



December 2016

Dear Friend of the Nantasket Beach Reservation:

I am delighted to present to you the Nantasket Beach Reservation Master Plan.

Nantasket Beach Reservation, on the Atlantic Ocean in Hull, is owned and operated by the Department of Conservation and Recreation (DCR). The 26-acre Reservation encompasses 1.3 miles of beachfront, adjacent visitor amenities, associated parking areas, and an operations and maintenance facility.

In 2005, in conjunction with a project for seawall and beach accessway repairs at Nantasket Beach, the DCR initiated this Master Plan. On October 12, 2006 we held the first Nantasket Beach Reservation Master Plan Citizens Advisory Committee (CAC) meeting. That meeting marked the start of a long effort to develop this plan. The Master Plan was guided by a public process that included a series of eight Citizens Advisory Committee (CAC) and three large public meetings. The CAC and the public provided significant input into the development of the Plan, reviewing and commenting on analysis and recommendations.

The overarching goal for this Master Plan is to provide an enhanced natural and recreational experience at Nantasket Beach, with:

- Attractive amenities to support a wide range of recreational, commercial, and entertainment activities;
- Safe and convenient access for pedestrians, cyclists, transit and boat passengers and automobile users;
- Connections to adjacent bicycle paths and parking areas; and
- Increased amenities for high-tide and shoulder-season visitors.

Thanks to your efforts, positive change is happening at Nantasket Beach. Over sixteen million dollars have been invested by DCR to date at the Reservation, including seawall improvements, including new railing; new sidewalks, ramps and stairs; reconstruction of Bernie King Pavilion; shade structures and playground at the Mary Jeanette Murray Bath House; and interior improvements at Mary Jeanette Murray Bath House, Tivoli Bath House and Cook Comfort Station.

As funding becomes available DCR will seek to implement the individual projects recommended within the Master Plan. If you wish to receive updates on the progress of the Master Plan implementation, or wish to participate in future design meetings, please do not hesitate to contact Mike Galvin (Mike.Galvin@state.ma.us) or Rick Corsi (Richard.Corsi@state.ma.us).

The Nantasket Beach Reservation Master Plan is available at the Hull Public library.

Thanks again for your help. I am looking forward to continuing our partnership. Your ideas have made this Master Plan possible. Your continuing support will make it a reality.

Sincerely,

Leo P. Roy
Commissioner



Nantasket Beach Reservation Master Plan

Hull, MA



June 2016



ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY



Illustrative plan of the Master Plan recommendations.

In 2005, in conjunction with a project for seawall and beach accessway repairs at Nantasket Beach, the Massachusetts Department of Conservation and Recreation (DCR) initiated this *Nantasket Beach Reservation Master Plan* for the landside facilities of the Reservation.

The overarching goal for the *Nantasket Beach Reservation Master Plan* is to provide an enhanced natural and recreational experience at Nantasket Beach, with:

- Attractive amenities to support a wide range of activities,
- Safe and convenient access for pedestrians, cyclists, transit and ferry passengers and automobile users,

- Connections to adjacent bicycle paths and parking areas, as well as commercial and entertainment opportunities, and
- Increased amenities for high-tide and shoulder-season visitors.

The plan is designed to provide visitors with a “great day” at the Reservation from arrival to departure, while aiding the DCR in operating and maintaining the Reservation. The recommendations described throughout this master plan were developed to achieve that vision, and to respond to DCR’s needs and concerns, as well as the concerns that were expressed by the community and the Citizens Advisory Committee throughout the master plan process.

The Plan recommendations are divided into the following categories:

- The Promenade/Boardwalk
- Open Space and Recreational Amenities
- Landscaping and Green Space
- Operations and Maintenance Area
- Vehicle and Pedestrian Access and Circulation
- Year Round Operations
- Interpretive Opportunities
- Wayfinding and Signage
- Phasing

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Key recommendations include:

- Create Nantasket Green - a major new park at the foot of Wharf Avenue, providing a welcoming entrance to visitors and an important gathering spot.
- Provide a continuous boardwalk with shade shelters and artist spaces, extending the length of the Reservation.
- Create a bicycle lane (adjacent to the boardwalk in most locations) extending the length of the Reservation and connecting to existing and proposed (by the Town of Hull) bicycle routes; along with new bicycle racks and opportunities for bicycle rental.
- Relocate both the David A. Cook and Tivoli Bath Houses to more protected locations.
- Expand playgrounds at both the David A. Cook and Mary Jeanette Murray Bath Houses.
- Improve plazas adjacent to the Bernie King Pavilion and Tivoli Bath House.
- Plant new landscaping throughout the Reservation.
- Reconfigure Nantasket Avenue/Hull Shore Drive intersection to improve traffic flow and allow for

a more efficient and reorganized DCR operations and maintenance facility.

- Repair existing buildings.
- Recommend potential options for the Dormitory Building, Clocktower Building and Police Station to improve utilization and provide additional funding for building maintenance.
- Improve parking operations and continue monitoring of parking demand and capacity.

Implementation of the Master Plan will result in:

- New open space: 2.38 acres including 1.02 acre Nantasket Green + potential for additional 5.88 acres (from potential future conversion of parking lots to parkland)
- Continuous boardwalk with shade shelters and artist spaces: 2.68 acre boardwalk
- Continuous bike path: 1.3 miles
- More protected locations for Cook Comfort Station and Tivoli Bath House
- Expanded playgrounds
- Improved plazas
- New landscaping: 1.76 acres
- Enhanced vehicular/pedestrian access and circulation and parking

- New interpretive opportunities
- Introduction of wayfinding and signage program
- Improved operations and maintenance area
- Improved parking signage and real-time availability information
- Ongoing monitoring of parking demand.

1. INTRODUCTION



Aerial view of Nantasket Beach Reservation looking north.

In 2005, in conjunction with a project for seawall and beach accessway repairs at Nantasket Beach, the Massachusetts Department of Conservation and Recreation (DCR) initiated this Nantasket Beach Reservation Master Plan process for the Reservation's landside facilities.

Nantasket Beach has been a popular summer destination for city dwellers since the middle of the 19th century. The beach itself, an incredible natural resource, is one of the busiest beaches near Boston. The water is consistently clean and the Reservation is within a one hour drive of much of the Boston Metropolitan Area.

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The Reservation includes a number of attractive historic structures, three bath houses, a comfort station and convenient parking, yet the overall Reservation has few additional amenities. Much of the land is taken up with surface parking lots. Existing seating and shade areas - as well as parking lots - are barren, with large expanses of concrete and minimal plantings to soften the environment.

The scope of this master plan included coordinating Reservation needs and community planning efforts to develop recommendations for:

- Visitor amenities such as open space, bath houses and recreation areas
- Parking, traffic and pedestrian access
- Accessibility
- Maintenance facilities
- The overall appearance of the Reservation.

Public Process

This master plan was guided by a public process that included both a series of eight Citizens Advisory Committee (CAC) and public meetings. The CAC provided significant input into the development of the Plan, reviewing and commenting on analysis and recommendations at eight meetings over the course



Visitors enjoying a beautiful day at Nantasket Beach.

of the project. Several of these meetings were open to the public to elicit feedback on the master plan as it was developed. Meetings also were held with the Hull Board of Selectmen and the Town of Hull.

2. EXISTING CONDITIONS



Location of the Reservation and significant features within and adjacent to it.

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The Nantasket Beach Reservation, located on the Atlantic Ocean on the northern shore of southeastern Hull, MA, is owned and operated by the DCR. The 26-acre Reservation encompasses approximately 1.3 miles of beachfront (6,800 linear feet), and includes the beach and adjacent visitor amenities, associated parking areas, and an operations and maintenance facility. It is bounded approximately by:

- Phipps Street to the north
- Hull Shore Drive and Nantasket Avenue (Route 228) to the west
- The driveway from Nantasket Avenue to the southern end of the DCR parking lot to the south
- The Atlantic Ocean to the east.

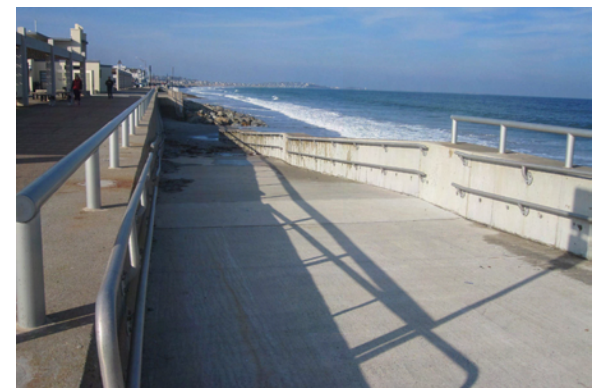
When the master plan was initiated, the Town of Hull had recently prepared the *2004 Nantasket Focused Area Study*, and the Hull Redevelopment Authority (HRA) was moving forward with a plan for residential development on their parcels across Hull Shore Drive from the northern end of the Reservation. More recently, the Town has constructed streetscape improvements along Nantasket Avenue, between Water Street and Bay Street, and prepared a new plan for the HRA property and the adjacent commercial area.

The Beach & Promenade

The beach runs along a beautiful long and narrow strip of land (only 450 – 500 feet wide in some locations) that separates the Weir River and the Atlantic Ocean. At low tide the beach is a wide, expansive area that accommodates hundreds of beachgoers. At high tide much of the beach is under water.

A beachfront promenade, located adjacent to the seawall (or revetment), runs along the entire length of the Reservation and provides visitors physical and visual access to the beach, as well as passive and active recreation opportunities. The seawall serves as seating along the promenade.

The beach is accessible from the promenade via concrete stairs and ramps built into the seawall. New entry stairs, accessible ramps and railings were constructed to improve access as part of the 2007 seawall improvements.



At right, from top: A busy beach at high tide; the beach at low tide; new ramps have improved beach accessibility.

Beachfront Buildings & Adjacent Amenities

Below are descriptions of buildings and adjacent amenities found within the Nantasket Beach Reservation. Recommendations for maintenance activities on individual buildings are included in the *Nantasket Beach Reservation Facilities Utilization Report*, prepared in 2014 by Louis Berger as part of this master plan project, and available under separate cover.

The buildings, which are open to the public, include three bath houses, one comfort station and an open-air pavilion. All three bath houses underwent renovation during spring and summer 2007.

Mary Jeanette Murray Bath House

The Mary Jeanette Murray Bath House (MJM) is the centerpiece of the Reservation. Built in the Art Deco style, the MJM is one of the more architecturally significant buildings within the Reservation. The building has an area of approximately 3,640 square feet and currently is used as a bath house and community venue. It is in good condition overall, and was recently renovated.

The MJM Bath House is currently underutilized by the public as the main doors are locked when there are no scheduled events. The wings of the building,

which contain restrooms and changing rooms, are open to visitors regardless of event scheduling. Space within the bath house also is underutilized. In each of the two wings there is a large, empty open space reserved for gatherings and a utility room that is either largely empty or used for minimal storage. The manager's office on the beach side of the building is partially used for cleaning supplies and first aid supplies (including an automated external defibrillator [AED]).

Historic Relevance

The Massachusetts Historic Commission (MHC) has determined that the building appears to be eligible for listing as a contributing structure within a potential Nantasket Beach Reservation Historic District. The building was constructed in 1935 and reconstructed in the late 1990s.

Adjacent Amenities

Shade structures (pergolas) with benches are located on the north and south sides of the bath house. These are the primary shade structures for the Reservation and are heavily used by casual visitors and as gathering areas for large groups. A beach volleyball court is located directly north of the bath house and a small playground with a play structure is located directly to the south. The playground was expanded in 2008.



From top: View of Mary Jeanette Murray Bath House from Nantasket Avenue; pergolas adjacent to the MJM Bath House provide a popular semi-shaded gathering area; the playground to the south of the bath house.



Bernie King Pavilion

Also on the oceanfront, south of the MJM Bath House, is the renovated Bernie King Pavilion. Originally built in the late nineteenth century, this 10,800 square foot open air facility is primarily used for seasonal concerts and dance events, and contains a privately-operated concession stand. The Pavilion is a popular spot to picnic during summer months, as it provides concession, seating and shade areas, and allows views to the beach and ocean. On Sunday afternoons visitors come to dance to live music.

In 1999, elevated levels of lead were identified on the Pavilion's exterior and interior. The facility subsequently underwent a \$940,000 reconstruction, which was completed in 2004.

Adjacent Amenities

An open waterside plaza adjacent to the Pavilion has picnic tables and benches, although the lack of shade structures and plantings make this a somewhat inhospitable picnic area.



At left, from top: View of the Bernie King Pavilion from Nantasket Avenue; Sunday afternoon dancing at the Pavilion.

Tivoli Bath House

The Tivoli Bath House, located near the southern end of the Reservation, is a single story concrete structure built in 1981; it has an area of approximately 1,500 square feet and contains restroom and shower facilities. The building suffers from repeated storm and wave damage due to its unprotected location so close to the ocean.

Adjacent Amenities

Just north of the Tivoli Bath House is a raised and widened portion of the promenade with a row of picnic tables and a row of benches with telescopes. The tables and benches are far apart and have no shade protection.

Comfort Station (205 Nantasket Avenue)

The Comfort Station, located on Nantasket Avenue adjacent to the Clocktower Building, is across Nantasket Avenue from the beach and the Bernie King Pavilion. The structure has an area of approximately 1,500 square feet and is used as a public restroom facility. It is in good condition.



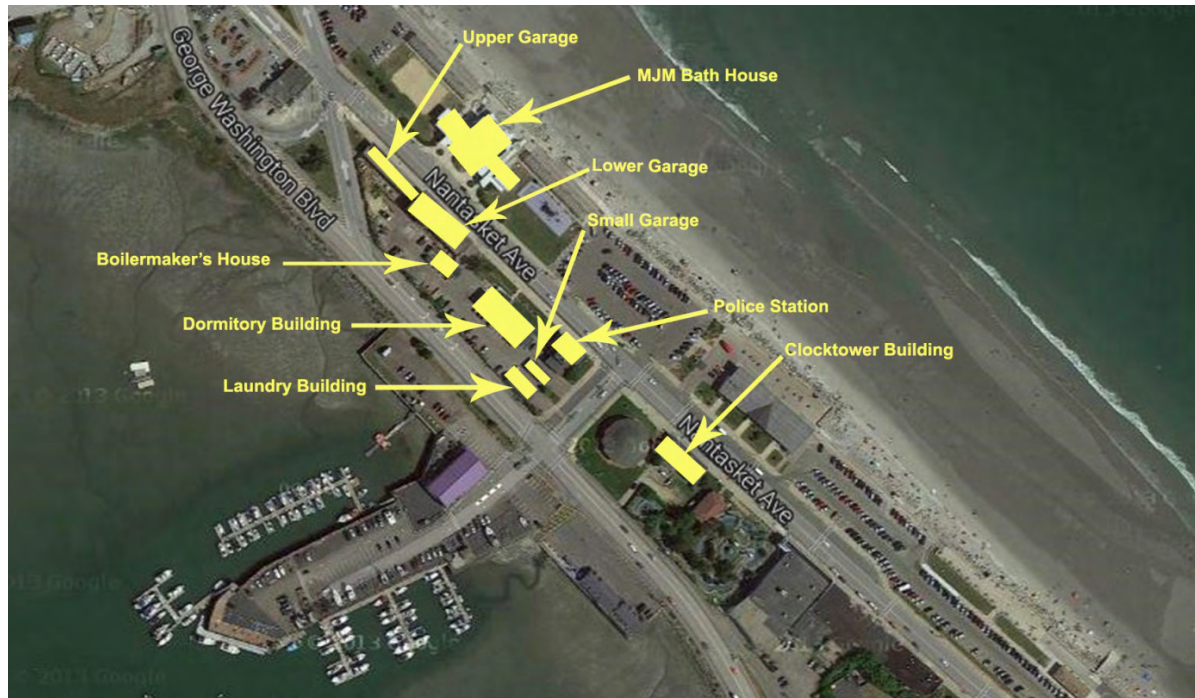
From top: The beachfront plaza adjacent to the Bernie King Pavilion; view of the Tivoli Bath House from the south; view of the beachfront plaza north of the Tivoli Bath House.



