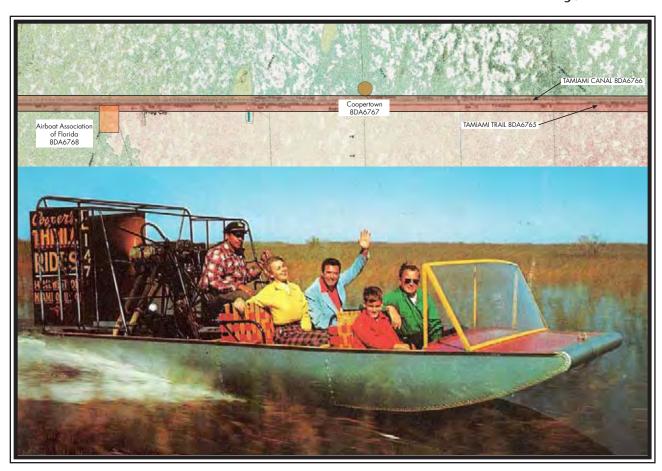
Appendix E Cultural Resources Report

Documentation and Evaluation of Coopertown (8DA6767) and the Airboat Association of Florida (8DA6768) and an Assessment of Effects of Modifications to Tamiami Trail

Miami-Dade County, Florida





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Miami-Dade County, Florida

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ABSTRACT

During July 2009, New South Associates conducted a study in Miami-Dade County, Florida, to support the Tamiami Trail Modifications "Next Steps" Environmental Impact Statement (EIS) and compliance with Section 106 of the National Historic Preservation Act. The EIS is related to the construction of additional bridging on the Tamiami Trail (Highway 41) to increase the water flow between portions of the Everglades north and south of the highway. New South Associates conducted an architectural history survey and re-evaluation of two properties previously recorded in the project area: Coopertown Restaurant and Airboat Rides (8DA6767) and the Airboat Association of Florida (8DA6768). Both of these properties have been determined eligible for listing in the National Register of Historic Places. Additionally, the Airboat Association of Florida property was archaeologically tested to determine if remains over 50 years old were present; no such remains were discovered. A third location, the Miccosukee Osceola Camp, was also proposed for recording and assessment of structures and for evaluation as a possible Traditional Cultural Property (TCP) but access to the property was not granted.

This report includes a discussion of proposed design alternatives and a consideration of their respective effects on the historic resources at 8DA6767 and 8DA6768 as well as on Tamiami Trail (8DA6510) and Shark River Slough National Register Archaeological District. Because access to Osceola Camp was denied, it is unknown whether this location contains structures over 50 years old that should be recorded and evaluated. While recent fill dirt has been added at Osceola Camp prior to the addition of new buildings, the elevation of the fill has not been documented, and therefore, the possible effects of rising water levels on the property are unknown.

Only Coopertown will experience direct adverse effects by all of the proposed alternatives due to the Tamiami Trail road raising and bridge construction work. Coopertown is located very close to the existing Tamiami Trail, and when the highway is raised, the resulting widened road shoulder will likely push into the footprint of the historic Coopertown buildings. Additionally, Alternative 6 includes the construction of a 1.75-mile bridge in front of Coopertown, which would require access ramps and other infrastructure to reach the property. A secondary adverse effect of the proposed alternatives includes the possibility that parts of the property will be submerged by higher water levels in the surrounding Everglades. Similar secondary effects due to rising water may be anticipated in all locations, with the exception of Tamiami Trail itself (8DA6510), and would have to be determined through specific elevation studies.

ACKNOWLEDGEMENTS

New South Associates thanks Melissa Memory and Bruce Boler with the National Park Service for the technical assistance they provided throughout the course of this study. Likewise, Dan Levy and Gene Rogge of URS Corporation contributed to the overall success of the project.

We also thank the officers and members of the Airboat Association of Florida (AAF) for their hospitality and willingness to share information about the history and property of the AAF, especially Mark Kendall, Richard Potter, Donny Onstad, Barbara Jean Powell, Dave Balman, Joel Marco, and Russell Larker. Much gratitude goes to Mr. Onstad for his hospitality and for providing project staff with an airboat tour of the Everglades. Additional thanks go to Jesse Kennon, owner and operator of Coopertown Restaurant and Airboats, for sharing information on the history of his family business and for an airboat trip to the Everglades.

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I. INTRODUCTION

This study was conducted on behalf of URS Corporation to supplement previous evaluations and support compliance by the National Park Service (NPS) Modifications "Next Steps" with Section 106 of the National Historic Preservation Act in conjunction with the new Tamiami Trail Environmental Impact Statement (EIS). As part of the cultural resource compliance for this project, New South Associates conducted an architectural history survey and re-evaluation of Coopertown Restaurant and Airboat Rides (8DA6767) and the Airboat Association of Florida (8DA6768). The work was conducted in July 2009 and included National Register for Historic Places (NRHP) recording and evaluation as well as a consideration of effects from proposed project alternatives. A project location map can be seen in Figures 1 and 2.

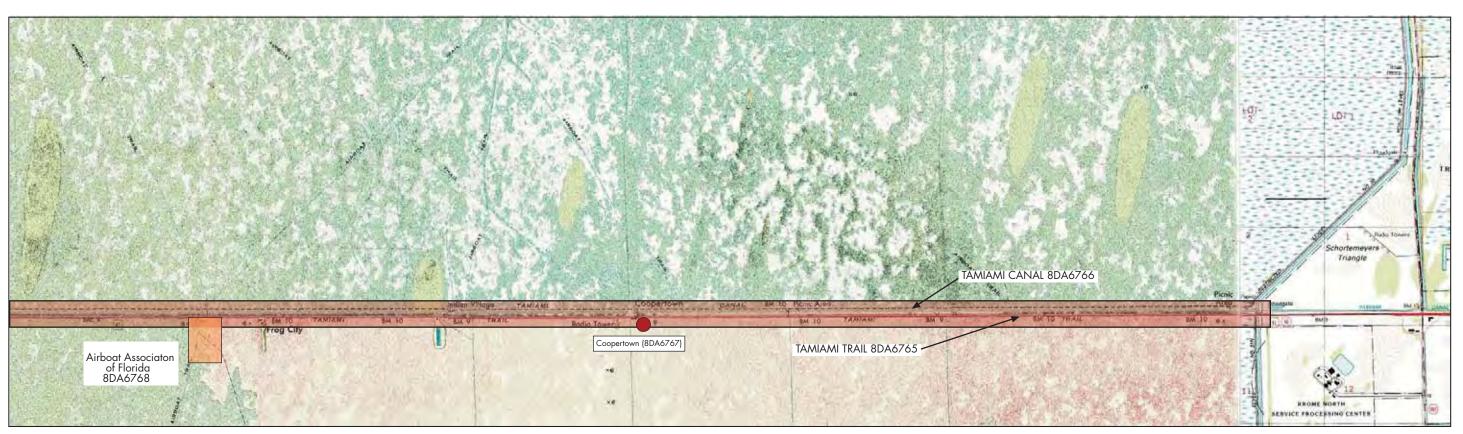
Janus Research (2001) and New South Associates (Azzarello et al. 2006) previously investigated Coopertown Restaurant and Airboat Rides (8DA6767) at 22702 SW 8th Street and the Airboat Association of Florida (AAF) (8DA6768) at 25400 Tamiami Trail, although structures at the AAF were not previously recorded due to a lack of property access. During the current study, buildings at both of these locations were recorded and their status for listing in the NRHP was evaluated; both are recommended NRHP eligible. Additionally, the Airboat Association of Florida property was archaeologically tested to characterize subsurface deposits and to determine if remains over 50 years old were present. A third location, the Miccosukee Osceola Camp, was also proposed for recording and assessment as a possible Traditional Cultural Property (TCP) but access to the property was not granted to project staff.

Following this introduction, the remainder of the report is organized as follows. Chapter II provides an Environmental Overview of the study area, followed by a discussion of the Cultural Context of the region in Chapter III. In Chapter IV, Previous Research in the vicinity is discussed, as are known sites with proximity to the study area. Chapter V covers the Research Design and Methodology that were used in conducting the investigation. Chapter VI provides the results of the field investigations. Chapter VII discusses the project alternatives and evaluates the effects each would have on the properties cited above as well as on Tamiami Trail (8DA6510) and Shark River Slough National Register Archaeological District. Following a list of References Cited, appendices include a Survey Log Sheet and updated Florida Master Site File Smart Forms for Coopertown and the Airboat Association of Florida.

Figure 1. Project Location Map, West Section



Figure 2. Project Location Map, East Section



Source: USGS 7.5' Quadrangles; Coopertown, Hialeah



II. ENVIRONMENTAL OVERVIEW

While this study was primarily of an architectural nature, environmental characteristics of the vicinity are included here to provide contextual background. Miami-Dade County is located in the southeastern portion of the Florida Peninsula. Broward County borders to the north, Collier County lies to the northwest, and Monroe County is to the south and southwest. Nearly two-thirds of the western and southern parts of the county are within the Florida Everglades and Everglades National Park.

The City of Miami is the county seat. Tourism, retirement living, real estate, construction, recreation, the service industry, sports events, manufacturing, entertainment, and transportation characterize the economy of the county. Limestone mining and cement production also play an important role in the economy, as does shipping. Miami is one of Florida's principal deepwater ports. Agricultural production includes citrus, tropical fruits, vegetables, and nurseries.

The climate of south Florida is subtropical, characterized by long, warm, rainy summers and mild, dry winters. The average winter temperature is 68 degrees Fahrenheit and the average summer temperature 82 degrees. Frosts occur about once a year. While rainfall varies within the region throughout the year, the total average annual precipitation is 57.6 inches, most of which (82 percent or 47 inches) falls between April and October. Prevailing winds are southeasterly from March through September and shift northwesterly to easterly in the other months. Tropical storms occur intermittently and winds reach hurricane-force one year in seven (Noble et al. 1996).

PHYSIOGRAPHY, GEOLOGY, DRAINAGE, AND SOILS

The project area lies within the Everglades physiographic region, consisting of a flat, weakly dissected alluvial plain that slopes gently to the south-southwest and is characterized by mostly treeless marsh where elevations range from sea level to 4-6 meters (13-20 ft) (McNab 1996; Schmidt 1997:4-7). Originally more than 10,000 square kilometers in area, the Everglades occupy a bedrock depression known as the Everglades Trough (Kushlan 1990:329-330). The project area occupies a 10.7 mile long, 300-foot wide corridor located along the northeastern margin of the Everglades. Throughout the project area, relief is very slight and reaches no more than three feet above sea level (asl).

The surface material of southern Florida consists of Pleistocene-age quartz sands, silts, and clays that overlie Cenozoic era carbonate rocks (Arthur et al. 1994). In the southernmost part of Florida, calcium carbonate formed of shell fragments and chemically precipitated particles was the main source of sediments (Arthur et al. 1994; Scott et al. 1999; Scott 2001). Bedrock formations underlying the project area include Plio-Pleistocene age sediments that are labeled Tertiary-Quarternary Fossiliferous Sediments of Southern Florida and that vary from unconsolidated, variably calcareous and fossiliferous quartz sands to well indurated, sandy, fossiliferous limestones. In the project vicinity, these sediments touch the Pleistocene age Miami Limestone. This formation underlies the Atlantic Coastal Ridge and extends beneath the Everglades, where typically thin organic sediments cover it (Scott 2001:21-23).

The Everglades has a unique geological history. Initially encompassing a shallow marine bank, the area was sheltered from the open ocean by mangrove swamps. Calcareous sediments and bryozoan reefs accumulated on the shallow bank, became compacted, and eventually solidified into the limestone now underlying the region. As sea levels rose, modern surface drainage patterns emerged and provided sources for the Everglades drainage (Arthur et al. 1994).

The Everglades is the dominant drainage feature in the project area. It encompasses an expanse of freshwater marshes that is unique from other marshes because it relies on sheet flow of water rather than on rivers and streams. The flow originates as seasonal spillover from Lake Okeechobee to the north. The Everglades, or "River of Grass," is one of the largest freshwater marshes in North America. Prior to drainage projects beginning in 1905, the Everglades area was 160 kilometers (99.4 miles) long by 64 kilometers (39.7 miles) wide. The marsh system began at the southern shore of Lake Okeechobee and continued south-southwest to Florida Bay to the south and the Cape Sable area to the southwest. At that time, much of the land was flooded most of the year and flow was from north to south-southwest.

Soils in the project vicinity consist of poorly drained to very poorly drained soils in freshwater marshes and sloughs. Available upland areas were tree islands that formed parallel to the southern flow of water. These islands provided land that was utilized by prehistoric inhabitants for thousands of years and by the later historic Seminole Indians, as evidenced by the accumulation of large quantities of dietary bone, pottery, and numerous types of artifacts and cultural features representing episodes of human activity (Griffin 2002:9,10). Areas with somewhat poorly drained soil of the broad flatwoods are present in transitional areas between the Atlantic Coastal Ridge and the Everglades. These have been referred to as the Eastern Flatlands, a physiographic zone described as low, sandy, poorly drained flatwoods dominated by pine with prairies and cypress sloughs (Griffin 2002 after Brooks 1981). In many locations, soil is only about five inches thick over hard porous limestone bedrock pocked with solution holes; such areas have been rock plowed in preparation for cultivation at sometime in the past, resulting in a complete alteration of the natural soil profile (Noble et al. 1996). Deposits can also include Loxahatchee peat, a light-colored, fibrous and spongy, reddish brown peat containing fine rootlets (Gleason et al. 1984: 294).

FLORA AND FAUNA

Habitats of the Everglades support a range of plant and animal species. During prehistoric times, lower regional water tables created dry conditions and vegetation was probably dominated by oak scrub or dry forest (Watts 1975:345). The earliest humans in the region would have encountered these conditions along with a variety of animals that are now extinct in Florida including mammoth and bison.

Springs, lakes, and spring fed river systems emerged because of rising sea levels. By about 500 years ago, conditions approximated those of the historic period (prior to reclamation). Although the Everglades region contains several distinct habitats, the most notable are vast wet grasslands.

Within these areas are high, relatively dry hammocks containing vegetation typical of subtropical forests, such as varieties of palms and hardwoods, saw palmetto, Spanish moss, and various vines and ferns (Kricher 1988:84, 87; Ferren 1999:7-8).

