



**MILL POND PARK and POOL
PRELIMINARY MASTER PLAN - NEWINGTON, CT**

Town Council - July 23, 2024

TLBA



Image from Google Earth

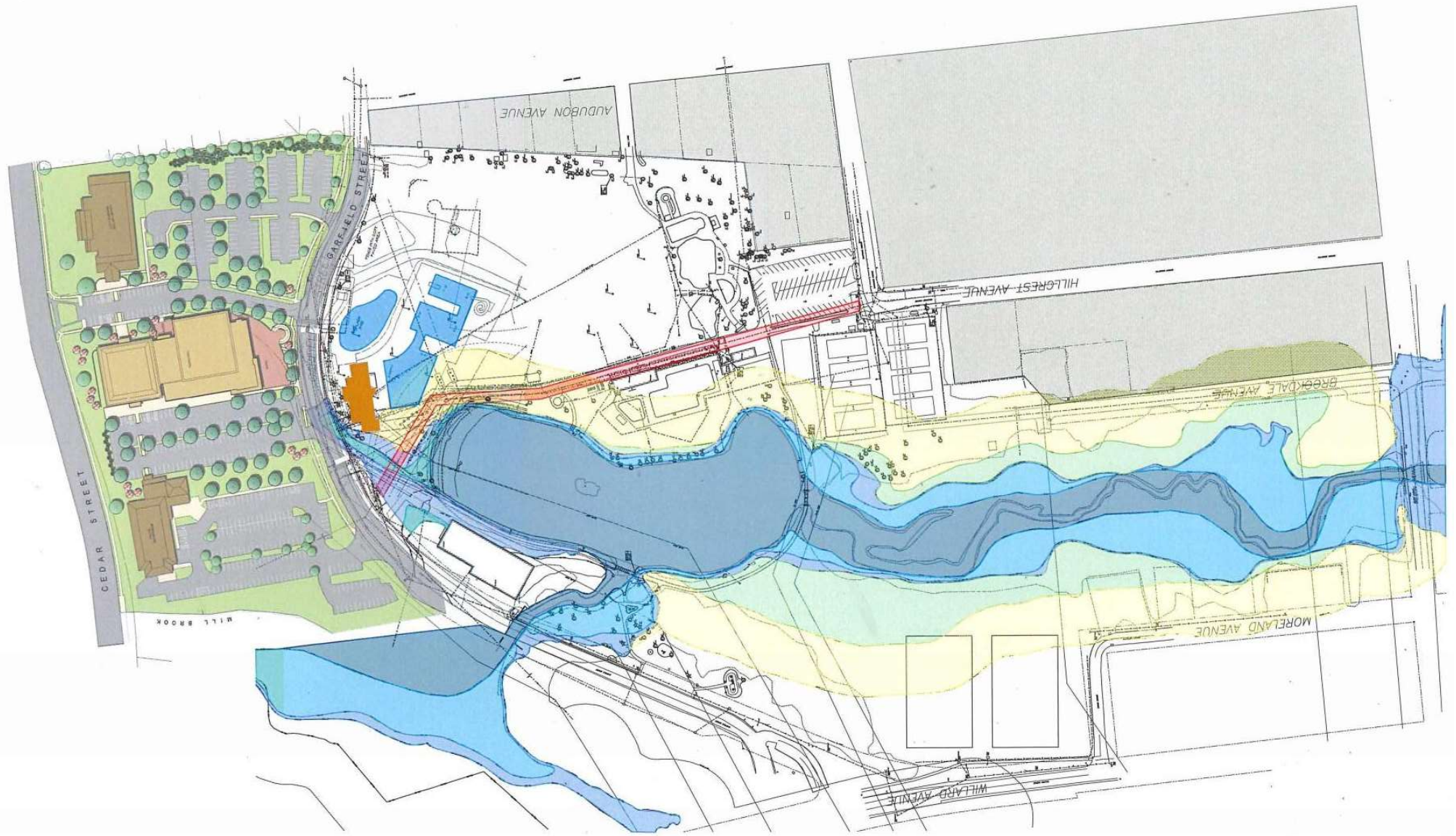
MILL POND PARK and POOL - PRELIMINARY MASTER PLAN - NEWINGTON, CT MAY 2021



