NEEDS ASSESSMENT:
RAY WILLIAMSON POOL

Bainbridge Island, Washington

10 August 2017

Bainbridge Island
Metro Park & Recreation District

Submitted By:

AQUATIC
DESIGN GROUP

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1.0 SCOPE

The Bainbridge Island Park and Recreation District commissioned a Needs Assessment to be performed on the existing Ray Williamson Pool which is part of the Bainbridge Island Aquatic Center. The purpose of this study is to analyze the condition of the existing pool, pool deck, and chemical and mechanical systems.

Exhibit 1: Existing Bainbridge Island Aquatic Center

Also included in the report is a summary of existing conditions, code upgrades, and safety and maintenance issues that are required at the existing complex. The scope of this report includes the swimming pools, pool deck area, pool mechanical equipment, and experience aspects of the support buildings. This report excludes the structural integrity of the pool shell, and disabled access path of travel once a patron leaves the building. It also excludes any analysis of the code compliance or structural integrity of the building itself, site access, and parking.

This report identifies code violations found. Some of these violations may currently be operating on a "grandfathered" exemption. It is important to note some

exemptions by the authorities having jurisdiction may allow the pool to legally operate in non-compliance of current regulations, but the responsibility for any health and safety risks to the public may still remain. We therefore recommend these issues be reviewed on a case-by-case basis for determination of disposition and possible remedy for each violation.

In addition to the code issues being of concern to authorities having jurisdiction, they can also be of concern to the District's Risk Management. If a facility is in violation of current state code or guidelines, the liability exposure alone may warrant the remedy of the violation. Given the subjective nature of code interpretation, violations that may be deemed a grandfatherable exemption at one point may not be allowed at another time or by a different inspector.

As mentioned above, not fully studied and addressed in the scope of this report but an important area to be reviewed is the requirement the aquatic facilities meet the Americans with Disabilities Act (ADA). This includes requirements of access to the aquatic facilities, swimming pools, pool decks and restrooms. To comply, every swimming pool must have a permanently installed means of disabled access. This can include a wheelchair ramp into the pool or a disabled access handicap lift. The scope of this report is for the swimming pools only. Therefore, access from the parking lot to the pool area and the restroom and changing facilities will not be addressed as part of this report.

The estimated opinion of costs identified in this report includes materials and labor for the repair, but they do not include any architectural / engineering fees or other soft costs. All costs are based upon recent bids in the greater Seattle region. Additionally a 30% Bainbridge Island Escalator has been applied. Structural analysis of the pool structures, pool deck, and pool mechanical spaces (which may require destructive testing) is not included in the scope of this report.

This report also includes a two design options for a renovation to the Ray Williamson Pool and one design option which explores the potential of constructing a new aquatics center as part of the adjacent 23 acre site which is currently being studied by another firm.

2.0 CODES

There were no record drawings available for review to assist with this report. Therefore, 100% of the information found in this report is from the site visit to the pools, and information gleaned and gathered from speaking with representatives of the Bainbridge Island Metro Park & Recreation District. For the purpose of this report, compliance with current codes will be examined. The codes that apply include:

- International Building Code, latest version
- Uniform Mechanical Code, latest version
- Uniform Plumbing Code, latest version
- Uniform Fire Code, latest version
- National Electrical Code, latest version
- Americans with Disabilities Act / ADAAG, latest version

- Washington Building Code, latest version

3.0 FACILITY DATA

The assumptions and conclusions in this report are based solely on the visual evidence found during our site visit and comments provided by staff. No destructive testing was conducted to determine structural viability of the pools or other structures.

Facility Overview and Access
The Bainbridge Island Aquatics Center is composed of two separate pool areas: the Ray Williamson Pool which was originally constructed in the early 1970's; and the Nakata Pool which was added in 2001 as part of a major renovation project that included the creation of a new main entrance, locker rooms, and support spaces. This report is centered around the Ray Williamson Pool but does include some information related to that addition.

The Bainbridge Island Aquatics Center is on leased Bainbridge Island School District property. Bainbridge High School, Eagle Harbor High School, and Ordway Elementary School all share border with the Bainbridge Island Aquatics Center. The St. Cecilia Catholic School and the Bainbridge Island Teen Center are also in close proximity. The aquatics center does have dedicated parking and can utilize school parking lots as needed and available during overflow events.

The Ray Williamson Pool can be accessed in two ways. Primary access is provided through the main entrance of the Bainbridge Island Aquatics Center which is located at the north end of the facility. Secondary access is provided at the south end, which was the original entrance to the Ray Williamson Pool when it was initially constructed through the renovation of 2001.

Exhibit 2: Entrance to the Bainbridge Island Aquatics Center

When patrons enter the building through the main entrance they are greeted with a spacious lobby featuring chairs and tables and a view into the Nakata Pool. The front desk is straight ahead. Left of the front desk bathers can proceed down a hallway which provides access to the primary male, female, and family locker rooms. This

hallway is also lined with lockers which any patron can use should they choose to as opposed to utilizing the lockers in the male or female locker rooms or carrying their belongings with them to the pool deck.

During my visit to the facility, the Nakata Pool was under construction due to the pool decks being repaired. Normally patrons would walk through the Nakata Pool, through six sliding glass doors to gain access to the Ray Williamson Pool. While I was on-site access was provided through a make-shift corridor to the east of the facility.

Exhibit 3: Sliding Doors Between The Nakata and Ray Williamson Pools (View Towards Nakata)

Ray Williamson Pool Complex

The Ray Williamson Pool itself is a six-lane x 25-yard swimming pool surrounded by concrete pool decks and concrete steps / seats on the east and west side. The Nakata Pool is to the north through the glass doors. The south side of the pool includes the original male and female locker rooms, storage rooms, a timing room, pool mechanical room, three offices, and a multi-purpose room. The multi-purpose room was converted from the former main lobby of the facility prior to the Nakata addition. This room is the second means of access to Ray Williamson Pool. The newest addition to the Ray Williamson Pool is "The Cabana", a tiki-themed area with thatch hut, a table, chairs, kitchen and staff area that can be used for rentals.

Exhibit 4: Former Main Entrance to the Ray Williamson Pool

The swimming pool is rectilinear, 75 feet (25-yards) in length and approximately 42 feet in width. It has six 7'-0" wide swim lanes across the 42 feet width of the pool. The pool features four sets of grab rails with steps that extrude into the pool walls below them into the outside two lanes. Pool depths range from 3'-0" in the north end of the 25-yard lap lanes down to a 13'-0" depth at the south end.

The pool features six racing platforms / starting blocks at the south end and one 1-meter springboard.

