NORTH HEMPSTEAD BEACH PARK MASTER PLAN REPORT

Quennell Rothschild & Partners
Landscape Architects | Urban Designers | Planners

NORTH HEMPSTEAD BEACH PARK MASTER PLAN REPORT

Prepared for:

Town of North Hempstead

Supervisor Judi Bosworth
Councilperson Viviana L. Russell – 1st District
Councilperson Peter J. Zuckerman – 2nd District
Councilperson Angelo P. Ferrara – 3rd District
Councilperson Veronica Lurvey – 4th District
Councilperson Lee R. Seeman – 5th District
Councilperson Dina M. De Giorgio – 6th District

With:

Town of North Hempstead Department of Parks and Recreation
Town of North Hempstead Department of Planning and Environmental Protection
Town of North Hempstead Department of Public Works

With Special Thanks to:

The North Hempstead Beach Park Master Plan Steering Committee and the hundreds of residents who participated in the community charrettes, completed surveys, and submitted comments

Prepared by:

Quennell Rothschild & Partners
Landscape Architects I Urban Designers I Planners
132 Nassau Street, Suite 1300
New York, NY 10038
212.929.3330 I www.qrpartners.com

With:

McLaren Engineering Group
Marine Engineering

June 2019

TABLE OF CONTENTS

EXECUTIVE SUMMARY

CONTEXT

The Town of North Hempstead has committed to the revitalization of North Hempstead Beach Park and the 200 acre natural area across West Shore Road. As important recreational and environmental resources, the park and wooded areas will provide Town residents with new opportunities for active and passive recreation, play and water-dependent activities, event space, dining options, and natural area appreciation, protection, and interpretation.

The site is comprised of two open space areas that run north/south along both sides of West Shore Road in Port Washington. The 90-acre area known as North Hempstead Beach Park (NHBP) includes the older Bar Beach Park on the southern end and Hempstead Harbor Park, developed at a later date. NHBP is the northern terminus of the current shoreline trail. The park contains a continuous esplanade, swimming beach, fishing piers, boat ramp, picnic facilities, playgrounds, basketball and handball courts, numerous walkways and abundant parking areas.

Hempstead Harbor is home to recreational motorized boating, several rowing programs, swimming, fishing, shoreline and shellfish restoration projects. Harborfront uses across from the site include the recently closed Glenwood Landing Power Plant, a boat basin, marine yard and a park.

South of West Shore Road, the 200 acre natural area boasts Port Washington's largest upland forest, and wetland area. The site supports a large and diverse range of wildlife, and other geologically significant features.

MASTER PLAN GOALS

The purpose of this Master Plan is three-fold: to determine the best usage of North Hempstead Beach Park and surrounding areas in a manner that meets the diverse recreational needs of all the Town's residents, to determine how best to integrate all recreational and undeveloped Town properties in this part of the Port Washington peninsula, and to anticipate future storm surge and sea level rise with incorporation of resilient shoreline and park design and sustainable design practices.

The design team embraced the challenge of reintegration of the existing parks and has transformed the resulting site into a plan for the Town's premiere recreational destination.

This document is intended to serve as a guideline for development in the park over the next 5 years.

APPROACH

The Town of North Hempstead selected Quennell Rothschild Partners (QRP) with McLaren Engineering Group in 2016 to prepare a master plan for North Hempstead Beach Park and the 200 acre natural area across West Shore Road. Working together, the Town Advisory Group, the Department of State, and the design team facilitated site visits, community outreach, coordination with concerned local interest groups, design workshops and presentations that lead to the final master plan.

Document review and site analysis revealed evolving deterioration of many site and shoreline features exacerbated by Hurricane Sandy in 2012.

QRP lead a community outreach program that begun with questionnaires distributed at summer events in 2016 (Fun Day Monday and Kidstock), followed by three design workshops in January 2017 - attended by over 200 residents. The results showed strong support for a NHBP master plan. Residents asked for a variety of new active and passive features and year-round programmatic uses of the beachfront site plus a variety of food options including cafes, food trucks and a restaurant. Emphasis on sustainable design practices was notable including waterfront resilient shoreline engineering and protection and preservation of 200 acre natural area.

Results from the outreach program were reviewed and incorporated into the conceptual and schematic design process. Three concept plans incorporating a range of public options were presented to the Town Advisory Committee and Steering Committee. The preferred elements from each option were merged into a single schematic plan for the beachfront park.

The final Master Plan was presented to the Steering Committee in January 2019 and made public by Town Supervisor Judy Bosworth at her State of the Town address on January 25, 2019.

Existing plan

Proposed plan

ANALYSIS & RESPONSE

BEACHFRONT PARK

Existing Conditions and Analysis

The firm undertook analysis of maps, photographs, surveys and adjacent and concurrent project documents as well as related utility, water quality, boating and natural resource studies. Site visits over the course of one year allowed for the creation of photo catalogues and maps of trees and plants, structures, and hardscape.

The former Bar Beach at the southern end of the park provides access to the park through a staffed booth entrance, and a separate entrance for boat or rowing users. The park features a rowing building, rowing and public boat launches, maintenance buildings, parking areas, lifeguard and concessions building, covered pavilions, a playground, green space, a pier, basketball and bocce courts, and a continuous concrete esplanade along a wide swimming beach. A fence divides this area from the former Hempstead Harbor Park area. North of the fence lighted handball and basketball courts, a second playground and volleyball area surround a defunct mini-golf course. A wooded picnic hill and restroom overlook the courts.

A large concrete amphitheater and renovated ballfields are sited behind a widened esplanade. Parking areas, a second staffed entrance booth, a pier and restrooms provide the only features along the concrete esplanade in the northern third of the site.

Analysis of the existing conditions reveal both challenges and opportunities for future park development. While the playgrounds, some courts, furnishings, and paving are deteriorated, maintenance of the existing landscape and operable structure is good. Parking is overrepresented but with some reduction will allow more parkland to be developed. Hurricane Sandy caused many tree removals at the south end but many large and healthy trees remain at the picnic hill. The entrance experience at both ends is hostile with guard booths, excessive fencing and signage.

A hodge podge of materials, design styles and fixtures and add-hoc location of features fracture the park into a series of unconnected zones. Visitor services are not equally distributed throughout the park, giving preference to visitation of the southern end.

There is significant flooding and erosion at the southern parking area and substantial beach erosion at the north end undermining the esplanade. On the plus side, pier renovation at the north end, a new boat house and the removal of the school bus parking will add new opportunities, for recreation development at this underserved end of the park.

An existing plan and site analysis plan were created for NHBP detailing the location of structures, hardscape and landscaped areas, and conditions of park features in 2016. In 2017 subsequent site visits provided updated building, hardscape and plant identification including a visual tree inspection after removal of Hurricane Sandy damaged trees. The existing conditions plan was then updated to reflect these changes.


FAIRWAY DR
PONDS &
MARSHY AREA
200 ACRE
NATURE AREA
W SHORE RD
W SHORE RD
NEW BOATHOUSE
BOAT LAUNCH
PARKING (FLOODS)
PARKING
PICNIC AREA
RENOVATED
BALLFIELDS
PARKING
SCHOOL
BUS
PARKING
ESPLANADE
BEACH
GOOD
HARBOR
VIEWS
FENCE DIVIDING
THE PARK
ERODED
BEACH
ERODED
SHORELINE
ESPLANADE
SWIMMING
BEACH
DETERIORATED PIER
TO BE REPLACED
HEMPSTEAD HARBOR
DENUDED
PICNIC AREA
OUTDATED
PLAY AREA
DETERIORATED
FISHING PIER
N
LEGEND
MAJOR PARK ENTRANCE
PEDESTRIAN CIRCULATION
VEHICULAR CIRCULATION
FENCE
EROSION
ESPLANADE
PARK PATHS
PLAZA
LAWN
PICNIC AREA
PLAYGROUND
SPORTS FIELDS & COURTS
MINI-GOLF
AMPHITHEATER
BRICK PLANTER
SHADE STRUCTURE
PARK BUILDING
WETLAND
NATURE AREA
VEGETATION
EX. TREES
EX. CONIFER
TREES

ANALYSIS & RESPONSE

SHORELINE

Existing Conditions and Proposed Improvements

The beachfront Park located within the Hempstead Harbor is primarily subjected to waves propagating from the Long Island Sound. The wind-waves from the north and northwest directions are the most critical. Under the 100-year return period storm, waves in the project vicinity are expected to reach up to 7 ft.

The park has experienced significant longshore drift, resulting in migration of sand from north to south along the shoreline due to the wave climate. Comparing aerial photographs from 1994 and 2017 shows the depletion of north beach over the last few decades.