From top: View of the Comfort Station from Nantasket Avenue; view of the David A. Cook Comfort Station from Hull Shore Drive.

David A. Cook Comfort Station

The David A. Cook Comfort Station is located at the northern end of the Reservation on Hull Shore Drive. The single-story red brick structure was built in 1953 and has an area of approximately 2,800 square feet. It contains public restroom and shower facilities and is in adequate condition. Additional space in the building is currently underutilized.



Location of the buildings within the Operations and Maintenance Facility, and the nearby Clocktower Building.

Landside Operations / Maintenance Buildings

Other DCR-owned buildings are found on the 3.5-acre block bounded by Wharf Avenue, Nantasket Avenue and George Washington Boulevard. The block is across Nantasket Avenue from the MJM Bath House. Some of these buildings date back to 1898. The buildings, described below, are used primarily by DCR operations and maintenance staff. The site

also encompasses uncovered storage bins used for sand, salt and landscaping materials; two fuel pumps and a ramp used by trucks for unloading trash into an adjacent dumpster.

Dormitory Building

The two-story Dormitory Building has an area of approximately 9,000 square feet and is in overall poor condition. It was originally built in 1898 and used



View of the Dormitory Building from Nantasket Avenue.

as a Metropolitan Police barracks. The main floor is currently used as the DCR's operations office building with some space available for dry and hazardous materials storage. The upper floor is largely vacant. During the summer, parking passes are sold from the building.

Historic Relevance

Although the MHC has not undertaken any formal survey or analysis of historical relevance for the Dormitory Building, it is likely that it would be considered eligible for listing as a contributing structure within a potential Nantasket Beach Reservation Historic District.

Police Station Building

The two-story former Police Station has an area of approximately 4,000 square feet and is in very poor condition. It was built in 1901 and used as a police station by the former Metropolitan District Commission (the predecessor agency to DCR). It is currently vacant and entry is prohibited due to high levels of asbestos. There is a crawl space, but no full basement, under the building.

Major rehabilitation work will be necessary for this building to be re-used.

Historic Relevance

The MHC has determined that the building appears to be eligible for listing as a contributing structure within a potential Nantasket Beach Reservation Historic District.

Small Garage (Fire Safety Building)

The small wooden garage building, also known as the Fire Safety Building, has an area of approximately 1,000 square feet and is in overall poor condition. It is currently used for cold storage of parking supplies such as signs and posts.

Historic Relevance

The MHC has not undertaken a formal survey or analysis of historical relevance for the Small Garage.

Laundry Building

The Laundry Building is a World War II-era, single-story structure of approximately 900 square feet. It is in overall adequate condition. It is currently used for dry storage of lumber and is sometimes referred to as the "wood storage room".

Historic Relevance

The MHC has not undertaken a formal survey or analysis of historical relevance for the Laundry Building. It was likely moved to the location and therefore would not be an original contributing element within a potential Nantasket Beach Reservation Historic District.



At right, from top: View of the Police Station Building from Nantasket Avenue; view of the Small Garage/Fire Safety Building from Wharf Avenue; view of the Laundry Building from Wharf Avenue.



Lower Garage

The Lower Garage (with attached carpenter shop), built in 1903, is a single-story red brick structure composed of two attached building segments (a garage and a carpenter shop) and is approximately 5,000 square feet. It is in overall good condition. Its major use is vehicle and maintenance storage but the facility also provides heated storage and houses the carpentry shop. The building is not prone to flooding, making it ideal for storage of sensitive goods such as toilet paper and waste oil. There are two bathroom facilities and a shower in the building.

All available floor space for vehicle and maintenance storage is used to its fullest extent. There is currently no pedestrian door to access the main part of the garage; only overhead garage doors. This decreases the energy efficiency of the building and causes unnecessary wear and tear to the motorized overhead door equipment.

Historic Relevance

The Lower Garage is included in the MHC Inventory of Historic and Archaeological Assets of the Commonwealth. MHC has determined that the building

At left, from top: View of the Lower Garage from Nantasket Avenue and from the maintenance yard; view of the Upper Garage from the maintenance yard.

appears to be eligible for listing as a contributing structure within a potential Nantasket Beach Reservation Historic District.

Upper Garage

The Upper Garage is a single-story red brick structure built in 1900. It has an area of approximately 2,750 square feet and is in overall good condition. Its major use is vehicle and maintenance storage. Due to current space restrictions, the garage cannot accommodate a truck equipped with a plow and sander. The building is prone to flooding; during large storm events, up to 1.5 feet of water may be seen on the floor. This may be due to the overhead doors on the Nantasket Avenue side of the building that do not seal well with the concrete slab floor. There is no bathroom located in this building.

All available floor space for vehicle and maintenance storage is used to its fullest extent. The heated garage provides the best shelter for sensitive equipment. Desired improvements for this building include additional overhead doors on the George Washington Boulevard side of the building and expanded floor space.

Around 2007, the building's interior was temporarily divided to provide leased space, and the section of

the building fronting Nantasket Avenue was leased to an art studio ("Studio at the Beach"). DCR recently discontinued that lease and the entire building is once again used for vehicles and maintenance storage.

Historic Relevance

Although the MHC has not undertaken any formal survey or analysis of historical relevance for the Upper Garage Building, it is likely that it would be considered eligible for listing as a contributing structure within a potential Nantasket Beach Reservation Historic District.

Boilermaker's House

The Boilermaker's House has an area of approximately 780 square feet and is in overall poor condition. It is currently used as a break room for lifeguards and as office space for the lifeguard supervisor. There is a functioning bathroom in the building.

Historic Relevance

The MHC has not undertaken a formal survey or analysis of historical relevance for the Boilermaker's House. It was likely moved to the current location and would not be an original contributing element within a potential Nantasket Beach Reservation Historic District.



From top: View of Upper Garage from Nantasket Avenue, with art studios opened to the sidewalk; view of the Boilermaker's House.



From top: View of the Paragon Carousel and Clocktower Buildings; closeup of the Clocktower Building; fun on the carousel.

Other Reservation Structures

The Clocktower Building and Paragon Park Carousel are located within the Reservation on the south side of Wharf Avenue.

Paragon Carousel

Built in 1928, the Paragon Carousel was part of Paragon Park, an amusement park that opened in 1905. It is a local landmark and tourist attraction, moved to its current location following the 1985 closing of Paragon Park. The Carousel is privately owned by the non-profit Friends of the Paragon Carousel, although it is located on DCR land.

Clocktower Building

The Clocktower Building and the adjacent land for the Carousel have been leased to the “Friends of the Paragon Carousel”. The long-term lease expired on June 30, 2016. The basement currently houses the mechanical equipment for the Carousel and a workshop where the Carousel horses are maintained. The first floor houses a museum focused on Paragon Park and an ice cream parlor. The upstairs is used for storage but has no electricity, heat or plumbing.

The expiration of the lease in 2016 provides an opportunity for DCR to find alternative and/or additional uses for the building. Regardless of the uses on the first and second floor, DCR would like to allow the mechanical equipment for the Carousel to remain in the basement and the Carousel itself to remain on the adjacent land. This building is currently an important part of the funding and operation of the Carousel. However, the Clocktower Building itself continues to fall into disrepair. It is important that the funds required for much needed maintenance improvements and ongoing maintenance and operations of the building be generated by revenues from the lease of this building, or that an additional source of funding be identified (i.e., a capital campaign by the “Friends of the Carousel” to raise funds to fully rehabilitate the building).

Historic Relevance

The building is included in the MHC’s Inventory of Historic and Archaeological Assets of the Commonwealth. MHC has determined that the building appears to be eligible for listing as a contributing structure within a potential Nantasket Beach Reservation Historic District. It was constructed in 1903 as a restaurant and waiting area for the ferry and train to Boston.

Pedestrian & Vehicular Access

Contributing to the beach's appeal is its high level of pedestrian and vehicular accessibility from adjacent, largely residential areas, and its proximity to the Boston metropolitan area. Based on a 2006 Visitor Survey (see page 13), 91 percent of the visitors come by car. That number may have decreased to some extent since the introduction of the Greenbush Line Commuter Rail Service from Boston, but the reduction is likely small because of the lack of weekend service.

There are 26 crosswalks linking pedestrians to the Reservation beachfront (see page 19). The crosswalks are fairly evenly distributed at intersection and mid-block locations along Nantasket Avenue and Hull Shore Drive and connect to bath houses and other public facilities. Many of the crosswalks, however, are not at stop signs, limiting the degree to which pedestrians are protected.

Sidewalks along both sides of Nantasket Avenue in the Reservation are generally in good condition. Sidewalks on the western side of Hull Shore Drive (abutting vacant Hull Redevelopment Authority property) are deteriorating and in need of improvement. The sidewalk on the eastern side of Hull Shore Drive in this location was recently reconstructed.

Transit

Transit access to the Reservation is somewhat limited. Bus Route 714 runs from Pemberton Point to Hingham Center, with stops on Nantasket Avenue. It connects to the Greenbush Commuter Rail Line at Nantasket Junction; however, there is no commuter rail service on weekends, and bus and train schedules are not coordinated. The bus provides access to the ferry terminal at Pemberton Point, which has ferry service from Long Wharf in Boston.

The 220 bus route connects the Quincy Center Massachusetts Bay Transportation Authority (MBTA) station to Nantasket Junction. A passenger could take the MBTA Red Line or Old Colony Commuter Rail to Quincy Center, then take the 220 bus to Nantasket Junction and transfer to the 714 bus to Nantasket Beach, but this three-seat journey would be lengthy and difficult to coordinate.

Bicycles

Bicycle racks are located in several locations throughout the Reservation. The Town of Hull's Bicycle Plan was adopted in 2007 and proposes an extensive network of bike routes throughout the Town (see illustration on page 14); most of the plan has not been implemented to date. An existing bike path

along the southwest side of George Washington Boulevard connects to Hingham. DCR also intends to stripe bike lanes on Wharf Avenue to connect cyclists from George Washington Avenue to the beach. At this time of this report, a MassDOT study of a more formalized bikepath on both sides of George Washington Boulevard from Hull to Hingham is underway.

Parking

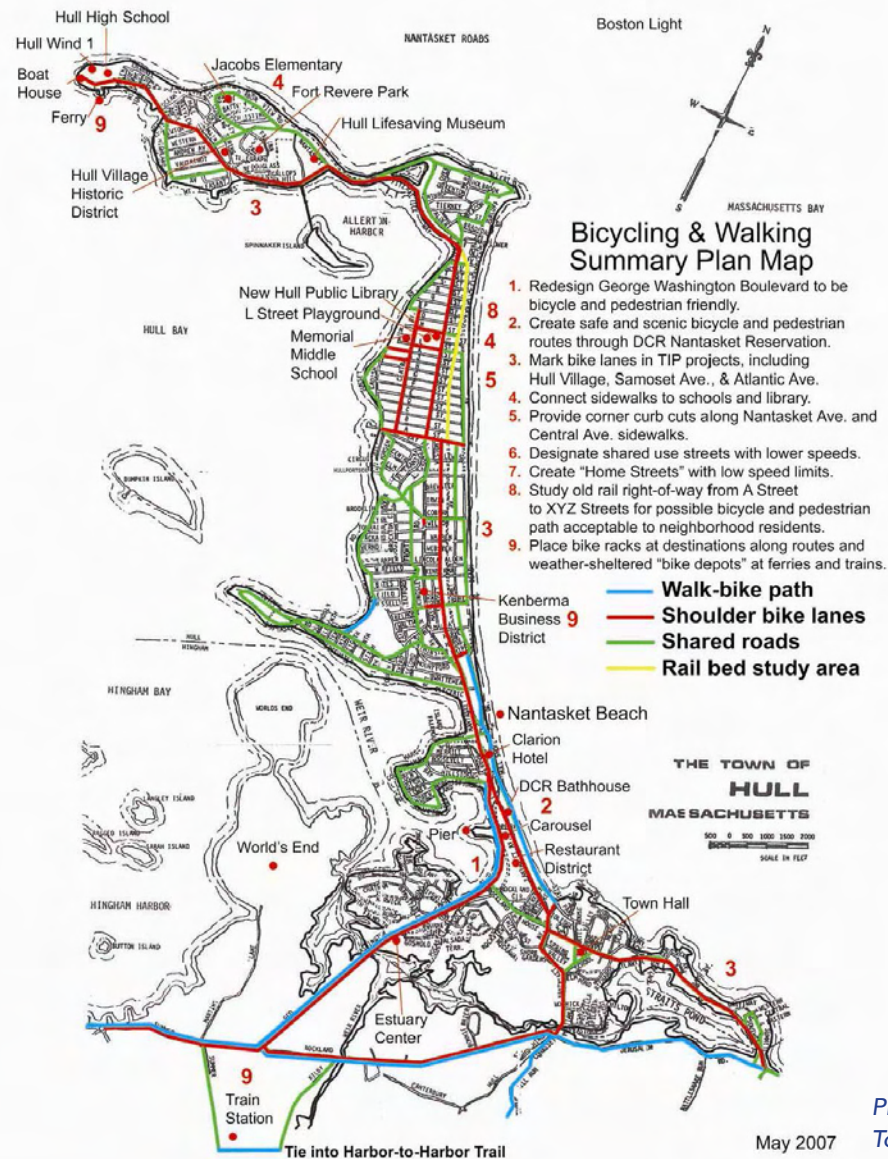
There are approximately 1,203 existing public parking spaces within the Reservation, including both on and off-street parking (see aerial photo on p. 3), plus an additional 900 spaces on vacant lots owned by the Hull Redevelopment Authority.

Most of the surface parking areas are adjacent to the beachfront, with the highest concentration of public parking found at the southern end of the Reservation. Two large overflow lots are located on George Washington Boulevard near the southern end of the Reservation.

These lots are separated from Nantasket Avenue by a large condominium development (Horizons Condominiums). Pursuant to a Massachusetts Public Waterfront Act Chapter 91 License, a path adjacent to the north edge of the Horizons Condominiums parking lot was constructed to provide a more direct link from



From top: Existing promenade and parking lots have minimal amenities; view of skating rink in the overflow lot on George Washington Boulevard.



Proposed route map from the Town of Hull's 2007 Bicycle Plan.

the DCR parking lots on George Washington Boulevard to Nantasket Avenue and the beach. However, this path remains fenced off from public use because a short section is on property owned by others and the public is prevented from using this path. This path will increase the attractiveness of these underutilized lots. The DCR continues to negotiate with the property owner regarding the lease or acquisition of the necessary right of way. These negotiations are at an impasse as of this printing.

Most of the parking lots are to the south of the MJM Bath House and most of the on-street parking spaces are to the north.

User Survey

An informal visitor survey was conducted to gain a better understanding of visitors' use and impressions of the Reservation. The responses provided valuable background information for development of the master plan.

Specifically, a total of 101 individual surveys were conducted on Monday, July 24; Sunday, July 30; and Wednesday, August 16, 2006. Although a few of the comments regarding facilities are now out of date, the majority of the responses are still relevant. The responses are summarized on the following pages.

Visitors

Almost 90 percent of the visitors surveyed were from outside of Hull. It is assumed that many Hull residents use the Town portion of the beach, rather than the DCR portion of the beach. Respondents came from areas west and south of Hull, from up to 40 miles away.

Ninety-one percent of respondents came to the beach by car. This is consistent with the finding that most of the people on the DCR beach are not from Hull (transit connections to the beach were very limited – the Greenbush Line did not reopen until October 2007). Seven percent of respondents walked (Hull residents) and two percent drove a motorcycle.

Young crowds (13-25 years of age) tended to congregate at the southern end of the beach near the Tivoli Bath House, whereas families (adults with children under 18 years of age) tended to congregate at the northern end of the beach near the Cook Comfort Station. Approximately twenty-five percent of the respondents came with children under 18 years old.

Beach Facilities, Maintenance & Security

Overall, beach users had relatively positive responses regarding DCR's operation of the beach and the

conditions at the Reservation. Forty four percent of respondents gave "cleanliness of facilities" the highest two scores (scoring was on a scale of 1 to 5) and 40 percent gave cleanliness the lowest two scores.