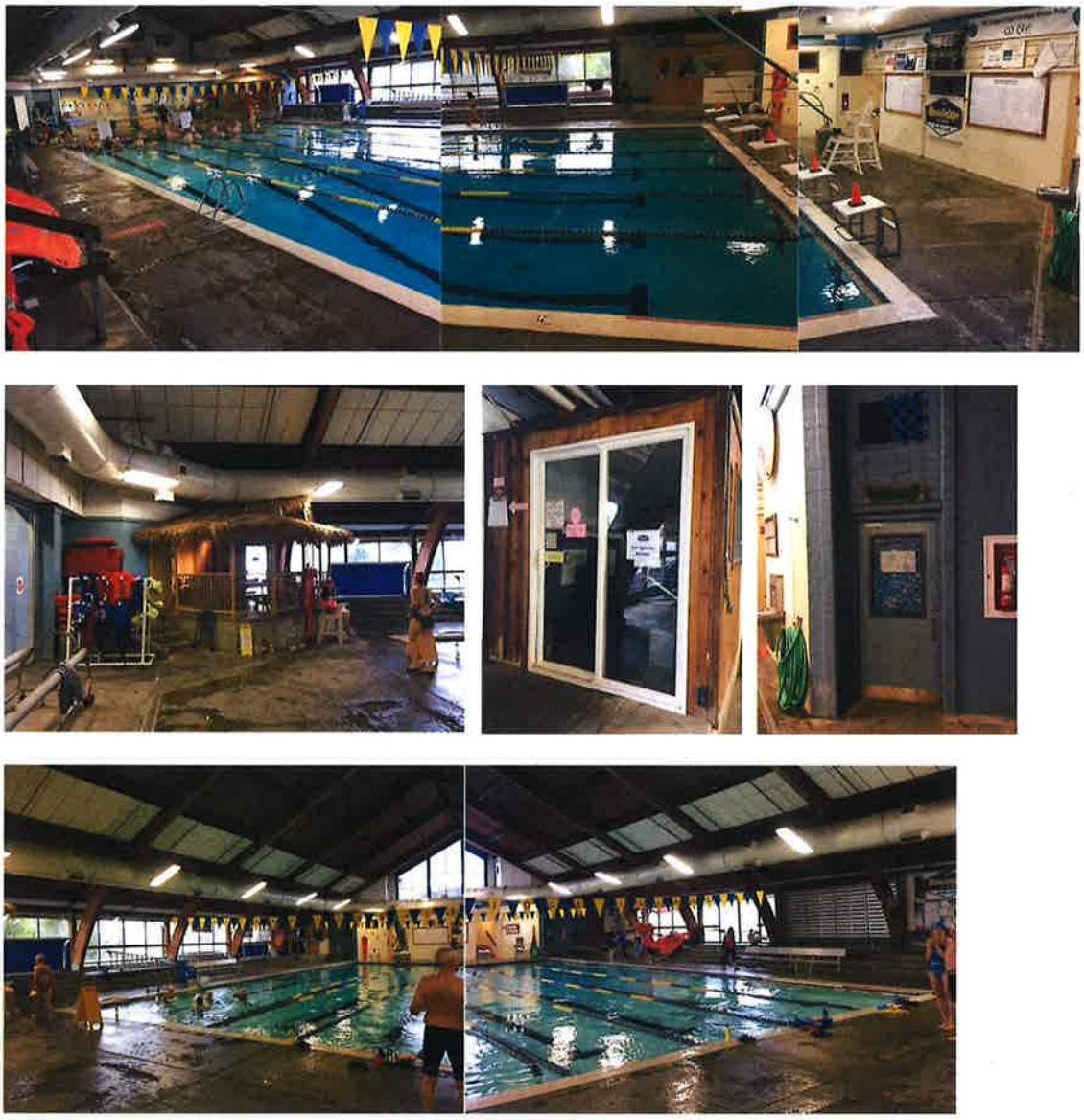


Exhibit 5: Ray Williamson Pool

Locker Rooms

As previously mentioned there are two sets of locker rooms that service the Ray Williamson Pool (and by proxy the Bainbridge Island Aquatics Center). The main locker rooms serve as the primary locker rooms for the entire facility, and the original locker rooms which serve a limited function in supporting the competitive users of the Ray Williamson pool.

The main locker rooms are consistent with locker rooms in aquatic centers from the early 2000's. The male side includes:

- Seven showers, one of which is ADA compliant
- Two urinals
- Two toilets, one of which is ADA compliant
- Two sinks
- Changing table
- 114 plastic half-size lockers
- Four wooden benches
- Wall hooks for bags, towels, suits, coats, hats, etc.

Exhibit 6: Main Male Locker Room

Since the facility was in use I could not gain access to the female locker room but was told it has a similar layout, configuration, and fixture count. The is also a family area which is comprised of:

- Five individual rooms
    - Three with a changing area and shower
    - One with a changing area and ADA compliant shower
    - One ADA compliant restroom
- 84 plastic half-size lockers

Exhibit 7: Family Changing Rooms

The original locker rooms haven't seen many renovations / upgrades since their original construction. Access to the female side wasn't made available to me during my site visit due to higher than normal use due to the renovation of Nakata. The male side includes:

- Two sinks
- Two urinals
- Two toilets
- One 5-head group shower
- 24 plastic half-size lockers
- Wooden benches around the perimeter of the changing area
- Wall hooks for bags, towels, suits, coats, hats, etc.

Ray Williamson Lobby Area

The old lobby area, as previously mentioned, has been renovated and is now used as a multi-purpose fitness space. This area has a space heater and an air-conditioning unit as well as a fan for the comfort of users. There are also three offices in this space one for the BISC Head Coach, the Pool Operator, and the BAM Head Coach.

Exhibit 8: Original Ray Williamson Locker Rooms, Offices, & Multi-Purpose Room

Ray Williamson Pool Mechanical and Chemical Room

The mechanical and chemical systems for the Ray Williamson Pool are located to the southeast of the building. The room also includes the electrical equipment for the building. The pool specific equipment is located on two levels. The top level includes the opening of the DE filter pit, some dry chemical storage (Calcium Chlorine, Sodium Bicarbonate), hot water heater with plate and frame heat exchanger, floor scrubber, chemical controller and variable speed drive control panel, CO_2 cylinders and feed system, muriatic acid drums and feed system, soda ash drums and feed system, emergency eyewash station, and the staircase to the basement level below. There is a separate gas chlorine room that can only be accessed through the outside as well.

The basement level is accessed through a ships ladder and houses the remaining equipment including a hot water tank, circulation pump and control, solar pump disconnects, hair and lint strainers, heater circulation pump, UV unit, and the majority of the pool piping.