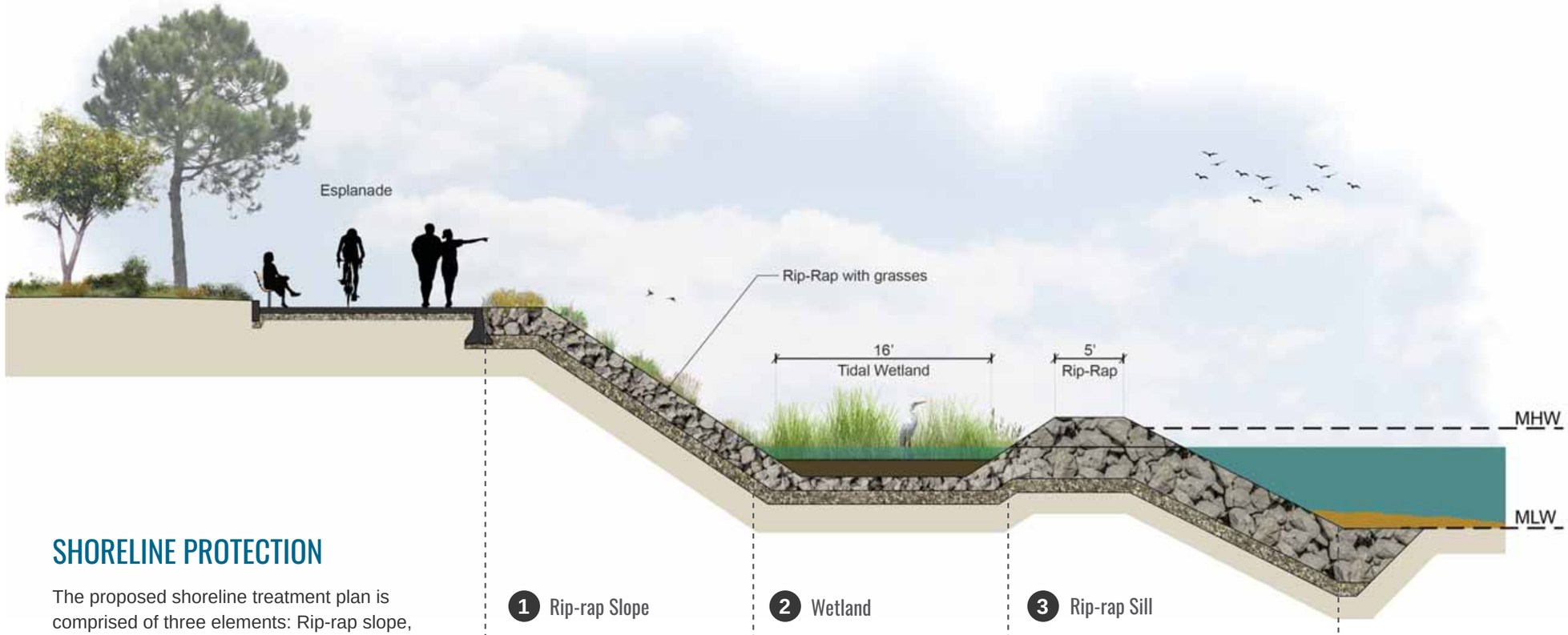
Approximately 30 to 60 ft of beach width has been lost along portions of the shoreline. Sand transport at the north end of the site has resulted in a complete loss of usable beach for approximately 850 linear ft of the nearly 4,000-foot-long beach. Sediment remaining at this portion of the beach is comprised of large rocks. The esplanade has been undermined, resulting in a significant drop from the esplanade down to the remaining sand. Public access to this side of the depleted beach is currently blocked by fencing to ensure safety.

McLaren's marine engineers and QRP design team developed a shoreline restoration plan to protect the esplanade and beachfront park from future flooding and erosion while improving the quality of park experience by designing a living shoreline with engineered rip-rap protection. The project site falls under several Federal and State jurisdictions. See appendix (pp. 53-54) for regulatory requirements.

Aerial photos from 1994 and 2017 show significant beach depletion


Depleted beach at north end during low tide


Eroded bulkhead at north end



SHORELINE PROTECTION

The proposed shoreline treatment plan is comprised of three elements: Rip-rap slope, Wetland & Rip-rap sill. Together, these elements create a protected shoreline with a tidal wetland in between engineered rip rap protection.

The entire system is designed to extend into the waterway and curve along the northern esplanade, creating a passive landscape between land and water with plenty of opportunities to enjoy wetland landscape, wildlife and water views.

1 Rip-rap Slope

A planted rip-rap revetment starts at the esplanade and slopes shoreward, to allow for wetland creation. A buried concrete barrier separates the top of the revetment from the esplanade.

2 Wetland

The leeward side of the system consists of a tidal wetland with flattened rip-rap underneath. At shoreward extend of the vegetation, the rip-rap slopes back up to the crest of the smaller rip-rap sill.

3 Rip-rap Sill

This lower rip-rap buffers wave activity, while still allowing some water to overdrop the structure and maintain the wetland behind. The shoreward side of the sill features an embedded toe design for scour protection.

200 ACRE NATURAL AREA

Existing Conditions and Analysis

The 200 acre natural area includes nearly 120 acres of upland hardwood forests, and 40 acres of wetland. Over 20 distinct significant habitat types have been identified by local naturalists that support an estimated 350 species of wildlife. Site tours led by local naturalist David Jakim identified areas of existing trails, woodland, horticulturally significant species, permanent and seasonally wet areas, wildlife and geologically significant features such as 70 million year old fossils.

The site is bounded by West Shore Road on the north and west, The Harborview residential complex and Harbor Links Golf Course to the south and east and the Slope of the old quarry walls, now forested, to the west. The northern portion of the site includes a 25 cleared acres known as the Aerodrome an area strictly for the use of radio controlled toy aircrafts. The existing access from West Shore Road is restricted to Aerodrome members. Existing trails access some of the natural area's most interesting features and due to their limited number and upland location preserve much of the site from human intervention.

Some trails however have grown too wide, likely from unauthorized ATV use and are situated too close to fragile natural features. Other areas are completely inaccessible. Given the variable nature of the site during the course of the year, trail locations are sometimes impassable due to wetland variation.

An existing conditions plan was created from aerial photography and input from naturalist David Jakim as no survey of the site has been undertaken.


HARBOR LINKS
GOLF COURSE
HARBOR VIEW
W SHORE RD
PONDS &
MARSHY AREA
200-ACRE
NATURAL AREA
AERODROME
TOWN OF
NORTH
HEMPSTEAD
SHORE ROAD
YARD
W SHORE RD
W SHORE RD
N
LEGEND
WETLAND
NATURE AREA
LAWN

COMMUNITY OUTREACH

The Town and design team organized a program of community outreach intended to engage all the residents of the Town's 30 Villages and 20 unincorporated hamlets. Questionnaires were distributed at a variety of park events during the summer of 2016. A project-based website was created to allow more tech-savvy residents to review content and post online comments and design workshops in three different areas of the Town drew over 200 residents to participate in the design process.

The results of questionnaires, online comments and design workshops were tallied and translated into graphic form for presentation and comment.

A summary of the results shows four Key Messages from the Community:

1. Improvement to existing park features desired.

2. Variety of new features including active, passive and programmatic uses desired.

3. Emphasis on the protection and preservation of 200 acre natural area.

4. General support for sustainability and waterfront resiliency.

Surveys were distributed at community events, such as Kidstock

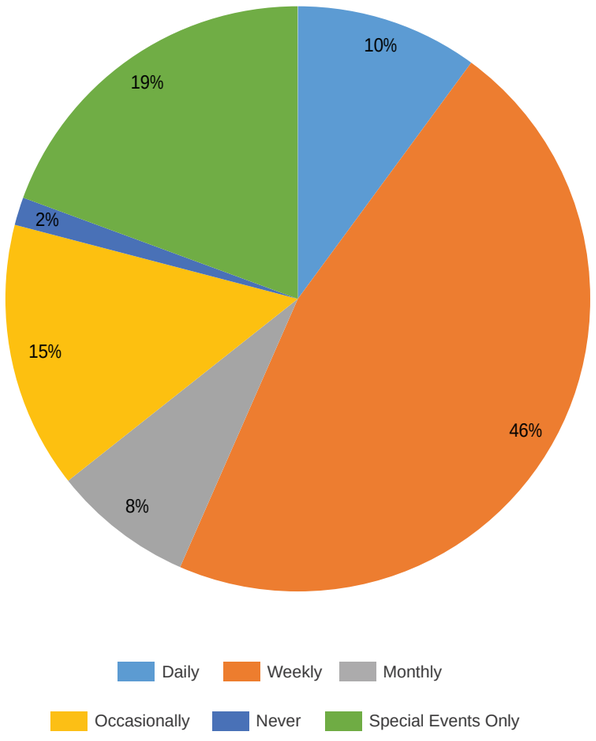
Fun Day Monday participents contributed to the surveys

