



Watertown City Council  
Monday, July 11, 2022  
7:00 p.m.

### WORK SESSION AGENDA

This shall serve as notice that the next regularly scheduled work session of the City Council will be held on Monday, July 11, 2022, at 7:00 p.m. in the City Council Chambers, 245 Washington Street, Watertown, New York. The City Council meeting is open to the public.

#### Discussion Items:

1. William J. Flynn Pool and Bathhouse Report

- Facility Assessment
- Feasibility Study
- Cost Estimate

Presented by Pat Currier and Ron Jackson of C&S Companies



C&S Companies  
200 Washington St. Suite 402B  
Watertown, NY 13601  
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www.cscos.com

**City of Watertown New York**  
**FACILITY ASSESSMENT and FEASIBILITY STUDY**  
**William J. Flynn Municipal Swimming Pool**



C&S Project No.: 129.108.001  
Date Issue            07/05/2022

Prepared For:

City of Watertown Engineering Department  
Attn: Michael Delaney  
Address: 245 Washington Street  
Watertown, New York

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A	Aerial View of Existing Site
B	Existing Floor Plan
C	Existing Building Photos
D	Estimate of Probable Cost

**SECTION 1**  
**OVERVIEW**



## OVERVIEW

### OVERVIEW

The City of Watertown Engineering Department has commissioned C&S Engineers, Inc. to provide a facility assessment and facility study of the William J. Flynn Municipal Swimming Pool. This report is a tool for the City of Watertown to evaluate the operational and inefficiencies associated with the existing Bathhouse and Swimming pool.

It is our understanding that the City Council would like to have an evaluation done of the existing Flynn Pool and Bathhouse as well as a feasibility study outlining the options for renovation and reconstruction.

- Option A-Renovate the existing Bathhouse and Swimming Pool.
  - Short term repairs to include: *(see Section 3 for detailed breakdown)*
    - Safety, accessibility and Building / Department of Health Code updates to the existing Bathhouse.
    - Structural repairs to concrete pool shell.
    - New plaster finish of pool.
    - New Gutter system.
    - Replace 100' of concrete curb and sidewalk.
- Option B-Renovate the existing Bathhouse and provide a new Swimming Pool.
  - Long Term Repairs / improvements to Bathhouse and new Swimming pool: *(see Section 4 for detailed breakdown)*
    - Safety, accessibility and Building / Department of Health Code updates to the existing Bathhouse.
    - Long term building improvements.
    - New Pool and fencing
    - Replace 100' of concrete curb and sidewalk.

It is our understanding that the building and pool are approximately 4,200 square feet and 5,500 square foot, respectively, and constructed circa 1980. The building consists of concrete masonry units and brick veneer with pre-cast concrete roof deck. The pool appears to be constructed of cast in place shotcrete with a marsonite masonry liner.

**EXISTING BUILDING** - The Bathhouse was constructed in 1980. The foundations are poured concrete with the floors being of concrete slab on grade construction. The exterior walls are 8" concrete masonry units with clay brick veneer. The building is not energy efficient and does not meet the current NYS Energy Code. The building has many inefficiencies including but not limited to functionality, layout of spaces and accessibility.

## OVERVIEW

**DOCUMENTATION REVIEW and INTERVIEWS-** A document review and interviews were performed to augment the walk-through survey and assist in the understanding of the existing property and its possible physical deficiencies. These interviews were not independently verified, as this information was used for background information, and not the basis of any noted insufficiencies of the existing facility.

**WALK THROUGH** -A walk-through was performed to visually observe the existing property so as to obtain information on material systems and components for the purposes of providing a brief description, identifying physical deficiencies to the extent that they are easily visible and readily accessible. Multiple visits were made to the property to make a visual observation of material systems and components, physical deficiencies and unusual features. The walk –through survey was conducted by Patrick Currier. Mr. Currier has a well-rounded knowledge and experience in evaluating pertinent building systems, equipment and components, supported by a team of system subspecialists in order to provide increased detail in reporting and insight their respective systems’ conditions,

**OPINION of PROBABLE COSTS** - Based on the documentation review, interviews and walk-through conducted, C&S has developed a narrative of the proposed site and building components. This narrative was developed as a basis of design and tool for estimating the probable cost of a new facility.

Opinions of probable cost should only be construed as preliminary, order of magnitude budgets. Actual costs will likely vary from the consultant’s opinions of probable costs depending on such matters as type and design of suggested facility, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, quality of the contractor, quality of the project management exercised, and market conditions.



**SECTION 2**  
Existing Conditions

## EXISTING CONDITIONS

### EXISTING CONDITIONS- Bathhouse and Swimming Pool

#### SWIMMING POOL

The Flynn Pool Complex located adjacent to North Elementary School on Woodbury Street in Watertown, New York is owned and maintained by the City of Watertown. The Pool Complex is comprised of one main pool and a small splash / wading pool.

The pool complex, was constructed in the late 1970's and has only had minor renovations since. Many of the infrastructure components have exceeded or are nearing the end of their expected service life.

The Main Swimming Pool was designed by Sargent, Webster, Crenshaw and Foley Engineers and was constructed in 1978. The 4,900 SF pool has a 10-inch thick hand molded gunnite structure with steel reinforcement which ranges in depth from 3.5 to 10 feet. The original gunite pool surface was coated with a layer of marcite and features a stainless steel gutter system and one set of marcite-coated gunite stairs. The pool, originally featured two diving boards.

The wading pool is located to the northeast of the main swimming pool and was originally constructed as a rounded pool in 1973 as part of the pool complex. The pool area is approximately 340 SF with depths varying from 8 inches to 10 inches. The pool has 9-inch thick walls and features fountain in the middle.

**BUILDING** - The foundations and concrete slabs are in good condition and there are no visible signs of cracking or differential settlement.

