

# CRANDON PARK

Specific Area Analysis

CRANDON PARK TODAY - PART II

VOL. 2





The Crandon Park: A Call for Change report is comprised of an *Executive Summary* and the following *Research Volumes*:

- Vol. 1 Introduction
- Vol. 2 Crandon Park Today | Part 1 - Site Analysis  
Crandon Park Today | Part 2 - Specific Area Analysis
- Vol. 3 Relevant History
- Vol. 4 Master Plan Evolution
- Vol. 5 Park Governance & Funding
- Vol. 6 Recent Best Practices
- Vol. 7 Park Precedents
- Vol. 8 Historic Documentation

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*Crandon Park: A Call for Change*  
*Research & Analysis Report*

Volume 2 - Part II

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*Prepared for*  
Citizens for Park Improvement (CPI)

*Elaborated by*  
West 8 urban design and landscape architecture



# **CRANDON PARK**

**VOLUME 2 - PART II | SPECIFIC AREA ANALYSIS**





# 2 Specific Area Analysis

## Crandon Park Today - Part II

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# 2

# Specific Area Analysis

## Overview

*The Park is divided into seventeen Specific Areas or character zones, as identified in the current Master Plan (primarily authored in 1995, and published in 2000). Each area is summarized by an overall analysis and summary of findings based on on-site observation, and visual exhibits and descriptions in the master plan:*

- *Description (with current metrics)*
- *Character & Intent*
- *Program & Amenities*
- *Crandon Park Master Plan Design Objectives (1995)*
- *Master Plan & Other Constraints*
- *Performance Analysis & Recommendations (Assessment of physical conditions & program management)*



*Coconut palm trees in the Central Allée*

# Anatomy of Crandon Park

## District Classification



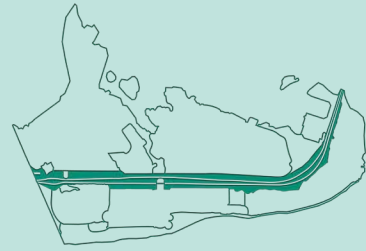
There are seventeen "Specific Areas" or districts that compose the anatomy of Crandon Park, as per the current Crandon Park Master Plan (1995).



## Specific Areas

1. Crandon Boulevard
2. Crandon Park Marina
3. Ibis Preserve
4. Crandon Park Golf Course
5. Crandon Park Tennis Center
6. West Point Preserve
7. Calusa Park (originally titled Calusa Mangrove Trail)
8. Bear Cut Preserve
9. Marjory Stoneman Douglas Nature Center
10. Crandon Park Beach
11. Parking and Beach Drive
12. Crandon Park Cabanas
13. Crandon Gardens (former Crandon Zoo)
14. Crandon Park Service Area
15. Fire Station
16. Substation
17. Archaeological Sites

# 1 Crandon Boulevard



*Crandon Boulevard is the main circulatory spine of the Park.*

## Specific Area Description

|                                     |  |
|-------------------------------------|--|
| <b>Length:</b>                      | 2.21 mi  |
| <b>Overall Area:</b>                | 105 ac   |
| <b>Connectivity</b>                 | Bear Cut Bridge<br>Bike Lane (Rickenbacker Bike Trail)<br>Fossilized Reef Bike Trail/Path (Bear Cut Preserve)<br>Bike/Ped Trail (along Crandon Gardens)<br>7 Bus Stations (B102 Route) |
| <b>Landscape Zones:</b>             | Right of Way (R.O.W)   |
| <b>Protected/Sensitive Zone(s):</b> | Crandon Median Site (8DA5248)<br>Crandon Dune Site (8DA5249)   |

## Character & Intent

Crandon Boulevard serves as the central spine of Key Biscayne and Crandon Park. Originally lined with coconut palms, which harkened back to the island's early plantation history, the Boulevard was designed as a scenographic parkway, which like a movie revealed itself frame-by-frame and gave visitors a sense of visual delight, serenity and a withdrawal from the ills of city life. Following the 1970's Coconut Tree Blight, many of the original palms were replaced by denser native tree species. Besides its typical split road section, the Boulevard is characterized by an arrival moment at the Marina entrance, a Gateway moment at the Golf Course, the Grand Opening to the Beach via the Central Allée, and Rotary before entering Key Biscayne Village.



*Original Crandon Boulevard design as a scenographic parkway with lined coconut palms*



*Overgrown green tunnel today*

## Program & Amenities

The Boulevard provides the only link from the mainland to Key Biscayne via the Rickenbacker Causeway. Besides the roadway itself, there is a five-foot wide on-road bike lane on the western side that is part of the Rickenbacker Bike Trail, connecting Key Biscayne to downtown Miami. On the east side, another ten-foot-paved bike trail meanders through the Bear Cut Preserve. Another bike trail also on the east side, connects the Crandon Gardens to the Village of Key Biscayne. There are also seven intermittent bus stops.



Crandon Park entrance today from Rickenbacker Causeway (Bear Cut Bridge). Small signage and an expansive four-laned highway offer little sense of a grand arrival experience or gateway moment into the Park. The Marina entry on the right is also not visible.

## Crandon Park Master Plan Design Objectives

- Create an identifiable Park theme and welcoming entrance (unrealized)
- Create a relaxed Park road character along Crandon Boulevard (unrealized)
- Reintroduce coconut palms and a historic landscape theme with lush tropical and native plantings;(realized)
- Reduce cross-traffic along the Boulevard (partly realized)
- Provide positive separation of pedestrians and recreational bicyclists from vehicles (unrealized)
- Facilitate movement of vehicles and speed bicycles through the Park and into various activity areas(unrealized)



Marina Entrance



Golf Entrance



Tennis Center



## Crandon Park Master Plan Constraints

- Designated as a historic highway by the State of Florida (Chapter 88-418, Laws of Florida (1988), Appendix M in *Crandon Park Master Plan*). The law states that “no public funds shall be expended for. . .[t]he alteration of the physical dimension or location of Crandon Boulevard.”<sup>1</sup>
- Landscape has Coconut Edge and Canopy Tree Landscape Specifications (for more detail, see Richardson's *Master Plan* (1995) typical sections in [Volume 8 | Historic Documentation](#)).

## Other Constraints Identified by this Study

- The majority of Crandon Boulevard sits at an elevation of two to three feet above sea-level, which makes it vulnerable to storm surge events and sea-level rise.

## Performance Analysis & Recommendations

- 👍 Physical condition of the road itself is good and is well maintained;
- 👍 Continue to restore coconut palms that honor the Park's Vision and landscape identity
- 👎 Car-centric and high traffic speeds
- 👎 Numerous vehicular turnarounds
- 👎 Entry/exit points are confusing
- 👎 Poor visual and physical connections (pedestrian & bike) from the eastern and western sides of the Boulevard
- 👎 Lack of consistent pedestrian pathways/crosswalks to connect programs and bus stations
- 👎 Poor or diminished maintenance of managing vegetation that results in overgrowth
- 👎 Program signage along the Boulevard is often too small and is often screened by vegetative overgrowth, making it difficult for drivers to see



Bus Stop at Marina  
Stop ID: CRDBSUN4

1. Richardson, *Crandon Park Master Plan* (1995), p. 21.



Bus Stop at Golf Course  
Stop ID: CRDBCRA4



Bus Stop at Tennis Center  
Stop ID: CRDBINT4



*Bike/Pedestrian/Bus Station Crosswalk*



*Bike Crossing at Marina*



*Bike Crossing at Rest Stop*



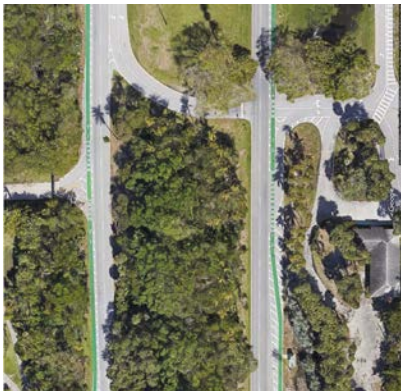
*Bike Crossing at North Parking Lot*



*Bike Crossing before Golf Course*



*Bike/Pedestrian Crosswalk at Golf Course*



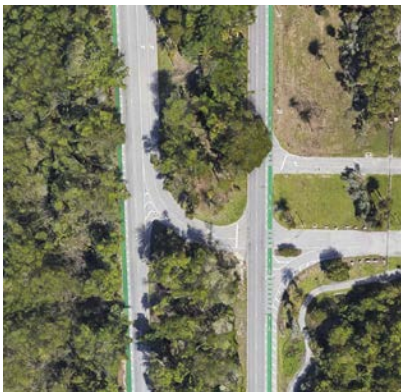
*Bike Crossing at Tennis Center North Entry*



*Bike/Pedestrian/Bus Station Crosswalk at Tennis Center Entry Main*



*Bike Crossing at Tennis Center North Entry*



*Bike Crossing at South Parking Lot*



*Bike Crossing at Calusa Park*



*Bike Crossing at Rickenbacker Circle*



*Blocked entry at Tennis Center North Entry*



*Blocked entry/exit from North Parking Lot*

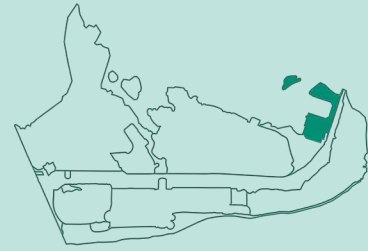


*Asphalt pedestrian path is confusing for drivers since path width and materialisation (asphalt) are the same as for vehicles.*



*Signage along the Boulevard is often too small (e.g. Tennis Center sign) and is often screened by vegetative overgrowth*

## 2 Crandon Park Marina



*Crandon Park Marina is the gateway program into Crandon Park and Key Biscayne; however, its overall appearance and performance are underwhelming.*

### Specific Area Description

|                                     |  |
|-------------------------------------|--|
| <b>Overall Area:</b>                | 36 ac (Marina) / 3.5 ac (Rookery Island)   |
| <b>Connectivity:</b>                | Crandon Boulevard<br>Bike Lane (Rickenbacker Trail)<br>Bike Trail<br>Marina Boardwalk<br>Interior Paths & Sidewalks (Pelican Point)  |
| <b>Amenities:</b>                   | Divers Paradise - scuba diving agency (530 sf)<br>Dock Master and Bait & Tackle Shop (720 sf)<br>Three Picnic Shelters (315 sf each)<br>Open Lawn (10.5 ac approx.)<br>Parking Lot (16 ac / 645 spaces)<br>8 Marina Boat Ramps<br>240 wet slip Marina<br>Charter boats |
| <b>Protected/Sensitive Zone(s):</b> | Rookery Island (3.5 ac) - no human visitation<br>Tern Nesting Area (0.5 ac) - fence protection   |

## Character & Intent

Crandon Park Marina serves as the Gateway program and first park feature to Key Biscayne and Crandon Park. Its unique location at the terminus of the Rickenbacker Causeway makes it a critical program to create a lasting impression of the Park. Its facilities, overall appearance and maintenance should thus reflect its premiere status as a first-class harbor, offering an array of outdoor water activities, such as sailing, power boating, fishing and related waterfront activities and facilities.

## Program & Amenities

Here, there are three main program areas. First, the Marina itself for docking fishing charter boats and motorboats, along with a scuba divers/snorkeling agency (Divers Paradise), and the Dock Master's Office and Bait & Tackle shop for fishing activities. Adjacent to the docks is a Parking Lot for boat trailer parking, and marina parking that are accessible from Crandon Boulevard. The previous Marina Restaurant (known as "Sundays On the Bay") was torn down (ca. 2006) and never replaced. Next, to the north is a natural grass and wetland area planted with mangroves and stabilized with riprap called Pelican Point (or Northern Point) for picnicking, nature observation, and views back to the Miami skyline. A nesting area for terns is also fenced off as a protected ecological zone. Rookery Island (3.5 ac) off the Channel entrance to the Marina is dedicated as a preserve for Pelicans and Frigate birds with no visitor access permitted.



*Former restaurant "Sundays On the Bay" was a social anchor before it was torn down*



*Marina offers a wide range of waterfront amenities for charter boats, scuba diving, fishing and picnic area.*



*Demand for the Marina exceeds its current capacity.*

## Crandon Park Master Plan Design Objectives

- Improve efficiency of traffic circulation (partly realized)
- Enhance the aesthetic character and appeal of the Marina (partly realized)
- Provide for the preservation of the Rookery Island (realized)
- Provide for the preservation of the Tern Nesting Area (realized)
- Provide for erosion control of the shoreline with riprap and mangroves (realized, but needs current assessment)
- Provide three to five picnic shelters (300 sf each) on the grass area of Pelican Point (realized)
- Remove all boats from Pelican Point (realized)
- Provide for public access, picnicking and observation along the western edge of the Marina area (realized)
- Permit a Dive Shop operation which includes a building for office (maximum size 530 sf), tour and merchandise sales and dock space that currently exist (realized)
- Permit dive shop activities, including chartered dive trips and off-site certification instruction (realized)
- Provide for charter and private boat slips and moorings (realized)
- Provide a marina restaurant and all other advertising signs from Crandon Boulevard frontage (realized, but the restaurant was torn down and never replaced)
- Provide for a two-story dock master building, with a first floor offering toilets, showers, and laundry, a Bait and Tackle shop (maximum size: 1250 sf); and a second floor for dockmaster offices (maximum size: 1000 sf) (realized)

- Retain, construct and/or renovate all existing and future permanent structures in the South Florida Vernacular Architectural Style (realized)
- Provide for an outdoor picnic area next to the bait and tackle shop of the existing size (realized)
- Provide for additional boat trailer parking by removing the existing fenced boat trailer compound and renovation of existing parking (realized)
- Provide adequate trash receptacles throughout the Marina area (partly realized)
- Remove all trailers and/or camper trucks providing office space (realized)
- Retain and renovate existing restroom buildings (realized)
- Provide limited restricted parking for Marina tenants (realized)
- Permit boating activities on private, rented or chartered vessels as currently exists (realized)
- Provide restaurant service for boaters and general public (realized, but Restaurant was torn down and never replaced)
- Permit sale of merchandise and fuel serving boaters and the park visitors. The current size appears adequate. (realized)
- Promote picnicking and nature observation (partly realized)



*The Marina faces the Biscayne Bay and has the potential to offer some of the most spectacular views of the City of Miami.*



Open lawn with only three picnic pavillions appears underutilized and does not tap into its great potential for attractive programming



Tern nesting area has unsightly protective fencing and no interpretive signage



Unkempt protection zone

## Crandon Park Master Plan Constraints

- All activities on or about the Marina shall be marine-oriented, including opportunities for boaters, fishermen, divers and the public to observe water fowl in restricted nesting areas and to enjoy dining in a water-related facility (when "Sundays on the Bay" existed).
- Rookery Island is designated as a preserve.
- The Marina Restaurant (once called "Sundays on the Bay" no longer exists) and the Dive Shop (Divers Paradise) are "limited to their present size and use until their present leases with the County expire, and thereafter, except as otherwise provided, the areas which are the subjects of the leases for "Sundays" and the Dive Shop shall be subject to the provisions and limitations of the Master Plan."<sup>2</sup> A remodeled Marina Restaurant (max. Length 92 ft, Width 80 ft) may have "a maximum of two stories and a total enclosed area of 5,500 square feet. This remodeled structure may develop a covered, but otherwise open water-side dining terrace not exceeding an additional 1,500 square feet in the area, and a public walkway eight feet wide shall be extended around the bulkhead in front of the restaurant."<sup>3</sup>
- In addition, all other Marina facilities and charter boat operations are limited to their current size, location, and operation.



