

Proposal for a New Crystal Lake Bathhouse

Crystal Lake Conservancy
Newton Highlands
Neighborhood Area Council



Crystal Lake – Vision 2020

September 15, 2016

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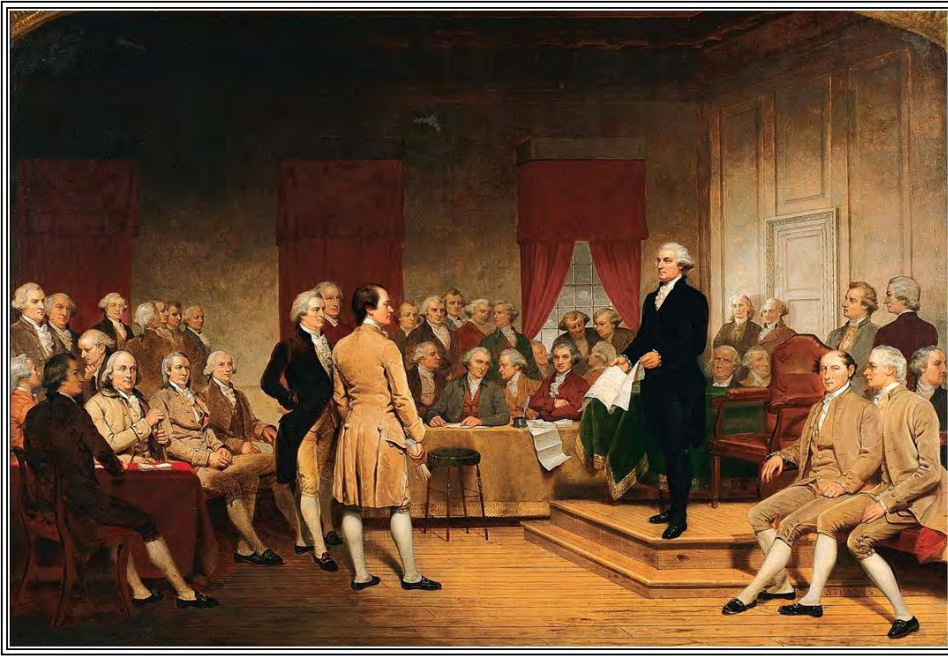
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*The Newton Highlands
Neighborhood Area Council*





And with the support of the:
Crystal Lake Conservancy





Crystal Lake – Vision 2020

*Thank you all for
Coming and participating!*

Like other Conventions,

*Tonight's meeting will
be considered a pivotal
Moment in the History
of Crystal Lake*



Crystal Lake – Vision 2020

- General overview of Crystal Lake
- Current conditions at the Bathhouse
- Building a new Park and Bathhouse

Crystal Lake - Basic Facts

- Crystal Lake is a natural body of water
- It is about 33 acres in area
- Classified by the Commonwealth as a “Great Pond”



- Acquired in 1894
- “Great Pond”
Over 10 acres
State owned
- Accessed on
three sides
- Elevation 149 ft
- 18 direct abutters
and Norwood Ave
complex
- Drains into the
Charles River



Four city-owned parcels:

- Cronin Cove
- Levingston Cove
- Bath House
- Adjacent park



Crystal Lake

Total volume =
142 million gallons

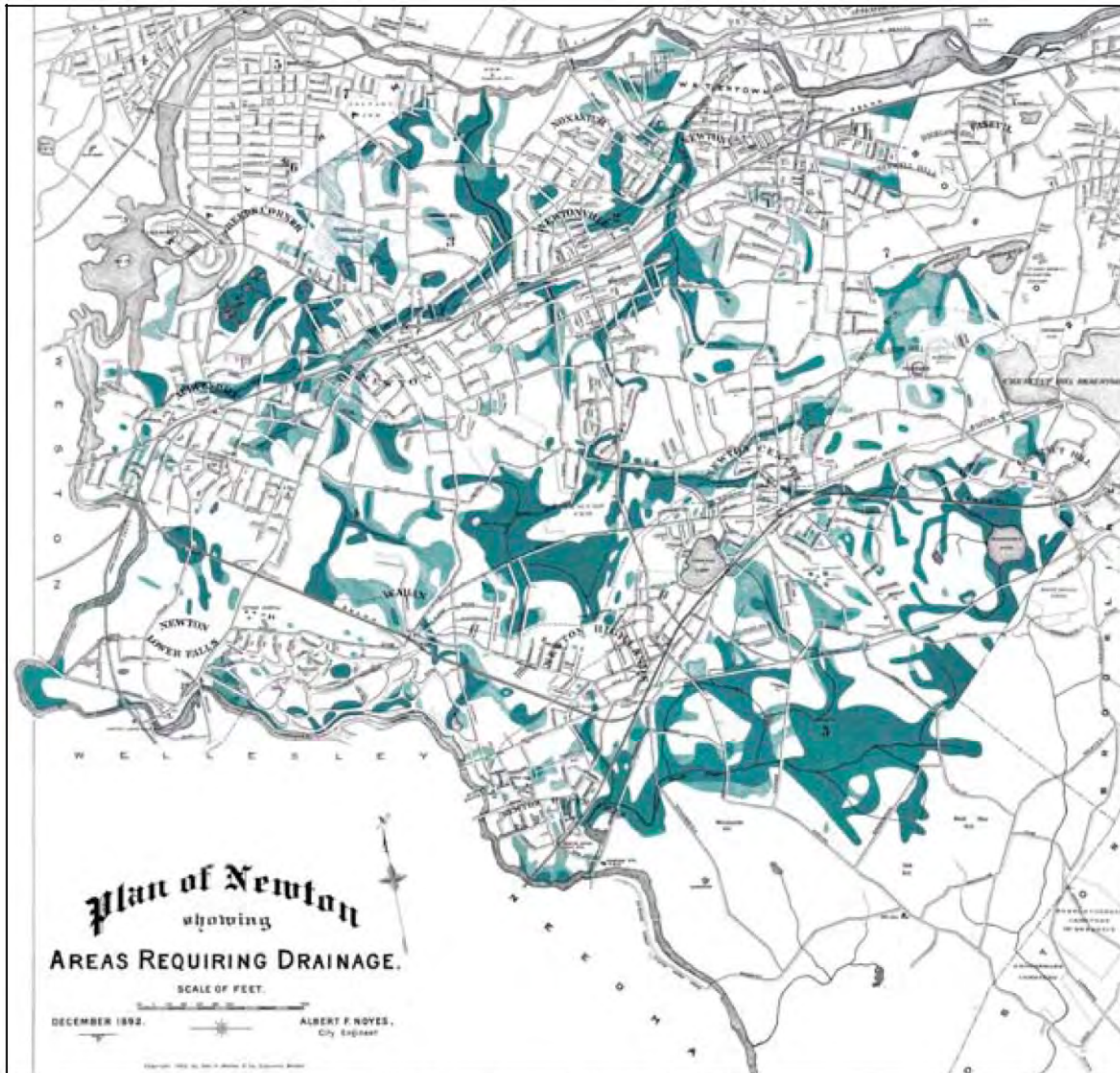
Depth = 31 feet

Measurements:
1200 ft (N-S), 1000 ft (E-W)
Circumference = 1 mile

Source: rainwater, spring

Outlet: culvert on south
side of Paul St, passes
under Parker and
Jackson St and joins
brook at

Great South Meadow,
flows west to Charles
at Needham Street



Waterways Map of 1892



Swimming in Crystal Lake, c. 1920's

History of Crystal Lake

- *Colonial name: Wiswall's Pond*
- *1863: Seawall and gas lights erected at Cronin's Cove*
- *Named "Baptist Pond" in 1880*
Newton Centre's First Baptist Church used lake for baptisms
- *1894: State acquired two parcels (one parcel donated by Moses and Emeline Crane)*

History of Crystal Lake

How did Crystal Lake get its name?

Wiswall Pond (aka Baptist Pond), along with Bullough's Pond and Chandler Pond, were used for ice harvesting in the 19th century

Ice dealers who sold ice for refrigeration renamed the pond "Crystal Lake"

CRYSTAL LAKE ICE.

GEORGE H. ELLIS.



THE BEST AND PUREST ICE CONSTANTLY ON HAND.

This Ice is procured from the beautiful Crystal Lake (Wiswall's Pond), on the B. & A. R. R., which is a guarantee for its purity.

Ice-Houses, Centre St., near Railroad, Newton Centre.