The Everglades support a range of animal species that would have been important to past human inhabitants of the region. Mammal species that are presently or formerly native to the region include raccoon, opossum, otter, rabbit, white-tailed deer, fox, bobcat, and cougar. Birds include various waterfowl and terrestrial species. Reptiles and amphibians include alligator, and various snakes, lizards, turtles, and frogs. Freshwater fish species found in streams and swamps include bass, bluegill, crappie, pickerel, gar, catfish, and sunfish (Kricher 1988:84, 87; Ferren 1999:7-8).

III. CULTURAL CONTEXT

The following sections summarize periods of prehistory and history in the project vicinity to provide a framework for interpreting and evaluating cultural resources identified in Miami-Dade County during the investigation. To aid in discussion and analysis, archaeologists have divided Florida prehistory into the Paleoindian, Archaic, and Transitional periods. Regional cultures are defined for the period after circa 2,500 B.P., the project area being within the northeastern Glades region (Goggin 1947; Milanich 1994:33-35; Milanich and Fairbanks 1980). Building on earlier syntheses of regional prehistory (Bullen 1959, 1975; Furey 1972; Goggin 1947; Sears 1982; and others), a recent update for southern Florida prehistory is now available in an archaeological context prepared by Janus Research (2008), from which the following prehistoric discussion has also drawn. A discussion of period of historic development in the region follows.

PALEOINDIAN (CA. 12,000–9,500 B.P.)

The Paleoindians are the earliest recognized human inhabitants of the region. During this period, a mosaic of wetlands mixed with upland knolls, pine-oak islands, and cabbage palm hammocks characterized southern Florida (Carr 2002:193). At the beginning of Paleoindian times, the Florida peninsula was more than twice as wide as it is today and the climate was windy, cool, and arid (Kutbach and Wright 1985:178-180). Modern hydrological features such as the Everglades, Lake Okeechobee, and the familiar swamps of southern Florida probably had not yet begun to form. However, the presence of low numbers of aquatic species, such as alligators, fish, and turtles, from fossil records dating to this time indicate that a few streams and water bodies did exist, although they may have been located mostly on the coast (Janus Research 2008).

During these early times, water for drinking was probably limited to waterholes in sinkholes and similar karst features. The remains of grazing ungulates, such as bison, horse, peccary, and tapir, have been recovered from dredging and mining operations in southern Florida indicating extensive areas of dry grasslands (Martin and Webb 1974). Pleistocene megafauna such as the giant tortoise, giant ground sloth, saber-toothed cat, mammoth, and mastodon were also present. Sand dunes were covered with xeric scrub vegetation such as rosemary and scrub oak. Near the end of the Paleoindian period, the climate had become warmer and wetter and the modern wetlands of southern Florida began to emerge. Sea levels began a fairly rapid rise, shrinking the available landmass through coastal inundation. Dramatic climate changes, and possible pressure from Paleoindian hunters, contributed to the extinction of the Pleistocene megafauna and other species.

The most diagnostic Paleoindian artifacts in peninsular Florida are the large, lanceolate Simpson and Suwannee projectile points (Austin 1997:116; Bullen 1975:55-56; Daniel and Wisenbaker 1987:44-54; Purdy 1981-8-10). Work at the Cutler Fossil site (8DA2001) indicates that Dalton forms may be present in southern Florida as well. Other tools associated with Paleoindian components include bifacial and unifacial adzes, blade-like flakes, flakes with beaked projections, hafted spokeshaves, unifacial retouched flakes, and a variety of unifacial scrapers, including discoidal, end, oblong, and side varieties (Daniel and Wisenbaker 1987:62-88; Purdy 1981:11-22). Double-pointed bone splinter tools and other bone tools are also known (Milanich and

Fairbanks 1980). Wooden artifacts, such as stakes, have been recovered from Paleoindian wet sites in southern Florida (Clausen et al. 1979). Paleoindian artifacts made from shell include atlatl spurs (Cockrell and Murphy 1978).

Concentrations of Paleoindian artifacts around sinkholes and other karstic river systems indicate that they relied on such natural water features for drinking water. For food, Paleoindians hunted now extinct Pleistocene big game animals such as camelids, ground sloth, horse, mammoth, and mastodon. There is also direct evidence that they hunted less elusive prey such as extinct giant tortoises (Clausen et al. 1979). However, it is likely that they more commonly subsisted on plants and smaller animals such as deer, fish, gopher tortoise, opossum, rabbit, raccoon, and shellfish (Milanich 1994:47; Science Applications, Inc. 1981:185-193). Paleoindian sites that have been located in the Gulf of Mexico (Dunbar et al. 1991) may provide evidence of the use of estuarine resources along ancient shorelines and deltas inundated by post-Pleistocene sea level rises (Quitmyer and Massaro 1998:12).

It is important to note that most of the information about Paleoindian occupation and subsistence comes from the karst region of central and north-central Florida (Daniel and Wisenbaker 1987; Daniel 1985; Dunbar 1991; Dunbar and Waller 1983; Goodyear et al. 1983; Neill 1958; Webb et al. 1984). To date, the most representative Paleoindian site in southern Florida is the Cutler Fossil site (8DA2001), although the Florida Master Site Files (FSMF) also lists 8GL130, the Shark Tooth Mountain site, as associated with Pleistocene/Paleoindian fossil deposits. Paleoindian sites in southern Florida include Little Salt and Warm Mineral springs in Sarasota County, and the Douglass Beach Midden in St. Lucie County. To date, there is no direct information for Paleoindian subsistence in the study area due to the lack of documented sites.

ARCHAIC PERIOD (CA. 9,500–2,500 B.P.)

EARLY ARCHAIC (9,500-7,000 B.P.)

The Early Archaic period coincides with a drier climate, rising sea levels, and vegetation dominated by oak-savannah complexes (Carbone 1983:9; Milanich and Fairbanks 1980:49-50). Early Archaic and Paleoindian sites often overlap, but Early Archaic sites occur in a wider range of locations, suggesting use of newly emerging environments and resources (Milanich 1994:64). By the end of the Early Archaic, local environments were apparently becoming more subtropical. The situation in extreme southern Florida is unclear, though dry conditions may have led to the region being largely uninhabited (Widmer 1988:202).

Janus Research (2008) identified two Early Archaic horizons: the Bolen and the Kirk. The main diagnostic markers for the Bolen Early Archaic are side-notched projectile points such as the Bolen and Greenbriar types (Austin 1997:122; Bullen 1975:51-53) as well as Kirk Corner-Notched (Farr 2006). Other stone artifacts associated with this horizon include adzes, Edgefield Scrapers, end scrapers, spokeshaves with graver spurs, side scrapers, and Waller knives (Purdy 1981:26-32). Many of these tools were also used during the preceding Paleoindian period, making it difficult to distinguish many Bolen and Paleoindian sites from each other (Purdy and Beach 1980:114-115).

Kirk Stemmed points are the primary diagnostic markers for the Kirk portion of the Early Archaic (Austin 1997:126; Farr 2006:79). These points are probably Florida's first truly stemmed points (Bullen 1975:37).

Additional Early Archaic Kirk-related tools include varieties of choppers, scrapers, knives, and composite tools as well as antler handles, bone points, pins, awls, and punches (Milanich 1994:63, 67-69; Milanich and Fairbanks 1980:51). The Windover Site in Brevard County yielded evidence of the range of materials produced and used by Early Archaic peoples, including wood and bone implements, textiles woven from plant fibers, and a variety of economically useful plants and animals (Doran 2002). The Windover analysis indicated that Early Archaic peoples utilized the fibers of sabal palm, saw palmetto, and other plants in the weaving of baskets and textiles. Windover also illustrated that at least some Early Archaic populations had developed an intensive exploitation strategy focused on inland aquatic resources supplemented by terrestrial game (Doran 2002:54). This site reveals a diverse social world and material culture during the period.

Based on Windover findings and comparison to Early Archaic data from elsewhere in North America, Doran (2002:54) presented a hypothetical model for Early Archaic settlement patterns and site types in southern Florida. The model suggested that most Early Archaic sites should be relatively small and widely distributed due to the mostly arid conditions of this time period. Occasional large sites should be located in more resource rich areas, such as at Windover Pond. Widmer (1988:65) proposed that southern Florida might have been largely abandoned during the Post-Kirk Horizon at the end of the Early Archaic. To date, the only site that can be firmly dated to this time is Windover (Austin 1997:127; Doran 2002).

In addition to habitation data, Windover provided evidence for a type of site known as the charnel, or mortuary, pond. Such sites consist of shallow ponds underlain by intact peat sediments into which human burials were placed during the Early and Middle Archaic periods (Doran 2002:2). Mortuary pond sites are known for southern Florida but, to date, Windover is the only definite Early Archaic example known.

Other Early Archaic site components in southern Florida include Little Salt Spring and Warm Mineral Spring in Sarasota County. In addition, a few isolated Bolen and Greenbriar points have reportedly been recovered by local collectors on the Lake Wales Ridge (Austin 1996) to the north. In southern Florida, possible Bolen and/or Kirk Corner-Notched points have been recovered from the Cutler Fossil Site (8DA2001) as well as Blue Cow (8BD2150), Sunset Lakes (8BD3176), and Silver Lakes (8BD1873).

MIDDLE ARCHAIC (7,000–5,000 B.P.)

The Middle Archaic can be seen as the environmental and cultural transition between the Early Archaic and the Late Archaic. During the Middle Archaic, the southern Florida environment approached that of modern times, becoming increasingly moister, while the climate grew more stable. Sea levels stabilized by 7,000 B.P. (Dixon 1999; Littman 2000), creating new surface water sources, extensive coastal marshes, and estuaries. Modern climates emerged toward 5,000 B.P., pine forests replaced the oak-savannah communities, and subtropical hardwood forests appeared at the southern tip of Florida (Carbone 1983:9). These changes allowed people to occupy new regions and encouraged population growth and regional development, indicated by increasing site density and diversity. Evidence from this period suggests that Middle Archaic human populations increasingly relied on shellfish and marine resources in coastal areas and expanded hunting, fishing, and plant-collecting in the emerging Everglades (Carr 2002:195).

Human populations began to develop distinct regional adaptations to the changing environmental conditions. Along the southwestern coast, populations developed year-round adaptations to the developing estuaries, producing large shell middens and constructing shell mounds in the process. Within the southern Florida area, Middle Archaic populations began to adapt to the developing Everglades ecosystem and the more dispersed wetland resources to the north of Lake Okeechobee. Unique adaptations to the interior marshlands of southern Florida can be seen developing during the Middle Archaic and have been labeled the Glades or Everglades Archaic (Pepe and Jester 1995:19; Pepe 2000:32; Wheeler et al. 2002:143-144; Wheeler 2004), as discussed in more detail in the following description of the Late Archaic Period.

Although distinct regional differences are now becoming increasingly apparent for the Middle Archaic period, distinct chronologies for each of these regional cultures have yet to be established. Diagnostic artifacts, where present, seem to be fairly homogeneous throughout the 2,000 years of the Middle Archaic, making subperiods currently almost impossible to define (Janus Research 2008).

A variety of Florida Archaic Stemmed (FAS) and related points are the most distinctive artifacts associated with the Middle Archaic period. Researchers recognize several sub-types of FAS point, including Levy, Marion, and Putnam types (Bullen 1975:32). However, Farr (2006) noted that, many times, FAS points cannot and should not be fit neatly into a sub-type and should instead be described only as Florida Archaic Stemmed. He also points out that FAS points are not a very good chronological marker as they have been found in Late Archaic as well as the early post-Archaic contexts (Farr 2006:79).

Newnan points, which may be related to FAS points, are also very common at Middle Archaic sites (Bullen 1975:31; Austin 1997:128-136), although, unlike FAS points, they seem to have a tight chronological range. For instance, Farr (2006:94) postulated a range of about 5,000 to 5,500 B.C. for Newnan points. To date, Thonotosassa points seem to be a mostly west coast phenomenon, having been found mainly around the Tampa Bay area (Farr 2006). Within southern Florida, an example of this point was noted at the Ryder Pond site (8LL1850).

Austin (1997:129) has noted a decrease in the Middle Archaic use of shaped tools other than bifaces and an increased dependence on flake tools. Wooden artifacts known from the Middle Archaic include a variety of wooden stakes and other tools recovered from wet sites as well as dugout canoes. Although a variety of shell tool types are known from Middle Archaic sites, the main shell tool type known for the region during this time is the Stombus celt (Wheeler 1994).

Austin (1997:135-136) pointed out that settlement patterns during the Middle Archaic were either sedentary or more mobile, depending upon the availability of abundant and dependable food resources. As areas of surface water increased during the period, there was less need for interior populations to remain "tethered" to permanent water sources. As such, the wider availability of surface water and associated faunal and floral resources would have supported more mobile hunter-gatherer populations within the interior of southern Florida. Further, Austin (1997:132) found that these Archaic sites from southern Florida are typically smaller and contain fewer artifacts, particularly lithic debitage, than Middle Archaic sites in central or northern Florida. Examples include Taylor Creek #1 (8OB266) and Taylor Creek #3 (8OB273), and interior sites in Lee and Collier counties (8CR706, 8LL1773, 8LL2007, and 8LL2329). Several Middle Archaic sites also

have been identified on sandy ridges along the eastern edge of the Everglades; these include Ranch Ridge (8BD1119) and Long Lake Estates (8BD3283), which contain scatters of lithic artifacts, Middle Archaic point types, and lithic debitage (Janus Research 2008).

Germany Canal Mounds (8SL70) and other sites located farther south such as Bass Creek/Blockbuster #1 (8DA2878) and Cheetum (8DA1058) may represent early manifestations of the aforementioned Glades Archaic culture. At Cheetum, a Middle Archaic cemetery was identified in a concreted (calcrete) layer at the base of a dense Glades period midden. Radiocarbon analysis dates this cemetery to the end of the Middle Archaic or beginning of the Early Archaic (Newman 1993).

A final Middle Archaic site type is the mortuary, or charnel, pond site. As discussed above, mortuary ponds are shallow ponds containing human interments. While Windover represented this site type during the Early Archaic period, most known mortuary pond sites date to the Middle Archaic. Examples in southern Florida include Bay West in Collier County and Republic Groves in Hardee County, Ryder Pond (8LL1850) has also been recorded as a Middle Archaic mortuary pond site, but the presence of associated Pleistocene fauna suggests that additional research is needed to fully understand the temporal aspect of site occupation.

