

CORPORATION OF THE
TOWNSHIP OF BILLINGS

AGENDA

June 15th, 2022 7:00 p.m.

Electronic

1. OPEN
2. APPROVAL OF AGENDA
3. DISCLOSURE OF PECUNIARY INTEREST
4. ADOPTION OF MINUTES
5. DELEGATIONS
6. COMMITTEE REPORTS
7. OLD BUSINESS
 - a) Fire Hall
8. NEW BUSINESS
9. CORRESPONDENCE
10. INFORMATION
11. ACCOUNTS FOR PAYMENT
12. CLOSED SESSION
 - a) Labour Relations
13. CONFIRMING BY-LAW
14. ADJOURNMENT

Memorandum

To: Mayor, Council
cc: Staff, Public
From: Staff
Date: June 13, 2022
RE: June 15th, 2022 Special Council Meeting

4. Minutes

None.

5. Delegations

None.

6. Committee Reports

None.

7. Old Business

a) Fire Hall

Recommendation:

That council direct staff, through the CAO, regarding the next action in the firehall project.

Background:

- The Billings firehall is an important municipal asset, and obviously key to the delivery of fire protection services within the Township. Council has recognized the need to address issues with the firehall which have developed over several years.
- Tulloch Engineering conducted a scoping exercise in late 2021, and provided preliminary information in a report designed to outline renovation and replacement options.
- Council opted to pursue a comprehensive renovation of the existing firehall, and directed staff to engage Tulloch Engineering to create the draft content for a Request for Proposal (RFP) seeking engineering services for the renovation process.
- The Township released this RFP during the period May 12th to May 26th, and the Municipal Project Manager hosted the mandatory site visit on May 19th.
- The Township received one (1) proposal in response to the engineering RFP, and that was received from Tulloch Engineering. That proposal was included in the agenda package for the June 7th, 2022 regular meeting of Council. The cost quote for the received proposal was \$106,180.45, including HST. This quote was higher than expected by township staff. Staff discussed the proposal with Tulloch, and on the basis of that discussion, Tulloch lowered their quote to \$94,920.00 (incl. HST) – reducing their tendering and contract administration costs. While this reduction of approximately 10% is positive, it doesn't negate the need for serious consideration of the other points in this memo, on the part of Council.
- Council is well aware that we are currently operating in a period of high inflation, and for several reasons – outlined in previous memos – the cost inflation experienced in capital construction projects is currently much higher than the background inflation, which is high enough.

- For the sake of illustration, a couple of cost increase scenarios were presented in the June 7th memo, and are included again here. These were worked up by the MPM – note that this time both scenarios have engineering at 15% of the estimated project cost (exclusive of HST):

Scenario 1: 20% cost inflation and engineering @ 15% of total project cost est.

Original Est	\$ 555,250.00	
20% Cost Inflation	\$ 111,050.00	
Sub-Total	\$ 666,300.00	
Engineering Est	\$ 99,945.00	at 15% of project cost*
Sub-Total	\$ 766,245.00	
HST	\$ 99,611.85	
Est. Grand Total	<u>\$ 865,856.85</u>	

Scenario 1: 30% cost inflation and engineering @ 15% of total project cost est.

Original Est	\$ 555,250.00	
30% Cost Inflation	\$ 166,575.00	
Sub-Total	\$ 721,825.00	
Engineering Est	\$ 108,273.75	at 15% of project cost*
Sub-Total	\$ 830,098.75	
HST	\$ 107,912.84	
Est. Grand Total	<u>\$ 938,011.59</u>	

*Note that the current engineering proposal represents an engineering cost at approximately 19% of the December costing. Note also that the municipality typically recovers approximately 87% of HST expenditures.

- It remains a very tight market for the supply of contractor services. This may limit the number of responses received when the project is tendered
- Council needs to be aware of the reality that you may be facing lame duck status as of the 19th of August, which will affect the kinds of decisions which can be made from that point forward until the end of term.
- If Council wishes to proceed with the renovation, and the proposal from Tulloch, then the appropriate bylaw should be passed sooner rather than later.

Other Considerations

- Billings Township is changing in terms of population, dwellings and other structures, the distribution of occupied dwellings (both permanent and seasonal) and the way properties are used – i.e., people’s activities.
- The rate of change has accelerated in recent decades, and this is demonstrated in the population and dwelling counts from Statistics Canada Census data for 2011, 2016, and 2021. Billings is one of, if not *the*, fastest growing non-indigenous communities in the District of Manitoulin, especially during the last census period (2016 to 2021) within which our municipality’s growth rate was between 4 and 5 times greater than the district average.
- The growing population, along with the other changes mentioned above, is increasing demand for services, including fire protection services. The changes in the distribution of occupied properties, the nature of property use, and changing climate conditions are also impacting the provision of fire protection services, because the types of incidents that need to be responded to is changing, as is where they may be occurring.
- And, of course, Council is aware that fire protection service cannot be viewed in a vacuum – it has to be considered in the context of the array of services that are provided by the municipality. Likewise, the firehall as a municipal facility/service provision asset cannot be viewed in isolation either.

- A comprehensive renovation of the existing firehall will result in a much-improved building and one that will demonstrate some relative improvement in energy efficiency. It will provide exactly the same level of functional service as the existing building, with no expansion of service space, and no room on the existing property to expand service space in the future.

8. New Business

None.

9. Correspondence

None.

12. Closed Session

There will be a closed session to discuss a matter pertaining to labour relations.

**The Corporation of the
Township of Billings**

By-Law 2022-32

Being a By-Law to enter into a contract with Tulloch Engineering for the engineering and design of the Fire Hall Renovations

WHEREAS the Township of Billings issued RFP #2022-04 seeking the engineering and design services for a Fire Hall renovation,

WHEREAS Tulloch Engineering's response to RFP #2022-04, their quote with a total upset cost of \$106,180.45 including HST, was deemed the successful bid upon review of all submitted proposals;

NOW THEREFORE the Corporation of the Township of Billings enacts as follows:

1. That the Mayor and CAO/Clerk are hereby authorized to execute the contract attached hereto as Schedule A; and,
2. That this by-law shall come into force and take effect on the date of its passing.

Read a First, Second and Third time and enacted this 30th day of May, 2022.

Ian Anderson, Mayor

Kathy McDonald, CAO/Clerk



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May 26, 2022
220001

15 Old Mill Road
Kagawong, Ontario
P0P 1J0

Attention: Mr. Todd Gordon
Municipal Project Manager

Re: Engineering Services – RFP 2022-04
Township of Billings Fire Hall Renovation Design

Dear Sir,

TULLOCH Engineering Inc., along with our design team of MET Energy Systems, are pleased to submit the following proposal for engineering services as required for the planned Fire Hall Renovations in the Township of Billings in, ON.

