

Jockey's Ridge State Park General Management Plan



North Carolina Department of Natural and Cultural Resources

Division of Parks and Recreation

COASTAL REGION

January 2017

I. MISSION AND PURPOSE

MISSION STATEMENT:

Conservation: To protect natural diversity of North Carolina through careful selection and stewardship of state parks system lands;

Recreation: To provide and promote outdoor recreation opportunities in the state parks system and throughout the state; and

Education: To encourage appreciation of natural and cultural heritage of North Carolina through diverse educational opportunities; for all citizens of and visitors to the State of North Carolina.

Our purpose: The 1987 State Parks Act defines the purposes of the state parks system. It establishes that: The State of North Carolina offers unique archaeological, geologic, biologic, scenic and recreational resources. These resources are part of the heritage of the people of this State. The heritage of a people should be preserved and managed by those people for their use and for the use of their visitors and descendants.

PARK PURPOSE:

Jockey's Ridge State Park was established in 1975 through the efforts of local citizens concerned with protecting the unique scenic and geologic values of the dunes that were threatened by imminent development. Their efforts brought statewide attention to the protection needs of the area. As a result, land for the park was purchased through local donations, donations from The Nature Conservancy, federal matching funds, and state appropriations.

Jockey's Ridge State Park has become a well-known source of local pride and identity in the Nags Head area. The park marks the eastern extent of the state parks system and provides an outstanding opportunity for citizens.

Significant geologic values of the park include the tallest active dune along the Atlantic coast of the United States. The dune system is an excellent example of a medano, a large isolated hill of sand, asymmetrical in profile and lacking vegetation. It is also classified as a transverse dune, a dune forming a wave-



Ariel view of park

like ridge transverse to the prevailing wind direction. Jockey's Ridge, along with nearby Nags Head Woods, was designated as a *National Natural Landmark* by the U.S. Department of Interior in 1974.

The dune is an extremely impressive land form with significant scenic resources on the landscape. Visitors are attracted to its top where they can look out over miles of ocean, the towns of Nags Head and Kill Devil Hills, the Wright Brothers Memorial, and watch ships at sea. People are drawn to the view of the sun setting over the mainland, its golden hues reflected in Roanoke Sound.

Park visitors delight in the recreational opportunity to roam freely over and play on the sand and dunes. The large, easily accessible area and prevailing ocean breezes provide a basic resource for many kinds of compatible recreation.

As a natural resource, the park provides an important and increasingly limited habitat for native plants and animals. The four plant communities present include dune grass, maritime shrub, maritime evergreen forest, and brackish marsh. Jockey's Ridge State Park is an important resource for interpretive and environmental education activities concerning sand dunes and the adaptation of plant and animal species to the harsh coastal environment.

Jockey's Ridge was authorized as a state park in order to provide high quality management of its valuable geologic, scenic, recreational, and biological values. The N.C. Division of Parks and Recreation is charged with preserving these values and providing park experiences that promote pride in and understanding of natural heritage of North Carolina.

II. HISTORY

Jockey's Ridge is the tallest living natural sand dune system in the Eastern United States. Its height varies from 80 to 100 feet, depending on weather conditions.

Shifting maritime winds blow billions of grains of sand in different directions, constantly changing both the shape and size of the dune. Why doesn't the sand blow away? In the winter, the winds usually blow out of the northeast and in the summer out of the southwest; therefore, the sand is constantly blown back and forth. Tiny sand particles in the dune hold moisture throughout the year. The sun dries the top layer of sand. But, just below this layer, the sand stays wet. The high winds from northeasters blow the top, dry layer off, but the wet layer below remains. There are several prominent sand dunes in the area. However, Jockey's Ridge is the most spectacular in size and scale.

Geologists believe that Jockey's Ridge was formed when strong water currents from hurricanes and storms washed sand from large offshore shoals onto the beach. Throughout many years, the wind picked up this sand and blew it inland. These tiny grains of sand evolved into a system of dunes that now stretches for many miles along the coastline.

Long before the first European settlers, the Algonquian Native Americans inhabited the Outer Banks. Following its sighting by Spanish and French explorers, the ridge became an important landmark for mariners. In the early 1800s, this remote coastal area began to develop as a summer resort. Development was slowed during the Civil War, but with the construction of a series of bridges in the 20th Century, the problem of access to the barrier islands was solved. Development picked up at a rapid pace. The Outer Banks is one of the most popular recreation areas on the eastern seaboard.

