



Report to: General Committee

Meeting Date: November 15, 2021

SUBJECT: 182-S-21 Preventative Maintenance and Servicing of Arena Refrigeration Equipment

PREPARED BY: Scott Hill, Facility Coordinator, Recreation, Ext. 7107
Darius Chung, Senior Buyer, Procurement, Ext. 2025

RECOMMENDATION:

1. That the report entitled “182-S-21 Preventive Maintenance and Servicing of Arena Refrigeration Equipment” be received; and,
2. That the contract for preventive maintenance and servicing of arena refrigeration equipment be extended to CIMCO Refrigeration for a five year term (October 1, 2021 – September 30, 2026) in the total amount of \$695,112.79; and
 - 2021: \$34,756.14 (October 1 – December 31)
 - 2022: \$139,024.56
 - 2023: \$139,024.56
 - 2024: \$139,024.56
 - 2025: \$139,024.56
 - 2026: \$104,268.42 (January 1 - September 30)Total Term: \$695,112.79 (Pricing fixed for 5 years)
3. That the 2021 award be funded from the various operating budgets from each respective location as identified under financial considerations; and
4. That the shortfall of \$13,359.90 be adjusted as part of the 2022 Operating Budget subject to Council approval; and
5. That the tender process be waived in accordance with Procurement By-Law 2017-8, Part II, Section 11, Non-Competitive Procurement, item 11.1 (c) which states “when the extension of an existing contract would prove more cost-effective or beneficial; and
6. That the CAO be authorized to extend the contract for an additional five (5) years (2026 (October 1) – (September 30) 2031) subject to Council’s approval of the annual operating budget, vendor performance, and an increase based on the Consumer Price Index (CPI) Ontario All-Items to a maximum of 2%; and
7. That staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of the report is to obtain Council's approval to extend contract for Preventive Maintenance and Servicing of Arena Refrigeration Equipment for a term of five (5) years with option to renew the contract for an additional five (5) years.

This contract is for an all-inclusive full service and preventative maintenance program for arena refrigeration equipment at eight (8) recreation facilities providing 24 hour service, seven-days per week. The service includes but is not limited to all labour and materials necessary to regularly inspect and maintain equipment, on-site support for start-up and shut-down of all City rinks.

CIMCO Refrigeration, the incumbent, is the largest refrigeration service provider in North America with over 5,000 rinks installed. They have provided services to the City of Markham for over 40 years and their knowledge and experience with of the City's refrigeration plants has been imperative during a breakdown, or in emergency.

The current all-inclusive full service and preventative maintenance program is a comprehensive plan to ensure continuous and safe operation of equipment (compressors, chillers, condensers, controllers, pumps, valves) at the following facilities:

- Thornhill Community Centre – 46 pieces of equipment
- Clatworthy Arena - 18 pieces of equipment
- Crosby Arena - 19 pieces of equipment
- Milliken Mills Community Centre - 18 pieces of equipment
- Markham Centennial Centre - 29 pieces of equipment
- Mount Joy Arena - 20 pieces of equipment
- Angus Glen Community Centre - 36 pieces of equipment
- Markham Civic Centre - 19 pieces of equipment

OPTIONS/ DISCUSSION:

The City may negotiate contracts outside the competitive contracting process when negotiations can reasonably be expected to lead to price savings and/or operational efficiencies for the City, which could not be reasonably expected as achievable through competitive bidding process.

CIMCO Refrigeration (CIMCO) was awarded the all-inclusive full service and preventative maintenance contract (102-T-08) in 2008 for a term of five (5) years which was subsequently extended from 2013-2016 and again from 2016-2021. In comparing the 2nd low bidder in 2008, their price was 52% higher at that time and would still be higher than the contract price the City is recommending under this report.

During this time, CIMCO has provided exceptional service and been reliable in minimizing downtime and keeping rinks optimal and safe across the City. CIMCO is also the manufacturer of refrigeration equipment which make up the majority of the equipment in City facilities.

Each facility and their respective equipment is monitored remotely by staff and CIMCO via the Smart Hub Controller to ensure safe and optimal operation 24 hours a day, 7 days a week and cannot be serviced by a third party provider.

Arena refrigeration is a niche market with a limited number of local service providers because it requires trained and certified personnel that can work with ammonia. Ammonia is used as a refrigerant in refrigeration systems to cool the floors in their rinks and subsequently allow applied water to freeze into an ice surface. Ammonia is considered a toxic substance, and can cause severe injuries or death to people that come into contact with it. For this reason, there are very strict safety requirements in place for the use of ammonia in public recreational facilities that must be adhered to in order to reduce the risk of exposure.

CIMCO Refrigeration maintains equipment and supports rink start-up and shut-down at 8/9 of City facilities with the only exclusion being Markham Village Arena.