We trust you will find the enclosed complete and which comprehensively addresses the items contained within the above noted request for proposal.

We look forward to the opportunity to work with The Township of Billings. If you have any questions or require additional information, please do not hesitate to contact the undersigned.

Yours truly,
TULLOCH Engineering Inc.

A handwritten signature in black ink, appearing to read 'M. Figures', with a small flourish at the end.

Meagan Figures, CET, rcsi
Associate Project Manager
MF/mf

1.0 INTRODUCTION

COMPANY PROFILES

TULLOCH ENGINEERING Inc. (Prime Consultant)

With humble beginnings in Thessalon, TULLOCH has maintained strong work relationships with many of the communities in Northern Ontario.

Safe, functional, and efficient facilities within the community are integral to growth and economic development. TULLOCH staff are proud to both work and live on Manitoulin Island, and the North Shore.

TULLOCH regards community growth and development as core values and welcomes all opportunities to contribute to them. We look forward to working with The Township of Billings on this exciting assignment.

TULLOCH's History



With clients across North America, TULLOCH Engineering Inc. is a well-established consulting engineering firm in Ontario. Our ambition is to provide a better life for the communities around us. Our employees are dedicated to one aim: to design and build world-class infrastructure and natural environments by providing a full range of integrated consulting services.

We have embraced this purpose by adhering to our core values. We treat our clients with the goodness and respect that characterizes the work we do. We strive for the highest standards in client and colleague relationships. We are dedicated to fostering long-term working relationships built on mutual respect and superior performance.

Shaped from several of Ontario's finest engineering, environmental and geomatics companies, TULLOCH offers clients unrestricted access to a deeply knowledgeable and integrated team of professionals. Simply put, our staff is the reason for our success. With a passion for tackling large-scale challenges, we cultivate a collaborative team approach.



TULLOCH Engineering Inc. appreciates the complex challenges that clients face in dealing not only with consultants, the public, and community stakeholders, but also with provincial and federal governmental agencies while carrying out a range of projects. Our widespread work for a variety of Clients includes the planning, design, and construction management of infrastructure facilities including buildings, roads, landfill design and monitoring, drainage and hydrology, wastewater collection and treatment, as well as water supply and treatment. We appreciate the opportunity to assist clients in achieving their maximum potential. We are dedicated to fostering long-term partnerships built on mutual respect and outstanding performance. Our goal is to make every project an ongoing success from design to construction, bringing projects to completion on time within sensitive budgetary constraints.

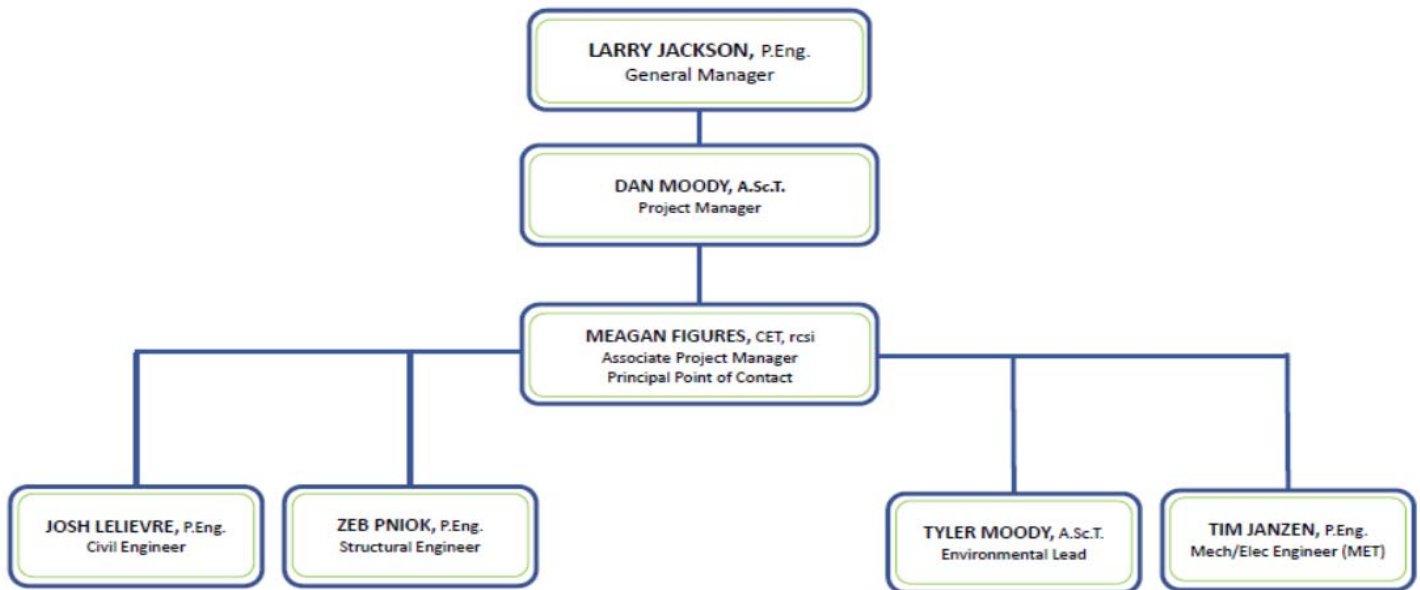
TULLOCH Engineering is a multi-disciplinary engineering firm with services in civil engineering, environmental

studies, geomatics engineering, LiDAR and mapping services, transportation engineering, geotechnical engineering, structural engineering, and forestry engineering. TULLOCH has grown to employ over 300 technical and professional staff. We have offices in Sault Ste. Marie, Thessalon, Elliot Lake, Espanola, Sudbury, Parry Sound, Huntsville, Ottawa, Hamilton and Thunder Bay as well as temporary construction sites across the country established on an as needed basis to manage specific projects.

Key Staff and Specialties

The team assembled for this assignment combines Project Management expertise with an experienced technical support staff. The diversity of the team will allow TULLOCH to offer The Township of Billings unparalleled oversight and guidance throughout the design, construction, and commissioning phases of the Fire Hall Renovation Design project.

At all times, the Project Management team assigned to this project has unrestricted access to all Professional and Technical Staff within the TULLOCH organization. This experience and depth of knowledge will facilitate the TULLOCH PM to fully understand and respond to all technical and/or contractual challenges that may arise during the project.



