
National Park Service
Cultural Landscapes Inventory
2010



Boca Chita
Biscayne National Park

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Inventory Summary

The Cultural Landscapes Inventory Overview:

CLI General Information:

Purpose and Goals of the CLI

The Cultural Landscapes Inventory (CLI) is an evaluated inventory of all significant landscapes in units of the national park system in which the National Park Service has, or plans to acquire any enforceable legal interest. Landscapes documented through the CLI are those that individually meet criteria set forth in the National Register of Historic Places such as historic sites, historic designed landscapes, and historic vernacular landscapes or those that are contributing elements of properties that meet the criteria. In addition, landscapes that are managed as cultural resources because of law, policy, or decisions reached through the park planning process even though they do not meet the National Register criteria, are also included in the CLI.

The CLI serves three major purposes. First, it provides the means to describe cultural landscapes on an individual or collective basis at the park, regional, or service-wide level. Secondly, it provides a platform to share information about cultural landscapes across programmatic areas and concerns and to integrate related data about these resources into park management. Thirdly, it provides an analytical tool to judge accomplishment and accountability.

The legislative, regulatory, and policy direction for conducting the CLI include:

National Historic Preservation Act of 1966 (16 USC 470h-2(a)(1)). Each Federal agency shall establish...a preservation program for the identification, evaluation, and nomination to the National Register of Historic Places...of historic properties...

Executive Order 13287: Preserve America, 2003. Sec. 3(a)...Each agency with real property management responsibilities shall prepare an assessment of the current status of its inventory of historic properties required by section 110(a)(2) of the NHPA...No later than September 30, 2004, each covered agency shall complete a report of the assessment and make it available to the Chairman of the Advisory Council on Historic Preservation and the Secretary of the Interior... (c) Each agency with real property management responsibilities shall, by September 30, 2005, and every third year thereafter, prepare a report on its progress in identifying... historic properties in its ownership and make the report available to the Council and the Secretary...

Secretary of the Interior's Standards and Guidelines for Federal Agency Historic Preservation Programs Pursuant to the National Historic Preservation Act, 1998. Standard 2: An agency provides for the timely identification and evaluation of historic properties under agency jurisdiction or control and/or subject to effect by agency actions (Sec. 110 (a)(2)(A) *Management Policies 2006.* 5.1.3.1 Inventories: The Park Service will (1) maintain and expand the following inventories...about cultural resources in units of the national park system...Cultural Landscape Inventory of historic designed landscapes, historic vernacular landscapes,... and historic sites...

Cultural Resource Management Guideline, 1997, Release No. 5, page 22 issued pursuant to Director's Order #28. As cultural resources are identified and evaluated, they should also be listed in the appropriate Service-wide inventories of cultural resources.

Responding to the Call to Action:

The year 2016 marks the 100th anniversary of the National Park Service. A five-year action plan entitled, “*A Call to Action: Preparing for a Second Century of Stewardship and Engagement*” charts a path toward that second century vision by asking Service employees and partners to commit to concrete actions that advance the agency’s mission. The heart of the plan includes four broad themes supported by specific goals and measurable actions. These themes are: Connecting People to Parks, Advancing the NPS Education Mission, Preserving America’s Special Places, and Enhancing Professional and Organizational Excellence. The Cultural Landscape Inventory relates to three of these themes:

Connect People to Parks. Help communities protect what is special to them, highlight their history, and retain or rebuild their economic and environmental sustainability.

Advance the Education Mission. Strengthen the National Park Service’s role as an educational force based on core American values, historical and scientific scholarship, and unbiased translation of the complexities of the American experience.

Preserve America’s Special Places. Be a leader in extending the benefits of conservation across physical, social, political, and international boundaries in partnership with others.

The national CLI effort directly relates to #3, Preserve America’s Special Places, and specifically to Action #28, “Park Pulse.” Each CLI documents the existing condition of park resources and identifies impacts, threats, and measures to improve condition. This information can be used to improve park priority setting and communicate complex park condition information to the public.

Responding to the Cultural Resources Challenge:

The Cultural Resources Challenge (CRC) is a NPS strategic plan that identifies our most critical priorities. The primary objective is to “*Achieve a standard of excellence for the stewardship of the resources that form the historical and cultural foundations of the nation, commit at all levels to a common set of goals, and articulate a common vision for the next century.*” The CLI contributes to the fulfillment of all five goals of the CRC:

- 1) *Provide leadership support, and advocacy for the stewardship, protection, interpretation, and management of the nation’s heritage through scholarly research, science and effective management;*
- 2) *Recommit to the spirit and letter of the landmark legislation underpinning the NPS*
- 3) *Connect all Americans to their heritage resources in a manner that resonates with their lives, legacies, and dreams, and tells the stories that make up America’s diverse national identity;*
- 4) *Integrate the values of heritage stewardship into major initiatives and issues such as renewable energy, climate change, community assistance and revitalization, and sustainability, while cultivating excellence in science and technical preservation as a foundation for resource protection, management, and rehabilitation; and*
- 5) *Attract, support, and retain a highly skilled and diverse workforce, and support the development of leadership and expertise within the National Park Service.*

Scope of the CLI

CLI data is gathered from existing secondary sources found in park libraries, archives and at NPS regional offices and centers, as well as through on-site reconnaissance. The baseline information describes the historical development and significance of the landscape, placing it in the context of the landscape's overall significance. Documentation and analysis of the existing landscape identifies character-defining characteristics and features, and allows for an evaluation of the landscape's overall integrity and an assessment of the landscape's overall condition. The CLI also provides an illustrative site plan that indicates major features within the inventory unit and generates spatial data for Geographic Information Systems (GIS). The CLI also identifies stabilization needs to prevent further deterioration of the landscape and provides data for the Facility Management Software System

Inventory Unit Description:

The Boca Chita Historic District is an 11 acre site on the north end of Boca Chita Key, an approximate 32 acre island at the northern end of the Florida Keys, southeast of Miami and part of Biscayne National Park. Its location and complex of historic structures is a unique example of recreational resort development that took place in this region during the 1920s and 30s, primarily by northern industrialists. The Boca Chita Historic District is significant under criteria A, B and C.

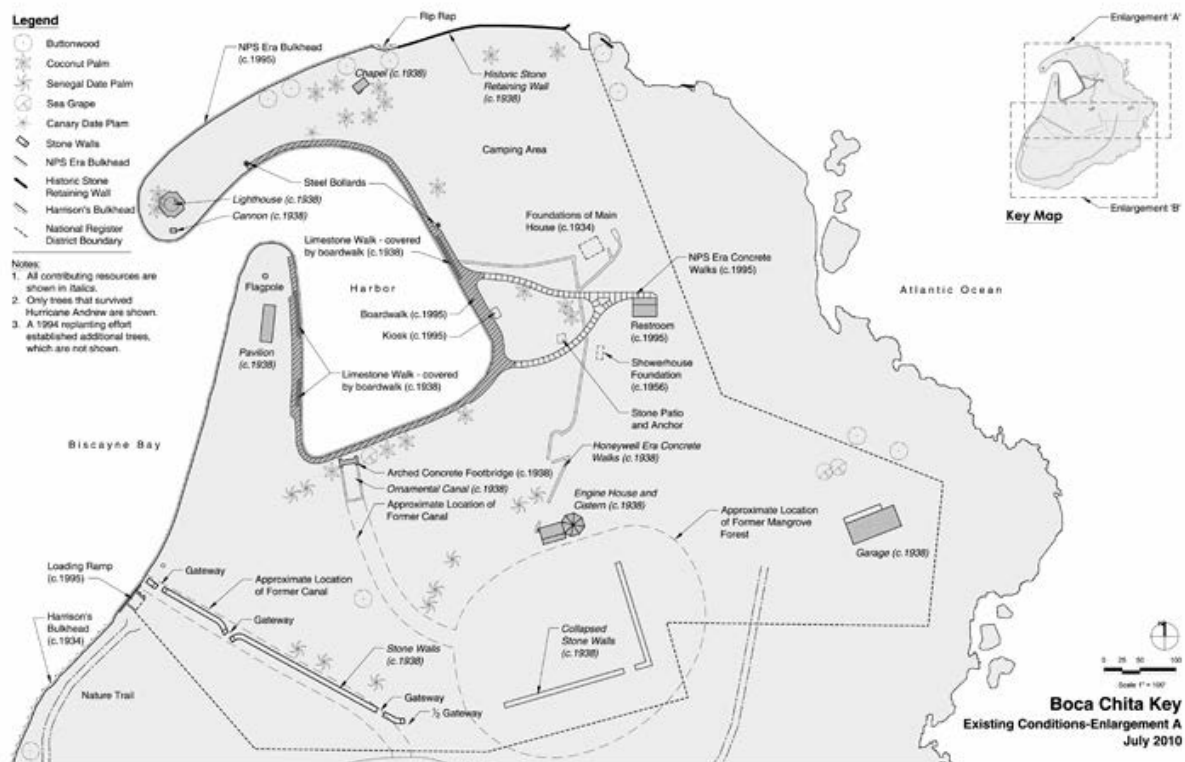
The period of significance is from 1937 to 1945, when Boca Chita Key was developed and actively used as a resort island by its owner at the time, Mark Honeywell, and other wealthy families that were active in the Miami social scene. The main historic structures in the district feature Miami oolitic limestone, are associated with the firm of prominent Miami architect August Geiger, and have maintained their integrity. Smaller historic structures are in varying condition. All of the historic structures were constructed during the Honeywell era. Although Hurricane Andrew destroyed the historic vegetation and wood frame structures, the setting and spatial character remain largely unchanged. Vegetation planted since Hurricane Andrew has helped to recreate the general landscape character that existed during the period of significance, primarily lawn and palm trees with views of the ocean, Biscayne Bay, and the island's historic lighthouse.

Ownership of Boca Chita Key changed hands several times until it was acquired by NPS in 1985. During this time it continued to serve primarily as a recreational site. The island is only accessible by boat and is still used for recreation, largely by weekend visitors from the Miami area. A small harbor constructed prior to the period of significance allows for overnight or short term docking, and many visitors will camp on the island.

A very limited amount of development and construction occurred south of the historic district during the period of significance. This area has always been less managed and maintained than the historic district. It is primarily native vegetation, dominated by mangroves and associated species.

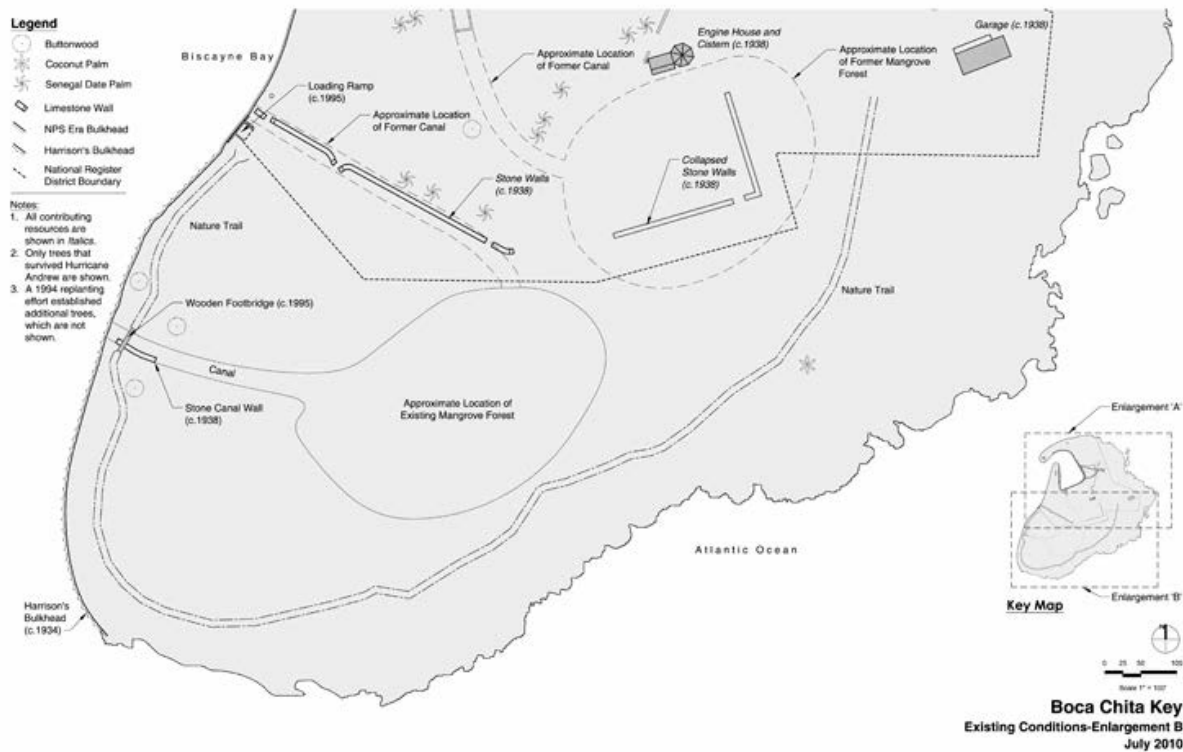
This CLI updates information contained in the 1997 listing of Boca Chita Historic District on the National Register of Historic Places, including the chronology of development.

Site Plan



Graphic 1: Site Plan - Existing Conditions – Enlargement A

Boca Chita
Biscayne National Park



Graphic 2: Site Plan - Existing Conditions – Enlargement B

Property Level and CLI Numbers

Inventory Unit Name:	Boca Chita
Property Level:	Component Landscape
CLI Identification Number:	550011
Parent Landscape:	550010

Park Information Biscayne National Park -BISC

Park Name and Alpha Code:	
Park Organization Code:	5250
Park Administrative Unit:	Biscayne National Park

CLI Hierarchy Description

Biscayne National Park has two identified cultural landscapes; Boca Chita Key and Porgy Key. Boca Chita is separate culturally and historically from the other barrier islands in Biscayne Bay and is therefore determined to be a unique landscape. No component landscapes have been identified at this time for Boca Chita Key.



Graphic 3: CLI Hierarchy Description Graphic

Concurrence Status

Inventory Status: Incomplete

Completion Status Explanatory Narrative:

In the late 1990's, SERO Historian Sean Styles contacted Southeast Parks about the newly formed Cultural Landscapes Inventory. The purpose was to get an initial estimate of the number of inventories that would need to be completed in the region. The park contact at that time was Cultural Resource Specialist, Jim Adams. BISC concurred that the entire park should be listed as a cultural landscape. Jim commented "I believe that Biscayne may offer some unique ways to look at a cultural landscape that I would like to further explore with your staff, focusing on the maritime aspect and inclusion of the shipwrecks and submerged resources. I started looking at this issue earlier this year and provided a quick paper to my division chief on this, which I have attached a copy for your information. Also, I heard about some similar work being done by Ken Vrana for the Manitou Passage Underwater Preserve and Thunder Bay National Marine Sanctuary. I contacted him and he is sending me their management plans. In case you are not aware of these, I've also attached a copy of his summary that he provided me recently."

The BISC HRS was also underway in 1998. In reviewing that resource, Cari Goetcheus, former SERO CLI Coordinator, added Boca Chita as a component landscape of BISC.

The CLI for Boca Chita was begun in October 2009, in conjunction with a Boca Chita HSR and associated treatment recommendations. The Jaeger Company is the prime contractor for this project, with Quinn Evans Architects, and Fitzpatrick Structural Engineering as sub-contractors. William Shealy, of Jaeger Company is the project lead for the contract, with Tracy Stakely and Tommy Jones as project leads from SERO.

