December 2021

Township of Wainfleet
PROJECT CHARTER
CENTRAL FIRE STATION

PROJECT NAME: Township of Wainfleet – New Central Fire Station
PROJECT NUMBER: FS-2020-001
PROJECT LOCATION: 42143 Highway 3, Wainfleet, ON

1.0 INTRODUCTION

Township of Wainfleet Council requested a Project Charter for the Central Fire Station. The Project Charter describes the project organization, establishes key objectives and outcomes of the project, and assesses project risks.

The Charter does not address project budget or schedule. These matters will be finalized after a general contractor is retained. Monthly reports from the independent Project Manager will detail budget and schedule and include monthly updates to Township Council.

2.0 PROJECT GOALS AND OBJECTIVES

2.1 The five key objectives and outcomes of the project are:

- Much needed new station
- Room for long term growth including the potential addition of apparatus to meet long term needs of the community.
- Health & Safety of firefighters, by complying with Ministry of Labour orders c.2015
- Expanding service to citizens and Township
- Maintain labour peace with WVFF Association, by complying with Ministry of Labour Section 21 guidelines and industry best practices

2.2 The following ranks the project scope, time, costs and quality by priority (1 being highest priority, 4 being lowest) **based on the understanding of the project:**

1. **Quality:** Reduce long-term operating and maintenance costs while keeping personnel safe and healthy with quality workmanship.

2. **Cost:** Staying within approved budget reinforces the accuracy of the project plan as well as the fiscal integrity of the Project Team as it relates to the long-term financial sustainability of the Township.

3. **Time:** Meeting the schedule for implementation will demonstrate to the firefighters and the community that the Township is committed to the project and care about their welfare and safety.

4. **Scope:** Staying within the scope with one consistent message to both staff, stakeholders and the public will reduce the risk of project expansion or contraction which could result in cost overruns and unmet expectations.

2.3 Rationale:

The aging, existing buildings in Winger and Marshville, with known health & safety issues, and existing Ministry of Labour Orders require a new, modern centralized facility for our firefighters. A new, safe, clean, male and female facilities, basic quarters with kitchen and association space will meet requirements of Association and address health & safety issues. The new Central Fire Station will provide the space required for long term use, addressing the level of service set out in the Establishing & Regulating By-law and meet the needs and expectations of the community.

3.0 PROJECT DESCRIPTION

The Central Fire Station will be an important and much needed municipal asset. The decision to build a new station considering existing aging buildings, need for larger space and workplace health and safety issues. A new station will provide fire protection services in an efficient and effective manner. The location of the new fire station is in response to changing growth and development patterns in Wainfleet.

4.0 PROJECT SCOPE AND STATUS

The new Central Fire Station is designed and will be tendered in mid-January 2022. The architectural/engineering team is revising the drawings and specifications to reflect the changes from the value engineering exercise completed with Council.

The project scope includes:

- A six-bay central fire station with on-site training
- Designation as the Township's primary Emergency Operations Centre
- Male and female facilities
- Basic kitchen
- Administration spaces
- Training room
- Physical wellness
- Back-up emergency generator
- Future expansion areas for an additional two bays and EMS station

