



Subject: Vale Health and Wellness Centre Cooling Tower and Heat Exchanger Gasket Replacement

To: Council

From: Public Works Department

Report Number: 2022-231

Meeting Date: October 11, 2022

Recommendation:

That Public Works Department Report 2022-231 be received;

That Council approve \$450,000 to remove and replacement the Cooling Tower and Heat Exchanger Gaskets at the Vale Health and Wellness Centre;

That the funding requirement of \$450,000 be included in the 2023 Capital and Related Project Budget and;

That Council provide the Chief Administrative Officer and Director of Public Works signing authority to award and approve payment of associated works.

Purpose:

The purpose of this report is to obtain Council's approval to expedite the removal and replacement of the cooling tower and heat exchange gaskets at the Vale Health and Wellness Centre utilizing the 2023 capital budget.

Background:

The City of Port Colborne currently has retained CIMCO, a division of Toromont Industries to assist the City with the ongoing maintenance, operation, and inspection of the Vale Health and Wellness Centre facility.

It was identified during previous inspections that the cooling tower and heat exchanger gaskets are due for replacement as identified in the 2023 capital budget request.

After recent discussions with CIMCO and current challenges associated with cooling tower and heater exchange gaskets, it was recommended that removal and replacement be completed as soon as reasonably possible due to the potential impacts to the facility and arena pads should the current cooling tower fail.

CIMCO also confirmed the current delivery time for a new cooling tower is approximately 4 to 6 months and the time required to complete the removal and installation is approximately 2 to 4 weeks. During the removal and installation of the cooling tower the ice pads and temperature within the facility will be impacted and ice rinks not available for use. In order to reduce ice rental impacts, City staff intend on scheduling the required works during the summer months where ice rental demands are typically lower.

Due to the anticipated delivery time of 4 to 6 months, City staff are requesting Council's approval to proceed with purchasing the cooling tower and heater exchange gaskets as soon as reasonably possible in order to meet the anticipated timelines for the work to be completed in the summer of 2023.

Discussion:

The cooling tower is a critical part of the building's heating, ventilation, and air conditioning system and allows for the efficient operation of the buildings refrigeration system.

The cooling tower acts as a heat removal device that removes excess heat from the building and cools heated water received from the chiller. Once heated water is cooled, it sends water back down to the chiller and continues the cycle.

Cooling towers typically have a lifecycle of approximately 15 years however due to the year-round use of ice pads at the Vale Health and Wellness Centre and higher demands that a typical building of this use would be challenged with, the existing 11 year-old cooling tower is experiencing signs of deterioration and is need of replacement.

Due to its critical function within the refrigeration cycle, and importance to maintain adequate temperatures for ice maintenance and comfort level within the facility, City staff want to ensure that the replacement of the cooling tower and heat exchange gaskets be completed as soon as reasonably possible to reduce the chances of causing disruptions to the facility.

Both Facilities and Recreation Departments are working together to ensure that the required works are completed during the summer months to reduce disruptions. The City must purchase the cooling tower as soon as possible in order to ensure delivery and installation for the summer of 2023.

CIMCO has provided cost estimates for the required works however a formal request for quotation to qualified contractors will follow upon approval of this report to ensure that the City is receiving competitive pricing to complete the required works.

Internal Consultations:

Public Works Facilities and Recreation Departments are working cohesively to ensure that scheduling of the required works at the Vale Health and Wellness Centre are coordinated and that appropriate notice to the public is provided while ice pads are out of service.

Financial Implications:

Total estimated costs for replacement of the Cooling Tower and Heat Exchange Gaskets are \$450,000.

Normally this request would proceed through the annual budget process. Recognizing the cooling tower's risk of failure and the impact it may have to users of ice pads, this report recommends Council proceed without delay.

Staff note that following a procurement process, delivery and installation will not occur until 2023. For this reason, Staff recommend this project be included in and funded from the 2023 Capital and Related Project Budget.

Public Engagement:

Staff will ensure that adequate public notice is given during the replacement period when the arena ice pads are taken out of service.

Strategic Plan Alignment:

The initiative contained within this report supports the following pillar(s) of the strategic plan:

- Service and Simplicity - Quality and Innovative Delivery of Customer Services
 - Value: Financial Management to Achieve Financial Sustainability
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Conclusion:

Upon completion of recent inspections and current challenges with the Cooling Tower unit and heat exchange gaskets, it is recommended that City staff move forward with the procurement and replacement of the Cooling Tower and Heat Exchange Gaskets as soon as reasonably possible to reduce the risk of service level impacts at the Vale Health and Wellness Centre facility for the estimated cost of \$450,000.

Respectfully submitted,

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Report Approval:

All reports reviewed and approved by the Department Director and also the City Treasurer when relevant. Final review and approval by the Chief Administrative Officer.