



TOWN OF
HALTON HILLS
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REPORT

TO: Mayor Bonnette and Members of Council

FROM: Bruce Morrison, Deputy Chief - Operations

DATE: January 26, 2022

REPORT NO.: FIRE-2022-0002

SUBJECT: Award of Bids for Geothermal Heat Pumps Replacement

RECOMMENDATION:

THAT Report No. FIRE-2022-0002, dated January 26, 2022 regarding Award of Bids for Geothermal Heat Pumps Replacement be received;

AND FURTHER THAT Council approve the award of the bid for the Headquarters and Maple Avenue Stations, Geothermal Heat Pumps Replacement to VCI Controls Inc., 1 Royal Gate Blvd, Suite D, Vaughan ON L4L 8Z7 in the amount of \$210,839.31 plus applicable taxes;

AND FURTHER THAT the scope of the Replace Heat Pumps at Headquarters Station (capital project 5500-02-2002) be expanded to include the replacement of heat pumps at the Maple Avenue Station as detailed in the Report FIRE-2022-0002;

AND FURTHER THAT the capital budget for Replace Heat Pumps at Headquarters Station (project 5500-02-2002) be increased by \$201,100 from \$50,000 to \$251,100 and that the additional funding be financed by \$100,000 of ICIP grant funding, and \$101,100 from the Capital Replacement Reserve.

KEY POINTS:

The following are key points for consideration with respect to this report:

- The Maple Avenue and Headquarters Fire Stations utilize ground based geothermal systems to provide heating and cooling to the facility. The heart of the systems are two heat pump units installed working in tandem, in each facility.
- These units have been identified as being prematurely at the end of their useful service life and continue to suffer repeated failures. Parts for these units are

scarce which results in our HVAC contractor having to manufacture replacement parts or spend significant time sourcing the required parts. While sourcing these parts the unit remains inoperable.

BACKGROUND AND DISCUSSION:

In the late fall of 2020, the province announced the Investing in Canada Infrastructure Program: COVID -19 Resilience Infrastructure Stream - Local Government Intake Projects (ICIP funding) to address the challenges faced by communities as a result of the COVID-19 pandemic. COVID Stream cost sharing is funded 80% by the federal government and 20% by the province. The Town submitted a project for consideration to replace the heat pump units at the Headquarters Station and Maple Avenue Station. Costs associated with this project were based on best estimate, provided by industry contractors, on a like for like replacement, and were estimated to be \$100,000.00:

\$50,000.00 Heat Pump Replacement – Headquarters Station
\$50,000.00 Heat Pump Replacement – Maple Avenue Station

In the spring of 2021, the Town was notified that we were successful in obtaining the requested funding and work began on developing a bid document with the assistance of the Town's Senior Manager of Purchasing and Risk Management.

A Transfer Payment Agreement (TPA) and enacting bylaw were established to receive funding from this grant as identified through Report -TPW-2021-0019, Transfer Payment Agreement Investing in Canada Infrastructure Program (ICIP) COVID 19 Resilience Infrastructure Stream – Local Government Intake Projects. With the approval of the TPA and bylaw, staff were able to proceed with bids for equipment replacement ahead of the budgeted timing for these projects at the Maple Avenue Station (2022).

A technical consultant was engaged to review the geothermal equipment in place at the Maple Avenue and Headquarters Fire Stations and develop technical bid documents to assist in the bidding process (see Report Fire 2021-0001 Award of Single Source – WalterFedy Heat Pumps). During this review, issues were identified with the geothermal system setup that the heat pumps alone could not be expected to cure. In addition, substantial upgrades would need to be done to the existing building automation system to accommodate the replacement heat pumps. These additional items were incorporated into the bid documents and the tender issued on October 15, 2021.

Tenders were received on November 9, 2021 and a review conducted by Fire Senior staff, Purchasing Manager and our Energy Management & Climate Change Analyst. Based on this review it was identified that the optimization of the geothermal system at Headquarters and Maple Avenue Fire Stations will enable GHG reduction and assist the Town in meeting its Net Zero Target by 2030.

