

Subject: Rehabilitation and Replacement Options for Fire Station One

Recommendation:

BE IT RESOLVED THAT Council receive Report #2024-0119, for information;

AND THAT Council approve the project moving forward as a _____

Background:

Construction of the current Fire Station 1, located at 177 Highway 20 W began in 1981 to replace a 30-year-old facility, located on Pelham Street that the department had outgrown. Fire Station 1, as it exists today, was substantially completed in 1982, however the grand opening was held on March 5, 1983, to coincide with the 60th anniversary of the Fire Department in Fonthill.

The 42-year-old Fire Station is approximately 790m² (8,500ft²) in area. The building contains a garage area utilized for firefighting apparatus and bunker gear storage, training room/banquet hall, offices, storage areas, a lounge, 2 washrooms containing a small shower in each, and a kitchen. Neither of the washrooms are accessible for those with mobility impairments, nor do they provide privacy for the volunteer fire fighters to shower or change. Fire Station 1 is the headquarters for 40 volunteers and provides office space for 6 full time employees including Fire Services and By-law staff. In 2023, volunteers from Fire Station 1 responded to 327 calls for emergency service.

The need for an additional apparatus bay at Fire Station 1 to accommodate the anticipated growth in East Fonthill was first identified in a 2013 Development Charge Background Study completed by Watson and Associates Economists Ltd. The estimated cost to add an additional bay to the station, originally scheduled as a 2015 project, was \$400,000. The project was not approved at that time and was removed from the 20-year capital plan until 2018, where it was identified as a 2022 project for the expansion and rehabilitation of the station for \$623,500.

During the initial discussions regarding the expansion and rehabilitation project, it was noted that the several changes were made to the Ontario Health and Safety Act (OHSA) to increase protections for first responders, including fire fighters, and

the facilities in which they are assigned. Due to exposure to chemicals, smoke, fumes and exhaust during emergency responses, the requirements include the provision of ventilated laundry rooms, specialized laundry and cleaning equipment for firefighting ensembles (bunker gear), showers and decontamination areas, clean and dirty work areas, and a ventilated and protected space to store bunker gear away from fire apparatus (fleet).

Several other deficiencies including the need for increased office space, public lobby area, as well as a lack of compliance with the *Accessibility for Ontarians with Disabilities Act*. The training room is often used for public events including elections, private rentals and also acts as the Town of Pelham's Emergency Operations Centre.

Given the foregoing issues, the expanded scope of the project and anticipated cost increases to the Fire Station 1 rehabilitation project, the construction project was pushed out into future years while further assessment and planning could be undertaken.

Where applicable, cost estimates in this document include the price of demolition.

Analysis:

A Building Condition and Assessment and Energy Audit of the facility was completed in 2020 by Capital Management Engineering Ltd. The assessment concluded that while the building presents as a well operated and maintained facility, the station's overall rating was fair to poor. The evaluator noted significant cracking of the block wall at the southeast corner of the building, as well as other locations, and that several lintels show signs of corrosion. The evaluator recommended further study be undertaken by a building envelope specialist or architect to confirm the cause of the cracking, and underlying condition of the lintels.

Other observations included that the small public lobby, and that the washrooms and main entrances did not meet AODA compliance. An energy audit found that a significant portion of the energy consumption within in the building is utilized for heating and cooling due to a lack of insulation. Due to the high cost, and extensive work involved in adding insulation to a functional building, it was not recommended in the report. In addition, the roof has leaked on multiple occasions and two roof repairs have been conducted since 2019.

In 2021 James Federico & Associates was retained to provide further study of the building and the deficiencies outlined in the Building Condition Assessment. The study found that the deterioration of the split face block and lintels was the result of water damage and infiltration. Further water damage and infiltration may lead to the destabilization of the structure. The 2021 study found that the location and

overall condition make the building a good candidate for refurbishment and expansion, rather than demolition or relocation. A recommendation of this report was to develop an architectural study to understand and accommodate the future needs of the fire department, and complete a conceptual design based on renovating the existing facility.

In 2023, Council approved a project to obtain conceptual drawings and feasibility study for a new fire station of approximately 1207m² (13000 ft²) to be rebuilt or renovated on the same site, as well as options for phased construction and a stand-alone total rebuild on a different site. This design project was awarded to Raimondo + Associates Architects Inc. through the competitive bid process. The architectural review of the existing facility and multiple design options are included as an attachment to this report.

The architectural review of the existing facility found that the Fire Station does not adhere to current *Ontario Building Code* (OBC) standards, or requirements under the Ontario Health and Safety Act. There exists a lack of accessibility for individuals with mobility impairments, and inadequate provisions for private locker and shower facilities given the number of volunteers stationed at the facility, and its public use. The existing number of garage bays is insufficient to accommodate the future expansion of fire fighting apparatus and emergency vehicles related to growth in the station's service area.

The feasibility study provided several design concepts ranging from renovation of the existing building to complete demolition and rebuild in the same location, or on a different site.

Design Concept A

This option incorporates an expansion and extensive renovations to the existing Fire Station. This would include the addition of an apparatus bay and office space on the front of the building. The training and banquet room will be reduced in size to accommodate needed storage, an accessible washroom and hallway. Portions of the existing apparatus bay will be used to improve and expand the washrooms to include locker/changeroom areas and a ventilated bunker gear storage room. The required repairs to the existing envelope including masonry, windows and doors, roof systems, insulation and interior plumbing and electrical results in a higher overall cost than complete demolition and construction of a new building. The total square footage of this option is 11,453 sq/ft at an estimated cost of \$8,303,425 or \$725 sq/ft to construct.