Image from Google Earth

MILL POND PARK and POOL - PRELIMINARY MASTER PLAN - NEWINGTON, CT MAY 2021





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MAY 2021

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The swimming pool complex consists of a six-lane lap pool with an attached shallow area to the north and an attached diving well to the south. There is also a separate wading pool to the north of the main pool. The pools are served by a masonry bathhouse building and surrounded by chain-link fencing. The pool was constructed in 1959 and renovated in 1999.

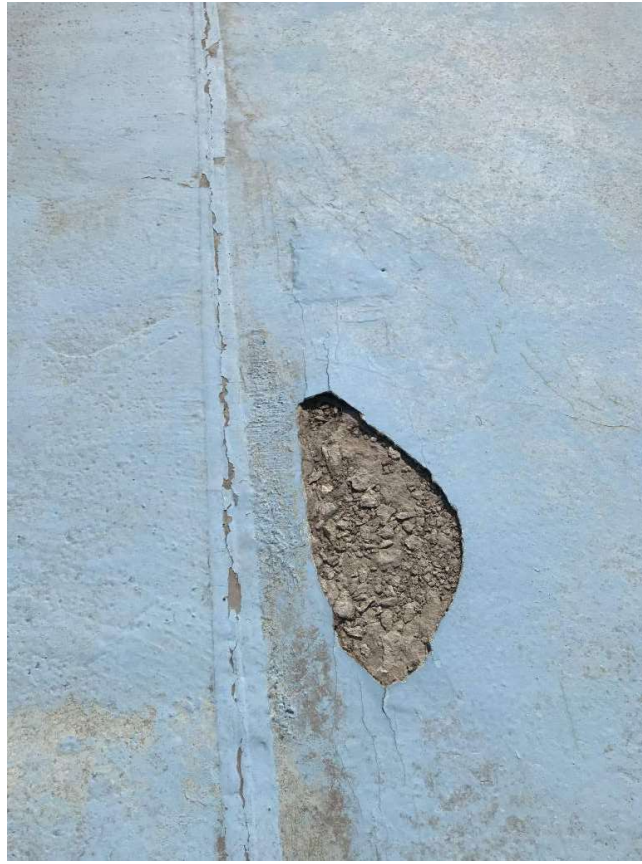
The pool has reached the end of its useful life and is in need of complete replacement. While significant renovation is an option, it is not recommended, as the underlying issues with ground water, deteriorated concrete and aging infrastructure can not be reliably repaired for the long-term.

In 2013 a comprehensive conditions assessment was performed, which details deficiencies with the pool. Of note in the study is the potential for PCB remediation, which will require further testing prior to demolition.

The full test of the 2013 report is attached as Appendix 01.

Swimming Pool and Bathhouse

Existing Conditions Analysis



Swimming Pool and Bathhouse

Existing Conditions Analysis

III. Existing Conditions Analysis

B. CODE ANALYSIS

1. General Information

The swimming pool was evaluated for Code compliance with the State of Connecticut Building and Fire Codes, CT Department of Health Requirements, the Federal Americans with Disabilities Act (ADA) and Virginia Graeme Baker Pool and Spa Safety Act (VGB) . The Scope of this report is limited to the Pools and Decks, but building compliance is also required, and is addressed by others.

