

**REPORT NO. 9 of the  
FAMILY AQUATICS AND LIBRARY COMPLEX  
STEERING COMMITTEE**

of its meeting held  
September 28, 2011

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**Present:** Councillor Dilkens, Chair  
Councillor Sleiman  
Councillor Jones  
Councillor Payne

**Regrets:** Councillor Fulvio Valentinis (via conference call)

Your Committee submits the following recommendation:

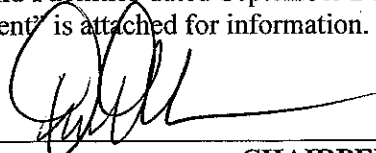
Moved by Councillor Jones seconded by Councillor Payne,

That an expenditure in the amount of \$150,000 (plus any applicable taxes) **BE APPROVED** as a pre-commitment to the Capital Budget of the Family Aquatic and Library Complex project 7111005 for the deposit payment required to confirm the order of Myrtha Pool and Filtration Equipment to guarantee delivery and installation of a 50m pool, 25m pool and therapy pool and required components and filtration system by December 2012 payable to Nationwide Commercial Aquatics Inc., ("NCAquatics") 16 Hammersmith Ave., Toronto, Ontario, Canada, M4E 2W4; and further, that the CAO and City Clerk **BE AUTHORIZED** to sign the necessary letter of intent satisfactory in technical content to the City Engineer and financial content to the City Treasurer and in form to the City Solicitor and further,

That the attached Proposed Scope of Work, Financial Information, Terms and Conditions **BE ASSIGNED** to the successful Design Build Contractors at a value as described in the in-camera memo.

Carried.

*Clerk's Note:* The report of the Executive Director, Parks and Facilities dated September 24, 2011 entitled "Assignment of Pool Works to Design Build Proponent" is attached for information.

  
\_\_\_\_\_  
CHAIRPERSON

  
\_\_\_\_\_  
COMMITTEE COORDINATOR

NOTIFICATION		
Members of the Family Aquatics & Library Complex Steering		

Committee (including resource personnel)		
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**THE CORPORATION OF THE CITY OF WINDSOR  
FAMILY AQUATICS AND LIBRARY COMPLEX STEERING COMMITTEE**

**MISSION STATEMENT:**

*"The City of Windsor, with the involvement of its citizens, will deliver effective and responsive municipal services, and will mobilize innovative community partnerships"*

<b>LiveLink REPORT#:</b>	<b>Report Date: Sept 24, 2011</b>
<b>Author's Name Don Sadler</b>	<b>Date to Steering Committee: Sept 28, 2011</b>
<b>Author's Phone: (519) 253 2300 ext 6711</b>	<b>Classification #:</b>
<b>Author's email: dsadler@city.windsor.on.ca</b>	

**To: Family Aquatic and Library Complex Steering Committee**

**Subject: Assignment of Pool Works to Design Build Proponent**

**1. RECOMMENDATION: City Wide: \_\_\_\_\_ Ward(s): \_\_\_\_\_**

That the Steering Committee **RECOMMEND** to Council the approval of the \$150,000 plus any applicable taxes as a pre-commitment to the Capital Budget of the Family Aquatic and Library Complex project 7111005 for the deposit payment required to confirm the order of Myrtha Pool and Filtration Equipment to guarantee delivery and installation of a 50m pool, 25m pool and therapy pool and required components and filtration system by December 2012 payable to Nationwide Commercial Aquatics Inc., ("NCAquatics") 16 Hammersmith Ave, Toronto, Ontario, Canada, M4E 2W4; AND further that the CAO and City Clerk **BE AUTHORIZED** to sign the necessary letter of intent satisfactory in technical content to the City Engineer and financial content to the City Treasurer and in form to the City Solicitor and further

That the attached Proposed Scope of Work, Financial Information, Terms and Conditions be **ASSIGNED** to the successful Design Build Contractors at a value as described in the in-camera memo.

**EXECUTIVE SUMMARY:**

N/A

**2. BACKGROUND:**

There are primarily two types of pool construction methods as it relates to the pools required for this facility. These two methods are a modular pool ("Modular") construction which is manufactured off-site, delivered and assembled at the construction site, and a cast in place ("Concrete") pool construction. The modular pool is constructed of stainless steel with a vinyl coating whereas a cast in place pool is poured concrete with a tile surface.

Below is a comparison of the two types of pools;

	<b>Modular Pool</b>	<b>Concrete Pool</b>
<b>Construction</b>	<ul style="list-style-type: none"> <li>• Can be assembled quickly and efficiently</li> <li>• Steel Panel system provides accuracy as they are dimension precise with minimal tolerances</li> <li>• Will save construction time vs. a Concrete pool</li> </ul>	<ul style="list-style-type: none"> <li>• Poured-in-place concrete and tile surfacing leaves room for error</li> <li>• Formwork assembly and concrete setting times can delay a project</li> </ul>
<b>Daily Operation</b>	<ul style="list-style-type: none"> <li>• Modular pools tend to use less chlorine than a concrete pool</li> <li>• Larger PVC panels with minimal seams make the pool easier to clean</li> </ul>	<ul style="list-style-type: none"> <li>• Daily pool maintenance is standard and understood by operators</li> </ul>
<b>General Maintenance</b>	<ul style="list-style-type: none"> <li>• Maintenance on modular pools does not require pools to be drained as often (on average every 4 – 5 years) resulting in substantial operating cost savings</li> </ul>	<ul style="list-style-type: none"> <li>• Maintenance on concrete pools requires pools to be drained on average every 1 – 2 years</li> </ul>
<b>Pool Life Span</b>	<ul style="list-style-type: none"> <li>• Modular pool technology has been in use for many decades and is a proven technology</li> <li>• The lifespan of a modular pool is similar to that of a concrete pool</li> </ul>	<ul style="list-style-type: none"> <li>• Concrete pool lifespan are well known to operators and preventative maintenance procedures are understood</li> </ul>
<b>Cost</b>	<ul style="list-style-type: none"> <li>• *Premium for a modular pool can be anywhere from 0% – 10% over a costs of a concrete pool however, this is off-set by time saved during construction as well as lower operating costs</li> </ul>	<ul style="list-style-type: none"> <li>• Concrete pools tend to be less expensive to install than the modular pool however, operating costs are higher for a concrete pool due to ongoing maintenance of tile and grout</li> </ul>

\* As noted within the attached In camera memo, there is a discount being offered to the City that results in the cost of the modular pool being less than the estimated cost of the concrete pool.