On a summer morning in 1973, a couple of children were playing on the dunes. When they saw a bulldozer flattening out part of Jockey's Ridge, they went running home to tell their mother. Carolista Baum went to investigate and found that an earth-moving machine was preparing a residential development site at the base of Jockey's Ridge. For years, local groups had talked of protecting the large dune from encroaching development, but no substantial steps had been taken. This destruction, however, forced Carolista into action. She planted herself in the path of the bulldozer, forcing the operator to shut the equipment down. From that point on, the effort to "save our sand dune" took on new direction. The People to Preserve Jockey's Ridge was organized. Appeals, backed by a petition, were made to local and state governments. The Division of Parks and Recreation was asked to study the feasibility of making Jockey's Ridge a State Park.



Wind Turbine

In 1973, the Division of Parks and Recreation issued a report in favor of the park, and a year later the dune was declared a National Natural Landmark. In 1975, the General Assembly appropriated

funds to create Jockey's Ridge State Park. With this money and matching federal funds, the state bought 152 acres. An additional purchase from the Nature Conservancy brought the size of the park to 266.80 acres.

The nonprofit group Friends of Jockey's Ridge provides additional support for this popular state park. Members promote public awareness of the sand dune. They also raise funds to assist in the development of facilities and educational programs.

Many legends surround the origin of the name Jockey's Ridge. The most popular is that the name of the dune is based upon the early inhabitants' practice of capturing wild ponies and racing them on the flat surface at the base of the dune. The steep sides of the ridge served as a grandstand for spectators. An old map, which is displayed in the museum, has the ridge spelled "Jackey."

The wind that has shaped the sands at Jockey's Ridge State Park for centuries now supplies electric power to the park through a 60-foot-high wind turbine erected near the visitor center.

The wind turbine has three blades that are 23 feet and is positioned on a single pole near the Visitor Center and several hundred yards from the 80-foot-high sand dune. Construction of the turbine was completed in late May 2011. It was connected to the power grid via Dominion North Carolina Power. Park officials anticipate its power generation will offset most of the cost of supplying the visitor center, which includes an exhibit hall, an auditorium, and park offices.



Wind Turbine

Park staff worked with the Town of Nags Head to secure permits and also conducted early studies with a mobile lift to assess potential negative visual impact from the turbine. The monopole structure was chosen to reduce effects on birds in flight path.

As of June 1, 2016, Jockey's Ridge State Park manages 426 acres.



Exhibit about Wind

III. THEMES AND INVENTORY

THEMES OF JOCKEY’S RIDGE STATE PARK

Theme Type	Theme	Jockey’s Ridge Significance	State Parks System Representation
Biological	Estuarine Communities	High	Adequate
Biological	Freshwater Tidal Wetlands	High	Moderate
Biological	Maritime Forests	High	Moderate
Biological	Maritime Grasslands	High	Adequate
Biological	Maritime Wetland Forests	High	Moderate
Geological	Barrier Islands and Shoreline	High	Adequate
Scenic	Bays/Estuaries	High	Little
Scenic	Forests	High	Moderate
Scenic	Islands	High	Little
Scenic	Meadows/Grasslands	High	Little
Scenic	Scenic Vistas	High	Moderate
Scenic	Seashores	High	Moderate

*See the Systemwide Plan for references to Theme and Inventory terms. Themes have both actual and “potential” future needs to be at a park.

LAND PROTECTION PLAN
 JOCKEY'S RIDGE STATE PARK
NO CRITICAL ACRES NOTED



Jockey's Ridge SP

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 February 2017

- | | |
|-----------------------------|---------|
| State Parks Unit | Federal |
| Land Protection Plan | State |
| Primary resource protection | Other |
| Inholding | |
| Scenic protection | |
| Water quality protection | |
| Facilities development | |
| Buffer | |









