

Hampton Beach Design and Development Study



Prepared for:

New Hampshire Department of Resources and Economic Development
Division of Parks and Recreation



August, 2008

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Dear Interested Citizens,

The Hampton Beach Master Plan completed in 2001 outlined a new vision for the beach area including the facilities managed by the NH Division of Parks and Recreation. Hampton Beach State Park annually hosts over a million guests per year, with more than 100,000 enjoying this premiere oceanfront park on sunny summer days. The mile long beach in Hampton is the center of thriving year-round businesses that generate rooms and meals taxes, business enterprise taxes and other secondary economic benefits for the seacoast region.

This feasibility study was completed to take the first step in revitalization of the public use facilities. It includes preliminary designs for buildings, landscape and public space improvements, a cost estimate and a report on the economic impact of these improvements in terms of the state and local economy.

The iconic Seashell complex, completed in 1962, is the social and entertainment heart of the park. The master plan recommends reducing congestion at the complex by constructing new visitor-support facilities in additional locations along the boardwalk and moving some state park administrative functions to the south gateway area. More space for direct visitor services will be gained at the renovated Seashell complex, including larger bathrooms, improved entertainment venues and visitor information services.

Currently there is a small bathhouse north of the Marine Memorial. Its inconvenient location in the center of a parking lot is difficult to access. The redevelopment plan calls for a new larger and modern facility on the boardwalk that will enliven the area around the Marine Memorial. At the southern end of the main beach, there are currently no public services. A moderate-sized bathhouse with shady spaces for sitting will serve the beach visitors at the south end of the boardwalk. All facilities will be constructed with the highest-quality materials and will incorporate energy efficient technologies.

Safely navigating the parking areas and roadway that lay between the beach and Hampton shops can be challenge for pedestrians. All along the boardwalk, improvements that allow safer pedestrian connections between the beach and the Ocean Boulevard businesses are also a part of the plan. Shady seating areas will also be constructed all along the boardwalk, allowing visitors a sheltered place to enjoy the ocean and beach environment.

The Hampton Beach Master Plan envisions a mixture of year round attractions including a conference center, cultural attractions, restaurants and more year round residents. A new visitor center located at the south gateway area would be the first destination for visitors looking for directions, lodging information, and area offerings. This location, away from the hustle and bustle of Ocean Boulevard, is easily accessible by both north and south bound traffic and has plenty of space for visitors to park, obtain information and book reservations for lodging, meals and other local attractions. Other improvements to the south gateway area would include landscaping and modest parking lot improvements.

To continue to attract visitors and to support and nourish the region's economic activity, the redevelopment of these public-use facilities is necessary. The current facilities do not meet the needs of our guests and their families and are becoming increasingly expensive to maintain. Public investment in the park facilities will provide an incentive for further private and commercial investment in the region.

After you review this feasibility study, we think you'll agree that these improvements to the state park facilities at Hampton Beach would be a worthy investment in the future economic vitality and improved quality of life in New Hampshire's seacoast region that will be recouped by improved economic activity and will continue to pay off in years to come.

Sincerely,

George M. Bald, Commissioner
Department of Resources and Economic Development

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CRW
Landscape Architects & Planners

VHB Vanasse Hangen Brustlin, Inc.



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Prepared for:



Hampton Beach State Park is managed by the Department of Resources and Economic Development, Division of Parks and Recreation. PO Box 1856 Concord, NH 03302-1856. 603-271-3556

For more information about this project, www.hamptonbeachredevelopment.com

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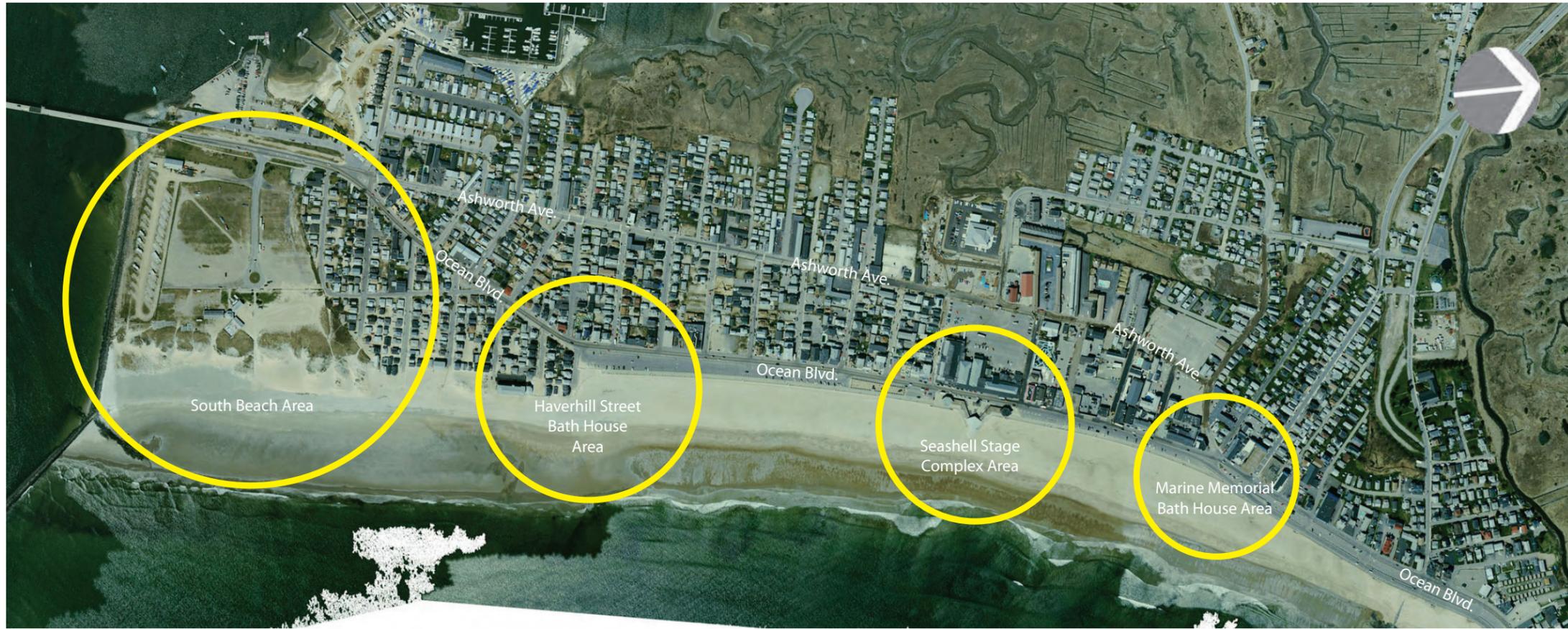


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Introduction

This report presents the final feasibility study for improvements to Hampton Beach State Park. This first phase of work includes preliminary design and cost estimates for the following program of improvements:

- **South Beach.** Development of a new Visitor Center and landscaped gateway to the South Beach area.
- **Haverhill Street Bathhouse.** New Bathhouse at the Haverhill Street area at the south end of the Beach Boardwalk.
- **Seashell Complex.** Replacement of the existing Seashell Complex with a new open air theater complex and central visitor's facility.
- **Marine Memorial Bathhouse.** New Bathhouse near the Marine Memorial north of the Seashell complex.

This program of beach area improvements were among several general improvement strategies identified in the 2001 Hampton Beach Master Plan, a collaborative planning effort between the State of New Hampshire and Hampton Beach that set a 'blueprint' for long term enhancement of the Hampton Beach area. The building and landscape plans incorporate 'green' elements intended to limit resource and energy consumption. Not included within the scope of this study were traffic, parking and circulation studies, waste management plans (other than trash and recycling receptacles), streetscape improvements, meter management, further development and enhancement at the South Beach area or within the Town of Hampton Beach. While there is clearly more work to be done, this project provides a significant 'first step' that can serve as a basis for further enhancements for this popular seaside resort town.

This feasibility study will be presented to the New Hampshire State Legislature for consideration of funding from the FY 2009-10 biennial capital budget. If this project is funded, a second phase of the project will be undertaken, including preparation of specific design and construction documents and project construction.

Redevelopment Project Goals

One of the foremost goals for the Division of Parks and Recreation is the **revitalization of the public face of Hampton Beach**. As for private and commercial property along the beach, equal renewal and enhancements are predicted to follow the Hampton Beach improvements. This goal will be reached by spreading the public facilities out from the Seashell complex to the entire beach, to include the under-utilized north and south ends, in order to cut down on central congestion and crowding.

Another goal for this project is to **reserve prime beachfront property for functions directly related to the public's use and enjoyment of the beach**. Support functions for the State will be redirected to areas of the park in less demand for public recreation and direct visitor services.

The final goal is to **create a distinctive look for the State Park facilities at Hampton Beach**. The facilities should be immediately recognizable as part of the State Park and should contribute to the fresh new appearance for Hampton Beach that the redevelopment seeks to promote.

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Economic Development

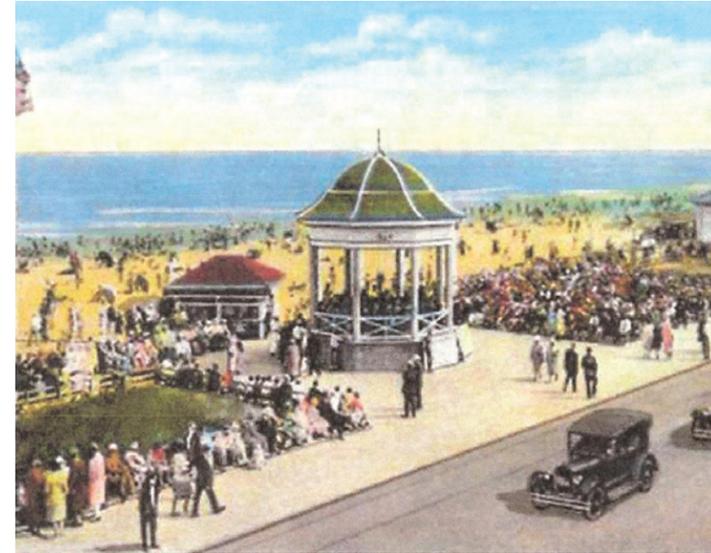
Did you know visitors spent an estimated \$175 million dollars at Hampton Beach in 2007? There were an estimated 1.8 million visitor trips to Hampton Beach in the calendar year of 2007 which translates into 2.3 million visitor days and estimated spending of \$175 million. This spending generated about \$6.4 million in state rooms and meals taxes during 2007. The next most important source of state government revenues from these visitors were parking fees and other user fees collected by the NH State Parks. The third most important source of revenue was spending at State Liquor Stores. Other state government revenue sources include tolls at the Hampton toll booths, gasoline taxes, fish and game license fees and business enterprise taxes. It is estimated that all of these taxes and fees provide state government with an added \$9.2 million dollars annually, for a total of \$15.6 million dollars (in terms of direct and indirect revenues) out of the \$175 million spent by the tourists.



Public Process

Preliminary design of the improvements to Hampton Beach State Park included public input at all steps along the way. A design committee comprised of Hampton community representatives, State representatives and DRED staff reviewed and guided the design work. Broadly noticed public workshops were held in Hampton on the evenings of March 15 and May 5, 2008 and an open public information session was held on the beach on June 7, 2008. Finally, a survey was posted on the DRED website to elicit ideas about the proposed improvements to Hampton Beach State Park.

Through the public workshops and informational sessions held at the beach, the public has enthusiastically supported the project and expressed a desire for it to be undertaken sooner rather than later. See "*Hampton Beach plans produce wave of joy*," New Hampshire Union Leader, June 17, 2008 (in Appendix).



Historic Context

Hampton Beach has a long history as New Hampshire's premier seaside resort. Passenger railroad service established in the 1840's, transformed the Town of Hampton from a sleepy farming and fishing village to a seaside resort. An interurban street railway began service in 1897, and with connections to other street railway systems Hampton Beach could be reached in this manner from as far away as Lawrence and Lowell, Massachusetts. In 1899 the Casino was built and in 1901 the first bandstand was constructed directly across the street at the current location of the Seashell complex.

The Town of Hampton transferred ownership of all the land between Route 1A and the ocean from High Street to Haverhill Street (except the Great Boar's Head) to the State of New Hampshire in 1933; an additional fifty acres was acquired by



the state at the southern end of the beach in 1934 (South Beach area)—these lands now make up Hampton Beach State Park. Even in the mid-1930's Hampton Beach was a highly developed urban oceanfront destination.

The state's public recreational development began with the construction of a bathhouse and public day use facilities in 1937 at the South Beach area; the South Beach complex was redeveloped in 1988 with the snack bar and picnic shelter currently in place. In 1963, the Seashell Complex was developed in place of the bandstand.





South Beach Visitor Center

Bird's Eye Perspective

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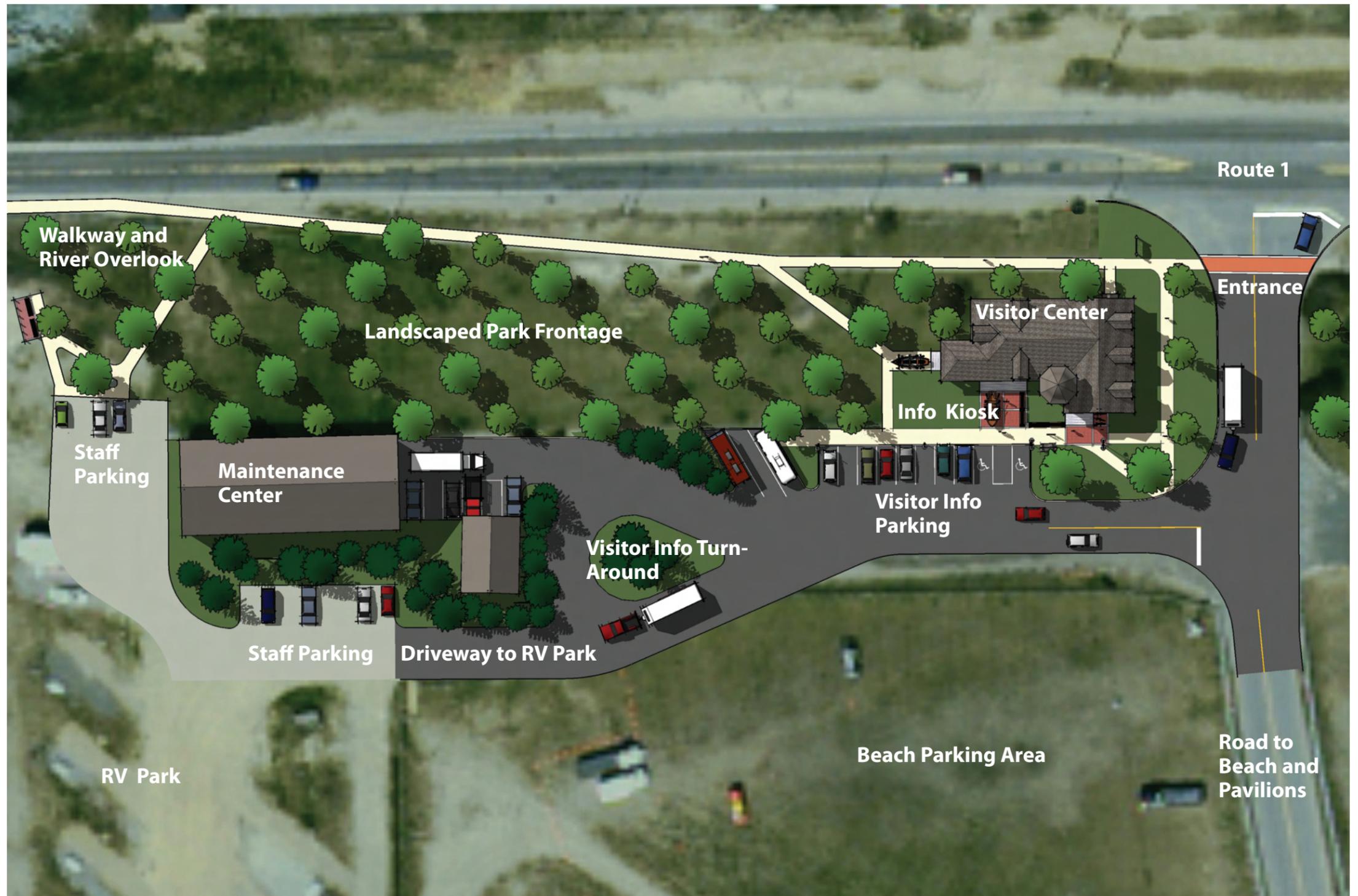
South Beach

The South Beach area serves as the southern gateway to Hampton Beach State Park and is a significant parking receptor for the beach area. In addition to parking, this area of the beach provides a quieter more secluded experience than the portion of the State Park to the north.

At this location, a generously landscaped yard adjacent to Route 1A is proposed to provide a gateway and a sense of entry to the State Park. A new visitor center is also placed at the entrance to this site to provide year-round local and state park visitor information and services as well as additional administrative space. The South Beach visitor center building will recall the Coast Guard Life Station building that stood at the opposite end of High Street and opened in 1899. The landscape will employ typical 'back dune' plant species such as black oak, red maple and beach rose planted in a formal configuration to provide 'green relief' and convey a clear sense of arrival, while also concealing the vast parking area beyond.

South Beach Visitor Center Building Program Elements:

- Entry Porch: Covered Porch
- Lobby: Public Area with Signage Showing Services Available
- Exhibit Space: Seasonal and Permanent Exhibits on Area Wildlife and History
- State Park Information Desk and Campground Registration
- Mens and Womens Accessible Toilets
- Viewing Tower
- Employee Conference Area
- Offices



South Beach Visitor Center
Site Plan





North Elevation



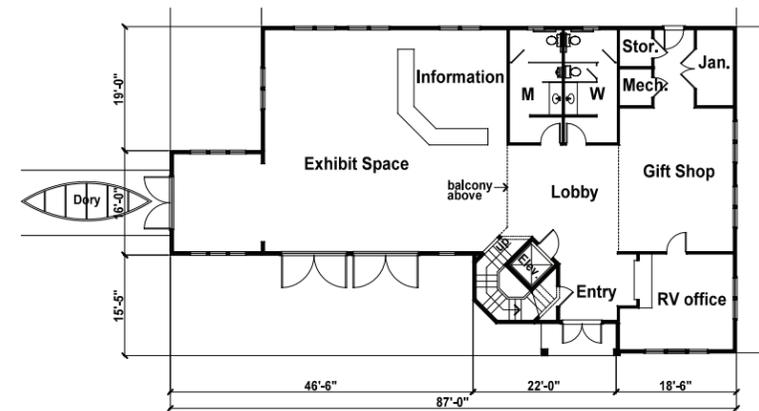
East Elevation



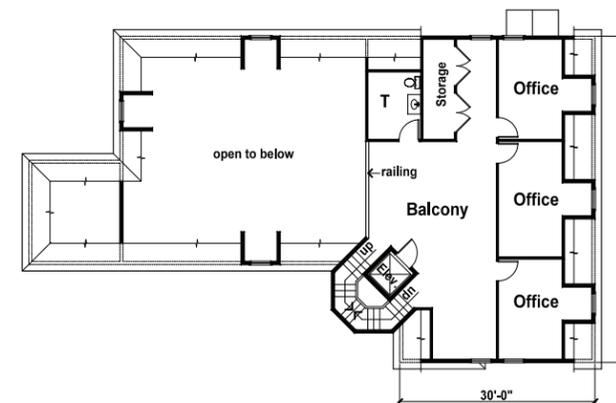
South Elevation



West Elevation



Main Floor Plan



Upper Floor Plan



South Beach Visitor Center

Building Elevations and Floor Plans

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South Beach Visitor Center
Ground Level Perspective





Haverhill Street Bathhouse
Bird's Eye Perspective

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Haverhill Street Bathhouse

A new bathhouse will be constructed near Haverhill Street at the south end of the boardwalk. At this location, the boardwalk will be widened to create a pedestrian plaza with shade structures, seating, an interactive 'pop-jet' fountain, and easy handicapped access to the beach. The assembly of activities at this location creates a fun and amenable atmosphere for all ages and a center of activity at this southern 'bookend' of the boardwalk.