The current Cultural Resource Manager at the park is Charles Lawson, and the Supervisory Resource Management Specialist is Elsa Alvear.

Concurrence Status:

Park Superintendent Concurrence:	Yes
Park Superintendent Date of Concurrence:	09/01/2010
National Register Concurrence:	Eligible -- SHPO Consensus Determination
Date of Concurrence Determination:	09/07/2010
National Register Concurrence Narrative:	
Reviewed by FL Deputy SHPO, Barbara Mattick.	

Concurrence Graphic Information:



United States Department of the Interior

NATIONAL PARK SERVICE
Southeast Regional Office
Atlanta Federal Center
1924 Building
100 Alabama St., S.W.
Atlanta, Georgia 30303



H22(SERO-CRD)

18 August 2010

Memorandum

To: Superintendent, Biscayne National Park

From: *for* Chief, Cultural Resources Division, Southeast Region

Subject: Cultural Landscape Inventory

We are pleased to transmit to you the Boca Chita Cultural Landscape Inventory (CLI). The CLI is an evaluated list of landscape properties in the National Park System eligible for listing on the National Register of Historic Places (NR) or that contribute to an existing historic property. This CLI was produced through a SERO contract with Dale Jaeger and Company. All the data in this inventory has already been reviewed by park and regional office staff through the review process of the joint CLI and HSR.

In order for the CLI to be certified and counted in PMDS under BISC's goal Ia7 and the systemwide goal Ib2B, the Florida State Historic Preservation Office needs to concur on the eligibility of the identified contributing cultural landscape features to the existing nomination. Boca Chita was listed in the National Register in 1997, with a Historic Resource Study written in 1998. Based on the findings of this CLI, Criterion B (association with lives of persons significant in our past) should be added back into the nomination for Mark C. Honeywell. This is addressed more fully in the CLI, particularly in the National Register Explanatory Narrative. David Hasty, CLI Coordinator for the Southeast Region, will send a request to the Florida State Historic Preservation Division for concurrence on the CLI findings.

Approval by the park superintendent is also needed for certification. If the findings of the CLI are agreed upon – especially regarding condition assessment and management category – please sign the attached approval form and return it to our office to the attention of David Hasty.

Enclosures



*Graphic 4: CLI concurrence information
Letter to park.*

CULTURAL LANDSCAPE INVENTORY
CONDITION ASSESSMENT CONCURRENCE SHEET

Park Information

Park: Biscayne National Park
Name: Boca Chita
Location: Florida
County: Dade
CLI#: 550011

Cultural Landscape Condition Information

Landscape Condition:

Good ☐

Fair ☒

Poor ☐

Management Category:

Must be preserved ☒

Should be preserved ☐

May be preserved ☐

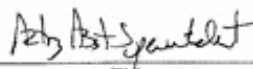
May be released, altered or destroyed ☐

Park Concurrence

Concur ☒

Do Not Concur ☐


Signature


Title

9/1/10
Date

Signature from park.

Boca Chita
Biscayne National Park



United States Department of the Interior



NATIONAL PARK SERVICE
Southeast Regional Office
Atlanta Federal Center
1924 Building
100 Alabama St., SW.
Atlanta, Georgia 30303

IN REPLY REFER TO:
H22 (SERO-CRD)

18 August 2010

Barbara Mattick
Historic Preservation
Office of the Bureau Chief
500 South Brounough St.
Tallahassee, FL 32399-0250

Dear Ms. Mattick:

Enclosed please find a copy of the Cultural Landscape Inventory (CLI) for Boca Chita, located in Dade County at Biscayne National Park. The enclosed inventory includes a statement of significance, a written history, analysis and evaluation of cultural landscape features, and graphic attachments.

The CLI is an evaluated list of landscape properties in the National Park System considered eligible for the National Register of Historic Places or that contribute to an existing historic property. In order for CLI data to become certified, National Park Service regulations require concurrence from the SHPO on the eligibility of these properties. We are requesting your review of the Boca Chita CLI and ask that you return the enclosed concurrence form.

Boca Chita was first listed on the National Register in August 1997, and the nomination documents the property, claiming significance in the areas of architecture, entertainment/recreation, and social history. The property was also associated under Criterion B, with Mark C. Honeywell and August Geiger. That criterion was removed, however, because the house is no longer standing. Based on the findings of this CLI, we would suggest adding Criterion B back to the nomination; several existing features still remain on the island that relate to Honeywell, and the nonextant house actually predated Honeywell's occupation of the island.

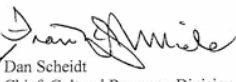
With concurrence from your office, the findings become certified in the CLI database. Your concurrence also gives us justification to submit proper additional documentation to you at a future date regarding Criterion B.



If you have any questions about this document, please contact David Hasty, CLI Coordinator, Southeast Region (SER), at (404) 562-3117 extension 630 or by e-mail at david_hasty@nps.gov. The concurrence form can be returned by fax at (404) 562-3202, or mailed to the address above.

We greatly appreciate your office's assistance with the project.

Sincerely,


Dan Scheidt
Chief, Cultural Resource Division
Southeast Region

Enclosure

Letter to FL - SHPO.

Boca Chita

Biscayne National Park



FLORIDA DEPARTMENT OF STATE
Dawn K. Roberts
Interim Secretary of State
DIVISION OF HISTORICAL RESOURCES

Mr. Dan Scheidt
Chief, Cultural Resource Division
National Park Service
Southeast Regional Office
Atlanta Federal Center
1924 Building
100 Alabama Street, S.W.
Atlanta, Georgia 30303

September 9, 2010

Dear Mr. Scheidt:

Thank you for the opportunity to review the National Park Service Cultural Landscapes Inventory Report for Boca Chita, Biscayne National Park. Boca Chita was listed in the National Register of Historic Places in August 1997 in recognition of the property's development when it was owned by Mark Honeywell, 1937-1945. I concur that the property remains eligible for listing under Criteria A, B, and C; however, the attributions should be modified slightly. Standard National Register of Historic Places that appear applicable would be: Criterion A in the areas of Entertainment/Recreation and Social History; Criterion B for association with Mark Honeywell in regard to his development of Boca Chita; and Criterion C for architecture, which incorporates the significance of August Geiger, whose firm designed many of Boca Chita's signature resources for Honeywell. In other words, Criterion B should not be applied in regard to Augustus Geiger.

The study provides an excellent description and evaluation of Boca Chita as a landscape. In evaluation such studies, it would be helpful to include the dates of construction for each resource, whether contributing or noncontributing, in the lists of the "Character-defining Features" and in the captions for the graphics.

Please contact me if you have any questions, or if I can be of further assistance.

Sincerely,

Barbara E. Mattick

Barbara E. Mattick, Ph.D.
Deputy State Historic Preservation Officer
for Survey & Registration

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We have reviewed the submitted documentation that identifies cultural landscape features at Boca Chita in Biscayne National Park. We concur with the findings of the Cultural Landscape Inventory, and understand that these features have the potential to contribute to the existing National Register of Historic Places nomination for Boca Chita.

Barbara E. Mattick / DSHPO
Florida State Historic Preservation Officer

9/7/2010
Date

Signature from FL - SHPO.

Geographic Information & Location Map

Inventory Unit Boundary Description:

The Boca Chita Key inventory unit includes the entirety of Boca Chita Key, a barrier island located near the center of Biscayne National Park between Sands Key and Ragged Keys.

State and County:

State: FL

County: Dade County

Size (Acres): 32.00

Boundary Coordinates:

Source: USGS Map 1:24,000

Boundary Source Narrative: Northeastern

Type of Point: Area

Latitude: -80.2515036328

Longitude: 2.5541554470

Source: USGS Map 1:24,000

Boundary Source Narrative: Southeastern

Type of Point: Area

Latitude: -80.1719876761

Longitude: 25.5195727660

Source: USGS Map 1:24,000

Boundary Source Narrative: Southwestern

Type of Point: Area

Latitude: -80.1786045928

Longitude: 25.5196732150

Source: USGS Map 1:24,000

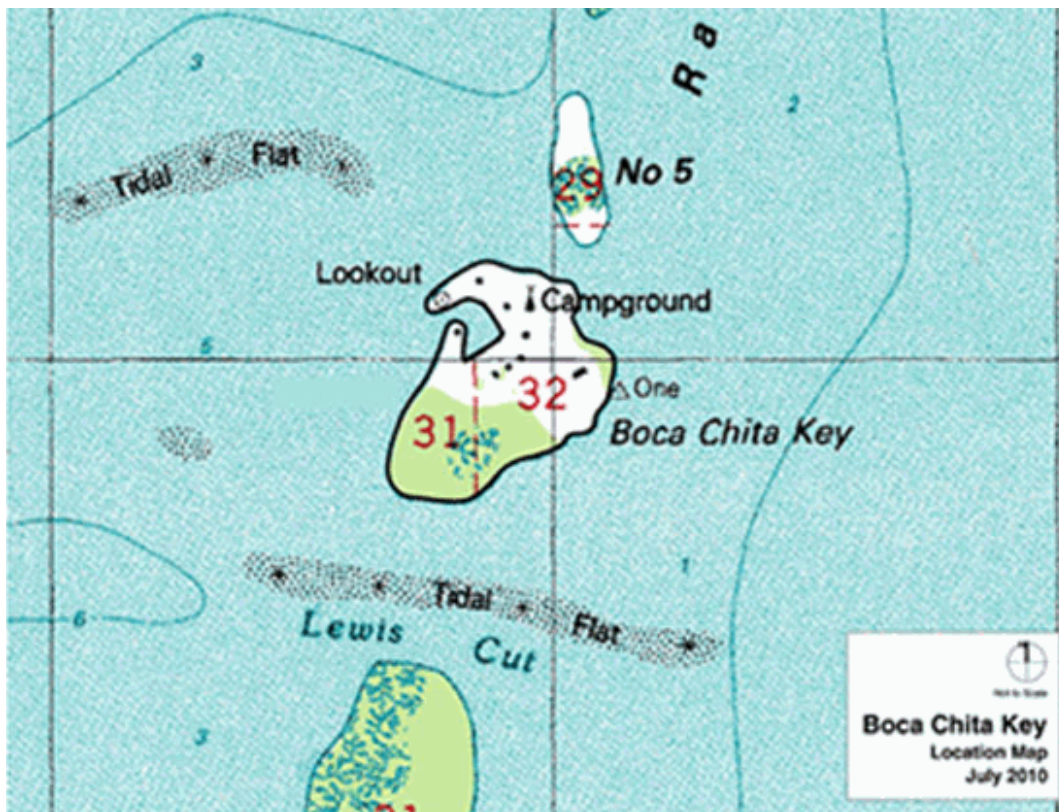
Boundary Source Narrative: Northwestern

Type of Point: Area

Latitude: -80.1784979882

Longitude: 25.5250998010

Location Map:



Graphic 5: Location Map

Regional Context:

Type of Context: Cultural

Description:

Throughout the island's history, Boca Chita has been used almost exclusively as a recreational property. The site is part of the overall tradition of wealthy northerners coming to the Miami area for winter vacations and building elaborate seasonal homes in the early 20th century. Recreational use of the property by the wealthy continues to this day, as the majority of visitors to the site arrive by privately owned boats from the Miami-Dade County area. The National Park Service provides ferry service to the island through a concession.

Type of Context: Physiographic

Description:

Boca Chita key is part of a chain of barrier islands that form the eastern boundary of Biscayne Bay, which is located along the southeastern coast of Florida. The island is bounded to the east by the Atlantic Ocean and to the west by the shallow, protected waters of Biscayne Bay. The entirety of Boca Chita Key is located within Biscayne National Park. Biscayne National Park consists of four primary ecosystems : mangrove forest along Florida's mainland, Biscayne Bay, the northernmost islands of the Florida Keys and a portion of the world's third largest coral reef. The entire area has been shaped over time by changes in sea level, ocean currents, hurricanes and other coastal processes.

Type of Context: Political

Description:

Boca Chita Key is part of the city of Miami, Florida and is located in Miami-Dade County. Boca Chita lies within Florida's 18th Congressional District.

Tract Numbers: 106-11

GIS File Description:

Management Information

General Management Information

Management Category: Must be Preserved and Maintained

Management Category Date: 08/25/2010

Agreements, Legal Interest, and Access

Management Agreement:

Type of Agreement: Concession Contract/Permit

Management Agreement Explanatory Narrative:

The park concessionaire offers a ferry service from the mainland to the island for a fee.

Type of Agreement: Special Use Permit

Management Agreement Explanatory Narrative:

The Boca Chita Key Pavilion is available for half-day rentals. A \$100 rental fee covers a four-hour period of exclusive use; an additional \$100 refundable deposit is required to reserve pavilion space.

NPS Legal Interest:

Type of Interest: Fee Simple

Public Access:

Type of Access: Unrestricted

Explanatory Narrative:

A boat is required to access the island, but the harbor and island are open to the public.

Adjacent Lands Information

Do Adjacent Lands Contribute? No

National Register Information

Existing National Register Status

National Register Landscape Documentation:

Entered Inadequately Documented

National Register Explanatory Narrative:

The Boca Chita Key Historic District was listed on the National Register of Historic Places on August 1, 1997. The original National Register Registration form records the opinion of the Florida Department of State Historic Preservation Official, JuDee Pettijohn, that Boca Chita meets National Register criteria. The nomination claims significance in the areas of Architecture, Entertainment/Recreation, and Social History. Additionally the property is associated, under criterion B, with Mark C. Honeywell and August Geiger. However, on August 11, 1997, a supplementary listing record was filed to amend the National Register listing, deleting criterion B and the association of the property with Mark Honeywell. The amendment states “Since the main house is no longer standing and there is no information about other properties associated with Honeywell that may still be standing, the property can no longer claim significance for association with him.”

The Southeast Region Office of the National Park Service completed a Historic Resource Study of Biscayne National Park in January 1998. The authors of that report, David Cullison and Jennifer Brown Leynes, adequately document the cultural landscape features and characteristics on Boca Chita Key. As discussed in the Analysis and Evaluation section of this CLI, the non-vegetative cultural resources retain a high level of historic integrity, but the historic vegetation was essentially eliminated in 1992 by Hurricane Andrew. Today, NPS landscape management plan is to maintain as near natural conditions as possible while protecting the existing cultural resources.

Also noted in this CLI is the fact that the majority of existing structures and landscape features were constructed while Mark Honeywell owned the island. The main house, which is no longer standing, was constructed prior to Honeywell’s purchase of the island. Therefore, the amendment to the National Register nomination, eliminating criterion B and the resources association with Honeywell, seems erroneous. It is the opinion of this CLI that the Boca Chita cultural landscape should be associated with Mark Honeywell, a person of historic significance in the history of America and this region of Florida.

The current Boca Chita Key Historic District encompasses approximately 11 acres, surrounding the complex of structures and landscape features on the north section of the 32 acre island. It should be noted that as part of this CLI, the entire island was investigated during site visits to determine the existence and conditions of historic features that may contribute to the significance of the property. There are no cultural landscape features outside of the current historic district boundaries that merit expanding the district boundary.