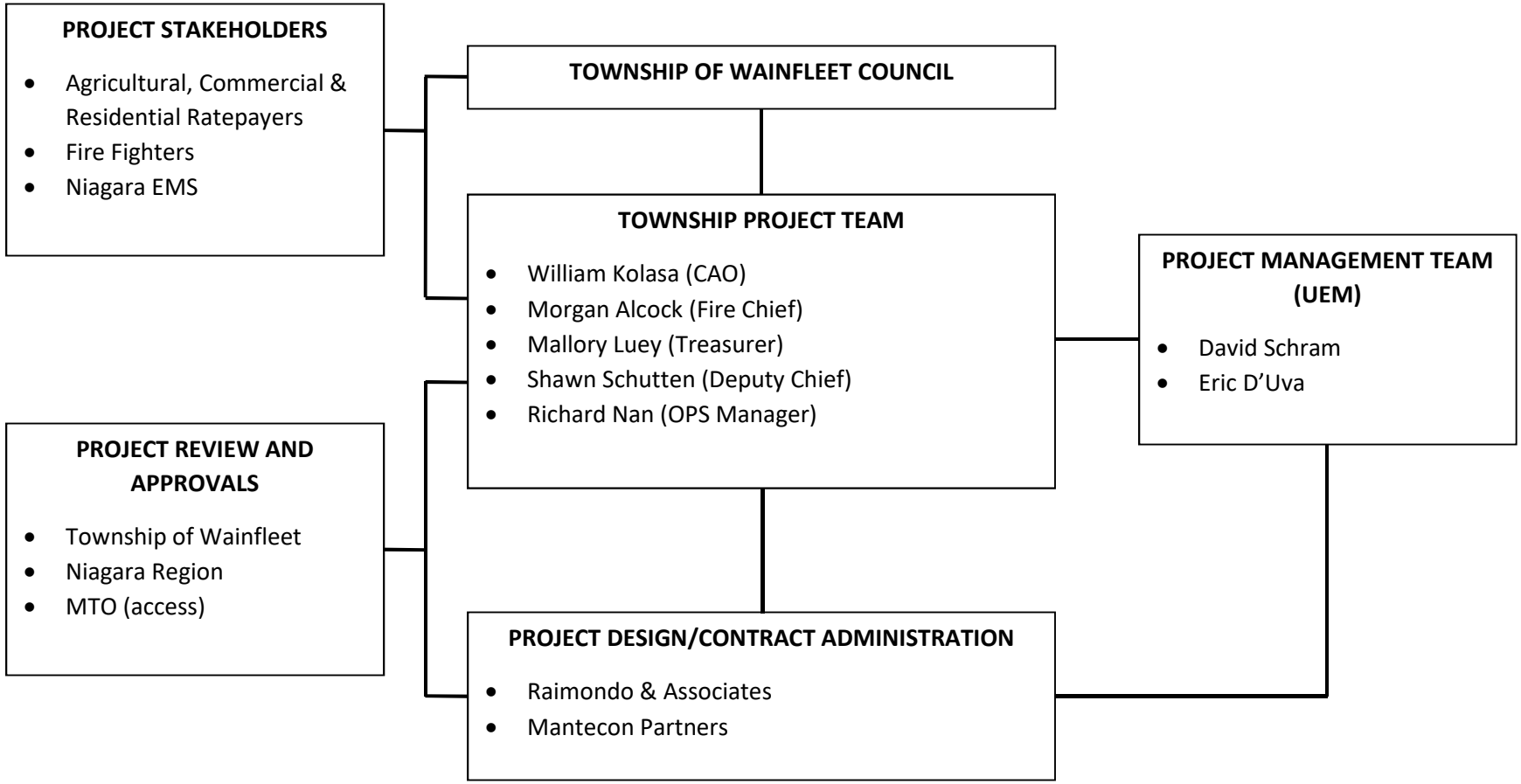
The estimated schedule for construction is approximately 10 months from contractor award. **Section 9.0** discusses project risks to the project including the schedule. Weather, material and labour shortages, direct and indirect impacts from the pandemic can all affect the schedule. The monthly reports to Council will monitor these risks and advise on potential or actual changes to the schedule.

5.0 PROJECT ORGANIZATION

Figure 1 is an overview of project organization and includes lines of communication and responsibilities.

Township Council is responsible for approving project budget and significant project changes. The Township project team is led by the Chief Administrative Officer, William Kolasa. Morgan Alcock is the liaison with the independent project managers (UEM). The architectural/engineering team led by Raimondo & Associates also reports through Morgan Alcock.

FIGURE 1
Township of Wainfleet Central Fire Station
Project Communications/Organization



6.0 CONSTRUCTION PROCUREMENT

The recommended procurement process to retain a general contractor follows an accepted industry practice: A project design team (Raimondo & Associates, Mantecon Partners) and project manager (UEM) are retained. A list of the qualified general contractors will be included in the tender.