Due to the limited number of local service providers who can provide certified technicians 24 hours a day, 7 days week regular and emergency service to the 8 City arenas that utilize ammonia based refrigeration systems, staff recommend awarding CIMCO Refrigeration to ensure all existing refrigeration equipment and monitoring capabilities is being maintained by the manufacturer whom is familiar with both the systems, and the regular start-up and shut-down schedules of City arenas.

By negotiating this contract, the City will be able to maintain service levels and fixed pricing from 2022-2026 and avoid any potential for large market increases in 2026-2031. The new contract shall include additional scope of work including replacement of approximately thirty-two ammonia relief valves (32) as required at each facility amortized over the next 5 years as mandated by the Technical Standards & Safety Authority and two (2) hours of annual training each year per facility. The cost of replacement of relief valves is \$8,598.72 per year and training is \$2,035.20 per year.

FINANCIAL CONSIDERATIONS

Staff recommends the City enter into a contract with CIMCO Refrigeration for a five year term totaling \$695,112.79; October 1, 2021 – September 30, 2026 which includes the addition of replacing relief valves and annual training. Annual costs are as follows:

- 2021: \$34,756.14 (October 1 – December 31)
- 2022: \$139,024.56
- 2023: \$139,024.56
- 2024: \$139,024.56
- 2025: \$139,024.56
- 2026: \$104,268.42 (January 1 - September 30)

Total Term: \$695,112.79 (Pricing fixed for 5 years)

The annual cost is a reflection of the existing 2016-2021 all-inclusive contract cost of \$125,644.66 + \$10,633.92 in additional scope + 2% CPI increase. Staff negotiated a 0% increase from October 1, 2022- September 30 2026 resulting in a cost avoidance of \$42,552.66 based on proposed annual increases of 2%.

Account #	Facility	Budget Available	Annual Cost of Award (Oct 1, 2021 - Sept 30, 2026)	Budget Remaining
501 921 5314	Thornhill Community Centre	\$21,023.37	\$24,720.01	(\$3,696.64)
501 922 5314	Clatworthy Arena	\$11,817.12	\$15,741.14	(\$3,924.02)
502 922 5314	Crosby Arena	\$12,507.99	\$14,147.07	(\$1,639.08)
502 921 5314	Milliken Mills Community Centre	\$11,562.72	\$13,663.78	(\$2,101.06)
503 921 5314	Centennial Community Centre	\$16,420.24	\$15,970.99	\$449.25
503 922 5314	Mount Joy Arena	\$12,762.39	\$18,470.59	(\$5,708.20)
504 921 5314	Angus Glen Community Centre	\$17,801.98	\$17,359.99	\$441.99
504 211 5399	Civic Centre Ice Rink	\$21,768.85	\$18,950.99	\$2,817.86
	Total	\$125,664.66	\$139,024.56	(\$13,359.90)

The operating budget has been adjusted accordingly and is subject to Council approval of the 2022 Operating Budget.

The contract extension to CIMCO Refrigeration for a five year term totaling \$737,959.17; October 1, 2026 – September 30, 2031 includes replacement of remaining relief valves and training. Annual costs are as follows:

- 2026: \$35,451.26 (October 1 – December 31)
- 2027: \$142,514.07
- 2028: \$145,364.36
- 2029: \$148,271.64
- 2030: \$151,237.07
- 2031: \$115,120.76 (January 1 - September 30)

Term Total: \$737,959.17

An annual CPI increase (all-items Ontario) to a maximum of 2% shall be applied to extension years effective October 1, 2026 – September 30, 2031 and is subject to Council approval of future operating budgets. Contract escalation will be considered as part of the annual budgeting process.

The total contract value including extension is \$1,433,081.95 inclusive of HST.

HUMAN RESOURCES CONSIDERATIONS

Not applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

Goal	Examples – How the Solution can Help Achieve the Goal
Exceptional Services by Exceptional People	24 hour / 7 days a week remote monitoring to ensure optimal plant performance and safety.
Engaged, Diverse & Thriving City	Supports indoor/outdoor skating, hockey programs, ice rentals, and lessons.
Safe & Sustainable Community	24 hour / 7 days a week all-inclusive preventative maintenance, routine service, and emergency repairs to ensure safety and regulatory compliance.
Stewardship of Money & Resources	The contract supports responsible use of money and resources by choosing the most cost effective and comprehensive solution to maintain City refrigeration equipment.

BUSINESS UNITS CONSULTED AND AFFECTED:

Recreation and Financial Services were consulted in the preparation of this report and their comments have been included.

RECOMMENDED BY:

Mary Creighton
Director, Recreation Services

Morgan Jones, Commissioner,
Community Services