as necessary, subject to site selection.
9. Design/engineering services are not required for other site buildings, ancillary buildings, or other site features or equipment outside of which that are specifically noted in this proposal.
10. Design/engineering/consulting services to undertake the process for electricity-connected renewable energy systems is not part of this proposal, as these items are not currently identified in the scope of the work. These services can be provided, upon specific request of the Township, once the schematic design phase is completed, and the viability of renewables can be evaluated.
11. Greenview's services committed under this proposal are valid for thirty (30) calendar days. Greenview's services to its valued clients are governed by the attached Statement of Conditions and Limitations.

Appendix A



Building Design & Engineering Emergency Services

Client:

Municipality of Trent Lakes

County of Peterborough, Ontario

Highlights:

- Full-service, site evaluation, design, engineering, cost estimation, tendering/contracting, and contract administration services for the municipality
- Integrated new and emerging energy efficient and renewable energy technologies into design
- Incorporated passive solar, natural daylighting, and other low-cost design benefits
- Tendered and managed construction of the project within expected timelines and budget

Description:

The Municipality retained Evergreen/Greenview to assess a plan to utilize available space on municipal property adjacent to the municipal office for a new fire rescue facility. The new fire station was needed as a centralized facility for improved response times to emergencies, training, and optimize resources in the fire rescue needs of the municipality.

Working closely with a sub-committee of municipal staff, a complete project review and design was completed to meet not only the fire rescue needs of the municipality, but also address other important strategic planning requirements.



Key Services:

- Site review, investigation, and evaluation
- Geotechnical investigations, engineering surveying
- Conventional and pre-engineered metal building design
- Civil, structural, mechanical, plumbing, and electrical engineering
- Construction cost estimating and optimization
- Construction tendering and contracting
- Contract administration and OBC General Review

Fire & Rescue Services

Design & Engineering

Client:

Township of Killaloe, Hagarty & Richards

County of Renfrew, Ontario

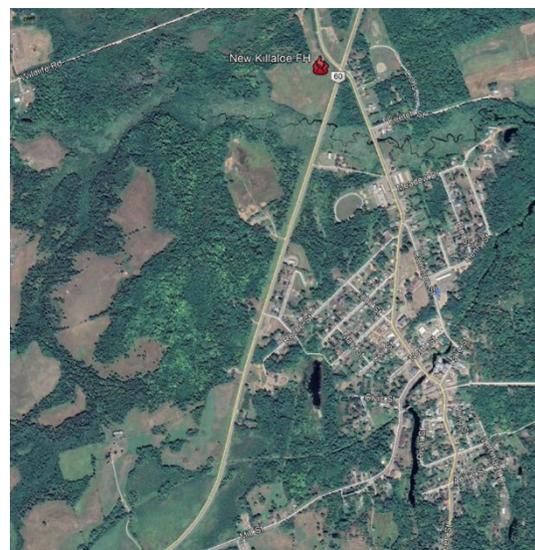
Highlights:

- Full-service planning, design, engineering, cost estimating, construction tendering, construction contract administration for a new, 6,500SF, 5-Bay Fire Hall near Killaloe, ON
- Project focused on utility and cost management and accountability, and local resource sustainability
- Challenging site design and development engineering related to adjacent provincially-significant wetland, Provincial/County highway corridor, and related permitting and approvals

Description:

Greenview's full-service team were retained by the Township of Killaloe, Hagarty and Richards to provide experienced site and building engineering and design services for the construction of a new fire hall to replace an aging facility.

Working closely with municipal Council and staff, the Fire Hall's replacement was developed, with due consideration of natural and environmental conditions, and future property planning alternatives, and emergency needs for the local and regional communities.



Key Services:

- Site review and planning
- Site/structure review and engineering surveying
- Site geotechnical and servicing review
- Construction cost estimation and value engineering
- Sustainable material design
- Construction tendering and contracting
- Construction contract administration and reporting

Fire & Rescue Services

Design & Engineering

Client:

Township of Wollaston

County of Hastings, Ontario

Highlights:

- Full-service planning, design, engineering, cost estimating, construction tendering, construction contract administration for a new, 5,000SF Fire Hall in Coe Hill
- Project completed in concert with asset management planning, building & facility strategic planning, and future municipal servicing and strategic plans
- Comprehensive technical and public consultation project delivery, considering multiple sites, service levels, facility alternatives, and economic factors

Description:

Greenview's full-service team were retained by the Township of Wollaston to undertake a building and facility strategic planning process to assist the municipality in identifying critical needs for asset management of its municipal buildings and associated services. The Township's 45-year old Fire Hall was identified as a priority for replacement.

Working closely with municipal Council, staff, stakeholders, and the public, holistic and focused plans for the Fire Hall's replacement were developed, keeping in mind future development on the larger municipal campus in the heart of the downtown. The project was strategically designed to address immediate needs, and for future growth of the overall site, for the benefit of the community.



Key Services:

- Site review and selection
- Site/structure review and engineering surveying
- Site geotechnical and servicing review
- Replacement site and building design optimization and engineering
- Construction cost estimation and value engineering
- Public and stakeholder consultation
- Construction tendering and contracting
- Construction contract administration

Building Design & Engineering

Centralized Municipal Servicing

Client:

Township of Douro-Dummer

County of Peterborough, Ontario

Highlights:

- Full-service, site evaluation, design, engineering, cost estimation, and project funding sourcing services for the municipality
- Integrated new and emerging, energy-efficient and renewable energy technologies into design
- Net-zero energy building (NZEB) design and engineering optimization, sourced funding
- Sustainable design and engineering approach, including maximized water conservation, envelope optimization, renewable energy systems

Description:

The Township of Douro-Dummer retained Greenview to undertake a full site and building design assignment focused on the centralization of municipal public works and fire and rescue servicing for the entire municipality from one, new site location.

A Municipally-owned, mined-out aggregate pit property was utilized for redevelopment as part of the project. Greenview developed the design for the site with the support of a municipal working group, focused on the project's planning and design needs with the overall objective to improve service and response times to ratepayers.

