

Sunrise Park and Beach Waterfront Master Plan

Lake Bluff Park District

Anticipated Adoption January 27, 2014



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Letter from the Board President

Dear Lake Bluff Park District Community,

On behalf of the Board of Commissioners, I am pleased to announce the completion of the Sunrise Park and Beach Waterfront Master Plan. This is the first large-scale improvement plan created for the site since the south beach improvements in 1990's. It incorporates thoughtful planning expertise and rich community input. We are confident that this new Master Plan preserves the beauty of Lake Bluff while it also charts the way toward an expanded and detailed view of how the beach may serve the public for years to come.

The Waterfront Master Plan encourages sustainable development that lays a foundation for enhancing natural areas, expanding recreational activities, and encouraging life-long recreation.

The Board of Commissioners along with the Park District staff and the Sunrise Park and Beach Advisory Committee look forward to fully utilizing this plan to facilitate the improvements proposed over the next 20-30 years. We invite continued communication and community input as we proceed. Our commitment to the purposeful, on-going investment to this site will enhance the experience of living in our wonderful Park District community.

With deepest regards,

Kevin Considine
Board President

Board of Commissioners

The Waterfront Master Plan would not be possible without the support and input from the Lake Bluff Park District Board. Thank you to each member who has given and continues to give of their time freely to guide the future of the Park District.

- | | |
|-----------------|-----------------|
| Kevin Considine | Board President |
| Rob Douglass | Vice President |
| Bob Wallace | Treasurer |
| Kurt Gronau | Commissioner |
| Kauri McKendry | Commissioner |
| Susan Ehrhard | Commissioner |
| Brock Gordon | Commissioner |

Advisory Committee

The Advisory Committee gave of their time to hold community forums, attend meetings as well as working to understand the needs of the community for this site. This was an on-going commitment for over two years. A very big thank you to each member for all their time and efforts that were extended above and beyond to create a plan that meets the needs and desires of the community.

- | | |
|-------------------|------------------------------|
| Geoff Surkamer | Chair |
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Park District Staff Focus Group

- | | |
|-------------|--|
| Ron Salski | Executive Director |
| Ed Heiser | Superintendent of Facility Services / Head Golf Professional |
| Jim Lakeman | Superintendent of Recreation, Safety, and Outreach Services |
| Rob Foster | Superintendent of Golf, Parks, and Facility Maintenance |

Consultants

Upland Design Ltd. Landscape Architect / Land Planners

In association with:

- | | |
|----------------------------|---|
| Legat Architects | Architect |
| Shabica & Associates, Inc. | Coastal Engineer |
| P. Clifford Miller, Inc. | Bluff Management Consultant / Landscape Architect |

Executive Summary

A Master Plan begins with a realistic evaluation of the assets and the liabilities of the facility or venue. At Sunrise Park and Beach, this evaluation involves physical site conditions, community opinions, and the emotional considerations that have made this site a success. The objective of this evaluation is to determine what is good, what is marginal, and eliminating some of the pieces that are not functioning to their fullest potential.

Sunrise Park and Beach has created fond memories for generations. Because of its well known and loved place in the community, we must be mindful that the existing product is a good one with a solid reputation for public recreation. There is a good balance between historical content and recreational opportunities. Our goal is to honor that balance while bringing new life to the site. As the project moves forward, this plan is a living document that needs to reflect the evolving ideas and vision of the Lake Bluff community.

The experience of our project team allowed us to take a holistic, collaborative and realistic approach to the assessment, the planning and the implementation of a renovated Sunrise Park and Beach. Our mission was to be highly creative with the planning and new concepts, while never losing sight of the site infrastructure and “responsible design”. This was all done while collaborating with the Advisory Committee and the listening to the needs of the community.

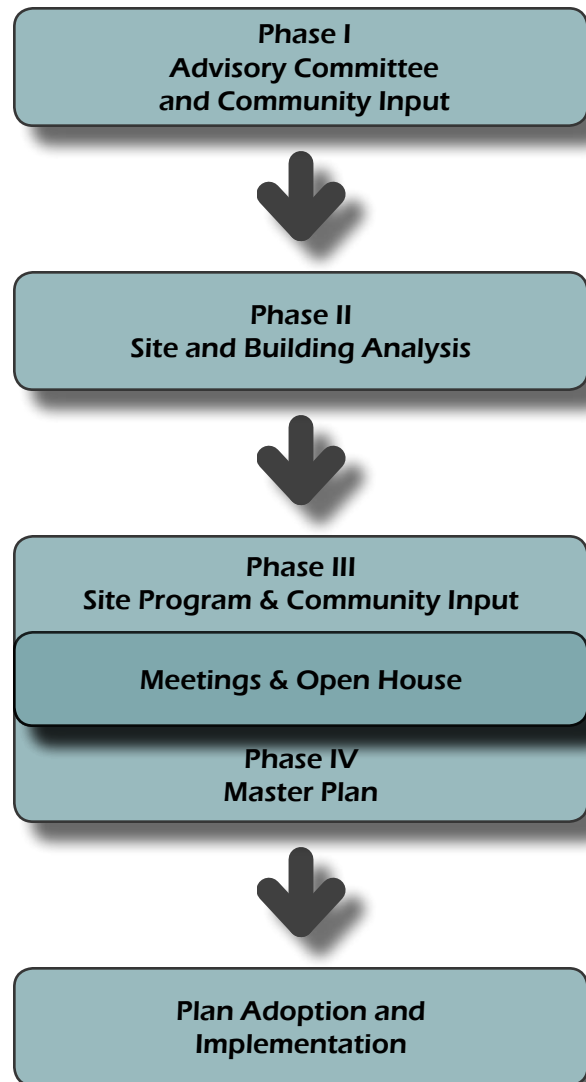
Project Approach

A four-phase approach was delineated to create the Sunrise Park and Beach Waterfront Master Plan.

In Phase One, the Advisory Committee held numerous committee and public input meetings developing needs and ideas to improve Sunrise Park and Beach. This feedback was a critical phase assisting Upland Design team to generate concepts and improvements.

Phase Two began with a site inventory and analysis of the site. This included a review of the beach and lakefront, bluff vegetation, existing shelters, NSSD building, pedestrian paths as well as vehicular circulation and adjacent land use. The information is presented with site photos and written format. These are included in the document accompanied with a summary of findings.

Phase Three concentrated on the site program as it was compiled through input from the Park District Board, Advisory Committee. This phase overlapped into the final phase - creation of the Master Plan. This allowed the Board, Advisory Committee members and the public to continue to give input and feedback on the documents as they were developed and ensured that the plan met the needs of the community and the larger vision for Sunrise Park and Beach.



Chapter 1

Site and Building Analysis



Sunrise Park and Beach sits along approximately 1,800 feet of Lake Michigan's western shore. The park and beach invite the community to enjoy one of the only public beaches in Lake Bluff. Rustic in design, the park and beach are known for its connection to nature along the bluffs of northern Illinois. The site is used year round as a location for walking, enjoying the lake front, and boating. During the summer, the site gets an increase in users with swimming, picnicking and beach volleyball along with Park District programs.

Existing beach amenities include:

- Two guarded swimming beaches
- Playground equipment
- Two shelters with fireplaces
- Charcoal grills
- Restroom facilities
- Complimentary games
- Complimentary beach chairs
- Kayak rental

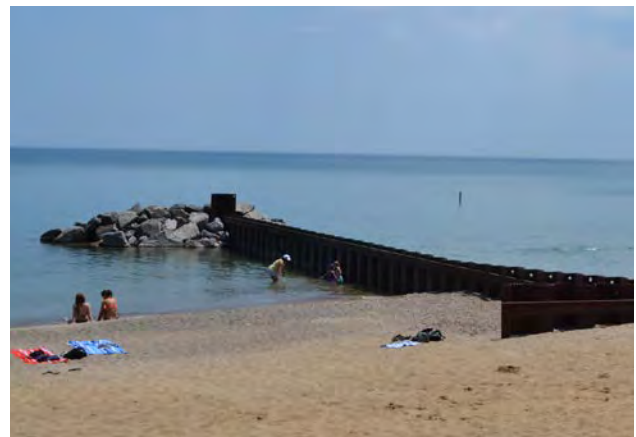
Beach and Lake Front

Sunrise Park and Beach is considered a hidden gem among Lake front beaches. The beach underwent major improvements in the late 1990's to stabilize and expand sand areas. Shabica and Associates, Coastal Engineers, created and implemented an improvement plan. Work included the addition of large stones at the base of the bluff to protect it from further erosion. Today, those stones are partially buried in sand and bluff soils.

In order to maintain sand on the beach and reduce wave action, coastal groins extending into the lake are strategically located. These are made up of corrugated steel, rock, or a combination of the two. The various groins range in condition. Most of the stone groins are in good condition, however most of the steel groins have holes worn through them.

Recommendation:

The groins should be reviewed for current condition. Action should be taken to ensure continued protection of the beach through the groin system.

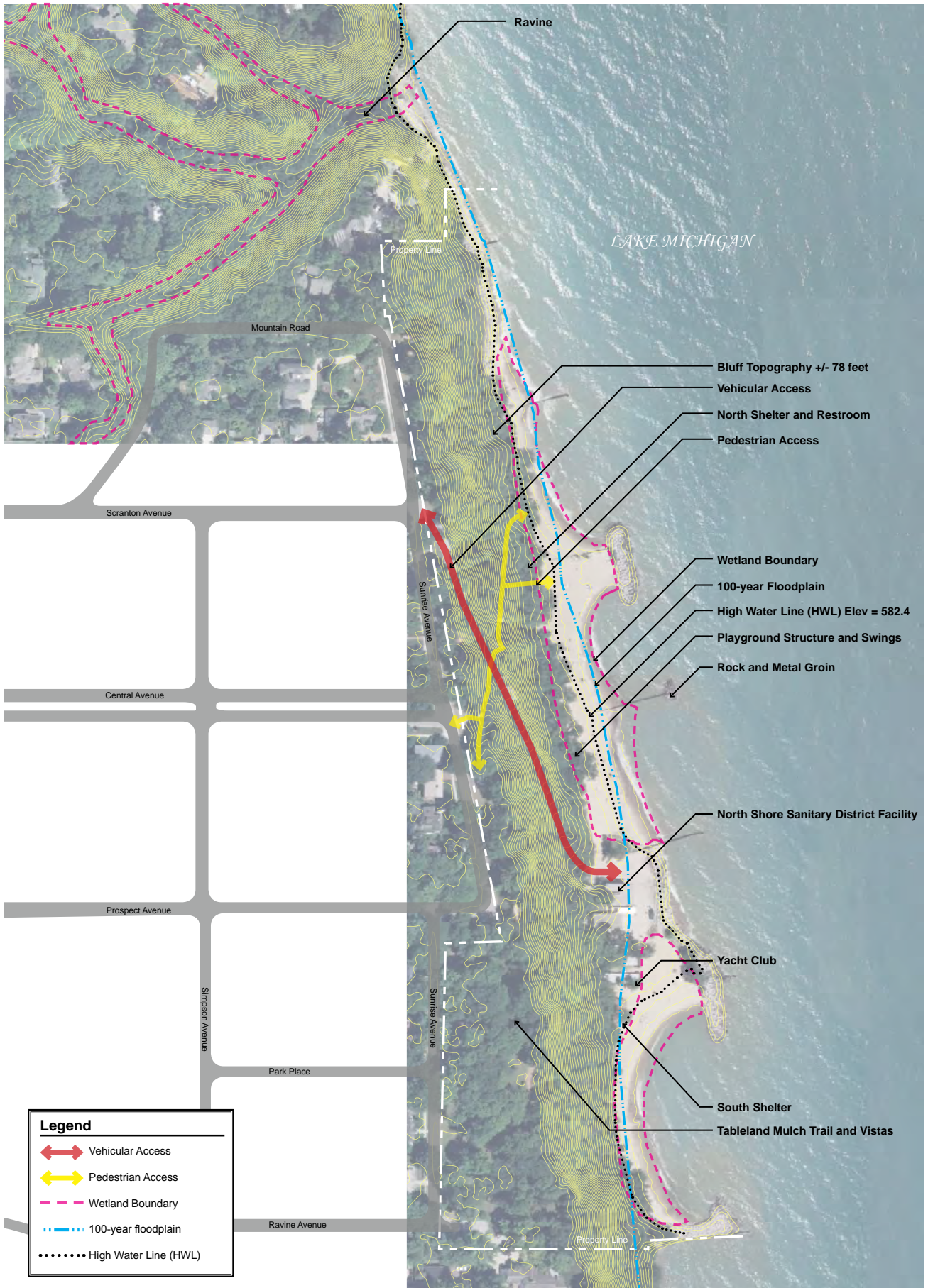


Water Levels

Lake Michigan water levels cycle higher and lower with up to a 6' vertical difference. During the 2012 and 2013 beach season, the lake levels were historically low giving a large beach area. During the 1990's the lake levels were much higher giving a much shorter beach.

