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We are pleased to make available the work of the Crystal Lake Task Force, a group of dedicated residents assembled in June 2007 to examine ways to enhance the community's enjoyment of the City-owned property at Crystal Lake. In June 2010, the Task Force submitted to the City the *Crystal Lake Bathhouse Public Park Master Plan.*

We sincerely appreciate the considerable effort that went into the creation of this report and its recommendations. The City is about to undertake an assessment of all of its public buildings as part of a new capital planning process in Newton. The work of the Task Force will certainly contribute to our understanding of the challenges and opportunities related to the Crystal Lake Bathhouse, one of nearly eighty City-owned buildings.

We look forward to continuing to collaborate with the Crystal Lake community as we make decisions about capital improvements in our City.

Robert DeRubeis
Commissioner
Parks & Recreation Department

Stephanie Kane Gilman
Commissioner
Public Buildings Department

CRYSTAL LAKE BATHHOUSE PUBLIC PARK MASTER PLAN

Submitted by:

CRYSTAL LAKE TASK FORCE of the CITY OF NEWTON

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June 2010

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History of the Property

LEC Permitting Analysis Letter: March 27, 2009

Newton Historical Commission Meeting Minutes: March 26, 2009

Newton Conservation Commission Meeting Minutes: April 23, 2009

Newton Parks & Recreation Commission Meeting Minutes: February 23, 2009

Newton Parks & Recreation Commission Meeting Minutes: September 21, 2009

Other Options Brought Forward from Community

a. Building and Circular Parking Lot Plan-Fizek
b. Existing Parking Modification Plan-Kurzweil
c. Building Options-Nedeljkovic
d. Parking Deck Plan-Rieske
e. Tiered Parking Lot Plan-Sangiolo

Note: Minutes of the Crystal Lake Task Force meetings are available upon request from the Planning and Development Department or the Parks and Recreation Department.

Acknowledgments

Crystal Lake Task Force Members:
Appointed by the Mayor and Aldermen, the following individuals gave of their time, creativity, ideas, passion and devotion to develop the "best plan" for one of Newton's greatest natural assets.

Chair: Janice Bourque

Citizens: Jean Artin, Mary Carpenter, Jodi Detjen, Robert Fizek,
Sonya Kurzweil, Ray Kurzweil, Rhoda Kubrick,
Schuyler Larrabee, and Srdjan Nedeljkovic

Aldermen: Vicki Danberg, George Mansfield (former) and Ken Parker (former)

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Introduction

Background

One of two "great ponds" located within the City of Newton; Crystal Lake is an intensely used recreational space and plays a vitally important role in the lives of many Newton residents. Upwards to a thousand people per day participate in seasonal swim programs run by the Parks and Recreation Department at the Gil Champagne Bathhouse. The lake is stocked each spring with rainbow and brown trout, allowing for a "Catch and Release" fishing program, and other organized activities include a newly organized adult birding club.

Additionally, a great number of informal recreational activities take place around Crystal Lake on a daily basis: walking, picnicking, jogging, recreational reading, small animal study (birds, turtles, ducks), dog walking, various activities on the lawn, and simply sitting to take in the peaceful view and enjoy the outdoors.

Until recently, public access to the lake was limited to three city-owned parcels, each isolated from the others: The Gil Champagne Bathhouse and two open-space parcels, one at Levingston Cove and one at Cronin Cove. In early 2006, private property adjacent to the existing Crystal Lake Bathhouse entered the real estate market. With the urging of the community grassroots effort, **A Better Lake**, led by Robert Fizek, the Mayor and City of Newton began to explore the opportunity of creating additional parkland on Crystal Lake. In November 2006, Mayor Cohen engaged the public at a public forum at the Newton Library to gather feedback from the community on what they desired from the public facilities around Crystal Lake.

Due to the community's response, The City elected to take advantage of opportunities to expand and improve public access to the lake and its environs. Over the past few years two additional parcels, one at 20 Rogers Street and a portion of 230 Lake Avenue have been secured to supplement and expand recreational opportunities at Crystal Lake. The linkage of these parcels creates a continuous public-access zone stretching from Levingston Cove in the north to the bathhouse in the south, along the western edge of the lake.

The property at 20 Rogers Street immediately abuts the Gil Champagne Bathhouse parcel to the north and became available for sale in 2006. After much debate and discourse, the Newton Parks and Recreation Commission voted to recommend that the City use CPA funds to acquire the private property at 20 Rogers Street in order to expand the existing public swimming and recreation area. Upon the recommendation of the Community Preservation Committee and approval by the Board of Aldermen, the property was acquired by the City of Newton by eminent domain in May 2007. In January 2008, the dilapidated and fire-damaged colonial style house on the property was condemned and demolished and lawns were installed in its place.

The City then had the opportunity to purchase the adjacent property at 230 Lake Avenue which lay between 20 Rogers Street and the existing city-owned parcel at Levingston Cove. After much debate and community input, the City and the Board of Aldermen voted to participate in a partial 3-way purchase and sale involving the owner, the prospective buyer, and the City.

As part of the property transfer, the City acquired an 8,400 square foot property located between the house at 230 Lake Avenue and the 20 Rogers Street property. A conservation restriction was placed on the property, which contains a grove of cedar trees, a landscaped fountain and a patio to be kept in its current state and maintained by the new owner. The City also secured an easement for a public path along the lakefront of the property connecting Levingston Cove to the newly acquired public lands at 20 Rogers Street, adjacent to the bathhouse property. As part of the agreement, a preservation restriction was placed on the front of the house at 230 Lake Avenue. The public path was completed per the agreement in fall 2009. Recommendations for site design within the conservation restriction and connecting paths to those proposed for 20 Rogers Street and bathhouse sites are addressed in this master plan document.

The Task Force

Mayor David Cohen established the Crystal Lake Task Force (CLTF) in July 2007. The Task Force was charged with conducting a community planning process relating to the existing Crystal Lake property, to propose appropriate improvements to the facility and to the operations of the lake, to make recommendations on the best use of the newly acquired 20 Rogers Street and 230 Lake Avenue properties in connection with those operations, and in general to examine ways of enhancing and extending community enjoyment of the city's only public swimming beach and its environs. Ultimately the goal was to recommend a master plan for the newly enlarged City-owned land holdings at Crystal Lake.

Process

Chaired by Janice Bourque, the Crystal Lake Task Force held monthly meetings from August 2007-September 2009 and participated in community outreach to develop the proposal contained herein for a new bathhouse and expanded public park at Crystal Lake. The monthly discussions covered organization of the Task Force; the design review process; discussions of community comments and ideas; resolution on issues; appraisal review; plot plans, topography and tree inventory review; demolition and site stabilization of 20 Rogers Street; structural review of buildings; existing conditions inventory; and analysis of the Request for Qualifications to solicit the design services needed to develop the Master Plan.

In May 2008, the Board of Aldermen from the City's General Fund approved the funding for the Master Plan. The Newton Conservators also contributed $15,000 of their funds towards this effort. The City used these funds to contract with the architectural firms of Raymond Design Associates, Inc. (Gene Raymond, Jr., AIA, LEED AP, Principal) for the building and Pressley Associates, Inc. (Marion Pressley, ASLA, Principal) for site planning. Chaired by Janice Bourque, the Crystal Lake Task Force worked with the architects to develop the proposal contained herein for the newly expanded bathhouse and public park at Crystal Lake.

Numerous factors were taken into consideration during the development of the Master Plan. These included:

- Preservation of open space
- Accessibility of the building and site
- Runoff and drainage
- Contiguous walking opportunities
- Active and passive recreation
- Year round use of the building
- Design flexibility for current/future needs
- Heating and maintenance costs
- Architectural and historical nuances
- Community use and local Lake impact
- Traffic flow and parking
- Increased beach area
- Safety issues and emergency access
- Cost of improvements

By August 2008, the Task Force was prepared to work with the architects to translate their analysis and discussion into building and site options. By January 2009 numerous options were narrowed down to two final draft building and site options. These two options – a new building option and a partial restoration/addition option – were presented to the Mayor, the Aldermen and the community for feedback at a community meeting held at the Newton Public Library in January 2009. The majority of those present voted for the new building option.

From January to September 2009, the Task Force continued to refine the challenges and details with presentations before the Newton Historical Commission, the Newton Parks & Recreation Commission and the Newton

Conservation Commission. All of the Commissions were supportive of the plans and provided feedback. The minutes of those meetings are included in the Appendix of this report.

On September 21, 2009, the Parks and Recreation Commission voted in support of the Task Force final recommendation of a new bathhouse. The recommendation included construction of a new bathhouse that maintains the architectural elements of the original existing building façade (veranda, etc.), increased programming options and utility efficiency, increased beach area, an improved oval parking lot, handicap accessibility, new walkways and a contiguous path connecting the beach at the bathhouse to Levingston Cove.

It is with great pride and a sense of vision and accomplishment that Mayor David B. Cohen's Crystal Lake Task Force presents to the City and the Community a Master Plan for Crystal Lake.

Executive Summary

Crystal Lake is an important and beautiful asset for the Newton community. A great deal of time, commitment and effort was put forth by all of the parties involved in the creation of this master plan. It is the hope of all involved with the preparation of this document that it will guide the future of Crystal Lake and its environ to further improve this valuable community resource.

ES.1 Objective

Create a Master Plan for the City of Newton's Crystal Lake bathing beach, bathhouse, parkland, and parking area that would expand and improve this recreational facility and better serve the citizens of Newton.

Mayor David Cohen had established the Task Force in 2007 to conduct a community planning and information gathering process in order to propose improvements to the Crystal Lake facility and operations, including recommendations on the best use of the newly acquired 20 Rogers Street and 230 Lake Avenue properties, with a view to enhancing and extending community enjoyment of the city's only public swimming beach and its environs. To assist the Task Force in developing that plan, the City of Newton hired Raymond Design Associates, Inc. (architects) and Pressley Associates, Inc. (landscape architects)—collectively referred to hereafter as the 'Study Team')—in the spring of 2008. The Study Team developed a number of alternative plans, which the Task Force evaluated and modified. This process assisted the Crystal Lake Task Force in establishing the most appropriate Master Plan.

The master-planning process involved evaluating existing conditions, exploring alternatives, soliciting community input, and creating a development plan that would integrate the bathhouse and beach facility with the adjacent parcels at 20 Rogers Street and 230 Lake Avenue thereby creating an improved recreational and open space amenity serving Newton's citizenry.

ES.2 Final Recommendation

After developing and analyzing several options for the beach, bathhouse, parkland and parking area, the Task Force recommended the Option 3C site design (see diagram, page 8). This option includes a new bathhouse to be built in approximately the same location as the existing one, but further from the shoreline, thus expanding the existing beach area. The key features and advantages of Option 3C are:

- Expands the beach; 45% net gain of 3,200 sq.ft. with a total proposed beach area of 10,300 sq.ft.
- Reduces the site's impervious area, including the building and all paved areas, by 12%.
- Locates an oval 23-space parking lot directly in front of the new building. (Separate illustration, Fiqure 2 page 9).
- Preserves most of the newly acquired 20 Rogers Street parcel as open green space.
- Reduces the size of the bathhouse, creating maintenance efficiencies.
- Recalls, intentionally, the existing bathhouse. The design has a large hipped roof, two-level verandas on three sides to provide patrons with shelter and enjoyment, and the building is anchored into the landscape.
- Places the entrance to the building under a canopy directly facing the parking lot and Rogers Street.
- Includes a supervisor's office, a check-in counter that facilitates internal and external monitoring, a large lobby, men's and women's changing rooms, and a modest community meeting room.
- Connects the building's two levels with an internal stairway. The lower level includes the lifeguard locker room and a covered, open-air space between the guardroom and the beach.
- Uses exterior steps and an accessible ramp system to connect the main (upper) level of the bathhouse to the beach.

- Fits pedestrian routes, including handicap accessible routes, sensitively in the landscape and allows full and safe access throughout the parkland, as well as on and off the beach.
- Locates an emergency and maintenance vehicular route along the south (MBTA) side of the building, away from the major public-use areas of the site.
- Preserves most of the good-quality, desirable trees, although some trees will be removed to allow for the building, paving, and site. The vegetation plan seeks to replace or exceed the number of trees removed and to place them to enhance lake views and buffer views and noise of the MBTA tracks.
- Addresses storm water management and water quality through underground infiltration basins for the parking area and building's roof drain system; directed surface flow to a gravel-over-sand infiltration area set into the emergency access ('crane access') route; and rain gardens within the landscape.
- Relocates the building's existing sanitary sewer line uphill, away from the lake; it will no longer be near the shoreline.
- Supports off-season use of the building without compromising the safety of seasonal equipment and storage areas.

The final recommendation projects a smaller building than the current one, but one that is much more flexible and functional. It includes improved internal staff communication and will enable off-seasonal use of the facility without compromising the safety of seasonal equipment or storage areas. It includes an expanded and improved beach and preserves as much parkland as possible for passive recreation.

ES.3 Project Cost

The 'Total Project Cost' for Option 3C (New Bathhouse and Parkland) is $4.9 million dollars. This 'turn-key' budget includes a 35% multiplier on top of 'Estimated Construction Costs' to cover other costs, such as, furnishings and & equipment, design contingency, construction contingency, architectural, engineering and landscape design fees, etc. "Cost Estimates" and "Project Budgets" are expressed in 2009/10 dollars and are expected to escalate over time (see Cost Analysis Section 4).

ES.4 Background and Decision Process

The existing Gil Champagne Bathhouse and bathing beach at Crystal Lake have served Newton residents since 1930. In recent years, the City secured an adjoining parcel at 20 Rogers Street and an easement over land behind 230 Lake Avenue. These additions expand the existing parkland at Crystal Lake and provide a physical connection to another city-owned parcel along the shoreline at Levingston Cove. These additions presented an opportunity to develop a Master Plan for this entire city-controlled recreational resource.

The Study Team organized its work around a total of seven meetings with the Task Force and one community forum, all of which took place between May 2008 and January 2009. During the spring and summer of 2009, the Task Force presented preliminary findings and recommendations to various municipal committees, solicited input, and then endorsed a single master plan recommendation. During the fall of 2009, the study team helped the Task Force compile this Master Plan document.

Existing Conditions Analysis

The Study Team fully inventoried the physical conditions at the Gil Champagne Bathhouse, as well as various site features, circulation patterns, views, and vegetation on all three parcels. They obtained existing condition drawings of the bathhouse building from city archives and verified them for accuracy. They used a combination of site surveys prepared by the Newton Engineering Division, aerial photographs, and MassGIS data to develop site base plans. They supplemented the existing condition surveys with information from interviews with City of Newton officials familiar with the management and operations of the facility and with information the Task Force provided on neighborhood constraints. The analysis of existing conditions, operations, and future needs enabled them to compile a programmatic summary of major issues, opportunities and constraints.

Master Planning Elements

Following the analysis of existing conditions, the Study Team developed several options and presented them to the Task Force. All options addressed programming needs, building and site considerations, parking, community, and environmental concerns.

Throughout the master planning process, various citizens, officials, and Task Force members suggested alternative concepts for the bathhouse and/or site. The Task Force evaluated all suggestions and, where appropriate, wove these ideas into ongoing refinements under development by the study team. The Task Force explored nine master plan options, plus multiple variations of them, in detail. Each option was of different scope and configuration and each had 'pros' and 'cons'.

Programming, Building and Site Considerations

Pedestrian safety and improving pedestrian and vehicular circulation to, from, and within the expanded site influenced the design. The design also addresses conservation and stormwater issues, landscape and vegetation amenities, and neighborhood considerations, such as traffic safety, enhanced views of Crystal Lake, and the desirability of creating a connection along the shoreline to the city-owned parcel at Levingston Cove.

In general, the options that made use of the existing bathhouse provided more square footage than needed and were less flexible in terms of internal layout and site planning. New building options were slightly more expensive, but provided maximum layout and site planning flexibility. All building options incorporated the existing bathhouse's most positive architectural elements—its two-story façade with walk-out lower level at the beach, a hipped-roof massing, and a multi-sided veranda overlooking the beach and lake.

Site options were mainly shaped by the size, location and design of the bathhouse (existing building renovation, partial renovation/addition, or new building) and options for the location and layout of the parking and entrance/exit drives. Site grading and pedestrian accessibility were other important factors in the site designs. The Task Force explored the idea of locating a new building in various portions of the site, but early in the master plan process, they decided that any building should be placed on the existing 30 Rogers Street property. Such placement would maximize the open space and preserve the parkland and vistas of Crystal Lake gained by the acquisition of the 20 Rogers Street property. In addition, a bathhouse on the existing 30 Rogers Street parcel would shield the newly acquired parkland from the MBTA Green Line.

Parking

After detailed consideration of several options for pedestrian and vehicular circulation throughout the site and several parking lot configurations, the Task Force adopted the oval parking lot layout. The lot provides the same number of currently existing 24 spaces. A parking space increase was considered. Numerous factors such as encouraging car turnover, mitigating abutter impact, and maintaining open space were reviewed. These factors supported maintaining the existing number of spaces.

Emergency and Maintenance Vehicle Access

The recommended emergency and maintenance vehicle route on the 'MBTA' side of the bathhouse is the most practical solution of all other options considered. It eliminates the steeply paved ramps on the northern, 'park' side of the bathhouse and facilitates an aesthetically pleasing park solution to pedestrian beach access. The recommended vehicle access route can be graded less steeply and a gravel/sand pathway surface could serve double duty as a stormwater management tool, recharging groundwater supplies and improving water quality in the lake.

Pedestrian Access

The existing bathhouse site provides no accessible paths. The proposed new pedestrian routes meet accessible grading requirements and would provide a system of gently sloped walks combined with handicap access ramps

where absolutely necessary. The entire site, from Rogers Street down to the bathing beach and over to 230 Lake Avenue will be accessible under the proposed master plan.

The Master Plan includes ideas on the best way to connect the open space at Rogers Street to the Levingston Cove area via the 230 Lake Avenue property. Through a legal agreement with the City, a portion of the property along the shoreline is a dedicated conservation easement on which the city can develop an accessible public pathway. The recommended Master Plan site layout diagram details a successful pedestrian connection among all these open-space parcels.

Other Considerations

Other site issues involving conservation, permitting, and stormwater management were major factors in the development of the site Master Plan layout. Stormwater flow on the existing bathhouse parcel pools at the entrance to the bathhouse, streams alongside the building and then flows into the lake in an 'untreated' state. The study team worked closely with the Newton Engineering Division of the Department of Public Works in considering design alternatives to improve stormwater control and for new sewer lines to serve the project.

Community Forum and Subsequent Commission Input

On January 22, 2009, the Task Force and Study Team held a Community Forum at the Newton Public Library. They informed attendees about their work and the conclusions and findings they had made to date. Most important, they solicited the community's input on the two preferred Master Plan Options the Task Force was considering. A straw poll at the meeting favored the new bathhouse option.

After this initial community forum, and before making its final master plan recommendations, the Task Force solicited additional input and advice from the Conservation, Historical, and Parks & Recreation Commissions. All three commissions recognized the Task Force's thorough and exhaustive work. In varying degrees, each endorsed the merits of the Master Plan option calling for the construction of a new bathhouse and its associated site development, though none took a formal vote (see Commission meeting minutes in Appendix).

Implementation Analysis

The construction of a new bathhouse would pose a question as to the best approach in addressing the operation of the seasonal swim programs. Two potential options exist: a suspension of seasonal programs at Crystal Lake for one summer or a fast tracked Construction Management at Risk approach. Both approaches are presented and discussed in Section 3.2 Preferred Master Plan and a decision can be made once the project moves into the final design and planning stage.

ES.5 Conclusion

This Master Plan would provide the City with an attractive, flexible and cost-effective new bathhouse, as well as a delightful and functional park that stretches all along the western shoreline of Crystal Lake, from the existing bathhouse parcel all the way to Levingston Cove. The implementation of this Master Plan will significantly increase accessible open space and recreational opportunities within the City for all Newton citizens to enjoy.

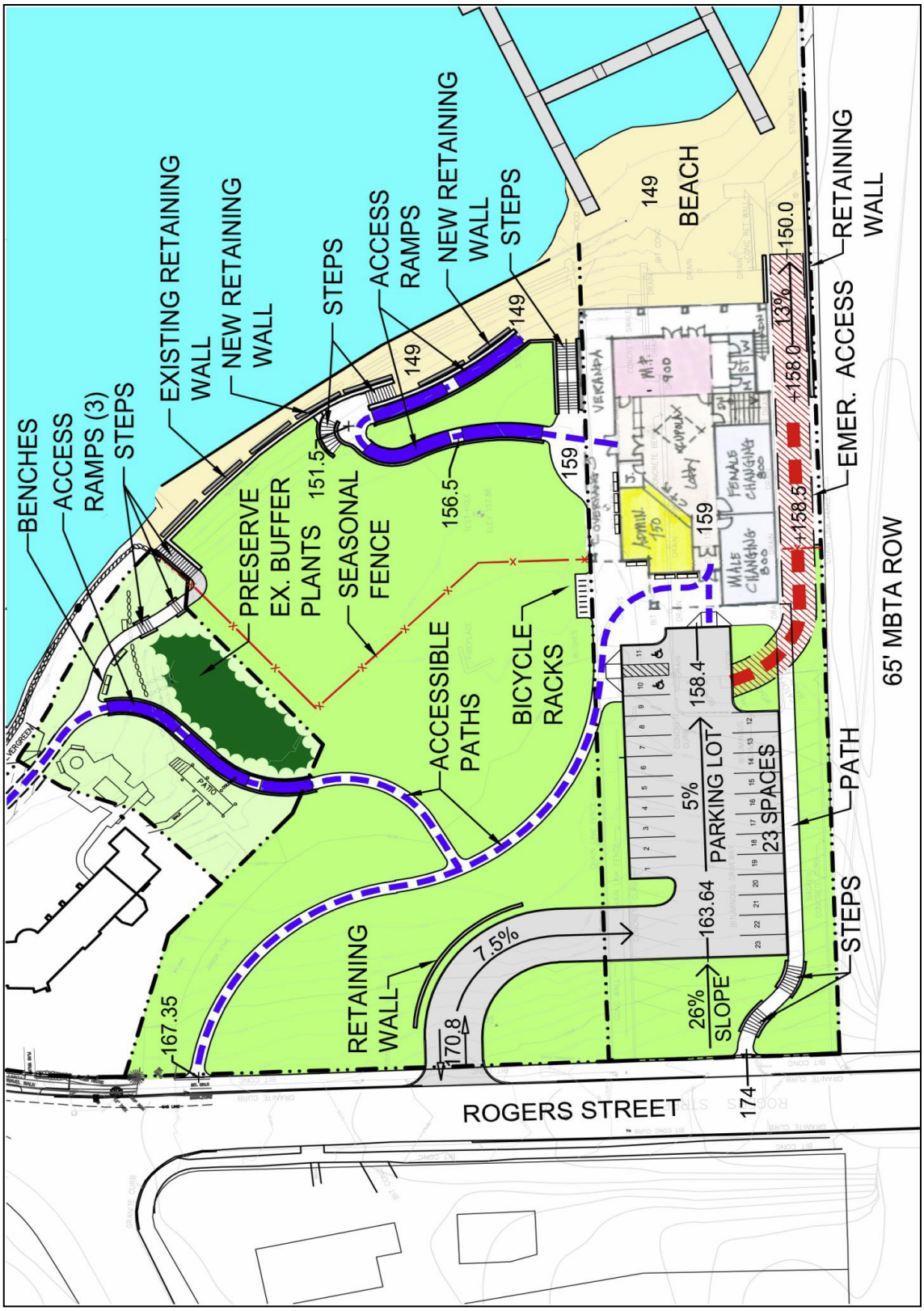

Figure 1: Recommended Building & Site (not parking lot)

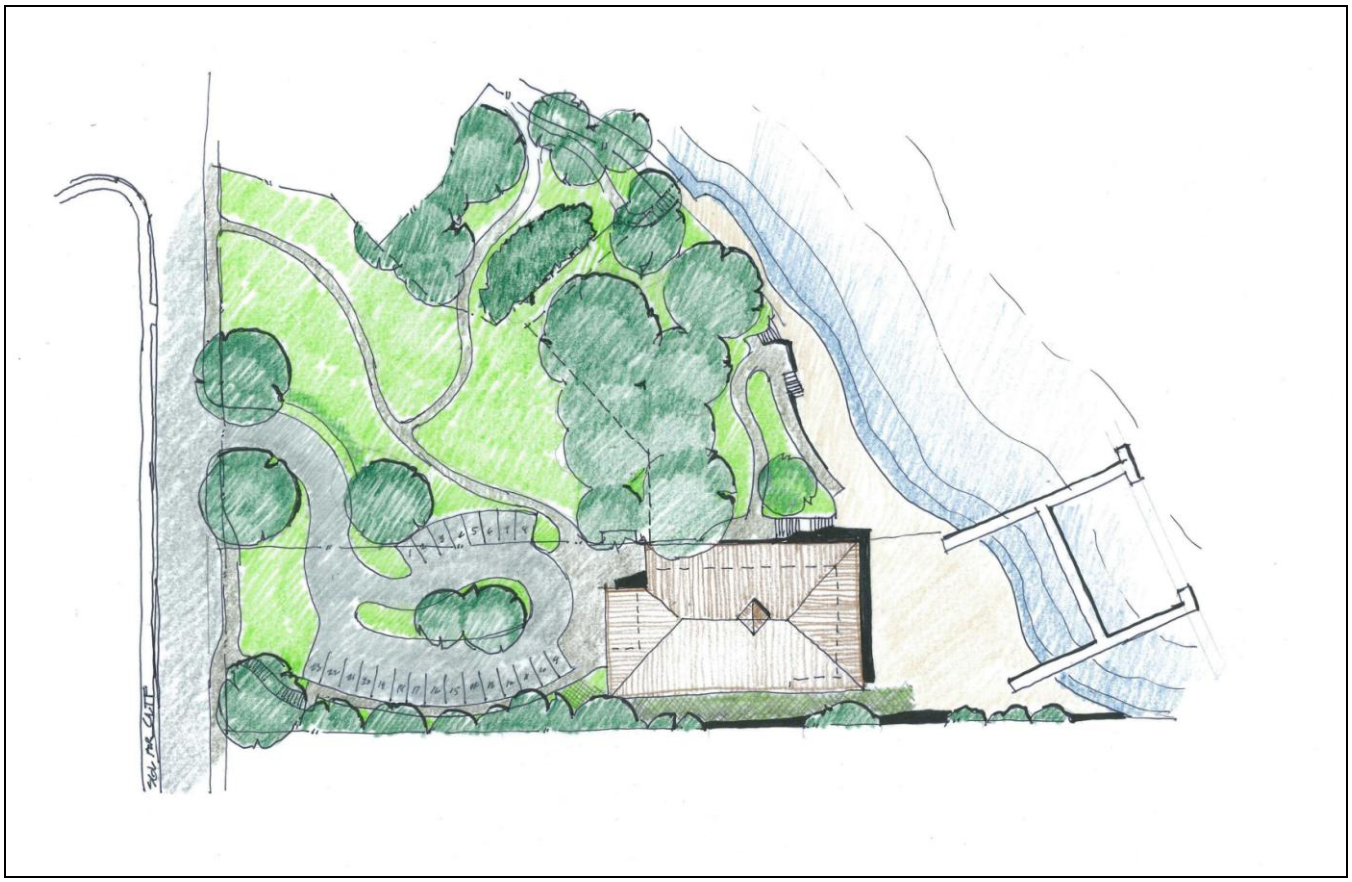

Figure 2: Recommended Oval Parking Lot

Existing Conditions Analysis

1.1 Overview

On May 7, 2008 the Study Team first presented an analysis of existing site and building conditions to the Task Force. This analysis enabled Task Force members to understand fully the project's issues, opportunities, and constraints. Knowledge of existing conditions added to the Task Force members' personal experiences with the site and facilitated developing plans on how to program interior and exterior spaces.

Task Force members supplemented the documentation on the current uses and conditions at Crystal Lake Park with a detailed history of the site and its uses as far back as the 1600's (included in the Appendices).

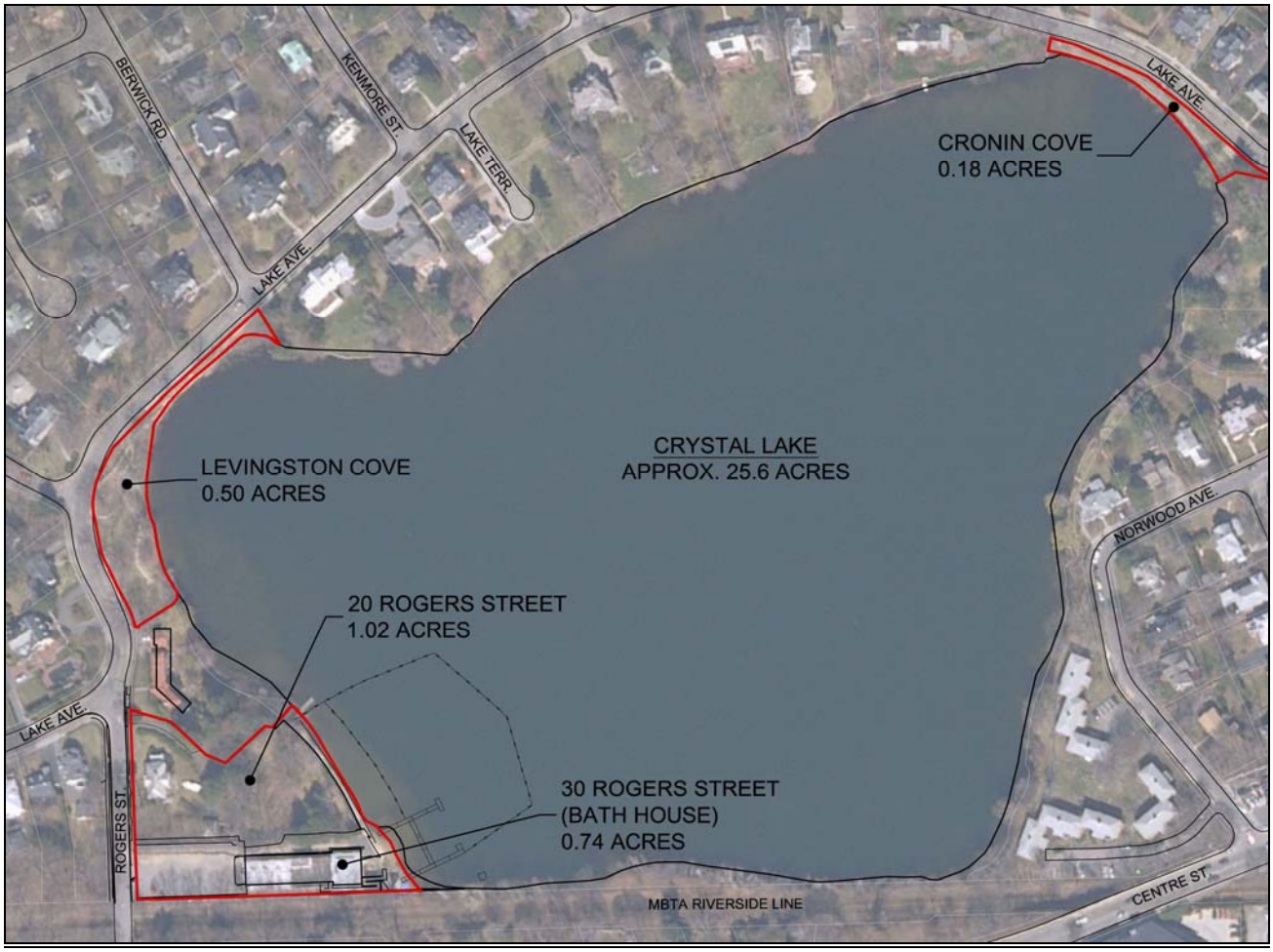

Figure 1: Aerial View of Crystal Lake

1.2 General Site Description

Crystal Lake Park is located along the southwestern shore of Crystal Lake, immediately north of the Massachusetts Bay Transit Authority (MBTA) Green Line. The property is comprised of two lots, 30 Rogers Street (containing the existing Bathhouse) and 20 Rogers Street (site of former residential dwelling that was removed in January 2008). The 30 Rogers Street parcel is 0.74 acres and the 20 Rogers Street parcel is 1.02 acres. When combined, the total park area is 1.76 acres (76,666 sq.ft.).

Aside from the Lake and the MBTA Green Line, the surrounding parcels are residential, with the exception of another small (0.5 acre) open-space parcel to the north along the shoreline, known as Levingston Cove. Levingston Cove is separated from the park by a single 0.54 acre residential lot known at 230 Lake Avenue. Recently, 230 Lake Avenue changed hands. One of the conditions of the sale (worked out in conjunction with the City) was that a portion of the property along the shoreline would be reserved for public access through a conservation restriction, providing an opportunity exists to connect the City's Levingston Cove parcel at the north edge of the shoreline to the existing 1.76 acre Crystal Lake Park and Bathhouse in the south via walking paths.

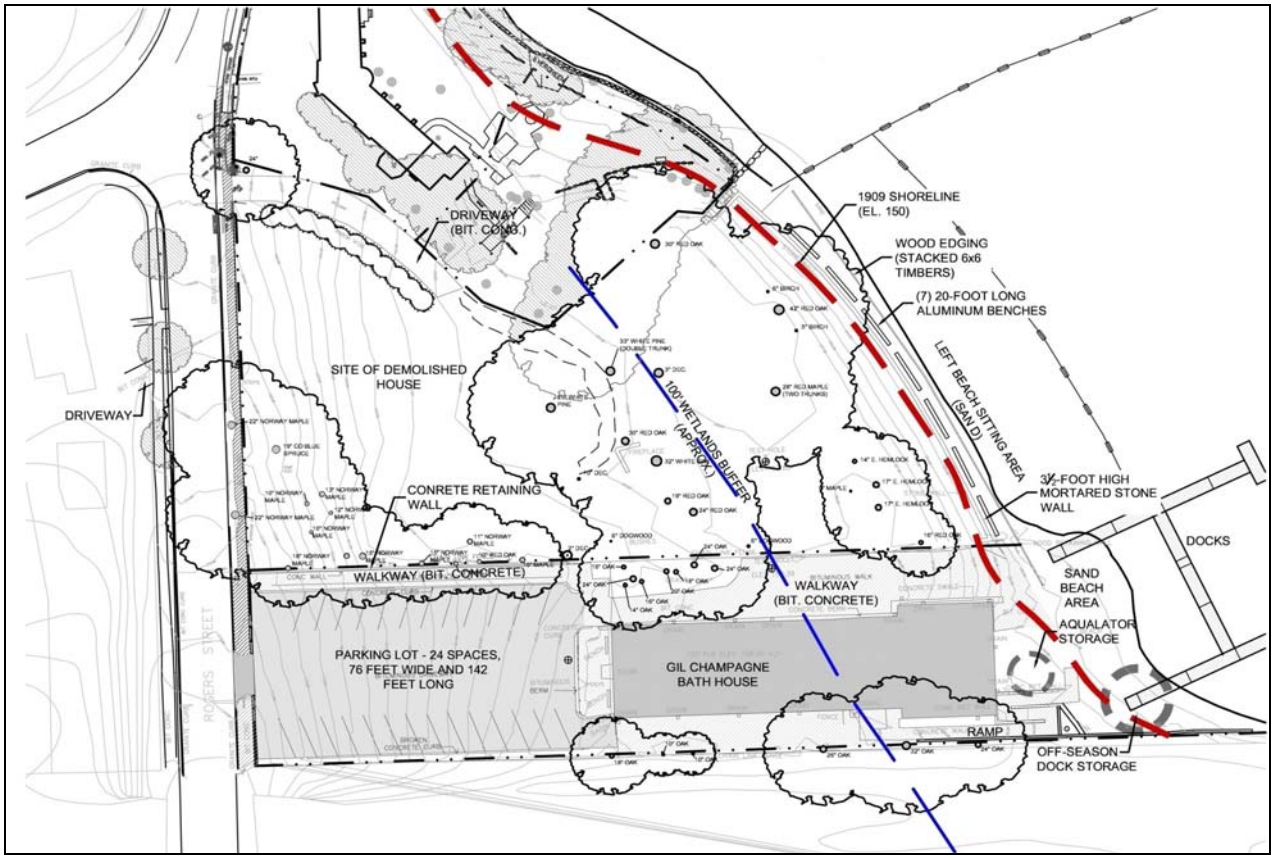

Figure 2: Existing Tree Inventory and Location

The property at 230 Lake Avenue is now subdivided into two lots. The residence sits on 'Lot 1', which is 0.35 acres and abuts the street on the uphill side of the lot. The City owns and controls via a conservation restriction 'Lot 2', a 0.19 acre parcel abutting the shoreline. This parcel contains a small garden pond. In the fall of 2009, the City completed a five-foot wide stabilized stonedust path, parallel to the shoreline and within the easement on 'Lot 2' behind the house. In the future, the City intends to extend the path through 'Lot 2' and into the Crystal Lake Park on the 20 Rogers Street parcel. The City of Newton Engineering Division of the Department of Public Works designed plans for the 230 Lake Avenue path; those plans were not part of this Master Plan.

Crystal Lake Park includes the Bathhouse, a parking area, pathways, a sandy beach, and several retaining walls. The Bathhouse is situated on the southeastern part of the site about 60 feet away from the Crystal Lake shoreline, although this distance varies with the water level and amount of sand on the beach. The bituminous concrete parking area, 142 feet long and 76 feet wide, is located immediately to the west of the building, on the uphill portion of the site, with direct entry from Rogers Street. There are a total of 24 angled parking spaces, including

two designated handicapped spaces. Park patrons must turn around within the existing lot and exit onto Rogers Street via the same entry point.

Running parallel to the north side of the lot is an eight-foot wide, steeply sloped, bituminous concrete pedestrian pathway leading from Rogers Street to the Bathhouse. This pathway continues along the northern side of the Bathhouse to the shoreline, widening to twenty feet as it descends down to the 7,100 square foot beach area. This wider pathway allows crane access to the beach for the purpose of installing and removing the seasonal dock used by patrons and staff for swimming programs.

There is a concrete retaining wall along the north edge of the pedestrian walks abutting the parking lot and bathhouse. This wall retains the higher parking lot and paths on the 30 Rogers Street parcel from the lower parkland on the adjacent 20 Rogers Street parcel. A chain-link fence separates the walkway from the parking area and the retaining wall.

On the southeastern corner of the bathhouse, a concrete handicap ramp extends into the site toward the MBTA right-of-way, leading bathhouse patrons from the upper level of the bathhouse to the beach. This ramp, installed in 1981, is an addition to the original bathhouse. This ramp is only accessible from the covered veranda of the bathhouse. It is visually and physically separated from the main pedestrian route to the beach along the north side of the bathhouse.

The total impervious area of the Crystal Lake Park site is 30,000 sq.ft., all of which is located on the 30 Rogers Street parcel. The remaining 46,660 sq.ft. of the site is comprised of lawn, sandy beach and miscellaneous wooded areas. The 7,100 sq.ft. sandy beach area runs along the entire eastern edge of the park. Portions of the beach area adjacent to the Bathhouse have sand directly on top of the bituminous concrete paved area , which is currently used for crane access. Here the sand descends directly into the water.

The northern portion of sandy beach is a narrow strip of beach behind the 20 Rogers Street parcel, known as the "Left Beach Seating Area." The bank (shoreline) of this portion of beach is defined by a stacked pressure-treated lumber edge, from which a sandy, level area of minimal width runs along the shoreline and contains a series of twenty-foot long aluminum benches. A three- to four-foot high stone and mortar retaining wall separates this part of the beach from the grassy open space above. The aluminum benches serve as the only designated seating area directly on the beach. During the summer, picnic tables are placed on the paved area along the north side of the bathhouse and in the lawn areas on the 20 Rogers Street parcel.

During the swim season (approximately two months running from mid-June through mid-August), access to the beach is restricted to seasonal or daily permit-holders only, via a chain-link fence system. The chain link fence system on the bathhouse parcel is permanent. During the swim season, a temporary fence system restricts access to the lawn area above the narrow left beach seating area on the 20 Rogers Street parcel. Thus, out of the entire park, only the uphill end (street side) of the 20 Rogers Street property is fully open to all during the summer. To gain access to the water, patrons must enter the bathhouse through its front door on the uphill (parking lot) end of the building, check in, and then exit either onto the north side of the building, with its steep path down to the beach, or to the non-conforming handicap ramp on the southeast corner of the building via the covered veranda.