- The Bait & Tackle Shop may only sell commercial pre-packaged food, and all signage and vending machines are prohibited.
- The sailboat rental facility is limited to its present size (27 ft) and number of sailboats (eight) and dock length. The awning is to remain park green and there can be two floating docks (maximum length 65 ft and width six ft) to serve sailboat and outboard rentals.
- All architectural structures are to be designed according to South Florida Vernacular Architectural Style standards (Appendix A).
- No advertising logos are permitted and no signage along Crandon Boulevard
- Maximum of five picnic/viewing shelters (300 sf each) are allowed in the Pelican Point area.
- The north portion of the Parking Lot is reserved for permitted parking only.
- Canoeing launching is only allowed from the dinghy float (max 10ft) and no more than six Park Department canoes can be stored in the rack area.
- No catamarans or vagrant dinghies are permitted along the north side beach area.
- Recommended native plantings in Parking Lot median: Coconut palms (*cocos nucifera*) front the Boulevard and Marina, Royal Palms (*Roystonea elata*) and Sabal Palms (*Sabal palmetto*) for other locations.



*South Florida Vernacular Architectural Style with ADA access is an example of complicated architectural modification.*

2. Richardson, *Crandon Park Master Plan* (1994), p. 56

3. Richardson, *Crandon Park Master Plan* (1994), p. 60.



*Pedestrian areas are not well maintained (cracked sidewalk) and covered in unsustainable materials like concrete.*



*Gas pump station area occupies a prime location for a vista*

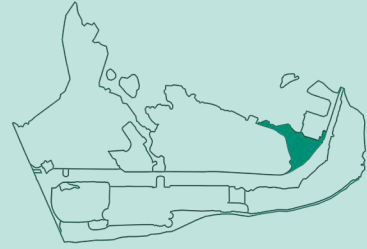


*Parking without shade trees and poor bicycle rack*

## Performance Analysis & Recommendations

- Local reports indicate that the Marina is a popular destination; however, it is disconnected from the rest of Crandon Park.
- Bottlenecking near the Bear Cut Bridge during rush hour and tournament events
- Entry/exit points are underwhelming for a Park Gateway program and need to be enhanced through more clear signage and view corridors.
- Small and poorly visible signage makes vehicular circulation confusing and identification of marina-related facilities difficult.
- Lack of consistent pedestrian and bike pathways/crosswalks that connect to the waterfront.
- ADA accessibility of the Diver's Paradise is poorly integrated, serving as a barrier more than an accessible route.
- Sprawling parking lots with limited shade tree canopy. Need to assess current Park visitor usage in consultation with a Traffic Engineer to consolidate parking.
- Except for activities on the water, other cultural attractions and potential sources of revenue like Sundays on the Bay are absent today and have not been replaced. Need to identify other potential cultural/social anchors that could transform the Marina into a world-class waterfront destination and potential source of park revenue. Current Master Plan restrictions severely limit the location, size, use and type of new facilities.
- The Marina's open lawn near the picnic pavilion does not meet its potential benefits
- The addition of riprap and enhancement of mangroves along Pelican Point seem to have stabilized the shoreline, but more careful analysis in consultation with an Environmental Consultant is needed to surmise if the shoreline needs further enhancements.

### 3 Ibis Preserve



*Ibis Preserve is one of the protected natural protected areas filled with mangroves and wetlands. This area is currently accessible to the public*

#### Specific Area Description

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| <b>Overall Area:</b>                | 26 ac                             |
| <b>Connectivity:</b>                | None                              |
| <b>Amenities:</b>                   | None                              |
| <b>Protected/Sensitive Zone(s):</b> | Entire specific area is protected |

## Character & Intent

The Ibis Preserve is a unique and environmentally sensitive tidal area, largely covered with mangroves, and offshore seagrass beds and sand flats all of which are protected from disturbance. It takes its name from the white ibis that perch on mangroves of the Biscayne Bay. It is intended to promote nature observation and other educational nature study and field work.

## Program & Amenities

Natural Preserve area dedicated to wildlife preservation and passive nature enjoyment activities.

### Crandon Park Master Plan Design Objectives

- Restore degraded areas to healthy, natural system functions (unknown)
- Preserve and protect the integrity of undisturbed natural areas (realized)
- Maintain limited access to tours led by qualified naturalists (unrealized)
- Maintain a canoe zone along Biscayne Bay (unknown)
- Promote nature observation and educational activities including nature study and field work (unrealized)
- Promote restoration activities including rehabilitation of wetlands and some uplands (realized)

## Crandon Park Master Plan Constraints

- Located within Primary Preservation area
- No Net Departure from the area designated for the Crandon Park Lands, effective as of January 14, 1993 or incremental degradation of Crandon Park's natural and scenic beauty.
- Only passive nature observation is permitted, such as limited marine grass and mangrove tours led by trained naturalists.

## Performance Analysis & Recommendations

- This wetland area was minimally disturbed according to the *Vegetation Survey* (1992).
- Mangroves have become so overgrown as to be impenetrable by maintenance staff or naturalist tour visitors
- No initiative or educational signage to promote nature observation or educational activities



*Ibis Preserve coastal tidal area is largely covered with mangroves and seagrass beds*



Boulevard

Marina

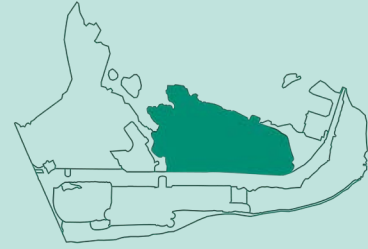
Ibis Preserve

Golf Course

Tennis Center

West Point Preserve

## 4 Crandon Park Golf Course



*Crandon Golf Course used to be one of the best public courses in the United States. However, today it is not well maintained.*

### Specific Area Description

**Overall Area:  
Connectivity:**

213 ac  
Crandon Boulevard  
Bus Stop (ID: CRDBCRA4)  
Bus Stop (ID: CRDBLNK2)  
Pedestrian Crosswalk (across Crandon Boulevard to NorthParking Lot & Multipurpose Sports Field)

**Amenities:**

Bike Lane (off of Crandon Blvd)  
3 Crosswalks (within the Golf Course lands)  
Interior Paved Paths (asphalt) & Sidewalks  
Path to Ibis Preserve (dirt) - fenced off  
18-hole championship Golf Course (2.65 sf)  
Clubhouse with Restaurant (4,885 sf)  
ProShop  
Pavilion  
Arraya Tennis Courts Complex (14.7 ac) - 10 courts  
Tennis Clubhouse  
Parking Lot (2.65 ac / 215 spaces)  
Maintenance/BOH facilities

**Protected/Sensitive Zone(s):**

Mangrove Preserve (approx. 29.7 ac)



## Character & Intent

Crandon Golf at Key Biscayne is a championship 18-hole golf course with seven saltwater lakes and is the only public golf course on Biscayne Bay. Although the area itself was not built until 1972 (designed by Robert von Hagge and Bruce Devlin), it is clear that this area was part of Phillip's Vision as is evident in his *Vision Plan* (1942). Besides the course itself, other golf facilities include the Clubhouse, which has a restaurant called Fairways On The Key Bar & Grill, and a Pro Shop for securing buckets of golf balls, golf clubs and tees. Along the western mangrove edge is a special clearing called Crab Point, which has picnic tables and ruins of a thatched shelter. Various maintenance facilities are also located off of the circular parking lot. In addition to the Golf Course, there is also the Arraya Tennis Courts Complex with ten clay courts that offers lessons to adults and youth.

## Program & Amenities

The Golf Course is one of the three designated active recreation areas. "All activities on the Golf Course lands or Golf Course facilities shall be strictly golf oriented, with the exception of (a) the dining facilities in the Golf Course Clubhouse, which are to remain open to the public; (b) non promotional food and beverage carts on the Golf Course; (c) Crab Point located adjacent to the 18th fairway may be used only as a non-commercial golf-related picnic pavilion by golf patrons, and (d) the tennis courts located on the Golf Course lands, which shall be used for tennis only."<sup>4</sup>



*Man-made lakes and artificial berms dotted with tropical plants characterize the area.*

4. Richardson, *Crandon Park Master Plan* (1994), p. 65-66.



*The Clubhouse is outfitted with a restaurant and proshop, but is difficult to access via bike or walking.*

## Crandon Park Master Plan Design Objectives

- ✓ Provide vehicular access from Crandon Boulevard (realized)
- ✓ Improve the aesthetic character of the drive to the clubhouse by screening out all storage, maintenance and service yard areas (realized)
- ✓ Provide for pedestrian and bicycle access to the golf course (realized)
- ✓ Retain existing tennis club complex (realized)
- ✓ Retain, construct and/or renovate all existing and future permanent structures in the South Florida Vernacular Architectural Style (realized)
- ✓ Provide limited bulk storage in the maintenance area (realized)
- ✓ Provide for the existing driving range golf pro building (realized)
- ✓ Provide for limited clubhouse, restaurant/bar, patio snack bar, golf shop, locker rooms and park offices as needed (realized)
- ✓ Permit clubhouse activities, including food and beverage service, administration, and golf-related room and patio rentals (realized)
- ✓ Provide for handicapped persons in the existing clubhouse as needed (realized)
- ✓ Retain the existing shelter and boat landing on Biscayne Bay (realized)
- ✓ Promote golfing activities, including public play, tournaments, special golf events and instruction (realized)
- ✓ Retain existing sales area in the Clubhouse for golf merchandise (realized)

## Crandon Park Master Plan Constraints

- Limited flexibility of programmatic use beyond what is stated in the Master Plan.
- Golf Course closing time is sundown, and its Clubhouse facilities must shut down at 10:00 pm, including but not limited to the restaurant and bar).
- The Golf Course Clubhouse and other related golf structures are limited (with the exception of an open-space garage) to their present square footages and location. Use of the clubhouse for nightclub type facilities or functions or operations is prohibited. The Clubhouse may not have pool tables, electronic games or like items, dance floor or live entertainment.
- Access from Crandon Boulevard opposite the entrance to the north North Parking Lot shall be provided, while allowing buses or trams to drop off passengers during tournaments.
- Parking in front or immediately adjacent to the Clubhouse is not permitted.
- The driving range ProShop may not exceed its preset square footage and all advertising outside are prohibited.
- The Tennis Clubhouse is to be designed according to South Florida Vernacular Architectural Style standards (Appendix A). Neither it nor its associated facilities can increase in size or change in shape. All tennis facilities are to be screened by tree and shrub plantings. The existing wood deck can remain. No advertising or logos is permitted on the umbrellas. Nor are vending machines or advertising signs permitted outside of the Tennis Complex.
- No additional tennis courts are permitted. If the current lease is discontinued, the courts shall be removed and replaced with a dense landscaping of native vegetation.
- Light fixtures shall be no higher than 25 feet above ground level of the courts. Lighting of the range itself shall be accomplished by "bunker lighting" rather than "pole lighting" and turned off by 9:00 pm.
- The County may elect to contract with a lessee or concessionaire for operation of the Clubhouse restaurant and/or driving for terms of no more than three years in length with three one-year options to renew.
- The Biscayne Bay shoreline along all areas adjacent to the Golf Course, from the southern edge of the Crandon Park south to the Southern boundary of the West Point Preserve and 50 feet inland from the mean highwater line along such shoreline, or to the edge of the mangroves, whichever is less, are designated as "Mangrove Preserve."



A majority of the Golf Course area is at 4ft above sea-level or lower, making it vulnerable to sea level rise and storm surges.

## Performance Analysis & Recommendations

- Overall, both the Golf Course and its facilities are popular but the useful life of the course is threatened by a number of factors including sea level rise, which currently brings the Bay onto parts of the course during seasonal high tides. Constructed many decades ago, the golf course lacks many of the design features employed in current courses located in environmentally sensitive areas. These features include storm water retention strategies to filter discharges before entering public waters; the reduction of areas under maintenance (such as isolating tee boxes and not grassing and maintaining areas "out of play"); design elements that will make maintenance less expensive, and virtual driving ranges that use less land and eliminate the need for unsightly conditions. The current Master Plan imposes restrictions that would make it impossible to implement the kinds of improvements in the course and clubhouse that reflect current knowledge and public desires. What follows is a discussion of what exists rather than what should be in connection with a redevelopment of the course and clubhouse.



Open lawn and Royal palms clearly mark Golf Course entrance

- The entry node and open lawn with planted coconut palms clearly mark the Gateway moment into the Golf Course lands; however, the signage is quite small. A clearer indication for drivers could be added.



Views of Biscayne Bay and Miami skyline, particularly from Crab Point are undercelebrated

- 👎 The maintenance area is still relatively visible from the entrance drive and could be screened better with more native and tropical plantings consistent with the existing vegetation palette.
- 👎 Vehicular circulation and drop-off sequence is fairly seamless. However, the driveway is situated a great distance from Crandon Boulevard, which makes the Golf Clubhouse less accessible by foot and bike, and farther away from popular Park facilities like the Beach and Nature Center.
- 👍 The Parking Lot functions well
- 👎 The Golf Course has some of the best views of Biscayne Bay and Miami skyline, particularly from Crab Point that are under celebrated. Currently access to these areas is not well known and there is no direct public circulation path that, for instance, connects between Crandon Boulevard to Biscayne Bay. Both the 1947 Topographical Survey and 1959 Dade County Park Plan show a straight connection from Crandon Boulevard all the way to Bay's edge, where there appears to be a dock or clearing for observation. Study of possible connections that take visitors to the waterfront could be explored.
  - With the exception of the picnic tables at Crab Point, there appear to be other moments where passive programming
- 👎 along the Mangrove Preserve can occur.
  - Located at a four-foot elevation, and even lower at critical areas, the majority of the Golf Course is vulnerable to sea-level rise and storm surges. Future analysis of possible flood mitigation strategies should be explored to protect the facilities and program areas.



