

Section I – Items for Board of Directors Action

TO: Chair and Members of the Board of Directors
Friday, September 27, 2024 Meeting

FROM: Sameer Dhalla, Director, Development and Engineering Services

RE: **REQUEST FOR PROPOSAL FOR KEATING CHANNEL DOCKWALL INSPECTION AND STRUCTURAL INVESTIGATION STUDY**
RFP No. 10041335

KEY ISSUE

Award of Request for Proposal (RFP) No. 10041335 for professional engineering consulting services to inspect and conduct structural stability analyses on the dockwalls at Keating Channel in Toronto.

RECOMMENDATION:

WHEREAS Toronto and Region Conservation Authority (TRCA) is engaged in a project that requires professional engineering consulting services;

AND WHEREAS TRCA has entered into an agreement with the City of Toronto to manage Keating Channel dredging operations and with Ports Toronto to undertake backlog dredging work until 2026;

AND WHEREAS the Keating Channel dockwalls owned by Create TO may be impacted by dredging operations and require engineering consulting services to determine risk of failure;

AND WHEREAS TRCA solicited proposals through a publicly advertised process and evaluated the proposals based on the pre-established criteria;

THEREFORE LET IT BE RESOLVED THAT RFP No. 10041335 for Keating Channel Dockwall Inspection and Structural Investigation Study be awarded to CIMA Canada Inc. at a total cost not to exceed \$756,714, plus applicable taxes, to be expended as authorized by TRCA staff;

AND THAT TRCA staff be authorized to approve additional

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expenditures to a maximum of \$75,671 (approximately 10% of the project cost), plus applicable taxes, in excess of the contract cost as a contingency allowance if deemed necessary;

AND THAT should TRCA staff be unable to negotiate a contract with the above-mentioned proponent, staff be authorized to enter into and conclude contract negotiations with other Proponents that submitted proposals, beginning with the next highest ranked Proponent meeting TRCA specifications;

AND FURTHER THAT authorized TRCA officials be directed to take whatever action may be required to implement the contract, including the obtaining of necessary approvals and the signing and execution of any documents.

BACKGROUND

Sedimentation in the Keating Channel is a long-standing issue that impacts navigation and increases flood risk. PortsToronto carried out regular dredging in Keating Channel from construction in 1914 until 1975 when open water disposal of dredged material was banned in Lake Ontario. An environmental assessment was completed in 1983 to allow dredged material to be taken to confined disposal facilities at the Leslie Street Spit, and dredging resumed in 1987 which maintained the Keating Channel at its original design/maintenance depth necessary for navigation and flood conveyance.

In 1991, the City of Toronto (the “City”), PortsToronto, and Toronto and Region Conservation Authority (TRCA) entered into a tri-lateral agreement which provided equal funding from all three parties for dredging the Keating Channel. However, the annual budget and funding for annual dredging remained static while costs increased year-over-year, resulting in dredging operations not keeping up with sediment accumulation. Because of this insufficient budget for regular dredging, sediment has partially filled in Keating Channel and recent surveys have shown that approximately 120,000 cubic metres needs to be removed to reduce flood risk. Keating Channel, upon completion of the Port Lands Flood Protection Enabling Infrastructure Project (PLFP), will be critical in conveying flood flows during large storm events. To achieve required flood conveyance, the backlogged sediment must be dredged and a program for long-term and regular dredging of the Keating Channel must be formalized.

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On July 29, 2024, TRCA entered into an agreement with the City of Toronto to manage the backlog dredging at Keating Channel until 2026. Services provided by TRCA include environmental monitoring, contract administration, project management, financial tracking, and site coordination with Ports Toronto conducting dredging work. During discussions with Ports Toronto and City to prepare for dredging in 2024, CreateTO raised concerns about dredging next to the dockwalls that line Keating Channel. Dredging directly adjacent to the dockwalls is necessary to achieve flood conveyance. The dockwalls were built between 80 to 110 years ago and have exceeded their design life by many decades. CreateTO owns the majority of the dockwalls that surround Keating Channel. CreateTO has done high-level condition assessments of the dockwalls, and reports have shown that they are in very poor condition and are at risk of failure. Dredging near the dockwalls could further increase the risk of failure.

This project will require the consultant to conduct a quantitative structural assessment using values obtained from geotechnical drilling results to determine how much sediment can be removed before the dockwalls are at risk. The specific tasks for this consultant are as follows:

Dockwall Condition and Stability Assessment

This task will require the consultant to conduct field investigations including geotechnical borehole drilling in both the channel and behind the wall, test pits, materials testing, diving inspections, sidescan sonar surveys, and stability modeling to provide a quantitative assessment of the dockwalls.