Note: Red text indicates areas of hydraulic non-compliance

Basic Information:

Pool Area:	7,750 sf
Pool Perimeter:	410 lf
Pool Water Volume:	295,000 gallons
Occupant Load of Pool: (7,750 sf / 25 sf/person):	310 bathers

2. Department of Health Requirements:

- a. Turnover Rate: Required- 8 hours max. (6-hour recommended)
- b. Filtration Rate: Required- 15 GPM/sf max. (12 gpm/sf recommended)
- c. Allowable Velocities:
 - Suction: Max 6 fps
 - Discharge: Max 10 fps
 - Gravity: Max 4 fps

c. Actual Flow and Pipe Velocities at 8-hour turnover:

Calculated Flow Rate:	615 GPM	
Suction:	Pipe	100% Flow
Main Drains:	6":	8.42 fps
Pump Suction:	6":	8.42 fps
Discharge:	2" (ea. Filter):	12.56 fps
	6":	6.8 fps

III. Existing Conditions Analysis

B. CODE ANALYSIS

2. Department of Health Requirements (continued):

The piping is undersized between the main drains and the pump, even if the pipe is flowing at full diameter. In actuality, the pipes are likely calcified after years of use, and as the pipe diameter decreases, velocity increases, bringing the piping further out of compliance.

The 6" piping reduces to 2-inch at each filter. There are five filters so the flow at each is 123 GPM, which places the velocity at this pipe out of compliance as well. The filtration rate is also out of compliance at 17.6 GPM/sf.

d. Depth Markings:

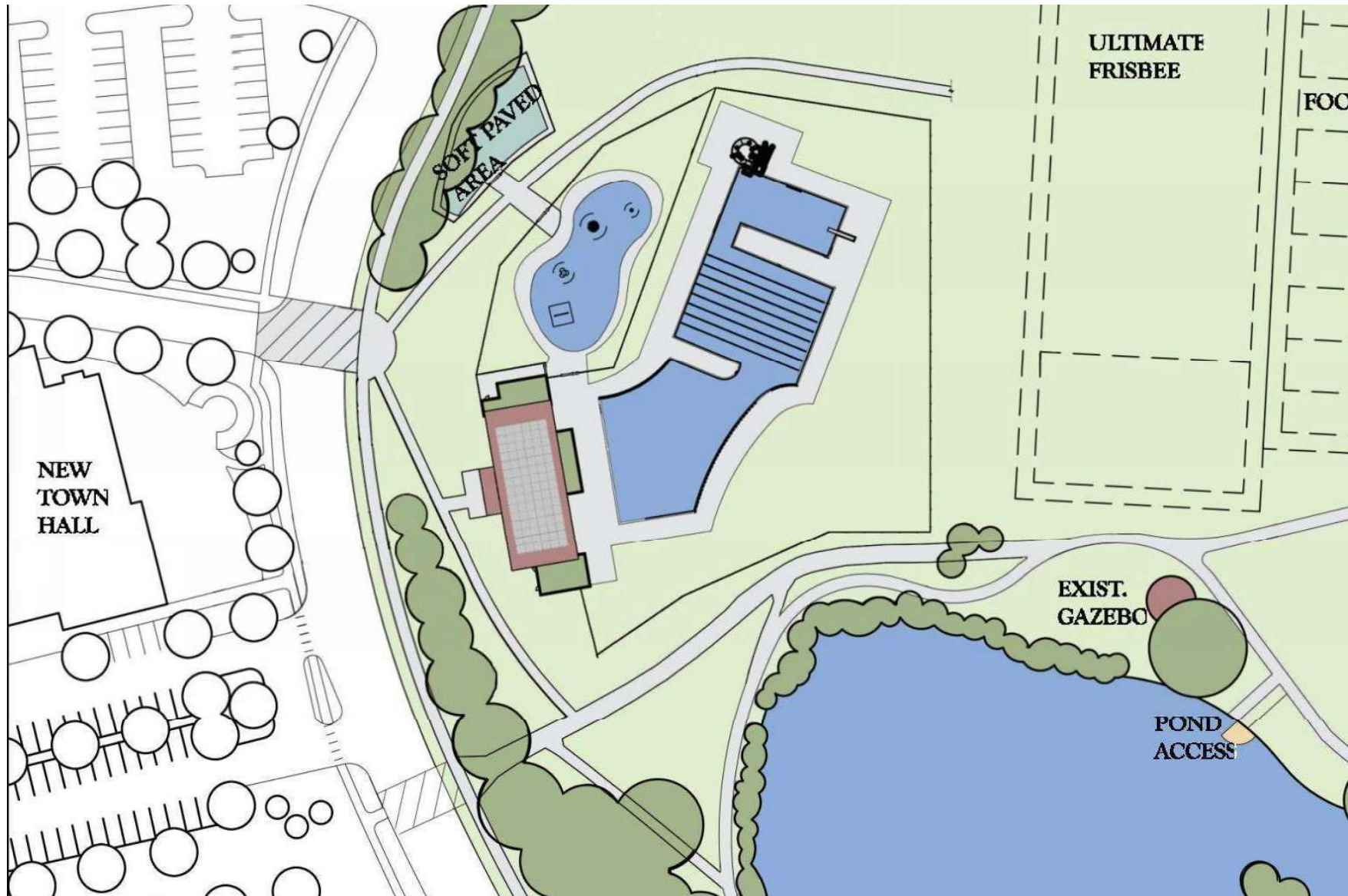
Depth markers are required to be in numerals of four inches minimum height and a color contrasting with the background, placed on the vertical walls above the water level or another method to be plainly visible to persons in and out of the swimming pool. Depth of water shall be plainly marked near the water surface on the vertical wall and on the edge of the deck next to the pool. Depth markers shall be placed at the following locations:

- 1. At the points of maximum and minimum depths.
- 2. At any change of pool floor slope, including the point of change of slope between the deep and shallow portions of the pool, that is the breakpoint;
- 3. At intermediate one-foot increments of water depth in the shallow end; and,
- 4. If the pool is designed for diving, at appropriate points to denote the water depths in the diving area.
- 5. If the pool is of constant depth, at appropriate points that will satisfactorily denote the water depth.

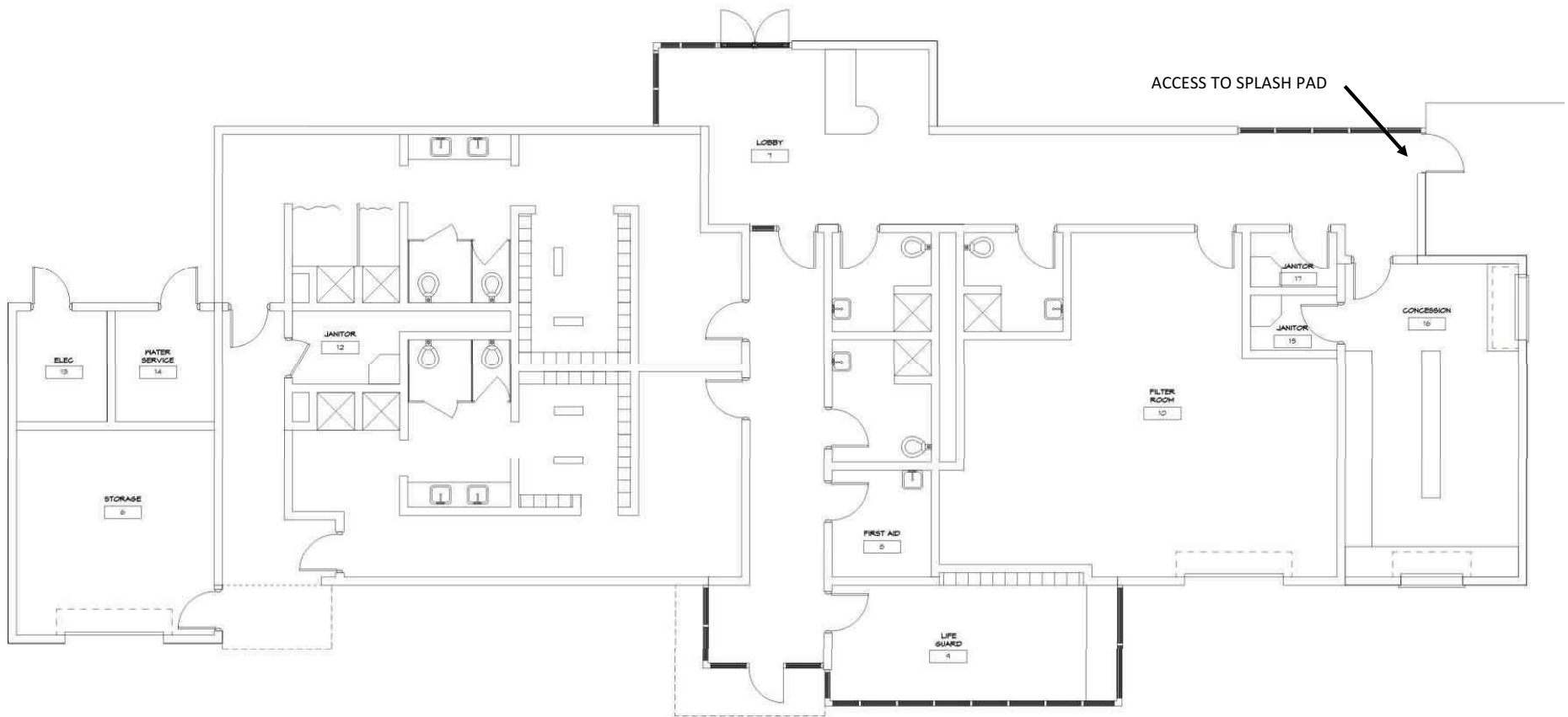
Currently, depth and No Diving markings are not present on the pool walls, except in a couple of locations and are insufficient at the deck.