Existing NRIS Information:

Name in National Register: Boca Chita Key Historic District
NRIS Number: 97000795
Primary Certification Date: 08/01/1997

National Register Eligibility

National Register Concurrence: Eligible -- SHPO Consensus Determination
Contributing/Individual: Individual
National Register Classification: District
Significance Level: Local
Significance Criteria: A - Associated with events significant to broad patterns of our history
Significance Criteria: B - Associated with lives of persons significant in our past
Significance Criteria: C - Embodies distinctive construction, work of master, or high artistic values

Period of Significance:

Time Period: CE 1937 - 1945
Historic Context Theme: Peopling Places
Subtheme: Other Peopling Places
Facet: Other Peopling Places
Other Facet: Migration into south Florida in the early Twentieth Century
Time Period: CE 1937 - 1945
Historic Context Theme: Expressing Cultural Values
Subtheme: Other Expressing Cultural Values
Facet: Other Expressing Cultural Values
Other Facet: Miami's winter leisure class
Time Period: CE 1937 - 1945
Historic Context Theme: Transforming the Environment
Subtheme: Other Transforming the Environment
Facet: Other Transforming the Environment
Other Facet: Development of vacation properties on the keys

Area of Significance:

Area of Significance Category:

Architecture

Area of Significance Category:

Entertainment - Recreation

Area of Significance Category:

Social History

Statement of Significance:

Mark C. Honeywell constructed a complex of buildings and structures on Boca Chita Key which together form a locally significant historic district under National Register Significance criteria A, B, and C. The historically significant and contributing structures and objects include the lighthouse, chapel, picnic pavilion, garage, engine house and cistern, arched concrete footbridge, canal, stone walls, retaining walls, walkways, and cannon. The complex is eligible under National Register criterion A because they reflect the activities of the wealthy industrial class that emerged in America between World Wars I and II and specifically reflect the recreational development of Miami and Biscayne Bay in the period between 1896 and 1945.

The complex is eligible under National Register criterion B due to its association with Carl Fisher, Mark Honeywell, and August Geiger. Carl Fisher was a leading developer and promoter of the Miami area, which he helped transform into a tourist attraction and a place for wealthy Americans to build vacation retreats. As Miami and Miami Beach prospered in the first decades of the twentieth century, Fisher began to extend his development activities into Biscayne Bay, creating artificial islands and enhancing existing islands by adding fill material dredged from Biscayne Bay. One of the Biscayne Bay islands that Carl Fisher and associates developed during this period was Boca Chita Key.

Fisher and associates purchased Boca Chita Key in 1916. They oversaw the addition of fill material to create the present configuration of the island, constructed a wooden bulkhead, and constructed buildings to shelter visitors to the island. A hurricane destroyed these improvements in 1926, after which Milton Harrison purchased the island. Harrison added a two-story frame house, installed a steel bulkhead, and dredged a boat harbor.

Mark C. Honeywell and wife, Olive Lutz Honeywell, purchased the island in 1937. Honeywell, originally from Wabash, Indiana, was the founder, president, and chairman of the board for the Minneapolis Honeywell Heat Regulator Company. With multi-million dollar annual sales in the 1930's and 1940's, Mark C. Honeywell joined the class of wealthy industrialists building vacation homes in the Miami Beach area. Honeywell and wife belonged to many of the most prestigious social clubs in the area, including the Cocoloba Club and the Miami Beach Committee of One Hundred, for whom Mr. Honeywell served as president from 1936 to 1951.

Honeywell kept the existing frame house on the island and soon began constructing a complex of support structures and landscape features to create a private recreational retreat and place to entertain guests. Between his purchase of the island in 1937 and the death of his wife in 1939, Mark Honeywell constructed a lighthouse, chapel, picnic pavilion, engine house, garage, stonewalls, retaining walls, an arched concrete footbridge, and concrete walkways. Honeywell hired the architectural firm led by prominent Miami architect August Geiger to design the 65 foot lighthouse that marks the entrance into the island's harbor. The lighthouse and all of the other structures built during the Honeywell period are constructed of Miami oolitic limestone, a popular building material in the Miami region during this period. All of the structures also reflect elements of the Mediterranean Revival style which is characteristic of regional architecture in the Miami area during this period.

Additionally, these structures and objects are significant under criterion C because they embody the distinctive architectural styles employed on private, recreational retreats in the Florida Keys during the 1930's and are representative of the work of a locally significant architect August Geiger. The similarity of materials and architecture suggests that, in addition to designing the lighthouse, August Geiger's firm may be responsible for designing the other structures on the island. Geiger is best known for introducing to Miami the Spanish Colonial or Mediterranean Revival style of architecture, which became a characteristic style in local architecture during this period. Geiger is responsible for several architecturally significant structures, both municipal and private, including the Dade County Courthouse, the Miami Women's Club, and the Southside Elementary School, all of which are listed on the National Register of Historic Places.

The topography of the island generally conforms to the alterations made during the Fisher period, when fill dirt was added to the north end of the island. The outline of the harbor appears to conform to the alterations made during the Harrison period, when the boat harbor was dredged. Historic aerials show that Harrison installed three canals to drain the interior of the island. Two canals drain a mangrove forest on the south end of the island. The northern of these two canals was filled during the Honeywell period. The route of this canal appears to correspond to the route of the stone wall constructed during the Honeywell period. The most southern canal was modified during the Honeywell period and is outside of the historic district. One canal drained a mangrove forest located on the north end of the island. This canal was partially filled during the Honeywell period. The remaining section was converted to an ornamental canal during the Honeywell period. There is no evidence of other cultural landscape features associated with the periods prior to the Honeywell period.

All of the buildings in the Honeywell complex retain integrity of location, design, setting, materials, workmanship, feeling, and association. The buildings are well designed and constructed, as evidenced by their ability to survive the devastating winds of hurricanes which have passed directly over the island. Although the buildings have been damaged by storms, time and weather, the structural integrity of the buildings is sufficient to illustrate the original design and function of the complex. With the exception of the loss of the frame "main" house, which burned in the 1960's, and a small number of frame buildings believed to be from this period, the overall historic setting and spatial organization remains essentially intact from the period of significance. The topography and views and vistas on Boca Chita are unchanged from the period of significance. The major changes to the cultural landscape is the extensive devastation of the historic vegetation in 1992 by Hurricane Andrew. Otherwise, the complex of landscape features continues to convey its specific association with the architecture and social history associated with recreational development of Miami and the Florida Keys in the early twentieth century.

Chronology & Physical History

Cultural Landscape Type and Use

Cultural Landscape Type: Designed

Current and Historic Use/Function:

Primary Historic Function: Outdoor Recreation-Other

Primary Current Use: Outdoor Recreation-Other

Current and Historic Names:

Name

Boca Chita

Type of Name

Both Current And Historic

Ethnographic Study Conducted:

No Survey Conducted

Chronology:

Year	Event	Annotation
CE 1916	Purchased/Sold	The first certificate of ownership of Boca Chita Key is dated June 21, 1916, when Carl Fisher, F. A. Seiberling, Brainard T. Bell and associates purchased the island.
CE 1916 - 1926	Developed	The first certificate of ownership of Boca Chita Key is dated June 21, 1916, when Carl Fisher, F. A. Seiberling, Brainard T. Bell and associates purchased the island.
CE 1926	Destroyed	The hurricane of September 1926 destroyed the improvements developed by F. A. Seiberling as it passed over Boca Chita.
	Purchased/Sold	F. A. Seiberling and his associates sold the island to Seiberling's son-in-law Milton W. Harrison.
CE 1926 - 1934	Built	Prior to 1934, Milton W. Harrison built a two-story frame house on the north end of the island, dredged the boat harbor, and installed steel bulkheads on the island's coastline to replace the wooden ones destroyed in the hurricane

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CE 1937	Purchased/Sold	In 1937, Milton W. Harrison sold the island to Mark C. Honeywell.
CE 1937 - 1940	Built	Between 1937 and 1940, Mark C. Honeywell had several structures on the north end of the island built in the vicinity of the frame dwelling constructed during the Harrison ownership. The structures include the Lighthouse, Chapel, Picnic Pavilion, Garage, Engine House and Cistern, stone walls, stone retaining walls and a cannon.
	Built	Frame structures are seen under construction in a film made during the construction building of the main structures, between 1937 and 1940.
CE 1945	Purchased/Sold	In 1945, Mark C. Honeywell sold the island to Louis and Florence Emerman.
CE 1945 - 1950	Built	According to contractor Albert Philpot, the Emermans constructed unspecified buildings on the island between 1945 and 1950.
	Built	According to contractor Albert Philpot, the Emermans constructed unspecified buildings on the island between 1945 and 1950.
CE 1950	Purchased/Sold	In 1950, The Emermans sold the island to Sailing Baruch.
CE 1955	Purchased/Sold	In 1955, G. E. Carlson sold the island to the STARS Corporation headed by Eurith Dickinson Rivers.
CE 1955 - 1970	Destroyed	The main house on the island, dating from the Harrisons' ownership, burned down.
CE 1955 - 1985	Built	The Rivers family installed a 12 feet by 6 feet shower house, called Grandma's Hut on the island.
	Altered	The Rivers family added screen to the Picnic Pavilion and are also likely responsible for the shed addition on the south elevation of the Picnic Pavilion.
CE 1985	Purchased/Sold	The National Park Service purchased Boca Chita Key from the STARS Corporation on March 1, 1985 for \$2.875 million.

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CE 1985 - 1990	Built	The National Park Service added a solar powered restroom building to the island.
	Built	the National Park Service constructed new boardwalks at the harbor where visitors docked their boats.
	Altered	The National Park Service constructed a section of boardwalk that partially covered an existing 70 feet by 6 feet section of existing concrete walkway that likely dated from the Honeywell period of development.
	Developed	The National Park Service developed a camping area in open ground on the north east shore of the island.
CE 1985 - 1992	Reconstructed	The gabled roof on the chapel was replaced by the National Park Service before Hurricane Andrew.
CE 1985 - 2009	Maintained	Structural engineers and architects inspected the lighthouse in 1999, 2001 and 2005; and the National Park Service has repeatedly repaired and maintained the structure in order to keep it safe and open to the public.
CE 1992	Destroyed	In August 1992, Hurricane Andrew passed over Boca Chita and destroyed the Honeywell and Emerman-era frame buildings, the restroom building, the 1980s boardwalks and the screen and shed addition to the Picnic Pavilion. The glass in the lighthouse lantern was also destroyed in the storm.
	Damaged	In August 1992, Hurricane Andrew passed over Boca Chita and damaged many of the structures on the island. Of the historic structures, the arched concrete footbridge over the canal and the eastern two thirds of the stone wall were the most heavily damaged. Most of the roofs on the historic structures were heavily damaged. The lighthouse casement windows were also damaged in the storm.
CE 1994 - 1997	Built	The National Park Service constructed a new steel bulkhead approximately one foot outside of the existing bulkhead, filling the gap with soil. A boat landing ramp was also constructed approximately 16 feet south of the stone wall marking the southwest corner of the historic district boundary.

	Altered	During the National Park Service bulkhead construction project, additional bulkhead was extended across the mouth of the canal leaving the channel dry. The historic canal was then filled with dirt. The coping of the historic walls was left visible at grade.
	Altered	A new roof, new windows and modern “roll-down” garage doors were added to the garage.
	Altered	The gabled rear roof of the engine house was replaced with a hipped roof.
	Reconstructed	The roof of the Pavilion was replaced after Hurricane Andrew by the National Park Service.
	Built	The National Park Service installed displays interpreting the natural and cultural history of the island after Hurricane Andrew.
	Planted	The north end of the island was planted with coconut palms and native trees to reflect the appearance of the historic district during its period of significance.
	Built	The NPS constructed a restroom facility on high ground south of the foundation of the main house.
	Built	The National Park Service replaced the boardwalks added in the 1980s. New concrete sidewalk was also constructed that extends east from the harbor from two locations merging just south of the foundation of the 1930s Harrison house.
CE 1997	Established	Boca Chita Key Historic District was established and was listed on the National Register of Historic Places on August 1, 1997.
CE 1997 - 2009	Altered	The previously altered hipped roof of the engine house was changed back to its original gabled roof configuration.
CE 2005 - 2009	Reconstructed	The limestone supporting piers of the Pavilion were recently rebuilt by the Historic Preservation Training Center.

Physical History:

Early Development (Prehistory to 1936)

Boca Chita Key is a part of the upper Florida Keys, located between Ragged Key Number 5 to the north and Sand Key to the south. The shallow coral reef that provides the foundation for Boca Chita was formed during the Pleistocene epoch. A subsequent glacial period lowered the water levels in this area, exposing the coral to air and direct sunlight, resulting in their death. Over time this dead coral metamorphosed into limestone rock (Cullison, 1998). One of the several kinds of limestone formed in this area is Miami oolitic limestone, which was a popular building material in the region during the early twentieth century and was used to build the historic structures on Boca Chita.

Miami, Florida, rapidly developed upon the completion of Henry M. Flagler's Florida East Coast Railway in 1896, which provided the first convenient transportation link to the lower half of the state. The real estate boom in the first decades of the twentieth century resulted in a dramatic increase in the region's population. From 1915 to 1925, Miami's population grew from 15,000 to 71,000 inhabitants (Cullison, 1997). The Dixie Highway opened in 1925, creating a direct vehicular link between south Florida and the rest of the country.

Carl Fisher was instrumental in promoting and developing Miami. Fisher, founder of the Presto-o-lite Company and the Indianapolis Motor Speedway, purchased a vacation home in Miami in 1910. In 1913, Fisher built a bridge to the barrier reef across Biscayne Bay from Miami and used sand dredged from the Bay to fill the mangrove swamps on the island. Fisher renamed the former reef Miami Beach; he began selling lots in 1919 and it soon became popular with the wealthy Americans attracted to Miami's subtropical climate. Encouraged by the success of Miami Beach, Fisher began building artificial islands and enlarging existing keys by adding soil dredged from Biscayne Bay (Cullison, 1998).

One of the Biscayne Bay islands enlarged during this period was Boca Chita Key. Carl Fisher and several business associates, including Brainard T. Bell and F. A. Seiberling, purchased Boca Chita on June 21, 1916. F. A. (Franklin Augustus) Seiberling, the founder of the Goodyear Tire and Rubber Company, is thought to have initiated the development of Boca Chita between 1916 and 1926. During this period, workers deposited approximately 5 to 13 feet of dirt on top of the existing limestone, creating the current configuration of Boca Chita Key. Seiberling also constructed a wooden bulkhead and possibly a few frame buildings on the island. An unnamed Category 4 hurricane passed over the island in September 1926, destroying all of these improvements (Cullison, 1998).

Seiberling's son-in-law, Milton W. Harrison, purchased Boca Chita from Seiberling, Fisher and associates after the hurricane in 1926. Harrison built a two story frame house, referred to as the "Main House," on the man-made north end of the key where the fill dirt is up to thirteen feet deep (Yelen). According to Cullison and Yelen, Harrison had the boat harbor dredged and installed steel bulkheads in 1934 to replace the wooden ones destroyed in the hurricane (Cullison, 1998 and Yelen). Harrison is likely responsible for the construction of three canals which extend inland from the south end of the harbor and western edge of the island. The canals are visible in a historic aerial of the island from the 1930's (Graphic 6). These canals were constructed to drain mangrove forest in the interior of the island. The northern canal and northern most mangrove forest were later filled, creating the ornamental canal that is still visible in the landscape.



Graphic 6: Aerial photograph showing the location of canals on Boca Chita Key (South Florida Collection Management Center).