Crystal Lake Ice Ad, from Newton Directory 1899



Ice cutting at
Crystal Lake
1890

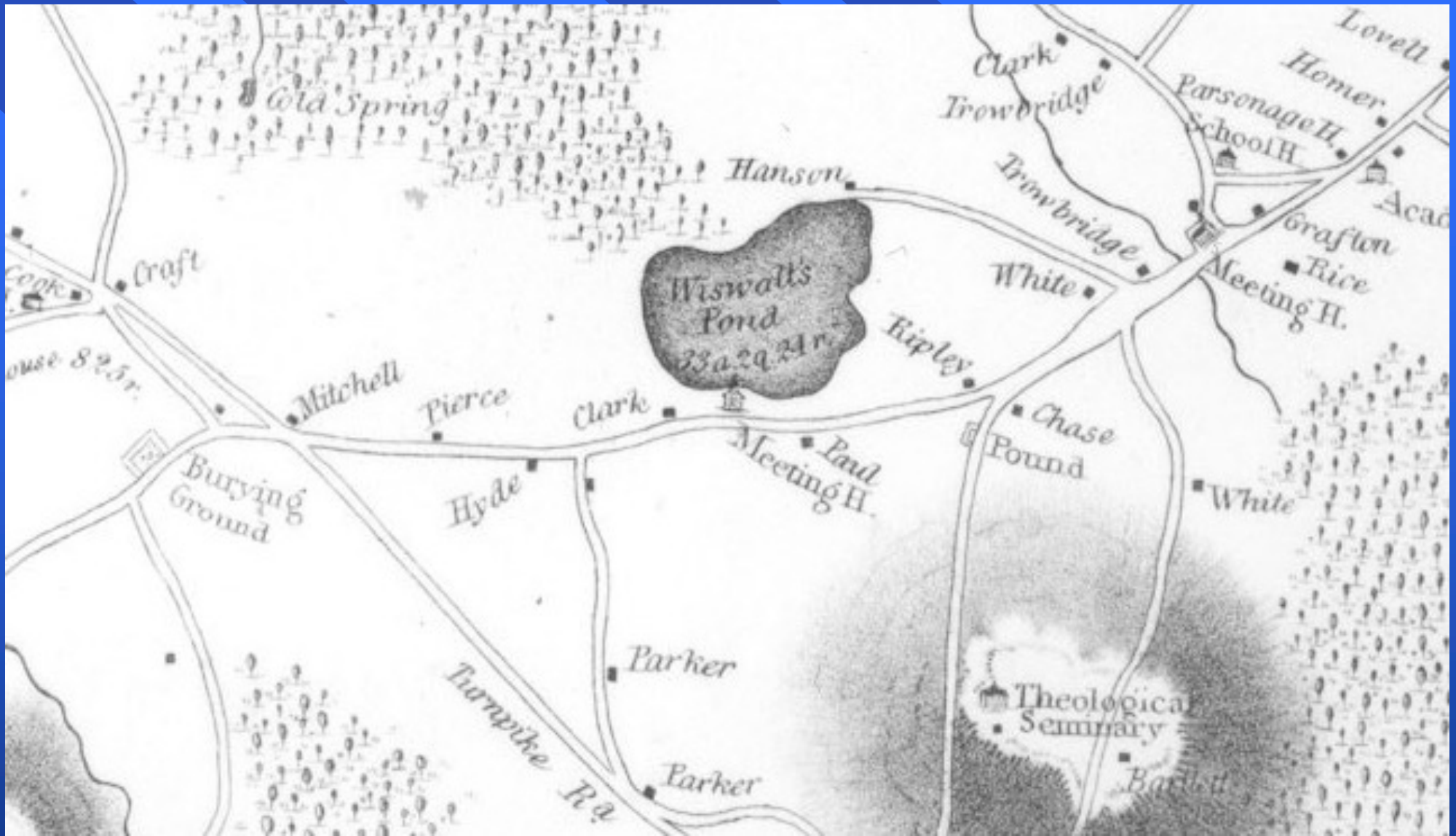
Joe Robertson
with ice wagon
1924



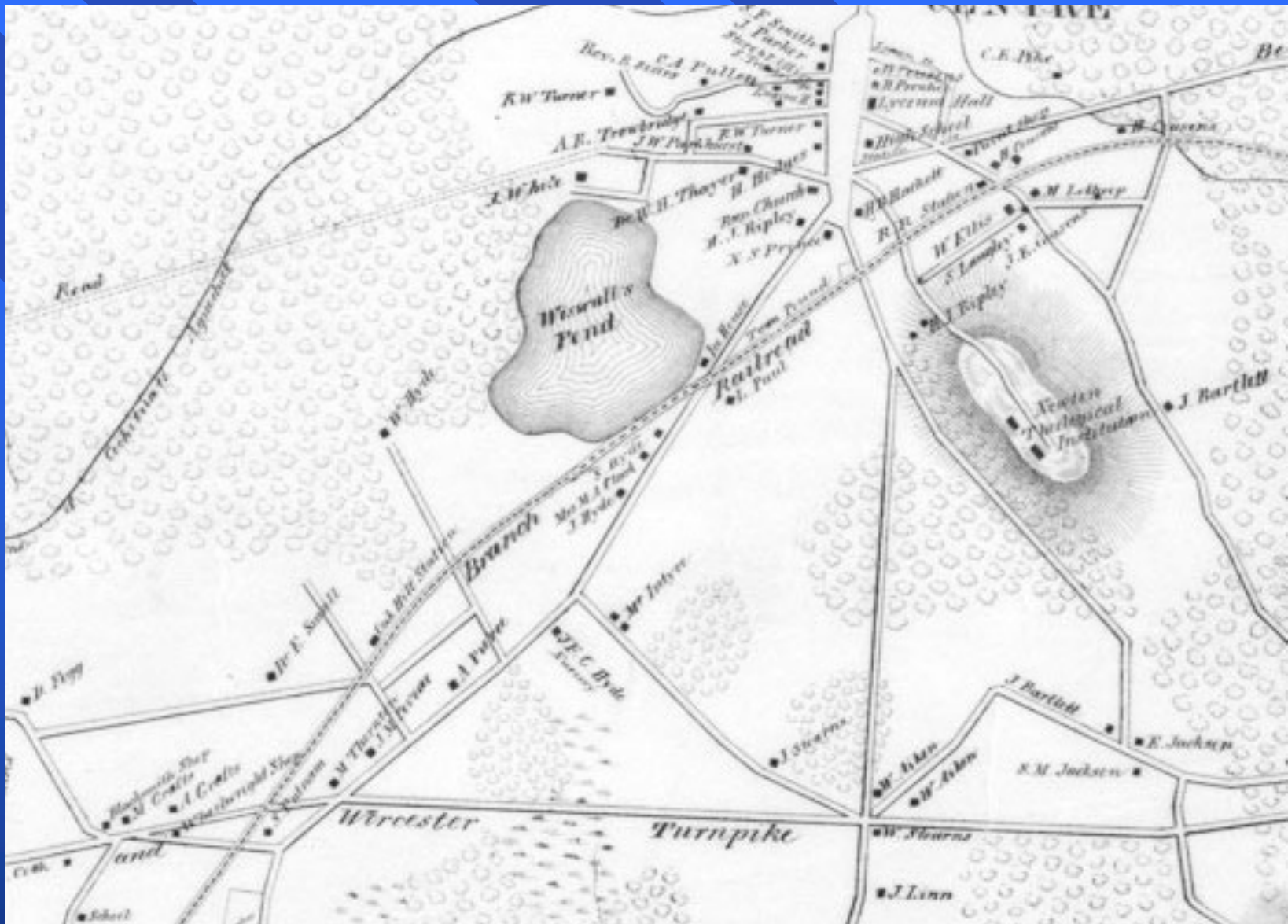


**Crystal Lake
1915
Fire at the Ice house**





Wiswall's Pond, 1831



Wiswall's Pond, 1855



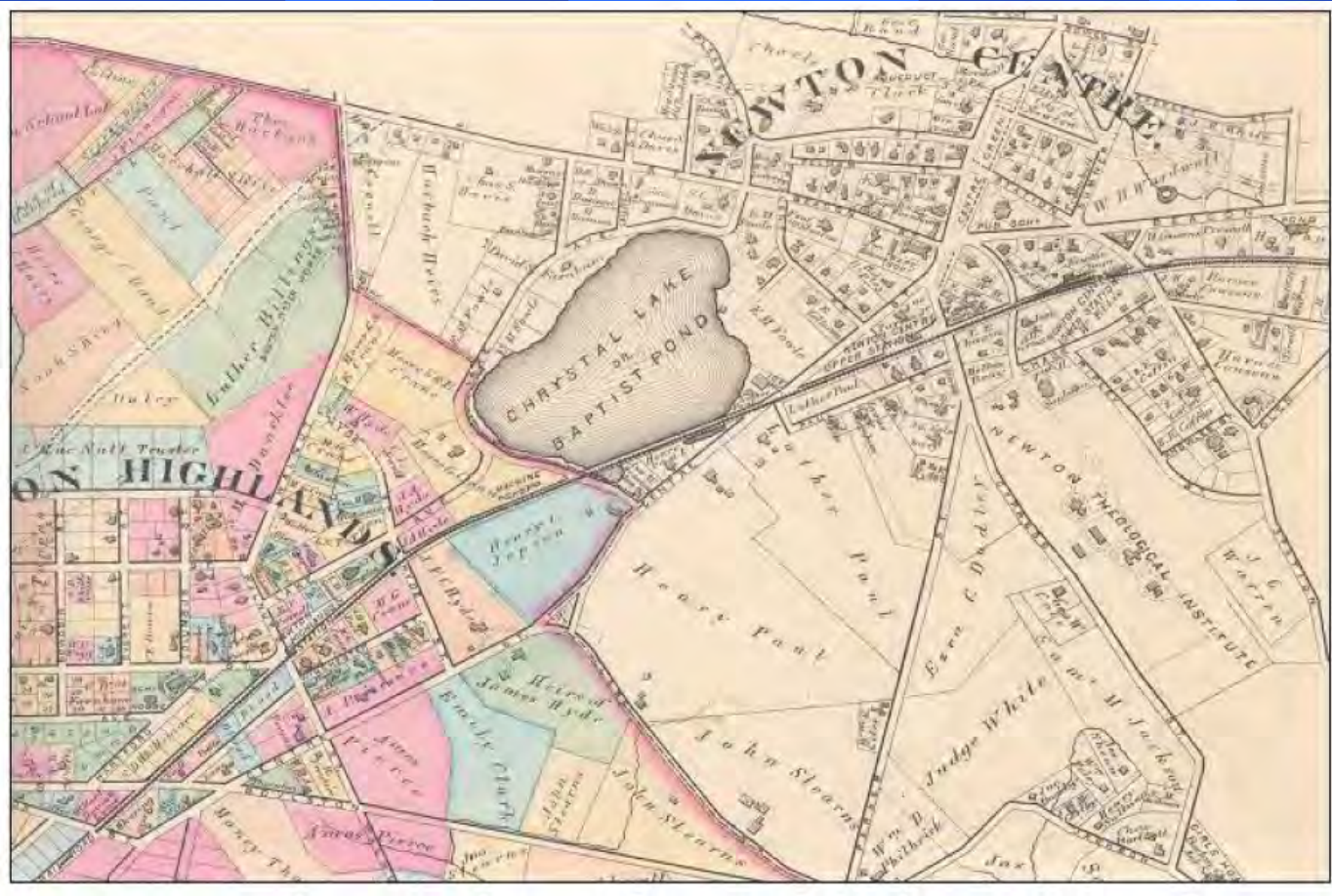
One of three houses on
Crystal Lake in 1874

Built in 1860

Owned Crane Factory
and machine shop at
site of present bath house

Made fire alarms and
telegraphs

Moses Crane House
219 Lake Avenue



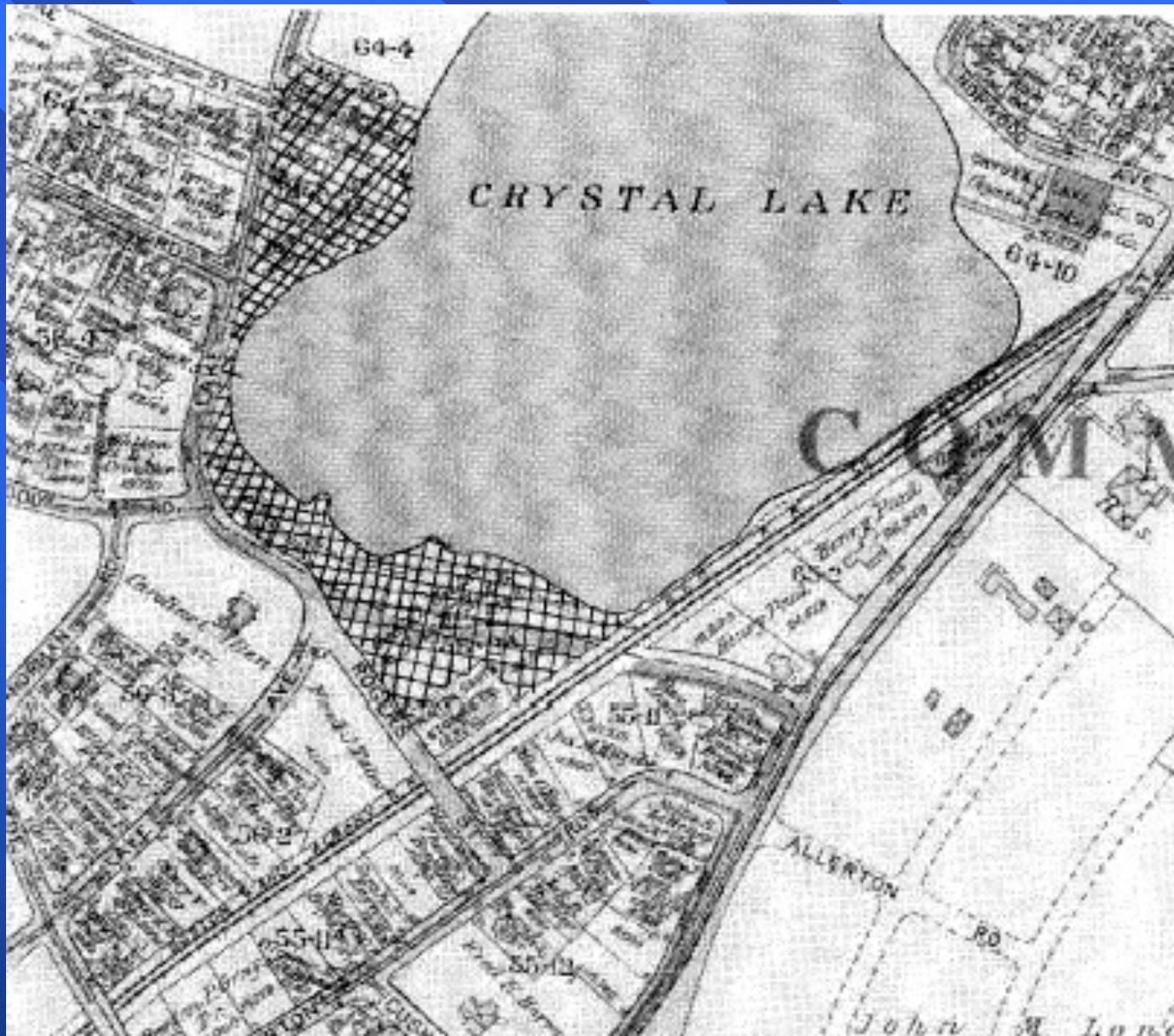
Baptists given land in 1795 by descendants of Thomas Wiswall