There are few opportunities for the public to view the sunset within Crandon Park

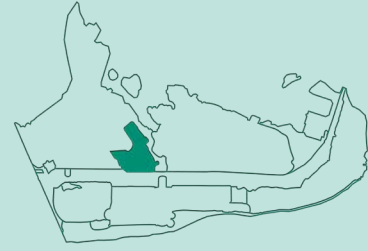


Arraya Tennis club entrance and amenities are in poor condition



Arraya Tennis club tennis fields and outdoor space are not well maintained

# 5 Crandon Park Tennis Center



Crandon Park Tennis Center was built on a former landfill and is largely underutilized since it no longer hosts the Miami Open.

## Specific Area Description

|                                     |   |
|-------------------------------------|---|
| <b>Overall Area:</b>                | 32 ac   |
| <b>Connectivity:</b>                | Crandon Boulevard<br>Bus Stop (ID: CRDBINT4)<br>Bus Stop (ID: CRDNBINT2)<br>Bike Lane (off of Crandon Blvd)<br>Pedestrian Crosswalk (across Crandon Boulevard to the South Parking Lot)<br>Interior Paved Paths & Sidewalks |
| <b>Amenities:</b>                   | 27 tennis courts (2.2 ac)<br>Clubhouse (11,815 sf) - 200 people<br>Proshop<br>7,500 permanent seat stadium (106,912 sf)<br>Parking Lot (3.75 ac / 105 spaces)<br>Maintenance/BOH facilities                                 |
| <b>Protected/Sensitive Zone(s):</b> | Green edges along the West Point Preserve   |

## Character & Intent

Built in 1987, the Tennis Center houses 27 tennis courts (21 Laykold hard courts, six green Har-Tru clay courts), of which 13 (11 hard courts and two clay courts) are illuminated for evening play. In addition to the large unused stadium, there is a full-service Pro Shop building as well as a rentable Clubhouse for tennis-related events and meetings. Until 2018, this was home of the Miami Open. Today, the Center hosts the Junior Orange Bowl tennis tournament and other local and national USTA (United States Tennis Association) and UTR sanctioned events, as well as local high school and college tennis teams for practice, competitive match play and re-season team building events. The Center is serviced by a large Parking Lot and various maintenance facilities.



*Tennis Stadium has lost its primary function and largely remains empty*

The main structure in this area, the 7,500-permanent sea stadium, is no longer in use; abandoned by the promoters of the Miami Open tournament. The stadium occupies substantial land, but has no current use that is permitted. It is deteriorating. The location of many of the courts, as well as the amount of parking, was dictated by the needs of the tournament. Without the tournament, these spaces make less sense, and the amount of empty asphalt burdens the site. While the tournament used the Park, it maintained the public courts at a high level. The level of maintenance appears to be reduced and the wear is evident.

## Program & Amenities

The Tennis Center is the second of the three designated active recreation areas which offers “tennis only within the Tennis Center or stadium except (1) during the Tournament Period and tournament ticket sales during a period from August 1 through to the completion of the Tournament Period, of (2) Clubhouse concession activities.”<sup>5</sup>

5. Richardson, *Crandon Park Master Plan* (1994), p. 70.

## Crandon Park Master Plan Design Objectives

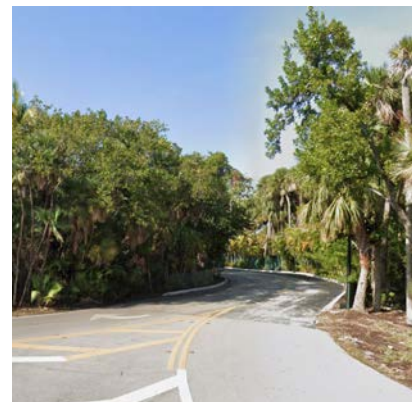
- ✓ Provide for vehicular access from Crandon Boulevard (realized)
- Improve the efficiency of vehicular circulation within the Tennis Center (partly realized)
- Provide for better pedestrian access at an appropriate scale within the Tennis Center (partly realized)
- Improve the setting of the Tennis Center grounds through extensive, lush, tropical and native landscaping (partly realized)
- ✓ Provide for the existing Stadium (realized)
- ✓ Screen Stadium from all points on Crandon Boulevard and all points between the Boulevard and the Beach (realized)
- ✓ Retain all existing permanent structures now built in the South Florida Vernacular Architectural Style (realized)
- ✓ Provide for the existing clubhouse and locker rooms (realized)
- ✓ Provide for a total of twenty-seven hard courts, five of which are lighted (realized)
- Provide for storage of maintenance equipment, bulk materials and supplies in the Stadium (unknown)
- ✓ Provide for tennis activities, including public play, tournaments, exclusively tennis-related events and instruction (realized)
- ✓ Limit the sales area in the Clubhouse to its present size (realized)
- ✓ Permit clubhouse activities (including administration, room rentals, and meetings) relating exclusively to tennis (realized)
- ✓ Permit indoor snack and beverage vending (realized)



*Blocked entrance at North Entry*



*Main Entry now used for pedestrians is a remnant of previous vehicular access.*



*Heavily screened entrance and only access for vehicles, pedestrians and bikes*





*Tennis Stadium exterior/interior in good condition*

## Crandon Park Master Plan Constraints

For a detailed description of limitation and restrictions see Richardson's *Crandon Park Master Plan* (1994), pp. 66-76.

### **Tennis Stadium:**

- Stadium Name shall not be named, or if named shall be derived from the name of flora or fauna native to Crandon Park Lands.
- Stadium Structure and its related Facilities cannot be visible to vehicles or pedestrian traffic along Crandon Boulevard. They are to be screened by landscape and use of native flora, which is managed by the County. The maximum height of all Stadium structures cannot exceed 37ft 6 in, and all rails and collapsible light devices cannot exceed four feet.
- Within the Stadium area no permanent or year around commercial or any out of park activities may take place. Nor is commercial or retail sales or of operations of any kind permitted around the Stadium, except (1) during the Tournament Period, (2) during permitted tennis events under subsection 1(d) of the Settlement Agreement.
- USTA is permitted to use areas of the Stadium as depicted in Architectural Sheet A-2-0 of the Stadium Plans dated October 1, 1991. The USTA must also open the stadium and weight training areas to the public, as well as offer youth tennis educational programs.
- No advertising on the Stadium is permitted except during a 14-day period prior to the commencement of the Tennis Tournament period, and five days following the Tournament. No visible graphic panels, banners, signs, billboards or similar devices are permitted.



Tennis fields are in good physical condition



Dedication signage to Charles "Chuck" Pezoldt, who was one of the co-authors of the current Master Plan

### Tennis Center:

- Professional Tennis Events cannot exceed 20 days per annum (including preparation and operation and restoration activities)
- No temporary seating or stadia is permitted except for 8,000 bleacher seats on Courts 1 and 2 in the aggregate, and as many as 500 bleacher seats on other individual courts.
- No new permanent structures and no temporary facilities, vehicles, mobile homes, trailers or similar temporary facilities are permitted on the Tennis Center.
- Only the activity of tennis is permitted within the Center except for ticket sales during the Tournament and Clubhouse concession activities.
- No exclusive use; only Public Access is permitted.
- No permanent or temporary trash transfer stations are permitted on the Tennis Center Site
- No Tennis Center advertising is permitted except during the 14-day period prior to the Tennis Tournament and five days following.
- No advising, logos, banners or similar temporary device is permitted on the Clock Tower.
- All lighting can be no more than 25 feet.

### Tennis Clubhouse:

- Architecture of the Clubhouse must conform to the South Florida Vernacular Architectural Style.
- It is limited to its present size and location.
- In the event that the Clubhouse suffers major structural deterioration, no additional funds can be expended to repair it. If it is demolished, the restored or rehabilitated Clubhouse cannot exceed one story and must have a footprint of 5,000 square feet. The remainder of the land would be densely planted in native vegetation.



Tennis Clubhouse exterior is in good although interior in poor condition



*Last Miami Open international championship in Crandon Park Tennis Center in 2018*

- All vending machines must be located within the interior of the Clubhouse.

#### **Tennis Tournament:**

- For full restrictions on Tournament Dates (see the *Crandon Park Master Plan* (1995), pp. 72-73)
- During the Tournament, there must be no interference with Public Access.
- All temporary tournament seating can be installed no more 30 days prior and removed by no later than 30 days following the Tournament Period.
- At least 1,000 regular parking spaces east of Crandon Boulevard shall be reserved for general use by other than Tournament participants. No parking is permitted on any unpaved areas on Crandon Park Lands.

#### **Vehicular Access:**

- Richardson relocated vehicular access to the southern entrance, and closed the existing Tennis entrance and service entrance to the former Trash Station.

#### **Other:**

- The County can change the court surfaces depending on public demand.
- Trees and landscaping are to be planted according to the *Master Plan Landscape Plan and Guidelines and Standards*.
- All portions in which mangroves are located shall not be disturbed and shall be designated as part of the west Point Mangrove Preserve.

## Performance Analysis & Recommendations

- A study of current Park user needs and desires should be conducted in relation to re-envisioning the Tennis Center with programming that fulfill both local and Miami-Dade citizens' recreation needs. The Park should study possible facilities that might generate Park revenue.
- The Clubhouse is one of the important social anchors in the Park, providing lockers, administrative and display place and a salesroom for tennis-related items. However, its location deep within the Golf Course prioritizes visitors traveling by car. In general, it feels isolated from the rest of the Park programming.



*Asphalt fields converted to a picnic area*



*Shabby sand ground and parking with temporary traffic restriction elements*



*Parking without tree canopy*

- 👍 The Courts themselves seem to be physically well maintained and accessible to the public, as stipulated.
- 👎 Some picnic tables surrounding the stadium are situated directly on asphalt. Consideration of how these furnishing elements might be better integrated with the surrounding landscape is something to consider and explore.
- 👎 Vehicular circulation and access points into the Tennis Center remain confusing and lack a sense of hierarchy and appropriate signage. In contrast to the node at the Golf Course, there is no drop-off sequence provided.
- 👎 There are currently three entrances into the Tennis Center, but only the southernmost entrance, which connects to the parking lot, is open. The existing main entry has been converted into a pedestrian crossing, but this creates confusion for drivers due to the lack of significant signage.
- 👎 Green screening of the Tennis Center inhibits visual connection between the different program areas.
- 👎 The current circulation is overly vehicular and not pedestrian- or bike-friendly. Reconsideration of how these asphalt surfaces, like the mini-Allée, could be transformed using resilient and permeable materials and alternate forms of programming, is recommended.
- 👎 The dense planting along the Brown Pelican Lake, which is supposed to be accessible by canoe or kayak, completely screen off any views of it from the Clubhouse. Locating perhaps at least one access point to the lake's edge or a strategic clearing would allow for easier access to this hidden destination.
- 👎 The current condition of the soil and its environs is not known. *An Environmental Impact Survey* that studies and evaluates the existing soil conditions is necessary to determine if any remediation steps should be taken. This is especially important since this program sits so close to the West Point Preserve.
- 👎 There is no access to the adjacent Golf Course program. Study of alternate access points to help strengthen the connectivity between active Park programming is recommended.



*Picnic tables are placed directly on asphalt without providing shade*

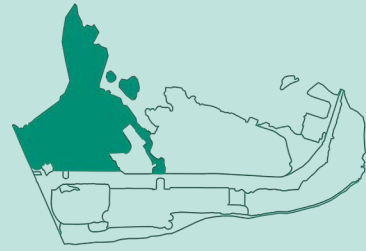


*Pedestrian entrance to Tennis Center, paths are not in use and are in poor condition*



*Pedestrian paths that lead to dead ends and unremarkable destinations*

## 6 West Point Preserve



*West Point Preserve is one of the largest natural protected areas in the Park, but it is currently inaccessible to the public.*

### Specific Area Description

|                                     |   |
|-------------------------------------|---|
| <b>Overall Area:</b>                | 292.4 ac  |
| <b>Connectivity:</b>                | None  |
| <b>Amenities:</b>                   | Two Canals (supposed to be navigable by canoe/kayak, but not in use)<br>Brown Pelican Lake (4.6 ac) |
| <b>Protected/Sensitive Zone(s):</b> | Entire area is protected according to the 1995 Master Plan  |

## Character & Intent

The West Point Preserve is designated as a unique and environmentally sensitive area largely covered with mangroves, but contains both wetland and upland species of native and invasive plants. Within the park there are drainage canals, islands and a lake. Two of the canals, opening into the Brown Pelican Lake abutting the Tennis Center are supposed to be navigable by canoe and kayaks. The current *Master Plan* increased the boundary of preserve all the way to Crandon Park Boulevard, restoring it to its natural state, by decreasing the size of Calusa Park, a community park.

## Program & Amenities

Natural Preserve area dedicated to wildlife preservation and passive nature observation activities. It is intended to be maintained and open to the public, with limitations and with the guidance of trained naturalists. A 3,500' long boardwalk loop nature was planned by Richardson, but never constructed, that was meant to provide a view of Biscayne Bay and a mangrove interpretive experience for Park visitors. A bike path running parallel to the western side of Crandon Boulevard was also planned, but never implemented

### Crandon Park Master Plan Design Objectives

- Limit access to undeveloped areas to tours by qualified interpretive naturalists, while maintaining limited existing active recreational facilities for the enjoyment of the public (partly realized)
- Restore degraded areas to their original natural and/or historic characters (realized)
- Preserve the integrity of the undisturbed natural areas (realized)
- Maintain canoe access to Biscayne Bay from the Lake (unrealized)
- Promote canoeing, nature observation, and guided nature walks (unrealized)
- Advance the preserve boundary eastward to Crandon Boulevard, where possible, leaving only limited existing active recreational facilities for the enjoyment of the public (realized)
- Implement restoration activities of wetland and upland areas (realized)
- Maintain a 1,000 ft wide "no motor" zone along the outermost edge of the Biscayne Bay shoreline, the seagrass beds and sand flats (realized)
- Maintain a 1,000 ft wide manatee zone along the southwestern shoreline (realized)
- Provide for a 3,500 lf boardwalk loop nature trail (unrealized)
- Except as provided for, prohibit any disturbance in the preserve (realized)



Mangrove overgrowth

## Crandon Park Master Plan Constraints

- Primary Preserve protected by the Dade County Resolution No. R-1765-86 (*Crandon Park Master Plan*, Appendix I)
- Only passive nature observation activities are permitted and signage shall restrict access to canoes and/or kayaks accompanied by a skilled interpretive naturalist.

## Other Constraints Identified by this Study

- Most of the Preserve is located on land that lies below four-foot elevation, making it highly vulnerable to flooding and sea-level rise.

## Performance Analysis & Recommendations

- ❌ Does not facilitate or promote nature observation or educational activities.
- ❌ Does not exhibit interpretive or educational signage
- ❌ The Calusa Mangrove Trail for pedestrians and bikes as proposed by Richardson appears to never have been built. No boardwalk exists (at least as observed from on-site observations). Any existing trail network that might have existed is long overgrown.
- ❌ Planned bike path parallel to Crandon Boulevard was never realized.
- ❌ Coconut Grove is not well distinguished and appears to be overgrown.