The Honeywell Era (1937-1945)

In 1937, Harrison sold Boca Chita Key to Mark C. Honeywell and his wife Olive Lutz Honeywell. Honeywell, a native of Wabash, Indiana, was the first president of the Minneapolis Honeywell Heat Regulator Company (now Honeywell Inc.) (Graphic 7). Honeywell purchased a vacation home in Miami and subsequently purchased Boca Chita to be a private retreat and place to entertain friends. The Honeywells joined many of the most prestigious social clubs in Miami, including the Miami Beach Committee of One Hundred, for whom Honeywell served as president from 1936 to 1951 (Cullison, 1998). The Committee of One Hundred was a social organization composed of many of the nation's leading industrialists and businessmen. The committee held their annual party on Boca Chita during Honeywell's ownership of the island (Graphic 8).

The Honeywells kept the frame house built by Harrison to serve, according to Cullison, "as the primary residence" on the island and added several structures to support its use as a vacation retreat (Cullison, 1998). The period of development during the Honeywell ownership is likely between 1937, when Honeywell purchased the island, and 1939, when Mrs. Honeywell died and Mr. Honeywell's interest in the island waned. The Honeywell structures include a lighthouse, chapel,

picnic pavilion, garage, and engine house. The Honeywells also built an arched concrete footbridge over an existing canal, a stone wall with gates and a gatehouse around the primary structures, and a stone retaining wall along the northwest shore of the island (Graphic 9).

The National Register Nomination for Boca Chita, the Biscayne National Park Historic Resources Survey, and Beverly Yelen's "Historical Information Relating to Boca Chita Cay" credit later owners of the islands, Louis and Florence Emerman, with building a collection of wooden frame structures on the island that existed into the 1990's. However, historic photographs and a video showing construction on the island during the Honeywell period plainly show that at least two of the frame structures are contemporaneous with the lighthouse (Graphic 10); the video also shows what is likely a third frame building under construction (Graphic 11). (These structures appear to be those that later become known as "Grandma's Hut," "Clubroom," and "Honeymoon Hotel").

All of the existing historic structures on Boca Chita are located on the north end of the island and feature the same exterior material—Miami oolitic limestone. Historic aerials show that there were additional structures on the south half of the island, but none of these structures exist today (Graphic 12). The architecture of the existing Honeywell structures reflect the Mediterranean and Classical styles characteristic of resort properties constructed in the Miami region during this period. Historic photographs and the construction video also capture images of other small landscape features that no longer exist but also reflect the Mediterranean-inspired resort architecture of this period, including limestone walkways, wooden docks, and striped Venetian poles around the harbor. The construction video shows that the harbor poles are vibrantly painted with spiraling stripes of orange, red, and black. Some of the poles are topped in finials and others feature lanterns (Graphic 13).

It is known that the Honeywells hired the firm led by August Geiger, a prominent architect in the Miami area, to design the ornamental lighthouse located at the mouth of the Boca Chita harbor (Graphic 14, Graphic 15). August Geiger was best known for introducing Spanish Colonial or Mediterranean Revival architecture into the Miami area (Cullison, 1998). Geiger's commissions include several municipal structures, including the Miami City Hospital, and private developments, including Carl Fisher's first hotel on Miami Beach. Geiger's firm was also popular with wealthy clients who built winter vacation homes in and around Miami Beach. According to Jim Church, who worked as a draftsman for the Geiger firm, Leon Angle Camp designed the lighthouse and Jack Hunt was the general contractor for its construction (Cullison, 1997). The similarity between the styles and construction materials of the different structures suggest that the Honeywells utilized the services of a single design firm or construction company for these limestone structures (Cullison, 1998).

The Honeywell structures are distributed across the north end of the island arching in an arc from the lighthouse to the west, to the garage in the east, back to the pavilion on the west side of the island. The Boca Chita Lighthouse (HS-1, IDLCS 90190) is a 65 feet tall tapering cylindrical tower located on a peninsula of land forming the north side of the harbor entrance on the Biscayne Bay (west) side of the island. Honeywell reportedly built the lighthouse to guide boaters into the harbor but, according to one story, the United States Coast Guard shut it down after its initial lighting in the late 1930s (Chapman, 1993). A cannon is mounted on a stone base below the Lighthouse, which Honeywell reportedly fired to greet visitors to the island (Graphic 16). The Boca Chita Chapel (HS-2, IDLCS 90191) is located north east of the Lighthouse, on the same peninsula forming the north side of the harbor (Graphic 17). The Chapel is a small, 12 feet by 20 feet, structure with a steeply pitched concave roof. The Boca Chita Picnic Pavilion (HS-3, IDLCS 90192) is across the entrance into the harbor from the Lighthouse and Chapel (Graphic 18). This open sided structure sits on a 15 feet by 52 feet concrete foundation with ten squared limestone piers supporting a hipped roof. The Boca Chita Picnic Pavilion (HS-3, IDLCS 90192) is across the entrance into the harbor

from the Lighthouse and Chapel (Graphic 18). This open sided structure sits on a 15 feet by 52 feet concrete foundation with ten squared limestone piers supporting a hipped roof. Historic photographs suggest that the floor of the pavilion was originally limestone pavers, which were covered by the existing concrete floor at a later, unknown date. Historic photographs also show the roof was tiled. The tiles shown piled at the side of the harbor in the construction video appear to be made of cement. In a 1991 letter to Superintendent Sanders, James Haston, of the Dinner Key Cruising Club, reports removing “old cement tile” from the Pavilion (Halston, 1991). Based on this information and the era of construction, it is likely that the tiles were composed of cement-asbestos.

A 71 feet by 30 feet Garage (HS-4, IDLCS, 90193) is located on the east edge of the developed north end of the island. The north elevation of the Garage (also known as the Barn) features four garage-type door openings and a fifth standard-size door; the south elevation has five windows with transoms. Between the Garage and the harbor stands the Engine House and Cistern (HS-5, IDLCS 90194). The Engine House, also known as the Generator Building, is a 15 feet by 32 feet structure on a concrete slab foundation. An octagonal concrete cistern is attached to the east elevation of the building.

Smaller structures built by the Honeywells include an arched 14 feet long and 6 feet wide concrete footbridge (Bridge- HS-6, IDLCS 90195) over the narrow canal at the south end of the harbor. Originally the footbridge featured three feet high stone walls which flared out at the ends into low scroll forms. The canal, which predated the footbridge, extended about 45 feet south beyond the footbridge. The Canal (HS-8, IDLCS 91570), which was filled in the 1990s, has retaining walls composed of uncoursed limestone with green tinted concrete coping.

The Honeywells built 900 feet of Stone Wall (HS-7, IDLCS 90196) around their complex of buildings. The wall extended east from the west shore on the Biscayne Bay side of the island to just south of the engine house building. The wall featured a one room stone gatehouse and seven gateways (Cullison, 1998). There is also a stone retaining wall (IDLCS 91571), likely dating from this same period, on the north shore of the island that serves as a bulkhead. Several of the structures and the harbor area were connected with a pedestrian circulation system of tinted concrete walkways (HS-10, IDLCS 91616), informal dirt paths, as well as at least two sections of limestone walkway adjacent to the harbor (Graphic 19). Concrete walkways led from the harbor to the main house and to the engine house; these walkways clearly correspond to the structures built during this period, though it is unclear when the walkways were constructed. Dirt roads and paths led from the developed area through the stone wall to the south and west ends of the island where there were several service structures.

Yelen’s interview with Philpot records that in the 1940s there were three wooden docks in the Boca Chita Harbor on the north end, the south end, and near the Pavilion. These docks appear in Honeywell era photographs and in the construction video, so it is likely that Honeywell had the docks constructed (Graphic 20). According to Philpot, these docks were painted green. In addition to the three docks in the harbor, the video provides evidence of a fourth dock located on the Biscayne Bay side of the island on the west shore of the peninsula in the vicinity of the picnic pavilion. Limestone walkways lined the harbor along the sides of at least two of the docks. One of these limestone walkways is shown under construction in the video. A construction worker is seen laying large, flat limestone pavers onto a bed of sand and pouring concrete to fill the joints. Construction documents from 1994 show an outline of an approximate 80 foot length of “oolitic limestone sidewalk” on the east side of the harbor and up to 200 feet of sidewalk on the west side.

The construction video also shows that Honeywell had improvements made to the island's bulkhead and had the harbor dredged. Also visible in the video is a large excavator digging sand at the shoreline and depositing it on the island. Workers then use a tractor to spread the sand on the island in the vicinity of what appears to be the current location of the stone wall. This indicates that the northern canal which drained the southern mangrove forest was filled and at the same time footers for the stone wall were constructed within the canals alignment. Historic photographs show a large white area east of the engine house and cistern which may be sand. This area corresponds to the area that was occupied by the northern mangrove forest in the 1930s aerial (See Graphic 12). The construction video also shows a white, linear feature in the landscape that corresponds with the location of one of the drainage canals. It appears to be the canal that drained into the harbor that was partially filled. The remaining section of canal was converted to an ornamental canal with an arched concrete footbridge.

Newspaper reports on Boca Chita record Honeywell clearing existing vegetation and making extensive additions. An article from the Miami News in April 1941 claims that "When the swamps were first cleared away many fine specimens of native flora were found," including "gumbo limbo, citharexylum, and many others growing in abundance." The article quotes Honeywell: "The native things I didn't find here I brought in and planted....Now I have almost everything except the pigeon plum (*Coccolobis floridana*) and the satin leaf tree (*Chrysophyllum olivaeforme*)." The article discusses the various things Honeywell did to beautify the island, including planting trees, shrubs, and ground covers (Graphic 21). Honeywell apparently experimented with different grass species, and "after trying various grasses, with small success, he found the St. Lucie, a long-bladed Bermuda variety, would stand against the salt spray better than most." The lawn on Boca Chita was, according to the reporter, "the thing that impresses most as you enter [the] harbor." The list of trees and shrubs Honeywell planted on Boca Chita included: "vitex, *Carissa* plum, Surinam [possibly *Eugenia* sp.], *ligustrum*, *jatropha*, almond trees [possibly *Terminalia* sp], *melaleucas*...*oleander*...sea grape [*Coccoloba* sp.] ...*purslane* [possibly *Protulaca* sp.]... papayas and coconut palms."

Historic photographs show that Honeywell made extensive changes to the vegetation. Large portions of the island appear to have been cleared to create open space and to open views to the ocean. Honeywell planted very large plant material. This is visible in photographs and described in a history of Honeywell, "Mark C. Honeywell: Citizen, Builder, Philanthropist of Wabash, Indiana," which states that nurseries sent "full-grown coconut palms, with huge amounts of earth covering their roots" (23). Historic photographs from the Honeywell period show a densely planted landscape. The thick, tree canopy on the north end of the island was dominated by coconut palm and Australian pine trees (Graphic 22). The ends of the peninsulas at the mouth of the harbor were planted in Australian pines. The edge of the harbor was planted with a groundcover that draped over the seawall. A line of pines surrounded a distinct rectangular-shaped open area near the engine house. Another prominent open space extended east from the main house towards the Atlantic Ocean. An allee of palm trees led northeast from the main house to an ocean-side beach.

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The Honeywells used Boca Chita as a retreat from their winter home in Miami and to entertain guests (Graphic 23). Olive Lutz Honeywell died in February 1939 from heart trouble according to her obituary. According to the Honeywell House museum in Wabash, Indiana, she is believed to have sustained injuries from a fall at Boca Chita that may have contributed to her death (Ford, n/d). Mark Honeywell reportedly spent less time at the island and, after remarrying in 1942 to Eugenia Hubbard, sold Boca Chita to Louis and Florence Emerman in 1945(Graphic 24) .



Graphic 7: Mark Honeywell circa 1938-40 (Historical Museum of Southern Florida).



Graphic 8: The Committee of One Hundred annual party (South Florida Collection Management Center).



Graphic 9: Arched concrete footbridge over existing canal (South Florida Collection Management Center).



Graphic 10: Frame Structures, still photo from 1930s construction video (Biscayne National Park Library).



Graphic 11: Frame building under construction, still photo from 1930s construction video (Biscayne National Park Library).



Graphic 12: Aerial Photograph circa 1940 (Historical Museum of Southern Florida).



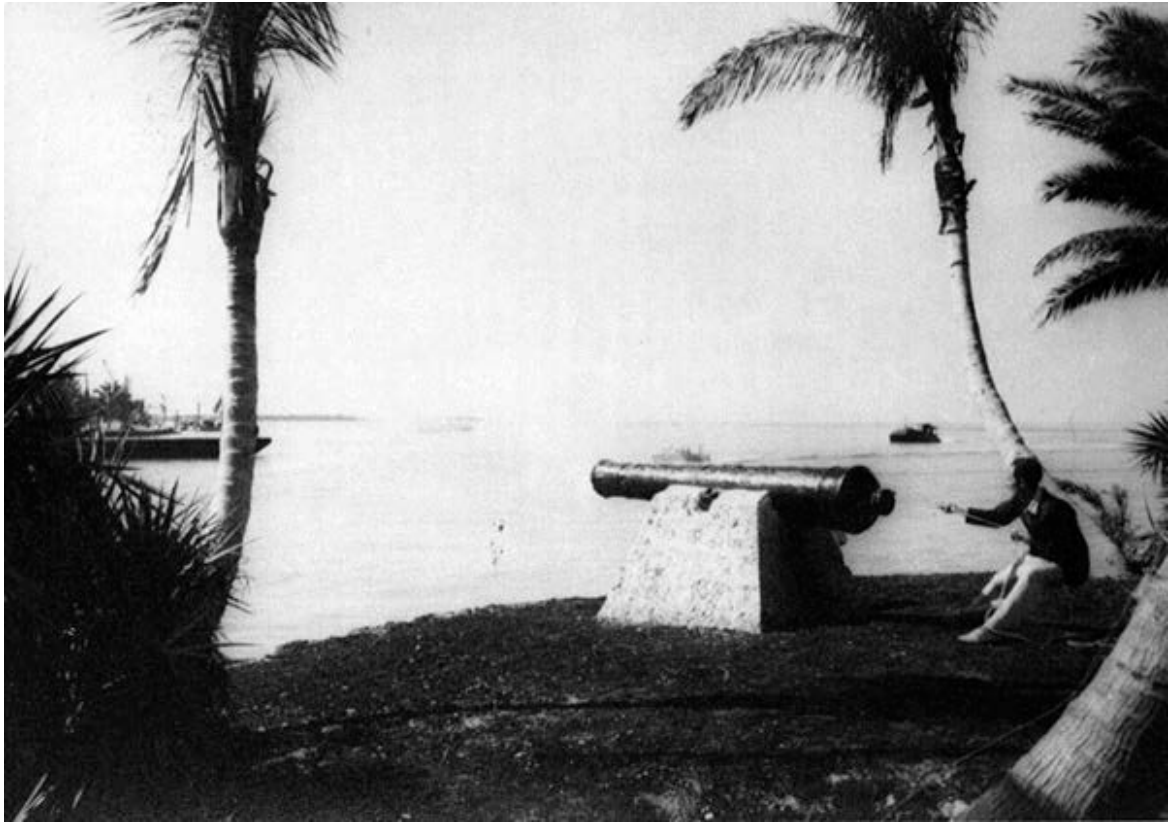
Graphic 13: Walkway under construction and harbor poles, still photo from 1930s construction video (Biscayne National Park Library).



Graphic 14: Boca Chita Lighthouse with Venetian harbor poles (South Florida Collection Management Center).



Graphic 15: Entrance into Boca Chita harbor circa 1940 (Historical Museum of Southern Florida).



Graphic 16: Cannon being fired to welcome Committee of One Hundred members to the island (South Florida Collection Management Center).



Graphic 17: Boca Chita Chapel (South Florida Collection Management Center).



Graphic 18: Picnic Pavilion (South Florida Collection Management Center).



Graphic 19: Aerial photograph showing historic circulation on the island (South Florida Collection Management Center).