The project's design included a particular objective of achieving a Net-Zero Energy Building status, among other environmental benefits, consistent with the Township's sustainability commitments.



Key Services:

- Site review, investigation, and evaluation
- Geotechnical investigations, engineering surveying
- Pre-engineered metal building design
- Civil, structural, mechanical, plumbing, electrical and energy engineering
- Construction cost estimating and value optimization
- Project funding applications, consultation, liaison

Drainage & Water Resources Engineering, Design & Peer Review

Client:

Various

Ontario

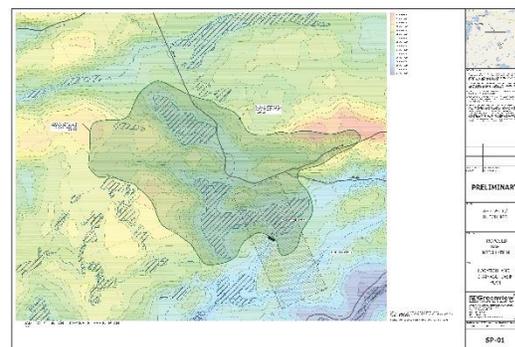
Highlights:

- Site review, assessment, topographic surveying, existing base plan development
- Regulatory agency pre-consultations, liaison, permitting & approvals
- Water resource evaluations, engineering, design of infrastructure drainage and site stormwater management systems/features
- Conceptual and detailed design and engineering of systems for development applications and projects
- Peer review and detailed engineering assessment technical support to private and municipal clientele

Description:

Greenview's multi-faceted team provides engineering and technical peer review for existing and new site development projects requiring drainage and stormwater management control on behalf of municipal and private clientele.

Greenview also provides high-level and detailed technical engineering peer review of site development or existing infrastructure drainage and/or stormwater management strategies.



Key Services:

- **Technical peer review for site development**
- **Drainage, stormwater, sedimentation & erosion**
- **Functional servicing options and capacity review**
- **Hydrological/hydrogeological assessments, environmental impact studies**
- **Aggregate resources development**
- **Site access, transportation, traffic**

Building Condition Studies

Schematic Design & Engineering

Client:

Township of Lake of Bays

Dwight, Ontario

Highlights:

- Review of existing municipal industrial site and building condition, historical use, operating systems, evaluation.
- Assessment of structural condition, operating life estimation.
- Review of energy-consuming systems, condition, performance, efficiency.
- Evaluation of existing building re-purposing, renovation, or replacement, including cost and risk considerations.
- Development of short-term operational strategy to mitigate service interruptions, impact to ratepayers, operational cost.

Description:

Greenview's team of industrial building reviewers were retained to undertake a holistic review of existing municipal public works facilities for the Township of Lake of Bays, in the District of Muskoka. For each location, general site, building structural, HVAC, plumbing, and electrical condition reviews were undertaken, to inform building repurposing and/or renewal strategic planning.

For the Township's Dwight location, the results of the study recommended replacement of the existing works facility with a new, centralized public works depot, which moved to construction in 2016. The Township's other facilities were scheduled for future repurposing in 2017.



Key Services:

- Facility auditing, records review and cataloguing
- Structural condition review and assessment
- HVAC condition review and assessment
- Fire and life safety condition review and assessment
- Capital/lifecycle cost estimating, valuation
- Capital upgrade replacement scheduling, coordination and recommendation

Infrastructure Planning

Asset Management Plans

Client:

Various Municipalities

Rural Ontario

Highlights:

- Asset management planning in accordance with new legislative requirements
- Engineering reviews of infrastructure assets across the municipality
- Building condition reviews and assessments and reporting
- Water and wastewater infrastructure needs in a small, rural, municipalities
- Asset service levels, risk assessments, and management strategies
- Financial model development and forecasting/planning

Description:

Greenview's multi-disciplinary team of technical and experienced cost estimating personnel complete a number of unique, value-added, asset management plans to assist municipalities in their requirements for municipal standards and infrastructure funding eligibility.

Undertaking building condition reviews, roads needs assessments, bridge and large culvert inspections, water/wastewater servicing, and recreational infrastructure, the results are all included in the final plan for review and use in financial planning and annual budgeting on an annual basis.



Key Services:

- Financial reporting and auditing
- Road and water crossing needs assessment
- Building condition review and assessment
- Equipment, vehicles, systems review
- Capital cost estimating, valuation, forecasting, modelling
- On-going asset management, monitoring, reporting, valuation

Tyler H. Peters, P.Eng.

Project Director / President

Summary:

Tyler has twenty (20) years of project development, management, and engineering experience on a variety of project types predominantly in Canada. Since 2003, Tyler has provided a critical in a number of infrastructure planning and development projects, primarily assisting smaller municipalities and private sector clients with infrastructure renewal and management needs in central and eastern Ontario.

Tyler's experience with public sector clients has spanned all facets of municipal assets, initially in environmental, and developing into multi-phase municipal infrastructure project development and management, to municipal asset renewal and municipal operations optimization for small, rural, municipalities in Ontario.

For private sector clients, Tyler has led small to large multi-disciplinary project teams and projects to develop/renew enterprise operations, sustain and protect assets, and reinvest in business infrastructure in a responsible and cost-effective manner that meets regulatory requirements and client expectations.