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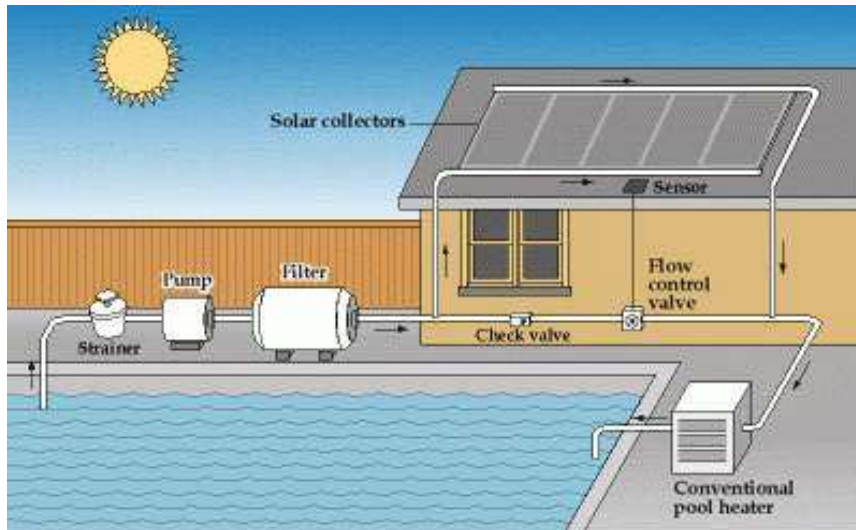


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Newington Town Hall Campus, North of Garfield Street

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LAND USE COMPARISON
June 2024

