



Ruthanne Fuller  
Mayor

**Newton, Massachusetts Community Preservation Program  
FUNDING REQUEST**

**437-22**

(For staff use)  
date rec'd:

**PRE-PROPOSAL**

**PROPOSAL**

Last updated October 2020.

Please submit this completed file directly – do not convert to PDF or other formats.

For full instructions, see [www.newtonma.gov/cpa](http://www.newtonma.gov/cpa) or contact:

Lara Kritzer, Community Preservation Program Manager

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[lkritzer@newtonma.gov](mailto:lkritzer@newtonma.gov)

617.796.1144

You may adjust the space for each question, but the combined answers to all questions on this page must fit on this page.

<b>Project TITLE</b>	<b>GATH POOL PROJECT</b>			
<b>Project LOCATION</b>	256 Albemarle Road, Newtonville MA 02460			
<b>Project CONTACTS</b>	Name & title or organization	Email	Phone	Mailing address
<b>Project Manager</b>	Luis Perez Demorizi, Open Space Coordinator Parks, Recreation & Culture/ Rafik Ayoub, Project Manager, Public Buildings Department	<a href="mailto:lpdemorizi@newtonma.gov">lpdemorizi@newtonma.gov</a> <a href="mailto:rayoub@newtonma.gov">rayoub@newtonma.gov</a>	617-769-1500 617-796-1621	246 Dudley Road, Newton MA, 02459/52 Elliot Street, Newton, 02461
<b>Other Contacts</b>	Nicole Banks, Commissioner Parks, Recreation & Culture/ Josh Morse, Commissioner Public Buildings	<a href="mailto:nbanks@newtonma.gov">nbanks@newtonma.gov</a> <a href="mailto:jmorse@newtonma.gov">jmorse@newtonma.gov</a>	617-796-1500 617-796-1608	246 Dudley Road, Newton MA, 02459/ 52 Elliot Street, Newton, 02461
<b>Project FUNDING</b>	<b>A. CPA funds requested:</b> \$ 486,500.00 – Phase II Design	<b>B. Other funds to be used:</b> \$ 39,200.00 – approximate cost for staff time	<b>C. Total project cost (A+B):</b> \$ 525,700.00	
<b>Project SUMMARY</b>	Explain how the project will use the requested CPA funds. You may provide more detail in attachments, but your PROJECT SUMMARY MUST FIT IN THE SPACE BELOW. Use a cover letter for general information about the sponsoring organization's accomplishments.			
<p>The Gath Pool is situated within the Russell J. Halloran Sports and Recreation Complex, a.k.a. Albemarle Playground (Currently under Improvements Design Phase through separate CPA design funding). The property is owned and operated by the City of Newton under the care and control of the Parks, Recreation &amp; Culture Department.</p> <p>Gath Pool is the sole public outdoor swimming pool for Newton's +85,000 residents and non-resident guests. It welcomes 30,000 users per season. Newton Parks, Recreation &amp; Culture (PRC) has managed Gath Memorial Pool since it was constructed over 60 years ago. The pool is used daily, hosting swim lessons, summer camps, recreational and lap swimming, Special Athletes programs, senior programs and the City's coed Bluefish Swim Team made up of 200 members ages 5-18. Gath Pool also hosts the annual Summer Suburban Swim League regional championships with teams from 12 nearby communities and over 5,000+ visitors.</p>				

Neither the pools nor the bathhouse meets current ADA or MAAB accessibility guidelines; the 60-year old pools, deck, systems and equipment are past end-of-life; the pool leaks significantly; the decks are tripping hazards, marred by cracks, drains and other infrastructure; there is a need for more lap lanes.

Over the span of the past 8 months (September 2021 thru May 2022), the Parks, Recreation and Culture Department (PRC), in concert with the Public Buildings Department (PB) and with support of the consultant Bargmann Hendrie + Archetype, Inc. (BH+A) herein referred to as “The Team” has managed a series of Community and focus group meetings so seek input from a number of stake holders including, the Friends of Albemarle, Newton Bluefish, Commission on Disability, Conservation Commission, and the Parks and Recreation Commission, Athletes Unlimited, along with members of groups representing the LGBTQ+ and 55+ community and with much input from Newton Residents as a whole to help steer the direction of the pool improvements. This effort has led to the Draft Existing Conditions attached to this application. The Existing Facilities Study has been funded utilizing CPA funds in the Sum of \$60,000. The report is a result of the CPA support for a new pool.

The application for additional funding herein is a request to continue developing the pool design into a shovel-ready project, with the intent to seek constructions funds at the appropriate time in the planning phase of the project over the course of the next calendar year. It is the team’s intent to amend the consultant’ contract to capture the tasks required to bring the project into Phase 2, design development through Bidding. Another contract amendment if expected at the time of the construction funding request to cover construction administration.

As noted above, PRC and co-sponsor Public Buildings, with the support of the community for a new pool, are seeking to amend the consultant’ contract to include the following scope for Phase II of design:

Phase II tasks of the design phase are outlined below:

- Schematic Design/Site Plan Approval
  - Civil and Environmental Engineering Design for Conservation Commission Permitting
  - Landscape Architectural Services for Environmental permitting
  - Architecture and Aquatic design for Permitting
  - MEP Design around utilities and Stormwater design
  - Traffic and Parking Study
  - Hazardous Material Investigation
  - Geotechnical Investigation (Soil Borings and report)
  - Sustainability and technology assessment
- Design Development
  - Advance design resulting from SD/permitting
- Construction Documents
  - Geotechnical Specifications
  - Hazardous material Specifications
  - Technological, infrastructure and equipment specification
- Bidding
  - Construction bidding assistance
  - Addenda review
  - Contractor bid evaluation assistance

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<b>Project TITLE</b>	<b>GATH POOL PROJECT</b>		
<b>USE of CPA FUNDS</b>	<b>RECREATION</b>		
	Preservation	X	
	Rehabilitate/ Restore	X	
<b>COMMUNITY NEEDS</b>	From each of at least 2 plans linked to the <a href="#">Guidelines &amp; Forms</a> page of <a href="http://www.newtonma.gov/cpa">www.newtonma.gov/cpa</a> , provide a brief quote with plan title, year, and page number, showing how this project meets previously recognized community needs. You may also list other community benefits not mentioned in any plan.		
<u>Open Space and Recreation Plan Update 2020-2027</u>			
<ul style="list-style-type: none"> <li>Section 8, Page 141 Goal 2 Objective 2B: Improved City parks, playgrounds, and other recreational facilities.</li> <li>Section 8, Page 141 Goal 3 Objective 3A: Increased accessibility in the City's Park land.</li> <li>Section 8, Page 142 Goal 4 Objective 4A: Improved existing open space resources where need is greatest.</li> <li>Section 9, Pages 145-146 Goal 2 Objective 2A #25: Gath Pool: Develop feasibility study and implement an improvement plan that addresses: Replacing the pool, kiddie pool, and bath house</li> </ul>			
<u>Capital Improvement Plan FY2022-2026</u>			
<ul style="list-style-type: none"> <li>Page 11, <i>Protecting Woods and Open Spaces &amp; Caring for our Parks and Recreational Spaces</i> – "...The need to renovate or replace the Gath Pool has been raised in priority in this CIP. A study will be conducted this year to analyze the maintenance needs and provide possible options for more substantial renovations..."</li> <li>CIP by Priority FY 2022-2026, Priority 44: "Gath Memorial Pool has served Newton residents for over 50 years. Though the building was recently renovated in 2013, the swimming pool and all attendant components (i.e. pump, filter, piping, decking, electrical, and chemical feeder) require complete renovation and replacement work to ensure continued enjoyment by the community." "A renovation plan is needed to determine the cost to upgrade systems and restore the pool shell to stop water loss through leaks."</li> </ul>			
<b>COMMUNITY CONTACTS</b>	List at least 3 Newton residents or organizations willing and able to comment on the project and its manager's qualifications. No more than 1 should be a supervisor, employee or current work colleague of the project manager or sponsor. Consult staff on the community contacts required for your specific proposal.		
	Name & title or organization	Email	Phone
	Arthur Magni, Chairman Parks & Recreation Commission	<a href="mailto:magni@rcn.com">magni@rcn.com</a>	
	Cedar Pruitt, President Friends of Albemarle	<a href="mailto:friendsofalbemarle@gmail.com">friendsofalbemarle@gmail.com</a> <a href="mailto:cpruitt@gmail.com">cpruitt@gmail.com</a>	
	Sean Nickerson	<a href="mailto:snickerson@newtonma.gov">snickerson@newtonma.gov</a>	

You may adjust the space for each question, but the combined answers to all questions on this page must fit on this page.

Full proposals must include separate, detailed budgets in addition to this page.

Project TITLE	GATH MEMORIAL POOL RENOVATION PROJECT	
<b>SUMMARY CAPITAL/DEVELOPMENT BUDGET</b>		
<b>Uses of Funds</b>		
Phase II: Design Consultant Contract Amendment – Not-to-exceed amount.		\$486,500.00
Approximate staff time for the duration of Phase II Design @ 20/hrs per week for 10 months (49,00/HR)		\$39,200.00
		\${amount}
		\${amount}
		\${amount}
<b>D. TOTAL USES</b> (should equal C. on page 1 and E. below)		<b>\$525,700.00</b>
<b>Sources of Funds</b>	<b>Status</b> (requested, expected, confirmed)	
CPA funding	Requested	\$486,500.00
Approximate staff time for the duration of project	expected	\$39,200.00
		\${amount}
		\${amount}
<b>E. TOTAL SOURCES</b> (should equal C. on page 1 and D. above)		<b>\$525,200.00</b>
<b>SUMMARY ANNUAL OPERATIONS &amp; MAINTENANCE BUDGET</b> (cannot use CPA funds)		
<b>Uses of Funds</b>		
Approximate Staff Payroll		\$141,316.00
Pool testing supplies		\$500.00
Pool treatment materials (chlorine, Carbon Dioxide, Calcium Chloride and Sodium bicarbonate)		\$17,520.00
Pool water – Includes filling, backwashes & leak		\$140,000.00
Staff Uniforms		\$500.00
<b>F. TOTAL ANNUAL COST</b> (should equal G. below)		<b>\$284,068.00</b>
<b>Sources of Funds</b>		
Revolving Fund Account (Part-time and seasonal staff only)		\$70,316.00
Operating budget (Aquatics manager salary and supplies)		\$159,520.00
<b>G. TOTAL ANNUAL FUNDING</b> (should equal F. above)		<b>\$284,068.00</b>
<b>Project TIMELINE</b>	<b>Phase or Task</b>	<b>Season &amp; Year</b>
	Schematic Design/ Site Plan Approval/ Permitting	July-September 2022
	Design Development	September-December 2022
	Construction Documents	December – March 2022
	Bidding	April 2022
	Total Phase 2 Duration	10 Months

Project TITLE		GATH MEMORIAL POOL RENOVATION PROJECT	
↓ Check off submitted attachments here.			
REQUIRED.		<b>PHOTOS</b>	of existing site or resource conditions (2-3 photos may be enough)
		<b>MAP</b>	of site in relation to nearest major roads (omit if project has no site)
Pre-proposals: separate attachments not required, just use page 3 of form.  Full proposals: separate, detailed budget attachments REQUIRED.	<b>PROJECT FINANCES</b> printed and as computer spreadsheets, with both uses & sources of funds		
		<b>Development budget:</b> include total cost, hard vs. soft costs and contingencies, and project management – amount and cost of time from contractors or staff (in-kind contributions by existing staff must also be costed) <b>Operating/maintenance budget, projected separately for each of the next 10 years</b> (CPA funds may not be used for operations or maintenance)	
		<b>Non-CPA funding:</b> commitment letters, letters of inquiry to other funders, fundraising plans, etc., including both cash and est. dollar value of in-kind contributions	
	<b>Purchasing of goods &amp; services:</b> briefly summarize sponsor’s understanding of applicable state statutes and City policies		
REQUIRED for all full proposals.	<b>SPONSOR FINANCES &amp; QUALIFICATIONS, INSTITUTIONAL SUPPORT</b>		
		<b>For sponsoring department or organization, most recent annual operating budget</b> (revenue & expenses) <b>&amp; financial statement</b> (assets & liabilities); each must include both public (City) and private resources (“friends” organizations, fundraising, etc.)	
		<b>For project manager: relevant training &amp; track record</b> of managing similar projects	
REQUIRED for all full proposals involving City govt., incl. land acquisition.		<b>CAPITAL IMPROVEMENT PLAN</b>	current listing/ranking & risk factors for this project
		<b>COVER LETTER</b>	from head of City department, board or commission confirming: current custody, or willingness to accept custody, of the resource and commitment of staff time for project management
	<b>ZONING &amp; PERMITTING</b>		
		<b>Permits required:</b> including building permits, environmental permitting, parking waivers, demolition, comprehensive permit, or special permits (if applicable)	
		<b>Other approvals required:</b> Newton Conservation Commission, Newton Historical Commission, Newton Commission on Disabilities, Parks and Recreation Commission, Massachusetts Historical Commission, Massachusetts Architectural Access Board, etc.	
	<b>DESIGN &amp; CONSTRUCTION</b>		
		<b>Professional design &amp; cost estimates:</b> include site plans, landscape plans, etc.	
	<b>Materials &amp; finishes;</b> highlight “green” or sustainable features & materials		
OPTIONAL for all proposals.		<b>LETTERS of SUPPORT</b>	from Newton residents, organizations, or businesses