Graphic 20: Wooden dock in Boca Chita harbor (South Florida Collection Management Center).



Graphic 21: Construction and Planting circa 1938 (Biscayne National Park).



Graphic 22: Mature Coconut Palms circa 1940 (Historical Museum of Southern Florida).



Graphic 23: Entertaining guests on Boca Chita (South Florida Collection Management Center).



Graphic 24: Mark and Eugenia Honeywell (Historical Museum of Southern Florida).

The Post-Honeywell Era (1946-1984)

The Emermans continued the Honeywell's tradition of holding lavish parties on the island, including perpetuating the use of the island for the Committee of One Hundred parties. According to Ellen Yelen, who interviewed Albert Philpot, a building contractor who worked for the Emermans, the Emermans built several small wood frame cottages and a galley on the island between 1945 and 1950 (Yelen). These small structures were located in the open area south-east of the harbor (Graphic 25). These cottages included the Mate's Nest or Captain's Roost (27 feet by 17 feet), the Honeymoon Hotel or Landlubber's Lodge (30 feet by 13 feet), and the Clubroom (42 feet by 14 feet with a 9 feet by 12 feet rear ell). As noted above, these structures appear in photographs and a video which can be dated to the Honeywell period. It is possible that Philpot remodeled Honeywell structures or built additional structures that are not presently identified. A masonry building behind the Clubroom appears in 1954 photos, but is not accounted for in other sources of information and is likely to be an Emerman addition to the property. The Emermans sold the property in 1950 to Sailing Baruch. Baruch wrote in a "Boca Chita Guest Book" that he stayed in the lighthouse during a hurricane in 1951 (Yelen, n/d). There were ten named hurricanes in the Atlantic that season; none of which passed over Boca Chita. It is more likely to have been Hurricane King, a category 3 hurricane that passed over Boca Chita in 1950.

Baruch sold the island in 1953 to G. E. Carlson of Chicago, Illinois. Carlson had a caretaker, Jack Grimes, who lived on the island. Carlson sold Boca Chita to the STARS Corporation headed by the Rivers family in 1955. E. D. (Eurith Dickinson) Rivers was governor of Georgia from 1937 to 1941. After leaving politics he and his sons operated a company that owned radio stations across the southeastern United States. They began broadcasting in the Miami area in the 1960s with a radio station WEDR. According to a history of Boca Chita, compiled by members of the Dinner Key Cruising Club (DKCC), Dan Rivers (possibly E. D. Rivers Jr.) hired a caretaker named Zach Watson to maintain the facilities on the island. The main house on the island, dating from the Harrisons' ownership, burned down during Watson's employment. As a result, a DKCC Member Burt Probinsky, a friend of Mr. Rivers, suggested that the Club take over maintenance of the island. The DKCC continued maintenance of the island into the 1990s (Yelen). According to hand written notes of an interview with Dan Rivers, the Rivers installed the existing red-tinted concrete slab as part of a shower they added onto Grandma's Hut. Also during this period, the Rivers added screen to the Picnic Pavilion and are also likely responsible for the shed addition on the south elevation of the Picnic Pavilion (Graphic 26).



Graphic 25: Cottage on Boca Chita (Joel Yale, Life Magazine, 1954)

The National Park Service Era (1985-present)

The National Park Service (NPS) purchased Boca Chita Key from the STARS Corporation on March 1, 1985 for \$2.875 million. NPS initial efforts developing the island relate to improving

the public facilities and visitor services. NPS added a solar powered restroom building on the island in the 1980s, located approximately 50 feet south east of the harbor and just north of the Engine House in a low lying area prone to flooding (Graphic 27). Also in the 1980s, the NPS constructed new boardwalks at the harbor where visitors docked their boats. One section of new boardwalk partially covered an existing 70 feet by 6 feet section of existing limestone walkway that likely dated from the Honeywell period of development. The NPS also developed a camping area in open ground on the north east shore of the island, near the location of the Harrisons' main house that burned down in the 1960s. NPS installed picnic tables and charcoal grills and planted palm trees in the primitive camping area (Graphic 28).

For the first decade, the NPS continued a relationship with the DKCC, who were designated "Volunteers in the Park" and continued to have regular work parties on the island. DKCC projects included litter pickup, repairing the screens on the Picnic Pavilion, installing charcoal grills at the camp ground, building boardwalks around the harbor, repairing the bulkhead, repairing roofs, installing regulatory signs, planting native trees, removing exotic trees, and repairing picnic tables. During their May work weekend, DKCC volunteers "Stripped old cement tile and felt from Pavilion roof [and] utilized old cement tiles to reinforce the little lagoon bulkhead cap behind the stone bridge..." (Haston, 1991).

In August 1992, Hurricane Andrew passed over Boca Chita with winds recorded at 169 miles per hour at nearby Fowey Rocks Lighthouse (Graphic 29). The historic limestone structures on the island withstood Andrew's force, but the frame structures, including the Honeywell and Emerman-era cottages, the 1980s restroom, and the 1980s boardwalks, were essentially obliterated (Markowitz, 1997). Many of the trees across the island were uprooted in the storm; most of the ornamental plantings on the north end of the island and the mature mangroves on the south side of the island were destroyed. Of the historic structures, the arched concrete footbridge over the canal and the eastern two thirds of the stone wall were most heavily damaged. The glass in the lighthouse lantern was shattered and the casement windows were also heavily damaged in the hurricane. Most of the roofs on the other historic structures were blown off. The screen and shed addition on the Picnic Pavilion were completely removed by the hurricane (Graphic 30).

After the storm, the NPS cleared the island of the debris and began repairing the remaining historic structures. In 1995, NPS replaced the 1934 steel bulkhead from the Harrison era, which was heavily corroded from prolonged exposure to sea water. NPS constructed a new steel bulkhead approximately one foot outside of the existing bulkhead, filling the gap with soil. The new bulkhead extends 50 feet beyond the old bulkhead on the north side of the island and also extends across the mouth of the canal leaving the channel dry. According to a NPS document, "the canal does not currently serve any function [and was] structurally destroyed by the hurricane." The dry canal was filled with dirt with the coping of the retaining walls visible at grade. During the bulkhead project, the NPS also constructed a boat landing ramp approximately 16 feet south of the stone wall marking the southwest corner of the historic district boundary. The NPS also constructed a new restroom facility on high ground south of the foundation of the main house.

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All of the structures' roofs with the exception of the chapel (which had been replaced shortly before the hurricane) were replaced after Hurricane Andrew. The rear gable roof on the engine house was replaced with a hipped roof. New windows and modern "roll-down" garage doors were added to the garage. Structural engineers and architects inspected the lighthouse in 1999, 2001, and 2005; and the NPS has repeatedly repaired and maintained the structure in order to keep it safe and open to the public. NPS also replaced the boardwalks added in the 1980s (Graphic 31). The new composite-wood walkways extend east from the harbor from two locations merging just south of the foundation of the 1930s Harrison house.

The NPS management and operational plan for Boca Chita is to maintain as near to natural conditions as possible while protecting the cultural resources on the island. The north end of the island, which is where the cultural resources are concentrated, was replanted in 1994 with coconut palms and native trees to reflect the appearance of the historic district during its period of significance (Graphic 32 and 33). The area south of the stone wall was restored to a mangrove forest. A trail around the south end of the island was created by reducing the width of an existing access road. The island did not have any permanent interpretive displays prior to Hurricane Andrew but the NPS has installed displays and information kiosks interpreting the natural and cultural history of the island.



Graphic 26: Picnic pavilion with screen and shed addition (National Park Service, Biscayne National Park).



Graphic 27: Restroom building (National Park Service, Biscayne National Park).



Graphic 28: Camping Area (National Park Service, Biscayne National Park).



Graphic 29: Boca Chita before Hurricane Andrew (National Park Service, Biscayne National Park).



Graphic 30: Boca Chita after Hurricane Andrew (National Park Service, Biscayne National Park).

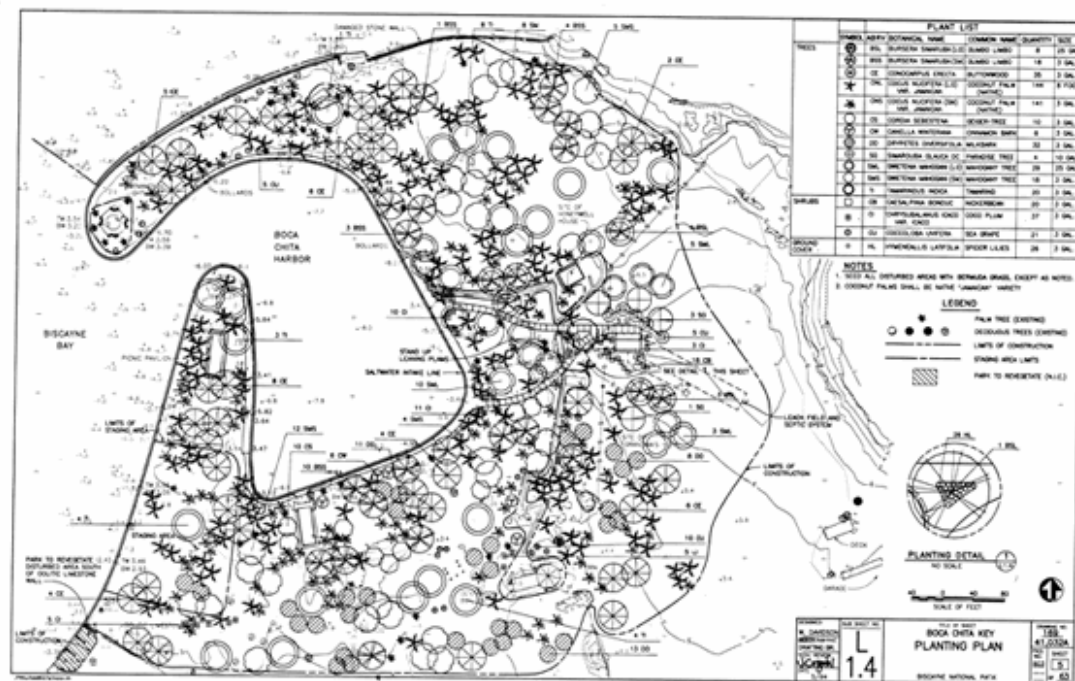


Graphic 31: Rebuilt bulkhead and boardwalk (National Park Service, Biscayne National Park).



Graphic 32: NPS Tree plantings after Hurricane Andrew (National Park Service, Technical Information Center).v

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Graphic 33: 1994 Planting plan designed by W. Davidson (National Park Service, Technical Information Center).

Analysis & Evaluation of Integrity

Analysis and Evaluation of Integrity Narrative Summary:

The National Register of Historic Places identifies seven qualities that define historic integrity. These aspects of integrity include location, design, setting, materials, workmanship, feeling, and association. Measuring historic integrity is based on a thorough knowledge of the site's history and determining if existing landscape features convey the historic significance of the site.

As to be expected, Boca Chita's cultural landscape features have experienced changes due to natural forces and man-made activities that undermined aspects of its historic integrity. Vegetation was a historically significant landscape feature at Boca Chita that has dramatically changed since the period of significance. The existing plant material accurately recreates the historic plant palette and design intent of the historic landscape and is considered contributing features of the cultural landscape. Land use has also changed dramatically since the property was initially developed as a private resort and is today operated as a public park. Changes related to this new use have impacted a number of historic landscape features, including circulation, small scale features, and natural systems and features. These changes to the historic landscape result in a reduced level of integrity for these characteristics.

Today, Boca Chita Historic District retains a high degree of historic integrity in the following landscape characteristics: spatial organization, buildings and structures, views and vistas, constructed water features, and topography. Overall, the Boca Chita Historic District landscape generally retains its historic character and accurately conveys its historic significance as a recreational resort associated with the development of the Miami, Florida region in the early twentieth century.

Aspects of Integrity:	Location
	Design
	Setting
	Materials
	Workmanship
	Feeling
	Association

Landscape Characteristic:

Circulation

Transportation to Boca Chita Key is provided either by either by the National Park Service concession or private boats. A harbor on the north end of the island provides boat parking and access. All circulation on the island is limited to foot traffic. Primary circulation on the north end of the island is accomplished by a boardwalk surrounding the harbor and a rock salt finished concrete walkway which leads east from the east side of the harbor to the comfort station. Both the boardwalk

and the concrete walkway are contemporary additions to the island installed by the NPS. According to original construction documents for the boardwalk, damaged sections of original oolitic limestone walks were left in place and covered by the new boardwalk. The construction of the Secondary circulation is provided by sections of remnant colored concrete walkways. These walkways date to the Honeywell era and run east from the harbor to the foundations of the Main House then turn south to connect with the engine house. All other circulation on the north end of the island is informal paths through lawn.

Outside of the historic district on the south end of the island, circulation is limited to a nature trail. The trail was constructed along a former roadbed by the NPS after purchasing the property. The trail begins at the stone wall on the west side of the property then loops around the southern tip of the island ending in the meadow west of the garage. The trail surface is earthen and is generally four feet wide. One wooden footbridge is located on the western portion of the trail where it crosses the only remaining drainage canal from the Honeywell Era.

Details on specific circulation landscape features:

Composite lumber boardwalk (Graphic 34)

A composite lumber boardwalk was installed by the National Park Service in 1994 as a part of a post Hurricane Andrew repair project. The boardwalk provides continuous circulation around the harbor and access to load and unload boats. Under the boardwalk, sections of the original limestone walks built in the Honeywell era remain. The limestone walks are noted as damaged in the 1994 plans and are currently inaccessible. Construction of the limestone walks is documented in a 1930s era Honeywell family video.

Rock salt finished concrete walkway (Graphic 35)

During the post Hurricane Andrew repair project, a new concrete walkway was added to the property. The sidewalk is 10 feet wide and finished with rock salt giving the final surface a pocked appearance much like the oolitic limestone used on the historic buildings.

Historic concrete walkways (Graphic 35)

These historic walkways are constructed with a top layer of integral red coloring. The walks are cracked and faded to a pale pink color. Condition of the sidewalks is consistent with their age and constant exposure to harsh conditions. Threats to the sidewalks include unnecessary stress caused by maintenance vehicles and mowers driving across them and accelerated disintegration caused by the accumulation of lawn thatch. The 1994 rock salt finished concrete walks cut through the historic concrete walks, removing two ten-foot sections of the historic concrete.

Limestone walkways

Three segments of these Honeywell Era limestone walkways are currently covered by the harbors boardwalk. The walks were identified on 1994 construction plans for the boardwalk as “damaged oolitic limestone walks.” The plans do not indicate that they were removed during construction. Two of the walks are located on the western side of the harbor and the third is located in the center of the eastern side of the harbor. The walks were not observed as they are currently inaccessible.

Character-defining Features:

Feature: Composite Lumber Boardwalk

Feature Identification Number: 133782

Type of Feature Contribution: Non contributing – compatible

Feature: Rock salt finished concrete walkway

Feature Identification Number: 144237

Type of Feature Contribution: Non contributing – compatible

Feature: Historic concrete walkways

Feature Identification Number: 144239

Type of Feature Contribution: Contributing

IDLCS Number: 91616

LCS Structure Name: Boca Chita Concrete Walkways

LCS Structure Number: HS-10

Feature: Limestone walkways

Feature Identification Number: 144241

Type of Feature Contribution: Undetermined

Feature: Nature Trail

Feature Identification Number: 146259

Type of Feature Contribution: Non contributing – compatible

Feature: Nature trail footbridge

Feature Identification Number: 146261

Type of Feature Contribution: Non contributing – compatible

Landscape Characteristic Graphics:



Graphic 34 : Composite boardwalk and benches (The Jaeger Company, 2009).