Recommendation:

Planning must take into account the varying levels of water that effect the erosion and amount of beach available.



Existing Conditions Plan



Bluff and Native Plantings

Native planting along the bluff are a necessity to the health of the bluff system. There are various vegetative communities represented between the tableland at Sunrise Avenue and the beach. Seventy-six feet of grade changes creates the bluff that Lake Bluff is named for.

A Bluff Vegetative Management Report was created by P. Clifford Miller and Associates in 2012-2013. The report identifies major woodlands, mesic forest and meadows located on the bluff with an extensive review of each vegetative community. As part of the report, suggested vistas along Sunrise are identified that fit with the site and vegetation.

At the base of the bluff near the NSSD building, the Lake Bluff Open Lands Association (LBOLA) maintains a native prairie and beach grass area. The Waterfront Master Plan incorporates both the LBOLA area and the Bluff Vegetative Management Report as part of the overall plan.



Tableland and Mulch Trail

Along Sunrise Avenue between the road and the edge of the bluff, there is a large lawn area with deciduous trees creating a shaded park area. The area, called the tableland, is used for viewing the lake, weddings, events and general park play.

At the edge of the bluff, a mulch path runs along Sunrise Avenue and the tableland. There are twenty-three memorial benches scattered along the trail. Additionally, a bike rack, rail fence and signage can be found along Sunrise Avenue.

Overall the park has a worn look along Sunrise Avenue.

Recommendation:

Add landscaping to improve the look, designate locations for entry signage, do not allow any additional memorial benches, and group benches where possible.



Vehicular Parking and Access

The partnership between the Park District, Village of Lake Bluff, and the North Shore Sanitary District (NSSD) has had a significant impact on the vehicular access to the beach. The road that leads down the bluff was built for maintenance access of the NSSD facility. When the road is not being used for service of the buildings, Park District staff, Lake Bluff Yacht Club, and park users are able to utilize the road for drop-off purposes including maintenance equipment and larger personal items when the shelters are rented. Two ADA parking stalls are also located near the NSSD building for users to access the beach. Parking at the beach is prohibited except the used listed above.

Vehicular on-street parking is available along the east west streets as posted by signage. No parking is allowed along Sunrise Avenue. All parking east of Moffett Road is prohibited after 9:00 PM unless a special parking permit is obtained from the Park District.

Pedestrian Access

There are a variety of paths for users to enjoy the site. At the top of the bluff on the tableland, there are multiple vistas that can be viewed along the mulch trail with seating opportunities along the path. Access down the bluff to the beach includes the following routes.

At the south end, a gravel trail is accessible between Prospect Avenue and Central Avenue. This path is lit with bollards in variety of conditions. At Central Avenue, the main entrance to the site, a flight of wooden stairs meet up with the south gravel trail. This middle option is available for more able bodied patrons.

Due to the low traffic and with it being gated most of the time, a third option down the bluff is the use of the paved asphalt road at Scranton Avenue. Although not publicized as a pedestrian access, users use this as the north access down the bluff.



Yacht Club

Lake Bluff Yacht Club is a private member based Sunfish sailing club. It provides sailing programs, including racing instruction, family participation, and social activities. Located south of the NSSD building, the Yacht Club has primary access to the lake on the south beach as designated by a sign. The Yacht Club leases the property which is owned by the Village.



Dog Beach

Located at the northern edge of the existing beach, the designated dog beach area allows visitors to bring their canine companions to enjoy the lake. This area is gated at the south with a split rail fence and has signage posted with the rules and regulations. North of the dog beach is an area of stone and concrete rubble which is part of the site but currently un-welcoming for beach use. The beach sand is more gravelly at the dog beach than other beach locations making it less desirable.



Playground

The playground area is located just north of the NSSD building and centrally located along the beach. Close to the toe of the bluff, there is no designation between the playground area and beach. The playground surfacing which is beach sand, does not meet current standards. The playground is at an age where replacement is desired.



Sand Volleyball Court

One sand volleyball court is centrally located on the beach and oriented north-south. The court is available for use on a first come, first serve basis unless it is scheduled for a tournament. The posts are aluminum and along with the net, they are showing signs of wear.



Existing Signage

Signage at the park and beach include park identification, wayfinding, and regulation signs. These are located throughout the site.

At Central Avenue, a site sign welcomes patrons to one of the main entrances. A safety and regulation sign is also at the top of the bluff. This sign identifies when lifeguards are on duty and the swimming conditions. This sign is not particularly clear on swimming conditions.

Recommendation:
The swimming condition should be replaced with an updated sign. An additional sign should be placed at the other entrances to the beach along the top of the bluff and all signage on site should be reviewed to create a congruent and welcoming message.



Ravine

Adjacent to the northern end of the park, there is a ravine between the bluffs. There is an easement in the middle of the ravine that is owned by the Village and the slope of the ravine on either side is privately owned. A foot trail can be seen at the bottom of the ravine, however it is not marked as a trail. Residents use this ravine as a rail to the lake front.

Recommendation:
Pursue the possibility to create a formal agreement between the Village and the Park District for permanent access to Sunrise Park and Beach using the ravine.



Restroom and Storage Building

The restroom and storage building is a one story residential style building with a hipped roof with cedar fascia and soffit and standard three tab architectural shingles. The west end of the building is partially built into the hillside and the east side faces Lake Michigan. There are two small windows on the west side of the building, two doors on the east side, and one door on the north side. The building has no particular architectural style, and it does not reflect the character of the neighborhood.

The roof is in average condition, and while the shingles are stained and rather old looking, they do not appear to be in danger of failing. It appears the building has been re-roofed, as there are some areas where another layer of shingles underneath this roof can be seen. The cedar fascia and soffit on all four sides of the roof is in very good condition, and appears to have been recently repainted.

On the outside of the building, all of the original doors and windows have had sheet steel doors or window covers fabricated and installed over the original openings, and they have been anchored directly into the face brick. The condition of these door covers is very poor, as they are dented, rusty and generally beat up. Aesthetically, they detract from the appearance of the building and have an industrial look that is not appropriate for a building of this type.

There are two toilet rooms in this facility, and the condition of these two rooms is identical. The exterior walls and some of the interior dividing walls are yellow glazed concrete block. The interior wet walls are covered with Fiberglass Reinforced Plastic (FRP) panels which is not very attractive. There are a couple of fluorescent lights on the ceiling and an exhaust fan can be heard when operating.

The condition of the plumbing fixtures is average for a building of this age. The floor itself is an epoxy coating over the concrete slab which has worn off in many locations. The lavatory countertop is a solid surface material which is in fairly good shape.

There are two main concerns with the toilet rooms. First, the condition of the toilet rooms themselves is very unappealing in terms of general finishes, colors and condition. Second, the toilet rooms are not ADA accessible. There is no accessible toilet, urinal or sink, and the entry sequence into each room is very tight and does not provide the required maneuvering clearances. Due to the small size of each room, in order to remodel them and make them accessible, one toilet would have to be removed in order to provide the proper size facility. If an option is to renovate this building, both toilet rooms should be currently gutted and remodeled to ADA compliant facilities.

At the south side of the building, there are two rooms. The one room in the southwest corner contains fire alarm, electrical and plumbing equipment, including a sewer ejector pump. The southeast room is cluttered with a small refrigerator, coat hooks, old furniture, equipment, etc. The condition of this room is acceptable for storage, but not for an actual work space.

Recommendation:
Based on the assessment of this building, it is possible to renovate the building to bring it up to current standards. However, the building is so small, and lacks architectural character, so another option for consideration would be to build a new building, in an appropriate style, that provides the necessary space and facilities and represents the character of Lake Bluff.





North End Picnic Shelter

The construction of the picnic shelter is very similar to the restroom and storage building. It uses the same brick, roof structure, shingles, fascia and soffit. However, this building has a perimeter partial height wall around three sides of the building, and the east side is completely open to the lake. There is an exposed concrete slab, which is in generally good condition. The stone fireplace in the corner of the building is in generally good condition, although it would benefit from a good cleaning.

The condition of the brick around this building is very similar, with the same amount of cracking and broken bricks. On top of the partial height brick walls is a concrete sill which is in average to slightly below average condition, with some cracking. It would benefit from a good cleaning.

The columns supporting the roof structure are 4" square painted steel columns in pairs, except for at the corners, where they are grouped in three. Their condition is very good, and they appear to have been recently painted.

The underside of the ceiling is 4' x 8' sheets of grooved plywood, painted to match the fascia and soffit, and is in generally very good condition. There are two light fixtures mounted to the underside of the ceiling, which are not particularly attractive.

The main concern of this facility is that, like the building to the north, there is no architectural style to this building. These two buildings together appear to be nothing more than simple brick boxes with hipped roofs on top. While there are no imminent concerns on this facility regarding structural integrity, we feel that for a park and as special as Sunrise Park, something more in keeping with the architecture of Lake Bluff should be implemented.

A functional concern regarding these buildings is the fact that there is not ADA accessible route to get to the buildings from the parking lot.



South End Picnic Shelter

The South shelter was built in the 1990's and is generally in very good condition. The style is similar to the north shelter and includes a large fireplace. Like the north shelter, the back wall is a knee wall and there is no ADA accessible route to access this shelter. No rest rooms existing at the south beach.

Recommendations:

The North Shelter, South Shelter and Restroom should meet current accessibility standards including a route to each.

If toilet facilities are desired at the south end, it is recommended that a new, separate facility be constructed on this portion of the beach.



Existing Sanitary Pumping Station

Between the beach at the north end and the south end, at the bottom of the driveway leading down from the bluff, a existing which is owned by the North Shore Sanitary District (NSSD). The building itself is a simple, utilitarian two story flat roofed brick building with no architectural style at all. Its location, between the two ends of the beach, is less than desirable, as visitors to the beach need to walk past it, through the parking lot, to get to one end of the beach to the other. There is no option to relocate the building.

Recommendation:

Relocate the emergency generator to make better use of the asphalt area and reduce the visual clutter. To improve the look of the NSSD buildings, either design a new façade that could be built over the existing building or install a metal screen for vines.

Chapter
2

Site Program



In order to create a foundation on which to successfully develop a master plan, the planning process begins by defining the site program. The site program is based on all the input and work gathered by the Advisory Board along with the professional assistance of P. Clifford Miller and Associates, Shabica and Associates and the staff of the Lake Bluff Park District.

The program was presented at a public meeting with the both the Advisory Committee and Park District Board. The following program and images are the elements and amenities that the group agreed would form the program for the site.