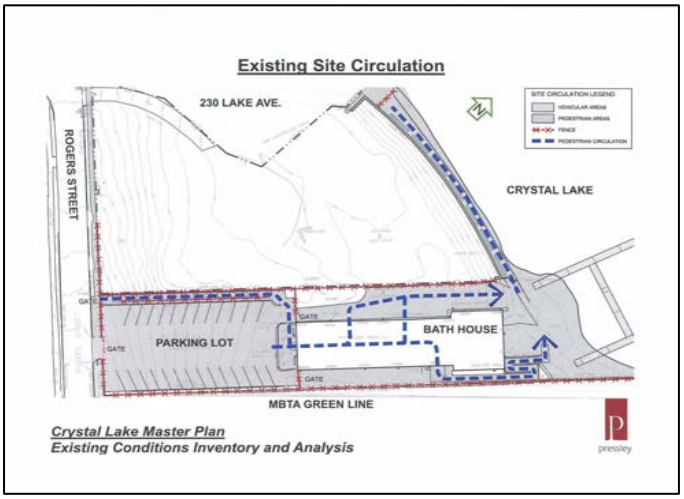

Figure 3: Existing Site Circulation

During the swim season, the City deploys modular docks in the lake and in an "H" formation. Staff remove the docks at the end of the season and stack them in the far southeastern corner of the site. An aqualator, used to maintain water quality, is also placed in the water during the swim season and is stored alongside the docks during the off-season. To move these large items into and out of the water, a large crane is brought on the site at the beginning and end of each swim season. The crane, as well as emergency and maintenance vehicles, must use the twenty-foot wide path on the north side (park side) of the Bathhouse to gain access to the beach.

Site Topography

The Newton Engineering Division provided topographic surveys of the site and its adjacent area. The landscape descends from Rogers Street toward Crystal Lake in a terraced fashion, with a relatively flat terraced area between the slope coming off Rogers Street and the second slope down to the beach area. On the 'landscaped' 20 Rogers Street parcel, the slopes on the uphill portion of the site, along Rogers Street, and running down toward the semi-flat terraced area (site of the removed house), vary from 12 to 20%. East of the terraced area, running down to the stone retaining wall along the 'left beach seating area', the slopes again become steep, varying from 22 to 24%.

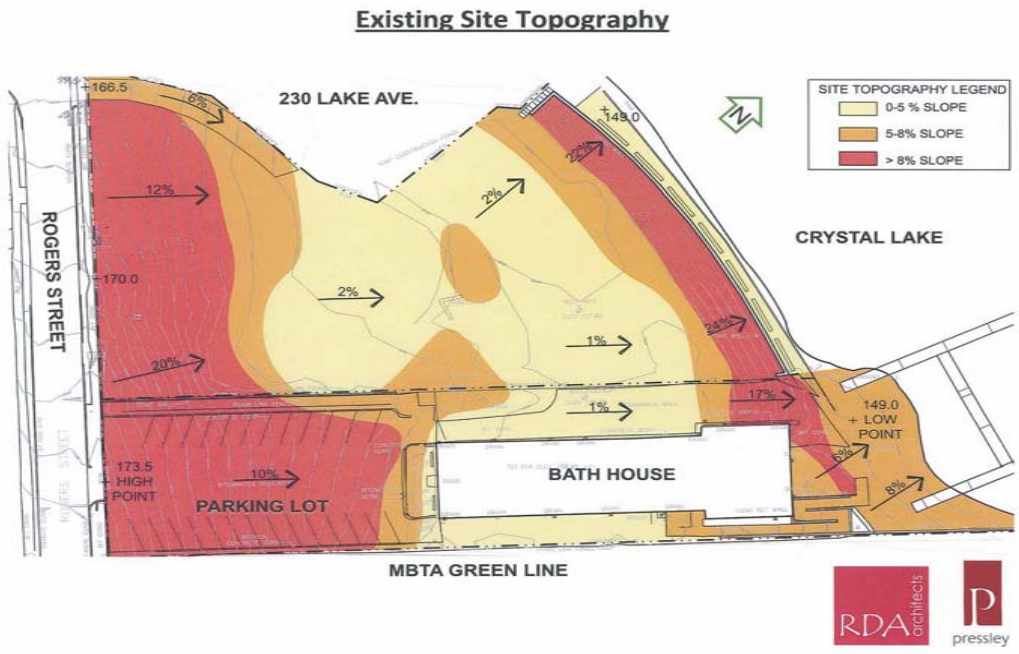

Figure 4: Existing Site Topography

Within the parking lot on the 30 Rogers Street parcel, the grades transition from elevation 173 at Rogers Street to elevation 159, the approximate finished first-floor elevation of the Bathhouse. The resulting average longitudinal slope of the existing parking lot is 10%, well exceeding the current acceptable design standard for public parking lots. This is critical because the only designated pedestrian entrance into the site is on the pathway along the retaining wall that runs parallel to the parking area. Thus, neither the parking area including designated handicap parking areas, nor the pedestrian route to the Bathhouse and beach are considered handicap accessible.

The paved area on the north side of the Bathhouse, where beach patrons exit after checking in, is relatively flat. However at the northeastern corner of the Bathhouse, the paved path to the beach drops off at a steep 17% slope. This steep slope is the main way to and from the beach for most users and is not handicap accessible. Mobility-impaired patrons must instead travel either through the building or around the veranda to the separate handicap ramp located on the opposite side of the building.

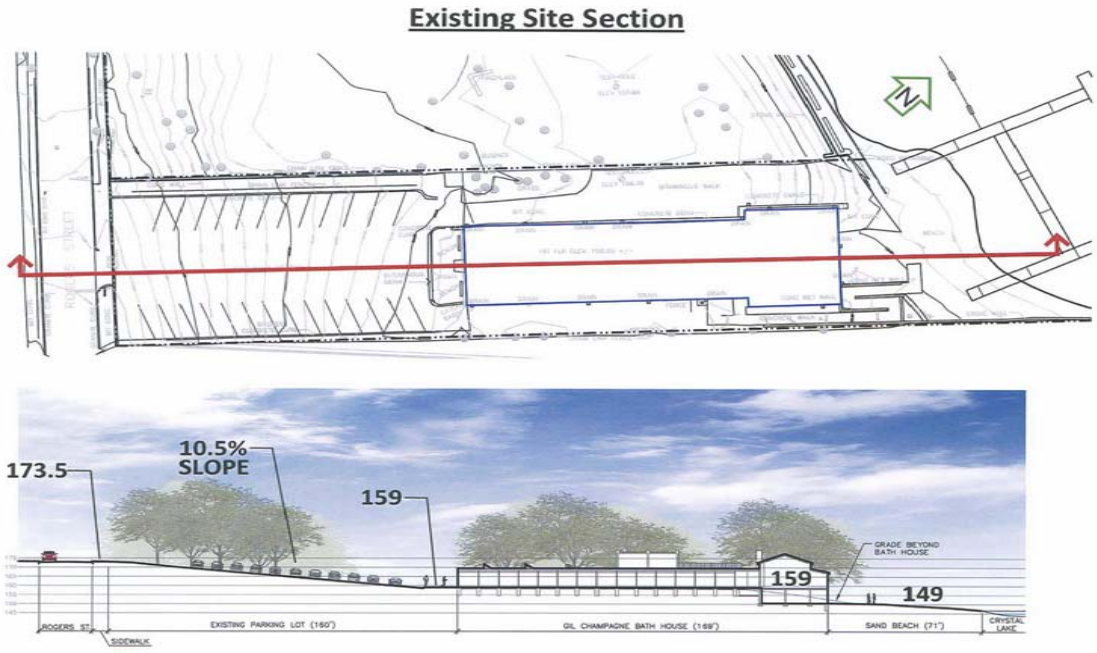

Figure 5: Existing Slope of Parking Lot, Bathhouse and Beach Area

Vegetation

Site vegetation within the park is mostly a mix of large deciduous shade trees and a few evergreen trees. Since the 30 Rogers Street parcel is mostly taken up by the Bathhouse, parking, associated paved areas, and beach, most of the site vegetation occurs on the 20 Rogers Street parcel. There are however approximately eight large trees off the northwest corner of the Bathhouse on the 30 Rogers Street parcel. There is also a row of mature oak trees south of the Bathhouse that shades the 30 Rogers Street parcel, but these are on the MBTA side of the property line.

Many of the trees on 20 Rogers Street parcel north of the bathhouse appear to have been planted as part of the former residential lot but some trees may have naturally grown from seed. All areas disturbed by the removal of the house and its driveway were successfully seeded to lawn in spring 2008. At the 230 Lake Avenue Lot 2 site, which abuts the 20 Rogers Street parcel along the shoreline, there is a dense grouping of evergreen and deciduous trees and shrubby undergrowth that buffer the 230 Lake Avenue parcel from the 20 Rogers Street parcel.

On May 1, 2008, the City of Newton conducted a detailed survey that identified and evaluated the existing trees on the 20 Rogers Street parcel noting species, size and general condition. Trees on the site include eastern white pine (*Pinus strobus*), northern red oak (*Quercus rubra*), eastern hemlock (*Tsuga canadensis*), red maple (*Acer rubrum*), Norway maple (*Acer platanoides*), European white birch (*Betula pendula),* and a single Colorado blue spruce (*Picea pungens*). There are also a few kousa dogwoods (*Cornus kousa*). A row of arborvitae (*Thuja sp*.) delineates the location of the 20 Rogers Stree former driveway. The tree survey concluded that most trees are in good condition. The main exceptions are three large hemlocks that are in poor condition due to an insect infestation and severe limb dieback.

Conservation Issues

A March 27, 2009, memo from LEC Environmental Associates to Pressley Associates (see Appendix) contains detailed information on site conservation issues and procedures for permitting any improvements. This letter includes information pertaining to floodplain designation, Natural Heritage designation, wildlife habitat, and state and federal wetland and waterway regulations that pertain to this property. The letter highlights the major conservation issues as follows:

- Crystal Lake is designated as a 'Great Pond' and thus falls under the jurisdiction of Chapter 91 Waterways Regulations.
- A 100-Foot Buffer Zone exists within the site, the beginning of which is as defined from the bank of Crystal Lake.
- The FEMA Floodplain Designation is Zone C: Areas of minimal flooding.
- No areas of rare species habitat or certified vernal pools are located within the site according to the 2006 Natural Heritage Atlas.

Stormwater Issues

Due to the topography of the site and the lack of adequate stormwater controls, stormwater management is a major issue on the existing site. No adequate drainage systems or structures have been installed on site. Stormwater runoff flows over the parking lot pavement directly to the Bathhouse, resulting in a need to install sandbags at the doorway in order to prevent flooding into the building when there are heavy rains. The flow of this stormwater continues unabated alongside the building and directly into the lake, thus potentially impacting the water quality of Crystal Lake.

In 2007, the Newton Engineering Division developed a stormwater control plan that included catchbasins, underground leaching basins, and roof drain pipe receptors. Subterranean ledge exists in the areas proposed for the large leaching basins. Since this Master Plan was envisioned, most of the proposed stormwater improvements have not been implemented. Only the roof drain pipe receptors were connected into underground French drains.

Zoning Issues

According to the City of Newton, zoning does not apply to this site as it is a city-owned property.

Site Utilities

A six-inch sanitary sewer line leaves from the southeastern corner of the Bathhouse. runs under the handicap ramp, and proceeds to a sewer manhole about 30 feet away. Based on a 1976 survey and plan entitled "The Crystal Lake Bathhouse and Property" (F-12 Plan), the sewer is only 3.15 ft deep at this manhole. The depth is very shallow and could present a problem for any proposed site work in the area. Based upon Sewer Plan #22327, dated January 20, 1930, the eight-inch sewer line exiting the same manhole traverses under the MBTA Green Line tracks and connects to the sewer main on Allerton Road. According to the Newton Engineering Division, this sewer line frequently backs up and is a maintenance liability due to its age, the relative flatness (0.5%) of its cross section, and its location under the tracks.

1.3 General Building Description

The Gil Champagne Bathhouse is the only building located within the park. It is located on the 30 Rogers Street parcel, downhill from the parking lot and only slightly above the beach area and seasonal docks. It is a long rectangular building, running perpendicular to Rogers Street and parallel to the MBTA Green Line tracks. The majority of its enclosed space is contained on the first floor, accessible from the parking lot. A small portion of the Bathhouse, encompassing only 15% of its footprint, is a two level structure. It contains a small walk-out lower level abutting the beach, taking advantage of the sloped nature of the site.

The Bathhouse is only occupied during the summer season primarily to support beach and swim-related activities. During the swim season, the Bathhouse serves as the official 'gateway' to the beach and the seasonally fenced off

lower lawn area on the 20 Rogers Street parcel (as described previously). Patrons enter from the parking lot into a check-in area, complete with counter and basket storage, from which they may use the changing rooms and exit the building into the park. During the off-season, the building is used for storage related to the seasonal programs and is heated to a minimal level to maintain finishes and water containing systems. The seasonal temporary fence that controls access to the beach and the lower lawn area on 20 Rogers Street is removed allowing public access to the beach and shoreline.

Figure 6: View of Bathhouse and Parking Lot from Rogers Street

Massing

When viewed from the street or parking lot, the building appears to be a flat-roofed single-story utilitarian structure with very little architectural interest, for over 85% of its unadorned footprint. The parking lot façade is 'lifeless', marked only by a pair of austere flush doors and two small windows. When viewed from the beach and shoreline however, the building exhibits a different and more interesting character. From the waterside, the building consists of a two-story façade accented by a hipped roof veranda overlooking the beach and lake. A second, higher, hipped roof sits over a horizontal band of clerestory windows, sheltering what was once a formal lakeside multi-purpose room, complete with fireplace for use during the winter skating season. The veranda at the first floor (upper) level wraps three sides of the building and is open to the elements, except for its hip roof above. It provides a protected open-air sanctuary during storms and a pleasant space from which to view activities on the beach and lake below. This veranda and the 'stacked' pair of hip roofs are the most attractive and significant architectural elements of the building, especially when viewed from across the lake, from either Levingston or Cronin Cove.

Figure 7: Lake View of Bathhouse, Beach and Park

Figure 8: Side View of Bathhouse, Beach and Park

Figure 9: Roger Street View of Park Side of Bathhouse

Figure 10: Rogers St. View of MBTA Side of Bathhouse

Figure 11: Left Beach Area with Benches

Internal Layouts

The upper (first floor) level of the Bathhouse contains approximately 6,000 gross square feet of enclosed area. At 166 feet long by only 36 feet wide, it is long and narrow. The floor plate is divided in half by a long row of exposed steel columns that march down its spine for the length of the building, posing a constraint on any future internal reconfigurations.

The first floor contains all of the administrative and public-use areas. Upon entering the Bathhouse from the parking lot, there is a large waiting and check-in area, used by visitors that often include large groups of campers. On the south side of the building (along MBTA track) there are a series of rooms: the administrative office, first aid room and the public changing and bathroom areas. Further towards the rear, or lake-end of the building, is a large multi-purpose room with fireplace. Beyond that is a smaller multi-purpose room surrounded on three sides by an outdoor hipped-roof veranda. This room is naturally lit by clerestory windows and topped by another hipped roof. It has been subdivided into a storage room and small room, both of which are used by summer camps. There are two exterior doors that lead to the veranda. The door on the south side of this room leads to an outdoor shower area and the handicap ramp serving the beach.

The rooms along the north side (open park area) of the first floor are limited to a storage room containing the fire alarm panel and two adjoining, but separate, stairways leading to the roof deck above. There are two doorways leading to the beach or lawn area via a paved surface.

Finishes throughout the first floor are utilitarian with painted concrete floors, block walls and a dropped acoustic tile ceiling with recessed acrylic-lens lighting fixtures. This dropped ceiling covers two of three clerestory skylights that used to provide natural light to the waiting and check-in area. Exposed mechanical ductwork hangs

below the dropped ceiling. The bathroom and changing rooms need of modernization. The women's changing room has stalls, while the men's changing room is wide open.

The small lower (ground floor) level of the Bathhouse contains 1,600 gross sq.ft. of enclosed area. It is divided between an 850 sq.ft. lifeguard locker and changing room and a 520 sq.ft. storage room. The only access to both rooms is via a separate overhead garage doors facing the beach, the bottoms of which are rotting. There is no internal stairwell or elevator connection between the first floor and ground floor. Therefore staff must go outside the building and use either the steeply paved walk along the north side of the building or the handicap ramp on the south side to access the other floor. Conditions in the lower floor spaces are extremely primitive. The ceiling is exposed concrete with surface-mounted electrical conduits and little in the way of mechanical systems, as might be expected in a converted former storage area. Part of the storage room ceiling exhibits concrete failure where rusted reinforcing rods have spauled the concrete. There are no sanitary (bathroom) facilities on this level.

Roof Deck

A 1,900 sq.ft. roof deck was constructed on top of the western flat roofed portion of the Bathhouse (parking lot side), directly behind the hipped roof portion of the building on the lake end. It is accessible from the first floor via two separate, though adjoining stairwells. The open-air deck is screened from view on all four sides by a 6 to 8 foot high wooden fence that also serves as a guard to prevent falls. This same screening prevents any view of the lake or adjoining landscape. The original purpose of the roof deck was to provide additional sunbathing space on the congested site, however, shortly after opening its use was discontinued due to safety concerns involving objects being thrown off the roof. It should also be noted that the two adjoining stairwells do not meet either the intent or the letter of the Massachusetts State Building Code, which now requires a much greater horizontal distance between these two required means of egress. The roof deck as it exists has no architectural or programmatic significance.

Building Systems

The lower part of the buildings structural system is comprised of a concrete foundation supporting a steel roof superstructure and block exterior bearing walls with a stucco finish. The 36 foot wide flat-roofed portion of the building is divided into two bays by a row of steel columns running down the middle of its length, supporting a ridge beam with roof joists sloped very slightly to gutters at the exterior walls. The first floor is a slab on grade in the flat-roofed portion of the building and a structural floor slab at the hipped-roof and veranda portion. The building does not meet current structural codes for resisting lateral loads and it is code deficient in many other aspects. However, though it is clearly not presenting any imminent danger of structural collapse at present and is not required to be upgraded as long as there is no change of use or significant renovations planned, in which case upgrades would undoubtedly be required.

The condition of existing mechanical, plumbing and electrical systems are also out of compliance with current codes and good engineering practice, though serviceable for the limited seasonable use of the building. The boiler is jammed into a janitor's closet with no additional room and no fresh air intake and presents a potential code violation. Its exposed flue breeching runs horizontally below the hung ceiling system before rising vertically through one of the former skylight openings which has been closed in. A water heater is enclosed in a plywood closet and both electrical and fire alarm panels are located within jam-packed storage rooms. Bathroom and toilet facility fixtures and accessories, including accommodations for accessibility, are extremely out of date. None of the existing systems would be salvageable, or appropriate to use in a renovated or new building.

Building Envelope

Exterior walls of the original building are painted stucco over structural clay tile block. The wall system is in poor condition with numerous cracks and failures visible. Windows and doors are a combination of original and replacement units, all of which are in serviceable, but in poor condition. An extensive restoration program would be required to limit water infiltration and further damage.

Historical Significance

The Gil Champagne Bathhouse is not listed on any local or national register of historic structures. However, since the building is over 50 years old, a review by the Newton Historical Commission would be required to demolish the existing structure upon recommendations of the Master Plan not to require its continued use.

Figure 12: Original Building- Stucco Over Clay Tile Block

Figure 14: Exterior Bathhouse Lower Level Guardroom Door-Sandbags to Prevent Flooding

Figure 15: Exterior Bathhouse - Stucco Over Concrete Block at Ground Level

Figure 16: Exterior Bathhouse - Windows, Stucco and Roof Drainage

Figure 17: Exterior Bathhouse Wall - Stucco Over Clay Tile

Figure 18: Interior Bathhouse - Ceiling Tiles

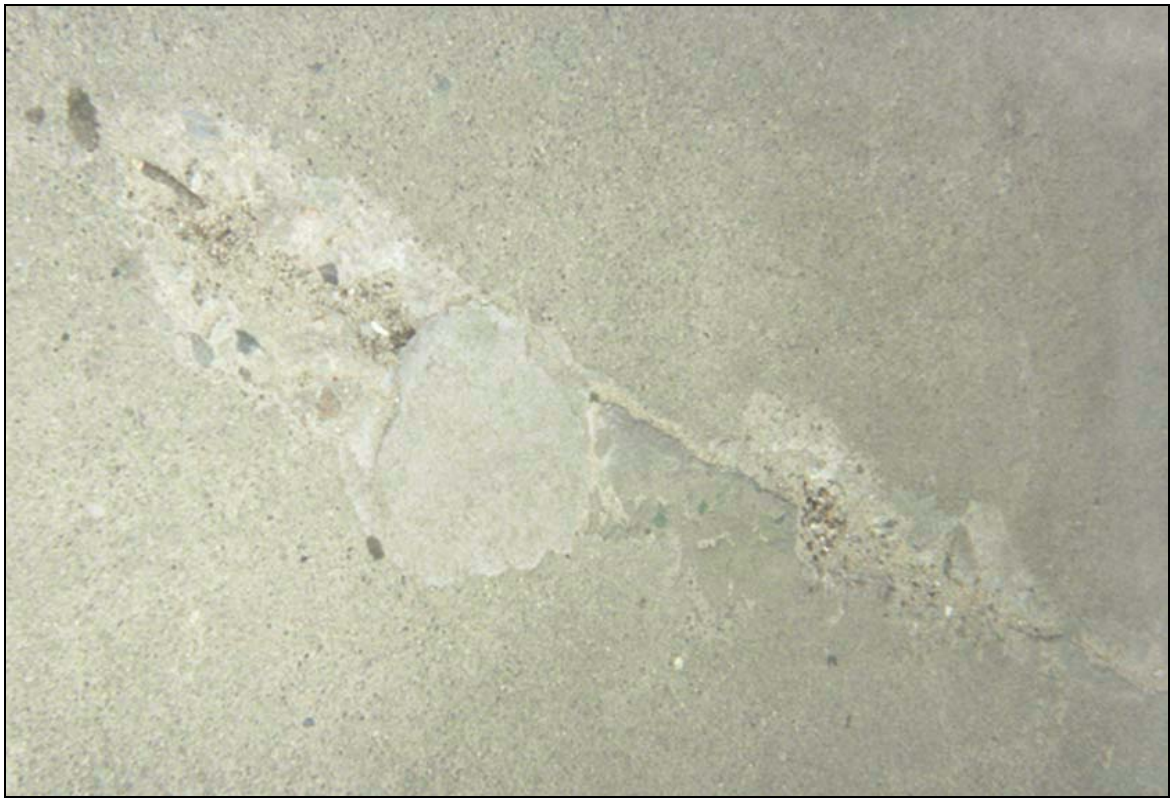

Figure 19: Interior Bathhouse Wall

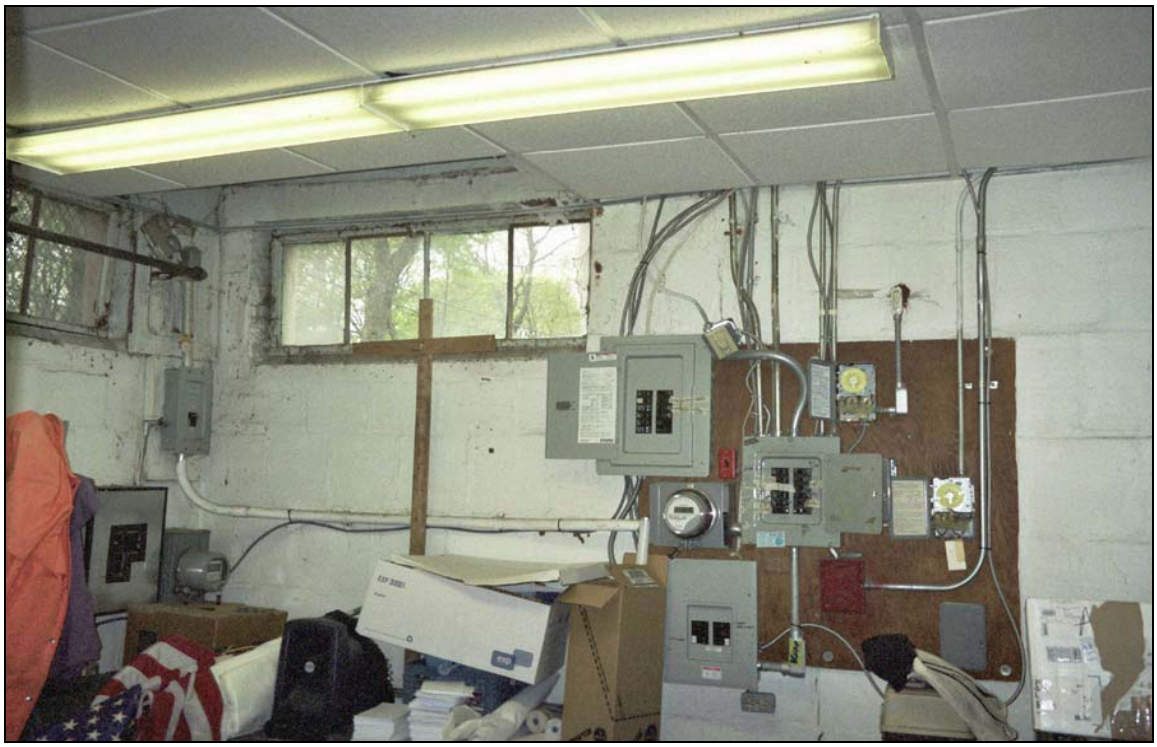

Figure 20: Interior Bathhouse - Utility Room

Figure 21: Exterior Bathhouse - Handicap Access Ramp Along MBTA Tracks

Figure 22: Exterior Bathhouse - Shower

Figure 23: Interior Bathhouse - Single Floor Drain

Figure 24: Interior Bathhouse - Windows

Figure 25: Interior Bathhouse - Bathroom Stalls

Figure 26: Interior Bathhouse - Ceiling

Figure 27: Interior Bathroom - Corridor Leading from Front Desk to Fireplace

Figure 28: Interior Bathhouse - Parking Lot Door Leading to Front Receiving Room

Programming

2.1 Overview

The Task Force and the Study Team conducted interviews and discussions with the professional staff charged with managing the existing park and bathhouse to gain understanding of existing issues and deficiencies, pro-active opportunities, and future goals for the park. The following program statements serve as the basis for evaluating the pros and cons of each development option presented to the Task Force for consideration throughout the master planning process.

2.2 Site Program

The Task Force identified pedestrian circulation, vehicular circulation, beach experience, conservation and stormwater issues, and landscape and vegetation issues as the major programmatic elements that form the basis of the proposed master plan for the site.

Pedestrian Circulation

The proposed site plan must:

- Work with the placement and internal layout of the bathhouse to control access onto the seasonal beach area (via permit) while allowing use of all other open space adjacent to the beach and controlled lawn area adjacent to the bathhouse.
- Provide for complete handicap accessibility from the Rogers Street sidewalk into the park, to the bathhouse building, and from the bathhouse onto the beach while minimizing impact on the landscape.
- Connect the Crystal Lake Park to Levingston Cove via the conservation easement on 'Lot 2' of the 230 Lake Avenue property.

Vehicular Circulation

The proposed master plan:

- Should create a new parking area and driveway that more sensitively fits within the park landscape, successfully addresses the steep topography of the site and maintains the same number of parking spaces as currently exists.
- Must create a new parking area that meets accessibility and stormwater management regulations.
- Must clearly delineate vehicular entry and exit points with good sightlines along Rogers Street.
- Must define a safe emergency and maintenance vehicular route from Rogers Street to the beach, including ambulance and crane access.

Beach Experience

The proposed master plan:

- Must provide a clear, safe access route from the bathhouse to the beach.
- Should explore opportunities for increasing the square footage of available beach area.

Conservation and Stormwater

The proposed master plan site design:

- Must comply with state and federal environmental regulations. The study team must delineate applicable regulations and permitting requirements.
- Should incorporate effective and modern stormwater management techniques.

Vegetation and Landscape

The proposed master plan:

- Must protect desirable and healthy existing vegetation to the greatest extent possible.
- Should provide a conceptual landscape design for new trees and shrubs, including buffering of the adjacent MBTA tracks and Rogers Street.
- Should protect and enhance views to Crystal Lake.
- Should enhance the quality of park space.
- Should provide new opportunities for outdoor seating and picnic areas.
- Should create an equitable division between the active (swimming by permit) seasonal area and the passive, year-around adjacent open space.

2.3 Building Program

The Task Force identified patron circulation during the swim season, community use of the building, administrative management, and maintenance as the major programmatic elements that should form the basis of the proposed master plan for the building.

Seasonal Patron Circulation

The proposed master plan for the building:

- Must ensure that access to the beach and adjacent lawn during the swimming season is through the bathhouse.
- Must provide simple, efficient circulation of upwards of a thousand daily seasonal patrons through the bathhouse onto the beach and lawn.
- Must provide a clear, safe, accessible route from the bathhouse to the beach.
- Must provide appropriate toilet facilities; these may be combined with changing facilities.
- Should move the outdoor shower area to the 'park' side of the bathhouse for better supervision.

Community Use of the Building

The proposed master plan for the building:

- Must allow for community use of a multi-purpose room with toilet facilities.
- Should provide flexible community access and use of a multi-purpose room during the off season; designed to increase energy efficiency for the entire bathhouse.
- Should, if possible, provide community use of the multi-purpose room during the swim-season.
- Should evaluate the pros and cons of segregating a community multi-purpose room in a separate building.

Administrative Management

The proposed master plan for the building:

- Must allow for proper supervision of changing and toilet rooms.
- Must provide one multi-purpose room for the seasonal program.
- Must facilitate oversight of the multi-purpose room by staff during seasonal programs.
- Must facilitate proper supervision of exterior spaces such as the parking lot and park to the greatest extent possible.
- Must provide a large check-in lobby for camp programs.
- Should provide internal circulation to the lower level (desirable, nor required).
- Should provide toilet facilities on the lower level for the lifeguards.

Maintenance and Operating Costs

The proposed master plan for the building:

- Should be designed to maximize efficiency and minimize operating and maintenance costs.
  Note: None of the building systems in the existing building are suitable for continued use.

- Should consider a smaller footprint since this usually translates into lower maintenance costs. Should use ‘green’ building elements that defray long-term operating costs (desirable, not required).

The gross square footage of the existing bathhouse is 8,200 sq.ft., which provides 6,245 sq.ft. of program and storage space. Not included in the 8,200 sq.ft. are the veranda on the upper level (925 sq.ft.) and the roof deck (2,350 sq.ft.) which is closed to public use.

The proposed building program calls for just under 4,000 net sq.ft. of program and storage space. This translates into approximately 5,200 gross square feet of building—3,000 square feet less than exists presently. This suggests that the City may choose either to renovate more space than the building program calls for or to demolish part or all of the existing bathhouse and construct a smaller facility.

If the City determines that the best Master Plan Option is to construct a separate community-use building and bathhouse on the site, redundant program spaces such as entry lobbies, toilet facilities, and the multi-purpose room would be required. The combined gross square footage of two separate facilities would be in the range of 6,000 gross sq.ft.

A building program summary is included here for record purposes.

Crystal Lake Bath House + Community Program
RDA Architects, Inc. Update: 8-08-08

BATH HOUSE

	Existing Conditions — BATH HOUSE: Net SF	Occupancy	Comments:	Proposed Space Needs — BATH HOUSE: Net SF	Difference	Occupancy	Comments:
Staff Areas							
Administrative Office	115	2 admin	overcrowded / needs more storage	150	35	2 admin	DCAM Minimum
storage closet	0	-		50	50	-	
First Aid Office	50	-	overcrowded	80	30	1 staff	DCAM Minimum
Check-In Counter	175	2-3 staff		175	0	2-3 staff	
Guard Station	850	15 guards	combined stor. office + lockers	120	-730	15 guards	DCAM Minimum for office
changing	0	-	included in 850 SF	0	0	-	
storage	0	-	included in 850 SF	600	600	-	
Staff Bathroom (First Floor)	0	-	incl. in core bathroom facilities	0	0	-	incl. in core bathroom facilities
Staff Bathroom (Basement)	0	-	serves guards	130	130	1 M / 1 F	serves guards
Kitchen	30	-	refrigerator + microwave only	50	20	-	kitchennete only
Public Areas							
Waiting / Lobby	825	2 - 3 staff	300 kids coming + 300 kids going	0	-825	-	outdoor area only
Vending	50	2 machines		0	-50		outdoor area only
Male Changing	260	0 stalls	doubles as off-season storage	300	40	6 stalls	
Female Changing	260	6 stalls	doubles as off-season storage	300	40	6 stalls	
Male Toilet	160	4 fixtures / 2 sinks	4 / 3 Req'd Min.	350	190	6 fixtures / 4 sinks	sized for shared community building
Female Toilet	160	3 fixtures / 2 sinks	4 / 3 Req'd Min.	400	240	6 fixtures / 4 sinks	sized for shared community building
Family Bathroom	0	-		0	0	outdoor access	optional
Storage							
Administrative Storage	120	-		120	0	-	
Custodial Storage	90	-	FACP in storage room	90	0	-	
Unused Basement Storage	520	-	not used	0	-520	-	
Mechanical							
Electrical Room	0	-	electrical panel in admin. Storage	80	80	-	
Janitor's Closet	30	-	doubles as Boiler room	30	0	-	
Boiler Room	0	-	boiler in janitors closet	120	120	-	
Total Net Square Footage:	3,695			3,145	-550		
Total Gross Square Footage:				4,089	Gross SF - Bath House Program Only		

COMMUNITY BLDG.

		Existing Conditions — COMMUNITY PROGRAM: Net SF	Occupancy	Comments:	Proposed Space Needs — COMMUNITY PROGRAM: Net SF	Difference	Occupancy	Comments:
Summer Camp Areas								
Camp Check-In		100	1 counselor		0	-100	1 counselor	
counter		100	-		0	-100	-	
Small Multi-Purpose		450	25 Kids	SF is sufficient for day camps	0	-450	-	no indoor day camps
Large Multi-Purpose		1400	100 Kids	SF is sufficient for day camps	0	-1400	50 occupants	no indoor day camps
staff counter		150	-		0	-150	-	
fireplace		150	-		0	-150	-	
multi-purpose storage		200	-		0	-200	-	
Total Net Square Footage:		2,550						
Public Areas	ATTACHED							
Multi-Purpose Community Room					750	750	50 occupants	no indoor day camps
storage					100	100	-	
Public Bathroom					0			combined w/ bath house facilities
Total Net Square Footage:					850	-2550		
Total Gross Square Footage:					1,105	Gross SF - Attached Community Room		
Public Areas	DETACHED							
Multi-Purpose Community Room					750	750	50 occupants	
storage					100	100	-	
Male Bathroom					60	60	1 fixture / 1 sink	
Female Bathroom					60	60	1 fixture / 1 sink	
Staff Bathroom					60	60	1 HCP Unisex	Plumbing Code Minimum -
Unassigned SF					150	150	-	
Mechanical								
Custodial Storage					100	100	-	
Electrical Room					80	80	-	
Mechanical Room					120	120	-	
Total Net Square Footage:					1,480			
Total Gross Square Footage:					1,924	Gross SF - Detached Community Building		

TOTAL

	Existing Conditions		Proposed Space Needs	
Total Net Square Footage:	6,245		3,995	-3,100
Unassigned SF	1,955		1,199	
Total Gross Square Footage	8,200	= 6,600 SF - Footprint 1,600 SF - Below 925 SF - Veranda (Not Included) 2,350 SF - Roof Deck (Not Included)	5,194	Gross SF - Combined Bath House / Community Option
			6,013	Gross SF - Seperate Bath House / Community Buildings
Net to Gross Ratio	1.3		1.3	

Recommended Solution

3.1 Overview

On January 22, 2009, a draft version of the Task Force's findings was presented at a Community Forum held at the Newton Public Library. Titled "A Vision for Crystal Lake", the presentation included an analysis of the existing site and building conditions, the programming elements, and detailed descriptions of the two preferred master plan options that had been identified to date (2A-Addition/Renovation and 3C-New Bathhouse). A table of comparisons and cost estimates was also presented for each of the options as well.

Questions and comments were solicited from the audience and responded to by Task Force members and representatives from the Study Team. Option 3C (the new building option) was preferred by those in attendance, however, the Task Force was committed to meeting with various city commissions and to solicit further input before making a final recommendation.

Commission Hearings

On February 23, 2009, members of the Task Force presented the Task Force's findings and its Two Preferred Master Plan Options to the Newton Parks & Recreation Commission for their review and input, though they specifically did not request any formal vote from the Commission at that time. A series of questions and answers ensued regarding everything from on-street pick-up and drop-off to issues regarding the entrance drive and pedestrian pathway configurations, green building techniques, year-round community use, cost allowances, and bike racks. Task Force members indicated they would return with a final recommendation for a Commission vote.

On March 26, 2009, members of the Task Force made a similar presentation to the Newton Historical Commission in order to introduce their findings to the Commission and garner their input. Commission members expressed interest in Option 2A, which involved renovation of the lake-side portion of the existing bathhouse, though it was acknowledged that the full demolition of the existing bathhouse and construction of a new facility did make sense from a functional viewpoint. Commission staff verified during the meeting that, based upon its date of construction, the building was not a WPA (Works Project Administration) project from the Great Depression era. No formal action was taken to support either of the Two Preferred Master Plan Options.

On April 23, 2009, members of the Task Force made a presentation to the Newton Conservation Commission for input prior to the final determination as to which of the two options the Task Force should recommend. Task Force representatives informed the Commission that the master plan provides mitigation in the form of reduced impervious surface on the site, improved stormwater management systems and the re-routing of existing and potential sewage piping away from the lake and to a new connection up at Rogers Street in order to eliminate existing sewer problems on site. Conservation Commission member Green expressed support for the new building Option 3C, though the Commission as a whole did not take a formal vote on a preferred option. A vote requiring the City to file a Notice of Intent for the proposed work was taken and approved.

Over the summer months, the Task Force continued to assess the pros and cons of its Two Preferred Master Plan Options. In early September 2009, the Task Force reviewed a proposal for an oval parking lot option presented by member S. Larrabee. The Task Force enthusiastically endorsed the oval parking lot plan, described in detail in Section 3.3, over the previously proposed closed parking option. As the September meeting concluded, the Task Force formally voted to endorse Master Plan Option 3C, the new bathhouse construction option but with the oval parking lot plan in lieu of the parking lot imaged in the 3C option. It was acknowledged that the oval parking lot plan was a sketch-level study and changes might be required for successful implementation. The oval plan visually reduced the mass of the parking lot and integrated the parkland more sensitively into the bathhouse parcel (see Section 2.2 Site Program-vehicular circulation). The Parks & Recreation staff commented that the oval parking lot plan's inclusion of a drop-off lane along Rogers Street was a beneficial feature, similar to the 'live

parking only' lay-by in front of the Newton Free Library on Homer Street. The new 'drop off site' would provide a better place for buses and families to drop off/pick up of youngsters during camp times at the Lake.
On September 21, Task Force Chairman Bourque returned to the Newton Parks & Recreation Commission to inform them of the Task Forces' final recommendation. The Parks and Recreation Commission asked a wide-ranging series of questions regarding the revised parking lot, improved accessibility, expanded beach area and drop-off safety. When asked for her opinion, the Parks & Recreation Commissioner responded that she agreed with the community consensus that a new building, as expressed in Master Plan Option 3C with the oval parking configuration would be the best option for the City going forward. The Commission reviewed the rationale behind the decision and voted to endorse Option 3C with the oval parking lot option for the Crystal Lake Master Plan, as supported by the Task Force.

3.2 Preferred Master Plan Option 3C

Only a few drawings and conceptual plans detailing Option 3C are provided in this section in order to avoid redundancy. For the full set, refer to Section 5.5 (Two Preferred Master Plan Options), as well as the Executive Summary. What follows in this Section is a detailed description of the recommended option.

The new bathhouse building is situated on the site in relatively the same location as the existing bathhouse. In order to provide additional beach area and to allow for the relocation of emergency and maintenance vehicular access to the beach on the south side of the bathhouse (alongside the MBTA right-of-way), the new building is located further away from both the lake and the southern property line. An easement onto the MBTA right-of-way is not required due to the slight repositioning of the bathhouse from its existing position on the site.

The new bathhouse is a smaller building than exists currently, thereby providing additional space on the uphill portion of the 30 Rogers Street parcel in order to re-grade and reconfigure the parking area and entrance drive to be less steep and to conform to both handicap access regulations and good engineering practices. The new entrance to the building is under a lit canopy directly facing the parking lot. A double door vestibule leads directly into a large lobby with a cathedral ceiling in square cupola flooding the lobby with natural light. As a 'green' feature, use of natural daylight eliminates the need for excessive electrical lighting (thereby reducing operational costs), and would improve the spirits of staff and patrons alike.

A long check-in counter is situated immediately to your right, angled out of the circulation path. It has a direct supervisory view to the changing rooms directly across from it. The check-in counter is part of an administrative suite that would contain the director's office, as well as a first aid station and lockers/baskets for patrons. The administrative area has exterior windows on two sides that allow for supervision of the parking lot/building entry and a significant portion of the seasonal lawn north of the bathhouse. Finishes are rugged and serviceable.

Public toilet facilities are provided within the male and female changing rooms immediately to the right as one enters the lobby. In addition to the bathrooms, these changing rooms provide cubicles in which to change, and lockers for patron belongings. Located on the south side of the building, these utilitarian rooms provide an excellent sound and visual buffer to the MBTA Green Line directly abutting the building. Again, the finishes will be rugged and serviceable. Painted concrete block walls, plaster ceilings and tile or epoxy flooring finishes would be almost indestructible and appropriate in these unsupervised areas. Though not shown, consideration might be given to a 'family' changing room in which members of the opposite sex could assist their children in private.