Beach Experience

Seventy-two percent of the respondents reported swimming. Twenty-eight percent said they had not been in the water, but many of these respondents said they would be going in shortly.

Beach Access

Seventy-six percent of the respondents thought there were enough beach access points. Many commented that existing access through the seawall would be adequate if ramps and stairs were improved, repaired, and cleared of large revetment boulders. Subsequent to the survey, the ramps and stairs were improved, and new ramps were added, as part of the seawall improvements. The ramps now meet ADA accessibility standards.

Eighty percent of respondents thought there was an adequate number of crosswalks on Nantasket Avenue and Hull Shore Drive.

Parking

Parking was often described as being convenient. Sixty-six percent gave ease of parking either the highest or second highest rating. Respondents on the northern half of the beach reported more parking difficulty than those to the south. The most often cited problems with parking were “high prices” and lack of parking in lots near the Mary Jeanette Murray Bath House. Sixty-four percent of respondents said they would not consider using a remote parking lot with shuttle service, even if it meant more green space within the Reservation.

Attraction to Local Restaurants & Shops

Sixty-seven percent of the respondents said they had been, or planned to go, to a restaurant, shop, museum or other business in town while at the beach. A third of the respondents who suggested improvement ideas for the Reservation wanted more food related facilities (more beach vendors, more convenient food).

Beach Replenishment

Sixty six percent of the respondents said they would support beach replenishment with sand of another color. Seventy four percent of the respondents said they would like a wider beach at high tide.

Suggestions for Additional Amenities

Respondents identified the need for the following additional amenities:

- Bath houses
- Shower related facilities
- Water fountains
- Park areas/picnic areas with benches
- Umbrella/chair rentals
- Recreational facilities
- Convenient food related facilities
- Trash cans
- Shops.



The arcades across Nantasket Avenue from the Tivoli Bath House and Bernie King Pavilion.

3. GOALS



The overarching goal for the *Nantasket Beach Master Plan* is to provide an enhanced natural and recreational experience at Nantasket Beach, with:

- Attractive amenities to support a wide range of activities.
- Safe and convenient access for pedestrians, cyclists, transit and ferry passengers and automobile users.
- Connections to adjacent bicycle paths and parking areas, as well as commercial and entertainment opportunities.
- Increased amenities for high-tide and shoulder-season visitors.

In order to focus the master planning process, the following master plan goals, organized around five focus areas, were developed.



The Beach

- Provide and improve amenities on the beach (such as bath houses, shade structures, a widened promenade, space for vendors, bike paths, and other amenities as determined appropriate).
- Improve public access to beach for people of all ages, abilities, and backgrounds, including: bicycle access, accommodation of public transportation, and improved parking and roadway design.
- Create a gateway to Nantasket Beach for arriving visitors.
- Foster local commerce by improving connections between the beach and local businesses

and encouraging a variety of uses that benefit from the beach setting.

- Interpret the historical context and natural resource systems of the beach and the region.
- Preserve the essential character-defining features of the landscape while adapting the beach for contemporary uses.
- Develop year-round uses along the beach.
- Link Nantasket Pier to the Reservation.

Operations

- Establish an annual beach users meeting as a means of coordinating activities, sharing ideas and voicing concerns.
- Promote and accommodate regional events and programs on the beach.
- Ensure beach maintenance operations are adequately staffed and equipped.
- Maintain beach stability and sustainability.
- Ensure public safety by providing lifeguards and maintaining a clean beach.

Access & Circulation

- Provide safe and continuous bicycle, skating, and pedestrian access along the entire length of the beach promenade.
- Separate foot paths and bike paths in order to ensure safety and ease of movement for all users.
- Provide a comfortable, safe, and secure experience for visitors by reducing congestion and minimizing conflicts on the promenade, streets, and bike paths.
- Establish easier and safer pedestrian movement from the beach to local businesses and remote parking, promoting pedestrian friendliness.
- Improve traffic flow and access to parking, including use of signage to direct pedestrians and vehicles.
- Increase public transportation to Nantasket Beach and create connections to existing and planned transit (i.e., bicycle connections to the MBTA rail station and to potential future ferry operations).
- Increase the use of the rear lot along George Washington Boulevard and open the pedestrian right-of-way along the Horizons Condominiums.

The Built Environment

- Ensure that all building uses on DCR property are public in nature.
- Make efficient use of DCR's existing buildings and operations area.
- Rehabilitate buildings consistent with programming for Nantasket Beach and maintenance operations.
- Provide multi-use public facilities and spaces that are flexible, well-designed, and easily maintained.

The Natural Landscape

- Diversify plant communities in the Nantasket Beach area, to the degree that climate permits, for a healthier and more attractive landscape.
- Establish a sustainable and maintainable landscape.

4. RELATED STUDIES



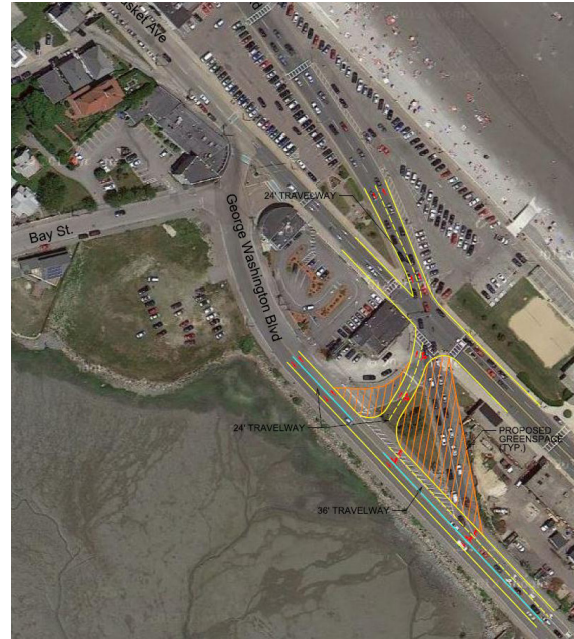
Crosswalk locations (does not include crosswalks 22-26 to the north).

The results of two studies conducted simultaneously with the final phase of this Master Plan are summarized below and incorporated into this Master Plan. The final reports are available under separate cover:

- *Nantasket Beach Reservation Traffic Analysis Report*, Louis Berger, 2014.

- *Nantasket Beach Reservation Facilities Utilization Report*, Louis Berger, 2014.

The results of a third study, *Nantasket Beach Reservation Parking Demand and Capacity Study*, Louis Berger, 2015, are discussed in Chapter 5 and also available under separate cover.



From left: Roadway realignment alternatives A, B and C.

Traffic Analysis Report

This traffic study assessed traffic flow and pedestrian/bicycle interaction at and around the Nantasket Beach Reservation during the summer months and recommended modifications to improve circulation, as appropriate. Traffic, pedestrian, and bicycle flow were counted in 2006 and analyzed for year 2013 (existing conditions) and year 2033 (forecasted conditions).

Pedestrian Crossings

The pedestrian counts at crosswalks within the study area were high, with a total of 996 pedestrians using crosswalks during the 12 pm to 1 pm hour on a Saturday. The most heavily used crosswalk was number 17 with 151 pedestrians; the crosswalk is located on Hull Shore Drive near a number of restaurants (i.e., Hull's Kitchen, Dry Dock, Daddy's Dogs).

The report included the following recommendations:

- Crosswalk 4 was utilized by only 11 pedestrians during the Saturday peak hour. This crosswalk

does not have a clear destination from the beach and could be removed to reduce the number of locations where vehicles yield to pedestrians.

- Crosswalks 8 and 9, which both lead to the arcade buildings, could be combined. A total of 175 pedestrians are expected to use this proposed crossing during the Saturday peak hour. A push-button activated flashing beacon and warning sign would be appropriate at this combined location.

- Crosswalks 17 and 18 may also be viable candidates for a pedestrian signal. These crosswalks service 151 and 118 pedestrians during the peak hour, respectively. Installing a push-button activated flashing beacon and warning sign at one or both of these locations would encourage safe crossing over the two-lane Hull Shore Drive and allow larger groups of people to gather and cross at the same time.
- All crosswalks at intersections should remain. Drivers generally proceed more cautiously at intersections, creating a safer environment for pedestrians when compared to mid-block crosswalks.

Traffic Alternatives for Improvements to the Maintenance Yard

Aside from the existing conditions, two alternatives were examined to re-configure traffic in the vicinity of the DCR operations and maintenance area and thereby make the yard space more compact and efficient for operations while reducing frontage on Nantasket Avenue. Specifically, the traffic alternatives being considered at the intersections of Hull Shore Drive, Nantasket Avenue and George Washington Boulevard are as follows:

- **Alternative A:** The existing condition remains. (Estimated construction cost: \$0)
- **Alternative B:** Realignment of the cut-through portion of roadway from George Washington Boulevard westbound. (Estimated construction cost: \$340,000 in 2016\$)
- **Alternative C:** Relocation of the cut-through portion of roadway from George Washington Boulevard westbound to the current intersection of George Washington Boulevard and Nantasket Avenue. The southeastern terminus of Hull Shore Drive is also shifted to align with this proposed intersection. (Estimated construction cost: \$1,060,000 in 2016\$).

From a traffic capacity perspective all three of the intersection alternatives would operate at level of service (LOS) "B" during the current year and at LOS "C" in the year 2033. LOS "B" is classified as reasonably free flow. LOS "C" is classified as stable flow and also considered a passing level of service.

Alternative C would provide the largest amount of yard space for maintenance operations. The decision to move forward with any of the alternatives will need to consider factors such as property ownership, concerns of local residents, and long-term plans for the community.

In 2015, the Town of Hull (with support from DCR) studied changes to the existing roadway system, including making both Nantasket Avenue and Hull Shore Drive two-way, and increasing the number of through streets between them to improve connections and create smaller, more developable blocks on the Hull Redevelopment Authority owned parcels between Water and Phipps Streets. Alternative B would be most compatible with these changes and is therefore included in the master plan drawings. Alternative B would accommodate either the existing one-way street system or the two-way system proposed by the Town. DCR is amenable to a temporary trial of the two-way road system.

Other Findings

In addition to revising the roadway alignment, the report includes the following recommendations:

- The intersection of Nantasket Avenue, Phipps Street and Mountford Road is currently operating at a failing level of service during the Saturday peak hour. Recommended mitigation for this location is to improve the signing system for parking at DCR lots. In recent years DCR has utilized four variable message signs (VMS) at select parking lots to alert drivers when lots are full. Adding VMS boards at other parking

lot entrances and updating the signs regularly would allow drivers to be aware of full lots and empty spaces allowing them to spend less time circulating. All other stop-controlled locations are currently operating at LOS "B" or better.

- All signalized intersections analyzed are currently operating at LOS "C" or better during the Saturday peak hour. If signalized intersections are found to be a bottleneck in future years, updating the fixed signal timing may decrease delays. Actuated signal timing systems are another option if an acceptable LOS is not achieved in the field. Actuated signal timing allows sensors to notify the controller of waiting vehicles to decrease unnecessary stop delay.

Facilities Utilization Report

The *Nantasket Beach Reservation Facilities Utilization Report* assessed the maintenance operations and associated facilities at the Nantasket Beach Reservation. Several options were developed to improve operations on the site and at the same time allow for vacating some of the buildings for other potential uses. Options were developed jointly with DCR staff.

Maintenance Operations

Maintenance operations at the Reservation are ongoing year-round to keep the facility functioning as expected for public use. The busiest time of year is during the summer months from Memorial Day to Labor Day but the area is open year-round from dawn to dusk. During the winter months the staff is responsible for snow removal. Storm management is necessary year-round. The maintenance crews are currently using all garage and yard space available and are in need of additional covered/heated storage for critical equipment.

The Town of Hull has expressed an interest in relocating the operations and maintenance functions to a less central location to enable the Town to reuse the existing operations and maintenance site and buildings for other uses. Chapter 289, Acts of 2010, allows the Town to lease this area for a minimum of 99 years. However, leasing the land to the Town of Hull is contingent upon Sections 2 and 3 of Chapter 289, which state: "The lease authorized in Section 1 shall be granted only if the lessee agrees to assume the costs of any surveys and other expenses deemed necessary by the commissioner of capital asset management and maintenance for the lease." And "The town of Hull shall compensate the commonwealth for the property described in section 1 by providing

necessary storage space for maintenance equipment of the department of conservation and recreation." To date, no development proposal for the existing maintenance operations site has been put forth and no relocation site or funding for the DCR maintenance operations has been designated. This master plan assumes DCR's continued presence on this site, although DCR looks forward to the opportunity to work with the Town and/or potential developer on the reuse of the site, should the conditions of Chapter 289 be met.

Buildings

There are a number of buildings on site that are not used to capacity. The Dormitory Building is currently utilized by DCR as office space. The Clocktower Building is leased out and the Police Station is closed due to asbestos and major water damage. Maintenance of the buildings on site is a major factor in any future planning. Many buildings are 100+ years old and need substantial repairs and upgrades as summarized by DCR maintenance staff and documented in the report (and summarized in Chapter 2 of this Master Plan).

Aside from long-term layout changes, several repairs and modifications to the facilities are needed, as summarized on the following pages:

1. Dormitory Building

- Inspection and possible repairs to the roof
- Assessment of structural integrity of the building
- Re-pointing of all brick work
- Inspection and repair of the brick foundation and support columns due to salt damage
- Extensive gutter and fascia replacement on both porches
- Relocation of the generator from the basement of the Dormitory Building to an area protected from flooding.

2. Laundry Building (if not planned to be demolished)

- Asbestos abatement (if not completed previously)
- Inspection and repair of rotten sills
- Replacement of windows.

3. Small Garage/Fire Safety Building (if not planned to be demolished)

- Inspection and repair of rotten sills
- Replacement of doors and windows.

4. Lower Garage

- Inspection and possible repairs to the roof
- Repair of overhanging eaves
- Re-pointing of all brick work
- Repair or replacement of all windows
- Insulation of the structure
- Installation of a pedestrian-sized door to access the building.

5. Upper Garage

- Inspection and possible repairs to the roof
- Repair of eave supports and gutters
- Re-pointing of all brick work.

6. Clocktower Building

- Testing of the second floor for lead and asbestos
- Complete remodeling of both floors
- Possible upgrade of the heating, cooling, and electrical systems
- Roof repairs.

7. Police Station

- Major rehabilitation work.

8. Boilermaker's House (if not planned to be demolished)

- Inspection and repair of rotten sills
- Inspection and repair of the foundation.

Facilities Layout Options

Four layout options were considered to better utilize the yard area and consolidate DCR operations to meet the anticipated needs of DCR staff. Facilities Layout Options 1 and 2 include modifying traffic along George Washington Boulevard (i.e., Traffic Alternatives B or C) to create additional yard space for maintenance activities. Facilities Layout Options 3 and 4 are based on the No-build Traffic Alternative A.

Key features of each option are summarized in Table 1. Each option could be modified using elements from other options. Under each option at least two buildings would be available for lease to an outside party whose purpose and goals match that of the DCR mission at the Reservation. In all four options the Boilermaker's House, Small Garage and Laundry Building are recommended for demolition or relocation to increase yard area.