Program Elements

- Sense of Entry
- Pedestrian Access
- Vehicular Access
- Restore / Enhance Natural Areas
- Recreational Opportunities
- NSSD Building
- Restrooms, Shelters & Storage
- Technology
- Aesthetics

Planning includes understanding the opportunities and challenges that each site, community and project present. Below are the major items identified during the early planning process:

Opportunities

- Community Involvement
- Lake Michigan
- Amazing Site
- Grant Funding

Challenges

- Site Access
- NSSD Building
- Lake Michigan
- Bluff

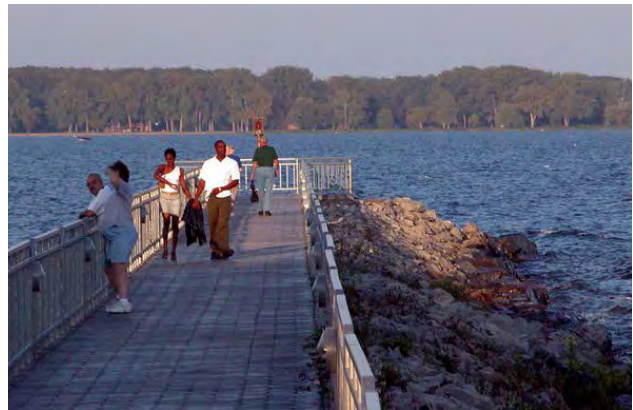
1 - Sense of Entry

The site has amazing views of Lake Michigan from the entry at the bluff to walking out on the beach. The walks, overlooks and entries should capture the beauty and views that make this site great. Incorporating signage and sculpture at entry points and on pathways can enhance the experience. Finally, pathway lighting should allow a safe access to the beach while meeting dark sky criteria and low bollard type lighting.



2 - Pedestrian Access

Access to all amenities is important. At both beach side and the path down the bluff, a stable slip resistant durable material must be used to achieve this. Whereever possible, materials should be natural to fit the site. Capturing views and adding lookouts along the path to the beach is also a key component to consider as implementation moves forward.



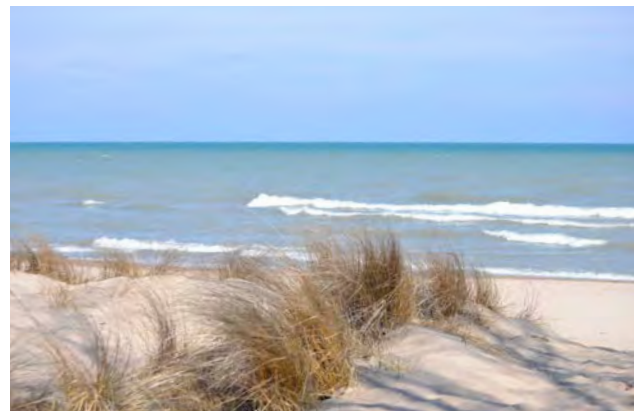
3 - Vehicular Access

Understanding the need for vehicular access down the bluff, it is important to limit the use of heavy traffic flow down a road that is used primarily by pedestrians and service vehicles. Through retractable bollards and an electronic key pad, limited access of vehicular traffic can be achieved.



4 - Restore / Enhance Natural Areas

Following the recommendations set forth in the Bluff Vegetative Management Report, existing vistas shall be maintained. Additional understory plantings at the tableland as well as areas for native dune grass should be incorporated. The natural systems of the bluff and beach are part of the site that should be respected. Part of this restoration includes the removal of construction debris located on the bluff.



5 - Recreational Opportunities

Recreational activities are an integral part of the site. Where ever these can be improved or expanded while fitting into the natural beach setting, they should be. Amenities that meet the communities desired include a nature playground, swimming, sand volleyball, fishing, continued boat access and beach use with canine companions. New uses may include interpretive signage for the natural areas and accessible pathways for people of all abilities to access the site elements.



6 - NSSD Building

The NSSD building, generator and utilities at the beach site have created strong negative opinions. Being centrally located, the area is an eyesore between the south and north beach areas. Major improvements to this area should include a visual barrier or wall to ensure the functionality of the pump house is maintained while improving the aesthetics. Finally, a connection between the south and north beaches would create a better use of the site.



7 - Restrooms, Shelters & Storage

Adding to the rich historic presence on the beach, all new restroom and shelter buildings should follow the architecture of the Village of Lake Bluff and the surrounding residential areas. Building architecture and color palette should maintain the character of Lake Bluff.



8 - Technology

Technology as a non intrusive element at the site will increase visitor use with wi-fi capabilities and safety with added emergency telephones. Also, this will allow Park District staff to be more efficient with access to their main computer system. These elements may be less of a physical improvement than overall system upgrades for the Lake Bluff Park District.



9 - Aesthetics

The aesthetics of the site should maintain an existing natural look and feel. Improvements should complement the natural beauty of the bluff and beach while enhancing views and access as visitors move through the site. Elements that create visual clutter should be eliminated.



Chapter
3

Bluff Restoration



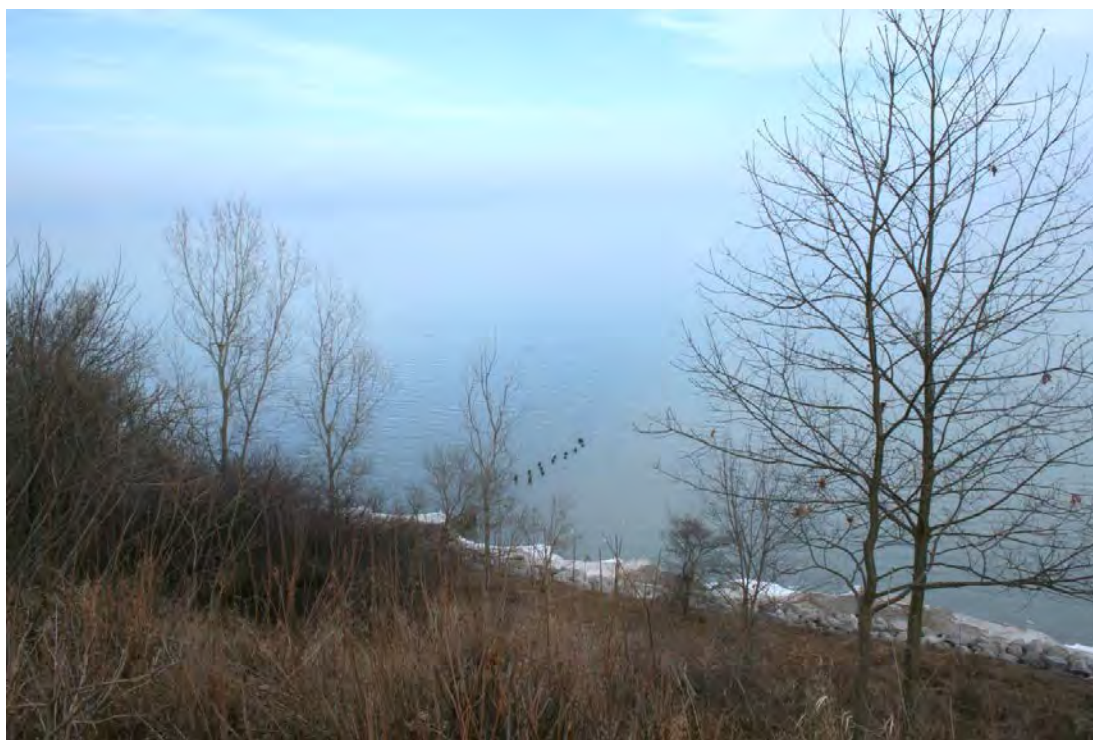
Bluff Restoration



A focused bluff restoration and management manual along Sunrise Park and Beach was prepared by P. Clifford Miller, Landscape Artistry. This involved an extensive study of the site and coordination of priorities with the Park District Board, staff, and community members. The following section includes the final report as adopted by the Board of Commissioners and Advisory Committee.

Sunrise Park and Beach

Bluff Vegetative Management Manual Addendum to Management Report July 2012



P. Clifford Miller, Inc.
May 2013

Landscape Architecture



Natural Areas Management

Sunrise Park and Beach Bluff Vegetative Management Plan

Manual for Restoration

As an addendum to the Sunrise Park and Beach Bluff Vegetative Report, this manual is intended to provide the technical support and act as a resource for the implementation of the restoration work outlined in the report. The existing conditions, recommendations, and overall goals for the plant communities present on the bluff are identified in the report and this manual describes the detailed procedures required to achieve said results.

As outlined in the report, the primary goal of the vegetative management on the bluff is to protect and restore the mesic forest throughout the central core by improving the quality and diversity of the native vegetation, while maintaining the meadows framing the forest on the north and south, and the transition zones between the two.

The management objectives needed to achieve this goal include, but are not limited to: amelioration of soil erosion; the elimination, or at least the reduction of, competition by herbaceous and woody exotic and invasive plants; increased diversity of the understory and ground layer vegetation in all sections of the forest and field; and maintain the vistas without compromising the vegetative integrity of the forested slope. It is important to maintain the priority of vegetation over view if the primary goal is to be achieved

The prescriptions for restoration are given in bullet point format for each of the five major management zones pictured in the map “Plant Communities and Management Zones” in the 2012 report. As three of the five zones refer to the same plant community and are based on quality assessments, it is worth noting that the eventual goal will be to only have three zones of management. This will simplify the long term stewardship.

Open Successional Meadow – South & North

These meadows are overrun with advantageous trees, shrubs, Eurasian grasses and Crown Vetch (*Coronilla varia*) throughout. Staghorn Sumac (*Rhus typhina*) and Willow (*Salix* sp.) were the most frequent invasive native shrubs observed. Basically, the meadows are fast disappearing due to aggressive colonization of several woody plant species. Removal of such and the introduction of controlled burning will be the primary methods by which we gain control of these areas.

Restoration prescriptions:

- Spot treat exotic herbs with Round-Up (glyphosate), starting in spring with garlic mustard and goutweed. Spray/treat the crown vetch, in summer when vetch is in bloom and continue indefinitely on an as needed basis. It will take several applications and a couple of years to gain back control of the areas infested with the vetch. Use Round-Up early in the season or, if advantageous grasses are present use 2,4-D. Garlon 3A (triclopyr) and Clopyralid with a surfactant are most effective mid to late season.
- Cut and treat the aggressive native and exotic brush and young trees (except for mesic forest species on perimeters) when the herbaceous layer is dormant or approaching dormancy, except in areas devoid of any desirable forbs, where treatment can occur at any time. When feasible, frozen ground is preferred on sensitive slopes/soils. In winter treat stumps/cut stems with Garlon 4. Follow up with spot spraying of basal sprouts as necessary with 2,4-D or Round-Up, again, dependent on surrounding vegetation.
- During each ensuing late winter or spring, plant, using plugs or by overseeding, native grasses and sedges (see bluff seed mix) on cleared areas largely devoid of existing desirable herbaceous vegetation.
- After the undesirable exotic herb vegetation is gone and grasses are well established, overseeding with desirable native forbs can be done every winter for 3 years.
- Burn every 2 to 3 years to keep any invasive shrubby vegetation under 3 feet in height. Occasional cutting and stem treatments will be required every few years (or ongoing under regular stewardship) to prevent the woody vegetation from reestablishing colonies.

Scrub Woodland

Two small scrub woodlands lie on either end of the forest. Both appear to have formed on highly altered sections of the slope proper; to the south mainly through dumping of concrete rubble several decades ago and to the north, severe erosion and slumping of the slope, also appearing to have occurred many years ago. They are dominated by a dense “jungle” of young, second growth, invasive woody trees, saplings and shrubs, and exotic woody plants. Little native herbaceous layer is present, although small patches of the more aggressive species of native plants are sporadically found throughout, as are a few of the mesic forest trees, such as basswood (*Tilia americana*). Complete restoration of all strata and the ground layer would be needed. If they were converted to a mesic forest to increase the acreage of this community, they would still not add forest continuity, since the adjacent meadows separate them from the central core forest. This fact, combined with the tremendous amount of labor needed to restore these communities, makes these areas a low priority, with the return not necessarily warranting the investment. It is recommended that any work in these two zones be held off until all other units are completely restored.