Town residents provided input at design workshops

PARK VISITS

MOST FREQUENT PARK VISITS

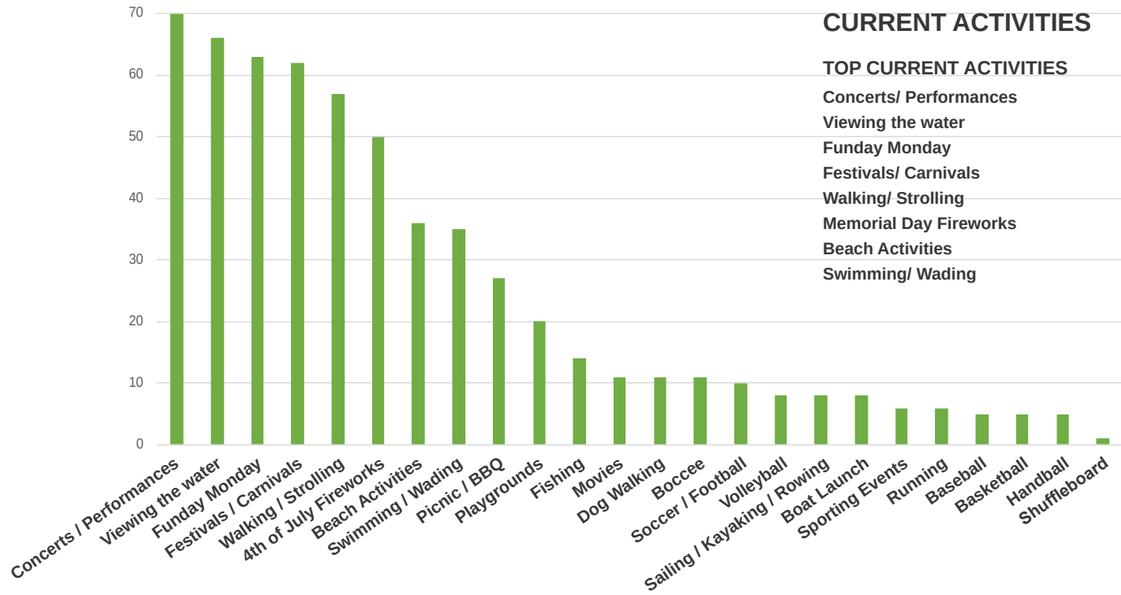
Weekly Special Events



CURRENT ACTIVITIES

TOP CURRENT ACTIVITIES

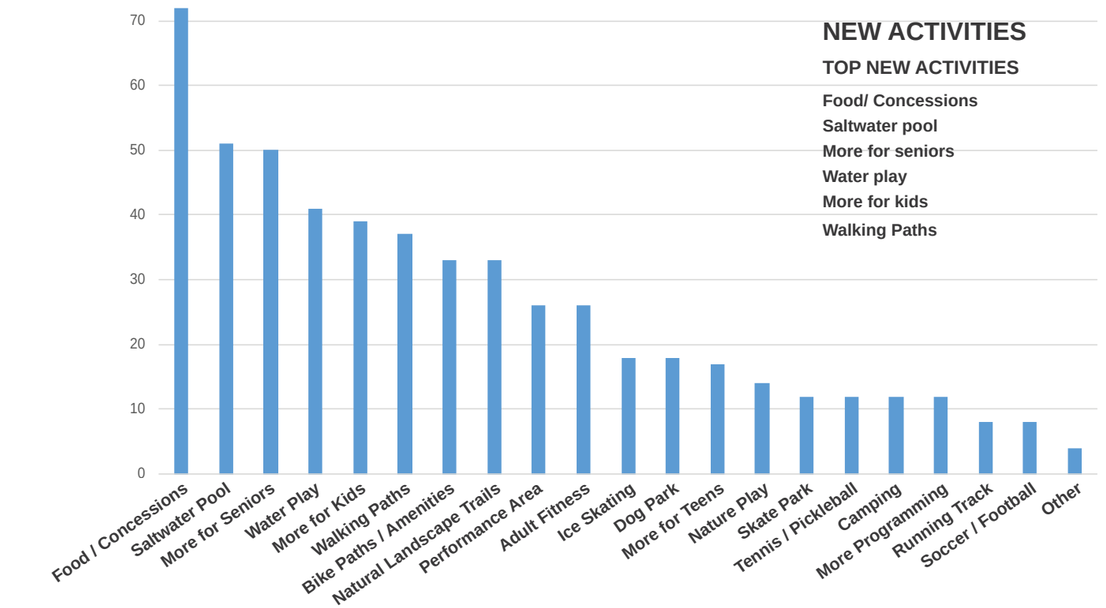
Concerts/ Performances
Viewing the water
Funday Monday
Festivals/ Carnivals
Walking/ Strolling
Memorial Day Fireworks
Beach Activities
Swimming/ Wading



NEW ACTIVITIES

TOP NEW ACTIVITIES

Food/ Concessions
Saltwater pool
More for seniors
Water play
More for kids
Walking Paths



COMMUNITY OUTREACH

Many new features were requested by residents. The most popular feature was trails and the second most popular was food options. These two items were further defined by the results, highlighting the popularity of nature trails and a restaurant.

Many park improvements were noted and tallied. This not only informed the design process but brought attention to the importance of maintenance in the success of any park development. Graphic summaries of preferences are shown on the following page.

Protection and preservation of the 200 acre natural area was the overwhelming response by residents on the future programming of the natural area, with only restricted development for educational purposes.

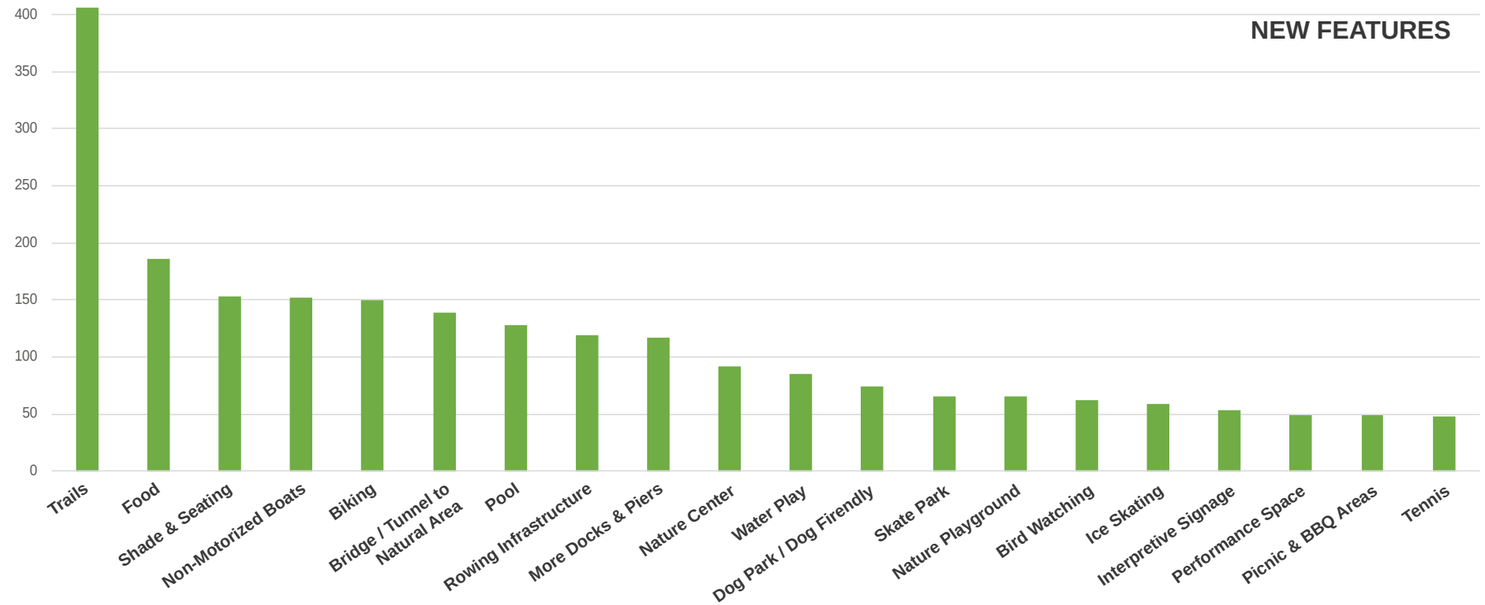
Results also noted broad support for sustainable design features such as:

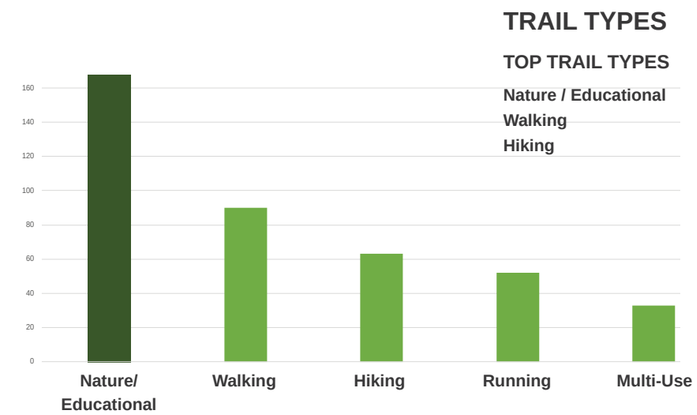
The residents wanted to retain the existing ballfields, pavilions and buildings, piers, docks and picnic areas. The majority voted to adapt the existing amphitheater and mini-golf area for new uses and provide new active and passive features. Only two new structures were suggested, a beachfront restaurant and a nature center in the 200 acre natural area.