The next step is to issue the tender documents to the prequalified contractors with an invitation to submit a price and construction schedule. The lowest bidder is usually awarded the contractor to ensure competitive bidding.

The design team will provide contract administration for the project. This role is to ensure the general contractor and the sub-contractors are addressing the contract terms and conditions.

The independent project manager will be involved in all aspects of the project and ensure as the Township's "agent" that the project is delivered within the set parameters approved by Council.

A stipulated price contract (CCDC 2) will be the basis of the relationship with the contractor. This type of contract is used for most public construction projects in Ontario and is an acceptable form of contract to contractors, contract administrators and designers. The terms of this contract include a fixed price and a date for project completion. It provides clear expectations for the quality of products and workmanship and will reduce potential conflicts with the contractor.

7.0 CONSTRUCTION SITE PROTOCOLS

The construction site is the responsibility of the general contractor. Access to the site is controlled by the general contractor and requires that:

- The "visitor" has completed the general contractor's health and safety training.
- Full personal protective equipment (PPE) including approved footwear, safety vest and hard hat is worn.
- Other safety training (WHMIS Workplace Training and Ontario Supervisor Health and Safety Awareness) that may be required by the general contractor.

The contract administrator, project design team and the project manager will attend the site regularly. The monthly reports from the project manager will include updates and pictures of construction status.

It is expected that others may want to visit the project site on occasion. If so, it is imperative that a strict site visitation protocol be followed:

- No visitor shall attend the site unannounced.
- All site visits will be coordinated through the project manager.
- All visitors must complete the general contractor's health and safety training.
- Group visits will be limited to six (6) visitors.
- All visitors must wear PPE.

- All required PPE is the responsibly of each visitor. The project team and/or the contractor will not provide PPE to visitors.
- Communications shall be through the project managers to the general contractor.

These protocols will ensure there is no conflicts with the general contractor. More importantly, personal health and safety can be better managed by following the site visitation protocols.

8.0 PROJECT RISKS AND MANAGEMENT

Table 1 summarizes project risks, possible consequences, and mitigation strategies for a construction project.

The UEM monthly report will include a section that examines these risks for the Central Fire Station Project. It will include an assessment of the specific risks which will be regularly monitored.

Table 1: Overview of Potential Project Risks and Mitigation Strategies

POTENTIAL PROJECT RISK	POSSIBLE CONSEQUENCES/IMPACTS	MITIGATION STRATEGIES
A. PLANNING AND DESIGN RISKS		
A.1 Engagement of Project Participants • Participation by owners and stakeholders is critical to ensuring an acceptable and successful project.	• Project is delayed or over budget because of owner requested changes • Owner not satisfied on completion	• Regular review meetings to develop the project objectives, program, and design • Establish project budget and schedule • Prepare minutes and monthly reports
A.2 Selection of Qualified Architectural and Engineering Team • A competent, experienced, and qualified design team is critical to the success of the project	• Design does not address owner's program and objectives • Higher project costs • Project Schedule	• A competitive, quality-based selection process • Mechanical structural and electrical engineering support is important • Geotechnical is independent and should be initiated early in the project
A.3 Decision Making • Timely decision making is critical to project momentum and schedule	• Project delays • Budget increases	• Identify key decision milestones in schedule • Establish point of contact between owners and design team • Prepare background reports and presentations to describe the matter for decision.
A.4 Design Coordination • Many changes during construction result from coordination issues between the architectural and engineering disciplines	• Higher project costs result from design change orders • Owner requested changes to design, standards, equipment • Effect on project schedule	• Prepare detailed owner program for architectural/engineering team • Weekly review meeting during design and contract document preparation • Third party design review and engagement of commissioning agent during design phase • Establish technical reviews at critical design points (30%, 50%, pretender)