JOCKEY'S RIDGE STATE PARK FACILITIES INVENTORY



Jockey's Ridge State Park Facilities Inventory

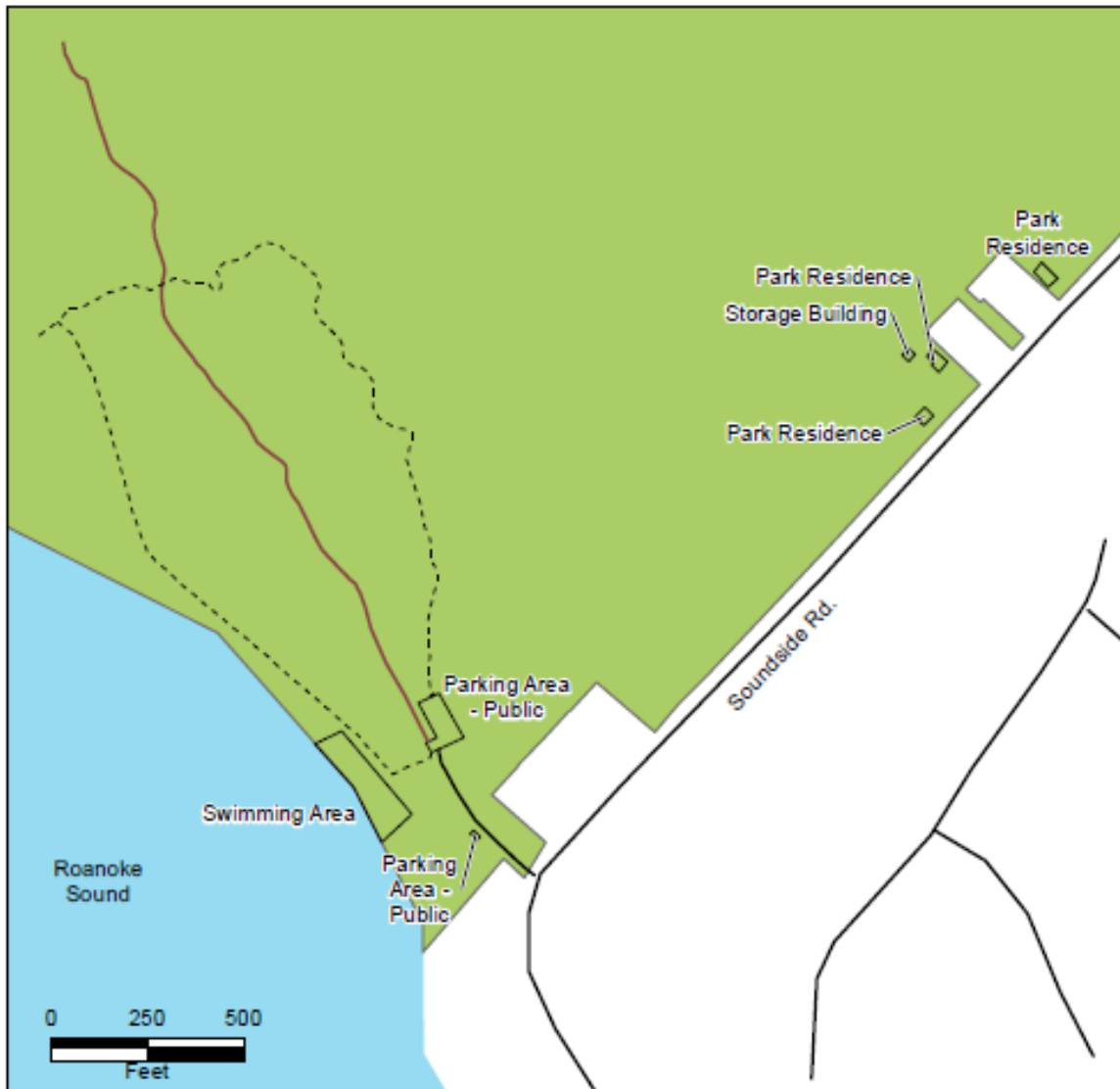
February 2017



-  facility_poly_edits
-  Trail
-  Road - Paved
-  Road - Unpaved
-  Facilities
-  State Park



JOCKEY'S RIDGE STATE PARK
FACILITIES INVENTORY



Jockey's Ridge
State Park
Facilities Inventory

February 2017



- Trail
- Road - Paved
- Road - Unpaved
- Facilities
- State Park



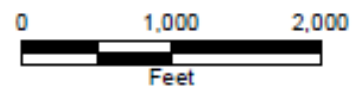
JOCKEY'S RIDGE STATE PARK
TRAIL INVENTORY



Jockey's Ridge
State Park
Trails Inventory

February 2017

- Trail
- Road - Paved
- Road - Unpaved
- Facilities
- State Park



JOCKEY'S RIDGE STATE PARK
TRAIL INVENTORY

Trail Inventory	Hiking
Boardwalk Trail	0.06
Soundside Nature Trail	1.00
Tracks in the Sand Trail	1.50
Jockey's Ridge SP Totals (miles)	2.56

Hiking:

Boardwalk Trail: is located immediately behind the Visitor Center. Interpretive displays along the 360-boardwalk offer information about the plants and animals found in the area.