Graphic 35: Rock salt finished concrete and historic concrete walkways



Graphic 36: Nature trail (The Jaeger Company, 2009).



Graphic 37: Nature trail footbridge (The Jaeger Company, 2009).

Spatial Organization

The structures built by the Honeywells during the period of significance were located on the north end of the island in the vicinity of an existing, two-story frame dwelling constructed by Milton Harrison. The buildings are laid out in an arc around the harbor, beginning with the lighthouse and chapel north of the harbor, moving to the main house east of the harbor, to the engine house south of the harbor, and ending with the picnic pavilion west of the harbor. These buildings are generally oriented towards the harbor and are in close proximity of each other. Historically, the buildings were connected primarily by informal walking paths. The Honeywells did install concrete walkways connecting the main house and engine house to a limestone walkway on the east side of the harbor. There were also disconnected sections of walkways installed during the period of significance on the south and west sides of the harbor that, with the east section, serviced wooden boat docks. The lighthouse, which marked the entrance to the harbor, and the picnic pavilion, which served as the primary gathering place for visitors, are closest to the harbor. The engine house, which housed a generator that provided electricity to other structures, is centrally located on the island. The garage, which served a more utilitarian function during the period of significance, is isolated from the other buildings on the east side of the developed area. The north end of the island, where the structures were, was physically and visually separated from the rest of the island by a large stone wall. This wall demarks the southern boundary of the historic district.

Hurricane Andrew destroyed all of the frame buildings on the island, leaving behind only the limestone Honeywell era buildings. Hurricane Andrew also destroyed the eastern two-thirds of the stone wall. The main house burned down in the 1960's and was not reconstructed. NPS constructed additional walkways, providing a continuous walkway around the harbor and connecting the harbor with a new comfort station.

The spatial organization of remaining buildings and landscape features retains a fair amount of historic integrity. Buildings and features have been lost, but the majority of historic buildings and features remain from the period of significance. Photographic evidence shows that contrary to the findings of the Historic Resource Survey and National Register Nomination several buildings that were previously identified as constructed after the Period of Significance were in fact built by the Honeywells. The spatial context of the island is similar as during the period of significance, as the island is still located between Ragged Key number 5 to the north and Sand Key to the south. Views from Boca Chita northwest towards Miami has evolved as the skylines of Miami and Miami Beach have changed.

Views and Vistas

The view of the Boca Chita Lighthouse both from the island and from a boat in the bay is a primary view associated with Boca Chita Key. One of the major functions of the lighthouse is to provide a landmark and focal point at the entrance to the harbor. The 65 foot tall limestone building is very visible from the bay as boats approach and depart the island. While on the island views of the lighthouse are provided from all sides of the harbor, the pavilion, and chapel, as well as palm framed views from the canopied lawn surrounding the harbor. These views remain intact from the period of significance.

The 360 degree panorama view from the observation deck of the lighthouse is the other primary view at Boca Chita. Beside the role the lighthouse plays as a landmark on the island, it also serves as a point from which a viewer can survey the Boca Chita property, Biscayne Bay, surrounding keys, the Atlantic Ocean and Miami's skyline. The lighthouse was intended as a destination for visitors during the period of significance and remains a popular vantage today. The view from the deck has changed little since the lighthouse was constructed. The primary changes are to the distant mainland. Miami's skyline is visible on clear days, but is of little visual impact due to its distance from the island. While the skyline is a minor element in the viewshed, it was likely even less apparent during the period of significance. While the relationship to Miami is very important to the significance of the island, visually Miami is of minor importance in this view shed. Other intrusions in the viewshed include a sanitary landfill and the Turkey Point Nuclear Power Plant located south of Miami. As with the Miami skyline, these intrusions are of minimal impact due to their distance from the island.

Character-defining Features:

Feature: View of Boca Chita Lighthouse

Feature Identification Number: 144243

Type of Feature Contribution: Contributing

Feature: View from Boca Chita Lighthouse

Feature Identification Number: 144245

Type of Feature Contribution: Contributing

Landscape Characteristic Graphics:



Graphic 38: View of Boca Chita Lighthouse



Graphic 39: View from Boca Chita Lighthouse



Graphic 40: View from Boca Chita Lighthouse

Buildings and Structures

Boca Chita Key historically included a complex of limestone and concrete structures constructed to serve as a private resort for Mark and Olive Honeywell. When the Honeywells purchased the island in 1937, there was one existing frame dwelling and existing structural steel bulkheads. Milton W. Harrison likely constructed these structures in the 1930's. A concrete foundation marks the location of the frame dwelling, which was destroyed by fire in the 1960's, and NPS added a new bulkhead in the 1990's but left the 1930's bulkhead in place.

Details on specific buildings and structures:

Boca Chita Lighthouse (Graphic 41)

Mark Honeywell had the Boca Chita Lighthouse built to mark the entrance into the Boca Chita harbor. The 65 foot tapering tower is approximately 19 feet in diameter at its base and sits on a terrace-like poured-concrete foundation approximately 28 square feet. The foundation features stone paving and four low curved stone walls terminating in square end piers. Thick metal chains connect three of these walls. The foundation also reportedly contains a cistern which collects water that drains from the observation tower. The tapering cylinder is constructed of structural concrete bricks, laid in common bond, with an exterior surface of uncoursed oolitic limestone. A reinforced concrete

observation deck with black-painted steel railings projects outward near the top of the tower. A dome shaped steel frame lantern, originally set with glass lights, rises from the observation deck. The lantern historically featured four operable windows which allowed Honeywell to vent hot air during warm weather. The interior features a spiraling stair case with concrete steps and metal railing. The tower features seven windows at the lower walls and three at the lantern level. An original wood door provides access to the interior of the tower.

Winds associated with Hurricane Andrew in 1992 destroyed the glass panes in the lantern and the four vent windows. The NPS removed and repaired the lantern; however, they replaced the glass with Plexiglass vision panels and did not reinstall the four vent windows in the lantern. Maintenance of the lighthouse also included repointing joints and filling cracks in the exterior walls. The NPS continues to periodically maintain and repair the lighthouse and presently provides public access. The lighthouse is in good condition and retains historic integrity.

Boca Chita Chapel (Graphic 42)

Boca Chita Chapel is a 12 feet by 20 feet concrete block building with an exterior surface of uncoursed oolitic limestone. The chapel has a distinct, steeply pitched concave roof. There are symmetrically arranged doors and windows. Honeywell's use of the building is unclear; there is evidence that the chapel was also used as guest quarters.

NPS repaired the roof prior to 1992, installing an asphalt shingled roof which survived Hurricane Andrew. NPS removed the door on the east elevation and covered this entrance and the building's windows with plywood. NPS added a deadbolt to the original door on the south elevation. NPS uses the chapel for storage. The chapel is in good condition and retains historic integrity.

Boca Chita Pavilion (Graphic 43)

Boca Chita Picnic Pavilion was built by Honeywell and used as a picnic/gathering space for entertaining visitors to Boca Chita. The pavilion consists of ten oolitic limestone piers rising from a 15 feet by 52 feet poured concrete foundation. The piers support a wood cornice and freeze topped by a hipped roof. There are decorative metal tie bars visible from within the pavilion.

Sometime after the period of significance and prior to the NPS purchase of the island, owners of the island, likely the Rivers, added screen and a shed roof addition to the pavilion. These were destroyed during Hurricane Andrew in 1992. NPS repaired the roof, adding asphalt shingles. Participants with the Historic Preservation Training Center recently rebuilt the pavilion piers. NPS allows public use of the pavilion. The pavilion is in good condition and retains historic integrity.

Boca Chita Garage (Graphic 44)

Mark Honeywell constructed the Boca Chita Garage (90193) (HS-4) during the period of significance. According to a 1950's era "Real Estate Broker's Guide" to the property, the building housed a machine shop and maintenance equipment. The garage is 71 feet by 31 feet; it is constructed of concrete block with an exterior surface of oolitic limestone. The building has chimneys integrated into the endwalls and a gabled roof. There is a concrete apron leading to the north façade, which features four large, garage-door-type openings and one standard door opening. There are four transom windows on the north elevation, standard windows on the south, west, and east elevations, and additional doors on the west and east elevations.

At the time of Hurricane Andrew, the garage had a corrugated metal roof, which was completely blown off during the hurricane. NPS replaced the roof with asphalt shingle. NPS replaced one of the bay doors with a roll-up garage door, covered the other doors with plywood, replaced several of the windows, and covered the windows with Plexiglas storm windows. NPS uses the building to house maintenance equipment. Except for the modern additions to the building, the garage is largely in good condition and retains historic integrity.

Boca Chita Engine House and Cistern (Graphic 45)

Boca Chita Engine House with attached Cistern was built by Honeywell during the period of significance. The engine house, also known as the generator building, housed equipment to provide electrical power to the other buildings on the island. The one story structure measures 15 ½ feet by 32 ½ feet. It is constructed of concrete block with an exterior façade of oolitic limestone. The adjacent cistern, comprised of limestone with a concrete top, presumably was used to collect rainwater. There was a small shed addition on the south elevation built on a concrete and stone platform.

Hurricane Andrew severely damaged the roof of the engine house. NPS repaired the main roof with asphalt shingles. The small shed addition does not exist except for a concrete foundation. NPS has replaced three of the original, double hung windows with modern single casement windows, and has covered the exterior of the windows with plywood. NPS presently uses the building as storage and seasonal housing for park volunteers. Except for the use of contemporary materials for recent maintenance of the building, the engine house and cistern are in good condition and retain historic integrity.

Boca Chita arched concrete footbridge (Graphic 46)

Honeywell constructed a simple arched concrete footbridge over a narrow canal that predates his purchase of the island. The footbridge is 14 feet long and 6 feet wide. It features 3 feet tall walls of uncoursed oolitic limestone. The walls originally flared out into low scroll forms.

Hurricane Andrew destroyed two-thirds of the south wall. In more recent years the concrete deck of the footbridge has collapsed and the original stone walls are no longer present at the bridge site. Damage to the footbridge is extensive. The condition of the footbridge is poor.

Boca Chita stone walls (Graphic 47 and 48)

Honeywell constructed a stone wall around the primary buildings on the north end of Boca Chita. The wall features limestone on a concrete foundation with vertical steel reinforcing bars. The wall originally ran southeast from Biscayne Bay shore, south of the picnic pavilion, about 400 feet, curved east for 35 feet, extended west another 309 feet, before turning north for a final 155 feet. The wall terminated in the vicinity of the Engine House. Originally, the wall featured seven gateways and a small, one room stone gatehouse.

Hurricane Andrew destroyed the eastern half of the stone wall; this eastern section is in a ruinous state. Today, there are only three existing gateways through the wall. A limestone cap to one of the western gate piers has fallen off and is lying at the base of the pier. A second limestone cap has fallen from the central gate piers and is lying at the base of the pier. Buttonwood shrubs are growing under the foundation of the wall. NPS has repointed mortar on the western gate columns. The wall is in fair condition. Despite loss of material and design, historic integrity is retained.

Boca Chita retaining walls (Graphic 49)

Honeywell also had a low limestone retaining wall constructed on the north side of the island to serve as a bulkhead. NPS has periodically repaired the wall, but portions have collapsed and many stones have come loose from the mortar and fallen into the bay. The resource retains integrity, but requires repair. The condition of the retaining walls is fair.

Foundation of Main House (Graphic 50)

When Mark Honeywell purchased Boca Chita in 1937 there was a two story, frame house built east of the island harbor. Honeywell used the building as his primary domestic dwelling while on the island. This structure burned in the 1960's when the Rivers family, owners of the island from 1955 to 1985, had a caretaker living on the island. The concrete foundation is all that remains from this structure. The resource does not retain historic integrity and is considered a non-contributing resource to the district.

Shower House foundation (Graphic 51)

The Rivers Family constructed a 12 feet by 6 feet concrete block shower house on the backside of Grandma's Hut after the period of significance. The concrete slab of the shower house remains, but Grandma's Hut was destroyed by Hurricane Andrew. It is a non-contributing resource lacking historic integrity.

A good collection of buildings and structures from the period of significance (1937-1945) still exist on the site, including a lighthouse, chapel, picnic pavilion, garage, engine house and cistern. These structures were largely constructed by the Honeywells between 1937 and 1940. During the same period, the Honeywells also had constructed smaller structures including a canal, arched concrete footbridge, stone walls, and stone retaining walls. All of the buildings are located in close proximity to one another on the north end of the island, clustered around the Harrison-era structure that served as the primary domestic dwelling during the Honeywell period. All of the Honeywell buildings and structures feature exterior surfaces of quarry-faced Miami oolite limestone. The buildings and structures reflect the Mediterranean- inspired architecture popular during this period with wealthy individuals constructing private resorts in this region. The architecture firm of August Geiger is credited with designing the lighthouse and, because of the architectural similarity between all of the island's structures, may have designed the entire complex.

The visual continuity of the complex, achieved through a consistent use of material and architectural style, results in a significant historic district of buildings and structures. All of the buildings are in their original locations and changes to their materials and workmanship have been minimal. All of the buildings possess integrity of design, as do all of the structures except for the arched concrete footbridge. The structural integrity of these buildings and structures is sufficient to convey the form and function of their historic use as a private retreat during the period of significance. Therefore, all of the buildings and structures except for the footbridge retain integrity of location, design, setting, material, workmanship, feeling and association. While the arched concrete footbridge has collapsed, the feature contributes to the significance of the district.