The bathhouse building employs a New England seashore aesthetic, with weathered shingles, stone bases, hip roofs, gables, a cupola, and wood trim. The bathhouses also incorporate 'green' features, including skylights for day lighting, solar hot water and 'flushless' urinals.

The bathhouses incorporate changing rooms, toilets, sinks, outdoor showers, and coin-operated lockers.

The beach boardwalk is separated from the parking area by continuous concrete planters that will screen the parking area from the boardwalk and provide needed greenery in the area. The planters will also channel pedestrian traffic to formalized crossing areas with curb extensions that increase the visibility of pedestrians to motorists allowing for safer pedestrian movement through parking areas that lie between the beach and Ocean Boulevard. Trellised overlooks would be planted with vines, such as wisteria and trumpet creeper to add greenery and shade.

Haverhill Bathhouse Building Program Elements:

- Breezeway: Covered Space with Views to the Beach
- Mens and Womens Accessible Restrooms with Changing Rooms and a Shower
- Bike Racks
- Public Use Lockers
- Shaded Seating Areas
- Rinse-Off Showers



Haverhill Street Bathhouse
Site Plan





North Elevation

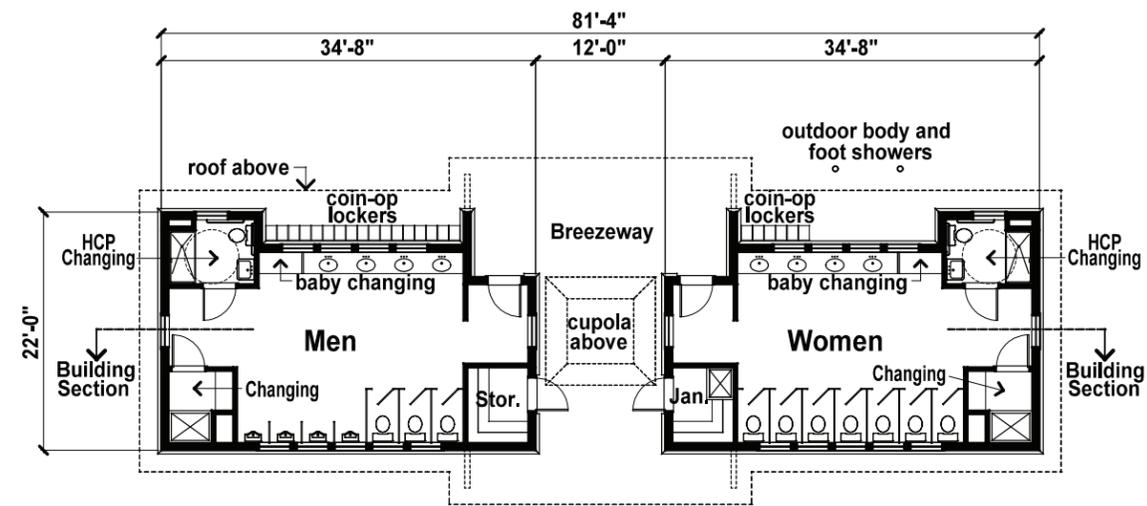


West Elevation

To Beach



East Elevation

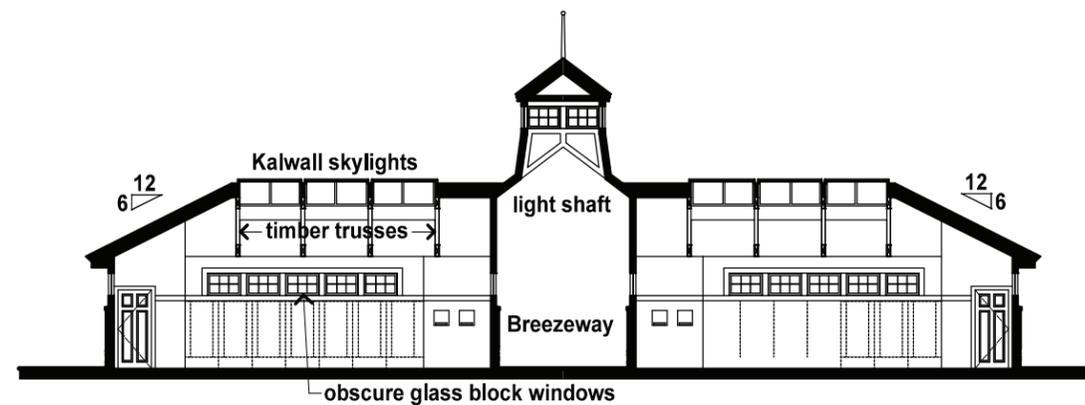


Main Floor Plan

To Parking



South Elevation



Building Section



Haverhill Street Bathhouse

Building Elevations

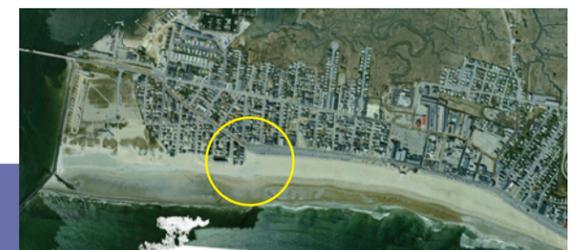
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Haverhill Street Bathhouse
Perspectives





Haverhill Street Bathhouse
 Perspective Looking up the Boardwalk

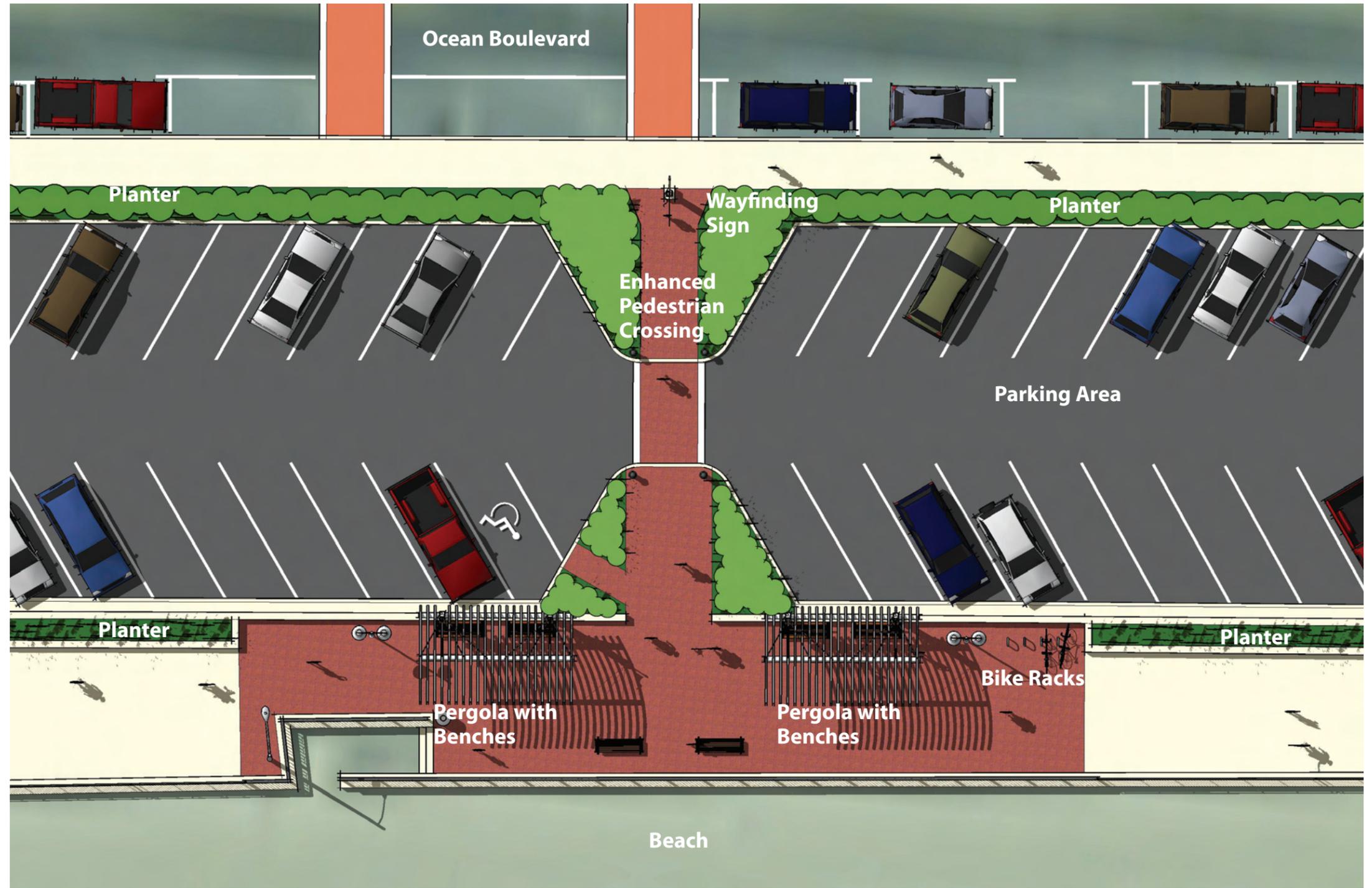
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 **Vanasse Hangen Brustlin, Inc.**

Enhanced Pedestrian Crossings

In addition to the improved crossings at the bathhouses and the Seashell Complex, enhanced pedestrian crossings are planned at regular intervals to address the great demand from pedestrians crossing between the beach and shops and homes in town. Enhanced crossings with shade structures on the boardwalk, bump outs, wayfinding signage and planting are placed to direct pedestrians to each intersection.



Enhanced Pedestrian Crossing
Site Plan





Enhanced Crossing
 Perspective at Ocean Blvd.



Enhanced Crossing
 Perspective at Boardwalk

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Seashell Complex

The landmark Seashell Complex has been completely redesigned to provide a modern multi-season facility that is the centerpiece of the Hampton Beach summer entertainment scene. The complex roughly incorporates a similar overall 'footprint' of the existing complex, with the main stage at the center of the complex, with smaller 'pavilion' buildings that house state park and visitor service functions north and south of the main building. Two smaller ancillary stages that are oriented to beach areas above and below the Seashell Complex are a new idea in this development. This would allow a greater variety of venues for entertainment during the day and nighttime hours and allow the nearby beach areas to become drawn in to the activity of the Seashell Complex. A new clock tower at the center of the complex would be constructed to give the Seashell complex a visual landmark feature that can serve as a point of orientation for Hampton Beach.

The main stage is located at the center of the main building with an adjacent seating area for 750 people. The main stage and seating area is set off from the surrounding plaza area by a trellised arcade structure that connects the main building with the smaller pavilion buildings. The stage will include state of the art sound and lighting equipment and be crowned by a tensile canopy structure. There are two dressing rooms associated with the main stage. In addition to the stages and associated dressing rooms, the main building also accommodates restrooms and a first aid station on the ground level.

On the second level, the lifeguard office and associated locker and changing rooms and a community event room with sweeping views of the ocean are located here. The events room could be a focus of year round activity and generate revenue for Hampton Beach State Park. The lifeguard lookout and park manager's office is located on the third floor.

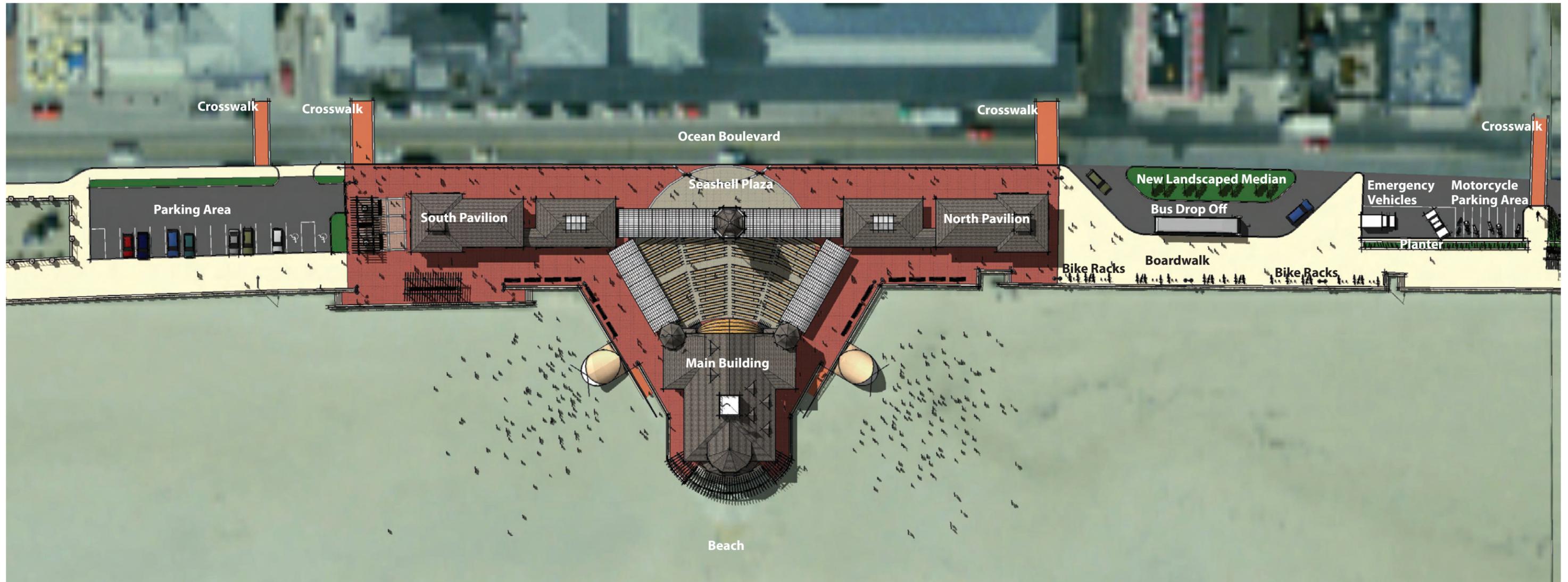
The pavilion buildings are two story structures flanking the main building to the north and south. The south building contains men's and women's restrooms and the Hampton Beach Visitor's Information Center at the ground level. The second floor contains offices for event and outreach managers as well as a small conference room. The visitor information services at this location will be served by the adjoining parking lot which will be converted to short term parking for the visitor's information center.

The north pavilion includes storage and support space for park maintenance and park patrol services.



Seashell Complex
Bird's Eye Perspective





Seashell Complex Site Plan



Seashell Complex Building Program Elements:

Main Building

- Main Stage and Dressing Rooms
- Seating for 750 Persons
- Ancillary Stages Facing the Beach
- Vertical Lift for Accessible Entry to Stage
- Men's and Women's Restrooms
- First Aid Station
- Lifeguard Office and Locker Rooms
- Community Event Room with Kitchen and Storage
- Employee Lounge
- Storage
- Lifeguard Lookout and Park Offices

South Pavilion

- Visitor Information Center
- Mens and Womens Accessible Restrooms
- Offices
- Conference Room
- Break Room

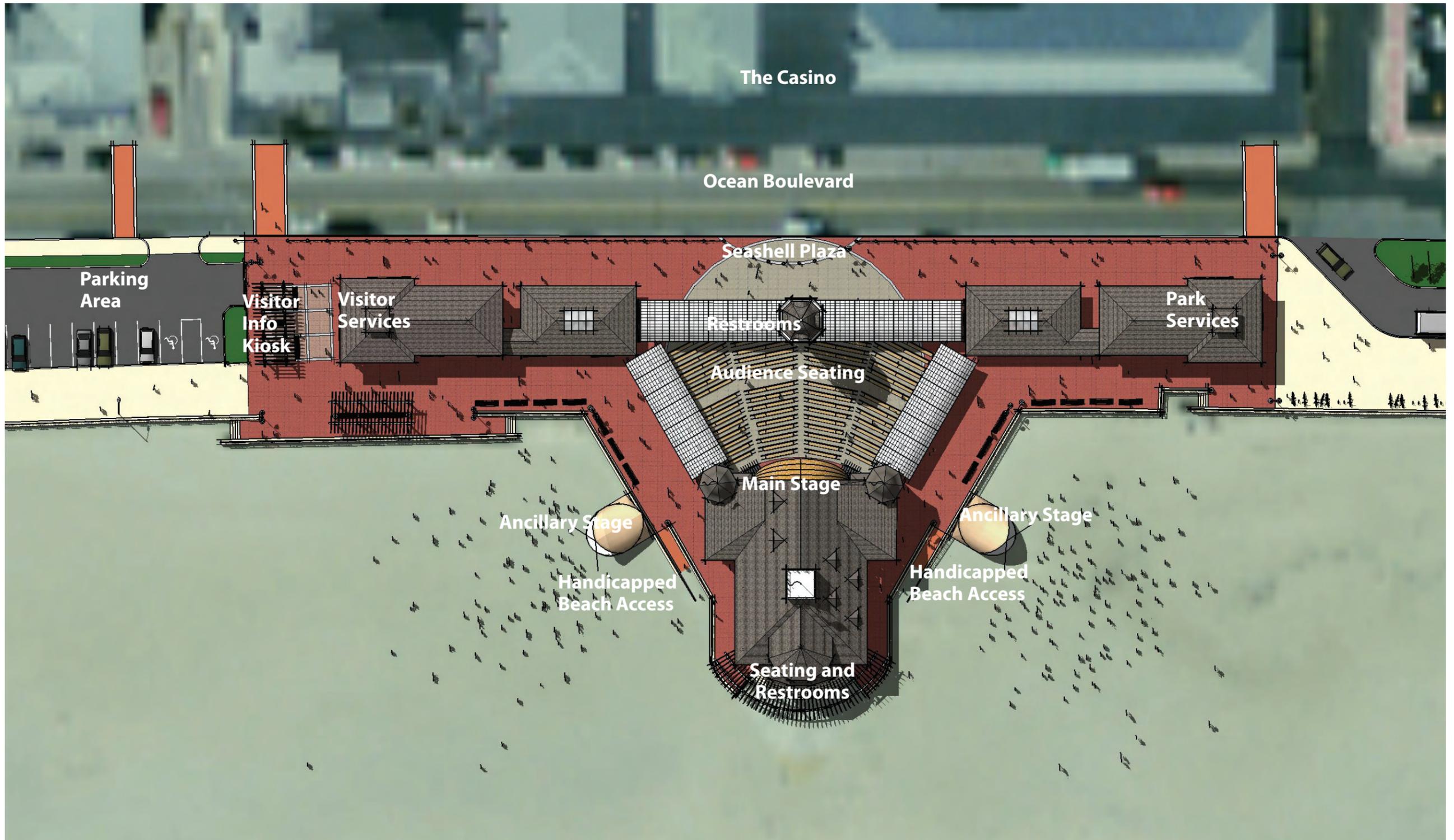
North Pavilion

- Park Maintenance and Park Patrol Operations and Storage Space
- Park Patrol Offices and Locker Rooms
- Employee Restrooms
- Employee Lounge