Roles:	Principal, Business Development Leader Project Director / Leader Civil Engineer Client / Agency Liaison Construction Contract Specialist / Administration Leader
Experience:	2005 – Present President / Project Director, Greenview Environmental Management Bancroft, ON 2003 – 2005 Municipal Solid Waste Group Leader, SGS Lakefield Research Limited Peterborough, ON 1999 – 2003 Construction Manager/Project Engineer, BBL Environmental Services Inc. Ann Arbor, MI, USA
Education:	1999 Bachelor of Science, Engineering, Queen's University, Kingston, ON 1994 Engineering Technician, Haileybury School of Mines, Haileybury, ON

Selected Project Experience:

Buildings, Facilities & Developments:

New Killaloe Fire Hall

Township of Killaloe, Hagarty and Richards, 2019 - Present
Engineering Studies/Planning, Detailed Engineering & Design, Construction Tendering, Contract Administration, OBC General Review

New Wollaston Fire Hall

Township of Wollaston, 2018 - Present
Engineering Studies/Planning, Detailed Engineering & Design, Construction Tendering

Public Works Operations Centre Expansion

Township of Cavan Monaghan, 2019 - Present
Engineering Studies/Site Planning, Detailed Engineering & Design, Permitting & Approvals

Family Health Team Facility Addition/Expansion

Algonquins of Pikwakanagan First Nation, 2018 - Present
Engineering Studies/Planning, Detailed Engineering & Design, Tendering

New Automotive Sales & Service Facility Development

Private, 2017 - 2020

Engineering Studies, Site Servicing Detailed Engineering & Design, Agency Liaison & Coordination, Permitting & Approvals

Municipal Building Accessibility Upgrades

City of Temiskaming Shores, 2018-Present

Engineering Study, Detailed Engineering & Design

Municipal Building & Facility Strategic Implementation Plan

Municipality of Hastings Highlands, 2018-Present

Building Accessibility Auditing, Strategic Plan Development/Implementation

Municipal Building Repurposing Study

Township of Douro-Dummer, 2018-Present

Building Condition Auditing/Assessment, Strategic Repurposing Plan

HVAC Replacement for Recreational Facility

DND/DCC CFB North Bay, 2018

Structural Engineering & Design, Coordination

New Braeside Recreation Centre

Township of McNab/Braeside, 2016-2017

Site Development Planning, 4,300SF Building Design & Engineering, Construction Cost Estimation, Tendering, Contract Administration

Centralized Public Works/Fire & Rescue Facility

Township of Douro-Dummer, 2016-2017

Site Development Planning, 26,000SF Building Design & Engineering, Construction Cost Estimation, Funding Sourcing

HVAC Systems Renewal – Bancroft OPP

Ontario Ministry of Infrastructure, 2016-2017

Building HVAC, Controls, and Systems Evaluation Study, Remedial Cost Estimation, Tendering/Contracting, Contract Administration

Municipal Complex HVAC Study & Systems Renewal

Municipality of French River, 2014-Present

Building HVAC, Controls, and Systems Evaluation Study, Remedial Cost Estimation, Energy Conservation Audit, Capital Upgrade Planning

Ottawa-Carleton Detention Centre Building Study

Ontario Ministry of Infrastructure, 2016

120,000SF Building Controls and Systems Evaluation Study, HVAC, BAS, Fire/Life Safety Audit, Cost Estimation, Capital Upgrade Planning

Braeside PW Garage and Sand/Salt Storage Structure

Township of McNab/Braeside, 2015-2016

Site Evaluation, Preliminary Engineering, Tendering, Contract Administration

New Private Sales & Service Buildings

Private, 2015 - Present

Site Evaluation, Site Plan Control, Design, Engineering, Tendering, Contract Administration

Fire Station No. 4 - Nogies Creek

Municipality of Trent Lakes, 2014 - 2016

Site Evaluation, Design, Engineering, Cost Estimation, Tendering, Construction Contract Administration

Dorset PW Garage

Township of Algonquin Highlands, 2014-2015

Site Evaluation, Design, Engineering, Cost Estimation, Tendering, Construction Contract Administration

Ivanhoe PW Garage Expansion

Municipality of Centre Hastings, 2014

Site Evaluation, Design and Engineering, Permitting & Approvals

Wilberforce Library

Municipality of Highlands East, 2014

Site Evaluation, Design & Engineering

Design of New Office Space (Building Conversion)

Township of Greater Madawaska, 2012-2014

Design, Engineering, Tendering, Cost Estimating, Contract Administration

Design of Municipal Office Addition & Renovations

Township of Brudenell, Lyndoch and Raglan, 2013-2014

Design, Engineering, Cost Estimating, Tendering, Contract Administration

Municipal Energy Conservation & Demand Management

Various Municipalities/Clients, 2013-Present

Facility Review, Verification, Measurement, Optimization, Annual Reporting, 5-Year Strategic Planning

Municipal Infrastructure:

Ferguson Lake Road Reconstruction

Township of Greater Madawaska, 2019 - Present

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, Contract Administration, Construction Review

Greatrix Bridge Replacement

Municipality of Tweed, 2020 - Present

Site Evaluation, Design, Engineering, Cost Estimating, Public Consultation, Permitting & Approvals (MCEA & CA)

Rapids Bridge Replacement

Municipality of Tweed, 2019

Site Evaluation, Design, Engineering, Cost Estimating, Public Consultation, Permitting & Approvals (MCEA & CA)

Barrett Chute Road Realignment

Township of Greater Madawaska, 2017-Present

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, Contract Administration, Construction Review

Rehabilitation/Reconstruction of Johnston Road

Township of Horton, 2017-Present

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, Construction Review

Nicholson's Bridge Replacement

Township of Wollaston, 2016

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, Contract Administration, Permitting and Approvals

Jack's Creek Crossing

Township of Killaloe, Hagarty and Richards, 2015

Site Evaluation, Design, Engineering, Cost Estimating

Ridge Road / North Steenburg Lake Road Rehabilitation

Township of Wollaston, 2016

Site Evaluation, Design, Engineering, Tendering, Contract Administration

Municipal BB Recycling Optimization Project – Waste Transfer Upgrades

Town of Bancroft, 2016

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, Contract Administration, Permitting & Approvals, Public Liaison

Rehabilitation Design of Municipal Roads (Various)

Various Municipalities, 2014 - Present

Design, Engineering, Tendering, Contract Administration

Municipal Asset Management Planning

Various Municipalities, 2013 - Present (to O.Reg. 588/17)

Asset Condition Review, Repair/Replacement Estimation, Financial Analysis & Planning, Annual Reporting & Updates

Faraday Landfill Leachate Management Project

Township of Faraday/Town of Bancroft, 2007-2013

Site Evaluation, Design, Engineering, Tendering, and Contract Administration, Project Management & Administration, Approvals