Administration has researched these two construction methods for the Family Aquatic and Library Complex and reviewed various recommendations presented by pool consultants and potential Design Build Contractors who all indicated that the Modular pool systems have been used in many facilities. Of the last fifteen 50m competition pools built, ten have been the Myrtha Pool Systems because of the speed of installation and accuracy of measurement.

The alternative cast in place concrete is also a good pool design, however with the Modular design the speed of installation, accuracy of measurement, and reduced long range maintenance costs are the factors that the pool designers and contractors indicated in their submissions as desired features.

### **3. DISCUSSION:**

Administration has identified that the preeminent Modular pool manufacturer is Myrtha Pools. Myrtha Pools is also an official partner of FINA (Federation Internationale De Natation). (See attached letter) FINA is the international governing body of swimming, diving, water polo, synchronized swimming and open water swimming. NCAquatics is the only distributor of the Myrtha Pool system in Canada. There are no other manufacturers of modular systems distributing in Canada that meet the standards required by FINA.

## Natorium (Competitive / Community Swim Pools)

The City of Windsor dialogued with NCAquatics regarding pricing for certain World-Class pools that were being made available for sale. NCAquatics has been authorized by A&T Europe Spa, the parent company of Myrtha Pools, to make a special offer for this project. Attached is an In-Camera memo detailing the offer we have been provided. The purchase would include 50m pool, 25m pool, and therapy pool tanks, associated filtration systems and related components such as bulkheads, starting blocks, timing devices, scoreboards, etc.

To qualify for the special value, NCAquatics will need a commitment to purchase, in the form of a written letter of intent and a deposit payment of CAD \$150,000 by October 31, 2011, for shipment of goods before December 15, 2012.

### Why should the City consider this Offer?

By accepting this offer and by providing a deposit to NCAquatics, the City will achieve cost certainty on this component of the project. **The construction of the competitive pool is on a critical path for this project.** The deposit will ensure the construction of the pool will be begin immediately to meet the December 2012 deliver date. It should be noted that the shortlisted proponents for the pre-qualification of the design/build contractors have identified the use of Myrtha pools as assisting in the project schedule. In addition, the City's Aquatic Consultant RAMAKER & Associates Inc. (See attached letter), has recommended the City proceed with the purchase of the Myrtha Pool system. **The consultant has also indicated that the Myrtha Pool System is of equivalent value to the cost of the Concrete system.**

### Purchasing Considerations

The use of a Myrtha pool system has been specified in the Owner's Statement of Requirements (OSR) and is supported by City's aquatics consultants and further has been mentioned in prequalification submissions as a means by which the City's construction schedule can be fast-tracked. As noted, the alternative to a prefabricated, drop-in pool is a cast-in-place pool which requires significant additional time and effort to properly install and certify for competition use. Accordingly, the appropriate product for use under these circumstances is a prefabricated pool.

Under ordinary circumstances, the City would simply include the requirement that bidders must use a Myrtha pool system in the specifications, and the bidders would then be responsible to obtain pricing and enter into agreements with NCAquatics to obtain the specified system. In this case, however, time is of the essence as the pool must be fabricated. If the City leaves it to the bidders to order and purchase the pool, however, the pool cannot be ordered until the design/build contract is awarded by Council, which is anticipated to be December 5, 2011. This creates a gap of two months during which the pool could already be in production were the City to place an order immediately. Additionally, as noted, a discount is being extended to the City in respect of a direct order. The agreement with NCAquatics will then be assigned to the successful design/builder.

The Purchasing Department confirms that the sole Canadian distributor for the Myrtha system at this time is NCAquatics. The Purchasing Bylaw permits a sole source where only one supplier is capable of meeting the requirements established by the specifications. As the specifications require a Myrtha pool, and are adequately supported based on the City's present needs, acquiring the Myrtha pool via sole source to NCAquatics is allowable under section 32 of the Purchasing Bylaw.

The benefit to placing an order immediately would be a decrease in the amount of time needed to produce the pool thereby accelerating the construction schedule, and the availability of a discount to the

City on its order. There is no likelihood that the City will change its specification for this pool system, but it must be noted that in the event that the City, before December 31, 2011 no longer wishes to proceed with the construction of the facility for any reason, the City's obligation is limited to the amount of the \$150,000 deposit.

Based on the technical information supplied by the aquatics consultants and City operational staff including the Project Manager, the Purchasing Department endorses the direct purchase of the Myrtha Pool system from NCAquatics and the subsequent assignment of the resulting agreement to the successful design/builder.

#### **4. RISK ANALYSIS:**

All construction will meet the Ontario Building Code, the Ontario Ministry of Health and the Lifesaving Society regulations. The City's liability is limited to the value of the down payment if the City were to cancel in writing via facsimile on or before December 31, 2011. After that, the City is obligated to complete the contract.

Assignment of an agreement does create additional complexity but is not overly challenging. Risks will be mitigated as much as possible thru the Design/Build agreement.