Impenetrable public access. The Master Plan's proposed trail network was never realized.





Boulevard

Marina

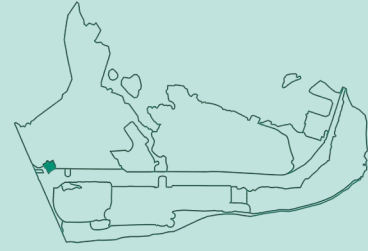
Ibis Preserve

Golf Course

Tennis Center

West Point Preserve

# 7 Calusa Park



Calusa Park is a community park within Crandon Park that is managed by the Village of Key Biscayne.

## Specific Area Description

|                                     |  |
|-------------------------------------|--|
| <b>Overall Area:</b>                | 3.76 ac  |
| <b>Connectivity:</b>                | Crandon Boulevard<br>Pedestrian Path to the Village of Key Biscayne (via Harbor Dr.)<br>Interior Paved Paths & Sidewalks   |
| <b>Amenities:</b>                   | 4 tennis courts (0.7 ac)<br>Open Picnic Pavilion with restroom and drinking fountains (4,082ft)<br>Historic Playhouse (not in use) (728 sf)<br>Parking Lot (0.25 ac / 32 spaces) |
| <b>Protected/Sensitive Zone(s):</b> | Green edges along the West Point Preserve  |

## Character & Intent

Calusa Park is open to all residents of Dade County and serves as a small community park for the residents of Key Biscayne offering four tennis courts and a picnic pavilion. Although it does not exist today there was meant to be children's playground and a community playhouse (no longer in use). The Playhouse was an historic wooden structure originally located on the Matheson coconut plantation.



*Abandoned Calusa Playhouse was previously an artistic hub.*

## Program & Amenities

It is a community park dedicated to recreational tennis and a picnic shelter. Area where playgrounds and a Playhouse were torn down circa 1998 and restored as an open-space landscape with native vegetation as part of the West Point Preserve. Although technically part of Crandon Park, the Village of Key Biscayne has a shared-use agreement with Miami-Dade County to use it as a community park.

### Crandon Park Master Plan Design Objectives

- Provide vehicular access from Crandon Boulevard Rotary (realized)
- Provide for pedestrian and bicycle access for the Calusa Mangrove Trail from the new pedestrian/ bike trail westward of Crandon Boulevard (unrealized)
- Retain and modify existing shelter and restrooms (realized)
- Retain existing parking for access to the new Calusa Mangrove Trail (realized)
- Modify four existing tennis courts to provide for three unlighted multipurpose sports courts (realized)
- Modify existing sandlot to match sandlot equipment to the Beach Area (unrealized, no sandlot exists)
- After year end 1997, remove all other buildings and structures, and restore the Calusa area with flowering trees and native vegetation and provide 3000 linear feet elevated boardwalk loop into the West Point Preserve with interpretive signage (unrealized)
- Restore habitats for native migratory fauna (realized)
- Provide limited visual and sensory interpretation of flora and fauna (unrealized)



Picnic pavillion and restroom area



Restrooms and picnic shelter are not inviting



Cracked concrete sidewalks



Fencing creates visual alienation

## Crandon Park Master Plan Constraints

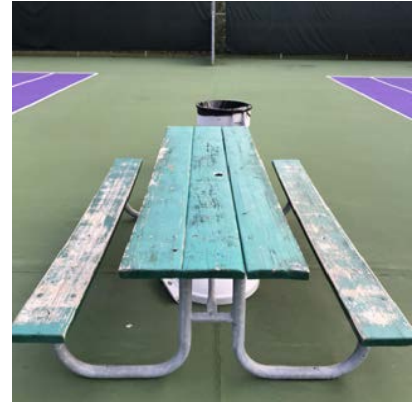
- Active Activities (tennis) and Passive Activities (picnic and sand lot) are permitted.
- Parking Lots, restrooms and open areas can be retained.
- Three picnic shelters (maximum size 300 sf each) could be constructed
- Sandlot play area with a footprint identical to the sandlot on the Adoption Date to be retained with equipment matching the sandlot equipment for the Beach Area.
- Calusa Mangrove Trail (3500 lf) should originate from the existing parking lot. May be part boardwalk (with protection for the mangroves) and part wood chips, depending on conditions. Trail meant to provide an interpretive and sensory excursion westward into the mangroves with vistas of Biscayne Bay and offering native variety to the Crandon Park experience.

## Other Constraints Identified by this Study

- Although Calusa Park is on Crandon Park land, it is managed by the Village of Key Biscayne under a “shared-use agreement with Miami-Dade County.”<sup>6</sup> According to the Village’s website, the mini-park is supposed to have playgrounds and tot lots, but none exist today.

## Performance Analysis & Recommendations

- The Village of Key Biscayne has few active recreational spaces. As a community park, Calusa’s programming should be considered in relation to helping meet the needs of its neighborhoods, the Village of Key Biscayne, and reinforce existing pathways and bike/pedestrian connections through infrastructure maintenance, significant signage and engaging park programming that serves both Park patron and local community needs.
- Tennis Courts continue to be used by the community; however, recent onsite observation of the courts shows that many of the playing surfaces are cracked and are in poor condition.
- A Picnic Shelter is still in use, but some of the surrounding paved paths are in poor condition (badly cracked).
- The historic Playhouse is not accessible and the playgrounds or sandlot area do not exist today.
- The Calusa Mangrove Trail for pedestrians and bikes is completely unmaintained and inaccessible. It appears that no boardwalk exists, nor opportunities for nature observation and/or recreational activities, as originally proposed by Richardson.
- No interpretive or educational signage to educate visitors about the nearby nature reserve and wetland ecology.



*Furnishings are not well maintained*



*Cracked tennis courts*

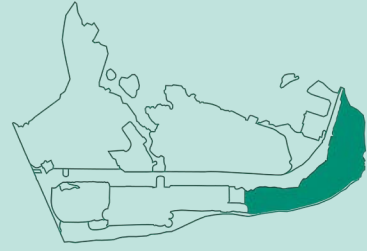


*Gated recreation areas*

6. “Parks, Playgrounds & Playing Fields.” Village of Key Biscayne. 2013. <https://asoft7140.accrisoft.com/keybiscayne/>

# 8

## Bear Cut Preserve



*Bear Cut Preserve is one of the ecological gems of Crandon Park, known for its unique fossilized reef.*

### Specific Area Description

**Overall Area:**

133.4 ac

**Connectivity:**

North Parking Lot

Fossil Reef Bike Trail (10ft wide and paved)

Tequesta Hammock Trail (dirt path)

Osprey Beach Trail (dirt path)

**Amenities:**

Fossilized Reef Overlook & Boardwalk

Nature Trails (bike/ped) and Boardwalk,

Observation Point

**Protected/Sensitive Zone(s):**

Entire area is protected

## Character & Intent

The Bear Cut Preserve is a special area dedicated to nature study and historical research. Located just off the shore, at the North end of the preserve, is the 6000-year old Fossilized Reef is unique in the world. Shaped by the natural processes of being a barrier island and human-made interventions in the development of the Key Biscayne, the preserve is especially notable for its coastal ecology of both native wetlands and uplands and environmentally sensitive fauna and flora (turtle grass). The location of an archaeological site of Tequesta Indian culture is also of great historical importance. The Salt Marsh Pond and Fresh Water Ponds were made to help with the restoration after Hurricane Andrew in 1992.

## Program & Amenities

Only passive nature observation is permitted in this protected area. Adjacent to the Nature Center, the preserve contains several different nature trails (Tequesta Hammock Trail, Osprey Beach Trail, Fossil Reef Bike Trail); an observation point, Reef Overlook to observe mangrove swamps, tidal creeks, beach dunes and fossilized reef. Although never realized, a ten-foot-wide asphalt Tram Trail from the Nature Center through the mangrove wetland area was also proposed.



*Eroding shoreline*



Tequesta Trail with undefined path borders



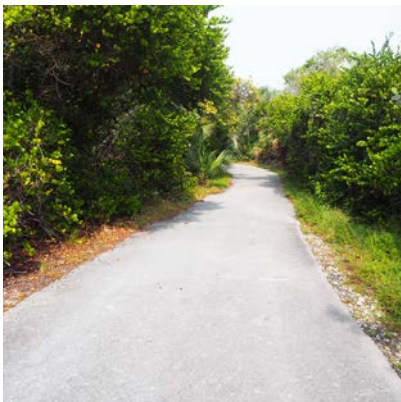
Osprey Trail dirt path



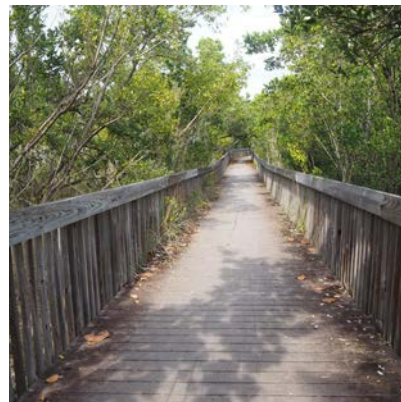
Path to Beach from Osprey Trail with fence in poor condition

## Crandon Park Master Plan Design Objectives

- ✓ Provide for vehicular access from the north beach parking lot (realized)
- Provide for a single point of access for pedestrians, trains, trams, and bicycles, into the Preserve through the Park Visitors' and Nature Center (partly realized)
- ✓ Provide for the restoration and protection of the historic natural systems in the Preserve (partly realized)
- Provide for interpretive trails with signage (partly realized)
- ✓ Provide for a South Florida Vernacular Architectural Style shelter/restroom and observation structure in the vicinity of the fossilized mangrove reef (realized)
- ✓ Restrict boat access into the seagrass beds and shoals with a 1,000 ft wide "no boat" zone (realized)
- ✓ Provide for the protection of present and future archaeological resources (realized)
- ✓ Promote nature observation, walking, bicycling (excluding Crandon Blvd bicycle path), sun bathing, swimming, snorkeling, nature study, interpretive tours and field study only during daylight hours (realized)
- ✓ Implement restoration of wetlands, coastal areas and uplands with native plantings (realized)
- ✓ Provide for a ten-foot-wide paved bicycle path to run from North Beach parking lot to the Bear Cut bridge (realized)
- ✓ Any structure shall be constructed in the South Florida Vernacular Architectural Style (realized)



Fossil Reef Bike Trail (10ft-asphalt path)



Boardwalk to Fossilized Reef Overlook



Beach Trail and eroding coastline





Nature Trail Map in the Nature Center helps inform Park visitors

## Crandon Park Master Plan Constraints

- Primary protected preserve area where only passive nature observation activities are permitted. No bicycles are permitted north of the Observation Shelter near the fossilized reef.
- Observation shelter cannot be over 25 feet tall
- Designated as a low-noise area (<65 dB)

## Other Constraints Identified by this Study

- The northern portion of the preserve is on land that is below a three-foot elevation, making it vulnerable to flooding and sea-level rise.



Bear Cut Preserve contains ununified and diverse styles of signage and information boards

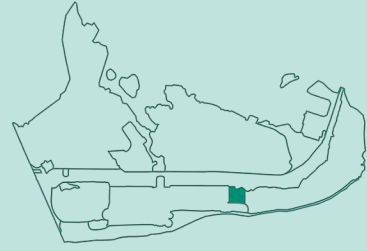


*Fossilized Reef Overlook and Boardwalk*

## Performance Analysis & Recommendations

- 👍 This preserve is one of the most publicly open and accessible parts of the Park with the trails frequented for recreational and educational purposes.
- 👎 Its adjacency to the Nature Center helps promote environmental awareness and learning, but the site signage is lacking or missing in parts. Enhancing the current trail network with better maintenance and interpretative signage would increase public awareness of the Park's unique natural assets.
- 👎 The Fossil Reef Bike Path is frequented and is often used as a means to access the Beach via bicycle; however, there is no direct bike path connection to the Village of Key Biscayne from this path.
- 👎 Considering the high environmental value of the Bear Cut Preserve, a detailed vegetation, topographical and environmental analysis of this Specific Area that reflects its current condition by an Environmental Consultant would greatly help in evaluating its current ecological profile and help devise a management plan for invasive species and rehabilitation.

## 9 Marjory Stoneman Douglas Biscayne Nature Center



*Nature Center is one of the Park's most popular cultural attractions, helping educate visitors and school children about its special ecology and rich history. It should be allowed to expand to meet the needs and interests of its visitors.*

### Specific Area Description

|                      |   |
|----------------------|---|
| <b>Overall Area:</b> | 2.8 ac (Site)<br>12,588 sf (Nature Center)<br>1200 sf (Entry Pavilion)<br>Utility box   |
| <b>Connectivity:</b> | North Parking Lot<br>Fossil Reef Bike Trail (10ft and paved)<br>Private drive/drop-off<br>Interior Paths & Sidewalks<br>Bear Cut Trails |
| <b>Amenities:</b>    | Entry Pavilion<br>Courtyard<br>Outdoor Amphitheater   |

## Character & Intent

The Marjory Stoneman Douglas Biscayne Nature Center is a not-for-profit organization dedicated to environmental education and the encouragement of greater citizen participation in our natural environment. The U-shaped building is elevated with covered porches and a central circular courtyard. It is one of the most important and prominent cultural and social anchors in the Park, offering a highly successful array of programs to educate visitors about the ecology of Crandon Park.



*Exhibition hall and small aquarium*

## Program & Amenities

The Nature Center includes activities such as naturalist-led field trips to learn about coastal ecology and fossilized reef, hikes through a series of local trails through the nearby Bear Cut Preserve, butterfly garden, exhibits, indoor and outdoor classrooms. In addition, the Center offers a number of outreach programs to underserved, inner-city and minority communities.

### Crandon Park Master Plan Design Objectives

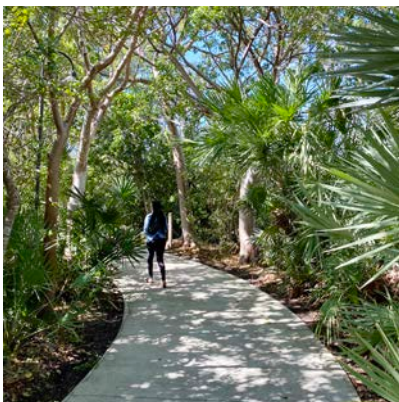
- Provide for vehicular access from Crandon Boulevard (unrealized)
- Provide for pedestrian and bicycle access to the Nature Center (partly realized)
- Provide for the Nature Center to become the "Gateway" into the Bear Cut Preserve (realized)
- Provide for one dual-purpose South Florida Vernacular Architectural Style building comprised of a Nature Center, primarily serving school children, and Park Visitors Center, serving the general public (realized)
- Provide for a Park Visitors' Center and include visitor orientation, office space, storage and restrooms (realized)
- Provide for a Nature Center and include classrooms, restrooms and teach workspace (realized)
- Provide for a self-releasing turtle hatchery (unknown)
- Provide for a temporary plant propagation shade house for native plant restoration projects (unknown)
- Promote indigenous passive non-commercial environmental and historical education activities, including classroom study, field study, nature observation, lectures, films and literature only during daylight hours (realized)
- Provide Park orientation activities, including lectures, films, workshops, exhibits, staff contact and guided tours. (realized)



Nature Center entrance pavilion from North Parking Lot.