Killaloe and Round Lake Waste Transfer Station Upgrades

Township of Killaloe, Hagarty and Richards, 2011-2012

Site Evaluation, Design, Engineering, Tendering, and Contract Administration, Project Management & Administration

Municipal Waste Transfer Station Upgrades

Township of Greater Madawaska, 2008-2010

Site Evaluation, Design, Engineering, Tendering, and Contract Administration, Project Management & Administration

Municipal Waste Management Strategic Planning

Various Municipalities, 2004-Present

Strategic Planning, Design and Engineering, Procurement, Implementation

Municipal Peer Review Engineering

Various Municipalities, 2005-Present

Infrastructure Project Peer Review and Assessment

Environmental:

Planning, Permitting & Approvals for Various Asset Upgrades

Various Municipalities, 2003 - Current

Planning, Engineering, Design, Agency Liaison, Permitting & Approvals for Bridges, Culverts, Roads, and other Infrastructure Upgrades

Landfill Annual Monitoring Programs – Various Waste Disposal Sites

Various Municipalities, >50 Sites, 2003 - Current

Groundwater, Surface Water, Landfill Gas, Waste Capacity Assessment, Operations, Compliance, MOECC Reporting, Long-Range Planning

Landfill Site Development/Expansion Design & Engineering

Various Municipalities

Site Evaluation/Assessment, Conceptual and Detailed Design, Landfill Area Optimization/Maximization, Environmental Compliance, Permitting & Approvals, Agency/Public Liaison, Implementation, Project Management

Phase I, II, & III Environmental Site Assessments (Various)

Private/Confidential

Site Evaluation, Subsurface Investigations (soil/groundwater), Sample Collection, Data Interpretation, Reporting, Remediation

Municipal Solid Waste Strategic Planning

Various Municipalities

Short-Term Compliance and Long-Range Strategic Planning for Municipalities for Integrated Waste Management Plans, Permitting & Approvals, Implementation, Project Management & Administration

Renewable Energy:

Alderville First Nation Solar Farm

Alderville First Nation, 2011-2014

Site Evaluation, Design, Engineering, Tendering, Contract Administration, Permitting & Approvals

Small Solar PV Generation Projects

Various Clients, 2009-2016

Site Evaluation, Design, Engineering, Tendering, Contract Administration, Permitting & Approvals

Professional Affiliations:

Professional Engineers Ontario (PEO)

Association of Consulting Engineering Companies (ACEC) - Ontario

Personal Interests/Affiliations:

Executive Treasurer, Bancroft & District Minor Hockey Association

Coach / A. Coach, Bancroft & District Minor Hockey Association

Member, North Hastings Community Fish Hatchery

Henry S. Hutchison, P.Eng., BArch

Senior Project Engineer

Summary:

Henry has twenty (20) years of experience in holistic engineering and design, with a focus on buildings, structural engineering, and related systems. Henry is a specialist in building engineering and science, and regulatory aspects of building codes. Henry shares his multi-disciplinary engineering knowledge and experience as a technical leader at Greenview in core engineering, infrastructure design, and structural engineering fields primarily on projects in eastern Ontario.

A summary of Henry's experience and educational background is provided below.

Roles: Senior Project Engineer
Engineering Team Leader
Structural Engineer
Civil Designer
Client/Agency Liaison

Experience: 2012 – Present Greenview Environmental Management, Bancroft, Ontario
2011 – 2012 Civitas Architecture Inc., Ottawa, Ontario
2005 – 2011 Concentric Associates International Inc., Ottawa, Ontario
2003 – 2004 Dillon Consulting, Ottawa, Ontario
2000 – 2003 Trow Consulting Engineers Limited, Ottawa, Ontario

Education: 2000 Bachelor of Science, Engineering, Queen's University, Kingston, ON
1993 Bachelor of Architecture, University of Toronto, Toronto, ON

Selected Project Experience:

Buildings, Facilities &
Developments:

New Killaloe Fire Hall

Township of Killaloe, Hagarty and Richards, 2019 - Present
Engineering Studies/Planning, Detailed Engineering & Design, Construction Tendering, Contract Administration, OBC General Review

Public Works Operations Centre Expansion

Township of Cavan Monaghan, 2019 - Present
Engineering Studies/Site Planning, Detailed Engineering & Design, Permitting & Approvals

New Municipal Fire Hall

Township of Wollaston, 2018-Present
Site Planning, 6,500SF Building & Site Design, Engineering, Tendering, & Contract Administration

New Sales & Service Building

Harper Powersports & Marine, 2016-Present
Site Evaluation, Site Plan Control, 10,500SF Building & Site Design, Engineering, Tendering, and Contract Administration

Municipal Building & Facility Strategic Plan

Municipality of Hastings Highlands, 2018-Present
Building Accessibility Auditing, Strategic Plan Development

Municipal Building Repurposing Study

Township of Douro-Dummer, 2018-Present

Building Condition Auditing/Assessment, Strategic Repurposing Plan

Building Repurposing Study

Township of Wollaston, 2018

Structural Engineering Review, Post-Disaster Assessment/Review, Reporting

New Central Public Works Depot

Municipality of Trent Lakes, 2017

Site Planning, 21,500SF Building Design & Engineering, Cost Estimating

Cavan Public Works Depot Expansion Study

Township of Cavan Monaghan, 2017

Site Planning, Building Condition & Development Study

New Braeside Recreation Centre

Township of McNab/Braeside, 2016-2017

Site Development Planning, 4,300SF Building Design & Engineering, Construction Cost Estimation, Tendering, Contract Administration

Centralized Public Works/Fire & Rescue Facility

Township of Douro-Dummer, 2016-2017

Site Development Planning, 26,000SF Building Design & Engineering, Construction Cost Estimation, Funding Sourcing

Municipal Complex HVAC Study

Municipality of French River, 2014-Present

Building HVAC, Controls, and Systems Evaluation Study, Remedial Cost Estimation, Energy Conservation Audit, Capital Upgrade Planning