Organization Chart

Dan Moody, A.Sc.T., Project Manager

Dan will fill the role of Project Manager for this assignment. He will be the principal point of contact for TULLOCH and will act on behalf of The Township of Billings during all phases of design, construction & contract administration. Mr. Moody will be responsible to coordinate all activities undertaken by the TULLOCH team.

Meagan Figures, CET, rcsi – Associate Project Manager

Mrs. Figures will be responsible for inspection services and assisting with contract administration and document management throughout the project.

Michael Lawrence (Larry) Jackson, P. Eng., General Manager

Larry is The General Manager of TULLOCH Engineering and is responsible for the overall management and direction of the Engineering Group. He is an accomplished engineering executive with over 31 years of experience in the municipal infrastructure, renewable energy, and environmental field. He has extensive experience working with municipalities, First Nations, the Provincial and Federal Governments and private developers covering a wide range of civil and environmental engineering projects.

Josh Lelievre, P.Eng. – Project Manager

Josh Lelievre is a professional engineer with more than fifteen years of experience in all aspects of municipal infrastructure design including stormwater management, lot grading, road design, and municipal servicing. Josh also has extensive experience in the completion of engineering surveys, construction materials, construction project management and municipal asset management. He will be responsible for all site grading design.

Zeb Pniok, P.Eng. – Design Engineer

Zeb is a professional engineer with more than twelve years of experience in all aspects of structural design (buildings and infrastructure). He will be responsible for all structural design activities.

MET Energy Systems



MET Energy Systems is a multi-disciplined consulting engineering firm specializing in mechanical, electrical, lighting and energy conservation design. We provide consulting engineering services for commercial and industrial clients of both the public and private sectors.

MET is authorized by the Professional Engineers of Ontario and is a licensed Designated Consulting Engineer with all of the required insurances and professional liability.

Mr. Tim Janzen, P. Eng. is the founder and Principal Engineer of MET Energy Systems. He leads the team with over 30 years' experience in the engineering field. Mr. Janzen's professional affiliations include:

- Association of Professional Engineers of Ontario
- Registered Consulting Engineer
- Registered Professional Engineer in State of Michigan, Maryland
- IESNA Illuminating Engineering Society of North America
- ASHRAE American Standard of Heating, Refrigerating, and Air Conditioning Engineers, Inc.
- LEED AP

Our present staff is comprised of a team of dedicated professionals who have multi-discipline experience in mechanical, electrical, energy conservations and plumbing design services and are proficient in all stages of successful project execution.

To reinforce our emphasis on quality in mechanical and electrical designs, the company uses internal quality assurance and quality control system and interfaces with designers from complimentary disciplines to review standards and specifications for specific project needs.

MET is staffed to provide a wide range of mechanical and electrical engineering services from inception through design, bid and construction completion and prides itself to complete projects on time and on budget.

Tim Janzen, P. Eng., PE

Mr. Janzen will be responsible for overseeing the design and construction of the mechanical and electrical requirements of the project.

Jim Liguori

Mr. Liguori will be responsible for assisting with the design and inspection services during construction of the mechanical and electrical requirements of the project.

Gennaro Ferlaino

Mr. Ferlaino will be responsible for assisting with the design and inspection services during construction of the mechanical and electrical requirements of the project.

2.0 APPROACH AND METHODOLOGY DESIGN AND ENGINEERING SERVICES

ENGINEERING PROJECT MANAGEMENT APPROACH

TULLOCH Engineering has been in business for more than 30 years and completes hundreds of projects each year. This has enabled us to hone our project management approach to ensure consistent and successful project delivery ranging from small studies to multi-discipline, complex projects. All of our Project Managers are mentored for several years by Senior Project Managers before taking on the role. In addition, many have formal project management training through the Project Management Institute or Professional Services Management Journal's Project Manager's Boot Camp.

Our approach starts with our flat and project-based organizational structure. Project Managers are senior personnel with decision making authority and the technical expertise to analyse and resolve complex issues quickly in consultation with the client.

In general, TULLOCH follows the PMBOK (Project Management Body of Knowledge) approach to project management. Regardless of which process a project is in (initiating, planning, executing, controlling or closing) communications is the key. This includes effective communications with the client, regulatory authorities, the public, contractors involved in the construction of the works and other interested parties. As issues arise, they must be dealt with in a timely matter to mitigate their potential effect to the furthest extent possible. Inaction on issues only makes matters worse and more often than not increases costs to resolve an issue.

The following sections outline our general project management approach during the engineering/design phase of the project and construction phase of a project.

ENGINEERING/DESIGN PHASE

A high level of communication, quality reviews for all deliverables and effective project control are all integral parts of TULLOCH's approach to the engineering design phase of a project. The processes to be followed to ensure effective project management during this phase are as follows:

Project Initiation – At the initiation phase of the project it is crucial to clearly define the project scope in consultation with the Township of Billings. TULLOCH's Project Manager and Lead Engineer will define the project scope in consultation with Township of Billings representatives and ensure the scope is clearly outlined in the engineering agreement. This will usually include a general outline of the schedule with key deliverable and completion dates to ensure the required project milestones are met.

Project Planning – Once the project scope has been clearly defined, TULLOCH's Project Manager will develop a detailed work plan and schedule for the assignment. The work plan will involve breaking the project scope down into discrete tasks and assigning manpower and resources requirements to ensure those tasks are successfully completed. Typically, this involves the creation of a detailed time/task matrix with a budget allocated to each identifiable task.

An integral part of the development of the project plan and time/task matrix is a determination of the staffing and external resources required to complete the project and the appropriate man hours to be committed. Based on this, the Project Manager and the Lead Engineer will assign staff to the project team. Team members are consulted as to the required time allotment for specific tasks to ensure there is "buy-in" and accountability as the project progresses.

Key aspects of the planning phase also include the following:

- Identification of any regulatory approvals or other stakeholders to be consulted during the course of the work; and,
- Identification of any external resources required for the completion of the work. This might include sub-consultants for such things as geotechnical studies or vendors for equipment.

Agreements with sub-consultants and vendors include a clause stating that no additional work shall be undertaken without the approval of the client and written authorization from TULLOCH Engineering. The

Project Manager stays in regular contact with the external resource until the scope of work is complete to ensure it stays on schedule and to deal with any issues that arise promptly.

Project Execution - Once the project plan has been developed and detailed schedule and scope agreed to by the Township of Billings, the Project Manager's sole focus is on execution of the engineering work. This starts with the assigning of project tasks to specific team members with appropriate deadlines and time allotments, tracking completion of specific tasks, effective communications with the project team, client, any external resources and stakeholders ensuring quality of deliverables and mitigating any risks or other issues that arise during the course of the engineering.