#### **5. FINANCIAL MATTERS:**

In order to secure the discount being extended to the City, a \$150,000 deposit is required to NCAquatics by October 31, 2011. The down payment on the modular system for the competitive pool assigned to the Design Builder will be funded from the Family Aquatic and Library Complex Capital Budget (Project #7111005) through approval of a pre-commitment as identified in the recommendation section.

As previously advised, in order to accurately determine an overall capital or operating budget, certain key decisions and design features have to be determined. To assist Administration in moving the process forward an initial \$400,000 has been approved as a pre-commitment to the capital budget for expenditures including but not limited to items such as consulting, site preparation and environmental assessments, road/alley closures, survey legal work, and expert assistance with the various RFP and contract language. An additional \$150,000 was recently approved for the mechanical and electrical compliance services of Smith and Anderson and a further \$150,000 is being requested in order to facilitate the deposit payment required to confirm the order of Myrtha Pool and Filtration Equipment to guarantee delivery and installation of a 50m pool, 25m pool and therapy pool and required components and filtration system by December 2012. This would bring the total pre-commitment approval to \$700,000. Expenditures to date are \$82,303 leaving \$467,697 (after the \$150,000 deposit payment) within the project to continue with the work that is in process.

It should be noted that features included in the Design OSR are minimum requirements. While Administration has considered the estimated costs of certain amenities when establishing these requirements, it is expected that the design/builder will undertake a full costing analysis in the determination of their final project price.

Prior to the opening of the price envelopes, an upset limit will be required in order to either determine a successful proponent or establish parameters by which the evaluation team will then begin negotiations with the deemed successful proponent. Administration anticipates having more complete information

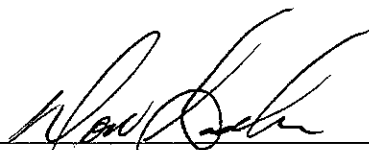
with regards to projected expenditures and related funding prior to the closure of the design/build RFP and will be bringing this information back to the committee at the appropriate time.

## **6. CONSULTATIONS:**

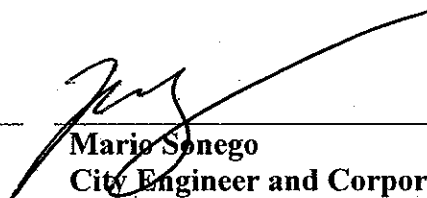
Nationwide Commercial Aquatics Inc.  
RAMAKER and Associates Inc.  
City of Windsor Recreation and Culture Department  
Working Committee – Family Aquatic and Library Complex.

## **7. CONCLUSION:**

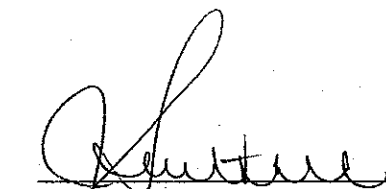
Pre-selection of Myrtha Pool for the competitive portion of the Family Aquatic and Library Complex will assure the City of Windsor and the future Design Builder delivery and install of the pool basics within the construction schedule.




**Don Sadler**  
**Executive Director of Parks and Facilities**



**Mario Sonego**  
**City Engineer and Corporate Leader**  
**Environmental Protection and**  
**Transportation**



**Onorio Colucci**  
**Chief Financial Officer/City Treasurer**  
**and Corporate Leader Finance and**  
**Technology**



**George Willki**  
**City Solicitor and Corporate Leader**  
**Economic Development and Public Safety**

**DS:hg**

**APPENDICES:**

**Appendix A – NCAquatics Proposal - Swimming Pool Systems**

**Appendix B - FINA letter of reference**

**Appendix C – RAMAKER and Associates Inc. recommendation**

**Appendix D – Letters of reference**

**In Camera Memo - provided to Mayor and City Council only**

**DEPARTMENTS/OTHERS CONSULTED:**





September 27, 2011

Attn: Don Sadler  
City of Windsor ON

Windsor Aquatic Centre -- NCAquatics Proposal -- Swimming Pool Systems

Dear Sir,

Please find our proposed scope of works for the supply and install of the Myrtha Pools and related systems for this project.

**Item #1: FINA World Championship Pool – 10-lanes, 50m/25m with Movable Bulkhead and Removable Headwalls**

Dimensions: 51.6m x 25m 10-lane Myrtha World Championship Pool, 2.5m deep with 1.5m wide Movable Bulkhead. Includes Myrtha Modular headwalls both ends.

Location: Indoors, corridor construction.

Technology: Myrtha PVC-laminated stainless steel panels, with stainless steel buttresses

Top profile: Myrtha Classic Competition gutter profile on 4 sides. Myrtha Modular Headwall both ends (this profile is similar to Pointe Claire and many other permanent-, and ALL temporary pools we have built to host numerous record-setting events),

Deck Drainage: Myrtha deck drain gutter system (piping from deck drain gutter to sanitary sewer by others), installed 1m outside of pool gutter profile,

In-pool fittings/accessories

- Floor markings for FINA 10-lane 50/25m swimming on 50m axis, 2 x 8-lane 25m courses on 25m axis (wall targets only on cross-wise course),
- Myrtha lane anchors for 50m axis are on the headwalls/bulkheads,
- Myrtha gutter-mount lane anchors for 25m axis,
- Myrtha FINA Track-start Starting platforms on bulkhead and both headwalls, qty 30, permit 50m and 2 x 25m event and training swims on 50m axis,



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- Myrtha gutter-mounted stanchion anchors for backstroke and recall stanchions for 50m and 2x25m swim on 50m axis,
  - Myrtha bulkhead/headwall-mounted stanchion anchors for backstroke stanchions on 25m axis,
  - Main Drains to OBC,
  - Gutter Drain Connections,
  - STZ Wall Inlets system,
  - Myrtha underwater speaker niche and speaker, qty 6,
  - Myrtha underwater lamp lenses, 280mm diameter, qty 16,
  - LED lamp to install behind lamp lens, qty 16, as seen at Terrebonne,
  - Myrtha recessed ladders, qty 8, include Myrtha gutter-mount removable grab rails,
  - Myrtha Modular Headwall system, 900mm wide, installed at each 25m side of the pool, includes starting platform anchors, cable tray and deck boxes for timing system (see Item #T1 for deck plates, timing system components),
  - Myrtha Movable Bulkhead, 1500mm wide, includes Myrtha Handwheel Drive System, includes starting platform anchors, cable tray and deck boxes for timing system (see Item #T1 for deck plates, timing system components),
  - includes position locks for up to 4 fixed positions,

Note – While we have tried to include dimensions and details developed in discussions with staff and consultants, we will perform a detailed review with the design team before proceeding to fabrication.