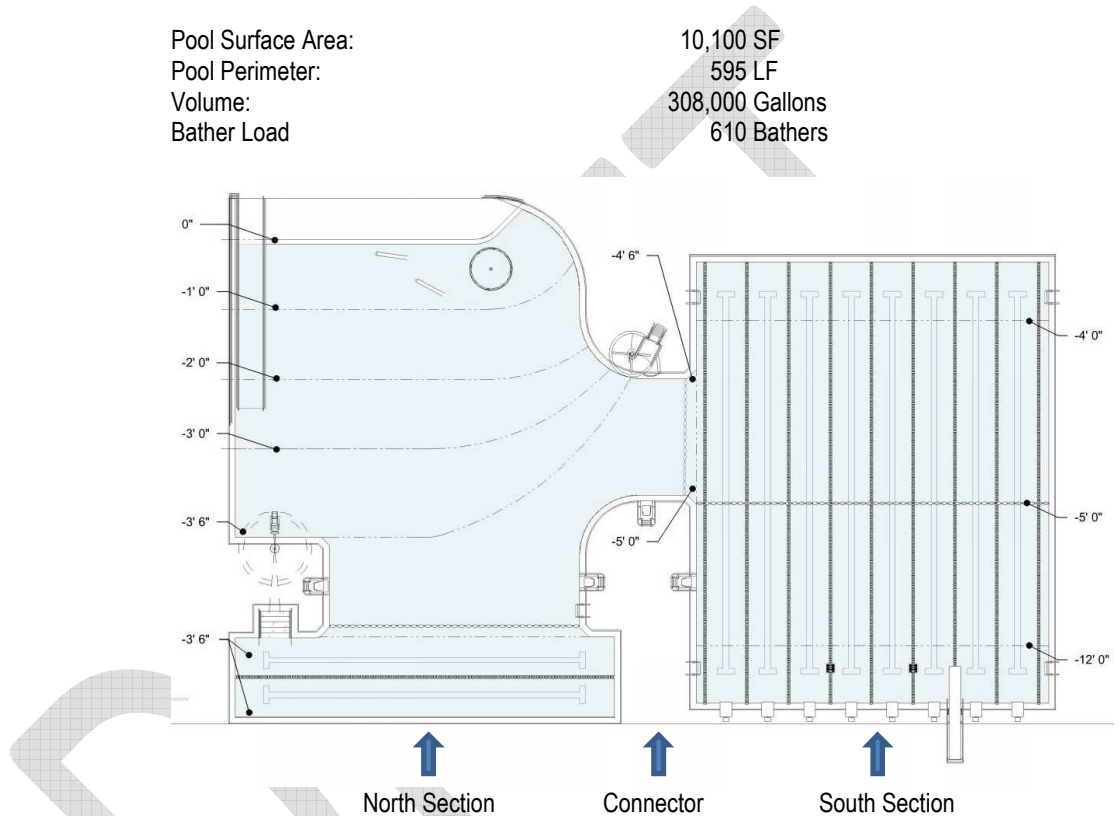
## Project Highlights

### Swimming Pool

#### General

The proposed swimming pool is a single body of water with two defined areas. The north section of the pool is designed for recreation and exercise, the south section is designed for competitive swimming, general lap swimming, recreational diving and swimming. The connection between the pool serves as a splashdown area for a water slide.

Pool Surface Area: 10,100 SF  
Pool Perimeter: 595 LF  
Volume: 308,000 Gallons  
Bather Load: 610 Bathers



#### North Section

- The north section of the pool slopes from deck level to 4 feet.
- Accessible Ramp located at zero depth entry and discharges into 30 inches of water.
- Water features will be located in the zero depth area. Surface sprays at the entry, larger features in the 0 to 1 ft. zone.
- Features will be located and selected to allow access to the ramp and zero depth area without entering the water features "zone of influence."
- A small peninsula is located on the north edge of the pool. This peninsula"
  - a. Defines the edge of the water walking lanes
  - b. Provides location for the accessible lift
  - c. Provides pool steps into the water walking area
  - d. Provides location for lifeguard chair
- The center of the pool is relatively flat with water depths of 3'-6" to 4'-0"
- The edge closest to the bathhouse provides two, 68 feet long, 7ft. wide water walking lanes.

- *Connector*
- The connector slopes from 3'-6" to 5'-0" to follow the slope of the south sections floor
- The location does not interfere with the south sections backstroke stanchions.
- The water slide is located in this area to take advantage of the pool depth
- The water slide is on the east side of the connector to maximize visibility of the pool from the bathhouse and other guard positions
- The large peninsula that forms the connector provides positions for 3 lifeguard chairs

#### *South Section*

- The rectangular section provides eight, 25 yard competitive racing lanes
- Pool depth is 4 feet at the shallow end, 12 feet at the main drains
- The pool floor slope is uniform
- Lane lines are set 7-4" O.C establishing a 7ft clear lane
- The pool width allows placement of lane lines at the outside of lanes 1 and 8.
- Diving board is centered on a lane line between starting blocks
- South edge of this section provides continuous access along the entire length of the pool

#### *Filtration*

- Pool water will be turned over every 4 hours
- The splash down area of the slide will be designed to increase the turnover rate to an hour with this zone
- Flow Rate: 1,300 GPM at 4 hours
- Filter Area:
  - a. 85 square feet for high rate sand
  - b. 867 square feet for regenerative filters

#### **Spray Deck**

- The spray deck is located on the north side of the pool and helps make the 5 ft. grade change from the pool deck to the park level.
- The deck is organized around an "S" shaped ramp
- The deck has two levels; one at grade and one at 2'-6" above grade.
- The ramp and two levels will be used to separate water feature types.
  - a. Lower impact, lower flow features are geared towards toddlers, younger children, and children not comfortable with large volumes of water.
  - b. Older children prefer larger, high flow features than enjoy being sprayed and interacting with large water flows
  - c. All features will be selected to encourage inclusive play for all ages.
- The spray deck enclosure is designed to allow access when the pool is closed. The spray deck can potentially open earlier in the season and remain open after the main pool closes.
- Shade structures are used to mark the entrances and circulation.
- Filtration
  - a. Water will be recirculated in the spray deck requiring a separate filtration system
  - b. There is not standing water in the spray deck
  - c. A reservoir will be constructed beneath the spray deck; the water in the spray deck will be filtered with a 30 minute turnover rate.
  - d. The reservoir will require a UV system
  - e. Drainage is by gravity with no direct suction at the spray feature drains.

## Deck Design



- The pool deck design is being coordinated with the overall park design that is currently being designed.
- The new pool deck will be set level with the bathhouse floor to avoid ramps into the building
- Pool deck will be cast-in-place concrete
- The south side of the pool contains a flight of steps and two ramps.
- The lawn/field to the south side of the pool will be used as a staging area for large swim meets
- The proposed design provides an formal entrances to the pool decks for swim teams
- The two ramps are designed to allow spectators to line the ramp and view the pool
- The south end of the deck along the length of the pool is 14 feet to allow ample space for circulation, officials, and coaches
- The deck at starting end of the south section is 20 feet wide
- The zero depth area is located at the northeast corner of the pool.
- This location is closets to the majority of seating
- Cantilevered fabric shades structures are located on the north and east sides of the deck. The cantilevered design allow chairs and chaise lounges to moved and stacked to provide free desk space during large events.
- Permanent fixed benches are located at the back of the shade structures to ensure seating will always be available.
- Rinse stations will be located on the deck at each end of the pool to provide patrons to rinse-off before reentering the pool are after leaving the pool.
- At the south end of the bathhouse, a new deck level platform is proposed. This platform will be enclosed in a fence and covered to provide deck storage.
- At the north end of the bathhouse, a new deck level platform is proposed to provide a separate seating/eating area. Umbrella covered tables and chairs will be located on this platform.
- The deck is enclosed with a 6 ft. high vinyl coated chain link fence. Chain link is required by MA statute; decorative fencing is not allowed.

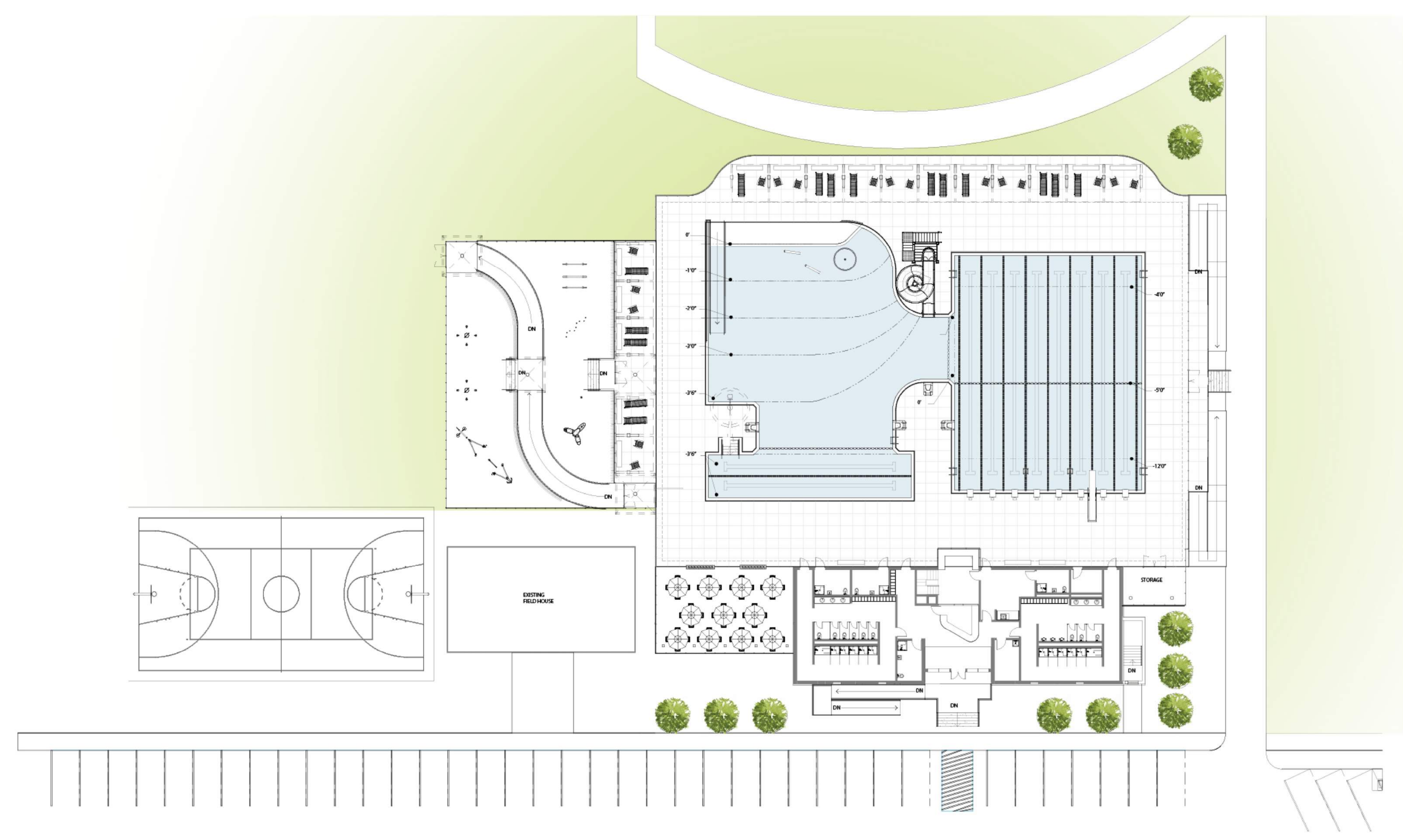


Bathhouse



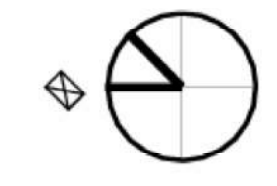
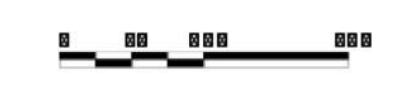
Entry/Albemarle Road

- The interior of the bathhouse will be reorganized to utilize the large open changing areas that were part of the original 1965 design
- Day use lockers are provided in each changing room
- Shower stalls have a dry and wet section
- Benches and hooks will be provided along the walls to accommodate additional changes
- Three gender neutral toilet/shower changing rooms are proposed. One located directly off of the lobby; two located with direct access to the pool deck.
- All patrons will enter the bathhouse/pool complex through the main lobby
- Direct pool access is available to the left of the control desk.
- The manager's office has been pushed towards the pool to allow full view of the pool deck from the managers work area.
- Separate staff area and toilet/shower are provided
- First aid space is provided in the staff area. A hospital curtain will be used for treatment of an injured bather. Space is sized for a foldout cot and include cabinets, counter and sink for storage of medical supplies
- Lobby day-use storage lockers will be located off the lobby.
- The control and managers space is glazed to provide visual connection between the lobby and pool
- The existing stair to the filter level remains
- A new open areaway with stairs to the filter room will be located at the former driveway. The areaway will provide direct access to the filter room for maintenance and deliveries.
- The walls of the areaway will be 3'-6" high cast-in place concrete walls. The area will have a gate and be fitted with a flood barrier to protect the areaway from Cheesecake Brook flood waters.
- Skylight (light-tubes) are proposed for the locker rooms and lobby to take advantage of natural light.