Ottawa-Carleton Detention Centre Building Study

Ontario Ministry of Infrastructure

120,000SF Building Controls and Systems Evaluation Study, HVAC, BAS, Fire/Life Safety Audit, Cost Estimation, Capital Upgrade Planning

Braeside PW Garage and Sand/Salt Storage Structure

Township of McNab/Braeside, 2015-2016

Site Evaluation, Preliminary Engineering, Tendering, and Contract Administration

Fire Station No. 4 - Nogies Creek

Municipality of Trent Lakes, 2014-2016

Site Evaluation, Design, Engineering, Tendering, and Contract Administration

Dorset PW Garage

Township of Algonquin Highlands, 2014-2015

Site Evaluation, Design, Engineering, Tendering, and Contract Administration

Building Space Optimisation Study

Township of Lake of Bays, 2015

Site Evaluation, Code Review, Conceptual Design Review, Cost Estimating

Building Condition & Renovation Study

Municipality of Trent Lakes, 2015

Site Evaluation, Code Review, Conceptual Design Review, Cost Estimating

Ivanhoe PW Garage Expansion

Municipality of Centre Hastings, 2014

Site Evaluation, Design and Engineering, Permitting and Approvals

Wilberforce Library

Municipality of Highlands East, 2014

Site Evaluation, Design and Engineering

Design of New Office Space

Township of Greater Madawaska, 2012-2014

Design, Engineering, Tendering, and Contract Administration

Design of Municipal Office Addition and Renovations

Township of Brudenell, Lyndoch and Raglan, 2013-2014

Design, Engineering, Cost Estimating, Tendering, Contract Administration

Municipal Infrastructure:

Ferguson Lake Road Realignment

Township of Greater Madawaska, 2019 - Present

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, Contract Administration, Construction Review

Rapids Bridge Replacement

Municipality of Tweed, 2019

Site Evaluation, Design, Engineering, Cost Estimating, Public Consultation, Permitting & Approvals (MCEA & CA)

Barrett Chute Road Realignment

Township of Greater Madawaska, 2017-Present

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, Contract Administration, Construction Review

Rehabilitation/Reconstruction of Johnston Road

Township of Horton, 2017-Present

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, Construction Review

Nicholson's Bridge Replacement

Township of Wollaston, 2016

Site Evaluation, Design, Engineering, Tendering, and Contract Administration, Permitting and Approvals

Jack's Creek Crossing

Township of Killaloe, Hagarty and Richards, 2015

Site Evaluation, Design, Engineering, Cost Estimation

Ridge Road / North Steenburg Lake Road Rehabilitation

Township of Wollaston, 2016

Site Evaluation, Design, Engineering, Tendering, and Contract Administration

Municipal BB Recycling Optimization Project – Waste Transfer Station Upgrades

Town of Bancroft, 2016

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, and Contract Administration, Permitting and Approvals, Public Liaison

Rehabilitation of Flat Road

Township of Greater Madawaska, 2014

Design, Engineering, Tendering, and Contract Administration

Rehabilitation of Lower Faraday Road

Township of Wollaston, 2014

Design, Engineering, Tendering Assistance

Municipal Asset Management Planning

Various Municipalities, 2013-Present

Asset Condition Review, Repair/Replacement Estimation, Financial Analysis and Planning, Annual Reporting and Updates

Faraday Landfill Leachate Management Project

Township of Faraday/Town of Bancroft, 2007-2013

Site Evaluation, Design, Engineering, Tendering, and Contract Administration, Project Management & Administration, Approvals

Killaloe Waste Transfer Station Upgrades

Township of Killaloe, Hagarty and Richards, 2011-2012

Site Evaluation, Design, Engineering, Tendering, and Contract Administration, Project Management & Administration

Municipal Peer Review Engineering

Various Municipalities, 2005-Present

Infrastructure Project Peer Review and Assessment

Renewable Energy:

Alderville First Nation Solar Farm

Alderville First Nation, 2011-2014

Site Evaluation, Design, Engineering, Tendering, Contract Administration,
Permitting and Approvals

Professional Affiliations:

Professional Engineers Ontario (PEO)

Association of Consulting Engineering Companies (ACEC) - Ontario

Noella A. Floyd-Foulds

Project Coordinator / Designer

Summary:

Since joining Greenview in 2015, Noella has been fulfilling a key project design, coordination, and contract administration role on a number of important projects for Greenview. Noella's background in architectural design, strengths in organization, and attention to detail provides Greenview's clients with a valuable resource on their projects.

Roles: Project Coordinator / Designer
Computer-Aided Design
Construction Contract Preparation and Coordination
Contract Administration

Experience: 2015 – Present Greenview Environmental Management, Bancroft, ON

Education: 2013 - 2014 Architectural Technology, Algonquin College, Ottawa, ON

Selected Project Experience:

Buildings, Facilities &
Developments:

New Killaloe Fire Hall

Township of Killaloe, Hagarty and Richards, 2019 - Present
Engineering Studies/Planning, Detailed Engineering & Design, Construction Tendering, Contract Administration, OBC General Review

Public Works Operations Centre Expansion

Township of Cavan Monaghan, 2019 - Present
Engineering Studies/Site Planning, Detailed Engineering & Design, Permitting & Approvals

New Commercial Sales and Service Buildings

Private, 2016-Present
Site Evaluation, Site Plan Control, Site/Building Design, Engineering, Tendering, Permitting and Approvals, Contract Administration

New Braeside Recreation Centre

Township of McNab/Braeside, 2016-Present
Site Development Planning, 4,300SF Building Design & Engineering, Construction Cost Estimation, Tendering, Contract Administration

Centralized Public Works/Fire & Rescue Facility

Township of Douro-Dummer, 2016-2017
Site Development Planning, 26,000SF Building Design & Engineering, Construction Cost Estimation, Funding Sourcing

HVAC Systems Renewal – Bancroft OPP

Ontario Ministry of Infrastructure, 2016-Present
Building HVAC, Controls, and Systems Evaluation Study, Remedial Cost Estimation, Tendering/Contracting, Contract Administration

