



Report to: General Committee

Meeting Date: April 11, 2023

SUBJECT: Thornlea Pool – Tank Repair and Tile Replacement
PREPARED BY: Dana Honsberger, Project Manager, Sustainability and Asset Management

RECOMMENDATION:

- 1) That the report entitled “Thornlea Pool - Tank Repair and Tile Replacement” be received; and
- 2) That the existing Thornlea Pool Restoration project 070-6150-21208-005 be increased to allow for the pool tank repair and tile replacement in the amount of \$703,396 inclusive of contingency and HST impact, funded from the Lifecycle Replacement Reserve; and
- 3) That the applicable Director and the Sr. Manager of Procurement & Accounts Payable be authorized to undertake negotiations with the current onsite contractor Canada Construction Ltd. to attain a fair cost and to expedite the procurement process; and
- 4) That the applicable Director and the Sr. Manager of Procurement & Accounts Payable be authorized to award the contract once negotiations have been finalized and the award is in the best interest of the City; and
- 5) That the tendering process be waived in accordance with Purchasing By-Law 2017-8, Part II, Section 11.1 (c) which states “when the extension of an existing Contract would prove more cost-effective or beneficial” and (g) where it is in the City’s best interest not to solicit a competitive Bid; and
- 6) 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 notify Council of the change in scope for this project which includes: 1) scope reduction due to the costs associated with easements from the York Region District School Board and 2) solutions to repair the Thornlea Pool tank cracks, and tile replacement, which will extend the construction schedule and increase the project budget from the original restoration project scope of work. As well, this report will outline the funding requirements for these solutions and the rationale for recommending a non-competitive contract to be awarded to Canada Construction Ltd. (CCL) pending negotiations.

BACKGROUND:

Built in 1972, a shared-use agreement existed between York Region District School Board (YRDSB) & Town of Markham until 2012, when the City of Markham assumed maintenance and operation of the facility. Recreation Services provides ongoing maintenance and operation of the Thornlea Pool & Building through a 3rd party vendor, PPL Aquatics Fitness & Spa Group.

In February 2020, SIG (City's mechanical contractor) was performing regular maintenance of the pool dehumidification unit (PDU) which led to the discovery of a faulty control panel. In July 2020, it was confirmed that the control panel was not repairable and that the manufacturer no longer provided service or parts for this unit. Replacement of the PDU was required.

On March 16, 2020, the pool was fully drained for cost savings due to the COVID pandemic.

In April 2020, staff observed loose pieces of concrete falling from the underside of the pool roof. Recreation retained a consultant to perform a roof deck soffit condition assessment to identify potential risk of future fall hazards and provide remediation options. Recreation Services then connected with Sustainability & Asset Management (SAM) to investigate further issues at Thornlea Pool.

In May 2020, SAM retained Consulting Engineers Thornton Tomasetti Canada Inc. (TT) to complete a full building condition audit to the building envelope and structure at Thornlea. In November 2020, TT completed the Building Envelope and Structural Review Report. The report recommended the replacement of the PDU, pool soffit repairs, exterior wall repairs, concrete repairs in basement, and roof replacement.

In March 2021, there was Council resolution ([Link To Online Council Meeting Minutes](#)) that a capital project for the Thornlea Pool Restoration to address the above noted issues be established in the amount of \$2,307,412 funded through the Lifecycle Reserve.

In July 2021 and after an award process, TT started the development of the design documents for construction. In May 2022, the project was tendered and the Canada Construction Ltd. (CCL) was awarded the contract July 2022. Construction started in August 2022.

During project start-up, it was first observed that there were cracks in the pool deck tiles and grout prior to the installation of the scaffolding required for soffit repairs. The contractor is familiar with working in pool environments and took the necessary precautions to ensure their work did not further impact the pool tiles. Further investigation was delayed until the scaffolding was removed in late November 2022. At that time, and leveraging similar reviews at the Angus Glen and Centennial pools, Aquatic Design & Engineering (ADE) were brought in to assess the conditions at Thornlea Pool.

The initial report dated December 20, 2022 recommended that all tile across the deck and pool shallow end be removed, concrete repairs be made from within the pool tank and on the deck, and a new waterproofing membrane be installed to create a single monolithic system, followed by full retiling.

It is observed by the City's consultants that the extensive time without water in the pool caused the concrete walls and grout to dry and shrink more than it typically would during a normal shut-down for maintenance.