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Seashell Complex
Detailed Site Plan



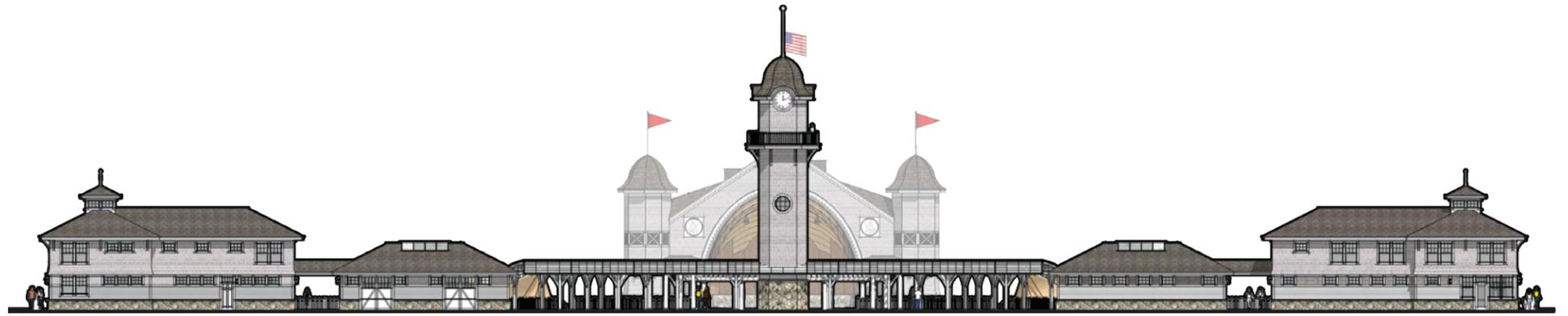


North Elevation

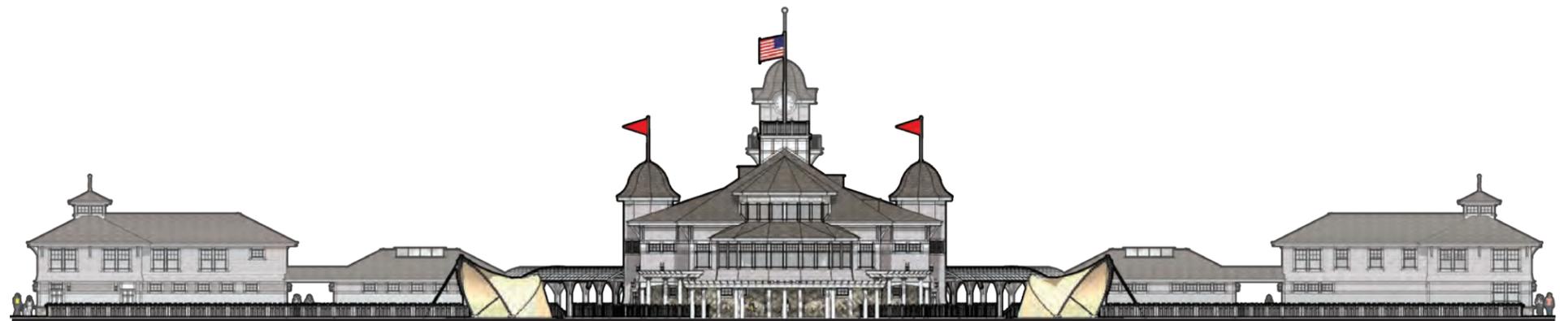


South Elevation

Seashell Complex Building Elevations



West Elevation (From Ocean Boulevard)

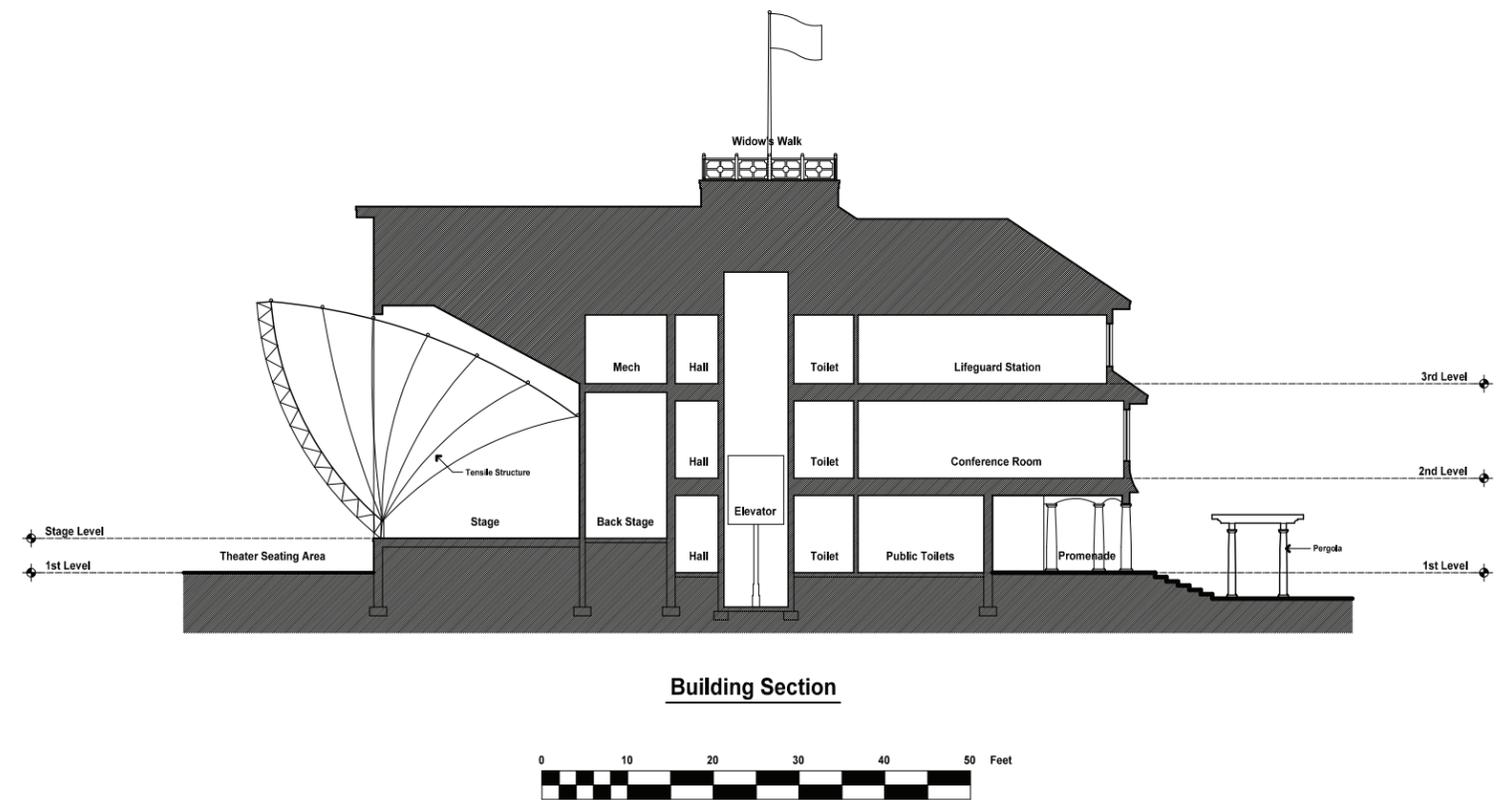
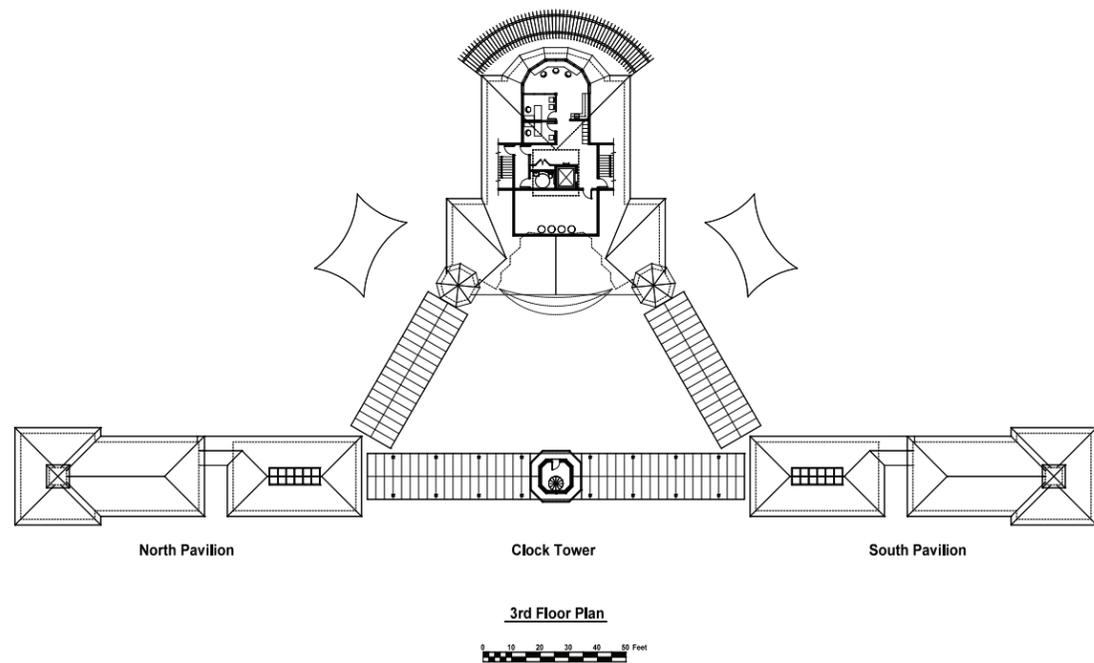
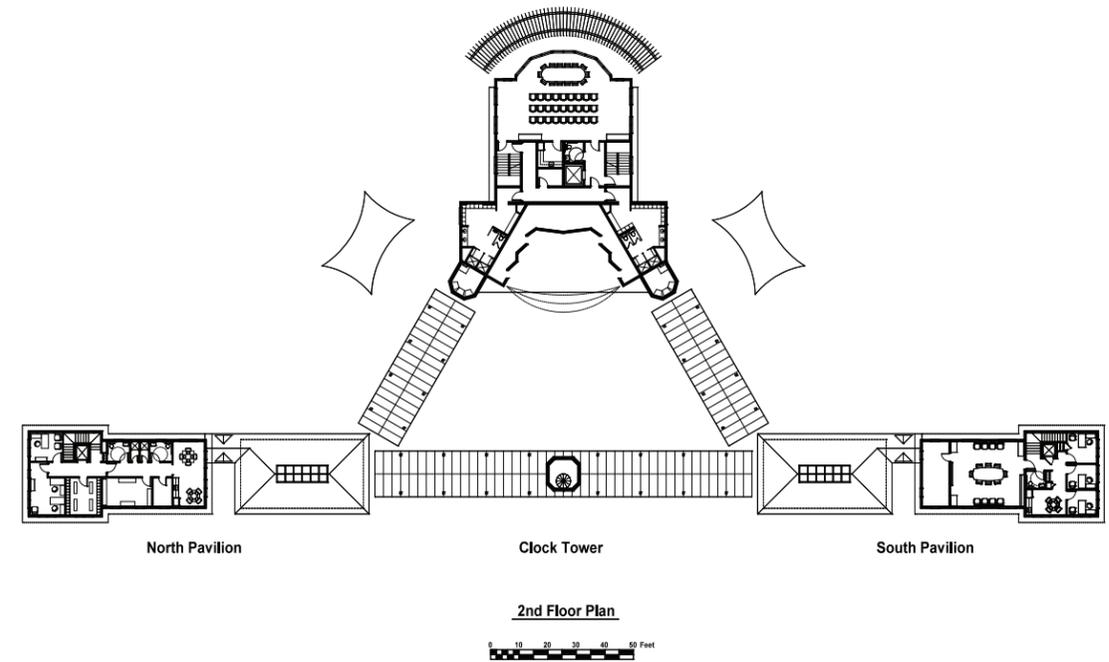
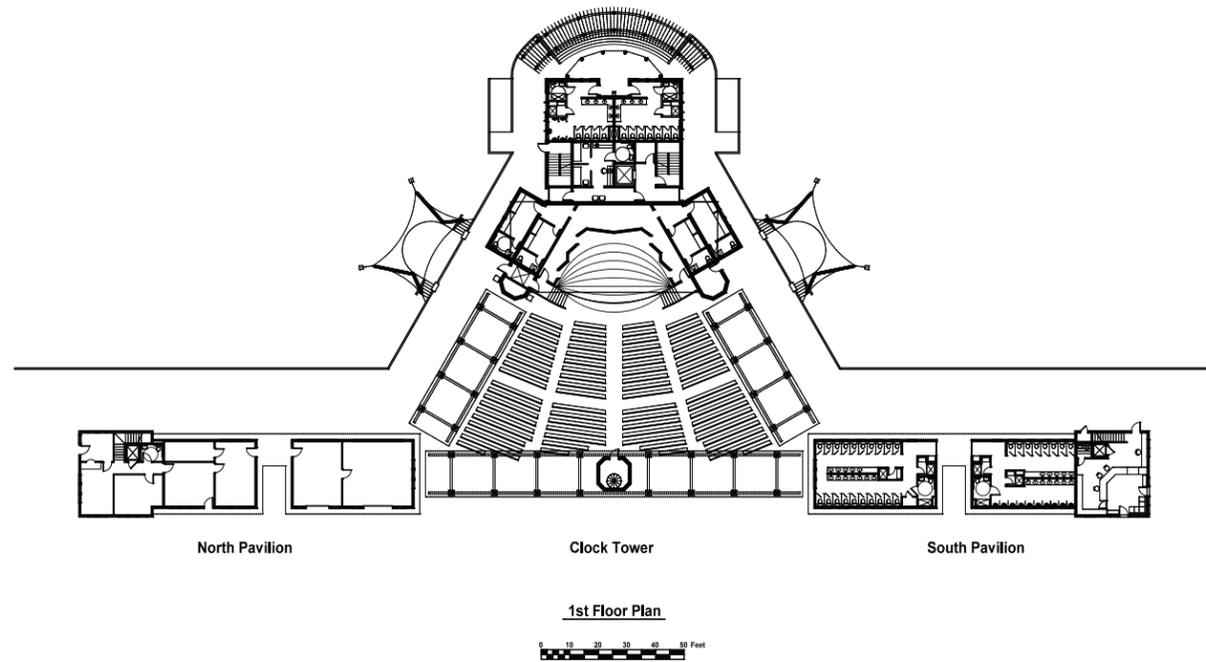


East Elevation (From Beach)

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Seashell Complex
Floor Plans and Section

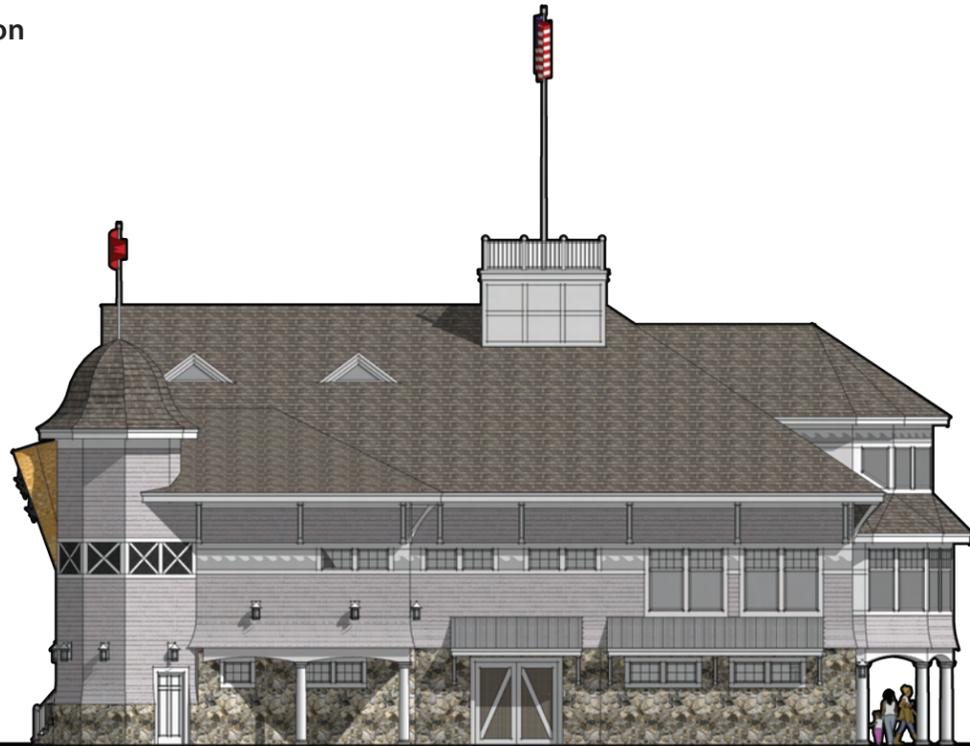




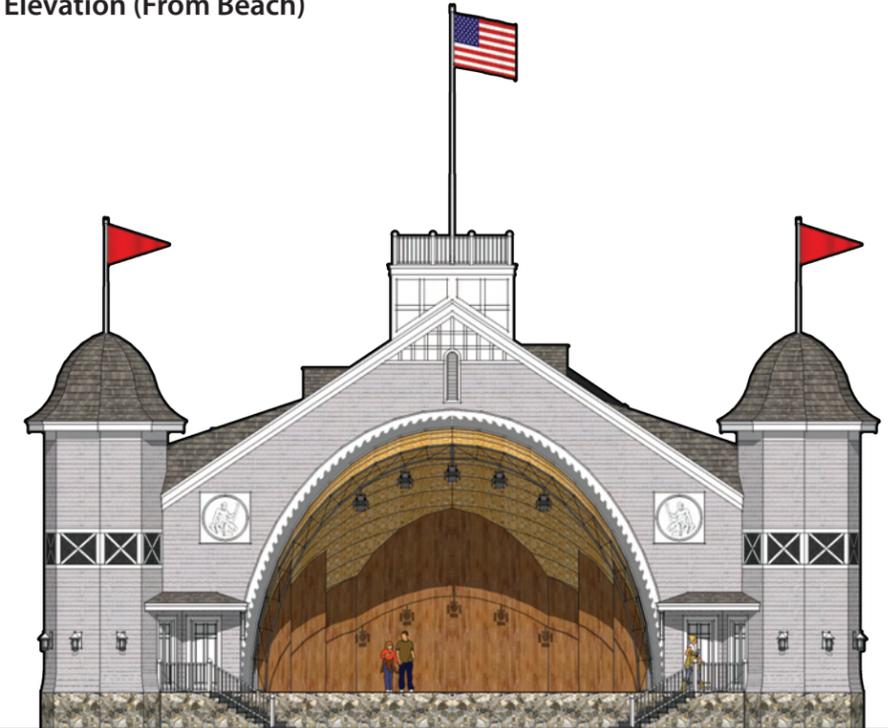
North Elevation



East Elevation (From Beach)