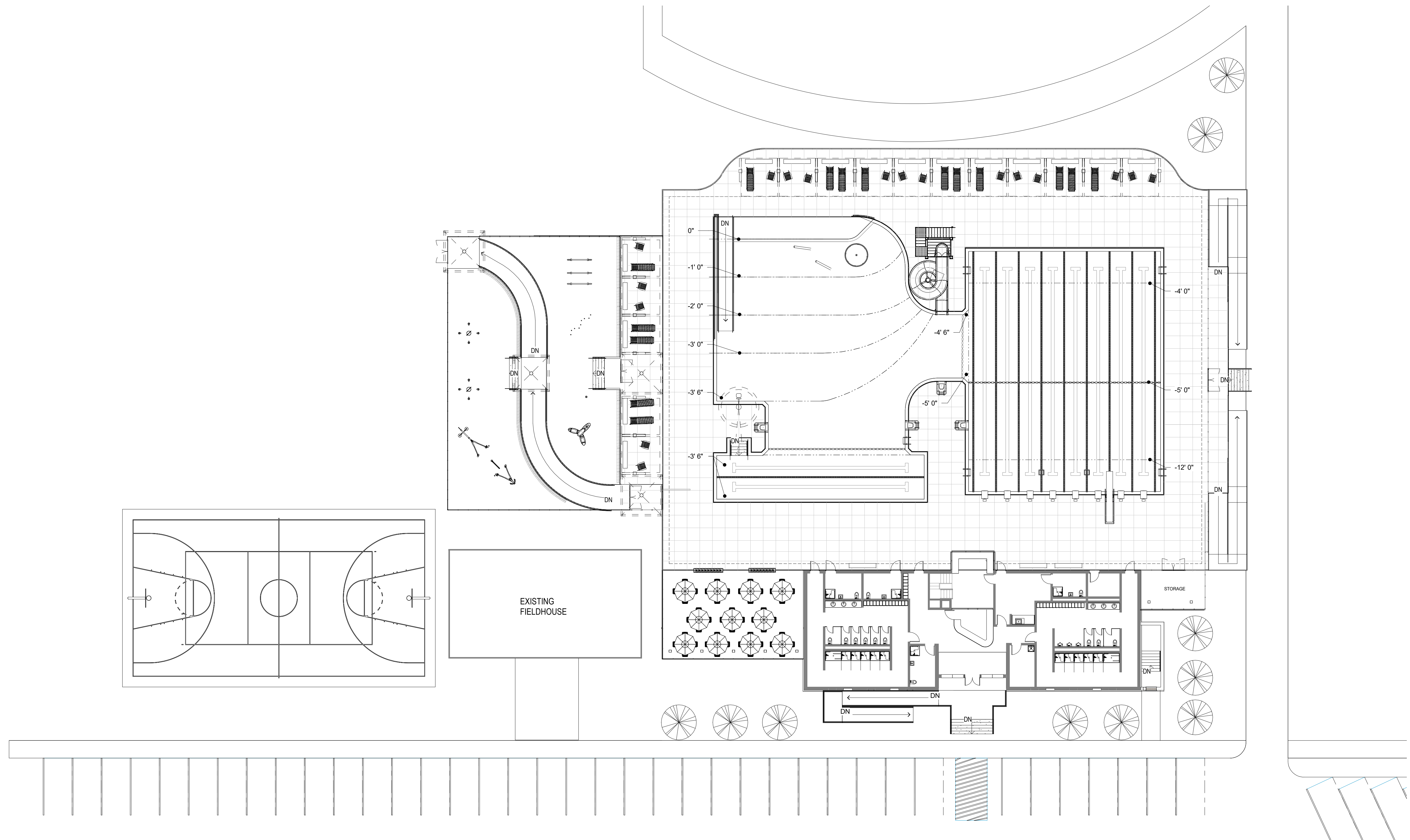


OVERALL PLAN

1/16"=1'

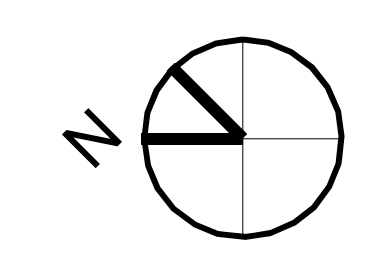
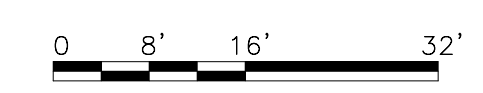


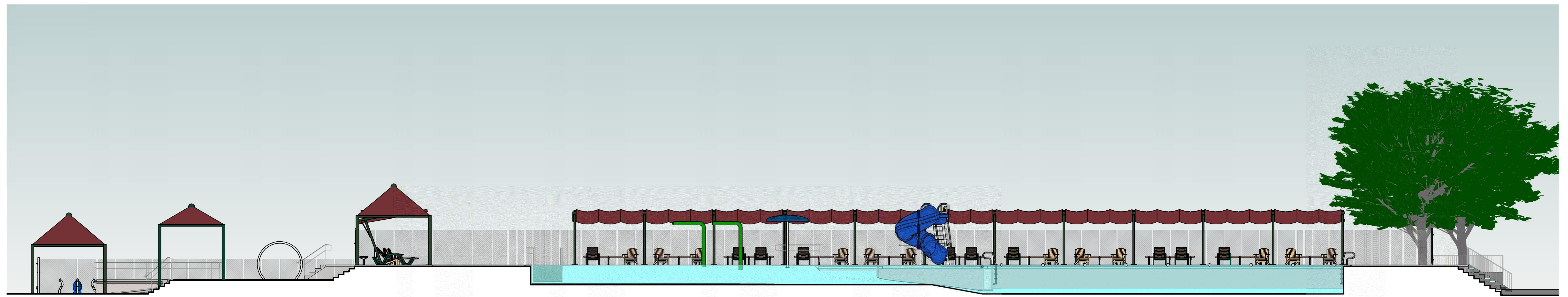
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OVERALL PLAN

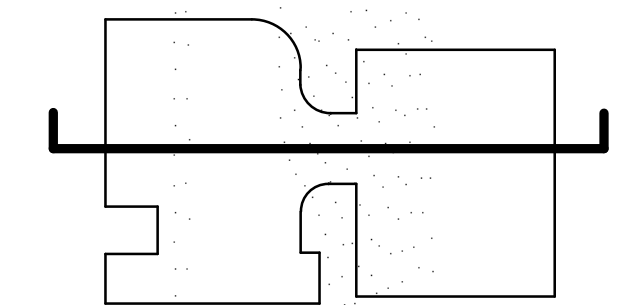
1/16" = 1'



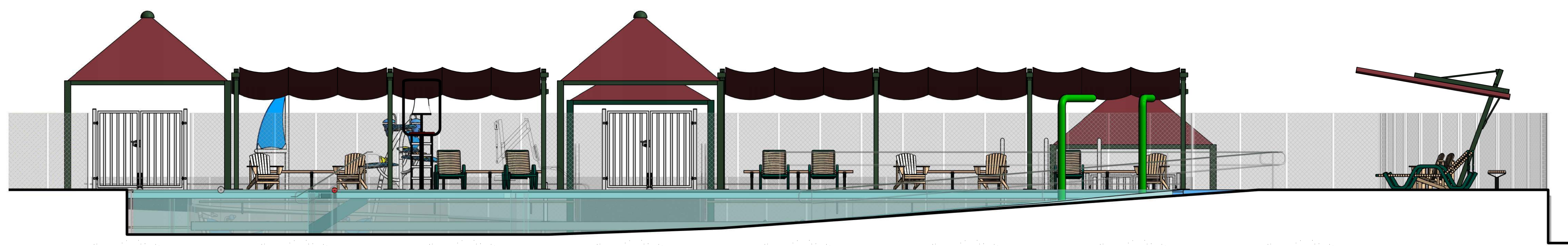


OVERALL SITE SECTION

1/8" = 1'

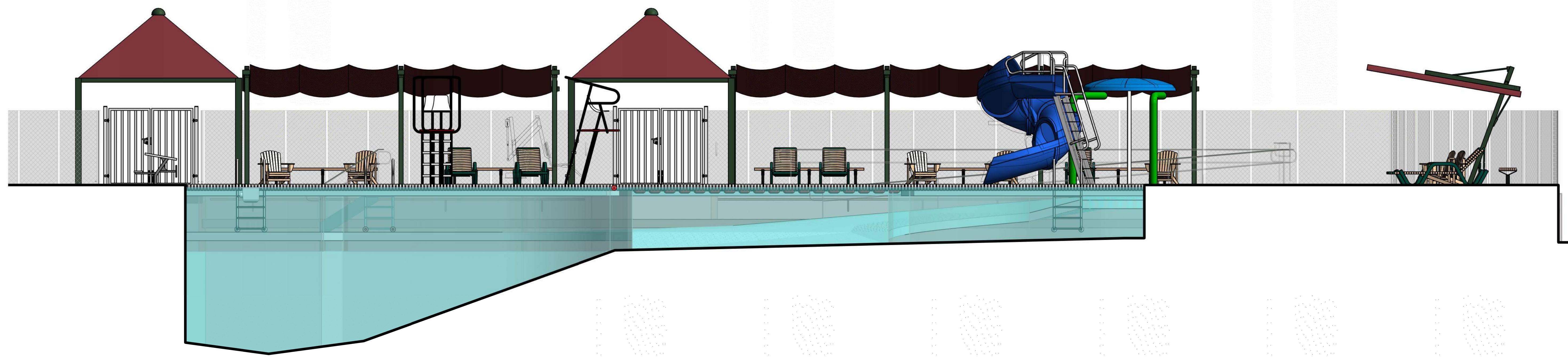
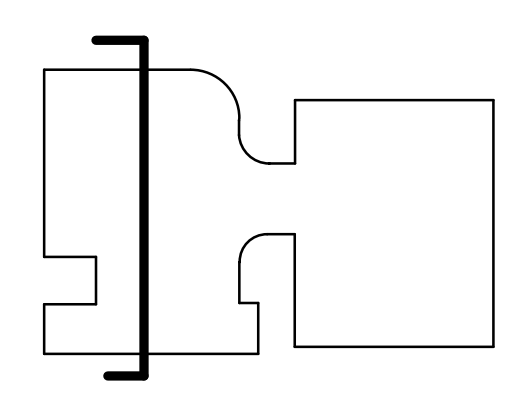


0 4' 8' 16'



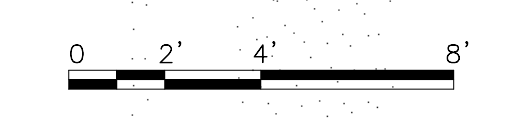
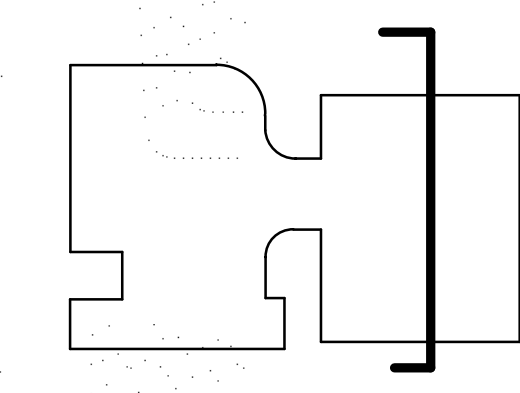
ENLARGED SECTION - SHALLOW POOL

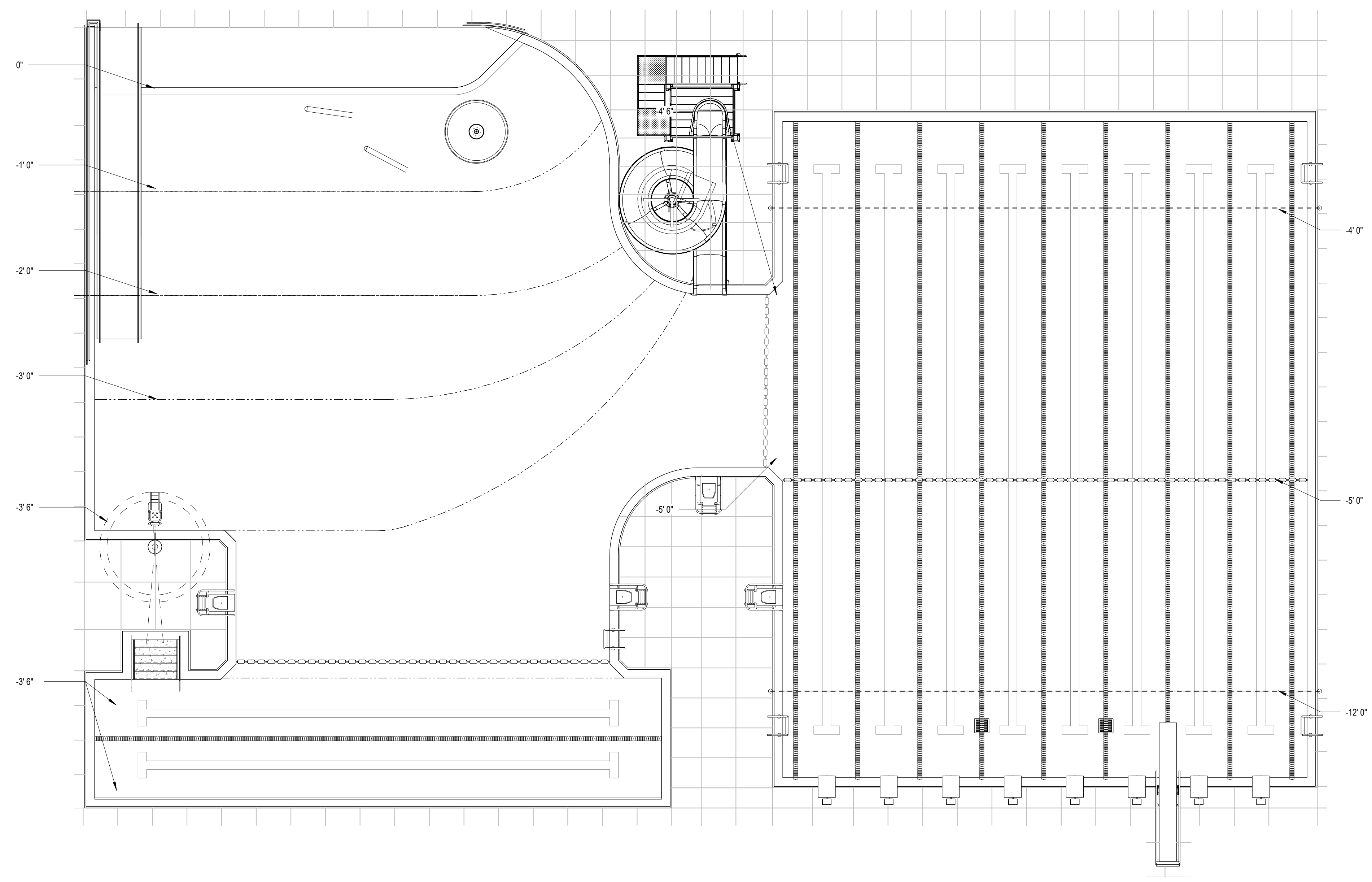
1/4" = 1'