Project Control - TULLOCH Engineering Project Managers are accountable for controlling the completion of the engineering assignment and are provided the tools to effectively do so. Project control is accomplished as follows:

- **Scope Control** – Scope control is accomplished by ensuring that the detailed scope of the project is clearly indicated in the engineering agreement and detailed in the project plan. This scope is clearly communicated to all team members. If any potential scope changes arise, TULLOCH will not proceed with the work without the written authorization from the Township of Billings. The Project Manager will discuss the issue with the Township of Billings before proceeding. If Township of Billings indicates a willingness to proceed, TULLOCH will forward a proposed Scope Change with a clearly defined additional scope, budget and any schedule implications, for approval. TULLOCH will only proceed once approval for the Scope Change is received. Once again, the amended scope, if any, will be clearly communicated to all team members.
- **Costs/Budget Control** – The budget for an engineering assignment is controlled by ongoing tracking by the Project Manager over the course of the project. TULLOCH employs sophisticated, web-based project and time management software that enables Project Managers to track team members' time on a weekly basis and take corrective action immediately. Budgets are established based on project task allowing the Project Manager to immediately identify any over-runs and mitigate the affect.

Project Managers also complete comprehensive monthly reviews of time and costs to date on projects. They hold regular meetings with team members to review budget, progress to date, the status of deliverables, and any issues that arise.

Invoices from external resources such as sub-consultants and vendors must be reviewed and approved by the Project Manager before they are entered into TULLOCH's accounting system and approved for payment. Only invoices in accordance with compensation outlined in sub-consultant agreements will be approved for payment unless an appropriate Scope Change has been previously approved.

Schedule Control - Schedule control is achieved by properly planning the engineering assignment and clearly communicating the schedule commitments to the entire project team. A critical aspect in meeting any project schedule is permitting and approval requirements. TULLOCH's Project Managers achieve this by early identification of all permitting and approvals required for a project and early and ongoing communications with the appropriate regulatory authorities. This ensures approval requirements are known well in advance and can be allowed for. Any required background studies are commenced and completed as early in the process as possible. Actual applications are submitted for review as soon as possible and then tracked regularly by the Project Manager until appropriate approvals are in place. This typically involves regular communication with the approval authority and follow-up with the client.

In the event that projects fall behind schedule, TULLOCH team members regularly work additional hours and/or additional resources are committed to the project to get it back on track. Project Managers have the authority to authorize additional hours and overtime to ensure project milestones are met.

Quality Control - Quality control for engineering deliverables is critical to ensure a successful project. TULLOCH has a Quality Control Policy that requires review and signoff of all project deliverables including drawings, reports and specifications via a senior staff member with no other direct involvement in the project. Quality control reviews are conducted in cooperation with the Project Manager and design engineers to facilitate any necessary changes and ensure scheduling commitments are met.

Throughout the engineering assignment, regular communications with the Township of Billings, regulatory agencies and other stakeholders is critical to ensure deliverables meet expectations and scheduling commitments are met. TULLOCH Project Managers ensure effective project communications by scheduling regular project meetings, teleconferences, and issuing project updates at regular intervals throughout the assignment.

CONSTRUCTION PHASE

For the construction phase of a project, scope, budget and scheduling control are all very much inter-related. In general, if the scope of work is effectively controlled there should be minimal unforeseen, additional costs and minimal, if any, impacts to the project schedule. For construction works, a number of work processes are employed to control scope, budget and schedule as follows:

- Clear and concise contract documents. This is probably the most important element in controlling construction scope, and budget and is achieved through the following:
 - Employing skilled and experienced personnel in the preparation of contract drawings, specifications and tender documents. Most TULLOCH employees have many years of experience in the engineering and construction industry and are very adept at the preparation of contract documents and the pitfalls that can occur in a construction project;
 - Internal QA/QC reviews of all issued for tender and issued for construction contract drawings and tender documents by senior personnel with technical expertise and expertise in the drafting and language of contract documents;
 - Use of standard specifications, general conditions and other contract sections/clauses whenever possible. These documents have been developed and refined over many years and are proven to be fair and protect the owner's interests; and,
 - Internal constructability reviews prior to tendering of the works to identify any potential construction issues and accounting for them prior to tendering.
- Open Communication with the Contractor – It is important to maintain regular communication and obtain input from the contractor for a successful project. This will ensure prompt action when issues arise and a coordinated approach to mitigate any budgetary and scheduling impacts. Nobody wins when the relationship between the engineer/owner and contractor is adversarial. TULLOCH always treats contractors with respect and works with them for a successful project.
- Liaison with the Township of Billings – Project Managers stay in regular contact with the Township of Billings to keep them fully informed and obtain their input during construction. No extra work or significant changes impacting budget and/or schedule are authorized without written approval from the Township of Billings.

- Structured and Clear Change Management Procedures – Requirements for changes in the construction contract are clearly annunciated in the contract documents and are a specific agenda item at all pre-construction meetings. The contractor is reminded that no work shall proceed without written authorization for the work.
- Detailed Documentation – The Project Manager and Contract Administrator will maintain detailed documentation of any potential and authorized changes to the contract. A Change Order Log will be kept clearly indicating the status, price implications and any scheduling implications of all change orders. Change orders are issued to all parties on approval. In addition to contract changes, Project Managers hold regularly scheduled contract meetings with all parties. Detailed meeting minutes are prepared and issued promptly following the meeting.
- Liaison with Regulatory Authorities – Project Managers maintain regular communications with regulatory authorities during the construction process to ensure commitments made during the engineering phase are met.

Quality control during project construction is achieved by employing many of the same elements for scope and budget control. These include the following:

- Clear and concise specifications and contract drawings;
- Regular and detailed inspection of the construction to ensure compliance with specifications and drawings;
- Employing third party independent inspection and testing agencies when appropriate; and,
- Timely and detailed review of shop drawings, material samples and working drawings.

In addition to the above measures, TULLOCH Project Managers and Contract Administrators complete numerous tasks during the construction phase of the project to ensure it is completed successfully with a quality end product. These include the following:

- Assist the client and the contractor in the interpretation of the drawings and specifications and issue supplementary details and instructions during the construction period, as required;
- Review the construction schedule proposed by the contractor for approval, and comment on procedures, methods and sequence of work;
- Ensure that quality audits and technical reviews are carried out on schedule;
- Deal promptly and tactfully with members of the public and any complaints that arise;
- Liaise with other government ministries and outside agencies on matters pertaining to the project;
- Ensure that environmental controls are addressed and followed in the contract;
- Maintain data to verify monthly progress of the work and report on a weekly basis to the client on the contractor's work done that week, including the deficiencies;
- Recommend remedial action to correct all deficiencies and review the contractor's corrective work to ensure conformance to the contract requirements;
- Review and approve sub-consultant invoices as necessary;
- Recommend to the owner acceptance of the work to establish the start of the warranty period;
- Coordinate as-constructed drawings; and,
- Confirm all final payment quantities and any contract change orders with the contractor, establish the final contract price, prepare payment certificates as per the contract requirements.

