



# STAFF REPORT

<b>REPORT #:</b>	EMC 2012-01
<b>DATE:</b>	August 27, 2012
<b>SUBMITTED TO:</b>	Mayor & Members of Council
<b>SUBMITTED BY:</b>	Executive Management Committee
<b>SUBJECT:</b>	Centennial Pool and Single Pad Arena Options

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## 1. RECOMMENDATION:

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*THAT* Council receive staff report EMC 2012-01,

*AND FURTHER THAT* Council direct staff to proceed with the purchase and construction of an Insulated Architectural Membrane facility for a year-round single pad ice arena at Central Park, maintaining 2 ball diamonds, the outdoor ice rink, the lawn bowling facility, and additional green space – while keeping the option to twin the new arena at a future date;

*AND FURTHER THAT* Council direct staff to proceed with the purchase and construction of an Insulated Architectural Membrane structure over the existing Outdoor Pool including the removal and reconstruction of the existing building, in order to provide a year-round pool to meet the community's aquatic and competitive swimming needs.

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## 2. SUMMARY AND BACKGROUND:

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On July 16, 2012 Council passed Resolution No. 330 directing staff to,

*Pursue the following recommended options, and develop a project timeline and detailed estimates; and bring the report back to Council not later than August 27, 2012:*

- *Enclose the Outdoor Pool with a Fabric Building.*
- *Construct a Single Pad Arena that could be phased into a double pad*

**Summary:**

In the preparation of this report, staff emphasis has been on meeting the aquatic and ice needs as they have been identified in the Central Park Redevelopment Steering Committee's Final Report, while still preserving existing recreational facilities and avoiding the significant cost of relocation. Staff would concur that the funds are currently not identified in the system for the relocation of existing amenities, or for the significant commitment to a full multi-use recreational facility. This however, is certainly at the discretion of Council. Nevertheless, in the short term, there may be financially attractive opportunities to attain some of the benefits identified by the community in the work of the Steering Committee while not losing sight or have departure from the report's development ideals.

**Enclose the Outdoor Pool with a Fabric Building**

In researching a year round enclosure for the existing Outdoor Pool, staff developed the outline specifications included in Appendix A, drawing in part from the Central Park Redevelopment Steering Committee work and detailed report. These specifications, should Council choose to proceed with this project, will form the basis of the procurement of an Insulated Fabric Membrane cover for the Outdoor Pool. Improvements around the facility would be limited to drainage and grading, landscaping and parking lot improvements at this time. No other Heritage Park amenities would be displaced in order to enclose the existing Outdoor Pool.

The Insulated Architectural Membrane structure researched for this report would be provided as a "turnkey" solution for covering and renewing the existing facilities at the pool. The cost includes the demolition of the existing pool change house and mechanical room and reconstruction of a modern facility within the new structure. The new enclosure would include an expansive viewing area for year round activities as well as day lighting initiatives and the ability to open exterior doors for the outdoor pool experience during favourable weather.

A significant advantage to this procurement approach is that the complete design and engineering works are included in the cost of the enclosure and improvements are fully quantified at the time of order. The project would not be subject to additional engineering costs and contingencies. Additionally, the purchase would be limited to the supply and construction of the Insulated Architectural Membrane structure and the interior components only, allowing the Town to construct the remaining site works independently, resulting in significant cost savings.

We are only aware of one (1) supplier of the type of Insulated Architectural Membrane structure that would allow for satisfactory year round swimming pool use. In the future, it

would be possible to relocate or repurpose the Insulated Architectural Membrane structure at another location, adapt it to another use, or otherwise re-commission it to a new owner within this expanding market.

The materials used in the construction of the researched Insulated Architectural Membrane structure are an extruded aluminum framing system with an exterior and interior poly vinyl fluoride (PVF) membrane. This membrane encloses R-30 encapsulated insulation developed specifically for harsh environments. The aluminum structure will not corrode and the type of insulation recommended is reported to resist moisture and eventual microbial growth that may be prevalent in an indoor pool environment.