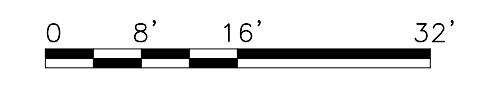
ENLARGED SECTION - COMPETITOR POOL

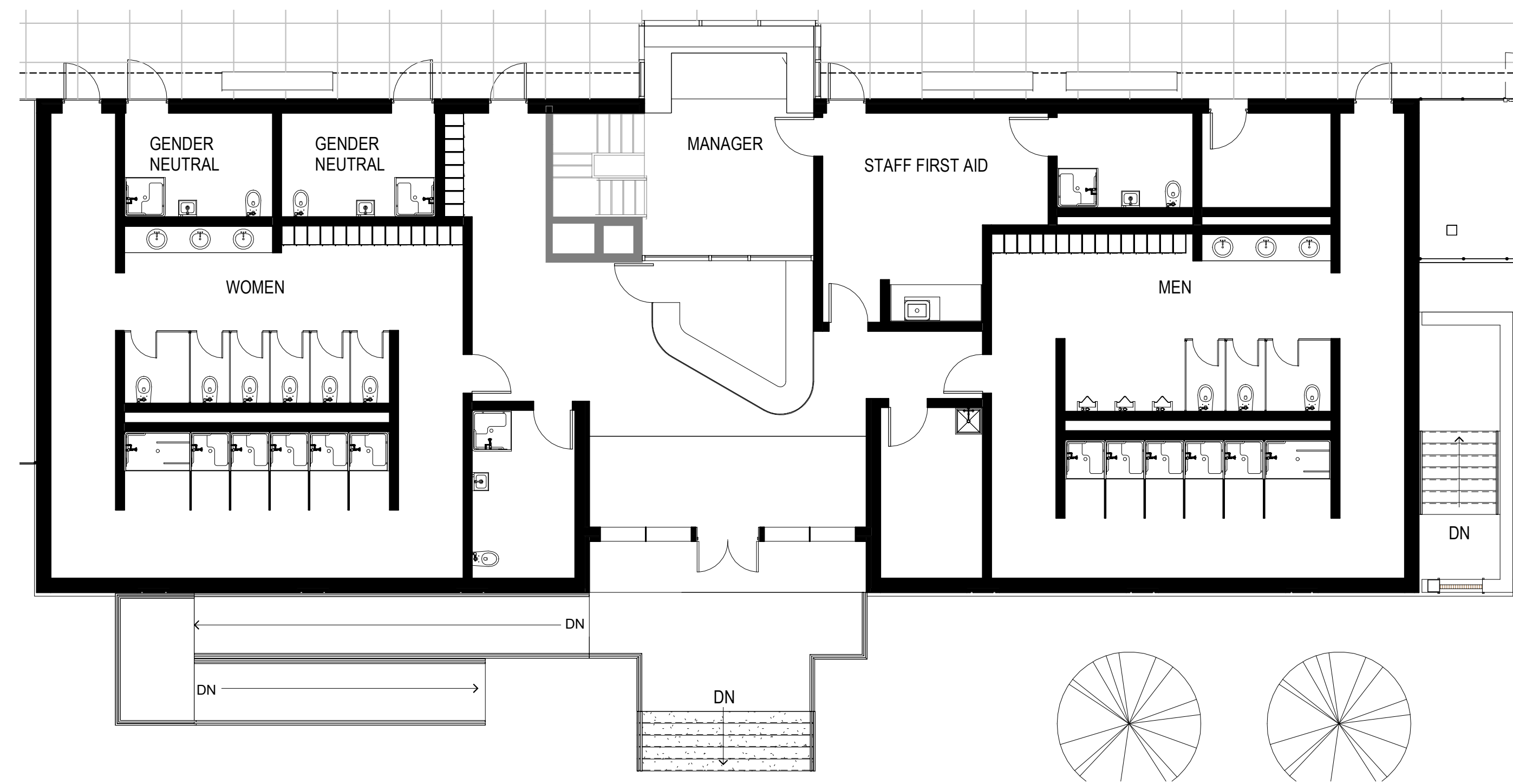
1/4" = 1'





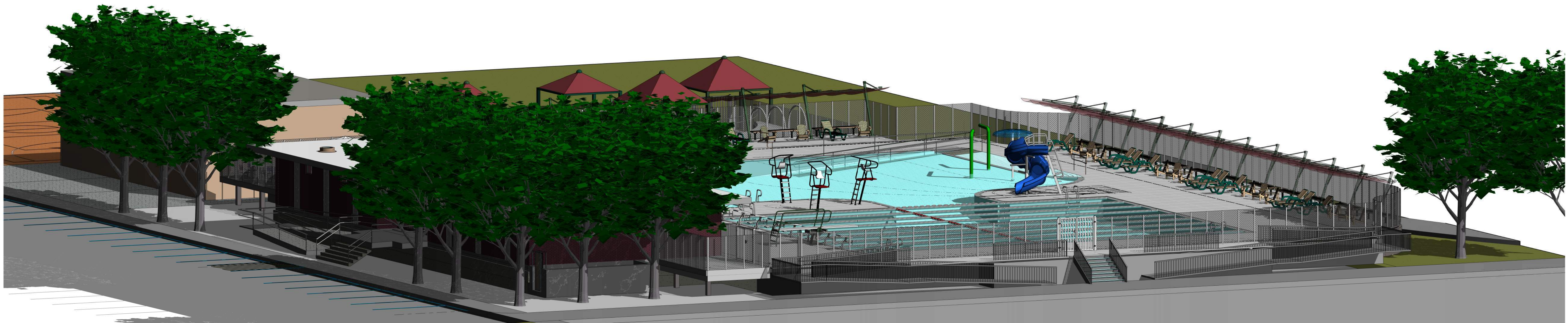
ENLARGED POOL PLAN





ENLARGE PLAN - BATHHOUSE GROUND LEVEL

1/8" = 1'



3D VIEW - SOUTH WEST VIEW

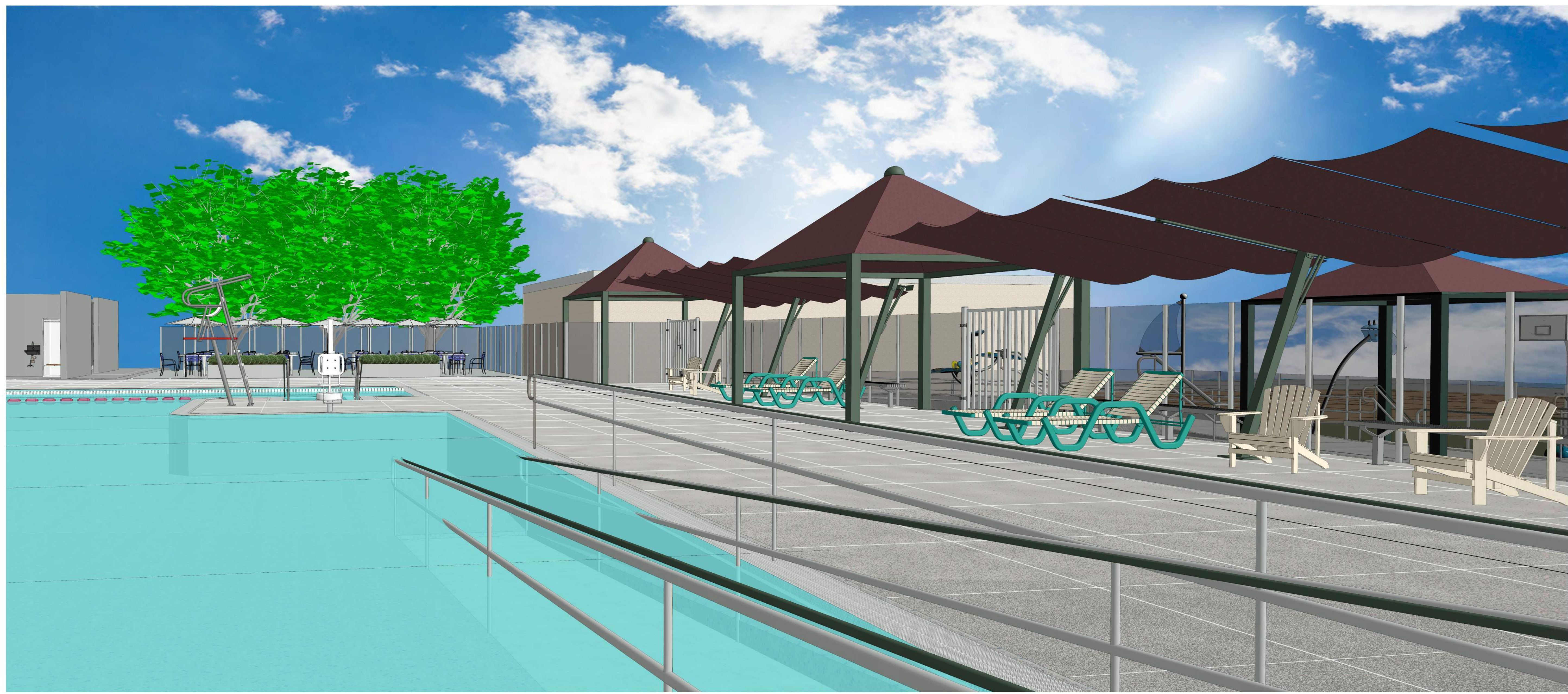
1/8" = 1'



3D VIEW - NORTH EAST VIEW

1/8" = 1'









## Schematic Design Narrative- Basis of Design

### GENERAL CONDITIONS

**Schedule:** A pool project should be scheduled to have bidding in late winter or early spring. Administrative tasks, submittals, site survey and similar work can begin during the spring. Construction would start and take advantage of the summer months; the contractor can complete the majority of the work before the weather turns. The contract would require the contractor to open the pool in the spring including the first season start-up. The contract would also include the first season shut-down. The second season start up would be within the one-year correction/warranty period of the Construction Contract.

#### **Contracting:**

1. The inclusion of the bathhouse, decks, and shade structures requires bidding under M.G.L c149. The project will be bid as a single contract to a General Bidder.
2. The swimming pool work is a specialty item specified in Division 13. The pool structure, finish, piping and filtration equipment is specified to encourage/require a single pool subcontract, giving the City a single source of responsibility for the pool.
3. Fresh water make-up, sanitary drainage, power and data connections for the pool are provided by plumbing and electrical sub-trades.

### EXISTING CONDITIONS

#### **Erosion/Sedimentation Control/Construction Mitigation**

- The project is subject to approval by the Newton Conservation Commission. The existing building is located with the 100 ft. resource setback and the 250 ft. riverway setback from Cheesecake Brook
- An Order of Conditions will be issued and included in the Contract Documents dictating procedures and measures required to protect the wetland resource during construction.

#### **Hazardous Material Survey**

A hazardous material survey will need to be performed in the next phase of the project to determine the presence of asbestos containing materials, lead paint, and electrical equipment containing hazardous materials.

#### **Removal/Demolition:**

##### ***Existing swimming pools and site;***

- Site Fencing
- Pool Decks
- Existing Pools (wading and main pool)
- Pool deck equipment, ladders, diving board, and slide
- Shade Structures
- Existing trees surrounding the site
- Front Entry Steps
- "Ramp" along west and south side of building.
- Driveway to pool deck
- Retaining wall surrounding wading pool
- Extent of site demolition related to the existing tennis courts and walkways to be coordinated with the overall Albemarle Park improvements.

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**Building Selective Demolition:**

- Filtration Equipment and Piping in basement
- Sanitary and domestic water piping in basement
- Old and abandoned equipment
- Plumbing fixtures, sanitary and domestic water piping
- Fans, ductwork, grilles, and controls
- Electrical distribution, panels, and outlets
- Data distribution
- Ceilings
- Partitions
- Changing stalls
- Doors and Frames
- Roofing
- Partitions and walls to provide new configuration
- Storefront at office (east elevation)

**Removal and salvage:**

- Turn over to City, existing plaque and other items identified by the City.
- It is assumed that the City will move all loose equipment that will be used elsewhere or reused in the renovated pool.

**BATHHOUSE AND DECK CONSTRUCTION APPROACH**

The finishes and equipment provided in the toilet, shower, and changing areas are selected for the following qualities:

- Function
- Compliance with Codes
- Accessibility
- Ease of maintenance
- Vandal-Resistance
- Durability and service life.
- Sustainability

**Concrete**

*Substructure:* Cast-in-place concrete foundations, footings, retaining walls, site ramps and stairs.

- Assume ordinary spread footings.
- Decorative form facing on walls facing the park.
- Air-entrained concrete, minimum 4,000 psi mix.

*Miscellaneous:* Cast-in place concrete housekeeping pads for pumps and other equipment in basement

*Concrete Repairs in Basement: Walls and Overhead Structure*

- Power wash all surfaces to remove loose concrete, insulated coating on ceiling, and environmental grime
- Prepare locations of concrete repairs
- Provide vertical and overhead concrete repair mortar including bonding agent.
- Provide reinforcing at deep concrete repairs

**Masonry:**

Selective Demolition and construction of new 6 and 8-inch concrete masonry units to construct new partitions. Normal weight CMU with reinforcing.

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Minor amount of clay brick masonry removal and reconstruction for new windows, doors, and louvers in exterior walls.

**Wood Framing:** Repairs to existing roof structure; supplemental framing for new skylights and fans.

Rough Carpentry: Pressure treated wood blocking at new roofing and wall openings.

**Finish Carpentry:**

- Miscellaneous repairs to existing exterior roof edge and trim.
- Plywood panel soffits
- Wood slat ceilings

**Millwork:**

Cabinetry: Plastic Laminate clad base and upper cabinets at staff area built in cabinets.  
Counters: Solid-surface counters at staff service areas and counter tops.  
Utility Shelving- Plastic Laminate clad plywood.