Description	Option 1: Full Build-out of Upper Garage	Option 2: Partial Build-out of Upper Garage	Option 3: No Build-out of Upper Garage	Option 4: No Action
Traffic Alternative	B or C	B or C	A	A
Dormitory Building	Lease	Lease	Lease	Office Space
Clocktower Building	Lease	Lease	Lease	Lease
Police Station	Lease/Office Space	Office Space	Office Space	Lease
Yard Area	On site	On site	Parking Lot 8	On site
Small Garage	Demolish/Relocate	Demolish/Relocate	Demolish/Relocate	Demolish/Relocate
Boilermaker's House	Demolish/Relocate	Demolish/Relocate	Demolish/Relocate	Demolish/Relocate
Laundry Building	Demolish/Relocate	Demolish/Relocate	Demolish/Relocate	Demolish/Relocate
Upper Garage	10' expansion, 2nd story addition	10' expansion	No change	No change
Lower Garage	No change	No change	No change	No change
Additional Covered Storage	None	None	3-bay prefabricated garage	3-bay prefabricated garage

Table 1: Summary of Facilities Layout Options

Recommended Facilities Layout Option 2 – Partial Build-out of Upper Garage

Layout Option 2 - because it provides an improved operations area, keeps all maintenance facilities on site, is consistent with Traffic Alternative B, and does not require adding a second floor to the Upper Garage - was selected as the option to be incorporated into the Master Plan illustrations in Chapter 5. The existing operations maintenance facility - bounded by Wharf Avenue, George Washington Boulevard, Hull Shore Drive and Nantasket Avenue – is 78,400 square

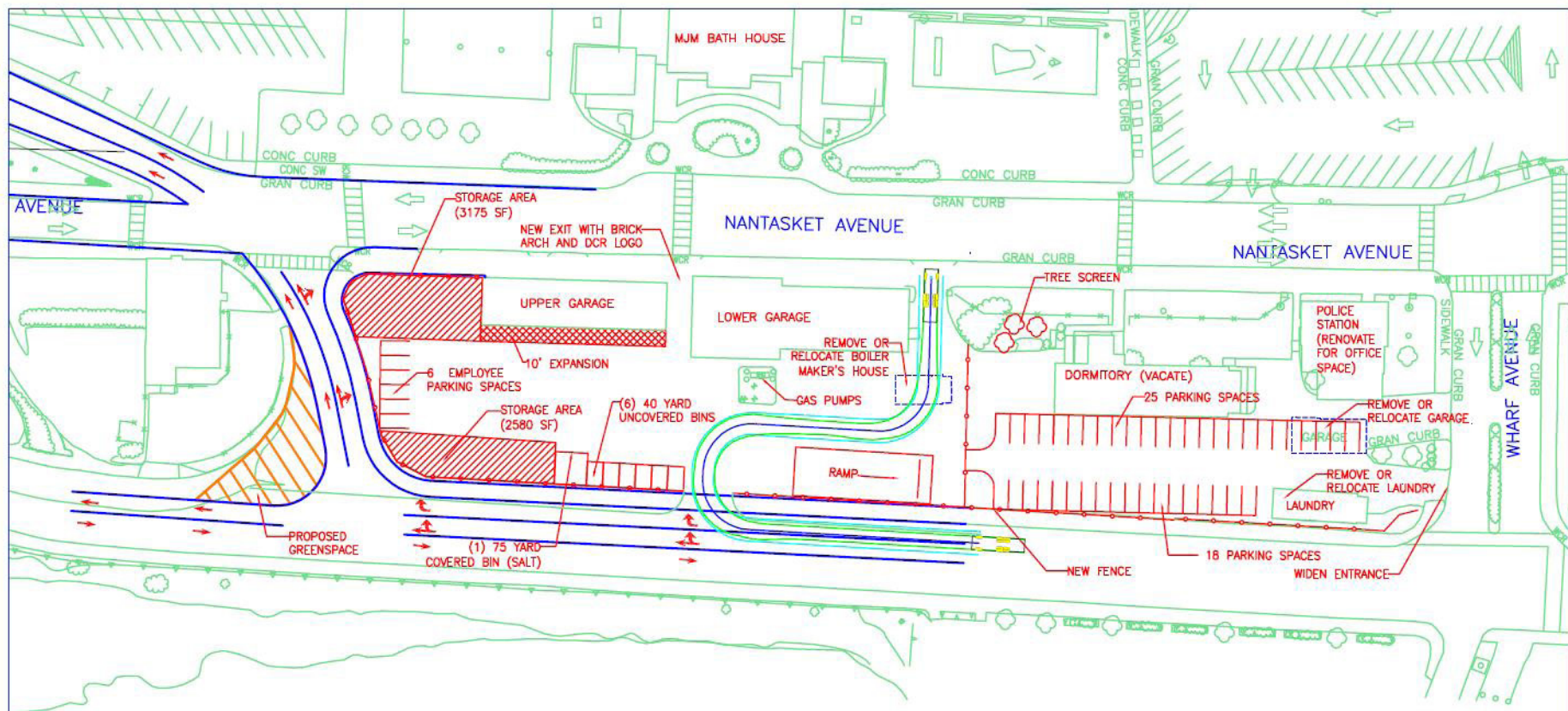
feet (1.8 acres). Traffic Alternative B adds 11,400 square feet (0.26 acres) to this area, while changes to DCR's use of the area and buildings described below result in a 37,000 square foot (0.85 acre) decrease in the area used by DCR. The net result would be that DCR's operations maintenance facility would occupy 52, 800 square feet (1.2 acres), a net reduction of 25,600 square feet (0.6 acres). DCR's use of the Nantasket Avenue frontage of the site would be decreased by 200 feet.

Office Buildings and Uses

Option 2 utilizes the Police Station for office space. While the Police Station needs extensive repairs to serve this purpose, DCR staff agrees that the central location and ease of access make it an appropriate 'face' of DCR's operations on the Reservation. The building is also slightly removed from the brick garages and will aid in separating the public from the maintenance operations and equipment. The Dormitory Building will be available for lease to a user and use that aligns with DCR's mission. The Clocktower Building needs a stronger leasing agreement that includes substantial repair and upkeep of the building. Ideally the funds would come from a capital campaign by the Friends of the Paragon Carousel. The Small Garage, Boilermaker's House, and Laundry Building are recommended for removal or relocation to increase available yard space.

Maintenance Buildings

Due to the overall good condition of the brick Upper and Lower Garages, Option 2 suggests continued use of both with some improvements. Option 2 expands the back wall of the Upper Garage by 10 feet to the south (towards George Washington Boulevard) for additional storage. Garage doors should be included on the addition to create a convenient 'pull-through' area for the operators. This would eliminate the need



NOT FOR CONSTRUCTION

**OPTION 2 WITH TRAFFIC
ALTERNATIVE B**

Nantasket Beach
Seawall Repair and Restoration
Hull, Massachusetts



1. TOPOGRAPHIC MAP: COPYRIGHT 2006, CLE ENGINEERING, INC.
2. ALL PROPERTY LINES, UTILITY PLACEMENT, AND RIGHT OF WAY LOCATIONS ARE APPROXIMATE.

Facilities Layout Option 2.

for drivers to stop traffic on Nantasket Avenue to either back into or out of the garage. The Lower Garage should be improved as suggested earlier in this chapter. A brick arch between the two maintenance garages with the DCR logo is recommended to maintain the architectural intent of the original design.

Yard Area

Due to the current restrictions of yard space it is recommended that the dumpster and ramp be relocated to provide easier access during pickup and to avoid damage to the gas pumps. Additional yard space under Alternatives B and C can accommodate a truck entrance to the yard from George Washington Boulevard. Trucks will exit to Nantasket Avenue.

To improve the available area in the maintenance yard, Option 2 removes or relocates the Boilermaker's House, Small Garage, and Laundry Building. Forty-three parking spaces are located near the Dormitory Building.

For outside storage of materials and equipment, various locations around the site have been strategically chosen to leave sufficient open space for vehicle movement. One covered salt bin (capacity of 75 cubic yards) and six open bins (capacity of 40 cubic yards each) are located on the site for storage of materials throughout the year.

Six employee parking spaces are located at the north end of the site. Partial staff parking would be moved to Parking Lot G during the summer months.

For Traffic Alternative B, the entrance from Wharf Avenue should be reconfigured to increase the area for turning movements of large trucks. A new fence would surround the site to provide a visual screen.

Traffic Alternatives

Layout Option 2 under Traffic Alternative B increases the yard area substantially and "squares off" the yard.

Under Traffic Alternative C, even more yard area would be available. In addition to a truck entrance from George Washington Boulevard and additional parking spaces near the Dormitory Building, the storage bins under Traffic Alternative C are moved to the northern side of the yard. For Traffic Alternative C, the number of employee parking spaces within the yard area is increased to 10 (compared to 6 spaces under Traffic Alternative B). Traffic Alternative C also allows for some future expansion of the maintenance area, if needed.

Considerations for All Future Operations Area Options

A number of building and yard maintenance improvements discussed in the preceding sections are recommended for near-term consideration. The

buildings on site are in need of fairly major repairs just to maintain the deteriorated conditions expected of buildings over 100 years old. Specifically, recommended improvements include the following:

- Build a temporary cover for the salt storage bin to meet environmental run-off regulations until a permanent structure can be constructed.
- Demolish or relocate the Laundry Building, Small Garage/Fire Safety Building, and/or Boilermaker's House to allow for additional yard space and to improve circulation.
- Re-route the current garage waste disposal drains to connect to the town sewer line under Nantasket Avenue.
- Install deep sump catch basins.
- Relocate the generator from the basement of the Dormitory Building to an area protected from flooding.
- Investigate options for a covered dumpster to reduce odors.

Uses of Available Buildings

Under all facilities layout options, at least two buildings are available to be leased to interested parties that will help to maintain the buildings and act within the intent of DCR's mission statement. If no satisfactory

lease candidates are selected for a building, DCR could use the buildings for internal programs. Possible options for either of these scenarios were discussed for each building by the DCR team and consultants. The resulting options are described in the following sections and are expected to be expanded upon in years to come.

Maintained and Operated by DCR

Maintaining the historic value and essence of all buildings on site is a priority of DCR. If maintenance and upkeep of selected buildings is not agreed to in a lease agreement, the repair and remodeling responsibility would fall to DCR. In this circumstance, appropriate uses for each building would need to be found.

The Dormitory Building could be used by DCR as a headquarters for the youth program Student Conservation Association (SCA). The first floor would be used as office space and the second floor would serve as rooming for students visiting the site to participate in the SCA program.

The Police Station could be used by DCR as a visitor center. It is centrally located and has extensive historical documentation that would be of interest to the public.

The Clocktower Building could be used by DCR for a variety of activities. The current ice cream stand within

the building would make a convenient permit sales location. The adjacent first floor area could serve as a visitor center, office space, storage space, and/or a museum. The second floor would be better suited for office space or storage space.

Leased by DCR

The project team agreed that the first step in leasing any of the spaces vacated by DCR is to create a public forum to collect ideas on how visitors would like to see the spaces used in the future. All proposals submitted would be required to account for historic preservation and maintenance tasks while fitting within the DCR mission statement. Possible uses that the team felt were appropriate for the area and follow the mission statement have been documented for each building. The intent was only to brainstorm and inspire ideas, not to limit the proposals that are received.

The team felt that the Dormitory Building may be a suitable hostel for international youths visiting the area. The Clocktower Building is historically relevant so use as a museum was suggested to complement the existing Carousel. The Friends of the Paragon Carousel currently lease the Clocktower Building and use a portion as a maintenance area for the Carousel. The income from the ice cream vendor provides revenue to support the operation of the Carousel. However,

the income is not sufficient to cover the cost of required building maintenance.. Alternatively, a new long-term lease could require that the lessee contribute more money to building maintenance. The historic Carousel is an important attraction at Nantasket Beach and both DCR and the Town, as well as The Friends of the Carousel, are interested in ensuring that the Carousel continues to operate. As discussed earlier, it is important that the funds required for much needed capital improvements and ongoing maintenance and operations of the building be generated by revenues from the lease of this building, or that an additional source of funding be identified.

The Police Station building also is historically significant and could be used as a visitor center, museum or perhaps as a studio for artists.

Parties interested in the possible leasing of these sites would need to consider:

- The adjacent maintenance facility.
- Flood insurance would be required for leased occupants. The area is classified as a “high velocity” zone by FEMA and flooding is common.

5. THE PLAN



Illustrative Master Plan (see enlargement on pages 30-31).

As described in Chapter 2, creating a more attractive, greener environment, with better access to the beach and Reservation, and more amenities for visitors, are key goals of this master plan. The plan is designed to provide visitors with a great day at the Reservation from arrival to departure, while aiding the DCR in operating and maintaining the Reservation and supporting the Town's economic development goals. The recommendations described below were developed to achieve that vision, and respond to DCR's needs and concerns, as well as the concerns that were expressed by the community and the Citizens Advisory Committee throughout the master plan process.

Although it is anticipated that the peak season at the Reservation will continue to be the summer, when the beach is most heavily used, the Reservation has year-round visitors. The recommended improvements

are designed to encourage visitation during the off-season through expanded opportunities for an array of activities and improved connections between the Reservation and adjacent commercial districts.

As described in the introduction, this master plan was developed in conjunction with the Nantasket Beach Seawall Repair Project. Recommendations (both design and phasing) have been coordinated with the remaining unfinished elements of that Project, including:

- Installation of a stone revetment to stabilize the existing seawall segment from the Mary Jeanette Murray Bath House north to Water Street (by the U.S. Army Corps of Engineers).
- Rehabilitation of the revetment at the northern end of the Reservation, near the David Cook Comfort Station (by the Hull Redevelopment Authority).

Recommendations are divided into the following categories:

- The Promenade/Boardwalk
- Open Space and Recreational Amenities
- Landscaping and Green Space
- Operations and Maintenance Area
- Vehicle and Pedestrian Access and Circulation
- Year-round Operations
- Interpretive Opportunities
- Wayfinding and Signage
- Phasing.

This Master Plan includes conceptual plans for recommended improvements. As individual recommendations are implemented, design will be taken to a much greater level of detail and a public review process will be conducted. All facilities will be designed to meet ADA accessibility standards, and layouts for new facilities (including the boardwalk, bike path and parking) were developed to accommodate those requirements. Specific modifications to existing facilities are noted in the text.

The Town of Hull has expressed an interest in using the redesign of portions of the Reservation as an opportunity to address ongoing flooding issues near

the Reservation. As part of the design process, DCR is open to discussions with the Town regarding the specific causes and effects of flooding near the Reservation and the potential for design options to help mitigate the flooding.

Nantasket Avenue and Hull Shore Drive are listed on the National Register of Historic Places as part of the Greater Boston Metropolitan Park System National Register District. Changes to the alignment and streetscape will need to be reviewed by the Massachusetts Historic Commission during future design phases.

The Promenade/Boardwalk

Most visitors to the Reservation walk along the beachfront promenade, whether to access the beach, to exercise or to enjoy the view. The promenade also provides a refuge for visitors during high tide, when the beach is underwater.

As with the existing promenade, the redesigned promenade will be continuous along the entire length of the Reservation.

For most of the length of the beach, the promenade is 16 feet wide. It widens to almost 20 feet behind the Mary Jeanette Murray Bath House. At the northern end of the beach, along Hull Shore Drive, it narrows



Above: Existing promenade and adjacent parking lot; rendering of boardwalk with shade structure, landscape buffer and bike path.



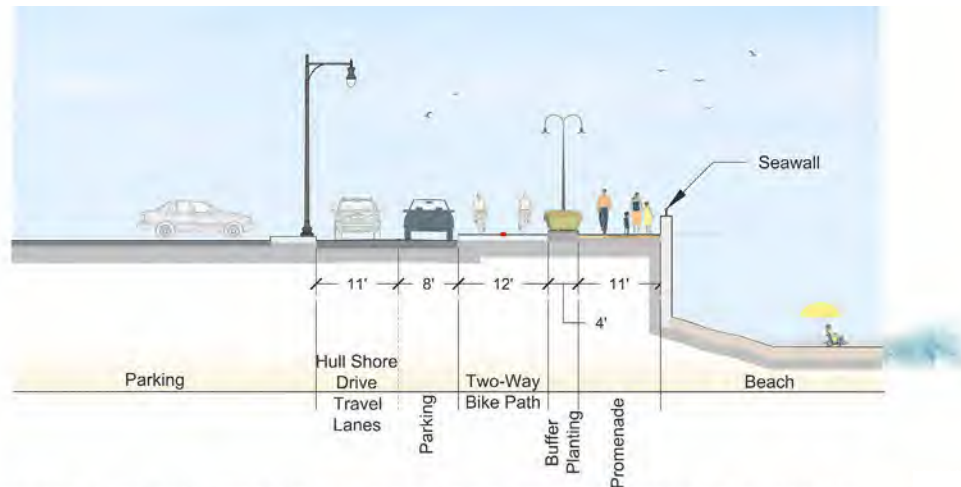
Illustrative drawing of Master Plan recommendations.