A 900 sq.ft. community/multi-purpose room abuts the lobby at the lakeside end of the building, taking advantage of the best views on the site. This community/multi-purpose room would also benefit from a cathedral ceiling and could well make use of skylights and/or clerestory windows to flood it with natural light. French doors and floor-length windows would frame views to the lake and lawn through a covered veranda that wraps two of its sides. A vestibule with a drinking fountain leads to two self-contained toilet rooms on the south side of the building that are dedicated to the multi-purpose room. Similar to the changing rooms, this toilet core will shield the multi-purpose room from noise and distractions emanating from the MBTA rail line.

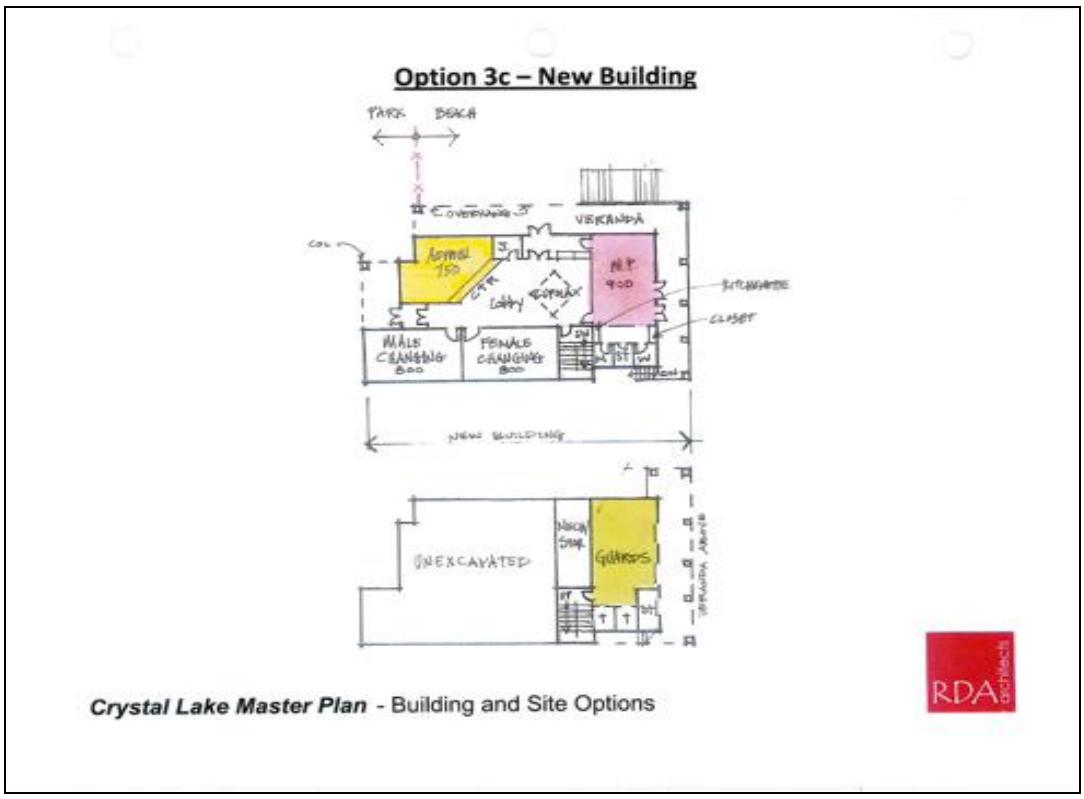

Figure 1: Internal layout of new bathhouse

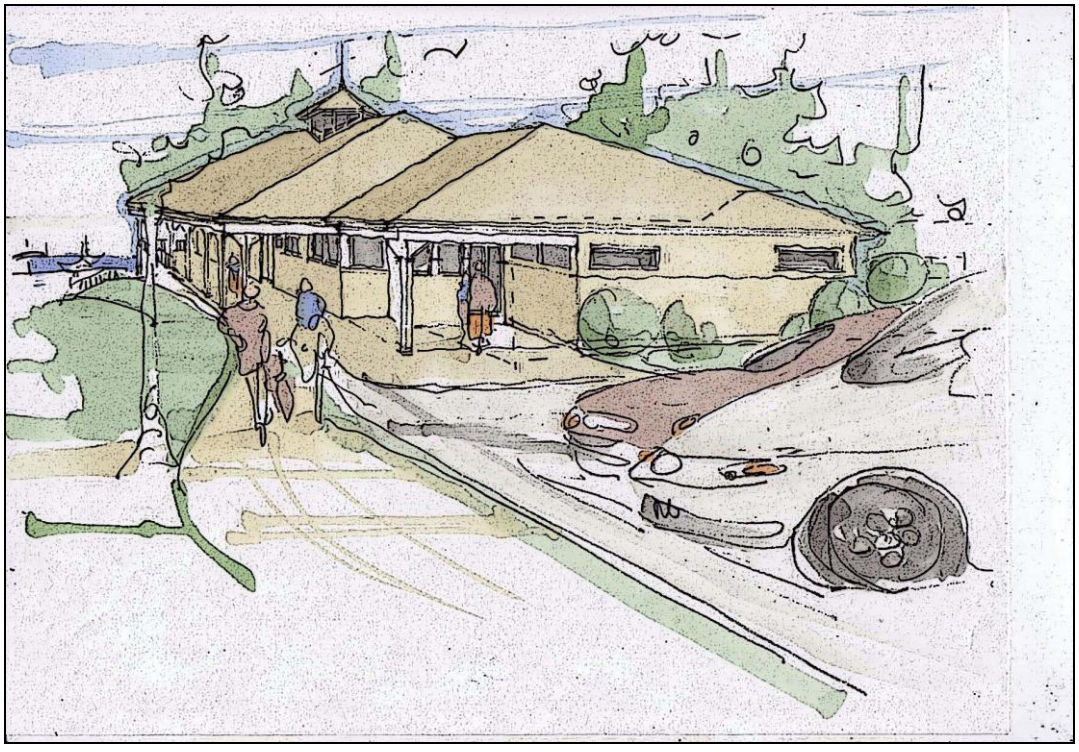

Figure 1: External conceptual view of new bathhouse

Another door leads directly to an entrance vestibule facing the park. Seasonal patrons will access the beach through the entrance vestibule. Community groups will also use the entrance vestibule to access the multi-purpose room during the off-season for various meetings or events. Because the multi-purpose room has dedicated toilet facilities and access via this separate exterior vestibule, it can be used at any time during the off-season without the need to open or heat the entire bathhouse. It should be noted however that the bathhouse could certainly be opened in conjunction with the multi-purpose room for large events. The bathhouse lobby provides another pleasant and large gathering space, immediately adjacent to the multi-purpose room.

A communicating stairwell connects the upper lobby with the lifeguard space on the lower level and provides the final link in a complete buffer along the 'MBTA' side of the building. The lifeguard locker room on the lower level opens up to the beach area in front of the bathhouse with a combination of overhead doors. An intermediate zone of covered, but open-air space would be provided under the veranda above, between the guard room and the beach itself. This would provide shelter to lifeguards and/or beach patrons in the event of a quick storm or shower. Dedicated toilet and storage facilities are provided for staff on this level.

The exterior massing of the building is reminiscent of the best features of the existing bathhouse. A large hipped roof covers the building and verandas on three sides and anchors the building into the landscape. The lack of gable end walls means that the eave line is at 'human scale' around the entire perimeter of the building, which is appropriate for relaxation and recreation, especially for the many small children that take advantage of seasonal programs at the lake.

The large veranda on the upper level is much more delicately scaled than the existing one, allowing a better sense of openness and connection between the landscape and the interior portions of the building. The veranda extends much further than the existing one and provides greater opportunity for shelter and enjoyment by patrons. When viewed from the lake, or from across the lake, the two-level veranda wrapping the beach and park sides of the building breaks up the two-story façade and offers a great deal of depth and interest to the building.

Overall, the proposed new building is very flexible and practical in terms of layout and community use. It is also very responsive to the aesthetic and practical issues involved with buffering the park from the adjacent MBTA rail line and presenting an appropriate and pleasing face to the neighborhood and community.

The new emergency and maintenance access route to the beach, designed to allow for large vehicles, including fire trucks and ambulances, begins at the end of the lot and runs along the southern side of the building. The emergency and maintenance access way will be gated off at the building to allow only authorized vehicles.

There are two pedestrian entry points into the property, both leading to the bathhouse building. Because the southwestern corner of property is the steepest and is in close proximity to the proposed parking area, the southern pedestrian entrance is restricted and will require steps. The northern entrance allows for more flexibility in grading, thus a fully accessible path (maximum 5% slope) can be constructed without ramps. A spur path leads into 'Lot 2' of the 230 Lake Avenue parcel, thus completing the pedestrian connection to Levingston Cove.

The proposed finished floor elevation for the new bathhouse has a ten-foot vertical change down to the beach elevation. Exterior steps, near one of the building's entrances on the north (park) side, lead down to the beach at the building's northeastern corner, just below the veranda above. In association with these steps, an accessible ramp curves north into the seasonal lawn on the 20 Rogers Street parcel before turning back in a southerly direction to reach the beach, again at the northeast corner of the bathhouse. Halfway down the ramp is a small viewing area that looks out over Crystal Lake and steps that lead down to the 'Left Beach'. These steps provide an alternate way of moving to and from the beach and the lawn area overlooking the lake. The southern half of the existing retaining wall is relocated, flowing with the ramps and steps while also providing more beach area. Other retaining walls associated with the ramp system work to minimize disturbance of the existing park landscape and vegetation.

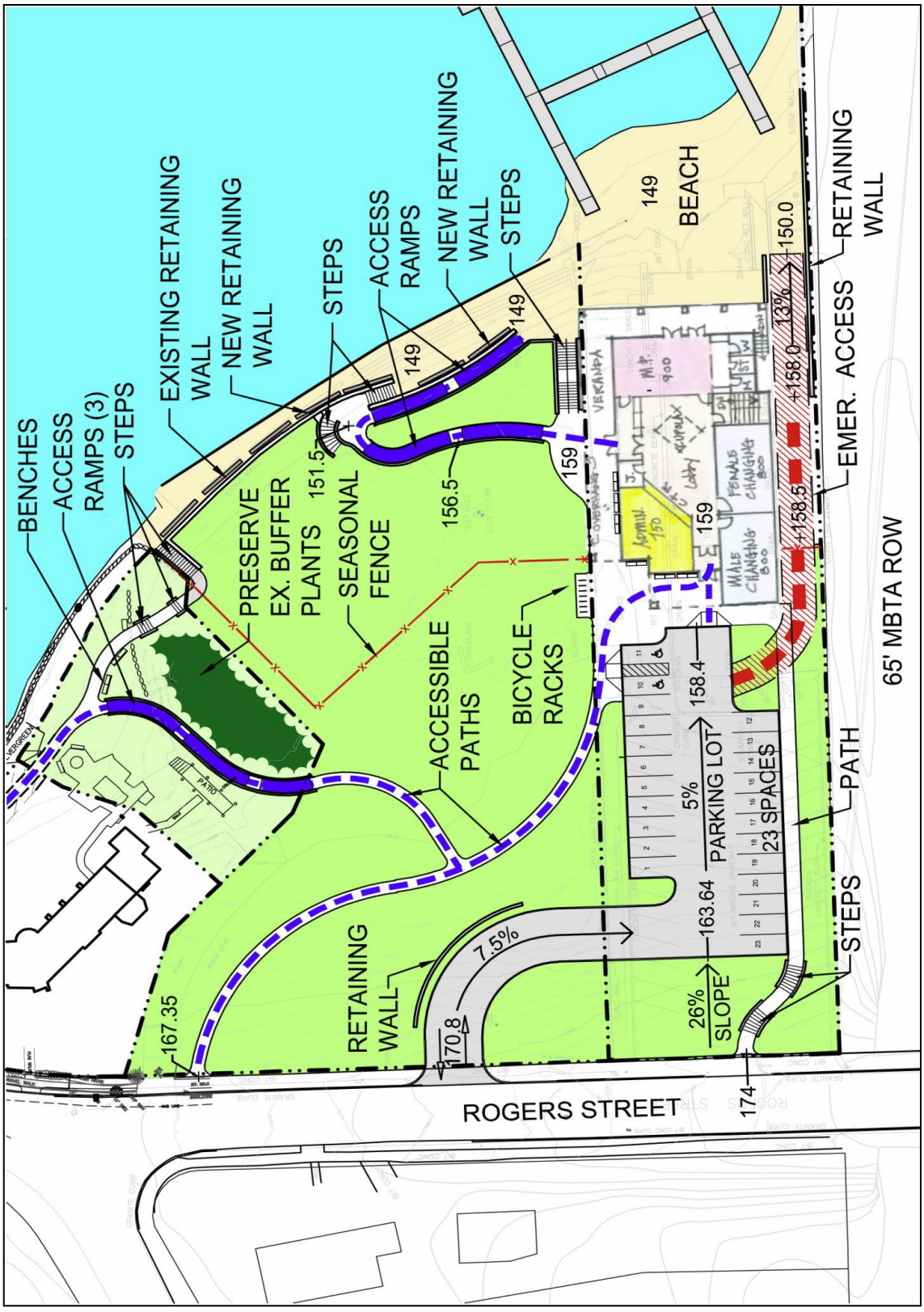

Figure 3: Site Layout of new bathhouse and adjoining park (parking lot replaced with Fig 4: Oval parking lot)

Although Option 3C requires the removal of several existing trees to make way for the building, paving, and site grading, most of the good-quality, desirable trees existing on the 20 Rogers Street parcel will remain undisturbed, and will continue to provide shade over the park's lawn areas. The vegetation plan for 3C seeks to replace, and even exceed, the number of trees removed by construction. Additional shade trees will be native species suitable for the site conditions. These trees, along with a variety of shrub species, will enhance the park landscape, framing views to the lake while also buffering the site from views to, and noise from, the Green Line tracks.

The site design continues to incorporate the existing seven benches along the base of the retaining wall along the shoreline. Although not specifically addressed in this Master Plan, there are multiple opportunities to add other benches around the bathhouse building and elsewhere on the site. Picnic tables can be sited in the lawn areas, both within and outside the temporary seasonal fence. Bicycle racks are proposed near the northwest corner of the bathhouse, adjacent to the entrance. As shown, the seasonal fence is located in approximately the same location and with the same alignment as the existing seasonal fence. This fence will be removed at the end of swim season to fully connect the shoreline to the park.

Overall, by relocating the new building away from the water and modifying the retaining wall, there is a net gain of 3,200 sq.ft. of beach, for a total proposed beach area of 10,300 sq.ft. This is a 45% increase over existing conditions. The amount of impervious area within the site, including the building and all paved areas, is reduced from existing conditions under Option 3C. Existing impervious area is 30,230 sq.ft. Option 3C reduces this impervious area by 12% to 26,550 sq.ft. Some of this reduction in impervious area goes into increasing the pervious beach area, but there is also an increase in pervious landscaped area as well.

Working with recommendations from the Newton Engineering Division and LEC Environmental Consultants (See Appendix for LEC letter dated March 27, 2009), Option 3C incorporates several stormwater controls. Underground infiltration basins are connected to catchbasins in the parking areas and to the building's roof drain system as well. This provides a method of leaching surface and roof flow back into the groundwater table instead of into the lake, which is desirable. Surface flow will also be directed to a gravel-over-sand infiltration area that is set into the emergency access ('crane access') route. Landscaped rain gardens can be established in various areas of the landscape as another way of allowing the infiltration of rainwater into the soil from both surface flow and from the roof of the building. An allowance of $75,000 for these stormwater management measures was factored into the overall site cost estimate.

As noted previously, the sewer outflow system for the existing bathhouse has a number of issues. Recent backups in the system pose a threat to the lake resource, and the location of the pipe under the Green Line tracks creates a maintenance problem. The location and elevation of the existing sewer line, positioned under the existing handicap ramp, and the location of the existing sewer manhole precludes the proposed alignment of the new emergency access route alongside the MBTA right-of-way. If the existing sewer line is not relocated, this emergency vehicle route would be forced back onto the opposite (park) side of the building, thus interfering with this valuable public resource as indicated in the Initial Master Plan Options in Section 5.3 Alternative Solutions.

Working in cooperation with the Newton Engineering Division, it was determined that relocating the sewer line and pumping sewage to different sanitary sewer line on Rogers Street was the best solution. A December 2008 cost estimate, prepared for Mr. Frank Nichols in the Engineering Division, puts the cost for the new system to Rogers Street at approximately $88,000. This amount was included in the overall site cost estimate prepared for this option.

3.3 Preferred Oval Parking Lot Option

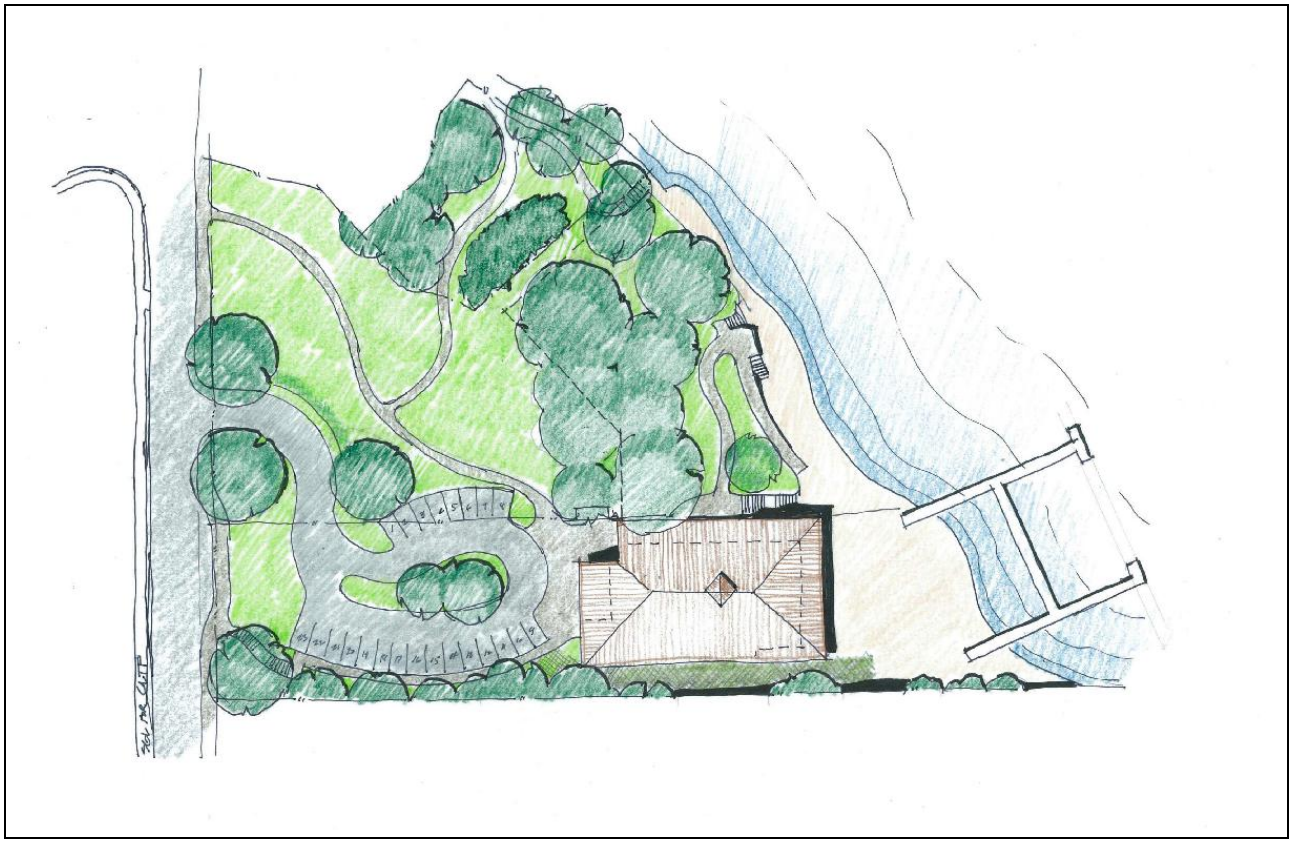

Figure 4: Recommended oval parking lot configuration

The closed ended parking initially diagramed in option 3C provided vehicular access into the site from a single curb cut on the 20 Rogers Street parcel, in the approximate mid-point of the combined 20 and 30 Rogers Street properties. The two-way, 130-foot long driveway has a relatively modest pitch averaging 7.5% down to the parking area. In order to avoid filling in the existing grassy open space on the 20 Rogers Street property, a retaining wall will need to be built along the upper end of the driveway, on the downhill side.

The closed ended parking lot is situated on approximately the same part on the site as the existing lot and is aligned with the centerline of the proposed building. The parking area has a total of 23 parking spaces with the two spaces nearest the building reserved for handicap parking. The maximum slope within the lot is 5%, with 2% or less required around the handicap spaces per accessibility regulations.

However, the Task Force felt it was important to provide a parking lot with easier traffic flow and more sensitively integrated into the parkland and the new bathhouse parcel. During the September 2009 Task Force meeting Schuyler Larrabee presented a conceptual oval parking lot option that appears to be a solid planning concept that addresses some of the concerns regarding the dead-end parking lot layout shown in the recommended master plan and will be explored in greater depth if and when the master plan moves into a formal design stage.

The Oval Parking Lot Option shows a singular two-way vehicular entrance/exit drive to and from the parking lot, similar to the parking lot layout shown in the Master Plan Option 3C. By mimicking the 3C drive, it is clear that site grading has been considered and could be made to work.

The one-way vehicular circulation pattern within the parking lot provides a full turnaround and eliminates the undesirable dead end condition proposed in the 3C parking area. It proposes a total of twenty-three parking spaces and also has a landscaped island to break up the expanse of pavement. These are all desirable components.

A portion of the parking lot encroaches into the lawn space on the 20 Rogers Street parcel, which is an area the Task Force had previously hoped to protect to the fullest extent possible. The Task Force accepted the trade-off of the inclusion of a landscaped island in the parking lot for the modest intrusion into the 20 Rogers parcel.

A careful review of the parking lot layout by the study team (subsequent to the Task Force's final vote) revealed that the travel lanes and stalls within the parking area are dimensionally too small as drawn, and that the turning radius is too tight to meet good engineering practice. In applying current standards, the parking lot size would have to increase slightly, which in turn would require a further encroachment into the open space on the 20 Rogers Street parcel. The accessible path on the northern side of the lot would have to be relocated within the park; however, any impact on the amount of pervious surface would be minimal.

Two options exist to address pedestrian access to the bathhouse from the end of Rogers Street closest to the MBTA overpass. A stairway system could be installed which would require pedestrians to walk across the parking lot to access the bathhouse (as occurs today). This would eliminate the need to push the parking lot any further north into the lawn space on the 20 Rogers Street parcel, but could be a safety issue given the 'drive-through' configuration of the lot, as opposed to the existing dead-end configuration in which cars travel at a slower rate of speed. The second option would be to push the entire parking area another ten feet north into the 20 Rogers Street parcel to allow for a proper pedestrian stairway and walk system along the southern edge of the lot, as was shown in the recommended master plan site layout drawings.

A clear and designated entrance onto the emergency/maintenance route from the parking area is not indicated. Two parking spaces would be lost to make way for a dedicated emergency access entry point, though the potential certainly exists to locate these two spaces elsewhere. Grading for this plan was not indicated. Mr. Larrabee's presentation to the Task Force included a recommendation that the retaining walls be replaced with vegetated rip-rapped slopes, which would be less expensive and more naturalistic than retaining walls. However if retaining walls are selected it can be assumed that the amount of retaining walls required would be the same as for the parking and drive configuration diagramed in Option 3C.

This plan is more conceptual and does present some issues expressed by the Task Force during the earlier parts of the Master planning process. However, during the final Task Force September 2009 meeting, the Task Force endorsed the Oval Parking Lot Option.

3.4 Implementation Analysis

The improvements proposed in this Master Plan will result in construction within the Bank Resource Area and 100-foot Buffer Zone, placing the project within the Newton Conservation Commission's jurisdiction. Therefore, a Notice of Intent Application will need to be filed with the Newton Conservation Commission for pre-construction review, as was determined during the Commission's preliminary review meeting in April 2009. Conformance with the applicable regulatory performance standards will have to be demonstrated as the project goes into design.

Ledge is a potential obstacle on the site that should be studied during the final design phase of the project. The Newton Engineering Division conducted sub-surface explorations in 2007 for the potential construction of storm water leaching galleries. Test pits (TP-0 and TP-1) indicated the presence of ledge within six feet of the surface on the 30 Rogers Street parcel. However, another boring at the site did not indicate ledge within the depth needed for the galleries (approximately 7 feet). This boring location is within the approximate area proposed in this Master Plan for the new leaching basin. Since no additional borings were performed specifically for this Master

Plan, subterranean ledge may show up in other areas of the site in which site improvements and/or grading are proposed. Because the new building proposed in Option 3C is located within the same general area as the existing bathhouse, it might be assumed that ledge would not be a major issue in the construction of the building, but it is difficult to state this categorically. Borings are not possible within the footprint of the existing building and it should be noted that the new lower level will be positioned further back into the existing slope than currently exists.

The construction of a new bathhouse would pose a question as to the best approach in addressing the operation of the seasonal swim programs. There are two potential options that could be considered.

Option 1

Option 1 would require suspension of seasonal programs at Crystal Lake for one summer. A scenario would be to award a construction contract in time to allow for the demolition of the existing building immediately after a summer season concludes. A potential sixteen month construction schedule would have the new building up and open for business by spring a year and a half later. This would result in the loss of only one summer of recreational programming. With careful timing and coordination, the foundations and steel superstructure for the new bathhouse could be installed during the fall (assuming the steel contract had been let out at least three months prior) and enclosure of the building envelope could be complete prior to a hard winter freeze, allowing for the efficient installation of interior mechanical and electrical systems, interior partitions, etc.

If the City chose to provide temporary bathhouse facilities in order to avoid any loss of recreational programming during the construction period, it would be technically possible to do so, though the expense of installing such facilities on the 20 Rogers Street parcel would be very significant. This expense has not been accounted for within the project budgets provided in this study. Such a move would also interfere to a certain extent with the sitework envisioned on the 20 Rogers Street parcel, causing either delays, additional expenses, or both. For all these reasons, the City could suspend seasonal activities at the Crystal Lake Bathhouse for one season during the reconstruction of the bathhouse and adjacent park areas.

Option 2

Option 2 would employ Construction Management at Risk, which allows a contractor to be selected earlier in the design process, and shortens the overall project schedule, more so than is possible under the traditional design/bid/build approach. The demolition and early site work could begin at the end of a shortened season, perhaps August 1st. An aggressive construction schedule with good coordination and pre-purchase of the long-lead items such as steel, masonry, plumbing and mechanical equipment could allow for enclosure of the building before the advent of cold weather. The critical time for completion would be the following May or into June. If the work actually begins in earnest on the site with demolition in August, then the time period for the buildings would be 10-11 months. This would be a tight construction schedule but potentially achievable. Potentially, the building could be available for 'beneficial occupancy' (not completely finished) by June or by the end of June.

Beneficial occupancy would provide staff, public toilets, showers, and locker rooms for the lifeguards. It is unlikely that meeting rooms, changing rooms, administrative office, etc. would be usable. This would permit the next year's swim season to begin with the provision of necessary sanitary facilities.

3.5 Sustainable Design- Potential Green Design

Green design refers to sustainable design and energy conservation measures and is a rapidly evolving field. This section is not comprehensive but presents initial green design considerations for the bathhouse at Crystal Lake.

Zero Net Energy

Zero Net Energy refers to the total energy use of a building over the course of a year. Very few buildings can be built which do not draw electrical power from the utility grid, but it is entirely possible to include features that generate electrical energy and push electrical energy back into the grid.

Photovoltaics

There are a number of ways in which photovoltaics, panels or glass windows with the proper materials in them, can be applied to the new bathhouse. These would generate electrical power, which reduce the net energy drawn from the grid while the building is in use. But since the bathhouse is not used full time all year round, the power generated while the building is vacant is completely put back into the utility grid.

Solar Hot Water

Solar Tubes are very highly efficient collectors that heat water to near 200 degrees. This water can be cycled through a manifold in a hot water tank, heating potable water for use in showers, sinks or other human consumption uses. It could also be used to temper water in footbaths on the way to or from the beach which will encourage people to use them.

Rainwater collection

Rainwater can be collected from the roof, stored in a tank, and used for flushing toilets, rinsing down decks or for watering landscaping in areas subject to heavy foot traffic.

Natural Lighting and Ventilation

The bathhouse roofline could be revised to incorporate a clerestory around all four sides of the building, permitting the interior of the building to be flooded with natural light. This allows the artificial lighting to be turned off the majority of the time, becoming necessary only late in the day, at night, or when the sky is very cloudy. These same clerestory windows can be operable, so that the building can be cooled in summer by means of gravity ventilation; the warm air in the building rises and escapes through the clerestory windows, and is replaced by cooler air through the windows and doors at floor level. This is an ancient system that has fallen into disuse in the age of mechanical ventilation systems.

Site Lighting

All lighting for the parking area, pathways in the park, and around the beach area could be solar powered. These fixtures are available now and will be even more efficient and effective over time.

Sustainable Material Selection

With care, every material choice in the building could reflect a concern for the natural environment. Wood could be from rapidly renewable forests. Exterior materials will be selected not only for their durability but also for their ability to assist the building in maintaining an even temperature. Brick, takes a long time to heat up and can protect the interior from becoming too warm. When it has warmed, the brick will then release that heat into the now cooling building. Concrete and recycled wood phenolic resin composite clapboards are a very effective and sustainable material. Paving material for the deck outside the building could be a playground paving material made from recycled rubber products, including tires, tennis shoes and other rubber products. These are easy on the feet and protect people if and when they fall.

Public education

These concepts and materials could be used with appropriate signage and informational materials as a teaching tool to show patrons how their environment can be cared for and to encourage them to think carefully about how they construct or repair their own homes.

Cost Analysis

4.1 Overview

Total 'Project Costs' for each of the Two Preferred Master Plan Options (See Section 5.5 Two Preferred Master Plan Options) were developed by the Study Team and are included here for reference.

- The Option 3C Recommended Solution 'New Bathhouse' plan has a 'Project Cost' of $4.9 million dollars.
- The Option 2A 'Addition/Renovation' plan has a 'Project Cost' of $4.28 million dollars.

These are 'turn-key' budgets that include a 35% multiplier on top of the 'construction costs' to cover miscellaneous budget items over and above the cost of building and site construction. These budget items would include such costs as design fees, furnishings & equipment, construction contingency funds, etc.

It is important to note that these 'Cost Estimates' and 'Project Budgets' are expressed in 2009 dollars and that they will escalate as time goes on.

4.2 Range of Construction Costs – Site

Site construction budgets were developed by Pressley Associates and include all items shown on the Two Preferred Master Plan Options. These cost estimates include all site demolition (tree removals, full pavement removal, etc.) and all site improvements such as paving, ramps, steps, curbing and curb cuts, retaining walls, site furnishings and lighting, grading, planting, and lawns, as well as allowances for sewer and stormwater improvements. As with any site construction project, there may be unknown factors that cannot be anticipated at the conceptual design level of a Master Plan. Therefore a contingency is factored into the cost estimates.

Because the site designs for the Two Preferred Master Plan Options (2A –Addition/Renovation and 3C-New Bathhouse) are basically the same, there is no significant difference in site construction cost between these two options. Option 2A totaled $870,000 for the work on the 20 and 30 Rogers Street parcels, with an additional $30,000 for the work on 'Lot 2' of the 230 Lake Ave parcel. Option 3C totaled $852,000 for the work on the 20 and 30 Rogers Street parcels, with an additional $30,000 for the work on 'Lot 2' of the 230 Lake Ave parcel.

The slight cost difference between these two options is attributed to the amount of paving necessary to provide pedestrian circulation around the bathhouse and paving for the driveway based upon the site location for the parking lot.

4.3 Range of Construction Costs – Building

Building construction budgets were developed for both of the Two Preferred Master Plan Options by PM&C professional cost estimators, working in conjunction with Raymond Design Associates. These construction budgets are conceptual in nature given the level of detail available in a master plan study. However, the construction budgets provide the City with an appropriate 'order of magnitude' budget for each option and can be used to assess the relative expense of each option when compared to the other.

The construction estimates for the bathhouse building are based on square footage takeoffs and appropriate cost-per-square-foot allowances. A 'Design Contingency' line item was added to cover unknown, but probable program improvements that will most likely be added when the project goes into the design phase. The site construction estimates discussed above were reviewed by an independent Task Force consultant and found to be accurate. They were folded into the estimates compiled by PM&C.

PM&C

CRYSTAL LAKE BATHOUSE MASTERPLAN
Comparitive Design Options
Newton, MA

19-Jan-09

Preliminary Design Options Estimate

MAIN CONSTRUCTION COST SUMMARY

		GSF	Cost per SF	Estimated Construction Cost (ECC)	Construction Start	Escalated to construction start at 6% p.a.
OPTION 3C		*8,850 total gsf*		$ *382 per sq.ft.*		
		7,600 heated gsf				
Demolish existing	building	9,300	$ 15.00	$139,500	Sep-09	$147,870
New Building		7,600	$ 260.00	$1,976,000	Sep-09	$2,094,560
New Veranda		1,250	$ 150.00	$187,500	Sep-09	$198,750
#20 & #30 Rogers St. Site Work				$855,000	Sep-09	$906,300
#230 Lake Ave. Lot #2 Site Work				$30,000	Sep-09	$31,800
Sub Tot Constr Cost:						**$3,379,280**
Design Contingency		10%				**$337,928**
Soft Costs		35%				**$1,182,748**
Total Project Cost:						**$4,899,956**

Figure 1: Total Project Cost Estimate for Recommended "New" Bathhouse Option 3C

PM&C

CRYSTAL LAKE BATHOUSE MASTERPLAN
Comparitive Design Options
Newton, MA

19-Jan-09

Preliminary Design Options Estimate

MAIN CONSTRUCTION COST SUMMARY

	GSF	Cost per SF	Estimated Construction Cost (ECC)	Construction Start	Escalated to construction start at 6% p.a.
OPTION 2A	*6,950 total gsf*		$ *411 per sq.ft.*		
	6,250 heated gsf				
Demolish portion of existing building	5,800	$ 15.00	$87,000	Sep-09	$92,220
Building Renovation	2,600	$ 200.00	$520,000	Sep-09	$551,200
Veranda Renovation	700	$ 125.00	$87,500	Sep-09	$92,750
New Addition	3,650	$ 300.00	$1,095,000	Sep-09	$1,160,700
#20 & #30 Rogers St. Site Work			$873,000	Sep-09	$925,380
#230 Lake Ave. Lot #2 Site Work			$30,000	Sep-09	$31,800
Sub Tot Constr Cost:					**$2,854,050**
Design Contingency	15%				**$428,108**
Soft Costs	35%				**$998,918**
Total Project Cost:					**$4,281,076**

2A Cost Estimate

Page 1

PMC - Project Management Cost

Figure 2: Total Project Cost Estimate for a "Renovated" Bathhouse Option 2A

Site Cost Estimates

Option 2a		Option 3c	
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:	$77,000	Sewer System:	$77,000
SubTotal:	$725,000	SubTotal:	$710,000
Contingency (20%)	$145,000	Contingency (20%)	$142,000
Total	$870,000	Total	$852,000

Crystal Lake Master Plan - Building and Site Options

Figure 3: Site Cost (Only) for the Recommended "New" Bathhouse Option 3C vs. "Renovated" Bathhouse with Addition Option 2A

Site Cost Estimates

230 Lake Avenue Lot 2 – 0.19 Acres

Site Demo / Prep:	$5,000
Paths and Ramps:	$15,000
Grading and Seeding:	$5,000
SubTotal:	$25,000
Contingency (20%)	$5,000
Total	$30,000

Crystal Lake Master Plan - Building and Site Options

Figure 4: Site Cost Estimate (Only) to Connect 230 Lake Ave. Easement and Additional Land to Existing Park

pressley

Crystal Lake Master Plan - Site Cost Estimate

Option 3C

December 17, 2008

Item	Quantity	Unit	Unit Price	Total
Bituminous concrete walkway - pedestrian depth	2,800	SF	$5.25	$14,700
Bituminous concrete walkway - vehicular depth	9,800	SF	$6.50	$63,700
Concrete paving - vehicular depth	0	SF	$9.50	$0
Concrete paving - pedestrian depth RAMPs	840	SF	$15.00	$12,600
Concrete paving - pedestrian depth	3,950	SF	$7.50	$29,625
Extra for decorative pavers	0	LS	$10,000.00	$0
Access Drive for crane/emergency - graded gravel surface	2,700	SF	$5.00	$13,500
Ramp handrails	290	LF	$35.00	$10,150
Step handrails	155	LF	$35.00	$5,425
Steps	300	SF	$50.00	$15,000
Stonedust paths	0	SF	$3.50	$0
Bituminous concrete patch at curb - vehicular	120	SF	$12.00	$1,440
Install retaining wall along crane/emergency access	165	LF	$150.00	$24,750
Install new retaining walls	840	FSF	$40.00	$33,600
Install new ramp retaining wall	300	FSF	$30.00	$9,000
6" granite curb in concrete cradle	665	LF	$40.00	$26,600
Stormwater controls allowance	1	LS	$75,000.00	$75,000
Benches	1	LS	$2,000.00	$2,000
Bike Racks	1	LS	$2,200.00	$2,200
Site Lighting	1	LS	$45,000.00	$45,000
Allowance for sewer line improvements	1	LS	$77,000.00	$77,000
Grading allowance	1	LS	$30,000.00	$30,000
Lawn loam and seed	25,000	SF	$1.00	$25,000
Install new trees	22	EA	$1,250.00	$27,500
Install new shrubs. Etc.	6,000	SF	$7.00	$42,000
Remove existing parking lot and parking lot sidewalk	13,350	SF	$2.25	$30,038
Remove existing parking lot retaining wall	140	LF	$80.00	$11,200
Remove ex. Paved driveways alongside bldg	6,550	SF	$2.25	$14,738
Remove ex. Beach retaining wall	120	LF	$70.00	$8,400
Remove ex. h/c ramp and walls	1,100	SF	$5.00	$5,500
Additional site demo	1	LS	$25,000.00	$25,000
Clear additional vegetation for grading and site work	1	LS	$5,000.00	$5,000
Remove existing large trees	23	EA	$1,200.00	$27,600

SubTotal	**$713,265**
Contingency @ 20%	**$142,653**
Total with Contingency	**$855,918**

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Figure 5: Site Cost Estimate for Recommended New Bathhouse Option 3C

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Crystal Lake Master Plan - Site Cost Estimate

Option 2A

December 17, 2008

Item	Quantity	Unit	Unit Price	Total
Bituminous concrete walkway - pedestrian depth	2,900	SF	$5.25	$15,225
Bituminous concrete walkway - vehicular depth	10,350	SF	$6.50	$67,275
Concrete paving - vehicular depth	2,725	SF	$9.50	$25,888
Concrete paving - pedestrian depth RAMPs	850	SF	$15.00	$12,750
Concrete paving - pedestrian depth	330	SF	$7.50	$2,475
Extra for decorative pavers	0	LS	$10,000.00	$0
Access Drive for crane/emergency - graded gravel surface	2,200	SF	$5.00	$11,000
Ramp handrails	290	LF	$35.00	$10,150
Step handrails	155	LF	$35.00	$5,425
Steps	450	SF	$50.00	$22,500
Stonedust paths	0	SF	$3.50	$0
Bituminous concrete patch at curb - vehicular	120	SF	$12.00	$1,440
Install retaining wall along crane/emergency access	160	LF	$150.00	$24,000
Install new retaining wall	1,110	FSF	$40.00	$44,400
Install new ramp retaining wall	300	FSF	$30.00	$9,000
6" granite curb in concrete cradle	700	LF	$40.00	$28,000
Stormwater controls allowance	1	LS	$75,000.00	$75,000
Benches	1	LS	$2,000.00	$2,000
Bike Racks	1	LS	$2,200.00	$2,200
Site Lighting	1	LS	$45,000.00	$45,000
Allowance for sewer line improvements	1	LS	$75,000.00	$75,000
Grading allowance	1	LS	$30,000.00	$30,000
Lawn loam and seed	21,500	SF	$1.00	$21,500
Install new trees	22	EA	$1,250.00	$27,500
Install new shrubs. Etc.	5,800	SF	$7.00	$40,600
Remove existing parking lot and parking lot sidewalk	13,350	SF	$2.25	$30,038
Remove existing parking lot retaining wall	140	LF	$80.00	$11,200
Remove ex. Paved driveways alongside bldg	6,550	SF	$2.25	$14,738
Remove ex. Beach retaining wall	120	LF	$70.00	$8,400
Remove ex. h/c ramp and walls	1,100	SF	$5.00	$5,500
Additional site demo	1	LS	$25,000.00	$25,000
Clear additional vegetation for grading and site work	1	LS	$5,000.00	$5,000
Remove existing large trees	23	EA	$1,200.00	$27,600

SubTotal	**$725,803**
Contingency @ 20%	**$145,161**
Total with Contingency	**$870,963**

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Figure 6: Site Cost Estimate for "Renovated" Bathhouse Option 2A

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Crystal Lake Master Plan - Site Cost Estimate

0.19 Acre Conservation Restriction Area

December 17, 2008

Item	Quantity	Unit	Unit Price	Total
Bituminous concrete walkway - pedestrian depth	0	SF	$5.25	$0
Bituminous concrete walkway - Pedestrian ramp	550	SF	$8.00	$4,400
Steps	45	SF	$50.00	$2,250
Ramp handrails	184	LF	$35.00	$6,440
Step handrails	0	LF	$25.00	$0
Stonedust paths	550	SF	$3.50	$1,925
Clear existing vegetation for grading and site work	1	LS	$2,000.00	$2,000
Grading allowance	1	LS	$2,500.00	$2,500
Lawn loam and seed	2,250	SF	$1.00	$2,250
Remove/repair existing stone wall	1	LS	$2,500.00	$2,500

SubTotal	**$24,265**
Contingency @ 20%	**$4,853**
Total with Contingency	**$29,118**

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Figure 7: Site Cost Estimate for Conservation Restriction Area at 230 Lake Avenue

Alternative Solutions Considered But Not Selected

5.1 Overview

Subsequent to programming activities, and over the course of many months, the study team and Task Force explored a series of development options for the park and Bathhouse. The first step was to explore big-picture layout options through a series of 'Site Programming Diagrams'; next, a series of nine different 'Master Plan Options' were explored. These showed specific building layouts in conjunction with specific vehicular and pedestrian circulation flows throughout the park and shoreline. At the end of this process, the Task Force asked that two of the 'Master Plan Options' be explored in more depth, including revisions to the site plans and floor plans, along with elevation studies and massing images of the Bathhouse structure itself.