South Elevation



West Elevation (From Ocean Boulevard)

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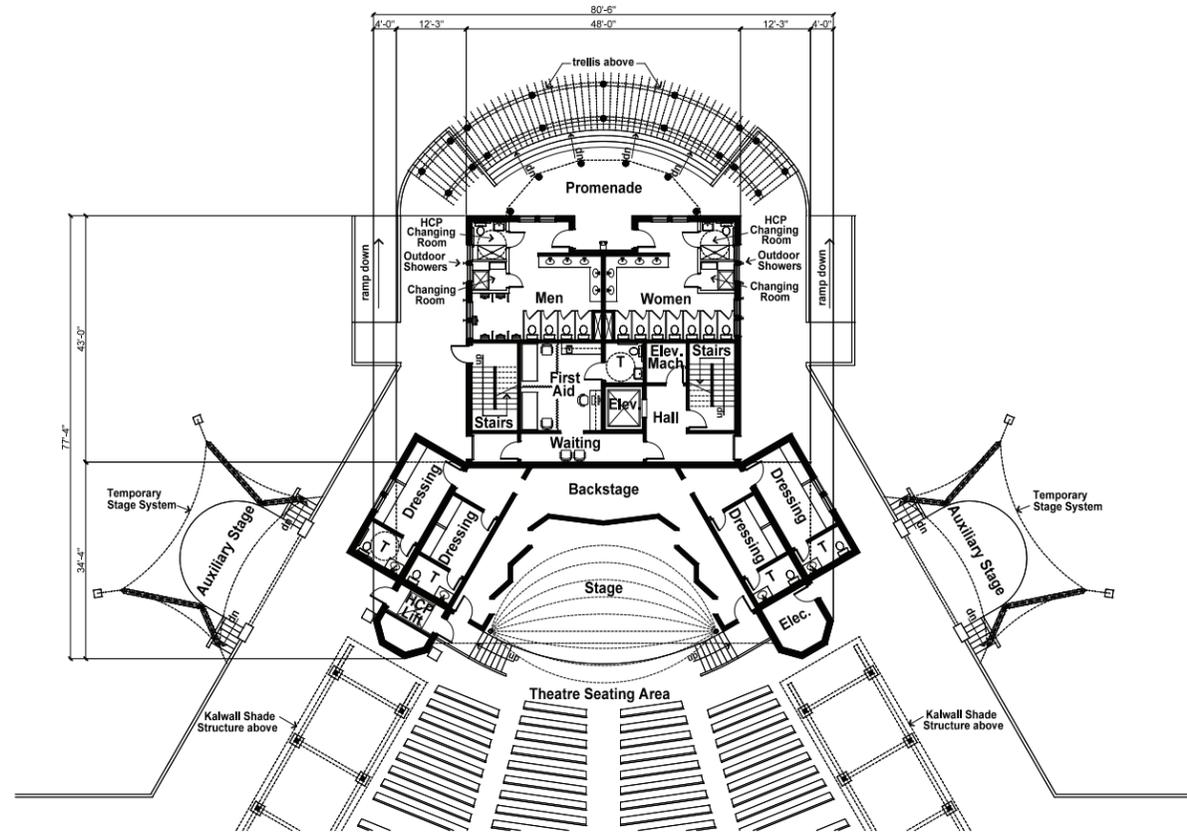
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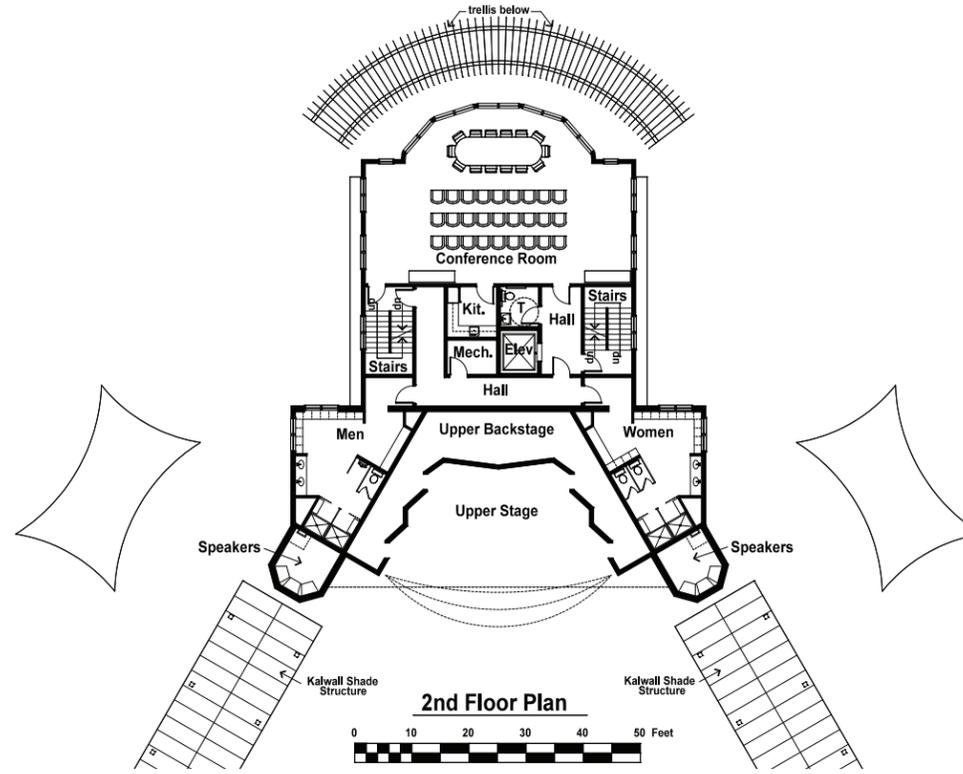
Seashell - Main Building

Building Elevations

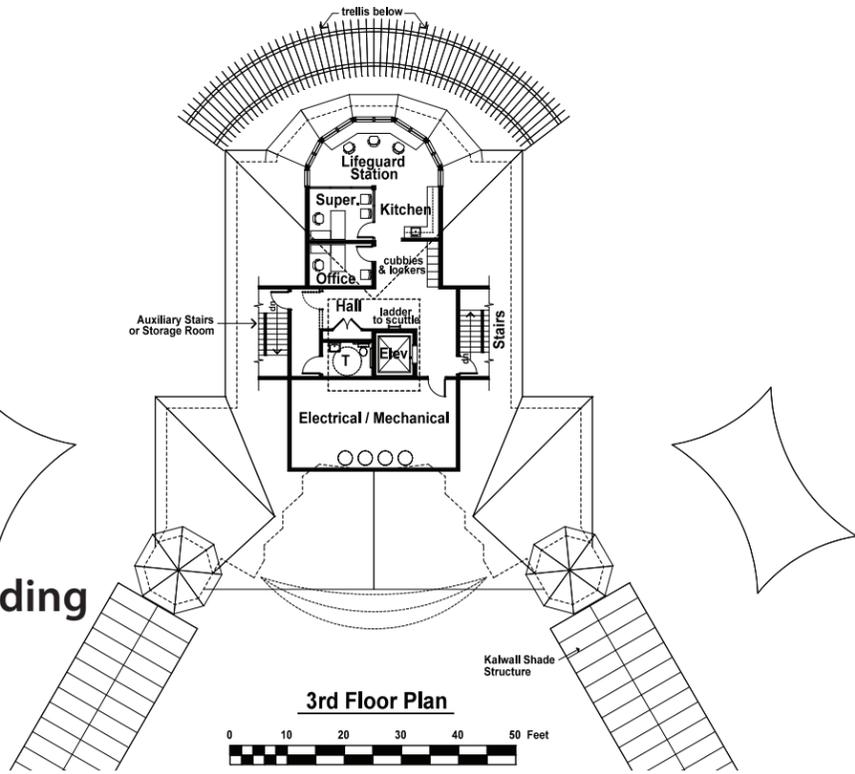
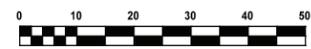
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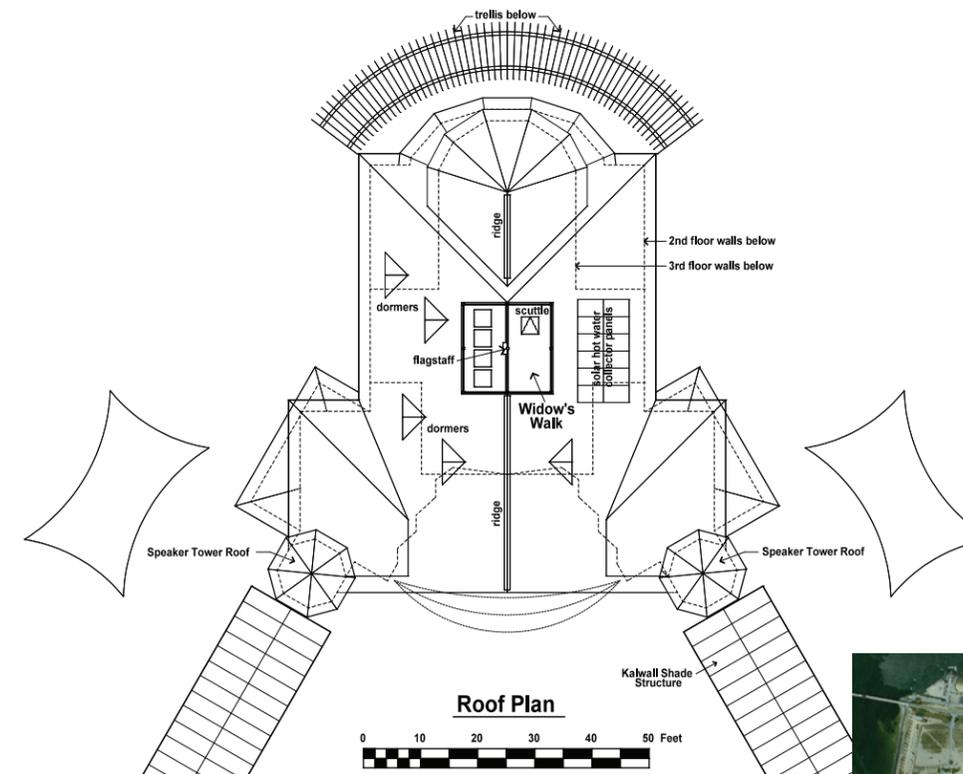
1st Floor Plan



2nd Floor Plan



3rd Floor Plan

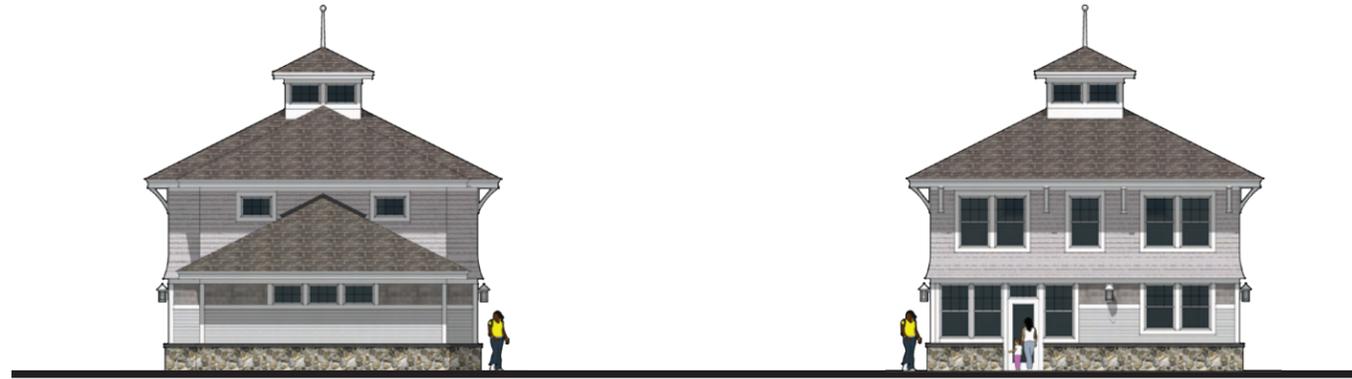


Roof Plan



Seashell Main Building
Floor Plans





North Elevation

South Elevation



East Elevation



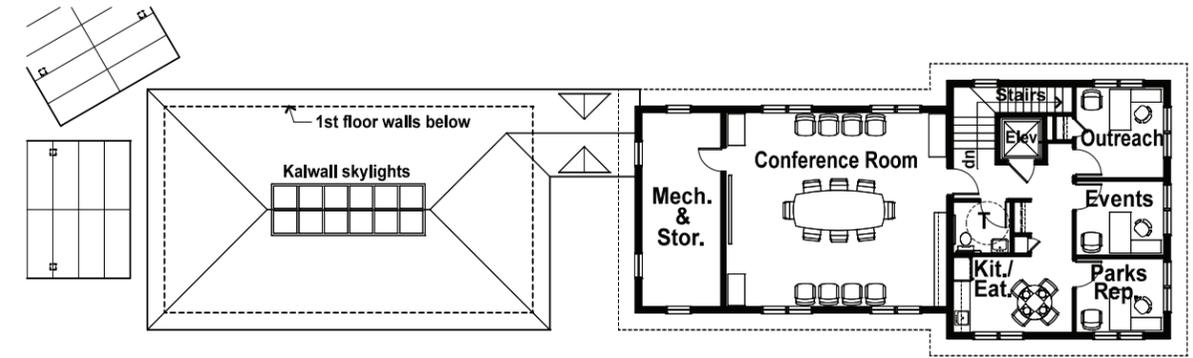
West Elevation

Seashell - South Pavilion
Building Elevations

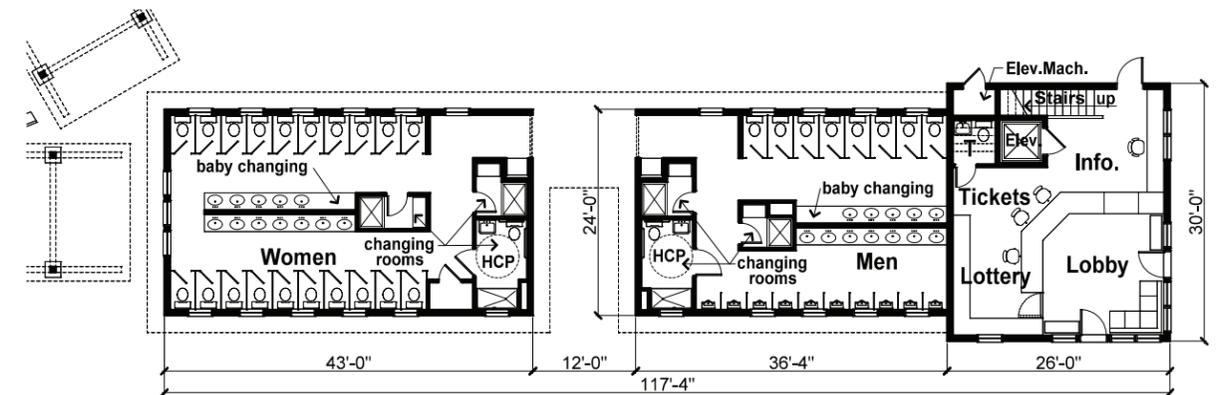
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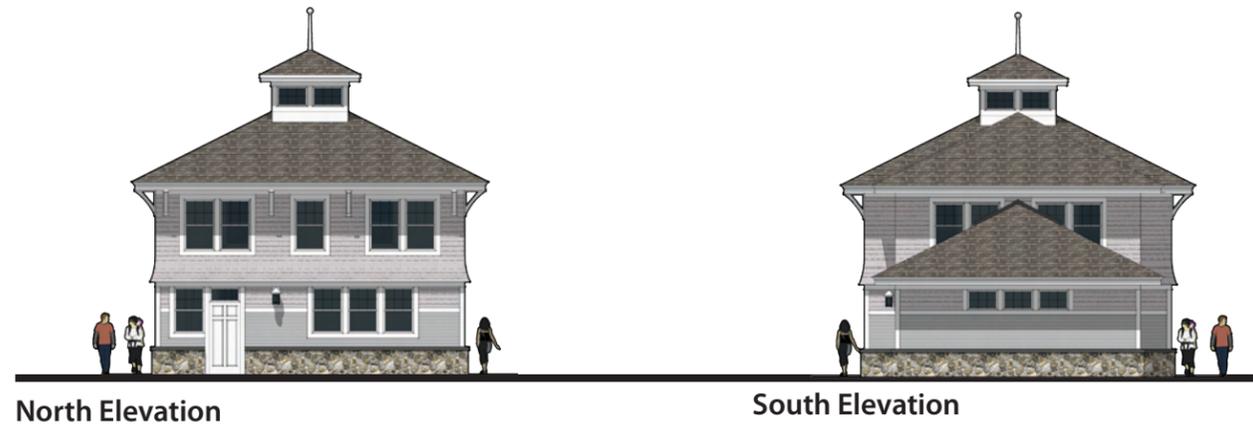
2nd Floor Plan