LATE ARCHAIC (5,000–2,500 B.P.)

Essentially modern environmental conditions had been reached by the beginning of the Late Archaic period, when freshwater resources were available throughout southern Florida. The water table continued to rise slightly during the post Archaic periods, inundating small knolls located along the edge of the Everglades in the process (Carr, Felmly et al. 1991:125-126; Wheeler 2004:49). The emergence of stable coastal environments led to greater estuarine richness, which permitted larger human populations and regionalization of cultures as people adapted to specific habitats (Milanich 1994:83). Native American populations in south Florida at this time increased their reliance on marine resources in coastal areas and expanded hunting, fishing, and plant collection throughout the interior (Carr 2002:195).

Until recently, variations of Bullen's chronology for the Late Archaic Orange culture in northeastern Florida were generally used for the Late Archaic in southern Florida. Using this scheme, fibertempered pottery, the earliest ceramic type known for North America, was considered a marker for the Late Archaic period. The use of this standard fiber-tempered sequence for the Late Archaic in southern Florida has more recently come into question. Based on his research in southwestern Florida, Widmer (1988:68) hypothesized that the earliest Late Archaic sites "include untempered chalky pottery and limestone-tempered pottery as well as the usual fiber-tempered Orange pottery." Austin (1997:136) stated that the "identification of a true Orange Horizon in south Florida is debatable." Instead, what is more common is the presence of "semi-fiber tempered" pottery in the basal levels of middens, "often in association with thick St. Johns Plain or sand tempered plain sherds, and overlying either culturally sterile sands, or sparse scatters of lithic artifacts" (Austin 1996, 1997:136). Both Widmer and Austin agreed that semi-fiber tempered components at sites throughout southern Florida are "ephemeral" and soon replaced in the archaeological record by components consisting exclusively of sand-tempered pottery (Widmer 1988:72-73; Austin 1997:136).

More recently, Mike Russo has investigated the Joseph Reed Shell Ring on Jupiter Island (Russo and Heide 2002), where radiocarbon dates indicate chalky pottery appears between 3,500 and 3,300 B.P. whereas sand-tempered pottery is seen to appear around 3,280 B.P. Based on the evidence from excavations at this site, Russo and Heide have proposed a new chronology for the Late Archaic in southeastern Florida. A period labeled Late Archaic I is marked by fiber-tempered and/or semi-fiber tempered plain pottery. During the next proposed period, Late Archaic II, only chalky ware pottery, possibly early St. Johns Plain, is predicted to occur. The next proposed period, Late Archaic III, is distinguished by the presence of plain sand-tempered pottery along with the chalky ware. Russo and Heide pointed out that this chronology is similar to the chronology proposed by Widmer (1988) for southwestern Florida, suggesting, among other things, that non-fiber-tempered pottery was developed earlier in southern Florida than elsewhere in the State.

In addition to early examples of sand-tempered plain sherds from the Joseph Reed Shell Mound, early examples of this type are also reported from southwestern Florida. At the Mulberry Midden (8CR697), sand-tempered plain pottery was dated at about 3,390 and 3,430 B.P. (Lee et al. 1993:46; dates recalibrated by Russo and Heide 2002). Dates for sand-tempered plain from Heineken Hammock (8CR231) are even earlier, ranging from 4,000-4,500 B.P. (Lee et al. 1998; dates recalibrated by Russo and Heide 2002). Again, using the standard fiber-tempered sequence for southern Florida, sand-tempered plain pottery should not be present at such early dates, only fiber-tempered pottery.

Importantly, it is now becoming clear that many of the ubiquitous faunal bone middens located in the interior wetlands of southern Florida date to Late Archaic times, despite the fact that many of them lack pottery. Such sites are difficult to date because, not only do they often lack chronologically diagnostic artifacts, but also most of the faunal bone at the sites lacks collagen, the radiocarbon-datable material in bone. Nonetheless, ongoing research by the NPS in the Big Cypress National Preserve and Everglades National Park has yielded dense aceramic faunal bone middens yielding radiocarbon dates between 4,800 and 3,500 B.P. (Schwadron 2006).

To explain the dichotomy between Late Archaic Everglades area sites that lack fiber-tempered pottery and large, coastal shell mounds that have abundant examples of early pottery, Pepe and Jester (1995:19) proposed that there are two, distinct Archaic traditions in southeastern Florida. In this model, the fiber-tempered pottery tradition is largely a coastal phenomenon associated with shell mound building, while the aceramic Archaic or "Glades Archaic" is a more widespread tradition that may have given rise to the distinctive regional culture of the Tequesta and their ancestors (see also Pepe 2000:29-32; Russo and Heide 2002:80; and Wheeler et al. 2002:143-144).

Additionally, Austin suggests that the presence of "semi-fiber-tempered" pottery at sites in southern Florida may not actually date to the Late Archaic, but instead may signify the beginning of the subsequent post-Archaic Tradition (Austin 1997:138). In other words, Austin held out the possibility that the ephemeral "semi-fiber-tempered" components in the basal levels of middens in southern Florida may better be incorporated into the initial periods of post-Archaic chronologies (i.e. Glades I Early).

Based on current research, there may be no diagnostic artifact in southern Florida that can be tied directly and/or exclusively to the Late Archaic. Instead, it appears that no single Late Archaic chronology is applicable everywhere in southern Florida, where several different populations are present during this period. There are also marked differences between coastal sites such as the

Joseph Reed Shell Ring and the sites on which Widmer reports and the interior sites of the Everglades and its tributaries. For this reason, researchers are urged to acquire radiocarbon dates, if possible, from components thought to be Archaic or early post-Archaic. It is perhaps only through such means that gaps in our understanding of these time periods can be understood (Janus Research 2008).

As discussed above, several different types of ceramic artifacts have been attributed to the Late Archaic in southern Florida. These include plain and incised fiber tempered pottery, sand-tempered plain, thick and chalky wares, and Perico Plain and Incised, with both of the latter being limestone tempered wares known for southwestern Florida. Bone artifacts present within the study area include perforated shark teeth, cut rectangles of turtle bone, and artifacts carved from the long, straight bones of deer forelegs (metapodial bones) and interpreted as bone pins. Such pins are occasionally carved with geometric designs (Wheeler 1992, 1993, 2004:35). Shell tools include Strombus celts, which, although they are constructed from a marine species, are quite common at interior sites (Pepe and Elgart 2006). Late Archaic lithic artifacts are not common within the study area. However, a few Florida Archaic Stemmed points have been recovered from aceramic sites, and due to the long chronological range of the type (Farr 2006:86), it is possible that some, or even all of them date to the Late Archaic.

Analysis of the faunal remains from the Honey Hill site (8DA411) provides data on faunal exploitation during the Glades Archaic. Not surprisingly, freshwater fish and turtle were the main taxa identified (Masson and Hale 1990). Shark and alligator were only represented in the lowest, aceramic (most likely Glades Archaic) site levels and upper midden levels. In the lowest, aceramic levels of the site, turtles contributed more biomass than bony fish. The aceramic MacArthur #2 site (8BD2592) exhibited a similar pattern of resource use, with reptile remains (turtle and snake) the dominant category collected, followed closely by bony fish (Fradkin 1996).

Marine shell is reported for the possibly Late Archaic levels at the interior Heineken Hammock (8CR231) site. This site, despite its distance about eight kilometers from the Gulf of Mexico, produced a variety of Late Archaic marine invertebrates, including whelks and crown conchs (Lee et al. 1998:231-232). Similar findings were made in possibly Late Archaic levels at nearby Mulberry Midden (8CR697) where Late Archaic marine invertebrates included quahogs and pear whelks.

Late Archaic components are also common in the Everglades (Ransom et al. 2001:9; Carr 2002:196), indicating use of resources available there as well. Late Archaic occupations in the Everglades show a shift around 3,500 B.P. from low tree islands, which had become inundated as the Everglades continued to develop, to more elevated locations. Occupations of these higher landforms persisted into historic times (Carr 2002:196). Sites with pottery suggest few differences in location, size, or assemblage from earlier non-ceramic sites. More and larger sites, however, suggest broader adaptations to emerging environments during this period. Special function sites include cemeteries, such as 8DA2132, occupying a limestone ridge overlooking Biscayne Bay (Carr and Beriault 1984). This and other sites (e.g., 8DA1082) suggest a relatively substantial and permanent Late Archaic presence in southeast Florida. Investigations in the Everglades have recently begun to yield evidence for extensive Late Archaic activity in the region. Much of the data comes from contexts that are presently inundated or below peat levels and is not readily encountered during surveys (Carr 2002).

Until recently, settlement patterns for the Late Archaic south of Lake Okeechobee were usually described in terms of coastal populations who occasionally ventured inland to procure certain resources unavailable on the coast (e.g., Widmer 1988). It is now widely realized that many interior sites or site components date to Late Archaic times. Such sites may represent a separate interior, aceramic Late Archaic adaptation that has been referred to as the "Glades Archaic" (Pepe and Jester 1995; Pepe 2000:29-32; Wheeler et al. 2002:143). Faunal bone deposits at some of these sites are extremely dense, suggesting more than just seasonal or temporary use.

A related site type is the "Knoll site," which Carr, Felmly, et al. (1991:125-126) identified in the eastern Everglades during a survey of western Broward County. They describe Knoll sites as small, natural elevations found in some parts of the eastern Everglades that provided dry ground during the Late Archaic (circa 5,000-3,000 B.P.), but were ultimately covered by rising water levels. Late Archaic peoples used these knoll sites for habitation, subsistence activities, and in some cases, burial (Wheeler 2004:49).

Late Archaic cemeteries are also known for the study area, especially in the Everglades. In most cases (85%), such cemeteries are located in habitation sites, typically within spatially confined areas, showing little preference for the part of the site they occupy (Felmley 1991). One additional Late Archaic site type that is known mainly in the area around Lake Okeechobee is the circle-ditch. Johnson's (1996) earthwork typology suggested that these sites represent one of the earliest earthwork types constructed in southern Florida, probably during the Late Archaic.

By the end of the Archaic period, circa 2,500 B.P., regional variation in pottery increased and dense village middens began to accumulate, suggesting a further increase in sedentism. There is also evidence for population growth and contact with groups to the north, south, and west. It appears that Florida groups at this time shared many ideas and traits with their more northern neighbors (Milanich 1994:108).

POST-2,500 B.P. REGIONAL CULTURES

After circa 2,500 B.P., distinct regional cultures developed in south Florida that are defined primarily on the basis of pottery styles and associated material culture. The region encompassing the current project area is the Glades Region, which represents a refinement of John Goggin's (1947) original classification scheme.

THE GLADES ARCHAEOLOGICAL CULTURE AREA

John Goggin originally defined all of southern Florida, including the present study area, as the "Glades Area" (Goggin 1948, n.d.). His definition focused on a predominance of sand-tempered pottery, a technology based on bone and shell tools, and an economy based on freshwater and marine resources (Goggin 1948, n.d.) and has been refined over the years. According to the most recent definition (Milanich 1994:xix, 298-311), the Glades Area comprises all of southern Florida to the east and south of Lake Okeechobee as far north as St. Lucie County as well as the southwestern coast of Florida south of Naples.

The Glades Area is the largest archaeological culture area in southern Florida. As a result, it is understandably diverse environmentally. The Glades Area includes several distinct ecological/physiographic regions, including the Big Cypress Swamp and the Everglades. An

important, although localized physiographic feature is the tree island and tree hammock. Tree islands can literally be islands within the southern Florida environment, surrounded by water on all sides, while tree hammocks are clusters of hardwood vegetation surrounded by wetland vegetation species.

Pottery styles are the basis for defining Glades Region chronology, which was first developed by Goggin (n.d.) and later refined by Griffin (2002; see Table 1 below). This chronology works very well throughout most of the Glades Area.

A complete list of artifacts for the Glades Area is provided in Griffin (2002:72-122). In addition to the pottery types mentioned in Table 1 and several others that are included in Griffin (2002), there are a wide variety of artifacts manufactured from bone, shell, stone, and wood known for the Glades Area. Bone artifacts were manufactured from parts of several species, including deer antler and bone, shark teeth, fish spines and vertebrae, and turtle shell. Artifacts made using these materials include picks, hammers, adzes, celts, chisels, billets, anvils, awls, scrapers, fishhooks, gorges, points, daggers, spatulas, beads, rings, ornaments, net gauges, and pins.

Glades Area shell artifacts are most commonly manufactured from marine shells such as Busycon, Strombus, and Pleuroploca. Shell artifacts include dippers, vessels, saucers, spoons, picks, hammers, celts, adzes, gouges, chisels, awls, hones, knives, weights, beads, gorgets, and plummets. Stone was used infrequently as formal tools because of the lack of suitable material, although local sandstone and limestone were used in some cases. Stone artifacts in the Glades Area are usually those that have been traded into the area from farther north. Such artifacts include greenstone celts, plummets, and other artifacts.

Table 1. Glades Archaeological Area Chronology (Janus 2008)

Period	Time Frame	Types of Identifying Artifacts
Glades IIIc	496-circa 300 B.P	Same as previous period, plus historic artifacts
Glades IIIb	600-496 B.P.	Glades Tooled, sand-tempered plain, and St. Johns. Check Stamped present; Surfside Incised and grooved lips are not present
Glades IIIa	800-600 B.P.	Plantation Pinched no longer present; Sand-tempered plain and grooved lips persist; appearance of Surfside Incised and St. Johns Check Stamped
Glades IIc	900-800 B.P.	Almost no decorated pottery; some grooved lips but no more lip arcs or crimped rims; Plantation Pinched appears

Table 1. Glades Archaeological Area Chronology (Janus 2008)

Period	Time Frame	Types of Identifying Artifacts
Glades IIb	1,100-900 B.P.	Sand-tempered plain and Key Largo Incised persist; Matecumbe Incised appears; none of the earlier decorated types are present; certain rim modifications (incised lip arcs and lip crimping and grooving) also appear for the first time
Glades IIa	1,250-1,000 B.P.	Appearance of Key Largo Incised and Miami Incised; sand-tempered plain and Opa Locka Incised persist; none of the earlier decorated types are present
Glades I Late	1,500-1,250 B.P.	First appearance of decorated pottery: Fort Drum Incised, Fort Drum Punctated, Cane Patch Incised, Gordon's Pass Incised, Opa Locka Incised, Sanibel Incised; sand-tempered plain persists
Glades I Early	2,500-1,500 B.P.	First appearance of sand-tempered pottery; no decoration

Finally, one important Glades Area wooden artifact is the dugout canoe. These canoes were manufactured by hollowing out cypress or pine logs. Canoes are usually found in lake or pond beds that are exposed during drought conditions, or through some sort of dredging operations at such wetland locations (Wheeler et al. 2003). Artifacts from the Key Marco site indicate the existence of sophisticated woodworking traditions during this time (Milanich 1994:300-308; Milanich and Fairbanks 1980:247).