**Waterproofing**

Below grade waterproofing and protection board  
Fluid Applied waterproofing membrane where exterior surface of basement walls are exposed

**Roofing**

**Low Slope Roofing**

- a. Substrate Board
- b. TPO membrane Roof

*Substrate Board*

ASTM C1177/C1177M, glass-mat, water-resistant gypsum board or ASTM C1278/C1278M, fiber-reinforced gypsum board

*Roof Membrane*

ENERGY STAR Listing: Roofing system shall be listed on the DOE's ENERGY STAR "Roof Products Qualified Product List" for low-slope roof products. TPO Sheet: ASTM D6878/D6878M, internally fabric- or scrim-reinforced.

**Sheet Metal Flashing and Trim:**

*Wall Flashing:* Aluminum Sheet: Two-Coat Fluoropolymer: 0.032 inch thick

**Joint Sealants:**

*Low-Modulus Nonacid-Curing Silicone Sealant:* For general exterior joints of louvers, door frames, masonry, wood trim, and siding, and all other joints not included otherwise

*Mildew-Resistant Silicone Sealant:* Joint between all plumbing fixtures and counters and their adjacent substrate.

*Multi-component Urethane Sealant:* Horizontal joints in interior and exterior slabs on grade, concrete sidewalks, and pool decks.

*Specialized sealants for pool walls and slabs:* All sealants used for pool walls or slabs shall be designed for use within submerged water environments and highly chlorinated environments

- 
- Doors:** Fiberglass Doors and Frames: Fiberglass reinforced plastic doors and frames with gel-coat finish. This includes all exterior doors and interior doors in wet areas including the bathhouse, filter room, storage room and doors in pool support building.
1. Tiger Door, LLC
  2. Chem-Pruf Doors
- Door Hardware:** Stainless Steel, heavy duty. Cylinder locks on interior, mortise locks on exterior.
1. *Hinges:* Heavy weight, ball bearing, stainless steel 4 1/2" high; 2 pair for 8 ft. high doors.
  2. *Locksets:* ANSI A156.13, Grade 1 mortise locksets
  3. *Door closers:* Fully hydraulic, full rack and pinion action with a high strength cast iron cylinder.
  4. *Push Plates:* Push plates shall be 8" wide x 16" high
  5. *Door Pulls & Push Bars:* Pulls shall be 1" diameter solid bar stock, 10" center to center
  6. *Protective Plates:* Provide kick, mop, or armor plates with four beveled edges
  7. *Door Stops and Holders:* All wall mounted
  8. *Thresholds and Gasketing* at doors exposed to exterior; ADA compliant threshold.
- Windows:** *Fiberglass Windows:* Pultruded fiberglass complying with AAMA/WDMA/CSA 101/I.S.2/A440 and with exposed exterior fiberglass surfaces finished with manufacturer's standard enamel coating complying with AAMA 613.
1. Marvin All-Ultrex (basis of design)
  2. Fibertec Window and Door Manufacturing.
  3. Inline Fiberglass Ltd.
  4. Pella Corporation.
- Access Doors and Frames:**  
Provide access doors and frames at all locations required to access valves, cleanouts, pull boxes, switches, devices that require monitoring, service and adjustment. Metallic-Coated Steel Sheet for Door, Nominal 0.064 inch (1.63 mm), 16 gage, and factory primed
- Security Shutters:** Push-up, manual, aluminum storm/hurricane shutters at east storefront windows in managers office.
- Overhead Coiling Door:**  
Non- Insulated coiling service door. Door components and operators capable of operating for not less than 20,000. One operation cycle is complete when a door is opened from the closed position to the fully open position and returned to the closed position. Powder Coat finish in custom color. Provide electronic door operator.
- Louvers:** Fixed rain-resistant horizontal blade units including integral frame and insect screens. Aluminum Extrusions with two-coat fluoropolymer finish.
- Aluminum Framed Entrances and Storefront**  
Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads. Available Manufacturers Storefront:
1. Tublite Inc
  2. EFCO Corporation, a Pella Company
  3. Kaneer North America, an Alcoa Company
- Glass Type Exterior Insulated : Low-E-coated, clear insulating glass.**
- a. Basis-of-Design Product: Solar Ban 60 by Vitro Architectural Glass

**Skylights:** Solar Light Tubes. Curb Mounted dome skylight with rigid reflective tunnel with bottom diffuser plate. 14-inch diameter. Velux Sun Tunnels or equal.

**Ceiling:** Cellular PVC or Cedar wood slat ceiling.



PVC Ceiling

**Floor Finishes:** Hybrid aliphatic-epoxy urethane flooring in bathhouse and rooms within pool support building.

#### Painting and High-Performance Coatings

##### *Painted CMU:*

- a. Water Based Epoxy Semi-Gloss
- b. Sherwin Williams Pro Industrial Pre-Catalyzed Waterbased Epoxy Semi-Gloss, K46 Series. 2 coats over ProMar 200 Zero VOC Latex Primer

*Interior Painted Wood:* Semi-gloss, waterborne, exterior, acrylic enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.4 mils (0.061 mm).

*Interior Painted Walls:* primer and two coats of paint (level 4 GWB finish)

*Ferrous Metal:* Semi-gloss, acrylic-latex, interior enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 1.3 mils (0.033 mm).

*Zinc-Coated Metal:* Semi-gloss, exterior, acrylic-latex enamel applied at spreading rate recommended by the manufacturer to achieve a total dry film thickness of not less than 2.6 mils (0.066 mm).

**Signage:** Panel signs- One sign for each room and space. Cast-Acrylic Sheet. Complying with ADA Accessibility Guidelines and ICC/ANSI A117.1. Text shall be accompanied by Grade 2 braille.

#### Plastic Toilet Compartments

Polymer compartments with continuous wall cleat, floor mounted overhead braced Santana/Comtec/Capitol



### Plastic Shower Compartments

Shower Compartments: Solid-polymer compartments configured as shower and drying stalls including overhead bracing with integral shower curtain rods. Santana/Comtec/Capitol



Shower Stalls Dry and Wet Sections

### Plastic Lockers

Basis-of-Design Manufacturer: Subject to compliance with requirements, provide products of Bradley Corporation, Menomonee Falls, WI 53051, (800)272-3539, fax (262)251-5817; Email [info@BradleyCorp.com](mailto:info@BradleyCorp.com); Website [www.bradleycorp.com](http://www.bradleycorp.com).

- High Density Polyethylene (HDPE): 30 percent pre-consumer recycled content polyethylene thermoplastic formed under high pressure into solid plastic components.
- Stainless-Steel Sheet: ASTM A 666, Type 304.



Public Use Lockers

### Toilet Accessories:

Stainless steel, heavy duty, vandal resistant accessories. High security type accessories are used when they provide the appropriate level of function and finish.

1. *Toilet and Shower Fixed Grab Bars*: Stainless steel, 1 ½ inch diameter, peened grab sections
2. *Toilet Paper Dispenser*: Stainless steel multi-standard roll
3. *Sanitary Napkin Disposal*: Stainless steel, self-closing, removable receptacle.
4. *Robe Hook*: Stainless Steel, 2 prongs.
5. *Soap Dish*: Extra heavy One-Piece Brass Casting with bright polished chrome plated finish.
6. *Paper Towel Dispenser*: Stainless steel multi-fold
7. *Liquid Soap Dispenser*: Vertical tank liquid soap dispensers with hinged filler-top and unbreakable refill window.
8. *Shower Seat*: Stainless steel fold-down unit with padded seat

9. *Shower Assembly:* Stainless steel curtain rings, 72-inch-high by 70-inch-wide opaque white vinyl shower curtain
10. *Diaper-Changing Station:* Diaper-changing station with surface-mounted, mildew-resistant, molded polyethylene body that folds horizontally against wall when not in use
11. *Mop and Broom Holder:* 36-inch-long unit stainless steel with shelf; three hooks for wiping rags; four spring-loaded, rubber hat, cam-type, mop/broom holders and rod suspended beneath shelf for drying rags.

#### Adult Changing Equipment

1. Max-Ability Pressalit Care 3000 Adult Changing Station
2. Description: Heavy duty aluminum frame with pneumatic counterbalance. Powder lacquered stainless steel mounting brackets and anchors.
3. Length: 69 inches minimum to 75 ¼ inches (Confirm Size Before Ordering)
4. Width: 30 inches minimum
5. Weight Capacity: 400 lbs.
6. Fixed height fold away design
7. Safety Rail: stores and locks under table; aluminum and foam construction; for fold up models provide safety strap



Adult Changing Station

#### Fire Protection Specialties:

UL Rating: 4A-60B: C Fire extinguishers; bracket mounted or semi-recessed non-rated cabinets.

#### SWIMMING POOL SPECIFICATIONS FOR PROPOSED WORK

##### Pool Tank

1. Dry or wet mix shotcrete pool tank including finish and markings.
2. Reinforced pneumatically applied concrete pool structures:
  - a. Final hand trimming of excavation.
  - b. Formwork to supplement existing pool structure
  - c. Reinforcing steel.
  - d. Design and provide pools structure.
  - e. Pool finish
  - f. Installation of anchorage for deck equipment within the pool tank.

##### Pool Finish- Plaster

The pool finish shall consist of two coats of plaster finish. The two coats of pool plaster shall together equal three-eighths (3/8) to one-half (1/2) inch thickness and shall be applied by hand troweling method to a smooth, dense, impervious surface

At ramps, stairs, and zero depth areas and areas indicated, provide a quartz aggregate pool finish equal to Diamond Brite™ manufactured by Southern Grouts & Mortars, Inc. Pompano Beach FL 800-641-9247. Architect to select from full range of options including multi-color aggregate and pigmented plaster.



Aggregate Pool Plaster



White Plaster with Tile Wall Targets and Racing Lines

All racing lines, gutter areas, wall targets, stair nosing, and safety markings shall be ceramic tile.

Tile size and color shall be based on the following American Olean products:

- Gutter tile: Glazed ceramic mosaic tile; 1x1 inch; provide bullnose units at edges.
- Stair treads and other markers: Unglazed porcelain Ceramic Mosaics; 2 x 2 inch with abrasive finish.
- Plaster control joint tile: Unglazed porcelain Ceramic Mosaics; 2 x 2 inch.
- Tile Colors: Colors to be selected by Engineer from "A" price Group (American Olean) or premium price group (3) (Daltile).

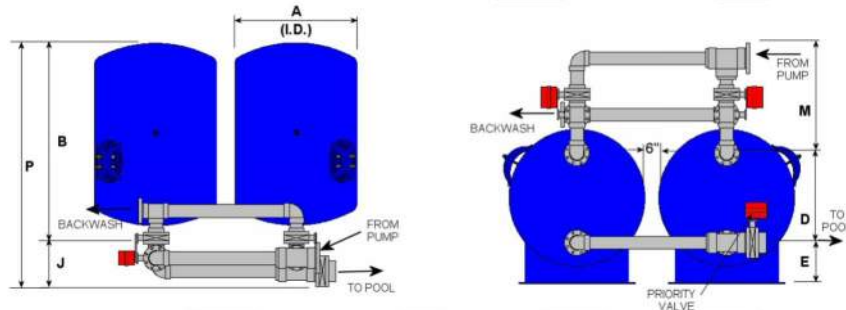
All in pool and deck level markings shall be equal to specialty tiles provided by Tiles with Marking at Graphics: Provide tiles manufactured by Tile Specialties, Spring Hill, Florida 904-686-8670 or approved equal. [www.tilespecialties.com](http://www.tilespecialties.com)



#### Filtration Option1

1. Complete high rate sand filtration and recirculation systems including, stainless steel perimeter gutter, zero depth trench drain, balance pit, all piping and automatic chemical controls. Complete chemical treatment system that includes, but is not limited to, the following:
  - Automated backwashing control.
  - Strainer baskets
  - Recirculation pumps for pools
  - Flow meters
  - Gages
  - Filters

- Valves
  - Sight glasses
  - All interconnecting piping for equipment within the filtration room
  - Backwash holding tanks
  - Control Panels
  - Sensors and Probes
2. Automatic water level controls and water fill devices.
  3. Operation/Maintenance Manuals of all equipment and systems. Manuals shall include proper shutdown procedures.
  4. Framed and mounted diagram of filter system operation and backwash procedures. Furnish and install numbered, equipment plates, valve tags and pipe labels to correspond to instructions.
  5. Startup Service and instruction to the Owner's operating personnel shall be given upon completion of the Project.
  6. Shelving and mounting boards required for pool equipment and accessories.
  7. Final plumbing connection of fresh water line to pool make-up equipment.



Typical configuration of dual tanks

Acceptable Filtration Equipment Manufacturers are:

1. Evoqua, Neptune Benson, Inc. West Warwick, RI
2. EPD Filter Equipment
3. Paddock Pool Equipment
4. Aquatic Development Group- Whitten Pool Equipment, ADG

## Filtration Option 2

Over the past 15 years, regenerative media filters have seen resurgence in use. Multiple manufacturers now make new regenerative filters making them more competitive and easily bid as part of a public construction contract.

Regenerative filters are capable of filtering out materials as small as the 1 to 5-micron size range. Filtering water to this level results in extremely clean and clear water. The more material a filter removes from swimming pool water, the less material there is in the water that must be disinfected or oxidized by chemicals in the water, such as chlorine. The end result is cleaner water with lower amounts of chlorine needed to maintain proper free available chlorine levels of 1 to 3 ppm. This should result in lower chemical costs. Another benefit of filtering such small particles is the removal of parasites such as cryptosporidium (crypto). In a swimming pool, fecal accidents may introduce this highly contagious parasite into the pool.

Water consumption is another significant benefit of regenerative media filtration over traditional sand filters. The only water loss associated with the regenerative media filter is the volume of the filter tank

itself. When it is time to replace the perlite material in the tank, after several regenerative cycles, the volume of an entire tank is wasted twice to ensure removal of all dirty perlite.