1st Floor Plan

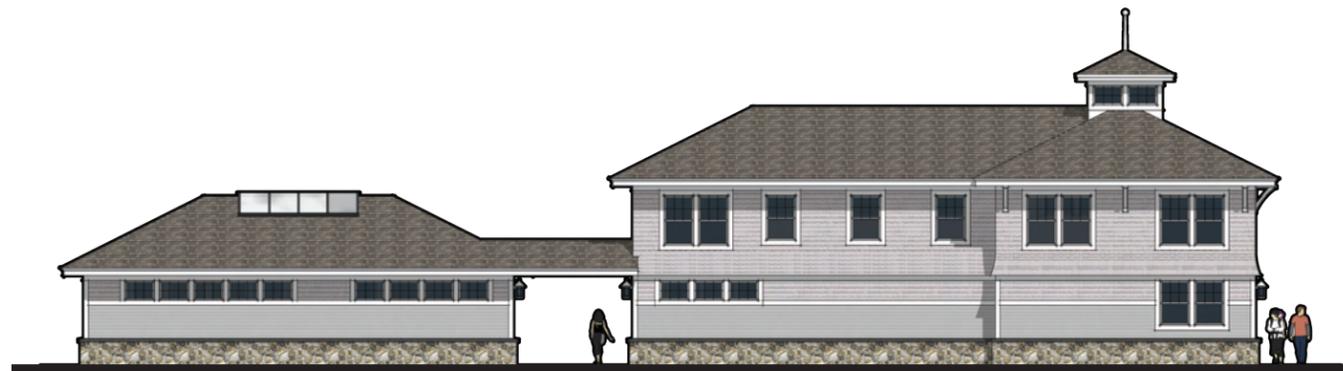


Seashell - South Pavilion
Floor Plans



North Elevation

South Elevation

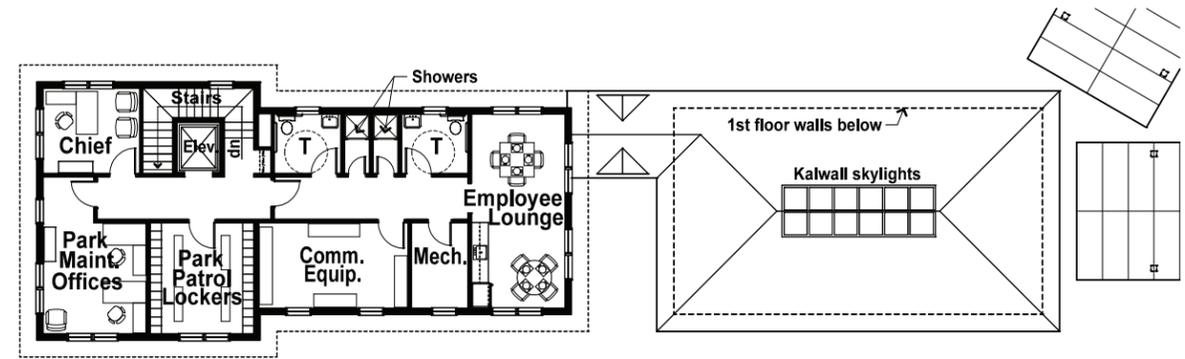


East Elevation

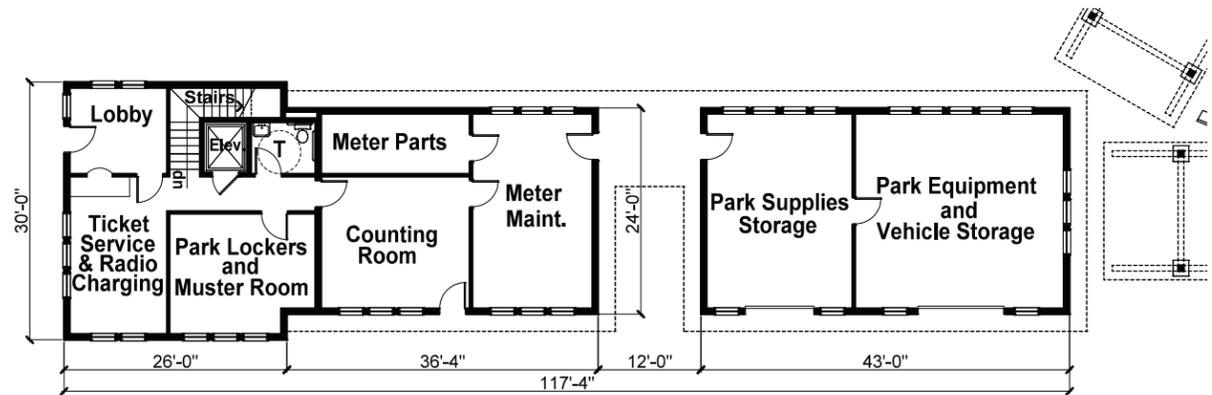


West Elevation

Seashell - North Pavilion
Building Elevations



2nd Floor Plan



1st Floor Plan



Seashell - North Pavilion
Floor Plans





Seashell Complex
 Perspective at Boardwalk

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Comparative pictures of existing Seashell Complex



Seashell Complex
Perspectives





Seashell Complex
Perspective



Comparative picture of existing Seashell Complex

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 **VHB** Vanasse Hangen Brustlin, Inc.

Marine Memorial Bathhouse

The Marine Memorial Bathhouse will be placed along the boardwalk just south of the Marine Memorial statue. At this location, there is a shift in the geometry of Ocean Boulevard, creating some awkward 'leftover space' that, when used for the bathhouse, with a trellised seating area and overlook, can transform this space into a more attractive public gathering place. At this location, the parking transitions from being located alongside the beach boardwalk to a location in the median of Ocean Boulevard. The median can be lengthened and landscaped for a more attractive 'gateway' appearance and serve as a pedestrian refuge island as part of an improved pedestrian crossing.

The beach vehicle access drive would be relocated to the area north of the memorial so as not to detract from this public gathering space. At the memorial, handicapped access to the beach is open and easy as the boardwalk is not raised above the beach.

Marine Memorial Bathhouse Building Program Elements:

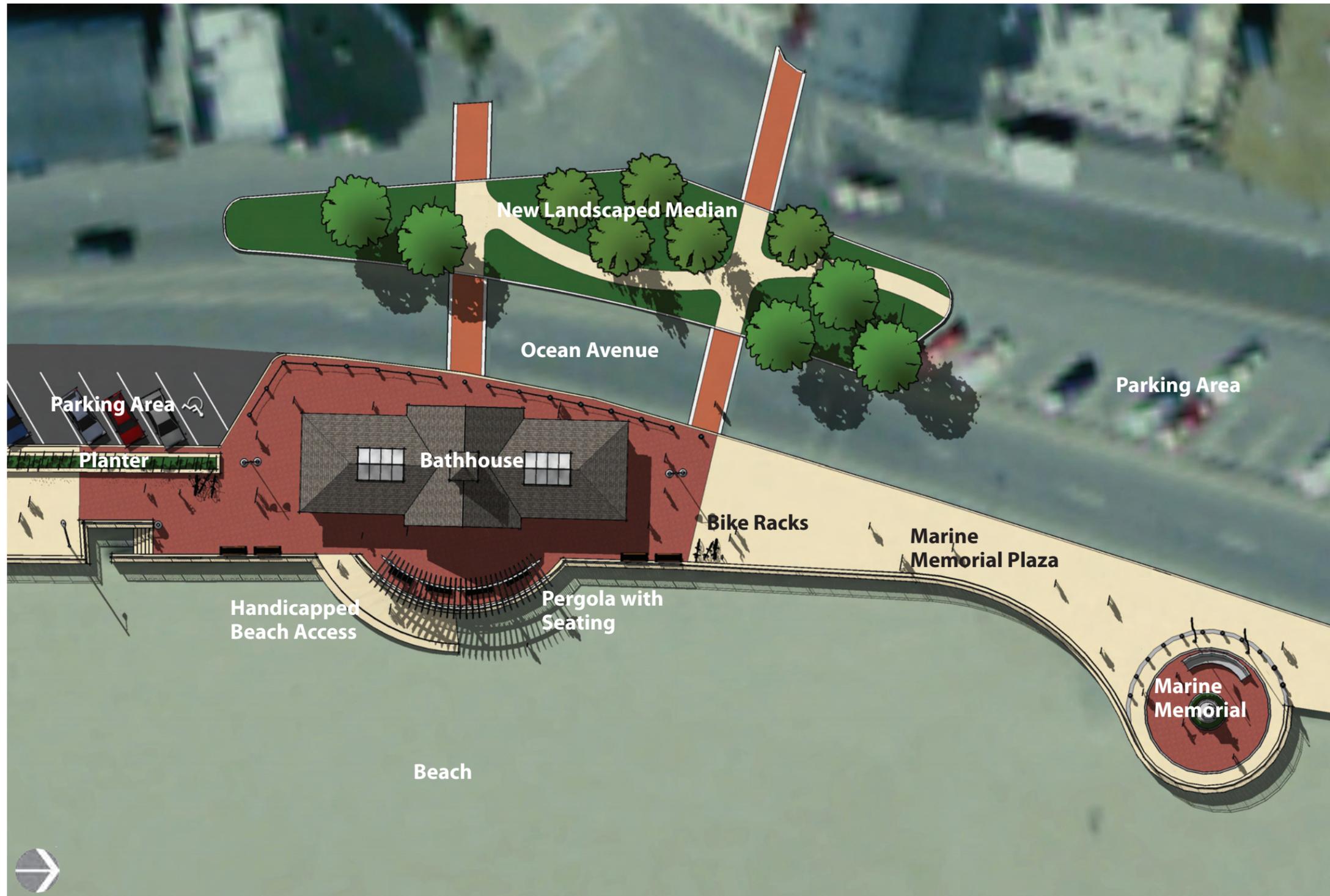
- Breezeway: Covered Space with Views to the Beach
- Mens and Womens Accessible Restrooms with Changing Rooms and a Shower
- Bike Racks
- Public Use Lockers
- Shaded Seating Areas
- Rinse-Off Showers



Marine Memorial Area Bathhouse

Bird's Eye Perspective



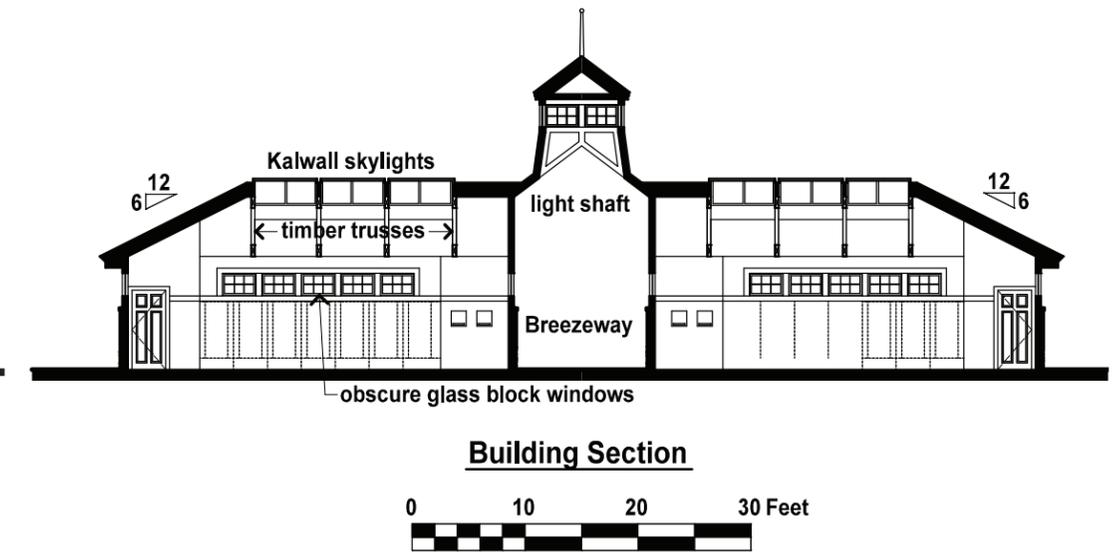
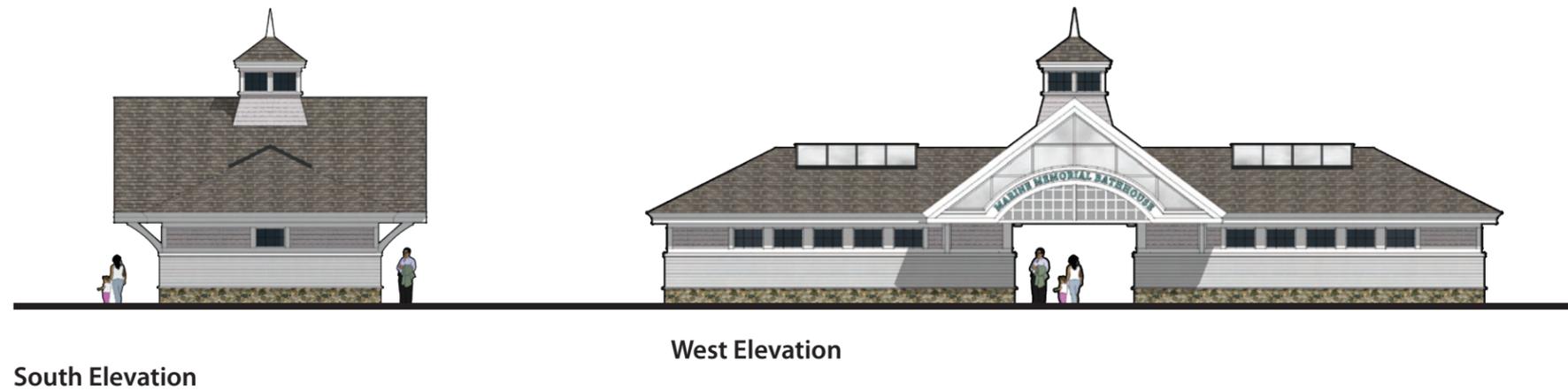
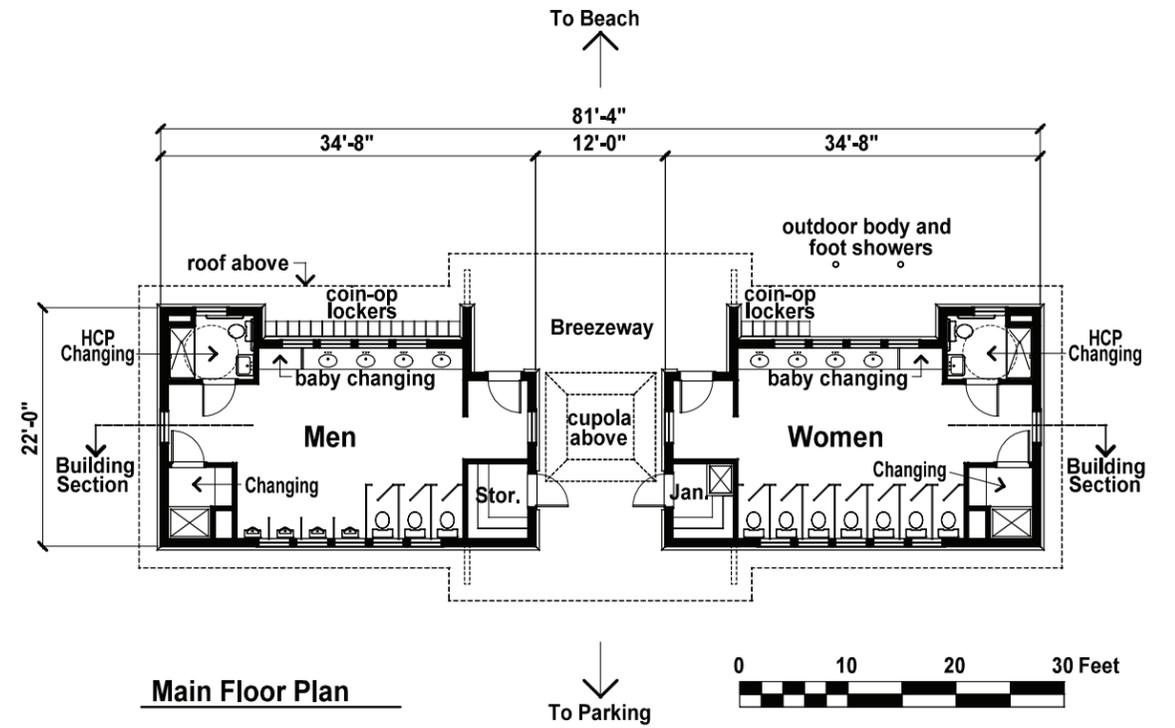


Marine Memorial Area Bathhouse
Site Plan

 **SAMYN-D'ELIA**
ARCHITECTS, P.A.

 Landscape Architects & Planners

 Vanasse Hangen Brustlin, Inc.



Marine Memorial Bathhouse

Building Elevations, Floor Plan and Section





Marine Memorial Area Bathhouse
Perspectives

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Marine Memorial Area Bathhouse
Bird's Eye Perspective





| Project Area | Project Elements | Estimated Cost |
|-------------------------------|--|---------------------|
| Seashell Complex | Pavillion North including Visitor Center Pavillion South Seashell Pavillion Site Plaza | \$7,060,495 |
| South Gateway | Visitor Center Route 1 Landscape Gateway Site | \$1,945,350 |
| Gateway South Site | Drainage improvements Maintenance Facility improvements | \$630,330 |
| Haverhill Street | Bath House Site Plaza | \$1,098,095 |
| Marine Memorial | Bath House Site Plaza | \$1,506,505 |
| Ocean Boulevard Site | Drainage improvements & repaving Shade structure Crosswalks & ADA ramps Planters, landscaping | \$3,238,040 |
| Project Soft Costs | Administrative services Furnishings Utility fees Hazardous abatements & ledge A&E fees | \$1,760,520 |
| PROJECT SUBTOTAL 2008: | | \$17,239,335 |
| Inflation Add: | 8% for 2009 construction | \$1,379,150 |
| | 8% for 2010 construction | \$1,489,480 |
| PROJECT TOTAL: | | \$20,107,965 |

Cost Summary

An Opinion of Probable Cost was prepared as a part of this study. The total cost for this project including design and administrative fees is estimated to be \$20.1 million. The project costs by area and project element are summarized in the chart at the left.

Cost Benefit Summary

These facilities are sure to attract added visitors to Hampton Beach. If these facilities are open for a longer season and if the Town of Hampton works with developers to improve parking and provide for more hotel and newer vacation rental properties, then total visitation could increase by another 15 percent and total spending and state government revenues could increase by 20 percent (in 2007 dollars) within ten years after the construction of the new facilities. Other trends that will affect Hampton Beach are the value of the dollar and the cost of gasoline. Since 2006 the value of the dollar has brought back the Canadian market, long an important source of overnight tourists at Hampton Beach. Also, Canadians are increasingly visiting at other times of the year than just the summer. The current high cost of gasoline is having a noticeable impact on the number of day trips in places like Hampton Beach, but is having almost no impact on business travel and overnight travel. Thus, it can be anticipated that overnight visitors will be increasing the share of total visits and of visitor spending, with a decline in the relative share of day trips. Overnight travelers spend more per day, especially on things like accommodations that are taxed by the state.