Mesic Forest “C”

Two areas of “C” quality mesic upland forest are present, as shown in the 2012 report map. Both are severely disturbed. The southerly one requires a less complex management regimen. It has large characteristic mesic forest canopy trees (Sugar Maple (*Acer saccharum*), Basswood (*Tilia americana*), and Red Oak (*Quercus rubra*)), but little subcanopy or quality understory, and a very depauperate herbaceous layer. Such low diversity and structurally altered communities take a long time to repair. Furthermore, in these Mesic Forest “C” areas, large populations of exotic species are present in all strata, including Norway Maple (*Acer platanoides*) and Black Locust (*Robinia pseudoacacia*) in the canopy, Tartarian Honeysuckle (*Lonicera tatarica*) in the understory, and, in the herb layer, a very large colony of Goutweed (*Aegopodium podagraris*). Oriental Bittersweet (*Celastrus orbiculatus*) dominates some of the areas at the expense of most other woody plants. On the native side, dense Chokecherry (*Prunus virginiana*) colonies are present and create areas of deep shade.

Restoration prescriptions:

- Spot treat Garlic Mustard and Goutweed colonies with Round-Up (glyphosate) starting mid-spring, carefully avoiding sections with vernal wildflowers present, then treat entire colonies again with Round-Up in late summer after the vernal wildflowers have gone dormant.
- Begin removal of exotic tree species by cutting and removing trunks after the herbaceous layer has gone dormant or in winter, treating stumps with Garlon 4 (triclopyr). Aggressive native shrub species and non-native colonizers like Honeysuckle (*Lonicera* sp.) and Burning Bush (*Euonymus* sp.) are to be cut and treated as well.
- In the following late winter or early spring seed in native grasses and sedges (see bluff seed mix).
- Plant areas cleared of exotic trees with young Red Oaks and other trees from the recommended plantings list in spring or fall (not necessary where existing canopy trees are present in mixed sizes). Potted woody plant material is recommended for ease of handling and to minimize disturbance to the bluff slope soil profile.
- As control of the non-native herbs nears completion and the stands of native sedges and grasses become established, overseeding with desirable native forbs (see page 37 in report) can commence. Species already present in the Mesic Forest “A” units should be in the earliest plantings. The fleshy seeds of many of our vernal flowers will need to be collected, perhaps at Ravine Park and nearby private properties by informed volunteers as part of a Work Day or such, and immediately sown, as they need to be ‘fresh from the vine’ and do not typically succeed in establishment as a part of the commercially available seed mixes.
- Also at this time begin the planting of native shrubs and small trees, such as Viburnum, Amelanchier species, and others (see page 36 in report).
- Selectively thin areas of Chokecherry in winter and plant sedges and native forest herbs in them the following spring.
- Throughout the restoration, check for and spray resprouts of exotic shrubs and trees with Garlon 3A or Round-Up late spring through late summer.
- Continue all phases of this process until control of exotic herbs is the only task remaining.

The second area of Mesic Forest “C” is located at and around the juncture of the access roads. Construction of these roads occurred in what was once Mesic Forest “A”, therefore the extent of this high quality area has been reduced from 50 feet to 100 feet southward and along the roadways themselves. Many cultivated garden flowers and shrubs were planted along and above the roadways, and Creeping Bellflower (Campanula rapunculoides) has usurped much of the land above and near the roads. Soil erosion is occurring around exposed tree roots and below the concrete walls. The restoration regime for this “C” area includes all of those listed above for the southern “C” forest plus the following simultaneously:

- Remove (or salvage) all cultivars, both herbaceous and woody, near and along the roads in fall (except, perhaps, the daylilies along the upper roadway).
- In areas opened up by the removal of cultivars, plant native grasses, small shrubs and forbs, all found in the existing mesic forest, during the following spring.
- Treat exotic Bluebells and Garlic Mustard with Round-Up in early spring.
- Install erosion control matting in any bare soil already present or created by the salvage operation.
- Cut and treat colonies of Burning Bush (Euonymus alatus) and other ornamental woody plant material and apply Garlon 3A in early fall or Garlon 4 in late fall and winter.

The Mesic Forest “C” areas are the third priority for management.

Mesic Forest “B”

Two areas of “B” mesic upland forest lie on the slopes and tableland of Sunrise Park and Beach. The tableland portion of the southern section is mowed routinely and managed as a park-like grove of old canopy oaks and maples with no understory or herbaceous layer, except for the lawn. See the 2012 report, pages 17 and 29, for specific management recommendations.

Aside from the tableland, the two “B” areas have more stratification, an older canopy, and a more diverse native understory and herbaceous layer than the “C” areas, but all are still below the standards for high quality woods. Removal of exotic trees and shrubs is still needed, and both the

understory and herbaceous layer need enrichment. The latter has some diversity and populations of conservative species, but total cover is low. Soil erosion is severe in a few places and has undercut some canopy trees on the steep upper slopes, exposing root systems. Because of the hostile growing conditions in these areas, herbaceous plantings will probably not establish well enough to be effective in minimizing the erosion. Dense Chokecherry copses are frequent and without most herbaceous species beneath them.

Restoration prescriptions:

- Cut large colonies of Burning Bush and other alien shrubs in winter and treat stumps with Garlon 4; because of steep slopes and much exposed ground after removal, plant native woodland grasses and sedges there the following spring. A cover crop of annual rye (*Lolium multiflorum*) or sections of erosion control blanket may be necessary. A word of caution is necessary, as annual rye is thought to be allelopathic (subdues the growth of surrounding plants, like a Walnut tree) and known to slow the establishment of the preferred plants.
- Cut and remove scattered Norway Maples and Black Locust trees in winter and treat stumps with Garlon 4. In the canopy areas that open up as a result of the removals, plant small Red Oaks if enough available light is present.
- In the first spring, after clearing of the unwanted woody vegetation, plant a mix of rapidly growing native grasses, on bald slopes and around and below exposed canopy tree root systems; monitor annually and consider replenishment and shrub planting if erosion is not checked.
- Thin dense Chokecherry colonies by cutting only, and plant native shrubs such as Witchhazels (*Hamamelis* sp.), Pagoda Dogwood (*Cornus alternifolia*), Serviceberry (*Amelanchier* sp.), and other shrubs as per the planting lists in the report, in the openings around them; such understory plantings are recommended throughout the “B” sections.
- Increase population sizes of existing herbaceous species through seeding in late winter and planting plugs, if feasible; add species not found in the “B” zones, using the list on page 36 of the 2012 report.

The Mesic Forest “B” areas are the second priority for management action.

Mesic Forest “A”

The two Mesic Forest “A” remnants are examples of what a high quality forest community should look like, both structurally and compositionally, although the latter could use enrichment with additional conservative forest forbs as the herbaceous layer is the weakest component in the composition. The “A” forests have a mixed age canopy with well-spaced trees, several strata, a nearly full complement of characteristic shrub species, and a forb component of forest herbs usually found in many grade B high quality forest remnants which are on the Illinois Natural Areas Inventory. Some exotic species require treatment as they are in low numbers now and easily controlled. The lower than expected ground cover (typical of INAI grade A forests) may be due to the presence of Chokecherry clones, which have only dead leaves and bare soil beneath them. The brief management prescription for these “A” remnants is as follows:

- Cut any exotic shrubs in winter and treat stumps with Garlon 4. Monitor for resprouts.
- Seed in native herbs, sedges, and grasses on a few steep bare soil areas. Again, annual rye or erosion control fabric may be necessary, depending on the location.
- Thin and/or completely remove some of the dense copses of Chokecherry and replace with native herbaceous and/or non-colonizing shrub plantings; repeat such plantings in other areas lacking woodland forbs.
- Consider reintroducing some conservative species, in particular those often occurring on bluff top forests and in ravines elsewhere in the North Shore region. Plants like *Hepatica acutiloba*, *Phlox divaricata*, and *Anemone thalictroides* would all be welcome additions to the Park. One group of species not yet observed in the Sunrise Park and Beach forest is the woodland ferns, such as Fragile Fern (*Cystopteris fragilis*) and Marginal Shield Fern (*Dryopteris marginalis*).

Needless to say, the Mesic Forest “A” areas are the highest priority for management.

Three additional site-wide restoration items should be discussed in closing.


As shown on the attached graphic, the ultimate goal is to reduce the total of management zones to three: the mesic forest, the meadows, and the

transition areas between the two. As stated previously, this will aid in simplifying the long term maintenance.

As stated earlier, it would be highly advantageous to the upper bluff, bluff crest, and tableland trees if an area allowing for the restoration of a 5 to 30 foot wide strip of forest on the ledge above the bluff was set aside. Currently this area is either mowed or maintained as a wood-chipped trail. This intersection of the lawn with the slope creates a stark edge effect which negatively alters the structure and composition of the bluff forest for an unknown but significant distance into it. Leaf blowing directed into the forest buries areas which would otherwise contain native herbaceous plants. Wood chips drifting into the forest alter the soil conditions. At the nearby Ravine Park, some strips of very diverse dry mesic forest buffer the mesic ravine forest from the adjacent mowed lawns and roadways. It is recommended that the dry mesic strips of forest at Ravine Park be used as a structural and compositional blueprint (eco-modeling) for the restoration of the ledge areas at Sunrise Park and Beach, in the areas where similar light conditions exist. Plantings could be selected so as to not interfere with the viewsheds.

Finally, one of the most significant species in the mesic forest at Sunrise Park and Beach is Red Oak. Both the 2012 report and the field work for this manual noted that reproduction of this oak is occasionally occurring in the sapling and subcanopy layers. Periodic (3-year intervals) inspection of the forest should analyze all layers, including the herbaceous stratum, for continued Red Oak reproduction. If this is declining, understory and subcanopy gaps need to be created, especially near existing mature Red Oaks, through removal and/or thinning of selected Sugar Maple, Basswood, and other shade tolerant and shade-creating woody plants. This will facilitate natural oak regeneration and/or facilitate the successful planting of Red Oak saplings. Keeping sections of the mesic forest open enough to support the regeneration of Red Oak will also ensure adequate light is reaching the forest floor, helping to maintain a healthy herbaceous component.

In summary, this manual should be integrated and coupled with the 2012 management report. Together they will ensure that this significant natural area and asset to the community can remain as such in perpetuity. This manual should not be interpreted as unchangeable and ironclad. As the restoration proceeds, management and restoration alterations may be necessary, based on any observed deviations from paths leading to the goal



of creating and maintaining a high quality mesic upland forest on the bluff at Sunrise Park and Beach.

General Notes:

The use of herbicides in this project is recommended for the following reasons; to maximize the level of control with the least amount of labor costs; and to minimize the damage to the existing soil profile on the bluff slope. The chemicals suggested for use are typical of native restoration projects and are meant for use only by trained and licensed professionals. Spot treatments and other techniques should be utilized to minimize the need for their use.