The clay brick veneer has several cracks in different locations at corners and openings. This appears to have been caused by water infiltration at the exterior wall ledge just below the top of the roof. This is not a good detail for the North country area and requires a lot of maintenance at the joints of the metal shelf flashing. To compound the matter there is no sub-flashing below the counterflashing at the shelf.

The building is not energy efficient and does not meet the current NYS Energy Code.

The roof structure is of precast concrete planks and the bottom is only 8'-8" above finish floor. The low roof height and exposed electrical conduits, mechanical systems, plumbing, and control valves are unsightly and accessible to tampering. The Roofing is EPDM and is believed to be original. The majority of the roof area is experiencing standing water. Most of the flashings have failed.

The doors and frames have exceeded their useful life with the frames being completely rusted away at the bottoms. The window units have exceeded their useful life.

The toilet room accessories, partitions, tile work and fixtures have exceeded their useful life and should be replaced. Toilet stalls and showers as well as the approach to the doors entering the Locker rooms and accessing the pool area are not fully compliant with current NYS and federal accessibility codes and standards. Lockers have been removed from both changing rooms and a make shift bench covers the concrete locker bases.

Most of the lighting circuits are run in exposed rigid metal conduit. The light fixtures are out dated and due to be replaced. The mechanical heating equipment is original.

Most of the domestic water supply piping is exposed.

**EXISTING CONDITIONS**



### **SECTION 3**

#### **Option A – Renovate existing Bathhouse and Pool**



**OPTION A**

**OPTION A – Renovate existing Bathhouse and Pool**

**Pool Rehabilitation**

City staff reports that the existing pool structural shell is cracked in several locations and leaks excessively. The existing stainless steel gutter system no longer effectively distributes clean water along the perimeter of the pool nor collects overflow water for return to the filtration system. The main drains are also leaking into the subsoil below the pool and may be not be complaint with NYS pool drain safety requirements. Furthermore, the original configuration of the pool edge features a 12-inch high curb where the pool deck meets the pool gutter. This type of design is no longer considered desirable because it presents a tripping hazard.

Based on the observations described above, we recommend the following improvements in order to return the existing pool structure to service.

**New Gutter System** - The top of the existing pool wall, including the stainless steel gutter system, will be demolished and replaced with a new top of wall and gutter system. The top of the pool will be lowered to be flush with the existing pool deck. Any required swim lane and pool section divider anchorages will be part of the gutter system.

**Main Drain System** – The two existing main drains will be demolished and replaces with two new drains. The surrounding structural concrete will also be replaced.

**Pool Shell Repairs** – The existing marsite surfacing will be removed. All cracks and other structural defects will be repaired. The entire perimeter of the pool between the gutter and the concrete shell will be caulked to prevent leakage. Once the structural defects are addressed the interior of the pool will be lined with a water tight 60 mil thick PVC liner. The pool liner color will be selected by the City and will be provided complete with NYS Department of Health depth markings and any swim lane markings the City desires.

**Pool Deck Repairs** – The existing concrete pool deck is generally in good condition, however the work to remove and replace the top of the pool wall will require the removal of a significant portion of the deck, therefore complete replacement is recommended. Any issues with storm drainage on the pool deck will be addressed during the deck replacement.

A Americans with Disabilities Act compliant single person chair lift will be installed on the pool deck adjacent to the shallow area of pool so persons with mobility challenges will be able to be lowered into the water and raised back out after their use of the pool.

The existing kiddie splash pool and fencing will be removed. New concrete will be placed to provide a picnic / eating area in the current location.

The existing exterior lighting system appears to be in working order and will be preserved.

**Filter / Chemical Feed Room** – Most of the equipment in the existing filter and chemical feed room has been removed. Only miscellaneous piping, some small plastic tanks and the supporting electrical systems remain.

**OPTION A**

The City staff reports that the existing surge tank, which is part of the building substructure is cracked and has leaks.

All of the existing electrical panels and conduit in the Filter / Chemical Feed Room are heavily corroded. The operating status of the room ventilation is not known; however, all ducts and ventilation controls are heavily corroded.

The following improvements will be provided:

- All remaining mechanical, electrical, heat and ventilation equipment will be removed from the room.
- Replace two man doors and the overhead door.
- A new forced air wall ventilator and ducting will be provided.
- New electric unit heaters will be provided.
- The interior CMU walls will be repainted.
- New LED light fixtures, exit signs and emergency lighting will be provided.
- A new 120 / 208 Vac, 3 Phase power panel will be provided.
- New rapid sand filters in horizontal FRP tanks will be provided. All piping within the building and the existing penetrations through the existing concrete foundation walls will be replaced.
- A new recirculation pump, strainer and valving. The pump will be controlled by an adjustable frequency drive. The AFD will maintain the pumps at the proper flow rate regardless of hydraulic conditions.
- New micro-computer based controllers. These controllers will monitor, record and control the rate of chemical addition to the pool and pump speed. The controller will annunciate alarms and advise the operators when backwashing is required.
- The existing surge tank will be abandoned and replaced with a pre-cast concrete surge tank. It is likely that repairs to the existing surge tank would cost more than providing and new pre-cast tank. Therefore, the existing tank will be filled with flowable fill. The new surge tank will be located below the pool deck between the pool and the filter building.
- New chemical systems for disinfection and pH adjustment will be provided. The walking surface above the abandoned surge tank will be improved so that this area of the room be used for storage and pumping of sodium hypochlorite and carbon dioxide.