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WEB SITE www.ncaquatics.com

## Championship Pool Mechanical System:

Based on supply and install a complete pool mechanical system according to the following criteria:

- PVC pipe, valves and fittings,
- Filtration rate to provide minimum 4-hour turnover time (i.e. to filter 6 pool volumes in 24 hours),
- Surge tank(s) to provide adequate and complete surge capacity for pool, concrete base for surge tank by others, to our requirements,
- Dual circulation pump and strainer, epoxy-coated cast iron with bronze impeller/wear ring, suited to this purpose, (by dual pumps I mean each pump provides 50% of system flow requirements. This provides some redundancy in case of service outage on one pump),
- Isolation valves around pump/strainer, pressure gauge and compound gauge on pump,
- Hi-rate sand filters with single-lever manual operation rated for system flow by manufacturer (based on National brand filters or similar),
- backwash sump and drain by others. We will provide backwash flow rate and capacity requirements to assist with design of this system by others,
- Automatic chemical controller with data logging or transmittal (Based on Chemtrol, CAT or Siemens models),
- bulk sodium hypochlorite ("liquid chlorine") feed system, with remote fill station,
- Carbon dioxide pH control system,
- Dual UV system for secondary treatment, (the supplier for this system recommends 2 systems to work together will be more economical than a single large system, based on ETS, Triogen or Siemens models),
- connection to heat exchanger or pool heater in pool mechanical room (heater/heat exchanger, controls, primary supply by others),
- flow meters to measure flow, rotary with remote display,
- electronic water level control system,
- Tee fittings and by-pass valve in pool piping system for connection to dehumidifier system (dehumidifier and controls not included),
- connection to cold water supply system in pool mechanical room (backflow preventer, water meter, copper piping all by others),
- Includes secondary drain system to remove water from under the pool floor system to sanitary drain sump,

For heating and dehumidification systems, cold water supply and sewerage systems, we will work with the mechanical engineer to clearly define what is required to support the pool systems, but the design and construction of cold



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water supply, heat systems, dehumidification and sewerage are to be designed and constructed by others.

#### Structural Items

Excludes all concrete works, deck construction, deck finishes, corridor construction. Excludes all fill material under the base slab, all housekeeping pads, backfill or deck slab construction/finishes. Excludes weeping tile system or other required dewatering system under base slab. We will provide detailed load data for use by the building structural engineer to assist with design of concrete pool bases, pool deck slabs and deck finishes, but the design and construction of these items is by others.

#### Electrical Items

Excludes all electrical, line and load wiring. Low voltage control wiring for our equipment is included, but conduits to be installed by others where needed. Emergency pump shut-off/alarm systems not included. We will work with electrical engineer to clearly define what is required for pool electrical, but the design and electrical works are to be done by others. Excludes grounding and bonding. Bonding of the Myrtha structure is quite simple.

### **Item #1 – To Supply and Install Championship Pool as described herein - See Appendix A\***

**\*Notes and Conditions**

See Appendix "A"

### **Item #1X – To supply and install movable floor system for 52m x 25m Championship Pool**

We have included a movable floor system from the 52m Championship pool as follows:

- movable floor system, 25m wide x 12.5m long, with travel from water level to 2.5m water depth. The floor can also move to create a sloped floor up to 6% slope,

### **Item #1X – To Supply and Install Championship Pool as described herein - See Appendix "A".**

**\*Notes and Conditions**

See Appendix "A"



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## **Item #2: FINA Diving Pool – With 1m/3m/5m/7.5m and 10m Diving, 25m 8-Lane Swimming, Dive Training Bubbler System and Dual Movable Floors for Community Programming**

Dimensions: 25m x 21m Myrtha FINA Diving Pool, 6m deep (Myrtha wall section height is 3m) with stairs across 25m side under dive tower, 1.2m wide, and ramp ending on a landing 900mm deep, on opposite side of pool from dive tower, 1.2m wide (total inside dimensions of pool 25m x 23.4m). Includes Myrtha Dive Bubbler Training System and 8-lane 25m lane swim course with lanes 2500mm wide, and 2 buffer lanes 500mm wide, plus ramp and stairs as above.

Includes dual movable floor system to move from 5m deep to 900mm deep, to meet ramp/stair landing. Each movable floor is 25m wide x 10.5m. The floors move together, but can be positioned up to 400mm apart (for example, the upper floor at -1m and the lower floor at -1.4m deep) to provide very flexible options for programming. See separate section on movable floor systems below.

Location: Indoors, corridor construction.

Technology: Myrtha PVC-laminated stainless steel panels, maximum 3m wall section height, with stainless steel buttresses

Top profile: Myrtha Classic Competition gutter profile on 4 sides.