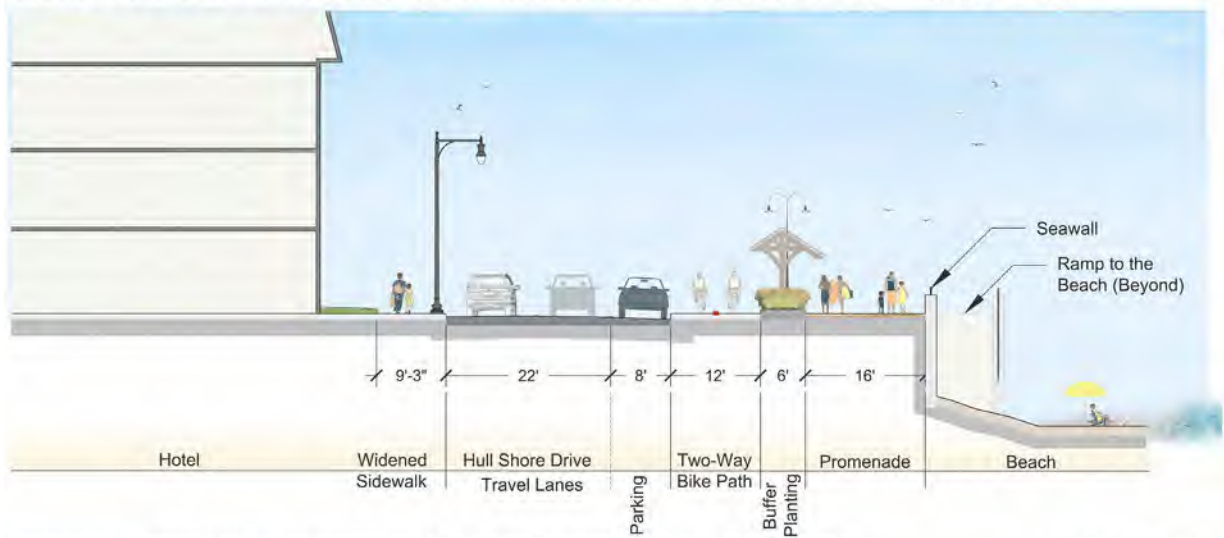
to 10 feet because of the limited land area available between Hull Shore Drive and the seawall. The promenade could be widened to 12 feet in this area if the promenade construction takes place during or after the Town of Hull's proposed roadway widening.

A six-foot wide planting buffer along the landside of the promenade separates the promenade from the bike path (described on page 48). The sides of the planters should be angled inward to avoid conflicts with cyclists. In a few locations, the buffer strip narrows to 4 feet. The exact width and juxtaposition of the boardwalk, planting buffer and sidewalks change as the available space differs over the length of the Reservation. The cross sections (pages 32 through 36) illustrate the different conditions.

Shade structures with benches, as well as locations for artist spaces, are interspersed in the planting strip along the length of the promenade. Artist spaces will provide opportunities for artists to set up easels, as well as to display and sell their work. The boardwalk can become an Arts Walk - strolling the boardwalk to look at art displays will become another activity attracting and engaging visitors during high tide and the off-peak seasons. The Arts Walk also will help to support Hull's strong arts community. Vendor stalls or pavilions to accommodate umbrella, beach chair and/or bicycle rentals are located near the northern and



SECTION 1- 20' TOTAL WIDTH @ HULL SHORE DRIVE, REDUCED BUFFER ZONE WIDTH (4')



SECTION 2- 12' BIKE LANE ALONG PROMENADE, 30' TOTAL WIDTH @ HULL SHORE DRIVE

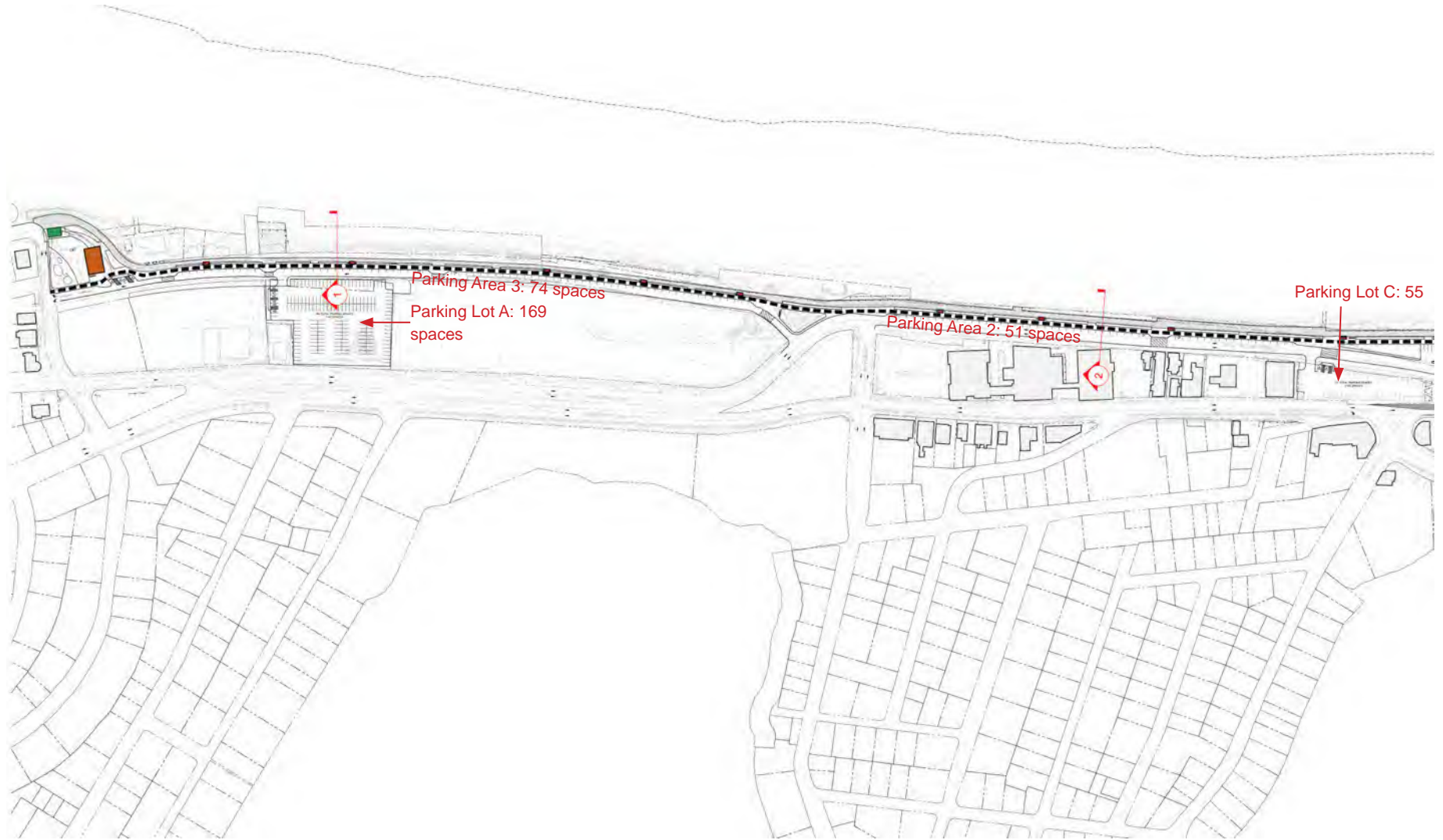
Above and facing page: Cross sections indicating juxtaposition and width of promenade, bike path and other amenities at various locations (cross section locations are shown on pages 34-35).



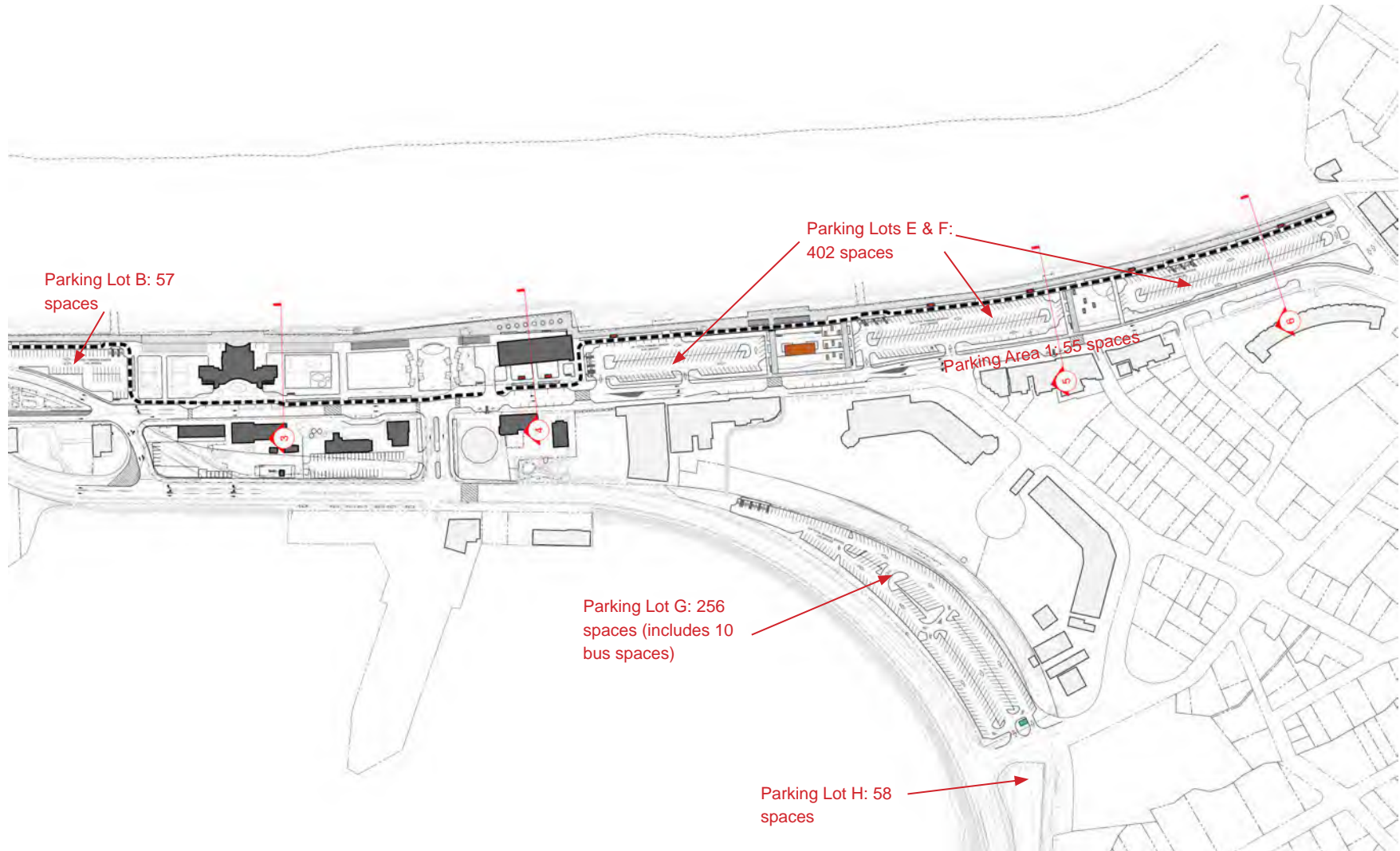
SECTION 3- 12' BIKE LANE ALONG SIDEWALK, 24' TOTAL WIDTH @ NANTASKET AVENUE

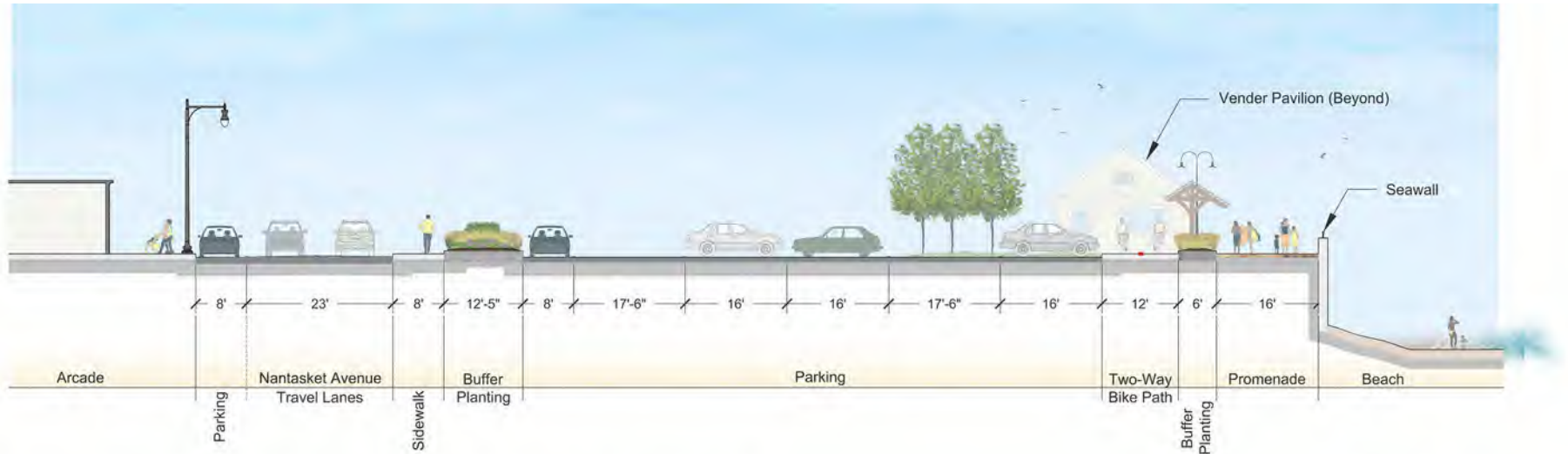


SECTION 4- 12' BIKE LANE ALONG SIDEWALK, 42' TOTAL WIDTH @ NANTASKET AVENUE

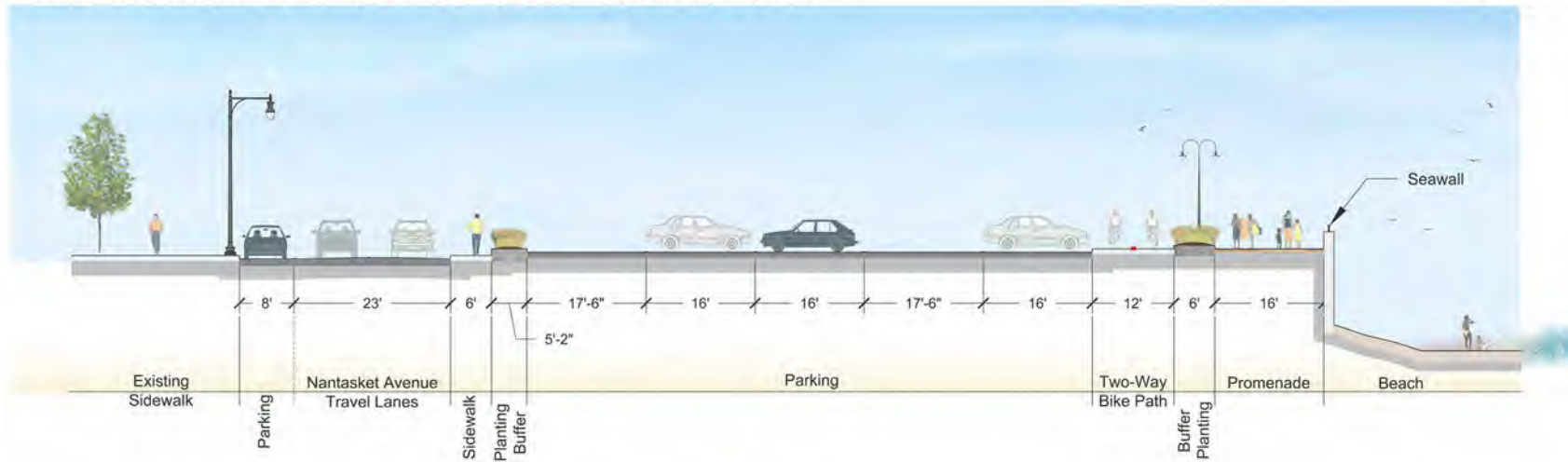


Above and facing page: Location of cross sections on pages 32, 33 and 36 and parking facilities discussed on page 48.