**OPTION A**

Filtration and Surge Tank Sizing

Pool Volume (gal)	Minimum Turnover Rate (hours / turnover)	Minimum Turnover Rate (turnovers / hour)	Minimum Recirculation Rate (gpm)	Selected Filtration Rate (gpm / sf)	Minimum Total Filter Area (sf)
203,000	6	0.17	564	15	37.6
Number of Filters	Selected Area per Filter (sf)	Total Filter Area (sf)	Recirculation Rate for Selected Filter (gpm)	Backwash Rate (gpm)	Backwash Volume (gal)
1	38.1	38.1	564	564	8,500

Pool Area (sf)	Surge Tank Volume Based on 1 gal / sf of Pool Area	Portion of Pool 5 Foot Deep and Less (sf)	# of Bathers in Shallow Section	Surge Volume in Shallow Section Based on Bather Volume (gal)	Portion of Pool Greater than 5 Foot Deep (sf)
4,874	4,874	2,654	177	1,991	2,220
# of Bathers in Deep Section	Surge Volume in Deep Section Based on Bather Volume (gal)	Total Surge Volume Shallow + Deep Section Based on Bather Volume (gal)	Total Bather Load	Selected Surge Volume (gal)	
89	1,199	3,189	266	4,874	
Number of Surge Tanks	Surge Tank Length (ft)	Surge Tank Width (ft)	Surge Tank Surface Area (sf)	Depth of Surge Volume (ft)	
1	12.0	12.0	144	4.5	

Disinfection and pH Adjustment Systems - The pool water will be disinfected by an automated system which will control the flow of sodium hypochlorite (bleach) and carbon dioxide to the pool water return piping after filtration. The charts on the following page provide the calculations of the disinfectant and pH adjustment chemical dosages.

Chemical	Recirculation Flowrate (gpm)	Target Concentration Cl <sub>2</sub> (mg/L)	gal 12.5% NaOCl / 1,000 gal Pool Water	gph 12.5% NaOCl	Selected Pump Capacity (gph)
Sodium Hypochlorite 12.5% Solution	564	1.0	0.0081	0.27	0.001 to 33.3
Chemical	Recirculation Flowrate (gpm)	Target pH at Design Dosage of NaOCl	lbs of CO <sub>2</sub> / 1000 gal Pool Water	cf / hr of CO <sub>2</sub>	Selected CO <sub>2</sub> Feeder Capacity (scfh)
Carbon Dioxide Gas	564	7.5	0.020	6.94	0 to 30

**OPTION A**

**BUILDING** – The below items were discussed with representatives from the City at our walk-thru and everyone agreed that these items should be addressed prior to re-opening the pool.

1. Replace existing roofing with new fully adhered tapered insulation and EPDM.
2. Replace all existing doors and frames with new FRP doors and frames.
3. Replace all existing Exit lights and install new emergency lighting.
4. Replace all existing plumbing fixtures. Provide stainless steel enclosures over all exposed shower piping.
5. The interior layout will need to be reconfigured to current Accessibility Codes and Standards including but not limited to the ANSI 117 and ADA, The Americans with Disabilities Act. Remove doors and frames from lobby to locker rooms and provide solid frame. Remove Doors and frames from shower rooms to pool area and infill openings with concrete block and brick veneer. Cut existing block and brick veneer as required to install a new door and frame from each shower room to the pool area. Reconfigure all fixtures to meet current codes and standards.
6. Replace existing toilet room partitions in the bathroom and changing room areas.
7. Provide epoxy paint finish on all of the walls.
8. Remove and replace 600 s.f. of brick veneer in areas of cracks and tooth in new brick to match existing.



**SECTION 4**

**OPTION-B**

**Renovate existing Bathhouse and provide New Pool**

**OPTION B**

**OPTION B – Renovate existing Bathhouse and provide New Pool**

**Pool Replacement**

Since the City Council desires to have a third City pool in operation and the new Thompson Park Pool is a very popular attraction offered by the Parks and Recreation Department, the City may also consider the complete replacement for the over 50 year old Flynn Pool.

The follow improvements are suggested to develop a new pool at the existing property.

**New Pool Shell** - The existing pool, concrete pool deck, fencing and all underground utilities beneath the pool deck will be removed and replaced. The existing kiddie splash pool will be closed to the public and the area reserved for a future project.

A new 200,000 gallon U shaped pool with a zero grade entrance will be constructed. The pool will be a reinforced gunite pool with a quartzite finish. This pool will be segmented in areas for lap swimming, water slide and shallow play to accommodate small children and the handicapped. All elements of the pool and bathhouse design will be designed in accordance with NYS Part 6 Regulations and the NYS Building Code.

The existing kiddie splash pool and the surrounding deck area will be removed and replaced with a water play area which we conceptually envision as a water splashing umbrella and several deck mounted water jets. The new concrete deck would be relatively flat with drains to the sanitary sewer. The water for this area would be “single-use” potable water from the City utility.

The existing exterior lighting system will be replaced.

**Filter / Chemical Feed Room** – Most of the equipment in the existing filter and chemical feed room has been removed. Only miscellaneous piping, some small plastic tanks and the supporting electrical systems remain.

The City staff reports that the existing surge tank, which is part of the building substructure is cracked and has leaks.

All of the existing electrical panels and conduit in the Filter / Chemical Feed Room are heavily corroded. The operating status of the room ventilation is not known; however, all ducts and ventilation controls are heavily corroded.

The following improvements will be provided:

- All remaining mechanical, electrical, heat and ventilation equipment will be removed from the room.
- Replace two man doors and the overhead door.
- A new forced air wall ventilator and ducting will be provided.

**OPTION B**

- New electric unit heaters will be provided.
- The interior CMU walls will be repainted.
- New LED light fixtures, exit signs and emergency lighting will be provided.
- A new 120 / 208 Vac, 3 Phase power panel will be provided.
- New rapid sand filters in horizontal FRP tanks will be provided. All piping within the building and the existing penetrations through the existing concrete foundation walls will be replaced.
- A new recirculation pump, strainer and valving. The pump will be controlled by an adjustable frequency drive. The AFD will maintain the pumps at the proper flow rate regardless of hydraulic conditions.
- New micro-computer based controllers. These controllers will monitor, record and control the rate of chemical addition to the pool and pump speed. The controller will annunciate alarms and advise the operators when backwashing is required.
- The existing surge tank will be abandoned and replaced with a pre-cast concrete surge tank. It is likely that repairs to the existing surge tank would cost more than providing and new pre-cast tank. Therefore, the existing tank will be filled with flowable fill. The new surge tank will be located below the pool deck between the pool and the filter building.
- New chemical systems for disinfection and pH adjustment will be provided. The walking surface above the abandoned surge tank will be improved so that this area of the room be used for storage and pumping of sodium hypochlorite and carbon dioxide.