Faunal analysis at the Honey Hill site revealed that the lower midden levels (presumably Glades I and II) indicate an increase in the use of bony fish, whereas the upper midden levels (Glades II and III) show an increase in turtle use and a decrease in the importance of bony fish. Keel's (1990) analysis of faunal remains from the Guy Bailey site (8DA4752), a small Everglades site dating to the Glades IIa and IIb periods, follows the pattern documented at Honey Hill as well. Keel (1990:53-56, 99) indicates that freshwater bony fish and reptiles accounted for the majority of the biomass at Guy Bailey, with fish representing 62% of the MNI and 36% of the biomass, followed by reptiles, representing 22% of the MNI and 56% of the biomass (snakes accounted for 28% of the total estimated biomass). At the Sheridan Hammock site (8BD191), dating to the Glades IIIa and IIIb periods, Fradkin (1996) found that freshwater fish and reptiles were the most significant classes represented, with meat weight/biomass contributions almost equal for the two groups. This pattern, evident not only at Honey Hill, but also at other Everglades sites, suggests a broader change in food procurement through time (Wheeler 2004:18).

All tree islands and hardwood hammocks in the interior of southern Florida have the potential to contain an archaeological site, most of which are black dirt, middens. Until recently, these midden sites were considered to be temporary, seasonal campsites used by coastal dwelling populations

during "logistical" forays into the interior wetlands of southern Florida for the procurement of freshwater resources (Widmer 1988; Griffin 2002). The ubiquitous occurrence of this site type, and the dense midden assemblages at some of them, have led several researchers to suggest that at least some of these sites were inhabited permanently by groups who lived in the interior marshlands of southern Florida year-round (Carr and Beriault 1984:3; Pepe and Jester 1995; Pepe 2000; Wheeler et al. 2002; Loubser et al. 2005). Future research focused on site size, density, and distribution could allow for the recognition of settlement patterns among permanent residents of the interior portions of southern Florida (Janus Research 2008).

Wheeler (2004:46-63) recognized several different site types for this period of southeastern Florida settlement, several of which are pertinent to a discussion of site types within the current study area. Applicable site types include accretionary middens, cemeteries, temple mounds, earthworks, and constructed habitation mounds. Accretionary middens are numerous and defined as sites that consist of artifacts, ecofacts, features, and refuse accumulated during habitation and residential activities. Such middens can be further divided into those composed of shell and those of black earth; tree island sites are typically black earth middens with dense deposits of faunal bone (Wheeler 2004:46).

Cemeteries are areas of formal interment within habitation sites (accretionary middens) (Wheeler 2004:52). Felmley (1991:72) noted that there is little patterning within sites related to the placement of cemeteries, although they appear to be located at lower elevations near the water line. She also noted that most of the cemeteries included in her study were located on the southwestern portion of the associated habitation site (Felmley 1991:78).

Temple mounds are constructed mounds composed of sand and possibly midden soil or shell. Within the larger southern Florida study area, Maddens Hammock (8DA45) may be such a site. It is shaped somewhat like a truncated pyramid (Wheeler 2004:54). Earthworks are better known in the Okeechobee Basin archaeological area but are also known for the Glades Area. Habitation mounds are usually associated with such sites. Earthworks in the form of linear embankments are also known. These sites usually involve a sand mound partially enclosed by a crescent-shaped earthwork and paired linear embankments that emanate from the sand mound (Wheeler 2004:56).

Constructed habitation mounds consist of Everglades tree island sites that have been deliberately augmented through the addition of freshwater marl or muck in order to construct mounds or ramps (Beiter 2003; New World Research 1988; Griffin 2002:192, 207, 211-212, 240; Carr et al. 1994:22-24; Wheeler 2004:58).

HISTORIC CONTEXT

The first European explorers to the region arrived in 1513 and encountered people of the Glades III culture. Contact with Europeans led to the addition of metal, glass, ceramic, and other new materials to aboriginal material culture assemblages. Yet, interaction also caused significant changes to aboriginal societies, and by the mid-eighteenth century, the native population had largely disappeared from the region (Milanich and Fairbanks 1980:237; Beiter and Ferrar 2001:7; Ransom et al. 2001:9-10).

Diverse refugee groups from northern Florida and Georgia ultimately occupied the region depopulated after European contact, eventually becoming known as the Seminoles. They used many of the same sites as the prehistoric aboriginal occupants but site distributions show more selective and specialized use, as some sites were used for residential camps, some exclusively for cultivation, and some as hunting camps. Sites with cemeteries or single graves are also known. Seminole populations initially favored locations in the eastern rim of the Everglades, but pressure from white settlers pushed them west and concentrated settlement into a smaller number of tree island (Carr 2002:198-199).

FIRST SPANISH PERIOD

Learning of the threat to Spanish interests in the Caribbean and La Florida, the Spanish Crown sent Pedro Menéndez de Aviles with 800 men in his fleet to eliminate the threat. Menéndez's fleet arrived at the mouth of the St. Johns River in September 1565 to find that Ribault's French fleet had anchored the previous week. Being undermanned, the French fleet cut anchor and sailed off. Menéndez sailed south and established a fortified camp among the Seloy Indians at a site he called St. Augustine. Menéndez decided to attack Fort Caroline on foot and marched for two days. He quickly overtook the undermanned garrison and renamed it Fort San Mateo. One hundred and thirty-two French colonists were killed and the women and children were captured (Milanich 1995:148-150, 156).

Menéndez had grand plans for La Florida. He envisioned a series of garrisons along the coast of Florida to protect Spanish shipping in the Gulf, Atlantic, and Bahama Channel; an overland route from Santa Elena in South Carolina to New Spain in Mexico; and inland water routes connected by the Florida river systems. After the victory at Fort Caroline and the massacre and capture of other shipwrecked French, Menéndez sailed south to the St. Lucie Inlet and established Santa Lucia. Other garrisons were established at Mound Key, near Tampa, and at the mouth of the Miami River at Tequesta. Menéndez established the 20-man garrison at Tequesta in 1567 with captured deserters from St. Augustine. Shortly thereafter, Jesuit brother Francisco Villareal founded a Tequesta mission there (Milanich 1995:156-158).

Due to flawed perceptions of geography, lack of exportable mineral wealth, native aggression, and failure of the missions to build support among the native peoples, the settlements and forts established by Menéndez were short lived. Santa Lucia and San Mateo were abandoned in 1567 and 1569, respectively, and the entire garrison at Tocobaga, near Tampa, was slain. Because of their inability to recruit a significant number of converts, the Jesuits withdrew from Florida in 1572.

With the death of Menéndez in 1574, raids by native peoples, supply problems, and the abandonment of Santa Elena in 1587, St. Augustine became the only Spanish town in La Florida (Milanich 1995:160-163).

The Franciscan priests, who first arrived at Santa Elena in 1573 and in St. Augustine in 1578, soon filled the void left by the Jesuit withdrawal. The Franciscan goal was to establish a geographical chain of missions first along the Atlantic coast between Santa Elena and St. Augustine. Later, an interior chain was established across the northern interior of Florida into Apalachee. The Spanish presence would help insure safe travel between towns and instruct the native peoples in religious matters to assure their cooperation and contribution to Spanish colonial interests. By the midseventeenth century, there were 31 missions on the peninsula, although most were northwest of St. Augustine (Milanich 1995:167).

Because the local native populations in Dade and surrounding south Florida counties were relatively far from the Spanish mission provinces and settlements in north Florida, they escaped the main thrust of Spanish colonial initiatives (Milanich 1995:63-65).

In 1696, a group of American English colonists were shipwrecked about five miles north of Jupiter Inlet in Martin County. The account of one of the survivors, Jonathan Dickinson, provided information on the Hobe and Ais Indians who occupied the area but in greatly reduced numbers. Shortly after the wreck, while salvaging their belongings, several Hobe appeared, followed by a larger contingent including the chief. After threatening the English survivors, the Hobe proceeded to salvage the wreck. After helping themselves to the ship's items, they took the English party south to their village at Jupiter Inlet. Dickinson described the men as wearing loincloths made of vegetable fiber and having their hair tied in a bun with bones stuck through to keep it in place. Some lived in dome-shaped wigwams thatched with palmetto fronds and built on shell rises that protected them from flooding. Their diet was like other coastal groups, consisting of speared fish, oysters, clams, coco plums, sea grapes, and palm berries. While their diet depended largely on marine foods, they also hunted deer and used their hides for blankets (Milanich 1995:58-59, Andrews and Andrews 1945).

As they made their way north to the English colonial town of Charleston, they stayed at an Indian village near the St. Lucie Inlet, perhaps a Santaluces village. There they witnessed a ceremony that involved the black drink (cassina), a tea made from the yaupon holly (Ilex vomitoria). The party was soon led north along the Indian River and Mosquito Lagoon, past Cape Canaveral to the Spanish outpost at Matanzas Inlet, then to St. Augustine, and finally Charleston (Milanich 1995:60).

The Spanish missions and colonial occupation of Florida had a catastrophic impact upon native populations and their culture. By the mid-to-latter part of the seventeenth century, populations were devastated as a result of epidemics such as plague, smallpox, and measles. As a result, the Spaniards looked south to exploit Mayaca and Jororo groups of central Florida. These southern missions, however, lasted no more than a few years (Milanich 1995:170).

The late seventeenth and early eighteenth centuries were a time of English colonial expansion. In 1670, the English founded Charleston, and the same year, the Treaty of Madrid, signed by England and Spain, gave each the right to lands it controlled at the time. During this time, raids by the northern Creeks and Yamassee Indians assaulted Spanish missions on the Georgia coast. By 1685, all of these missions were abandoned. Raids continued into Florida into the early eighteenth century and, as a result, 10,000-12,000 Indians were killed or enslaved and the mission system came to an end (Milanich 1995:222-227).

In 1715, the Yamasee, Creek, and Apalachee Indians in South Carolina rebelled against the English and many fled to Florida to escape retaliation. Many went to St. Augustine, where the Spanish welcomed them. By 1720, 11 new missions were in the St. Augustine vicinity and at least one in Apalachee. They served the Yamassee and Guale from Georgia and South Carolina as well as many of the remaining Florida Indians (Milanich 1995:229).

In 1743, two Franciscan priests established the Santa María de Loreto Mission at the mouth of the Miami River. One hundred and eighty people, consisting of Calusa, Tequesta, and Boca Ratons, lived at the mission. Another report described remnant populations of one hundred or more Mayaimies, Santaluces, and Mayacas living one, two, and four days' travel away. Near the close

of this first Spanish colonial period, fishing ranchos were established along the Gulf and Atlantic coasts, and Indians provided labor for a growing industry. Many of these ranchos remained after the following English colonial period. By 1759, only three villages remained under Spanish protection and they were clustered in the St. Augustine and St. Marks areas (Milanich 1995:230, Covington 1993:5).

THE BRITISH PERIOD

Florida became a British colony in 1763 with the signing of the Treaty of Paris at the close of the French and Indian War. By this time, Florida was inhabited by groups of natives that had been raiding the Spanish missions for decades and had weakened their hold on the colony. During the late seevnteenth and early eighteenth centuries, new groups of native people entered the state. From 1702 to 1740, Creek and Yamasee Indians came in to raid Spanish missions and their native allies. Eventually, however, the Yamasee became Spanish allies. From 1740-1812, early Creek villages were established in northern Florida in old mission provinces of Apalachee and Timucua around Tallahassee and Gainesville and on the Apalachicola River and Lower Suwannee River. From 1812-1820, pressure in Alabama and Georgia encouraged Upper and Lower Creeks to migrate to Florida (Covington 1993:5). These groups soon became known as the Florida Seminole, taken from the Spanish word cimarron or runaway.

When the British gained control of Florida, the peninsula was sparsely populated. In fact, more than 3,000 people abandoned Florida when the Spanish lost power. To stimulate growth, the English offered a relaxed land-grant policy and posted inviting advertisements. A large colony of immigrants was established at New Smyrna in 1766, and scattered plantations and homesteads were located along the Florida east coast, some along the Indian River. During the American Revolution, Florida became a haven for loyalists, mainly from Georgia and South Carolina. The population of the colony swelled from approximately 3,000 in 1776 to 17,000 in 1784 (Adams 1990:3-4).

SECOND SPANISH PERIOD

The Spanish reclaimed ownership of Florida in 1783 after the American Revolution, as Spain had supported the successful Americans. Spain, however, had true control only over previous settlements, namely St. Marks, Pensacola, and St. Augustine. They lacked the resources to develop the area, and the presence of hostile Indian groups played into the decision not to expand. Most of the settlements, plantations, and homesteads established during the British period of power along Florida's East Coast were abandoned. In northern Florida, hundreds of Spanish land grants were established during this period, but in Martin County, only three were given. James A. Hutchinson received 2,000 acres near Ankona in present day St. Lucie County, but in 1807, he transferred his grant to the southern part of Jupiter Island. Although James never farmed the land, Hutchinson Island is named for this first landowner in Martin County. In 1813, John M. Hanson, Samuel Miles, John I. Hedrick, and Bernardo Segui were granted 16,004 acres just south of present day Stuart. This parcel was more commonly known as the Hanson Grant, as he continued to occupy the property into the 1840s. The third Spanish land grant in Martin County was given to Don Eusebio Gomez in July 1815. It contained 12,180 acres on what is now Jupiter Island and Hobe Sound. Gomez's son Emanuel lived on his father's property as late as 1844. It is believed that both Hanson and Gomez operated plantations growing sugarcane, coconuts, and some citrus, but little is known of their labor source or extent of production (Hutchinson and Paige 1998:24).

During the Second Spanish period, Florida became a haven for runaway slaves and provided a place for contraband trade and slave smuggling. The combination of angry, homeless Indians; escaped slaves; British arms merchants and slave traders; and frontiersmen created a land of lawlessness and unrest. To further add to the confusion, new settlers coming from Georgia, Alabama and South Carolina were interested in adding Florida to the United States.