POTENTIAL PROJECT RISK	POSSIBLE CONSEQUENCES/IMPACTS	MITIGATION STRATEGIES
B. CONSTRUCTION RISKS		
B. 1 Schedule/Project Completion • This risk is interrelated to most other risks	• Facility not operationally ready when required • Funding commitments impacted • Higher project costs	• Develop comprehensive project schedule at the outset of the project and monitor regularly • Review construction progress against established critical path milestones • Compare cash flow forecast to actual monthly billings • Prepare risk register and monitor/update regularly
B.2 Project Budget/Cost • Project costs significantly exceed approved budget and owner's contingency • Also related to other potential risks	• Develop realistic construction budget including contingency • Project is not completed as designed • Parts of project eliminated or not fully completed	• Mitigation interrelated to other measures and most importantly the design coordination • Independent cost estimates during design (Class A, B, C, and pre-tender)
B.3 Pandemic • A public health crisis could affect construction activity or lead to a government mandated shutdown of construction and suppliers	• Project schedule • Project budget • Equipment, material, and labour supply	• Difficult to plan for or mitigate at the project level • Ensure that the contractor has and follows a comprehensive health and safety program
B.4 Goods and Labour Supply/Availability • Construction in Ontario has been very active the past several years. The availability of trades, specialized contractors and material and equipment is often delayed because of the demand. • The supply of labour and goods can be impacted by labour disputes/strikes, currency exchange fluctuations, seasonal shutdowns, and pandemic mandated shutdowns.	• Delays impacting project schedule/completion date • Increased costs	• Tender project with a schedule to allow enough time for trades and supplies to commit • Develop procurement strategy having regard for local conditions and provincial demand • Consider alternate products and equipment

POTENTIAL PROJECT RISK	POSSIBLE CONSEQUENCES/IMPACTS	MITIGATION STRATEGIES
B. 5 Health and Safety • Unsafe work conditions, carelessness, or serious work accident • Accidents	• Project schedule and completion • Claims and insurance impacts to owner	• General Contractor must submit a comprehensive health and safety plan as part of the prequalification process (See B.9) • All project participants and site visitors must complete health and safety training program by contractor • During construction, health and safety protocols are implemented and monitored regularly.
B.6 Site Conditions • Most significant risk is that soil conditions are unsuitable for construction	• Project budget (potentially significant extra costs) • Project schedule	• A comprehensive geotechnical investigation to be completed prior to design • Geotechnical recommendations followed • Retain the same geotechnical engineer for construction observance (testing and inspections)
B. 7 Interface Issues • The renovation of existing buildings and the tie-in of new to old infrastructure, including services, can results in unexpected impacts.	• Project costs increase • Project delays • Design changes	• Consult as-built drawings during design • Conduct test investigations (when information is not available)
B. 8 Weather • Inclement weather impacts project • Project likely to be exposed to winter and spring conditions, rain, snow, and heat shutdowns	• Project schedule • Saturation of soils, constructability, additional design mitigation measures to ensure stability • Higher project cost	• Realistic schedules • Scheduling specific activities such as excavation footings and concrete to consider delivery times for unacceptable weather (late winter, spring)
B. 9 Environmental • Unknown and unexpected events such as contaminated soils, underground tanks/structures, historical or archaeological resources, represent high levels of risk	• Project cost • Project schedule and completion	• Geotechnical investigation to include an assessment of soil quality and historical land uses • Undertake an archaeological investigation, historical assessment

POTENTIAL PROJECT RISK	POSSIBLE CONSEQUENCES/IMPACTS	MITIGATION STRATEGIES
B.10 Contractor Performance • The success of the project is highly dependent on the performance of the general contractor, the trades, and suppliers	• Quality of the project • Defective work • Project schedule and completion • Operational Readiness • Labour unrest • Liens and claims	• A competitive, quality based, two stage selection process to retain a preferred general contractor and selected trades (mechanical, electrical…) • First stage is a pre-qualification to assess relevant experience, past performance, and resources. Tender stage includes only pre-qualified contractors.
B.11 Operational Readiness • The project is complete only if it can be occupied and all systems (life safety and building) function as designed • All close out documents completed and building commissioned • Chief Building Inspector releases building permit	• Project schedule and budget • Delay in opening	• Qualified contractor • Retain commissioning consultant • Regular construction site meetings to review progress • Ensure life safety systems commissioned and operational • Phased occupancy