Filtration and Surge Tank Sizing

Pool Volume (gal)	Minimum Turnover Rate (hours / turnover)	Minimum Turnover Rate (turnovers / hour)	Minimum Recirculation Rate (gpm)	Selected Filtration Rate (gpm / sf)	Minimum Total Filter Area (sf)
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**OPTION B**

Pool Area (sf)	Surge Tank Volume Based on 1 gal / sf of Pool Area	Portion of Pool 5 Foot Deep and Less (sf)	# of Bathers in Shallow Section	Surge Volume in Shallow Section Based on Bather Volume (gal)	Portion of Pool Greater than 5 Foot Deep (sf)
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Carbon Dioxide Gas	564	7.5	0.020	6.94	0 to 30

**BUILDING** - The below items were discussed with representatives from the City at our walk-thru and everyone agreed that these sort term and long term items should be addressed if the City would like to move forward with a New Pool.

1. Replace all existing doors and frames with new FRP doors and frames.
2. Replace all existing Exit lights and install new emergency lighting.
3. Replace all existing plumbing fixtures.
4. The interior layout will need to be reconfigured to current Accessibility Codes and Standards including but not limited to the ANSI 117 and ADA, The Americans with Disabilities Act. Remove doors and frames from lobby to locker rooms and provide solid frame. Remove Doors and frames from shower rooms to pool area and infill openings with concrete block and brick veneer. Cut existing block and brick veneer as required to install a new door and frame from

**OPTION B**

each shower room to the pool area. Reconfigure all fixtures to meet current codes and standards.

5. Reconfigure the gang showers into individual shower stalls.
6. Replace existing ceramic wall and floor tile in the bathroom areas.
7. Replace existing toilet room partitions in the bathroom and changing room areas.
8. Replace existing benches in locker rooms and install new lockers around perimeter of changing area, similar to the original layout.
9. Provide epoxy paint finish on all of the walls.
10. Raise the existing roof system (approximately 24") over the bathhouse (excluding the Mechanical Room) as required to conceal all of the Mechanical and Electrical equipment. Provide concrete masonry units and brick veneer on the extended wall. Replace existing roofing with new fully adhered tapered insulation and EPDM. Install a new 2'x2' acoustical tile ceiling system at 9'-0" above finish floor throughout.
11. Replace the Mechanical system in its entirety.
12. Replace all of the interior and exterior lights with new LED fixtures.
13. Replace existing food service equipment in the Concession area.
14. Remove and replace 600 s.f. of brick veneer in areas of cracks and tooth in new brick to match existing.



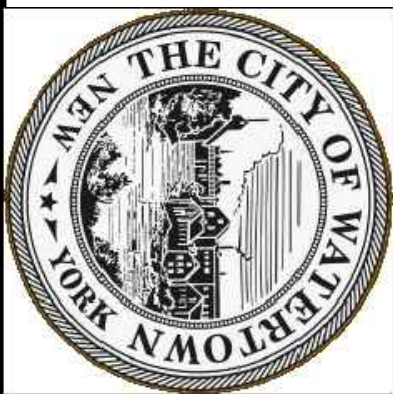
**APPENDIX A**  
**Aerial View of Existing Site**





**C&S**  
COMPANIES

C&S Engineers, Inc.  
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Fax: 315-455-9667  
www.cscos.com



**CITY OF WATERTOWN**

**WILLIAM J FLYNN**

**MUNICIPAL SWIMMING POOL**

**REHABILITATION**

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MARK	DATE	DESCRIPTION

REVISIONS

PROJECT NO:	129.108.001
DATE:	JUNE 2022
DRAWN BY:	R. JACKSON
DESIGNED BY:	
CHECKED BY:	