If one uses the assumption of an increase of 20 percent in spending (in 2007 dollars) by ten years from now due to these proposed State Park improvements, along with changes and investments that the town and private development sectors, it is likely that the state government will collect an added three million dollars per year in 2007 dollars in taxes and fees. Of this amount \$1.2 million annually will come from rooms and meals taxes. A far more significant source of possible income from this project is the amount in parking and other fees that State Parks can collect as a result of this project. Not included in these projections is any estimate of increases

in local property taxes that could be collected by the Town of Hampton due to the increased value of existing private properties and the development of new taxable real estate at Hampton Beach. A simple cost benefit analysis using present values would appear to indicate that the pay back for the \$20 million in the proposed State Park improvements for state government would be 10 to 15 years. However, if there were a change in State Park's fee structure for parking and use of the bath houses and entertainment complex, and if inflated dollar values are used for the payback, then the recovering of the \$20 in spending could be reduced to five to eight years.



Appendix A:

Detailed Building Program, Materials and Sustainable Features

Haverhill Street and Marine Memorial Pavilions

Spaces

1. Breezeway: Covered space with open view to the beach
2. Men's and women's restrooms:
 - Public toilets
 - Changing rooms with showers, fully accessible
3. Bike racks
4. Public use lockers
5. Shaded sitting areas
6. Outside body & foot shower sprays

Materials:

1. Insulated concrete forms - ICF's, reinforced, for walls with applied materials on the exterior and interiors.
2. Timber trusses in toilet wings and breezeways.
3. Tongue & groove plank decking with insulation SB (SIP) on toilet roofs only.
4. Concrete poured foundations
5. Insulated concrete slab floor, stained and sealed.

Exterior Materials:

1. Native stone veneer base
2. Fiber cement clapboard siding
3. Fiber cement shingles
4. PVC (poly vinyl chloride) trim (windows, doors, fascias, eaves, frieze, soffits)
5. Low E windows (frosted), stainless steel (SS) hardware. Alternate: Glass block window units.
6. Asphalt shingles (Architectural grade – 50 year, high wind)
7. Doors (Fiberglass) stainless steel hardware.
8. Opaque polycarbonate skylights on roof of toilet building (Diffused light)
9. Opaque polycarbonate panels on gable end (Diffused light)
10. Cedar or PVC (poly vinyl chloride) lattice at gable ends.
11. Signage Letters – Molded letters – colored
12. Lighting: Recessed soffit lights (fluorescent), Breezeway : lighting up and down, metal halide.
9. Gray water cistern collection for landscape irrigation
10. Fluorescent lights
11. Opaque polycarbonate skylights for diffused natural day lighting
12. Light sensors
13. Metered low flow shower heads at exterior wash-off stations
14. Local lumber used in construction
15. Recycled materials, where applicable

Interior Materials:

1. Colored / stained concrete floor
2. Ceramic tile wainscot up to the window sills
3. Fiberglass reinforced panels (FRP) on walls from window sills to ceiling
4. Ceiling (vaulted space) tongue & groove pine plank
5. Ceiling (Vaulted space) Timber trusses
6. Solid surface sinks and countertops (metered water sensors trough sink)
7. Detention typed mirrors (or none at all)
8. Phenolic toilet partitions and screens with stainless steel hardware.
9. Vinyl window frames
10. Fiberglass doors (solid) with stainless steel hardware.
11. Vandal resistant lighting fixtures (Located up high)

Energy Efficient and Sustainable Features:

1. Solar hot water collectors on roof
2. Insulated concrete forms used for walls
3. Solar photovoltaic panels to run low voltage lights & exhaust fans.
4. Low water use toilets
5. Low flow shower heads
6. Metered water at hand sinks
7. Air hand dryers
8. No flush urinals

South Beach Visitor Gateway Center

Building is a re-creation of the Coast Guard Life Station that stood at the opposite end of High Street and opened in 1899. The new use of this building is for public cultural and historical information, lodging and dining information, maps to local attractions and Park Office.

Spaces:

First Floor

1. Entry Porch: Covered porch
2. Lobby: Public area with signage showing services available
3. Park Office: Campground check-in / out desk, reservations
4. Gift Shop: New Hampshire products, souvenirs and gifts
5. Exhibit Space: Seasonal and permanent exhibits on area wildlife, history and culture.
6. Information: Park personnel to answer questions, provide maps, information on lodging and beach information
7. Men's toilet: Public toilets, handicapped accessible
8. Women's toilet: Public toilets, handicapped accessible
9. Tower: to view sand dunes and ocean

Second Floor:

1. Balcony: Employee conference area
2. Offices: Two (2) offices for Park administration, 1 future office

Materials:

Exterior:

1. Post and beam frame at exhibit hall with stress skin panels exterior walls and roof.
2. Post and beam frame at main building with stress skin

3. Exterior clad with stained for fiber/cement shingles. Cedar shingles applied over drainage matrix.
4. Roof shingles: Architectural, 50 year.
5. Windows: Aluminum clad or fiberglass units with seacoast rated hardware. (Possible - Dade County, Florida standard)
6. Foundation: Insulated concrete units faced with thin veneer stone where required.

Interior Finishes:

1. First Floor: Ceramic tile with animal and aquatic imagery
2. Exhibit hall and gift shop walls – vertical tongue & groove pine (local)
3. All walls, except exhibit hall and gift shop walls, to be gypsum drywall; painted.
4. First floor ceiling and exhibit hall ceiling to be tongue & groove pine. (Local)
5. Office ceilings to be gypsum drywall
6. Public toilets to have ceramic tile wainscot.
7. Toilet partitions to be solid phenolic plastic with stainless steel fasteners and trim
8. Stair treads to be linoleum products
9. Countertops of recycled materials or local granite.

Energy Efficient and Sustainable Features:

1. Stress skin insulated panels (SIPS) on walls and roof – significantly reduces thermal loss through standard frame wall construction.
2. Insulated, low E II glass windows with argon gas – low E coatings screens solar heat in summer and retains it in the winter. UV light is filtered, reducing fading to interior materials.
3. Solar Panels for domestic hot water and electric supplement
4. Waterless urinal, low water toilets, metered hand faucets in sinks.
5. Energy efficient lighting – fluorescents and light emitting diodes (LED's)
6. Motion sensor for lights in toilets
7. Geo thermal HVAC system, alternate LP gas
8. Light colored roof shingles to reflect sun off roof/buildings
9. Gray water cistern for irrigation





10. Local materials
11. Energy efficient shell
12. Low maintenance exterior:
 - PVC (poly vinyl chloride) or fiber cement trim
 - Fiber cement siding shingles or white cedar shingles
 - Window frames – aluminum clad or pultruded fiberglass (fiberglass material forced through a die to create an extruded shape)
 - Entry porch decking: Composite material
 - Entry porch railings: Composite material

Seashell Complex: (Shell, North and South Pavilions, Tower)

First Floor Spaces:

1. Stage: Performance stage for theater, music and ceremonies
2. Dressing Rooms: Accessible rooms, theater use.
3. First Aid Station: Emergency Aid and to stabilize patients for transport to hospital
4. Elevator: Public use to second floor (lock out to the third)
5. Women’s public toilet: Toilets, changing areas, baby changing station with showers/accessible
6. Men’s public toilet: Toilets, changing areas, baby changing station with showers/accessible
7. Auxiliary Stages (North & South): Temporary stage and canopy structures for expanded entertainment venues.

8. Theater Seating: (750 seats) Individual contoured seating with backs.
9. Electrical Room: Electrical panels, lighting panels, speaker panels.
10. Vertical Lift Area: Accessible lift to stage level.
11. Boardwalk: Expanded sitting area for ocean viewing under the shade structures.

Second Floor Spaces:

1. Men’s Lockers: Life guard showers and lockers
2. Women’s Lockers: Life guard showers and lockers
3. Public Foyer: General public access to conference room
4. Mechanical: HVAC & electrical room
5. Toilet: Handicapped accessible public restroom
6. Kitchenette: Services conference room
7. Conference Room: Public accessed room for function lease
8. Speaker Tower: Loudspeaker for main theater

Third Floor Space:

1. Lifeguard Station: Main ocean viewing station
2. Supervisor’s Office: Lifeguard supervisor
3. Alternate Office
4. Kitchenette Area: Small area for staff use
5. Toilet: Public access facility
6. Electrical/Mechanical: HVAC/electrical for building

Structure:

1. Stage: Stage area, back stage and dressing areas and building east of the existing backstage to be built with insulated concrete units (ICU), reinforced with steel. Floors to be lightweight concrete planks or lightweight slabs on bar joists.
2. First floor to be concrete slab, colored (stained) and sealed, at new construction.
3. Exterior concrete slabs to be reinforced, colored and textured as designed by landscape architect
4. Pergola structure to be galvanized steel tube frames with steel columns wrapped with PVC (poly vinyl chloride) columns.
5. Second and third floor wall structure to be steel frame with galvanized steel stud infill. (Possible Stress skin insulated panels (SIPS) attached to frame), as an alternate.

6. Third floor to be engineered lumber deck.
7. Roof structure to be a combination of wood trusses and engineered lumber
8. Tensile fabric structure built inside of the theater main roof, providing a curved, segmented fabric framework.

Materials – Finishes:

Exterior:

1. Local stone veneer at the walls and wainscot areas
2. Fiber cement shingles (wood grain) siding. Alternate: white cedar shingles (stained)
3. PVC (poly vinyl chloride) trim: Doors, windows, trim bands, eaves, fascias, soffits and flat panels. Alternate to be fiber cement materials (Primed/painted)
4. Roof shingles: Architectural, 50 year, high wind rated.
5. Low roof areas: Metal, 50 year, high wind rated
6. Soffits at boardwalk: PVC (poly vinyl chloride) bead board
7. Metal flashings – copper valleys, white painted aluminum at trim
8. Flagpoles: fiberglass
9. Decking at the Widow’s Walk: composite material
10. Deck Railings: PVC (poly vinyl chloride) or composite prefabricated materials.
11. Stage floor: Epoxy coating

Interior:

First Floor

1. Stage Walls:
 - Acoustical fabric panels attached to angled walls. Alternate: Wood slats attached over acoustic concrete masonry units (CMU) (Black screening placed over concrete masonry units to keep out bugs)
 - Backstage: Painted concrete masonry units
 - Backstage ceiling: Painted exterior rated gypsum board
2. Dressing Rooms:
 - Painted concrete masonry unit walls (epoxy paints)
 - Painted gypsum board ceiling
 - Countertops – Solid surface
 - Mirrors, full length with theatrical make-up lighting
 - Toilet rooms similar to dressing rooms

3. First Aid Station
 - Floor: Seamless built-up urethane poured floor with anti-microbial finish
 - Walls: Paperless gypsum wallboard – painted. Alternate: Fiberglass Reinforced Panels on plywood
 - Ceiling: Paperless gypsum wall board – painted
 - Solid Surface countertops with anti-microbial finish
 - Cabinets: Solid wood with tung oil finish
4. Stairs
 - Galvanized steel frame, painted with concrete filled tread. Concrete treads covered with non-slip rubber treads and risers.
 - Walls to receive paperless gypsum drywall and is to be painted
 - Bottom of treads, risers and landings to receive paperless drywall and painted.
 - Ceilings to receive paperless drywall and be painted.
5. Men’s & Women’s Toilets
 - Floors: concrete slab stained/colored and sealed. Alternate: Built up urethane poured in place flooring with seamless cove base detail
 - Walls: Ceramic tile over cementitious board. Tile to extend up to the bottom of high windows.
 - Wall area above the tile: Fiberglass reinforced panel (FRP)
 - Ceiling: Epoxy paint on concrete plank. Alternate: Paperless gypsum board attached to frame system and painted with epoxy paint.
 - Windows: Vinyl frame with obscure glazing
 - Toilet partitions and screens: Solid phenolic plastic with stainless steel hardware.
 - Sinks: solid surface sinks and countertops (metered water at faucets through sensors, sinks to be ganged trough type.)

Second Floor Spaces:

1. Lockers: Men’s & Women’s
 - Floors: built up urethane poured in-place flooring with seamless cove base detail
 - Walls: Ceramic tile over cementitious board up to window sill
 - Walls above sills: Fiberglass reinforced panels (FRP)
 - Ceiling: Paperless gypsum drywall, painted



8. Light colored roof shingles to lessen heat gain.
9. Cement fiber siding, pre-painted (15 year warranty) with a 50-year warranty on the material
10. Gray water cistern for landscape irrigation
11. Recyclable content used in carpet squares
12. Recyclable content used in acoustic ceiling panels
13. Use of local building materials where ever possible to minimize transportation costs
14. Use of low volatile organic compound paints and stains

North Pavilion

First Floor Spaces:

1. Lobby: Public area
2. Ticket service: Service window to pay parking fines / information
3. Park Service Lockers and Muster Room: Employee lockers and daily planning room for employees
4. Counting Room: Meter proceeds inventory
5. Meter Parts Room: Spare parts and repair
6. Meter Maintenance room: Meter storage off-season
7. Park Supplies Storage: Bulk storage of dry goods and cleaning supplies
8. Park Equipment and Vehicle Storage: Vehicle storage of ATV's, crowd control barriers and beach equipment

Second Floor Spaces:

1. Chief's Office: Office for Park patrol administration
2. Park maintenance offices: Personnel offices for Park administration and personnel
3. Park Patrol Locker Room: Staff lockers and Ready Room
4. Communication Equipment Room: Park radio control equipment and computer server area
5. Mechanical Room: HVAC and electrical control room
6. Employee Lounge: Employee kitchen and break room with area for staff meetings.

Exterior Amenities:

1. Bike racks
2. Public use lockers
3. Showers – Metered body and foot sprayers
4. Shade Structures with benches
5. Electronic signboard to notify public of storm warnings, events and security issues

Structure:

1. Insulated concrete forms for walls with reinforcing steel
2. Poured reinforced concrete foundations and first floor slabs
3. Second floor deck pre-tensioned concrete planks. Alternate: Engineered lumber with wood deck
4. Roof
 - Engineered wood trusses fastened with hurricane clips to structural plates
 - Roof designed to meet Dade County, Florida Building Code for high wind/hurricane prone areas
5. Roof at public toilets: Rooms to be timber frames

Materials

Exterior:

1. Base: Local stone veneer with drip cap
2. Walls: Cementitious fiber clapboard and shingle siding, pre-stained, with a 50-year warranty. Alternate: White cedar shingles stained.
3. Trim: Cementitious fiber board, pre-stained / painted with a 50 year warranty on material. Alternate: PVC (Polyvinyl Chloride)
4. Roof: Architectural Shingles, high wind rated, 50 year warranty, in a light color to reflect sunlight
5. Windows: Aluminum clad units, painted, with stainless steel hardware. Alternate: Fiberglass units
6. Glazing: Low E II insulated glass with argon
7. Doors: Fiberglass and aluminum units with stainless steel hardware

Interior:

1. Floors:
 - Ceramic tile in lobby
 - Vinyl composition tile (VCT) in the ticket office, locker and toilet
 - Sealed and stained concrete in the remaining first floor spaces
2. Walls:
 - Paperless gypsum drywall, painted
 - Fiberglass Reinforced panels (FRP) on plywood backers for walls in the meter room, meter maintenance, Park supplies and vehicle storage areas

3. Ceilings:

- Acoustic panels (2x2 size)
- Paperless gypsum drywall in Meter room, meter maintenance room, Park storage and vehicle storage areas

Energy Efficient and Sustainable Features

1. Building shell built to a high standard of efficiency
2. Fluorescent and low voltage lighting use
3. Waterless urinals
4. Low flush toilets and low flow shower heads
5. Metered water at hand sinks
6. Low E II window units and doors
7. Solar hot water and photoelectric panels on roof
8. Light colored rood shingles to lessen heat gain
9. Diffused light from skylights into the public toilets to minimize electric lighting use
10. Roof drains and gray water into cistern for park irrigation.
11. Recyclable content used in carpet squares
12. Recyclable content used in acoustic ceiling panels
13. Low water use toilets and showers
14. Waterless urinals
15. Use of local building materials wherever possible to minimize transportation costs
16. use of low volatile organic compound paints and stains

South Pavilion

First Floor Spaces

1. Lobby: Public access to Park services and information
2. Lottery, Event tickets and Information: Staffed areas to offer related services to public
3. Men's Public Bath House
 - Toilets and urinals
 - Changing rooms with showers
 - Handicapped Accessible
4. Women's Public Bath House
 - Toilets and urinals
 - Changing rooms with showers
 - Handicapped Accessible

Energy Efficient and Sustainable Features:

1. Shell built to high standard of efficiency
2. Fluorescent and low voltage lighting
3. Low water use toilets and showers
4. Waterless urinals
5. Low water flush toilets and low flow shower heads
6. Solar hot water and photoelectric panels on roof
7. Low E II insulated window units.