Exhibit 9: Ray Williamson Pool Mechanical Room & Pool Equipment / Systems

4.0 Pool Data (Based on Visual Evidence and from plans dated 8/15/70)

4.1 Swimming Pool Data:

- Pool Water Surface Area: 3,300 square feet
- Pool Perimeter: 238 linear feet
- Pool Depths: 3'-0" to 12'-0"
- Pool Volume: 150,000 gallons
- Pool Finish: fiberglass
- Required Turnover Rate: 6 hours, or 417 GPM
- Surface Water Collection: perimeter cantilevered gutter system
- Bottom Water Collection: dual main drains
- Pool Water Inlets: floor inlets
- Pool Filters: slurry DE system
- Pool Heater: plate and frame heat exchanger
- Pool Controller: BecSys 5
- Pool Pump: 15 hp Emerson rated at 1770 GPM with Eco-Flow-C variable frequency drive
- Pool Chemicals: Gas Chlorine, CO_2 with a Muriatic Acid assist and automatic soda ash system with Stenner feed pumps.
- UV System: Aquionics

5.0 CODE ISSUES

Some assumptions in this section are made based on visual observations and staff comments. One example is staff reports upgrades have been made and main drains appear to be in compliance with the Virginia Graeme Baker Act. During an actual renovation this would need to be verified to ensure the main drains are hydraulically balanced and in compliance.

The following items are noted as not complying with the various codes and regulations that apply to public swimming pools in the state of Washington. A description of the condition is given along with a reference to the code that applies. Each cost assumes the item is a stand-alone project and is not combined with a larger project which might encompass multiple items.

5.1 **Pool Deck:** The existing pool deck has worn over time and has sections where the finish has deteriorated to the point it is no longer uniform and non-abrasive. It does not appear to have sufficient slip coefficients in many areas. Pooling water can be seen in multiple areas and it is the opinion of Aquatic Design Group that the decks are unsafe as evidenced by some slips and falls.

The estimate below assumes the decks will be removed and replaced from the edge of concrete bleachers on the east and west, at the building walls / doorways on the south, and at the glass doors on the north side towards Nakata. The estimate also includes retiling the deck surface and replacing it with a similar contrasting band of tile.

CODE:246-260-031 General design, construction, and equipment for all WRF pool facilities.

3 **Walking Surfaces:** "Owners shall design and maintain walking surfaces:
(c)*Having a nonslip finish;*
(d) not having an abrupt change in height of greater than one-half inch, a gap no greater than one-half inch in width, or a crumbling surface presenting a potential tripping hazard;
(e) Equipped with sufficient drains to prevent standing water"

Exhibit 10: Ray Williamson Pool Deck

Cost to remove and replace deck:
$ 198,000.00

The summary of estimated construction costs for this section is below:

	Description / Function	Quantity	Unit Cost	Total
5.0	**Code Violations**			
5.1	Remove and Replace Pool Decks and Drainage	1	$153,000.00	$153,000.00

6.0 SAFETY / MAINTENANCE CONCERNS

The following items are safety and maintenance concerns at the Ray Williamson Pool. These items were either directly mentioned by staff, or were noticed during my visual inspection of the facility:

6.1 Underground pool piping consists of "old, rusty steel pipes". Staff does not report any signs of leaking but doing a bucket test and, potentially, a pressure test of the pipes, would help verify such.

Bucket Test:	Free
Pressure Test Pipes:	**$2,500.00**

6.2 Underground rusty pool piping is discoloring pool surface and should be replaced with new schedule 40 or 80 PVC pipes. Staff reports that the majority of exposed piping was replaced in 2014 as part of a renovation project. All exposed piping should be upgraded to schedule 80 PVC if it is not already. As this is a major renovation project doing so will affect the pool deck and pool shell as well as the walls in both levels of the mechanical room. The estimate below is only for the removal and replacement of the piping, pipe hangers, and labor related. It does not include the renovation work for the deck, pool, or mechanical room walls as these items would be separate line items.

Remove and Replace Existing Metal Piping with PVC:	**$52,000.00**

6.3 Pool timing system requires conduit to be run along deck and into the computer room before running back out and to the scoreboard. This is a safety hazard (falls, trips) as well as a potential concern for damage to the system or patrons as the cables run through standing water. Recommendation is to install in-deck deck plates and wall plates with home runs to the scoreboard.

New In-Deck Timing System:	**$36,000.00**

6.4 The concrete bleachers are in poor condition. In multiple places the concrete is cracked and in some it has fallen off. Additionally, there are no drains on the concrete treads creating a potential safety hazard with standing water. As the

deck space is inadequate to keep up with demand for programming already, it is recommended to remove the existing concrete stands and replace them with decking at the same level as the decks that surround the pools. This would make the pool area much more flexible by opening up opportunities for dryland training and other on-deck activities. It would also increase the safety of staff and participants during events as they would have more space to maneuver around the pool. Portable tilt and roll bleachers could be brought in as needed to provide more seating than is currently offered during events. The estimate below assumes no special measures have to be taken during the renovation to structurally support the existing building walls.

Remove and Replace Existing Concrete Bleachers with At-Grade Decks: **$117.000.00**

New Tilt-and-Roll Bleachers (6 x 15' long, 4 row, aluminum): **$48,000.00**

6.5 The overhead lights are older and difficult for staff to change out when the bulbs burnout. It is recommended to replace these with longer lasting, more efficient, LED features that can be changed without having to take special measures to go above the pool.

Install New LED Light Tubes: **$39,000.00**

6.6 One of the hand rail anchors is badly rusting and should be completely removed and replaced. The estimate below assumes the existing hand rail can be reused.

Remove and Replace Rusty Anchor: **$1,000.00**

6.7 The fiberglass pool finish is in relatively good condition. However, if any major renovation is to take place, the pool shell would likely be extensively sawcut to gain access to the pool piping. If that is the case it would be recommended to resurface the existing pool with either plaster or fiberglass. As part of this the

existing extruding steps at each handrail should be replaced with inset steps to reduce the risk of swimmers being injured by them.

New pool resurfacing with plaster / tile & creating inset steps: **$140,000.00**

New pool resurfacing with fiberglass / tile & creating inset steps: **$112,000.00**

6.8 All staff members complained about the depth of the shallow end of the pool being only 3'. There have been instances where swimmers have scraped their heads, back, stomach, sides, and hands on the pool floor- most often during or just after flip turns. If the current gutter was removed and replaced with a traditional rim-flow or deck level gutter the pool could likely achieve a depth of 3'-6" which is more in keeping with most similar pools. This solution remedies another reported concern of staff: the gutters. The opening between the gutter and the cantilver above is only 3". This configuration results in patrons losing things (goggles, kickboards, buoys, rings, dentures, etc.) and being unable to retrieve them.

Remove and Replace Existing Gutter with New Deck-Level Gutter: **$208,000.00**

An alternative approach would be to leave the existing gutters as they are and deepen the shallow end of the pool. This approach would allow the pool to be any depth- including deep enough to accommodate a full 25-yard water polo course. An unknown factor that makes estimating this difficult is a lack of information about how the existing pool walls and floor were constructed. Assuming the pool walls are strong enough to stand independently when the pool floor is removed, this scenario should be less expensive than the option above in which the gutters are replaced. If the walls need to be shored and / or replaced while the pool is deepened it would likely be less expensive to remove and replace the entire pool shell than to deepen the shallow end alone (to any depth). Another factor to be considered with this option is if the pool is deepened significantly the existing mechanical systems and piping may be insufficient to support the higher turnover rates. The estimate below assumes

the following: pool walls are strong enough and do not need to be shored to deepen the pool; existing equipment is sufficient to handle the higher turnover rates; the new depth will be a constant depth from existing pool depth of 4' to the shallow end wall. No piping, surfacing of the unaffected areas of the pool, or other items is included here.