Soundside Nature Trail: This self-guided nature trail is one-mile-long and will take about one hour to hike thru marsh and estuary as it approaches a scenic overlook. This little explored section of the park contains several different coastal environments, including a wetland area, grassy dunes and maritime thickets. Views of Roanoke Sound can be seen as it stretches toward the mainland. Interpretive panels along the trail provide information on the many native plants and animals.

Tracks in the Sand Trail: The nature of shifting sand prevents the construction of traditional trails in the park. Tracks in the Sand is a 1.50 mile, self-guiding trail composed of 14 informational stations and the hike takes approximately 1.50 hours. The trail begins at the parking lot and leads through the many environments in the park. On the trail, you will see many tracks, ranging from foxes and deer to insects and birds.

If you prefer a shorter trip, a 360-foot boardwalk is located near the beginning of the Tracks in the Sand trail. Interpretive displays along the route offer information about the plants and animals found in the area.

The Town of Nags Head and Jockey's Ridge State Park operate an estuarine access off Soundside Road at the base of the dune along Roanoke Sound. Facilities include two (2) dune crossovers and informational panels.



Boardwalk

IV. PLANNING



PROJECT EVALUATION PROGRAM LIST
 JOCKEY’S RIDGE STATE PARK

Project #	Project Title	Cost
1	Seasonal Personnel Barracks	\$ 1,167,268
2	Exhibit Hall and Visitor Center Improvements	\$ 1,079,432
3	Covered pavilion at Boardwalk	\$ 40,000
4	Sand Removal	\$ 667,573
TOTAL		\$ 2,954,273

** Estimated project cost does not include contingencies, design fee, nor escalation.

1. Seasonal Personnel Barracks

A proposed 3,200-square-foot barracks is proposed to replace the aging residences #15 and #22, which are currently used to house seasonal staff. Dilapidated park residences built in the 1970’s, will be demolished as a part of this barracks project.



Park Residence built in 1970 that will be demolished

The barracks will have six (6) double-occupancy rooms with an attached efficiency apartment. A gravel entrance road to the barracks and adequate car gravel parking lot and concrete wheel stops will be provided. Seasonal barracks are an important recruiting tool for seasonal staff who cannot afford to rent nearby in the peak-use summer season. Park seasonal staff are generally paid less than other similar jobs in the region.

In addition to serving temporary housing needs, the barracks can be used outside the visitor season as a multipurpose space for staff training and meetings during the off season. Other user groups could include: teachers, interpretive training program participants, seasonal work crews, and researchers.

2. Exhibit Hall and Visitor Center Improvements

The 8,000 SF visitor center, built in the 1990’s, will remodel the retail area and exhibit space. An improved wayfinding system will be part of this project, and will include signage and landmarks to direct visitor traffic flow around the building site and within the context of the park.



Visitor Center

A 625-square-foot sun and rain shelter (25 feet x 25 feet) will be constructed on the back deck between the Visitor Center and concession building to create a covered area for large school groups to gather.

The exhibits area will be completely renovated with updated exhibits, lighting improvements and relocation of some interior walls in both the lobby and the exhibits area. Feasibility study will be done to see if existing exhibits can be salvaged and refurbished based on condition and information.