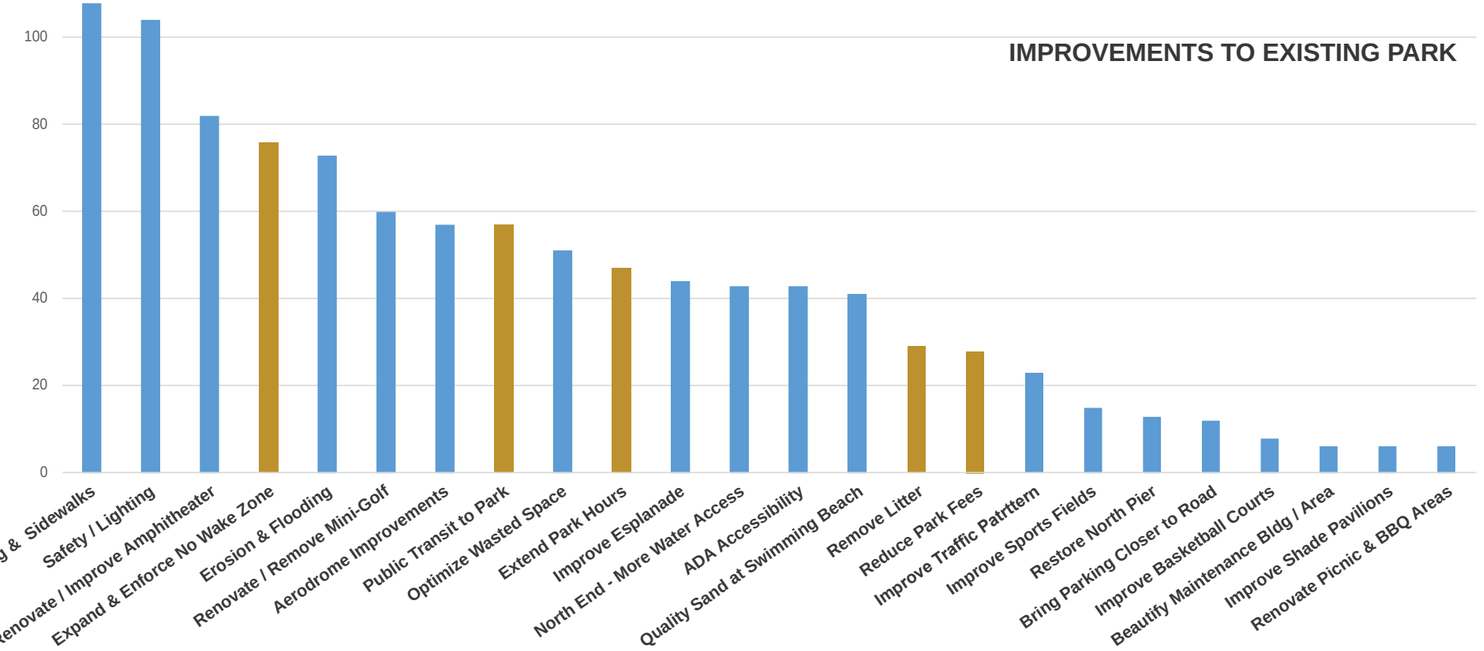
QRP presenting at the design workshop

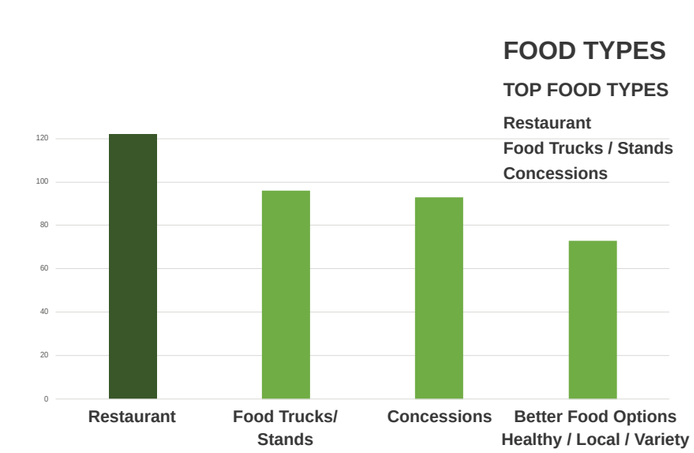
Over 200 residents showed at the first design workshop

Group discussions at breakout tables


NEW FEATURES
400
350
300
250
200
150
100
50
0
Trails
Food
Shade & Seating
Non-Motorized Boats
Biking
Bridge / Tunnel to Natural Area
Pool
Rowing Infrastructure
More Docks & Piers
Nature Center
Water Play
Dog Park / Dog Firendly
Skate Park
Nature Playground
Bird Watching
Ice Skating
Interpretive Signage
Performance Space
Picnic & BBQ Areas
Tennis


TRAIL TYPES
TOP TRAIL TYPES
Nature / Educational
Walking
Hiking
160
140
120
100
80
60
40
20
0
Nature/ Educational
Walking
Hiking
Running
Multi-Use


IMPROVEMENTS TO EXISTING PARK
100
80
60
40
20
0
Crossing & Sidewalks
Safety / Lighting
Renovate / Improve Amphitheater
Expand & Enforce No Wake Zone
Erosion & Flooding
Renovate / Remove Mini-Golf
Aerodrome Improvements
Public Transit to Park
Optimize Wasted Space
Extend Park Hours
Improve Esplanade
North End - More Water Access
ADA Accessibility
Quality Sand at Swimming Beach
Remove Litter
Reduce Park Fees
Improve Traffic Patrttern
Improve Sports Fields
Restore North Pier
Bring Parking Closer to Road
Improve Basketball Courts
Beautify Maintenance Bldg / Area
Improve Shade Pavilions
Renovate Picnic & BBQ Areas

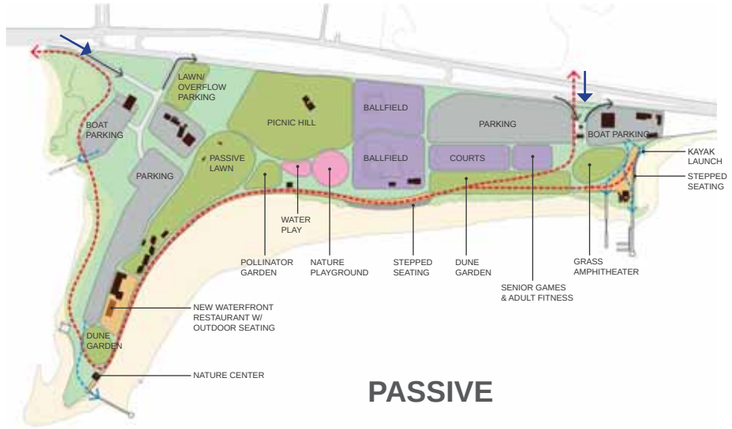

FOOD TYPES
TOP FOOD TYPES
Restaurant
Food Trucks / Stands
Concessions
120
100
80
60
40
20
0
Restaurant
Food Trucks/ Stands
Concessions
Better Food Options
Healthy / Local / Variety

CONCEPTUAL PLANS

CONCEPT PLAN OPTIONS

Using the results from the outreach process, the design team created three conceptual “bubble” diagrams that provided alternative locations, sizes and relationships between various program elements. Creating one “Passive”, one “Active”, and one “Adaptive” plan fostered discussion on the right balance of each of these program element types in the park design.

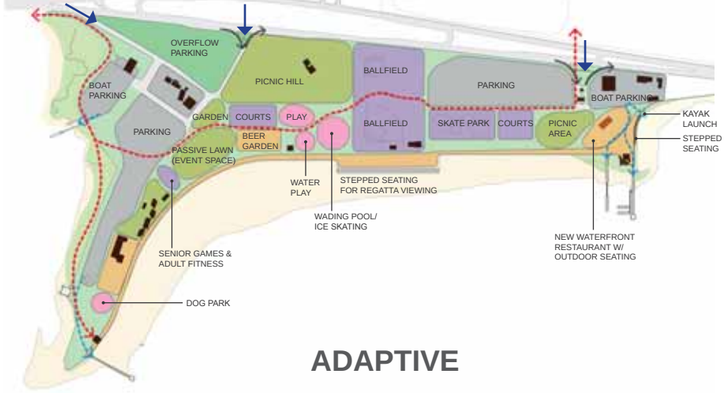
Precedent images were included to illustrate the design concept for many of the requested program elements including waterfront edge esplanade, seating and shoreline, playground features, water features, active play sports and year-round features, performance features, trail options and sustainable features.



PASSIVE

ACTIVE

- Park entrance
- Vehicular circulation
- Boat & pier access
- Shoreline trail
- Existing building
- New building
- Passive landscape



ADAPTIVE

NATURE AREA OPTIONS

Two circulation plans were proposed for the 200 acre natural area; one depicting more modest trails, and development and one showing development of a natural education center.

Fewer trails were preferred supporting the preference to protect and preserve the natural area.

Design and planning of the 200 Acre Natural Area was removed from the scope of the master plan project after the schematic option phase. The Town made separate arrangements to work with Concerned Long Island Mountain Bicyclists (CLIMB) to develop a mountain biking trail route through the site. The Town is also working with environmental groups to study and document existing ecological features on the site before further site planning or development occurs.

OPTION - 1

OPTION - 2

SCHEMATIC PLANS

SCHEMATIC PLAN OPTIONS

Option 1: Lawns, Basketball and BMX

- Southern entrance becomes welcoming planted boulevard
- Shoreline trail extension leads south to pier and west to woodland trails and picnic area
- The continuous waterfront esplanade provides new seating, planting and shade
- Natural playground is the nexus between soccer field, picnic area, lawns, and esplanade
- Amphitheater transformed with lounge seats, portable decks, planting and winter skating
- Waterfront plaza feature streamlike water jets, unique seating, planting and shade structures
- Stream and pool water jets with unique seating are esplanade focal element
- Tennis, basketball, skate and BMX bike park, and dog park replace a portion of the northern parking area
- Olive shaped mound at northern end provide passive gathering and viewing area
- 580 parking spaces were eliminated on 7 acres

Advisory Committee response

The advisory committee heartily endorsed the BMX pump track and skate park from this scheme. The waterfront plaza with stepped seating, nautical features at the playground to the south and an outdoor dining patio were also some of the well received features.

BMX pump track and Skate park

Waterfront plaza

Playground w/ nautical features and dining patio

Schematic Plan - Option 1 | North Hempstead Beach Park

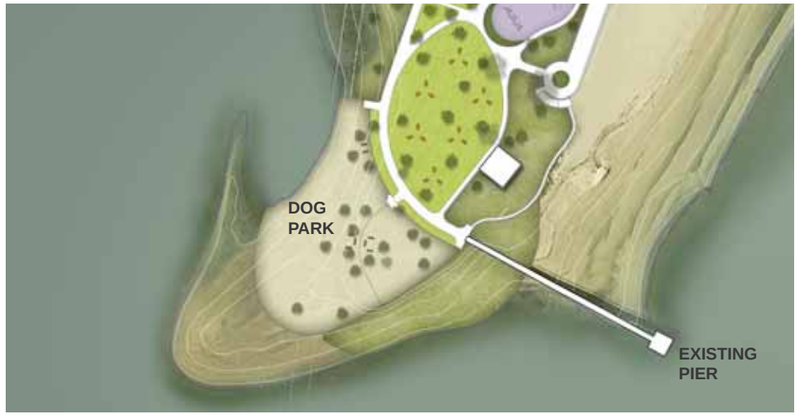
SCHEMATIC PLAN OPTIONS

Option 2: Trails and Relocated Maintenance

- Southern entrance is reconfigured to provide separate access for crew facility and easier access from Fairway Drive
- Winding paths knit the site together and provide multiple views to the water
- Shoreline trail is enhanced by dune restoration
- A new amphitheater and event lawn provides opportunities to hold different scales of events
- Existing amphitheater is transformed into kids water play area
- Waterfront plaza features passive areas for lounging, cooling water features and shade structures
- Sports activities (soccer field, tennis courts, and skate park) are all consolidated into an active zone
- 9/11 Memorial space is provided with access from outside of the park (no need to pay)
- Maintenance facilities are consolidated in one location
- 882 parking spaces were eliminated on 10 acres

Advisory Committee response

The dog park with water access in this scheme was the most popular idea among committee members. Planted knolls with picnic area and consolidated maintenance area at a new location in the park, were some of the other preferred elements.