Deepen the Existing Pool to 4' in the Shallow End: **$156,000.00**

6.9 The original locker rooms on the Ray Williamson Pool side are in poor condition, are not ADA compliant (which technically isn't a violation since the main locker rooms are), and could use a complete renovation. There are no doors on the stalls of either toilet in the male locker room (the female side was not available to me for inspection during my time on site). The "gang-style" shower is not in keeping with modern standards. The floor and walls are in need of being resurfaced. Staff reported some slips and falls have occurred in the locker rooms. The ventilation, heating, and air conditioning are not properly sized for occupant comfort. It would be recommended to completely renovate both the male and female locker rooms and provide a new deck finish, new toilet area with at least one ADA fixture, new shower area, upgraded HVAC system, and reduced changing area. The changing area would likely need to be reduced to accommodate the other spaces as they grow. There are four concrete steps that transition from the pool deck to the locker rooms. These are also in poor condition and need to be refinished / replaced.

Complete Renovation of the Locker Rooms: **$260,000.00**

6.10 The multi-purpose room (the converted lobby space) and the three offices (which occupy an area that was originally designed as the counter area for staff when the lobby was the main entrance to the aquatic center) provide vital functions but do not have proper sizes or configurations to fully serve the existing programmatic demands placed on them. The coaches I spoke with and the facility director who utilize the offices complained about insufficient space and stated their offices are currently a combination of storage space and office space and are too small to do either properly. In modern aquatic centers the offices typically would be configured with windows into the pool area. This is not possible in the Ray Williamson Pool. The multi-purpose space, primarily used for dryland and other workouts, is undersized and doesn't have proper climate controls for its current uses.

In an ideal world the locker rooms, offices, and converted lobby area would be demolished and replaced with a new Ray Williamson extension with proper support spaces to service the Ray Williamson pool. However, assuming the budget does not exist for such a substantial project, a solution which will provide some relief to staff would be to create separate program specific storage space outside the facility that would relieve the compacted nature of each space. Multiple options for such spaces exist which range greatly in price by size and construction type. A minimum of three separate spaces with 100 square feet of floor space is recommended to be added. These spaces should be lockable to allow for each program to store their equipment without worrying about theft or accidental "borrowing" of equipment by other programs.

Three New Storage Buildings: **$13,000.00 – $39,000.00 (range)**

6.11 The air handling units that serve the Ray Williamson pool are in poor condition according to staff and need to be studied further. In a major renovation project these units would either need to be replaced or supplemented to handle the new volume. At a minimum they should be separately studied to determine their life expectancy and ability to continue to function at current levels.

HVAC Study: **$10,000.00**

Although HVAC systems are not a typical component of any analysis completed by Aquatic Design Group, the existing system but visual inspection and staff reports is in poor condition. It is likely that upon the completion of the study by an HVAC expert that a complete replacement of the existing HVAC system would be recommended. The estimate below assumes that the existing duct work, existing HVAC units, and all associated controls are replaced. It is further assumed that no electrical service upgrade(s) is required for the installation of a completely new HVAC / dehumidification system.

Complete HVAC Replacement: **$450,000.00 (allowance)**

The summary of estimated construction costs for this section is below:

	Safety and Maintenance Concerns Summary			
6.1	Leak Detection Test	1	$ 2,500.00	$ 2,500.00
6.2	Remove and Replace Piping	1	$ 52,000.00	$ 52,000.00
6.3	In-Deck Timing System	1	$ 36,000.00	$ 36,000.00
6.4	Remove and ReplaceConcrete Bleachers with Deck	1	$ 117,000.00	$ 117,000.00
6.4	New Tilt and Roll Bleachers	1	$ 48,000.00	$ 48,000.00
6.5	Install New LED Light Tubes	1	$ 39,000.00	$ 39,000.00
6.6	Remove and Replace Anchor	1	$ 1,000.00	$ 1,000.00
6.7	Remove and Replace Pool Finish with Plaster	1	$ 140,000.00	$ 140,000.00
6.7	Remove and Replace Pool Finish with Fiberglass	1	$ 112,000.00	$ 112,000.00
6.8	Remove and Replace Existing Gutter with New Deck Level Gutt	1	$ 208,000.00	$ 208,000.00
6.8	Deepen Existing Pool to 4' in Shallow End	1	$ 156,000.00	$ 156,000.00
6.9	Complete Renovation of Locker Rooms	1	$ 260,000.00	$ 260,000.00
6.10	Three New Storage Buildings	3	$ 13,000.00	$ 39,000.00
6.11	HVAC Study	1	$ 10,000.00	$ 10,000.00
6.12	HVAC Replacement	1	$ 450,000.00	$ 450,000.00
6.13	**TOTAL (assumes plaster and Deck Level Gutter)**			**$ 1,366,500.00**

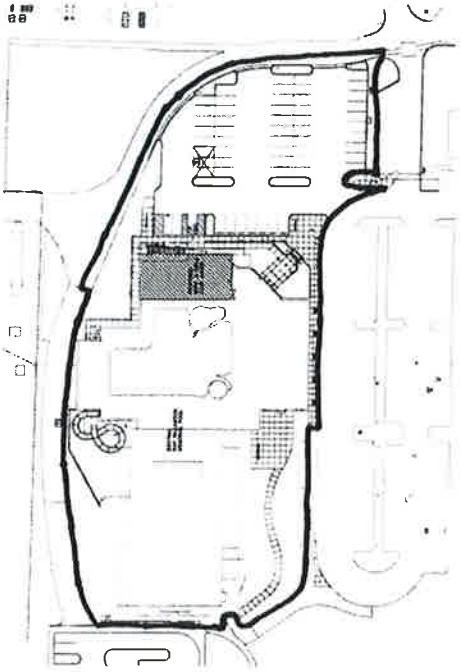
7.0 POTENTIAL OPTIONS FOR EXPANSION:

Given the myriad of safety and maintenance concerns listed above in Section 6, any project that would provide the District with their wish list items and provide a true competitive pool would require the demolition of the existing Ray Williamson Pool. The fact that the existing pool does not adequately provide for the programmatic needs that could be supported further provides an argument that a new, larger facility would better serve the needs of the Bainbridge Island aquatics programs now and for years to come.

The existing site has some constraints that prevent a large addition being added. These include, but are not limited to: the topography of the site, the Nakata Pool and existing Bainbridge Island Aquatics Center, School property, limited parking, and existing fire lanes.