FLORIDA TERRITORIAL PERIOD

The Seminole Wars

Andrew Jackson invaded Florida during the First Seminole War in 1818, and it became clear that Spain could no longer control the region and it was transferred to the United States in 1821 (Adams 1990:4). Andrew Jackson was named as the first Governor of the Territory of Florida in 1821 and was commissioned by Secretary of State John Quincy Adams "to receive, possess, and occupy the ceded lands; to govern the Floridas; and to establish territorial government" (Tebeau 1971:117). In 1821, Jackson created two counties in Florida. St. Johns County consisted of all of Florida east of the Suwannee River, while Escambia covered the remainder of the territory. During this period, population gradually increased and citrus production, which had been important in the earlier Spanish period, continued. More than 20 sugar plantations, which were located on the east coast in St. Johns County, operated with the labor of more than 500 slaves. While population increased considerably during the 1820s, poor transportation and an outbreak of yellow fever limited growth. In 1825, East Florida could claim only 5,077 inhabitants (Adams 1990:5).

The relative prosperity of the 1820s was shortened due to hostility between the settlers and the Seminole Indians, culminating in the Second Seminole War (1835-1842). What was to follow was seven years of brutal conflict resulting in unimaginable hardships to both Floridians and the Seminoles.

Soon after the onset of the war, Major General Thomas Sidney Jesup became the commander of the forces in Florida. With a detailed plan that set into motion as many as nine different columns at one time, Jesup's goal was to drive the Indians into the center of the Everglades and isolate them from any chance of outside assistance. In so doing, he hoped to bring the conflict to a swift end by March or April of 1838. The operation was not as effective as Jesup had hoped, however, and the troops were constantly plagued by supply problems (Knetsch 1996:20).

While the Seminoles had utilized the Everglades for hunting prior to the Second Seminole War, it was this conflict that initiated more intensive occupation, with small, dispersed settlements in the Everglades, many of their sites being located on tree islands formally occupied in prehistoric times.

The main thrust of Jesup's plan involved four columns, each of which would enter south Florida from different routes and drive the Indians into the center of the Everglades. Jesup's forces advanced up the St. Johns River from Fort Mellon (in the area of present-day Sanford in Seminole County), while General Joseph Hernandez with the Florida militia scoured the area between the St. Johns and the Atlantic coast. As the distance between the forces narrowed, the Alabama and Tennessee volunteers reinforced Hernandez's column. The movements of these troops led to the establishment of a series of forts in southeast Florida, namely Forts Pierce, Jupiter, Lauderdale, Christmas, and Bankhead on Key Biscayne (Knetsch 1996:20).

The western columns consisted of troops led by General Zachary Taylor and Colonel Persifor Smith and his Louisiana volunteers. Taylor's column was to proceed from Tampa Bay, open a road in nearly an eastern direction into the heart of the country, and establish a post at the head of Peas Creek and another on the Kissimmee. He was then ordered to attack from that quarter, an action that culminated in the Battle of Lake Okeechobee, fought on Christmas Day 1837 (Knetsch 1996:21).

Smith's column was to rendezvous in Tampa and enter the field through the Caloosahatchee River. Entering the field late in the operation, this column covered the whole country from Fisheating Creek to Cape Sable, where forces under Colonel Thomas Lawson had established Fort Poinsett on Cape Sable in 1938 (Knetsch 1996:21). Smith's assignment was to deny the Indians access to the coast and the Big Cypress Swamp. His column was responsible for establishing Forts Denaud, Center, and Keais (pronounced Keys), and the capture of 243 prisoners (Knetsch 1996:21).

Fort Denaud was established in 1838 by Captain B. L. E. Bonneville as one of a series of posts linking military operations south of Tampa to the east coast. The first fort was constructed on the south side of the Caloosahatchee River 27 miles east of Fort Myers on land owned by a French Indian trader, Pierre Denaud (Calusa Valley Historical Society 1977). In the same year, Fort Thompson was established several miles east on the Caloosahatchee. The fort was named in the honor of Colonel Alexander R. Thompson, who was killed during the battle of Okeechobee on December 25, 1837. It was strategically located near a narrow in the Caloosahatchee at a limestone outcropping, where it could be forded most seasons of the year. Roads from the west, east, and south merged at the crossing and continued north for two miles, where it forked right to Fort Center on Fisheating Creek and continued to Fort Meade on Peas Creek (Peace River) in Polk County.

Fort McRee or McRae was established five miles north of Port Mayaca on the shores of Lake Okeechobee. On January 24, 1838, a skirmish occurred just south of Jonathan Dickinson State Park where Major General Thomas S. Jesup's troops, on their way to Jupiter, encountered a force of 200-300 Seminoles and attacked them. After a short but fierce encounter known as the Battle of Loxahatchee, the Indians dispersed, leaving seven causalities and 31 wounded. Jesup then established his headquarters at Jupiter Inlet south of the Martin County line. After this point, most of the Seminoles moved deep into the Everglades and much of the hostilities subsided (Hutchinson and Paige 1998:29-31).

In 1842, President John Tyler realized that the total removal of the Seminole population to reservations outside of Florida was impossible. On February 5, 1842, the commander of all troops in Florida, Colonel William Worth, recommended that the Seminoles be allowed to remain in peace in Florida. Secretary of War John Spencer ordered the termination of the Second Seminole War and the conflict ended. The Seminoles were allowed to remain on a reserve in southwest Florida, but the war had been costly to the Seminoles. A total of 4,420 Seminoles had been sent to Indian Territory in those seven years, out of a population of 5,000 in 1835. Only about 600 hundred remained in Florida after the close of the war (Adams 1990:6; Covington 1993:106-109).

Due to the peace that had finally come to Florida, the federal government initiated a plan to attract settlers. The Armed Occupation Act was signed into law on August 4, 1842. For a period of nine months, 200,000 acres between Gainesville and the Peace River became available for those who

would brave the inhospitable frontier and risk the possibility of Indian attack. The land had to be two miles or more from a fort and not near the coast. Each family head or single man over 18 years of age would receive 160 acres of free land if he improved and defended five acres of land continuously for five years. Some land was given to current residents who sought to increase their existing landholdings, but the majority went to newcomers, scouting out land suitable for agriculture within the peninsula (Covington 1993:110, Grismer 1950:99).

The Second Seminole War had provided a crude system of roads and trails from coast to coast that could be used for homesteaders and ranchers. In addition, military maps of the interior were created that were useful for later settlement. The war also provided South Florida with a series of forts that could be used as bases and settlements where supplies could be landed and taken to the interior or from the interior and loaded for export.

After the Second Seminole War, most of the remaining Native Americans in Florida lived within a 6,700-square-mile reserve in scattered camps south of the Caloosahatchee River and in the Big Cypress. Generally, the settlers coexisted peacefully with the Seminoles; however, in July 1849, a few Seminoles wanted revenge on traders who they believed cheated them. They planned raids on isolated white outposts located on the east and west coasts. On July 12, 1849, four Seminoles made a visit to a small town north of Fort Pierce and fired on two settlers, killing one and wounding the other. With word of this, settlers along the coast from New Smyrna to Key Biscayne moved to St. Augustine for safety. Several days later, three of the same party from the Fort Pierce attack appeared at a store on the Peace River, killing three and wounding a fourth. They left after stealing whisky and supplies and setting fire to the store (Covington 1993:115, 116).

While diplomatic negotiations between the Seminoles and Americans resulted in the capture or killing of the party involved in the massacres, the incident led to a dramatic increase in military presence to guard the frontier line, as well as tension between the Seminoles and settlers, renewing incentives for removal. Political pressure was put on the Seminoles under the leadership of Billy Bowlegs to voluntarily immigrate to Oklahoma, but the Seminoles declined. A threefold plan including large financial incentives, strong military presence, and skilled negotiation was implemented. New roads and bridges were built and 10 new forts were constructed. Military build-up also occurred at Fort Brooke in Tampa, Fort Dallas, Fort Myers, and others (Covington 1993:120, 128; Adams 1990:8).

During the period from 1849-1854, distrust between the federal government and the Seminoles, settlers' insecurity about their safety, and lack of confidence in the federal government to find a peaceful solution to the "Seminole problem" created an atmosphere of unrest. Throughout the interlude between the Second and Third Seminole Wars, relations between white settlers and Indians were mostly peaceful, although some were still deeply mistrustful of the Indians and their intentions. Some elements of the government and military began to exert continuous pressure to force the removal issue. Chief among the instigators was Brevet Major General D. E. Twiggs, a veteran of the previous Seminole Wars (Knetsch 2000:86-87). In August of 1854, Secretary of War Jefferson Davis decided to force their removal and declared that if the Seminoles did not present themselves for removal, the military would use force. Because of Davis's declaration, an Indian council was held near Taylor Creek northeast of Lake Okeechobee in the fall of 1855. At the council, it was decided that the Seminole would attack settlers and military personnel at every opportunity.

On December 20, 1855, the Seminoles decided to take action. Billy Bowlegs attacked troops on military patrol from Fort Myers, killing or wounding six, and the Third Seminole War of 1855-1858 began (Covington 1993:128). Oscum Tustenuggee and Sam Jones (Arpeika) also organized several attacks during this period. Sam Jones and his small band lived in camps around present-day Miami and Ft. Lauderdale. On January 6, 1856, two settlers were killed while digging coontie on a farm on the Miami River six miles south of Fort Dallas. This resulted in many of the pioneer families in the area relocating to Fort Dallas and Key West (Covington 1993:130).

Another attack occurred near Fort Denaud on the Caloosahatchee River on January 18, 1856. Major Lewis Arnold commanded the fort, with a garrison of 150 men. Due to the reluctance to assault the heavily guarded fort, a Seminole party led by Oscum attacked a wood cutting party sent out to collect wood for cooking and mosquito control at the fort. The attack was in retaliation for the burning of Oscum's village. The party consisted of a corporal and five privates. All but one were killed and 12 mules were shot. The single survivor returned to the fort and identified Oscum or Okchum as the leader of the Seminole party (Covington 1993: 130-131).

Numerous skirmishes and battles ensued between the military and the Seminoles, and raids continued on the settlers. While the Seminoles were greatly outnumbered, the militia was poorly trained and organized, and the Seminole tactics developed during the Second Seminole War, in many cases, proved to their advantage. It was difficult to surprise the Seminoles and most of the time, they were aware of the location of the troops and kept out of their way. Big Cypress Swamp and the Everglades also proved difficult places to conduct a battle, as the Seminoles were much more familiar with the terrain and could elude detection. Even with their elusiveness, the constant threat of attack and the persistence of the military took a toll on the few remaining warriors and their families.

While the final major conflict of the war was centered on Bowlegs and his bands in the Big Cypress, negotiations were underway for a resolution to the war. A treaty was negotiated between representatives of the Creeks and Indian Territory Seminoles on August 7, 1856 to give 2,170,00 acres of land in Indian Territory separate from the Creeks (Covington 1993:141). On March 27, 1858, the offer was accepted in council and on May 4, 38 men and 85 women and children boarded the Grey Cloud at Fort Myers and sailed to Egmont Key and then to New Orleans, ending armed conflict with the Florida Seminole (Covington 1993:143, 145). While additional diplomatic attempts were made to relocate the few remaining scattered bands of Seminoles in Florida, they were left to live in peace; however, their struggle to maintain their traditional way of life continues today.

The remaining Seminoles of South Florida continued the occupation of cattle raising, long practiced by the Creeks, as they did from their arrival in Florida and their subsequent transformation into "Seminoles" (West 1995). The Seminoles kept both cattle and hogs in the Big Cypress and around Lake Okeechobee. The Big Cypress Seminole Indian Reservation covers a portion of southern Hendry County and extends south into Collier County and east into Brevard County. The sale of livestock was said to represent one-third of their annual income (West 1995:30). The Creek Seminoles' Snake Clan was settled at Guinnea Ford on Fisheating Creek, where they had been since about 1868. There they raised their herds alongside pioneer cattlemen John Whidden and Jacob Summerlin (West 1995:30). The Seminoles remained in the area until the 1880s, when Widden bought out their stock. They relocated their camps to Bluefields (formerly Addison),

northeast of Lake Okeechobee (West 1995:30). Today, the Brighton Indian Reservation is located near the northwest shore of Lake Okeechobee just north of Fisheating Creek. Other reservations include the Tampa Orient Road Reservation, Immokalee Farms, State Reservation (east of Big Cypress Reservation), Dania-Hollywood Reservation in Broward County, and Miccosukee Reservation along U.S. 41 in Dade County.

FLORIDA IN THE CIVIL WAR

In January 1861, following South Carolina and Mississippi, Florida seceded from the Union. The state was asked to supply 5,000 troops to the Confederacy and the loss of heads of households and male labor devastated the Florida economy. Few settlers were in the present-day Miami-Dade County area and the region was affected little by the Civil War. The village of Miami was platted just after the Second Seminole War in 1843 by William English, and in 1844, Miami became the county seat of Dade County.

Fort Myers, abandoned after the third Seminole War in 1858, was re-commissioned in 1864 by Union forces under the orders of General D. P. Woodbury, commander of the District of Key West and the Tortugas in the Department of the Gulf. His intentions were to assist the Union Navy in its blockade of the Gulf Coast, conduct cattle raiding from numerous wild and domesticated herds, provide a haven for Confederate deserters and refuge for Union supporters, and attract escaped slaves from South Florida (Solomom 1999).

A small contingent of 20 men and two officers from the Pennsylvania 47th Regiment, led by Captain Henry Crain of the 2nd Regiment of Florida, arrived at the fort on January 7, 1864. A short time later, the party was joined by another small detachment of the 47th under the command of Captain Richard A. Graeffe. Over a short period, increasing reinforcements at the fort led to increasing cattle raids throughout the region. A Union fort so far into Confederate land did not go well with Confederate loyalists. The fact that many men stationed at the post were black soldiers from the newly created U.S. Colored Troops was particularly aggravating. The raids were so antagonizing that the Confederates created a Cattle Guard Battalion called the "Cow Calvary" to repulse the Union raiders. The unit remained a primary threat to the Union soldiers carrying out raids and reconnaissance missions from Brooksville to as far south as Lake Okeechobee and Fort Myers. One of their goals was to attack and destroy Fort Myers.