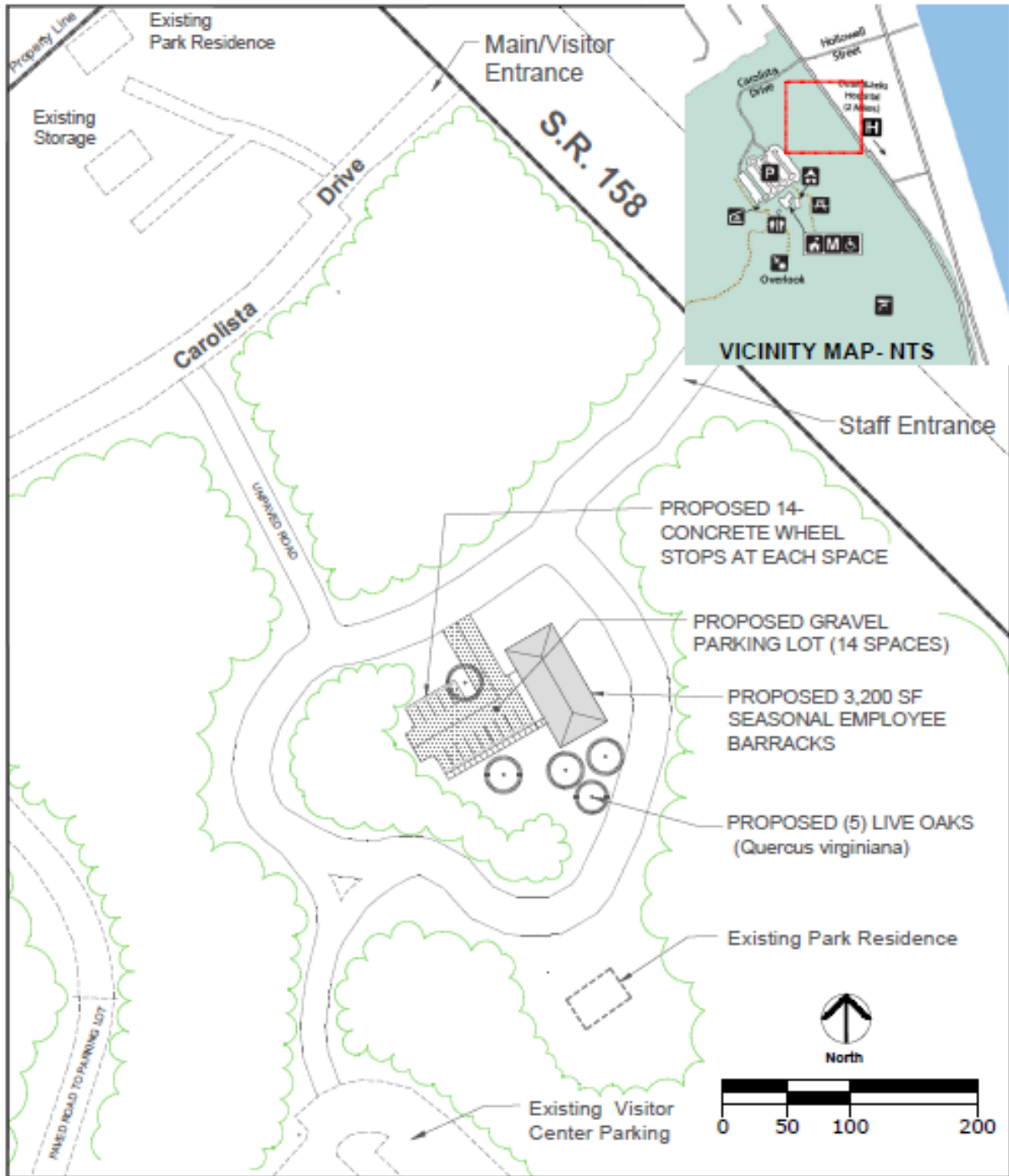
3. **Covered pavilion at Boardwalk**

The platform at the end of the 360- foot boardwalk needs a covered, 256 sq. ft. pavilion structure.

4. **Sand Removal**

In 2003 the Division relocated approximately 126,000 cubic yards of sand from the south corner of the park to the northern section of the park. This was done because the moving sand dune was encroaching onto private property and was threatening the structures on the property. Another sand dune is now encroaching onto private property in the east corner of the park and again threatening structures on these properties. The average bid price in 2003 for this work was \$565,740. Until a survey and volume calculations are performed we are assuming a volume of 126,000 cubic yards will again need to be relocated. The total cost of the project is estimated at \$667,573 for design fees and removal costs.