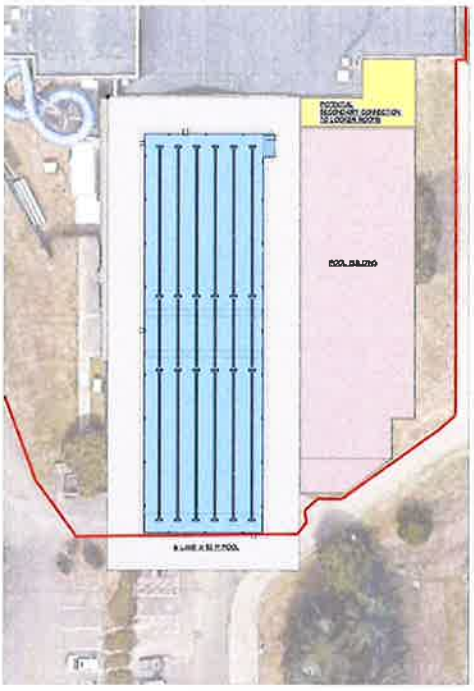
Aquatic Design Group has provided three options that show potential enhancement options. The first, Option 1, includes a new 25-yard x 25-meter pool on the existing site. The second, Option 2, includes a new 50-meter x 6-lane pool on the existing site. The third, Option 3, includes a new 50-meter x 25-yard pool, with no specific site. These options provide examples of what could be the right solution for Bainbridge Island. They are not meant to serve as official recommendations as to what should be done.

It is important to note here that the existing Bainbridge Island Aquatic Center, and thus the Ray Williamson Pool, sits on land leased from the School District. The existing property and Option 1 clearly lay within these boundaries. Option 2, as shown, would extend beyond these boundaries. Aquatic Design Group is confident that with a detailed design effort Option 2 could be situated to fit within the existing boundaries without the need to attempt and amend or extend them. Option 3 is too large to fit on the site within the existing boundaries.

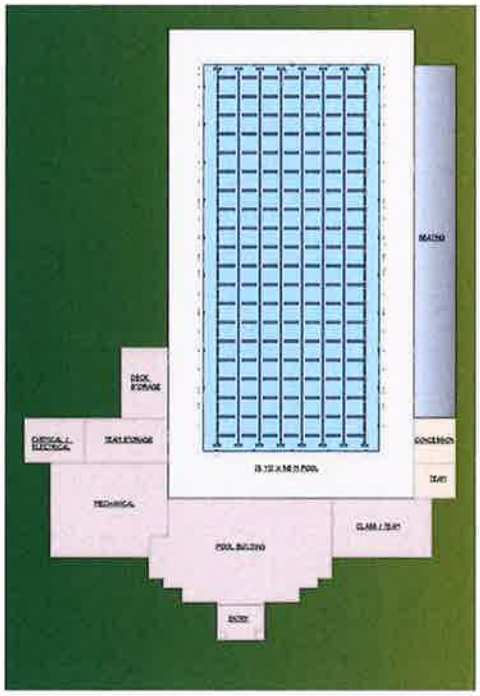


EXISTING SITE

OPTION 1



OPTION 2



OPTION 3

Exhibit 11- Current Layout and Options for Expansion (Black and Red Lines Denote Lease Line)

OPTION 1- New 25y X 25m Pool

This option attempts to maximize pool space on the existing site with no need for extensive site work. The existing Ray Williamson Pool would be torn down and a new natatorium be constructed to attached to the Nakata Pool and existing infrastructure. This option would include a 10-lane 25-yard lanes x eight 25-meter lanes. It would also include a minimal locker room on both the male and female side to support Ray Williamson specific programs, seating for 200 patrons, three new offices, new storage space, new mechanical equipment room (all on one level), a timing booth, a wet-dry classroom, and an officials area. An enlarged plan and area breakouts are below. The existing infrastructure (locker rooms, lobby, cash control, etc.) at the Nakata side of the Bainbridge Island Aquatic Center would support the Ray Williamson Pool during large events. The existing lobby would function as the primary entrance to the combined facility. In reviewing the spreadsheet it is important to remember this is a theoretical exercise and not a fully designed or vetted program.

Exhibit 12- Option 1: New 25-yard x 25-meter pool

	Description / Function	Quantity	Unit Area NSF	Total Area NSF
1.0	**Lobby Area:**			
1.1	Entry Vestibule	0	200	0
1.2	Lobby	0	400	0
1.3	Control Desk	0	200	0
1.4	Cash Control	0	100	0
	Total This Area			**0**
2.0	**Locker / Dressing / Toilet / Shower Area:**			
2.1	Men's Public Lockers / Dressing	40	5	200
2.2	Men's Public Toilets	2	20	40
2.3	Men's Public Urinals	2	10	20
2.4	Men's Public Lavs	2	10	20
2.5	Men's Public Showers	0	15	0
2.6	Women's Public Lockers / Dressing	40	10	400
2.7	Women's Public Toilets	3	20	60
2.8	Womens' Public Lavs	2	10	20
2.9	Women's Public Showers	0	15	0
2.10	Family/Unisex Changing Rooms	0	200	0
	Total This Area			**760**
3.0	**Pool Area:**			
3.1	Competitive Swimming / Water Polo Pool	1	6,250	6,250
3.2	Pool Decks	1	5,510	5,510
3.3	Spa	0	250	0
	Total This Area			**11,760**
4.0	**Spectator Area:**			
4.1	Public Seating Spaces	200	7	1,400
4.2	Official Seating Spaces	4	10	40
4.3	Concession	0	240	0
	Total This Area			**1,440**

No.	Description / Function	Quantity	Unit Area NSF	Total Area NSF
5.0	**Support Spaces:**			
5.1	M Coach	1	150	150
5.2	Club Coach	1	150	150
5.3	Maintenance Dir	1	150	150
5.4	Multipurpose Classroom / Team Meeting	1	500	500
5.5	Office/First Aid / Training	0	800	0
	Total This Area			**950**
6.0	**Back-of-House Area:**			
6.1	Timing Booth	1	300	300
6.2	Communications Center	0	500	0
6.3	Pool Storage	1	1,000	1,000
6.4	Pool Mechanical Equipment Room	1	1,000	1,000
6.5	Chemical Storage Rooms	2	64	128
6.6	Gas Chlorine Room	1	120	120
6.7	Custodial	1	64	64
	Total This Area			**2,612**

Building Space- Total Net Area	**17,522**
Grossing Factor (80% efficiency)	3,458
Building Space- Gross Square Footage	**20,980**

OPTION 2- New 50-Meter X 6-Lane Pool

This option attempts to provide a 50-meter pool on the existing site. As can be seen by viewing the enlarged image below, there would be a need for site work including a retaining wall to the East and a re-routing of the fire lane to the South. The existing Ray Williamson Pool would be torn down and a new natatorium be constructed to attached to the Nakata Pool and existing infrastructure. This option would include six 50-meter lanes with two moveable bulkheads which would allow for up to twelve 25-yard lanes. It would also include a minimal locker room on both the male and female side to support Ray Williamson specific programs, seating for 400 patrons, three new offices, new storage space, new mechanical equipment room (all on one level), a timing booth, a wet-dry classroom, and an officials area. An enlarged plan and area breakouts are below. The existing infrastructure (locker rooms, lobby, cash control, etc.) at the Nakata side of the Bainbridge Island Aquatic Center would support the Ray Williamson Pool during large events. The existing lobby would function as the primary entrance to the combined facility. In reviewing the spreadsheet it is important to remember this is a theoretical exercise and not a fully designed or vetted program.