Character-defining Features:

Feature: Boca Chita Lighthouse

Feature Identification Number: 144247

Type of Feature Contribution: Contributing

IDLCS Number: 90190

LCS Structure Name: Boca Chita Lighthouse

LCS Structure Number: HS-1

Feature: Boca Chita Chapel

Feature Identification Number: 144249

Type of Feature Contribution: Contributing

IDLCS Number: 90191

LCS Structure Name: Boca Chita Chapel

LCS Structure Number: HS-2

Feature: Boca Chita Pavilion

Feature Identification Number: 144251

Type of Feature Contribution: Contributing

IDLCS Number: 90192

LCS Structure Name: Boca Chita Picnic Pavilion

LCS Structure Number: HS-3

Boca Chita
Biscayne National Park

Feature: Boca Chita Garage

Feature Identification Number: 144253

Type of Feature Contribution: Contributing

Feature: Boca Chita Engine House and Cistern

Feature Identification Number: 144255

Type of Feature Contribution: Contributing

IDLCS Number: 90194

LCS Structure Name: Boca Chita Engine House and Cistern

LCS Structure Number: HS-5

Feature: Boca Chita arched concrete footbridge

Feature Identification Number: 144257

Type of Feature Contribution: Contributing

Feature: Boca Chita stone walls

Feature Identification Number: 144259

Type of Feature Contribution: Contributing

IDLCS Number: 90196

LCS Structure Name: Boca Chita Stone Walls

LCS Structure Number: HS-7

Feature: Boca Chita retaining walls

Feature Identification Number: 144261

Type of Feature Contribution: Contributing

IDLCS Number: 91571

LCS Structure Name: Boca Chita Retaining Walls

LCS Structure Number: HS-9

Feature: Foundation of Main House

Feature Identification Number: 144263

Type of Feature Contribution: Non contributing – compatible

Feature: Shower House foundation

Feature Identification Number: 144265

Type of Feature Contribution: Non contributing – compatible

Landscape Characteristic Graphics:



Graphic 41: Boca Chita Lighthouse



Graphic 42: Boca Chita Chapel



Graphic 43: Boca Chita Pavilion



Graphic 44: Boca Chita Garage



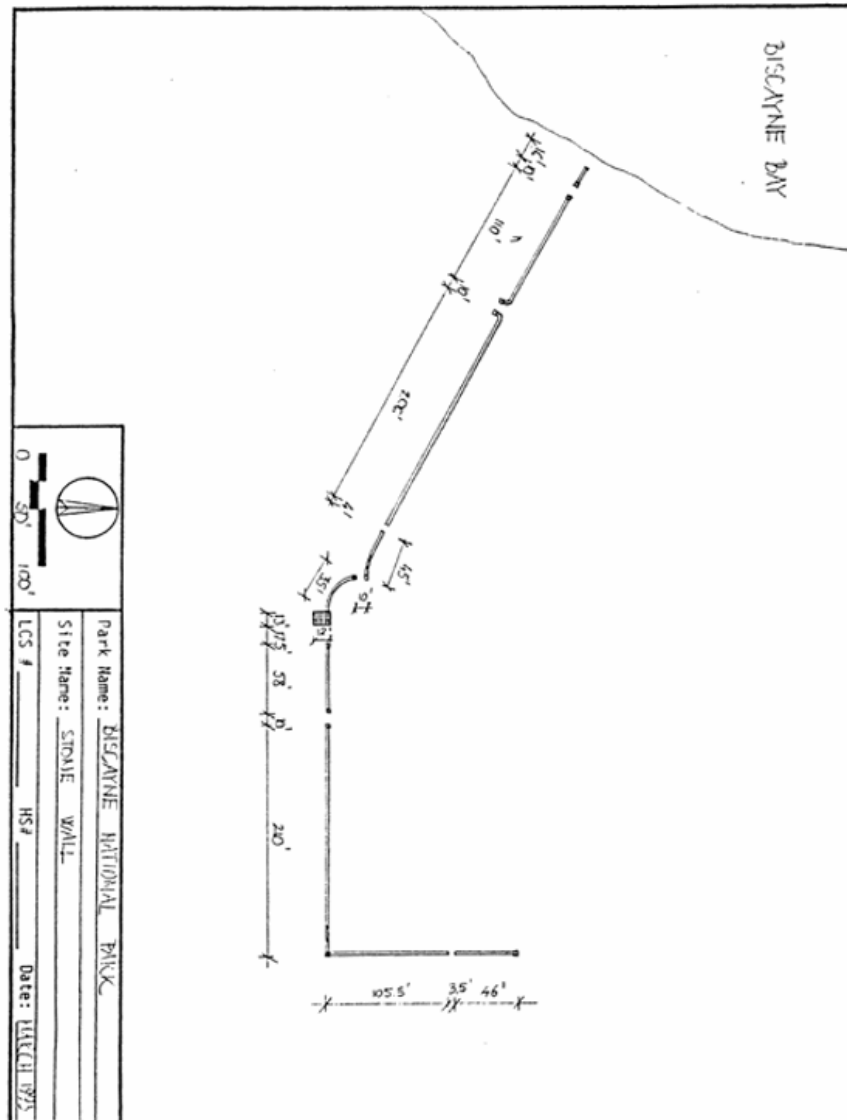
Graphic 45: Boca Chita Engine House and Cistern



Graphic 46: Boca Chita arched concrete footbridge



Graphic 47: Boca Chita stone walls



Graphic 48: Boca Chita stone walls



Graphic 49: Boca Chita retaining walls



Graphic 50: Foundation of Main House



Graphic 51: Shower House foundation

Constructed Water Features

Constructed water features at Boca Chita Key consist of a boat harbor, an ornamental canal and a functioning drainage canal. The harbor was first constructed by F. A. Seiberling between 1916 and 1926. Seiberling built a wooden bulkhead to stabilize the harbor. In 1926 a hurricane destroyed the bulkhead. After the hurricane, Milton Harrison purchased the island. In 1934 Harrison dredged the harbor and installed a steel bulkhead (Cullison, 1998 and Yelen). It also appears that during his ownership, Harrison constructed three canals which functioned to drain the two mangrove swamps in the interior of the island. These swamps and canals are visible in a historic aerial of the island from the 1930's (Graphic 6). After Honeywell acquired the property in 1937, the northern swamp was filled. A section of the canal where it connected to the harbor was retained and converted into a limestone stone lined ornamental canal. This feature is still visible in the landscape, but was filled in 1994. The southern mangrove swamp was never filled and remains along with the southern most drainage canal. The southern canal is outside of boundary of the historic district. The steel bulkhead installed by Harrison remains in various states of decomposition. To correct damage after Hurricane Andrew, the NPS installed a new steel bulkhead in front of Harrison's bulkhead along the northern end of the island, within the harbor and along the western edge of the property stretching down to the limestone wall at the southern end of the historic district. A concrete cap along the new bulkhead obscures views of the old bulkhead in this area. South of the historic district along the western property border, Harrison's bulkhead is still visible. This bulkhead is badly corroded.

Details on specific constructed water features:

Harrison's bulkhead (Graphic 52)

Within the historic district, Harrison's bulkhead is obscured by a new steel bulkhead and concrete cap built in 1994. The new bulkhead was constructed to repair damage to Harrison's bulkhead by Hurricane Andrew. South of the historic district, the original bulkhead is still defines the western edge of the island. The bulkhead does not retain sufficient historic integrity to be a contributing resource.

Ornamental canal (Graphic 54)

This canal originally connected a mangrove swamp to the south end of the island's harbor. After filling the mangrove swamp, Honeywell retained a 50 foot section of the canal nearest the harbor. The ornamental canal was finished with limestone walls topped with green tinted concrete coping. Honeywell also constructed an arched concrete footbridge, (IDLCS 90195) over this canal. The canal was filled in 1994 during the construction of the new bulkhead and concrete cap, but is still visible in the landscape. Despite being altered, the original function of the canals remains apparent and the resource is considered a contributing resource.

Drainage canal (Graphic 55)

This drainage canal is visible from the nature trail just south of the historic district. A small portion of limestone wall associated with the original construction of the canal remains. The stone wall is leaning and appears to have recently been repaired. Due to a substantial loss of material this feature is considered a non-contributing resource.

Character-defining Features:

Feature: Harrison's bulkhead

Feature Identification Number: 144273

Type of Feature Contribution: Non contributing – compatible

Feature: NPS Era bulkhead

Feature Identification Number: 144275

Type of Feature Contribution: Non contributing – compatible

Feature: Ornamental canal

Feature Identification Number: 144277

Type of Feature Contribution: Contributing

Feature: Drainage canal

Feature Identification Number: 144279

Type of Feature Contribution: Non contributing – compatible

Landscape Characteristic Graphics:



Graphic 52: Harrison's bulkhead



Graphic 53: NPS Era bulkhead



Graphic 54: Ornamental canal



Graphic 55: Drainage canal

Small Scale Features

Many small-scale features exist at Boca Chita Key. A cannon that was fired to great guests of the island and two pairs of steel bollards remain from the period of significance. Contemporary features have been added to the landscape to facilitate current use of the island. These features include a flagpole, signs, campsite amenities, a kiosk and benches. Contemporary additions are in good condition and do not negatively impact the integrity of the landscape. Condition of the features from the period of significance is discussed below:

Boca Chita cannon (Graphic 56)

The cannon is located near the base of the lighthouse at the mouth of the harbor. An oolitic limestone base supports the cannon. The cannon is badly corroded, while the stone base is in good condition.

Steel bollards (Graphic 57)

A pair of bollards is located at the north end of the harbor at the terminus of the boardwalk. A second pair is located on the east side of the harbor along the boardwalk. Both pairs of steel bollards are located in the same positions that were recorded in the 1994 survey of the property but appear to have been reset in new concrete bases. The bollards are badly corroded.

Flagpole (Graphic 58)

The flagpole is located north of the pavilion at the mouth of the harbor. Historic photos indicate that a flagpole was present in this general vicinity during the period of significance. Today as in the period of significance, the flagpole is used to fly the flag of the United States. During field investigations a concrete base that may have held the original flagpole was located near the base of the current flagpole.

Signs (Graphics 59, 60, and 61)

Contemporary signs have been added by the NPS. These include a Park Sign at the mouth of the harbor, wayside exhibits at points of interest around the island and regulatory signs around the campsites and harbor. Regulatory signs and the park sign are constructed of standard NPS brown metal, while the waysides are made of ceramic porcelain. Waysides are used at views, along the nature trail and around the harbor. The waysides focus on both natural resources and cultural resources.

Campsites (Graphic 62)

The campground located northeast of the harbor features amenities for camping. Each campsite is defined by a metal grill. Composite lumber and molded plastic picnic tables are also provided in this area. Additional picnic benches are located around the harbor, near the comfort station and in the pavilion.

Kiosk (Graphic 63)

A wooden kiosk is located on the eastern side of the harbor. This feature is used by campers and overnight boat guests to self register and provides information about the island and the park. The kiosk consists of a shed roof with three wooden walls featuring maps and information. A fee collection box is located in the center of the kiosk.

Composite lumber benches (Graphic 64)

Backless benches constructed of composite lumber are located around the harbor and near the comfort station.

Character-defining Features:

Feature:	Steel bollards	
Feature Identification Number:	144281	
Type of Feature Contribution:	Contributing	
Feature:	Boca Chita cannon	
Feature Identification Number:	144283	
Type of Feature Contribution:	Contributing	
Feature:	Flagpole	

Boca Chita
Biscayne National Park

Feature Identification Number:	144285
Type of Feature Contribution:	Non contributing – compatible
Feature:	Signs
Feature Identification Number:	144287
Type of Feature Contribution:	Non contributing – compatible
Feature:	Campsites
Feature Identification Number:	144289
Type of Feature Contribution:	Non contributing – compatible
Feature:	Kiosk
Feature Identification Number:	144291
Type of Feature Contribution:	Non contributing – compatible
Feature:	Composite lumber benches
Feature Identification Number:	144293
Type of Feature Contribution:	Non contributing – compatible

Landscape Characteristic Graphics:



Graphic 56: Boca Chita Cannon



Graphic 57: Steel bollards



Graphic 58: Flagpole



Graphic 59: Park sign



Graphic 60: Wayside



Graphic 61: Regulatory signage



Graphic 62: Campsites



Graphic 63: Kiosk



Graphic 64: Composite lumber benches

Land Use

Boca Chita Key is considered significant as a fine example of Miami area vacation properties developed during the early twentieth century by wealthy industrialists. This pleasure island was developed for recreation and entertainment and has maintained a similar use since the period of significance. During the Honeywell era of ownership, Boca Chita Key hosted parties for the wealthy elite, such as the annual Committee of One Hundred party. Buildings and structures were primarily constructed as follies in the landscape, facilitates to support parties or as maintenance structures.

Existing features from the period of significance include five buildings, four structures, one object and a system of concrete walkways. Buildings from this period are located within the Boca Chita Historic District and executed in oolitic limestone, which was common during this era in Miami. These features are generally located near the harbor, which served as the “front door” of the island. The iconic building from the period is the ornamental lighthouse at the mouth of the harbor. Believed to have never functioned as a navigational aid, the lighthouse was primarily used to provide views of the tropical environment.

Photos from the Honeywell's parties depict double parked boats in the harbor, a large event tent between the garage and engine house, elephant rides, gaming stations set up for golfing, throwing darts and pitching horseshoes, and a saloon providing shots of alcohol. Party going guests would overnight aboard their boats in the harbor.

The island is far enough from Miami to provide the feeling of a remote locale while the journey to the island is a beautiful excursion through the blue waters of Biscayne Bay. The trip between the park headquarters near Homestead, Florida and the island currently takes 30 minutes. A journey from Miami to the island would have taken even longer during the period of significance. Today, the island continues to serve as a boating destination in the Miami area as well as a campground for Biscayne National Park. A concession of the park provides boat transportation to the island

Historic images of the island reveal several service buildings and paths surrounded by naturalized vegetation in the area south of the historic district. No buildings remain in this area, but mangrove plant communities continue to dominate the area. This area is now bordered on the west, south and east by a nature trail. The area north of the stone wall was formerly managed as open lawn and is now being allowed to naturalize. The area between the garage and engine room that was maintained as lawn for event tents is now managed as seasonally mown meadow. Consistent with the original management of these areas, the camping area east of the harbor and the area immediately around the harbor are maintained as palm canopied lawns.

Natural Systems and Features

Geology: Boca Chita Key is a constructed island composed of dredge material on a base of soft limestone. In an effort to increase island real estate in the Miami area during the early 1900s, material was dredged from Biscayne Bay and added to many of the stone keys located to the south and east of the city. The stone keys, also known as the Upper Keys, are located between Solider Key in the north and Big Pine Key to the south (Myers, 1991). The islands are composed of Key Largo limestone that was formed when shallow Pleistocene epoch coral reef was exposed to air (Cullison, 1998).

Ecology: Many species found within Biscayne National Park are listed as threatened, endangered or as species of concern by state and federal agencies. Biscayne National Park maintains a list of these species. The terrestrial portions of Boca Chita Key could potentially serve as habitat for the following species: red knot (*Calidris canutus*), loggerhead sea turtle (*Caretta caretta*), piping plover (*Charadrius melodus*), green sea turtle (*Chelonia mydas*), American crocodile (*Crocodylus acutus*), eastern indigo snake (*Drymarchon corais couperi*), Hawksbill sea turtle (*Eretmochelys imbricata*), beach jacquemontia (*Jacquemontia reclinata*), wood stork (*Mycteria americana*), least tern (*Sterna antillarum*), and roseate tern (*Sterna dougallii dougallii*). Current management of the island provides habitat for many of these species. While sea turtles have not been recorded to nest on the beaches of Boca Chita Key, it is not impossible that one could attempt to nest there in the future. Listed species known to utilize marine areas of south Florida, such as: staghorn coral (*Acropora cervicornis*), elkhorn coral (*Acropora palmata*), West Indian manatee (*Trichechus manatus*), smalltooth sawfish (*Pristis pectinata*) could possibly utilize the marine areas surrounding Boca Chita Key.

While the island provides suitable habitat for threatened and endangered species, it is also susceptible to invasion by problem exotic species. Biscayne National Park provides suitable habitat for three invasive exotic amphibian species, six reptiles, three birds, three mammals, and eight plant species.

Vegetation: Naturalized vegetation is generally located outside of the Boca Chita Key Historic District, primarily along the eastern edge of the property and on the southern end of the island. Various mangrove communities are the dominate plant communities in the naturalized areas. A draft vegetation study by the NPS South Florida/Caribbean Network was conducted for Biscayne National Park. GIS data from this project was used to create Graphic 64. The vegetation map identifies eight communities currently found on Boca Chita Key. Of the plant communities, most are dominated by one or more of the South Florida mangrove species and/or a mangrove associate called buttonwood (*Conocarpus erecta*). The “true” mangroves are black mangrove (*Avicennia germainas*), red mangrove (*Rhizophora mangle*), and white mangrove (*Laguncularia racemosa*). Buttonwood is referred to as a “mangrove associate” because it doesn’t have root modifications for saturated, saline soils or viviparity of propagules that are found in mangroves (Myers, 1991). Other native plant species that were observed within the naturalized areas of the island during field work include Seagrape (*Coccoloba uvifera*), Bay Cedar (*Suriana maritima*), Geiger tree (*Cordia sebestena*), and Poisonwood (*Metopium toxiferum*).