While it might be conceivable that the building may be somewhat functional during the construction phase of this concept, maintaining business continuity would be extremely challenging. The number of calls serviced by this station ensures that

there will likely be conflicts between construction activities and emergency response. Although it was not identified in the report, staff believe that both fire apparatus and fulltime staff will need to be relocated or temporarily housed during the construction of this concept at an increased cost to the project. The cost provided in the feasibility study for the building and relocating a temporary building to house staff and apparatus is \$840,000.

Design Concept B

This option is based on a 2 staged approach for the demolition and total reconstruction of Fire Station 1 at an estimated cost of \$7,401,000. This option includes initial demolition of the office and training room side of the facility to allow the construction of the apparatus bays on the west side of the building. This would be followed by the demolition of the existing garage bays in order to construct new offices, washroom/changerooms and training room spaces. The total square footage of this option is 12,335 sq/ft at an estimated cost of \$7,401,000 or \$600 sq/ft to construct.

This concept was developed in order to maintain some functionality during construction and keep the apparatus in service at the facility until the new bays are constructed on the opposite side. Staff will still be required to relocate until the facility is completed.

While this option attempts to maintain business continuity, a significant risk exists that the conflict between construction activities and emergency responders (both fire and ambulance) will either increase the costs of construction exponentially, or lead to the relocation and temporary housing of both fire apparatus and fulltime staff during the project.

Design Concept C

This option contemplates the complete demolition and total reconstruction of Fire Station 1 utilizing a temporary apparatus building onsite that can be relocated to another town site once the station is completed. The total square footage of this option is 13,519 sq/ft at an estimated cost of \$7,300,260 or \$540 sq/ft to construct. If built on the existing site this option would require the purchase of a temporary building to house the fire apparatus during construction and relocate it to another municipal property once the project is completed at an estimated cost of \$840,000.

Concept C represents 1 of 2 preferred designs as it provides the best use of space and overall function of the facility. This option is not based on constructing around existing building components, which provided more flexibility in design and allowed for increased space and functionality, as well as lower cost per square foot. This

option has the largest footprint of the concepts as it provides more apparatus bays than the other proposed facilities; however, it offers less office space than Concept D.

Design Concept D

This option is similar in design to Concept B, however, includes a temporary building to house fire apparatus onsite during construction. The total square footage of this option is 12,841 sq/ft at an estimated cost of \$6,934,140 or \$540 sq/ft to construct. If built on the existing site this option would require the purchase of a temporary building to house the fire apparatus during construction and relocate it to another municipal property once the project is completed at an estimated cost of \$840,000.

The design has fewer apparatus bays for future expansion of fire service fleet, but it provides additional office space for the potential use of existing staff or additional fulltime employees in the future. Staff do have some concerns regarding the overall functionality of this design particularly the location of the proposed washrooms in relation to the training/banquet room. As this space has the potential to hold public or private events, it is not ideal that access to the washrooms requires access to the staff portion of the facility, and it is problematic that the public have access to the areas where fire fighters may be showering or changing. Adding washrooms adjacent to the banquet area for the public to access without impacting emergency response operations is completely possible but will likely increase the budget.

Design Concept E

This concept includes the building of a fire station on an alternative site. The design of this option may be based on Concept C and D, with the cost of construction ranging from \$6,934,140 to \$7,300,260 not including the cost of purchasing property. (See companion closed session report for information regarding property acquisition and disposal options).

This approach would resolve all issues concerning business continuity of the Fire and Bylaw Services department. With this option the existing Fire Station 1 may remain open throughout the construction process until the new station is available.

The options presented are meant only as high-level conceptual ideas to illustrate potential design elements and preliminary costs per square foot for construction. Concept options A and B are more expensive per square foot based on the incorporation of existing building elements and complex construction staging to support business continuity of Fire, Bylaw and Ambulance Services at the site. Both options may ultimately require the relocation of both apparatus and staff, at an

additional cost, regardless of the efforts to remain functional onsite during construction.

The cost per square foot for the construction of Concept C and D are the same. Both concepts have advantages and disadvantages inherent in their design that may impact the functionality and potential expansion in the future. These concepts are meant to be used as starting points for the next phase of the design project. Elements of both concepts may be incorporated in the final architectural design of Fire Station 1 regardless of its location.

Council approved a project for the detailed architectural design work to replace Fire Station 1 in the 2024 capital budget. Staff require direction as to the concept or concepts that the architectural design will be based on.

Financial Considerations:

Council approved the \$300,000 FAC-03-24 Fire Station Architectural Design in the 2024 Capital Facilities Budget. The replacement of Fire Station 1 is currently planned for 2026 at a cost of \$7,000,000. The true cost of construction will not be known until the architectural design work is completed. Future reports will address the concept of how a new or renovated facility will be paid for, as the present reserves are inadequate to finance this major capital expenditure.

Alternatives Reviewed:

The alternatives for the replacement or renovation of Fire Station 1 are discussed within the analysis section of this report.

Strategic Plan Relationship: Infrastructure Investment and Renewal

The replacement or renovation of Fire Station 1 provides for much needed investment in the fire services infrastructure and will allow the department to expand as related to growth and continue to meet the needs of the community.

Consultation:

The Director of Fire and Bylaw Services was consulted in the preparation of this report. Raimondo + Associates Architects Ltd. authored the Pelham Fire Department Station No.1 Feasibility Study.

Other Pertinent Reports/Attachments:

Pelham Fire Department Station No.1 Feasibility

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