Courtyard shaded by buttonwoods



Paved path to Nature Center with nature preserved species and celebration of tropical atmosphere

## Crandon Park Master Plan Constraints

- Nature Center can have a maximum footprint of 2,650 sf. An open porch with a maximum width of ten feet may be placed around a maximum combined sized park visitor's and nature center of 4,700 sf.
- The Center is to have a desk/counter area, a seven-min long video or longer audio-visual presentation recounting the natural resources and history of Crandon Park, a photography display presentation, artifacts, a limited retail area providing brochures describing Crandon Park and other Dade Park facilities, a staff office, storage area, and bathroom facilities, classrooms/laboratories and storage.
- Maximum capacity of 500 people in the Nature Center classrooms per day. Members of the public can have access to all areas of the Nature Center after 2:30 pm on weekdays, weekends and holidays.
- Follow *Crandon Park Signage Guidelines and Standards* (Appendix O)
- Shelter (max size 1,600 sf) near the fossilized area and another halfway in between the first shelter and Nature Center

## Performance Analysis & Recommendations



- Nature Center is one of the Park's greatest cultural assets. It has a diverse program, serving various educational needs for a wide range of interest groups.



- It acts as a Gateway to the Bear Cut Preserve, which is successfully created through the use of an Entry Pavilion and meandering pathway that leads up to the Center Building. Additional amenity spaces allow for enjoyable learning environments both inside and outside of the classroom, as well as a variety of different courtyards, raised terraces and outdoor amphitheater for leisure activities.



- The Nature Center also acts as an informational hub and provides various maps, guides and other educational pamphlets for Park patrons.



- Overall, the connecting trails are well indicated, although some signage booths lack maps, which would help orient visitors.



- The main drawback currently is the lack of clear entry and vehicular sequence from Crandon Boulevard. Situated on the northern side of the North Parking Lot, the current entrance off of Crandon Boulevard is at the Central Allée, about 0.5 miles away.



- No clear signage at Crandon Boulevard indicates the Nature Center's existence.



Calusa Park

Bear Cut Preserve

Nature Center

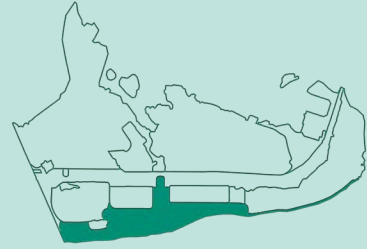
Beach

Parking & Beach Drive

Cabanas

Description

# 10 Crandon Park Beach



*Crandon Park Beach is one of the main attractions since its opening, but it appears less popular than other Miami beaches.*

## Specific Area Description

- Overall Area:**
  - 48 ac (Beach)
  - 30.7 ac (Shaded picnic area, food concession, and a multi purpose field)
  - 10.5 ac (Central Allée)
- Connectivity:**
  - Promenade (asphalt) (1,580 f)
  - Interior Paths (asphalt) & Sidewalks (concrete)
  - North & South Parking Lots
- Amenities:**
  - 6 Restrooms
  - 4 Concession Stands
  - Mahogany Grove Group Picnic Area
  - 13 Lifeguards Stations (350 sf each)
  - Miami Kiteboarding (3,123 sf)
  - Paradise Cover Shelter (1,600 sf)
  - Beach Volleyball courts
  - Childrens Amusement Center (3.68 ac total)
  - Skating Rink Shelter
  - Playground
  - Roller Rink
  - Carousel Shelter



## Character & Intent

Crandon Park Beach fronts the Atlantic Ocean and offers approximately a two-mile long stretch of public beach and palm tree dune landscape open to the public. A wide, paved promenade and service road, running south to north, extends from the Cabanas to the Central Allée to a Picnic Area. Dunes and clusters of coconut palms offer a distinct Florida beach experience.

## Program & Amenities

Open beach for recreation activities only, such as swimming, kitesurfing, sunbathing, walking, jogging, family and informal or non-structured group gatherings and sports.



*The beach is one of the most loved beach in Miami with scenic coconut palm clusters and dunes.*



*View of one of the lifeguard stations through coconut palms*

## Crandon Park Master Plan Design Objectives

- Improve the aesthetic character of the entire Beach with landscaping (partly realized)
- Provide for pedestrian and bicycle access to the beach activity areas (partly realized)
- Provide picnic areas that include open, informal play fields, family picnic tables, small group picnic shelters (partly realized)
- Provide for no more than three concession buildings at convenient locations with limited snack bar food and beverage sales (realized)
- Provide lifeguard observation tower along the shoreline (realized)
- Maintain a 1,000 ft wide "no boat" zone along the beach (realized)
- Provide a Lifeguard Headquarters Tower (realized)
- Provide limited storage for lifeguards' vehicles and boats (realized)
- Provide additional landscaping, including coconut palm groups, dune vegetation and natural plantings throughout all of the Beach areas (partly realized)
- Retain and renovate existing restroom buildings (realized)
- Provide for adequate outdoor showers, restrooms with changing areas and drinking fountains (realized)
- Permit walking, jogging and bicycling, tram and train rides, picnicking, parties, open field games, sunbathing, swimming, nature observation, and limited appropriately scaled special events (partly realized)
- Permit limited appropriately scaled rentals of picnic shelters, umbrellas and lounge chairs with mats (300 maximum) (realized)
- Permit Park management activities, including administrative offices, storage, locker rooms and first aid. (realized)
- Permit limited and appropriately scaled print media and film industries photography (realized)
- Retain and/or renovate all existing permanent structures in the South Florida Vernacular Architectural Style (realized)



*Central Allée is one of the historic features designed by William L. Phillips and heart of Crandon Park.*



*Former running track in the Central Allée*



*Cathedral of aligned palm trees*



*Typical picnic shelter*



*Picnic tables under coconut palms*

## Crandon Park Master Plan Constraints

- Picnic areas are to contain open tables and benches close to the promenade. Behind these are shelters (400 sf) with tables and benches, where groups may gather without concern for rain showers. Shelters in the south picnic areas are to be sized for family groups (900 sf), while those in the north picnic areas are to be larger (1,600 sf) to accommodate larger groups. Some shelters located on the west side might be on stilts with access ramps for ADA accessibility.
- All shelters are to follow the South Florida Vernacular Architectural Style as prescribed in the *Crandon Park Master Plan* (1995).
- New restrooms can be added as their need develops. But they must be constructed approximately 950 feet north of the south concession stand adjacent to the promenade.
- The Central Allée shall contain "no goal posts, backstops, lighting standards, flagpoles, umbrellas, lifeguard towers or anything which would obstruct the view and be incompatible with the design of the Master Plan and of the earlier Phillips plan. Any tree currently blocking the central Allée's openness shall be relocated to other areas of the park. It would be acceptable to develop the central Allée a limited bed of low ground cover, with some open areas for passive activities."<sup>7</sup>
- The existing concession building near the Cabanas and the existing restrooms on the Beach must conform to the South Florida Vernacular Architectural Style.
- A small mobile food vehicle painted with two compatible park colors and free of all exterior advertising and working is permitted to travel on paved areas east of Crandon Boulevard.
- No advertising, promotional signage, flags or bulletins are allowed on the concessions or any other Beach buildings.
- Except for lifeguard and park maintenance vehicles, no motorized vehicles are permitted on the Beach.
- Benches are to be located at approximately 100 ft along the Promenade for resting or viewing Beach activities.
- Signage and buoys are to be placed at a minimum of 1,000 ft offshore.
- All boat access to turtle grass and the fossilized mangrove reef is prohibited.
- Concession areas shall only be constructed or expanded as the Park patronage dictates.

7. Richardson, *Crandon Park Master Plan* (1994), p. 90.



*The only ADA access to beach in poor condition*



*The only ADA picnic table*



*Broken stairs*



*Rusting utilities*



*Unset stepping stones*



*Unmaintained roads*



*Termination of the Promenade*



*Cracked curbs*



*Cracked asphalt*



*Cracked road edge*



*Empty open lawn*



*Playgrounds in poor condition*



*Closed concession stand*



*Closed concession stand with picnic tables*



*Closed concession stand*



*Miami Kiteboarding Rental*



*Concessions are only open on weekends and holidays*

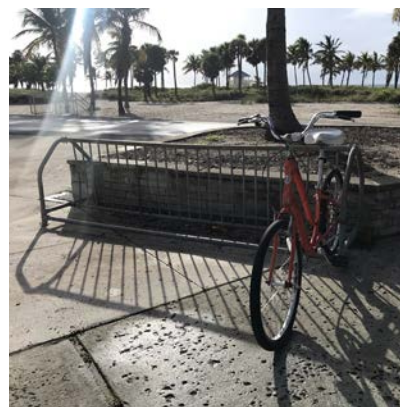


Lifeguard stations are in need of refurbishment



## Performance Analysis & Recommendations

- 👍 Crandon Beach is a main highlight of the Park and main attraction
- 👎 Dune system needs to be examined to become more resilient against sea-level rise and storm surges.
- 👎 He Beach wall restricts access, and acts as a barrier for those circulating from the picnic area to the beach
- 👎 Many paved areas need repair
- 👎 The Promenade needs to be rehabilitated; many steps and pavement areas are in poor condition and are crumbling or cracked
- 👎 Existing ADA accessibility meets minimum standards, but is fairly limited.
- 👎 Operational hindrances, such as the fact that the food concessions and Children's Amusement Center are only open on weekends and holidays
- 👎 Very few bike stations
- 👍 Overall, the day-to-day facilities for Park visitors, such as restrooms, are physically well maintained
- 👍 Picnic Shelters are fairly well maintained, but some site furnishings need repair. There is no site furnishing consistency.



*The only bike station in beach area*



*Beach sand wall acts as a blockage and restricts access from beach to the picnic grounds and vice versa*



*Restrooms and showers are generally in good condition*



*Restrooms with ADA access*



*Storage with ornaments of the South Florida Vernacular Architectural Style*



Amusement Center/Children's Playground is in need of repair and has limited accessibility



Roller Skating Rink



Children's Playground



*Concession stand with concrete paved picnic area and little shade*



*Picnic Carousel in Amusement Center is in poor condition*



Watersports are popular activity in Crandon Beach



Calusa Park

Bear Cut Preserve

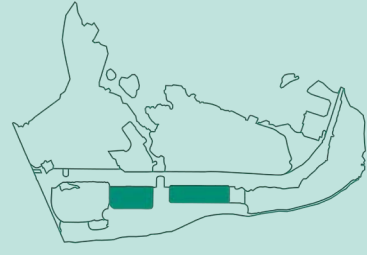
Nature Center

Beach

Parking & Beach Drive

Cabanas

# 11 Parking & Beach Drive



*Crandon Park is serviced by two enormous Parking Lots.*

## Specific Area Description

- Overall Area:** 42 ac (Site)  
North Parking Lot (23 ac / 1,232 spaces spaces)  
South Parking Lot (19 ac / 1,635 spaces)
- Connectivity:** Interior Paths (asphalt) & Sidewalks (concrete)
- Amenities:** Multipurpose Field (5.4 ac)



## Character & Intent

Two large parking lots serve Crandon Beach, Crandon Gardens, Nature Center and Bear Cut Preserve. There are two entrances with information kiosks and out-of-use toll booths that bring vehicular traffic from Crandon Boulevard. The North Parking Lot is broken into two segments and separated by an open lawn, which was once a multipurpose sports field.

## Program & Amenities

The Parking and Beach Drive are meant to provide parking and drop-off areas for visitors.

### Crandon Park Master Plan Design Objectives

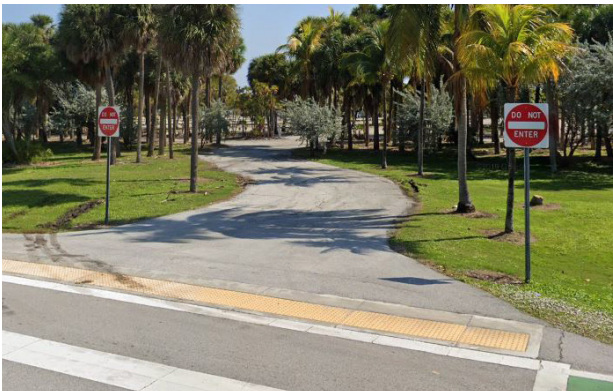
- Provide for vehicular access from both the north and south Crandon Boulevard entrances (realized)
- Improve the efficiency of vehicular access, parking and visitor drop-off (unrealized)
- Create natural yet effective traffic control devices which do not obstruct the Park's scenic qualities (unrealized)
- Improve the aesthetic character of the central Allée and of the Beach Drive (realized)
- Raze existing Park Office, and provide a Park Office at the South Beach Parking Lot toll booth (maximum size 900 sf) in the South Florida Vernacular Architectural Style (realized)
- Permit limited bicycle and roller skate and roller blade rental at the roller rink (realized)
- Permit Park management activities including administrative offices, public information desk and map display in Park office (realized)
- Prohibit any increase of the existing parking spaces and enlargement of other parking areas (realized)
- Provide for the existing Boulevard crossings for pedestrians and bicycles and an additional one upon demand (partly realized)
- Provide for permeable parking surfaces, with permeable or partially permeable walkways and driveways. (unrealized)



Entry to Crandon Gardens



Entry to Central Allée



Pedestrian crosswalk from Tennis Center to South Parking. Confusing for drivers.



Another entry to Central Allée



Entry to North Parking Lot from Crandon Boulevard



Blocked entry



Excess signage to guide drivers evidence the confusion of circulation



Confusing signage



Defunct Pay Booth and Information Kiosk



Closed Information Kiosk



Park Office and Pay Booth



Closed Park Office



Cracked sidewalk



Visual mess, no curbstone edge, garbage bin, signage etc.



