



Report to Council

Department: Community Services
Division: Parks and Facilities
Date: April 19, 2021
Prepared by: Jake Morassut, Manager of Parks and Facilities
Report Number: Parks and Facilities-2021-03
Subject: Capital Project CS-21-0057 Refrigeration System at the Essex Centre Sports Complex, Scope Addition
Number of Pages: 4

Recommendation(s)

That Parks and Facilities-2021-03 report entitled Capital Project CS-21-0057 Refrigeration System at the Essex Centre Sports Complex, Scope Addition prepared by Jake Morassut, Manager Parks and Facilities, dated April 19, 2021 be received;

That Council approve the additional work of replacing of two Bitzer Compressors in 2021;

That Council approve the addition of replacing two motor bearings while the compressors are being replaced; and

That Council approve the addition of repairing the heat exchanger gaskets while the compressors and bearings are being replaced.

Purpose

To obtain Council's approval for refrigeration system maintenance which includes the replacement of two Bitzer compressors in 2021, and to expand the scope of work to include

the replacement of two bearings, and expand the scope of work to include the repair of a heat exchanger, all with no increase to 2021 capital budget.

Background and Discussion

During the 2021 budget deliberations, Council approved the Essex Centre Sports Complex to have two Bitzer screw compressors replaced. The Town of Essex approved \$86,000.00 in the capital budget for this project. A vibration analysis of the existing compressors was completed by Machinery Monitoring & Analysis LTD (MMA) at a cost of \$2,096.15 (including the non-refundable tax) and recommended replacement of two compressors. While the original plan was to have two compressors with a budget of \$86,000.00 (including the non-refundable tax), **CIMCO Refrigeration's maintenance contract totals this price at \$60,038.40** (including the non-refundable tax). In addition, the Town of Essex, upon approval from Bitzer, may receive up to \$3,500.00 per compressor as a return credit (less cost of freight which is expected to be approximately \$500.00) totaling an estimated \$6,500.00 credit. With these credits taken into account, the Bitzer Compressor project is expected to cost approximately \$55,634.55, which is \$30,365.45 under budget.

With that being said, the vibration analysis from MMA also recommended to replace the bearings in the motors when the Bitzer Compressors are replaced. The bearing replacement will cost \$1,780.80 (including the non-refundable tax), which will bring project to a total estimated cost of \$57,415.35 (including the non-refundable tax).

Finally, it was determined that the refrigeration plant's heat exchanger suffered a gasket failure which is causing ammonia leaks in the facility. The ammonia was removed from the system to prevent further leakage; however, to repair the gaskets in the heat exchanger will cost \$10,069.15 (including the non-refundable tax). While this was not a capital budget item, this unexpected cost will still fit into our original Bitzer Compressor replacement budget which will now total \$67,485.50 (including the non-refundable tax) if we receive the full amount of the compressor return credit. If we do not receive any money for the compressor return credit, as a worst case scenario, this will cost \$ 73,985.50.

Administration is requesting that the replacement of two motor bearings and the heat exchanger gasket replacement is added to the scope of the Bitzer compressor project as these additions fall within the original capital project budget.

Financial Impact

There will be no additional financial impact associated with the increase to the scope of work for Capital Project CS-21-0057 as it will fall within the approved 2021 Budget for the project, as summarized below.

Project	Cost	Non-Tax Refundable Cost	Expected Credit	Total Cost	Cumulative Cost
Vibration Analysis	\$1,855.00	\$2,096.15	\$0.00	\$2,096.15	\$2,096.15
Two Compressors	\$59,000.00	\$60,038.40	\$6,500.00	\$53,538.40	\$55,634.55
Two Bearings	\$1,750.00	\$1,780.80	\$0.00	\$1,780.80	\$57,415.35
Heat Exchanger	\$9,895.00	\$10,069.15	\$0.00	\$10,069.15	\$67,484.50
				Total Under Budget (Best Case)	\$18,515.50
				Total Under Budget (Worst Case)	\$12,015.50

Consultations

Jeffrey Morrison, Director of Corporate Services/Treasurer

Link to Strategic Priorities

- ☒ Manage, invest and plan for sustainable municipal infrastructure which meets current and future needs of the municipality and its citizens.
- ☒ Create a safe, friendly and inclusive community which encourages healthy, active living for people of all ages and abilities.
- ☒ Provide a fiscal stewardship and value for tax dollars to ensure long-term financial health to the municipality.
- ☐ Manage responsible and viable growth while preserving and enhancing the unique rural and small town character of the community.
- ☐ Improve the experiences of individuals, as both citizens and customers, in their interactions with the Town of Essex.
- ☐ **Improve the Town's capacity to meet the ongoing and future service needs of its citizens** while ensuring the corporation is resilient in the face of unanticipated changes or disruptions.