		Existing	Proposed	Change in Proposed Area	Notes
A.	Swimming Pool (Water Surface Area	9,730 sf (Pool = 7,750 sf + Wading Pool = 1,980 sf)	11,105 sf	+ 1,375 sf	New pool includes zero-depth entry, (8) properly sized swim lanes, diving board, climbing walls and slide. Pool is fully accessible and ADA compliant.
B.	Pool Deck	7,397 sf	10,200 sf	+ 2,803 sf	New deck is fully accessible and provides queuing space for diving board, slide and climbing walls, starting blocks, lifeguard space and clearance for HCA Lift chair.
C.	Building Area	2,646 sf (Bathhouse = 2,356 sf + 290 sf Filter Buidling)	4,750 sf	+ 2,104 sf	Proposed building provides fully accessible locker rooms, family changing rooms and snack bar. Building also provides shoulder season, splash pad access to changing rooms and Snack Bar, when main pool and bathhouse is closed.
D.	Splash Pad	0 sf	4,000 sf	+4,000 sf	New Program not currently provided in the park
E.	Soft Paved area for Campers and Events	2,500 sf	2,700 sf	+ 200 sf	Existing Program being relocated and enhanced.
F.	Area within the fence line	29,590 sf	58,459 sf	+28,869 ²	Existing area includes lawn, pool, wading pool and decks. Proposed area includes lawn, pool, splash pad and decks.
	OTHER CONSIDERATIONS				
1	Removal of the Baseball field dirt infield, pitchers mound, dugouts areas and backstop increases functional open park area by approximately 15,500 sf				
2	Note that the land outside the exsiting pool fence line, west to the edge of pond currently has limited accessibility and is not used for park programming. Once the pool is removed, this additional 20,000+ sf becomes usable open park space.				
3	Mill Pond Park is 1,491,618 sf (34.24 acres)				

The extents of Mill Pond Park are indicated by the yellow line at the perimeter of the Park. The most prominent natural feature of the Park is Mill Pond and Mill Brook. These features run nearly the entire length of the Park from north to south.

The site is bound to the east, south and south-west, by residential neighborhoods. To the north, the Park is bound by Garfield Street, with the current Town hall, Community Center, Library and Police facilities across the street, along with public parking. To the northwest is the Town school bus yard.

The Park is a very active community park, serving a variety of citizens of all ages with many different active and passive recreational opportunities.

While the Park is an open perimeter, there are three main access locations, including the park access road, accessed from Garfield Street to the north; the corner of Browning and Hillcrest, near the tennis courts and the corner of Moreland and Cross, near the soccer fields.



Park Map

NORTH ←

Existing Conditions Analysis

M E M O R A N D U M

Revised July 16, 2024
Mill Pond Park – Preliminary Master Plan Summary

To: William A. DeMaio, CRPA – Newington Superintendent of Parks and Recreation
From: Michael P. Fortuna, AIA
Copy: file

Re: Mill Pond Park Preliminary Master Plan – Anticipated Costs

Bill,

We have updated the Opinion of Probable Costs for the project, with a projected completion of work for the 2026 swim season. Attached is the itemized Opinion of Probable Cost, anticipated to be \$ 11,637,890. This cost includes the Aquatic Facilities, and related improvements to Mill Pond Park, as well as the addition of a Splash Pad at Churchill Park. Below is a breakdown of anticipated costs for the Work. The line-item numbers correspond to the attached estimate.

A. Baseball Field Removal:	\$ 34,203
B. Field Sports Rework:	251,859
C. Aquatics:	7,504,254
C1. Splash Pad at Churchill Park:	1,074,289
D. Soft Play Area:	291,038
E1. Demo Old Pool:	209,883
N: Soft Costs:	1,214,363
Design and Construction Sub-Total:	\$ 10,579,890
Owner's Contingency (approx 10%)	1,058,000
Anticipated Total Cost:	\$ 11,637,890

Please let me know if you have any questions or need additional information.