Municipal Complex HVAC System Renewal

Municipality of French River, 2014-Present
Building HVAC, Controls, and Systems Evaluation Study, Remedial Cost Estimation, Energy Conservation Audit, Capital Upgrade Planning

Ottawa-Carleton Detention Centre Building Study

Ontario Ministry of Infrastructure, 2016

Building Controls and Systems Evaluation Study, HVAC, BAS, Fire/Life Safety Audit, Cost Estimation, Capital Upgrade Planning

Braeside PW Garage and Sand/Salt Storage Structure

Township of McNab/Braeside, 2015-2016

Site Evaluation, Preliminary Engineering, Tendering, and Contract Administration

Fire Station No. 4 - Nogies Creek

Municipality of Trent Lakes, 2014-2016

Site Evaluation, Design, Engineering, Tendering, and Contract Administration

Dorset PW Garage

Township of Algonquin Highlands, 2014-2015

Site Evaluation, Design, Engineering, Tendering, and Contract Administration

Ginza Rink Community Centre Energy Upgrades

Township of Greater Madawaska, 2015

Site Evaluation and Design

Heritage Point Washroom Design

Township of Greater Madawaska, 2015

Site Evaluation and Design

Municipal Infrastructure:

Rehabilitation of Ferguson Lake Road

Township of Greater Madawaska, 2019-Present

Site Evaluation, Design, Engineering, Contract Administration

Rehabilitation of Barrett Chute Road

Township of Greater Madawaska, 2017-2019

Site Evaluation, Design, Engineering, Contract Administration

Rehabilitation/Reconstruction of Johnston Road

Township of Horton, 2017-Current

Site Evaluation, Design, Engineering, Contract Administration

Ridge Road / North Steenburg Lake Road Rehabilitation

Township of Wollaston, 2016

Site Evaluation, Design, Engineering, Tendering, and Contract Administration

Municipal BB Recycling Optimization Project – Waste Transfer Station Upgrades

Town of Bancroft, 2016

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, and Contract Administration, Permitting and Approvals, Public Liaison

Nicholson's Bridge Rehabilitation

Township of Wollaston, 2016

Site Evaluation, Design, Engineering, Cost Estimating, Tendering, Contract Administration, Permitting and Approvals



OTS Engineering

Division of Otonabee Technical Services Ltd.

ROBERT E. BAKER, P.ENG

<i>Firm:</i>	Otonabee Technical Services Ltd.
<i>Title in Firm:</i>	Senior Engineer, Project Manager
<i>Education & Accreditation:</i>	BA Science, Mechanical, P.Eng. (Ontario, Alberta, Saskatchewan, B.C.), ASHRAE, NFPA, HRAI
<i>Years of experience (with firm):</i>	48 (31)

QUALIFICATIONS

Rob graduated from the University of Waterloo in 1972 with a Bachelor of Applied Science (Mechanical Engineering).

For the first seven years of Rob's career he was Plant Engineer at Dorr Oliver Canada (now GL&V Ontario) in Orillia where he worked on numerous projects involving large equipment installations, building renovations and mechanical and electrical services for the company's heavy machine shop, plate fabricating shop and Meehanite foundry. In 1979 Rob joined GE Canada as the Mechanical Plant Engineer at the Peterborough facility. Project and design responsibilities there included equipment relocations and installations, new clean rooms and laboratories, plant services (steam, compressed air, natural gas, sprinkler, process water, industrial gases, heating and ventilation, etc.), environmental and noise assessments, reporting and remediation. Rob joined Otonabee Technical Services Ltd. as joint owner and principal in July of 1989.

RELATED RECENT EXPERIENCE

- Fleming College (Sutherland Campus) – replace IT Room A/C Units
- Millbrook Correctional Centre – Building Operational Audit
- MNR, Peterborough – Mechanical Building Systems Audit
- CFB – MDF – Blog Building – Code Review
- Peterborough County Health Unit – HVAC System Audit
- Loyalist College, Belleville – Central Mechanical Plant Audit
- Peterborough County Courthouse – Mechanical Systems Audit
- CFB Petawawa Housing Prototypes
- CFB Trenton Firehall
- St. Joseph's at Fleming: Long Term Care Facility, Peterborough
- Peterborough County Court House, Peterborough, Complete HVAC retrofit
- Quaker Oats of Canada: Cooling system upgrade from 200 to 600 tons capacity
- Fairhaven Home for the Aged: Assess requirements for new Long Term Care facility
- Loyalist College, Belleville: Central Plant Retrofit Feasibility Study



OTS Engineering

Division of Otonabee Technical Services Ltd.

STEVE M. STRANAGHAN

<i>Firm:</i>	Otonabee Technical Services Ltd.
<i>Title in Firm:</i>	Senior Mechanical Designer
<i>Education & Accreditation:</i>	Diploma in Mechanical Engineering
<i>Years of experience (with firm):</i>	36 (22)

QUALIFICATIONS

Steve graduated from Sir Sandford Fleming College in 1984 with a diploma in Mechanical Engineering, specializing in Design Drafting. He later completed a training course in AutoCad from Durham College, Oshawa. His experience as a Mechanical Designer/Draftsman spans over 30 years working on a wide range of projects for all types of buildings. He has worked with such companies as Cooper & Decaria Mechanical & Electrical Engineering, Markham, Greer Galloway Group, Peterborough, Totten, Sims, Hubicki Associates, Whitby and Spectrum Engineering in Peterborough. Steve has extensive, hands-on experience in the design and detailing of commercial, industrial and institutional projects.