Acceptable Filtration Equipment Manufacturers are:

1. Evoqua, Neptune Benson, Inc. West Warwick, RI
2. Paddock Pool Equipment

#### Filter VFD

Variable Frequency Drive (VFD) shall be provided with each filter and feature pumps (one per filter pump and feature) for control of the filter and feature pump motor. The VFD shall include a dial potentiometer to set ramp up/down speed of the pump motor. The VFD shall be wired into the RMF controller for on/off and run confirm functions.

The VFD shall be equipped with a bypass. SED2 bypass options shall send the motor to bypass mode based on an easily accessible door-mounted selector or based on the drive's programmable relay. A bypass pilot light shall provide indication of the bypass mode. The bypass mode shall provide overload protection. Contactors shall be electrically and mechanically interlocked. An essential services mode shall send the motor to bypass regardless of the selected mode.

#### Automatic Chemical Controller

The controller shall automatically activate the appropriate chemical feeders in order to maintain the sanitizer level within  $\pm 0.1$  parts per million (PPM) or  $\pm 10$  mV (millivolts) of Oxidation Reduction Potential (ORP) and the pH within  $\pm 0.1$  pH unit of the set points selected by the operator. All set point and calibration levels shall be adjustable with a numeric keypad mounted on the front panel of the unit. The unit can be tied to a building management software. In the event of a trouble single from the pool, notifications can be sent via email or text to City staff. Provide one for the swimming pool and one for the spray deck reservoir. Available manufacturers include

1. Blu-Sentinel Controller, Evoqua Water Technologies
2. DCM 500- ProMINENT FLUID CONTROLS Pittsburgh PA 412-788-7900
3. CAT Controller by Hayward



### Chlorinator

**Erosion Tablet Feeder:** The system shall be designed to feed low concentrations of calcium hypochlorite in solution intermittently or continuously as required. The system shall be a single pre-assembled, package unit with a welded aluminum frame consisting of chlorinator, electrical box, centrifugal pump, and balance tank for ease of installation and operation. The basis of the specification for this product is the Accu-tab PowerBase 3140 AT. Unit shall be NSF certified for up to 22 lbs./hour of chlorine. Unit shall have 140 lbs. of on-board storage. Chlorine is delivered in 5 gallon plastic pails.



**pH Correction:** Since the 1990's, pools have been using CO<sub>2</sub> to balance the pH levels in swimming pools. The CO<sub>2</sub> systems eliminated handling of liquid muriatic acid.

pH controllers are attached to CO<sub>2</sub>'s cylinders and the Automatic Chemical Controller. When pH readings require adjustment, the valve on the CO<sub>2</sub> unit opens and delivers CO<sub>2</sub> until the pH reading is corrected. CO<sub>2</sub> in the building requires additional ventilation. The cylinders are heavy and awkward to move and into position for pool operators.

Recently, dry muriatic acid feeders have come into the market. The units operate in the same manner as the chlorinator unit. Acid tablets are delivered and stored in 5 gallon pails. The tablets are red to distinguish them from white chlorine tablets.



### Ultraviolet System

The spray deck reservoir will require ultraviolet disinfection, in addition to filtration and chlorination, to meet current and proposed Massachusetts Department of Public Health requirements.

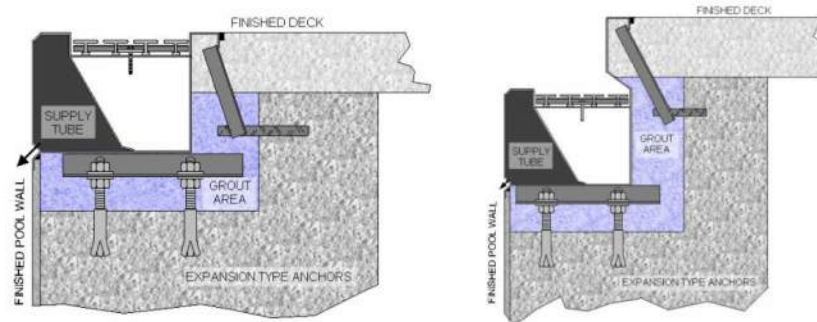
UV should be considered for the main pool. If not included in the final documents for construction, the pool piping should be arranged to allow installation in the future.

UV systems consist of a UV chamber located after the filter before chemical treatment. Water is exposed to a medium pressure UV lamp that will disinfect and remove organic and inorganic contaminants. Equipment must be commercial grade, tested and validated.



### Pool Gutter Options

Gath Swimming Pool  
Schematic Design Report  
May 12, 2022



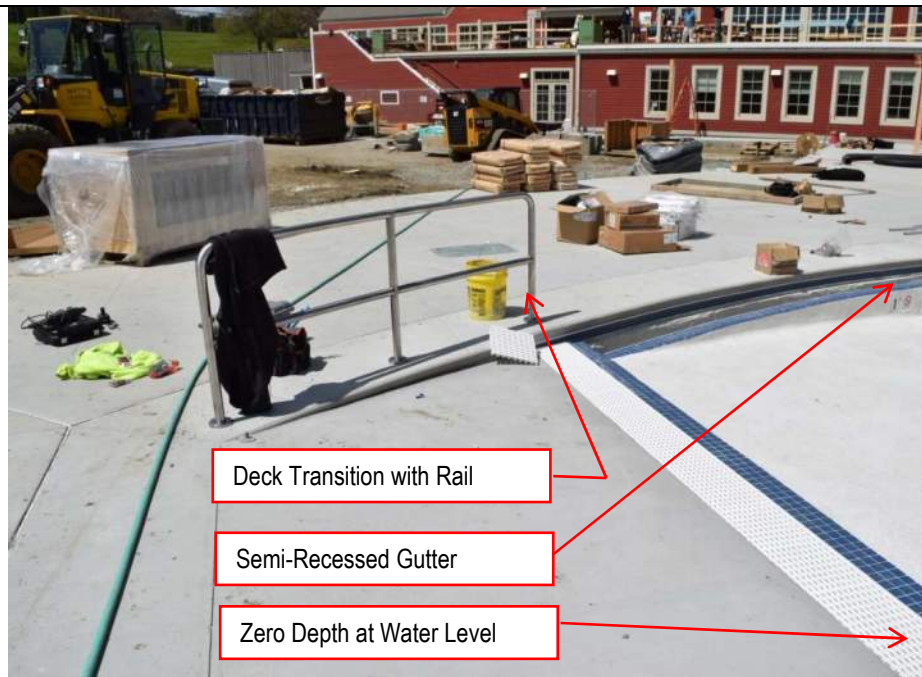
### Deck Level Semi- Recessed Gutter

The semi-recessed gutter would be typical around the pool. This gutter provides a visible vertical edge to the pool which is important to lap swimmers and is the location for in pool depth markers. The gutter would transition at the zero-depth area to deck level gutter. Transitions would be protected by a guard rail as shown below.



### Zero Depth Entry Examples





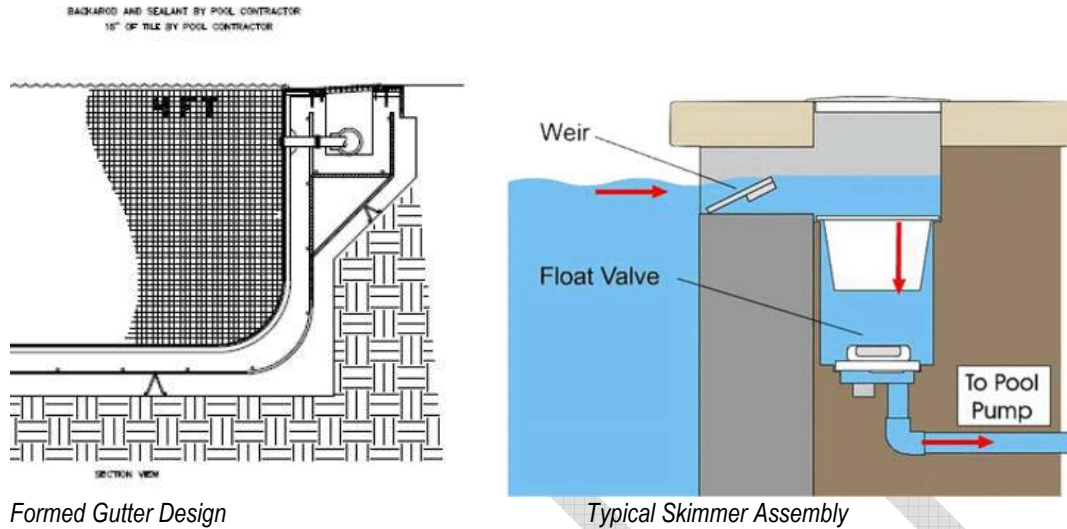
*Zero Depth Entry with Deck Transition from Semi-Recessed to Deck Level Gutter*

### Gutter Options

Options for formed in place gutters as well as traditional skimmer options should be considered during preparation of construction documents in the future. Pool subcontractors may be able to field construct perimeter gutters in combination with standard skimming units to provide a code compliant, more cost-effective approach to surface skimming. Skimmers would be only acceptable in a separate wading pool.



*Formed Pool Gutter at the Quechee Club Outdoor Pool*



### Pool Deck Equipment

Acceptable Manufacturers of Deck and Safety Equipment:

1. Paragon Aquatics, 341 Route 55, LaGrangeville, NY 12540-5105; ASD. Tel: (914) 452-5500, Fax: (914) 452-5426, Website: <http://www.paragonaquatics.com>
2. S.R. Smith Inc., 105 Challenger Dr. Portland, Tennessee 37148, Tel: (615) 325-0770, Fax (615) 325-0775, Website: <http://www.srsmith.com>.
3. Spectrum Pool Products, 7100 Spectrum Lane, Missoula, MT 59808, Tel: (406) 543-5309, Fax (406) 728-7143, Website: <http://www.spectrumproducts.com>.

### Pool Deck Equipment Includes:

1. **Custom Fabricated Ramp Handrails and Guard:** Provide Custom fabrication, including anchorage, for the HCP Access Ramp Handrails as indicated. Provide Type 304 polished to Assist Rails: Provide custom fabrication. KDI Paragon 1.5 inch by 0.120-inch wall thickness rails. Anchorage shall be cast bronze No. 28102 with escutcheon plate No.28302.
2. **Ladders** shall be heavy duty and cross-braced. Provide number of steps as indicated and to accommodate depth at locations shown. Stainless steel pipe shall have a 0.109-inch wall thickness. Ladder Width shall be 24 inches.
3. **High Platform Lifeguard Chairs:** 6-foot-high Paraflyte Lookout Chair by KDI Paragon, Chairs shall include devices for holding a life ring and umbrella. Refer to drawings for quantity and location. Contractor must confirm final location and quantity with the Owner prior to fabrication and installation.



4. Pool Lift: Basis of Design SR Smith "Splash" Accessible Lift. Deck mounted, 344 degree rotation, 400 lift capacity, full compliant with MAAB and ADAAG 2010.



5. Diving Tower: Basis of Design is Duraflex One-meter diving stand with 16 ft. board.



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### Water Features for Pool

General: The water features are based on products by the Rain Drop Fountain manufactured by Sonar International, 2001 S Street N.W., Suite 250, Washington DC 20009, telephone 800/343-6063.

At the zero depth entry, we recommend low impact, surface sprays that are popular with younger bathers, limit spray, and keep the zero depth area active. Water feature work in the proposed design includes the following Options: **Pop jets, Basket weave and Slant Fins**:



Pop Jets



Basket weave



Slant Fins

Located away from the ramp, in a depth of approximately 12 inches of water, we recommend more active larger volume features such as the traditional mushroom, tumble buckets, and water bars.



Tumble Buckets in use



Rain Drop



Spray Tubes

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### Slides

Slides are available for the project; space availability and budget are the design parameters for selection. The current design is utilizing a slide manufactured by Natural Structures. Photo below is a similar slide at the Underwood Pool in Belmont, MA.



### Maintenance and Safety Equipment

Loose Deck, maintenance, and safety equipment will be required to license and operate the pool. These items are typically not carried in the base construction contract. Equipment is typically obtained under goods and services procurement methods.

### Operation/Maintenance Manuals

O&M of all equipment and systems will be required. Documents in electronic and paper format. Manuals shall include proper start-up and shutdown procedures.

### Operating Diagram

**Operations of the pool will be in clear diagram form included in the closeout documents and mounted permanently in the filer room. Diagram is cross references to equipment, valve numbers, and piping.** Furnish and equipment plates, valve tags and pipe labels to correspond to instructions.

### Maintenance and Service:

Startup and Shut down Service and instruction to the Owner's operating personnel shall be given upon completion of the Project. All training will be videotaped

Assuming a spring pool opening, the first season pool opening, and first season shut-down are included as part of the base contract. Opening the pool for a second season will occur within the one-year correction period.

We recommend that the City include two additional years of preventive maintenance, service calls, pool opening and pool closing in the base contract to ensure the pool subcontractor maintains the pool for a period of three years. After three years, the service contract would be bid and opened to other qualified pool subcontractors/service companies.

## PLUMBING

**Lavatories:** Wall mounted units in single use rooms, undermount units with solid surface counters in multiple lavatory arrangements. Time metered or sensor faucet. Fixtures. Code compliant, low gallons per flush toilets and urinals.

### Toilet/Urinal Flush-o-meters

Recessed sensor operated units. Hardwired installation. Exposed sensor flush-o-meters would be required for battery operation.

**Shower Fittings** Symmons Hyd-a-pipe System. Thru-ceiling supply, non-adjustable institutional head; push button control.



### Exterior Shower (Rinse Station) Drain to storm:

location to be determined, assume two at either end of the pool complex  
"Most Dependable Fountain" unit, Model TW 500SM or 565 SM with cold water only



## HVAC

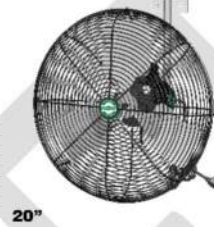
**General:** The work under this section shall include all labor, materials, accessories, services, and equipment necessary to furnish and install:

1. All fans.
2. All ductwork.
3. All duct fittings.
4. All ductwork accessories.

- 
5. All air inlet and outlet equipment.
  6. Testing, Adjusting and Balancing

**Ductwork:** All ductwork shall be fabricated of G-60 coated galvanized steel of lock forming grade and conforming to ASTM standards A-525 and A-527, unless otherwise noted, and shall be constructed in accordance with the latest SMACNA standards.