SECTION 5- 12' BIKE LANE ALONG PROMENADE, 31' TOTAL WIDTH @ NANTASKET AVENUE



SECTION 6- 12' BIKE LANE ALONG PROMENADE, 31' TOTAL WIDTH @ NANTASKET AVENUE

Cross sections indicating juxtaposition and width of promenade, bike path and other amenities at various locations (cross section locations are shown on Pages 34-35).

southern end of the beach. These stalls could be operated as “branches” of existing beachfront businesses.

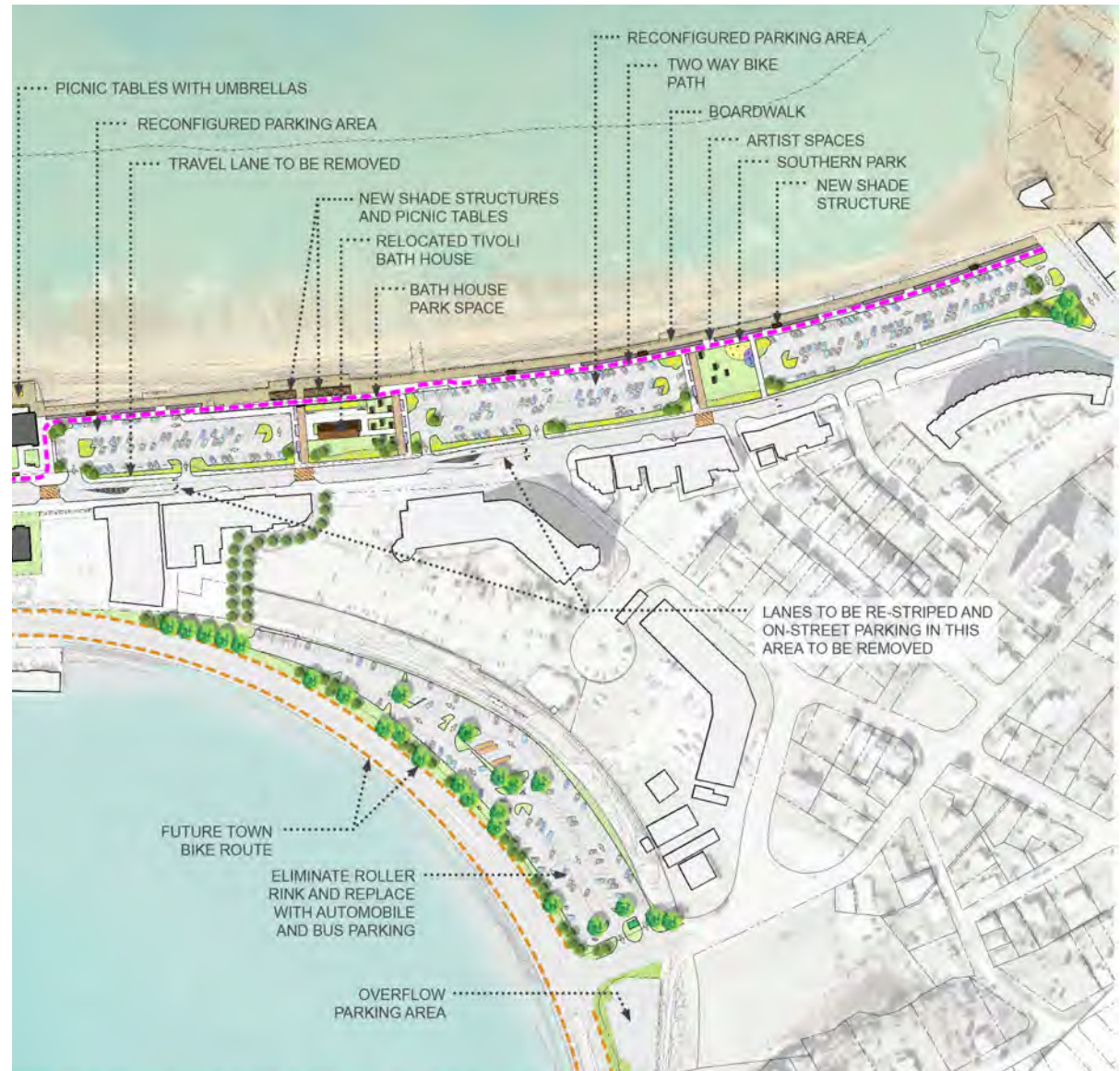
Lighting is incorporated into the design for the promenade and is shown as double pendant lights, similar to those used at other DCR Reservations. Where possible, the lights are placed to illuminate both the promenade and the bike path or adjacent seating areas. Lighting should be energy-efficient; the use of solar-powered lights should be explored during the next design phase.

Open Space & Recreational Amenities

While the beach is, of course, the major recreational amenity and the reason most visitors come to the Reservation, many visitors come for the day and are looking for other opportunities to extend the season, to limit sun exposure, to create a more varied experience and to “wait out” the loss of the beach during high tide. The recommendations on the following pages are designed to provide a range of amenities and activities for visitors.

South Area

Recommended changes to the southern portion of the Reservation are designed to “break up” the existing large parking area that extends from the



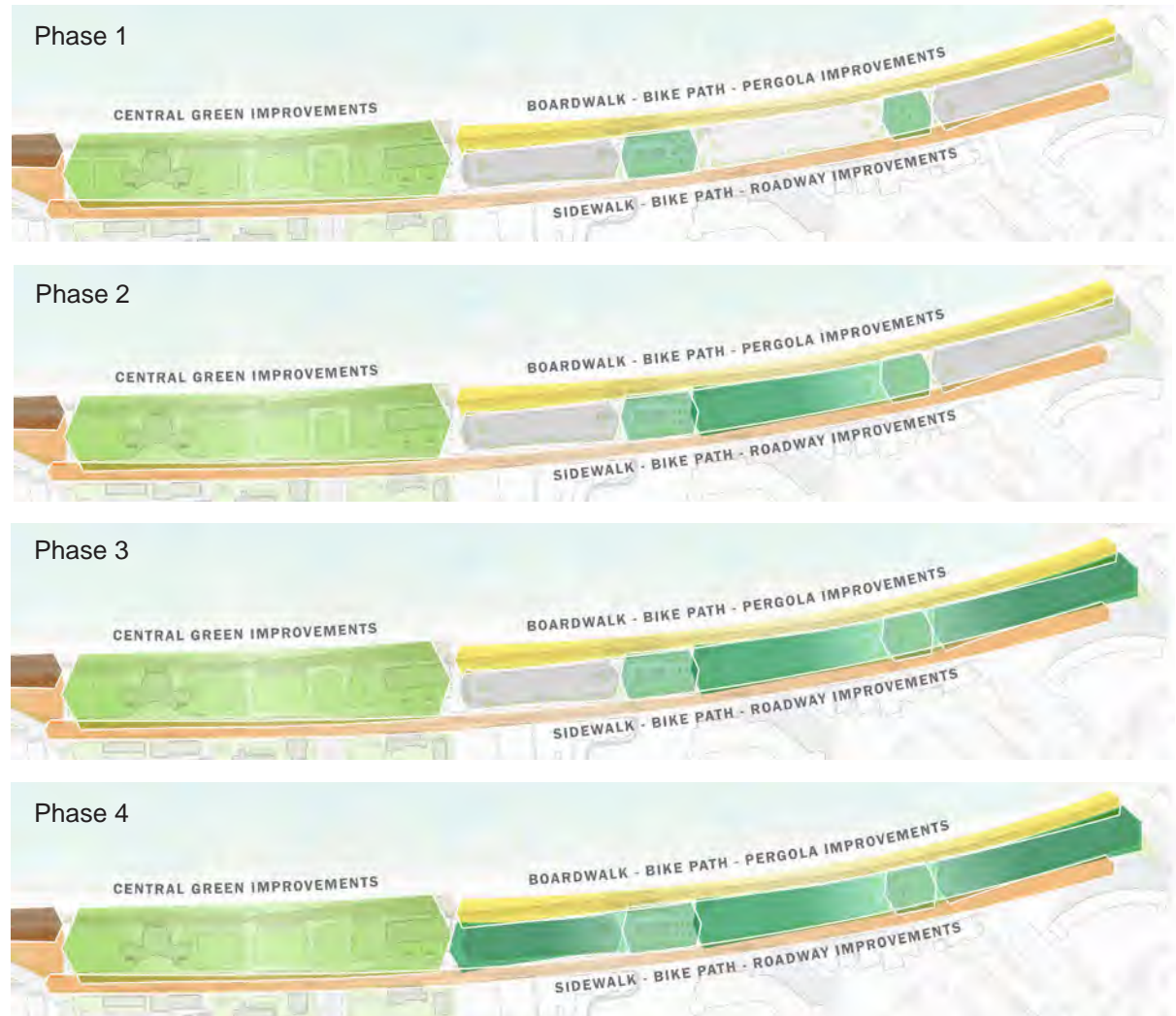
Close-up of the South Area.

Bernie King Pavilion to the southern end of Nantasket Reservation. Two new open spaces will create additional locations for visitors who want to be near the ocean but not necessarily on the beach, as well as provide more attractive views from the retail establishments and restaurants on the west side of Nantasket Avenue. The size of the two parks is dependent upon the need for parking in this location – it is anticipated that the parks will be expanded over time as transit service improves and fewer visitors arrive by car.

The northerly park connects to the wide portion of the boardwalk and is linked via a crosswalk to the pedestrian path leading to the parking lots on George Washington Boulevard. The conceptual design includes picnic tables, a plaza area and bike racks. The Tivoli Bath House is relocated further back from the beach to provide more protection from wave damage. The design of the new bath house should include an analysis of the potential for including solar powered hot water heaters.

The second park connects to the crosswalk at Berkley Road. This park could be designed to resemble an upland beach with a large sandy area and a splash pad play area. Picnic tables are also shown in this park.

Long term, the two southern parking lots could become open space if there is not demand for the



The diagrams above illustrate potential phasing for converting the southern parking lots into parks as parking demand decreases. Phase 1: two small parks with three large parking lots; Phase 2: the central lot becomes a park; Phase 3: the southernmost lot becomes a park; Phase 4: the northernmost lot becomes a park.



Playful windbreak structures.



Elevated beach zone.

Diagrams and photographs illustrate potential design features to be used when and if the southern parking lots are converted to park use. The two-way bike path and boardwalk/promenade would be built prior to any conversion.



Planted buffer zone.



Connections from Nantasket Avenue to the beach.

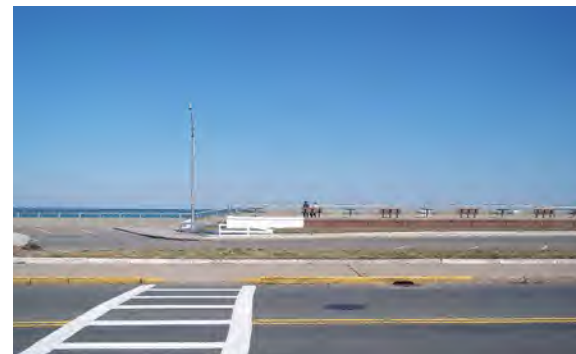
Diagrams and photographs illustrate potential design features to be used when and if the southern parking lots are converted to park use. The two-way bike path and boardwalk/promenade would be built prior to any conversion.

parking. The northern parking lot, shown as parkland in Phase 4, will most likely remain to provide accessible parking for events at the Bernie King Pavilion, the Mary Jeanette Murray Bath House, Nantasket Green, the Carousel and businesses along Nantasket Avenue. DCR should re-evaluate the need for parking on an approximately five-year schedule. The parks should be designed so that they can easily be expanded as parking demand decreases.

At the existing plaza between the south side of the Bernie King Pavilion and the Tivoli Bath House, new shade structures are added.

Accessibility: The promenade in this location will require regrading to eliminate the steep slopes at either end of the plaza.

Many people expressed an interest in accommodating sidewalk cafes in front of restaurants on this section of Nantasket Avenue. The existing sidewalk is 12 feet wide from the Clocktower Building to the southern end of the adjacent commercial strip, and 16 feet wide in front of the commercial strip from Park Avenue south to Atherton Road. Both widths will accommodate outdoor seating. Parking is limited to the southbound (west) side of the street, to provide unobstructed views to the parks and beach.



Top: locations where sidewalk cafes could be accommodated. Left: existing view from sidewalk cafe location. Right: Rendering of potential view from same location, with sidewalk cafe and new small park in the southern parking lot.

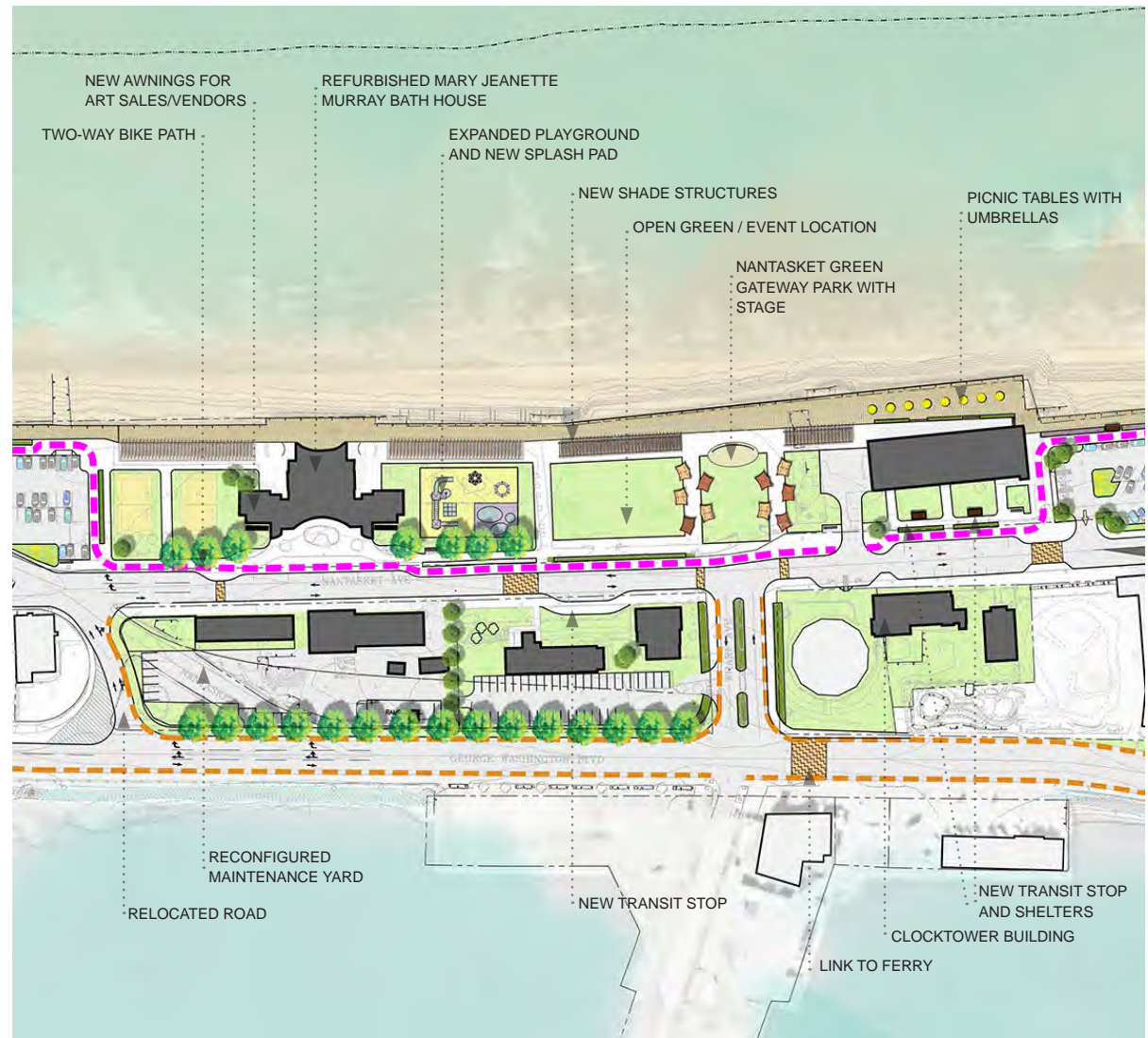
Central Area

The area from the MJM Bath House to the Tivoli Bath House encompasses many of the existing key visitor amenities and gathering spots, including the MJM Bath House, a playground and the Bernie King Pavilion. This area is located close to much of the parking and is very visible for visitors arriving via Wharf Avenue. It also is directly across Nantasket Avenue from the Carousel and Clocktower Buildings, as well as the DCR operations and maintenance yard. A number of improvements are recommended for this area.