Deck Drainage: Myrtha deck drain gutter system (piping from deck drain gutter to sanitary sewer by others), installed 1m outside pool gutter

### In-pool fittings/accessories

- Wall targets for FINA 8-lane 25m swimming across pool,
- Myrtha gutter-mount lane anchors for 25m swimming,
- Quick-release starting platforms not included. (These can be removable training platforms in FF&E, but anchors supplied and installed in our scope of works, based on model selection by Owner),
- Myrtha Dive Bubbler System, includes qty 5 spargers on pool floor, for 3 tower positions and 2 springboard positions. Control valves sourced in Canada,
- Floor markings under each dive position,
- Gutter-mounted surface sprays under each dive position,
- Myrtha gutter-mounted stanchion anchors for backstroke stanchions for 25m swim, 2 pairs,
- Main Drains to OBC,
- Gutter Drain Connections,
- STZ Wall Inlets system,
- Myrtha Recessed Ladders, qty 2, include grab rails,
- Myrtha underwater speaker niche with speaker, qty 4,
- Myrtha underwater lamp lenses, qty 8,



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- Myrtha underwater window, 600mm x 400mm, qty 2,
- LED lamp to install behind lamp lens, qty 16, as seen at Terrebonne,
- Myrtha wide underwater window, 1600 x 700mm, qty 2,

Note – While we have tried to include dimensions and details developed in discussions with staff and consultants, we will perform a detailed review with the design team before proceeding to fabrication.

## **Diving Pool Mechanical System:**

Based on supply and install a complete pool mechanical system according to the following criteria:

- PVC pipe, valves and fittings,
- Filtration rate to provide minimum 4-hour turnover time (i.e. to filter 6 pool volumes in 24 hours),
- Surge tank to provide adequate and complete surge capacity for pool, concrete base for surge tank by others, to our requirements,
- Dual circulation pump and strainer, epoxy-coated cast iron with bronze impeller/wear ring, suited to this purpose, (by dual pumps I mean each pump provides 50% of system flow requirements. This provides some redundancy in case of service outage on one pump),
- Isolation valves around pump/strainer, pressure gauge and compound gauge on pump,
- Hi-rate sand filters with single-lever manual operation, rated for system flow by manufacturer, based on National brand filters or similar,
- backwash sump and drain by others. We will provide backwash flow rate and capacity requirements to assist with design of this system by others,
- Automatic chemical controller with data logging or transmittal, based on Chemtrol, Siemens or CAT models,
- bulk sodium hypochlorite (“liquid chlorine”) feed system, with remote fill station,
- Carbon dioxide pH control system,
- Dual UV system for secondary treatment, (the supplier for this system recommends 2 systems to work together will be more economical than a single large system), based on Triogen, Siemens or ETS models,
- connection to heat exchanger or pool heater in pool mechanical room (heater/heat exchanger, controls, primary supply by others),
- flow meters to measure flow, rotary flow with remote display,
- electronic water level control system,



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- Tee fittings and by-pass valve in pool piping system for connection to dehumidifier system (dehumidifier and controls not included);
- connection to cold water supply system in pool mechanical room (backflow preventer, water meter, copper piping all by others),
- Includes secondary drain system to remove water from under the pool floor system to sanitary drain sump,

For heating and dehumidification systems, cold water supply and sewerage systems, we will work with the mechanical engineer to clearly define what is required to support the pool systems, but the design and construction of cold water supply, heat systems, dehumidification and sewerage are to be designed and constructed by others.

#### Structural Items

Excludes all concrete works, deck construction, deck finishes, corridor construction. Excludes all fill material under the base slab, all housekeeping pads, backfill or deck slab construction/finishes. Excludes weeping tile system or other required dewatering system under base slab. We will provide detailed load data for use by the building structural engineer to assist with design of concrete pool bases, pool deck slabs and deck finishes, but the design and construction of these items, is by others.

#### Electrical Items

Excludes all electrical, line, load and control wiring. We will work with electrical engineer to clearly define what is required for pool electrical, but the design and electrical works are to be done by others. Excludes grounding and bonding. Bonding of the Myrtha structure is quite simple. All components are electrically continuous with neighbouring components, so the pool structure can be connected to a ground loop at 4 or so places, along with rails and other metallic items in the pool area.

### **Item #2 – To Supply and Install Diving Pool as described above**

#### **- See Appendix A\***

#### **\*Notes and Conditions**

See Appendix "A"



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## **Item #T1 – Aquatics Timing and Display System**

The following is the analogous timing and competition systems as seen at Pointe Claire. The following list includes the supply, installation and training of these systems, as well as free operation for your first 2 events.

### **General Items**

**3330-900 Omega ARES21 Timer w/power supply and battery back-up, case, aquatic software, data handling cables. Qty 2. Includes water polo and diving modules.**

Allows for execution of a single swimming competition with automatic timing and semi-automatic back-up, or two (simultaneous) swimming competitions with automatic timing and manual back-up. Includes an auxiliary output that can connect to an underwater speaker system (not included) for underwater recall.

**Special Laptop computer, printer and connecting cables**

To connect to and operate the ARES controller, qty 2.

**3274-044 Omega Deck plates. Qty 33.**

1 per lane at each of 3 start positions (both bulkheads and headwall), plus 3 spares. The Omega deck plate uses stainless steel connectors, the back side is potted to prevent corrosion. Omega asserts that there is no problem installing on the deck, and hundreds of installations support this.

**Custom Wall plates, qty 6.**

These mount inside a 12in x 12in x 6in deep junction box (junction box and conduit by others) on the natatorium/pool office wall. See diagram for typical locations.

**- Miscellaneous cables for in-deck/on-bulkhead installation.**

Multi-conductor cable for deck plates, speaker connection etc.

### **Swimming-specific items**

**2924-778 Omega Touch pad FINA 2400mm x 900mm, qty22.**

Touch pads for both ends plus 2 spares

**Custom Touch pad storage cart, qty 1. Holds 20 pads.**

**ODB9 Omega Lane module controller, 10-lanes, qty 4.**

Allows primary and back-up for each end of the pool.



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CANADA M4L 3G2

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**ODB8 10-lane for double-ended, 1 set.**

An extra set of cards for double-ended events.