The attack materialized in the winter of 1865, when an order came to the commanding officer, Major Charles Munnerlyn, to destroy the Fort Myers. In early February, some 275 men, under the command of executive officer Major William Footman and three company commanders, set out on the 120-mile journey. The plan was to attack in the evening or early morning and surprise the unsuspecting solders. Footman organized his field command and plan of attack at Fort Thompson, the abandoned military post from the third Seminole War on the Caloosahatchee River to the east. They set out the following day after heavy rain postponed their departure. Upon their approach to the fort, their own men thwarted their surprise attack when the Confederates seized the opportunity for a preliminary victory and attacked an outpost laundry party, killing five Union enlisted men. With the element of surprise lost and in an attempt to avoid a forewarned confrontation with a now alert post, Footman demanded that the fort surrender. Captain Bartholf declined within five minutes of the offer.

In a short time, with no honorable alternative, wet ammunition, and tired men, Footman gave orders to attack the fort. A raging battle continued the entire day, with the Confederates attempting to take out the Union cannon, to no avail. At day's end, the Confederates had incurred 40 casualties to the Union's four and, by nightfall, Footman conceded defeat. With their dreams of victory gone, they retreated through the swamps with only a handful of prisoners and several hundred head of cattle to show for their efforts. Upon reflection on the assault, a member of Footman's band commented, "We returned to Ft. Meade the most worn out and dilapidated looking set of soldiers you ever saw..." (Solomon 1999:15).

After the war, property values were reduced considerably in Florida and the removal of slave labor slashed manpower dramatically. Across the frontier, only a few families in isolated wilds remained at home. The cattle industry, however, managed to survive and some cattlemen's herds doubled, even tripled (Matthews 1998:59, 66).

FLORIDA AT THE TURN OF THE CENTURY

Notable local developments occurred from the period between the Civil War and the 1890s were the establishment of trading posts by J. W. Ewan and William Brickell on opposite sides of the Miami River. Both dealt primarily with Seminoles living in the Everglades, and the stores became local community centers. Other attempts to found plantations and towns at this time mostly failed and the area remained largely unsettled (Parks: 1991, Patricios 1994, Dade County 1982).

Significant growth began during the last decade of the nineteenth century. Meinig (1998:223) characterized Florida during this period as a subtropical colony of the North rather than an extension of the South, because Northern businessmen and entrepreneurs drove development. In Miami, progress was helped along by oil and railroad magnate Henry Flagler's decision to extend his Florida East Coast Railroad to Miami. When the first train arrived in April 1896, the region was already booming. In 1885, the entire county's population was 332, but by 1896, Miami's population alone was around 3,000. Between 1890 and 1900, Dade County's population increased from 861 to 4,955 (Parks:1991; Patricios 1994; Dade County 1982).

The new city incorporated areas on both sides of the river. Streets were laid out on a grid, and business, shopping, and residential districts developed. A bridge across the river, opened in 1903, facilitated the growth of upper- and middle-class residential neighborhoods on the south side. A segregated African-American district grew up west of the railroad tracks between NW 6th and 12th Streets (Parks 1991; Patricios 1994; Dade County 1982). Initial growth focused on a strip of land between the Everglades and the Atlantic Ocean. Draining the Everglades began in 1905 to permit westward expansion. A development boom in the 1920s led to the county's population doubling between 1920 and 1923 and fueled the establishment of outlying towns such as Hialeah, Miami Springs, Buena Vista, and Opa Locka. A hurricane in September 1926 ended the boom (Parks 1991; Dade County 1982).

During the Depression, Miami still managed to attract tourists, while New Deal programs built parks, public buildings, and housing projects. Miami underwent another boom between 1940 and 1950, its population nearly doubling and growth being particularly intense in the outlying suburban municipalities (Patricios 1994). Miami's Hispanic population grew substantially with the Cuban exodus of the 1950s and 1960s. The city is now a major international commercial and tourist center.

THE EVERGLADES IN THE TWENTIETH CENTURY

Settlement

As discussed earlier in this chapter, Florida has been inhabited by several different Native American tribes and fought over by European settlers. This section of the chapter focuses on the period of time when white settlers were moving into the Everglades. Towards the middle of the nineteenth century, settlement of the Everglades was attempted but not successful. Dr. Henry Perrine was given a land grant that included areas of the Everglades in 1838. Also in 1838, the United States Surgeon General, Thomas Lawson proposed to settle the Everglades. He built Fort Poinsett on Cape Sable and in 1856, Fort Cross was established at Middle Cape (NPS 2005a).

It was not until the end of the nineteenth century that three communities were established in the everglades, Chokoloskee, Cape Sable, and Flamingo (NPS 2005a). South Florida was largely a wilderness where people had to be self sufficient and live primitively. Many settlers sustained a living by hunting and fishing while living in temporary camps in coastal areas (Tebeau 1957:233). In the 1920s, roads and railroads were built marking a change in Florida. The first permanent settlers were squatters who farmed the land to make a living. Many of these farmers began to raise crops commercially as a market developed in Key West, a rapidly growing community at the end of the nineteenth and in the first part of the twentieth century (Tebeau 1957:234). By the end of the nineteenth century, some of the crops grown in South Florida, in areas like Flamingo and Chokoloskee, were being sold in New York City (Tebeau 1957; NPS 2005a). Sugar cane and tomatoes were profitable crops. Other crops for market were beans, bananas, cabbage, cucumbers, eggplant, melons, okra, onions, peas, peppers, potatoes, and pumpkins. Pineapples were grown in Florida in the beginning of the twentieth century, although, Florida's pineapple market could not compete with imported pineapples (Tebeau 1957:225, 236).

Commercial fishing became the primary means of livelihood for many pioneers in Florida. The Cuban fishermen had been making their living from fishing. Fishing was conducted on large and small scales. Two men in a skiff may have fished with cane poles or handlines. On a larger scale, men used nets and other useful gear. Most boats were equipped with an oar and sail. Some fishermen used the tide and even steam engines played a small role on fishing boats at the end of the nineteenth century (Tebeau 1957: 238-239).

Clams and oysters were also harvested successfully and was a profitable market. At that time clams were gathered by hand, however, Captain Bill Collier invented a dredge that made it possible to collect clams in 12 feet of water. Other natural resources that were harvested were turtles, turtle eggs, and wild birds. Many of the natural wildlife specieis of the Everglades and South Florida were collected and hunted to or near extinction. Birds were caught primarily for their feathers and, in 1901, the Florida Legislature passed a law that forbid the killing of wild birds at nesting time for their plumage. However, the demand for plumage stayed high and the trafficking of feathers was hard to stop (Tebeau 1957: 240-241). In addition, the sale of hides and furs played a large part in the economy. Alligators and raccoons were popular resources.

Cattle ranching also became a successful industry in Florida and, in some cases, the combination of ranching and farming was common. After crops were planted for several years, the owner might change it over to pasture to improve the soils (Tebeau 1957:250). Ranching in Florida started with frontier families. Indians and whites soon came in conflict over rights to cattle ranges, and the Indians were forced out of the industry (Tebeau 1957:243).

The lumber industry was very successful in South Florida. Virgin cypress and pine timber was sought after and, by 1957, they were almost all gone. Additionally, charcoal making became a profitable livelihood (Tebeau 1957).

Many of these animals that were hunted at the end of the nineteenth century and the beginning of the twentieth century were hunted until they were in danger of extinction or until laws were passed, in the beginning of the twentieth century, protecting many of these animals (Tebeau 1957:241). Settlers of the Everglades not only collected and hunted to eat and make a living; this form of hunting became a form of tourism in South Florida (Tebeau 1957:242). Many people began to travel to Florida's natural environment, the last frontier, and to have the experience of hunting such exotic animals.

Everglades Reclamation

Efforts to drain the Everglades began with mid-nineteenth-century surveys of the region that suggested its potential for reclamation and use for agriculture. The State gained title to the Everglades in 1903 and canal construction began on the south side of Lake Okeechobee in 1906 with the dredging of the North New River Canal. By 1913, much of the original canal system was complete, including the Hillsboro, North New River, South New River, Miami, and Caloosahatchee Canals. Control locks were built on the North New River and South New River Canals in 1912 and on the Miami Canal in 1912-13 (Everglades Engineering Board of Review 1927:28; McCally 1999). Subsequent developments included studies and reassessments of the canals and drainage systems as well as reorganization of the entities overseeing them (McCally 1999). Some of these changes came after two major hurricanes in 1926 and 1928 caused severe flooding in the area around Lake Okeechobee, necessitating a reconsideration of how best to manage and control water. The U.S. Government, particularly the Army Corps of Engineers (USACE), became involved in the problem at this time. Whereas this agency had been chiefly concerned with navigation, in the 1930s, it took on responsibility for floodway channels, control gates, and levees (Comprehensive Everglades Restoration Plan [CERP]) 2008).

Hurricanes, drought, widespread flooding, and saltwater encroachment led the federal government to establish the Central and Southern Florida Flood Control Project in the 1940s as a centralized program for addressing water control issues. In 1949, the Florida Legislature replaced the Everglades Drainage District with the Central and South Florida Flood Control District, which took on the management responsibilities for the flood control projects designed and built by the Army Corps of Engineers (McIver 1983:135; McCally 1999:152-153; South Florida Water Management District [SFWMD] 2005; CERP 2008).

The Central and Southern Florida Project moved forward in two phases, the first involving flood protection south of Lake Okeechobee and in the urbanized areas on the southeast coast. The second phase, authorized in 1954, would resolve the balance of the projects in the original plan. Subsequent amendments expanded the project to include storage, conservation, and improved distribution of water as well as adding recreation to the project's goals (CERP 2008).

Among these modifications was the addition of a canal system to aid urban development in southern Dade County. Local interests in the area began petitioning for such facilities beginning in the late 1950s, ultimately resulting in the authorization of a project for the region in the 1962 Federal Flood Control Act. The main points of this project were to remove flood runoff, reduce the depth and duration of larger floods, and to prevent excessive drainage. The plan provided for a

system of 12 canals and necessary outlets for secondary channels proposed by local interest (USACE, Jacksonville District 2007:4-5). Modifications, such as enlarging existing canals and adding culverts/earthen plugs, were made in the late 1960s and afterwards (USACE, Jacksonville District and SFWMD 2002:11; USACE, Jacksonville District 2007:5).

A final significant development in Florida water management was the creation of the state's five water management districts in 1972, including the present SFWMD. These authorities replaced the Central and Southern Florida Control District and reflected the state's changing demand for, and perception of, water resources. The SFWMD has the responsibility for ensuring water quality, flood control, water supply, and environmental restoration. In this capacity, the SFWMD operates and maintains canals, levees, pumping stations, and other water control structures (SFWMD 2005).

Tamiami Trail and Canal

Initial steps towards constructing the Tamiami Trail were begun in 1915 (Janus Research 2001). The selected route began in Fort Myers, proceeded to Naples, then Marco, the Dade County Line, and finally to Miami. Each section or district was able to fund or contribute toward the construction of the road. Many districts began to build their sections of the trail, but World War I and a "boom and bust" cycle delayed construction of the Trail (Tebeau 1957:222-223).

The Tamiami Trail and Canal were built using a Monegan walking dredge along with crews on the ground. The walking dredge ran on its own track of steel rails, moving forward as it dug, straddling the newly excavated canal (Tebeau 1957:223). Captain K. B. Harvey was in charge of the excavations and described the work in 1916 (Tebeau 1957:223):

We began cutting through the swamp, dumping the mass of marl and sand, etc. to one side. This dump is leveled down to grade and surfaced by hand with big heavy hoes and rakes. Through Williams Island Jungle, which is truly jungle in very sense of the word – a mass of trees of all kinds and sizes, thousands of switches, poles, brush, ferns all woven together with bamboo, rattan and vines. Perhaps several hundred would be chopped off at the ground before the mass would fall, so that it could be chipped apart with brush axes.

The Tamiami Trail was a road project that would change the future of the Everglades and significantly contribute toward the development of South Florida. However, the results would not come without a high cost and extreme efforts by everyone involved. One man in particular, Barron Collier had invested his fortune in this area and was intent on seeing the Tamiami Trail finished. Collier County was created in part on his promise to complete the road. For four years, it had been at a stand still. Local road and bridge financing was exhausted and it was argued that the only way to finance the rest of the project was to use countywide, state, or federal financing. In 1924, Collier County bonded itself for \$350,000 to complete the road. It was not until 1926 when the Tamiami Trail was completed by the state road department (Tebeau 1957:228).

The Tamiami Trail was officially opened in 1928, when ceremonies were held in Fort Meyers. It had taken almost 13 years for the road to be built. The construction of the Tamiami Trail has contributed towards the development of South Florida, specifically the interior, and contributed towards the development of other roads to Marco Island, Chokoloskee Island, and Naples (Tebeau 1957:232).

THE MICCOSUKEE INDIANS AND EVERGLADES NATIONAL PARK TOURISM

Just west of Miami along the Tamiami Trail are a number of Miccosukee Indian "camps," or residential areas, that date to the construction of the highway and, later, the establishment of Everglades National Park. One such camp is the Osceola Camp at the western end of the project area and included for NRHP evaluation in this project. The Miccosukee are descendents of the southeastern Creek Nation who moved into Florida as Anglo settlement and conflict drove them south in the eighteenth and nineteenth centuries. The Seminole Wars of the early nineteenth century pushed them, along with the remaining Seminoles, into the harsh environment of the Everglades where they lived relatively undisturbed until the construction of the Tamiami Trail. Once in the Everglades, the Miccosukee adapted to the environment and, despite a rancorous relationship with the state and federal governments, carved out their own way of life (Hutchinson 1979:19).

The move into South Florida caused the Miccosukee to alter certain cultural characteristics such as their style of clothing, the types of shelters in which they lived, and modes of transportation. The traditional buckskin clothing was replaced with lighter fabrics procured through trade. Miccosukee clothing is well known in the region for its colorful patterns and designs and is a popular item among tourists. The Miccosukee also adopted the dugout canoe, hewn from large cypress logs, as their primary source of transportation. Perhaps the most recognizable symbol of the tribe is the "chickee," an open-sided multi-purpose shelter that replaced the traditional log cabins built previously by the Miccosukee when they lived in cooler climates. The chickee is built with a framework of poles from small cypress trees and covered with overlapping palmetto leaves. The structure is a remarkable reflection of the ways in which nature and the Everglades environment influenced its design. According to one account of the chickee:

the sharply pitched roof extends well beyond the living area on all sides to protect from driving rainstorms. There are no walls to these chickees, which permits unrestricted wind currents to pass through. This gives relief from the heat and humidity as well as posing less of a mosquito problem. They also avail little resistance to the destructive winds accompanying tropical hurricanes (Miccosukee Tribe of Indians of Florida 1971:1).