**PROJECT #1: SEASONAL PERSONNEL BARRACKS
 JOCKEY'S RIDGE STATE PARK**



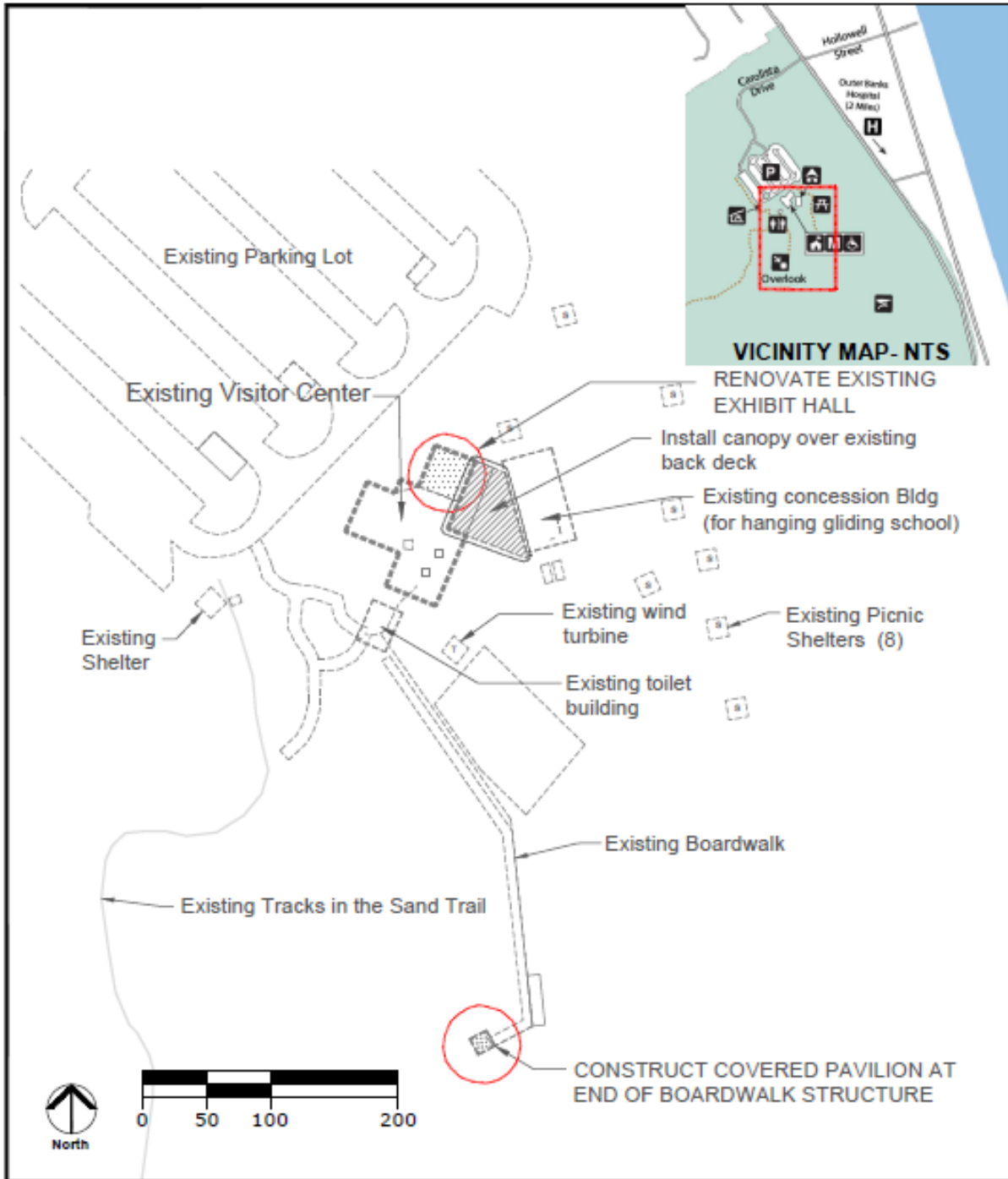
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Jockey's Ridge State Park
Seasonal Personnel Barracks



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 Raleigh, N.C. 27699-1615

PROJECT #2: EXHIBIT HALL AND VISITOR CENTER IMPROVEMENTS
 PROJECT #3: COVERED PAVILION AT BOARDWALK
 JOCKEY'S RIDGE STATE PARK



Feb 2018
 Date: Nov. 2016
 Drawn By: CR

Jockey's Ridge State Park
 Exhibit Hall and Visitor Center
 Improvements & Covered Pavilion

N.C. Division of Parks and Recreation
 Mail Service Center 1615
 Raleigh, N.C. 27689-1615

PARK MAP

JOCKEYS RIDGE STATE PARK