TULLOCH will also verify and issue any required certificates relating to the construction of the works, including a Certificate of Substantial Performance and Completion Certificate. TULLOCH Engineering has performed contract administration and inspection services on hundreds of municipal projects involving

underground utilities, building infrastructure, structural rehabilitation, building envelope issues and accessibility upgrades. Our staff is familiar with the required inspection tasks, quality control requirements and documents of the construction operations.

Nearing completion of the construction project, TULLOCH Engineering will create a checklist and track construction closeout activities to ensure all final submittals and documents are in place, including the following:

- Any operation and maintenance manuals;
- Any product specific warranties;
- As-constructed drawings;
- Completion of all deficiencies and any items that arise during the warranty period.

ACCESSIBILITY

To achieve the best possible accessible environments, it is necessary to obtain a comprehensive understanding of the characteristics of human performance so that when decisions are made, they are made with full knowledge of the consequences and effects of those decisions upon the users of that environment. Promoting an understanding of the challenges encountered by people with disabilities is the foundation for developing the most appropriate solution is laid, which may, or may not necessarily be addressed by standards and code regulations.

As each project presents a different set of challenges, each project will require its own innovative set of solutions. It is difficult to create an environment which is specific to every individual's needs, however, it is possible to be sensitive to design issues which effect all users, such as elevator access, accessible washrooms, building access, appropriate contrast of colour, and light to prevent glare and create visual or tactile clues to location, etc. Through discussion with you and prioritization, we will identify the needs and proceed to accommodate them accordingly.

As an organization who will accommodate those with disabilities, a more comprehensive understanding of the characteristics affecting design for various degrees of mobility will be required. In our experience, we have found the best solutions involve a delicate balance of all the aspects affecting variations in individual abilities.

As part of the design process, the TULLOCH team will review all aspects of the fire hall renovation and make recommendations as may be appropriate to the township.

A variety of TULLOCH reference projects are attached in Appendix C.

3.0 UNDERSTANDING OF THE PROJECT & PROPOSED SCOPE OF WORK

We have reviewed and understand the requirements as noted in the RFP entitled:

REQUEST FOR PROPOSAL

**To Provide Professional Design, Engineering and Contract Administration Services
For the Township of Billings RFP 2022-04**

Fire Hall Renovation Design

Subject to the limitations and exclusions noted, TULLOCH proposes to provide all design, drafting, general review, and contract administration services as required to complete the project as generally defined in the above referenced RFP.

Our proposed scope of work includes the following:

1. Conduct virtual and in person design meetings
 - a. We have included for one (1) in person meeting to be held at the same time TULLOCH attends site for data gathering, and DSS sampling.
 - b. Attend the site to complete a detailed site assessment, data gathering, and complete measurements as required for the design.
 - c. Complete a project specific, intrusive designated substance and hazardous materials survey. We have included for the services of a commercial roofing contractor to complete a cut test and required patch. This information is required to facilitate design of roofing removals, replacement as well as environmental sampling.
 - d. Complete a localized topographic survey of the area immediately around the building to facilitate a review of grading and drainage.
 - e. We have included for one (1) in person meeting at the 90% completion of design.
 - f. We have included for up to 6 virtual design review meetings.
2. Complete design and drafting as required for the above noted features of construction
 - a. Format to be 11x17 size sheets
 - b. All drawings to be sealed by a Professional Engineer licensed in the province of Ontario
 - c. All specifications to be on drawings
3. Based on the approved final project scope, complete a pretender cost estimate
 - a. The proposed cost estimate would be Class D in nature (+/- 25%)
 - b. We will complete the above noted cost estimate with the assistance of a Sault Ste. Marie based General Contractor. This method of cost estimating allows clients to benefit from real time costing, which has become of critical importance in light of the volatile construction market.
 - c. The intent in engaging a Sault Ste. Marie General Contractor is to avoid any potential of providing an unfair advantage to any General Contractor that may be a likely candidate to bid the work.
4. Prepare a tender document
 - a. Based on CCDC2-2020 Stipulated Price Contract
5. Publicly Tender the Project
 - a. TULLOCH will attend the site to conduct a mandatory bidder's meeting for potential general contractors
6. Review submitted tenders and prepare a tender analysis for review by Council
7. Award the project to the successful general contractor
8. Execute a contract between the successful general contractor and The Township of Billings
9. Complete General Review During Construction for all involved disciplines
10. Complete contract administration services throughout construction
 - a. Respond to Requests for Information
 - b. Prepare Supplemental Instructions as required
 - c. Prepare Contemplated Change Notices as required

- d. Prepare Change Orders As required
- e. Review and process monthly requests for payment
- f. Prepare Certificate of Substantial Performance
- g. Prepare Certificate of Total Completion
- h. Prepare payment certificate for holdback release
- i. Receive project warranty and closeout documents
- j. Attend the site to complete an inspection one month prior to the expiration of the contractor's one year warranty period
- k. Prepare deficiency letter
- l. Follow up with Municipal officials to ensure deficiencies have been corrected

We propose to conduct the following during the construction process:

- Construction Kickoff meeting
- Eight (8) visits to complete General Review during Construction
- One visit for a warranty inspection one month prior to the expiration of the one-year warranty period

Our clients benefit from having access to a diverse group of specialists within TULLOCH. Architectural, Structural and Civil design as well as surveying are offered in-house. Mechanical and Electrical design will be provided by MET Energy Systems.

Should modifications to the scope of work be required, TULLOCH will fairly negotiate with The Township of Billings to revise the scope of work and associated fees for consulting services.

In preparing our Scope of Work and associated fees for this project, we have considered the below owner's statement of requirements. We understand that this list may evolve throughout the course of design. Should revisions to the project requirements necessitate significant change in required effort, TULLOCH reserves the right to negotiate with the Township of Billings a modified Scope of Work, including adjusted fees.