PLANT COMMUNITIES MANAGEMENT MODELS

SUNRISE PARK
Lake Bluff Park District
5.10.2013

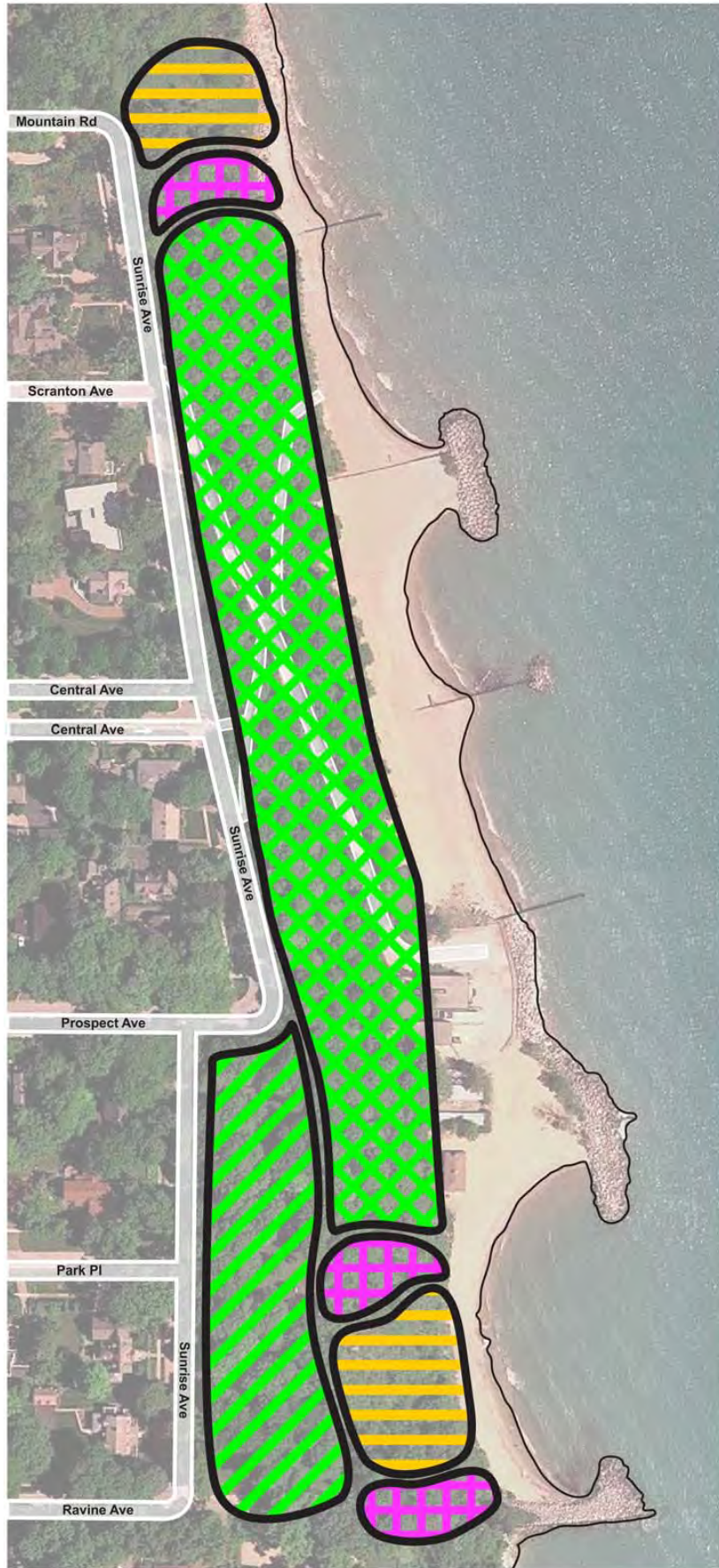
- 

MESIC FOREST
native high-quality canopy,
diverse understory
& herbaceous layer
- 

MESIC FOREST CANOPY ONLY
native overstory minus
most forest understory &
herbaceous layer
- 

TRANSITION ZONE
intersection of forest &
meadow comprised primarily
of elements of both
- 

MEADOW
native plant community
comprised of shrub
copses, grasses & forbs





Chapter
4

Master Site Plan



Process

Two concepts were prepared and presented at the public open house for Sunrise Park and Beach. All comments received at the open house or through email were compiled and reviewed. Through this process, a number of strong ideas were evident. These include:

1. New restrooms are a high priority.
2. The nature playground fits the site well.
3. Screening the NSSD building and adding a path between north and south beaches is desired.
4. The island of stone with the swim platform was desired by many.
5. Stair access off Mountain Road is a good idea but requires additional review and public input.
6. Reduce paving where possible, but accessibility is desired.

To meet the communities needs and desires, the two concepts plan presented were combined into one. The plan incorporates each of the items above along with the majority of elements shown in Concept A. To reduce paving, the proposed patio in front of the new north restroom/shelter building was reduced to an access path only. Additionally, the existing path on the tableland is shown. This path is suggested to move just west of the existing mulch path to protect the bluff from erosion.



Accessibility Requirements

The Federal 2010 ADA Standard for Accessible Design and the State of Illinois Accessibility Code are the legal standards for accessibility at all parks. When unique facilities are provided for public use, each facility type needs to have a route that meets accessibility standards to each unique element. Sunrise Park and Beach is a unique site with a number of unique facilities. To meet the Federal and State standards, the following improvements are required:

Pedestrian routes down the bluff should be updated to meet the stair tread design and handrail requirements. The walking surface should be stable and slip resistant and meet both cross slope and running slope standards. The new path and stairs is generally proposed within the same footprint of the existing pedestrian routes.

Pedestrian routes along the beach should connect the pedestrian and vehicular circulation routes and ADA parking to each major amenity. This includes the shelters, restrooms, yacht club, lookout point, playground, and dog beach with various points of beach front along the way.

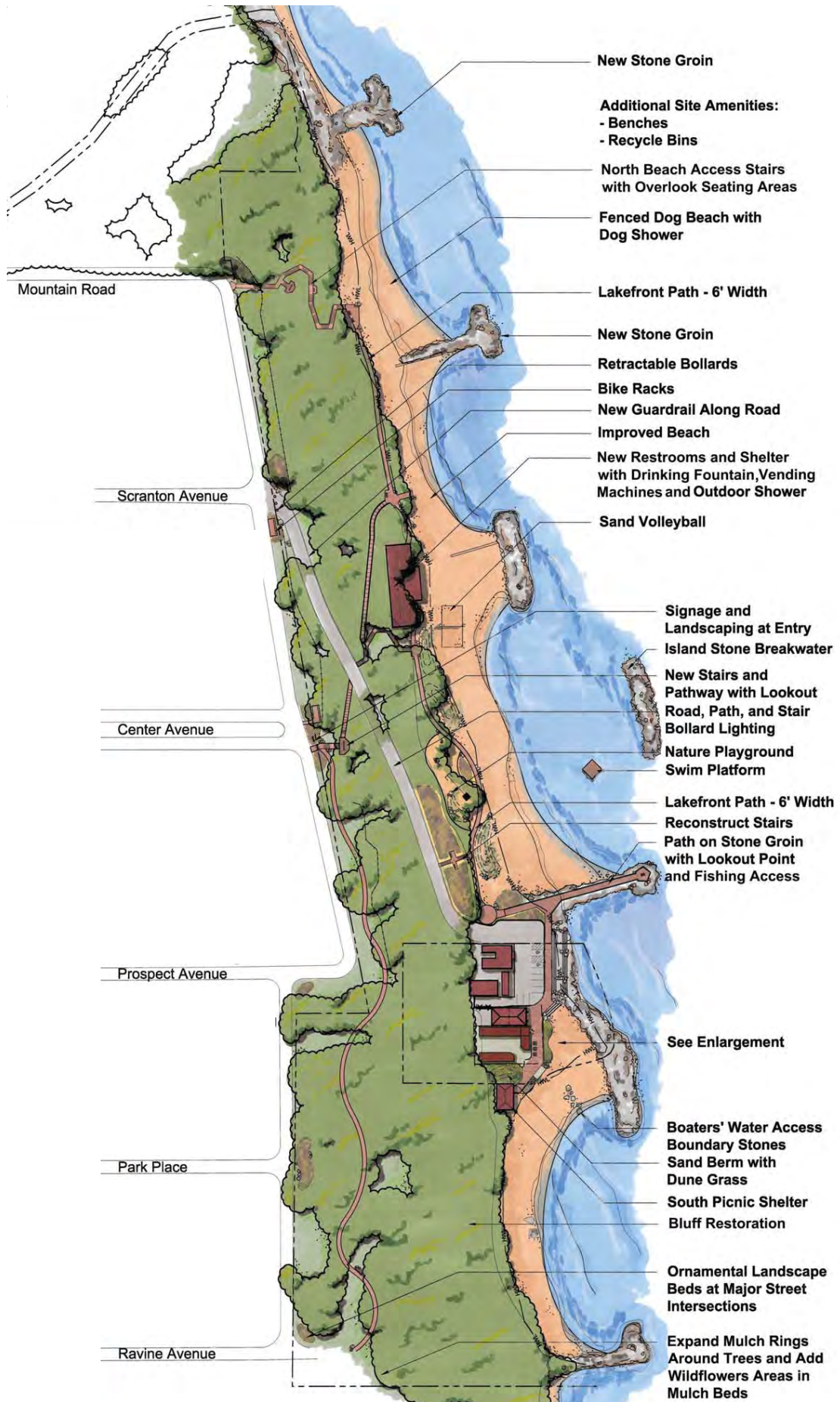
The playground surfacing and play features shall meet the Federal standards for play equipment accessibility. A sand colored rubber surface is suggested to blend into the natural environment while meeting both safety and accessibility standards.

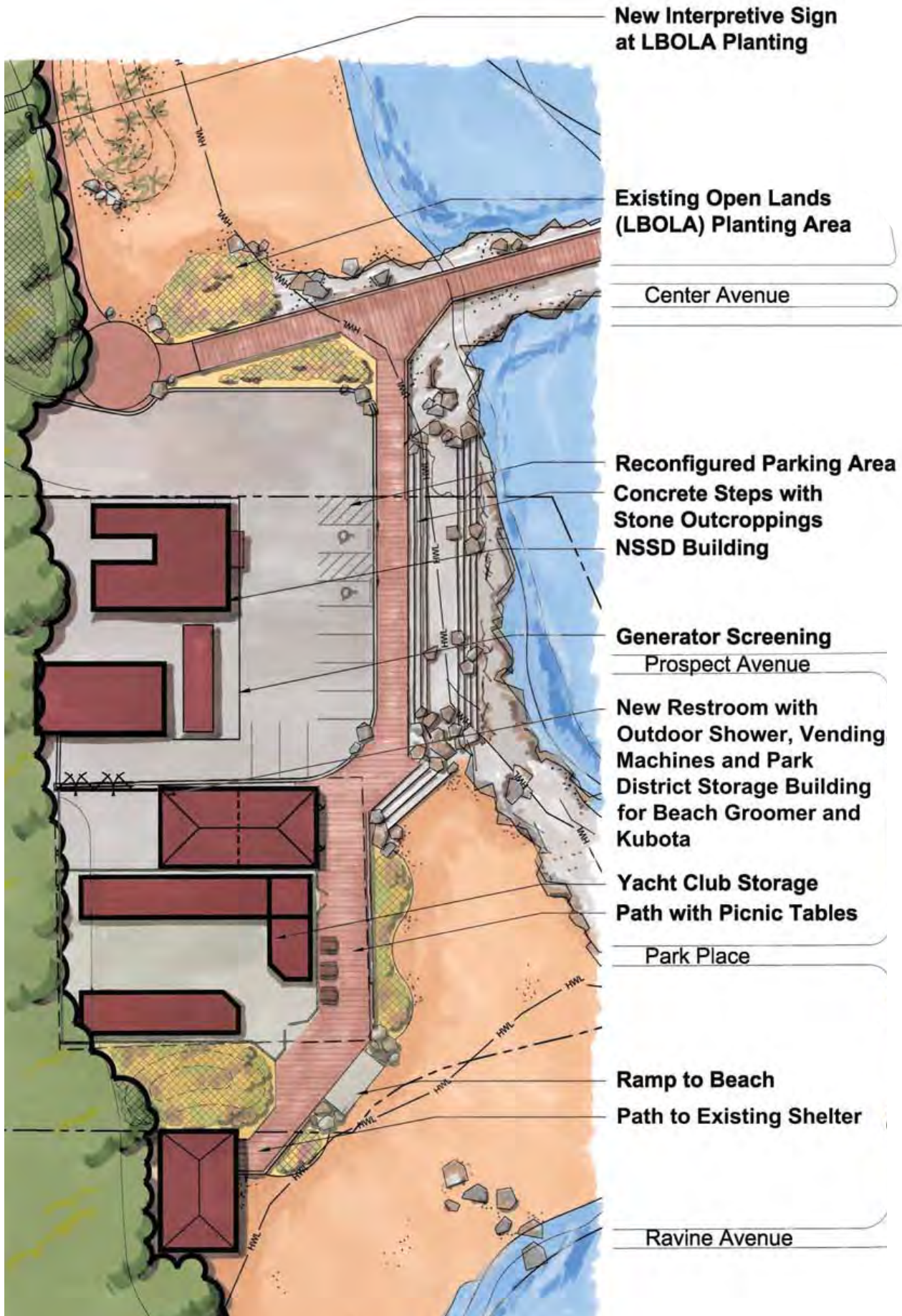
All newly built elements including restrooms and site furniture should meet Federal and State standards for accessibility.