Nantasket Green

Just to the south of the MJM Bath House and directly across from Wharf Avenue, a key feature will be Nantasket Green, a new gateway that will welcome visitors to the Reservation.

Nantasket Green replaces the existing parking lot and creates an attractive gateway to the Reservation. More importantly, replacing the parking lot with parkland in this location will create a centrally located, continuous open space from just north of the MJM Bath House to south of the Bernie King Pavilion. The space will be able to accommodate a variety of large events such as the 24-hour Cape Relay, arts fairs, the Polar Plunge, Endless Summer, radio station/ band broadcasts, car shows, Swim Across America,



Close-up of the Central Area.

triathalons, and kite festivals - some of which take place already but could be accommodated more effectively, and some of which have chosen not to come to Nantasket Beach because of limited space.

Combined with the MJM Bath House, Nantasket Green will be able to host events requiring a mix of indoor and outdoor space. Event participants will be able to use the restrooms at the MJM Bath House, rather than setting up port-a-johns, making this a very desirable location for event planners. The large gathering space may also eliminate the need to close down Nantasket Avenue for large events such as the car show and Endless Summer. Creating a centralized focal point for events will help to attract more events, bringing visitors to local businesses and reflecting the spirit of the original destination Paragon Park.

Nantasket Green also will be able to host smaller, community oriented events such as farmers markets, yoga/tai chi classes, volleyball tournaments, community concerts, and outdoor movies. The event space could provide opportunities for additional community gatherings and more programming partnerships between DCR, the Town and local schools. Clustering the major facilities also helps to simplify operations from a DCR management perspective.

Nantasket Green will serve as a “front yard” for the reuse of the Dormitory Building and Former Police



At left: Examples of community events that could be hosted on Nantucket Green, including outdoor movies, yoga classes and the staging area for the Polar Plunge. Above: larger events such as the Cape Cod Relay could be hosted on the Green without closing Nantasket Avenue.



Existing conditions photo and rendered view of Nantasket Green, with stage and shade structures, from Wharf Avenue.

Station, enhancing the potential reuse of those two buildings. Increased activity in this portion of the Reservation will bring more visitors to the Carousel, helping to support that facility as well as new and existing businesses along Nantasket Avenue. The area will be served by existing parking lots to the north and south, as well as transit stops along Nantasket Avenue.

The conceptual design for Nantasket Green includes a gateway park with a stage that could be used for a

variety of performances and events. The structure, as shown in rendering, reflects the shape of the former Paragon Park roller coaster; smaller shade structures provide a sculptural element to the park. A large open lawn will provide space for picnics, Frisbee throwing, etc. and can accommodate a tent for larger gatherings and events. Long shade structures are shown parallel to the boardwalk. Community members liked the idea of open lattice roofs so that the benches are not in full shade. Benches are shown along the sides of the large lawn area.

Bernie King Pavilion

On the ocean side plaza adjacent to the Bernie King Pavilion, new plantings and picnic tables with permanent umbrellas will provide a more attractive and better protected picnic area adjacent to the beach. The design and installation of these umbrellas will need to allow for potential removal during strong storm conditions. The planters and tables will help to better define the picnic area which currently feels somewhat open and desolate. The exact location and size of these planters and tables will be studied during the design phase to avoid interference with those visitors viewing and/or participating in the dances at the pavilion.

A transit stop with shelters is located along Nantasket Avenue in front of the pavilion.



Existing conditions photo and rendering of recommended improvements to plaza behind the Bernie King Pavilion.

Accessibility: The existing promenade is widened at the southwest corner of the Bernie King Pavilion, by the stairs to the beach, to eliminate the pinch point in that location.

Mary Jeanette Murray Bath House

As discussed in Chapter 2, the Mary Jeanette Murray Bath House is underutilized, with the main space being closed for much of the time. While no maintenance repairs are needed at the MJM Bath House, a number of changes were suggested for the near future:

- Hang historical pieces and artwork in the open meeting space to create a more inviting atmosphere.
- Improve acoustics for more inviting meeting space.
- Open the doors and invite the public in during normal operating hours, rather than just during special events.
- Create a station in the open meeting space to sell DCR parking permits during the summer; this will require a phone line for credit card transactions.
- Add windows to the utility rooms in each wing of the building to create office space for the rangers and the lifeguard supervisor.
- Reconfigure the currently empty room in the women's wing with the large door to the outside to be a break room for the lifeguards. The inside door will need to be secured to prevent access

to the women's room – lifeguards will be allowed access through the large outer door. The room has a large door that opens directly to the beach and a number of lockers that could be used for storage. This layout will allow the rangers and lifeguards to stay closer to the beachfront to serve visitors.

- Repurpose the Manager's office for storage of materials that are currently located in the utility rooms proposed for other uses (see above).
- Provide awnings along the front of the MJM Bath House for artists/vendors.
- Assess the potential for installing solar powered hot water heaters.

The plan includes expanding the existing playground on the south side of the MJM Bath House to accommodate more children and includes a new splash pad that would be visually attractive and provide a popular play/cooling off spot during high tide. Play structures should be designed for a variety of ages.



From top: Existing views of the Mary Jeanette Murray Bath House and adjacent playground.

Bay Street to Water Street

North of the Mary Jeanette Murray Bath House, between Bay and Water Streets, the narrow width of the Reservation limits facilities to the promenade, buffer strip and bike path.

As part of the ongoing Seawall Stabilization Program, a stone revetment is planned to be constructed between the MJM Bath House and Water Street. Recommendations for this area should not be constructed until after the revetment is in place.



Close-up of the Bay Street to Water Street area.

North Area

Changes at the northern end of the Reservation at Phipps Street are designed to make this area more attractive and user-friendly. Currently, amenities and opportunities for purchasing food and drink are very limited at this end of the Reservation.

It is recommended that Manomet Avenue, which separates the beach from adjacent Reservation property, be closed to create a larger area contiguous to the boardwalk. The expanded area includes a new playground as well as a vendor pavilion for selling food, beverages and other beach items, or for bicycle rental. A right-turn only lane for drivers turning from Hull Shore Drive onto Phipps Street would help to prevent Hull residents heading north from being impacted by beach traffic turning left onto Phipps Street to head back south.

A portion of the revetment needs to be rehabilitated in this area. It is recommended that the David Cook Comfort Station be relocated to the land side of the boardwalk to allow for dune reclamation, and that this area serve as an early pilot project for the beach nourishment program. As with the Tivoli Bath House, the use of solar powered hot water heaters should be evaluated.



Close-up of the North Area.



It is recommended that the David Cook Comfort Station be relocated to the landside of the boardwalk.

An accessible route down to the beach and a ramp to accommodate both DCR and Town-owned beach maintenance vehicles will need to be built in this location.

Landscaping & Green Space

A key concern expressed during this project was the overall lack of green space throughout the Reservation. In addition to the landscape buffer and new open spaces described in this chapter, recommendations include:

- Planting a row of trees along George Washington Boulevard to help screen the Operation and Maintenance area.

- Adding landscaping to parking lots.
- Enhancing plantings at entry points, such as along Wharf Avenue.

It has been DCR's experience at Nantasket Beach that the harsh beachfront environment makes it difficult for trees to flourish. With the exception of the trees noted above, it is recommended that landscaping include primarily shorter, hardy plants that can withstand the strong winds and sea spray.

Operation & Maintenance Area

Recommendations for the Operation and Maintenance area are described in detail in Chapter 4.

Vehicular & Pedestrian Access & Circulation

Pedestrian Access

Pedestrian access to and through the Reservation is provided via the sidewalks and promenade described above. Buffer planting will provide a more attractive pedestrian environment. Twenty six crosswalks provide access to the beach. The plan includes the introduction of bump-outs at a number of the crosswalk

locations to shorten the crossing. It is recommended that temporary raised crosswalks be used to slow traffic during the summer. The temporary raised crosswalks can be removed between the fall and spring to provide good traffic flow and to avoid conflicts with snow plows.

Recommendations for push-button activated flashing beacons and warning signs are discussed in Chapter 4.

A wide crosswalk on George Washington Boulevard (outside of the Reservation) will provide a safe pedestrian crossing, should ferry service to the Town Pier be established.

Bicycles

Nantasket Beach is popular with cyclists and this master plan greatly improves cycling amenities. As shown on the plan on pages 30 and 31, and the sections on pages 32 through 36, a two-way 12-foot wide bike path runs the entire length of the Reservation. For most of that length, it is at the same height as the boardwalk and sited to allow cyclists to ride close to the beach, separated from the boardwalk/promenade by the planted buffer strip. The 12-foot width provides adequate width for a curb/bumper between the bike path and on-street parking. The bike path moves to the street in front of the MJM Bath House

and the Bernie King Pavilion, where beach side access is limited by the buildings. The bike path will connect with the Town's proposed bike lanes at either end of the Reservation, and with the George Washington Boulevard bike lane at Wharf Avenue.

The bike path is designed to provide a protected and attractive beach side route for families and other recreational riders. It is likely that some cyclists, particularly commuters and others traveling long distances, will continue to ride in the street.

Bicycle racks are provided throughout the Reservation and vendor pavilions near the north and south ends could be designed to accommodate bicycle rentals.

Transit

The plan is designed to accommodate transit access to the Reservation, and it is recommended that DCR work with the MBTA to coordinate ferry, train and bus schedules to allow for easy transfers between modes. It is also recommended that a consolidated schedule be developed each summer so that potential visitors can easily plan a transit route to and from the Reservation.

Recommended transit-related improvements include:

- On Nantasket Avenue, new pull-outs are provided for buses and trolleys in front of the

Bernie King Pavilion (on the northbound side) and the Dormitory Building (on the southbound side), in addition to the existing pull-out in front of the MJM Bath House. Covered waiting areas have been included in front of the Bernie King Pavilion.

- Parking at the George Washington Boulevard lot (Lot G) has been reconfigured to accommodate 10 buses (see plan on pages 34 and 37).
- A wide crosswalk has been added on George Washington Boulevard near Wharf Avenue (outside of the Reservation) to provide a safe pedestrian crossing should ferry service to the Town Pier be established, as stated above.

As the north and south areas of the beach become popular destinations and transit use increases, on-street parking spaces can easily be converted to transit stops.

Parking

While much attention has been paid to bicycle, pedestrian and transit access, it is likely that the majority of visitors will continue to arrive by car for a number of years. The following recommendations are intended to improve the efficiency of parking operations:

- **Installation of an intelligent parking system utilizing Variable Message Signs.** The system should count entering and exiting vehicles from each DCR lot and report the "Percentage Full" to each message board. Message board displays should feature a map of the Reservation as well as Lot designations and the number of available spaces or, if the lot is full, the word "CLOSED". If placed at each major entrance roadway these signs will allow patrons to proceed directly to a lot with capacity and avoid circling which will in turn alleviate traffic delays within the immediate region. Particularly important will be the addition of a sign just south of the entrance to the George Washington Boulevard lots (Lots G and H). Drawing visitors into those lots will reduce traffic on Nantasket Avenue and Hull Shore Drive. Similarly, a sign on Route 228/Nantasket Avenue, south of Rockland Road, will direct drivers to open lots and keep them off of Nantasket Avenue when the lots there are full. A sign in this location will be more difficult to implement because it will not be on DCR property. Signage indicating the letter designation of each lot also should be installed.
- **Introduction of an on-line and/or radio broadcast service to provide real-time parking information.** The system would allow potential

visitors to check on parking availability prior to beginning their trip or while enroute. Information provided should include updates on current parking availability and, when parking is at capacity, when parking is likely to be available. On days when parking demand exceeds capacity (see the discussion below) it is only for a portion of the day and is dependent on time of day, weather, and the timing of high tide.

- **Introduction of a “Park and Pay” system, in which drivers park their cars and purchase a ticket from a vending machine to place on their windshield.** This type of system will eliminate queuing to get into the parking lots and will eliminate or reduce the need for parking attendants.

As discussed earlier, the new park areas adjacent to the southern lots on Nantasket Avenue could be expanded over time as the demand for parking decreases. Currently, income from parking is used to support ongoing maintenance and operations for the Reservation. If parking revenues are reduced as a result of a decrease in the number of spaces, the lost revenue will need to be made up through another revenue source.

During the summer of 2015, DCR and Louis Berger conducted a parking study to determine the feasibility of reducing the number of parking spaces at Nantasket

Beach in the immediate future and to provide goals to determine the number of spaces that could be removed in years to come as travel patterns and private vehicle usage patterns change. Daily data were collected from June 15 through September 7, and a site visit was conducted by the Louis Berger team on Saturday, July 11 to observe parking operations. The day was a prime summer beach day - 90°F and sunny, low tide at 1:00, and the Reservation was hosting an event, allowing the team to witness operations on a very high parking demand day.

The following observations were recorded during the summer, both by DCR staff and during the Louis Berger site visit (see following page for lot locations):

- Existing parking includes 1,003 spaces in DCR lots, 200 on-street spaces and 900 spaces in Hull Redevelopment Authority lots (2,103 total)
- Lot C is utilized by the nearby businesses and parking there is free. It was generally at capacity throughout “Beach Days” (defined as sunny and over 70°F, or humid and/or overcast and over 80°F) and turnover was high due to the enforced two-hour limit.
- On-street parking is free and was generally at capacity throughout Beach Days.
- Lots B and D are centrally located. These lots were the first of the staffed DCR lots to reach

capacity. The combined 147 spaces at these two lots reached capacity by 9 AM on Beach Days. The lots generally started to have open spaces around mid-afternoon

- Lot A is located in the northern part of the Reservation. The beach is wider at high tide in this location than it is to the south, which is attractive to beachgoers. Lot A has 122 spaces and generally reached capacity by 10 AM on Beach Days. The lot also generally started to have open spaces around mid-afternoon.
- Lot E/F contains the majority of the DCR capacity with 428 spaces. This lot generally reached capacity around noon on Beach Days and started to have open spaces again by mid-afternoon.
- Lots G and H are removed from the beachfront and considered by patrons to be the least desirable of the DCR lots. A “Pay and Display” machine allows for these lots to be unstaffed a majority of the time. Data from these lots is limited but records show that they reached capacity on at least five summer days. Lots G and H have a combined 251 spaces.
- The HRA lots in the northern region of the Reservation add 900 spaces of capacity for Nantasket Beach patrons. The fee for parking at these

lots is variable and dependent on demand.

Generally, these lots reached capacity at the same time of day as Lot E/F on Beach Days.

- The demand met or exceeded capacity at some point in the day during 19 of the 85 summer days studied, or 22 percent of the summer. By considering only days that met the “Beach Day” conditions during any time of the week, the percentage of days during which the demand met or exceeded capacity increased to 37 percent. By considering only Beach Days on weekends, the percentage of days when demand met or exceeded capacity at some point during the day was 62 percent of the days.

The master plan includes reconfiguring a number of the DCR lots to accommodate the boardwalk, bike path and landscape buffer, as well as to provide more efficient layouts. Landscaping has been added to most of the parking lots. Parking locations and counts are indicated on the drawing on pages 34 and 35 and in Table 2. Location-specific changes include the following:

- George Washington Boulevard lot north of Rockland Circle (Lot G): The skating rink has been removed and the lot is reconfigured to accommodate bus parking. DCR should continue to negotiate with the private property



Existing parking lot locations.

owner to allow completion of the pedestrian path adjacent to the north edge of the Horizons Condominiums parking lot. This path will provide a direct link from the DCR parking lots to the beach, which will increase the attractiveness of these underutilized lots. This parking lot is designed to accommodate covered parking with solar panels that can be used to supply power to the Reservation. The cover also will shade parked vehicles, increasing the desirability of the parking lot. The layout shown for this lot is similar to the one developed by the Town's consultant Nelson\Nygaard Consulting Associates. However, the layout shown in this master plan was designed to accommodate parking for ten buses, as well as internal bus circulation. Providing adequate lane width and area for cars and buses to turn around eliminates a row of cars at the northern end of the lot and two rows of cars in the central portion of the lot, reducing the number of parking spaces from the 360 shown in the Nelson/Nygaard plan to 286.