Materials:

Exterior:

1. Base: local stone veneer with drip cap at base
2. Walls: Cementitious fiber clapboard and shingle siding, pre-stained, with a 50-year warranty. Alternate: White cedar stained.
3. Trim: Cementitious fiberboard, pre-stained / painted with a 50-year warranty. Alternate: PVC (Polyvinyl Chloride)
4. Roof: Architectural Shingles, high wind rated, 50 year warranty, in a light color to reflect sunlight
5. Windows: Aluminum clad units, painted, with stainless steel hardware. Alternate: Fiberglass units
6. Glazing: Low E II insulated glass with argon
7. Doors: Fiberglass and aluminum units with stainless steel hardware

Interior:

First Floor

1. Floors:
 - Ceramic
 - Staff toilet: Vinyl composition tile (VCT)
 - Public Toilets: Stained / colored and sealed concrete
2. Walls:
 - Paperless gypsum drywall, painted
 - Public toilet areas: Ceramic tile up to the bottom of the window sills, fiberglass reinforced panels from sill to ceilings
3. Ceiling:
 - Acoustic tiles (2x2 size)
 - Public toilet areas: 2x8 tongue & groove pine plank, painted
 - Electrical / mechanical room and storage areas: Paperless gypsum drywall, painted

Second Floor

1. Floors:
 - Offices, hall and conference room: Commercial carpet squares
 - Kitchen, mechanical, storage and stairs: Vinyl Composition tile:

2. Walls: Paperless gypsum drywall, painted
3. Ceiling:
 - Acoustic tiles (2x2 size)
 - Electrical / mechanical room and storage areas: Paperless gypsum drywall, painted

Energy Efficient and Sustainable Features

1. Building shell built to a high standard of efficiency
2. Fluorescent and low voltage lighting use
3. Waterless urinals
4. Low flush toilets and low flow shower heads
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11. Recyclable content used in carpet squares
12. Recyclable content used in acoustic ceiling panels
13. Low water use toilets and showers
14. No water use urinals
15. Use of local building materials wherever possible to minimize transportation costs
16. Use of low volatile organic compound paints and stains

Exterior Amenities:

1. Bike Racks
2. Public Use Lockers
3. Showers
4. Shade Structures
5. Handicapped Accessibility from this area
6. Public service sign board to display daily weather conditions, security alerts and local events

Second Floor Spaces:

1. Outreach Office: Community services
2. Events Office: Coordinator for seashell and beach events and functions
3. Parks Representative Office: Consumer services coordinator

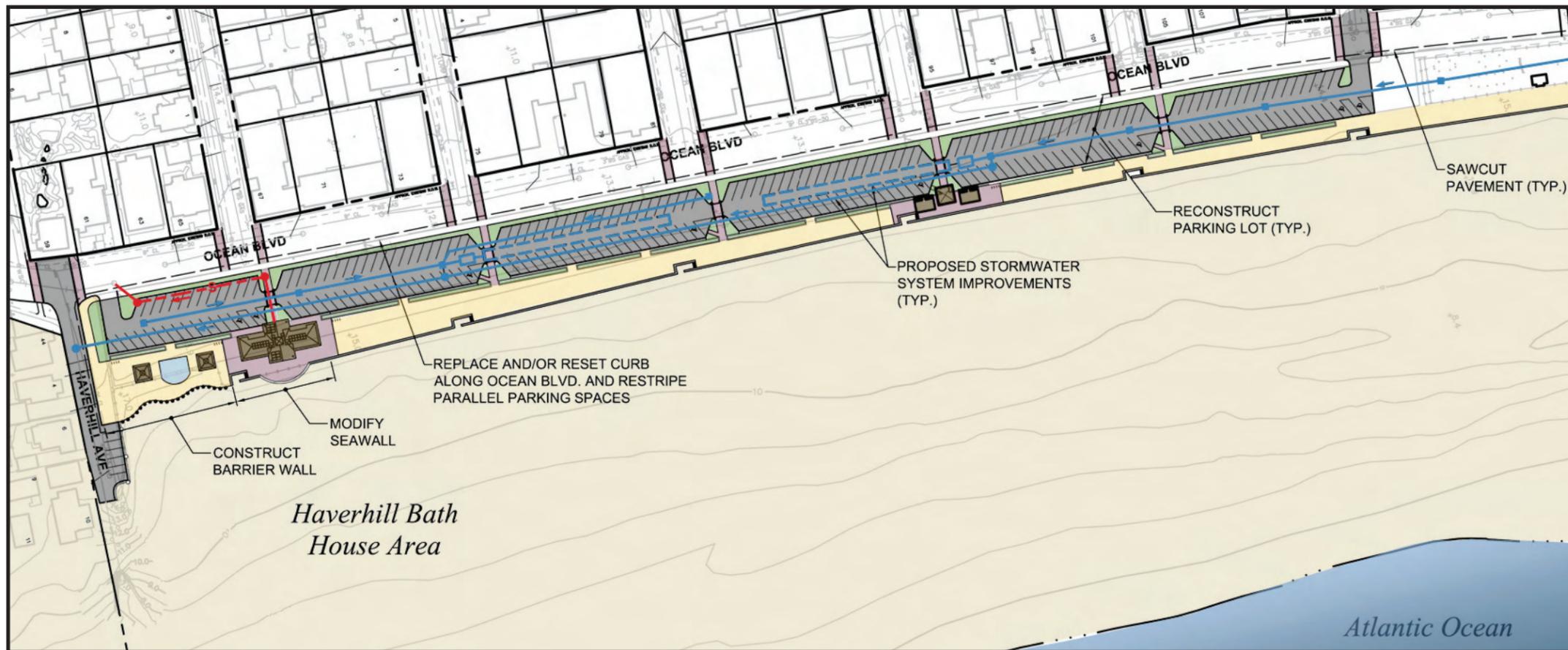
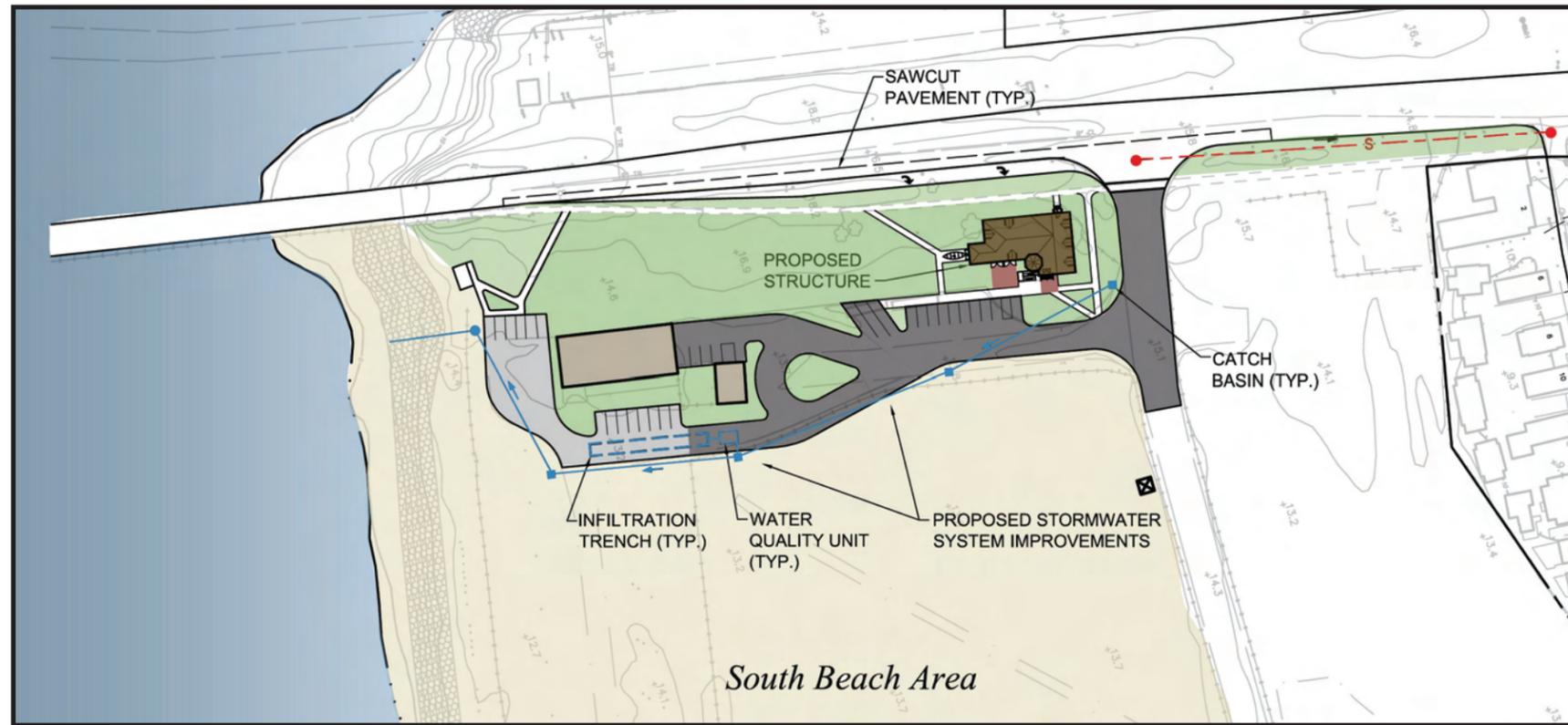
Structure:

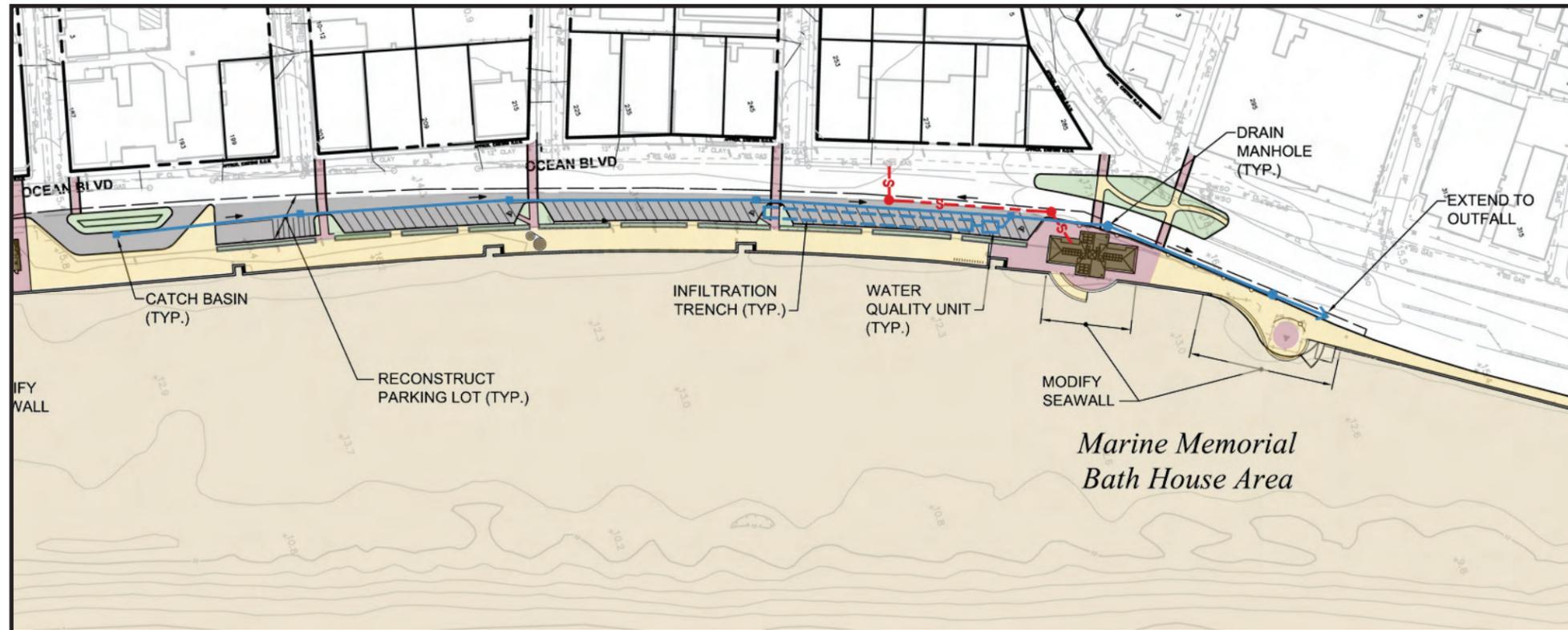
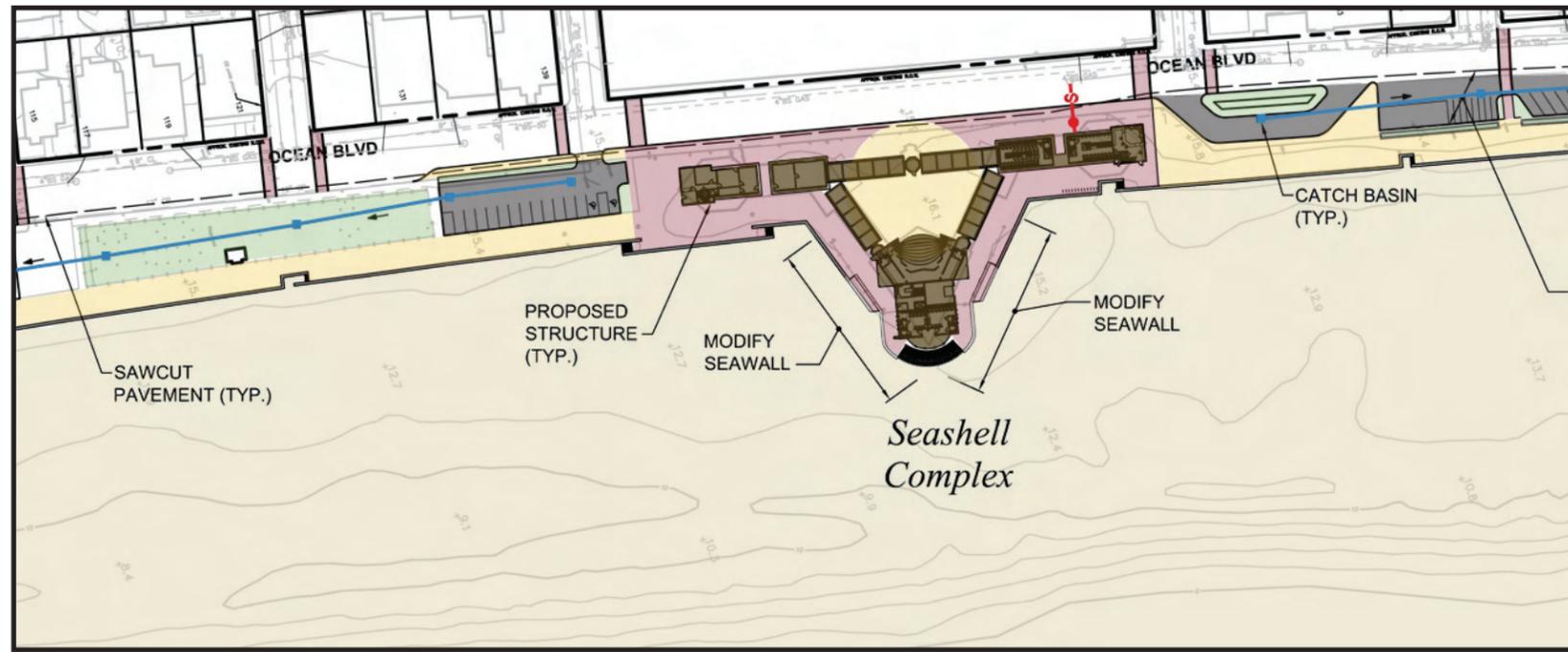
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4. Roof
 - Engineered wood trusses fastened with hurricane clips to structural plates
 - Roof designed to meet Dade County, Florida Building Code for high wind/hurricane prone areas
5. Roof at public toilets to be timber frames



Appendix B:

Conceptual Utility Plans







Appendix C:

Review of Utilities and Permitting Requirements

Introduction

VHB has prepared this memorandum as part of a due diligence evaluation to identify key permitting and utility considerations supporting The State of New Hampshire's Division of Recreation and Economic Development's (DRED) site improvements to the Hampton Beach Area and Hampton Beach State Park.

This due diligence is based on a scope of work, conceptual site plans and a preliminary building program developed in conjunction with members of the project team and DRED. The Project Site generally includes the area bounded by Great Boar's Head to the North, the Atlantic Ocean to the East, the inlet to Hampton Harbor to the South, and Ashworth Avenue to the West.

As of the date of this memorandum (March 18, 2008), the conceptual Hampton Beach State Park Improvements include, but are not limited to, the following:

- Replacement of the multi-purpose Seashell Complex
- Construction of a single floor bathhouse at the end of Haverhill Street
- Relocation and expansion of the Marine Memorial bath house
- Construction of a south beach visitor center
- Sidewalk, parking area, roadway and landscaping improvements

- Public utilities (as needed) to support the new construction of the above mentioned items
- Stormwater management and treatment improvements

This report briefly describes the local, state and federal departments and programs that would be instrumental in the successful completion of the proposed site improvements, as well as any issues pertaining to utilities that have been obtained by their respective authorities.

Permitting

Local:

Because the project is a state project, it is our understanding that local permits will not be required. However, it is in the project team's best interest to follow the zoning and site plan regulations to the best possible extent that the design will allow in order to follow the vision of the Town of Hampton's Master Plan. Below is a list of Town regulations and guidelines that could be pertinent to the Hampton Beach Site Improvements:

Zoning Ordinance:

- Site is located in the Business – Seasonal (BS) District. It appears that there have been zoning amendments proposed to change portions of the BS district to a Beach Commercial (BC) district. The changes are not reflected on the current zoning map, but the boundaries are described by tax map and lot in the Zoning Ordinance Amendment.
- Maximum building height: 65' w/ the exception that unoccupied architectural appurtenances to which there is no permanent access (cupolas, spires, chimneys, flagpoles, air conditioning units, etc.) and comprising not more than 25% of the structure's footprint in plan view shall be excluded.
 - In no instance shall any appurtenance extend to a point greater than 75' in height measured vertically from the established average grade plane.
- Maximum amount of sealed surface per lot, including but not limited to driveways, parking lots and structure envelope: 85%
- Lighting Standards shall be in accordance with the design details as referenced in the "Hampton Beach Infrastructure Improvements Plan"

- Theme appropriate w/ aesthetically pleasing design
- Maintainable by Town or Power Company
- Appropriate light levels for pedestrian safe activities
- Minimize light pollution

- Structures are prohibited from casting shadows on the sand on the easterly side of Ocean Boulevard prior to 6pm from May 15th through September 15th. Unoccupied architectural appurtenances (i.e. turrets, cupolas, bell towers, etc.) and structural screening (i.e. facades, parapets, low wall extensions and railings used to screen mechanical equipment, roof top units, elevator overrides, exhaust hoods, etc.) shall be included in the calculation, when determining the shadow effect of the structure.

Site Plan Regulations:

- A traffic impact analysis may be required by the town on a case by case basis.
- Drive Aisle Widths
 - 90 degree parking: 22'
 - 45-60 degree parking: 18'
 - 45 degree or < parking: 11'
- Stormwater
 - Design storm 25 year, 24 hour storm
 - Swales, ponds and other structures shall be designed for 100-year.
 - The design of stormwater drainage systems and stormwater treatment shall conform to the appropriate Best Management Practice in the most recent edition of the Stormwater management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire (the Green Book).
 - In an open letter from the Town of Hampton in 2002, the following interim design standards were implemented:
 - When calculating stormwater runoff from a proposed improvement, no credit for exfiltration shall be taken for the routing calculations.

- To protect groundwater, no stormwater should be infiltrated unless treated above the infiltration structure.
- Because of the inability to determine the state of the receiving soil over time, infiltration (exfiltration) may not be considered in performing flood routing operations.

State:

Alteration of Terrain (AoT) – NHDES RSA 485 A:17

- An Alteration of Terrain Permit is required if disturbing more than 50,000sf of contiguous area if located within the Protected Shoreland (See Comprehensive Shoreland Protection Act)
- The Alteration of Terrain program is designed to monitor the amount and quality of stormwater runoff discharged from individual sites and to implement stormwater treatment and erosion control measures both during and after construction.
- There are requirements and guidelines based on the methods of quantities, conveyance and treatment.
- Fee schedule varies with the amount of area disturbed (minimum fee of \$1,250).
- NHDES is in the process of replacing the current Alteration of Terrain regulations. The proposed rules are scheduled to be adopted during October 2008.