Regards,
Mike

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Revised July 16, 2024 (Rev. July 17, 2024)

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Item	Unit	Quantity	Unit Cost	Item Cost	GC's Cost (See notes)	Total Cost
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A. Baseball Field Removal

1. Demo and Regrade Baseball Field, Backstop, Fencing	Each	1	22000	22000	12,203	34,203
SUB-TOTAL:						34,203

B. Field Sports

1. Grading, Drainage and Seeding with Field Mix	SF	120000	1.25	150000	83,203	233,203
2. Labour and Striping	Allow	1	12000	12000	6,656	18,656
SUB-TOTAL:						251,859

C. Aquatics

1. Bathhouse	SF	4750	300	1425000	790,431	2,215,431
2. Swimming Pool < 5-feet deep	SF	9000	200	1800000	998,439	2,798,439
2. Swimming Pool = or > 5-feet deep	SF	2105	300	631500	350,286	981,786
3. Pool Decks	SF	10200	18	183600	101,841	285,441
4. Waterslide	Each	1	125000	125000	69,336	194,336
5. Diving Board	Each	1	18500	18500	10,262	28,762
6. Climbing Wall	Each	2	26500	53000	29,398	82,398
7. Lawns	SF	13000	2	26000	14,422	40,422
8. Fencing - 8-foot at pool	LF	625	27	16875	9,360	26,235
8. Fencing - 4-foot at splash pad	LF	410	18	7380	4,094	11,474
9. Splash Pad - Deck Level Recre and Recycle	SF	4000	125	500000	277,344	777,344
10. Shade Structure	Each	2	20000	40000	22,188	62,188
SUB-TOTAL:						7,504,254

C1. Aquatics at Churchill Park

1. Splash Pad - Features	Allow	1	128000	128000	71,000	199,000
2. Splash Pad - Vauls and Equipment	Allow	1	118000	118000	65,453	183,453
3. Shipping and Hauling	Allow	1	10000	10000	5,547	15,547
4. Excavation, Concrete and Systems Installation	Allow	1	345000	345000	191,367	536,367
5. Shade Structure	Each	2	20000	40000	22,188	62,188
6. Site Amenities (benches, tables, etc)	Allow	1	50000	50000	27,734	77,734
SUB-TOTAL:						1,074,289

D. Soft Play Area

1. Soft Play Area	SF	2700	68	183600	101,841	285,441
2. Fencing - 4-foot CL	LF	200	18	3600	1,997	5,597
SUB-TOTAL:						291,038

E. Demolition of Existing Pool and Bathhouse

1. Demolish Pool Facility (no lazarets)	Allow	1	135000	135000	74,883	209,883
SUB-TOTAL:						209,883

TOTAL PROBABLE CONSTRUCTION COST

9,365,327

N. Other Costs

1. Site Survey	Allow	1				12,500
2. Architectural and Engineering Services	Allow	1				1,123,863
3. Geotechnical Analysis and Engineering	Allow	1				25,000
4. Utility Marking	Allow	1				2,500
5. Wetlands Flagging	Allow	1				7,000
6. FEMA Flood Map Review	Allow	1				3,500
7. Phase I and II Environmental Analysis	Allow	1				40,000
SUB-TOTAL:						1,214,363

TOTAL PROBABLE DESIGN and CONSTRUCTION COST PROJECT COST

10,579,890

Notes:

1. Total Cost Column includes General Conditions (8%), General Contractor's Overhead and Profit (8%), and a Construction Contingency of 10% in 2023 dollars. Escalation of approximately 4.5% per year is included to reflect cost to complete project for June 2026. *
2. Hazardous Materials Abatement for building or Site is not included in this Opinion of Cost.

General Conditions includes things such as bonds, insurance, project management costs, waste management, temporary fencing, portable toilets, trailers, site safety compliance, etc.

Overhead is the Contractor's operating costs for equipment and facilities. Profit is what allows the Contractor to earn a living and stay in business.

Construction Contingency addresses unforeseen conditions or changes during construction. If unused, these funds will return to the Town as unspent contingency.

Escalation is the additional costs due to increases in the cost of labor and materials over time. The estimate above was prepared using 2023 dollars, and have been escalated 4.5% per year to the mid-point of construction, anticipating completion for the 2026 swim season.

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Q & A



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