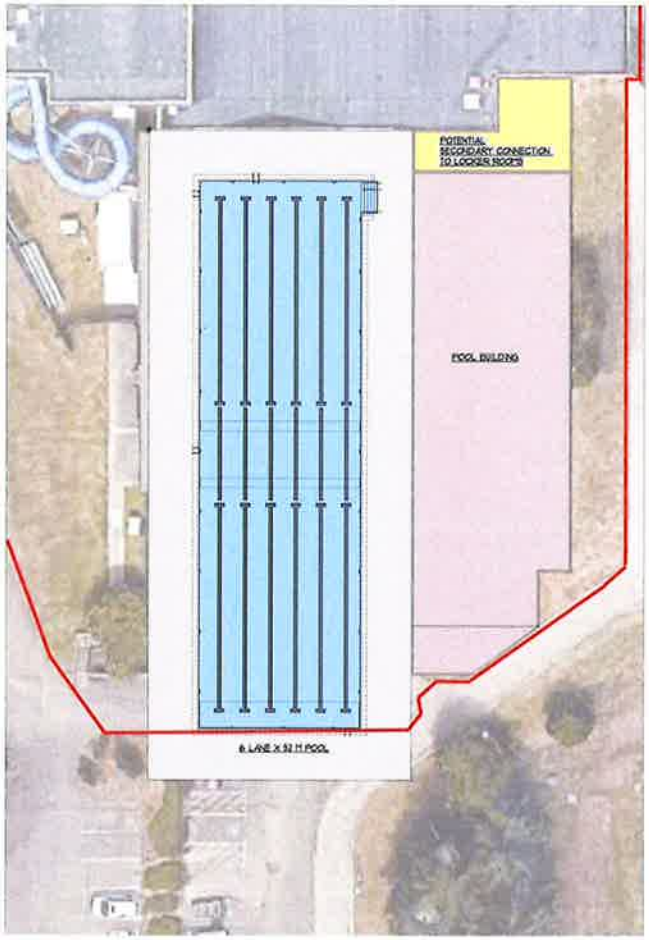


Exhibit 13- Option 2: New 50-meter x 6-lane pool

	Description / Function	Quantity	Unit Area NSF	Total Area NSF
1.0	**Lobby Area:**			
1.1	Entry Vestibule	0	200	0
1.2	Lobby	0	400	0
1.3	Control Desk	0	200	0
1.4	Cash Control	0	100	0
	Total This Area			**0**
2.0	**Locker / Dressing / Toilet / Shower Area:**			
2.1	Men's Public Lockers / Dressing	40	5	200
2.2	Men's Public Toilets	2	20	40
2.3	Men's Public Urinals	2	10	20
2.4	Men's Public Lavs	2	10	20
2.5	Men's Public Showers	0	15	0
2.6	Women's Public Lockers / Dressing	40	10	400
2.7	Women's Public Toilets	3	20	60
2.8	Womens' Public Lavs	2	10	20
2.9	Women's Public Showers	0	15	0
2.10	Family/Unisex Changing Rooms	0	200	0
	Total This Area			**760**
3.0	**Pool Area:**			
3.1	52M x 47' (6-Lane) Pool	1	8,037	8,037
3.2	Pool Decks	1	7,440	7,440
3.3	Spa	0	250	0
	Total This Area			**15,477**
4.0	**Spectator Area:**			
4.1	Public Seating Spaces	400	7	2,800
4.2	Official Seating Spaces	4	10	40
4.3	Concession	0	240	0
	Total This Area			**2,840**

No.	Description / Function	Quantity	Unit Area NSF	Total Area NSF
5.0	**Support Spaces:**			
5.1	M Coach	1	150	150
5.2	Club Coach	1	150	150
5.3	Maintenance Dir	1	150	150
5.4	Multipurpose Classroom / Team Meeting	1	500	500
5.5	Office/First Aid / Training	0	800	0
	Total This Area			**950**
6.0	**Back-of-House Area:**			
6.1	Timing Booth	1	300	300
6.2	Communications Center	0	500	0
6.3	Pool Storage	1	1,000	1,000
6.4	Pool Mechanical Equipment Room	1	1,300	1,300
6.5	Chemical Storage Rooms	2	64	128
6.6	Gas Chlorine Room	1	120	120
6.7	Custodial	1	64	64
	Total This Area			**2,912**

Building Space- Total Net Area	**22,939**
Grossing Factor (80% efficiency)	3,698
Building Space- Gross Square Footage	**26,637**

OPTION 3- New 50-Meter X 25-Yard Pool

This option attempts to provide a pool that includes all the requested items that were discussed during the initial site visit and staff meetings. As can be seen by viewing the enlarged image below, there is no way to accommodate such a facility on the existing site. Therefore a new site would need to be found and all the infrastructure needs to support such a facility would need to be built. Site access and parking are not included, but the infrastructure for the actual facility would be. This option would include eight 50-meter lanes and twenty 25-yard lanes. It would also include a new entry area, new locker / rest rooms on both the male and female side in addition to four family / gender neutral changing / restrooms, seating for 800 patrons, three new offices, new storage space, new mechanical equipment room (all on one level), timing booth, wet-dry classroom, fitness room, training / first aid room, and officials area. An enlarged plan and area breakouts are below. In reviewing the spreadsheet it is important to remember this is a theoretical exercise and not a fully designed or vetted program.