Red, black and white mangroves are protected by the State of Florida’s 1996 Mangrove Trimming and Preservation Act and require special permits for trimming. This may become an important issue in future vegetation management, as mangroves are currently overtaking the historic limestone wall at the southern end of the historic district. Buttonwood is not protected by the act.

Generally, the southern portion of the island has been maintained as a naturalized area since the Honeywells first established the limestone wall that now marks the southern boundary of the historic district. Some historic photos show paths within this area and even a couple of sheds, but largely the southern half of the island appears much as it does now. In the center of the island just south of the stone wall, a mangrove forest has been present since the earliest photographs. This area is identified in the Vegetation Inventory Map as Mixed Mangrove Forest. The earliest aerial photograph (Graphic 6) shows a second mangrove forest just north of the current mangrove forest, which appears to have been drained and filled during the Honeywell Era.

The naturalized areas of the island also contain exotic vegetation. Photographs from the Honeywell Era show a large number of Australian pine (*Casuarina equisetifolia*) on the island both within the historic district and on the southern end of the island. These trees were commonly planted in South Florida during this era and have become an established invasive exotic plant. In addition to Australian pine the following invasive exotic plants have been identified within Biscayne National

Park, latherleaf (*Colubrina asiatica*), lygodium (*Lygodium japonicum* and *Lygodium microphyllum*), melaleuca (*Melaleuca quinquenervia*), beach naupaka (*Scaevola sericea*), Brazilian pepper (*Schinus terebinthifolius*), Seaside mahoe (*Thespesia populnea*). A 1992 letter from Biscayne National Park Resource Management Coordinator identifies areas for exotic plant removal for the year. Along with the letter a map locates the areas for removal, as well as, previous removal project areas from 1987 through 1991. A second map accompanying the map identifies vegetation management zones and locations for replanting. Species used for replanting include buttonwood, wild tamarind (*Lysiloma latisiliqua*), seagrape, Geiger tree, gumbo limbo (*Bursera simaruba*). The letter goes on to mention that previous replanting efforts and numerous volunteer plants have necessitated moving the burn pile. The plant species mentioned in this letter are still evident in this area of the island while Australian pine appears to have been successfully eradicated. Plantings within the Historic District will be further discussed in the Vegetation section.

Climate: The Upper Keys receive 40 to 45 inches of rainfall annually. Three quarters of the precipitation occurs in the wet season, June through September (Myers, 1991). Summers are warm and humid with an average temperature in the mid-80s. Afternoon thunderstorms are common during the summer months. Winter is generally mild with an average temperature in the mid-60s. Heavy rains, flooding and high winds from hurricane systems are common between June and November.

Topography

Topography at Boca Chita key is relatively flat and has changed little since the period of significance. When the island was first enlarged in the early 1900s, 5 to 13 feet of material dredged from Biscayne Bay was added to the limestone island to produce the current 32 acre property. A 1994 survey of the historic district provides the best topographic information for the island. According to these plans, the highest elevation is found east of the harbor at the comfort station. The elevation here is eight feet mean low water datum (mlw). During construction of the comfort station, grading of this area increased the elevation of this highpoint from just over seven feet mlw to its current eight and a half mlw level. The lowest elevation on the island is found south of the canal and measures just below two feet mlw. Topography plays a minor role in this landscape. Elevation change on the island is provided by the lighthouse and the views from it.

Vegetation

Vegetation within the historic district is largely the product of a large scale planting after Hurricane Andrew destroyed much of the island's vegetation. Photos taken after the hurricane reveal a devastated landscape with very few trees remaining (Graphic 30). Construction drawings titled "Hurricane Damage Repair – Keys" were created in 1994 by the Denver Service Center (Graphic 33). The plans called for extensive plantings within the historic district to reflect the lush tropical canopy that existed during the period of significance. To reestablish a landscape similar to the period of significance, a mixture of native trees and ornamental palms were planted. Specifically the plans featured: Trees- Gumbo limbo (*Bursera simaruba*), Buttonwood (*Concarpus erecta*), Coconut palm (*Cocos nucifera* var. *Jamaican*), Geiger-tree (*Cordia sebestena*), Cinnamon bark (*Canella winterana*), Milkbark (*Drypetes diversifolia*), Paradise tree (*Simarouba glauca*), Mahogany tree (*Swetenia*

mahagoni), Tamarind (*Tamarindus indica*), Shrubs- Nickerbean (*Caesalpinia bonduc*), Coco plum (*Chrysobalanus icaco* var. *icaco*), Sea grape (*Coccoloba uvifera*), Groundcover- Spider lilies (*Hymenocallis latifolia*), and Bermuda grass seed to cover all disturbed areas.

From historic news accounts and photos, we know that Gumbo limbo, Coconut palm, Sea grape and Bermuda grass are consistent with plantings during the period of significance. Current vegetation is similar to that of the period of significance. Many of the species used in 1994 have no historic precedence, but over all do not greatly alter the historic landscape. This is due to the small number of non-historic trees that have survived and the abundance of Coconut palms and Bermuda lawn that dominate the historic district.

Over 450 trees were planted according to these plans. Nearly 300 of the trees planted were Coconut palms. This is consistent with historic photos which show the north end of the island with a dense canopy dominated by Coconut palms. Current canopy density is somewhat less than during the period of significance.

The landscape architect believed the specified Coconut palms to be native species as evidenced by the note on the planting plan which says, "Coconut palms shall be native "Jamaican" variety." In fact, this species of palm is a naturalized exotic species which now occurs throughout the Keys. While the tree is historically appropriate, it poses a potential threat to native populations of palms due to its susceptibility to lethal yellowing. At present there are no documented cases of the disease at Boca Chita or a lethal yellow monitoring program in place. Recommendations for monitoring the disease and future replacement of Coconut palms, if required, are presented in the Treatment and Use section of this document. Tamarind is another exotic species that was used in the 1994 planting plan, but is not known to present a threat to native species. All other material is native to the region.

While most all vegetation was destroyed during the hurricane, the survey conducted to inform the 1994 damage repairs project identified some remaining tree species. Predominantly, the survey noted Australian pines, coconut palms and buttonwood, as well as unidentified palms and deciduous trees. Australian pine was a remnant from original plantings by the Honeywells. This species has been removed from the island due to its invasive nature and the threat it poses to outperform native vegetation. Surviving vegetation of note within the historic district include a specimen Canary Island date palm (*Phoenix canariensis*) (Graphic 65) just north of the harbor, 10 Senegal date palms (*Phoenix reclinata*) (Graphic 66) south of the harbor, 18 coconut palms mostly located around the harbor, 3 Sea grapes and 5 buttonwood which are located along the edges of the island.

Canary Island date palms, Coconut palms and Sea grapes are clearly evident in photos from the period of significance or are mentioned in historic news accounts. Their general locations around the harbor and around buildings are also consistent with historic landscape conditions. While these trees predate the 1994 planting, it is unlikely that they date to the period of significance.

Photos from the 1950s show the Coconut palms of a much larger size than the current size of the hurricane survivors. Post hurricane photos show the Canary Island Date palm as a small tree that is similar to the size of those noted in photos from the period of significance. Sea grape is visible in historic photos, but existing specimen do not appear to be of a size consistent with 70 years of growth. While none of the species are known to date to the period of significance, they are appropriately located, are species planted during the period of significance and are therefore considered contributing features. Buttonwood trees are likely to have existed during the period of significance. Historic photos are not conclusive as to their presence during the period of significance, indicating that they did not play a dominant role in the more visible portions of the landscape. Several large specimen buttonwoods are indicated on the 1994 planting plans; these plants persist today. While most are located outside of the historic district, several are located north of the chapel. The existing plants should be maintained, but there is no conclusive evidence that this species is appropriate for extensive use within the historic district. They are, however, appropriate in the naturalized areas of the island outside of the district.

Senegal date palms have not been identified in historic photos or in news accounts from the period of significance. They are possibly the result of purported plantings by the Dinner Key Cruising Club during their tenure as caretakers of the island. Senegal date palms are considered non contributing features in the historic district.

Naturalized vegetation is currently invading the southern boundary of the historic district. The Draft Vegetation Inventory Map (Graphic 64) identifies the communities that are invading this area as Freshwater Marsh and Salt Marsh. Graphic 44 shows the view from within the Freshwater Prairie community looking northeast. This area was maintained as lawn during the period of significance. The Natural Systems and Features section covers the naturalized vegetation that occurs on the southern end of the island.

Character-defining Features:

- | | |
|--------------------------------|-------------------------|
| Feature: | Canary Island date palm |
| Feature Identification Number: | 144295 |
| Type of Feature Contribution: | Contributing |
| Feature: | 18- Coconut palms |
| Feature Identification Number: | 144297 |
| Type of Feature Contribution: | Contributing |
| Feature: | 3- Sea Grape |
| Feature Identification Number: | 144299 |
| Type of Feature Contribution: | Contributing |
| Feature: | 10- Senegal date palms |

Boca Chita
Biscayne National Park

Feature Identification Number: 144301

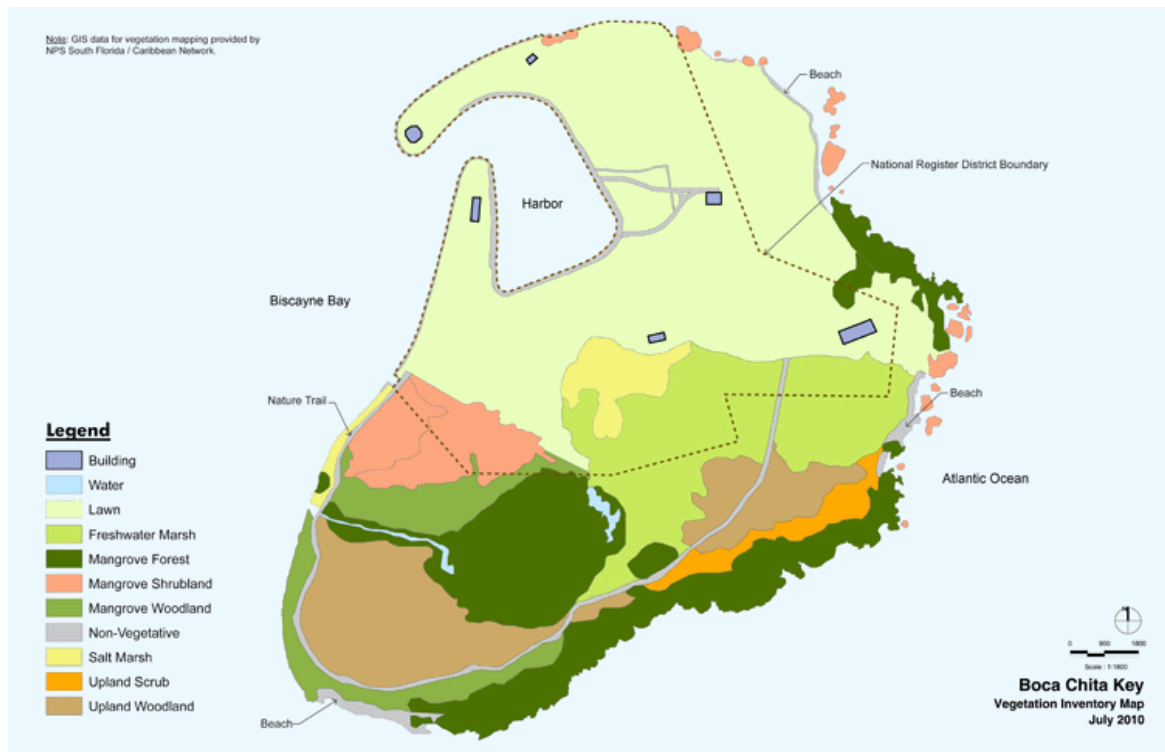
Type of Feature Contribution: Non contributing – compatible

Feature: 5- Buttonwood

Feature Identification Number: 144303

Type of Feature Contribution: Undetermined

Landscape Characteristic Graphics:



Graphic 65: Draft Vegetation Inventory Map



Graphic 66: Canary island date palm



Graphic 67: Senegal date palm

Condition

Condition Assessment and Impacts

Condition Assessment: Fair
Assessment Date: 01/01/2010

Impacts

Type of Impact: Exposure To Elements
External or Internal: Internal
Impact Description: Exposure to the elements is one of the primary challenges on a barrier island. Due to its geographic location, the property is particularly susceptible to hurricane damage and accelerated corrosion. Hurricane Andrew destroyed much of the island's vegetation, removed all wooden framed buildings, damaged the harbor and roofs of many remaining buildings and destroyed half of the limestone wall. The cannon and bollards are in poor condition. These features are corroded and the outer layers of metal are exfoliating. Similarly, the chain which encloses the stone base of the lighthouse is beginning to corrode and is in fair condition. The retaining wall located on the north end of island is also in poor condition in part due to constant contact with saltwater. Much of the stone has eroded away showing much greater wear than that of the other oolitic limestone elements from the same period.

Type of Impact: Inappropriate Maintenance
External or Internal: Internal
Impact Description: Recent comfort station renovations and on-going lawn maintenance cause unnecessary impacts to the historic concrete walks. Vehicles and mowing equipment driving across these resources cause unnecessary wear to the surfaces and pressure that causes additional cracking of the walkways. Additionally, thatch has been allowed to accumulate on the edges and along cracks of the historic concrete walks. This practice allows for accelerated deterioration of the resource.

Type of Impact: Pests/Diseases
External or Internal: External

Impact Description: Lethal yellowing is a widespread palm disease in South Florida that is carried by a flying insect. The disease affects many species of ornamental palms as well as some native palm species. Coconut palms are highly susceptible to lethal yellow and have been greatly impacted by the disease in South Florida. While the disease has not been documented at Boca Chita, the potential threat is great to the large number of coconut palms located on the island. The Treatment and Use recommendations that were created in conjunction with this CLI contain direction on monitoring the disease at Boca Chita and recommendations for suitable substitute palm species should they be required.

Type of Impact: Planting Practices

External or Internal: Internal

Impact Description: Vegetation management and replanting efforts along the east coast of the historic district have successfully established mangrove communities. While this is an ecological success, dense vegetation along this stretch of coastline blocks views to the Atlantic. During the period of significance, the view was framed by overstory vegetation with open understory.

Type of Impact: Structural Deterioration

External or Internal: Internal

Impact Description: The arched concrete footbridge that crossed the ornamental canal has failed structurally. The project's structural engineer found that the footbridge is "badly deteriorated with no chance that any part of it could be re-used." Additionally, the steel cannon and bollards are badly corroded with the outer layer of metal exfoliating.

Type of Impact: Vegetation/Invasive Plants

External or Internal: Both Internal and External

Impact Description: Coconut palms are potentially a threat to native palm species on the island due to their susceptibility to lethal yellowing. This threat must be weighed against maintaining coconut palms within the historic district as is consistent with the period of significance. Invasive plants are an on-going threat to the island and park requiring diligence to prevent such species from establishing and overtaking the landscape.

Type of Impact: Deferred Maintenance

External or Internal: Internal

Type of Impact: Release To Succession

External or Internal: Internal

Impact Description: Vegetation management and replanting efforts along the east coast of the historic district have successfully established mangrove communities. While this is an ecological success, dense vegetation along this stretch of coastline blocks views to the Atlantic. During the period of significance, the view was framed by overstory vegetation with open understory.

Treatment

Treatment

Approved Treatment: Undetermined

Bibliography and Supplemental Information

Bibliography

Citation Title: See completed HSR/CLI for a complete list of references.