Bids for the optimization of the geothermal system were as follows:

| Company | Location | Bids (excluding HST) |
|----------------|-----------------|-----------------------------|
| VCI Controls | Vaughan | \$210,839.31 |

| | | |
|-------------------------------------|-------------|--------------|
| Glenn Richardson Plumbing & Heating | Burlington | \$288,645.60 |
| Ainsworth Inc. | Toronto | \$291,308.00 |
| Superior Air Systems Ltd. | Etobicoke | \$308,730.00 |
| AerComfort Mechanical Service | Brampton | \$311,660.00 |
| Antrim Mechanical Ltd. | Brampton | \$312,242.00 |
| Combined Air Mechanical Service | Mississauga | \$330,800.00 |
| FXD Performance Contracting Inc. | Toronto | \$367,198.00 |
| LCD Mechanical Inc. | Maple | \$499,000.00 |

The low bid received for the geothermal system, incorporating the additional specifications identified by WalterFedy in the bid documents was from VCI Controls Inc., 1 Royal Gate Blvd, Suite D, Vaughan ON L4L 8Z7 in the amount of \$210,839.31 (or \$214,550.08 including applicable taxes). In addition, technical consulting costs for this project totaled \$36,531.84 (including applicable taxes) bringing the total revised project budget to \$251,081.92.

Additionally, a review of the Transfer Payment Agreement Investing in Canada Infrastructure Program (ICIP) COVID 19 Resilience Infrastructure Stream – Local Government Intake Projects requires that the Municipality notify the Ministry once funding is insufficient to cover the proposed project and provide a recommendation on how we plan to address the shortfall. Failure to do so may result in the project funding being cancelled. This report fulfills this requirement.

Staff will continue to pursue other grant funding sources that may be available and will report back to Council if additional funding can be secured.

STRATEGIC PLAN ALIGNMENT:

This report aligns to the Town's Strategic plan recognizing the value to foster a healthy community that provides a clean environment and range of economic and social opportunities to ensure a superior quality of life in our community.

This report also aligns with the Strategic plan in recognizing the value to provide responsive, effective municipal government and strong leadership in the effective and efficient delivery of municipal services.

This report also identifies climate change and the environment as one of the Town's Strategic priorities.

RELATIONSHIP TO CLIMATE CHANGE:

In May 2019, Town of Halton Hills Council declared a Climate Emergency and committed the Town to a goal of achieving net-zero carbon by 2030. Meeting this target for the Town's operations requires swift action to reduce the consumption of fossil fuels including the use of natural gas at Town facilities. Given the short time frame adopted in the climate emergency, the Town cannot purchase new equipment that locks in consumption of significant fossil fuels past 2030. In order to meet the target set out in the 2019 declaration, the Town will need to pursue low-carbon and alternative fuel

options whenever possible as capital investments are made into facilities. The Optimization of heat pump and geothermal systems at HQ and Maple firehalls will ensure optimized operation of the HVAC system, improved efficiency, reduction of operational costs and reduction of overall emissions at both firehalls. This will contribute to meeting the Town's Net Zero Target by 2030.

PUBLIC ENGAGEMENT:

Public Engagement was not needed as this report is administrative in nature.

INTERNAL CONSULTATION:

Staff worked together with Purchasing and Climate Change divisions. Both are in agreement with this award.

FINANCIAL IMPLICATIONS:

This report has an immediate financial impact and requires a funding source.

It is recommended, for efficiency in the project implementation, that the replacement of the heat pumps at Maple Avenue be combined with the Replacement of Heat Pumps at Headquarters Station project (capital project 5500-02-2002). For the combined projects, the total revised budget based on the bid is currently estimated at \$251,100. The approved project budget for 5500-02-2002 is \$50,000, which results in a budget shortfall of \$201,100. The required additional funding will be financed by \$100,000 of ICIP-COVID 19 Resilience Infrastructure Stream funding, and \$101,100 from the Capital Replacement Reserve.

Staff will continue to investigate alternative funding sources through grants as opportunities become available.

Reviewed and approved by,

Jon Rehill, Commissioner & Chief of Fire Services

Chris Mills, Chief Administrative Officer