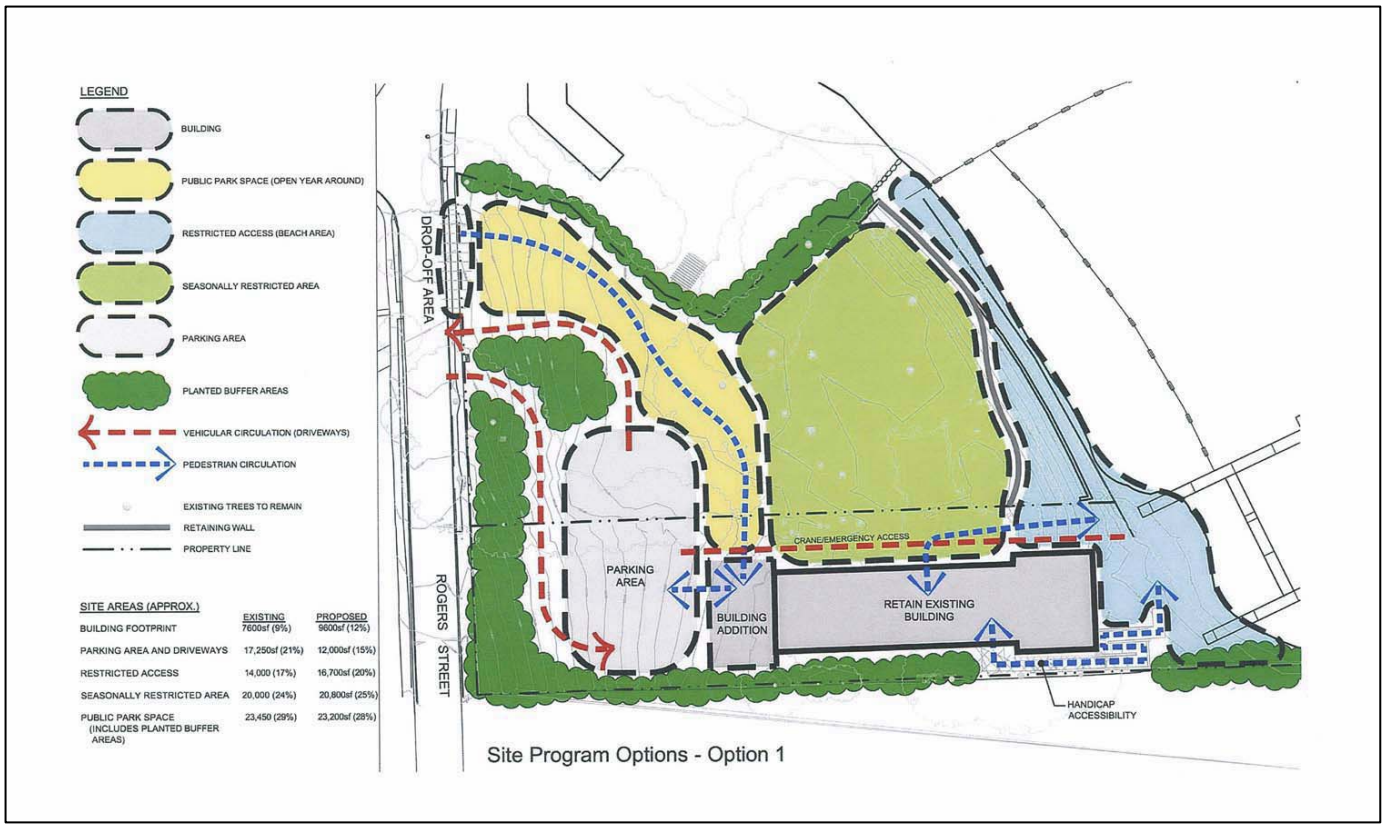
5.2 Five Initial Site Programming Diagrams

At its second meeting with the Task Force on June 11, 2008, the study team presented an initial series of Site Programming Diagrams that explored programmatic issues using diagrammatic site plans for three different Bathhouse configurations.

Existing Bathhouse Option

Site Program Option 1:

- Renovate the existing bathhouse at 30 Rogers Street.
- Construct a new parking lot parallel to Rogers Street, spanning over both the newly acquired 20 & and the existing 30 Rogers Street parcels.
- Provide both parking ingress and egress in separate drives on the newly acquired 20 Rogers Street parcel.
- Provide year-round public park space on the newly acquired 20 Rogers Street parcel, connected to Levingston Cove via the newly acquired easement over 'Lot 2' at 230 Lake Avenue.



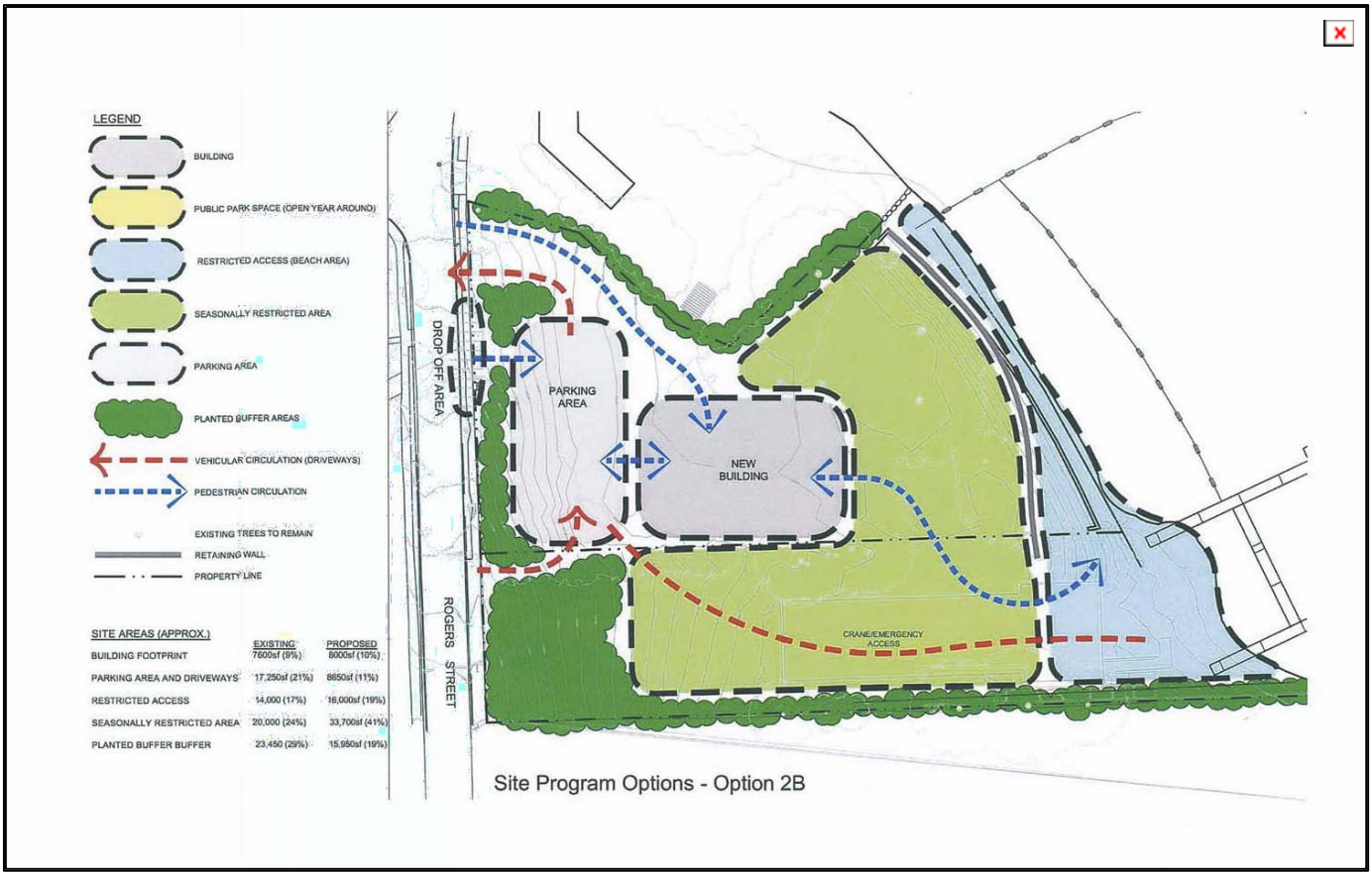
New Bathhouse Option

Site Program Option 2A:

- Construct a new building with expanded beach on the existing 30 Rogers Street parcel.
- Construct new parking lot parallel to Rogers Street, spanning over both the newly acquired 20 & the existing 30 Rogers Street parcels.
- Provide parking ingress on the existing 30 Rogers Street parcel and a separate parking egress on the newly acquired 20 Rogers Street parcel.
- Provide year-round public park space on the newly acquired 20 Rogers Street parcel, connected to Levingston Cove via the newly acquired easement over 'Lot 2' at 230 Lake Avenue.

Site Program Option 2B:

- Construct a new building on the newly acquired 20 Rogers Street Parcel.
- Provide expanded beach and seasonally restricted lawn area on the existing 30 Rogers Street parcel.
- Construct new parking lot parallel to the street on the newly acquired 20 Rogers Street parcel.
- Provide parking ingress on the existing 30 Rogers Street parcel and a separate parking egress on the newly acquired 20 Rogers Street parcel.
- No connection to the newly acquired easement over 230 Lake Avenue property.



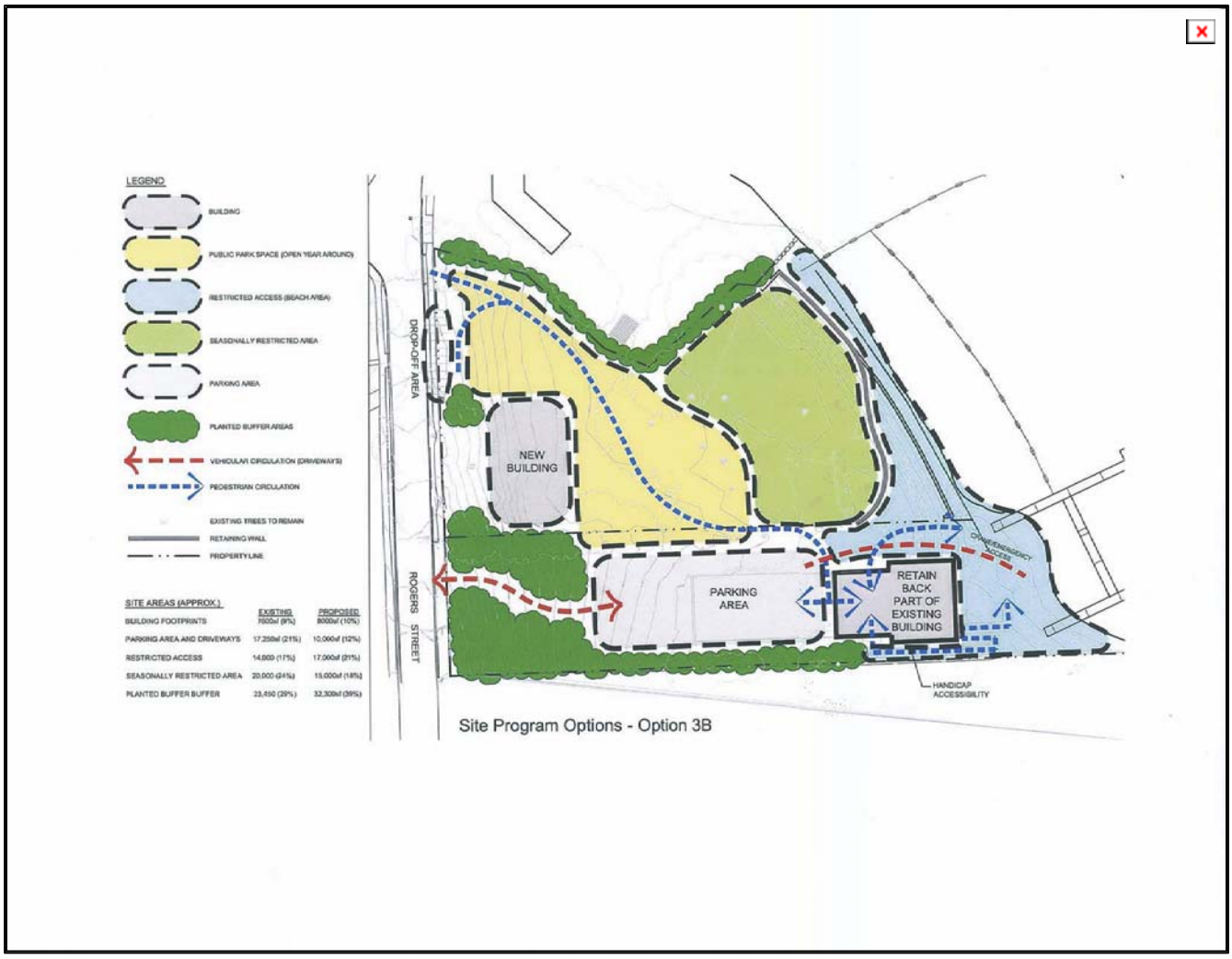
Separate Bathhouse/Community Building Option

Site Program Option 3A:

- Construct two separate buildings on the existing 30 Rogers Street parcel.
- Renovate the lake-side portion of existing Bathhouse for seasonal programs.
- Construct a new community building up close to Rogers Street.
- Construct a new parking lot on the existing 30 Rogers Street parcel, between the two buildings and perpendicular to Rogers Street.
- Provide shared parking ingress and egress on the newly acquired 20 Rogers Street parcel.
- Provide year-round public park space on the newly acquired 20 Rogers Street parcel connected to Levingston Cove via the newly acquired easement over 'Lot 2' at 230 Lake Avenue.

Site Program Option 3B:

- Construct two separate buildings, one on the existing 30 Rogers Street parcel and the other on the newly acquired 20 Rogers Street parcel.
- Renovate the lake-side portion of existing bathhouse at 30 Rogers Street for seasonal programs.
- Construct a new community building on the 20 Rogers Street parcel.
- Construct a new parking lot on the existing 30 Rogers Street parcel perpendicular to Rogers Street with shared ingress and egress on the existing 30 Rogers Street parcel.
- Provide year-round public park space on the newly acquired 20 Rogers Street parcel connected to Levingston Cove via the newly acquired easement over 'Lot 2' at 230 Lake Avenue.



The programmatic elements explored in the five initial Site Programming Diagrams included the location and size of public park space (areas on the site that are fully available for year round use by the public), the location and size of seasonally restricted open space (space that is available only to beach permit users during the swim season), the size of beach area, vehicular circulation patterns (parking areas and driveways), pedestrian movement, and landscape buffer areas.

Although the options were diagrammatic, they all considered the restraints imposed by the topography of the site. The general guiding principle for the vehicular circulation design was to create an on-site parking area that was generally "flat", with a slope of 5% or less in order to comply with accessibility codes. Any handicap parking space would also have to meet the required 2% or less slope. An on-street 'drop-off' area was also highlighted to provide accommodations for camp busses and parental on-street stacking. This was consistently shown on the 20 Rogers Street parcel.

The steepness and configuration of the ingress/egress driveway(s) was also considered. The goal was to have driveways with a slope of 12% or less. By following these standards, vehicular circulation and stormwater issues could be improved over existing conditions. In general, a parking lot with one-way 'drive-thru' circulation is considered superior to a 'dead-end' parking lot in which a patron needs to turn around in the parking lot before egressing out of the site.

Accommodations for a safe and accessible route to the beach for emergency and maintenance vehicles is a programming consideration that was taken into account and was delineated by dashed red lines.

Most of the pedestrian routes shown in these Site Programming Diagrams were located in full consideration of accessibility, with the grading of at least one pedestrian path through the site and into the building being completely accessible without the use of handicap ramps. The accessible path from the building to the beach itself varied. In those options, which maintained the existing lake-side portion of the existing bathhouse, the accessible path to the beach made use of the existing handicap ramp. On the other hand, Option 2A (new building) makes use of an elevator within the building envelope to provide access to the beach via a lower level.

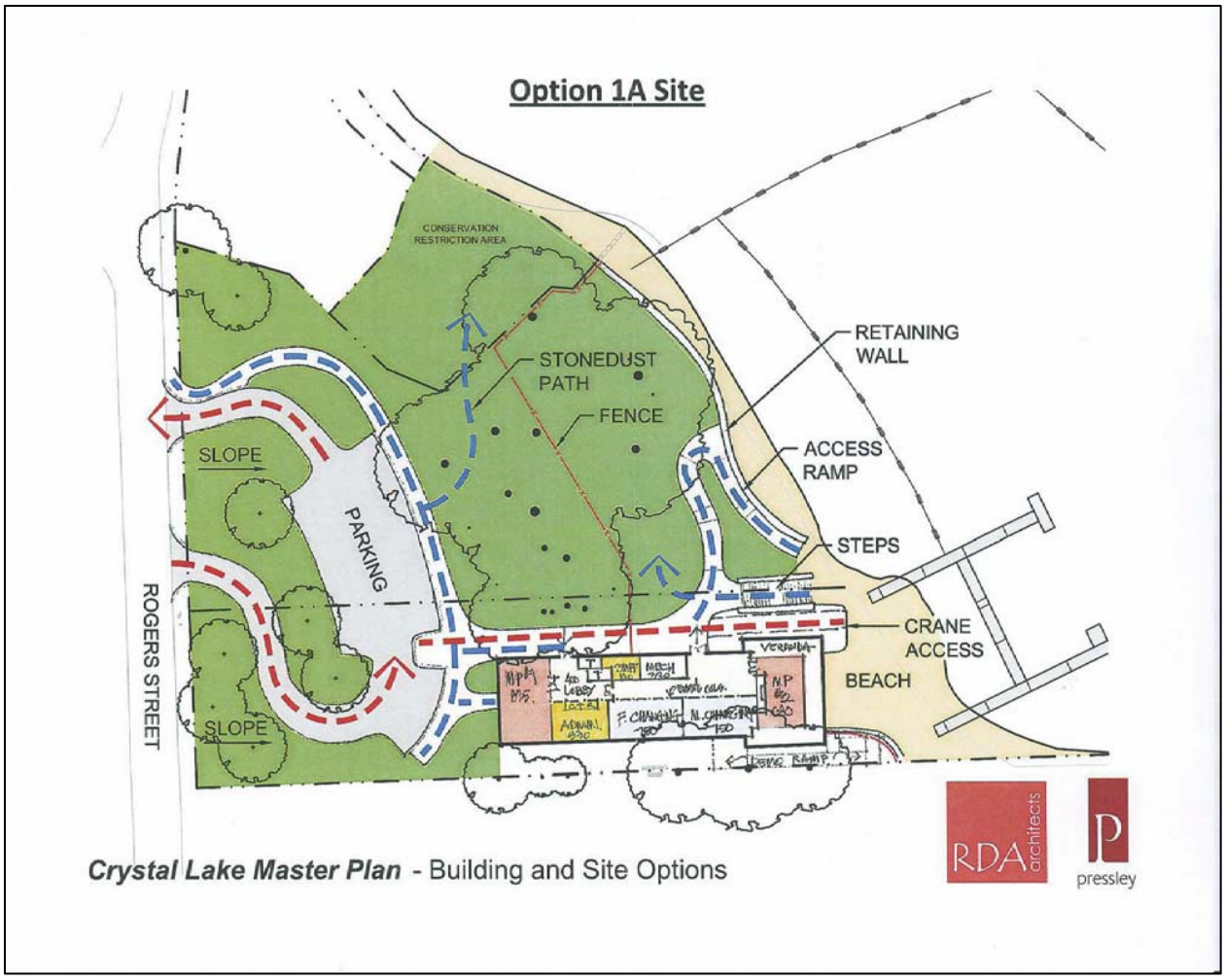
After review of these initial Site Programming Diagrams at their meetings, the Task Force generally indicated that they would prefer any new building or building addition be entirely or at least mostly located on the 30 Rogers Street parcel, away from the street, near or at the location of the existing bathhouse. The general consensus was that a building on the 20 Rogers Street site not only blocked views of the lake but also took up land within the newly acquired park open space. Keeping the location of the building in approximately the same location also provides some screening from the MBTA tracks.

5.3 Five Initial Master Plan Options

At the study team's third meeting with the Task Force on August 13, 2008, detailed Master Plan Options that combined floor plan and site layouts were presented for the first time. Parking and vehicular circulation were explored in more detail as well as methods for successfully incorporating pedestrian and handicap accessibility through the steep portions of the site. Locations for the placement of the temporary fence required to segregate seasonal 'permit' areas from public 'open space' were also presented. All of these Master Plan Options entail moving the stone retaining wall at the 'left beach' back away from the water to allow more space down by the water in this narrow area and, in some cases, to accommodate new handicap access ramps to the beach. All of these Master Plan Options also show potential paths for accessible pedestrian connections to the newly acquired 'Lot 2' conservation restriction area on the 230 Lake Avenue parcel, through which the connection to Levingston Cove can be made.

The designations for Master Plan Options from this point in the study going forward (1A, 1B, etc) do not relate to the previous Site Programming Diagrams discussed in Section 3.2. Instead, they relate to the configuration of the proposed bathhouse building, with a concentration on exploring options for either year-round or off-season public access to a community meeting room.

The five initial Master Plan Options presented are described in the subsequent pages.



I. Options that Make Use of the "Entire Existing Bathhouse"

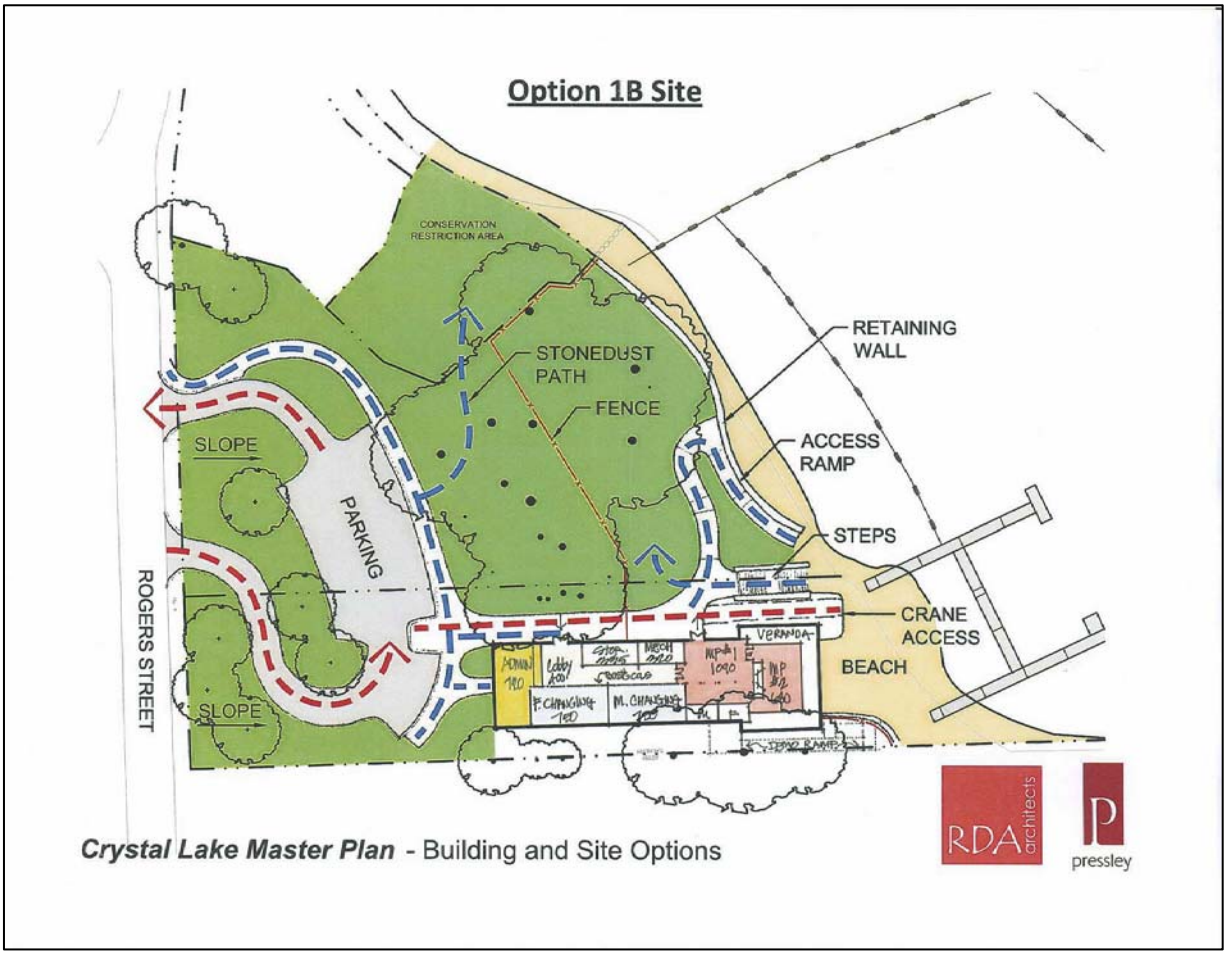
Master Plan Option 1A:

- Preserve and renovate the entire existing bathhouse, which provides more square footage than called for in the building program.
- The additional square footage allows for two multi-purpose rooms, one of which (on the parking lot end) is available for after-hours community use, while the second (on the lake end) is dedicated to seasonal program use.
- Parking is spread out over both 20 and 30 Rogers Street properties, configured as a 'flat' lot (see site section diagram) with one-way vehicular circulation requiring two curb cuts on Rogers Street.
- Passenger drop-off/pick-up is possible within the parking area due to the one-way circulation and a drop-off/pick-up area on Rogers Street is not shown.
- A pedestrian path along the north side of the existing bathhouse leads to the bathhouse entry, located on the side of the building, with a temporary seasonal fence preventing access to the beach or seasonal lawn area without first checking in at the bathhouse.
- There are both steps and a switchback handicap access ramp leading to the beach from a second, segregated exit from the bathhouse. The location of the ramp is integrated much more successfully into the landscape and flow of patron activities than the existing ramp on the opposite side of the building. In addition, because the design of the ramp requires the relocation of a portion of the stone

retaining wall along the ‘left beach’, this layout provides the opportunity to expand the ‘left beach’ area.

- The existing handicap access ramp on the south side of bath house is removed.

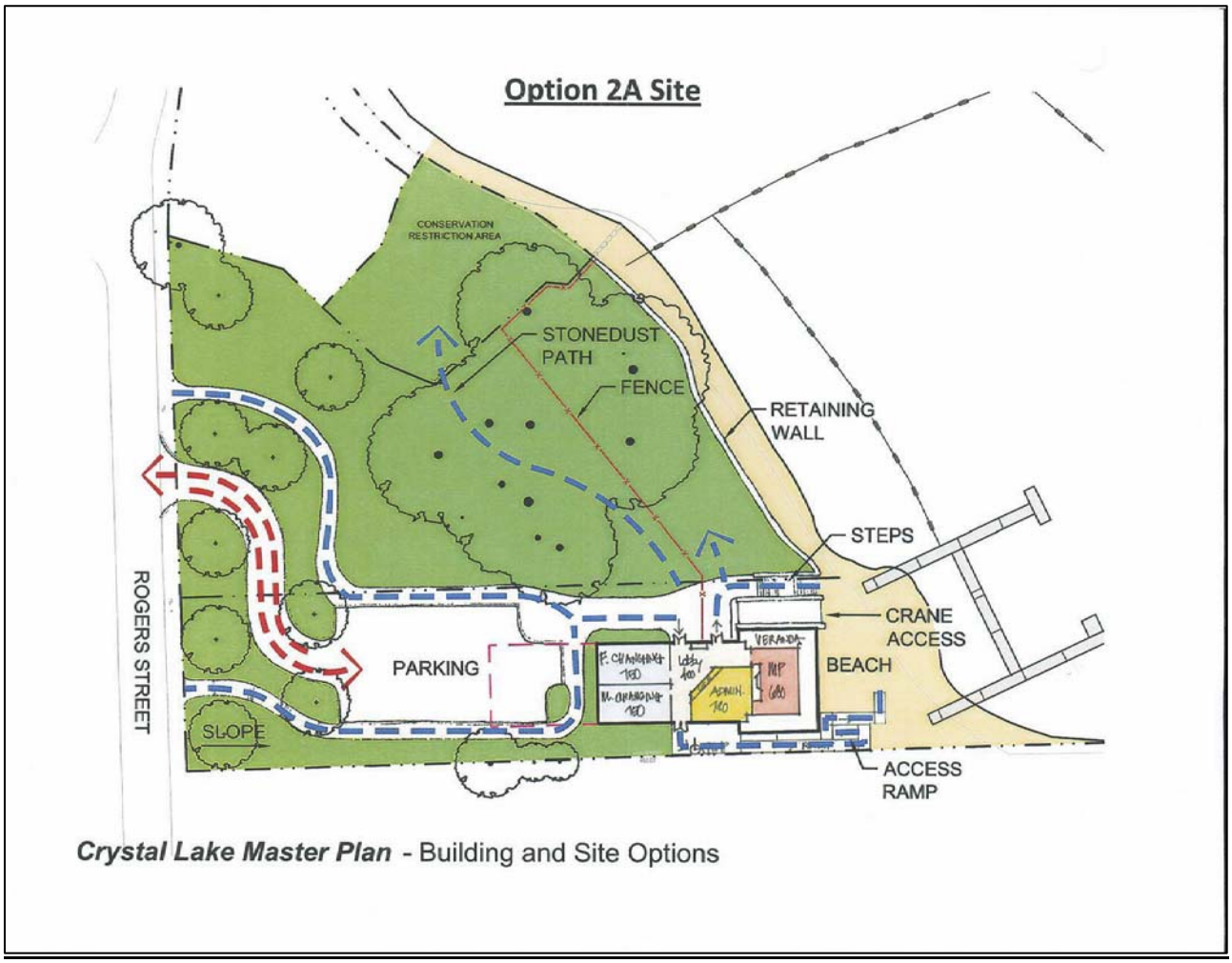
- Emergency and maintenance access (“crane access”) is located at the northeastern corner of the bathhouse, via a steep paved path in approximately the same location as exists.



M**aster Plan Option 1B**:

- Preserve and renovate the entire existing bathhouse (similar to Option 1A).
- The additional square footage again allows for two multipurpose rooms, however, both are located on the lake end and would be dedicated to seasonal program use, with community use only during the ‘off-season’.
- Placement of both multi-purpose rooms on the lake-end of the building allows better supervision of the parking lot and park by administrative staff by placing the administrative office on the parking lot end of the building.
- The site design for this option is exactly the same as Option 1A.

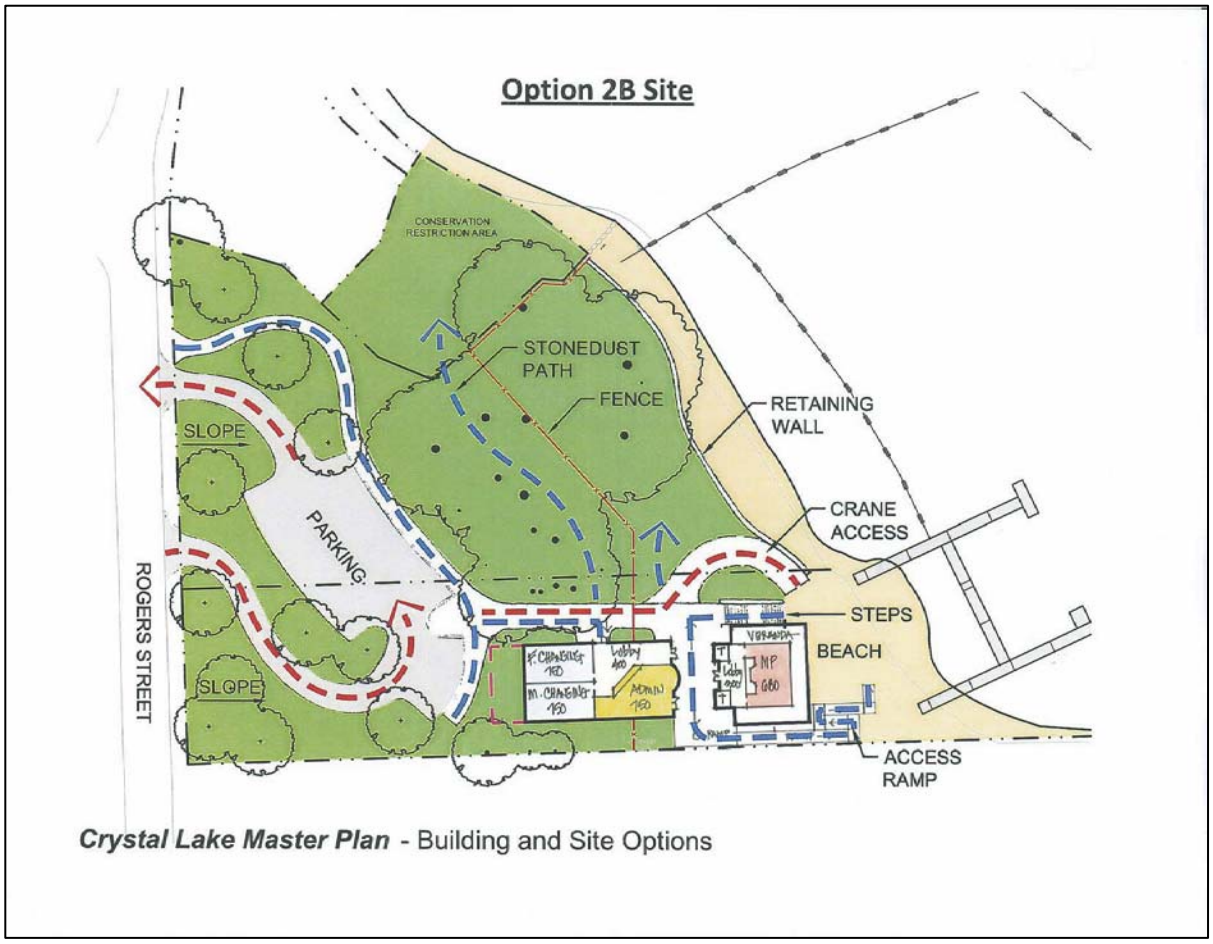
II. Options that Make Use of a "Portion of the Existing Bathhouse"



Master Plan Option 2A:

- Preserve and renovate only enough square footage at the 'lake-end' of the existing building to meet the square footage requirements of the building program. The preserved portions of the building include the entire two-story hipped roof section directly abutting the lake, as well as a portion of the single-story flat roofed 'ell' heading towards the parking lot.
- A single multi-purpose room is located on the lake-end of the bathhouse. As such it would be dedicated to seasonal programs during the swim season and accessible for community use only during the off-season.
- Demolishing a significant portion of the existing single-story 'ell' allows for a 'flat' parking lot to be placed completely within the 30 Rogers Street parcel, perpendicular to Rogers Street.
- In order to maintain a properly graded (12% or less) driveway, part of the driveway is constructed within the 20 Rogers Street parcel. The site plans shows a two-way driveway with single curb cut on Rogers Street.
- Parking is configured as a "dead-end" lot, eliminating the possibility for easy drop-off/pick-up within the parking lot as was possible in the one-way circulation pattern shown in Options 1A and 1B. Accordingly, the study team anticipates that more drop-off/pick-up activity will take place on Rogers Street.

- Again, a pedestrian path along the north side of the existing bathhouse leads to the bathhouse entry, which is located on the side of the building.
- A temporary seasonal fence prevents access to the beach or seasonal lawn area without first checking in at the bathhouse.
- The existing handicap access ramp on south side of bathhouse is removed.
- There are two pedestrian entries onto the beach from the bathhouse. The first is via a new set of steps on the north side of building. The second is via the existing access ramp on the south side of building. Relocation of the entry lobby integrates the accessible ramp into the patron flow much more effectively. Placement of the new administrative office area on the south side of the building creates much better oversight of the ramp as well.
- Use of the existing ramp means that relocation of the existing stone wall and expansion of the 'left beach' area is possible, but strictly optional.
- As with Options 1A and 1B, the emergency and maintenance access ("crane access") is located at the northeastern corner of the bathhouse.

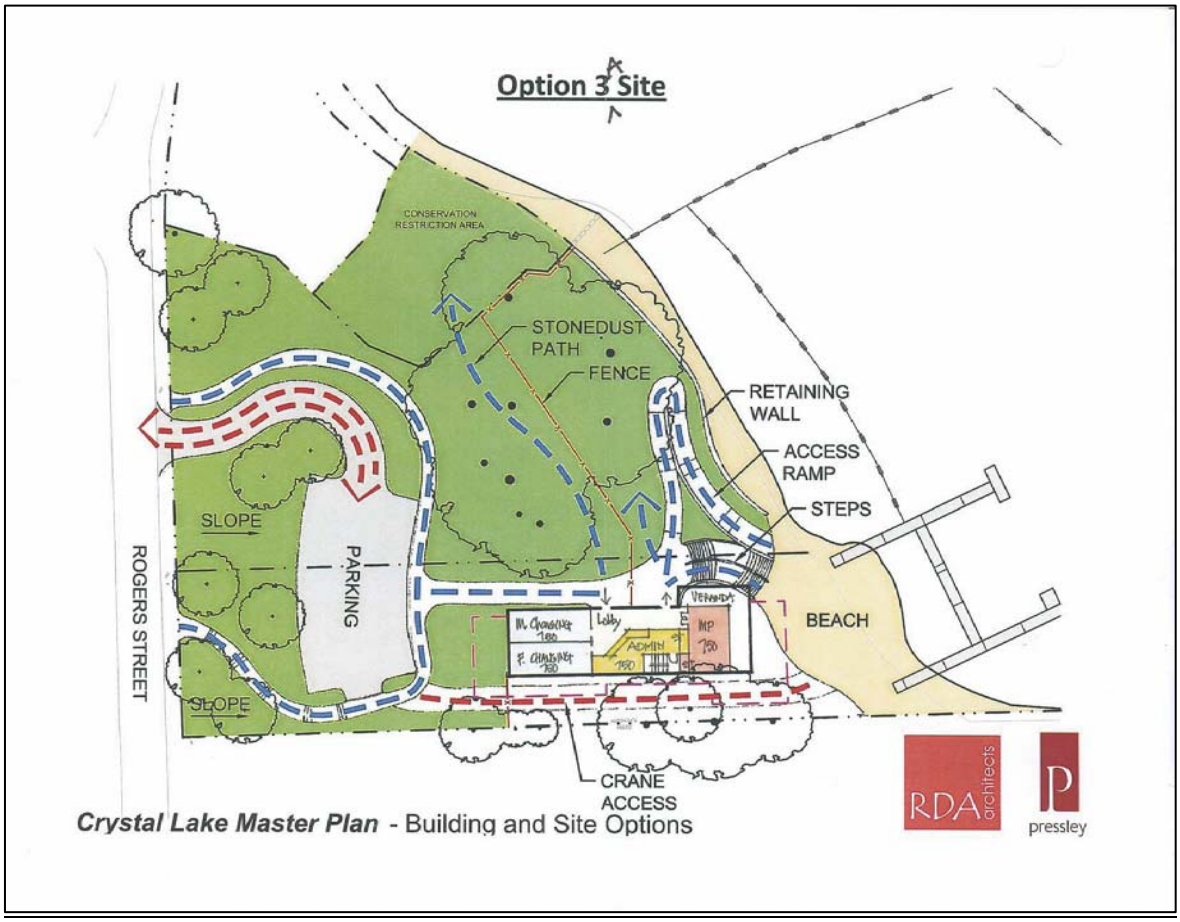


Master Plan Option 2B:

- Preserve and renovate only the two-story hipped roof section of the existing building directly abutting the lake and use this structure as a community center on the upper level and the guard room on the lower level.
- Construct a new, separate bathhouse within a portion of the footprint of the existing single-story 'ell'.
- Connect the two structures with a covered roof or pergola to provide open-air shelter from storms or sun.
- The combined square footage of these two buildings meets the square footage requirements of the building program.
- As with Option 2A, the single multi-purpose room is located within the lake-end of the existing building to take advantage of the beautiful view, with the utilitarian bathhouse facilities located to the parking lot side. As such, the multi-purpose room would be dedicated to seasonal programs during the swim season and accessible for community use only during the off-season.
- The parking and driveway design is very similar to Options 1A and 1B which allow for a desirable one-way traffic flow, however, because the new bathhouse takes up a slightly smaller footprint than the existing single-story 'ell' (which is demolished) the parking lot protrudes less onto the 20 Rogers Street parcel.
- As with Option 2A, the existing access ramp is maintained on the south side of the building, with much easier patron access.