Comprehensive Shoreland Protection Act – NHDES RSA 483-B: The Comprehensive Shoreland Protection Act's revised regulations will become effective on April 1, 2008. The information listed below pertaining to the Shoreland Protection Act incorporates the revised regulations. The regulations will need to be revisited after the April 1, 2008 issuance. The Comprehensive Shoreland Protection Program Staff will start requiring permits after April 1, 2008 for all construction, excavation or filling activities located within the Protected Shoreland. Although the revisions to the law requiring a permit take effect on April 1, 2008, Comprehensive Shoreland Protection Staff have indicated that the permit application form will not be ready until after this date. Therefore, close coordination with NHDES is necessary. However, RSA 483-B:5-a Permit Required; Exemption. – Paragraph IV states:

A permit for the impacts located within the Shoreland Protection shall not be required by the Shoreland Protection Program if a permit is received in accordance with RSA 482-A (NHDES Wetlands Bureau).





- Protected shoreland falls within 250' of the "reference line"
 - Reference line is defined as "...the highest observable tide line, which means a line defining the furthest landward limit of tidal flow, not including storm events, which can be recognized by indicators such as the presence of a strand line of flotsam and debris, the landward margin of salt tolerant vegetation, or a physical barrier that blocks further flow of the tide."
- Waterfront Buffer
 - Located within 50' of reference line
 - Rocks and stumps and their root systems shall be left intact in the ground unless removal is specifically approved by the department.
 - No natural ground cover shall be removed except as necessary for a foot path to water, cutting those portions that have grown over 3 feet in height for the purpose of providing a view, or as specifically approved by the department.
 - Point system used to maintain trees and saplings within the buffer.

- Woodland Buffer
 - Located within 150' of reference line
 - 50% of the area outside of impervious surfaces shall be maintained in an undisturbed state.
 - Photographic documentation of the woodland buffer is required if applying for an alteration of terrain permit
- Impervious Surfaces
 - No more than 20% of the area of a lot located within the protected shoreland shall be composed of impervious surfaces, except:
 - The impervious area shall not exceed 25% if:
 - No trees or saplings are removed as provided they meet the point minimum within the waterfront buffer
 - If the natural tree and sapling cover does not meet the 50-point minimum score in any segment, then such segment shall be planted with native trees, saplings, or natural ground cover as defined in Section 483-B:4 (X-a) to meet the minimum score.
 - The Town of Hampton may request to exempt this portion located within the protected shoreland to the commissioner if the Town of Hampton believes that special local urbanization conditions exist. See "Shoreland Exemption" section below
 - The impervious surface area shall not exceed 30% provided that the previously mentioned tree and sapling requirement is retained/obtained AND a stormwater

management system designed to ensure that post-development total runoff volume shall not exceed the pre-development total runoff volume and approved by the department, shall be implemented and maintained.

- Property owners and developers are encouraged to seek creative solutions that utilize low impact development (LID) techniques.

- Shoreland Exemptions:
 - The governing body of a municipality may, in its discretion, request the commissioner to exempt all or a portion of the protected shoreland within its boundaries from the provisions of this chapter if the governing body finds that the special local urbanization conditions exist in the protected shoreland for which the exemption is sought.
 - If the governing body of a municipality requests such an exemption, it shall submit evidence of existing and historical patterns of building and development in the protected shoreland. Such evidence shall address:
 - Current and past building density;
 - Commercial or industrial uses;
 - Municipal or other public utilities;
 - Current municipal land use regulations which affect the protected shoreland;
 - The number of structures in sight from the water body;
 - Density allowed under current local zoning ordinances;
 - Extent of non-residential land use currently existing;
 - A recent aerial photograph of the area.

Dredge and Fill Permit – NHDES Wetlands Bureau:

- Tidal Buffer Zone: *the area extending landward 100 feet from the highest observable tide line.* This area can contain wetlands, transitional areas, and natural and developed upland areas.
- Dune: *a hill or ridge of sand piled up and commonly found on the seacoast*

- Natural vegetation shall be left intact to the maximum extent possible. If space and soil conditions allow, unstable banks shall be cut back to a flatter slope, seeded and replanted with native, non-invasive trees and shrubs
- If space relative to the highest observable tide line, water turbulence and soil conditions allow, the project shall include vegetation of existing sand beach or dunes or construction of vegetated sand dunes.
- Major project criteria:
 - Projects in sand dunes, tidal wetlands, or bogs, except for repair of existing structures
 - Projects within 100 feet of the highest observable tide line that alter any bank, flat, wetlands, surface water, or undeveloped uplands, except for repair of existing structures.
 - Projects that involve alteration of non-tidal wetlands, non-tidal surface waters and banks adjacent to non-tidal surface waters in excess of 20,000sf in the aggregate
 - Construction of modification of a major docking system, and any dock adjacent or attached to a breakwater.
 - Removal of more than 20 cubic yards of rock, gravel, sand, mud, or other material from public waters.
 - Construction of breakwater
 - Mitigation required for 10,000sf or greater impact; or 200 linear feet or greater of stream impact.

Wastewater Connection Permit – NHDES

- The wastewater connection permit provides NHDES a means of monitoring the flows into the municipal treatment plants and comparing them with the plants' design capacities. In order to receive this permit the Town of Hampton's Public Works Department would review and approve the sanitary sewer layout, then sign and forward the Wastewater Discharge Permit Application directly to NHDES for further review.
- A permit is required under the following conditions:
 - Any extension of an collector or interceptor, whether public or private, regardless of flow;



- Any wastewater connection or other discharge in excess of 5,000gpd;
- Any wastewater connection or other discharge to a WWTP operating in excess of 80 percent design flow capacity based on actual average flow for 3 consecutive months;
- Any industrial wastewater connection or change in existing discharge of industrial wastewater, regardless of quality or quantity; and
- Any sewage pumping station greater than 50gpm or serving more than one building.
- Once a conceptual design and building programs are determined, further investigations regarding permitting will need to be conducted.

NHDOT

- Ocean Boulevard and Ashworth Avenue are NH Route 1A which is maintained and regulated by NHDOT. Any changes to the layout and design of Ocean Boulevard and Ashworth Avenue need to be approved by NHDOT.

New Hampshire Natural Heritage Bureau - NHB

- The New Hampshire Natural Heritage Bureau verifies the presence or absence of rare plants, animals and exemplary communities through an inventory process. The Natural Heritage Bureau allows developers and property owners to search through their online database. Verification and coordination with the NH Natural Heritage Bureau is required by the NHDES Wetlands Bureau to accompany the Dredge and Fill application.

- Should no records be found on the database within the vicinity of the project, the Natural Heritage Bureau will provide a letter indicating the absence of potential impacts.
- If the NH Heritage Bureau records indicate there are potential impacts to rare, threatened or endangered species or exemplary natural communities, a fee of \$25.00 must be paid to the NH Natural Heritage Bureau to obtain a listing of potentially impacted species or exemplary natural communities.
- If the project proposes impacts to special status plant or animal species, additional coordination may be necessary with NH Natural Heritage Bureau or New Hampshire Fish & Game Department.
- The remainder of the site area falls within the AE zone, which is subject to inundation by the 100-year flood, with base flood elevations as shown on the FIRM.
- Individual Permit Required – Section 404 of Clean Water Act (CWA)
 - Wetlands on the site are also under the jurisdiction of the Army Corps of Engineers (ACOE) pursuant to Section 404. The Dredge and Fill application to the NH Wetlands Bureau will be automatically reviewed by the ACOE under the State’s Programmatic General Permit (SPGP). The timeframe for obtaining a General Permit is generally 3 to 6 months.
 - The Corps at its option has the authority to elevate and application to an “Individual Permit” at the federal level. The individual permit is required for potentially significant impacts. This permit evaluates applications under a public interest review, as well as the environmental criteria set forth in the Clean Water Act (CWA) Section 404(b)(1) Guidelines.
 - Depending on the final program of the project, and the extent of disturbed wetlands due to the construction, such as a potential fishing pier or other water dependant structure, it’s highly likely that the Hampton Beach Site improvements would require an individual permit by the ACOE.
 - Individual permits require a public notification and hearing process and can take up to one year, possibly more, to obtain, depending on issues raised during the review as well as the extent of impacts.

Federal Agencies:

VHB recommends meeting with the federal agencies outlined below. Local and State departments may require that additional agency involvements be notified of the project and its impacts.

Army Corps of Engineers:

- Floodplain
 - A majority of Hampton Beach is subject to flooding due to wave action, placing it into a VE zone on the Flood Insurance Rate Map (FIRM). The VE zone is a coastal flooding zone with a velocity hazard (wave action). The base flood elevations are as determined on the map.
 - The seawall protects Route 1A (Ocean Boulevard) from the velocity hazard of wave action. Ocean Boulevard and a small portion of the commercial buildings fronting Ocean Boulevard reside in the X-zone, which is an area outside the 500-year flood plain.
 - Areas within Zone X which are not protected by the seawall fall into one of the categories listed below:
 - Areas within the 50-year floodplain
 - Areas within the 100-year floodplain with average depths of flooding less than 1’ or with drainage areas less than 1 square mile
 - Areas within the 100-year floodplain which are protected by levees

National Pollutant Discharge Elimination System (NPDES) General Permit – Environmental Protection Agency (EPA):

- Site construction will require the preparation of a Stormwater Pollution Prevention Plan (SWPPP) and the submittal of a Notice of Intent (NOI), under the National Pollution Discharge Elimination System (NPDES) General Permit for stormwater discharges associated with construction. This permit is required when the project disturbs more than one (1) acres of soil.
- NOAA information:
 - Elevations on NGVD 29:
 - Highest observable tide: 12.21

- Mean Higher-High Water (MHHW) 9.42
- Mean High Water (MHW) 9.00
- Mean Tide Level (MTL) 4.69
- Mean Sea Level (MSL) 4.72
- Mean Low Water (MLW) 0.37
- Mean Lower-Low Water (MLLW) 0.00

*Tidal information taken from the nearest tidal station at Fort Point in New Castle, New Hampshire provided by the National Ocean and Atmospheric Administration.

Utilities:

- Water:
 - Aquarian Water Company
 - Contact: Michelle Descorcy (x116)
 - Address: 1 Merrill Industrial Drive, Hampton, NH 03842
 - Phone: 603-926-3319 Fax: 603-926-4356
- Sewer:
 - Town of Hampton Department of Public Works
 - Contact: John Hangen, Director
 - Address: 1 Winnacunnet Road, Hampton, NH 03842
 - Phone: 603-926-4402
- Based on conversations that VHB had with the Town of Hampton Department of Public Works, the sewer in the Ocean Boulevard and Ashworth Avenue areas have been upgraded to reduce the amount of infiltration and inflow into the system.
- The wastewater treatment plant (WWTP) is currently operating near 80% capacity. Special consideration should be made to not increase or limit increase in flow to the WWTP.
- Sewer as-builts were obtained from Fay, Spofford and Thorndike, Inc. (FST) and posted to the project website.



- Drainage:
 - Town of Hampton Department of Public Works:
Contact: John Hangen, Director
Address: 1 Winnacunnet Road, Hampton, NH 03842
Phone: 603-926-4402
 - As-built drainage survey has been completed by Fay, Spofford and Thorndike, Inc. (FST) and as-built drawings will be posted to the project website when received.
 - There currently is minimal stormwater treatment of surface runoff from developed areas prior to discharge to discharge to surface waters.
 - Flood Prone Area:
 - According to a study performed by GZA Environmental dated December 30, 2002, "The Island," a residential neighborhood on the seaward side of Ocean Boulevard, located between Hampton Beach State Park and Hampton Beach is a flood prone area.
 - Infiltration beneath the roadways has been designed, but it has not been confirmed as to whether or not these improvements have been constructed.
 - An outlet control structure and subsurface infiltration structures have been designed to replace the outlet control structure at the eastern end of Haverhill Street, but have not been constructed as of February 14, 2008.
 - The Town of Hampton possesses a Drainage Master Plan which prioritizes drainage projects, describes the project, estimates their cost and projected cost, and lists their completion status.

Conclusion

The proposed site improvements at the Hampton Beach Area may require an extensive amount of environmental permitting due to its high profile location along the shoreline and susceptibility to weather hazards. As the building program and utility improvements are determined, the permitting requirements and permitting schedule should be visited and re-visited as changes are made. In addition, traffic and pedestrian circulation studies may be required to ensure that the proposed improvements are adequate for the current and anticipated use of the site.

According to the Town of Hampton Department of Public Works and a preliminary review of the utility infrastructure, there appears to be adequate utility services to support the project. However, stormwater management continues to be a challenge for the area due to its proximity to the Atlantic Ocean and Hampton Harbor. Any additional development to the site should not further degrade the stormwater runoff from the area, and should, if possible improve stormwater runoff conditions, including treatment of runoff. Improved stormwater runoff management for quality, stormwater infiltration, and potential implementation of Low Impact Development (LID) practices will likely be an important part of stormwater improvements for the project. Consideration should be giving to using domestic water consumption reduction measures for lavatories and bath house facilities that would limit water usage and sewer discharges to current daily volumes. Additional coordination with the Town and utility companies should occur as the development program progresses to confirm the capacities and abilities of the public utilities to service the project.

- Electrical:
 - Unitil
Address: 6 Liberty Lane Way, Hampton, NH 03842
Phone: 603-772-0775
 - The main power lines run along Ashworth Avenue and branch off the side streets to provide service for the buildings along Ocean Avenue.
 - There are no utility poles or overhead wires located on Ocean Boulevard
 - Power phase and capacity need to be verified.
- Tel/Comm:
 - Verizon
Address: 56 Islington Street, Portsmouth, NH 03801
Phone: 603-422-6340
- Natural Gas:
 - Northern Utilities
Address: 325 West Road, Portsmouth, NH 03801
Phone: 800-562-2891
 - The natural gas information shown on the base plan may not be accurate. Information should be obtained directly from Northern Utilities in regards to the size, capacity and location of gas service in the project area.



Appendix D:

Hampton Beach Tourism Economic Benefits

During the past couple of years Hampton Beach has been attracting about four percent of the tourists and business travelers annually that are taking trips in New Hampshire. Hampton Beach also received almost four percent of total tourist spending statewide. This translates into an estimated 1.8 million visitor trips to Hampton Beach during calendar year 2007 where these visitors spent 2.3 million days and about \$175 million dollars. In comparison with the rest of the state, only the Lakes Region has a greater seasonality (very strong summer season) as to when visitors are present. Also, the Hampton Beach area, and the Seacoast travel region in general, have the highest proportion of day trip visitors of any part of the state of New Hampshire. In the time since the 1998 travel data was presented in the Cecil report, the share of visitors on day trips to Hampton Beach has continued to increase, at least up to 2006. With the return of the Canadian visitor, the share of overnight visitors versus day trip visitors stabilized between 2006 and 2007.

Positive trends include an estimated five to six percent increase in the number of visitors to Hampton Beach between 1998 and 2007. Also, total spending has increased by about ten percent more than the rate of inflation between 1998 and 2007, despite a smaller share of overnight visitors. Finally, there has been an increase in the share of visitors to Hampton Beach during the spring and fall months, especially during September, and a slight decrease in the percentage of the annual share of visitors who come during July and August.

Based on rooms and meals data from the NH Department of Revenue Administration, it is estimated that about 60 percent of the visitors to Hampton Beach come during the three summer months of June, July and August. An additional 23 percent come during the fall months, 12 percent during the spring months and only five percent during the winter months.

Out of the estimated \$175,000,000 in total spending by Hampton Beach visitors during 2007, it is estimated that \$58 million was spent at restaurants and \$23 million was spent at accommodations that pay state rooms and meals taxes. These estimates do not include spending by visitors who drove through the Hampton Beach area sightseeing and were primarily visiting other places. This spending generated about \$6.4 million dollars in state rooms and meals taxes during 2007. The next most important source of state government revenues from these visiting tourists were parking fees and other user fees collected by New Hampshire State Parks. The third most important source would be spending at State Liquor Stores. Other state government revenue sources would include tolls at the Hampton toll booths, gasoline taxes, fish and game license fees and business enterprise taxes. It is estimated that all of these other taxes and fees provide state government with an added \$9.2 million dollars annually, for a total of \$15.6 million (in terms of direct and indirect revenues) out of the \$175 million spent by the tourists.

The Division of State Parks is proposing \$20 million dollars in improvements, including new and replacement bath houses and a new concert/entertainment facility. These facilities are sure to attract added visitors to Hampton Beach. If these facilities are open for a longer season and if the Town of Hampton works with developers to improve parking and provide for more hotel and newer vacation rental properties, then total visitation could increase by another 15 percent and total spending and state government revenues could increase by 20 percent (in 2007 dollars) within ten years after the construction of the new facilities. Other trends that will affect Hampton Beach are the value of the dollar and the cost of gasoline. Since 2006 the value of the dollar has brought back the Canadian market, long an important source of overnight tourists at Hampton Beach. Also, Canadians are increasingly visiting at other times of the year than just the summer. The current high cost of gasoline is having a noticeable impact on the number of day trips in places like Hampton Beach, but is having almost no impact on business travel and overnight travel. Thus, it can be anticipated that overnight visitors will be increasing the share of total visits and of visitor spending, with a decline in the relative share of day trips. Overnight travelers spend more per day, especially on things like accommodations that are taxed by the state.

If one uses the assumption of an increase of 20 percent in spending (in 2007 dollars) by ten years from now due to these

proposed State Park improvements, along with changes and investments that the town and private development sectors, it is likely that the state government will collect an added three million dollars per year in 2007 dollars in taxes and fees. Of this amount \$1.2 million annually will come from rooms and meals taxes. A far more significant source of possible income from this project is the amount in parking and other fees that State Parks can collect as a result of this project. Not included in these projections is any estimate of increases in local property taxes that could be collected by the Town of Hampton due to the increased value of existing private properties and the development of new taxable real estate at Hampton Beach. A simple cost benefit analysis using present values would appear to indicate that the pay back for the \$20 million in the proposed State Park improvements for state government would be 10 to 15 years. However, if there were a change in State Park's fee structure for parking and use of the bath houses and entertainment complex, and if inflated dollar values are used for the payback, then the recovering of the \$20 in spending could be reduced to five to eight years.

Laurence Goss, Ph.D.

June 21, 2008

Dr. Goss is a professor of geography at Salem State College and an adjunct professor for tourism research at the Plymouth State University of the University System of New Hampshire. For the past 20 years Dr. Goss has conducted tourism research for the State of New Hampshire through Plymouth State University.