Built meetinghouse at Centre Street and Old Rogers Road

Baptist Pond, 1874



Crystal Lake, 1897



Crystal Lake - Open Space in 1910



Crystal Lake, Boating (early 1900's)



Crystal Lake, Lake Avenue (1905)



Crystal Lake, boating at the future
Cronin's Cove (1905)



Images of Crystal Lake:

Water pageant (1932)
(upper left)

Public Bathing Beach (1940)
(upper right)

Water pageant (1933)(right)





Gil Champagne Bathhouse

Built in 1930

Designed by local
architect Herbert
Colby

Constructed in stucco
with arcaded porch
facing water and entry
with curved parapet
facing street

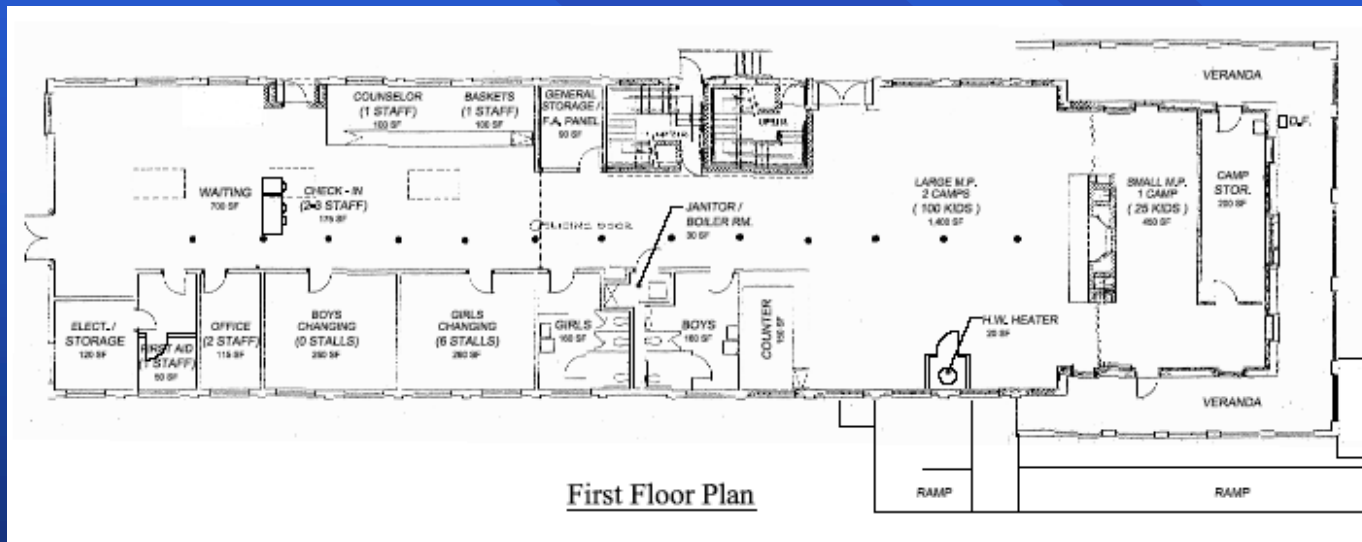


Lake (East) Elevation



Gil Champagne Bathhouse

Constructed for use by swimmers in summer and skaters in winter



Had restrooms, locker rooms, showers, and recreational room

Only restrooms now in use during summer

Crystal Lake: Questions & Answers

What access must be provided to Crystal Lake?

- Crystal Lake is a “great pond” and it:
 - “shall be public for the purpose of hunting or boating and shall be open to all inhabitants of the commonwealth for fishing purposes. All persons shall be allowed reasonable means of access to such points for the purposes aforesaid.”
- In 1924, the Commonwealth assigned care and control of the lake to the City of Newton, including designation of access points for the public and abutters.



Boating and Swimming
at Crystal Lake (undated photo)



Swimming in Crystal Lake, c. 2000's



Skating on Crystal Lake



Ice Skating in Newton Highlands

Can this be the future
at Crystal Lake?





Ski and skating season



Mud season



Swimming and boating season

The Seasons of Crystal Lake



Leaf season



The Future of Crystal Lake

What is the future of the Crystal Lake Bathhouse?

A full-season facility?

A place for active year-round recreation?

A community meeting space and function hall?

Available for private occasions?

A gathering place for arts and cultural events?

A facility that respects the neighborhood?

Crystal Lake – current conditions



Three sites for public access

No swimming at Cronin or Levingston coves

Boat launching and fishing at Cronin Cove

Public beach (with fees) from June 10-August 20

Crystal Lake Bathhouse (current conditions)



Built in 1930

**Parking lot in front
creates unwelcoming
entrance**

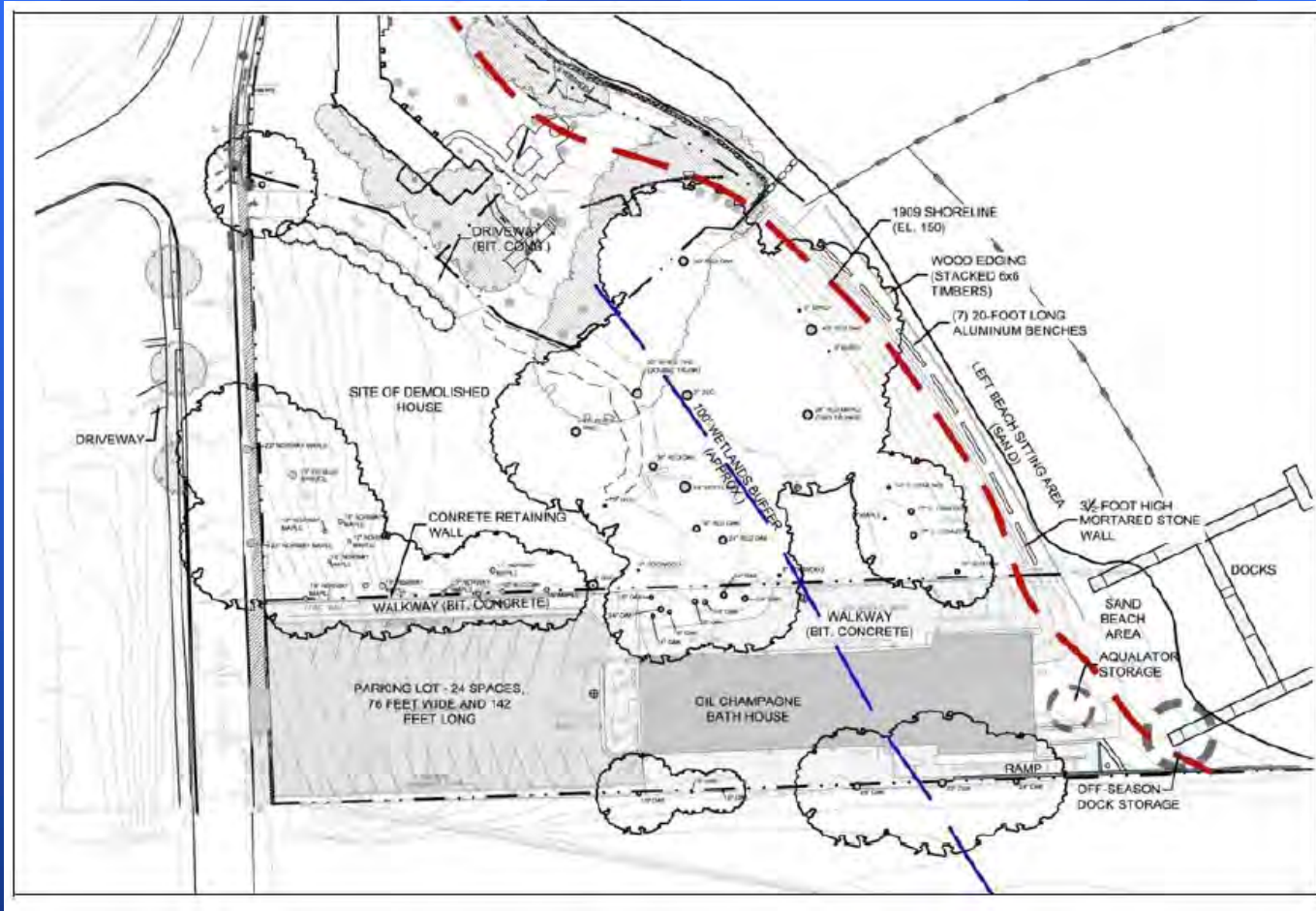
Not ADA accessible

**Low ceilings lead to
poor sense of place**

**Lakeside view more
attractive than
street-side view**

**Small beach, non-
compliant ADA
access**

Crystal Lake Bathhouse (current conditions)