Dog park w/ beach access

Planting knolls w/ picnic area

Consolidated maintenance buildings and yard at north end

Schematic Plan - Option 2 | North Hempstead Beach Park

SCHEMATIC PLAN OPTIONS

Option 3: Plantings and Climbing Wall

- Southern entrance and parking reconfigured to simplify access
- Large oval performance lawn surrounded by native plant gardens and meadows
- Series of adult fitness areas located along the esplanade serve as a fitness trail
- Amphitheater adapted into exciting new playground and outdoor classroom for children of all ages
- Expansive picnic groves between existing ballfields provide shade and seating areas
- Waterfront plaza features lounge seats, stepped seating for regatta viewing and waterfront swings
- Large dog park and tennis courts replace a portion of the northern parking area
- Waterfront skate park with roller skating & seasonal ice rink plus climbing wall provide unique waterfront activities
- Existing bulkhead at northern end planted over to create rolling dunescapes with stabilizing planting
- New waterfront restaurant with views to the harbor at northern end features outdoor plaza and stepped seating to the beach
- 940 parking spaces were eliminated on 11 acres

Advisory Committee response

The advisory committee showed overwhelming support for the waterfront restaurant with outdoor seating. The performance lawn, the large combined play area adapted from the existing amphitheater, and climbing wall were also preferred.

Waterfront restaurant at north end

All age playground & water play

Climbing wall

Waterfront performance lawn with stage

Schematic Plan - Option 3 | North Hempstead Beach Park

MASTER PLAN

FINAL MASTER PLAN

The Town Advisory Committee and Steering Committee reviewed the three schematic alternative plans and noted their preferred elements from each plan. A final list of "must have" program elements includes:

- More BBQs near existing pavilions at south end
- Multi-use pathways for biking and walking
- 5k route for races using promenade, walking paths, etc.
- Water playground
- Sledding hill
- Ice rink
- Fully accessible playground
- Sensory garden
- Dog Beach
- Additional sports features clustered together
- Outdoor foosball/pool table/ping pong near performance stage
- Adult fitness and bocce near performance area and pavilions
- Performance stage close to the water
- Restaurant on north side
- Small stage or focal point for festivals in the parking lot, near the restaurant
- Seating for a seasonal concession on south side
- Shade area with swings
- 9/11 Memorial to the triangle area just beyond current fence line
- Maintenance operations moves to north end of park

These were recombined and shaped into the final Master Plan and presented to the Steering Committee in January 2019.

View of park overlooking performance lawn and sled hill

Master Plan | North Hempstead Beach Park

MASTER PLAN

FINAL MASTER PLAN

South Entrance

The south entrance is reconfigured to provide a welcoming landscaped boulevard and plantings at new entrance booths.

The Chaminade rowing program is relocated to a new building adjacent to the Manhasset program, each with a new fenced boat yard and dedicated parking.

Parking is reconfigured returning the previously flooded hardscape to beneficial salt marsh, accessible by a continuation of the shoreline trail.

Sustainable design initiatives such as elevated walkways over the saltmarsh and bioswales in the parking lot preserve new wetlands and clean parking lot runoff.

Landscaped entrance

Bioswales in parking areas

Shoreline trails

1. Planted boulevard entrance
2. Entrance booths
3. Parking area
4. Existing Manhasset Rowing building w/ fenced yard
5. New Chaminade rowing w/ fenced yard
6. Soccer
7. Existing pier and launch

FINAL MASTER PLAN

The Point

Drawing visitors to the southeastern most tip of the park is a fenced dog beach and run. The area provides beach access for dogs and shaded seating for dog owners to relax and congregate. The dog beach will operate year round and is located close to parking.

A revitalized picnic area with BBQs, picnic tables, sand games and volleyball courts under new shade tree plantings replaces the hurricane Sandy devastated picnic area and provides access to the pier, parking and bike racks.

The existing playground is expanded and improved along a nautical theme with a new nautical deck and crow's nest climber and tentacle water features as well as new seating and shade planting.

The existing bathhouse and concessions remain. An outdoor dining and entertainment patio provides a variety of seating types for day or evening use. A corn hole and ping pong zone encourage play for all ages.

Dog beach

Corn Hole

Nautical deck

Outdoor dining patio

1. Parking area
2. Bike parking
3. Picnic area
4. Picnic and Horseshoes
5. Dog beach
6. Volleyball
7. Existing picnic pavilion
8. Existing pier
9. Nautical play w/ tentacle water speay
10. Corn Hole and Ping Pong
11. Outdoor dining patio w/ lighitng

FINAL MASTER PLAN

Activity Lawn and Garden

A narrowed parking area allows for open space and activity areas that link the existing pavilions at the south end to the parking and the performance green to the north.

A zone of active uses is located along the esplanade including adult fitness, bocce and ping pong tables.

A relaxing hammock grove is located next to the bocce area. Trees are planted and shaded seating provided.

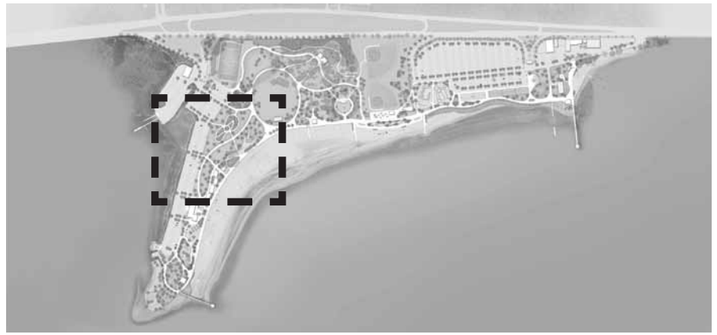
A large sensory garden offers a place for stimulation, appreciation and passive enjoyment within the larger open space.

Adult fitness

Hammock grove

Sensory garden

1. Existing pavilions
2. Existing restrooms
3. Parking area
4. Adult fitness
5. Ping Pong
6. Bocce
7. Hammock grove
8. Sensory garden
9. Performance lawn



FINAL MASTER PLAN

Performance Lawn and Sled Hill

The large oval performance lawn forms the central destination around which the parks many smaller zones and circulation paths are organized. A new performance stage will provide a covered structure for sizable events. The slightly sloping lawn creates good viewing, flexible space and a location for a portable ice skating rink in winter.

The sloped hill on the west side increases performance seating opportunities and doubles as a sledding hill in the winter. It also acts as a berm separating the soccer field from the pastoral park landscape. Soccer is located by the entrance and near parking with seating provided for players.

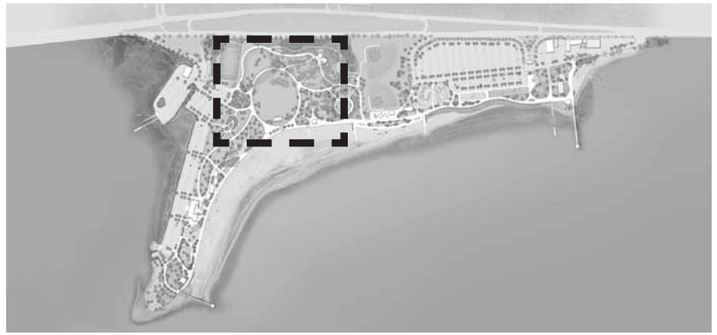
Game tables are located along the esplanade under shade trees for comfortable play with access to adjacent picnic areas and playgrounds.

Performance lawn

Sledding hill

Seasonal Ice Skating rink

1. Sled hill
2. New performance lawn
3. Seasonal Ice Skating rink
4. New performance stage
5. Woodland planting
6. Parking area
7. Soccer
8. Picnic hill
9. Existing concession and restrooms
10. Playground
11. Waterplay
12. Nature playground
13. Existing restrooms
14. Game tables



FINAL MASTER PLAN

Play and Plaza

North of the performance lawn, new park features are designed to activate the currently underutilized spaces surrounding the existing ballfields.

A series of imaginative and comprehensive playgrounds contain zones for toddlers and big kids. Included are a large water play area with jumping jets, a stream and water play sand area, a natural playground with log climbers, spider webs, and a play forest, traditional play structures and slides, tire swings and a challenging net climber. The existing amphitheater becomes part of the new play area with soft surface and lounge seats cut into the existing concrete steps. Access to the beach, picnic areas and the restroom is adjacent.

The existing concrete plaza in front of the ballfields is invigorated with playful water features and seating and provides a great place to rest and view the beach at the midpoint of the esplanade. A stream of jumping jets or fog emitters provides a cool mist to play in or view from nearby tiered deck seating. Shaded swings, popular with adults as well as children provide a fun perch for people watching. Steps to the beach provide additional seating, storm resilience and access to the water.

Serving the ballfields, play area and beach visitors, the existing concessions building is improved with the addition of shaded outdoor seating along the esplanade and a new picnic area to the north among native planted knolls and new shade trees.

Beach volleyball and ballfield locations are retained.