Historically, the typical Miccosukee camp along the Tamiami Trail was composed of several such structures with a central cooking chickee surrounded by 4 or 5 sleeping chickees. Bed and table platforms were built up about three feet off the ground to protect from crawling insects and rain blowing in from outside (Miccosukee Tribe of Indians of Florida 1971:1-2).

The modernization of South Florida at the beginning of the twentieth century, especially the construction of the Tamiami Trail and establishment of the Everglades National Park, once again altered the Miccosukee way of life. Before the highway and park, the tribe lived off the abundant natural resources of the Everglades and made a bare living selling dolls, clothing, drums, and other crafts in Miami. The construction of the Tamiami Trail, however, blocked the natural flow of water in the Everglades and disrupted canoe travel between hunting and fishing grounds. The 1947 creation of the Everglades National Park further impacted them as park officials limited the areas where the Miccosukee could live, hunt, and fish. At the same time, residential and farm development, made possible through new canals that drained the Everglades, slowly crept in from Miami and further restricted the Miccosukee livelihood.

Osceola Camp

After Tamiami Trail's construction, the State of Florida set aside small parcels of land along its length for the Miccosukee, many of who moved out of the Everglades to establish palisaded chickee villages. Deprived of their traditional way of life, the Miccosukee again adapted and took advantage of the automobile traffic along the Trail to attract tourists. Some Miccosukee participated in Indian village tourist attractions in Miami that were developed in the 1910s. The Tamiami Trial provided another opportunity for Seminole and Miccosukee Indians to sell their wares and demonstrate their traditional way of life. Tourists entered the walled villages through a chickee where an attendant collected the entrance fee. They sold crafts and clothing and often had native animals on display (West 1998:84-85). The new tourist attractions garnered publicity throughout the country and the popularity of the Tamiami Trail continued to rise through the 1930s.

William McKinley Osceola, for example, operated the camp along Tamiami Trail at the far western end of the project area near \$333 pump station. This property was intended to be surveyed and evaluated for this report but access was not granted to project staff. Osceola was the headman of Bert Lasher's Indian villages in Miami from 1930-1943 and opened his own tourist village on the Trail in the early 1930s. Osceola's camp in the Everglades was home to 15-25 Indians in 1936. The camp contained a large store with groceries as well as goods made by Indians. The 1936 survey of the camps along the Trail describe William McKinley Osceola's camp as having "possibly the largest and best kept zoo of Florida animals" (West 1998:86). A description of his camp in a 1953 edition of the Saturday Evening Post described similar conditions:

Neat counters of handmade souvenirs, from woven baskets to the multicolored jackets, which are a Seminole trade-mark, await tourists in the front of his establishment. And for a quarter they can go behind the high board fence to stare with equal curiosity at the alligators in pens and the silent women, who still cook and sew in the old way under the open, thatched chickees (Williams 1953).

Tourists often hired the Miccosukee along the Trail as hunting guides and hunters to procure game. Osceola bought and traded alligator and otter hides from various trappers in the Everglades. While some of this trade was illegal, it did begin a tradition of sport hunting along the Tamiami Trail and Canal (West 1998:88-89). Initially the Indians were hunting turkeys, alligator, and deer for the tourists, then shifted to harvesting frogs in the early 1940s. Other local, non-Indian hunters adapted this practice to include the use of airboats (shallow draft vessels driven by an airplane engine and propeller). The Miccosukee adopted this practice, which allowed them to catch copious amounts of frogs during their nighttime forays. Even after the frog demand declined after cheaper Japanese suppliers made inroads into the market, the Miccosukee continued to operate their airboats by providing rides to tourists, a practice also adopted by their non-Indian counterparts (West 1998:92; Simmons and Ogden 1998:107).

Until the 1960s, the Miccosukee Indians were not formally recognized as a tribe by the United States or Florida governments. They had no legal right to the land on which they lived and suffered constant encroachment on their way of life. In 1960, a hurricane hammered the main Miccosukee outpost on the Tamiami Trail, destroying most of the buildings and forcing the approximately 300 people living there to evacuate. Facing near-extinction, the tribe organized under a constitution approved by the Bureau of Indian Affairs to qualify for federal assistance. Under the leadership of a young and politically savvy leader named Buffalo Tiger, the Miccosukee, in January of 1962, were officially organized and recognized by the State of Florida and the United States as "The

Miccosukee Tribe of Indians of Florida." This move qualified them for federal grants to open schools, medical facilities, and job-training programs (Miccosukee Tribe of Indians of Florida 1971:3; Hutchinson 1979:20).

Since 1962, the Miccosukee Indians have endured a struggle to adapt to the modern world while working to preserve their culture and traditions. They have developed "modern" chickees with electricity and other amenities, opened a restaurant and tourist park to generate income, and most recently, a resort and casino. In addition to Osceola Camp, inhabited by Independent Miccosukee and Seminole Indians, nearby Tigertail Camp is inhabited by members of the Miccosukee Tribe. These camps reflect both modernity and tradition in their mixture of residential building types, including traditional chickees, mobile homes, and newly built suburban-style houses.

Everglades National Park

Other tourist sites on this section of the Tamiami Trail began to appear in the late 1940s with the establishment of the Everglades National Park. The Everglades National Park was created out of the need to conserve South Florida's ecosystem (NPS 2005b). Many agreed with the first Director of the NPS that, "[t]here should be an untouched example of the Everglades of Florida established as a national park" (NPS 2005c). It was becoming obvious to the residents of South Florida, the state, and the nation that the abundant wealth of natural resources in the Everglades were going to be used up (Tebeau 1963:125).

Lumbermen cut the cypress, pine, and mahogany at the end of the nineteenth and beginning of the twentieth centuries. Clam canneries had exhausted the great clam beds (Tebeau 1963:125). Sport fishermen increased in number and the supply of game fish decreased. Plume hunters pushed many species of bird to near extinction. Animals that were once plentiful, including alligators, crocodiles, manatees, bears, otters, raccoons, deer, and turkey, had disappeared from much of the land (Tebeau 1963:126). Additionally, rare plants and animals were being collected to almost complete loss. Natural fires threatened to destroy the food and living area of other plants and animals, as did intentional fires set by hunters to drive out game (Tebeau 1963:126).

A movement to create the park began in the early twentieth century as development in south Florida took hold. Conservation efforts began at that point to battle the side effects from dredging and draining the Everglades. A 4,000-acre parcel, known as Royal Palm State Park on Paradise Key, was the first section protected in 1916. The drive to establish the park gained momentum in the 1920s when activists like Ernest F. Coe formed the Tropical Everglades National Park Association to lobby for the park's creation. Coe was a landscape architect who came to Miami in the 1920s. He is sometimes called the "Papa of the Everglades National Park" (Tebeau 1963:128; NPS 2005b). Other supporters of the Everglades National Park were Dr. John Kunkel Small and Dr. David Fairchild who recognized that many of the smaller hammocks had rare plant life and should be managed by the government. Ales Hrdlicka surveyed the Indian mounds on the southwest coast and published in *Anthropology of Florida* (Hrdlicka 1922).

Support to create a National Park in the Everglades was high; however, many sportsmen had mixed feelings as the consequence of their use of the area was regulated (Tebeau 1963:127). The process of creating a National Park in the Everglades would take a long time and those fighting for its cause would have to win several battles before it would happen. On December 6, 1947, President Harry S. Truman, culminating years of efforts by dedicated conservationists, formally

dedicated the Everglades National Park, 460,000 acres preserved for purely biological, and not geological, resources, at Everglades City (NPS 2005c). The park has increased in size several times, and it is now the largest designated wilderness east of the Rocky Mountains with a total area of 1,296,500 acres (Nordeen 1997). The most recent addition is the east Everglades area, a 107,000-acre preserve, which was set-aside in 1989. The Tamiami Trail now forms the northern border of the Everglades National Park and provides access to the Francis S. Taylor Wildlife Management Area, which lies on the opposite side of the road (Morgan 2001).

Today, efforts to battle the degradation of the Everglades ecosystem continue. Since its dedication in 1947, the Everalades have been designated a Wetland of International Importance on June 4, 1987, a World Heritage Site on October 24, 1979, a designated Wilderness on November 10, 1978, and an International Biosphere Reserve on October 26, 1976 (NPS 2005d). The Comprehensive Everglades Restoration Plan (CERP) represents a concerted effort to restore a more natural hydrology to the environment of southern Florida.

Airboating

Airboats are today the premier means of transportation through the Everglades and serve a number of uses in recreation, tourism, conservation, hunting, and even search and rescue missions. The lightweight, shallow draft boats have the ability to glide through the Everglades in water as little as four inches deep and through sawgrass as high as eight feet tall. They are powered by large rearfacing propellers fitted to modified airplane type engines.

Some sources attribute the genesis of the airboat idea to Hubert Richmond, who built a prototype in the 1920s to ferry Miami tourists through the Everglades (Robinson 1973:1-C). Others claim Glenn Curtiss, a Florida developer and aircraft builder, was reputedly the first to bolt an airplane propeller and engine to a small fishing boat in 1921 (Azzarello et al. 2006:45). It was in the years following World War II, however, that the craft's design was refined into what is recognized as the modern airboat. Local innovators like Francis S. Taylor, former president of the Airboat Association of Florida (AAF), utilized surplus military materials available after the war, such as lightweight metal airplane sheeting, along with airplane engines and propellers to design their airboats. By 1954, the AAF registered some 400 vessels, and they estimated that there were 200 more saltwater craft, which were unregistered. In the 1950s, Bill Wolf, a writer for the Saturday Evening Post in South Florida, described these early versions of the airboat:

In the interest of speed and fuel economy, the motor and propeller have no guards - as the fishing-party airboats farther south do - and so the frogger has to be very sure not to fall backward into the whirling propeller.... Seldom are there two exactly alike, since each embodies its maker's ideas, and improvements are constantly being dreamed up. About the only common feature is the sheath of metal that forms the outside of the boat. This is a lightweight metal alloy used in airplanewing construction, is only .081 of an inch thick, and is bolted to oak crossbars. The swamp grass polishes it to mirror slickness and it is remarkably tough, although it does tear (Wolf 1952).

Airboats were initially developed to enable people to explore deep into the Everglades for hunting and frogging expeditions. The more South Florida became developed and expansion moved west, the farther airboaters went into the Everglades to hunt.

Coopertown and Airboat Tourism

By the middle of the twentieth century, airboating began developing into the popular Tamiami Trail tourist attraction that it is today. Several businesses along the Tamiami Trail now make their profits from taking tourists into the Everglades on airboats. There are three airboat tourist attractions in the project area. The oldest is Coopertown Restaurant and Airboats (8DA6767), one of this report's two surveyed properties, established in 1945 by John Cooper who came to Florida from Missouri. He purchased a former Seminole camp and set out with his airboat to earn a living hunting frogs. Travelers along the Tamiami Trail began to ask Cooper for rides in his airboat and his tourist trade soon developed. Coopertown was, reputedly, the first concession in the Everglades to provide airboat rides (Figure 3). The property now contains a restaurant, famous for its frog legs, along with a residence, bait shop, a chickee, and various sheds. It is owned and operated by Jesse Kennon, a member of the Cooper family (Tomb 1995; Brockman 1987; Morgan 2001).

Other attractions in the project area included Frog City, another airboat concession and gift shop, opened in 1960 by Jack Fiscus (1905-1992). Fiscus established the Florida Novelty Manufacturing Company in 1928 at U.S. 1 and Southwest 61st Street in Miami. Known for its plaster flamingos and alligators, the shop was so successful that Fiscus expanded his operations into the Everglades at Frog City. Here, he offered airboat rides as well as hand-carved coconuts and seashells. The 10-acre "tourist park" also contained a variety of flora and fauna including 70 peacocks, alligators, and the site's famous sausage tree. Fiscus sold the property to Clyde Trenary and his son, Robert in 1984. It was then sold at auction in 1992. No buildings remain on the property today (Acle 1992; Tomb 1992).

Helen and Richard Farace established the Everglades Safari Park in 1971. Their son, Rick Farace, continues to operate the business. The park began as a "hangout for frog hunters" and was later known as "the Old Blue Shanty" (Kelly 1986). Today the attraction contains a restaurant, airboat rides, wildlife shows and trails, and a gift shop. None of the structures on the property is historic.

According to tax records, the main building at Gator Park (8DA10088) was constructed in 1956. The current business, however, did not open until after 1986. Gator Park offers tourists airboat rides, shows, a camp ground, and a restaurant. According to current employees, the building served as a bar and a gas station before its conversion to an airboat concession. The large porte cochere and interior fireplace seems to confirm these uses (Kelly 1986).

The popularity of the airboat spread across the country and by the mid-1950s, the boats had been adapted for use in deeper, rougher water and even to different environments including the frozen lakes and ponds of the north. By the 1990s, nearly all the world's airboats were manufactured in Florida. There were several south Florida manufacturers who shipped their finished products to foreign countries such as Russia, where they are used for oil exploration, and Africa, where they can be seen on the Congo River. Airboats have come under attack in recent years by people who argue that they damage Everglades vegetation and disturb animals, particularly birds. In response to these concerns, the Everglades National Park has banned airboats within most of its boundaries. The true impact of the vessels is, however, not confirmed (Borden 1956; Walton 1953; Hunn 1954; Miami Herald July 8, 1996; Buchsbaum 1986).

Figure 3. "Cooper's Thrill Rides," Coopertown Airboat Ride, circa 1960



Airboat Association of Florida (AAF)

One of the properties surveyed for this project is the headquarters of the AAF, a private non-profit organization that is significant for its associations to the history of airboat recreation, natural resource conservation, and South Florida's Gladesmen Culture (Smith et al. 2009:9). The AAF was formed at the dawn of the modern airboating age in 1951 by a group of sportsmen and conservationists to, as stated in their charter, "preserve and conserve the wildlife of the State of Florida so that residents of Florida and visitors therein may view and enjoy the fauna of the territory" (Airboat Association of Florida 1951). Implicit in the association's charter language is the association's desire to promote conservation as well as public airboat access and enjoyment of the Everglades. Since its founding, the AAF has worked with government agencies like the NPS to preserve public access and hunting rights in the Everglades while at the same time sponsoring environmental conservation work in the area, among other activities. The AAF headquarters is one of only a handful of private properties remaining in the area and is considered of primary importance by its members. According to association members, the AAF is the only airboat group in the state to own its own property or have buildings directly associated to its mission to promote airboating and Everglades recreation.