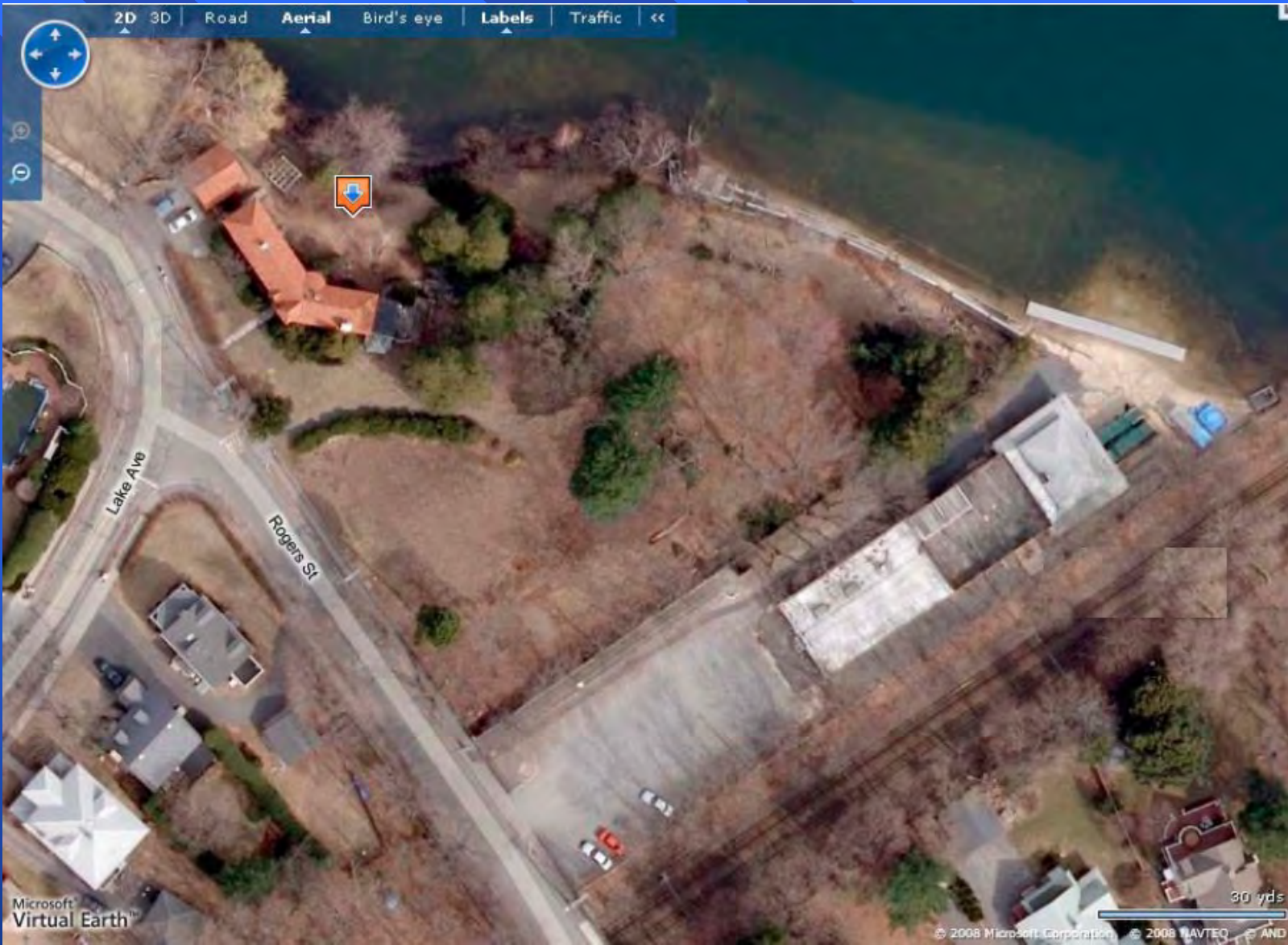
Parking for
23 cars

Poor pedestrian
site circulation

Limited beach
area

Closed building
design precludes
casual security
observation

Elongated
concrete shed

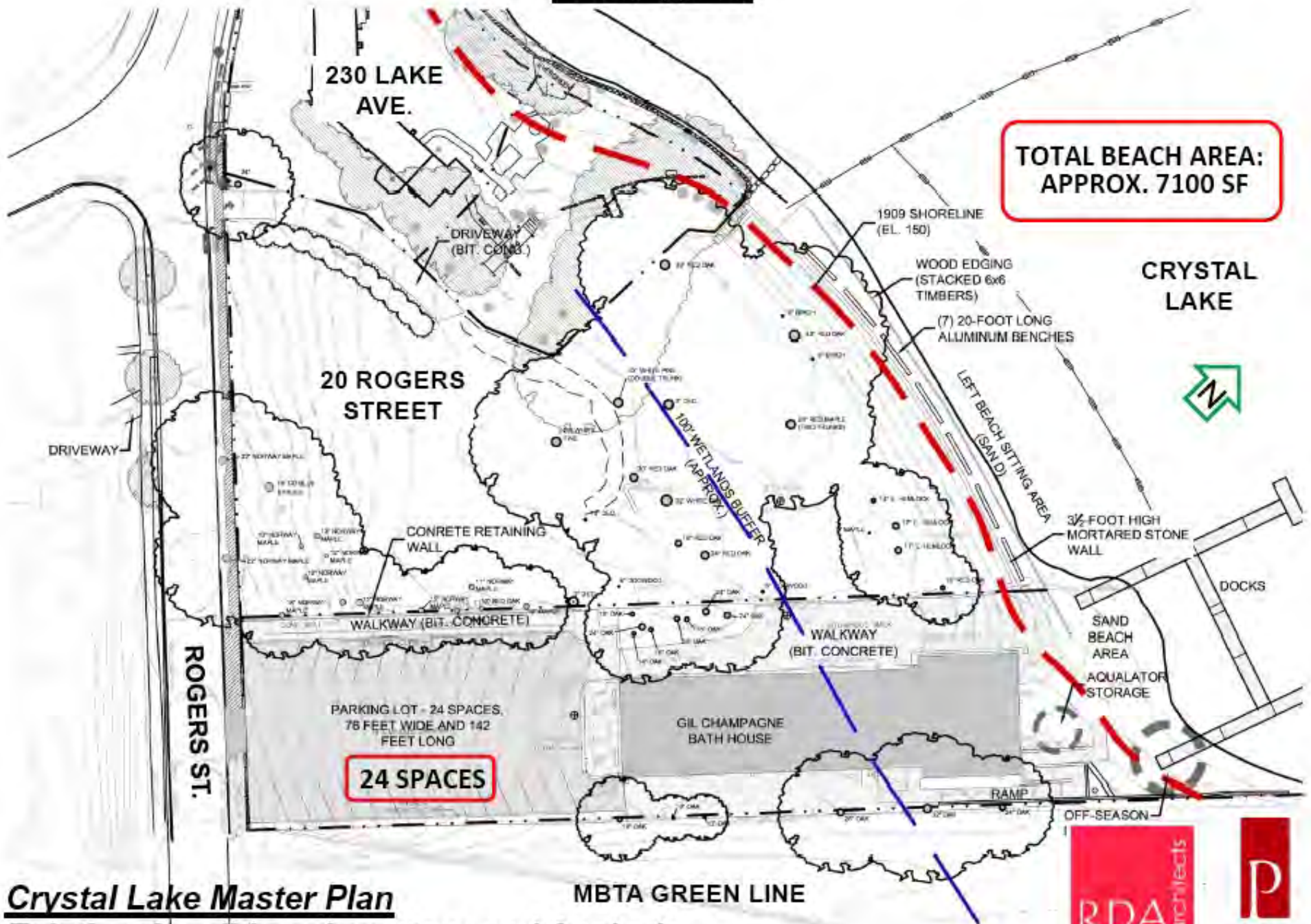


Crystal Lake Park aerial view



Crystal Lake Park aerial view

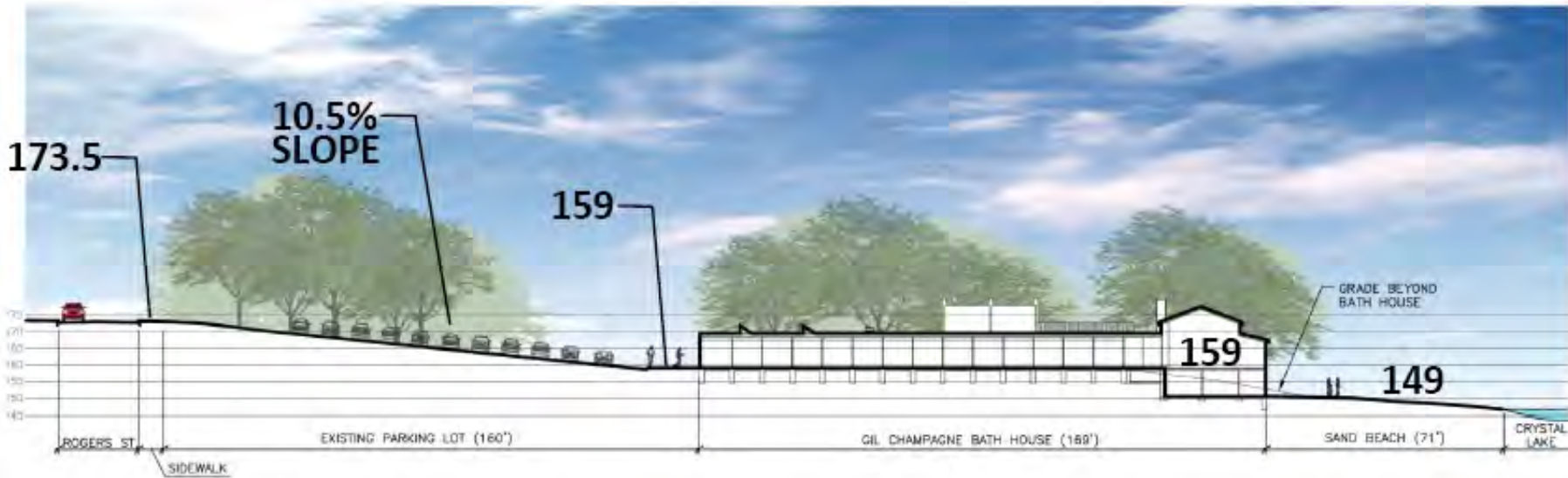
Existing Site



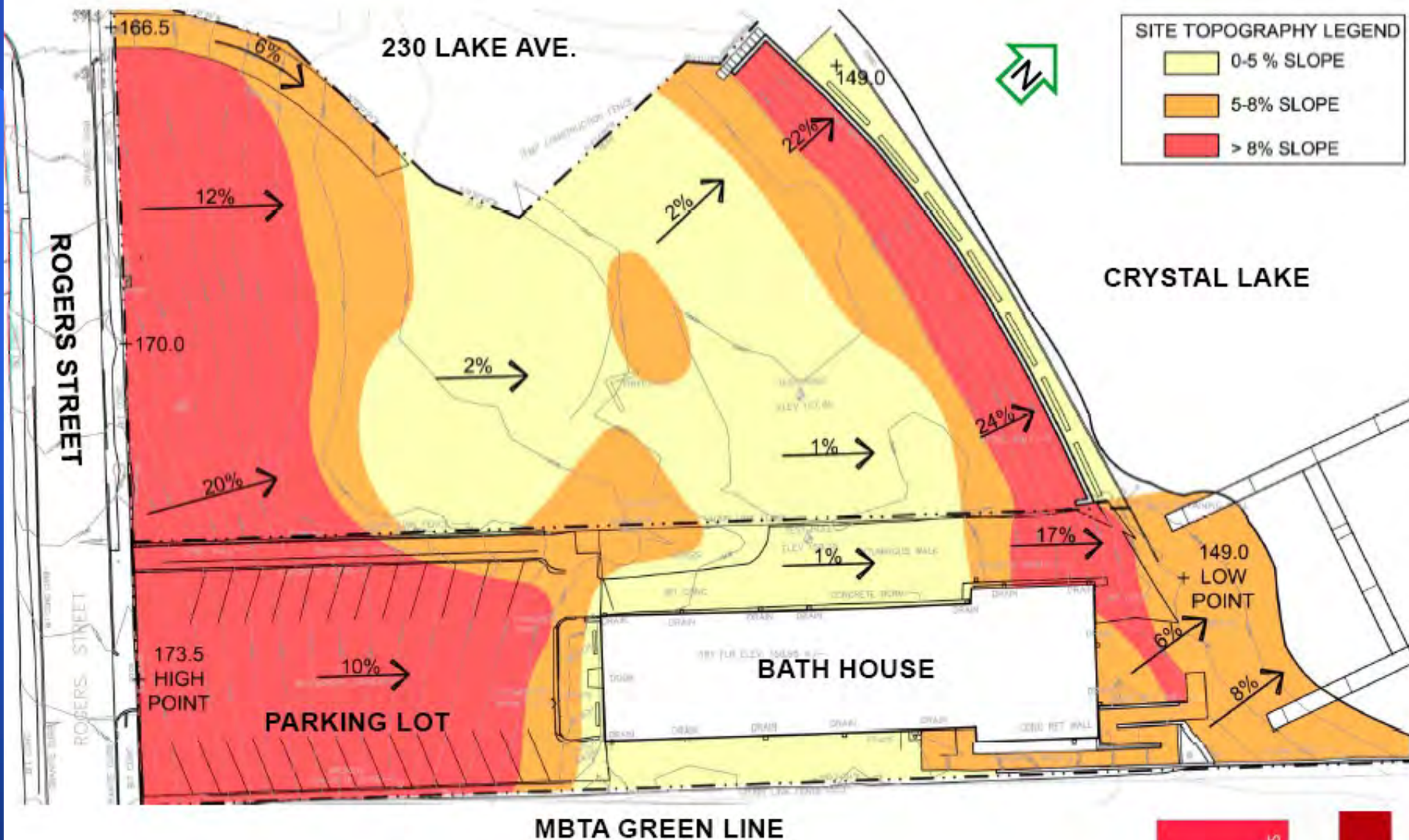
Crystal Lake Master Plan Existing Conditions Inventory and Analysis



Existing Site Section



Existing Site Topography



Light Yellow	0-5 % SLOPE
Orange	5-8% SLOPE
Red	> 8% SLOPE

Crystal Lake Bathhouse (current conditions)



**Outdoor veranda
gets little use**

**Water access
does not meet
ADA standards**



**Low profile is
seen from across
the lake**

Crystal Lake Bathhouse (current conditions)



Beach area

Very limited and poorly accessible

Varies depending on water level

Stone wall is a barrier

Benches are inaccessible to all in the off season, and have little use most of the year

Crystal Lake Bathhouse (current conditions)



Poor condition

Built of structural clay tile which is very difficult to renovate, with stucco exterior

Corridor design is extremely inefficient use of space.