- Emergency and maintenance access ("crane access") is relocated away from the north side of the building allowing the steps to run immediately along the northeastern corner of the preserved community building.

III. **New Building Option**



Master Plan Option 3A:

- Construct a new bathhouse roughly within a portion of the existing building's footprint, but pulled slightly north and away from the water.
- The floor plan layout is very similar to that of Option 2A, except that the all-new construction allows for programmatic improvements such as an internal stairway connecting the guard room on the lower level to the staff areas on the upper level.
- Positive attributes of the existing structure, such as the open-air veranda and lake-side multi-purpose room are incorporated into the new building.
- The single multi-purpose room is located at the lake-end of the new building to take advantage of the view, with the utilitarian bathhouse facilities located on the parking lot side. As such, the multi-purpose room would be dedicated to seasonal programs during the swim season and accessible for community use only during the off-season.
- The relocation of the bathhouse allows for more distance between the bathhouse and lake, which in turn allows for expansion of the existing beach.
- The relocation of the bathhouse allows more room between the south side of the new building and the MBTA property line, which in turn allows for the relocation of emergency and maintenance access ("crane access") to the 'non-park/non-public' portion of the site.

- Moving the crane access to the south side allows for more flexibility, better placement, and better design alternates for the steps and access ramps down to the beach.
- The design of the ramp shown in the site plan requires the relocation of a portion of the retaining wall, which in turn allows for an expansion of the 'left beach'.
- The desirable one-way parking lot circulation patterns shown in Options 1A, 1B and 2B would work with this bathhouse layout, however for discussion purposes; a single, two-way driveway entrance/exit drive for the parking is shown. This dead-end parking layout makes on-site drop-off and pick-up difficult, but only requires one curb cut on Rogers Street.

5.4 Additional Master Plan Options

On September 10, 2008, the Task Force was presented with two site plan refinements to previously presented Master Plan Options; a series of options for the beach ramp; and a series of four new Master Plan Options, each of which included a choice between two parking lot designs; a 'dead-end' option and a 'drive-thru' option. These parking lot options were intended to help the Task Force sort out the pros and cons of a 'dead-end' parking lot with a shared entry/exit drive with a single curb-cut, all on a smaller footprint, versus those of a 'flow-through' parking lot with either a single entry/exit drive or two different drives on a larger footprint and encompassing a portion of both parcels on Rogers Street.

In regard to 'refinements', the Task Force wanted to see how the site plan components shown in Option 1A (August 13th) would work with the Option 2A and 3A bathhouse building plans.

In regard to beach ramp alternatives, the Task Force expressed a desire to explore configurations of the access ramp and steps in close proximity to each other including ramp options that didn't extend as far into the 20 Rogers Street lawn area and a 'ramp-only' (no steps) system. As a result, four design alternates for configuring the beach access ramp were presented, all of which presupposed that 'crane access' was located on the MBTA side of the building, and all of which would work with any of the new (September 10th) Master Plan Options.

The Master Plan Options (Section 5.3 II.) that included use of a "portion of the existing bathhouse" which essentially was the 'lake-end' of the existing building, crane access required the demolition of the southern side of the veranda in order to provide sufficient clearance between the building and MBTA property line. A structural review was conducted and it was determined that there would be no adverse structural impacts, or excessive costs involved with removing this portion of the veranda and a portion of basement below it. However, concerns regarding the aesthetic consequences of such a partial demolition were expressed by the Study Team.

Concurrently, the Task Force initiated conversations with the MBTA for a potential easement or right of way if necessary. A conceptual design was produced by the study team that concluded the southern veranda could be maintained if permission was granted by the MBTA to construct a retaining wall and a portion of a paved 'crane access' driveway within the MBTA right-of-way.

For the Master Plan Options (Section 5.3 III) that presented a completely new bathhouse , the new building was located in such a manner as to provide adequate clearance for the 'crane access' path along the southern edge of the site.

Refinements to Previously Presented Master Plan Options

The Task Force focused on two preferred bathhouse options: Option 2A that made use of a portion of the existing building and Option 3A that involved the construction of a new bathhouse. Both these two building configurations had been previously combined with a 'dead-end' parking lot scheme.

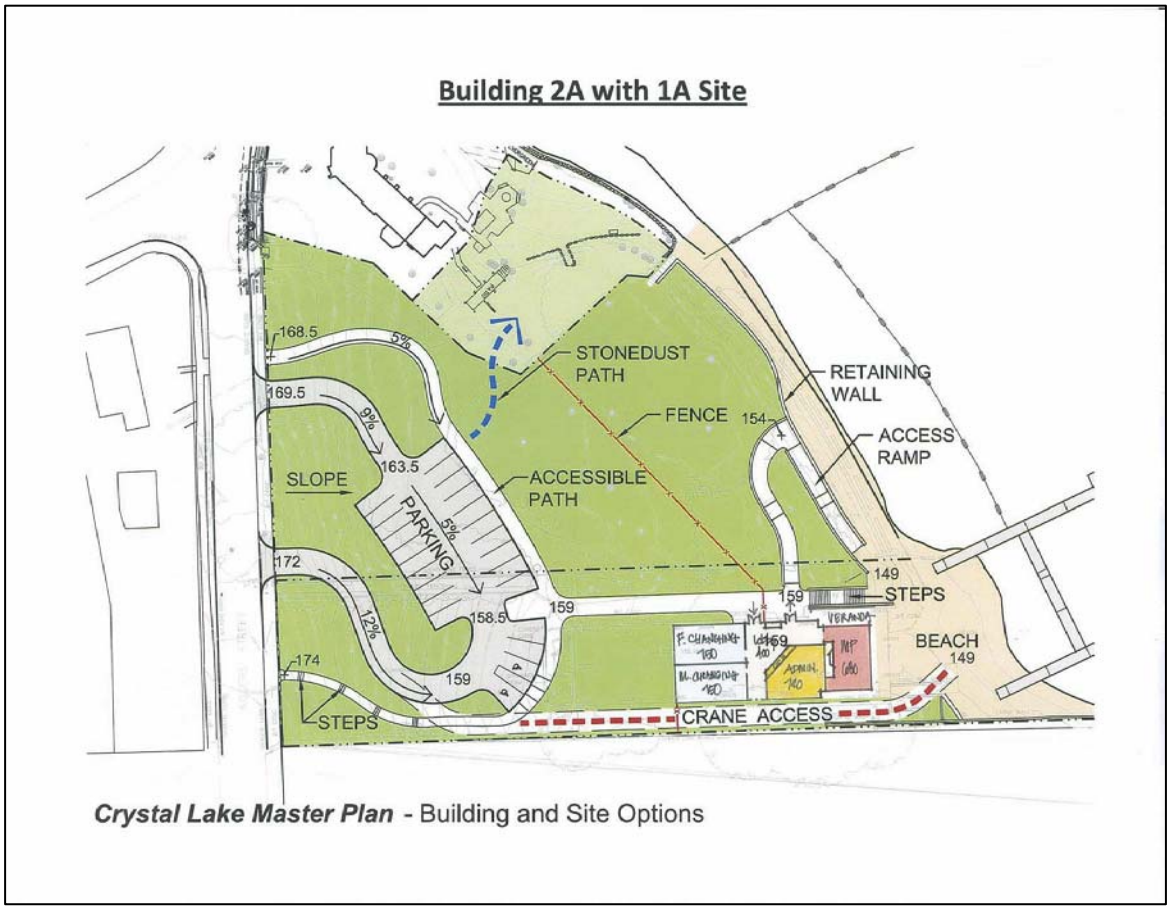
The 'flow-through' parking lot scheme shown in the Option 1A site plan was of interest to the Task Force. As such, the study team presented site plans showing this 'flow-through' parking lot layout combined with the Option 2A and 3A building plans. Other interesting features of the Option 1A site plan included the beach ramp

and related expansion of the ‘left beach’ and the steps adjacent to the building’s north side. Both of these refined sketches included the relocation of the ‘crane access’ path to the MBTA side of the bathhouse, with floor plan revisions that could accommodate such access.

In the original 2A bathhouse and site plan, the Task Force was concerned with the lack of parking lot and parkland supervision from inside the building, and the less visible remote entrance into the bathhouse from the parking lot.

The revised bathhouse floor plan for Option 2A moved the administrative/check-in area to the northwest corner of the plan and ‘bumped’ it out into the park with a bay. This change provided the administrative area with windows on three sides and clear unobstructed views toward the west into the parking lot; to the north into the lawn area and to the east into the ramp/stair system leading to the beach and lake beyond. The front entrance was moved to face the parking lot directly and the changing/toilet rooms were moved to the southern side of the building to buffer the noise of the MBTA Green Line and no longer obstruct views to the parking lot from the entry lobby.

The relocated entrance lobby improved supervision and accessibility from the lobby, but precluded continued use of the existing handicap access ramp to the beach. The revised Option 2A presented demolition of the existing ramp system on the southern edge of the building and the relocation of an access ramp to the northern (park) side of the bathhouse.



I. Additional Master Plan Options Utilizing a Portion of the Existing Bathhouse

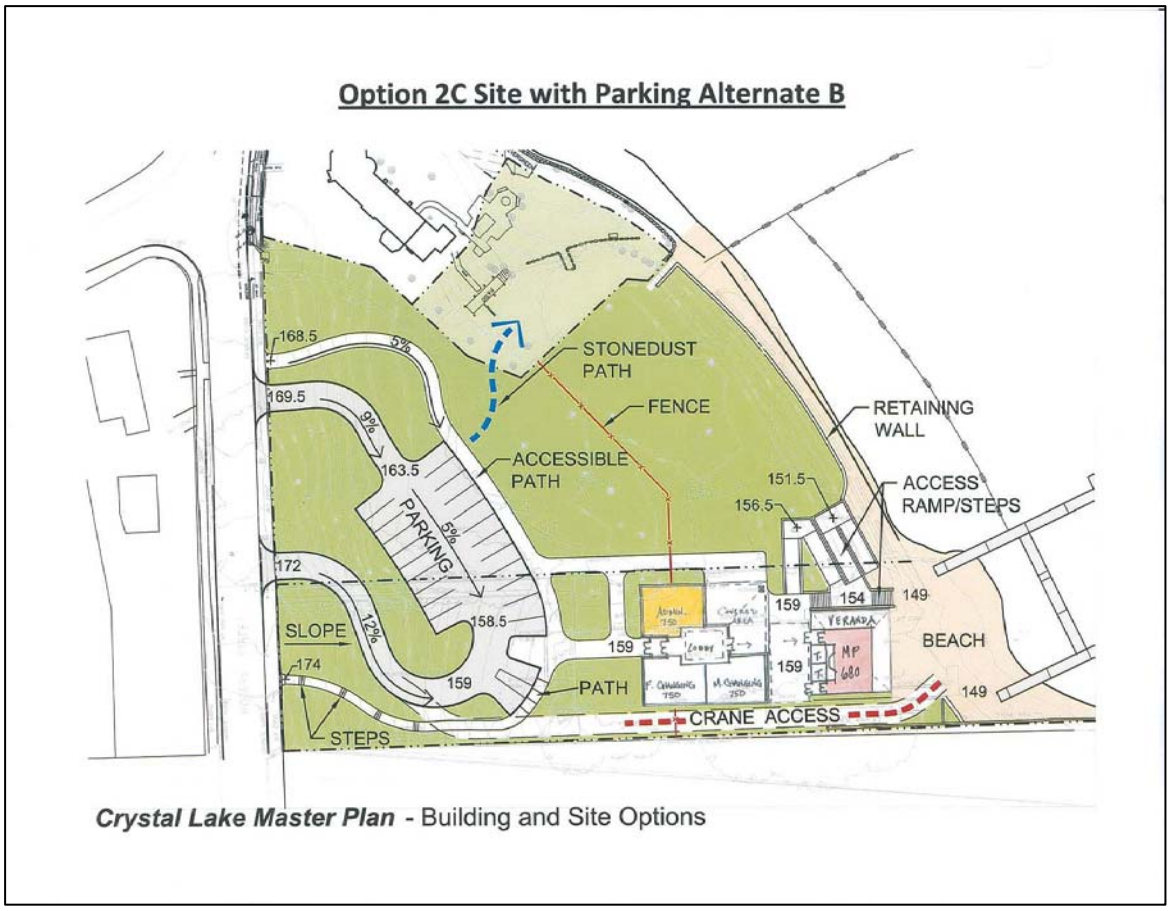
A series of four new Master Plan Options were presented to the Task Force for consideration. Two of these options (2C & 2D) split up the building program by combining the renovation of the two-story 'lake-end' of the existing bathhouse with the construction of a second seasonal support building on site. The renovated portion of the existing bathhouse contains a self-sufficient multi-purpose room with separate entry and toilets on the upper level, overlooking the lake, and the guard room on the lower level. The separate building would support the seasonal swim program only. It faces the parking lot and contains check-in, administrative and first-aid offices, and changing/toilet rooms for both sexes. The idea behind the 'split' buildings is to heat a minimal amount of square footage during the off-season, when the lakeside multi-purpose room would be available for community use.

As with Option 2B, the area between the two buildings is open to the air and could be covered with roof, trellis, or a combination of the two in order to shelter patrons without the expense of constructing enclosed space.

Both of these options assume 'crane access' is provided on the MBTA-side of the building, requiring removal of the existing south side veranda, the implications of which have been discussed previously. Given the location of the 'crane access' drive, any of the four previously discussed ramp alternatives on the 'park-side' of the bathhouse would work with these new Master Plan Options.

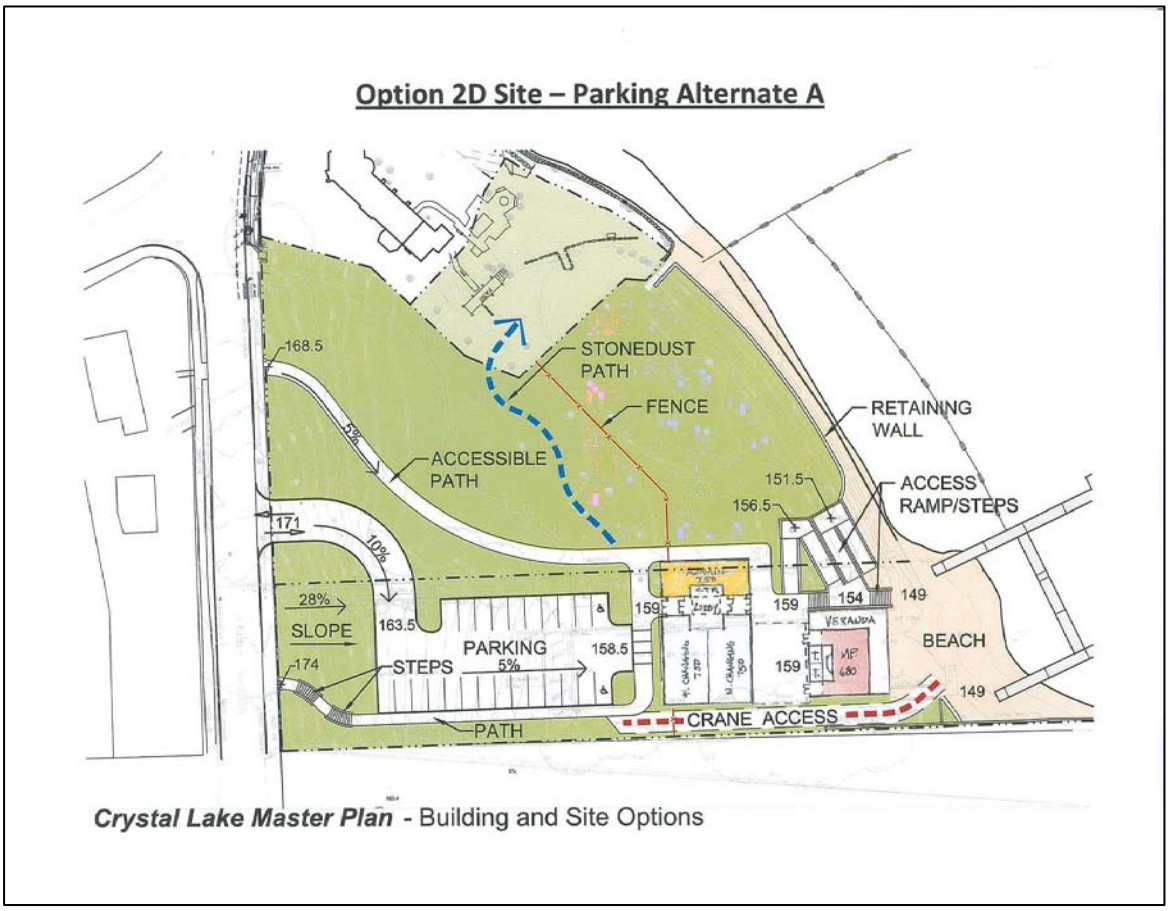
It should also be noted that both of these new Master Plan Options position the front door of the seasonal facility on the parking lot end of the building, as opposed to the park-side entries shown in the Initial Master Plan Options. These two options also position the administrative offices within the building so that they have windows directly overlooking the parking lot and park, providing superior supervision.

The lakeside community room is available only during the 'off-season' under both of these new Master Plan Options. There was concern expressed regarding public safety during the off-season because the community room is hidden from view as the second building is located between it and the parking lot/street.



Master Plan Option 2C:

- Option 2C has many of the same characteristics as Option 2B, with an improved floor plan layout and site supervision as discussed above.
- Preserve and renovate only the two-story hipped roof section of the existing building directly abutting the lake and use this structure as a community center on the upper level and the guard room on the lower level.
- The southern side of the existing veranda is removed thus allowing adequate width between the building and the property line to place the emergency and maintenance access ("crane access").
- Construct a new, separate bathhouse within a portion of the footprint of the existing single-story 'ell'.
- A covered roof or pergola could connect the two structures providing open-air shelter from storms or sun. This option does make use of a dedicated open-air roofed area directly outside the check-in lobby, thus allowing the space between the two buildings to be uncovered if desired.
- The combined square footage of these two buildings meets the square footage requirements of the building program.
- As with Options 2A and 2B, the single multi-purpose room is located within the lake-end of the existing building to take advantage of the beautiful view, with the utilitarian Bathhouse facilities located to the parking lot side. The multi-purpose room would be dedicated to seasonal programs during the swim season and accessible for community use only during the off-season. As noted above however, the multi-purpose building is hidden from view which could create a supervision issue.
- In contrast to Option 2A, the existing access ramp to the beach is removed and replaced by a ramp system on the 'park' side of the complex.
- Emergency and maintenance access ("crane access") is relocated away from the north side of the building allowing the steps to run immediately along the northeastern corner of the preserved community building.



Master Plan Option 2D:

- Option 2D is almost identical to Option 2C above, except for the orientation of its swim-program building, which extends a bit onto the 20 Rogers Street parcel and allows more open space between itself and the lakeside community building.

II. Additional Master Plan Options Involving a New Building

The other two options (3B & 3C) envision a new two-story building housing the entire program under one roof, in conjunction with an expanded beach area in front of the bathhouse. The expanded beach is possible due to a repositioning of the new building further away from the shoreline. As with the renovation options, the guard room and support facilities would be placed on the lower level, adjacent to the beach and docks. To minimize operating costs associated with off-season use of the lakeside community room, a separate entrance and dedicated toilet rooms are shown in each option. The seasonal administrative and support spaces would be completely segregated and supplied with minimal heat.

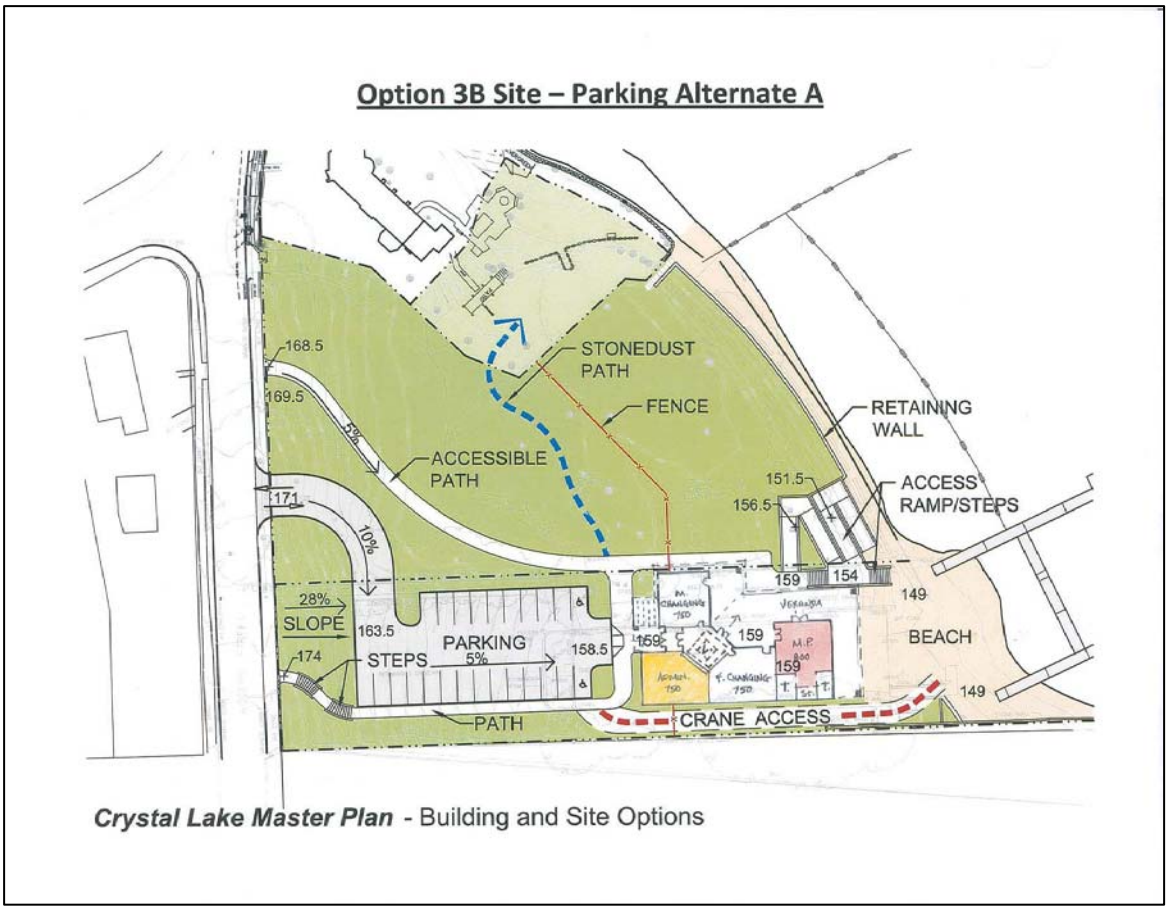
Emphasis is placed on sheltering verandas integrated into the new plan layout with geometry appropriate for a hipped roof design, utilizing the most attractive feature of the existing building. The veranda on the first floor would be used to overhang the guard room on the beach side, therefore providing immediate open-air shelter for beach patrons and guards alike in the event of a quick or periodic rain shower. The veranda's would extend further toward the street and be much deeper on the park-side than the existing building, thus providing better shelter for either beach or lawn patrons during inclement weather.

As with Options 2C and 2D, both of these new options allow 'crane access' on the MBTA-side of the building. Given the location of the 'crane access' driveway on the south side of the Bathhouse, any of the four previously discussed ramp alternatives on the 'park-side' of the Bathhouse would work.

Option 3B positions the front door of the bathhouse on the parking lot end of the building (as opposed to the park-side entries shown in the Initial Master Plan Options), and also positions the administrative offices so that they have windows directly overlooking the parking lot and park, providing superior supervision. Unfortunately, this does not allow an internal 'back-of-house' stairway connection to the guard room in the lower level because the lower level is a 'slab on grade' at the parking lot end of the building (unless additional square footage was added to the program to extend the basement all the way to the parking lot).

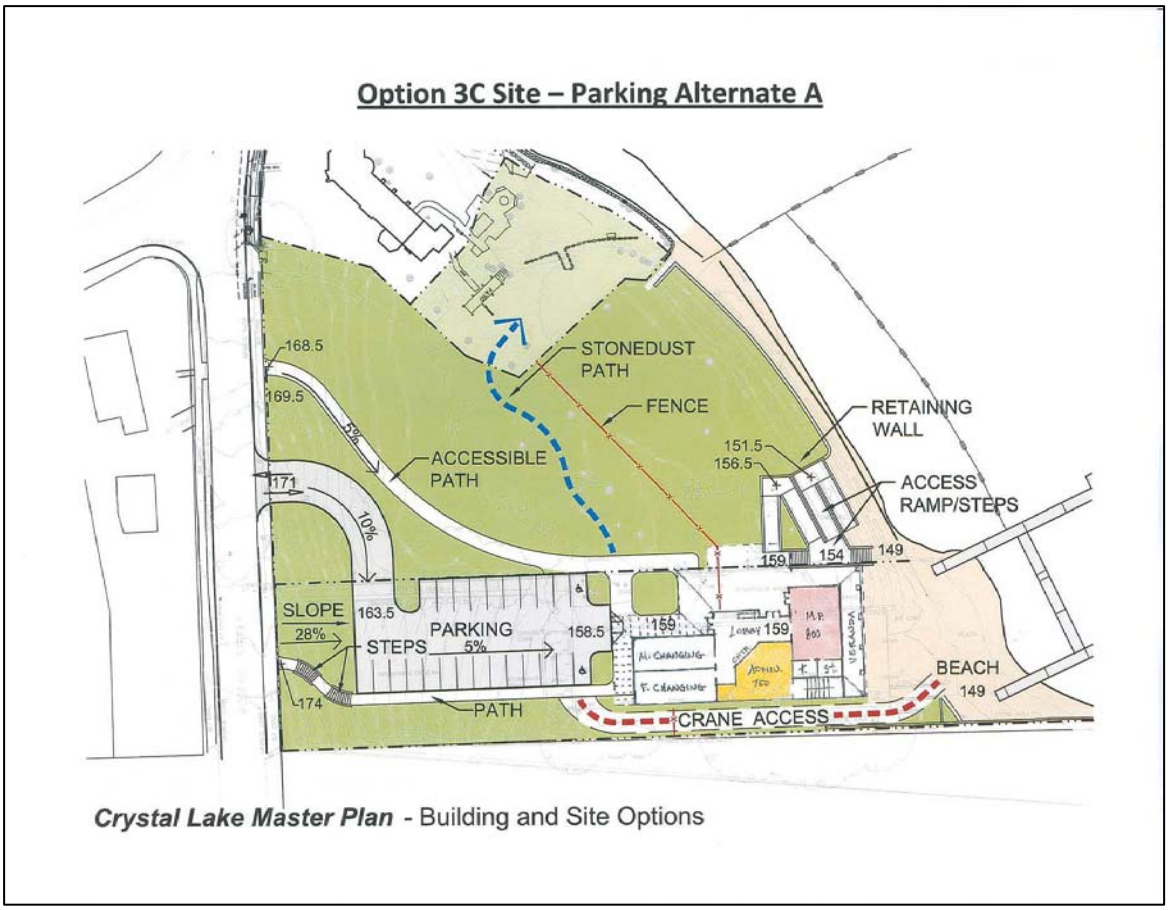
Option 3C provides the opposite benefits. It places the administrative suite in the middle of the building in order to allow for a 'back-of-house' stairwell connection to the guard room below. Doing so takes away their ability to oversee the parking lot, but increases administrative control and flexibility over the operation of the facility. Views to the park are possible from the administrative area from across the check-in lobby as opposed to windows on a directly abutting exterior wall, which would be superior.

The lakeside community room in both scenarios is available only 'off-season'. There is better accommodation of public safety concerns under Option 3C since the off-season door to the community room is visible from the parking lot and street, though under a deeply lit canopy. Option 3B does not adequately address this issue.



Master Plan Option 3B:

- Option 3B has many of the same characteristics as Option 3A, however, it provides an improved floor plan layout and site supervision as discussed above.
- Construct a new bathhouse roughly within a portion of the existing building's footprint, but pulled slightly north away from the MBTA and west away from the water which allows for an expanded beach in front of the building.
- The floor plan layout does not allow for an internal stairway connecting the guard room on the lower level to the staff areas on the upper level.
- Positive attributes of the existing structure, such as the open-air veranda and lake-side community room, are incorporated into the new building.
- The single multi-purpose room is located at the lake-end of the new building to take advantage of the view, with the utilitarian Bathhouse facilities located to the parking lot side. The multi-purpose room would be dedicated to seasonal programs during the swim season and accessible for community use only during the off-season.
- The multi-purpose room has self-contained toilets and storage, minimizing the extent of the building that would have to be heated during the off-season.
- The off-season exterior door to the multi-purpose room is hidden from view from the parking lot and street, thereby creating a potential public safety issue.
- The relocation of the Bathhouse allows more room between the south side of the new building and the MBTA property line, which in turn allows for the relocation of emergency and maintenance access ("crane access") to the 'non-park/non-public' portion of the site.
- Moving the crane access to the south side allows for more flexibility, better placement, and better design alternates for the steps and access ramps down to the beach.



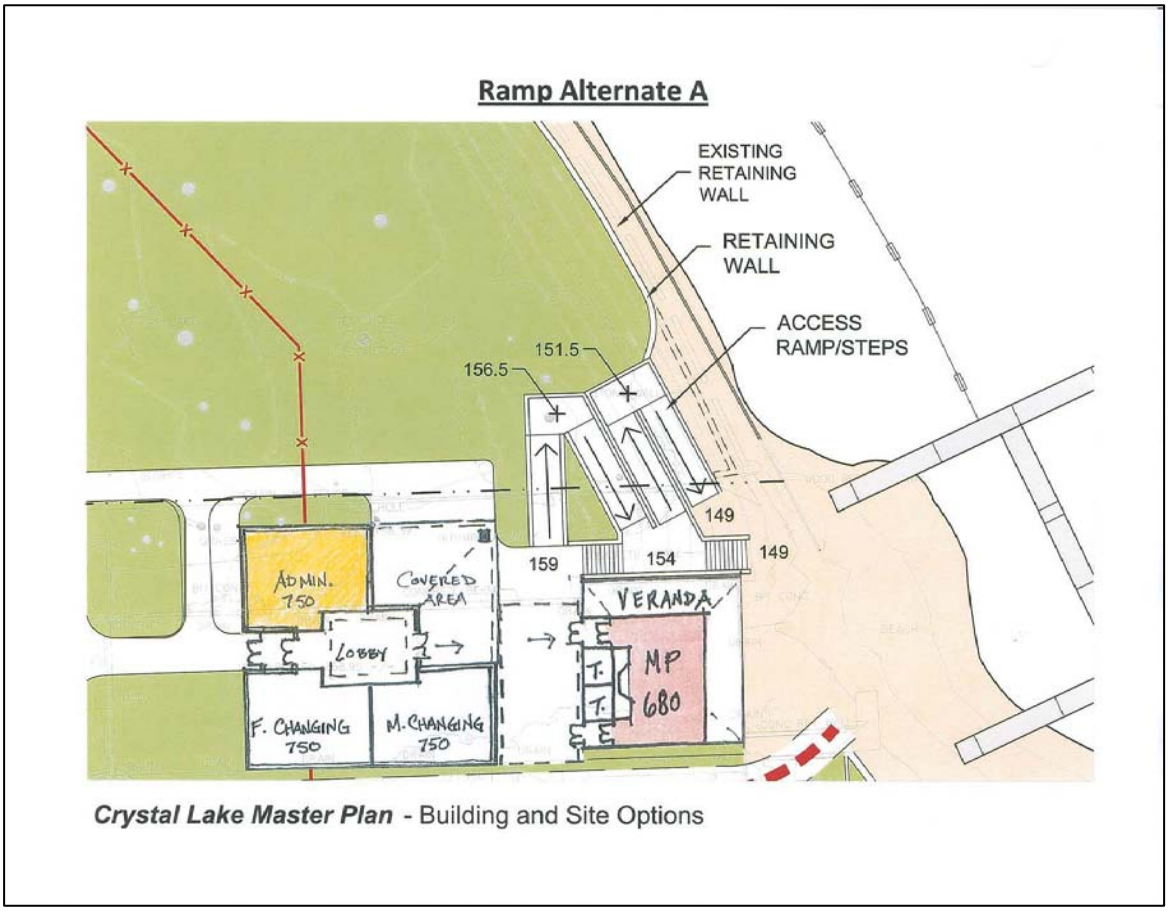
Master Plan Option 3C:

- Option 3C has many of the same characteristics as Option 3B, with the added benefits of internal stair circulation between the two floor levels and a safer off-season entrance to the lakeside community room, as discussed above.
- Construct a new bath house roughly within a portion of the existing building's footprint, but pulled slightly north and away from the water which allows for an expanded beach in front of the building.
- The floor plan layout allows for an internal stairway connecting the guard room on the lower level to the staff areas on the upper level.
- Positive attributes of the existing structure, such as the open-air veranda and lake-side community room are incorporated into the new building.
- The single multi-purpose room is located at the lake-end of the new building to take advantage of the view, with the seasonal Bathhouse facilities located to the parking lot side. The multi-purpose room would be dedicated to seasonal programs during the swim season and accessible for community use only during the off-season.
- The multi-purpose room has self contained toilets and storage, minimizing the extent of the building that would have to be heated during the off-season.
- With two entrances facing the parking lot, Option 3C provides the best visibility of the off-season exterior door to the lakeside multi-purpose room and increased safety.
- The relocation of the Bathhouse allows more room between the south side of the new building and the MBTA property line, which in turn allows for the relocation of emergency and maintenance access ("crane access") to the 'non-park/non-public' portion of the site.
- Moving the crane access to the south side allows for more flexibility, better placement, and better design alternates for the steps and access ramps down to the beach.

III. Alternative Beach Ramp/Stair Configurations

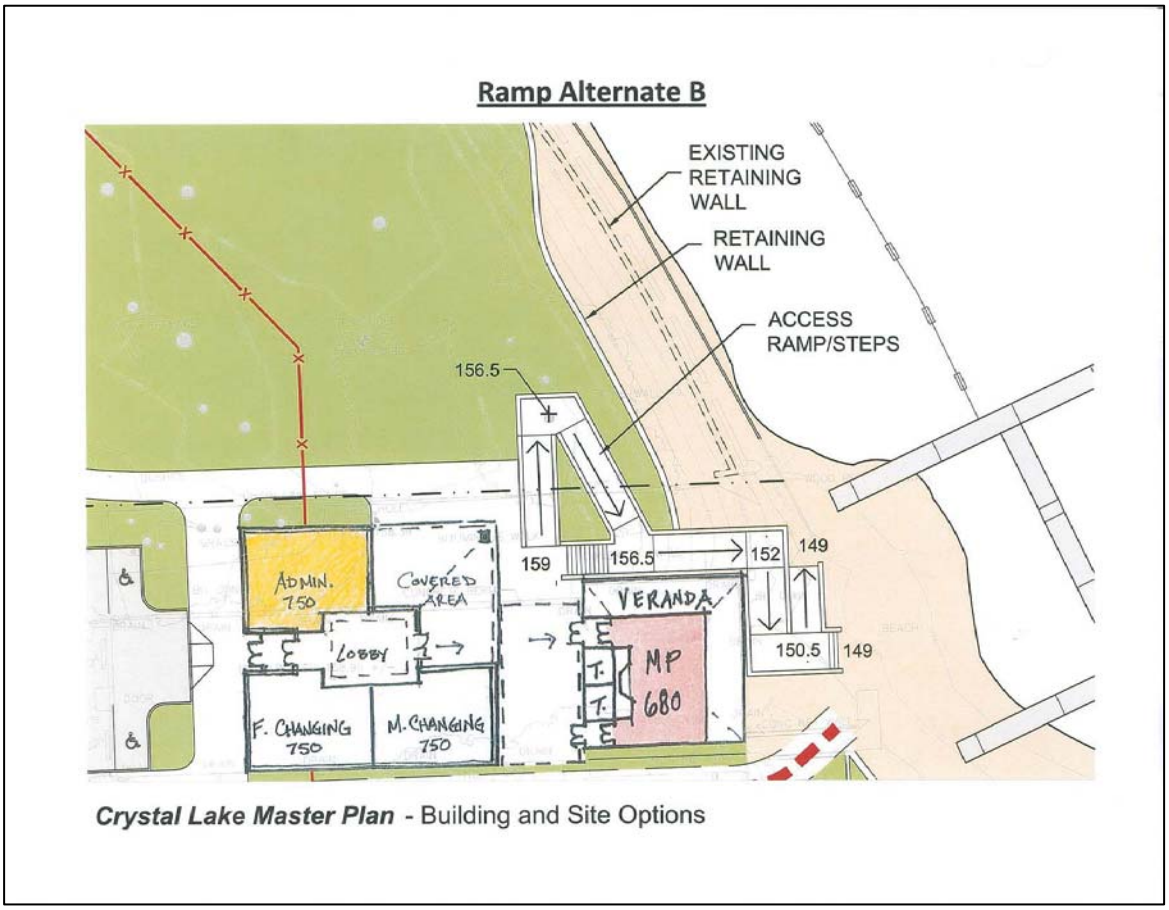
A series of four ramp layouts (A thru D) were explored. All four options assume the 'crane access' is provided on the southern side of the building though the building layout for Option 2C was shown, these ramp configurations could work with any of the building options presented to date.

The change in elevation from the first floor within the Bathhouse to the beach is approximately ten feet. Accessible design requires that ramps have a maximum slope of 1:12, thus a minimum ramp run of 120 feet is required to meet site conditions at Crystal Lake. Accessible design also requires a level 5-foot landing every 30 feet and there are minimum dimensional requirements for landings at switchbacks. Dimensions and configurations for handrails are another consideration in ramp design. In all designs, the existing stone retaining wall running along the shoreline must be partially modified to allow for the ramps and steps.