Natural playground

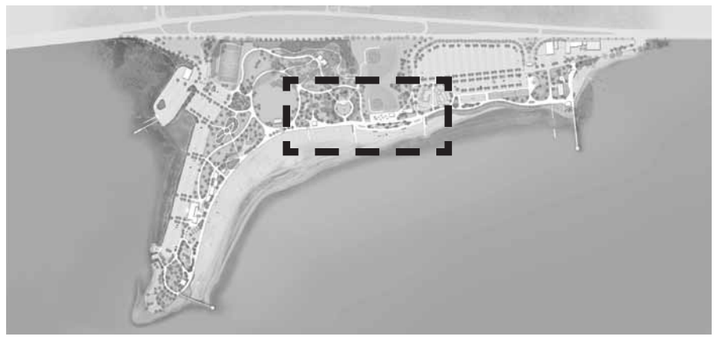
Waterplay

Plaza water play

Shaded swings

Stepped seating

1. Nature playground
2. 5-12 Play
3. 2-5 Play
4. Tire swing
5. Net climber
6. Lounge seats
7. Waterplay
8. Existing restrooms
9. Beach volleyball
10. Picnic tables
11. Existing ballfield
12. Plant knolls and picnic area
13. Shaded cafe area
14. Existing concession
15. Existing restrooms and Park office
16. Water jets
17. Shaded swings
18. Stepped seating



Master Plan | North Hempstead Beach Park

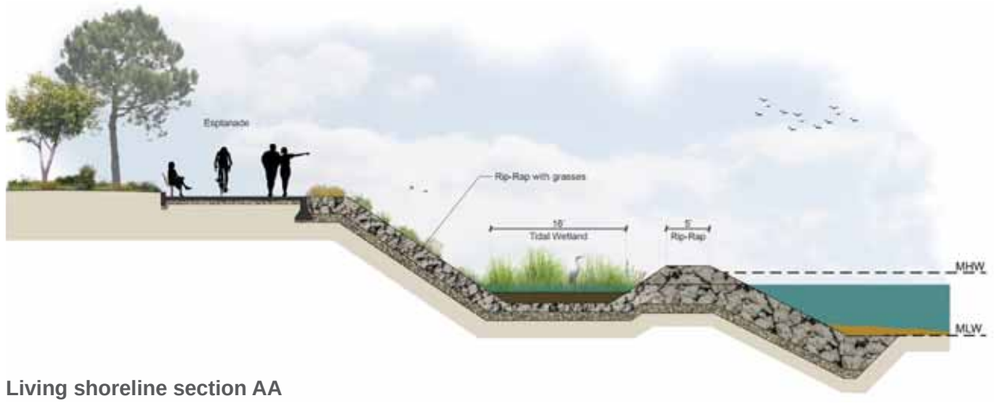
FINAL MASTER PLAN

Northern Esplanade

Transformation of parking into parkland allows for the sports zone of the ballfields to extend north activating the esplanade in this area. A climbing wall, skate park and BMX pump track provide adventure play options for often overlooked teenage visitors. Basketball and tennis round out the active sport options. The location along the esplanade encourages visitors to watch the activities and ample seating is provided for spectator comfort.

While the majority of the park retains its stepped concrete esplanade edge, a new engineered natural shoreline is introduced in this area to respond to the constant erosion and undermining of the bulkhead that has plagued this end of the park. The stepped rock sills, tidal wetland and planted rip-rap provide critical storm surge protection to the park beyond, and new plant and wildlife habitat improve the ecology of the beach.

The shoreline design follows the curved alignment of the esplanade to provide visual interest, minimize the fill in the waterway, and facilitate water flow to prevent starvation of the wetland area. Two inlets are incorporated along the natural shoreline to allow for additional flow of water. Since the most severe wave action is anticipated to come from the north, the inlets will be positioned along southeast facing portions of the shoreline to prevent the most damaging wave action from directly entering the protected wetland.



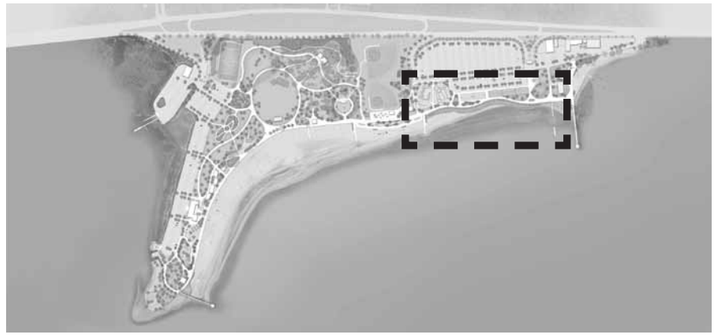
Living shoreline section AA

Skate park

Climbing wall

BMX pump track

1. Skate park
2. BMX pump track
3. Climbing wall
4. Basketball
5. Tennis / Pickleball
6. Parking area
7. New small event stage
8. Wetland
9. Rip-rap edge w/ planting
10. Rip-rap barrier
11. Existing pier



FINAL MASTER PLAN

North Cove

Activation of the nearly two acres returned to the park with the removal of the school bus parking is accomplished with new features and an expanded and contained maintenance yard.

The northern entrance experience is improved to remove extraneous buildings and fences and add more landscaping. A small event stage is located at the north end of the parking lot to accommodate festival entertainment, and backed by lawn and a berm for casual seating as well as visual screening of the parking area.

The existing restroom and concession building and shade structures are renovated for casual park use.

A new waterfront restaurant with indoor seating and outdoor dining terrace and a firepit faces north toward the best views and provides an anchor at the park's north end and a singular experience along the waterfront.

The esplanade wraps around the restaurant, terminating at a kayak storage and launch ramp in the protected cove.

The existing Port Rowing building gains dedicated parking, a fenced boating yard and an access path to their pier that doubles as restaurant service access.

The existing maintenance buildings are supplemented with new ones to house relocated operations from the southern end of the park. Ample yard area allows for storage and vehicle operation and access to the park and northern park entrance. The operation is screened from the park view.

Waterfront restaurant w/ outdoor seating

Fire pit

Kayak launch

1. Entrance booth
2. Parking area
3. Port Rowing building w/ yard
4. Rowing club parking area
5. Existing maintenance buildings
6. New maintenance buildings and yard
7. New kayak storage
8. Kayak launch
9. New waterfront restaurant
10. Dining terraces
11. Fire pit at restaurant
12. Steps to beach
13. Existing concession, restrooms, and shade structures
14. Existing piers
15. New small event stage

FINAL MASTER PLAN

Modified Parking, Bike Trails and 5K Route

Parking

In order to provide adequate parking for peak park use and respond to the requirements of a resilient shoreline and storm recovery for the Town, the parking strategy assumes that parking will only occur on currently paved areas. Parking on the southern end was removed from the frequently flooded southern shoreline to allow for the natural buffering of new saltmarsh development to protect the park at this end.

Direct access to rowing, soccer, the performance lawn, pavilions, the beach bathhouse and the pier from parking makes the configuration efficient and new sustainable plantings in the lots, improve stormwater infiltration. Parking on the north end provides ample space for storm recovery operations and long-running carnival activities but is removed from the shoreline to create more activities along the esplanade. The parking diagram shows the areas in which existing parking was removed returning 8 acres of impervious hardscape to parkland use. A total of 645 spaces were removed leaving a final count of 1425 parking spaces.

Bike Trails and 5K Route

Multi-use trails throughout the park accommodate walkers, runners, and cyclists on 16 foot wide shared pathways. The bikeway extends north to south with connections to each parking area and access around the performances lawn, but is kept off the narrower, pedestrian-only pathways in garden and picnic areas, play areas and game zones near pavilions and the bathhouse.

Accommodation of the 5K races was an important consideration in the design of the path system. The suggested route provides a start and end at the south parking, usage of the entire park in the route, varied topography along the route and ample path width along all route pathways.

Modified parking areas

Proposed bike trails and 5K route

PHASING

Phased construction over time will be required to achieve the full park program described in the master plan. The park was divided into 6 phases for construction. With each new section, access, entrances and connections to other sections of the park are maintained.

The 6 phases are:

1. North Parking Lot and Living Shoreline
2. Playgrounds and Partial Performance Lawn
3. Southern Shoreline Stabilization and Waterfront Plaza (by ballfields)
4. South End
5. North End
6. Main Entrance, Picnic and Perforamce Lawn

The initial 3 phases concentrate on addressing the current and future flood risks to the park at the northern and southern parking areas and further undercutting of the existing northern esplanade. By completion of phase 3, the living shoreline, new salt marsh and reoriented parking areas provide storm protection at the weak points along the beachfront. New sports, play areas, and waterfront recreation are developed adjacent to the north parking lot to create a central zone of activity and provide park amenities and access during later construction phases.

Phase 4 focuses on the southern peninsula of the park adding new play, recreation, dining, garden, dog and senior features and completes the waterfront side of the park.

Phases 5 incorporates the largest new building program with the relocation of maintenance to the north end of the park and the addition of a new waterfront restaurant and kayak facility. This completes the north end of the park.

Phase 6 focuses on the compltion of the upland park area, new southern park entrance, construction of the new Chaminade boat house, and performance lawn.


PHASE 1
North Parking Lot and Living Shoreline

PHASE 2

Playground and Partial Performance Lawn

PHASE 3

Southern Shoreline Stabilization
and Waterfront Plaza

PHASE 4

South End


PHASE 5
North End

PHASE 6

Main Entrance, Picnic and Performance Lawn


FINAL MASTER PLAN

NEXT STEPS

The master plan report is a culmination of public and private cooperation between the Department of State, the Town of North Hempstead and hundreds of participating residents. The resulting Master Plan for NHBP incorporates opportunities for enhanced recreation, improved biodiversity and shoreline protection under a single, unified park design at a schematic level. The Master Plan is intended to serve as a guideline for development in the park over the next 5 years.

The master plan report and associated graphics will be used by the Town to create a capital planning and fund raising strategy for advancement of the design to the level necessary for construction, likely in phased construction projects.


PLAZA WATER JETS


SHADED SWINGS


SEATING STEPS TO BEACH


WATER PARK


NATURE PLAYGROUND


GAME TABLES


DOG BEACH


CLIMBING WALL


SKATE PARK


BMX PUMP TRACK


RESTAURANT WITH OUTDOOR TERRACES


FIRE PIT AT RESTAURANT


ADULT FITNESS AREA


NAUTICAL PLAYGROUND


SOUTH END CONCESSION SEATING AND GAME AREA


HAMMOCK ZONE


IMPROVED ENTRY


KAYAK LAUNCH


PLANT KNOLLS AT BALLFIELDS


SEASONAL ICE RINK


PERFORMANCE GREEN


SLEDDING HILL


SENSORY GARDEN


BIOSWALES IN PARKING

Final Schematic Master Plan presented at the State of Town, January 2019

APPENDIX

QUESTIONNAIRE

As part of the community outreach process, QRP prepared a questionnaire/ survey that was distributed at various park events. The survey was designed to gather information about how the existing facilities at the beachfront park are used by the community. All survey responses were tallied and analyzed to make informed decisions in the design process.