Unattractive and provides no useful spaces for community gathering

Open only 10 weeks per year

Crystal Lake Bathhouse (current conditions)



Deteriorated conditions

Basement doors often require sandbags to resist flooding

Stucco over clay block is deteriorating at ground level

Numerous cracks and building failures are visible

Does not meet codes for resisting lateral loads

Crystal Lake Bathhouse (current conditions)



**Deteriorated
condition**

**Code deficient in
many ways**

**Windows are original
and replacements**

**Some are not
serviceable**

**Risk of water
infiltration and
further damage**

Crystal Lake Bathhouse (current conditions)



Interior of building

None of the existing systems are salvageable – all are energy intensive

Out of compliance with current codes and engineering practice

Boiler is jammed into a janitor's closet with no fresh air intake

Flue rises to former skylight opening

Crystal Lake Bathhouse (current conditions)



Interior bathhouse windows are opaque

Water heater is in an enclosed plywood closet (not per code)

Electrical and fire alarm panels are in packed storage rooms (not per code)

Nothing can be reused in a new or renovated building



Crystal Lake Bathhouse (current conditions)



**Showers and
bathrooms**

**Outdoor showers are
primitive and
unenclosed**

**Showers face onto
MBTA rail tracks**

**Access to showers is
inconvenient,
essentially hidden**

**Separated from indoor
facilities**



Crystal Lake Task Force (2008-2009)

Based on the substandard conditions of the existing property, the City appointed a task force to propose improvements:

- A new and improved bathhouse
- A bigger and better beach
- More parkland with greater uses
- Facility good for 4 seasons
- New community space
- Minimize impacts on neighborhood

Crystal Lake – Vision 2020

Site Plan Programming

■ Pedestrian circulation:

- Improve access to beach and park, ADA accessible
- Improve internal layout of the building to the outside

■ Vehicular circulation:

- Fit parking lot contextually into park landscape
- Meet ADA accessibility and run-off standards
- Good sightlines, less conflict
- No increase in capacity and reduce asphalt paving

Crystal Lake – Vision 2020

Site Plan Programming

■ Beach Experience:

- Must have clear, safe access from bathhouse to beach
- ADA accessible
- Enlarged beach area
- New opportunities for seating and picnic areas

■ Storm water and vegetation:

- Modern storm water and run off management
- Protect desirable vegetation
- Enhance quality of park space

Crystal Lake – Vision 2020

Building Plan Programming

■ Seasonal bath house:

- Insure access to beach and programs
- New bathrooms and locker rooms
- Outdoor showers, decks – accessible to public

■ Community uses:

- Multiple purpose four-season facility
- Provide community access throughout year
- Maximize efficiency and minimize operating costs

Crystal Lake – Vision 2020

Building Plan Programming

■ Current building:

- Bathhouse: 8200 sq ft
- Veranda on upper level: 925 sq ft
- Roof deck: 2350 sq ft (closed to public)

■ Proposed new building:

- Bathhouse: 5200 sq ft
- Veranda and/or decks: ??
- Second floor: ??

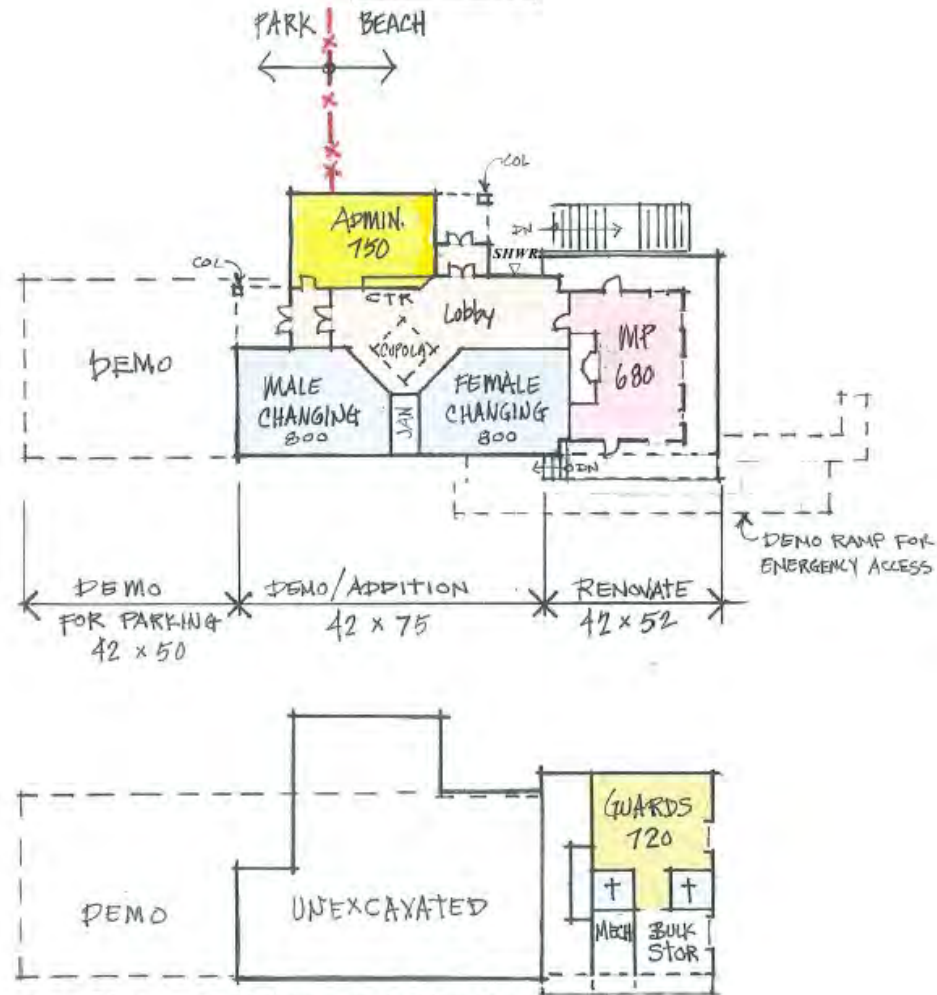
Crystal Lake – Vision 2020

Option 2a Building Perspectives (Conceptual)



Crystal Lake – Vision 2020

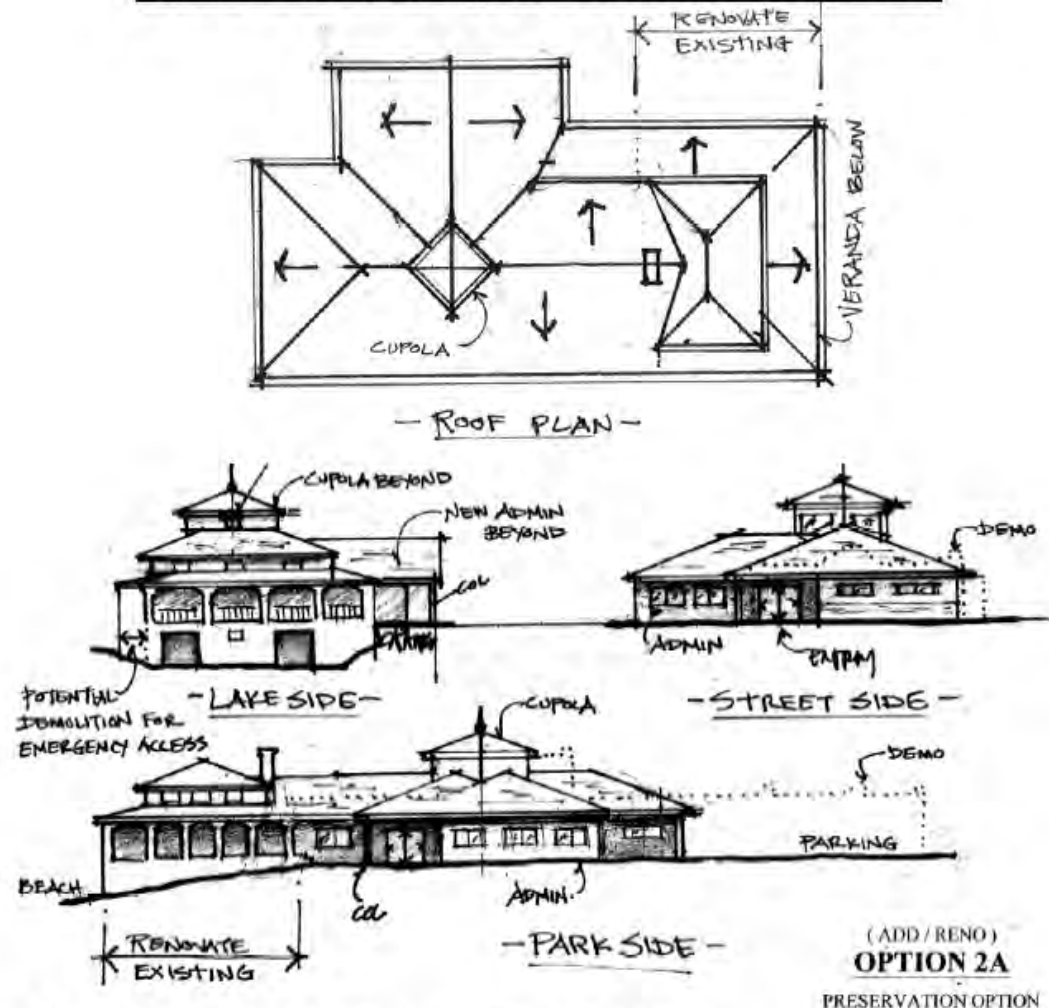
Option 2a



Crystal Lake Master Plan - Building and Site Options

Crystal Lake – Vision 2020

Option 2a Building Elevations (Conceptual)