- Review of existing building for the presence of Designated Substances or Hazardous Materials
 - Shall include preparation of abatement specifications as required
- Remove existing roof insulation and roofing system and replace with new insulation and 60mill PVC membrane
- Remove all interior drywall
- Remove existing insulation on the exterior walls
- Install new insulation, vapour barrier and drywall (mud, tape, and paint) everywhere but truck bays
- In truck bays install as per above but replace drywall with 26 ga white metal liner panel
- Remove existing suspended ceiling and batt insulation (above) and install new suspended ceiling,
- Remove and replace all windows and doors – including overhead doors
 - Overhead doors to be powered with remote operators
 - The main personnel entry door shall be barrier free compliant
- Remove existing and create new main floor washroom (toilet, sink, tiled shower). Achieve the maximum conformance with Barrier Free Accessibility requirements (as per The Ontario Building Code 2012) as may be permitted by the current space
- Redesign the mezzanine level to include new flooring, cabinets, fixtures, window, doors, ceilings, etc.

- Design new Co/NOx detection and dedicated exhaust system
- Design of new vehicle exhaust system
- Design of new power and lighting throughout the building (including Truck Shore Power)
- Ensure that adequate provisions are made to accommodate the fire department’s dispatch radio antenna
- Design new exterior lighting (dark sky compliant)
- Design oil interceptor including all permitting and approvals
- Review and modify internal floor drains as required to outlet into the oil interceptor
- Ensure provision of new automated external defibrillator (AED)
- Ensure provision of new commercial washer & dryer
- Design new Emergency backup generator including all permitting and approvals
- Exterior split face block to receive insulation and metal siding or Insulated Metal Panels
- New incoming electrical service
- New emergency backup generator and transfer switch
- New heating systems throughout
- Sand blast clean existing painted concrete floor and install new epoxy paint

Exterior Site

- Review of existing on-site septic system(s) and decommissioning of abandoned system
- Localized review of exterior grading/drainage and associated design of improvements as required
- Exterior bulk water dispenser to be reviewed and upgraded as required to ensure compliance with applicable codes and standards
 - Add an insulated and heat traced concrete splash pad with bollard protection
- Review and upgrade compressor installation to ensure compliance with applicable codes and standards

4.0 SCHEDULE OF FEES

We propose to perform the services outlined previously on a lump sum basis, subject to the exclusions made and limitations outlined. The estimated fees for our services are as follows:

Task	Cost
Design and Drafting	\$55,710.00
Designated Substance and Hazardous Materials Survey	\$6,000.00
Project Tendering	\$7,515.00
Contract Administration	\$24,740.00
ESTIMATED TOTAL (exclusive of HST)	\$93,965.00
<i>(Above costs are inclusive of all vehicle mileage, prints, etc.)</i>	



5.0 EXCLUSIONS

At the request of the client, TULLOCH Engineering is providing this quotation to complete design, drafting, project tendering, general review during construction and contract administration only. The following list of exclusions represents services or items that TULLOCH has not included as part of our price. Should you wish to engage TULLOCH to provide or arrange for the provision of any or all of these services or items, we would be pleased to provide a price to you, additional to this quotation.

- Geotechnical Investigation
- Environmental reviews (beyond the project specific DSS)
- Cost estimates more accurate than Class "D" (+/-25%)
- Legal surveying
- Design of a septic system
- Site servicing
- Design of water treatment or filtration systems
- Stormwater Management Design
- Permit Application Fees
- Application for MECP Approvals (if required)
 - until such time that a design review has been completed, we are unable to quantify the scope of work or required effort required for potential environmental approval or permitting related to the proposed oil interceptor. Once requirements have been determined, TULLOCH will fairly negotiate with the Township of Billings an adjusted scope and fees
- Landscape Architect Services
- Full time inspection during construction
- Design of any additions to existing Fire Hall footprint
- We have not included for costs associated with application fees for any required permit or compliance certification. Application fees will be paid directly by the Township

6.0 LIMITATIONS

TULLOCH will perform all professional services with the standard of care customarily observed by Professional Consulting firms performing similar services at the same time and location. The standard of care will include adherence to all applicable published standards of the profession and laws, regulations, by-laws, building codes and government rules.

In no event, will TULLOCH be liable for indirect or consequential damages including, without limitation loss of use or production, loss of profits or business interruption.

APPENDICES

- APPENDIX A - PROPOSAL FORM**
- APPENDIX B - SCHEDULE**
- APPENDIX C - REFERENCE PROJECTS**
- APPENDIX D - CLIENT REFERENCES**

THE TOWNSHIP OF BILLINGS

PROPONENTS INFORMATION FORM

PROPONENTS must complete this form and include with the Quotation Submission. Please ensure all information is legible.

1. Proponent's Contact Individual	Dan Moody
2. Address	71 Black Road, Unit 8, Sault Ste. Marie, Ontario
3. Office Phone #	705-949-1457
4. Toll Free #	
5. Cellular #	705-971-0435
6. E-mail address	Dan.moody@tulloch.ca
7. Website (if applicable)	Tulloch.ca

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDA

This will acknowledge receipt of the following addenda and, that the pricing quoted includes the provision set out in such addenda

ADDENDUM #	DATE RECEIVED
# _____	_____
# _____	_____

Check here if NO Addendum received.

Proponent/Vendor: Tulloch Engineering Inc. Date May 26, 2022

Signature: 

THIS PAGE MUST BE INCLUDED WITH THE PROPOSAL SUBMISSION

To The Township of Billings, Hereafter called the "Owner":

I/WE TULLOCH Engineering Inc. the undersigned
declare:

1. THAT no Person(s), Firm or Corporation other than the one whose signature(s) of whose proper officers and the seal is or are attached below has any interest in this Proposal or in the Proposal proposed to be undertaken.
2. THAT this Proposal is made without any connections, knowledge, comparison of figures or arrangements with any other company, firm or person making a Proposal for the same Work and is in all respects fair and without collusion or fraud.
3. I/WE represent that no member of the Council, and no officer or employee of the Owner, is, or has become interested, directly or indirectly, as a contracting party, partner, stockholder, surety or otherwise howsoever in or on the performance of the said Proposal, or in the supplies, Work or business in connection with the said Proposal, or in any portion of the profits thereof, or of any supplies to be used therein, or in any monies to be derived there from.
4. THAT the several matters stated in the said Proposal are in all respects true accurate and complete.
5. THAT I/WE do hereby Proposed and offer to enter into an agreement to Supply and deliver all materials mentioned and described or implied therein including in every case freight, duty, currency exchange, H.S.T. in effect on the date of the acceptance of Proposal, and all other charges on the provisions therein set forth and to accept in full payment therefore, in accordance with the prices and terms set forth in the Proposal herein.
6. THAT additions or alterations to or deductions from the said Proposal, if any, shall be made in accordance with the prices stated in Provisional Items of the Schedule of Unit prices in strict conformity with the requirements of the Proposal and all unused monies in Provisional Items shall be deducted from the final cost of the Work and any quantities exceeding those shown shall be added.
7. THAT this Proposal is irrevocable and open to acceptance until the formal Proposal is executed by the awarded Proponent for the said Work or Sixty (60) Working Days, and prices for as long as stated elsewhere in the document, whichever event first occurs and that the Owner may at any time within that period without notice, accept this Proposal whether any other Proposal has been previously accepted or not.
8. THAT the awarding of the Proposal, by the Owner is based on this submission, which shall be an acceptance of this Proposal.
9. THAT if the Proposal is accepted, I/WE agree to furnish all documentation, security and certifications as required by the Proposal Document and to execute the agreement in triplicate within Seven (7) Working Days after notification of award. If I/WE fail to do so, the Owner may accept the next lowest or any Proposal or to advertise for new Proposals, or to carry out completion of the works in any other way they deem best and I/WE also agree to pay to the Owner the difference between this Proposal and any greater sum which the Owner may expend or incur by reason of such default or failure or by reason of such action as aforesaid on their part, including the cost of any advertisement for new