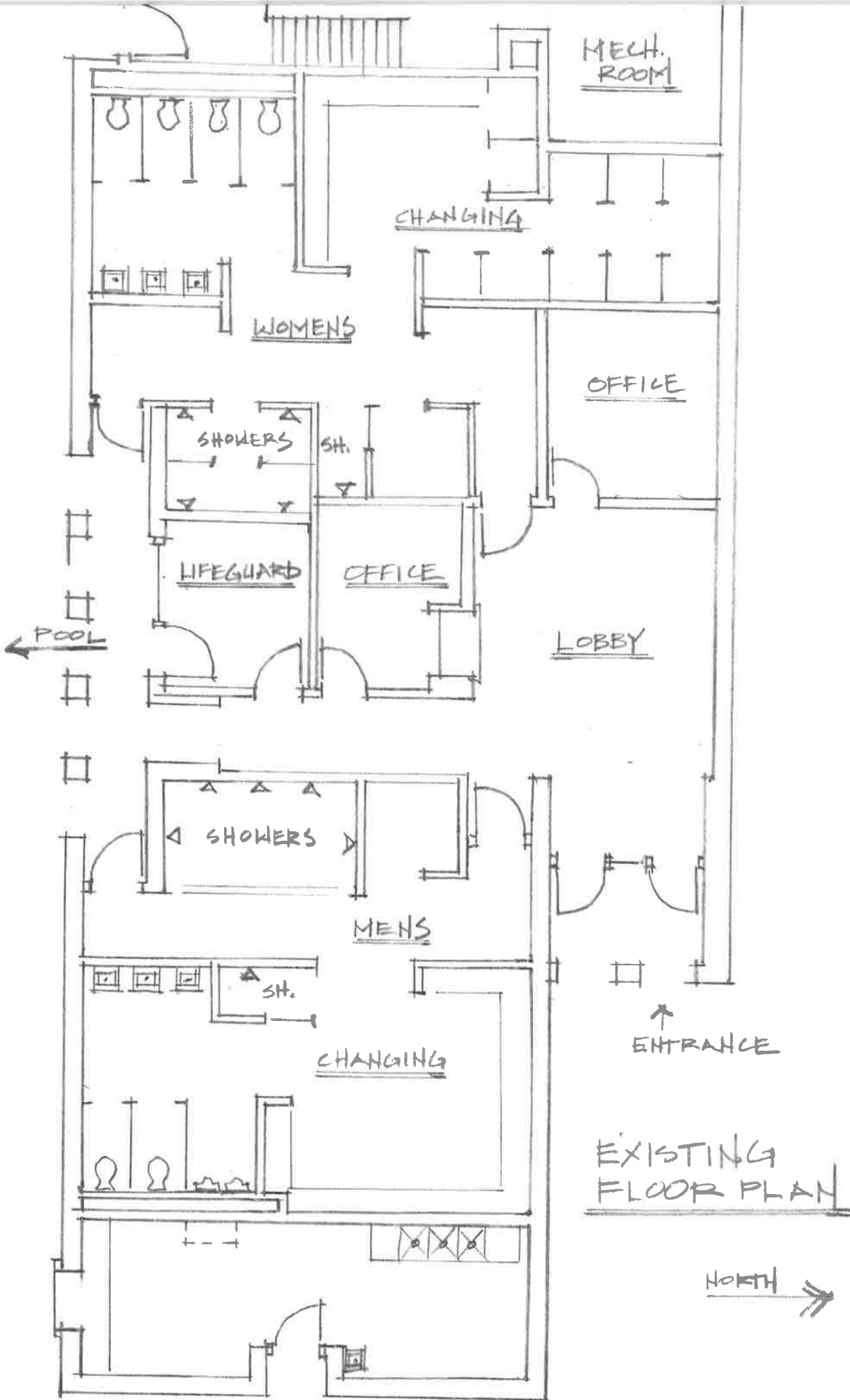
NO ALTERATION PERMITTED HEREON  
EXCEPT AS PROVIDED UNDER SECTION  
7209 SUBDIVISION 2 OF THE NEW YORK  
EDUCATION LAW

**POOL FACILITY**

**AERIAL VIEW**



**APPENDIX B**  
**Existing Floor Plan**



**EXHIBIT C**  
**EXISTING PHOTOS**





East Elevation



Entrance



Vertical Crack in Brick Veneer



North Elevation



West Elevation – Mech Room



South Elevation





Crack in Brick Veneer



Vertical Crack in Brick Veneer



South Elevation



Split Rubber Flashing on Edge (Typical)