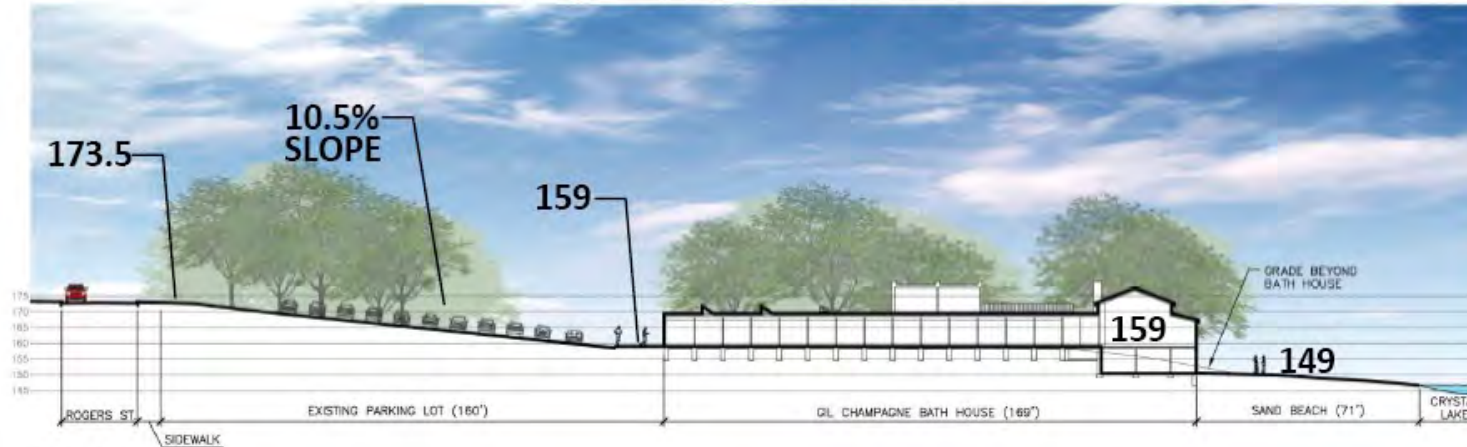


(ADD / RENO)
OPTION 2A
PRESERVATION OPTION

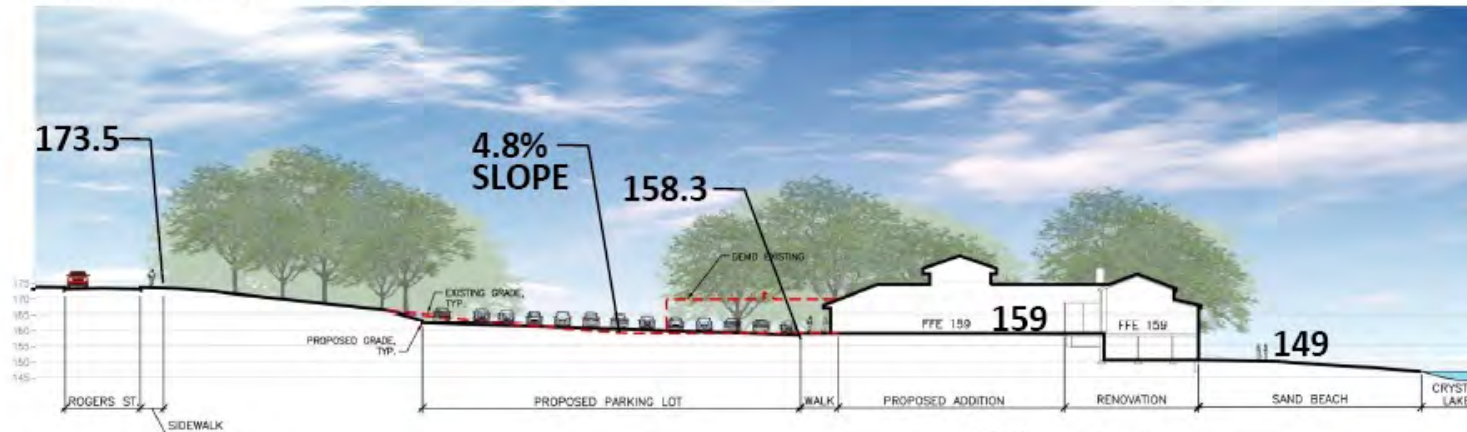


Crystal Lake – Vision 2020

Option 2A Site Section



Existing Section

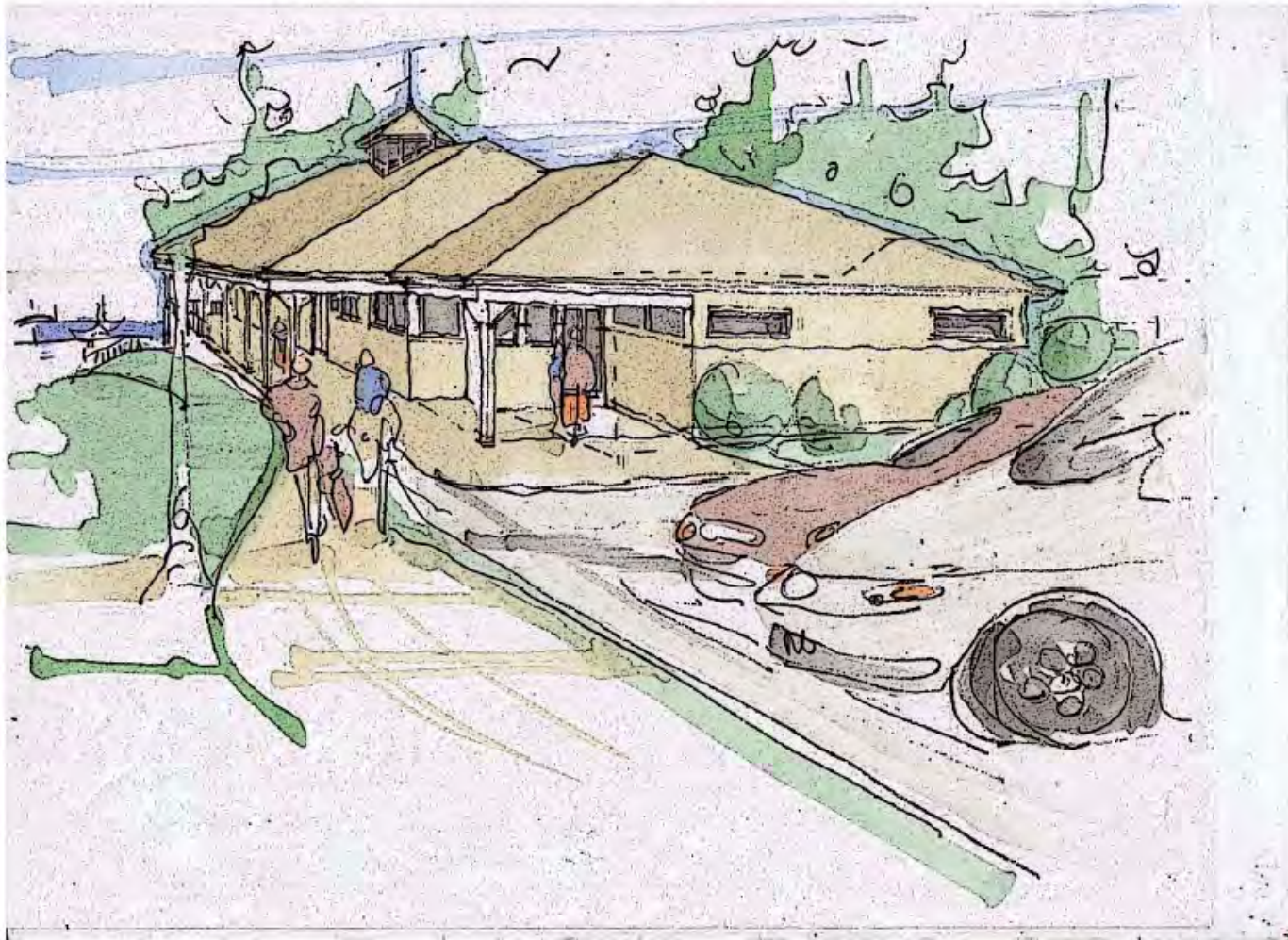


Proposed Section



Crystal Lake – Vision 2020

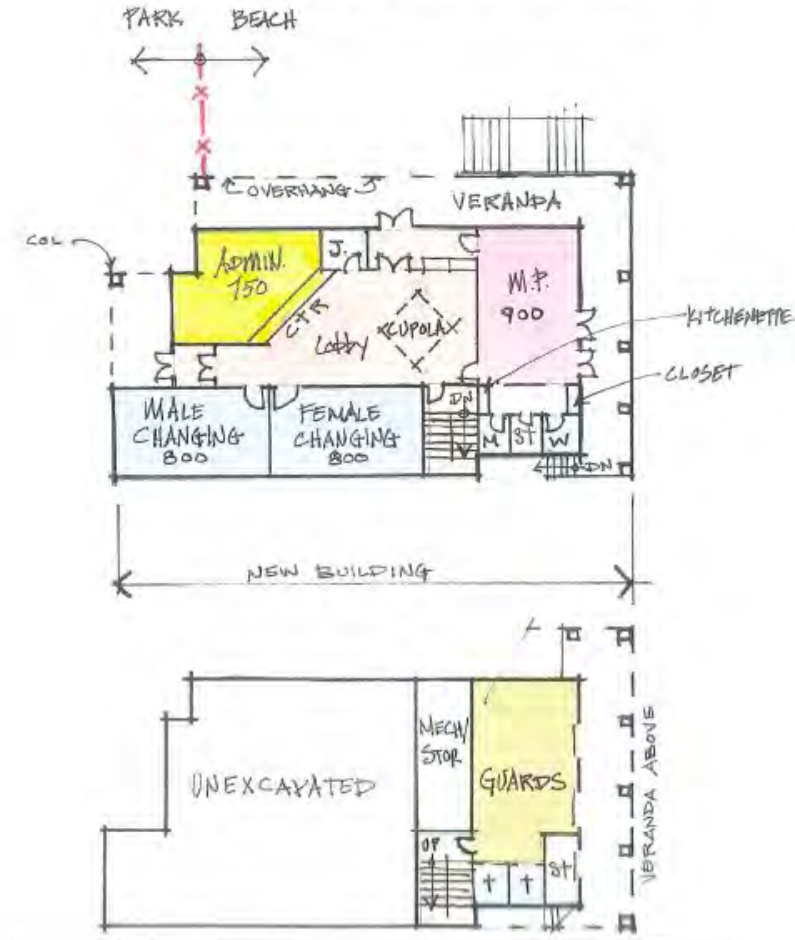
Option 3c Building Perspectives (Conceptual)



Crystal Lake Master Plan - Building and Site Options

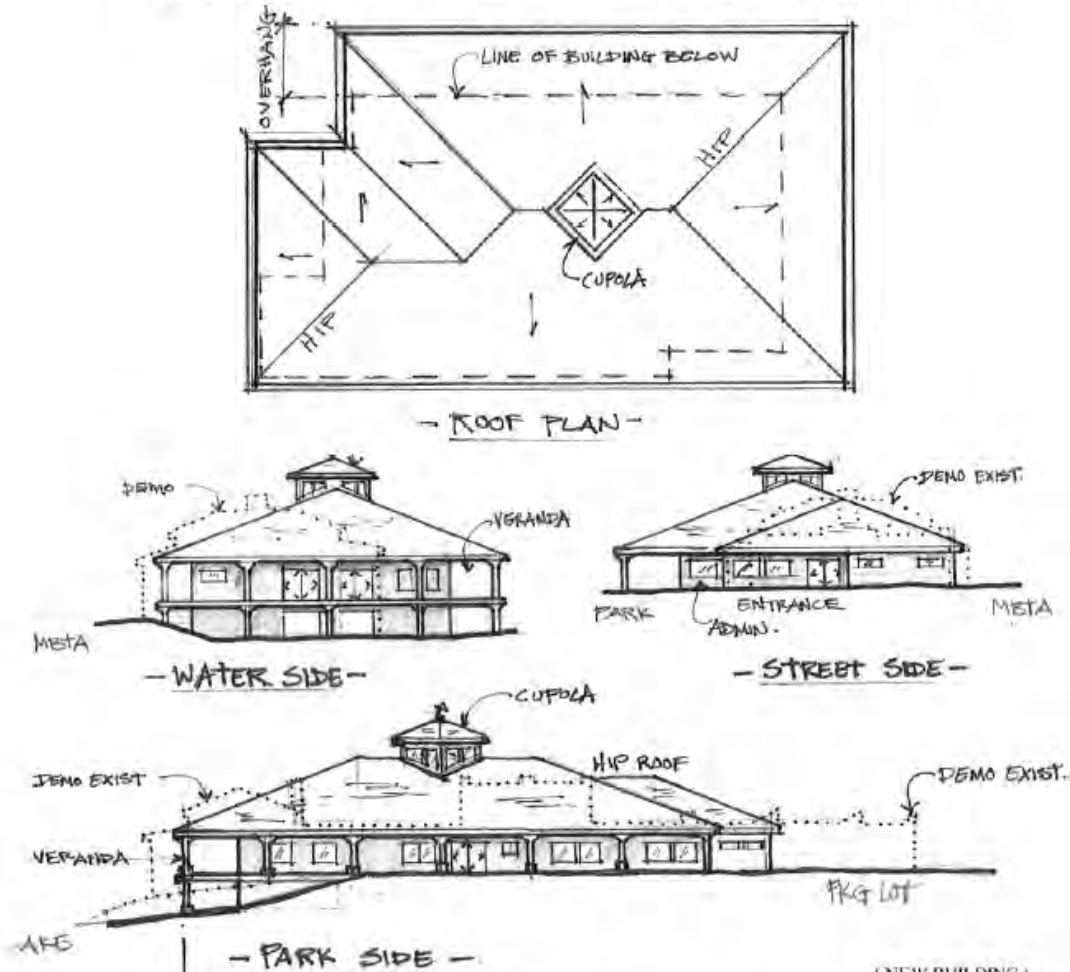
Crystal Lake – Vision 2020

Option 3c – New Building



Crystal Lake – Vision 2020

Option 3c Building Elevations (Conceptual)



