



Report to: General Committee

Date: January 25, 2013

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**SUBJECT:** Thornhill Refrigeration Plant Renovations  
**PREPARED BY:** Dennis Riggs, Facility Co Coordinator- West  
Janice Carroll, Community Recreation Manager- West

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**RECOMMENDATION:**

- 1) That the report dated January 25, 2013 entitled “Thornhill Refrigeration Plant Renovations” be received; and
- 2) That the contract for the refrigeration system be awarded to Cimco Refrigeration in the amount of \$490,890.24 inclusive of HST; and
- 3) That the funds for this award be provided from account 500-101-5399-12198 “Thornhill Refrigeration Plant Renovations” in the amount of \$490,890.24; and
- 4) That the tendering process be waived for the refrigeration system in accordance with Purchasing By-Law 2004-341, Part II, Section 7, 1(b), where there is only one source of supply for the goods to be purchased; and
- 5) And that staff be authorized and directed to do all things necessary to give effect to this resolution.

**PURPOSE:**

The purpose of this report is to seek authorization to proceed on a preferred supplier basis for the refrigeration system portion “only” for the “Thornhill Refrigeration Plant Renovations” project.

**BACKGROUND:**

In December 2011, Council approved the 2012 capital budget for Thornhill Refrigeration Plant Renovations.

This project has been split into three (3) phases due to the tight times lines and scheduling needs of the facility.

Phase 1. (Completed in 2012)

Refrigeration system upgrade to brine piping and pumps.

Phase 2. (Approval recommended under this report)

Replacement of the refrigeration system components that include the chiller, evaporative and heat recovery condensers and controls.

Phase 3. (Tender to be issued to the public market in February 2013)

Phase 3 will be issued to the public market in February 2013 for sub contract work related to architectural, mechanical and electrical (details of work outlined on page 2) and

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would identify Cimco Refrigeration as the specified subcontractor for the refrigeration system portion (Phase 2) of the project.

The bid being issued to the market will include a cash allowance for Cimco Refrigeration portion of the work in the amount of \$490,890.24 inclusive of HST which the General Contractor would include within their price submission to do the complete project.

The General Contractor additional work within phase 3 is as follows:

Architectural

- Removal of existing walls and doors.
- Construction of a new vestibule into the refrigeration room complete with new doors and frames.
- Complete cutting and patching as required for all wall pipe penetrations. Install fire stop on all existing and new wall penetrations.
- Supply and install all concrete housekeeping pads for refrigeration and mechanical systems.
- Painting of interior walls of the new vestibule and refrigeration room.

Mechanical work

- Modifications to building plumbing and connection for new domestic hot water heat reclaim system.
- Supply and installation of new heat reclaim storage tank, heat exchange bundle, pumps and associated piping.
- Supply and install new emergency eye wash and pipe to existing hot and cold water services.

Electrical work

- Modifications to room lighting and switches to allow installation of new refrigeration room vestibule.

Staff is recommending Cimco Refrigeration for the following reasons;

- The existing 6000E is the automation systems controller for the Thornhill refrigeration plant and will need to be reprogrammed with new graphics and monitoring points. Cimco Refrigeration is the sole proprietor for this system.
- Cimco Refrigeration installed the original refrigeration plant electrical control panels and wiring. They have all the information on file making them more cost effective in this area.
- This project only has an 8 week period to complete this project in 2013 due to the programming needs of the facility. For the scope of the work, the timeline to complete is extremely tight. Cimco Refrigeration is the largest refrigeration company in North America that specializes in arena refrigeration systems. They have the resources, expertise, manpower and equipment to meet the timelines on this project.

- Cimco has had a long standing relationship with the City of Markham on numerous projects such as the outdoor artificial pad at the Civic Centre, renovation of the Crosby Community Centre ice pad and renovation of the Centennial Community Centre ice pad plus a new refrigeration engine room. Workmanship, expertise and quality have been evident in the projects they have secured from the City.
- Cimco has been and is the current service and maintenance provider to the existing 11 ice pad engine rooms for the City. Since the renovation is only replacing 50 % of the refrigeration engine room, having another contractor involved could result in warranty or service/operational issues.

In order for the project to move forward in 2013, staff need to issue a purchase order for a main component for the system, one titanium plate heat exchanger must be on order with the manufacturer (Alfa Laval Corporation) by Friday February 15, 2013 in order for the project to occur in the timeframe of May & June 2013. Should the deadline not be met, the project cannot proceed and the next available scheduling date for this renovation project would be May 2014.

In 2012 AECOM Engineering was hired by the City to produce the specifications and manage the project. AECOM's role in development of the specifications is to ensure compatibility with existing on site equipment and coordination of all work. They have reviewed the Cimco Refrigeration pricing and adherence to the specification for this project. AECOM have found the pricing fair and reasonable for the work.

**OPTIONS/ DISCUSSION:**

Not to proceed with the recommendations contained in this report would defer the project until May 2014 due to the scheduling need of the facility. If further delayed there is a potential risk of mechanical failure. If the project proceeded at a different time period in 2013, the City would have to cancel ice rentals to complete the project.

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**FINANCIAL CONSIDERATIONS AND TEMPLATE:**

Project 12198 'Thornhill Refrigeration Plant Renovations' was approved in the amount of \$739,800 as part of the 2012 Capital budget process. Subsequently, phase 1 work related to brine piping and pumps has been completed leaving a balance of \$660,513.

<b>Details</b>	<b>\$'s</b>
Budget in Project 12198, 'Thornhill Refrigeration Plant Renovations'	739,800
Phase 1 - upgrade to brine piping and pumps	(79,287)
<b>Remaining funds after phase 1</b>	<b>660,513</b>
Award for Phase 2 - Refrigeration Renovations	(490,890)
<b>Remaining Budget available</b>	<b>169,623</b>

The remaining balance of \$169,623 will be used for phase 3 general contractor work to be tendered in February 2013.

**HUMAN RESOURCES CONSIDERATIONS**

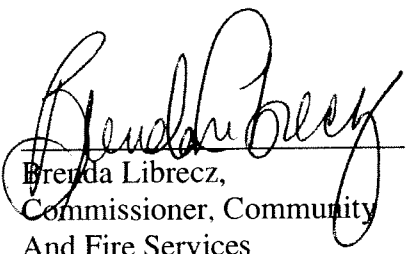
Not Applicable

**ALIGNMENT WITH STRATEGIC PRIORITIES:**


This project is aligned with City Priorities.

**BUSINESS UNITS CONSULTED AND AFFECTED:**

The Purchasing Department has been consulted in the preparation of this report.

**RECOMMENDED****BY:**

Brenda Librecz,  
Commissioner, Community  
And Fire Services



Mary Creighton  
Director of Recreation  
Services

**ATTACHMENTS:**

- Attachment A: Cimco Refrigeration Proposal
- Attachment B: Cimco Refrigeration – Titanium Plate Heat Exchanger
- Attachment C: AECOM Review