**Ceiling fans:** We strongly suggest ceiling fans in the staff spaces and locker rooms. The additional air movement significantly improves the conditions of the rooms during the summer. Fans can be ceiling or wall mounted. We use industrial/agricultural grade, caged fans.



#### Sequence of Operations for Exhaust fans

1. Control Building Exhaust Fans shall be energized when the lights in the spaces they serve are switched on or by timer. Fans should run for an hour after the pool closers to ensure air is moving and spaces are drying out.
2. Filter Area Exhaust Fan shall be energized when:
  - a. When the carbon dioxide detector senses CO<sub>2</sub> levels in excess of 1000 parts per million (If CO<sub>2</sub> is provided for pool pH.
  - b. When the manual switch is put in the "ON" position.
  - c. Ceiling fans will be set by remote switch and timer controlled by Staff.

#### ELECTRICAL:

**Service:** With the addition of pumps, program, and the spray deck, we assume a new electrical service will be required. Existing service size may be adequate, service equipment needs to be replaced

**Complete grounding system** as required by Article 250 of the National Electrical Code.

**Distribution:** All new conduit, panels, conductors and devices required for new bath house configuration and equipment. Use non-metallic elements were allowed by code. Panels are NEMA 4 or 4X rated.

#### Light Fixtures:

Vapor-tight, vandal-resistant LED light fixtures. Wall or ceiling mounted to suit location and application.

LED Downlighting at entry and managers offices.

Lighting at doors will be cut-off, night-sky rated LED wall sconces.



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Housekeeping and low level, security lighting to monitor the pool during the season will be reviewed during the next phase of design.

### **Pool Bonding**

Furnish all labor, materials, and equipment necessary to complete all work as shown on drawings and specified. This work is to include but not limited to the following: furnish and install common pool bonding grid, wire and bonding to swimming pool and all pool equipment.

### **SITE WORK**

#### **Order of Conditions**

Work requirements for erosion control, tree protection, and notifications stipulated by the Conservation Commission.

**Site Preparation:** Strip and stockpile loam from sloped area around existing pool deck.

#### **Construction Dewatering:**

The Contractor shall be responsible for providing all site dewatering and groundwater control without limitation necessary for constructing the project. The Contractor shall employ methods such as, but not limited to pumping from sumps, well points and gravel packed wells. Dewatering must comply with potential site and land use restrictions established by the Conservation Commission.

**Backfill:** Backfill site to achieve new rough grade elevation using free-draining gravel; and Ordinary borrow shall not be used in area of existing pool or as backfill

Under lawn areas, ordinary borrow may be used meeting the following requirements:

**Pool Sub-base:** Dense graded crushed stone shall consist of angular material derived from a stone quarry that is hard, durable and free of deleterious materials. Material shall be free from clay, loam or other plastic material. Extend pool sub-base beyond the pool footprint to create drainable subgrade.

Reclaimed crushed and prepared concrete from existing pool and decks may be used as part of the sub-base.

**Geotextile:** Below the pool sub-base, place Mirafi FW700 woven geo-textile or approved equal.

#### **Sub-Base for Decking:**

Provide minimum 8 inches of processed gravel consisting of inert natural non-recycled material that is hard, durable stone, gravel and coarse sand, free from loam and clay, surface coatings, and deleterious materials

**Insulation:** High density rigid insulation (60PSI) beneath portions of the deck and zero depth areas of pool to prevent frost penetration beneath structure and decking.

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## EXTERIOR IMPROVEMENTS

### Portland Cement Concrete Paving at Sidewalks and Pool Deck:

4,000 PSI, air entrained concrete; with lamp black added at 2 lbs. per cubic yard. Plain steel welded wire fabric reinforcing; sleeved expansion dowels at deck expansion joints. 12-inch thick downturns all perimeters.

- Dowelled construction joints every 25 to 30 feet way
- Sawcut contraction joints every 4 to 5 feet each way

### Fencing

**6 feet high**, 9-gage, vinyl coated chain link fence fabric with 1 – ½ -inch weave. Top rail, intermediate rail, and bottom rail. Corner and line posts, vertical bracing at corners.

Emergency egress gates will be located around the perimeter of the pool deck. Gates will be secure with exit devices, tamper resistant panels, and alarmed to prevent unauthorized access.



### Plantings:

Maintenance of Trees: Selective removal and pruning of existing trees  
Planting; We recommend trees and planting on the west (street) side of the building  
Planting and green space will be coordinated with the overall Albemarle site design. .

### Shade Structures

The design proposes cantilevered fabric roof structures along the north and east edge of the pool deck. The cantilevered design provides maximum shade without added vertical posts. Size, angle, and fabric will be determined as the project advances



Square and rectangular fabric structures are proposed to mark entries and circulation points at the spray deck and provide shade over the storage area at the southwest corner of the pool deck adjacent to the bathhouse.



## SITE UTILITIES

- Deck Drainage** Decks will be drained to linear trench drains and area drains spaced around the pool deck. Decks shall slope less than 2% to drains. Drainage shall discharge into recharge system or storm water. The majority of water entering the deck drains is rain water.
- Sanitary Sewer:** Existing sewer connections will be reviewed and updated as needed
- Domestic Water.** The existing water service size will be confirmed and updated as required.
- Electrical** New electrical service may require new primary service to the building.

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**Construction of the spray deck will require coordination with existing underground conduit servicing the ball field lights from the existing field house**

**Tel/Data:** Data and telephone service will be maintained or upgraded to meet new design requirements. Data drops are required in managers office, staff area, control desk, and filter room to monitor chemical controllers. Staff and public Wi-Fi will be determined.

**Technology:** City may want to consider intrusion and surveillance systems at the pool.

A public address system for staff to broadcast announcements, lightning storm warnings, and similar “all facility” announcements should be considered.

DRAFT

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## Code Compliance: Current

**Use Group:** Complex is Assembly A-3

**Construction Type:**

Type III, non-combustible exterior walls, wood framed roof structure

Floor of bathhouse is Type II concrete and steel frame

**Building Area:**

Main level, 4,030 SF gross  
Basement (Filter Room) 2,730 SF  
Crawl Space 1,300 SF

**Life Safety:**

*Fire Protection:* The pool complex is Assembly (A-3) occupancy. The size, occupancy, and fire area meet the requirements in the IBC 9032.2.1.3; a sprinkler system is not required.

*Fire Alarm:* An addressable fire alarm system is required. Building is not heated or conditioned. The following must be provided:

- A small, conditioned cabinet for the fire alarm control panel
- Cold and wet rated devices to prevent condensation tripping the alarm system
- Emergency lighting and exit signs are existing and required in the renovation

**Energy Code:**

The building itself does not utilize mechanical heating or cooling, making thermal performance a non-factor. The building will be drained and winterized for the off season.

Lighting and fans will be controlled by occupancy and CO2 sensors.

**Handicapped Access:**

- Main entry is not accessible
- Individuals with disabilities must use a pathway along the south side of the building and enter the complex from the pool deck.
- The floor level of the bathhouse is approximately 6 inches above the pool deck. Small ramps have been added to provide access from the deck into the men's and women's locker rooms. The staff areas are not accessible.
- Accommodations have been made to provide accessible toilet and shower facilities in the bathhouse.
- Staff areas are not accessible.
- A portable lift is available individuals with disabilities; staff must move the lift into place; this is not code compliant.
- The existing pool has a perimeter of over 300 linear feet. A second accessible means of egress/access is required.
- Access to the wading pool is not accessible.; the pool is not accessible.

**Plumbing Fixture Count**

The number of plumbing fixtures required for pool bathhouses is calculated by the number of bathers allowed in the swimming pool. 105 CMR 435.00 State Sanitary Code and the 248 CMR the State Plumbing Code establishes the criteria for bather load and fixtures counts. The existing pool has a calculated bather load of 460 Bathers. This 230 Men and 230 Women. The existing bathhouse provides the code required fixture count.

**BATHER LOAD & FIXTURE QUANTITIES COMPUTATIONS EXISTING POOL**

Information based:

105 CMR 435.00 State Sanitary Code/ 248 CMR 10.00 Uniform State Plumbing Code

<b>Bather Load</b>			
	Non Swimmer Area (<5'-0" depth)	Swimmer Area (>5'-0" depth)	
Area Pool (15,000sf)	5,150sqft	1,800sqft	
Area of Wading Pool	400sqft	sqft	
Total pool surface area	5,550sqft	1,800sqft	
One bather/user per (pool surface area)	15sqft	20sqft	
Number of Bathers/users	370	90	460
Number of Male Bathers/Users	185	45	230
Number of Female Bathers/Users	185	45	230

<b>Plumbing Fixture Quantities Based on Maximum Bather Load</b>				
	Men		Women	
One Water Closet Per	40	bathers	40	bathers
One Wash Basin Per	60	bathers	60	bathers
One Shower Per	40	bathers	40	bathers
	Men	Provided	Women	Provided
Number of Water Closets (Includes Urinal in Men's Room)	6	7	6	7
Number of Wash Basin's	4	4	4	4
Number of Shower's	6	6	6	6

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### Swimming Pool

A revised 105 CMR 435.00, Minimum Standards for Swimming Pools, State Sanitary Code; Chapter V of the Commonwealth of Massachusetts has been under draft review since 2017. We anticipate that these revisions will be adopted and have included proposed changes to the regulations as part of this review.

M.G.L. c140 § 206, a statutory law that takes precedence over regulatory law, further defines the requirements for fencing and pool covers.

- Existing pool is covered in the off season meeting the requirement of M.G.L. c140 § 206.
- The pool is properly secured by a 6ft. high chain link fence enclosure.
- The pool deck provides adequate space around the perimeter of the pool.
- The existing slide does not meet the requirements of the code. The slide discharges bathers 12 inches plus above the pool surface and is classified as a drop slide. Slides in Massachusetts must discharge users horizontally at the water surface.
- The east side of the pool enclosure must provide an appropriate fence; the pool is currently open to the pond/river.
- The pool does not have a perimeter deck. Although the pool is open to the lawn area, a hard surface draining away from the pool is needed; a minimum 4 foot wide deck is required on the east side between the pool and the pond/river.
- The pool does not provide surface skimming.
- Returned water supply is not spaced around the pool to provide uniform flow.
- The ledge along the retaining wall is 6 inches; a maximum of 4 inches is allowed.
- Assist rails are not provided at the steps.
- Accessible access into the pool is not provided.
- The pool must filter water at a rate of once every 6 hours; the current pool is operating at the older 8 hour rate. The addition of spray features in a new pool will increase the turnover rate to 4 hours. A separate splash pad requires a ½ hour turnover.
- An automatic water monitoring and control device is required to measure chlorine, pH, and ORP.

**BATHER LOAD & FIXTURE QUANTITIES COMPUTATIONS PROPOSED POOL**

Information based:

105 CMR 435.00 State Sanitary Code/ 248 CMR 10.00 Uniform State Plumbing Code

Bather Load			
	Non Swimmer Area (<5'-0" depth)	Swimmer Area (>5'-0" depth)	
Area Pool (15,000sf)	7,620sqft	2,200sqft	
Area of Wading Pool	sqft	sqft	
Total pool surface area	7,620sqft	2,200sqft	
One bather/user per (pool surface area)	15sqft	20sqft	
Number of Bathers/users	508	110	618
Number of Male Bathers/Users	254	55	309
Number of Female Bathers/Users	254	55	309

Plumbing Fixture Quantities Based on Maximum Bather Load				
	Men	Women		
One Water Closet Per	40 bathers	40 bathers		
One Wash Basin Per	60 bathers	60 bathers		
One Shower Per	40 bathers	40 bathers		
	Men	Provided	Women	Provided
Number of Water Closet's (Includes Urinal in Men's Room)	8	8	8	8
Number of Wash Basin's	6	6	6	6
Number of Shower's	8	8	8	8

*Note: Proposed Fixture Counts Include Gender Neutral and Staff Facilities.*





BARGMANN HENDRIE + ARCHETYPE, INC.

Architecture | Planning | Interior Design

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www.bhplus.com

May 16, 2022

Alejandro M. Valcarce, AIA, Deputy Commissioner  
City of Newton  
Public Buildings Department  
52 Elliot Street  
Newton Highlands, MA 02461-1605

Re: Gath Pool Renovation Project- Proposal for Design Services  
Schematic Design/Site Plan Approval Through CD Phase

Dear Alex:

BH+A is pleased to submit this proposal for design services related to the renovation of Gath Pool. Our proposal is based on the feasibility study design. Scope includes the new swimming, a spray deck, new pool decks, site amenities, and a renovated bathhouse.

**Schematic Design/Site Plan Approval** We understand the City would like to undertake phases Schematic Design and Site Plan Approval simultaneously. For site plan approval we will need to produce drawings beyond the schematic design phase level. We will also be accelerating portions of the building and aquatic design that is normally performed in the design development phase Design will include design development level civil engineering and landscape architecture drawings. We will need a traffic and parking report to answer Planning Board and public questions. The building elevations need to be advanced to a level where accurate renderings can be provided that will "not change" in subsequent phases. The civil and landscape work will require stormwater design and preparation of a NOI for the Planning Board and Conservation Commission.

*General*

1. Develop feasibility study design.
2. Prepare schedule of tasks and anticipated submittals
3. Develop spray deck design, water feature selections and amenities
4. Hazardous material testing and report
5. Geotechnical investigation and recommendations
6. Sustainability approach (explore use of SITES 2 in lieu of LEED)
7. Review pool design with Health Department and State DPH if desired
8. Estimate of probable construction costs
9. Work with City on preparing estimate of total project cost
10. Input on potential project schedule
11. Schematic Design Drawings
12. Outline Specifications
13. Narratives of MEP systems
14. Narrative of pool filtration equipment
15. Technology narrative describing telephone, data, sound system, security system
16. Identification of probable filed-sub-bids under M.G.L c149.