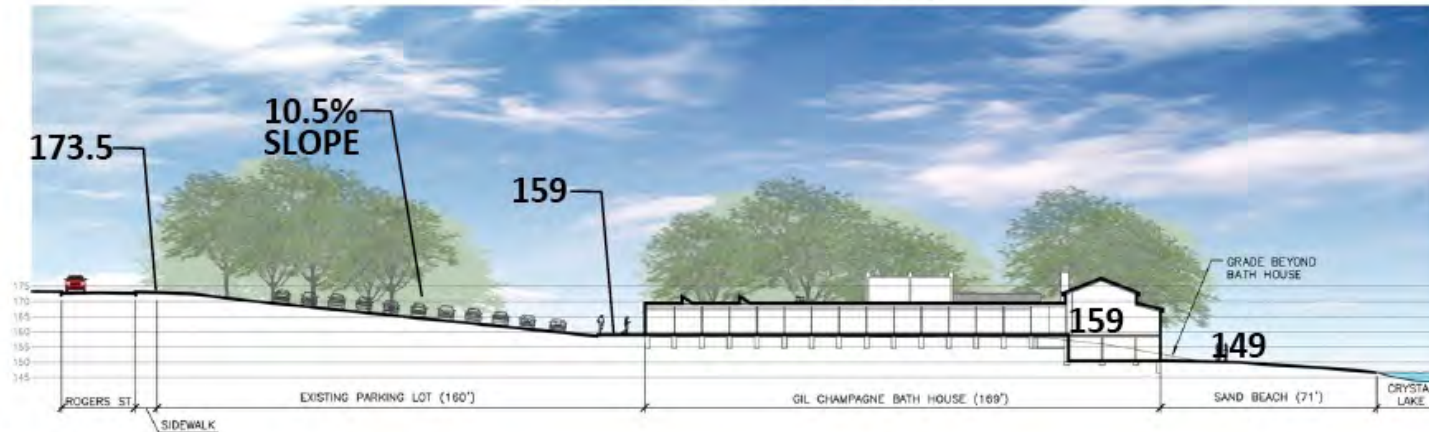
Crystal Lake Master Plan - Building and Site Options