NORTH HEMPSTEAD BEACH PARK MASTER PLAN: PROGRAM NEEDS QUESTIONNAIRE

The Town of North Hempstead will be developing a master plan for North Hempstead Beach Park (NHBP) and would like your feedback!

1. How often do you visit the park?

Daily: ___ Weekly: ___ Monthly: ___ Occasionally: ___ Never: ___ Special Events only: ___

2. What age are you?

Under 12:___ Teen:___ Young Adult:___ Adult 30-62:___ Retired +:___

3. Please check the **current activities** you participate in at NHBP:

	Concerts/performances		Volleyball		Walking/strolling		Swimming/wading
	Festivals/carnivals		Baseball		Dog walking		Sailing/kayaking/rowing
	Sporting events		Basketball		Picnic/BBQ areas		Boat launch
	Movies		Running		Playgrounds		Fishing
	Funday Monday		Soccer/football		Bocce		Viewing the water
	Fourth of July fireworks		Handball		Shuffleboard		Beach activities
	Other:		Other:		Other:		Other:

4. Please check the **new activities** you'd like to see in NHBP:

	Food/concessions		Tennis/pickleball		Walking paths		More for kids
	Performance area		Ice Skating		Adult Fitness		More for teens
	Saltwater pool		Bike paths & amenities		Natural landscape, trails, demonstration		More for seniors
	Water play areas		Running track		Natural playgrounds		Camping
	Skateboard park		Soccer/football field		Dog park		More programming
	Other:		Other:		Other:		Other:

Come participate in a workshop with your neighbors and fellow residents this fall. Give us your email address to receive an invitation and be sure to follow the Town of North Hempstead on Facebook for updates.

Name: _____

Address: _____

Email: _____ Phone: _____

THANK YOU FOR YOUR PARTICIPATION!

SHORELINE ANALYSIS

Preliminary Site Report, 9/20/2016, McLaren

Beginning the site walk on the southern end, we noted an abundance of thriving marsh vegetation, which made it difficult to access the water from anywhere other than the pier, boat ramp, and floating dock structures. The boat ramp and courtesy floating dock appeared to be new and in good condition. The pier to the north of the boat ramp is older, as is evident by the significant checking and splitting of the timber elements.

Moving North towards the existing beach area, the Southern fishing pier's supporting piles appear to be deteriorating. The park facilities in this area are in good condition, having been built within the last few decades; however, some repairs to the structures could be made to improve the visual quality and comfort of the facilities.

The sand at the Southern portion of the beach was made of a fine material and gradually sloped towards the water. There were mounds of sand being stored/placed on the landward portion of the South beach in front of the concession stand and picnic table pavilions. It appeared that the sand may be used for a beach replenishment project, but the exact purpose is unknown from site conditions.

Also noted was the floating boom blocking off a small section of the water near the shoreline. Its purpose is also unknown; however, it was effectively acting as a barrier to wave activity. It is assumed this is the swimming area, but no signs to this effect where observed.

Following the walkway up towards the pier at the Northern section of the site, we noticed many park features that appeared to be newer construction, such as a baseball field, volleyball court and restroom facilities. Other elements were clearly older and in dilapidated states, such as the concrete pathway, the lighting features along the pathway, bathroom

Photo of the pier, boat ramp and courtesy floating dock located on the shoreline of the southern end of the project site

Photo of the sand covered shoreline to the south of the southern fishing pier

Photo of the beach adjacent to the southern fishing pier, where sand is accumulating from upstream

SHORELINE ANALYSIS

Preliminary Site Report, 9/20/2016, McLaren

facilities and what appeared to be an old mini golf course.

As we moved further North, the beach narrowed and the sand became so depleted that access to the beach has to be blocked off by fences for public safety. The sand at this portion of the beach consisted of larger rocks.

The significant migration of sediment from North to South along the beach front is supported by historical aerial photographs and other information reviewed during the proposal stage. The shift of tide from low towards high was observed, and the rapid increase in water levels from 12:00-1:00 indicate a high-energy condition that will likely govern the sediment transport model. A large barge was observed across the water, it appeared to be a dredge ship but the name was not visible and this cannot be confirmed. The presence of this large vessel, along with the working excavation to the North, indicate this to be an active area with heavy wake presence – another factor to add to the sediment transport model.

Information to request:

- Pilot programs in place
- Future pilot program plans
- Any construction presently occurring on the site (or planned)
- What are the sand mounds being used for?
- What is the floating boom used for? Are they for another project? (see Photo 7)
- Which structures in the park area are new and which are planned to be replaced or repaired under the new plan?
- Any boring logs or sediment sampling logs.
- Any historical surveys (topographic, hydrographic, etc)

Photo 4 on the left shows a newly constructed baseball field, while photo 5 shows an abandoned mini golf course

This photo shows the significant loss of sand that has occurred at the northern portion of the beach

This photo shows how the floating boom is acting as a barrier for wave activity

SHORELINE ANALYSIS

Final Site Report and Recommendations, 4/2/2019, McLaren

Existing Conditions

North Hempstead Beach Park is located along the eastern shoreline of Port Washington NY within the Hempstead Harbor. The project site is subject primarily to waves propagating from the Long Island Sound. The most critical wind-waves are those propagating from the Northwest-North directions since these directions have the greatest fetch distances. Under the 100-year return period storm, waves in the project site vicinity are expected to reach approximately 7 feet. This approximation is based on empirical formulas (provided by the Shore Protection Manual) used to gain a conceptual level understanding of wave environment. Operational conditions were not quantified under this scope, although, they are understood to be much less significant.

North Hempstead Beach Park has experienced significant longshore drift, resulting in a migration of sand from north to south along the shoreline due to the wave climate at the site. Comparing aerial photographs from 1994 and 2017 shows the depletion of the north beach over the last few decades.

Approximately 30 to 60 feet of beach width has been lost along portions of the shoreline. Sand transport at the north end of the site has resulted in a complete loss of usable beach for approximately 850 linear feet of the nearly 4,000-foot-long beach. Sediment remaining at this portion of the beach is comprised of large rocks. The public walkway upland of the beach has been undermined, resulting in a several foot drop from the walkway down to the remaining sand. Public access to the 850 linear feet of depleted beach is currently blocked by fencing to ensure safety.

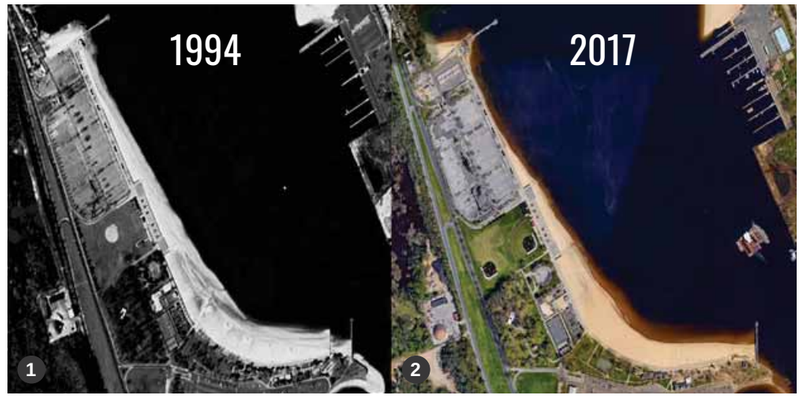


Photo 1 (left) is aerial imagery of the site from 1994, while photo 2 (right) is aerial imagery of the site from 2017

This photo shows the depleted beach at the north end of the site during low tide. This portion of the beach has been fenced off to the public to prevent injury from the walkway, which has been undermined due to sediment transport.

SHORELINE ANALYSIS

Final Site Report and Recommendations, 4/2/2019, McLaren

Shoreline Treatment Plan

Please see Attachment A for a schematic drawing of the proposed shoreline treatment. The plan involves creating a tidal wetlands area behind a stone sill to establish a protected living shoreline that is both visually appealing and ecologically viable.

The shoreline design is a combined riprap slope, wetland and sill system that can be conceptualized into three (3) main portions of cross section. The first consists of a riprap revetment with a crest elevation that matches the upland walkway (El.+12’ NAVD88), extends shoreward with a crest width of 5’ and slopes down at a 1:1.5 slope until reaching an elevation that allows for wetland creation (several feet below +1’ NAVD88). A buried concrete barrier will separate the top of the riprap from the upland walkway. The second portion is leeward part the sill component of the design and consists of a 16’ wide tidal wetlands area (planting soil and vegetation) underlaid by riprap (flattened slope starting from end of slope of portion 1). At the shoreward extent of the vegetation, the riprap will slope back up to elevation +4’ NAVD88. Locating the crest of the sill at elevation +4’ will allow the structure to act as a buffer to wave activity, while still allowing some water to overtop the structure and maintain the wetland behind. The third portion is the seaward part of the sill component of the design and consists of a 5’ crest width that slopes down at a 1:2 slope until MLW (El. -3.95’ NAVD88) is reached, from which an embedded toe design for scour protection extends shoreward.

The riprap revetment is continuous throughout the entire cross section and consists of a layer of geotextile fabric, topped by a layer of bedding and armor stone. Armor layer thickness and stone size varies throughout the cross section based on anticipated wave exposure and vegetation inclusion. Above Spring High Tide (El. 3.91’ NAVD88), voids between the stones will be filled with planting soil and native wetland vegetation (to be detailed by a landscape architect).

In plan-view, the shoreline design will follow a curved alignment rather than running in a straight line parallel to the shoreline, thus providing visual interest, minimizing the amount of fill in the waterway, and facilitating water flow to prevent starvation of the wetland area. Two (2) inlets at approximately 50’ in width are proposed to be incorporated into the shoreline design to allow for

additional flow of water. Since the most severe wave action is anticipated to come from the northerly direction, the inlets will be positioned along portions of the proposed alignment that are southeast facing to prevent the most damaging wave action from directly entering the protected wetland.