RELATED RECENT EXPERIENCE

- Wollaston Fire Hall – Coe Hill
- Killaloe Fire Station
- Hazledean Gardens Retirement Residence – 5 storey - 61 unit addition – Stittsville
- Hazeldean Gardens - 5 storey - 172 Unit Retirement Residence – Stittsville
- Kingdon Timber Mart , Lakefield
- Otonabee South Monaghan Fire Station
- Port Hope Fire Station #3 – Garden Hill, Ontario
- Minute Maid Canada - Office addition
- Perth Road Fire Hall - County of Frontenac
- Coboconk Fire Hall
- Archers Poultry, Brighton - new chicken hatchery
- Maple Lodge Farm - Curtis Chicks, Port Hope - new chicken hatchery
- Abbey Lane, Peterborough - 12 unit - 2 storey apartment building
- Various Home Hardware stores - new buildings and renovations - Peterborough, Perth, Tweed, Bancroft, Picton, Pembroke, Deep River, Kamloops, B.C. and Airdrie, AB
- Loomex Office Facility - Peterborough Airport
- Tallman Truck Centre, Oshawa
- Lakefield Community Centre - addition and renovations
- Ann Ottenbrite Pool, Whitby - renovations and accessibility improvements
- Ennismore Community Centre - renovations and additions to existing building
- Bennetts Home Furnishing - new retail store in Peterborough
- Iroquois Park Sports Complex, Whitby - renovations and additions
- Monaghan Court, Keene - new 19 unit apartment building
- Highland Park Cemetary/Funeral Home - 15,000 sq.ft. building
- 272 Charlotte Street, Peterborough - 3 storey office building

BERTHELOT ENGINEERING LTD.

2193 Lynhaven Rd, Peterborough, Ontario, Canada K9K 1W8
Tel: (705) 775-1517 email: pberthelot@bertheloteng.com

PAUL G. BERTHELOT, P.ENG Senior Electrical/Controls Engineer

EDUCATION: Queen's University, 1988
Bachelor of Applied Science in Electrical Engineering

PROFESSIONAL ASSOCIATIONS: Member of Professional Engineers of Ontario
Registered Designer under the Ontario Building
Code, BCIN 23396

PROFESSIONAL EXPERIENCE:

Berthelot Engineering Ltd., Peterborough, Ontario - September 2016 to Present

As **Senior Engineer** responsibilities include:

- Electrical design for commercial and industrial buildings including new construction and building upgrades
- Traffic control signals and highway illumination
- Electrical design for installation of industrial production equipment including all controls and interconnecting wiring
- Site investigations, inspections, building audits, construction cost estimates and proposal preparation

Novadyne Ltd., Peterborough, Ontario - July 2015 to September 2016

As **Senior Engineer** responsibilities included:

- Electrical design for residential, commercial and industrial buildings including new construction and building upgrades
- Traffic control signals and highway illumination
- Electrical design for installation of industrial production equipment including all controls and interconnecting wiring
- Site investigations, inspections, building audits, construction cost estimates and proposal preparation

Kirkland Engineering Ltd., Peterborough, Ontario - 2004 – July 2015

As **Senior Engineer** responsibilities include:

- Electrical design for commercial and industrial buildings including new construction and building upgrades

PAUL G. BERTHELOT, P.ENG
Senior Electrical/Controls Engineer

- Traffic control signals and highway illumination
- Electrical design for installation of industrial production equipment including all controls and interconnecting wiring
- Site investigations, inspections, building audits, construction cost estimates and proposal preparation
- Preparation of Pre Start Health and Safety Reviews

Spectrum Consulting Inc./ Engineering Ltd., Peterborough, ON - 1995 to 2003

As **Electrical Engineer**, responsibilities included:

- Electrical design for commercial and industrial buildings including new construction and building upgrades, including all controls and interconnecting wiring;
- Design and development of instrumentation and control systems for nuclear generating stations and industrial applications.

D. M. Wills Associates Ltd., Peterborough, ON - 1991 to 1995

As **Electrical Engineer**, responsibilities included:

- Highway illumination and traffic control signals;
- Site investigations, detail design of projects, quantity take offs, writing of specifications, cost estimates, proposal preparation, preparation of contract documents and completing drawings on AutoCAD

The Greer Galloway Group., Peterborough, ON- 1988 to 1991

As **Electrical Engineer**, responsibilities included:

- Building Services group
- Power distribution systems, lighting designs, design and inspection of fire detection and alarm systems.

Goodyear Canada Inc., Napanee, ON - 1989 to 1991

As **Electrical Engineer**, responsibilities included:

- Site Engineer for construction of new tire plant supervising electrical installation. Canadian consultant responsible for ensuring proper installation under the Ontario Electrical Safety Code and Ontario Building Code for all aspects of electrical operations.

PAUL G. BERTHELOT, P.ENG
Senior Electrical/Controls Engineer

Examples of design projects:

- Wollaston Fire Hall, Coe Hill – Design of new 6 bay fire hall in Coe Hill, Ontario
- Garden Hill Fire Station, Port Hope – Renovations and addition to existing fire station
- Otonabee South Monaghan Fire Hall – Design of new fire hall for the township
- Hiawatha Fire Station, Hiawatha, ON; Four bay, 4,900 sq. ft., fire station including offices, washrooms, storage, vehicle parking and locker rooms;
- New Maintenance Yard Facility at Trent University – Design of new maintenance yard and building for Trent University outdoor maintenance
- Liftlock Coach Lines, Peterborough – Design of additional truck maintenance bay at existing facility
- Selwyn Public Works Garage, Selwyn, Ontario; Electrical design for approximately 500 sq. ft. addition to the existing main public works garage.
- Trent Hills Emergency Preparedness Training Room, Campbellford Cultural Centre, Campbellford, ON; Electrical design for new 670 sq. ft. room.
- Buckhorn Primary Health Care Centre, Buckhorn, ON; Electrical design for new 4,200 sq. ft. building;
- Kinmount District Health Centre, Kinmount, ON; Electrical design for new 2 storey, 1,800 sq. ft. addition to existing medical offices;
- Cavan-Millbrook-South Monaghan – New Municipal Offices and Council Chambers;
- Windermere Fire Station, Township of Muskoka Lakes; This \$350,000.00 facility included an addition of two bay to the existing fire station and backup generator;
- Bala Fire Station, Township of Muskoka Lakes; New fire station with backup generator - \$450,000.00;
- Minett Fire Station, Township of Muskoka Lakes; New fire station with backup generator - \$450,000.00;
- Port Carling Fire Station, Township of Muskoka Lakes; New fire and EMS station and Community Centre with police dispatch office – \$900,000.00;
- Walker’s Point Community Centre and EMS Unit, Township of Muskoka Lakes; New fire hall addition on existing community centre and backup generator - \$350,000.00;
- Norwood Ambulance Service Garage, Norwood, ON; New \$400,000.00 ambulance garage addition on existing medical facility;
- Middleton Park Street Lighting, CFB Trenton, ON; Review and upgrade existing street lighting system. Upgrade value \$100,000.00. Paul acted as design engineer;
- Otonabee-South Monaghan Fire Hall, Keene, ON; Paul designed a new fire hall, with offices and emergency response centre complete with generator backup. \$700,000.00;
- Sir Sandford Fleming College, Peterborough, ON; Design of new five bay vehicle maintenance/storage garage. \$250,000.00;
- Signalized Pedestrian Crossing in the Town of Minden;
- The City of Peterborough – Evinrude Centre Twin Pad Arena;