**OIT3 Omega Push-button, qty 24.**

Allows for 3-button back-up in a double-ended competition.

**3399-900-US Omega Start Time III Starting unit, qty 3.**

**3399-951 – Omega LED external Flash, qty 1.**

**Internal speakers, qty 20.**

Speakers are installed for meets only, then removed for storage at other times. Includes permanent brackets (qty 30) to be installed at each starting platform, plus 20 removable horns (1/lane x 2 ends).

**Diving, Synchronized Diving and Synchronized Swimming specific items**

**3285-605 Omega MTL Judging keypads, set of 5, qty 2 sets.**

**Water Polo Specific Items**

3303-700 Omega Water polo shot clock, qty 4.

1611-007 Omega Water polo shot clock cabling, qty 2 sets.

3435-900 Omega Water polo horn, qty 1.

3286-600 Omega Water polo start-stop unit, qty 1.

3285-618 Omega WP team console

**ViviLED COLOUR VIDEO DISPLAY  
BOARD - OUTDOOR**

RGB 20mm Full Colour Display

256 Pixels Wide x 144 Pixels Highs RGB

Approx Display Size 3.00m x 2.00m

Approx Overall Size 3.50m x 2.50m

Same display as Pointe Claire

**Item #T1 – To Supply and Install Timing System as described  
above**

**- See Appendix A\***

**\*Notes and Conditions**

See Appendix "A"



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### **Item #3 –Relax Pool**

**Warm pool includes bubble benches and hydrotherapy jets, exercise rails, Myrtha Softwalk padded floor, stair entry.**

Dimensions: 12m x 6m with constant depth of 1.05m. Skimmer profile with tiled waterline, in-pool lights.

Location: Indoors, corridor construction.

Technology: Myrtha PVC-laminated stainless steel panels, constant 1.2m wall section height, with stainless steel buttresses

Top profile: Myrtha Skimmer Ceramic on 4 sides.

Deck Drainage: Myrtha deck drain gutter system (piping from deck drain gutter to sanitary sewer by others), installed 1m outside pool gutter

In-pool fittings/accessories

- Hydrotherapy bench in concrete, covered with Myrtha membrane,
- Hydrotherapy jets, qty 14,
- Bubble inlets, on 30% of bench length,
- Stainless steel exercise bars, 6m,
- Stair entry at one end, with stainless steel handrail,
- Skimmers, qty 4,
- Myrtha Softwalk padded floor, all exposed floor area,  
Main Drains to OBC,
- Myrtha Wall Inlets system,
- Myrtha Recessed Ladders, qty 1, includes grab rails,
- LED lamp to install in lamp niche, qty 4,
- Includes tile and adhesive for waterline, but not for horizontal deck surface or top of pool frame, which will be by others to coordinate with deck finishes,

Note – While we have tried to include dimensions and details developed in discussions with staff and consultants, we will perform a detailed review with the design team before proceeding to fabrication.



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## **Relax Pool Mechanical System:**

Based on supply and install a complete pool mechanical system according to the following criteria:

- PVC pipe, valves and fittings,
- Filtration rate to provide minimum 1.5-hour turnover time (i.e. to filter 16 pool volumes in 24 hours),
- Circulation pump and strainer, epoxy-coated cast iron with bronze impeller/wear ring, suited to this purpose,
- Hydrotherapy pumps, qty 2, thermoplastic construction with integral strainers,
- Air blower for bubble bench,
- Isolation valves around pump/strainer, pressure gauge and compound gauge on pump,
- Hi-rate sand filters with single-lever manual operation, rated for system flow by manufacturer, based on National brand filters or similar,
- backwash sump and drain by others. We will provide backwash flow rate and capacity requirements to assist with design of this system by others,
- Automatic chemical controller with data logging or transmittal, based on Chemtrol, Siemens or CAT models.
- bulk sodium hypochlorite ("liquid chlorine") feed system, with remote fill station,
- Carbon dioxide pH control system,
- UV system for secondary treatment, based on Triogen, Siemens or ETS models,
- connection to heat exchanger or pool heater in pool mechanical room (heater/heat exchanger, controls, primary supply by others),
- flow meters to measure flow, rotary flow with remote display,
- electronic water level control system,
- Tee fittings and by-pass valve in pool piping system for connection to dehumidifier system (dehumidifier and controls not included),
- connection to cold water supply system in pool mechanical room (backflow preventer, water meter, copper piping all by others),
- Includes secondary drain system to remove water from under the pool floor system to sanitary drain sump,

For heating and dehumidification systems, cold water supply and sewerage systems, we will work with the mechanical engineer to clearly define what is required to support the pool systems, but the design and construction of cold water supply, heat systems, dehumidification and sewerage are to be designed and constructed by others.

### Structural Items



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Excludes all concrete works, deck construction, deck finishes, corridor construction. Excludes all fill material under the base slab, all housekeeping pads, backfill or deck slab construction/finishes. Excludes weeping tile system or other required dewatering system under base slab. We will provide detailed load data for use by the building structural engineer to assist with design of concrete pool bases, pool deck slabs and deck finishes, but the design and construction of these items, is by others.

#### Electrical Items

Excludes all electrical, line, load and control wiring. We will work with electrical engineer to clearly define what is required for pool electrical, but the design and electrical works are to be done by others. Excludes grounding and bonding. Bonding of the Myrtha structure is quite simple. All components are electrically continuous with neighbouring components, so the pool structure can be connected to a ground loop at 4 or so places, along with rails and other metallic items in the pool area.