Accessibility Recommendations

Because the beach is a unique feature for the District, elements within it are required to be accessible. To protect the natural feel of the beach, pathway width has been minimized to a suggested 6' width. Pathway materials should meet the Federal and State requirements including being stable and slip resistant. Materials for the pathway could include a boardwalk, concrete and asphalt, but in all cases should complement the natural feel of the beach. Additionally, dune grasses and berms have been added to expand the natural feel onto the beach along the new path.







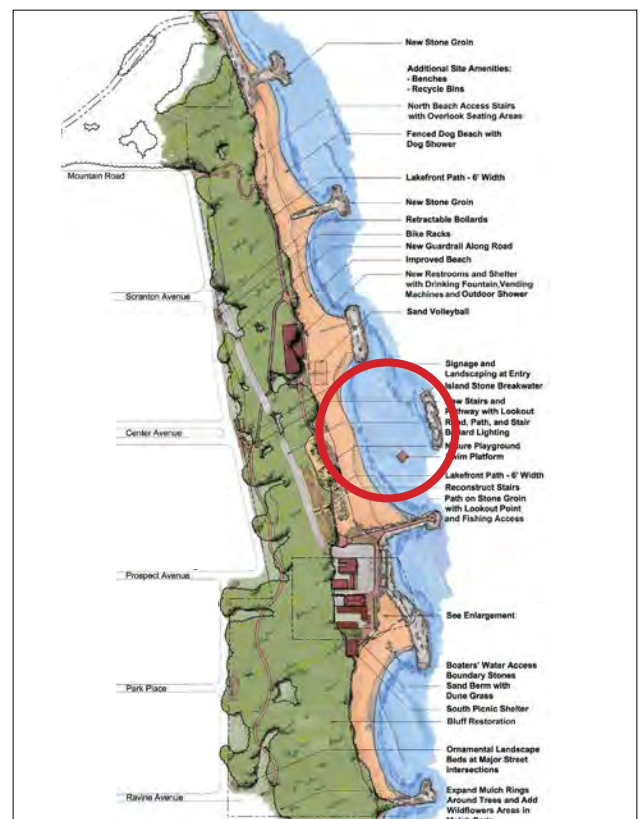
Expanded Beach with Rock Island and Swim Platform

Location Central Beach

Users Seasonal Public

Key Features Installation of the rock island expands the length of uninterrupted beach by removing a metal groin. The stone island breakwater reduces the wave action and allows a swim platform to be added. Finally, the depth of the beach will be slightly increased providing more beach.

Location Map





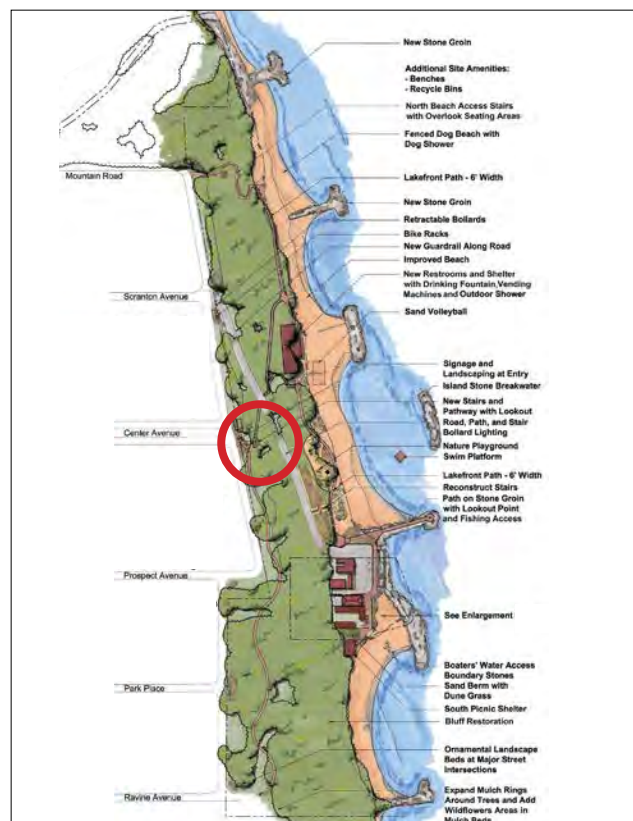
Lookout Vista at Bluff

Location Bluff Pathway

Users Year-Round Public

Key Features Walking along the pathway down the bluff, a resting area with vistas of the lake are opened as you sit within the tree canopy.

Location Map





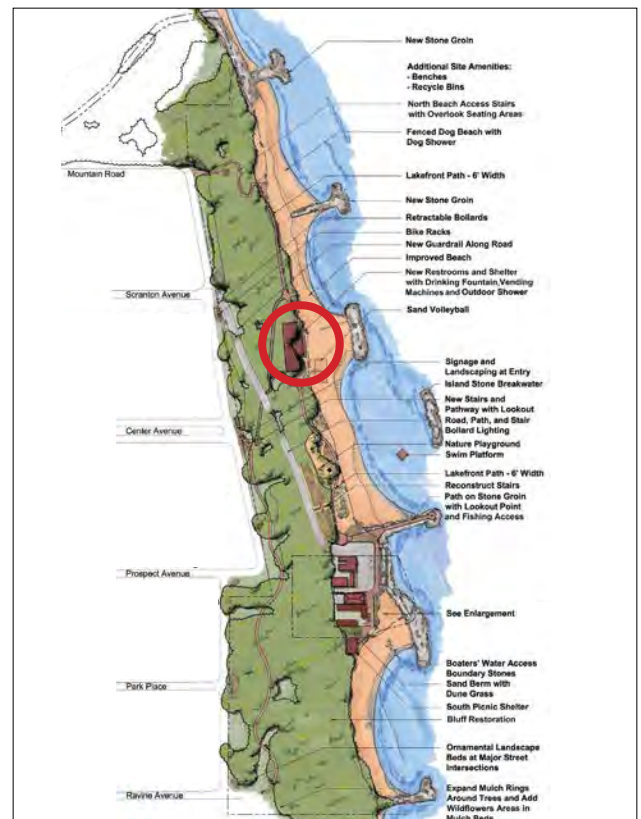
View From Under Shelter Building

Location Map

Location Central Beach at North Shelter

Users Year-Round Public & Seasonal Beach Users

Key Features View of the beach with volleyball court and sun bathing areas. A prime location for the lifeguard station, as it becomes the central point of the beach area. New dune grasses and rock outcroppings enhance the natural beach look while creating new habitat.





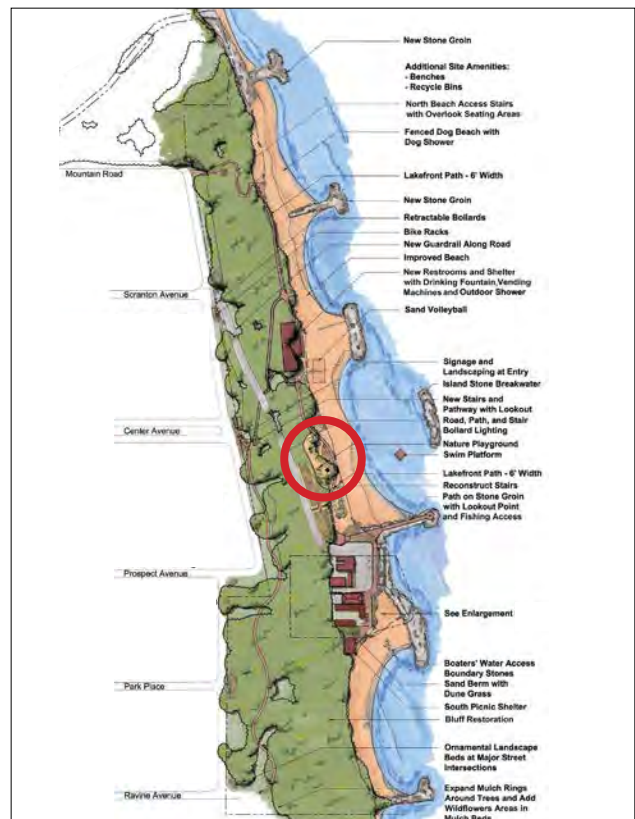
Nature Playground

Location Central Beach at Bluff

Users 2-12 Year Old Children

Key Features As a nature-based environment, this playground consists of rocks, climbing nets, spinners and swings. The surface will be a rubber safety surfacing that matches the beach color. Additional use of dune grasses surround key spots of the playground area.

Location Map





Beach Access Along Lakefront Path

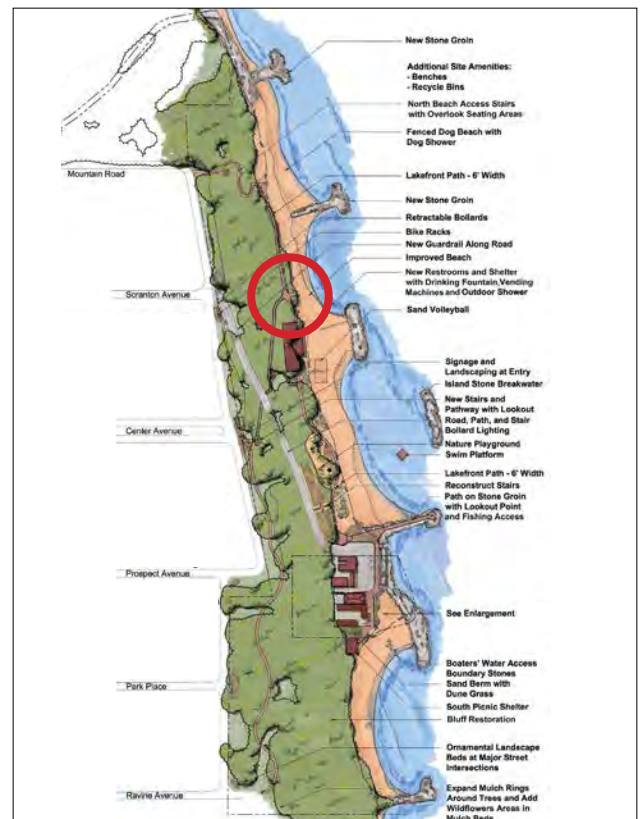
Location Map

Location Central Beach

Users Year-Round Public

Key Features Resting Area and Beach Entry

Walking down the bluff path, the view at the bottom opens up to a mini plaza space that has seating and ornamental plantings that frame the view of the lake. This location is also connected to the main lakefront path that goes north and south. Community input included creating spaces that minimize the paved footprint at each entry.