The entire shoreline design system (riprap slopes, wetlands and sill) will extend approximately 64' feet into the waterway. A curved 16' wide pedestrian walkway will be installed upland to follow the curved alignment of the tidal wetland and sill.

Regulatory Requirements

Several regulatory agencies have jurisdiction over the site, including U.S. Army Corps of Engineers (USACE) New York District, New York State Department of Environmental Conservation (NYSDEC) Region 1, and New York State Department of State (NYSDOS).

USACE has jurisdiction over all waters of the United States, which are defined as tidal waters up to the Spring High Water (SHW) Line. Accordingly, USACE will review all of the proposed work below the SHW Line. As the proposed scope of work will involve a significant volume of fill, the work will not be eligible for review under a general USACE Nationwide Permit. USACE will review the work as an Individual Section 404 Water Quality Certification and Section 10 Rivers and Harbors Act Permit. A Section 404 Water Quality Certification is required for projects where fill is discharged into waters of the United States. The riprap will be considered fill material. A Section 10 Rivers and Harbors Act Permit is required for the construction of any structure in the waters of the United States.

NYSDEC defines tidal wetlands as all land under tidal waters up to a depth of 6' below Mean Low Water. By this definition, the site of the proposed work is located in a tidal wetlands area, necessitating the following permits from NYSDEC:

- Tidal Wetlands,
- Excavation and Fill, and
- 401 Water Quality Certification.

According to NYSDEC regulations, filling in a tidal wetlands area typically requires mitigation at a 2:1 ratio. This means that if a project were to install a structure that occupies 10 CY of water space, that project would be required to provide

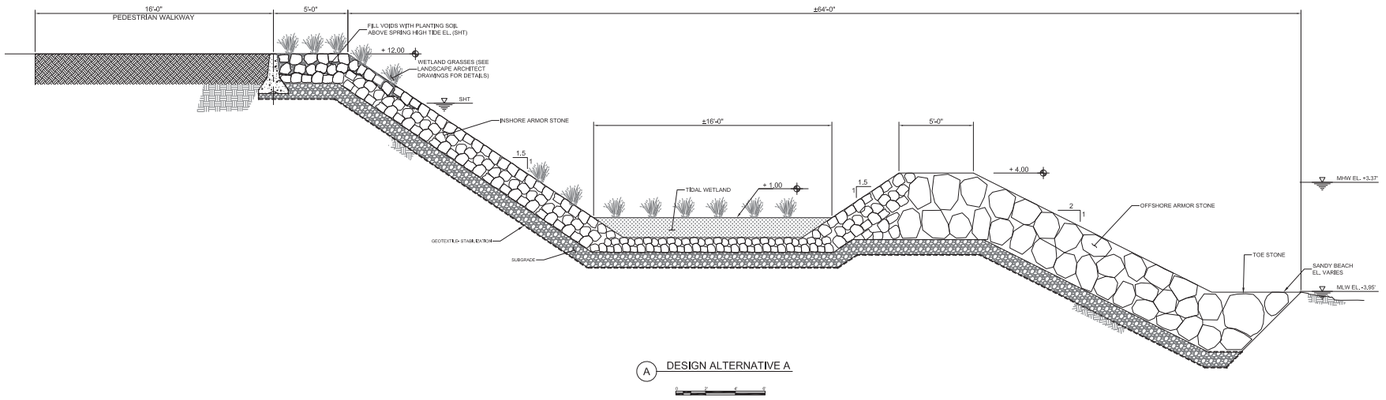
SHORELINE ANALYSIS

Final Site Report and Recommendations, 4/2/2019, McLaren

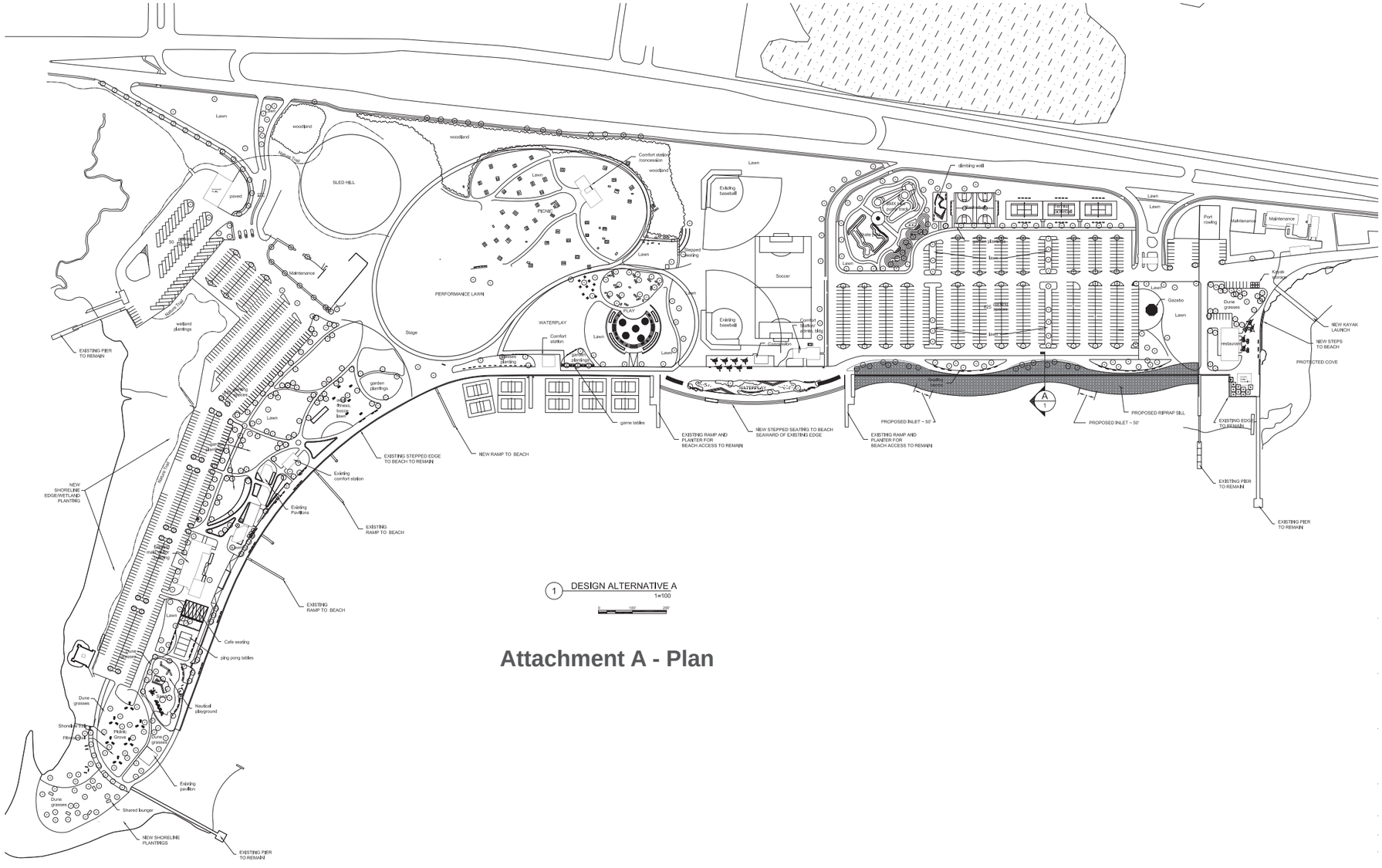
20 CY of mitigation, in the form of wetland creation or cleanup. The proposed project will likely require mitigation, as the sill and riprap slope result in a substantial volume of fill added to the waterway.

Federal consistency reviews are required when a project requires permitting or other action by a federal agency, such as the USACE, and when the project falls within the NYSDOS established Coastal Area Boundaries. As the proposed site is waterward of this NYSDOS boundary, the design must be reviewed for Coastal Consistency Concurrence.

While one joint application package may be submitted to satisfy requirements for permit issuance from all three agencies, each agency will conduct a separate review of the provided material, thus resulting varied review timelines and comments.



Attachment A - Section



1 DESIGN ALTERNATIVE A
1=100

Attachment A - Plan

REFERENCES

Documents

- Preliminary Report for the Feasibility of Establishing A Rowing Course on the Upper Area of Hempstead Harbor, Cashin Associates, P.C., April 2003
- Harbor Management Plan for Hempstead Harbor, Report, 2004
- Town of North Hempstead: Triangular Property Deed, December 2010
- Adopted Capital Plan, Fiscal year 2016 through 2020, Town of North Hempstead
- Feasibility Study to Connect the Town of North Hempstead, North Hempstead Beach park, North Section Sanitary Sewer System to the Port Washington Water Pollution Control District, Department of Public Works, Town of North Hempstead, January 2014
- Environmental Study of the Hempstead Harbor Nature Sanctuary, David Jakim, June 2015
- Notes on Habitat Visits and Wildlife Observations, June 2016
- Environmental Study and Proposal for the Hempstead Harbor Nature Sanctuary, David Jakim, August 2016
- All-Terrain-Vehicles in the Hempstead Harbor Sand Pits: Urgent Ongoing Environmental Harms and Risks, David Jakim, April 2017
- Baseline of Knowledge on the Habitats of the Hempstead Harbor Beach Park Natural Area and Need for Further Study of Habitats and Rare Species Surveys, David Jakim, June 2018
- Case Study of the Amsterdam Meadow by Fairview Drive, Port Washington, David Jakim, February 2018
- North Hempstead Beach Park Geographic Area West of West Shore Road: Points of Interest
- Hempstead Harbor Natural Heritage District, Brochure, PW Green

Drawings and Maps

- Rehabilitation of Pier at Town of North Hempstead Beach Park, Department of Public Works - Town of North Hempstead, Construction Document Set, February 2016

- Port Washington Peninsula Habitat Map Including Portions of Manhasset and Roslyn