### **Item #3 – To Supply and Install Relax Pool as described above**

**- See Appendix A\***

**\*Notes and Conditions**

See Appendix "A"

### **Item #4 – Water Play Pools**

Since the designs for these pools have not been finalized, we cannot provide detailed costing or scope of works at this time. However, we can provide unique features for use in such a pool, such as Myrtha beach entry, Softwalk Padded floor system, river ride, and can coordinate with any supplier of wave generator, play features, spray toys, water slides etc., to realize your water playground and pool systems. As well, it is unlikely that this pool(s) would lend themselves to construction from pre-owned Myrtha Event pools, but we are authorized by A&T Europe Spa/Myrtha Pools, to offer the same discount for the Play Pool materials as we offer for the pre-owned event pools. As soon as we have an advanced design for the Leisure Pools I can finalize costing and can provide complete pool and related system designs/design support for the scope of works similar to that indicated above for the Championship and Dive pools. I have sent some example drawings and photographs of some leisure and play pools we have done recently for your consideration – we offer unique features and solutions which can add a lot of fun to your facility. It would be very informative to visit some recent projects where we have pushed



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the envelope in pool design at Fort McMurray AB and Grande Prairie AB, where you can see many of the details suggested in your recent design sketches in action. Please let me know if I can be of assistance in arranging such a trip.

**\*Notes and Conditions**

See Appendix "A"

Please review carefully and feel free to contact us to discuss any concerns.

Sincerely,

*Keith Richardson*

Keith Richardson

Nationwide Commercial Aquatics Inc.  
Keith Richardson - President



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## Appendix B



Fédération Internationale  
de Natation

**PRESIDENT**

MUSTAPHA LARFAOUI  
Algeria

**HONORARY SECRETARY**

BARTOLO CONSOLO  
Italy

**HONORARY TREASURER**

JULIO MAGLIONE  
Uruguay

**VICE PRESIDENTS**

HIROMOSHIN FURUHASHI  
Japan

NORY KRUCHTEN  
Luxembourg

BILL WATSON  
New Zealand

DALE NEUBURGER  
USA

SAM RAMSAMY  
South Africa

**MEMBERS**

HUSSAIN AL MUSALLAM  
Kuwait

GENNADY ALESHIN  
Russia

ABD EL RAHMAN AMIN  
Egypt

LYNNE BATES  
Australia

RAFAEL BLANCO  
Spain

SVER EGIL FOLVIK  
Norway

ELDON C. GODFREY  
Canada

FRANCIS LIUYE  
France

GUILLERMO MARTINEZ  
Cuba

ORBAN MENDOZA  
Puerto Rico

COARACY NUNES FILHO  
Brazil

PIPAT PANJANGVAIT  
Thailand

CHEIF OLATOKUNBO THOMAS  
Nigeria

QIUPING ZHANG  
China

To whom it may concern

15th June 2009

**Myrtha Pools – Official FINA Pool Partner**

FINA, the Federation Internationale de Natation, is pleased to confirm the appointment of Myrtha Pools, one of the world's leading companies in the design, manufacturing and installation of competition swimming pools, as the exclusive FINA Official Pool Partner for the period 2009 – 2010.

The choice of Myrtha Pools as FINA's Official Partner has been based on the great experience that the company has demonstrated with hundreds of world class facilities built worldwide and on the unique characteristics of the Myrtha Pools technology, that uses maintenance-free stainless steel modules and guarantees extreme construction precision.

This aspect, particularly, is very important for FINA that puts great attention to the dimensional tolerances of the facilities and for these reasons, FINA has appointed Myrtha Pools as its Official Pool Partner and Supplier worldwide.

Sincerely yours,

Cornel Marculescu  
FINA Executive Director

## Appendix C



September 26, 2011

Don Sadler, Project Manager  
City of Windsor Park & Recreation  
2450 McDougall Avenue  
Windsor, Ontario N8X 3N6

**SUBJECT: WINDSOR AQUATIC CENTER – MYRTHA POOL CONSTRUCTION PROPOSAL**

Dear Mr. Sadler:

I have reviewed the NCAquatics (Myrtha Pool System) Proposal dated September 25, 2011. Based on comparisons to studies and construction costs of similar pool facilities, the Myrtha price for the proposed pool basin construction appears to reasonably match expected probable pool construction costs. In addition to the pool basins, the Myrtha package includes competition deck equipment and timing systems along with the full scope of pool water treatment equipment. Though it may be possible to obtain a lower pool construction price from others through a competitive bid process, the benefit of an anticipated shorter construction timeframe for the Myrtha pool systems should be valued as well as owner satisfaction of facilities having Myrtha pool equipment that you have had the opportunity to visit.

The Myrtha competitive swimming and diving pool packages are a known entity to the City of Windsor Project Management and Aquatics staff. Staff has had the opportunity to visit the Terrebonne and Pointe Claire Aquatic Centers which were constructed in 2006 and 2010, respectively. Staff was able to review operation and maintenance considerations with the managers of these facilities. All indicated satisfaction with the Myrtha installations. It is noteworthy to recognize that over the course of the last ten years, Myrtha pools were installed in 10 of 15 high end competitive aquatic centers in Canada. Myrtha has been the choice installer for 50 worldwide competitive installations worldwide during the last ten years.

By awarding the competition pool construction contract at this time, the project schedule will benefit by having the pool design and layout complete for the building design/build request for proposal. In other words, less time will be required during the schematic design process to address the competitive pools since the pool basin layout decisions will have already been made. Holding off on the final layout for the anticipated 6 to 8 weeks required for the design build proposal bid process represents 6 to 8 weeks lost on the design schedule. Given the tight project schedule, every day lost or gained can have a significant impact on the City's ability to meet its obligation for the World Children's Games.

It is important to note that Myrtha is responsible for developing pool construction plans and providing equipment submittal documents for review and approval by City Staff and Consultants prior to fabrication. This provides the opportunity to confirm installation requirements as necessary for coordination with the other construction project team members as related to concrete, electrical and similar work as defined by others in the Myrtha proposal.