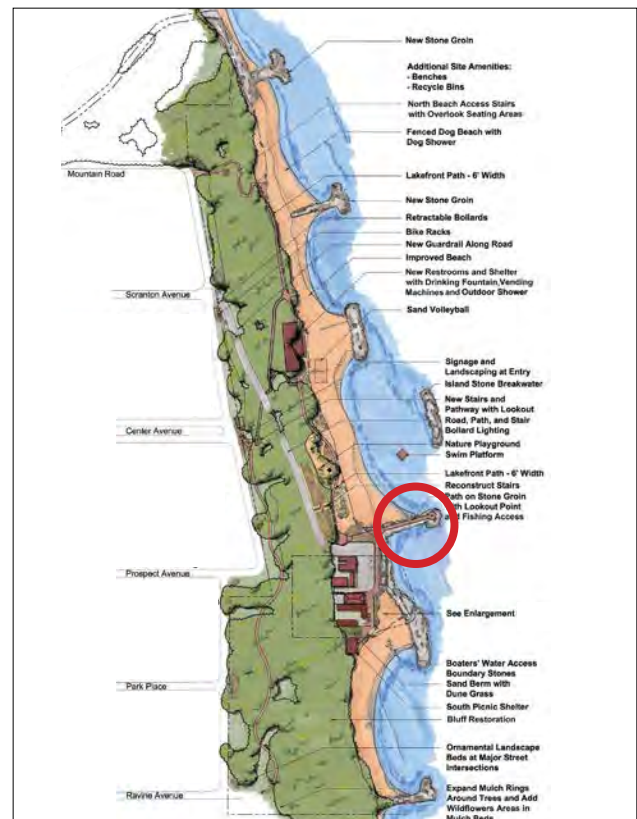
Path on Stone Groin with Lookout Point

Location Map

Location Parking Lot and Lakefront Path

Users Year-Round Public
Fisherman
Resting / Contemplative Area

Key Features An extension into the water, the lookout point is built upon the existing metal groin. The added benefit of a path system allows patrons of all abilities the experience of being out on lake.





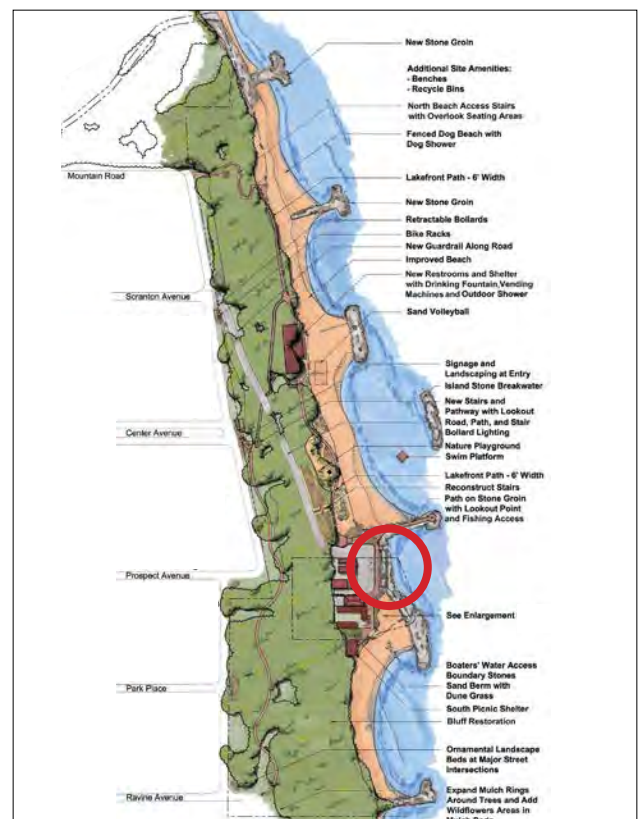
Steps with Stone Outcropping

Location Map

Location East of the NSSD storage facility and Along the Lakefront Path

Users Year-Round Public Resting / Contemplative Area

Key Features The existing large rock barrier between the parking and the lake will be enhanced with concrete stairs, rock outcropping and a pedestrian path way connecting the north and south beaches. The space will allow visitors to interact with the water or sit and enjoy the view. Stairs are aligned with the length of the parking lot and step down with stone at the lake edge.



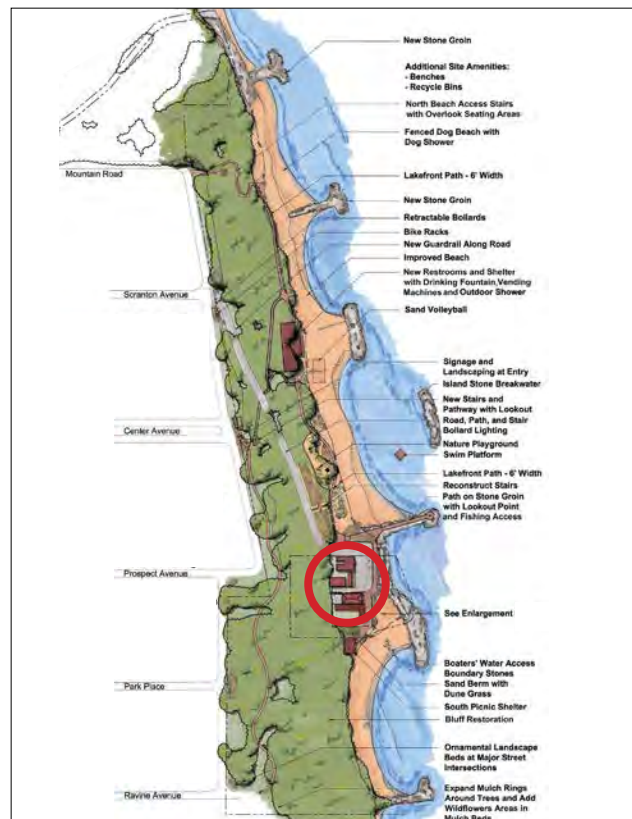


NSSD Building Green Screen

Location On top of NSSD storage facility

Key Features A visual metal screen around the NSSD building that grows live plant material. The screen can also provide an attractive barrier along the main vehicular entrance to the beach and the existing utilities and generator.

Location Map





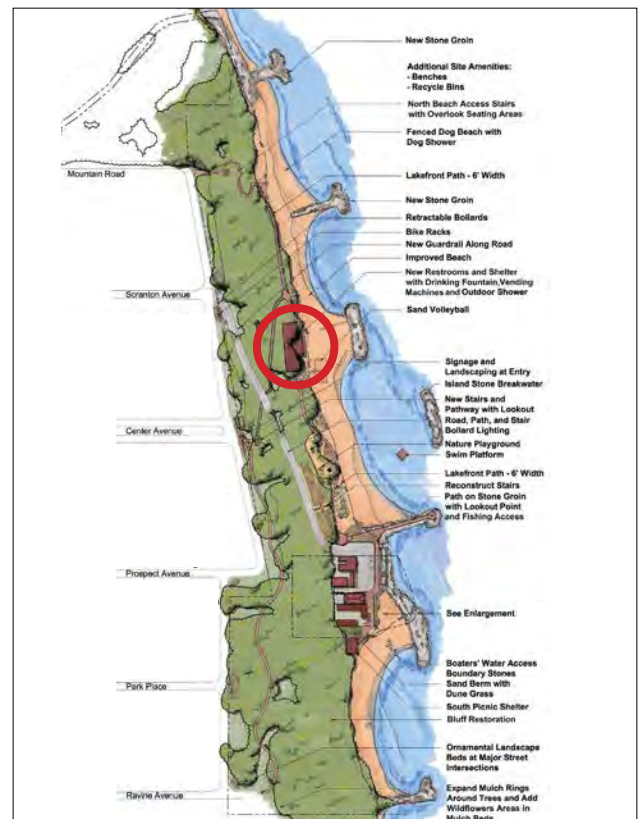
North Restroom and Shelter Building

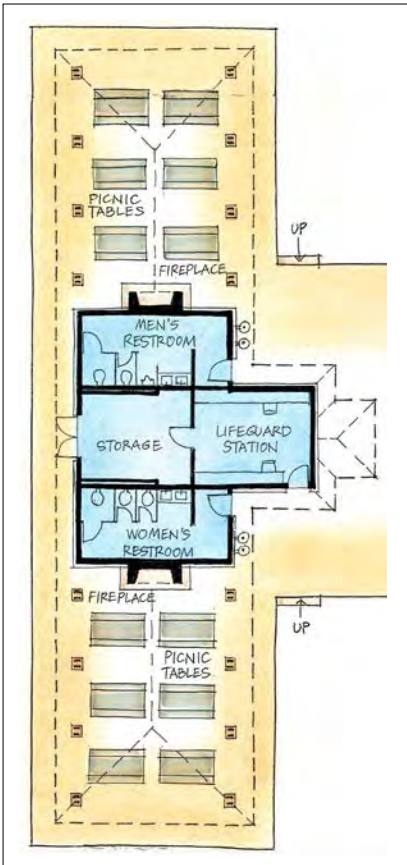
Location Map

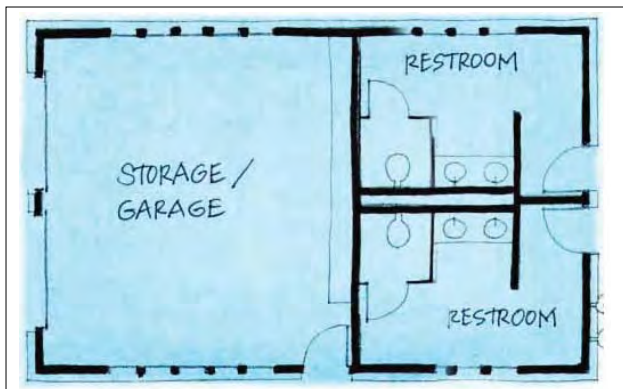
Location Central beach at the existing shelter location

Users Seasonal Public
Private Rental
Park District

Key Features The north building includes a separate women’s and men’s restroom with water fountains, a storage / lifeguard facility for Park District staffing, and shelters on either side of the main core to accommodate both drop-in and rental use at the same time.