The cost of the Insulated Architectural Membrane structure to cover the existing outdoor pool including new change areas, staff accommodations and mechanical and utility rooms is estimated to be \$3,225,000. In addition to the cost of the building, site servicing, improvements to parking areas and necessary landscaping may be completed independently by the Town, and some may be phased in utilizing in-house resources. This work would be required in all options. An allowance of approximately \$200,000 in addition to the building cost may be a consideration.

The Insulated Architectural Membrane structure may be delivered, constructed and operational, depending on permitting, approvals, weather conditions and staff utilization, within a four (4) to six (6) month time frame. The YMCA has recently stated that they are not currently in a financial position to proceed with another expansion to the existing facility in Collingwood. The procurement of an Insulated Fabric Membrane building to enclose the existing Outdoor Pool will meet the immediate aquatic needs of the community while still providing options for the future.

Total Pool Enclosure Cost	\$3,225,000
Site Servicing Allowance (same for all options)	\$ 200,000

**Construct a new Single Pad Arena that could be phased into a double pad**

There were two types of construction investigated to provide a Single Pad Arena in Central Park. Certain site improvement costs will be incurred regardless of the type of building constructed.

The outline specifications included in Appendix B have been developed in response to the immediate needs identified in the Central Park Redevelopment Project report. The intent will be to place the arena within Central Park to minimize the immediate displacement of existing recreational facilities while providing the best opportunities for the future park development within the proposed multi-use concept.

The two building construction types investigated were a Pre-Engineered Steel building with the lobby and entrance areas constructed with architectural block features, and the Insulated Architectural Membrane structure. The Pre-Engineered Steel building or the Insulated Architectural Membrane structure may be positioned within the park to limit the immediate displacement of existing amenities. Either of the arenas would have the potential of being twinned in the future and either would be appropriate as the first phase of the multi-use development in Central Park.

Each of the arenas proposed would qualify for a LEED Silver accreditation. In order to receive the accreditation there would be additional commissioning costs for either building system. A significant difference in the two construction types is that the Insulated Architectural Membrane structure has the LEED requirements built into its basic design, whereas the traditionally industrial Pre-Engineered Steel building must be modified to meet the requirements leading to additional engineering costs and custom components.

As with the Outdoor Pool enclosure, the Insulated Architectural Membrane structure researched for this report would be provided as a "turnkey" design build arena solution. The materials of construction and insulation factors are similar, and the full costs of engineering and design are known and committed to at the time of order. A minimal allowance for permits, fees and site design would be carried with the project. Since the contract would include the supply and construction of the arena only, further site development may be designed and constructed independently by the Town in a phased approach utilizing in-house resources where possible.

The estimated cost for the supply and construction of the basic Insulated Architectural Membrane arena is \$7,392,000 as compared to \$11,100,000 - \$12,300,000 (estimates provided by WGD) for the Pre Engineered Steel arena built using conventional construction methodology. (Please note that in the Central Park Redevelopment Steering Committee's Final Report it stated that a double ice pad would cost \$25,300,000 including contingencies). The interior space that is provided within the architectural membrane structure allows for the cost efficient addition of a second floor lounge area with a view of the ice surface. The cost of the second floor improvements within the architectural membrane arena is included in the above estimate whereas a similar addition to the Pre-Engineered Steel arena would add up to \$1,000,000 to the investment.

The costs of Central Park development will be minimized for the construction of an initial arena with either approach, however the Insulated Architectural Membrane arena procurement allows the Town to facilitate park development for site servicing, parking improvements and landscaping to proceed in a phased approach. An allowance of \$500,000 should be considered in this evaluation.

A significant advantage to the Insulated Architectural Membrane structure is the time to complete. The purpose built packaged arena facility is typically designed and constructed

within a six (6) to eight (8) month period. Traditional construction methods are usually subject to significant design and procurement periods followed by the construction. A Pre-Engineered Steel arena would be expected to develop over a sixteen (16) to eighteen (18) month period.