EPDM Roof Looking East



Brick Veneer at Concession Window



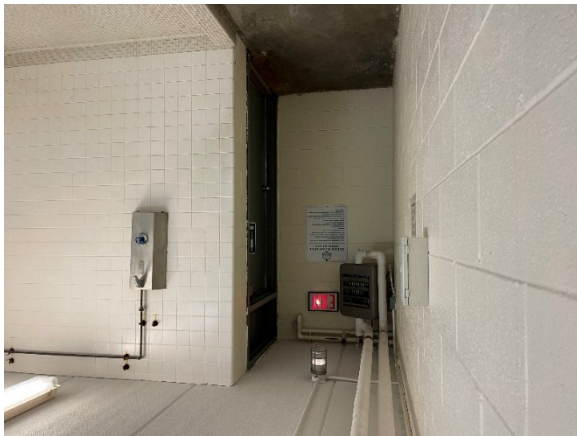
Men's Toilet Room



Men's Changing Area



Men's Door to Pool



Men's Toilet Room



Men's Hall Leading to Pool



Men's Shower

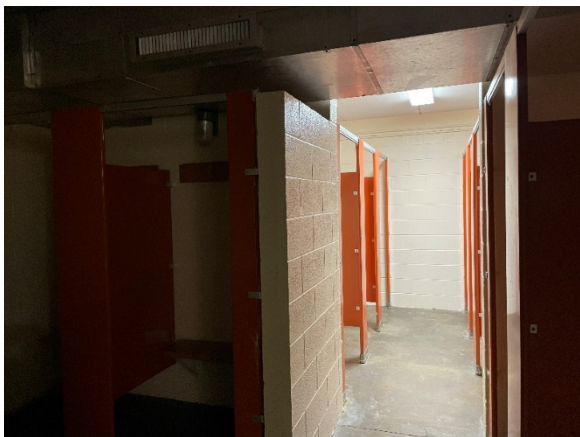




Office



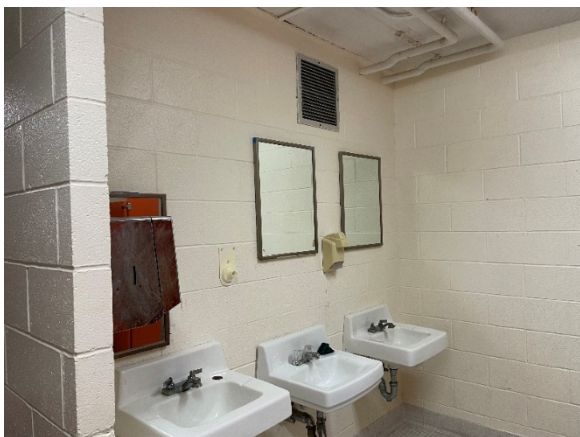
Women's Accessible Shower



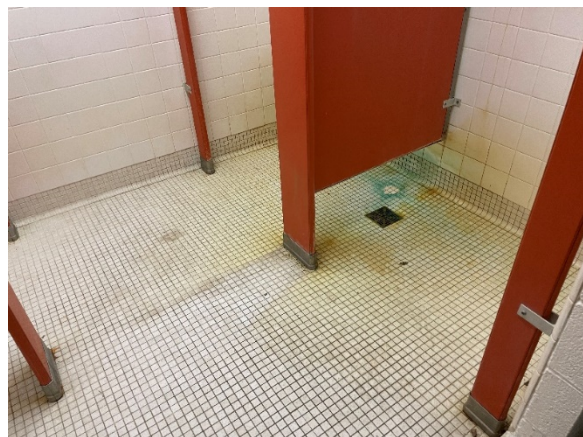
Women's Changing Area



Women's Toilet Room



Women's Toilet Room



Women's Showers





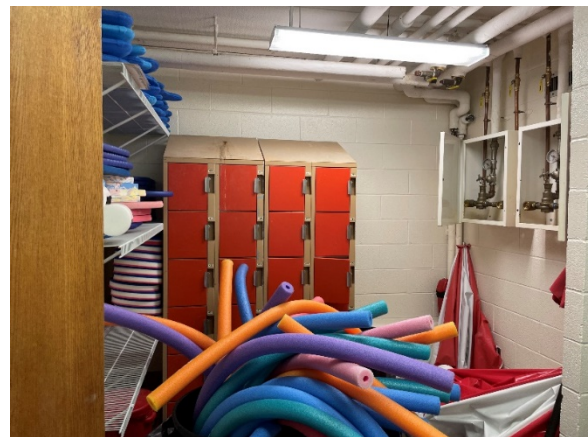
Door From Lobby to Pool



Entrance Door



Office



Office



Lifeguard Station



Office



Office



Office



Office



Exposed Mech Equipment





Pool and Deck Looking Northwest



South Fenceline



Stair Access to Shallow Section



North Edge of Pool Looking West



Former Diving Board Foundations



Shallow Section of Pool Looking North





Lifeguard Station



Pool Deep Section Looking Northeast



Pool Deep Section Looking North

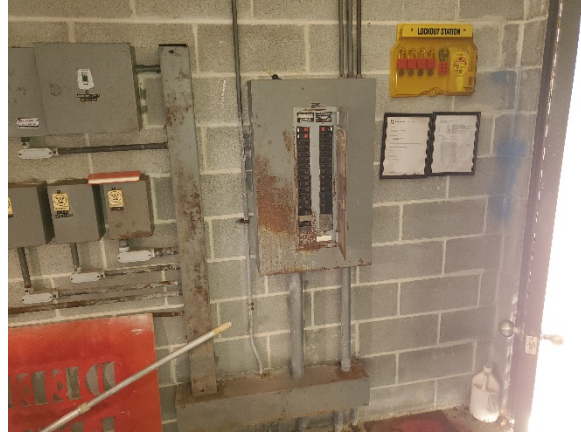


Kiddie Splash Pool





Filter Room from the Upper Level looking to the Lower Level



Filter Room Power Panel



Filter Room - Electrical Switch Gear



Filter Room Heater



Disinfectant Tanks



Chemical Containment Curb





Filter Room Lower Level



Surge Tank Wall



Filter Room Ventilation Unit



Master Water Meter



**EXHIBIT D**  
**Estimate of Probable Cost**



## **CONCEPTUAL ESTIMATE**

FLYNN MUNICIPAL POOL FACILITY ASSESSMENT  
CITY OF WATERTOWN

WATERTOWN, NY

PREPARED FOR:  
C&S COMPANIES

PROJECT NO: 22-0164a-0115

July 05, 2022  
(Revision 1)

**Trophy Point, LLC**  
Construction Services & Consulting

4588 South Park Avenue  
Blasdell, NY 14219  
Phone: (716) 823-0006

347 West 36th St, Suite 1101  
New York, NY 10018  
Phone: (862) 377-3087

787 Pine Valley Drive, Suite A  
Pittsburgh, PA 15239  
Phone: (716) 436-5571

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## ESTIMATE NOTES / ASSUMPTIONS / CLARIFICATIONS

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- BASED ON C&S COMPANIES FACILITY ASSESSMENT AND FEASIBILITY STUDY DATED 05/23/2022.
- NEW YORK STATE PREVAILING WAGE RATES FOR JEFFERSON COUNTY.
- CONSTRUCTION START NOVEMBER 2022; COMPLETION JUNE 2023; MID-POINT MARCH 2023.
- NORMAL WORKING HOURS AND CONDITIONS; NO PREMIUM FOR A CONDENSED CONSTRUCTION SCHEDULE IS INCLUDED.
- STANDARD WORK SHIFTS FOR TRADESMEN (NO SECOND / THIRD SHIFT WORK OR OVERTIME IS INCLUDED).
- MULTIPLE PRIME CONTRACTS (COMPETITIVELY BID).
- ENTIRE PROJECT BID AT ONE TIME.

### EXCLUSIONS:

- SOFT COSTS (DESIGN FEES, ETC.)
- CONSTRUCTION CONTINGENCY (OWNER CHANGE ORDER RESERVE)
- CONSTRUCTION MANAGER FEES, MARKUPS OR GENERAL CONDITIONS IF A CM IS ENGAGED IN ADDITION TO PRIME CONTRACTOR.
- PROJECT LABOR AGREEMENTS
- SOIL REMEDIATION
- ROCK OR BELOW GRADE OBSTRUCTION EXCAVATION
- ASBESTOS AND HAZARDOUS MATERIALS ABATEMENT (IF APPLICABLE)

*Note: This estimate represents a reasonable opinion of cost based on several public and proprietary sources of information. It is not a prediction of the successful bid from a contractor as bids will vary due to fluctuating market conditions, errors and omissions, proprietary specifications, lack of surplus bidders, perception of risk, and so on. Consequently, this estimate is expected to fall within the range of bids from multiple competitive contractors or subcontractors. However, we do not warrant that bids or negotiated prices will not vary from the final construction cost estimate.*