Appendix B



Statement of Service Conditions & Limitations

The following conditions and limitations shall form an integral part of any agreement between Greenview and the Client. In the event of duplication or conflict, the most stringent shall supercede the other.

Provision of Services and Payment

Upon documented acceptance of Greenview's proposed services and conditions in written form by the Client, Greenview may commence work on the proposed services directly.

Greenview's offers for services in the form of proposals, quotations, bids, tenders, or other like an offering to a Client are formulated upon available information at the time of the offer submission. In the event of discovery of unknown conditions, or any other unknown circumstance that may arise following the presentation of Greenview's offer to the Client, Greenview reserves the right to negotiate terms with the Client with respect to changes in scope, fees, disbursements, or the like as may be fair and reasonable considering the discovery.

Upon retention of Greenview's services related to any commission, the Client agrees to remit payment for the services rendered for the specified period within (30) days of the invoice date as invoiced by Greenview on a typical monthly basis, unless otherwise arranged between the Client and Greenview. In the event of non-payment by the Client, Greenview reserves the right, without external influence or expense, to discontinue services and retain any documentation, data, reports, or other project information until such time as payment is received by Greenview. Interest on any overdue accounts may be applied accordingly.

Warranty, Limitations, and Reliance

Greenview relies on background and historical information from the Client to determine the appropriate scope of services to meet the Client's objectives, in accordance with applicable legislation, guidelines, industry practices, and accepted methodologies.

Greenview provides its services under the specific terms and conditions of a specific proposal (and where necessary formal contract), in accordance with the above requirements and the *Limitations Act 2002*, as amended, only.

The hypotheses, results, conclusions, and recommendations presented in documentation authored by Greenview are founded on the information provided by the Client to Greenview in preparation for the work. Facts, conditions, and circumstances discovered by Greenview during the performance of the work requested by the Client are assumed by Greenview to be part of preparatory information provided by the Client as part of the proposal stage of the project. Greenview assumes that, until notified or discovered otherwise, that the information provided by, or obtained by Greenview from, the Client is factual, accurate, and represents a true depiction of the circumstances that exist related to the time of the work.

Greenview relies on its Clients to inform Greenview if there are changes to any related information to the work. Greenview does not review, analyze, or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Greenview will not be responsible for matters arising from incomplete, incorrect, or misleading information or from facts or circumstances that are not fully disclosed to, or that are concealed from Greenview during the period that proposals, services, work, or documentation preparation was performed by Greenview.

Facts, conditions, information, and circumstances may vary with time and locations and Greenview's services are based on a review of such matters as they existed at the time and location indicated in its documentation. No assurance is made by Greenview that the facts, conditions, information, circumstances or any underlying assumptions made by Greenview in connection with the work performed will not change after the work is completed and documentation is submitted. If any such changes occur or additional information is obtained, Greenview should be advised and

requested to consider if the changes or additional information affect its findings or results.

When preparing documentation, Greenview considers applicable legislation, regulations, governmental guidelines, and policies to the extent they are within its knowledge, but Greenview is not qualified to advise with respect to legal matters. The presentation of information regarding applicable legislation, regulations, not intended to and should not be interpreted as constituting a legal opinion concerning the work completed or conditions outlined in a report. All legal matters should be reviewed and considered by an appropriately qualified legal practitioner.

Greenview's services, work and reports are provided solely for the exclusive use of the Client which has retained the services of Greenview and to which its reports are addressed. Greenview is not responsible for the use of its services, work or reports by any other party, or for the reliance on, or for any decision which is made by any party using the services or work performed by or a report prepared by Greenview without Greenview's express written consent. Any party that uses, relies on, or makes a decision based on services or work performed by Greenview or a report prepared by Greenview without Greenview's express written consent, does so at its own risk. Except as set out herein, Greenview specifically disclaims any liability or responsibility to any third party for any loss, damage, expense, fine, penalty or other such thing which may arise or result from the use of, reliance on or decision based on any information, recommendation or other matter arising from the services, work or reports provided by Greenview.

Site Reviews and Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Greenview's work or report considers any locations or times other than those from which information, sample results and data were specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those based on extrapolations.

Only conditions, and substances, at the site and locations chosen for study by the Client are evaluated; no adjacent or other properties are evaluated unless specifically requested by the Client. Any physical or other aspects of the site that were not chosen for study by the Client, or any other matter not specifically addressed in a report prepared by Greenview, are beyond the scope of the work performed by Greenview and such matters have not been investigated or addressed.

Confidentiality

Greenview provides its proposals, reports, assessments, designs, and any other work for the sole party identified as the Client or potential Client in the case of proposals.

For proposals specifically, the information contained therein is strictly confidential, proprietary information, and shall not be reproduced or disclosed to any other party than to that of the addressee of the original proposal submission, without prior written permission of Greenview. Any such unauthorised reproduction, in whole or in part, is considered a breach of trust or contract, as applicable by law.