Unorganized signage



Pay-by-phone Parking



*Empty fields of asphalt, lack of sustainable materialisation and contemporary parking solutions*

## Crandon Park Master Plan Constraints

- Present parking capacity shall not be expanded. All spaces must be a minimum of 9ft x 20 ft or the appropriate size for the needs of the vehicles.
- Pavers should have a minimum of 70% permeability
- Pedestrian crossings of the Beach Drive between the parking lots and picnic areas, the Central Allée and Beach must be paved with material of different color and texture than that of the Beach Drive to accentuate the crossing lane.
- Clear Drop-off signage must be put in place.
- Coral rock boulders, wood bollards or other natural materials or vegetation is to be used to control access onto the picnic area and Beach without intruding on Park vista's or aesthetic qualities
- Park building providing information to visitors can be no more than 900 sf.
- The multipurpose field can only accommodate "portable, temporary sports equipment for a variety of sports and games, including temporary baseball backdrops, volleyball nets and soccer goals, a new low permanent backstop (maximum height 4ft), and landscaped hedges."<sup>8</sup>

## Other Constraints Identified by this Study

- The current Parking Lots are mostly situated on land below a four-foot elevation, making them vulnerable to sea-level rise and flooding.

8. Richardson, *Crandon Park Master Plan* (1994), p. 88



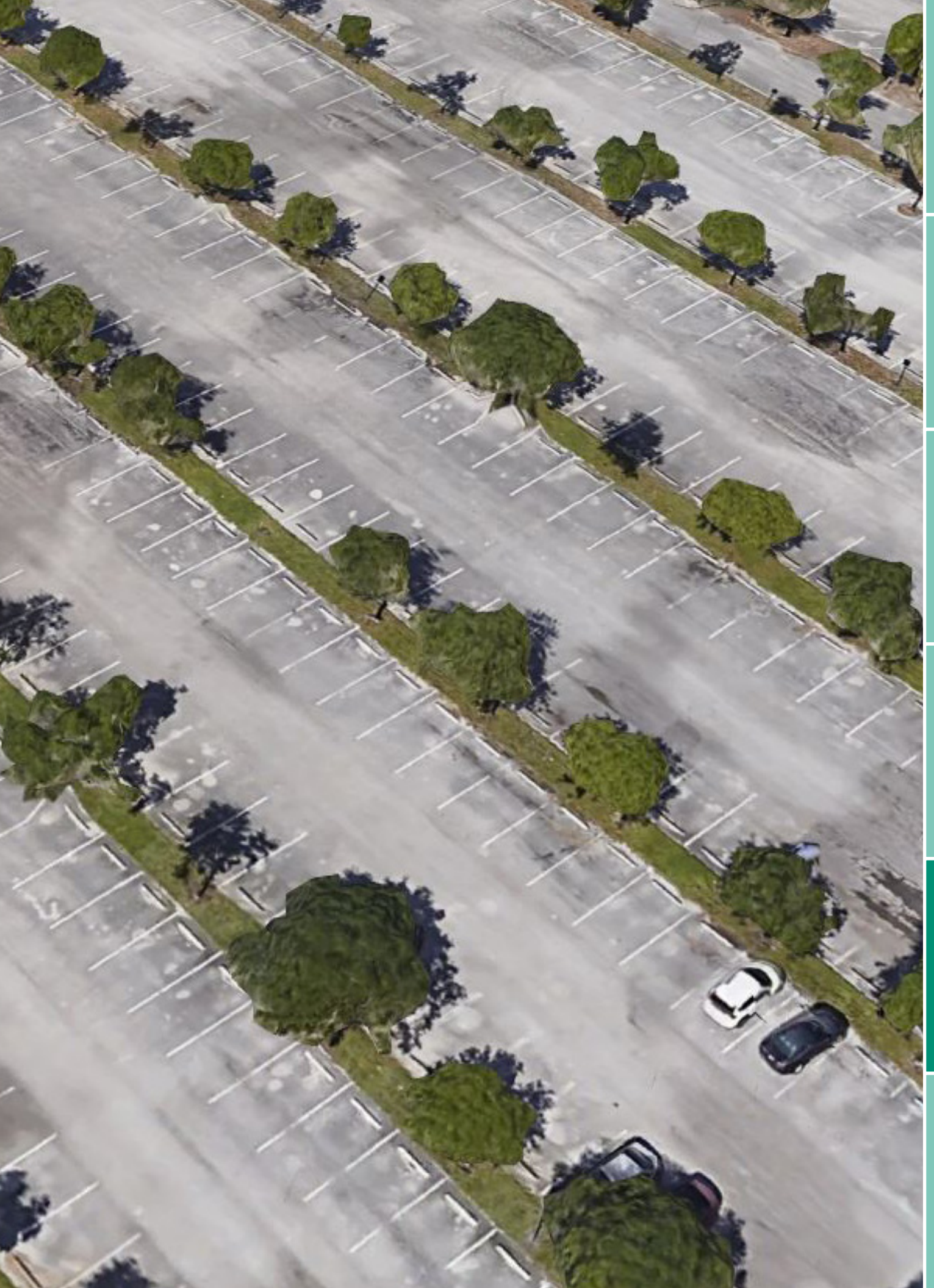
ADA parking with scattered curbstones

## Performance Analysis & Recommendations

- Parking lots are sprawling expanses of asphalt. Need to reassess more sustainable measures (i.e. resilient materiality) and alternative parking solutions and capacity needs. Recommend consulting a traffic engineer to understand current capacity requirements and explore ways to streamline circulation. Contemporary parking solutions and innovations could be explored.
- Overall circulation is confusing; need a clearer drop-off sequence and informational signage and wayfinding.
- Many Parking Lots have temporary blockades, which create a confusing vehicular entry and circulation.
- Paths are in fair condition, with minimum ADA accessibility.
- Sidewalks are only provided on the eastern side of the Park Lots close to the picnic area, but not near Crandon Boulevard. This makes for poor pedestrian connectivity from Key Biscayne to the beach.
- Bike stations are lacking
- Information kiosks and toll booths are defunct since visitors pay by phone. Need to reconsider how these structures might better serve Park patrons in helping provide information and orientation. They are often littered with confusing small signage.
- Pathway system from the Parking Lot through the Picnic Grounds to the Beach is broken and disconnected. Recommend assessing a more continuous network and sequence of experience from vehicular drop-off to Crandon Beach.
- The Multi-purpose Sports Field is underutilized and feels orphaned from the rest of the active programming in the rest of the Park and Beach. The existing baseball field was removed.
- Native tree plantings in the Picnic Area are flourishing well and provide substantial tree canopy.



*Empty asphalt parking lots do not meet contemporary standards and create a hostile environment for pedestrians*



Calusa Park

Bear Cut Preserve

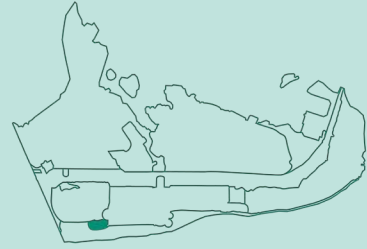
Nature Center

Beach

Parking & Beach Drive

Cabanas

# 12 Cabanas



Rentable cabanas provide additional beach amenities for Park visitors.

## Specific Area Description

**Overall Area:**

- 4 ac (Site)
- Cabana #1
- Cabana #2
- Cabana #3
- Cabana #4
- Cabana #5
- Cabana #6
- Parking Lot

**Connectivity:**

- Side Road off of the Rickenbacker Circle
- Drop-off Area

**Amenities:**

- Parking Lot (55 spaces)



## Character & Intent

There are six Cabana buildings located at the southeast edge of the Beach. Most are one-story, flat roofed, rectangular units (8 ft x 10 ft), grouped in zigzag arrangement. A two-story structure at the center is semi-circular, with slightly larger trapezoidal units. Parking is provided by a small lot nearby and the southern parking lot. These cabanas were part of Phillip's *Vision Plan*, as seen in early Cabana postcards from the 1950s.

## Program & Amenities

The Cabanas provide Park patrons shelter from the sun and storage for chairs, umbrellas and other beach accessories. They also come with a private shower and rentable parking space. The cabanas spaces are rented by the day; however, it is difficult to find where and how to reserve a cabana.



*Circular cabana appear in overall good condition*



*Grove of coconut palm trees in front of the cabanas for picnicing*

## Crandon Park Master Plan Design Objectives

- ✓ Provide for vehicular access from South Beach Parking Lot by permit only (realized)
- ✓ Provide for pedestrian and bicycle access to the Cabanas and grounds (realized)
- ✓ Redesign the existing Cabanas using the existing structure footprint, but in groups of three or four with common space between, and new Cabanas to conform to South Florida Vernacular Architectural Style for all Crandon Park buildings (realized)
- ✓ Provide upon demand new Cabanas south of the existing Cabana foundations for up to six renters (realized)
- ✓ Retain the existing restroom and concession structures serving the Cabanas (realized)
- ✓ Permit daily, weekly, monthly and seasonal rental of Cabanas (realized)



*Cabana porch interior*



Cabana courtyard



Rentable storage



Adjacent road to Cabana's parking in very poor condition

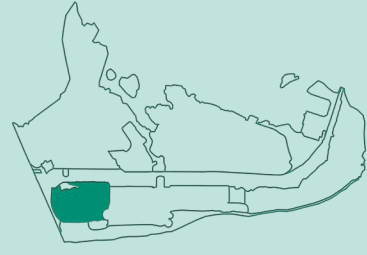
## Crandon Park Master Plan Constraints

- Cabanas must follow the South Florida Architectural Style.
- A few additional, small groups of three or four units may be constructed to the south depending upon patron demand.
- No more than 40% of the Cabanas must follow the South Florida Architectural Style available may be rented on a seasonal basis and those rented Cabanas must follow the South Florida Architectural Style. Renters must be selected seasonally by an independently run lottery system. All other patrons are eligible to rent a cabana on a rotating first come first serve basis.

## Performance Analysis & Recommendations

- 👍 Cabanas are in overall good condition and appear to be well maintained and used.
- 👍 Need to reassess the entry sequence and the best means of vehicular access. Current road is underutilized

# 13 Crandon Gardens



*Crandon Gardens was transformed from a former zoo and contains many abandoned relics and structures.*

## Specific Area Description

**Overall Area:**

46.6 ac (Site)

**Connectivity:**

South Parking Lot

Bike Path from the Village of Key Biscayne (along Crandon Blvd)

Interior Paths (asphalt) & Sidewalks (concrete)

Bridge (not in use)

**Amenities:**

Restroom (645 sf)

Garden Office (720 sf) - not in use

Crandon Park Peacock Shelter (1250 sf)

Crandon Park Ibis Shelter (1250sf)

Picnic Pavilions (450 sf each)

Various Converted Zoo Structures

Petting Zoo - not in use

Canoe Launch

Swing

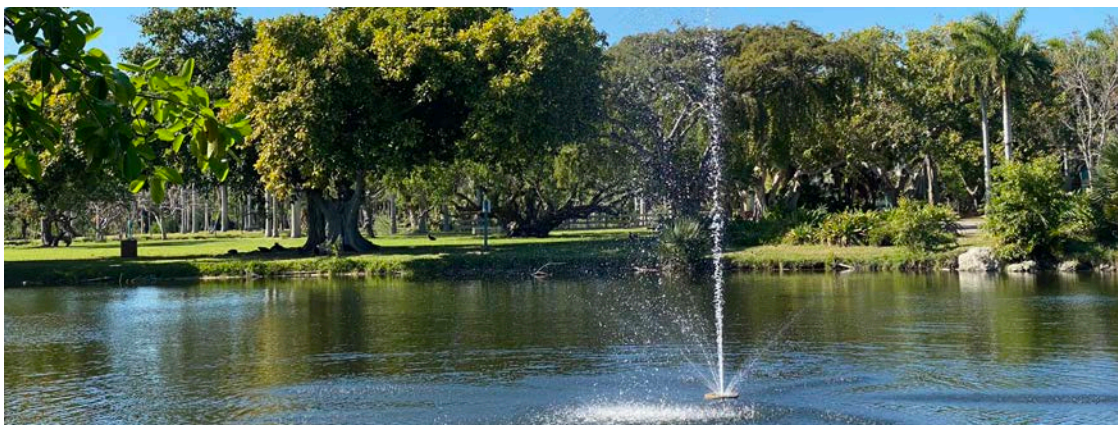
Overlook

## Character & Intent

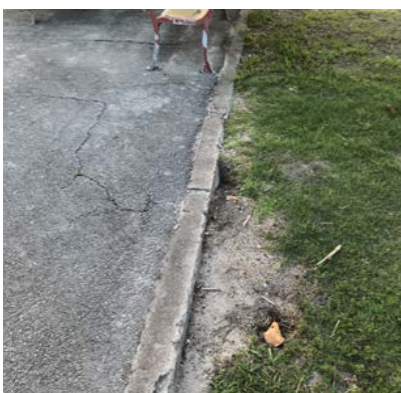
Once the home of the Crandon Park Zoo (which closed in 1980), the current Gardens are the result of the 1987 Master Plan which sought to transform the area into a site into a tropical and native garden populated with art and other cultural features. This plan was never fully realized. Today, many of the existing zoo structures have been converted into picnic pavilions or curious follies in the landscape. Many types of native and exotic vegetation exist, which Richardson identified: 1) Mixed Coastal Hardwood Hammock; 2) Mangrove Creek; 3) Date Palm; 4) Casuarina, and 5) Cultivated Ornamental. Over 160 species of migratory birds use the Garden's trees and waterways. It is meant to be a garden of exploration, discovery and mystique; however today it is greatly underutilized with no specific program or function.

## Program & Amenities

The Garden is meant to be appreciated as a botanical garden of South Florida and tropical Caribbean plantings enhanced through "sensitive, limited integration of people-friendly functional art, of art that defines a journey and of historical cultural features (e.g., old plantation structures)." Educational signage of the Garden's various vegetation is meant to inform Park visitors; however, very little actually exists today. In addition, visitors are meant to enjoy site-specific artworks, which can be painted on the abandoned zoo structures. Waterways are accessible by canoe; however, they do not connect to form a logical route for canoers to explore. Although not built, a Petting Zoo is also part of the planned program, as is a canoe launch building.



*Small lakes and canals that were part of the former zoo design remain today*



*Overall hardscape is in poor condition*



*Crumbling walls in the Overlook*



*Concrete-lined former zoo pond*



*Broken pathways*



Former zoo cage converted into a picnic shelter

## Crandon Park Master Plan Design Objectives

- Provide for vehicular access from Crandon Boulevard (partly realized)
- Provide for pedestrian and bicycle access to the Gardens (partly realized)
- Promote walking, nature observation, picnicking and limited noncommercial art appreciation (partly realized)
- Permit interpretative activities of the Park's historic, cultural and environmental resources (partly realized)
- Permit limited shelter and grounds rental (unknown)
- Permit appropriately scaled special events (unknown)
- Introduce limited canoeing (realized, but not well advertised)
- Retain and/or renovate all Master Plan permitted existing and future structures in the South Florida Vernacular Architectural style (realized)
- Except as specifically provided in this Master Plan, implement the general goals and objectives of the "Master Plan for the Gardens at Crandon Park" set forth as Appendix U (partly realized)





*Some of the cages were painted with murals*

## Crandon Park Master Plan Constraints

- No artist in residence or art studio building is permitted in the Gardens. There are also restrictions regarding the representations of natural flora and fauna.
- Guide map is to be relocated in the Matheson's Garden area or on the Park administrative office.
- Two picnic shelters are limited to 1,600 sf each
- Passive recreation activities are permitted.