OPTIONS/ DISCUSSION:

The original Thornlea Pool Restoration project was to address various mechanical, roof, concrete, and masonry repairs in addition to the replacement of the pool dehumidification unit. Additionally, Staff had recommended addressing requirements for a code compliant fire hydrant to service the facility and an electronic message board on Bayview Avenue at same time to achieve construction cost efficiencies.

Prior to the tender of this project City Staff engaged the York Region District School Board (YRDSB) regarding easements the City would require for new electrical lines associated with a new electronic sign and watermains, for both domestic and fire purposes. After negotiation with YRDSB, the cost of the easements for the water, electrical and data services were expected to exceed the original budget approved by Council by more than \$300,000. As a result, Staff did not pursue this easement and looked at alternative solutions.

City Staff were able to satisfy the fire hydrant requirement for this property by installing a fire hydrant in the right-of-way of Bayview Avenue at the school entrance and some work with fire route signs with YRDSB. The domestic water connection for the Thornlea Pool building remains as a branch coming from the Thornlea School building. The electronic sign has been changed to a static City sign to identify the Thornlea Pool building from Bayview Avenue.

For this change in scope, \$115,659 was returned to the funding source upon award of the CCL contract.

In January 2023, Recreation Services and SAM discussed concerns for the potential of further underlying issues that would only be revealed once the pool was filled. In February, the pool was filled by CCL, using recommendations given for Angus Glen and Centennial Pools as to the proper approach to be taken after long periods without water. An extremely slow fill rate with warm water was recommended by ADE to prevent thermal shock to the pool tank.

The filling of the pool revealed additional leaks within the pool. ADE provided a report on March 1, 2023. The report recommended that due to the amount of water loss, the entire pool and deck be fully retiled to address any cracking and remedial concrete repair throughout. ADE also recommended that the pool not be refilled until the repairs are made due to the significant leak.

Canada Construction Ltd. was awarded the restoration contract for Thornlea Pool in July of 2022 and is presently on site. Staff recommends we continue with CCL as the general contractor, in the form of a non-competitive award, for the new proposed works for the following reasons:

- A different contractor working in the same space would void warranty items under the CCL contract.
- CCL cannot finish the commissioning of the PDU until the pool is filled with water.
- CCL could begin the new work with little or no downtime as they are presently on site. The estimated time for the new work is 21-26 weeks. Tendering for the new work would add months to the timeline.
- It is critical that Thornlea Pool open in the fall of 2023 as Angus Glen Pool will close due to similar repairs. Having two pools closed at the same time will severely hamper the Recreation Department's level of service.
- CCL's performance during the restoration contract at Thornlea Pool has been above average and their working relationship with the City has been and continues to be exceptional.

The consultant estimates the cost of construction to be \$500,000 based on the square footage of tile replacement needed with an additional 40% contingency. The completion of the new work for an anticipated pool opening would be Fall 2023, ideally before the closure of Angus Glen Pool.

In order to meet the critical schedule that the Recreation Department requires. Staff will engage CCL to provide an expedited schedule, which could include extended works hours and weekend work, and the costs associated for review.

The facility has been in operation for over 50 years and as such the pool tank repairs and tile replacements are in alignment with life cycle replacements for these assets at this time.

FINANCIAL CONSIDERATIONS

Recommended Supplier	Canada Construction Ltd. (CCL)	
Budget from Council Resolution	\$ 2,307,412	Original restoration project
Returned to source after awards	\$ (115,659)	Reduction in scope due to easement issues
Budget	\$ 2,191,753	70-6150-21208-005 Thornlea Pool Restoration
Uncommitted Budget Remaining	\$ 8,924	
Estimated cost of award to Canada Construction Ltd.	\$ 712,320	Total Inclusive of 40% contingency & HST Impact
Budget remaining after this award	\$ (703,396)	

The costs of the pool tank and tile repairs will be funded by the remaining budget from the current project #21208 for \$8,924 and the Lifecycle Replacement Reserve for the remaining \$703,396.

HUMAN RESOURCES CONSIDERATIONS

Not applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

Safe and Sustainable Community

- Enable Recreation Department to minimize building shutdown
- Reduce impact to community users

BUSINESS UNITS CONSULTED AND AFFECTED:

The following business units have been consulted:

Recreation Department

Finance Department

RECOMMENDED BY:

Graham Seaman
Director Sustainability and Asset Management