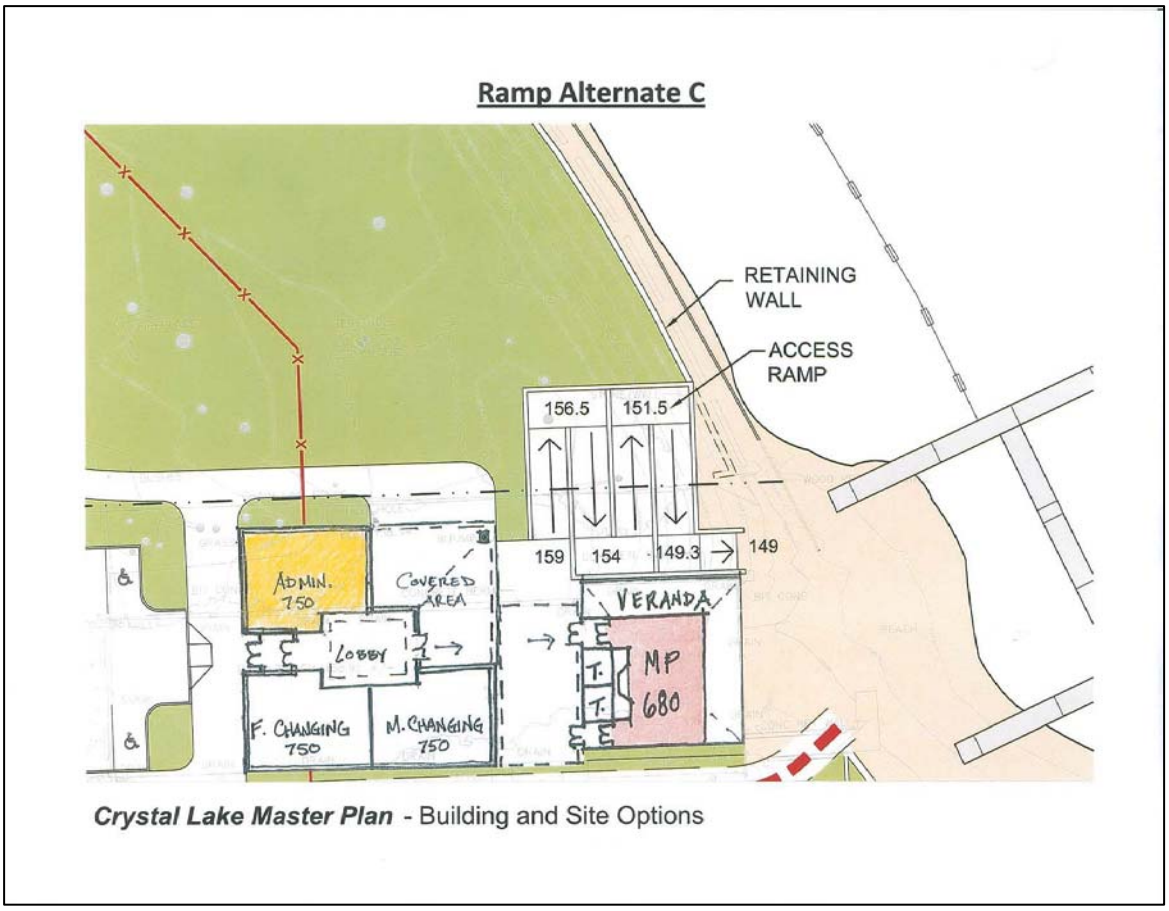
Ramp/Stair Alternative A:

- Provides a series of four straight ramp segments with two intermediate landings.
- Three of the ramp segments are parallel to the shoreline and, because the fourth is perpendicular to the building, the opportunity exists to create a planting bed between the top two runs.
- A separate, straight-run stairway hugs the north side of the building.
- The mid-point of the access ramp system is tied into the intermediate stair landing.
- Both the stairway and ramp system begin and end in the same general areas, which is desirable.
- A small portion of the existing stone retaining wall along the 'left beach' is removed and the beach is extended slightly back toward the new ramp.



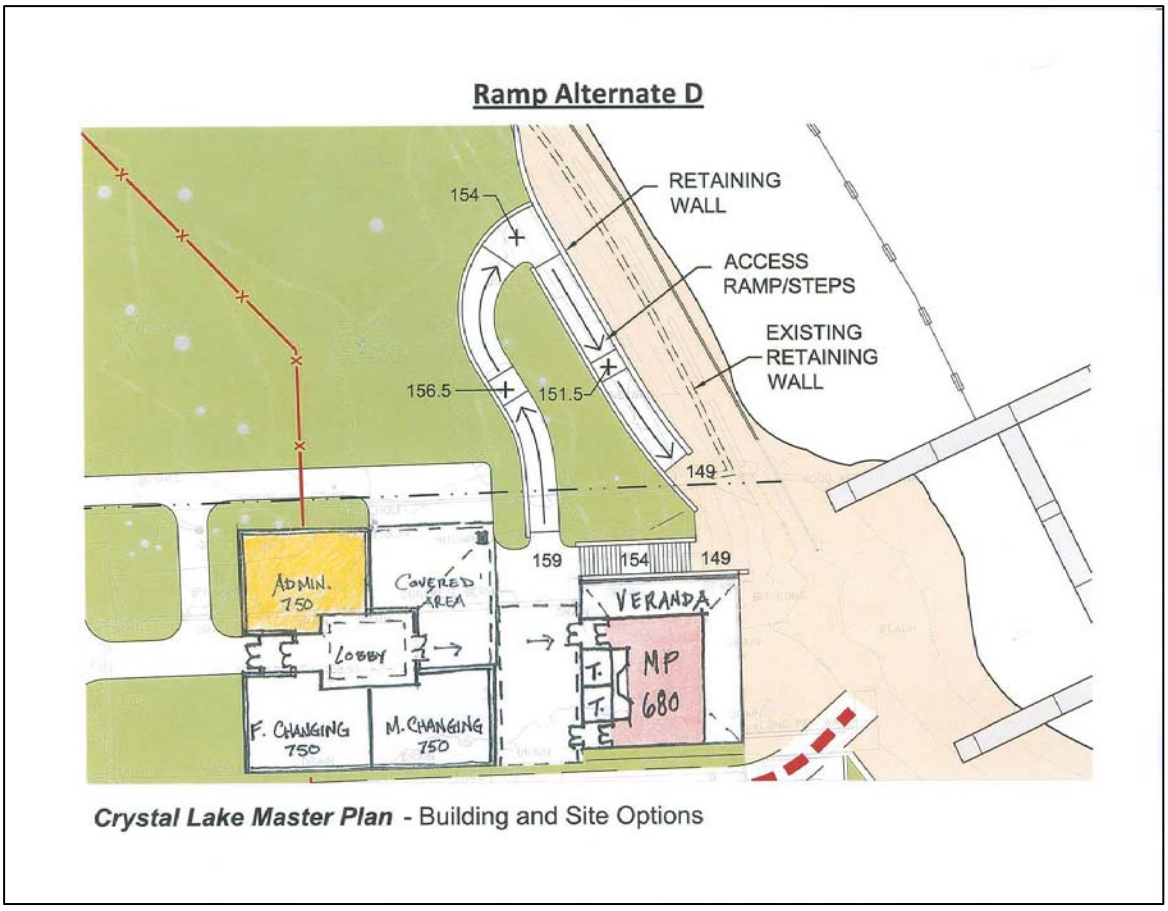
Ramp/Stair Alternative B:

- Provides a series of five straight ramp segments with four intermediate landings.
- This ramp layout makes use of space alongside the Bathhouse that is dedicated to stairways under Alternative A, and as such, does not take up as much room on the lawn portion of the 20 Rogers Street parcel.
- It does, however, take up significant space on the existing beach in front of the bathhouse and requires a reconfiguration of the entry into the lower level guardroom because the ramps and steps closely wrap around the northeastern corner of the building.
- One of the top two ramp segments runs parallel to the shoreline and, because the adjacent segment is perpendicular to the building, the opportunity exists to create a planting bed between the top two runs.
- A straight-run stairway with fewer steps hugs the building at the upper level and leads patrons to a landing from which they must then walk down two segments of ramp before encountering another small set of risers immediately at the beach. All able and disabled patrons must use the ramp system from the halfway point down.
- Both the stairway and ramp system begin and end in the same general areas, which is desirable.
- Because more of the ramp is placed immediately adjacent to the Bathhouse, a much larger portion of the existing stone retaining wall along the 'left beach' can be removed in order to extend the width of the beach significantly along the shoreline, more than making up the lost beach in front of the building.



Ramp/Stair Alternative C:

- Provides a series of five straight ramp segments with four intermediate landings arranged in a series of tight switchbacks with retaining walls.
- This ramp layout makes use of no stairways and requires all beach patrons to use the ramp system.
- Because it is built into the lawn portion of the 20 Rogers Street parcel it has no impact on the size of the beach in front of the Bathhouse as occurs in Alternative B.
- The layout is unimaginative, repetitive and harsh, without intermediate planting beds.
- Both the stairway and ramp systems begin/end in the same exact areas, which is desirable.
- A small portion of the existing stone retaining wall along the 'left beach' is removed and the beach is extended slightly back toward the new ramp, though less so than in Ramp Alternative A.



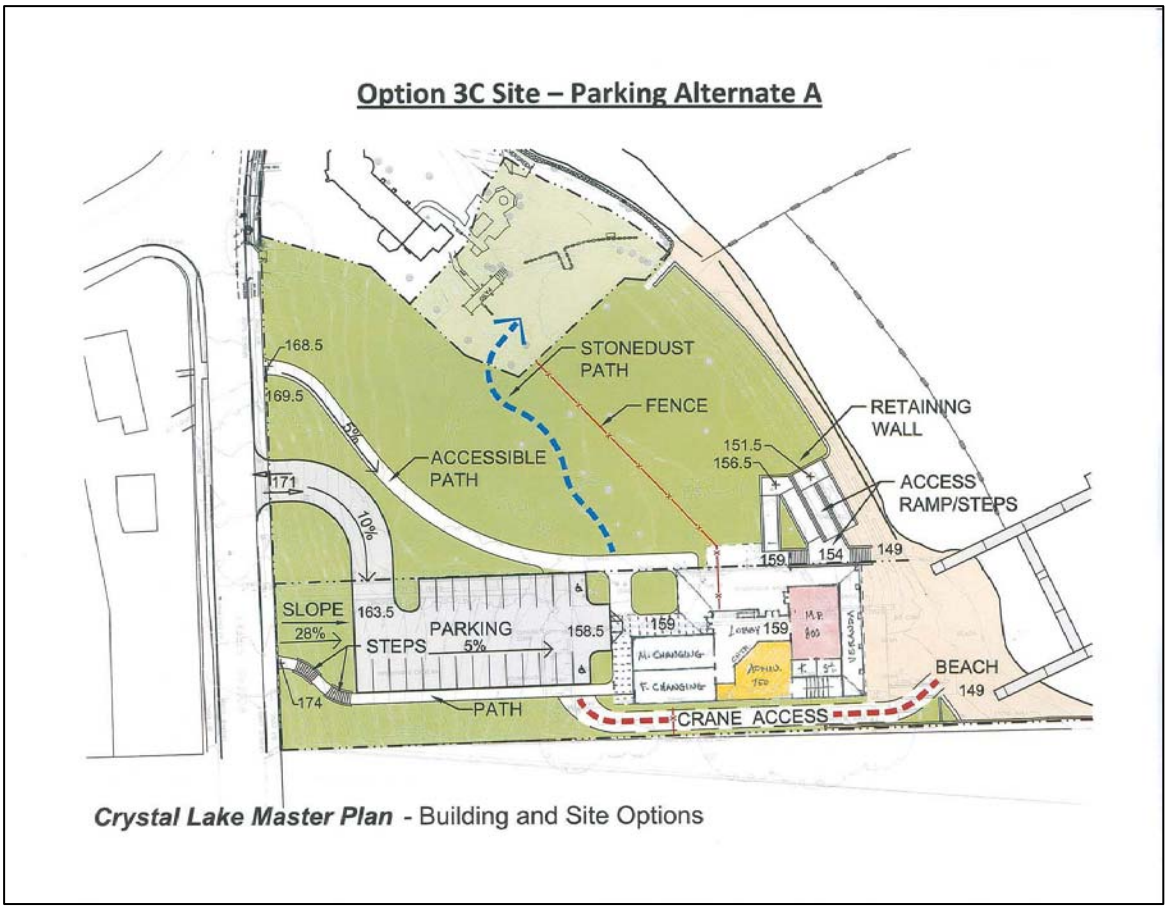
Ramp/Stair Alternative D:

- Provides a series of two curved ramp segments with three intermediate landings.
- A separate, straight-run stairway hugs the building.
- This ramp system extends far into the lawn portion of the 20 Rogers Street parcel and, as such, has no impact on the size of the beach in front of the Bathhouse.
- The layout is more organic than the other alternatives as it winds through the park, and could be softened even more by recessing itself into the landscape in conjunction with a series of stone retaining walls.
- Both the stairway and ramp systems begin/end in the same areas, which is desirable.
- A significant portion of the existing stone retaining wall along the 'left beach' is removed and the beach is extended significantly back toward the new ramp.

Ramp Alternatives A, B, and C were generally disliked in favor of Ramp Alternative D. The perception was that the first three alternatives did not fit well into the park landscape while Ramp Alternative D does, as its path-like system winds through the lawn area. Additionally, the ramp landing halfway down can be used as a viewing area.

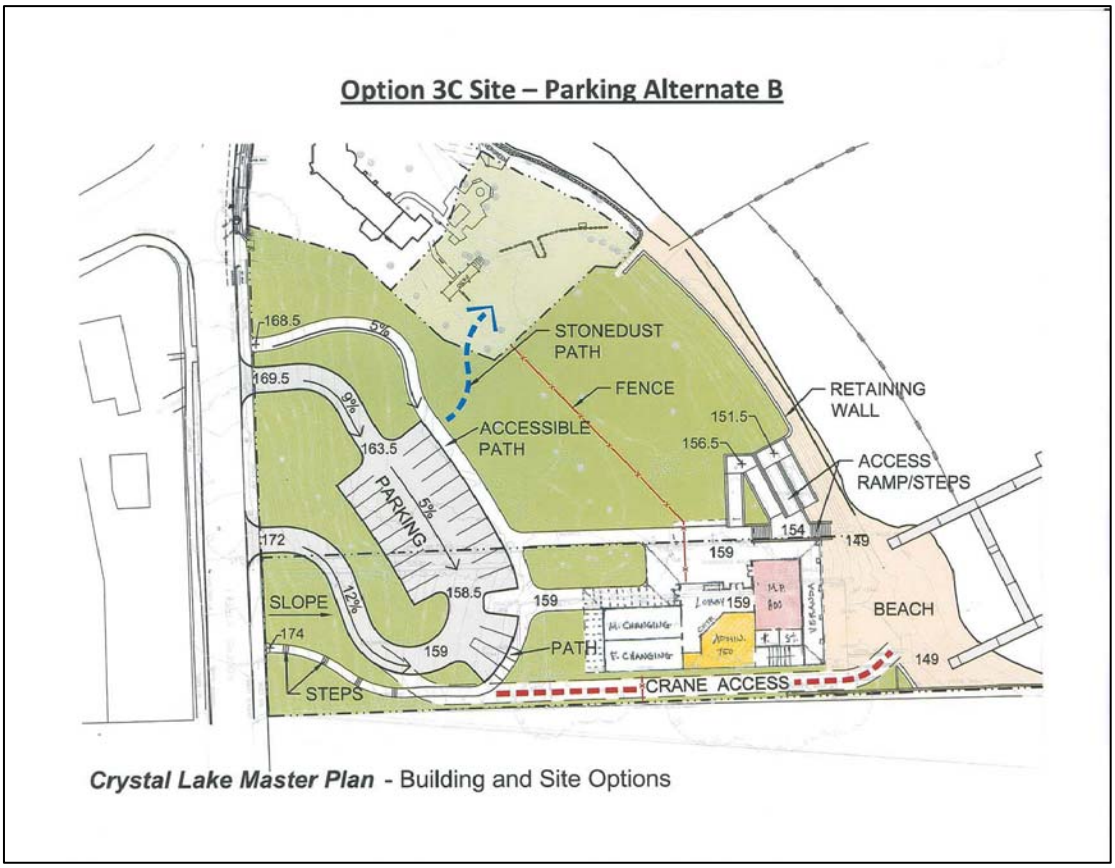
IV. Additional Parking Lot Studies

Two parking lot configurations were explored in great detail in conjunction with each of the new Master Plan Options presented at the September 10, 2008, Task Force meeting. Graphics supporting these configurations are shown in the following segment.



Parking Lot Configuration A:

- Dead-end parking lot with all 24 parking spaces located on the 30 Rogers Street parcel.
- Driveway grade of 10% requires paving on the 20 Rogers Street parcel.
- A single curb cut for the driveway in needed on the 20 Rogers Street parcel.
- Photographs were provided showing the location of the curb cut within the streetscape.
- Green space is maximized on the 20 Rogers Street parcel.
- On site drop-off/pick-up is difficult within the dead-end parking lot, resulting in more drop-off/pick-up activity on Rogers Street.



Parking Configuration B:

- Drive-through parking plan with a one-way in drive and a one-way out drive.
- 24 parking spaces are spread across both the 20 and 30 Rogers Street parcels.
- Driveway grade of 10% requires paving on the 20 Rogers Street parcel.
- Two curb cuts for the two driveways are required, both on the 20 Rogers Street parcel.
- Photographs were provided showing the location of the curb cuts within the streetscape.
- A considerable amount of green space is used on the 20 Rogers Street parcel.
- On site drop-off/pick-up is possible, resulting in less drop-off/pick-up activity on Rogers Street.

It was the sense of the Task Force that Parking Lot Configuration A was more desirable given its minimal impact on the newly acquired park space on the 20 Rogers Street parcel. Both configuration alternatives are included for each of the four new Master Plan Options. However, the Task Force was subsequently presented another option and selected an Oval Parking Lot Option as is the final recommendation (see Recommended Solution 3.3).

Conclusions

Based upon the comments and discussions at the September 10th meeting, it was determined that two options were preferred and should be explored in more detail by the Study Team – the revised Option 2A and Option 3C. Both of these options were preferred with a "dead-end" parking/two-way driveway configuration similar to Parking Configuration A, with all parking located on the 30 Rogers Street parcel. Parking Configuration B was not considered desirable.

However, per noted in Section 3.3, the Oval Parking Lot Option was the final choice of the Task Force though not formally diagrammed within the Preferred Master Plan Option C.

5.5 Two Preferred Master Plan Options

At the December 17, 2008 and January 14, 2009 Task Force meetings, the study team presented a series of additional refinements, detailed studies, cost estimates and presentation graphics for the Two Preferred Master Plan Options that had been identified by the Task Force: Option 3C, which was a New Building and the Recommended Solution (See Section 3) and Option 2A, which was a Partial Renovation with Addition to the existing building. Updated site plans and floor plans were created, along with elevation and massing studies of the proposed bathhouse for each option.

At the September 10th meeting, the study team was asked to present a series of improvements to the layout of the Bathhouse previously show in Option 3C. These improvements utilized the best characteristics of the 'revised' Option 2A layout and were inserted into Option 3C which became the final recommended solution. The administrative area was pulled to the northwest corner of the bathhouse in order to provide direct supervision of both the parking lot and lawn area. The front entrance to the bathhouse, which had previously faced the parking lot, was nonetheless pulled closer still to the lot, and the changing/toilet rooms were therefore relocated to the southern edge of the building where they would buffer the noise from the MBTA Green Line. In making these revisions, the Task Force recognized that some covered 'veranda' area facing the lawn had been lost, but felt that the overall improvements to the floor plan and site supervision were well worth the trade-off.

A final refinement to the Option 3C layout was the incorporation of a separate vestibule and dedicated toilet rooms serving the multi-purpose/community room overlooking the lake. This will allow the room to be used without the need to open up and heat the remainder of the Bathhouse, saving operational and maintenance expense.

Bathhouse Option 2A Partial Renovation with Addition to the existing building as presented was deemed acceptable, however the Task Force finally voted on Option 3C that incorporated many of the elements of Option 2A.

Site plan details included specific locations of new retaining walls along the driveways and site steps and access ramps leading to the beach. Also presented was a proposed conceptual grading plan and cross-section for the emergency and maintenance drive ("crane access") along the southern side of the Bathhouse, as well as concepts for pedestrian connections to the 'Lot 2' parcel at 230 Lake Avenue and improved stormwater management systems within the park itself.


Option 3c Site
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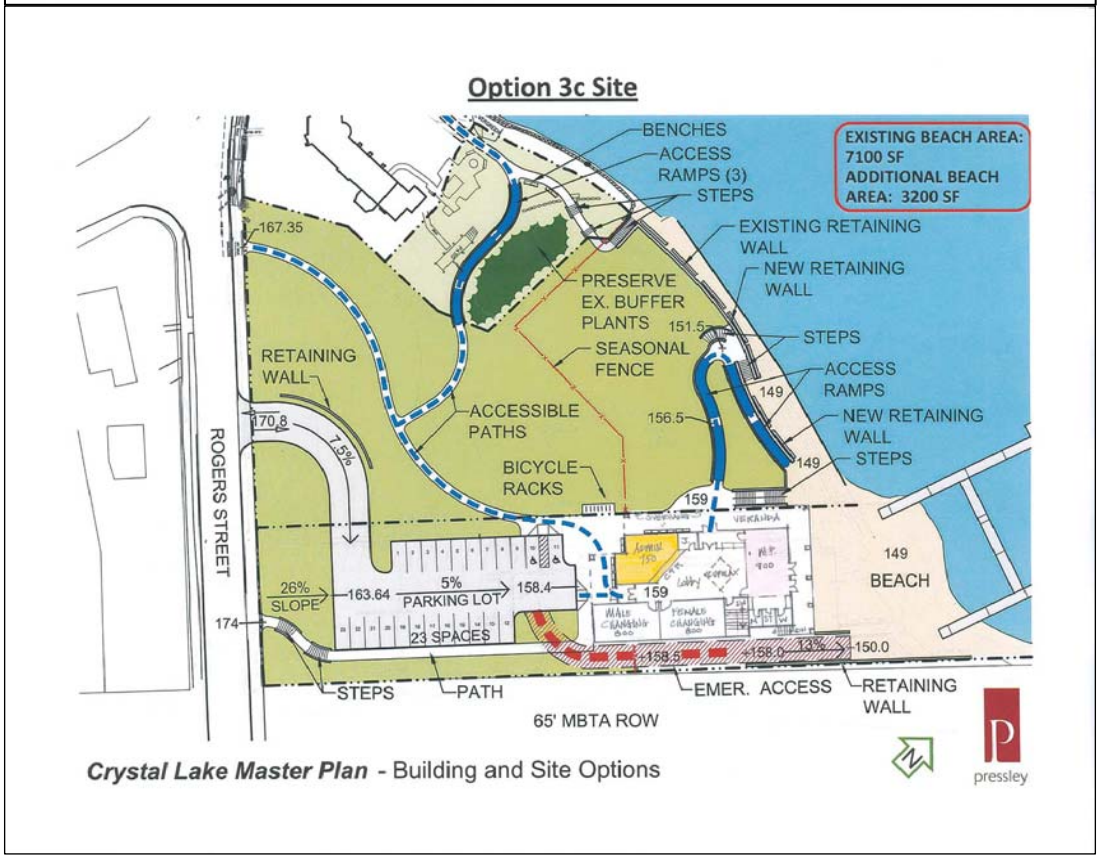
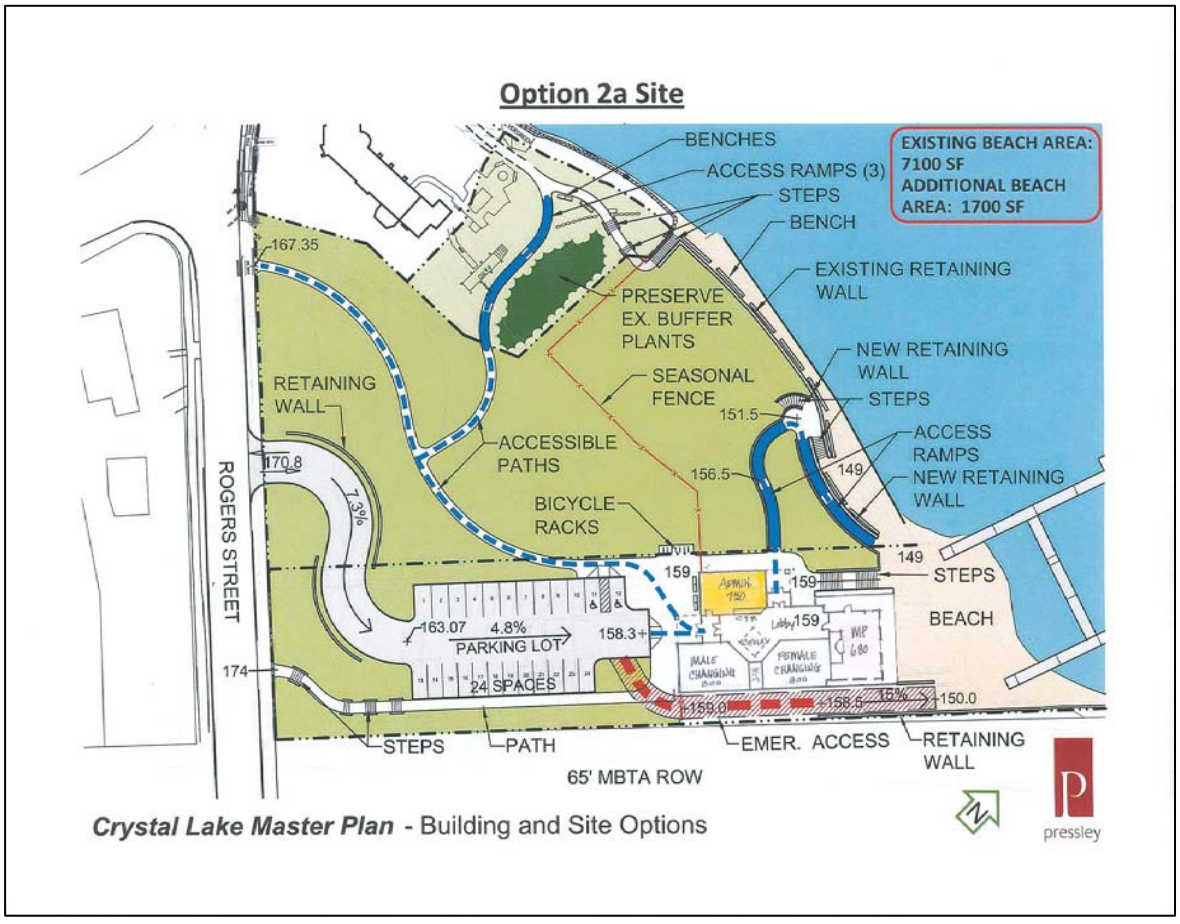

Option 3c Site
BENCHES
ACCESS RAMPS (3)
STEPS
EXISTING BEACH AREA: 7100 SF
ADDITIONAL BEACH AREA: 3200 SF
EXISTING RETAINING WALL
NEW RETAINING WALL
PRESERVE EX. BUFFER PLANTS
SEASONAL FENCE
RETAINING WALL
ACCESSIBLE PATHS
BICYCLE RACKS
ACCESS RAMPS
NEW RETAINING WALL
STEPS
ROGERS STREET
167.35
170.8
7.5%
26% SLOPE
163.64
5%
PARKING LOT
23 SPACES
158.4
174
151.5
149
156.5
159
149
BEACH
158.5
158.0
13%
150.0
STEPS
PATH
65' MBTA ROW
EMER. ACCESS
RETAINING WALL
Crystal Lake Master Plan - Building and Site Options
pressley

Master Plan Option 3C: Recommended Solution (see Section 3)

- The 'revised' Option 3C Bathhouse contains the entire building program under a single roof, with the improved plan layout and site supervision characteristics requested by the Task Force. It places the administrative area on the northwest corner of the building with outside views to the parking lot and lawn area. It also places the main entrance on the west end of the building, directly facing the parking lot and street.
- It is an entirely new building that still abuts the lake and provides a lakeside multi-purpose/community room on the upper level and guard room on the lower level, directly abutting the beach and waterfront.
- As a new structure, it is easier to mold its configuration to specific program improvements such as a self-contained community room, an internal stair connection between floor levels, and increased square footage of open-air covered veranda.
- As a new building, it is possible to pull it further away from the beach and increase the square footage of beachfront.
- As a new building, it is possible to pull it further away from the MBTA right-of way and provide adequate width between the building and the MBTA property line to construct the emergency and maintenance access drive to the beach ("crane access") without the need for an easement onto MBTA property.
- The handicap access ramp and stairway system leading from the Bathhouse to the beach is located on the north (park) side of the Bathhouse.
- The multi-purpose/community room is located within the lake-end of the building to take advantage of the beautiful view, with the seasonal Bathhouse facilities located on the parking lot side. As such, the multi-purpose room would have to be dedicated to seasonal programs during the swim season and accessible for community use only during the off-season or after sunset when the swim program is closed.
- Off-season access to the community room is gained through a separate entry lobby facing the lawn and self-contained toilet facilities are provided. The remainder of the building does not need to be heated or maintained to allow off-season community use of the multi-purpose room.
- The building makes use of a hipped-roof massing, sympathetic to the most notable feature of the original building. A cupola located directly above the check-in desk floods the lobby with natural light and minimizes electric lighting requirements.
- The upper level veranda provides covered open-air shelter on the lower level, immediately accessible for beach patrons during inclement weather.
- Parking Lot Configuration A is used, however one less parking space is shown (23 parking spaces in a dead-end configuration instead of 24 in Option 2A). This configuration maximizes the amount of green space on the newly acquired 20 Rogers Street parcel.
- Otherwise, the site plan is exactly the same as that shown in Option 2A:
    - Two pedestrian walks lead to the bathhouse from Rogers Street. The handicapped accessible route travels through the 20 Rogers Street parcel, beginning adjacent to the 230 Lake Avenue house. It is properly graded to accommodate wheelchair access. An accessible path to 'Lot 2' on the 230 Lake Avenue parcel breaks off at about the half-way point. This path makes use of a series of ramps to make up a seven foot grade difference as it approaches the existing arbor on 'Lot 2' and then connects to a stone-dust path along the shoreline to the rear of 230 Lake Avenue leading toward Levingston Cove.
    - The second pedestrian path from Rogers Street to the Bathhouse begins adjacent to the bridge over the MBTA Green Line tracks. It is a more direct path and makes use of a series of four stairways interspersed with walks to make up the significant grade change between the street and parking lot.
    - Emergency and maintenance access ("crane access") is relocated away from the north side of the building allowing the steps from the Bathhouse to the beach below to run immediately along the northeastern corner of the preserved community building.

- A more refined version of Ramp Alternative D is shown winding through the lawn area in front of the 'left beach'. This ramp configuration is desirable due to its organic nature and the way it gently fits within the park landscape. Specific spot elevations are shown, as are a new set of steps leading from the lawn to the 'left beach' which is a desirable and convenient feature.
- An extension of the beach area in front of the existing bathhouse is not possible; however, the beach area adjoining the ramp is expanded. An additional 1,700 square feet of beach is provided.
- At the far northerly end of the left beach, a set of stairs connects the beachfront to the lawn on the 20 Rogers Street parcel, and also to a path leading to 'Lot 2' of the 230 Lake Avenue parcel. The seven foot grade difference between the park and 'Lot 2' is negotiated by a series of stairs and walks which connect to the accessible route described above.
- Conceptual options for stormwater management improvements include rain gardens between the parking lot and Bathhouse, use of a natural infiltration area within the gravel/sand 'crane access drive alongside the northern edge of the Bathhouse, and underground infiltration basins located within the lawn area and taking surface water from the parking lot and roof drains from the Bathhouse.



Master Plan Option 2A: Partial Renovation with Addition to the Existing Bathhouse

- The 'revised' Option 2A Bathhouse contains the entire building program under a single roof, with the improved plan layout and site supervision characteristics first presented at the September 10, 2008 Task Force meeting. It places the administrative suite in its own three-sided bay with outside views to the parking lot, lawn area, and ramp/stair system. It also places the main entrance on the west end of the building, directly facing the parking lot/street.

- It preserves and renovates the two-story hipped roof section of the existing building directly abutting the lake and makes use of this structure as a lakeside multi-purpose/community room on the upper level and incorporates the guard room on the lower level, directly abutting the beach and waterfront.
- The single-story flat-roofed portion of the existing building is demolished and a smaller and better configured addition is constructed in its place.
- The southern side of the existing veranda is removed under one version of the site plan in order to allow adequate width between the building and the MBTA property line to construct the emergency and maintenance access drive to the beach ("crane access").
- Based upon preliminary discussions with the MBTA, it may be possible to avoid removal of the southern side of the veranda if the City can secure an easement onto the MBTA Green Line right-of-way upon which the 'crane access' drive can be partially constructed.
- In either case, the existing handicap access ramp from the Bathhouse to the beach will be removed from the south side and a new access ramp will be constructed on the north (park) side of the Bathhouse.
- The multi-purpose/community room is located within the lake-end of the existing building to take advantage of the beautiful view, with the seasonal Bathhouse facilities located to the parking lot side. As such, the multi-purpose room would have to be dedicated to seasonal programs during the swim season and accessible for community use only during off-season.
- Off-season access to the community room is gained through the entry lobby facing the parking lot, thus alleviating any public safety concerns, but requiring that a greater volume of space be heated than some other options in which the community room had self-contained toilet facilities and a direct exterior access door.
- In contrast to the original version of Option 2A, the existing access ramp to the beach is removed and replaced by a ramp system on the 'park' side of the complex.
- The addition makes use of a hipped-roof massing, sympathetic to the preserved lakeside end of the original building. A cupola located directly above the check-in desk at the lobby floods the lobby with natural light and will minimize electric lighting requirements.
- Parking Lot Configuration A is used, with 24 parking spaces in a dead-end configuration. This configuration maximizes the amount of green space on the newly acquired 20 Rogers Street parcel.
- Two pedestrian walks lead to the Bathhouse from Rogers Street. The handicapped accessible route travels through the 20 Rogers Street parcel, beginning adjacent to the 230 Lake Avenue house. It is properly graded to accommodate wheelchair access. An accessible path to 'Lot 2' on the 230 Lake Avenue parcel breaks off at about the half-way point. This path makes use of a series of ramps to make up a seven foot grade difference as it approaches the existing arbor on 'Lot 2' and then connects to a stone-dust path along the shoreline to the rear of 230 Lake Avenue leading toward Levingston Cove.
- The second pedestrian path from Rogers Street to the Bathhouse begins adjacent to the bridge over the MBTA Green Line tracks. It is a more direct path and makes use of a series of four stairways interspersed with walks to make up the significant grade change between the street and parking lot.
- Emergency and maintenance access ("crane access") is relocated away from the north side of the building allowing the steps from the Bathhouse to the beach below to run immediately along the northeastern corner of the preserved community building.
- A more refined version of Ramp Alternative D is shown winding through the lawn area in front of the 'Left Beach'. This ramp configuration is desirable due to its organic nature and the way it gently fits within the park landscape. Specific spot elevations are shown, as are a new set of steps leading from the lawn to the 'Left Beach' which is a desirable and convenient feature.
- An extension of the beach area in front of the existing Bathhouse is not possible; however, the beach area adjoining the ramp is expanded. An additional 1,700 square feet of beach is provided.
- At the far northerly end of the 'left beach', a set of stairs connects the beachfront to the lawn on the 20 Rogers Street parcel, and also to a path leading to 'Lot 2' of the 230 Lake Avenue parcel. The seven foot grade difference between the park and 'Lot 2' is negotiated by a series of stairs and walks, which connect to the accessible route described above.

- Conceptual options for stormwater management improvements include rain gardens between the parking lot and Bathhouse, use of a natural infiltration area within the gravel/sand 'crane access drive along side the northern edge of the Bathhouse, and underground infiltration basins located within the lawn area and taking surface water from the parking lot and roof drains from the Bathhouse.

5.6 Summary Overview of Preferred Master Plan Options

The following section outlines the differences and similarities between the Two Preferred Master Plan Options 2A and 3C.

- Preliminary sitework costs are essentially the same for both options – $893k for Option 2A and $885k for Option 3C.
- Both options save healthy trees and provide new plantings to buffer the MBTA line and parking lot.
- Both options improve stormwater management issues which have been previously recognized by the City.
- Both options would require a new forced (pumped) sewage main to Rogers Street to mitigate conflicts involved in constructing the new 'crane access' drive on the south side of the Bathhouse.
- The beach area is increased under both options, though more under Option 3C.
- Both options provide complete handicap access throughout the site and a connection to the public park at Levingston Cove.
- Both options as depicted make use of a dead-end parking lot on the 30 Rogers Street parcel, but Option 3C has one less parking space (23) than Option 2A (24). Option 3C final version has a recommended Oval Parking Lot (See Section 3.3).
- Crane and emergency access to the beach is provided along the south side of the bathhouse under each option, however an easement onto MBTA property, or the partial demolition of the existing veranda is required under Option 2A.
- Conservation Commission and DEP permitting is required under both options.
- Option 2A preserves 52 feet of the existing bathhouse at the water end, while Option 3C demolishes the existing bathhouse in its entirety but replicates the architectural elements in the new bathhouse.
- Option 2A may be eligible for Community Preservation funding of the bathhouse work, while this is not applicable for Option 3C.
- Project Cost for Option 2A is $4.28 million in 2009 dollars (Project Cost includes site and building construction costs, fees, furnishings, equipment and contingencies).
- Project Cost for Option 3C is $4.89 million in 2009 dollars (Project Cost includes site and building construction costs, fees, furnishings, equipment and contingencies).
- Option 3C includes an internal stairway connection between the two floor levels while Option 2A does not due to existing conditions.
- The multi-purpose/community room is limited to 680 sq.ft. under Option 2A, while a larger room is possible under Option 3C (900 sq.ft. shown, but it could be any size and shape).
- Option 2A has a smaller floor area than Option 3C which might translate to lower maintenance or operational costs.
- Both options can be designed for LEED or 'green' certification.
- Use of the self-contained community room in Option 3C does not require opening or heating the entire bathhouse for off-season use, while use of the community room in Option 2A does.
- Both options provide administrative oversight of the parking lot and lawn area, but only Option 2A extends this supervision to the ramp/stairway system.
- Option 3C provides more covered veranda space and extends it to both levels, where as Option 2A makes use of the existing, smaller veranda on the upper level only.

5.7 Site Plan Development Diagrams for 230 Lake Avenue Parcel

Also presented at these meetings was a diagrammatic site plan showing how a pathway system constructed within 'Lot 2' of the 230 Lake Avenue parcel could connect the Crystal Lake pedestrian circulation system on the 20 Rogers Street parcel to the proposed stonedust path on the shoreline (back side) of the 230 Lake Avenue house and the parkland at Levingston Cove beyond.

Because the grades at 'Lot 2' are about seven feet lower than the grades at the 20 Rogers Street parcel, it is necessary to use a series of 1:12 ramps and stairways to make up the difference. The ramps are shown on the uphill side, where they can be installed while minimally disturbing the site and the existing garden pond, and serve as an extension of the accessible path of travel established within the Crystal Lake park. A series of steps near the northerly termination of the 'Left Beach provides an alternate connection between 'Lot 2' and the park on the 20 Rogers Street parcel, though they are not accessible to persons in wheelchairs.

5.8 MBTA Easement Study

The Task Force initiated discussions with the MBTA during the time period between its September 10th and December 17th meetings. From these preliminary discussions, it was determined that the City of Newton might be able to obtain an easement onto the MBTA property alongside the Green Line rail bed in order to build the emergency and maintenance access ("crane access") route along the south side of the existing Bathhouse (Option 2A), and in so doing, avoid the partial demolition of the existing veranda. This would avoid the cost and aesthetic issues involved with the removal of the veranda on the south side of the Bathhouse and, most importantly, maintain the symmetry of the existing building as viewed from the water, or from across the lake.

To make this possible, a retaining wall would have to be built within the MBTA right-of-way, holding the 'crane access' route above the adjacent MBTA property. This would require a minimum encroachment of seven feet into the MBTA property, with possibly more area required for any grading necessary along the retaining wall. The attached plan diagram shows an encroachment of 8.5 feet. As presented, this plan is diagrammatic in nature because the study team was not able to obtain accurate existing condition and grading information on the MBTA property. Instead, the study team's work was based on available surveys that were not field verified. If this alternative route is ever pursued, an engineering study will need to be conducted to determine the type and size of retaining wall needed as well as the area of disturbance and grading.

Crystal Lake Bathhouse Public Park Master Plan

APPENDICES

History of Crystal Lake

Newton's Crystal Lake is a 33-acre "great pond" located about 10 miles west of Boston Harbor and the Atlantic Ocean. A "great pond" in Massachusetts is defined as any pond or lake that contained more than 10 acres in its natural state. The elevation of Crystal Lake is approximately 141 feet above sea level. In American colonial times, the name of this lake was Wiswall's Pond. In the 1800's, the lake was one of three lakes in Newton used for ice harvesting, along with Bullough's Pond and Chandler Pond. Known in the mid 1800's as Baptist Pond, the lake had another name change to make the ice of the lake more attractive for sale for refrigeration, and the name was changed to Crystal Lake.

The total volume of water in Crystal Lake is about 142 million gallons and the lake is 31 feet deep at its deepest point. It measures about 1,200 feet from north to south and 1,000 feet from east to west. The circumference of the lake is about one mile. The sources of water for Crystal Lake are rainwater runoff from its 70-acre watershed, and subterranean sources, which make the lake virtually one large spring. Crystal Lake's outlet is Pauls Brook, which passes under the railroad tracks east of the lake and then runs in a culvert under Centre Street and then on the south side of Paul Street. The brook then passes under Parker Street, Jackson Street, and Boylston Street, joining another brook at the Great South Meadow. From there, the water drains westward into the Charles River in Newton Upper Falls, which flows to the ocean.

Early History of the Lake

With the settlement of Massachusetts by the British, in 1634 John Haynes, former Governor of the Colony, was granted 1000 acres of land in the area including Crystal Lake and extending to Newton Upper Falls. Haynes leased the land, first to Captain Thomas Prentice and later to Thomas Wiswall. Wiswall later purchased 300 acres of the Haynes land holdings and was the first actual settler. Wiswall built his house in 1654 on the Dedham Trail, now known as Centre Street, near present-day Paul Street.

For many years, his was the only house in the immediate area, and the adjacent pond became known as Wiswall Pond. The Wiswall family was active in colonial Massachusetts and took part in the Revolutionary War. The Wiswall estate passed to the Paul family and the original Wiswall house was removed in 1744.