## Other Constraints Identified by this Study

- Most of the Crandon Gardens is set on land below 4ft above sea-level, making it vulnerable to sea-level rise and flooding.



Abandoned structures that is inaccessible to the public



Poorly maintained structures



Crumbling Picnic Shelter



Ibis Picnic Shelter



Swing



Bench



Bench



Wall Segment



*Uninviting entrance to Crandon Gardens from North Parking Lot West side*



*Fenced off entrance to Crandon Gardens from North Parking Lot Middle side*



*Gated entrance to Crandon Gardens from North Parking Lot East side leading to Main Entrance*



*Main Entrance to Crandon Gardens is fenced off and visually underwhelming*

## Performance Analysis & Recommendations

- Abundance of wildlife and vegetation.
- Entry to the Crandon Gardens is not well framed
- Lack of path hierarchy
- Existing paths and pavement are often cracked, and roots are growing
- Picnic pavilion is falling apart
- Walls around the Overlook are crumbling
- The planned Petting Zoo and Plantation housing is not open to the public
- Poor signage and information signage
- Poor educational signage
- Expand cultural and art programming within the Gardens
- There are many exotic flora and fauna in the Crandon Gardens. While this Garden is an opportunity to create a “tropical paradise” filled with art, an environmental consultant should assess the current mix of native and exotic flora and fauna, and determine a management plan.
- Further study to examine what kind of Crandon Gardens programming could better serve Park patrons



*Natural beauty of Crandon Gardens remains an attraction*



Gardens

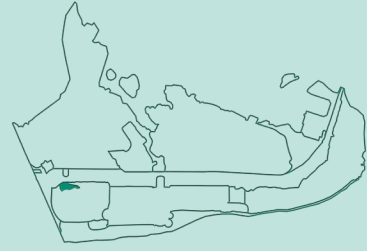
Service Area

Fire Station

Substation

Archaeological sites

# 14 Service Area



*Service Area is located off of Crandon Boulevard near Crandon Gardens*

## Specific Area Description

**Overall Area:**  
**Connectivity:**

1.94 ac (Site)  
Entrance drive from Crandon Boulevard

## Character & Intent

The Service Area is located between Crandon Boulevard and Crandon Gardens. It is meant for park staff use and occupation only and is therefore fenced off from the public.


### Crandon Park Master Plan Design Objectives

- Provide for vehicular access from the Crandon Boulevard Rotary (realized)
- Screen completely the maintenance area from all Park roads, paths and walkways (realized)
- Clean up, organize, and properly maintain all material and equipment (realized)
- Provide security for machines, materials and records (unknown)
- Provide for a garbage/trash compactor or in the future, a more technologically advanced device for temporary storage of Park refuse (unknown)
- Retain and/or renovate all existing structures (unknown)
- Retain park service activities, including vehicle and machine maintenance and storage, materials storage, tool storage, trade shops and offices, staff lunch room and fuel pumps (unknown)
- Provide a means to chip and/or mulch and recycle the Park's vegetative matter (unknown)

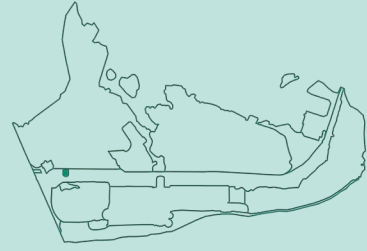
## Crandon Park Master Plan Constraints

- Service Area is to remain in its present location, with no change in size.
- Any buildings in need of repair or restoration are to follow the South Florida Vernacular Architectural Style. Sides must be painted sage green to help them blend into the surrounds.
- Any exotic plantings or prohibited flora or nuisance fauna, as defined by Metropolitan Dade County Code, shall be managed and removed by the Dade County Department of Environmental Resource Management or other judicated agencies

## Performance Analysis

-  Overall, the Service Area is well screened and continues to serve its maintenance functionality.

# 15 Fire Station



*Fire Station is located on the west side of Crandon Boulevard and is operated by Dade County Fire Department*

## Specific Area Description

**Overall Area:**  
**Connectivity:**

0.58 ac (Site)  
Entrance drive from Crandon Boulevard



## Character & Intent

The Fire Station is currently located in a Park building with frontage on the west side of Crandon Boulevard just north of the Crandon Boulevard Rotary in an area of 0.58 ac. The Station is manned and operated by Dade County Fire Department.

## Program & Amenities

The Fire Station serves all fire and rescue activities for Crandon Park and Key Biscayne Village.

### Crandon Park Master Plan Design Objectives

- ✓ Provide for vehicular access from Crandon Boulevard (realized)
- ✓ Permit Fire/Rescue activities only if the Park is served from this station by the Dade County Fire Department (realized)
- ✓ Retain and/or renovate all existing permanent structures in the South Vernacular Architectural Style (realized)

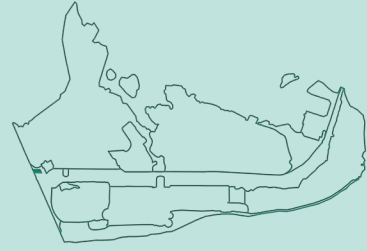
## Crandon Park Master Plan Constraints

- Operated by Dade County Fire Department
- Building design should abide by the South Florida Vernacular Architectural Style
- Plantings along its frontage are consistent with the landscape character of Crandon Boulevard
- There shall continue to be a traffic light and median strip cut-through opposite the Fire Station's driveway

## Performance Analysis

- 👍 Overall, the physical appearance of the Fire Station is in good condition.

# 16 Substation



*Substation is located near Calusa Park on the west side of Crandon Boulevard.*

## Specific Area Description

**Overall Area:**  
**Connectivity:**

0.4 ac (Site)  
Entrance drive from access road to Calusa Park

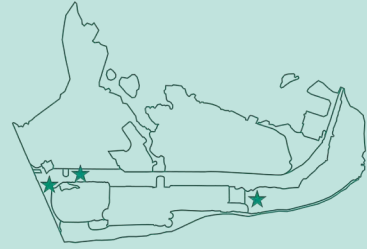
## Character & Intent

The Florida Power & Light Company Substation is located along Crandon Boulevard near Calusa Park. A utility easement runs along the west side of Crandon Boulevard.

## Performance

The Substation is currently fenced off and well screened by surrounding vegetation.

# 17 Archaeological Sites



*Historic image of one of the archaeological sites. These areas are documented in the Master Plan, but they are not visible to the public and do not appear to be protected.*

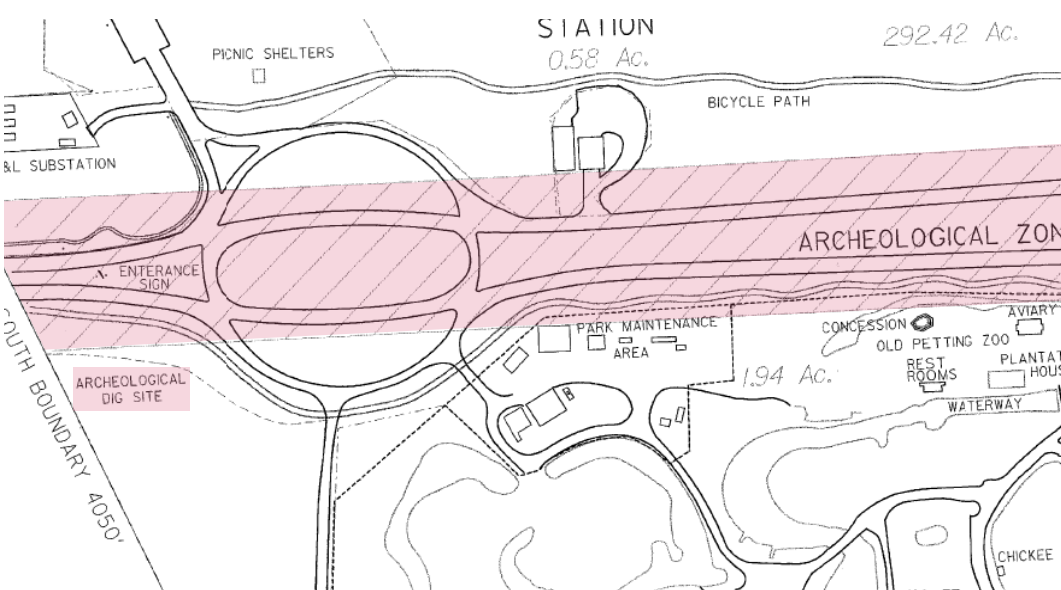
## Specific Area Description

### Sites:

- Bear Cut Dune Site - 8DA5247
- Crandon Median Site - 8DA5248
- Crandon Dune Site - 8DA5249

## Character & Intent

Three archaeological sites were discovered on Crandon Park after Hurricane Andrew in 1992. The archaeological sites are among the most significant in Dade County, offering an important scientific record of prehistoric Tequesta Indian settlement and subsistence patterns on Key Biscayne. Currently untapped, these offer an excellent opportunity for Park patrons and the local community to learn about the area's prehistory.



Archeological Zone and Archeological Dig Site drawn in Crandon Park Master Plan (1995)

### Crandon Park Master Plan Design Objectives

- Provide for and protect existing and future archaeological sites (partly realized)
- Furnish interpretive signage for public education (not realized)
- Stimulate public awareness by providing information about prehistoric patterns of Tequesta Indians on Key Biscayne through non-commercial interpretive activities in the Crandon Park Gardens (not realized)

## Crandon Park Master Plan Constraints

- Preservation of the Archaeological sites is a first priority
- Any sites or features that cannot be preserved should be salvaged under the direction of an archaeologist.
- Possible monitoring of the sub-surfacing of some sites by an archaeologist may be necessary.
- Removal of exotic plants from archaeological sites might require herbicides, above-ground cutting and hand labor instead of heavy equipment.
- To minimize impact, planting around the archaeological sites may need to be small in scale and planted by hand
- The Sites are to be managed according to Dade County ordinances, and potential ground disturbances are to be monitored, minimized or avoided altogether.

## Performance Analysis and Recommendations

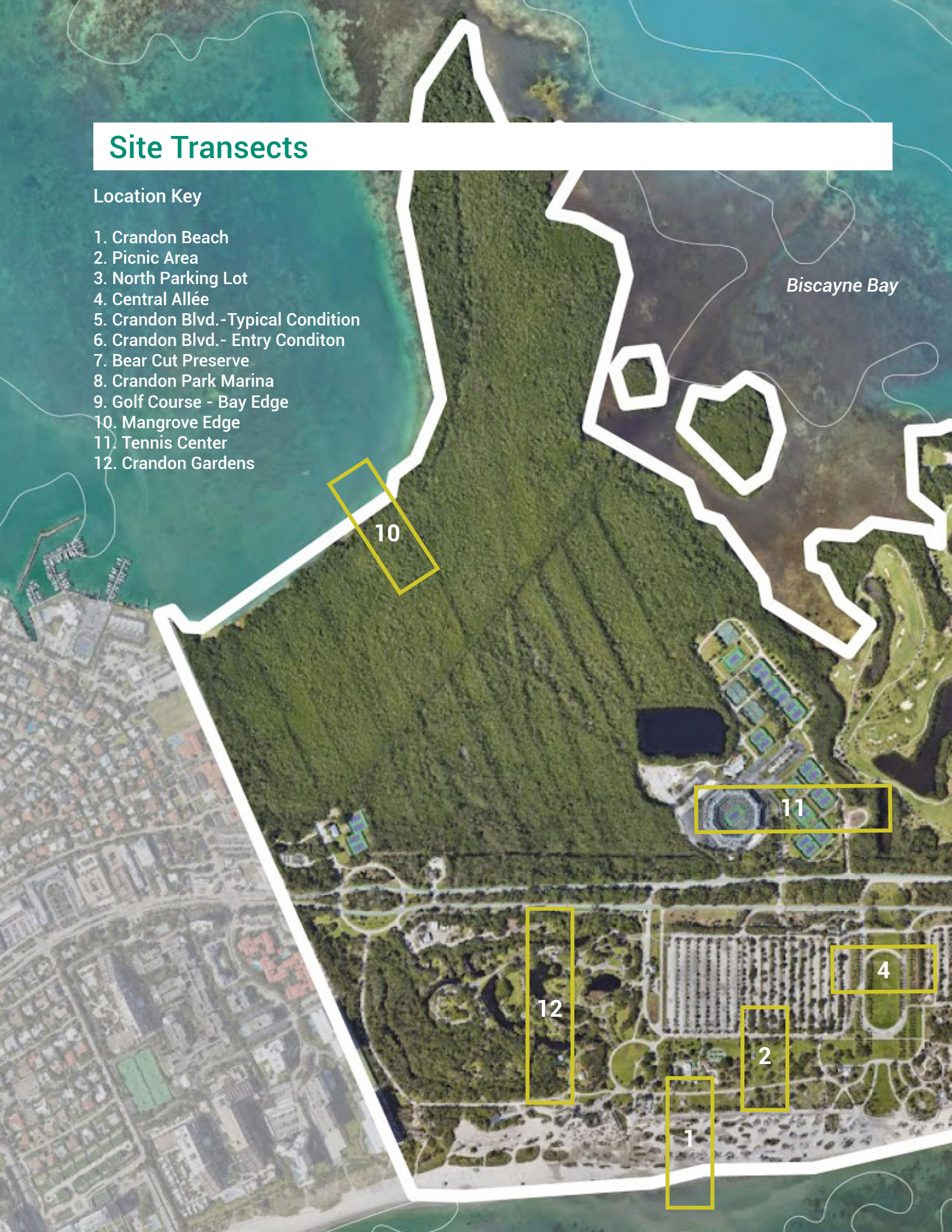
- These archaeological sites are documented in the 1995 Master Plan, but there is no educational signage for the benefit of visitors.
- Site 8DAA5249, where numerous Tequesta house sites are located, is a good candidate for public interpretation, given its proximity to the adjacent bike and pedestrian trail.
- Two of the sites (8DA5427 and 8DA5249) are located near the bike and pedestrian trail. Interpretive signage and outdoor exhibits can be used to complement and educate passing visitors, particularly near the one near Crandon Gardens.
- Site 8DA5249, which has many post holes of Tequesta houses, can be enhanced by placing one-foot-high wooden posts above ground to provide a “footprint” of the house.