	OPTION A		OPTION B	
	Subtotal Trade	Total	Subtotal Trade	Total
<b>B SHELL</b>		<b>\$258,000</b>		<b>\$363,900</b>
B10 Superstructure	\$0		\$99,000	
B20 Exterior Enclosure	\$58,500		\$96,900	
B30 Roofing	\$199,500		\$168,000	
<b>C INTERIORS</b>		<b>\$86,100</b>		<b>\$200,300</b>
C10 Interior Construction	\$58,400		\$92,400	
C30 Interior Finishes	\$27,700		\$107,900	
<b>D SERVICES</b>		<b>\$579,200</b>		<b>\$625,600</b>
D20 Plumbing	\$410,000		\$360,000	
D30 HVAC	\$33,600		\$100,000	
D50 Electrical	\$135,600		\$165,600	
<b>E FITTINGS &amp; FIXED EQUIPMENT</b>		<b>\$1,800</b>		<b>\$101,800</b>
E10 Equipment	\$0		\$100,000	
E20 Fixed Furnishings / Millwork	\$1,800		\$1,800	
<b>F SPECIAL CONSTRUCTION &amp; DEMOLITION</b>		<b>\$817,600</b>		<b>\$1,251,900</b>
F10 Swimming Pool	\$775,100		\$1,163,200	
F20 Selective Building Demolition	\$42,500		\$88,700	
<b>G SITEWORK</b>		<b>\$175,400</b>		<b>\$175,400</b>
G10 Site Preparation	\$15,000		\$15,000	
G20 Site Improvements	\$160,400		\$160,400	
<b>TOTAL DIRECT COST</b>		<b>\$1,918,100</b>		<b>\$2,718,900</b>
Design Contingency 15.00%		\$288,000		\$408,000
<b>SUBTOTAL - DIRECT CONSTRUCTION COST + CONTINGENCIES</b>		<b>\$2,206,100</b>		<b>\$3,126,900</b>
General Conditions, General Requirements, Bond, Insurances 22.00%		\$485,000		\$688,000
Prime Contractor Fee 4.00%		\$88,000		\$125,000
<b>SUBTOTAL CONSTRUCTION COST</b>		<b>\$2,779,100</b>		<b>\$3,939,900</b>
Escalation 4.84%		\$134,000		\$191,000
<b>TOTAL ESCALATED CONSTRUCTION COST</b>		<b>\$2,913,100</b>		<b>\$4,130,900</b>

[illegible]





Description		Unit	Unit Price
<b>C</b>	<b>INTERIORS</b>		
<b>C10</b>	<b>INTERIOR CONSTRUCTION</b>		
C1010	Partitions		
	Reconfigure interior walls for new codes	ALLOW	\$9,000.00
	Reconfigure interior walls at gang showers	SF	\$22.00
	Blocking, firestopping, sealants	LS	\$2,500.00
	Sub Total: Partitions		
C1020	Interior Doors and Frames		
	Painted flush insulated hollow metal doors, frames and hardware - 3'-0" x 7'-0"	EA	\$2,200.00
	Sub Total: Interior Doors and Frames		
C1030	Fittings		
	Metal toilet partitions	EA	\$650.00
	Lockers	EA	\$335.00
	Benches	LF	\$50.00
	Miscellaneous interior fittings	LS	\$10,000.00
	Sub Total: Fittings		
<b>C30</b>	<b>INTERIOR FINISHES</b>		
	Wall Finishes		
	Epoxy paint CMU walls	SF	\$2.25
	Ceramic tile base	LF	\$12.00
	Ceramic tile walls	SF	\$14.00
	Sub Total: Wall Finishes		
	Floor Finishes		
	Floor finish patch at removed partitions, etc	LS	\$5,000.00
	Ceramic tile floors	SF	\$15.00
	Sub Total: Floor Finishes		

OPTION A		OPTION B	
Quantity	Total \$	Quantity	Total \$
1	\$9,000	1	\$9,000
-		800	\$17,600
1	\$2,500	1	\$2,500
	<b>\$11,500</b>		<b>\$29,100</b>
15	\$33,000	15	\$33,000
	<b>\$33,000</b>		<b>\$33,000</b>
6	\$3,900	6	\$3,900
		40	\$13,400
		60	\$3,000
1	\$10,000	1	\$10,000
	<b>\$13,900</b>		<b>\$30,300</b>
10,080	\$22,680	10,080	\$22,680
-		300	\$3,600
-		2,400	\$33,600
	<b>\$22,680</b>		<b>\$59,880</b>
1	\$5,000	1	\$5,000
-		1,050	\$15,750
	<b>\$5,000</b>		<b>\$20,750</b>



Description	Unit	Unit Price
Ceilings		
2'-0" x 2'-0" ACT in bathhouse	SF	\$6.50
Sub Total: Ceilings		
<b>D SERVICES</b>		
<b>D20 Plumbing</b>		
Replace fixtures, piping, water heater, etc.	LS	\$260,000.00
Pool Repairs - main drains, and deck drainage repairs	LS	\$50,000.00
Pool Equipment - filtration equipment and accessories	LS	\$100,000.00
Sub Total: Plumbing		
<b>D30 HVAC</b>		
HVAC system; fans, exhaust, etc	SF	\$8.00
HVAC system; replacement	LS	\$100,000.00
Sub Total: HVAC		
<b>D50 Electrical</b>		
Electrical demolition	SF	\$1.50
Temporary power and light	SF	\$2.00
120/208v power panels and associated feeders	ALLOW	\$15,000.00
Grounding and bonding	ALLOW	\$5,000.00
Interior LED lighting, controls, circuiting (general, emergency, exit signage)	SF	\$13.25
Wiring devices / branch circuits	SF	\$2.25
Equipment connections, motor controllers, conduit, circuiting		
- Forced air wall ventilator	EA	\$1,844.00
- Unit heater	EA	\$1,844.00
- Recirculation pump	EA	\$1,844.00
- Chemical feed system / controllers	EA	\$3,688.00
Miscellaneous electrical device removals, relocations and reinstallation	ALLOW	\$7,500.00
Cutting, patching and firestopping	LS	\$2,250.00
Misc. (lift rental, testing/certification, as built)	LS	\$5,000.00