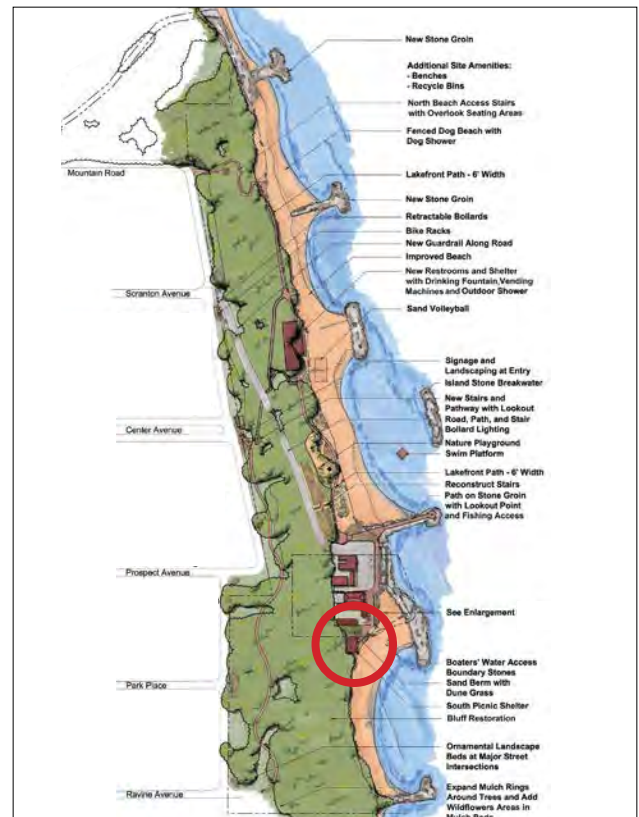
South Restroom and Storage Building

Location On top of NSSD storage facility

Users Seasonal Public
Park District

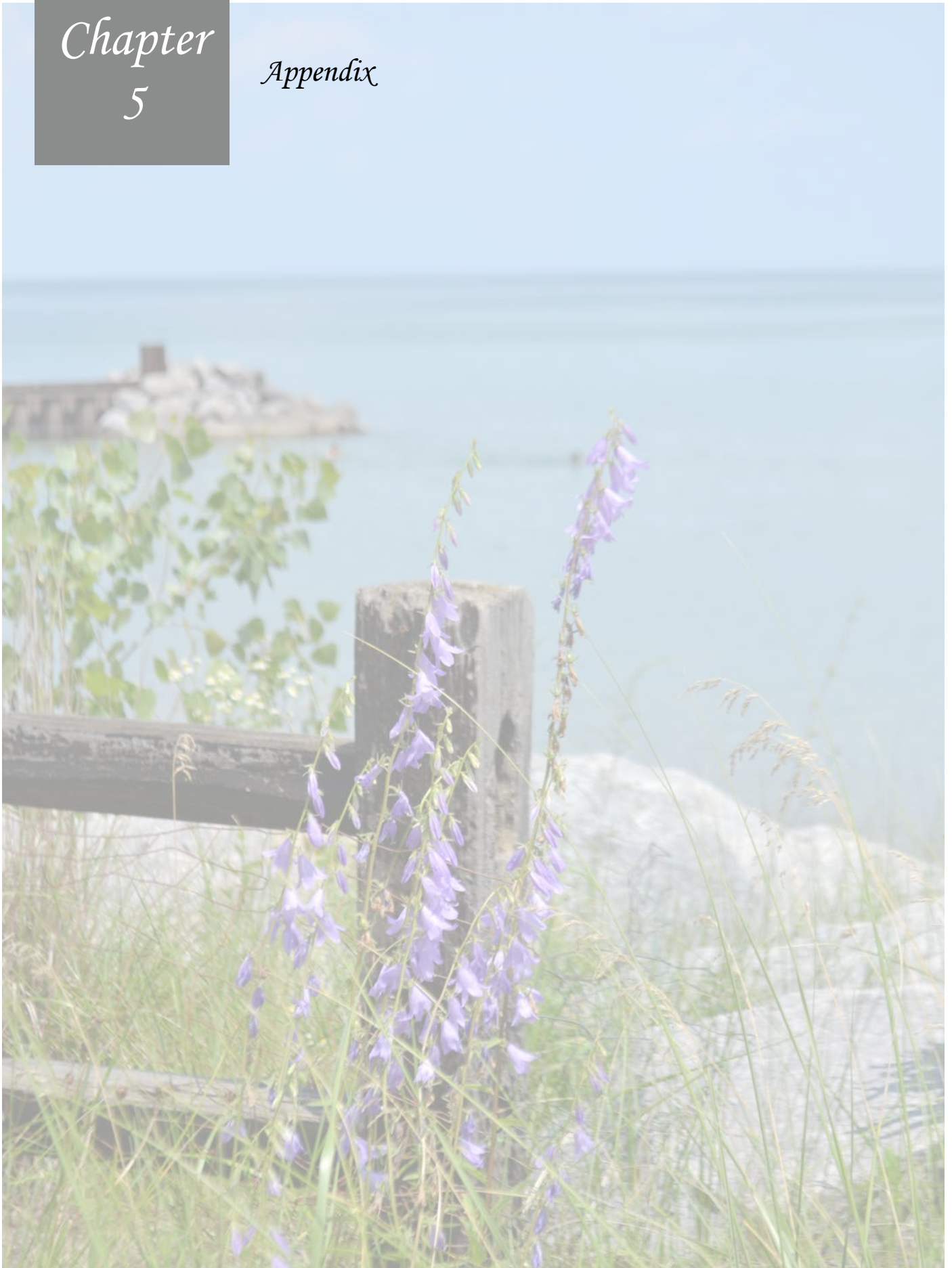
Key Features The south restroom includes two family restrooms and water fountains for public use, and a storage / garage facility for Park District use of sand groomers and a Kubota.

Location Map



Chapter
5

Appendix





Bluff Restoration Phasing Strategy

Phase 1 (2013-14) \$40,000
Removal of Invasive Woody
Material and Treatment



Phase 2 (2014) \$30,000
Removal of undesirable Trees
and monitor/management



Phase 3 (2015-17) \$75,000
Plant native trees and shrubs and
overseed and monitor/management



Phase 4 (2018-2023) \$75,000
Monitor and Management

Total: \$220,000

Master Plan Budget and Phasing Strategy

The Park District continues to work with private donors and public agency funding sources to implement the Master Plan vision for Sunrise Park and Beach. Though resident and staff input, a phasing strategy was discussed to address priorities when funding becomes available. Phasing is as listed below.

LOCATION	ESTIMATED BUDGET	PHASE I 1-3 years	PHASE II 4-9 years	PHASE III 10-19 years	FUTURE 20-30 years
Beach Improvements					
Expanded North Beach - Dog and People Beach	\$ 139,000.00		\$ 139,000.00		
Improved and Expanded North Beach - People Beach	\$ 338,000.00		\$ 338,000.00		
Central Beach and Breakwater	\$ 829,000.00			\$ 829,000.00	
Lake Michigan Fishing and Viewing Pier	\$ 209,300.00				\$ 209,300.00
Boat Drop-Off Area	\$ 8,000.00		\$ 8,000.00		
Sand Volleyball Court	\$ 7,000.00		\$ 7,000.00		
Nature Playground	\$ 313,000.00		\$ 313,000.00		
South Beach Improvements	\$ 19,000.00		\$ 19,000.00		
Subtotal	\$ 1,862,300.00				

Restroom Buildings					
Restroom Building Renovation	\$ 80,500.00	\$ 80,500.00			
North Restroom / Shelter Building	\$ 665,000.00				\$ 665,000.00
South Restroom and Storage Building	\$ 287,000.00		\$ 287,000.00		
Subtotal	\$ 1,032,500.00				

Pedestrian Access					
Central Pedestrian Access Stairs - to North of Restroom	\$ 327,000.00				\$ 327,000.00
Central Pedestrian Access Stairs - to South of Restroom	\$ 150,000.00	\$ 150,000.00			
Restroom Area Exterior Paving Improvements	\$ 48,500.00		\$ 48,500.00		
Beach Pedestrian Access Path - Parking Lot to North Restroom	\$ 68,000.00		\$ 68,000.00		
Bluff Path along Sunrise Avenue at Tableland	\$ 40,000.00				\$ 40,000.00
Mountain Avenue Stair Access	\$ 314,000.00			\$ 314,000.00	
Reconstruct at Grade Stairs at LBOLA Plantings	\$ 27,000.00				\$ 27,000.00
Subtotal	\$ 974,500.00				

Site Furnishings					
Bike Storage	\$ 12,765.00			\$ 12,765.00	
Entry Signage	\$ 5,000.00		\$ 5,000.00		
Interpretive Signage	\$ 8,000.00		\$ 8,000.00		
Subtotal	\$ 25,765.00				

Restoration and Landscape Improvements					
Bluff Restoration	\$ 220,000.00		\$ 220,000.00		
Sand Berms and Dune Grasses	\$ 30,000.00		\$ 30,000.00		
Landscape Enhancements along Sunrise Avenue	\$ 36,000.00		\$ 36,000.00		
Subtotal	\$ 286,000.00				

	ESTIMATED BUDGET	PHASE I	PHASE II	PHASE III	FUTURE
SUBTOTAL		\$ 230,500.00	\$ 1,526,500.00	\$ 1,155,765.00	\$ 1,268,300.00
COMPOUND INFLATION (3% YEARLY)		\$ 21,373.57	\$ 350,902.46	\$ 644,879.21	\$ 1,387,238.55
TOTAL OF ITEMS	\$ 4,181,065.00	\$ 251,873.57	\$ 1,877,402.46	\$ 1,800,644.21	\$ 2,655,538.55

LOCATION	ESTIMATED BUDGET	PHASE I	PHASE II	PHASE III	FUTURE
Projects at or Adjacent to NSSD Building					
Path Connection from North to South Beach Areas	\$ 277,000.00	TBD / Coordination with NSSD Construction			
NSSD Screening and Plantings	\$ 79,000.00	TBD / Coordination with NSSD Construction			

	DESCRIPTION	QUANTITY	OPERATIONAL COST	5 YR FIXED ASSET	LARGE CAPITAL
Personnel Services					
Lifeguards	\$12.00x2=\$24.00x74 days	2	\$ 1,776.00		
Outside Guest Service Associate	\$10.00x1=\$10.00x74 days	2	\$ 740.00		
Training (CPR, 1st Aid)	\$90x3=\$270		\$ 270.00		
Subtotal			\$ 2,516.00	\$ -	\$ -

Commodities					
Uniforms	Add'l uniforms for staff additions		\$ 240.00		
Facility Equipment (Beach Chairs, etc.)	Beach Chairs	15x25.00		\$ 375.00	
	Life Guard Chair	1		\$ 1,000.00	
	1st Aid Equipment (supplies)		\$ 250.00		
	1st Aid Equipment (backboard)	1		\$ 500.00	
	AED	1		\$ 2,700.00	
	Bicycle Rack	1 @ \$600		\$ 600.00	
	Benches	1 @ \$700		\$ 700.00	
	Signage				\$ 12,000.00
	Grill	2 @ 800		\$ 1,600.00	
	Garbage cans	3 @ \$500		\$ 1,500.00	
	Picnic Tables	2 @ \$1,250		\$ 2,500.00	
Ground Supplies (Sand)			\$ 2,000.00		
Subtotal			\$ 2,490.00	\$ 11,475.00	\$ 12,000.00

Contractual Services					
Misc. Supplies used for maintaining	gasoline, garbage bags, etc.		\$ 2,500.00		
Electricity	No change		\$ -		
Water/Sewer	20% above total spent in 2013		\$ 15.00		
Refuse	20% above total spent in 2013		\$ 575.00		
Contractual Services-Other (Security)	Additional Security	1	\$ 19,500.00		
Subtotal			\$ 22,590.00	\$ 11,475.00	\$ -

Capital Asset					
Beach Cleaner (Purchase 2018)		1			\$ 85,000.00

	OPERATIONAL COST	5 YR FIXED ASSET	LARGE CAPITAL
SUBTOTAL	\$ -	\$ -	\$ 85,000.00
TOTAL	\$ 27,596.00	\$ 22,950.00	\$ 97,000.00
GRAND TOTAL OF ALL FUNDS			\$ 147,546.00

Operational Cost Summary

Operation Expenses and Capital Equipment are a critical aspect of a Master Plan and typically, the expenses are overlooked when approving a project. Therefore, estimated operation expenses and capital equipment are included in the Master Plan as the Park District would need to find additional funding to support the expenses.

COMPOUND INFLATION (3% YEARLY)

Phase 1 (2014-2016)	
Additional Annual Operational Experi	\$ -
Small Capital (one time expense)	\$ -
Large Capital (one time expense)	\$ 12,484.80
Total	\$ 12,484.80

Phase 2 (2017-2022)	
Additional Annual Operational Experi	\$ 32,333.12
Small Capital (one time expense)	\$ 26,889.58
Large Capital (onetime expense)	\$ 99,591.05
Total	\$ 158,813.74

Phase 3 (2023-2032)	
Additional Annual Operational Experi	\$ 39,413.89
Small Capital (one time expense)	\$ -
Large Capital (one time expense)	\$ -
Total	\$ 39,413.89