Newton was then administratively part of Cambridge. Wiswall worked to make Newton a separate community from Cambridge. In 1781, a descendant of Thomas Wiswall donated a parcel of land near the lake to the Baptist community so parishioners would not need to walk to Cambridge to worship. A Baptist meetinghouse was erected between Centre Street and the Lake, near the site of old Rogers Road and Centre Street. In 1836, a new church was built on the corner of Beacon and Centre Streets, eventually replaced in 1887by the present-day Baptist Church. The First Baptist Church was designed by John Lyman Faxon in the Richardsonian Romanesque Style. Wiswall Pond was briefly called Silver Lake and then became known as Baptist Pond in the late 1800's, as the First Baptist Church used the pond for baptisms.

The north side of the Lake was granted to Jonathan Hyde, whose house was located between Commonwealth Avenue and Homer Street. Hyde was a road builder and laid out a road from Centre Street north of the Lake to near present-day Lake Avenue. His son Samuel Hyde built a house on Moreland Avenue in 1702. His estate passed to the Blanden family in 1725 where it was subdivided into a number of smaller parcels. The Hyde and Wiswall houses were the only dwellings in the vicinity of Crystal Lake during the time of the Revolutionary War.

In 1863, a seawall and gas lighting were put in place at Cronin's Cove. In 1871, the Commissioners of Inland Fisheries leased the lake to a group from Newton including its first mayor, J.F.C. Hyde and began stocking the Lake with black bass, later salmon, and still later perch. In 1883 the embankment on Lake Avenue was taken as public domain so as to "reserve to the public a very accessible part of the shore" at what is known today as Cronin's Cove. Challenges were made over the jurisdiction of the Lake. In 1908, in response to a claim by the estate of the Lake's

original owner, John Haynes, the matter was settled when the Massachusetts Supreme Judicial Court ruled that Crystal Lake was and shall remain in the public domain.

In 1874, there were just three houses around Crystal Lake. The Moses and Emeline Crane house was built in 1860 at 219 Lake Avenue on the corner of Lake Avenue and Rogers Street. Crane also owned the present-day bathhouse site, which at that time housed a machine shop and factory that made fire alarms and telegraphs, sending them via the rail line to Boston and elsewhere. Additionally, Crane owned a parcel on the lake directly across from their house. In 1894 this parcel was donated to the city of Newton and later became known as Levingston Cove.

The late 1800's and early 1900's witnessed the building of many of today's homes surrounding the Lake and in the development of the immediate neighborhood. At the start of the 1900's, the focal point of community activity was on the north side of the lake adjacent to Lake Avenue, at what would later become known as Cronin's Cove. Joe Cronin was a Red Sox player, manager, and General Manager who built the Colonial style house at 77 Lake Avenue on the corner of Lake Avenue and Laurel Street in 1939. He lived there until he retired to Cape Cod. (I can find out the date from Diana Reisen, the current owner. Cronin died 7 September 84)

The Coming of the Railroad

In the early 1800s, stagecoaches began running between Newton Upper Falls and Boston, passing the Lake as they went via Newton Centre. In the early 1850's, the railroad between Boston and Newton Upper Falls was built, later called the Charles River Railroad. The railroad was used to transport fill from Needham to Boston's Back Bay in the late 1800's, with trains moving along the line 24 hours per day, 365 days a year. The Charles River line was later acquired by the Boston and Albany Railroad and in 1882, the Needham branch opened via Newton Highlands. This led to a significant building boom over the next several decades, during which many of the houses were built in the village. A number of private schools also arose near the Lake in the mid-1800's.

The railroad tracks were lowered between 1904 and 1907, to eliminate "at-grade crossings" in Newton. Rogers Street was realigned to cross over the railroad tracks, eliminating the old Rogers Street that traversed the present-day bathhouse property and connected to Lake Avenue near the present day intersection of Old Rogers Street and Centre Street. Both the lowering of the railroad and the 1891 construction of the Newton sewer system led to a reduction in water levels at the Lake.

Ice Harvesting

The name "Crystal Lake" was given to many ponds in the late 1800's to make their ice sound appealing to customers who purchased it throughout the year. Ice harvesting began in the early 1800's on the land owned by the Paul family. The Crystal Lake Ice House was built near the corner of Centre Street and Norwood Avenue in the 1850s and used until it burned in 1915. The Crystal Lake Ice Company was taken over by George Ellis and operated into the 1930's. The ice was harvested and packed in sawdust and remained frozen throughout the year. Ice was delivered door-to-door using horse-drawn wagons and tongs to provide homeowners with refrigeration in the days before electric systems were in place.

Today

Currently, there are 18 direct private property abutters to Crystal Lake and the lake can be accessed on three sides, with the fourth side being the MBTA railroad right of way. There are three city-owned properties on Crystal Lake: the bathhouse, the 20 Rogers Street parcel and a portion of the 230 Lake Avenue parcel; and land at Levingston cove and Cronin's cove.

Municipal and Public Use at Crystal Lake

The Newton Centre Improvement Association was established in 1878 by a group of citizens interested in improving the public facilities in Newton Centre and at the Lake. In those days, the annual celebration of the July 4th holiday was held at Crystal Lake, with people gathering on the Lake Avenue embankment and enjoying water sports, a band concert, and a fireworks display. Canoes and rowboats were common on the Lake and public swimming became

established in the southern corner. Skating and ice hockey were popular sports on the lake, with these activities also taking place on winter nights utilizing the recently installed gas lighting. With all of these activities taking place, the Improvement Association began to explore building a public bathhouse on the lake.

The Newton Centre Civic Association, in their 1911 "Historical Sketch of Crystal Lake" suggested the city acquire additional land westward from the bathhouse area to the cove donated by the Crane family to the city. It envisioned the entire south side of Crystal Lake used for public recreational purposes and as open space.

In 1916 a private bathhouse was built for swimmers at Crystal Lake on the south shore of the lake for use by the public on the land of George Miller and Charles Hatch and was maintained by the city. Within the same year, the supervision of this bathhouse was transferred to the Playgrounds Commission. Some of the residents near Crystal Lake were bothered by the nuisances related to public swimming at the lake and were prepared to seek legal counsel as a result. The Playgrounds Commission submitted a petition recommending that the city purchase land at the lake and construct a new bathhouse. The public voted against the petition. The Newton Highlands Improvement Association held a second meeting in late 1916, with the majority of attendees expressing their opposition to having a public beach or bathhouse at Crystal Lake. However, there continued to be an interest in promoting swimming in the Lake as over 15,000 swimmers used Crystal Lake during the 1916 summer season.

In 1917, the mayor of Newton presented a petition asking for a resumption of bathing at Crystal Lake and an appropriation to purchase land and build a new bathhouse. In that same year, Newton's Board of Aldermen appointed a special committee to consider the need for a bathing facility near Newton Centre and Newton Highlands. The committee was to survey the community for their opinion on the need for such a facility. In addition, the committee was to consider whether a bathhouse should be built on the shores of Crystal Lake or whether a public swimming pool should be built in the Newton Centre playground. The final recommendation of the aldermanic committee in June 1918 was to build neither a swimming pool in Newton Centre nor a bathhouse at Crystal Lake. As this was during World War I, the committee concluded that public funds should not be used to acquire land or build a bathing facility during a time of war.

Instead, the committee opted to endorse public swimming along the Charles River. It was felt that building a new bathhouse in Newton Highlands and encouraging swimming at the lake would have an undesirable effect on the neighborhood, would lower property values, and would generally be a nuisance. The minority, however, supported a new bathhouse at Crystal Lake, one that was architecturally harmonious with the neighborhood. The minority report, which was written by George Angier, concluded that should a new bathhouse be built, the use of the facility should be limited to residents of Newton who were willing to comply with rules established by the Playground Commission.

The current Crystal Lake Bathhouse was built in 1930 and designed by a local architect Herbert Colby. The bathhouse was constructed in stucco in a Spanish eclectic style with an arcaded porch facing the water and an entry with a curved parapet facing the street. The bathhouse had restrooms, locker rooms, showers, and a recreation room. Eventually the bathhouse was expanded with concrete block and renamed the Gil Champagne Bathhouse. During its first year of operation in 1930 there were 215,000 summer visitors and 80,000 winter skaters on the lake. Tickets issued were valid for one hour.

During World War II, nighttime ice-skating was discontinued on the lake due to dim-out regulations. The City encouraged servicemen stationed at Boston College to use the lake for swimming. In the 1940's, a path existed which allowed people to walk completely around the lake. The strong tradition of ice skating on Crystal Lake continued into the 1950's, as the figure skating 1956 Olympic Gold Medalist Newton Centre resident Tenley Albright practiced skating on the lake.

Although once commonly used for skating, the lake has not been utilized for skating in recent years as the city has shifted its skating resources to Auburndale Cove. Additionally, City policy determined that skating should only be allowed on 10" solid black ice. Crystal Lake has not maintained that ice depth consistently in recent years.

The current open park area of 20 Rogers Street had several previous owners with the property passing from Lucy A. Adalian to William E. Waterhouse in 1927, from George M. Paulson to M. David Freedman in 1959 to Joseph and Virginia Viola in 1983 to Patrick Hannon in 2002. The property became available for sale in 2006. After much debate and discourse the Newton Parks and Recreation Commission voted to recommend that the City use CPA funds to acquire the private property at 20 Rogers Street, which was for sale, in order to expand the public swimming and recreation area. Upon the recommendation of the Community Preservation Committee, the Mayor of Newton, and with the agreement of the Board of Aldermen, the property was acquired by the City of Newton by eminent domain in May 2007. In January 2008, the colonial style house on the property, which was in great disrepair, was condemned and demolished.

The City of Newton then had the opportunity to purchase the adjacent property 230 Lake Avenue. After much debate and community input, the City and the Board of Aldermen voted to participate in a joint purchase from Lorraine Sciegienny, the owner, with Semyon Dukach, the new owner of the house.

In this purchase, The City acquired the 8,400 sq ft grove of cedar trees, a portion of a landscaped fountain and patio deeded under a conservation restriction to be kept in its natural state and maintained by the owner of the house, as well as an easement for a public path along the lakefront of the property connecting Levingston Cove to the 20 Rogers Street parcel. As part of the agreement, a preservation restriction was placed on the front of the house at 230 Lake Avenue. The public path was completed per the agreement in fall 2009. The landscaping of the grove of cedars and the connection paths to the 20 Rogers Street and Bathhouse are addressed in this reports recommended plans.

Community based advocacy was instrumental in securing the addition of more land for the park with groups such as “Better Lake” headed by local architect Robert Fizek and the Crystal Lake Conservancy (Janice Bourque, Schuyler Larrabee, Robert Fizek, Srdjan S. Nedeljkovic and Barbara Wales).

Activities at Crystal Lake in 2010

The Newton Parks and Recreation Department provides seasonal swim permits for Newton residents and daily swim permits for both Newton and non-Newton residents. Both are valid at both Crystal Lake and the Gath Pool. Roughly 900 - 1,100 people swim at the lake per day including nine summer camps for children ages 6-22 yrs and swimming lessons for over 400 children. Swim programs for people with special needs are also offered during the day and evening.

The beach season generally lasts from mid June to late August, with hours from 10:30 a.m. to dusk on weekdays and 1 p.m. to dusk on weekends. Currently, there are no provisions for swimming in the Lake prior to or after the official swim season at the bathhouse or to non-abutters from access points other than at the bathhouse during the season.

A “Catch and Release” fishing program and other nature programs are also provided along with a newly organized adult birding club. The Massachusetts Department of Fisheries and Wildlife currently stocks Crystal Lake with rainbow and brown trout in the spring. This summer also saw sailing on the Lake after many years of no sailing.

Additionally, there is a great deal of passive recreation around Crystal Lake: walking, picnicking, jogging, reading a book, small animal watching (birds, turtles, ducks), informal recreational activities on the lawn, dog walking, and sitting to enjoy the peaceful view and outdoors.

All of these opportunities need to be supported and encouraged in the both the open space and bathhouse facilities.

LEC

WETLANDS WILDLIFE WATERWAYS

March 27, 2009

E-Mail

(Original via Regular Mail)

Mr. Gary Claiborne
Pressley Associates, Inc.
432 Columbia Street
Cambridge, MA 02141

Re: Crystal Lake Park
30 Rogers Street
20 Rogers Street
230 Lake Avenue
Newton, Massachusetts

[LEC File #: PAI\08-032.02]

Dear Mr. Claiborne:

Pursuant to your request, LEC Environmental Consultants, Inc., (LEC) has prepared this Letter Report for the proposed re-development of Crystal Lake Park in Newton, Massachusetts. Specifically, this letter includes a description of existing site conditions, including wetland resource areas; an overview of wildlife habitat associated with the park; and environmental regulatory implications associated with the reconstruction of the park, including those associated with the *Massachusetts Wetlands Protection Act* (M.G.L. c. 131, s. 40), its implementing *Regulations* (310 CMR 10.00), and the *Massachusetts Waterways Laws* (M.G.L. c. 91) and associated *Regulations* (310 CMR 9.00). LEC conducted a site evaluation on April 11, 2008 to inventory and assess existing site conditions, and Wetland Resource Areas subject to the protection of M.G.L. c. 131, s. 40 and 310 CMR 10.00 located within or adjacent to Crystal Lake Park. Crystal Lake's designation as a 'Great Pond' establishes jurisdiction under M.G.L. c. 91 and 310 CMR 9.00.

General Site Description

The property, Crystal Lake Park, is comprised of three lots known as 30 Rogers Street (contains existing bath house); 20 Rogers Street (site of former dwelling removed January 2008); and 230 Lake Avenue (contains existing dwelling); and is located along the southwestern shore of Crystal Lake, immediately west of the Massachusetts Bay Transit Authority (MBTA) Green Line that occurs along the southeastern lake shore. Residential development associated with Rogers Street and Lake Street abuts the park to the southwest. The site includes an existing concrete bath house with parking area situated within the eastern portion of the site, a residential lot containing a single-family dwelling surrounded by lawn and landscaped areas within the western portion of the site, and manicured parklands located in between. A second dwelling had been located on the

site, but was removed in January of 2008. Topography descends from Rogers Street toward Crystal Lake in a slightly terraced fashion, with relatively flat areas within the parkland and within the backyard of the dwelling. A sandy beach area is situated immediately north of the bath house, while a stone-and-mortar retaining wall occurs at the base of the parkland. A second, pressure-treated lumber retaining wall functions as the Bank of Crystal Lake along and north of the stone-and-mortar retaining wall.

The property is relatively open from a vegetation perspective, with clusters of native trees amongst manicured lawn grass dominating the landscape. A narrow, 5+/- foot wide band of naturally-occurring vegetation is located along portions of the Bank of Crystal Lake south of the dwelling. Scattered shade trees are located throughout the site include clusters of red cedar (*Juniperus virginiana*), eastern white pine (*Pinus strobus*), northern red oak (*Quercus rubra*), eastern hemlock (*Tsuga canadensis*), red maple (*Acer rubrum*), Norway maple (*Acer platanoides*), and spruce (*Picea* sp.). Upland shrub species are largely limited to landscape shrubs located within the rear yard of the dwelling, and include Canada yew (*Taxus canadensis*), creeping juniper (*Juniperus communis*), crab apple (*Malus* sp.), and winged euonymus (*Euonymus alatus*).

Floodplain Designation

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the city of Newton, Massachusetts (Community Panel # 250208 0004 D), Crystal Lake and surrounding land is located within Zone C: *Areas of minimal flooding.* No change to the Zone C designation is proposed in the recently issued Draft FEMA FIRMs according to our email correspondence with the Newton Community Development Program Manager, Amy Yuhasz, who reviewed the Draft FEMA maps personally.

Natural Heritage Designation

According to the 2008 Edition of the Natural Heritage Atlas, published by the Massachusetts Natural Heritage and Endangered Species Program (NHESP), no areas of rare species habitat or certified vernal pools are located within or near by the site.

Wetland Resource Areas

Wetland Resource Areas associated with Crystal Lake Park include Bank and Land Under Water associated with Crystal Lake. LEC did not observe any Bordering Vegetated Wetlands (BVW) along the lake shore. The 100-foot Buffer Zone extends onto the property from the Bank of Crystal Lake. A description of each of these resource areas is provided below.

Bank

Bank is the first observable break in slope or the mean annual flood level, whichever is lower. The lower boundary of a Bank is the mean annual low flow level [310 CMR 10.54 (2) (c)].

The Bank of Crystal Lake varies in composition along its length from sandy shore north of the bath house, to wood retaining wall northwest of the bath house, to a more natural vegetated bank north of the existing dwelling. The vegetated Bank located north of the dwelling contains individual mature weeping willow (*Salix babylonica*), pussy willow (*Salix discolor*), and red maple in the canopy, while clusters of silky dogwood (*Cornus amomum*) and highbush blueberry (*Vaccinium corymbosum*) vegetate the shrub layer. Scattered pockets of purple loosestrife (*Lythrum salicaria*) were also observed. Water levels of Crystal Lake appeared to be near bank-full at the time of our evaluation.

Land Under Water

Land Under Water Bodies and Waterways is the land beneath any creek, river, stream, pond, or lake. Said land may be composed of organic muck or peat, fine sediments, rocks or bedrock. The boundary of Land Under Water Bodies and Waterways is the mean annual low water level [310 CMR 10.56 (2) (a) and (c)].

The land beneath Crystal Lake appears to be comprised of sandy and fine sediments. The sandy sediments extend laterally from the sandy shore located northeast of the bath house, while finer sediments appear to occur along the remaining lake edge.

Wildlife Habitat

Crystal Lake Park offers lakeside open space habitat suitable for a variety of 'backyard' wildlife, as well as for more reclusive species, given its location in a comparatively developed landscape. While cover habitat is somewhat limited, the vegetation and habitats that are present offer structure and food sources to support biological interactions between species. LEC consulted with Carol Stapleton, Manager, Newton Parks and Recreation Department for confirmed wildlife observations at Crystal Lake Park (marked with an *).

The canopy trees offer food and nesting habitat, as well as perching habitat for a variety of arboreal mammals and resident birds, including Virginia opossum (*Didelphis virginiana*), gray squirrel (*Sciurus carolinensis*)*, woodpeckers (*fam.* PICIDAE), blue jay (*Cyanocitta cristata*), black-capped chickadee (*Parus atricapillus*)*, titmouse (*Parus bicolor*)*, northern cardinal (*Cardinalis cardinalis*)* and nuthatches (*Sitta* spp.). Migratory birds likely utilize the parkland as a 'stopover point' to rest and re-fuel during migration. LEC would expect to observe American robin (*Turdus migratorius*), cedar waxwing (*Bombycilla cedrorum*)*, several of the wood warblers (*fam.* EMBERIZIDAE), rose-breasted grosbeak (*Pheucticus ludvicianus*), northern oriole (*Icterus galbula*), and American goldfinch (*Carduelis tristis*).

Raptors, including red-tailed hawk (*Buteo jamaicensis*)* and perhaps owls (*fam.* STRIGIDAE) likely use the canopy trees for perching sites, feeding on small mammals wandering through the park's grassy areas, including star-nosed mole (*Condylura cristata*), a variety of mice, and eastern chipmunk (*Tamias striatus*). Other mammals likely utilizing the parklands include striped skunk (*Mephitis mephitis*), and coyote (*Canis latrans*)* have also been observed.

The lakeside environment may also lure raccoon (*Procyon lotor*) for feeding on invertebrates and fish, as well as a variety of waterfowl such as Canada goose (*Branta canadensis*)*, mallard (*Anas platyrhynchos*)*, black duck (*Anas rubripes*)*, and herons (*fam.* ARDEIDAE), including great blue heron (*Ardea herodias*)* and black-crowned night heron (*Nycticorax nycticorax*)*. Cormorant (*Phalacrocorax carbo*)*, and grebe (*fam.* PODICIPEDIDAE)* have also been observed on the lake. The overhanging canopy surrounding portions of the lake provides excellent perching habitat for belted kingfisher (*Ceryl alcyon*)* and osprey (*Pandion haliaetus*)* that feed on the lake's fish populations.

Aquatic inhabitants of Crystal Lake likely include stocked rainbow trout (*Oncorhynchus mykiss*)*, carp (*Cyprinus carpio*)*, chain pickerel (*Esox niger*)*, sunfish (*Enneacanthus obesus*)*, bluegill (*Lepomis macrochirus*)*, and largemouth bass (*Micropterus salmoides*)*, with painted turtle (*Chrysemys picta*)* and snapping turtle (*Chelydra serpentina*)*. Turtle nesting areas are available in the adjacent lawn areas surrounding the lake. Amphibians including bullfrog (*Rana catesbeiana*), green frog (*Rana clamitans*), and newts (*Notophthalmus viridescens*), are likely plentiful.

Regulatory Implications

The redevelopment work under consideration for Crystal Lake Park will trigger environmental permitting under 310 CMR 10.00 (Massachusetts Wetlands Protection Act Regulations) administered by the Newton Conservation Commission; and 310 CMR 9.00 (Chapter 91 Massachusetts Waterways Regulations) administered by the Department of Environmental Protection (DEP). An overview of regulatory considerations is provided below.

Massachusetts Wetlands Protection Act Regulations – 310 CMR 10.00

Based on our conversations with you, and review of the Master Plan, the majority of the Crystal Lake Park improvements will be located within and beyond the 100-foot Buffer Zone to Bank. However, replacement of the wood retaining wall would require alteration to the Bank resource area. No work appears to be proposed within Land Under Water. The Newton Conservation Commission maintains jurisdiction over the Bank Resource Areas and the 100-foot Buffer Zone via administration of the Wetlands Protection Act (M.G.L. c. 131, s. 40) and its implementing Regulations (310 CMR 10.00).

The Wetlands Protection Act Regulations outline specific performance standards for work proposed within Bank at 310 CMR 10.54 (4) to insure is functions and values are not compromised. These include the physical stability of the Bank; the water carrying capacity; groundwater and surface water quality; and fish and wildlife habitat. Considering a portion of the existing Bank is comprised of pressure-treated lumber, replacement with composite wood would result in an improvement over existing conditions.

Typically, the Conservation Commission seeks a setback for work in the Buffer Zone in order to protect adjacent resource areas. This setback distance often depends on specific site conditions, but is

generally 25 feet. For this site, existing development occurs up to the Bank boundary, so modifying land use within the Buffer Zone that is consistent with existing land use (e.g. recreation), should not result in a change in the Buffer Zone's capacity to protect the adjacent Bank. Maintaining the existing Bath House location, or situating a replacement Bath House or addition further from the Bank compared to the existing condition, will likely be preferred over constructing a new structure closer to the Bank.

The project will require compliance with the Stormwater Management section of the Regulations at 310 CMR 10.05 (6) as a 'redevelopment project.' Stormwater designs involve the use of Best Management Practices (BMPs) to control the rate and volume of stormwater run-off flowing from a site. The stormwater management design should take into consideration the flow of stormwater from the parking area and structure toward the existing beach area, where sand has migrated from the beach into Crystal Lake[1].

A Notice of Intent (NOI) Application will have to be filed with the Newton Conservation Commission for pre-construction review of the proposed activities, and conformance with the applicable regulatory performance standards will have to be adequately demonstrated to the Commission. The Commission will in turn, issue an Order of Conditions for the project.

Massachusetts Chapter 91 Waterways Regulations – 310 CMR 9.00

The primary purpose of the Chapter 91 Regulations relative to work within Great Ponds is to maintain public access to Great Ponds. This project, which includes improving and expanding a recreational facility will expedite public access to the Pond. Crystal Lake is larger than 10 acres, and is therefore designated as a 'Great Pond' in accordance with 310 CMR 9.02 Definitions. As such, Chapter 91 jurisdiction extends to the pond's historic 'natural high water mark.' According to a 1909 Plan of Crystal Lake provided by your office, the historic 'natural high water mark' occurs at elevation 151, just above the elevation 150 contour.

It appears that at least a portion of the relocation of the boat house, beach expansion, and site redevelopment is located below the historic elevation 151. Therefore, the project will require a Chapter 91 License, and the work would likely be considered a 'water-dependent use,' which precludes the requirement of a Public Hearing (although newspaper advertising and public comment period still apply).

DEP has been instructed to issue Chapter 91 licenses within 180 days of receiving Applications. Chapter 91 permitting is similar to the MEPA process, and permitting this project will likely include a public comment period, request for additional information, issuance of a Draft License and issuance of a Final License. The issuance of the Chapter 91 License will also require Zoning, Land Use, and Conservation approvals, as necessary, by the Newton Planning and Development Department. "Commonwealth Occupation Fees" for the license are typically $1 / square yard for every year of the license duration (typically 30 years). So essentially, the fees would be $30/square

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[1] Personal communication with Anne Phelps, Environmental Planner

yard of work area within Chapter 91 jurisdiction. If the fees exceed $10,000, DEP may be willing to administer a payment plan over 5 or more years.

Summary

Crystal Lake Park is a recreational facility located along the southwestern shore of Crystal Lake. In addition to an existing bath house, single-family dwelling, and parklands, the park contains Wetland Resource Areas including Bank and Land Under Water that are jurisdictional under the Massachusetts Wetlands Protection Act (M.G.L. c. 131, s. 40) and its implementing Regulations (310 CMR 10.00). The 100-foot Buffer Zone is also located on the site. Crystal Lake's designation as a 'Great Pond' affords jurisdiction under the Chapter 91 Waterways Regulations (310 CMR 9.00) up to the historic 'natural high water mark' which occurs at elevation 151 according to a 1909 Plan of the site. Improvements to Crystal Lake Park currently under consideration will likely result in work within the Bank resource area and 100-foot Buffer Zone, placing the project within the Newton Conservation Commission's jurisdiction. Measures must be proposed to insure protection of the Bank's functions and values. Chapter 91 Regulations are intended to maintain public access to Great Ponds. Crystal Lake qualifies as a Great Pond, and public access is currently provided through the Park grounds. The redevelopment project will maintain and improve public access to Crystal Lake.

Thank you for the opportunity to provide these services. Should you have any questions or require additional information, do not hesitate to contact me at 781-245-2500, or at rkirby@lecenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.

Richard A. Kirby, Manager
Senior Wetland Scientist

MINUTES OF MEETING: **Newton Historical Commission**

DATE: **March 26, 2009**

PLACE/TIME: **Newton City Hall - Room 202**
7:30 P.M.

IN ATTENDANCE:

Donald Lang, Chair	**David Morton, Secretary**
Rodney Barker, Member	**Zack Blake, Alternate**
Brian Lever – Staff	**See attendance sheet**

The meeting was called to order with Donald Lang presiding as Chairman. Voting permanent members included Lang, Barker, and Morton. Alternate member Blake also voted. The meeting was called to order at 7:40pm and was taped on 2 tapes.

1 Crystal Lake Task Force Presentation

Janice Bourque, Chairman of the Crystal Lake Task Force presented two proposals involving the redevelopment of the bathhouse and surrounding City owned property at Crystal Lake. Bourque presented several reasons for redevelopment, including handicap access and deterioration in the building's condition. The first proposal involved a partial demolition of the bathhouse keeping the lakeside portion of the building and constructing a new addition to the rear in keeping with the building's architectural style. The reconstructed building would be smaller in footprint than the current building. The second proposal involved completely demolishing the building and constructing a new building set back further from the lake and in the same style of the original bathhouse though also smaller in footprint size. Commission members provided their comments on the two proposals. Lang stated that full demolition was an irretrievable step and questioned if the historical significance of the building had been fully explored and if it could have been a Works Project Administration (WPA) project from the Great Depression. Staff stated that the building was built in 1930 and if that is correct it would be too early for a WPA project, but that it did have a long association with the community with generations of residents using it for recreation. Barker stated that he favored the partial demolition plan. Blake stated that the full demolition does make functional sense, but expressed his preference for the partial demolition plan. Morton also stated his preference for the partial demolition plan. Ald. Mansfield stated that both plans were good and noted how the lakeside end of the building is a prominent feature framing the view of the area from the lake.

2 7 Walnut Street Violation Hearing – Barn Demolition

Staff provided historical background on the property and the review of the proposed partial demolition of a lean-to addition to the barn. Staff approval had been given for a partial demolition and restoration project. Demolition of the barn occurred on March 18, 2009. A site visit on March 19, 2009 revealed that the entire building had been demolished without Newton Historical Commission approval or Inspectional Services Department permit and a stop work order was in place. City Building Inspector Buddy Lamplough stated that only the foundation remained and that City staff was not informed of any issues that would have required demolition of the entire barn until after the building was demolished. Staff also informed the commission of the procedures and penalties under the non-compliance section of the Demolition Delay Ordinance. Jason Rosenberg, representative for the owners Donald and Jill Eurich stated that while the property owners were away, the contractor determined the building to be unsafe due to discovered fire damage and took the building down. Rosenberg stated that he and the owners recognized that mistakes in judgment occurred, but stated that it was not the intent of the property owners to circumvent the review process.

Commission members questioned to what extent the owner was involved in the decision to demolish the building. Donald Eurich stated that he was only available through email. Lang stated that he had worked on fire damaged buildings, and that they can be fixed. Barker suggested a fine for the number of days elapsed since the demolition occurred at $300 per day for eight days as permitted under the Demolition Delay Ordinance. Lang suggested waiving the fine and the two-year ban of building permits based upon an exact replication. Barker motioned to institute a fine with Morton seconding. Blake moved to replicate the building as a remediation and issue a waiver of fine and building permit ban with Barker seconding. Lang moved to recommend to the Inspectional Services Department that the owner be allowed to replicate the building as soon as possible.

At a scheduled meeting and public hearing on March 26, 2009 the Newton Historical Commission, by vote of 4-0,

RESOLVED to levy a fine for non-compliance with the Demolition Delay Ordinance for demolition of a historically significant barn at 7 Walnut Street for the number of days passed from the date of demolition, March 18, 2009, being eight days at $300 per day for a total fine of $2,400.

Voting in the Affirmative:
Donald Lang, Chair **Rodney Barker, Member**
David Morton, Secretary **Zack Blake, Alternate**

At a scheduled meeting and public hearing on March 26, 2009 the Newton Historical Commission, by vote of 4-0,

RESOLVED to waive further fines for non-compliance and the two year ban on building permits contingent upon the following: (1) that plans for the exact replacement of the barn be submitted and approved by staff and/or the Commission within 30 days; (2) that an exact replica be constructed in its approximate location to the satisfaction of the Commission and/or staff within six months with an emphasis on the full completion and accuracy of the exterior; (3) that the replica barn will use the salvaged historic barn doors and window; (4) that if the replica barn is not completed to the satisfaction of the Commission within six months that the time remaining in the two year ban on building permits and the fine retroactive to March 26, 2009 will be re-instituted.

Voting in the Affirmative:
Donald Lang, Chair **Rodney Barker, Member**
David Morton, Secretary **Zack Blake, Alternate**

At a scheduled meeting and public hearing on March 26, 2009 the Newton Historical Commission, by vote of 4-0,

RESOLVED to request the Inspectional Services Department to allow the replication of the historic barn as soon as possible.

Voting in the Affirmative:
Donald Lang, Chair **Rodney Barker, Member**
David Morton, Secretary **Zack Blake, Alternate**

3 10 Fredette Road Demolition Review – Full Demolition

Kenneth Case property owner presented an application to demolish the house and garage. Staff stated that the Commission had previously found this home preferably preserved in 2005. Staff further stated that the home is located in Oak Hill Park, though not on the path system and that the

Commission's policy has been to find homes in Oak Hill Park preferably preserved. Morton motioned to find the home preferably preserved and Barker seconded. The Commission reviewed the design of the proposed replacement building and expressed support for it. Case stated that he was still deciding on the design and that it may be some time before he is ready to submit for a waiver of delay.

At a scheduled meeting and public hearing on March 26, 2009 the Newton Historical Commission, by vote of 4-0,

RESOLVED to find the home at 10 Fredette Street preferably preserved.

Voting in the Affirmative:

Donald Lang, Chair	**Rodney Barker, Member**
David Morton, Secretary	**Zack Blake, Alternate**

Administration Discussion

A Approval of February 09 Minutes.
The commission approved the February minutes 3-0 with Blake abstaining.

B Preservation Restriction Program
Staff updated the Commission on efforts to obtain Preservation Restrictions on the Newton Centre T Station through the efforts of Ald. Danberg and 399 Waltham Street through owner donation.

C Massachusetts Historical Commission Video
This item was skipped due to the length of the meeting.

Meeting adjourned 10:28 PM.

Minutes approved at the April 23, 2009 meeting.

Recorded by Brian Lever, Commission Staff

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CITY OF NEWTON, MASSACHUSETTS

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CONSERVATION COMMISSION
MEETING MINUTES
April 23, 2009
City Hall, Rm 209

Meeting called to order at 7:40 p.m.

MEMBERS PRESENT: S. Lunin, Vice-chair and acting Chair, J. Hepburn, N. Richardson, D. Dickson

MEMBERS ABSENT: I. Wallach, D. Green (arrived late), and R. Matthews (arrived late)

MEMBERS OF THE PUBLIC: See attached sign-in sheet

DPW Road Repair – RDA – for micro-surfacing of Islington Road, Rider Terrace, Duffield Road, Malvern Terrace, Kingswood Road, and Woodbine Street, and for application of thin mix overlay on Chesley Road and Keefe Avenue, which may be in one or more resource areas.
Report: This is DPW's annual roadway work, and no roads are slated for removal of asphalt or drainage work. A portion of Islington Road is in the 200 ft riverfront and has 3 catch basins draining to the Charles; Duffield Road has one catch basin at its end, nearest the river; Keefe has 2 CBs at the low spot in the center of the road that probably drain to the river. These CBs should be protected during the work from material that would enter the drain. Any masking of the CBs can be removed about 1 hr after the work is completed.
Meeting: Frank Nichols, Permits Engineer in the Engineering Department, was present to describe the project. The work proposed is minor. Resident Priscilla Leith of 162 Islington Road was present and said that more major work was needed on her road. Staff indicated a negative determination was in order, with the requirement that the catch basins be covered with tape for one (1) hour after the work.
Motion by J. Hepburn for a negative determination with the above condition. D. Dickson seconded the motion. Vote: All in favor. Motion passed.

D. Green and R. Matthews arrived at 7:45 p.m.

230 Lake Ave. -Crystal Lake Path construction – NOI – construction of handicapped access pathway behind 230 Lake Ave. in the 100 ft buffer to bank.
Report: The City paid for a conservation easement behind the house at 230 Lake Ave, and signed an agreement to have all work completed by October 10, so proposed starting date is July, when the ground should be dry. Work will actually begin in Levingston Cove and end on section of 230 Lake Ave purchased outright by the City, creating about 200 ft of new accessible path to connect the two city properties. One or two trees

may need to be removed, but most vegetation on site is non-native and plan avoids removing any trees on bank. Silt soc is proposed between work and bank; some stockpiling of gravel on city property will be covered at end of day; excavated material will be removed from site.
Meeting: Frank Nichols, Permits Engineer in the Engineering Department, was present to describe the project. Members of the Commission expressed concern about protecting trees during construction, to avoid soil compression, root damage, or other harm to trees not targeted for removal. F. Nichols noted that, although the project is subject to the storm water regulations, the increase in run-off rate is very small. The path skirts the outer edge of the easement, to keep it as far from the resource area – the bank- as practicable. Abutter notification mailing receipts have been supplied. **Motion by D. Green to issue an OOC with standard conditions subject to appropriate mitigation for protection of adjacent tree roots, possibly, but not necessarily limited to matting and snow fence as determined by Environmental Planner. Second by N. Richardson. Vote: All in favor. Motion passed.**

30 Rogers St.-Crystal Lake Master Plan – RDA for proposed changes to the bathhouse, bank area, and parking lot at 20 Rogers St., 30 Rogers St., and a portion of 230 Lake Ave. in the 100 ft buffer to bank and bank area of Crystal Lake.
Report: Plan(s) submitted for discussion before finalizing recommendations. A big concern for me is that both plans call for enlargement of the beach area (with more sand to migrate into the water). Pictures taken on any clear day clearly show a large plume of sand in the water offshore of the beach area in front of the boat house and ramp area, and to a much lesser extent in front of the retaining wall. Drainage plans will be further developed when plans are nearer completion. DEP Superceding Order and Martha's comments are included from 2007 when the wall was repaired to provide background to the current jurisdictional issues.
Meeting: Janice Bourke, Crystal Lake Master Planning Task Force, and Amy Yuhaz, Planning Department presented. J. Bourke said there are two alternatives to the present structure: 1) a partial renovation and addition to the existing bathhouse, but preserving the "front" part of the building nearest the lake, and 2) a new building constructed in approximately the same area as the existing building but pulled back slightly from the lake. Both alternatives would increase the beach area, the first plan by 1,700 sf and the second by 3,200 sf. Both plans aim to preserve the existing number of parking spaces, but reduce the amount of impervious area overall by ~5,000 sf or 3,500 sf, respectively. Improved stormwater management is provided under both plans, although the details have not been finalized. Green recommends the new building, with parking located along the road. He also suggests the aquilator might need to be larger to handle a larger area, that any new construction needs to deal with the sewer problems on site – will need to pump it up to the street, if building remains at bottom of hill, a hard surface on paths for maintenance where steep, an emergency egress swale, and bioswales (like at Star Market), and said that a "flatter" beach is better. N. Richardson also thought an emergency swale would be be helpful, but we need to get approval from MBTA to direct water onto their property. **Motion by D. Dickson for positive determination #4, requiring the applicant to file a Notice of Intent for proposed work. Vote: All in favor. Motion passed.**

32 Williams St. – NOI – continued from 2007- with plan for 2-family dwelling and driveway in riverfront to the Charles River. Commission members requested additional planting plan/information:

1) The scope of the mitigation area shown on the site plan as entire area between driveway and top of bank (1650 sf as stated in letter from VHB).
2) Above plan should indicate existing trees as individual plants on the plan.
3) Invasive species should be dug up, instead of treating with herbicide, if clumps small enough. The rose and knowtweed on the bank are probably relatively weak from previous cutting.
4) A de-watering plan is needed.
5) An Operations and Maintenance plan for the catch basin is needed.
6) A plan to try to reduce the size of the driveway.

S. Lunin asked whether the number of species proposed by VHB (3) for the mitigation area is sufficient. Planner recommended 7 species be used. S. Lunin requested material will be supplied in time for Planner to include in member packets for next meeting. Planting plan and reduction in impervious surface requested.
Report: New plan dated April 12, 2009 received April 15, shows entire area between driveway and tree line to be "Proposed Landscaped Buffer," but individual trees not shown and no planting plan submitted – I am concerned that without an approved planting plan the site will end up as a lawn area with shrubs planted strategically at the sides. Plan notes say no excavation into water table so no de-watering plan needed, and silt fence is proposed for erosion and sediment control. Size of driveway has not been reduced, but asphalt has

been replaced with pavers. There is no stock-pile area shown and no room for one, so all excavated material should be removed from the site at the end of each day. If we get planting plan, do you want the planting area to be an on-going condition?
Meeting: Lisa Standley, VHB, brought in planting plan (list of plant species, number, and sizes to be installed for mitigation. Commission asked to review what they requested and what was submitted. On-going conditions were discussed and list formed: O&M plan and inspections of catch basin, all of mitigation planting area between driveway and riverbank, use hand-tools to dig up and remove invasives on bank, no herbicides or pesticides, and reduction in size of driveway to reduce asphalt/impervious area. **Motion by D. Green to issue OOC with standard plus special conditions as above, subject to getting plan showing individual trees on/near bank, planting plan included on site plan with a 5-ft snow storage area off driveway. S. Lunin, added that OOC not to be issued until new plan showing individual trees, planting plan and reduction in driveway size is approved by the Environmental Planner. Second by R. Matthews. Vote: R. Matthews, D. Green, J. Hepburn, D. Dickson voted "aye;" D. Dickson and N. Richardson voted "nay." Motion passed.**

Nonantum Road – NOI – for reduction in pavement to one lane, drainage improvements, path widening, and plantings in the 100 ft riverfront to the Charles River.
Report: DCR owns the road and MA Highway will do the work, which falls mainly under redevelopment in riverfront to the Charles. No work is proposed in the area of bordering vegetated wetland (BVW) near the Yaht Club or within bordering land subject to flooding (BLSF). The proposal is to remove one lane from each direction as a traffic-calming measure, except at intersections, where the second lane will become a turn lane. The bike/pedestrian path will be widened in places to reach 10-ft width, and a planting strip will be widened or created between the path and the road, wooden or metal guard rails will be installed between the path and the roadway, and historic lightening will replace existing lightening. Several bio-swales will be created for treatment of run-off. Approximately 4 fully-grown trees that are growing into the roadway will be removed. A landscape plan is included that proposes to plant native woody and herbaceous plants except in the narrow roadway medians. Overall, the project proposes to remove 2,000 sf of impervious surface in Newton, improve drainage, and add native plantings, which will improve the capacity of Riverfront area to protect the interests of the Act. The Commission might want to consider whether to make it a requirement to use all native plants – they have agreed to use natives except in the median – and to plant in the fall. I also recommend filter fabric or similar measure under catch basins or grates, and a filter-mitt or filter-soc-type erosion and sediment control fence, rather than hay bales and silt fence for less disturbance of vegetation between the river and the work.
Meeting: Richard Kirby, LEC Environmental Consultants, Rick Corsi, MA Department of Conservation and Recreation (DCR), Richard Azzalina, Fay, Spofford & Thorndike, LLC, and Benjamin Morton, Carol R. Johnson Associates, Inc. were present for the project and provided a revised Stormwater Management Plan in response to DEP comments (revised April 22, 2009) concerning identification of best management plan (see below) and updated total suspended solids removal. The plan already proposes to use all native plants in Newton, even in the medians. Mr. Kirby explained that "bioretention cells" are 'rain gardens' that will help provide some infiltration of storm water. J. Hepburn read a letter from John and Phoebe Karakshian asking to have a retaining wall built in their yaad as part of the road construction. Several residents of Charlesbank Road mentioned concerns about the south side of Nonantum Road where the grade is steep, and there are a number of dead trees and unsightly/diseased shrubs. They asked if this area is within the jurisdiction of the Commission. S. Lunin asked the proponents if this area is within the 200 ft riverfront and owned by DCR. It is. S. Lunin then asked if it is possible to do some slope stabilization and clean-up that is low-maintenance. Mr. Corsi said it is possible. In response to discussion of Planner's recommendations, it was noted that the proposed "historic lights" are 'dark-sky compliant' and the light is directed mainly toward the path and away from the river.
Motion by D. Dickson to issue OOC with standard conditions and special conditions to include no use of herbicides or pesticides, lighting to conform to DEP 'dark-sky' guidelines, slope stabilization of the south slope, and ongoing maintenance of swales – in perpetuity. Second by N. Richardson. Vote: All in favor. Motion passed.