# Site Transects

## Location Key

1. Crandon Beach
2. Picnic Area
3. North Parking Lot
4. Central Allée
5. Crandon Blvd.-Typical Condition
6. Crandon Blvd.- Entry Conditon
7. Bear Cut Preserve
8. Crandon Park Marina
9. Golf Course - Bay Edge
10. Mangrove Edge
11. Tennis Center
12. Crandon Gardens



Biscayne Bay

10

11

12

4

2

1





Atlantic Ocean

Fossilized Reef

Bear Cut

Bear Cut Bridge

3

5

9

7

6

8



1000 ft

# Site Transects Catalog

Summary of Typical Existing Conditions



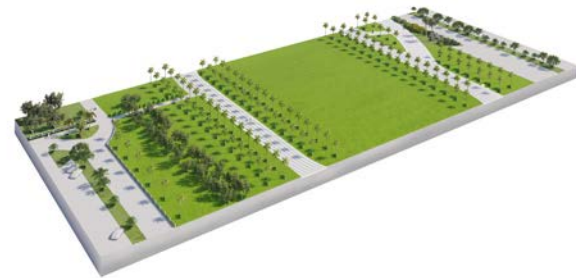
1. Crandon Beach



2. Picnic Area



3. North Parking Lot



4. Central Allée



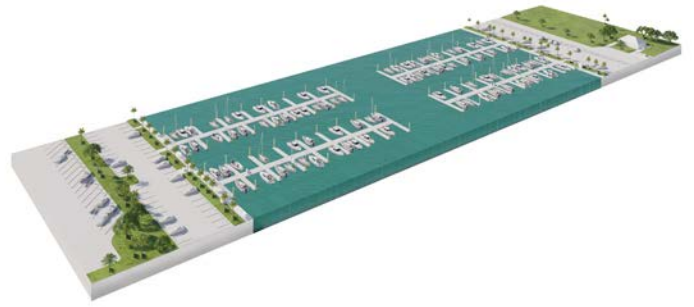
5. Crandon Blvd. - Typical Condition



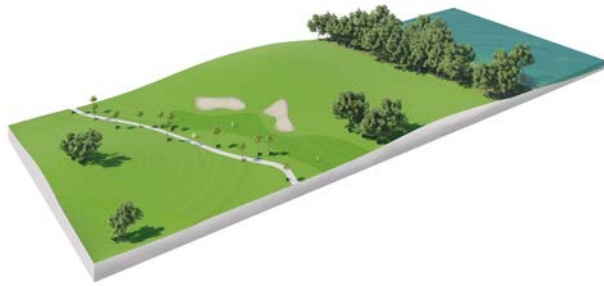
6. Crandon Blvd. - Entry Condition



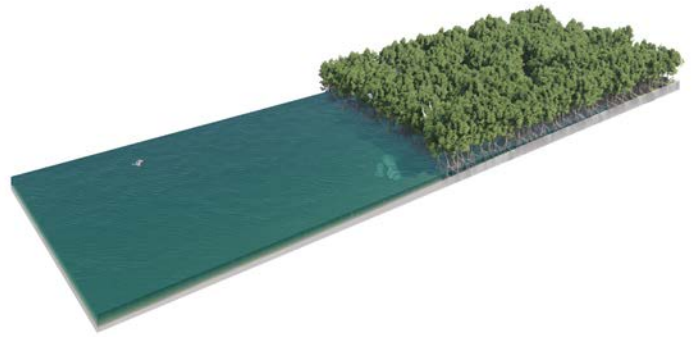
7. Bear Cut Preserve



8. Crandon Park Marina



9. Golf Course - Bay Edge



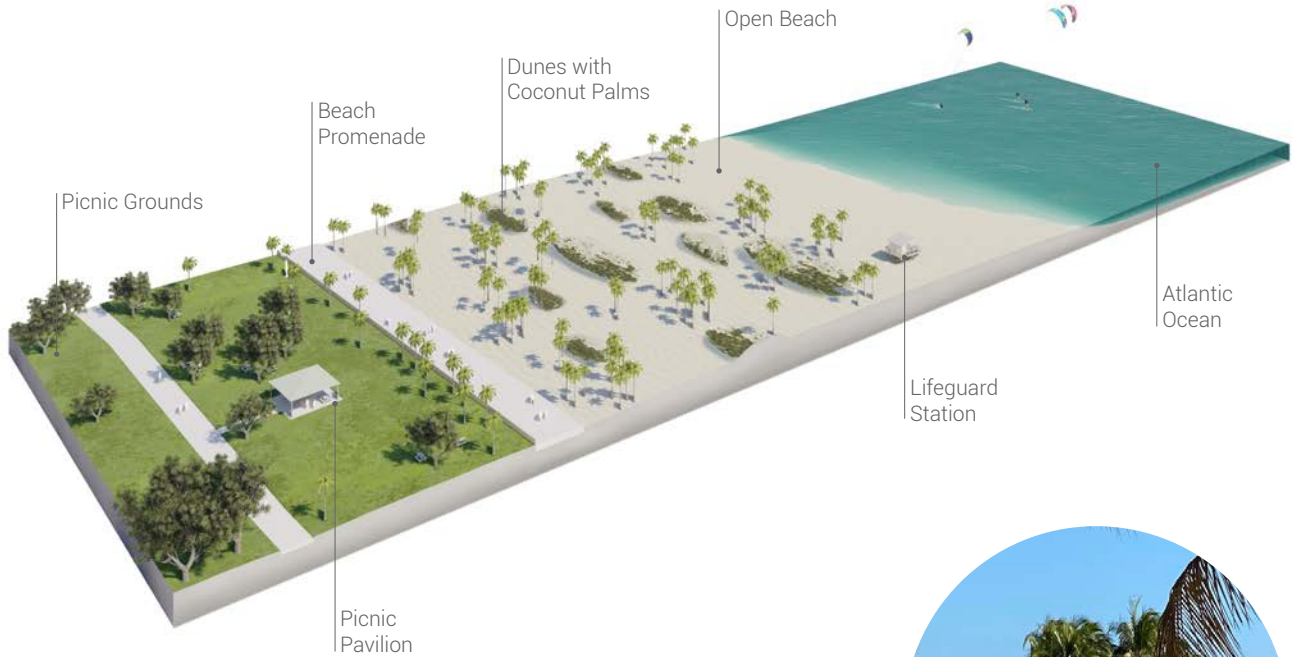
10. West Point Preserve - Mangrove Edge



11. Tennis Center



12. Crandon Gardens



Lifeguard Station

## 1. Crandon Beach

### Open Beach, Coconut-planted Dunes and Promenade

Crandon Beach is characterized by a 1.5 mile-long stretch of open beach and grassy dunescape scattered with the Park's iconic coconut palm trees. Facing a stunning view of the Atlantic Ocean, the beach is one of the Park's greatest attractions, offering a range of watersport activities, such as swimming, kiteboarding, canoeing and kayaking, as well as space for sunbathing and beach volleyball. There is also a Promenade for walking, rollerblading and cycling. Three of the main challenges of this zone are how to buffer the impact of sea-level rise and storm surges, manage shoreline erosion, and creating an inviting circulation and access (particularly for ADA).





Picnic Pavilion

## 2. Picnic Area

### Passive Recreational Areas

Sandwiched between Crandon Beach and the Parking Lots, various Picnic Shelters and large broad-headed native trees provide much-needed shade and barbecues for visitors. These grounds are directly connected via concrete pathways to the Parking Lots. Three primary challenges for this area are to better maintain the physical appearance of the site furnishings, enhance the existing circulation for pedestrians and bicyclists, and reconsider how the programming might best fit the needs of its visitors.





Asphalt Parking Lot

### 3. North Parking Lot

#### Tree-lined Parking Lots

Crandon Park is serviced by two large Parking Lots – the North (illustrated here) and South – shaded by broad-headed native trees. These lots can accommodate up to 1232 cars and cover 10.7 acres of impervious (asphalt and concrete) surface. Designed by William L. Phillips in the 1940s, these lots were built for a time that prioritized automobility instead of more sustainable forms of transit (public transit, cycling and walking). The primary challenges of this zone are to reduce the amount of parking for current visitor capacities, introduce resilient materials (i.e. permeable pavement) to make this area more sustainable, and improve circulation and access.





*Coconut Palm Cathedral*



*View to Atlantic Ocean*

## 4. Central Allée

### Cathedral of Trees and Open Lawn

The Central Allée is the heart of Crandon Park and an original feature designed by William L. Phillips. It establishes the Park's two main axes and captures a stunning vista to the Atlantic Ocean framed by a cathedral of banyan and coconut palm trees. The two main challenges of this area are finding ways to activate the open lawn while preserving its historic character and identity and also opening up the opposing view shed near the Lagoon on the other side of Crandon Boulevard to a vista of Biscayne Bay and City of Miami.





*Crandon Boulevard Green Tunnel*

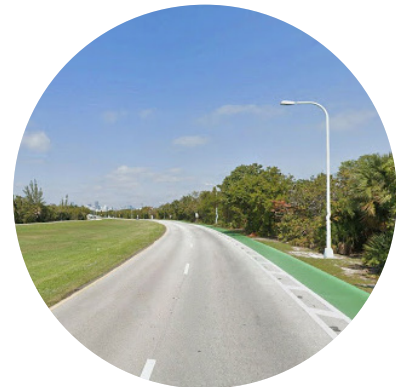
## 5. Crandon Boulevard - Typical Condition

### Split Road with Dense Native Planting in Median

Crandon Boulevard is the spine of Crandon Park, providing the only means of vehicular access from the mainland. It is notable as an original feature designed by William L. Phillips as a parkway. Its typical condition is a split four-lane road with coconut palm trees planted on the edge and frontages and a densely planted median of native trees. Intermittent bus stops and 6ft-bike lanes on both sides also provide means of other forms of transit. Some of the main challenges that the Boulevard faces today are the fact that it segregates the Park, has an overwhelming number of confusing access points, high traffic speeds, and suffers from overgrowth and invasive species. The low elevation of the road itself also makes it vulnerable to sea-level rise and storm surges.







*Crandon Boulevard Entry*

## 6. Crandon Boulevard - Entry Condition

### Open Lawn framed by Dense Planting

Entry into Crandon Park is characterized by a split four-lane road with an open lawn framed by dense coconut palm trees and native plantings. A meandering 10-ft bike and pedestrian trail (Fossilized Reef Trail) provides a more leisurely recreational experience for visitors. The main challenge facing this area is lack of a welcome experience or gateway moment for entrance into the Park. Unknowing visitors do not have marked visual cues that help them recognize that they have even entered park land.





*Dirt path*



*Eroding Shoreline*

## 7. Bear Cut Preserve

### Protected Natural Area with Nature Trails

Bear Cut Preserve is one of Crandon Park's three protected natural preserves appreciated for its nature trails, boardwalk and ancient fossilized reef, which is unique. It is often used today as an outdoor laboratory for the Marjory Stoneman Douglas Biscayne Nature Center, whose mission is to educate children and visitors about the Park's ecology and history. Situated on the Atlantic side of the barrier island and at a slightly higher elevation (5-6ft on average), its landscape is characterized by a mix of coastal strand, upland hammocks, and mangrove wetlands and marshes. This area plays a particularly important role as a buffer against sea-level rise and storm surges. The main challenges facing this zone are managing invasive species, such as Australian Pine, restoring areas still recovering from damage from Hurricane Andrew in 1992, and maintaining trail safety and interpretive signage.





*Marina Walkway*

## 8. Crandon Park Marina

### Docks, Parking Lot & Pelican Point Picnic Area

The Marina is the gateway program into Crandon Park and a popular attraction. It offers a range of water-related amenities: docks for chartered and fishing boats, scuba diving classes, fish and tackle shop, parking, picnic shelters and open lawn on its northern side called Pelican Point. A fenced-off area also offers protection for tern nesting grounds and riprap along with mangroves help stabilize erosion on its northern shoreline. The main challenges for this area are the fact that the current master plan restricts development and other means of establishing the Marina as a world-class waterfront destination in Biscayne Bay. Popular anchor programs, such as Sundays On The Bay restaurant, for instance, were never replaced.





*Golf Berms*

## 9. Golf Course - Bay Edge

### Active Recreation Area with Mangrove Edge

The Golf Course is one of Crandon Park's main active recreation areas and has previously been rated as one of the best courses in the United States. Besides the 18-hole fairways, the area also contains a Clubhouse with a Golf Proshop and Restaurant, as well as the Arraya Tennis Center with clay tennis courts and maintenance area. Its landscape character is defined as an open recreational lawn with various tropical plantings and a mangrove edge along Biscayne Bay. The main challenge that this zone faces is its vulnerability to sea-level rise and storm surges, having a low elevation of 3ft. The allocation of its buildings and structures are also very disconnected from the rest of the Park.





*Red Mangroves on Coastal Edge*

## 10. West Point Preserve - Mangrove Edge

### Protected Wetland Preserve along Biscayne Bay

The West Point Preserve and its Mangrove Islands are protected wetlands characterized by mangrove hammocks, two canals (former mosquito ditches) and a man-made lake called Brown Pelican Lake. The main challenge of this area, which encompasses 238 acres, is that it is currently inaccessible to the public despite previous planning efforts for a boardwalk nature trail loop and canals navigable by canoe/kayak. There is also no interpretive signage educating park visitors about this delicate ecosystem and its important role in protecting Florida's coastline.





## 11. Tennis Center

### Stadium, Tennis Courts and Lagoon

The Tennis Center is another of Crandon Park's main active recreation areas that was built as a later addition to host internationally-acclaimed tennis tournaments. It complex includes a 7,500 permanent seat Stadium, 27 Tennis Courts, a Clubhouse, Parking Lot and maintenance facilities. Nearby a Lagoon is also shrouded by dense vegetation. The main challenge of this zone is that since the Miami Open move venues this complex has largely become defunct and is car-oriented. The area is also built on a former landfill and it is not known if remediation is required. The current Master Plan restricts programmatic changes and this area's ability to adapt to today's visitors' recreational needs and interests.





*Scenic view of Crandon Garden Lakes*

## 12. Crandon Gardens

### Botanical Garden and Lakes

Crandon Gardens is a botanical garden filled with meandering paths, waterways, picnic shelters and relics of former zoo structures. This area faces many challenges. Overall, the concrete and asphalt pathways, structures and relics have fallen into a state of disrepair. Although the current Master Plan rezoned the Garden, these changes are not evident today. Furthermore, programmatic and aesthetic restrictions have impaired future improvement to this area by adapting to meet the needs and interests of its visitors and neighboring communities.









## Credits

*Prepared for*

**Citizens for Park Improvement (CPI)**

*Elaborated by*

### **West 8 Team**

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| Steve Vitoff     | <i>Marino PR and Strategic Communications</i>   |
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See *Crandon Park: A Call for Change - Executive Summary* for full list of Acknowledgments.