Engineering Support and Recommendations

TRCA and Ports Toronto will require engineering support during the two-year backlog dredging project. Because of critical timing requirement to achieve flood protection, dredging and the dockwall investigation will happen concurrently. The consultant will provide recommendations and site instruction to reduce impacts to the dockwalls from dredging.

Dockwall Monitoring

The consultant will install and operate a dockwall monitoring system that will provide near real-time data on dockwall movement that could indicate that dredging is potentially causing loss of stability and possible failure. Dredging activities can be modified if movement of the dockwalls is evident.

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Dockwall Failure Risk Analysis

This task will look at impacts of dockwall failure to determine “no-go” zones where a failure would damage critical infrastructure such as utilities, roads, or put public safety at risk. Mitigation of risks will be included in recommendations from the consultant.

Development of an Emergency Response Plan

An Emergency Response Plan (ERP) will be developed to prescribe actions to the various agencies involved in dredging the channel. The ERP will include communications, roles and responsibilities, site security, public protection measures, and other response activities to mitigate risk.

RATIONALE

RFP documentation was posted on the public procurement website www.bidsandtenders.ca on June 3, 2024, and closed on July 19, 2024. Four (4) addenda were issued to respond to questions received. A total of eleven (11) firms downloaded the documents and two (2) proposals were received from the following Proponents:

- Stephenson Engineering Limited
- CIMA Canada Inc.

An Evaluation Committee comprised of staff from TRCA reviewed the proposals. The criteria used to evaluate and select the recommended Proponent included the following:

Criteria	Score
Proponent's Information and Profile <ul style="list-style-type: none">• Proponent has provided all requested information in a clear manner which meets all format and submission requirements.• Project budget submitted.• Project schedule included.• List of subconsultants included (if applicable).	5
Key Personnel <ul style="list-style-type: none">• Qualifications and experience of key personnel and sub-consultants, including resumes.• Appropriate allocation of staff resources, shown in work plan.• Project Manager's qualifications and experience related to the Scope of Work and/or Services.	10

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<p>Experience and Methodology</p> <ul style="list-style-type: none"> • Number of projects of similar budget and scope, that are relevant to the Scope of Work and/or Services. • Summary of most relevant projects in proposal. • Demonstrates a thorough understanding of the overall Project scope and articulates this well within the proposal. • Demonstrates a thorough understanding of the project requirements and objectives. 	20
<p>Proposed Work Plan</p> <ul style="list-style-type: none"> • Detailed description of the work plan including the approach and methodology for undertaking the required Scope of Work and/or Services, including innovative ideas and approaches to meet the project objectives. • A detailed schedule in a Gantt or Gantt-style chart which indicates start dates and anticipated duration of tasks, and timing of key milestones/meetings. • Demonstrates a clear understanding of the project background, existing site conditions, and review of the available information. • Identifies data/information gaps and provides a rationale and detailed cost breakdown for obtaining any missing data or additional required information. • Identifies project constraints/limitations, risks, and challenges, and proposes solutions and/or sensible approaches to handling constraints and challenges 	40
Sub-Total	80
Pricing	20
Total Points	100

CIMA Canada Inc. has extensive experience in dockwall investigation and repair on Toronto's waterfront. They are familiar with the Keating Channel dockwalls through previous studies and CIMA has a solid understanding of existing conditions and the risk presented by dredging. CIMA Canada Inc. staff assigned to this project have expertise unique to dockwall assessments and the design of dockwall repairs. Therefore, it is recommended that contract No. 10041335 be awarded to CIMA Canada Inc. at a total cost not to exceed \$756,714, plus 10% contingency, plus applicable taxes, it being the highest ranked Proponent meeting TRCA specifications. Proponent's scores and staff analysis of the evaluation

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results can be provided in an in-camera presentation, upon request.

Relationship to TRCA's 2023-2034 Strategic Plan

This report supports the following Pillars and Outcomes set forth in TRCA's 2023-2034 Strategic Plan:

Pillar 1 Environmental Protection and Hazard Management:

- 1.1 Deliver provincially mandated services pertaining to flood and erosion hazards

Pillar 4 Service Excellence:

- 4.3 Responsive relationships and a trusted brand with a reputation for excellence

DETAILS OF WORK TO BE DONE

The key deliverables and project schedule are outlined below:

- Start Keating Channel dockwall condition and stability assessment field investigations (October 2024);
- Start engineering support and recommendations (October 2024 to October 2026);
- Dockwall monitoring equipment installation (Winter/Spring 2025);
- Start dockwall risk analysis (November 2024); and
- Develop Emergency Response Plan (Winter 2025).

The Proponent staff resources dedicated to the project are as follows:

CIMA Canada Inc. has assigned eight (8) engineering experts to this project including two (2) engineers from its sub-consultant WSP Canada.

FINANCIAL DETAILS

Funds for the contract are identified in account 207-01 (Keating Channel Dredging Program Account) funded by the City of Toronto.

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