Total Single Pad Arena Costs	- \$7,476,000
Accessories such as Zamboni & Score Board Costs	- \$ 316,000
Site Servicing Allowance (same for all options)	- \$ 500,000

### **Eddie Bush Memorial Arena**

An application has been submitted to the Ontario Community Infrastructure Improvement Fund (CIIF) for improvements to the Eddie Bush Memorial Arena (EBMA). With the addition of a year round ice arena in Central Park, the intent would be to prepare the EBMA for transition from a year round arena to a winter arena and summer event venue that will introduce new vibrancy to the downtown core. Although no detailed design has been completed, the budget for this project is set at \$3,124,000, of which \$1,000,000 may be recoverable in the form of a grant.

If CIIF funding is received, the timeline for completion is March 2014. In order to facilitate the proposed renovations a new year round ice facility must be in operation or there would be major interruptions to the ice times available for user groups.

Staff is confident, on the basis of the research into options for a Single Pad Ice Arena in Central Park, that the most cost effective and time-efficient option for construction is an Insulated Architectural Membrane structure. The technology utilized in this building system is innovative and presents well for energy efficiency and the environment. The arena will not only satisfy the immediate ice needs of the community but will also further enhance the Town's image as a leader in the adoption of new and leading technologies.

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### **3. DISCUSSION:**

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The procurement process recommended for the supply and construction of the Outdoor Pool enclosure and the Single Ice Pad at Central Park is a direct purchase of the facilities from the supplier. Staff have exercised due diligence in the research of potential forms of construction and feel that there would be no additional advantage to be gained from a further tender process for the following reasons:

*Element of competition was included in the gathering of estimates:* the manufacturers of the Architectural Membrane structure knew that they were in competition with the more traditional forms of construction; WGD Architects knew that they were in competition with the Architectural Membrane structure when producing estimates.

*Cost effectiveness and benefit to the Town:* through the investigative process, it has been determined that the Architectural Membrane structure would provide the most cost effective and all inclusive solution for the Town's needs.

*Sole Source:* through Staff research, it has been determined that there is only one supplier that can meet the specifications Staff developed for the facilities.

If one of the more traditional forms of construction had been determined to provide the most cost effective solution there would have been a further need to issue an RFP for construction since there are many companies capable of providing this service. There is only one manufacturer of Architectural Membrane structures that has a proven track record of success and that distributes this technology.

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#### **4. DEPARTMENT HEAD REVIEW:**

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This report was reviewed by the Executive Management Committee, Director of Parks, Recreation and Culture and the Manager of Fleet, Facilities and Purchasing August 21 and circulated to Department Heads for comment August 23. Comments received were reviewed and incorporated prior to having the report proceed to Council.

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#### **5. EFFECT ON TOWN FINANCES:**

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The Total Cost of the Two Buildings is	\$10,617,000
Accessory Costs	\$ 316,000
Site Servicing Costs for Both Buildings	\$ 700,000
Total Cost (less taxes)	<u>\$11,633,000</u>

The Town has the following funds available:

Reserve	\$ 1,500,000
County – portion of Poplar Sideroad construction 2010	\$ 1,300,000
Collus PowerStream Partnership (to be confirmed by public)	\$ 8,000,000

Potential DC – Heritage Park – parking/landscaping (22%)	\$ 88,000
Potential DC – Central Park – arena enclosure (18%)	\$ 821,488
Total Available (potentially)	<u>\$11,709,488</u>

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## 6. DISPOSITION:

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Staff will follow through to ensure that the direction of Council is carried out.

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## 7. APPENDICES:

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Respectfully submitted,

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Executive Management Committee:

Ed Houghton, Acting CAO; Larry Irwin, Director of IT Services; Sara Almas, Clerk; and, Marjory Leonard, Treasurer.

With input from:

Marta Proctor, Director of Parks, Recreation and Culture,  
 Dave McNalty, Manager Fleet, Facilities and Purchasing,  
 Dennis Seymour, Manager Recreation Facilities

## Staff Report No. EMC 2012-01 - Appendix A

### Outdoor Pool Enclosure Outline Specifications

An insulated enclosure over the existing Centennial Pool will be intended to allow the existing facility to be used on a year round basis. The existing facility is a six (6) lane, 25 metre outdoor pool which has a limited season during the summer months. The existing pool has undergone several upgrades over recent years including the replacement of piping and chemical additions systems and is currently scheduled for an upgrade of the recirculation and filtration system in the fall of 2012.