PART II

PROPOSAL FORM

Proposals, and shall indemnify and save harmless the Owner and their officers from all loss, damage, cost, charges, and expense which they may suffer or be put to by reason of any such default or failure on my/our part.

10. THAT I/WE agree to save the Owner, its agents, or employees, harmless from liability of any kind for the use of any composition, secret process, invention, article or appliance furnished or used in the performance of the Proposal of which the Proponent is not the patentee, assignee, or licensee.

11. THE PROPOSAL PRICE \$ 93,965.00 (amount in figures in Canadian Dollars)

HST \$ 12,215.45

TOTAL PROPOSAL PRICE \$ 106,180.45

The undersigned affirms that he/she is duly authorized to execute this Proposal.

PROPONENT'S SIGNATURE AND SEAL : Dan Moody

POSITION : Project Manager

WITNESS : Meagan Figures

POSITION : Associate Project Manager

(If Corporate Seal is not available, documentation should be witnessed)

DATED AT THE Sault Ste. Marie, Ontario
(City/Town)

THIS 26th DAY OF May, 2022.

THIS PAGE MUST BE INCLUDED WITH THE QUOTE SUBMISSION

APPENDIX B

TOWNSHIP OF BILLINGS – FIRE HALL RENOVATION DESIGN SCHEDULE

Based on the scope of work for the above project, we estimate the project schedule to be as follows:

Award Project to Consultant	June 20, 2022
Project Kickoff Meeting	June 27, 2022
Attend the site for Data Gathering/DSS	June 27 – June 30, 2022
Preliminary Schematic Design & Drawing	June 30 – July 15, 2022
Preliminary Schematic Design & Drawing Submission (33%)	July 15, 2022
Client review of Schematic 33% Design submission	July 15 – 19, 2022
Client/Consultant Meeting	July 19, 2022
Design & Drawing Development	July 19 – August 2, 2022
66% Drawing Development Submission	August 2, 2022
Client review of Schematic 66% Design submission	August 2 – 4, 2022
Client/Consultant Meeting	August 4, 2022
99% Drawing Development	August 4 – 18, 2022
99% Drawing Development Submission	August 18, 2022
Client review of Submission	August 18 – 22, 2022
Client/Consultant Meeting	August 22, 2022
Design finalization	August 22 – 31, 2022
Bid Document Preparation	August 22 – 31, 2022
Construction Award	September 2022
Substantial Completion	May 2023
Total Completion	May 2023



New Fire Hall, Municipality of Central Manitoulin

Client Reference: Silvio Berti, Municipal Coordinator
(Formerly with The Municipality of Central Manitoulin, currently employed by the Town of Tehkummah)
Township of Tehkummah
456 Highway 542A. PO Box 24
Tehkummah, Ontario P0P 2C0, 705-859-3293

Key Staff: Cole Howson , P.Eng., Josh Lelievre, P.Eng., Dan Moody, ASc.T.

Scope of Work

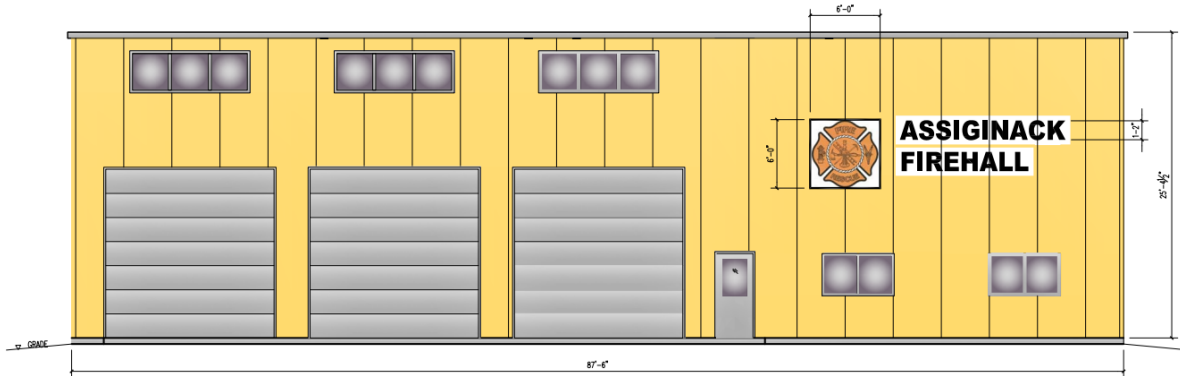
Owner's Engineer services for this project commenced 6 months in advance of the project design phase. TULLOCH worked closely with the Municipality and several sub-committees to provide guidance with respect to financial, permitting and regulatory requirements of the project. Although the project was a conventional Design/Bid/Build, the nature of the building required TULLOCH to act on behalf of the client to review and perfect details of the pre-engineered building system that was chosen by the successful proponent.

TULLOCH was the Prime consultant (providing structural, building envelope and civil consulting) who along with MET Energy Systems and David Ellis Architect completed all design and contract administration services for a new 5,000ft² Municipal Firehall. TULLOCH worked closely with Council to ensure that all functional and aesthetic requirements were incorporated into the final design. TULLOCH also provided all general review during construction, as well as materials testing and inspection (concrete, rebar, structural steel).