- George Washington Boulevard lot south of Rockland Circle (Lot H): The lot will continue to be used for overflow parking on busy days.
- South of the Bernie King Pavilion (Lots E and F): The lots have been reconfigured as three separate lots, as described earlier on page 38.

Location	Existing Spaces	Future Spaces (including Accessible Spaces)
Parking Lots		
Lots E & F: Nantasket Ave., south of Tivoli Bath House to Bernie King Pavilion	428	402
Lot D: Nantasket Ave., Bernie King Pavilion to MJM Bath House	81	0 (open space)
Lot C: Between Nantasket Ave. and Hull Shore Drive, south of Red Parrot Restaurant	55	55
Lot B: Nantasket Ave., North of MJM Bath House	66	57
Lot A: Between Hull Shore Drive and Nantasket Ave., south of Quincy Street	122	169
Subtotal Parking Lots	752	683
Remote Lots		
Lot G: George Washington Boulevard, north of Rockland Circle	193	256 (includes 10 bus spaces)
Lot H: George Washington Boulevard, south of Rockland Circle	58	58
Subtotal Remote Lots	251	314
On-Street Parking Areas		
Area 1: Nantasket Avenue south of Bernie King Pavilion	66	55
Area 2: Hull Shore Drive south of Water Street	89	51
Area 3: Hull Shore Drive extension	50	74
Subtotal Parking Areas	205	180
TOTAL	1,208	1,177

Table 2: Existing and future parking availability (see plan on pages 34 and 35 for parking locations).

** Number of spaces may change due to ongoing streetscape improvements by Town of Hull.*



Example of covered parking lot with solar panels.

One or more of these lots could be converted to open space over time as the demand for parking declines.

- South of the MJM Bath House (Lot D): The lot is eliminated to accommodate the Nantasket Green open space.
- North of the MJM Bath House (Lot B): The lot is reconfigured to accommodate roadway changes and additional landscaping.

On-street parking is also modified, as shown on Table 2. In particular, parking on Hull Shore Drive Extension has been changed from angled to parallel parking to allow sufficient width for a bike path.

These changes result in a total of 2,022 spaces (942 spaces in DCR lots, 180 on-street spaces and 900 spaces in the HRA owned lots).

Using the summer 2015 demand and assuming that Lot H will be staffed on Beach Days, the impact of this change will result in no additional days per summer when demand will be greater than capacity.

The Town of Hull is currently soliciting bids to develop both HRA lots. Development of the lots will result in a net decrease of 900 spaces. If this change had been implemented during the summer of 2015, demand would have exceeded capacity during an additional 17 summer days, nearly doubling the percentage of days with such exceedance from 22 percent to 42 percent. In addition to increasing the number of days when demand exceeds capacity, the loss of the HRA lots will also substantially increase the demand in comparison to capacity. For instance, on a day during the summer of 2015 when the DCR lots were at 100 percent capacity it was assumed that the HRA lots were also completely full. If this same situation were to occur once the HRA lots were removed, the result will be 900 additional vehicles circling the Reservation in need of a parking space.

The DCR mission statement reads, in part, that “The health and happiness of people across Massachusetts depend on the accessibility and quality of our green infrastructure - our natural resources, recreational facilities, and great historic landscapes.” Removing parking capacity prior to reducing private vehicle

demand will directly contradict this statement by limiting accessibility. Additionally, excess demand creates traffic congestion and corresponding vehicle emissions on the Reservation. Thus, milestones should be considered to balance available parking capacity as demand changes, without limiting the number of beachgoers. Potential changes to demand will result from changes in the modes of transportation beachgoers use to access the Reservation - away from private vehicles and towards mass transit, bicycles, and ferries. These changes require shifts in both the public mindset and in the attractiveness of transit options, both of which will take time to develop. Trends should be monitored and recorded annually to understand the percentage of demand versus capacity on Beach Days.

It is recommended that the Town of Hull and DCR consider and discuss additional decreases in parking capacity once the following milestones are met during a summer time period:

1. Demand exceeds capacity during fewer than 25 percent of Beach Days during any day of the week (one in every four Beach Days a patron will be turned away until spaces become available), or
2. Demand exceeds capacity during fewer than 50 percent of Beach Day weekend days (one

in every two weekend Beach Days a patron will be turned away until space becomes available). Ideally, the transportation programs implemented will work well and this number could be lowered over time to 25 percent.

These milestones may be modified as additional traffic and parking data and information become available from further monitoring and analysis.

Traffic Circulation

Changes in traffic circulation related to the realignment of the George Washington Boulevard/Nantasket Avenue intersection are described in Chapter 4.

Year-Round Operation

The busiest time of year at Nantasket Beach Reservation is between Memorial Day and Labor Day when warm weather draws a lot of beachgoers. However, the Reservation also is utilized during the other nine months of the year by visitors walking along the beach and enjoying the view. Improvements proposed in the master plan are designed to benefit visitors during all seasons through the introduction of more upland areas and opportunities for larger events on Nantasket Green. The improved promenade and the new

bike path can be used year-round. Potential new uses discussed for the Dormitory, Clocktower and Police Station Buildings, as well as interpretive exhibits in the Mary Jeanette Murray Bath House, are designed to encourage year-round activity. The use of hardy plants and sturdy weather-proof materials will enhance the year-round use of the Reservation.

Wind breaks proposed for the parks south of the Bernie King Pavilion will help to protect visitors from ocean spray during cooler weather.

Interpretive Opportunities

Interpretive opportunities at Nantasket Reservation include both historic and natural resources. Key elements could include the former Paragon Park, former uses of the buildings within the operations and maintenance facility, as well as an explanation of the evolution of the beachfront from a natural seashore to a constructed seawall. The former Police Station, Clocktower Building and MJM Bath House all provide opportunities for displaying historic photos and artifacts.

Potential outdoor interpretive signage locations include the plaza behind the Bernie King Pavilion, the new parks between the southern parking lots on Nantasket Avenue and the new park at the northern end



Examples of interpretive elements inserted in boardwalks and embedded in pavement.

of the Reservation. The northern end, in particular, will provide a prime location for explaining sand dunes and natural wave action.



At left and above: Examples of interpretive elements attached to railings and low walls, and free standing.

Above: Examples of interpretive elements attached to indoor building walls and within shade shelters; typical DCR wayfinding signage.

Wayfinding & Signage

A wayfinding and signage program will help visitors to navigate the Reservation and the important destinations scattered throughout. Maps in key locations, including arrival spots such as parking lots and transit stops, will better enable visitors to plan their visit. Signage should clearly identify bath houses, picnic areas, vendor pavilions and the Carousel. Signage should also identify the location for pass sales.

Phasing

It is anticipated that full implementation of the master plan recommendations, including beach nourishment, could take more than 20 years. However, as shown on Table 3, it is recommended that much of the design work take place during the next three years, with construction of many of the visitor amenities taking place in Years three to five.

The schedule is laid out to ensure that the design and construction of related and/or adjacent elements can happen in a coordinated and cost-effective manner, and that design and construction packages have realistic budgets based on potential DCR funding availability.

Year	Activity	Description
1-3	Design	Nantasket Green Boardwalk, shade structures, planting buffer, lighting Seating area behind Bernie King Pavilion Open Space and expanded playgrounds Bike lane Relocated bath houses (Cook and Tivoli) Vendor pavilions Nantasket Avenue Transit stops Parking lots
	Design & Construct	Parking signage program Bike lane striping on Wharf Avenue Seawall stabilization north of Mary Jeanette Murray Bath House Early improvements to operations/maintenance area and MJM Bath House Renovations to Upper Garage, Dormitory and Police Buildings
	Other	Continue monitoring parking demand Work with transit agencies to improve service & route timing
3-5	Design & Construct	Pedestrian link from George Washington Blvd. to Nantasket Avenue Continue improvements to operations/maintenance area Renovate/remodel MJM Bath House and Clocktower Building Traffic alternative and expanded operation and maintenance area
	Construct	Nantasket Green Expanded playground at MJM Bath House South, Central & Water Street Areas, including boardwalk, shade structures, planting buffer, lighting, bike path Relocated Tivoli Bath House

Table 3: Phasing Schedule



Year	Activity	Description
5-10+	Construct	North of Water Street area, including boardwalk, shade structures, planting buffer, lighting, bike path Relocated Cook Comfort Station Vendor pavilion Nantasket Avenue and remote parking lot improvements Southern parking lot and 2 parks Beach Park 1
	Design & Construct	Beach Parks 2 and 3 Beach renourishment

Table 3: Phasing Schedule (continued)

APPENDIX: SUMMARY OF COMMENTS

A draft plan was presented at a Public Meeting on September 22, 2014. The list below summarizes a number of issues raised during and after the meeting, and the way in which the current master plan responds to those issues:

- “The southern parking lot occupies too much land”: Two new parks have been added, with the possibility of 3 additional parks if parking demand decreases over time.
- “Nantasket Green was not designed to be flexible and interesting”: The Green was redesigned with flexible open areas as well a performance space and additional shade structures. The water feature was eliminated.
- “The closing of Manomet Ave. will have a negative impact on traffic flow going north”: A new right turn lane was added to the intersection of Hull Shore Drive and Phipps Avenue to improve traffic flow.
- “Reuse of historic buildings”: DCR open to variety of uses, acknowledging the need for additional financial resources for maintenance
- “The conversion of the parking lot to Nantasket Green would negatively impact the Paragon Carousel”: DCR representatives met with the Friends of the Carousel and they are supportive of Nantasket Green.

- “Amenities for use during high tide and the ‘shoulder season’ should be expanded”: Parks and other amenities have been added.
- “Vendor areas along the boardwalk would compete with local businesses”: Vendor areas were changed to artist areas to support the local arts community.

The current plan was presented at a Public Meeting on January 27, 2016. The table on the following page summarizes the comments received following that meeting.

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Name	Comments
Patricia Abate, President Hull-Nantasket Chamber of Commerce	The Board of Directors of the Chamber of Commerce is pleased with the plan and likes the idea of allowing sidewalk café space. All parts of the plan calling for activities and areas that encourage visitors to lengthen their stay at the beach are most welcomed. Would like to see the Reservation embrace and integrate the business community.
Joann Capone	Supports this beautiful Master Plan that will create a public place of seaside enjoyment and whatever else DCR is doing to protect this beautiful state property and keep it open to the public.
Marie Schlieff, President, Friends of the Paragon Carousel	Board of Directors applauds the efforts of the DCR and feels the planners have offered excellent ideas for much needed improvements to the historic beachfront. The Paragon Carousel and Clocktower Building must be an integral piece of the Master Plan.
Paul Hiltz	Does not want: to replace parking lot with Nantasket Green; to expand the playground; to add the umbrellas or planters at Bernie King Pavilion, lighting, parallel parking, or a separate bike lane.
Marianne Buckley Curran	The ideas for revamping and extending green space is on the right track. The plan is well rounded, pulling in natural resources, beautiful scenery, access for walking and biking, circuit training, active playground. Removing parking is a plus. Concerned with funding and commitment to follow through on plans.
Sheila Connor	Would like to see the proposed amenities ASAP. Should have pick-up/drop-off spaces along Nantasket Avenue to encourage use of remote lots or a shuttle. Work with MBTA to use their parking lot and institute a shuttle.
Martha Walsh	Consider parking needs for handicapped with access to the ramp near the bathhouse. Walking on sand and swimming in the sea should be the priority.
Paul Hiltz	Do not replace the parking lot with Nantasket Green. The promenade at the Bernie King Pavilion needs improvement, but lights and umbrellas are impractical. Should just add tables and benches.
Andrea White	Hopes that improvements to the bath houses include heated showers.
Michael Fleming	Is extremely pleased with the concept and would love it to move forward. Would like to see a trolley from Pemberton Point.
Jerry Seelen	Is concerned that improvements to the Reservation will exacerbate the parking scarcity. Existing lots could be reconfigured to increase efficiency.
Jennifer Fleming, Hull resident	This is a terrific plan that will capitalize on Hull's natural attributes for the good of the area and community.

Above and following page: Summary of comments received following January 27, 2016 Public Meeting.

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Name	Comments
Philip Lemnios, Town Manager on behalf of Hull Board of Selectmen	The following elements are improvements: expanded boardwalk, bike lane, shade structures, pedestrian path to parking lots, improved transit stops, relocated comfort stations, sidewalk cafes. Agrees with converting parking abutting the beach to active recreational land, but is concerned with having adequate parking for commercial interests. Prefers 2-way road system and parking layout as proposed in town sponsored Nelson/Nygaard Study. Encourages the expansion of transit options, including a trolley to the remote parking lots, and introduction of ferry service. Is concerned with loss of parking to create Nantasket Green. Likes the introduction of artist spaces rather than vendor areas. Opposes the continued use and expansion of the Maintenance Facility in its current location. The plan should ensure that the Clocktower building continues to support the Carousel. The plan should include beach nourishment as early as possible. The Town and DCR should acknowledge that the successes of both parties are interdependent and continue to work together on improvements.
Robert Fultz, Director Hull Community Development and Planning Department	The Town and DCR should work together on a plan for conversion of parking into parkland and to initiate outdoor seating on Nantasket Avenue. DCR's first priority should be to enhance the Reservation's ability to provide recreation and storm and flood protection, and act on beach nourishment and other wetland restoration opportunities. Does not support phasing of the revetment in years 0-2, with other amenities not added until years 3-5; the enlarged maintenance area; Nantasket Green. Master Plan should incorporate Resiliency by Design principles. 75% of the south parking lot should be converted to recreation area. The maintenance area should be relocated to the remote parking lot, allowing the Town to reuse the existing maintenance site. Should support the Paragon Carousel by investing in the Clocktower Building. Supports sidewalk cafes, artist spaces, wayfinding and signage, boardwalk, bike lanes, crosswalks, sidewalks, shade structures, variable message signs, remote parking lot covered with solar panels. Wants to institute the 2-way road system and parking layout studied by Nelson/Nygaard and TEC, and expand transit options, including a trolley and ferry.
Jennifer Constable, Chairwoman Hull Planning Board	Board endorses goals to "provide an enhanced natural and recreational experience" and proposed boardwalk, bike lane, shade structures, sidewalk and crosswalk improvements and pedestrian link. Would like to see design and demonstration of the Resiliency by Design Concept "more park less parking" on the front beach; beach nourishment moved to an early implementation phase, utilization of Reservation properties for their "highest recreational and sustainable economic development values"; multi modal transportation and reconfiguration of parking.
Hull Conservation Department	Supports the Town's proposals for beach nourishment and a park in the south parking lots, not a revetment. The conversion of the south parking lot to park should be implemented earlier. Supports the landward relocation of the bathhouses; the north area should include space for a dune landward of its current location and there should be no ramp in this location.
Town of Hull Beach Management Committee	Does not support the revetment; prefers beach nourishment and/or moving the seawall landward. Important for DCR to work with Town at all stages of development. Should replace parking south of MJM with green space and build parking garage behind Horizons. Supports sidewalk cafes, bike paths and improved transportation options. There should be no free parking or changes to the Clocktower. DCR operations facility should be relocated to remote lot. Does not support current road reconfiguration plan.
Chris Lofgren, resident and member of the Paragon Carousel Board of Directors	Supports the Plan. The concepts presented represent improvements to the function and vitality of the Reservation and the loss of parking spaces is not a concern.
Priscilla Beadle, Past President, Hull Artists	Strongly urges introducing the amenities to the boardwalk as soon as possible and supports the artist space.
Jordan Trundy	Is thrilled with the plan and feels that the majority of comments seen through social media have been very positive and supportive.

Summary of comments received following January 27, 2016 Public Meeting (continued).