125 Wells Ave. – Solomon Schechter Day School –NOI for drainage improvements in the 100 ft buffer to bordering vegetated wetlands.

Report: Site visit confirms most of wetland line – small area close to back corner may not be BVW – no connection with other BVW. There is a trench between the edge of the lawn and the hill behind, with a headwall/outlet for drainage. Drainage from hill and under parking may be captured here and flow into small depression to keep it somewhat wet. All work is to try to repair existing drainage to keep site and building dry.
Meeting: Mark Piermarini and Fred Hamwey (Hamwey Engineering) and Jim Mitraro, Solomon Schechter School, described the project. Slight change in design (incorporation of an overflow spillway and show on plan detail) city engineer's comments. D. Green asked for fence around the flared end to protect people using the path and for rip-rap. Proponent agreed. **Motion by D. Green to issue OOC with standard conditions. Second by R. Matthews. Vote: All approved. Motion passed.**

45 Grayson Ln. – NOI - for a 530 sf addition within the 200 ft riverfront to the Charles River and within the 100 ft buffer zone to a bordering vegetated wetland.
Report: This is the last house on the west side of Grayson Lane, adjacent to wooded DCR land along the Charles. BVW estimated by surveyor in field – new plan & wetland report coming so you will know where your jurisdiction ends. Work is partially within the outer 100 ft of the 200 ft riverfront, and within the 100 ft buffer zone to bordering vegetated wetland as shown on the plan. The Owner proposes to remove about 145 sf of existing structure/impervious surface and replace it with a 530 sf addition and ~150 sf patio ~ same location. The addition will be about the same distance from the river and bordering vegetated wetland as the present structures – a proposed new concrete bulkhead is about 6 ft closer than previous structure. An alternatives analysis (written) is attached, and concludes there is no economically equivalent alternative and no adverse effect to the interests - no mitigation is offered. No erosion and sediment control shown on plan, with note to contractor to call for inspection. Overall impervious surface in riverfront will increase from 662 sf (7%) to 1151 sf (12%) on a 9620 sf lot.
Meeting: Owner Marta Geletkanycz, and consultant Cassandra Koutalidis, P.E. described the project. The bordering vegetated wetland line is farther from the work than originally shown on the plan (new plan dated ??). DCR-owned adjacent riverfront has lots of non-native invasive plants, including euonymous and barberry. Some native plantings for mitigation would be desirable. Commission members discussed with owner whether she would be willing to remove lawn area equivalent to footprint of new work and plant with native shrubs as on-going mitigation. Owner agreed. **Motion by D. Dickson to approve OOC with standard conditions and special on-going condition for mitigation area (as above). Second by D. Green. Vote: All in favor. Motion passed.**

750 Saw Mill Brook Pkwy.-request for Extension of OOC & partial Certificate of Compliance – applicant needs extension and PCOC from DEP and will provide update to the Commission.
Meeting: Ann Marten, LEC said they need an extension to complete the monitoring of the wetland restoration following installation of towers, fencing and underground wires. The meadow has come back very well, already. The final report on the Vernal Pools has been submitted. CC said they would have voted to extend, but it is DEP's decision.

9-11 Jaconnet St.-Request to extend OOC – request for 2-yr extension to complete mitigation. Commission gave owner 1 month to come into compliance with OOC, else will not grant extension.
Meeting: Planner reported that letter from John Rockwood has been received, stating that all visible ABC fill has been removed, berm has been raked (and is much lower), dead plants were removed and new ones installed. Planner conducted site visit, and site looks much improved, with gravel at end of road also removed. Back yard area still needs to be re-stabilized with seed. **Motion by D. Green to issue 2-yr extension. Second by N. Richardson. Vote: All approved. Motion passed.**

Violations –Updates
Houghton Garden – paint violation – Chair to send letter to B.C. students in response to last communication.
Meeting: Virtual communication not working to satisfaction of Commission. Planner to draft letter for S. Lunin to edit and sign, giving students choice of May or June to reappear before the Commission and expressing the Commission's dissatisfaction with the copy of the report submitted.

15 Harwich Rd –Violation –Have asked DEP to assist.

18 Rockland St.
394 Boylston St.
160 Pine St – Gazebo – new retaining wall is completed. Ted Jerdee is televising sewer manhole and contractor is re-stabilizing site.
1203&1211 Washington St.
93 Andrew St.
3 Fuller Ave.

Certificates of Compliance (*needs action)
MWRA at Kesseler-awaiting as-built plans.
15 Marla Circle-mitigation plantings need to be re-planted, area documented, and MWRA easement clarified.
1676 Commonwealth – needs as-built plans.
11-19 Hargrove Circle – OOC expired in 2006. Recently contacted both owners; sites need as-built showing grades, area and layout of plantings, planting list, and a final site visit & approval of plantings Both owners say they will comply this spring.

Announcements & General Business:
Performance Bond for mitigation – as standard condition in any OOC with mitigation? Wording in packet – DRAFT. Postponed to next meeting.

Open Space Plan – considerations and member to work on committee and with Conservators? Postponed to next meeting.

Nahanton Woods – Judy set up meeting.
Meeting: Motion by D. Dickson to appointment J. Hepburn as representative to the Nahanton Woods CR Trustee Board. Second by N. Richardson. Vote: All approved. Motion passed.

March, 2009 Meeting Minutes for approval
Meeting: Motion by R. Matthews to approve minutes of March meeting. Second by N. Richardson. Vote: All approved. Motion passed.

Reminder: Charles River Cleanup – Sat. Apr. 25th

Outstanding issues – discussion
Non-criminal ticketing – update – see packet for summary – Q: Does the Commission wish to ticket under the Watershed/Flood Zone only?

Other

Motion by D. Green to adjourn (at 11:15 p.m.). Second by N. Richardson. Vote: All approved. Motion passed.

Respectfully submitted,

Anne Phelps, Sr. Environmental Planner

Conserva\agmin\4-23-09web

Newton Parks & Recreation Commission
Meeting Minutes
Newton City Hall, Room 209
Monday, February 23, 2009

Attending: Francis J. Rice, Chairman, Kathleen Heitman, Lee Mottard, Arthur Magni, Peter Johnson, Jack Neville, Alternate, Fran Towle, Commissioner, Robert DeRubeis, Deputy Commissioner, Carol Stapleton, Manager, Robin McLaughlin, Secretary.

1. The Minutes from the January 26, 2009 Commission Meeting were accepted 5-0.

2. Reports of Program, Maintenance and Forestry by Commissioner Towle

   - The February 3 Camp Fair has become very popular with the community and was a success this year. Chairman Rice asked if the camp fees were being raised this year. Commissioner Towle confirmed the weekly camp fee has been raised this year.

   - The Department continues to work on the $340,000.00 appropriation for snow removal this year. The appropriation was requested from the Finance Committee on January 26, 2009.

   - The Department continues to work on the budget. The budget cut right now is 3%. The Commissioner has a meeting with the City Administration this week and will have additional budget information for the Commission at the March 16 Commission meeting.

   - February 24, there is a meeting with the Newton West Little League regarding the Lyons lighting project. The Commissioner stated there should be an estimated start date for next month. Chairman Rice asked if the people purchasing the lights have any experience with the installation of the lights. Commissioner Towle was going to verify the qualifications and verify some one will be aboard to assist with installation, at the scheduled meeting. Chairman Rice suggested the sales person selling the lights should be able to help. Chairman Rice inquired if the Commissioner is working with the Traffic division regarding this project and the displaced parking caused by the project? Chairman Rice stated working out the traffic issues is key to the Commission in seeking approval for this project. Commissioner Towle will contact the Traffic division.

   - The Forestry Division continues to inventory the City trees and reports no unusual issues this month.

   - The Maintenance division continues to gear up for snow removal and is preparing for turf maintenance in the Spring.

   - Chairman Rice asked if the Commission Members had any questions or comments for the Commissioner. There were no questions. Kathleen Heitman commented that she is pleased with the exciting programs provided by the department.

3. Crystal Lake Task Force Presentation- Janice Bourque, Crystal Lake Task Force Chairperson, began the presentation stating this presentation was an informational presentation only; the Task Force was not requesting a vote. Chairman Bourque reviewed the issues faced by the task force such as, runoff and the slope of the area and explained the planning considerations; year round use, cost efficiency and going green, the flexibility issues going forward, the beach and the slope issue and making the area handicap accessible. The goal is to keep the building low for an unobstructed view, minimize asphalt and maximize open space. A tree inventory was done by the City, and the plan is to keep as many existing trees as possible and plant additional trees.

- Option 2A is a plan to renovate the existing building, approximate cost is $4.2 million
- Option 3C is a plan for construction of a new building, approximate cost is $4.8 million

Option 3C is the option favored by the community. This option provides more beach area, and the building is wider. The following questions and comments were addressed after the presentation:

Q1. Chairman Rice asked how a bus enters into the parking area. Chairman Bourque responded, currently the buses drop the passengers off further down the street and the passengers walk to the beach. This process will remain in place. Chairman Rice asked if this causes congestion at the intersection by 20 Rogers Street. Chairman Bourque responded, this does not cause traffic congestion because the buses do not remain parked at the location.

Q2. Resident Doris L. Fuse commented the handicap accessible pathway to the Crystal Lake building from Rogers St is a very long way to walk for a lot of handicap individuals, and asked if this is the time the pathway should be re-evaluated. Chairman Bourque explained, because of the topography and the steep slope, the length of the path was the only way to keep the path handicap accessible.

Q3. Chairman Rice asked if a second entrance could be created to make a loop in the driveway. Chairman Bourque stated the slope in that area is 26% and is to steep for an entrance. Alderman Parker commented the circular driveway pattern dominated the vista, and the community wanted to keep the beautiful vista of Crystal Lake. Jack Neville commented there is wasted space next to the driveway by Rogers St that could be utilized.

Q4. Peter Johnson asked if there will be sidewalks along the new driveway because he is concerned the pedestrians will use the driveway entrance. Chairman Bourque and the task force will take this concern into consideration.

Q5. Lee Mottard inquired how the aesthetic of the site were taken into consideration with RDA architect. Chairman Bourque replied the Task Force and the Architect met with the Community to determine the needs of the Community.

Q6. Michael Clarke commented he is pleased to see that bike racks will be available but is concerned about the cost of using the facility year round. Chairman Bourque commented there will be the flexibility to close off the utilities when the facility is not being used. Task Force member Schuyler Larrabee commented there will be a better heat system in the new building and the task force is looking into going green wherever possible with this project.

Q7. Peter Johnson inquired why the design cost for the renovation is 15% when the design cost for new construction is at 10%. Chairman Bourque stated designing around an existing building is more difficult and expensive than designing new construction.

Chairman Rice asked Commissioner Towle which option she believes is best for the Community. Commissioner Towle agrees with the Community, option 3C, the new building would be the best option. Carol Stapleton reminded the Commission there will be a Crystal Lake Task Force meeting on Wednesday 2/25/09 at 7pm at the Senior Center. Chairman Rice thanked the Task Force for the presentation.

4. 5K Walk/Run Fundraiser – Kristen St. Marten- This is the second meeting for Kristen St. Marten, President of the Paul St. Marten Charitable Corporation. She is requesting permission to hold a 5K walk/run fundraiser in memory of her father, Paul St. Marten. Ms St. Marten is

requesting the use of Week's Field on May 24, 2009 from 8:00am-11:00 am for this event. Set up for the event would begin at 6:00 am and clean-up would be completed by 1:00 pm. Notification of this event was sent to the abutters of Weeks Field February 9, 2009. An invitation was sent to the abutters, notifying them the Paul St. Marten Charitable Corporation would be available for questions or comments at the Commission meeting 2/23/09. Contact information was also included in the notification to the abutters. The Parks & Recreation department did not receive any questions, comments or concerns from the abutters of Week's Field. There were no abutters in attendance at the Commission meeting.

Arthur Magni made the motion to allow the Paul St. Marten Charitable Corporation to hold the 5K Walk/Run Fundraiser on May 24, 2009 at Week's Filed. Kathleen Heitman seconded the motion. The motion passed 6-0.

5. Relay for Life – Amanda Starkel a representative of the American Cancer Society is requesting permission for a two day overnight fundraising event at Forte Field, 233 California Street on May 30-May 31, 2009. Teams of 18-15 people will take turns walking around the track for 18-24 hours. There will be portable toilets, if needed, tents, staging, tables and chairs. This event is in its 11th year in Newton. The Commission will notify the abutters of Forte Field of the event. Amanda Starkel and the American Cancer Society will come back to the Commission on March 16 to answer any concerns or questions form the abutters of Forte Field. *Note: This event usually takes place at Newton South High School, but field renovations are scheduled during the time this event is to take place.*

6. Off Leash Dog Park Review- Deputy Commissioner DeRubeis stated the trial is in limbo because the signs are in but have not been posted in the area due to the weather conditions. A true assessment cannot be done until the signs go up in the area. Commissioner Towle mentioned the e-mail from Dr. Soporta regarding the parking issues and uncontrolled dogs at Cold Spring Park. Kathleen Heitman suggested Amy Koel, Off-Leash Dog Park Chairperson respond to Dr. Soporta.

7. Commission Elections- Commissioner Towle asked for nominations for the Parks & Recreation Commission Chairman. Kathleen Heitman nominated Fran Rice. Arthur Magni seconded the nomination. Fran Rice was nominated as Commission Chairman with a vote of 6-0. Re-elected Chairman Rice asked for nominations for Parks & Recreation Commission Co-Chairman. Arthur Magni nominated Walter Bernheimer, Michael Clarke seconded the motion. Walter Bernheimer was nominated as Parks & Recreation Commission Co-Chairman with a vote of 6-0.

8. New Business-
   - Lee Mottard inquired about the P & R website. Deputy Commissioner DeRubeis stated the website is being updated. The general consensus in the department is to create our own website outside the City's website. This option is being researched.
   - Senior fees – Kathleen Heitman inquired if the decision has been made to raise senior's program fees. Commissioner Towle commented this issue will need to be addressed in the future.

The next Parks & Recreation Commission Meeting is scheduled for March 16, 2009 at 7:00pm

Meeting adjourned at 8:20 p.m.

Respectfully submitted:

Robin McLaughlin, Secretary

David B. Cohen
Mayor

Fran L. Towle
Commissioner

Newton Parks & Recreation Commission

Meeting Minutes

Newton City Hall, War Memorial

September 21, 2009

Attending: Fran Rice, *Chairman,* Arthur Magni, Kathleen Heitman, Lee Mottard, Peter Johnson, Jack Neville, *Alternate*, Peter Kastner, *Alternate,* Fran Towle, *Commissioner*, Bob DeRubeis, *Deputy Commissioner,* Robin McLaughlin, *Secretary*

Absent: Walter Bernheimer, Michael Clarke

Also Attending: Officer O'Connell & Officer Torres, *Newton Police Dog Officers,* Amy Koel, Chairman, Dog Off-Leash Advisory Committee (DOLAC), Janice Bourque, Crystal Lake Task Force Chairman, Amy Yuhasz, Planning Dept, Carol Stapleton, Recreation Manager.

Commission Meeting called to order at 7:06 pm.

1. Meeting Minutes from 07-20-09 Meeting accepted 7-0.

2. Commissioner's Reports on Programs, Forestry and Maintenance

- Crystal Lake and Gath Pool had a successful season.
- Camps were full this summer. We believe the economy helped boost attendance. At the end of the season parents, who have paid for more expensive camps, commented they could not believe the great quality of the P & R camps, and they will be back next year.
- New this year for the teens was an overnight camp get-away in the Berkshire Mountains in Kent, CT. The campers and staff were kept busy and everyone had a great time.
- The July 4th week-end activities and concerts were enjoyed by all without incident.
- Farmer's Market is open until the end of October. Judy Dore is doing a great job managing the Farmer's Market. Mr. Magni inquired about the attendance of each market location. Commissioner Towle responded the Cold Spring Park Market has been very busy all season and the Post 440 numbers are slowly rising.
- NWLL lighting is complete and being utilized at Lyons Field. The Department of Public Works has completed paving the road. Mr. Kastner commented he lives in the area and did not notice the lights were on, which is a good thing. Mr. Mottard asked if this was special lighting. Commissioner Towle responded yes it is "low spill" lighting.
- NSHS tennis courts are resealed-resurfaced-looks brand new!
- Mike Lewitt of Newton Tennis provides tennis lessons for the City under contract. These lessons have been very popular. Mr. Lewitt has also started a City Wide tennis tournament.

- The Programs & Services Committee of the Board Of Alderman has requested the Parks & Recreation Commission revisit a Swim At Your Own Risk policy at Crystal Lake. (Please review the letter from Alderman Johnson enclosed in your packets). Chairman Rice stated the agenda in October is full; we will review this policy during the November 2009 Commission meeting.
- The easement pathway to Levingston Cove at Crystal Lake has been completed by the Department of Public Works. Mr. Magni asked how the path is accessed. Commissioner Towle responded there is one entrance by Crystal Lake, and then you walk to the end of the pathway and turn back. The pathway will need more work to flow with the master plan.
- The Department had a great summer and the Staff was superb.

3. Off Leash Dog Parks

- Chairman Rice introduced Chairman Koel of the Dog Off Leash Advisory Committee (DOLAC).
- Chairman Koel submitted two new off leash dog park applications:
    1. Hunnewell Park
    2. Newton Center
- Chairman Koel wanted to be clear: Submitting applications does not mean the off leash dog parks are open. There is a process that must be followed before the parks are officially opened.
- Chairman Rice stated these new applications will be on the agenda for the October Meeting and abutters to Hunnewell and Newton Centre will receive notification of the meeting.
- Chairman Koel reported on September 16 there was a meeting with the Nahanton Park Community, the off leash dog park applicant group, the Conservators, members of the Jewish Community Center (JCC) and Deputy Commissioner DeRubeis. There was amicable discussion on the concerns of the harm an off leash dog park could do to the Nahanton Meadow. The Community offered other site suggestions around the park. DOLAC has decided to temporarily withdraw the application for the Nahanton Meadow due to the possible harm to the habitat and wildlife in the area. Scientific data will be collected and the Commission will be informed.
- Chairman Koel reported on September 10 there was a meeting with the Braceland off leash dog park applicant group, Braceland Park abutters, Alderman Albright, and Commission Member Jack Neville. The concerns discussed at the meeting were parking issues, children sledding in the area, fencing, sharing the park and the impact on the Master Plan. All agree it is too early to take a vote and DOLAC is requesting more time to work through the issues.
- Chairman Rice asked if any of the Commission members had any comments. Mr. Neville stated he attended the meeting and some abutters are favorable about the off leash dog park but most are not in favor of the park. Some concerns are the safety of children, non residents coming to the park, parking issues, and people who do not have control of their dogs. Another concern of Mr. Neville and the community is the Master Plan that began in 2007. Braceland is number one for repairs and he does not want this jeopardized. If he had to vote for the off leash dog park tonight he would vote against the dog park.
- Chairman Koel commented that Mr. Neville gave a good summary of the meeting for Braceland Park. There will be another meeting with the community to work out the issues. Chairman Koel believes the issues are solvable.

- Mr. Stock interrupted and asked how the rules will be enforced. For the year that Cold Spring Dog Park has been open there has been little enforcement. There is a small staff, how will the rules be enforced. Chairman Koel responded that she trusts the Police Officers and if there are issues they will work together to work out the issues.
- Chairman Rice asked Police Officers O'Connell and Torres for their observations and comments on the Cold Spring Off-Leash Dog Park. Officer O'Connell reported
    - He and Officer Torres have patrolled the dog park for 30 minutes each shift since it opened in March.

    (Mr. Stock interrupted to say the dog park has been opened since November. Officer O'Connell corrected Mr. Stock stating it is a matter of public record that the dog park has been open since March 2009.)
- Officer O'Connell continued his report:
    - Twenty Nine citations have been issued
    - The Officers walk the trails and patrol all the entrances including Beverly and Duncklee Road
    - There has been a decrease of off leash dogs at 1200 Beacon Street and on the trails
    - Officer O'Connell has patrolled seven times at 6:00 am in plain clothes
- Chairman Rice asked for comments from the meeting attendees:
    - A Cold Spring Park (CSP) off-leash dog park supporter stated the off leash dog park users "police" each other. If the users see a dog off leash the dog owner is asked to put the dog on the leash. The off leash dog park users want this experiment to work. The park is kept clean and the rules are followed. When CSP was an illegal off-leash dog park the rules were not followed.
    - A Friend of Cold Spring Park commented that since CSP has become a legal off-leash park it has given the citizens the clout to police the park. The citizens are able to explain the rules to dog owners and most owners with an off leash dog will apologize and put their dog back on leash. The Police cannot be called to every area in the City they are needed at all times. Citizens need to police themselves. At night if a person drives up to a stop sign and the Police are not around, most people usually stop because it is the law and for the safety of others. People are free and not in cages because we have a conscious and the majority of people follow the rules.
    - A resident of Newton Corner commented when CSP Off leash Dog Park opened she drove down with her three dogs. She did feel the pain of the abutters; there were lots of people, media and Police in the area. She also stated she does not want to drive all the way to Cold Spring Park to take her dogs to an off-leash dog park; there should be other off leash dog parks in the City. We should work with the Commission to find other areas that are available, keeping safety in mind. Then everyone would be happy.
- Chairman Rice asked Commissioner Towle for her comments on the issue. Commissioner Towle commented there are clearly lots of concerns for and against the off –leash dog parks. By the show of support tonight, there is a need for the off-leash dog parks in Newton. There is the issue of finding available open space. Open Space is at a premium. There will be stakeholders at any location that is chosen. It is difficult to keep everyone happy. We will all need to listen and compromises will need to be made.
- Chairman Koel commented that DOLAC is collecting data at Cold Spring Park. There certainly have been bumps along the road and a reasonable conversation will

help to smooth out the bumps. Mr. Stock interrupted Chairman Koel and asked why he should believe her data. Chairman Koel stated that is not her job, she trusts the job being done by the committee.

- Chairman Rice asked Officer O'Connell if the issues at the Cold Spring Off leash dog park has improved. Officer O'Connell commented:
  - There has been improvement since March.
  - There are less off-leash dogs at 1200 Beacon Street and on the trails.
  - In November and December 2008 Officer O'Connell would patrol the trails between 11:00am -1:00 pm for 30 minutes per shift and he would see 6-7 off leash dogs on the trail. Now it is very rare to see an off-leash dog on the trails.
- Eve Cohen of Beverly Rd is offended the neighborhood was not included on the DOLAC committee. Nobody on the committee lives in the neighborhood, they are not listening. She does not want to complain but the neighbors cannot park in front of their houses.
- A DOLAC committee member stated the committee is listening. There is a need for off-leash dog parks the key is finding a win-win location. Enforcement will never be adequate. The goal of all is to find a location where enforcement is not an issue. Confrontation in the community should not be happening.
- Ken Porter inquired if any other communities with dog parks were contacted when research was being done for off-leash dog parks.
- Chairman Koel replied when DOALC was appointed the Task Force contacted Boston, Brookline and other areas, but each City and area has its own constraints. Newton Citizen's came forward to recommend areas for dog parks. The difficulty is with a volunteer group doing the work.
- Alderman Danberg commented she is here to listen to both sides of the off-leash dog park issues. There is a possibility of a 2nd dog park in Newton. Many people are working towards resolving the issues. Alderman Danberg would like to see many dog parks in Newton, not just one in one neighborhood. She would like to see 8 dog parks, one in each ward. Alderman Danberg does not believe Cold Spring Dog park can just be shut down and people will go back to their previous behavior. Alderman Danberg spoke with Brookline and enforcement was not a real issue. Citizenry helps in this situation, we can all work together to make this work.
- Joan Rosenberg has worked with her community to build a new school, and the "not in my neighborhood" mentality exists everywhere. But Ms. Rosenberg agrees with Alderman Danberg, we need to work together to make this work.
- Mr. Kastner commented there needs to be a clear delineation of responsibilities of the Board of Alderman and the P & R Commission.
- Chairman Rice concluded the Off-Leash Dog Park discussion. Cold Spring Park along with the two new dog park applications (Hunnewell and Newton Center) will be added to the October Commission Agenda.

4. Crystal Lake Task Force – Janice Bourque, Chairman

- Commissioner Towle Commented the Crystal Lake Task Force has spent a lot of time and have done a great job preparing a plan to submit to the Mayor. And they have been a joy to work with on this project.
- Mr. Magni asked how they were appointed to the Task Force. Janice Bourque responded they were appointed by the Mayor.

- Chairman Bourque stated the Task Force has worked with the Crystal Lake Community to come up with the best plan. The plan will be submitted to the Mayor, the Mayor will submit the plan to the Board of Alderman.
- Mr. Kastner asked if the question of funding was considered with the plan. Chairman Bourque responded yes.
- Chairman Bourque reviewed the process of how the final plan was decided upon. Since the last presentation to the Commission, the issues of parking area being user friendly and the drop off location for buses was revisited and changed in this final plan. The Task Force and the Community have decided on the following requirements for this plan:
    - A new building
    - A building with a programming layout
    - Building efficiency
    - Keep existing trees, if not possible, new trees will be planted
    - Buses will drop off children at the top of the parking lot.
    - Year round use, currently only seasonal use allowed.
- Chairman Rice asked what the estimated cost is for the current plan to be submitted to the Mayor. Chairman Bourque responded the cost is 4.6 million dollars.
- Mr. Kastner asked if there is a storage area. Chairman Bourque responded yes in the lower level of the building. Mr. Kastner asked how much of the green area is lost to parking with this new plan. Chairman Bourque responded about 10 feet of green is lost. Mr. Kastner asked if a snack shack was considered. Chairman Bourque responded yes, but it was preferred to have people bring their own lunch to the park.

Mr. Magni made a motion to approve the concept of the Crystal Lake Master Plan. Mr. Mottard seconded the motion. Motion passed 7-0.

5. New Business – No new business

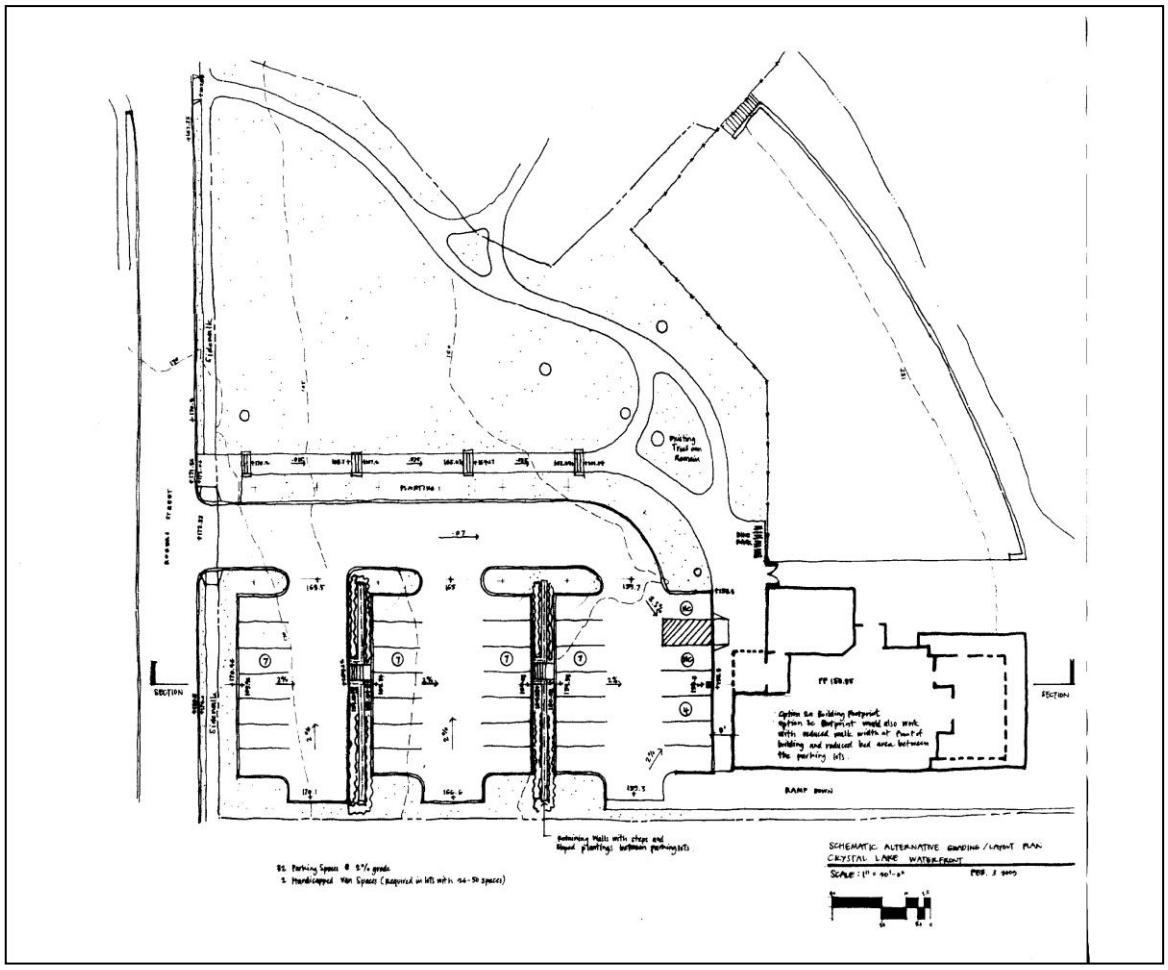
Meeting adjourned at 8:31 pm.
Respectfully submitted:
Robin McLaughlin, Secretary

Several community members generously offered their ideas and sketches of parking lot and building options for consideration by the Task Force and Study Team. The following images were not drawn to scale and do not reflect actual dimensions and topography. However, many concepts were integrated into the final design recommendation. The Task Force is grateful for such effort and interest by these individuals.

Deck Parking Option-Rieske

Dennis Rieske, AIA, Developmental Resources, Inc., presented a two-level building with structured deck parking at the level of Rogers Street with north and south retaining walls. Showers and storage were located beneath the deck with potential windows for natural light. The building entry was at the upper level, with an exit to the lake at the lower level. Floor-to-floor accessibility was provided by a handicap lift that was a nonconforming solution for accessibility. The plan included a larger beach area and also an Olympic-sized pool. Vehicular access to the water was achieved by re-grading the land. The $250,000 cost was based on $150 sq.ft. from older quotes, built with non-union labor, in outer suburban Boston and under different project conditions. Concerns included blocked views of the water due to elevation of the parking lot, loss of access points and design inconsistencies with the residential character of the neighborhood. The significantly larger beach might have attracted a larger number of people and required a separate guard structure for supervision near the water. Emergency access utilized a road directly through the open grass area.

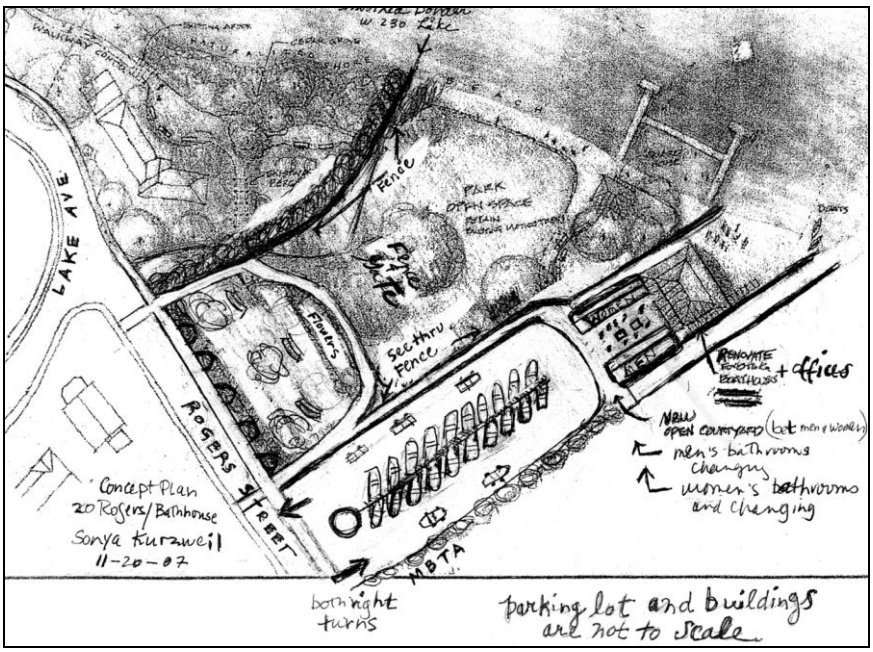
Tiered Parking Option-Sangiolo



Mark Sangiolo presented a new parking plan. The tiered plan had nine additional parking slots (32 vs. 23), was closer to the street, eliminated the path on the south side (along the MBTA Green Line) and did not address handicap accessibility. The tiered plan provided some visual breakup of the paved area with separate planted shrubbery. Concerns included continuously ruined shrubbery as pedestrians cut through the tiered lots to access the bathhouse, reduced staff visibility of parking lot activities, tight vehicle turning radius, dead-ended parking levels and emergency vehicle access.

OTHER OPTIONS PROVIDED BY THE COMMUNITY

Modified Existing Parking Lot -Kurzweil

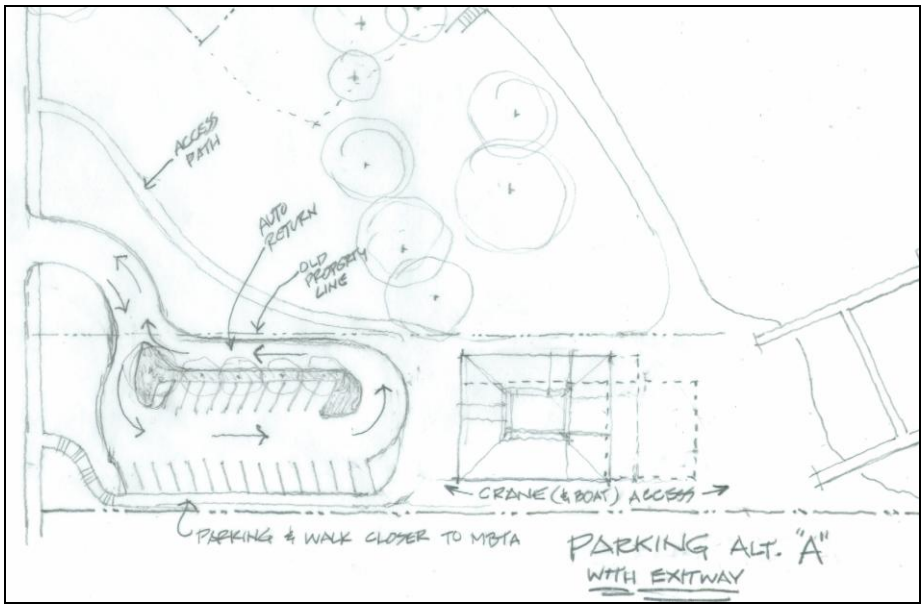


Sonya Kurzweil presented a modified upgrade version of the existing parking lot and with a smaller building layout. Outdoor seating buffered the parking lot from the bathhouse, and the Bathhouse retained the veranda and structure of the original building. The interior was revised with men's and women's toilet areas. The parking lot maintained the existing grade level but provided circular vehicle access with pervious paving to encourage rainwater recharge. Accessible paths connected the parkland to the parking lot. Concerns included noncompliance with accessibility codes, difficult access from the park to the beach for pedestrians, and crane access for installation and removal of docks.

OTHER OPTIONS PROVIDED BY THE COMMUNITY

Circular Parking Option-Fizek

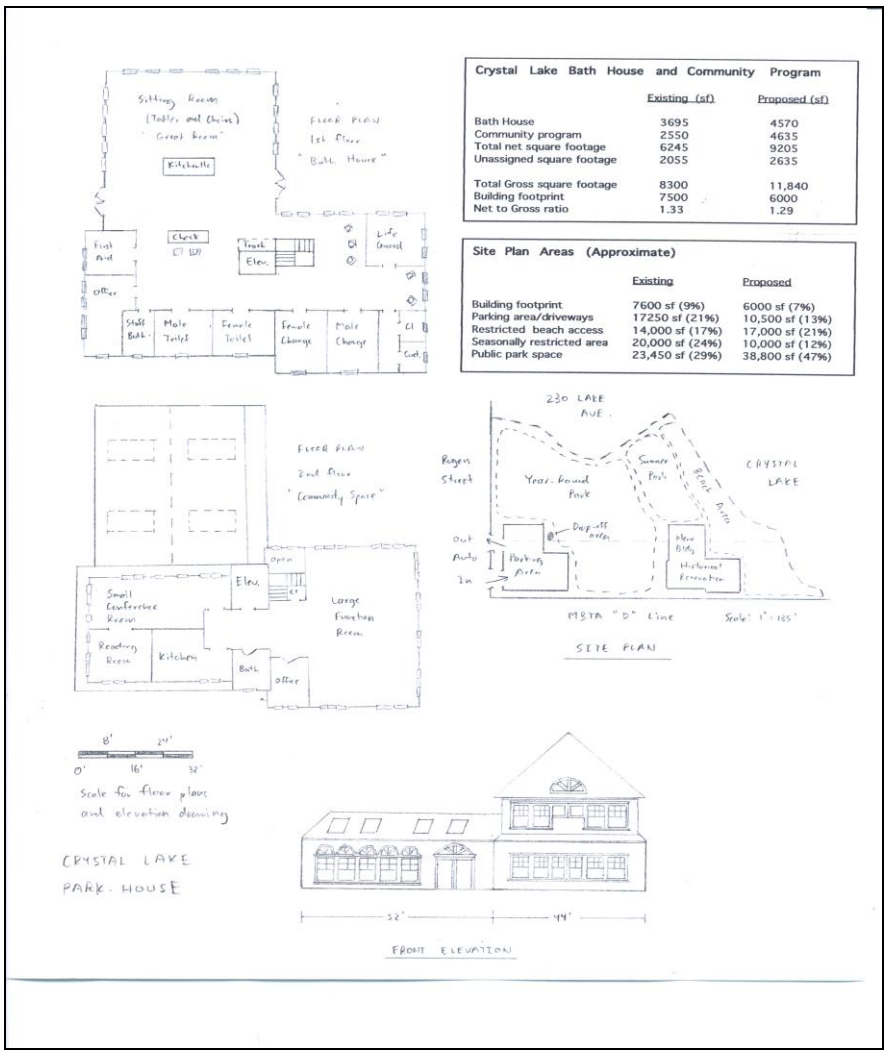
Robert Fizek submitted early sketches of a bathhouse and park. The concern with the above color image was the placement of a parking lot on Community Preservation Committee (CPC) purchased land that defeats the CPC goal of maintaining open space.



Mr. Fizek also submitted a parking lot demonstrating circular traffic flow that was integrated into the final Oval Parking Lot recommendation.

OTHER OPTIONS PROVIDED BY THE COMMUNITY

Building Option-Nedeljkovic



Srdjan Nedeljkovic submitted a renovated bathhouse design. It separated common and bathing areas with a smaller footprint. It retained the original footprint of the bathhouse and added a new structure for year round use. Parking lot was not visible to the street, a benefit as it blocks the view of the cars from the street. This image was similar to 2A Option (renovated bathhouse) with a split building architecture. The "split building," bathhouse and year-round spaces can be connected by year-round toilet facilities. No accessible paths were shown on the 20 Rogers parcel. Concerns included the reuse of an existing building with heavy renovation, required use of stairs and an elevator, enclosure of the existing veranda and more elaborate façade and a high grade drop from personnel drop-off point to building.