Project Location: Mindemoya, ON
Owner: The Municipality of Central Manitoulin
Project Engineer: TULLOCH Engineering
General Contractor: Sheppard Custom Building
Start Date: October, 2016
Completion Date: November, 2018
Project Status: Complete and facility is in use.
Design Fees: \$150,000



project summary



New Fire Hall, Township of Assignack

Client Reference: Alton Hobbs, Chief Administrative Officer
 Township of Assignack
 P.O. Box 238
 156 Arthur Street
 Manitowaning, ON
 P0P 1N0
 705-859-3196

Key Staff: Cole Howson , P.Eng., Josh Lelievre, P.Eng., Dan Moody, AS.C.T.

Scope of Work

TULLOCH was the Prime consultant (providing structural, building envelope and civil consulting) who along with MET Energy Systems and David Ellis Architect completed all design and project tendering services for a new 3,500ft² Municipal Firehall. TULLOCH worked closely with Council to ensure that all functional and aesthetic requirements were incorporated into the final design.

Project Location: Township of Assignack, ON
 Owner: The Township of Assignack
 Project Engineer: TULLOCH Engineering
 General Contractor: Not Constructed
 Start Date: January, 2018
 Completion Date: August, 2018
 Project Status: Not constructed due to budget constraints.
 Approximate Design Fees: \$100,000.00



JD Aero Maintenance

Sault Ste. Marie Airport, Sault Ste. Marie, ON

Client Reference: Mr. Terry Bos, President & CEO

Key Staff: Cole Howson, P.Eng, Dan Moody, A.Sc.T., Matt Kirby, P.Eng.

Scope of Work:

Complete structural design for a new 2 storey, 18,000 sq. ft. office/warehouse addition between two existing aircraft maintenance hangars.

Complete structural and building envelope design for a 10,000 sq. ft. addition to an existing aircraft hangar. Design also included 44 ft. high, 8 leaf aircraft doors to accommodate a Boeing 737 Aircraft.

Approximate Design Fees: \$160,000



project summary



Algoma District Services Administration Board – 10 Unit Apartment

Echo Bay, ON

Client Reference: Lisa Krug, CPA, CGA
Director of Finance
1 Collver Road
Thessalon, Ontario
P0R 1L0
Tel (705) 842-3370, ext. 232

Key Staff: Cole Howson, P.Eng, Dan Moody, A.Sc.T., Brian Jennings, Meagan Figures, CET, rcsi

Scope of Work:

Geotechnical Investigation, Civil/Site Servicing, Structural Design and Materials Testing and Inspection. Building is a 10,000 s.f. apartment building. Construction consists of cast in place concrete foundations, wood frame roof/walls and masonry veneer façade.

Design Team: TULLOCH Engineering, David Ellis Architect, MET Energy Systems

General Contractor: SALDAN General Contractors Inc.

Approximate Design Fees: \$75,000.00



project summary

CLIENT REFERENCES

Ms. Patricia Mader
Municipal Coordinator
The Municipality of Central Manitoulin
P.O. Box 187 | 6020 Highway 542
Mindemoya, ON
P0P 1S0
Telephone: 705-377-5726

Work Performed: Consulting services for various municipal maintenance upgrades and capital renewal projects

Ms. Katie Scott
Clerk/CAO
The Town of Blind River
Elliot Lake, ON
P5A 1X5
Telephone: 705-848-2287

Work Performed: Design, project management, contract administration and general review during construction for a variety of municipal upgrades and capital renewal projects.

David Steele
Manager of Plant
Algoma District School Board
190 Northern Avenue West
Sault Ste. Marie, ON
Telephone: 705-945-7308

Work Performed: Design, project management, contract administration and general review during construction for a variety of elementary and high school renovation projects.



71 Black Road
Unit 8
Sault Ste. Marie,
ON
P6B 0A3

T. 705 949.1457
F. 705 949.9606
TF. 866 806.6602

saultsternarie@TULLOCH.ca

June 13, 2022
220001

**15 Old Mill Road
Kagawong, Ontario
P0P 1J0**

**Attention: Kathy McDonald
CAO/Clerk, Deputy Treasurer**

**Re: Revised Fee Proposal
Engineering Services – RFP 2022-04
Township of Billings Fire Hall Renovation Design**

Dear Kathy,

We respectfully submit this document to reflect a reduction to our submitted fee proposal for the above referenced RFP regarding Fire Hall Renovations in the Township of Billings in, ON.

By way of this document, TULLOCH Engineering is formally revising our submitted scope of work and associated fees as follows:

1. We have revised our proposed fees for the Designated Substance and Hazardous Materials Survey.
 - a. It was suggested that the proposed fees for this scope item were higher than anticipated as this was an item that TULLOCH was previously engaged to assess. For clarity, TULLOCH has not previously been engaged to complete a review of Designated Substances or Hazardous Materials within the Firehall. The Scoping Report completed recently by TULLOCH did not include for a review of DS&HMS. Due to the destructive nature of this type of assessment it is generally reserved for the period directly prior to a planned renovation. During our site investigation, TULLOCH did sample drywall joint compound and confirmed it was asbestos containing.
 - b. A review of provided assessments completed by Pinchin also verified the drywall joint compound to be asbestos containing. As well, the Pinchin Assessment noted that some paint samples were lead containing. The Pinchin document was not exhaustive and does not take the place of an intrusive DS&HMS. For compliance with The Occupational Health and Safety Act, an intrusive DS&HMS must be completed prior to all renovations or demolitions. This document will guide general contractors in bidding abatement work.
 - c. Our current fees include not only for the assessment, but also for the preparation of abatement specifications. Furthermore, our fees include costs to bring a

commercial roofing contractor to site to facilitate a cut test and make the necessary patch repair.

2. We propose to modify our work procedure during the Contract Administration Phase as follows:
 - a. We have reduced formal visits for General Review during Construction from seven (7) to five (5).
 - b. We will supplement beyond five (5) while on Manitoulin Island for other project work.
 - i. Wherever possible we endeavour to coordinate project work on Manitoulin Island so as provide cost savings to clients.

Based on the above noted modifications to our proposed scope of work, we are pleased to present the following modified fee structure:

• Design and Drafting	\$55,710.00
• Designated Substance and Hazardous Materials Survey	\$4,000.00
• Project Tendering	\$6,000.00
• Contract Administration	\$18,290.00
• ESTIMATED TOTAL (exclusive of HST)	\$84,000.00

(Above costs are inclusive of all vehicle mileage, prints, etc.)

TULLOCH values our relationship with the Township of Billings. We trust that this modified fee proposal will be acceptable to Council.

We look forward to the opportunity to work with The Township of Billings. If you have any questions or require additional information, please do not hesitate to contact the undersigned.

Yours truly,
TULLOCH Engineering Inc.



Dan Moody, A.Sc.T.
Project Manager
DM/dm