To allow the City the benefit of the Myrtha defined 20% discount, award of the contract contingent upon resolution of the above items would appear to be an appropriate course of action.

Sincerely,  
RAMAKER & ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read 'Daryl Matzka', is written over a horizontal line.

Daryl Matzka  
Vice President/Director of Aquatics

1120 Dallas Street, Sauk City, Wisconsin 53583 ▲ Voice: 608-645-4100 Fax: 608-645-7898  
Web: <http://www.ramaker.com>

## Appendix D



YMCA

We build strong kids,  
strong families, strong communities.

April 14, 2008

To Whom It May Concern:

When we were planning our new YMCA facility, we studied our options for pool construction. The pools at the old YMCA facility, located at the corner of George and Murray Streets, were built in 1931 (Forbes Pool) and 1969 (Minty Pool). They had a ceramic tile finish that, over the life of the pool, required increasing amounts of money and effort to keep safe and clean. We discovered that Myrtha, with its PVC-coated stainless steel construction, offers the ability to build beautiful, low-maintenance pools with no tile. The Myrtha Pools we visited as part of our detailed investigation, did not require painting, tile repairs (although some models do have tile trim on the gutter), grout repairs, caulking or leak injection. Many of these pools had been emptied only once or not at all in several years of operation, which is important to us as we have a lot of pressure to avoid schedule disruptions from our members.

During design and construction, Keith Richardson of Nationwide Commercial Aquatics was very helpful, offering good advice on how the pools could be most successful without unnecessary cost. The pools were completed on budget and on schedule.

The pools are now completed (we have a 25-metre lap pool, a free-form leisure/therapy pool and a hot tub) and are seen as a dramatic improvement over the old tile pools by our YMCA staff. Myrtha has been very supportive throughout the entire project from planning to operations, the pools are easy to care for and they look great.

Our members are delighted with the Myrtha Pools – both the lap and therapy pool have Myrtha's unique Softwalk floor, a real hit with all age groups.

I was so pleased with the Myrtha experience that we are using Myrtha for our newest facility, the Quinte West YMCA, which will include a 25-metre lap pool and another freeform leisure pool.

Sincerely,

R. J. (Bob) Gallagher  
Chief Executive Officer  
YMCA's of Peterborough and Belleville & Quinte

/esp

### YMCA of Peterborough

123 Aylmer Street South, Peterborough, Ontario K9J 3H8 tel. 705 748-9622 fax 705 741-3719  
Lakefield: 8 Caroline Street, Lakefield, Ontario K0L 2H0 tel. 705 652-7782



## Appendix E



November 3, 2006

To Whom It May Concern:

Please accept this letter as confirmation of the strong working relationship between Myrtha Pools and USA Swimming. USA Swimming has high praise and respect for Myrtha Pools, in particular working with our federation during the past four years.

Our first true partnership began in 2003, when Myrtha was contracted by the Organizing Committee of the 2004 U.S. Olympic Team Trials – Swimming to place two pools in a parking lot in Long Beach, California. This seed of an idea turned into the greatest aquatic festival in U.S. history, with international water polo, synchronized swimming and swimming taking place over a four-week period.

The crown jewel was the Myrtha competition pool, which was the centerpiece of a 10,000 outdoor swim stadium for 15 sessions of the swimming Trials. At this event an incredible six world records were set, in large part due to the quality of the pool. Much of the success of the entire project was due to the very open and positive relationship the OC and USA Swimming had with Mr. Trevor Tiffany of Myrtha.

Our relationship continued at the 2004 FINA World Championships in Indianapolis, Indiana, where the Organizing Committee purchased two 25-meter Myrtha pools for the competition. While USA Swimming was slightly less involved in the details of this project, the competition pool still received rave reviews. The amazing aspect of this project was that Myrtha only had 4-5 days to install the pool on the floor of Conseco Fieldhouse, the home of the Indiana Pacers basketball team.

We continued the relationship in 2005 at the FINA World Championships in Montreal, when USA Swimming served as an occasional consultant with Myrtha on the competition tank for the World Championships.

From these experiences, Myrtha and USA Swimming began discussions for a stronger partnership, which we formally established in 2006. Myrtha joined the USA Swimming family as an official sponsor, and will be providing the competition and warm-up pools for our 2008 U.S. Olympic Team Trials – Swimming, to be held from June 29-July 6 in Omaha, Nebraska.

Page Two

In closing, USA Swimming's relationship with Myrtha pools has been extremely positive. We have a strong belief that the Myrtha product is superior, and gives athletes every opportunity to reach their potential. We are tremendously excited about our organizational partnership.

Sincerely,

Mike Unger  
Chief Operating Officer

## Appendix F



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Ottawa ON K1G 6C3  
t. 613 260.1348 f. 613 260.0804  
www.swimming.ca www.natation.ca

February 23, 2011

To Whom It May Concern:

Swimming/Natation Canada is pleased to announce that Myrtha Pools has been appointed the official swimming pool partner for Swimming Canada. Myrtha has held this title since 2008.

Swimming/Natation Canada and our member clubs and swimmers have competed in Myrtha Pools around the world, including the 2005 FINA World Championships in Montreal. The modular construction of the Myrtha Pool has provided pools that meet the exact tolerances required for such World-Class events. We have also seen that Myrtha Pools can be constructed very quickly, with excellent results, and the many high-level aquatic facilities that use Myrtha Pools indicate that their Myrtha Pools require less maintenance and repair than other pools, and thus are subject to fewer shut-downs and schedule disruptions.

These facts, plus the growing number of records set in 'fast' Myrtha Pools, persuades us that Myrtha Pools would be the ideal solution for use at the 2015 Pan Am/Para Pan Am Games in Toronto.

We look forward to this continued successful partnership with Myrtha Pools across Canada and at events around the world.

Sincerely,

Pierre Lafontaine  
CEO/National Coach  
Swimming Canada