OPTION A		OPTION B	
Quantity	Total \$	Quantity	Total \$
-		4,200	\$27,300
			<b>\$27,300</b>
1	\$260,000	1	\$260,000
1	\$50,000		
1	\$100,000	1	\$100,000
	<b>\$410,000</b>		<b>\$360,000</b>
4,200	\$33,600	-	
-		1	\$100,000
	<b>\$33,600</b>		<b>\$100,000</b>
4,200	\$6,300	4,200	\$6,300
4,200	\$8,400	4,200	\$8,400
1	\$15,000	1	\$15,000
1	\$5,000	1	\$5,000
4,200	\$55,650	4,200	\$55,650
4,200	\$9,450	4,200	\$9,450
1	\$1,844	1	\$1,844
2	\$3,688	2	\$3,688
1	\$1,844	1	\$1,844
1	\$3,688	1	\$3,688
1	\$7,500	1	\$7,500
1	\$2,250	1	\$2,250
1	\$5,000	1	\$5,000



Description			Unit	Unit Price
		Pool equipment connections	LS	\$10,000.00
		Exterior lighting replacement	ALLOW	\$40,000.00
Sub Total: Electrical				
E	EQUIPMENT & FURNISHINGS			
E10	Equipment			
E1020	Institutional Equipment			
	Food service equipment at concession area		ALLOW	\$100,000.00
Sub Total: Institutional Equipment				
E20	Furnishings			
E2010	Fixed Furnishings & Millwork			
	Plastic laminate countertops		LF	\$90.00
Sub Total: Fixed Furnishings & Millwork				
F	SPECIAL CONSTRUCTION & DEMOLITION			
F10	Swimming Pools			
	Repair existing pool			
	Surface reparation (marsite removal)		SF	30.00
	PVC liner system		SF	25.00
	Joint caulking		LF	18.00
	Stainless steel gutter removal and replacement		LF	300.00
	Pool floor repairs		SF	60.00
	Pool wall repairs		SF	85.00
	Main drain replacement		EA	4,500.00
	Main drain demolition		EA	5,000.00
	Main drain concrete restoration		SF	50.00
	Pool entrance stairs and railing rehabilitation		SF	70.00
	New Pool			
	Stainless steel gutter and deck drain system		LF	300.00
	Quartzite pool finish		SF	53.00
	Tile lanes, targets and depth markers		SF	105.00
	Gunitite pool shell		CY	1,760.00
	Main drain system		EA	12,000.00
	Joint caulking		LF	18.00

OPTION A		OPTION B	
Quantity	Total \$	Quantity	Total \$
1	\$10,000	-	
		1	\$40,000
	<b>\$135,614</b>		<b>\$165,614</b>
-		1	\$100,000
			<b>\$100,000</b>
20	\$1,800	20	\$1,800
	<b>\$1,800</b>		<b>\$1,800</b>
6,450	\$193,500		
6,450	\$161,250		
300	\$5,400		
300	\$90,000		
1,000	\$60,000		
100	\$8,500		
2	\$9,000		
2	\$10,000		
250	\$12,500		
60	\$4,200		
		300	\$90,000
		6,450	\$341,850
		350	\$36,750
		200	\$352,000
		2	\$24,000
		300	\$5,400



			OPTION A		OPTION B	
Description	Unit	Unit Price	Quantity	Total \$	Quantity	Total \$
8" and 10" pool circulation piping	LF	70.00			400	\$28,000
Demolish and dispose of existing pool shell	TON	150.00			430	\$64,500
Filtration System						
Modulating float valve	EA	\$1,000	1	\$1,000	1	\$1,000
Pool recirculation pump	EA	\$18,000	1	\$18,000	1	\$18,000
Electronic pool controller	EA	\$38,000	1	\$38,000	1	\$38,000
Bleach pumps systems	EA	\$8,000	1	\$8,000	1	\$8,000
Magnetic flow meter	EA	\$4,000	1	\$4,000	1	\$4,000
Precast concrete balance tank	EA	\$60,000	1	\$60,000	1	\$60,000
Rapid sand filtration system	EA	\$68,000	1	\$68,000	1	\$68,000
Pool pump variable speed drive	LS	\$10,000	1	\$10,000	1	\$10,000
8" pool recirculation piping	LF	\$40	150	\$6,000	150	\$6,000
10" pool recirculation piping	LF	\$45	60	\$2,700	60	\$2,700
Butterfly valves	EA	\$1,000	5	\$5,000	5	\$5,000
Sub Total: Swimming Pools				\$775,050		\$1,163,200
<b>F20 Selective Building Demolition</b>						
Miscellaneous interior demolition	LS	25,000.00	1	\$25,000	1	\$25,000
Create openings in exterior wall for new doors	EA	1,252.00	2	\$2,504	2	\$2,504
Shut down and make safe kiddie splash pool	LS	15,000.00	1	\$15,000	1	\$15,000
Remove existing roof plank structural roof at bathhouse, including protection, shoring, etc	SF	11.00	-		4,200	\$46,200
Sub Total: Selective Building Demolition				\$42,504		\$88,704
<b>G SITEWORK</b>						
<b>G10 Site Preparation</b>						
Soil erosion control measures	LS	\$15,000.00	1	\$15,000	1	\$15,000
Sub Total: Site Preparation				\$15,000		\$15,000
<b>G20 Site Improvements</b>						
Remove and replace concrete pool deck	SF	\$18.00	7,800	\$140,400	7,800	\$140,400
Post construction restoration	ALLOW	\$20,000.00	1	\$20,000	1	\$20,000
Sub Total: Site Improvements				\$160,400		\$160,400