To: Mayor and Council  
From: Art Manhire, Director, Community Services  
Date: February 22, 2019  
Committee of the Whole Date: February 25, 2019  
Attachment 6 pages  

Title: Award contract for design, supply and installation of Pedestrian Bridges across the river in the Victoria Park Basin

Recommendation: That Council award the contract for the design, supply and installation of pedestrian bridges in the Victoria Park basin to MAADI Manufacturing for $228,300 plus non-recoverable HST for a total of $232,318.08 as bid.

Purpose: To award the contract for the design, supply and installation of two pedestrian bridges across the Rideau River in the Victoria Park basin. This would complete a year-round pedestrian link at the waterfront.

Background:

In the Spring of 2014, the Spring run off washed out Turtle Island and severely compromised the integrity of three pedestrian bridges connecting the Lombard Street area of Town and the downtown core for pedestrians. Abutments were undermined and structures shifted on their base. Trees on the upstream side of Turtle Island that had been there for at least 50 years, were washed out. At the time the event was determined to have been caused by an anomaly due to water control measures utilized by Parks Canada. At the time staff looked-for cost-effective options to replace the structures and reinstate the pedestrian link. A solution was implemented and within the next two years the high water and surge issues came close to washing out replacements. For safety reasons the structures in harms way were removed and staff have been digging into a better solution that suits the realities we face in dealing with our part of the floodway managed by Parks Canada.

Climate change and Parks Canada metrics for water control in the watershed above the Town of Smiths Falls have caused a significant change in water flow through the channel in the Victoria Park basin. In the last 4 years we have had two years of significant flooding in the Spring run off that have put entire sections of our existing pedestrian link under water. Staff have been consulting with RVCA and Parks Canada water control personnel to try to find the appropriate locations and elevation to ensure year-round access to the link.
In consultation with the Rideau Valley Conservation Authority and Parks Canada engineers it was determined that there are at least four different water levels within the Victoria Park basin (see map attached) and levels are related to water flow through the basin which is determined by Parks Canada strategy to control water levels in the system. Climate change is impacting water levels and in May of 2017 water was flowing through a 42-meter-wide channel at a rate of 200 cubic meters per second. The determination was made that in order to have a structure span the river it would need to rest at a level that would keep it out of the highest levels predicted. That level was determined to be at 121.5 meters above sea level for flow and surge level.

With this information staff brought forward an option for Council consideration and Council directed that staff to go to the market to find the best and most cost-effective way to complete the pedestrian link. Council authorized issuing a Request for Proposal (RFP) that went out in November of 2018 and closed in mid January of 2019. There were 21 packages picked up and the Town received 4 bids upon closing.

Request for the provision of a pedestrian bridge across the Rideau – Canal System Contract #18-CS-08
The below reflect the bids presented.

<table>
<thead>
<tr>
<th>Company</th>
<th>Notes</th>
<th>Tender Bid Amount (NET)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal Engineer</td>
<td>Design ONLY</td>
<td>$ 45,400</td>
</tr>
<tr>
<td>MAADI</td>
<td>Includes Abutments</td>
<td>$ 228,300</td>
</tr>
<tr>
<td>Links Bridges</td>
<td>Includes Abutments</td>
<td>$ 289,500</td>
</tr>
<tr>
<td>Thomas Fuller Construction CO.</td>
<td>Includes Abutments</td>
<td>$ 854,000</td>
</tr>
</tbody>
</table>

The low bid is for design only and proposed applications for grants and was rejected as it would have extended the timeline significantly for completion of the project.

**Analysis and Options:**

The Bid from MAADI Manufacturing was the lowest bid. The bid represents a low maintenance, aesthetically pleasing option that fit the criteria outlined in the RFP guidelines.

All prospective bidders were informed of existing abutments to incorporate them into proposals. Salvageable components from the previous structures include decking and concrete abutment work that was replaced as part of the work done to remediate the initial flooding. MAADI Manufacturing is proposing the use of the two existing abutments with modifications to accommodate the desired elevation of 121.5 meters. The use of these pre-built abutments saves approximately $34,000 in the total value of the project. The decking from the previous structure is not compatible with the MAADI design and will not be used for this project. The decking could be incorporated with a different supplier but the overall cost for the project did not justify the ability to use previous materials.
MAADI Manufacturing has completed similar projects for TD Place Stadium bridge in Ottawa, Equestrian Park in Blainville, Quebec, the Bike Path bridge project in Brossard, Quebec, an ATV bridge in Baie d’Urfe, Quebec as well as several projects in Montreal, (Quebec), Sydney Nova Scotia and San Diego California.

There are a couple of modifications staff would like to explore with the manufacturer on the project design to add some safety enhancements and lighting. These discussions and potential modifications can be made only once the contract is awarded. A redesign and any price modifications will be brought back to Council for final approval once arrangements can be made.

1. Option #1 (recommended) - That Council award the contract for the purchase of the two structures to MAADI Manufacturing with the stipulation that staff work with the contractor to modify the design to meet the communities needs.
2. Option#2 (not recommended) - That Council award the contract as is and proceed with the design proposed
3. Option#3 (not recommended) – That Council instruct staff to find another option for design and delivery. This option will add significant delays in the delivery of the bridges.

**Budget/Financial Implications:** $232,318 funded from federal gas tax and is a carry over from 2018

**Link to Strategic Plan:**
Strategic Priority #5- Waterfront Development

**Existing Policy:**
Procurement policy

**Consultations:**
Jamie Batchelor, Engineer, Rideau Valley Conservation Authority
Ferdous Ahmed, Engineer, Rideau Valley Conservation Authority
Jean Francois Charron, Project Engineer, Parks Canada
Colin Clarke, Acting Watershed Engineer for the Rideau and Trent systems, Parks Canada
Troy Dunlop, Director, Public Works and Utilities
Malcolm Morris, CAO
Kerry Costello, Director Corporate Services, Town Clerk
Janet Koziel, Treasurer

**Notes/Action (space for Council Member’s notes):**
Respectfully Submitted:

Art Manhire, Director, Community Services

Approved for agenda by CAO

Malcolm Morris, CMO
Arched Pony Truss Bridge

Spans
Up to 150’ 0” – 45.7m

Widths
3’0” to 12’0” – 1.0m to 3.7m

Aluminum Vertical Pickets

Applications
- Bridges, building walkways

Specifications
- Pickets are made of aluminum
- Less than 4” – 100mm between pickets - Building codes
- Less than 6” – 150mm between pickets - Bridge codes

IPE Hardwood Planks

Applications
- Architectural (highly aesthetic)

Specifications
- Minimum 40-year lifespan
- Low maintenance, no treating or sealing required for durability (treating may be required to keep rich, red color)
- Medium grip surface
- Eco-friendly and naturally insect resistant
- Heavy use outdoor applications
- Economical over life of the bridge/structure