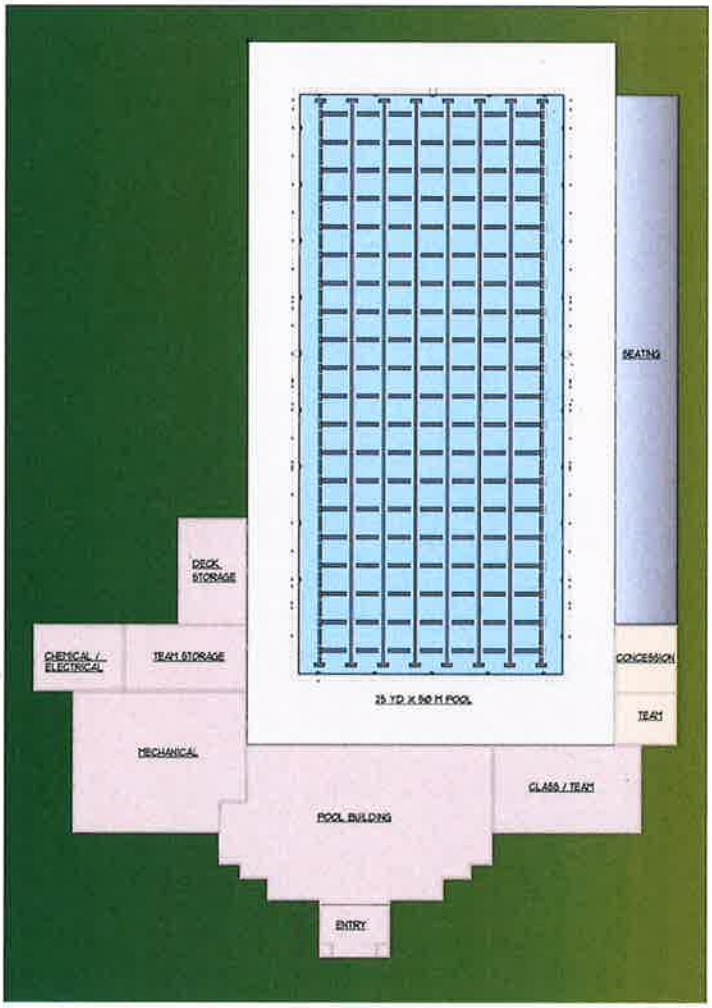


Exhibit 14- Option 3: New 50-meter x 25-yard pool

	Description / Function	Quantity	Unit Area NSF	Total Area NSF
1.0	**Lobby Area:**			
1.1	Entry Vestibule	1	200	200
1.2	Lobby	1	400	400
1.3	Control Desk	1	200	200
1.4	Cash Control	1	100	100
	Total This Area			**900**
2.0	**Locker / Dressing / Toilet / Shower Area:**			
2.1	Men's Public Lockers / Dressing	60	5	300
2.2	Men's Public Toilets	4	20	80
2.3	Men's Public Urinals	4	10	40
2.4	Men's Public Lavs	4	10	40
2.5	Men's Public Showers	4	15	60
2.6	Women's Public Lockers / Dressing	60	10	600
2.7	Women's Public Toilets	6	20	120
2.8	Womens' Public Lavs	4	10	40
2.9	Women's Public Showers	4	15	60
2.10	Family/Unisex Changing Rooms	4	200	800
	Total This Area			**2,140**
3.0	**Pool Area:**			
3.1	50M x 25Y Pool	1	12,300	12,300
3.2	Pool Decks	1	8,070	8,070
3.3	Spa	0	250	0
	Total This Area			**20,370**
4.0	**Spectator Area:**			
4.1	Public Seating Spaces	800	7	5,600
4.2	Official Seating Spaces	4	10	40
4.3	Concession	0	240	0
	Total This Area			**5,640**

No.	Description / Function	Quantity	Unit Area NSF	Total Area NSF
5.0	**Support Spaces:**			
5.1	M Coach	1	150	150
5.2	Club Coach	1	150	150
5.3	Maintenance Dir	1	150	150
5.4	Multipurpose Classroom / Team Meeting	1	500	500
5.5	Fitness Room	1	600	600
5.6	Office/First Aid / Training	1	300	300
	Total This Area			**1,850**
6.0	**Back-of-House Area:**			
6.1	Timing Booth	1	300	300
6.2	Communications Center	0	500	0
6.3	Pool Storage	1	1,200	1,200
6.4	Pool Mechanical Equipment Room	1	1,600	1,600
6.5	Chemical Storage Rooms	2	64	128
6.6	Gas Chlorine Room	1	120	120
6.7	Custodial	1	64	64
	Total This Area			**3,412**

Building Space- Total Net Area	**34,312**
Grossing Factor (80% efficiency)	6,642
Building Space- Gross Square Footage	**40,954**

8.0 COST ESTIMATES:

This section includes theoretical cost estimates based on the three options provided in Section 7 above. These estimates are meant to provide rough order of magnitude type information and should not be construed as opinion of probable cost. More detailed design and planning would be required to provide that level of accuracy. That said, the numbers provided here are based on recent bids in the greater Seattle region and have been further escalated by a 30% multiplier to be consistent with costs that would be expected on Bainbridge Island.

OPTION 1- New 25y X 25m Pool

NO.	DESCRIPTION	QTY.	UNIT	UNIT COST	EXTENSION
1.0	**Site Work:**				
1.1	Demolition / Site Prep.	1	LS	$75,000	$75,000
1.2	Concrete Paving	1,000	SF	$10	$10,000
1.3	Alterations to Existing Bldg.	1	LS	$120,000	$120,000
1.4	Site Lighting		LS	$0	$0
1.5	Site Work / Retaining Walls	1	LS	$40,000	$40,000
	Subtotal- Site Work				**$245,000**
2.0	**Site Utilities:**				
2.1	Sanitary Sewer	0	LF	$70	$0
2.2	Storm Sewer	0	LF	$70	$0
2.3	Domestic Water	0	LF	$70	$0
2.4	Natural Gas	0	LF	$35	$0
2.5	Electrical Service	0	LF	$35	$0
2.6	Utility Hook-up Fees	1	LS	$30,000	$30,000
	Subtotal- Site Utilities				**$30,000**
3.0	**Swimming Pool Area:**				
3.1	25Y x 25M Comp. Pool	6,250	SF	$225	$1,406,250
3.2	Timing System / Scorebd.	1	LS	$115,000	$115,000
3.3	Competitive Equipment	1	LS	$80,000	$80,000
3.4	Pool Decks & Drainage	5,510	SF	$33	$181,830
3.5	Deck Equipment	1	LS	$50,000	$50,000
3.6	Natatorium	11,760	SF	$375	$4,410,000
	Subtotal- Swimming Pools				**$6,243,080**
4.0	**Building Areas:**				
4.1	Lobby Area	0	SF	$375	$0
4.2	Locker / Dressing / Toilets	760	SF	$375	$285,000
4.3	Support Spaces	950	SF	$330	$313,500
4.4	Back-of-House Area	2,612	SF	$330	$861,960
4.5	Grossing Factor	648	SF	$160	$103,728
	Subtotal- Building Areas				**$1,564,188**

SUMMARY OF ALL COSTS:

1.0	SITE WORK	$245,000
2.0	SITE UTILITIES	$30,000
3.0	SWIMMING POOLS	$6,243,080
4.0	BUILDING AREAS	$1,564,188
	SUBTOTAL	$8,082,268
	PLUS DESIGN CONTINGENCY AT 10%	$808,227
	PLUS CONSTRUCTION CONTINGENCY AT 10%	$889,049
	PLUS A/E FEES AT 10%	$889,049
GRAND TOTAL		**$10,668,594**