The current service building for the pool was constructed in 1965 and requires significant upgrades. The intent is to demolish the building and reconstruct appropriate service areas within the new pool enclosure.

Improvements around the facility would be limited to drainage and grading, landscaping and parking lot improvements at this time. No other Heritage park amenities would be displaced in order to enclose the existing pool facility.

The basic **Design Components** will include:

- Insulated pool enclosure with dimensions of 120ft by 140ft.
- Daylighting roof panels to maximize natural light
- Eight (8) operable insulated doors to allow for an open environment in favourable weather.
- Interior spectator seating for 250, preferably on the east side.
- New mechanical room with additional space and upgraded servicing.
- Chemical storage room with direct exterior access and suitable containment.
- Male, female and family change rooms with accessible washrooms and lockers.
- Pool entry facilities (showers, etc.)
- Complete accessibility to the pool for disabled persons including a portable lift.
- Lobby and customer service area.
- Separate staff locker/lunch room.
- Manager's office.
- Swim team office.
- Janitorial closets, pool equipment room and storage room.
- Sanitary design and room finishes.
- Complete sound, telephone and communications system serving all areas of the facility.
- Fire alarm system.
- HVAC systems throughout.
- Energy efficient lighting and electrical fixtures including occupancy controlled switching.
- Efficient non-touch plumbing fixtures and components.



Additional options that may be considered are:

- Potential mezzanine over the main floor amenities for storage/offices/HVAC equipment.
- Vending machine area at the main exit.

## Staff Report No. EMC 2012-01 - Appendix B

### Single Pad Arena Outline Specifications

The proposed ice arena for Central Park will be positioned to minimize the displacement of existing amenities in the park while allowing for a future expansion of a second ice surface. The first ice surface will require that at least one baseball diamond be eliminated from the current park layout in order to accommodate additional parking and service areas around the arena. A second ice surface may require the displacement of additional park amenities, however the eventual construction of a second ice surface may allow for adequate planning and development of other parklands.

The intent is to operate the new arena as a year round ice facility. This will allow the Eddie Bush Memorial Arena to be operated as an ice arena through the winter season, and evolve towards other uses in the off season. A consideration may be that the new arena may operate more efficiently throughout the year than the existing facility. Options should be provided for ice making equipment.

The new arena may also be used for other special events such as concerts or trade shows and other assembly purposes and should be designed to allow for such use from both occupancy and functional points of view.

The basic **Design Components** will include:

- Full size 85ft by 200ft ice surface complete with premium dasher boards and glass all around.
- Glass will be 5-½ft with aluminum rail.
- Dropdown centre style score board.
- Six (6) player dressing rooms facing directly to the ice surface (including showers, toilets and sinks) each with dimensions of 12ft by 20ft.
- Two (2) referee rooms (male/female) each capable of accommodating a minimum of eight (8) referees and complete with showers, toilet, sinks, etc.
- First Aid room complete with shower, toilet, sink etc.
- Minimum of 250 spectator seats with overhead radiant heating (potential for coin operated heating with an override switch).
- Ice resurfacer room and mechanical and electrical rooms suitable for an Olympia style ice resurfacer.
- Large service door with direct access to the ice surface.
- Dual purpose meeting/party/music/media room with an ice view.
- Digital entry notice board.
- Ice level warm viewing area/lobby.
- Resilient flooring for all ice level areas.
- Manager's office.
- Staff locker/lunch room to accommodate six (6) staff on the main level.

- Separate offices for Minor Hockey and Figure Skating
- First floor vending area.
- Pro Shop approximately 12ft by 20ft.
- Main floor accessible/family washrooms.
- Janitorial closets, storage rooms.
- Complete sound, telephone and communication systems serving all areas of the facility.
- Fire alarm system and building sprinklers.
- HVAC system for entire facility (capable of handling a second floor mezzanine).
- Energy efficient lighting and electrical equipment including occupancy controlled switching.
- Efficient non-touch plumbing fixtures and components.
- Second floor mezzanine.
- Elevator to second floor.
- Second floor lounge area.
- Second floor kitchen and bar service room.