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SD/Site Plan Approval Through CD  
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17. Collateral Material for use by Gath Working Group
18. Multiple Gath Working Group meetings (typically bi-monthly)
19. Multiple meetings with City Boards and Commissions
20. Assumes to Public Forums

*Added Design for Site Plan Approval*

1. Identify site and building utility requirements
2. Identify wetland resource requirements and flood/riverway requirements
3. Stormwater management approach
4. Traffic analysis to determine anticipated vehicular and pedestrian traffic
5. Site plan approval submission
6. Submission of a Notice of Intent and public hearing with Conservation Commission

**Design Development**

It is the intent of the Design Development Phase to define, refine and describe all important aspects of the Project focusing on detailing and integration of equipment; development of technical specifications; and generation of drawings that are the basis of final construction documents.

1. Develop Design of bathhouse, pool, decks, spray deck and site improvements.
2. Technical advancement of pool filtration systems
3. Integration of MEP systems
4. Preliminary project specifications
5. Updated Estimate of probable construction costs
6. Multiple Gath Working Group meetings (typically bi-monthly)
7. Multiple meetings with City Boards and Commissions
8. Assumes a Public Forum

**Construction Documents**

Based on the approved Design Development Phase Documents prepare Construction Documents setting forth in detail the requirements for construction of the project. Our documents will include plans, elevations, wall sections, details, finishes, and specifications. They will be prepared electronically to provide maximum clarity and easy transferability of data to the general contractor and others responsible for the construction process. All documents will be prepared in strict accordance with the requirements of Massachusetts' public construction laws M.G.L. c 149 and the Acts of 2004.

Determine with the City, whether prequalification of potential General Bidders and selected Filed-Trades would be incorporated into the procurement process.

**Proposed Fee**

The fee is based on providing the above scope for the fully renovated and expanded swimming pool complex with a current budget of \$6,000,000.

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	Base Fee	Accelerated and Site Permitting	Study and Testing
<b>Basic Fee Schematic Design</b>	\$ 72,000		
Accelerated Civil Design for Permitting		\$ 15,000	
Additional Civil Engineering and Environmental Permitting for Site Plan and Conservation Submission		\$ 25,000	
Accelerated Landscape for Permitting		\$ 10,000	
Accelerated Arch/Aquatic Design Fee for permitting		\$ 20,000	
Accelerated MEP Design affecting Utility and Stormwater Design		\$ 15,000	
Traffic and Parking			\$ 8,500
Collateral Material For Submissions		\$ 4,000	
Hazardous Material Investigation			\$ 4,500
Soil Borings and Report			\$ 8,500
Technology Narrative			\$ 2,500
Sustainability/Energy Approach			\$ 4,500
<b>Basic Fee Design Development</b> (Reduced fee of advancement of design during SD/Permitting)	\$ 66,000		
<b>Basic Fee Construction Documents</b>	\$ 192,000		
Geotechnical Specifications			\$ 5,000
Hazardous Material Specifications			\$ 4,000
Technology Specifications infrastructure and equipment			\$ 6,000
	<hr/>		
	\$ 330,000	\$ 89,000	\$ 43,500
<b>Total Fee SD/Permitting, DD and CD</b>			<b>\$ 462,500</b>
<b>Bidding</b>	\$ 24,000		
<b>Construction Administration</b>	\$ 96,000		

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The base contract fee is \$480,000 for SD through CA. \$30,000 of DD fee has been moved into the accelerated work column. The total fee, including supplemental services is \$582,500.

The above fee does not include a site survey, hazardous material monitoring during demolition, and quality control testing of materials during construction.

We would anticipate the cost of the project will increase over the next year due to economic factors that cannot currently be fully defined. However, an increase in materials and construction labor costs does not change our scope or fee. Our tasks remain the same.

Feel free to contact me directly to discuss.

Sincerely,



Thomas A. Scarlata, CSI, CCS, CCCA, AIA  
Principal

Copies to:           BH+A File  
Enclosure           none

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## Programming

### General

Improvements to the existing pool complex were derived from meetings with staff, observing the pool in use, and multiple public meetings. The stated programming goals for the project are:

- Maintain and Activate More Green Space Around the Pool
- Improve Entry and Arrival Sequence
- Improve Experience for User Groups, Including Recreational and Competitive Swim
- Universal Access To Facility and All Pools
- Provide Leisure and Play Areas for Pool Patrons
- Create Flexible Pool Spaces For Different User Groups to Use the Pool at the Same Time
- Improve Operating Productivity by Eliminating Water Loss and Increasing Energy Efficiency
- Evaluate Bathhouse to Improve Overall Guest Experience
- Address Code, Accessibility, and Interior Upgrades
- Provide Improved Opportunities for Shade Structures and Sunbathing Areas

The pool will design will be multi-generational and have offerings and features for bathers of all ages. Uses of the pool include:

- Recreational swimming
- Exercise and fitness
- Adaptive aquatics
- Swim lessons
- Lifeguard training
- Competitive Swimming
- Recreational Diving

Current pool designs should be attractive to all and support daylong visitations. The pool should draw families and accommodate children of all ages, parents, extended families and grandparents. The Improvements that have been recommended for the pool include:

- Increased deck space
- Increased shade
- More seating and seating types
- Space for eating
- Improved experience and efficiency of swim meets
- Ease of access to bathhouse
- Bathhouse facilities that are gender neutral and usable by parents with small children and bathers requiring assistance by an aid.
- Provide access to the spray deck during pool use.

### Spring 2022 Programming Summary

During the spring of 2022, the Gath Working Group has met with multiple stakeholder groups, and City Commissions to focus the programming and identify areas of further study as the project advances.

The City has engaged Weston & Sampson to design field and park improvements to Albemarle Park. The pool design team has met with Weston & Sampson to coordinate the pool improvements.

## Meetings

The Gath Working Group held the following meetings part of the pool programming:

Community Meeting 1	September 23rd, 2021
Community Meeting 2	October 28th, 2021
Community Meeting 3	December 2nd, 2021
Community Meeting 4	January 25th, 2022
Conservation Commission Project Update	January 6th, 2022
Commission on Disabilities Project Update	March 14th, 2022
Parks + Recreation Commission Project Update	February 28th, 2022, and March 21st, 2022
Design Review Committee Project Update	April 13th, 2022
Friends of Albemarle:	January 21st, 2022 April 1st, 2022 April 29th, 2022
Newton Bluefish	February 28th, 2022 and April 26th, 2022
LGBTQ+	February 28th, 2022
55+ Recreation Group	February 28th, 2022
Disability Community	March 7th, 2022
Community Meeting 5	May 3, 2022

## Items for Additional Study

As the project advances into future design phases, the following items will be studied and developed;

- Traffic
- Drop off and Pick-up
- Parking
- Storm Water Storage
- Accessibility
- Conservation measures
- Flood zone measures
- Sustainability
- School and athletic field usage and needs

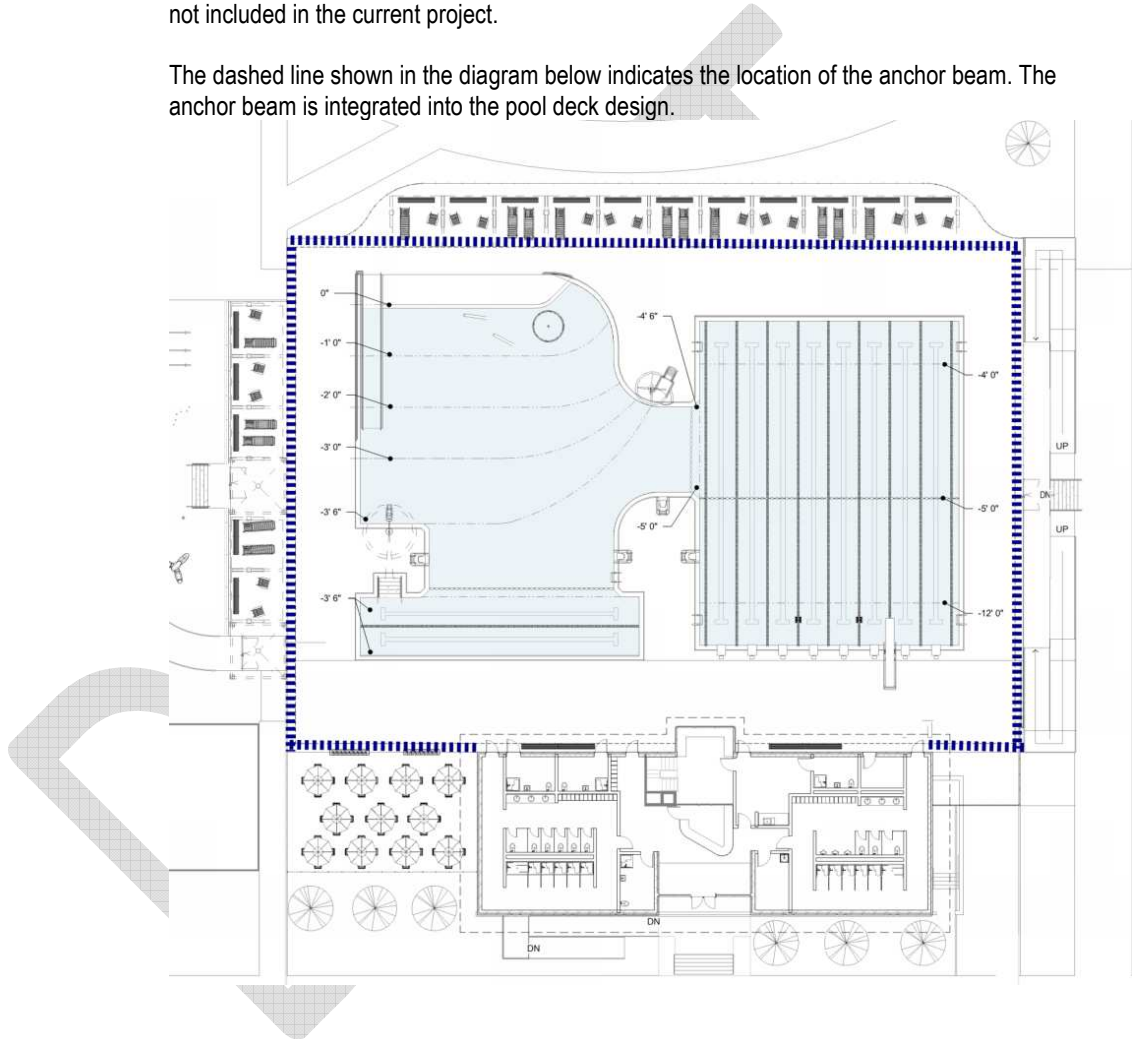
### Indoor Pool

During early meetings, the need for an indoor pool in the City was identified. Rebuilding the Gath Pool as an indoor pool was discussed. The following is the status of an indoor pool.

The City has placed a feasibility study of an indoor pool on the Capital Improvement Plan.

Consider placing an air-supported structure, commonly referred to as a “bubble”, at the Gath Pool in the future. As part of the current project, a perimeter anchor beam will be incorporated into the redesign to eliminate removal and reconstruction of the pool decks in the event a bubble is added in the future. Modifications to the bathhouse and infrastructure required to support a “bubble” are not included in the current project.

The dashed line shown in the diagram below indicates the location of the anchor beam. The anchor beam is integrated into the pool deck design.



Friends of Albemarle  
c/o Cedar Pruitt, President  
2 Wyoming Road  
Newton MA 02460

June 6, 2022

To the Community Preservation Committee,

Thank you for considering an investment in the citywide asset and community resource that is Gath Pool. We advocate for moving forward rapidly with this needed project which impacts all of Newton.

Our nonprofit organization, Friends of Albemarle, which we launched in January 2021 and established our 501(c)3 status with Gath Pool restoration as the leading priority, represents all 8 wards of the city. We now surpass 450 members and continue to represent Newton broadly, featuring a roster of multiple elected officials including more than half of City Council, with members eager to champion Gath Pool as an indisputably city-wide asset.

Gath Pool has a significant impact on the daily life and health of our community and is failing. If we don't address this issue now, the time may come when we can't use it at all.

We have met approximately monthly with Newton Parks and Recreation, working on solutions for Gath Pool as well as the athletic fields, and heard from many community members over the past two years. The support of the CPC is crucial to replacing this 55+-year-old pool so that Newton can retain an outdoor pool that serves the community.

This community resource plays a vital role in keeping users cool, healthy and engaged, especially our most at-risk populations, and especially as we look ahead to hotter summers. From our youngest toddlers learning to swim—a crucial life-saving skill—to our seniors who use the pool as a therapeutic and community space, this pool matters so much to so many in Newton.

In addition, Newton's top-ranked championship swim team, the Newton Bluefish, would be unable to compete in the summer without the use of Gath Pool. A two-day regional competition for the Summer Suburban League has been held at Gath Pool for decades and is a summer highlight for many families from numerous surrounding towns.

We would be remiss if we didn't point out that the Gath Pool is a pulse point of Newton. Friendships are made, connections formed, and community built all summer long. It provides a safe and healthy outdoor recreation option for our community teens, not to mention jobs for many of them. As a low-cost facility that serves all members of our community, Gath Pool is an



equitable feature of our town and a great equalizer, especially for those who don't have their own pools, or the ability to join private clubs.

We believe that Newton should have robust swim facilities that include all-day use of the Gath outdoor pool during the late spring, summer and early fall, as a renovation could potentially extend the season of the pool. A functional bathhouse will be an asset for the entire park all year round, from concession stands to bathroom facilities during sporting events.

Given the age of the pool and its state of disrepair, it is a race against time to keep this vital community asset afloat. With careful planning and your financial help, it is a race we can win.

Sincerely,  
Friends of Albemarle  
<https://friendsofalbemarle.org>  
450+ Newton residents

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