OPTION 2- New 50-Meter X 6-Lane Pool

NO.	DESCRIPTION	QTY.	UNIT	UNIT COST	EXTENSION
1.0	**Site Work:**				
1.1	Demolition / Site Prep.	1	LS	$75,000	$75,000
1.2	Concrete Paving	1,000	SF	$10	$10,000
1.3	Alterations to Existing Bldg	1	LS	$240,000	$240,000
1.4	Site Lighting	1	LS	$40,000	$40,000
1.5	Site Work / Retaining Walls	1	LS	$40,000	$40,000
	Subtotal- Site Work				**$405,000**
2.0	**Site Utilities:**				
2.1	Sanitary Sewer	0	LF	$70	$0
2.2	Storm Sewer	0	LF	$70	$0
2.3	Domestic Water	0	LF	$70	$0
2.4	Natural Gas	0	LF	$35	$0
2.5	Electrical Service	0	LF	$35	$0
2.6	Utility Hook-up Fees	1	LS	$30,000	$30,000
	Subtotal- Site Utilities				**$30,000**
3.0	**Swimming Pool Area:**				
3.1	52M x 47' (6L) Pool	8,037	SF	$230	$1,848,510
3.2	Two 1-Meter Bulkheads	2	EA	$140,000	$280,000
3.3	Timing System / Scorebd.	1	LS	$115,000	$115,000
3.4	Competitive Equipment	1	SF	$90,000	$90,000
3.5	Pool Decks & Drainage	7,440	SF	$33	$245,520
3.6	Deck Equipment	1	LS	$50,000	$50,000
3.7	Natatorium	15,477	SF	$375	$5,803,875
	Subtotal- Swimming Pools				**$8,432,905**
4.0	**Building Areas:**				
4.1	Lobby Area	0	SF	$375	$0
4.2	Locker / Dressing / Toilets	760	SF	$375	$285,000
4.3	Support Spaces	950	SF	$330	$313,500
4.4	Back-of-House Area	2,912	SF	$330	$960,960
4.5	Grossing Factor	693	SF	$160	$110,928
	Subtotal- Building Areas				**$1,670,388**

SUMMARY OF ALL COSTS:

1.0	SITE WORK	$405,000
2.0	SITE UTILITIES	$30,000
3.0	SWIMMING POOLS	$8,432,905
4.0	BUILDING AREAS	$1,670,388
	SUBTOTAL	$10,538,293
	PLUS DESIGN CONTINGENCY AT 10%	$1,053,829
	PLUS CONSTRUCTION CONTINGENCY AT 10%	$1,159,212
	PLUS A/E FEES AT 10%	$1,159,212
GRAND TOTAL		**$13,910,547**

OPTION 3- New 50-Meter X 25-Yard Pool

NO.	DESCRIPTION	QTY.	UNIT	UNIT COST	EXTENSION
1.0	**Site Work:**				
1.1	Site Prep.	1	LS	$250,000	$250,000
1.2	Concrete Paving	1,200	SF	$13	$15,600
1.3	Site Lighting	1	LS	$100,000	$100,000
1.4	Landscape / Irrigation	1,000	SF	$12	$12,000
	Subtotal- Site Work				**$377,600**
2.0	**Site Utilities:**				
2.1	Sanitary Sewer	200	LF	$91	$18,200
2.2	Storm Sewer	300	LF	$91	$27,300
2.3	Domestic Water	150	LF	$91	$13,650
2.4	Natural Gas	150	LF	$41	$6,150
2.5	Electrical Service	300	LF	$41	$12,300
2.6	Utility Hook-up Fees	1	LS	$40,000	$40,000
	Subtotal- Site Utilities				**$117,600**
3.0	**Swimming Pool Area:**				
3.1	50M x 25Y Pool	12,300	SF	$225	$2,767,500
3.2	Bulkheads	0	EA	$140,000	$0
3.3	Timing System / Scorebd.	1	LS	$140,000	$140,000
3.4	Competitive Equipment	1	SF	$120,000	$120,000
3.5	Pool Decks & Drainage	8,070	SF	$33	$266,310
3.6	Deck Equipment	1	LS	$60,000	$60,000
3.7	Natatorium	20,370	sf	$375	$7,638,750
	Subtotal- Swimming Pools				**$10,992,560**
4.0	**Building Areas:**				
4.1	Lobby Area	900	SF	$375	$337,500
4.2	Locker / Dressing / Toilets	2,140	SF	$375	$802,500
4.3	Support Spaces	1,850	SF	$330	$610,500
4.4	Back-of-House Area	3,412	SF	$330	$1,125,960
4.5	Grossing Factor	1,245	SF	$160	$199,248
	Subtotal- Building Areas				**$3,075,708**

SUMMARY OF ALL COSTS:

1.0	SITE WORK	$377,600
2.0	SITE UTILITIES	$117,600
3.0	SWIMMING POOLS	$10,992,560
4.0	BUILDING AREAS	$3,075,708
	SUBTOTAL	$14,563,468
	PLUS DESIGN CONTINGENCY AT 10%	$1,456,347
	PLUS CONSTRUCTION CONTINGENCY AT 10%	$1,601,981
	PLUS A/E FEES AT 10%	$1,762,180
GRAND TOTAL		**$19,383,976**

9.0 CONCLUSION

The existing Ray Williamson Pool has served its population well since its initial construction. Unfortunately the pool and facility have not aged gracefully and no longer fully serve their intended purpose. The pool is too shallow and does not have sufficient lanes to accommodate the competitive programs they already host, much less the programs they could support but cannot currently accommodate. The support buildings are insufficient for anything other than providing fixtures for users used to their condition. They do not meet the evolving needs mandated by today's user groups or the expectations of staff.

The expected lifespan of the facility without any renovations, upgrades, or changes made is always difficult to determine. Staff does an excellent job of keeping the facility running smoothly. The recent renovations to the facility (over the past three years) have solved the majority of the code violations and alleviated the risk of imminent failure. That said, the age of the facility and the pipes that have not been replaced are concerning. At any point in the life of a project a pin-hole sized leak in piping could undermine the structural integrity of the pool, the decks, or the natatorium itself. It is possible that such a leak could go undetected for years before reaching a point where it is noticeable. It is equally possible that the facility could function without incident for decades without the leak having any effect. There have been facilities where small leaks over time have eroded the foundation of an aquatic center undetected. Some of these are discovered during a major renovation project. Others are discovered when shifting or settling occurs which can, in a worst case scenario, close an aquatic center until a major renovation occurs. The remainder of the issues found can likely be lived for several years without interruption baring a major incident.

It is the opinion of the Consultant that the District is left with two viable options: First, would be to renovate the facility as necessary to meet all code compliance and safety and maintenance concerns (those itemized in the cost estimate in Sections 5 and 6 of this document). Second, would be to replace the existing facility with a new aquatic center that meets current and future needs. If the District determines that a larger project at the adjacent park site will include aquatics, renovating Ray Williamson with a focus on supporting practice and special programs only would be an attractive option. If the existing site needs to accommodate the competitive programs than serious consideration of Options 1 and 2 should be further explored.

Respectfully submitted,

AQUATIC DESIGN GROUP, INC.

Justin Caron
Vice-President / Principal