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Date: March 9, 2020

To: Mayor and Council

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RE: Design of Floating Docks at Cedar Island Boat Launch

Report No.: MS 2020-06

AIM

To provide Council with information pertaining to the design of the floating dock system for the Cedar Island Boat Launch.

BACKGROUND

The Kingsville Municipal Boat Launch is located off Heritage Road at 599 Cedar Island Drive located within the north-south channel that connects into Lake Erie. The Boat Launch has been municipally owned and maintained since 2012 where a fuel tank platform was installed to provide boaters an opportunity to purchase fuel.

The Boat Launch is operational beginning on the Victoria Day weekend until the end of September and an attendant is present from Thursday through Sunday where boaters are able to purchase fuel at their leisure.

The operations of the Boat Launch and the fuel platform had been suspended from June 13th, 2019 until August 8th, 2019 due to the instability of high water levels and for the interest of public safety and the protection of staff.

A map of the area and a photo of the conditions from 2019 are included in Appendix A of this report.

With the anticipation of the water levels to remain at record high, the option of installing floating docks had been explored in attempt to provide a safe and sustainable solution to this matter. The concept of floating docks would continue the Town's diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

As a result from the report (MS-2019-33) presented to Council, the recommendation for the installation of floating docks was proposed as a capital item in the 2020 budget.

DISCUSSION

Following budget approval, the scope of work was urgently initiated due to the potential limits of availability and competition amongst other municipalities arranging similar work. Marine vendors of interest were presented with the project details in request to develop a design and the costing for the installation of floating docks at the Cedar Island Boat Launch.

Proposed designs submitted by vendors were analyzed and evaluated to determine if the attributes of each concept considered the following:

- Safety and Accessibility
- Life Expectancy and Warranties
- Cost
- Installation
- Maintenance
- Ice Load Capability

Table 1 lists the options of decking materials compatible with the required supporting infrastructure design of aluminum and/or steel frame.

Table 1

	Type of Floating Dock
Option 1	Wooden Decking
Option 2	High Density Polyethylene Resin (Plastic)
Option 3	Composite Decking

Composite and polyethylene resin (plastic) materials has been identified as a safety risk from producing static charge in which becomes a considerable hazard for fuelling operations. Designs that included composite and polyethylene resin (plastic) materials were unable to satisfy nor eliminate concerns surrounding static charge.

Through consultations with surrounding municipalities involved in similar project works, provided valuable input pertaining to benefits and drawbacks on materials that represented a consensus of the use of wooden decking for existing floating dock systems expressing reasons related to safety and costs.

As a result, it was determined that wooden decking is the most cost-effective and reliable material that is readily available and most existent in comparison to other material options.

The concept proposed by On the Water Designs has been selected and the vendor is committed to fulfill the project timelines of completing the installation by the end of April. The design of the floating dock system will consist of MicroPro pressure treated wood decking with anti-slip treads, aluminum framing and EPS foam filled plastic floaters.

The design of the floating dock system developed by On the Water Designs is attached in Appendix B.

LINK TO STRATEGIC PLAN

Improve recreational and cultural facilities and opportunities within the Town of Kingsville.

FINANCIAL CONSIDERATIONS

\$45,190.15 (excluding HST) will be allocated towards the purchase of the floating dock system designed by On the Water Designs. \$75,000.00 is allocated towards this project in the 2020 Capital Budget.

CONSULTATIONS

Leo Mailloux Construction
On the Water Designs
Kehoe Marine Construction Ltd.
Candock Ontario
ThruFlow Decking Solutions
Municipal Services Department
City of Windsor
Town of Lakeshore
Municipality of Leamington

RECOMMENDATION

For Council to receive the report and endorse the design of the floating docks system for the Cedar Island Boat Launch.

Dan Wolicki

Dan Wolicki
Manager of Facilities and Properties

G.A. Plancke

G.A. Plancke, Civil Eng. Tech (Env.)
Director of Municipal Services