(NEW BUILDING)
OPTION 3C

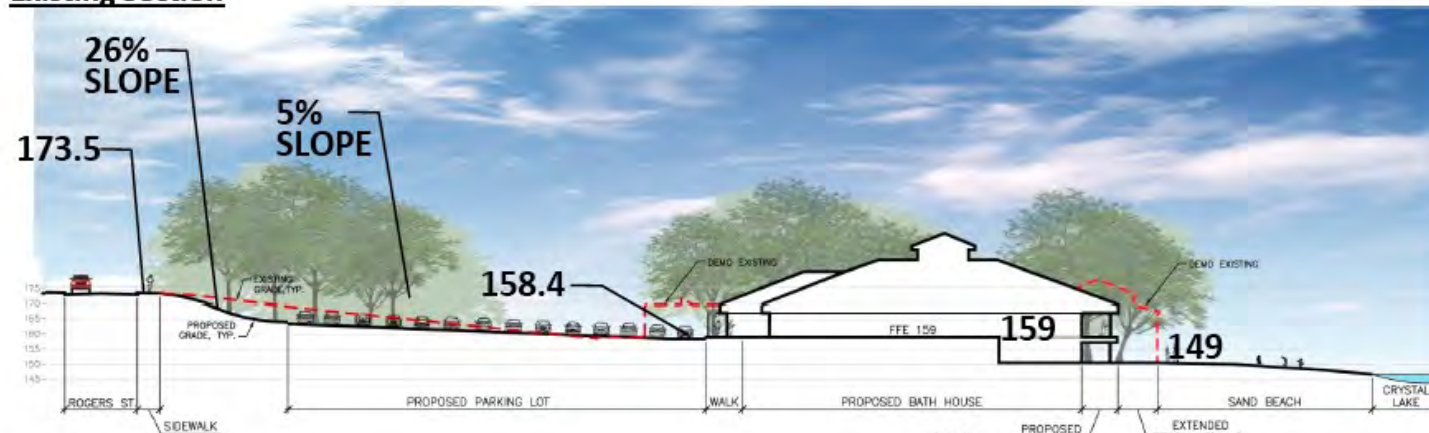


Crystal Lake – Vision 2020

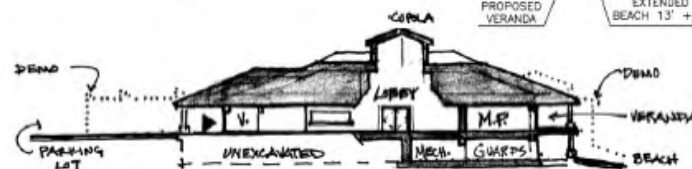
Option 3C Site Section



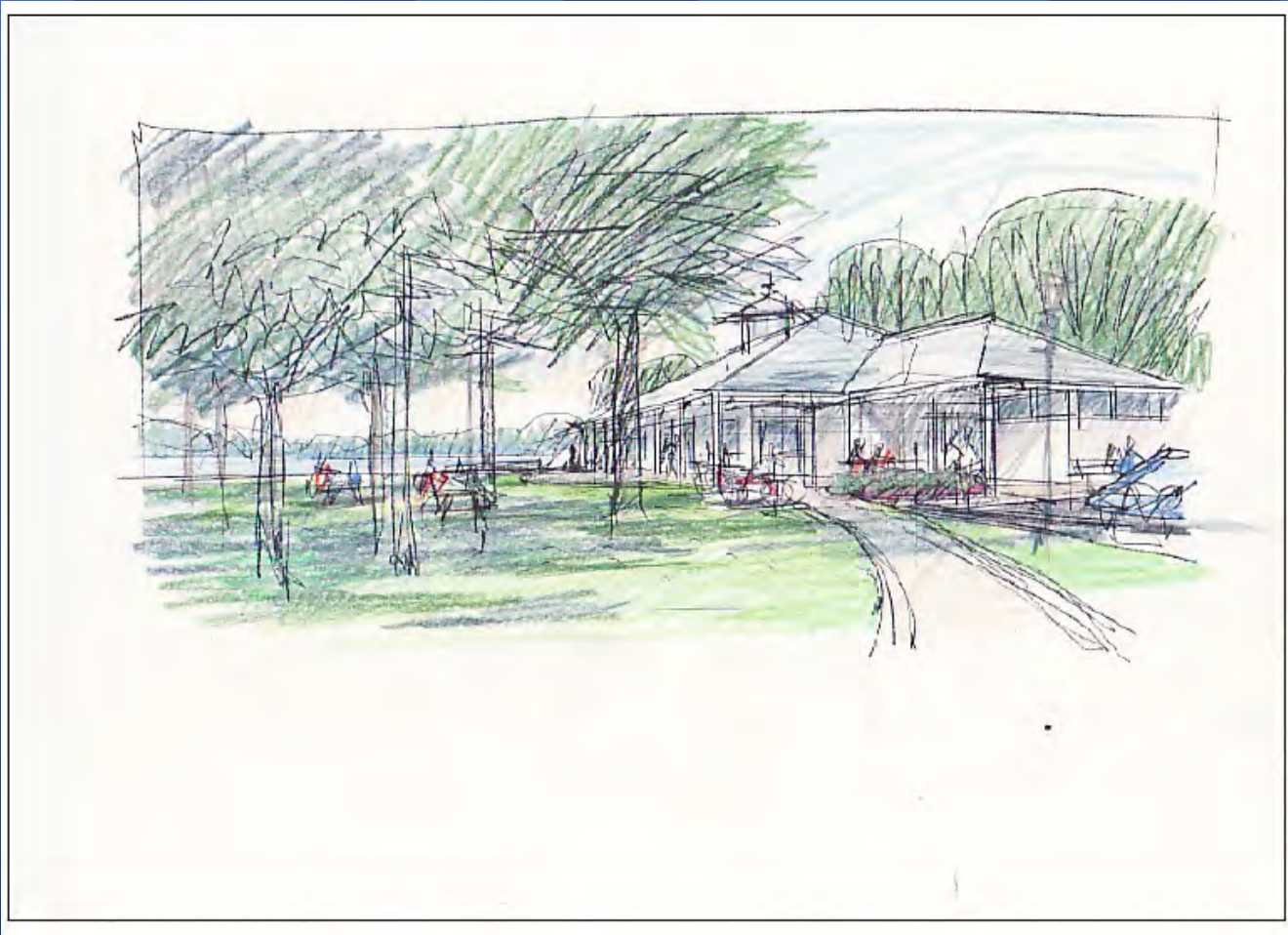
Existing Section



Proposed Section



Crystal Lake – Vision 2020



**View of new building
approaching the lake
from Rogers Street**

**Flat roof shed has
been removed**

**Access to building
and between building
and park is improved**

**What about the height
of the building?**

Crystal Lake – Vision 2020

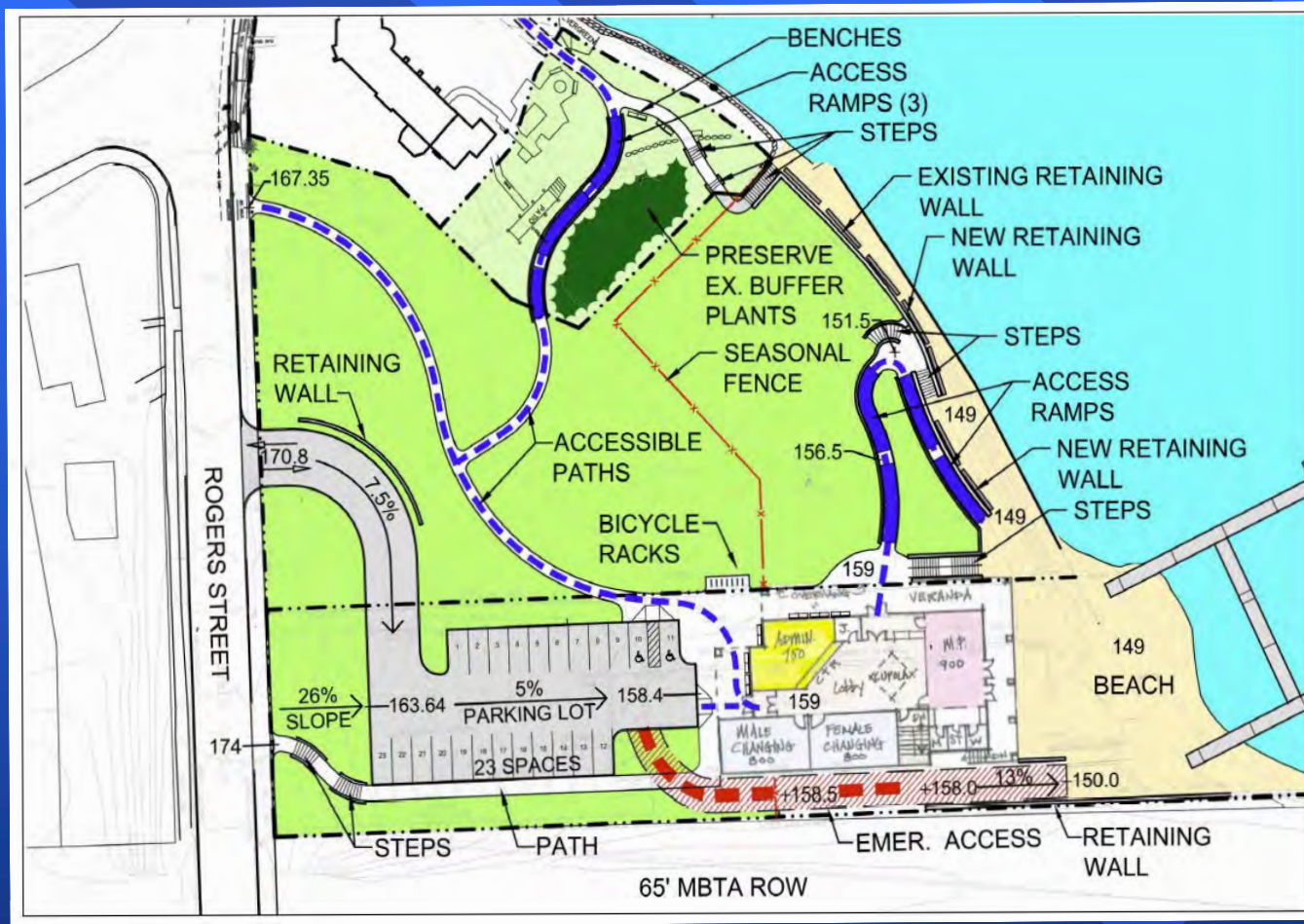


**View of new building
looking from the
dock in the lake**

**Reminiscent and
respectful of familiar
structure that it has
replaced**

**Increased lighting
and new usable
veranda providing
views to the lake
and park**

Crystal Lake – Vision 2020



New site plan with accessible paths to park and water

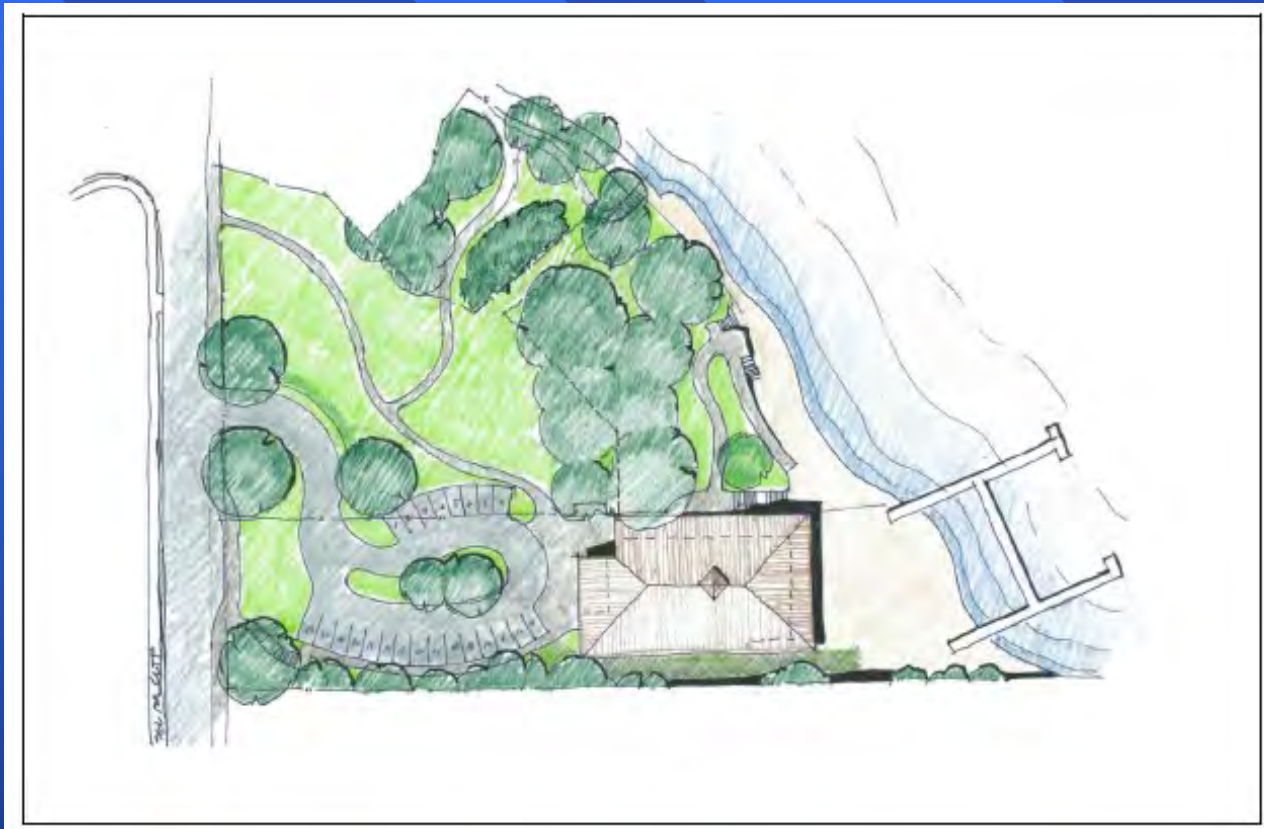
Expanded beach area in two locations

Maintains parking for 23 cars with less asphalt

Improved accessible slope

Maintains views of lake from street

Crystal Lake – Vision 2020



**New parking lot
plan – improved slope**

**Oval design with
one-way flow**

**Maintains parking
for 23 cars**

**Creates fewer
points for car-
pedestrian conflict**

**Easier drop-off for
bus groups**

Crystal Lake – Vision 2020

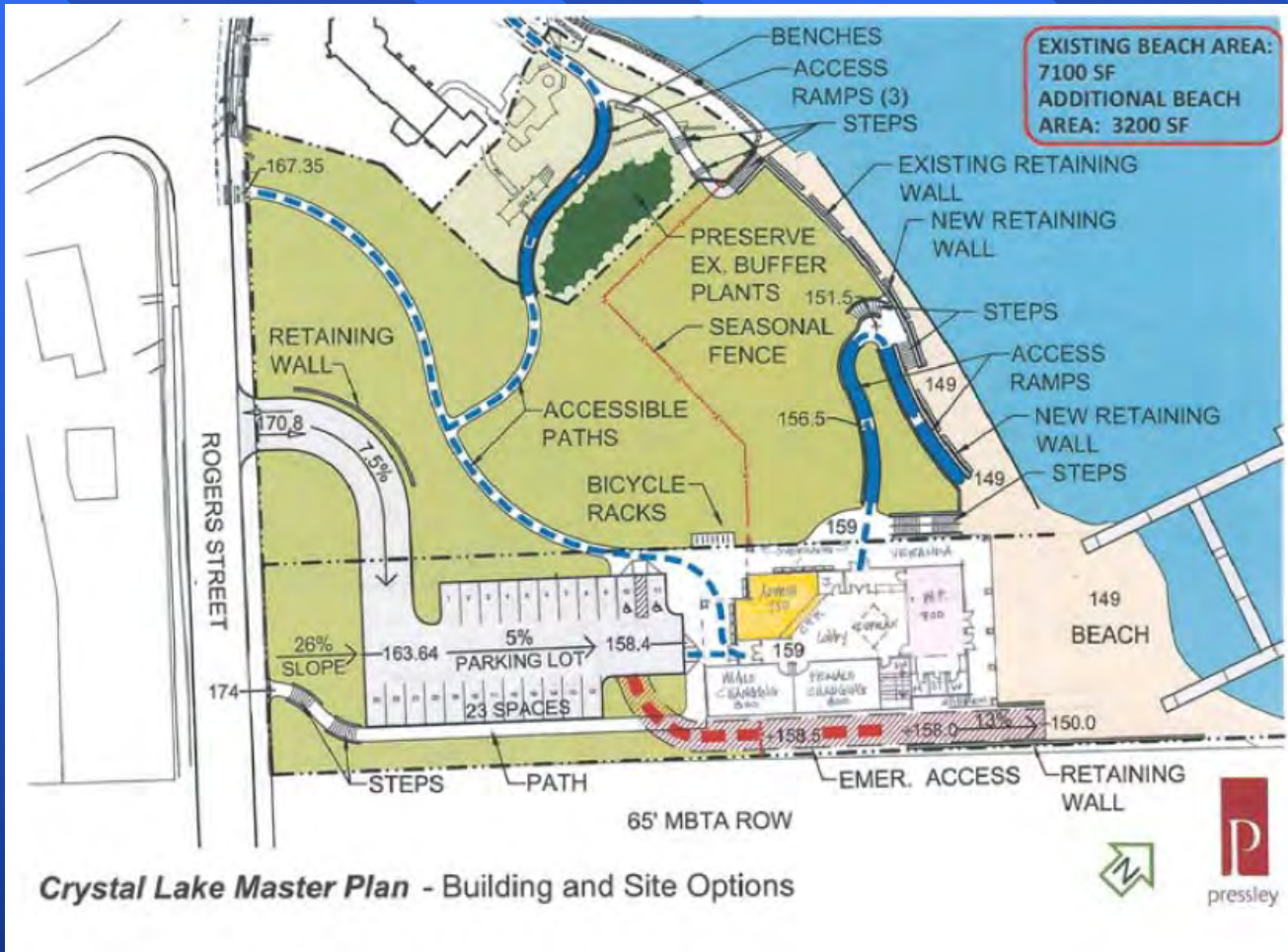
Cost estimates:

- **Site work:** Bath house, including park
- **Demolition:** May require environmental mitigation
- **Design:** Full set of construction drawings
- **Building costs:** The largest share of the budget
- **Funding:** From city budget, private sources, and CPA funds

Design will depend on programming

Cost-benefit improved by optimizing utility of the new facility

Crystal Lake – Vision 2020



Four season: Cultural and Arts facility

Programs for seniors and schools

What about the beach?

Existing: 7100 SF

Additional: 3200 SF

Do we want a larger beach?

Boat launching?

Retaining wall?

Fencing? Trees?

Crystal Lake – Vision 2020

Next Steps:

- **Fall-Winter 2017:** Programming decisions, selection of site and building plan
- **Spring 2017:** Budget allocation for development of detailed architectural drawings and site plan
- **Summer-Fall 2017:** Detailed drawings and plans prepared
- **Fall 2017:** Final cost estimate, bidding
- **Spring 2017:** Designation of funds from city budget, private sources, and CPC funds
- **2018-2019:** Construction and site work
- **Summer 2020:** New bathhouse opens to public

Crystal Lake Project: Initial Cost Estimates (Jan. 2009)

Cost Estimate Comparison

	<u>Option 2a</u>	<u>Option 3c</u>
Building	\$1,896,870	\$2,441,180
#20 and #30 Rogers St. Site Work	\$925,380	\$906,300
#230 Lake Ave. Lot #2 Site Work	\$31,800	\$31,800
Subtotal	\$2,854,050	\$3,379,280
Design	\$428,108 (15%)	\$337,928 (10%)
Soft Costs (35%)	<u>\$998,918</u>	<u>\$1,182,748</u>
Total Project Costs	\$4,281,076	\$4,899,956

Crystal Lake Project: Initial Cost Estimates (Jan. 2009)

Site Cost Estimates

<u>Option 2a</u>	<u>Option 3c</u>
Site Demo / Prep: \$128,000	Site Demo / Prep: \$128,000
Hardscape: \$280,000	Hardscape: \$260,000
Landscape: \$90,000	Landscape: \$95,000
Grading: \$30,000	Grading: \$30,000
Site Lighting: \$45,000	Site Lighting: \$45,000
Stormwater: \$75,000	Stormwater: \$75,000
Sewer System: <u>\$77,000</u>	Sewer System: <u>\$77,000</u>
SubTotal: \$725,000	SubTotal: \$710,000
Contingency (20%) <u>\$145,000</u>	Contingency (20%) <u>\$142,000</u>
Total \$870,000	Total \$852,000

Crystal Lake Master Plan - Building and Site Options

New Crystal Lake Bath House

Preliminary Cost Estimate – May 2016

Pro bono estimate by Kevin Dougherty
Tishman Builders
Scheme 3c

Building cost		\$3,861,000
Site work – Bath House site including park		\$1,042,426
Site work – 230 Lake Avenue		\$25,807
Escalation to mid-point of construction (2018)		\$499,409
Contract Contingency		\$542,684
Total Construction cost (2018)		\$5,971,506
Soft costs:		
Design	\$895,796	
Design Contingency	\$597,151	
Allowance	\$298,575	
Total Soft Costs		\$1,791,452
Total Project Cost		\$7,762,958