In 1951, the AAF acquired their property on the south side of the Tamiami Trail and by 1954 built its "clubhouse," a one-story concrete block building with an open interior to host meetings and other events. Figure 4a shows that, at this time, the waters of the Everglades came right up to within 10 meters of the rear of the clubhouse building. In later years, the AAF enlarged the property by dredging channels on the east and west sides of the property and using that material as well as fill dirt trucked in from elsewhere, to fill out the property's current 10 acres. Shortly after the clubhouse was built, the AAF added the adjacent kitchen with an attached covered eating area where the association hosts barbeques and gatherings several times a year. These events are used to raise money for the organization and promote its mission of recreation and conservation in the Everglades. The next building added to the property was the caretaker's house built in 1962 with a vernacular Ranch style design that is typical of the era. The last structure added to the property was the pole and tarp outdoor pavilion located south of the other three buildings, erected in early 2009.

The history of the AAF is one of an organization that has tried to create a middle ground between the public desire for airboat recreation and the federal agencies and environmental groups that seek to limit such access to the Everglades. As records maintained at the AAF headquarters demonstrate, the association is a consistent and determined voice for its interests when interacting with the Everglades National Park authorities and the USACE. The AAF was established four years after the 1947 creation of the Everglades National Park, in large part to give a voice to area Gladesmen (see discussion below) who wanted to preserve their traditional hunting, fishing, and frogging access rights within the park. Figure 4b neatly illustrates two dominant themes of the association's mission: airboating and frogging. The association's records reveal that since that time it has maintained a long relationship with state and federal agencies and environmental groups, including the Florida state legislature, Everglades National Park, USACE, Florida Game and Freshwater Fish Commission, the Florida Wildlife Federation, and the Conservation Committee of South Florida.





A. Historic View of the AAF Property, circa 1954



B. Historic AAF Sticker Illustrates Two Dominant Themes of the Association's Mission

One of the original founding members and the first Vice President of the AAF was John Cooper of nearby Coopertown. Past President and arguably the most influential member of the AAF was Francis S. Taylor (1924-1982), the namesake of the wildlife refuge on the north side of the Tamiami Trail and Canal. Taylor made a living constructing airboats and, in fact, opened the first airboat manufacturing company in Florida.

Taylor was also passionate about saving the Everglades. He was most remembered for his wildlife survival islands that buffer Everglades National Park and Big Cypress National Preserve from extensive agricultural fields to the north and residential development to the east. In the mid-1960s, Taylor began creating mounds of earth with the hull of an airboat, a half-track, and a bulldozer blade. He then planted trees on the islands, so that deer and other wildlife would have a safe haven during periods of flood in the rainy summer season. In eight years, he and many other volunteers created 2,000 islands. Taylor fought for various Everglades issues, and although often at odds with the South Florida Water Management District and developers, he was successful in defending his causes. He received the Wildlife Conservation Award in 1972 from the Florida Wildlife Federation and 724,560 acres of preserve in the Everglades were named after him in 1985 (Washington 1985; Colon 1983; Buchsbaum 1986).

The AAF, under the direction of Francis S. Taylor, engaged directly in the state legislative process as early as 1953. At this time, the AAF recognized that the state government was going to pass legislation regulating airboat safety and use standards. The association worked directly with their representatives in the state legislature to craft the Airboat Safety Act of 1953. The association increased its visibility and influence through networking with other conservation groups in the state. Through this work, the AAF has been "instrumental in establishing some of the laws and regulations devised to protect the Florida ecosystem." The association is involved in the present Everglades Restoration process as members of the Florida Wildlife Federation, the National Wildlife Federation, and the Everglades Coordinating Council (Airboat Association of Florida 1951, 2009).

The AAF engages in several specific activities aside from political advocacy to promote its mission. Its direct conservation efforts take form in the protection and propagation of native trees so that Everglades's wildlife retains the proper habitat. The association has collaborated with the Everglades National Park staff to help eradicate invasive plant species and to plant native trees. Its charter also includes a search and rescue component "so that if any person or persons are in danger or distress within the vastness of the Everglades, the members may give prompt aid and render assistance." The charter also states that the AAF will assist authorities in the prevention and control of wildfires. Sensitive to the negative perception about airboats among some segments of the public, the AAF charter states that the association strives to "promote and control the use of and operation of 'Air Boats' so that their use will in no way be in derogation of the principal objects of this association to cooperate with the Federal, State, and County officials whose duties are to protect and enforce the laws of the State of Florida with relation to wildlife" (Airboat Association of Florida 1951).

By virtue of its ongoing programs and activities, the AAF property on the Tamiami Trail is also recognized as a key social organization that helps unite South Florida's modern Gladesmen Culture (Smith et al. 2009:9). The Gladesmen are recognized as a rural folk culture with unique cultural and socioeconomic ties to the southern Florida environment (Ogden 2005). Historically, they were primarily Anglo settlers in southern Florida who survived by literally living off the land and whose

identity is tied inextricably to the environment of the Everglades ecosystem. There are several properties in the Everglades that have significant associations with the Gladesmen in addition to the AAF property. As noted in the Gladesmen ethnographic study (Smith et al. 2009:62):

Though sportsmen and conservation groups are relatively new organizations in relation to the history of the Gladesmen culture, they are one of the main threads that unite the culture. Not only do these organizations provide a voice of advocacy to their causes, they also serve as a social thread to other club members and other organizations. Early Cracker culture consisted of a close kinship system; today, this translates into a close kinship system with the other members of a Gladesmen club organization. Throughout Florida, there are airboat, swamp buggy, sportsmen, and conservation clubs that are organized on a regional basis. These clubs not only provide advocacy and camaraderie, they also play important roles in search and rescue operations and environmental conservation effort. These clubs engender a sense of stewardship.

This sense of stewardship is readily apparent among the current AAF members, many of whom have spent most of their lives enjoying and deriving a sense of identify from the Everglades. The AAF headquarters is ground zero for their lifestyle, a rare private property surrounded by the beauty of the publicly owned and managed Everglades.

IV. PREVIOUS RESEARCH

Several historic and prehistoric archaeological sites and structures have been recorded in the project vicinity, including some of the resources revisited as part of this study. These are shown in Figure 5, listed in Table 2, and summarized below.

Table 2. Previously Recorded Sites in the Project Vicinity

Site #	Site Name	Cultural Affiliation	NRHP Evaluation
DA0069	Chekika Island	Glades II and III	Not Evaluated by SHPO
DA2177	No Name	Unknown	Not Evaluated by SHPO
DA2179	No Name	Unknown	Not Evaluated by SHPO
DA2193	No Name	Unknown	Not Evaluated by SHPO
DA2225	No Name	Unknown	Not Evaluated by SHPO
DA2226	No Name	Unknown	Not Evaluated by SHPO
DA2227	No Name	Unknown	Not Evaluated by SHPO
DA3242	Long Island I	Glades, Leon-Jefferson	Shark River Slough District Contributor
DA3243	Long Island II	Glades	Shark River Slough District Contributor
DA6453	Tamiami Canal	Twentieth-Century Resource Group	Segment in Project Area Not Eligible
DA6510	Tamiami Trail	Twentieth-Century Resource Group	Eligible, Criterion A and C
DA6767	Coopertown	Twentieth Century	Eligible, Criterion A
DA6768	Airboat Association of Florida	Twentieth Century	Eligible, Criterion A
DA10088	Gator Park	Twentieth Century	Not Eligible

INVESTIGATIONS AND SITES IN THE PROJECT VICINITY

In 2001, Janus Research recorded the Tamiami Canal (8DA6453) and Tamiami Trail (8DA6510). Both of these run east-west and lie immediately north of the locations investigated as part of this study. The period of construction for these linear resources is 1923-1928; both have been assessed by the SHPO as eligible for listing in the NRHP, but the segment of the Tamiami Canal within the project area is not worthy of preservation because modifications and improvements have comprised its historical integrity.

The same report also included the evaluation of Coopertown Restaurant and Airboat Rides (8DA6767) and the AAF property (8DA6768). Coopertown was determined, at that time, to be eligible for listing in the NRHP under Criterion A in the areas of Entertainment/Recreation and Exploration/Settlement" (Janus Research 2001:41). In addition, the AAF property was determined to be not eligible for listing in the NRHP due to a lack of architectural significance.

Figure 5 (Pag 46) has been removed from Appendix E.

The figure includes locations of sensitive archeological sites.

See ARPA 16 U.S.C 470hh, 470hh(a).

Map removed on June 29, 2020.

The full appendix is on file with the Cultural Resources Division,

Everglades National Park, 40001 SR 9336, Homestead, FL 33034.

New South Associates was asked to revisit the area in 2006 to reevaluate Coopertown and the AAF headquarters as well as the Tamiami Trail and the Tamiami Canal. The AAF headquarters was reevaluated due to public comments that argued in favor of its historical significance. The AAF directors, however, denied access to the property, at that time. Despite the lack of access, New South determined that the AAF was a historically significant organization and that its headquarters should be treated as an eligible resource until a more detailed investigation could be made (Azzarello et al. 2006:63). One additional historic property, Gator Park (8DA10088), was newly recorded and judged not eligible to the NRHP due to extensive modifications.

As part of a TCP study associated with the Gladesmen Folk Culture of southern Florida, the AAF was found to contribute significantly to the maintenance of the practices and traditions of that cultural group (Smith et al. 2009). New South was denied access to document the structures for the Gladesmen study as well, but the AAF was evaluated as being a property that has had a continuing association with traditional cultural practices that give the Association significance. The AAF is one of the principal proponents of airboating in southern Florida and its significance is substantial in protecting Gladesmen interests, developing and maintaining relationships with government agencies, and ensuring safety and well being for both resource users and the environment (Smith et al. 2009:152).

In addition to the five historic properties, there are nine prehistoric archaeological sites within 1.5 miles to the study areas (Table 2). Of these, six sites (seen as No Name in Table 2) were recorded based on examinations of aerial photographs; no fieldwork was conducted in these locations and no further information is available pending field visitations. The remaining sites include Chekika Island (DA69), which is an occupational midden that William Sturtevant recorded in the 1950s and sites DA3242 and DA3243, which are Glades period middens that Robert Taylor (1984) recorded in the Shark River Slough. In 1996, the Shark River Slough National Register Archeological District was designated; this district consists of 62 midden sites located on the northern ends of tree islands. The sites in this district are affiliated with the Glades Tradition of southern Florida (2,500-300 B.P.) and some include evidence of post-1870 historic Seminole occupation. The district was listed in the NRHP in 1996 for its potential to yield important information (Criterion D).

V. METHODOLOGY

RESEARCH DESIGN

As part of this investigation, New South Associates was charged with conducting a number of tasks to supplement the findings of earlier cultural resource studies in the Tamiami Trail project area. These tasks included additional background research; complete documentation of historic buildings at the Coopertown Restaurant and Airboat Rides (8DA6767) according to State Historic Preservation Office guidelines; complete recording and NRHP evaluation of the Airboat Association of Florida (AAF) (8DA6768) property; complete recording and NRHP evaluation of the Miccosukee Osceola Camp; and an assessment of effects based on the proposed project alternatives presented in the Alternatives Development Report prepared by URS Corporation (2009) for the NPS. The assessment of effects was also to include Tamiami Trail (8DA6756) and the Shark River Slough National Register Archaeological District. (Impacts on the Tamiami Canal (8DA6453) were not assessed because the SHPO and USACE had previously determined that the segment of the canal within the project area lacked historical integrity and was not eligible for the NRHP.) All of the above tasks were completed with the exception of the treatment of the Osceola Camp, where project staff was not granted property access or occupant interviews.

PREVIOUS AND BACKGROUND RESEARCH

Substantial background research was previously completed on both Coopertown Restaurant and the AAF properties by Janus Research (2001) and New South Associates (Azzarello et al. 2006). Both of these earlier reports determined that Coopertown was eligible to the NRHP under Criterion A in the areas of Entertainment/Recreation, and the Florida SHPO concurred with this determination. Janus Research originally found the AAF property not eligible to the NRHP, but public concerns over the property's historic significance, as well as the lack of access to the property in 2006, led to the reevaluation in the present study. In a recent study of the Gladesmen Culture of southern Florida (Smith et al. 2009), the AAF was evaluated as being a property that has had a continuing association with traditional cultural practices that give the Association significance, and was recommended as a TCP.

To supplement the earlier research on the AAF, additional background research was conducted at the association's headquarters, which contains a collection of correspondence, photographs, the original AAF charter, and other items pertaining to the association's history. An informal interview session also occurred at the property among project staff and several AAF officers and associates who provided valuable information.

Background research on Osceola Camp was conducted at the Research Center of the Historical Museum of Southern Florida.

ARCHITECTURAL HISTORY SURVEY METHODS

Both Coopertown and the AAF properties were visited during the week of July 27, 2009. All buildings on each property were documented according to Florida Division of Historical Resources guidelines on SmartForm II survey forms (Appendix A). Each resource was digitally photographed and illustrated with site sketch maps.

ARCHAEOLOGICAL TESTING AT THE AIRBOAT ASSOCIATION OF FLORIDA

The Scope of Work for this project called for archaeological testing at 8DA6768 in order to characterize subsurface deposits at the property and determine if artifacts over 50 years old were present. Shovel testing was conducted judgmentally throughout the Airboat Association of Florida property. Shovel tests measured 40-50 centimeters in diameter and were dug to sterile soil, the water table, or to a depth of one meter. The soil removed from each shovel test was screened through 0.635-centimeter (0.25-in) mesh hardware cloth for artifact recovery. Soil stratigraphy was recorded following completion of each test excavation. The location of shovel tests was dependent upon approval from the association members, and certain locations were not approved for testing.

NATIONAL REGISTER OF HISTORIC PLACES (NRHP) EVALUATION

The NRHP contains a broad range of historic property types that reflect the diversity of the nation's history and culture. Buildings, structures, and sites; historic districts; landscapes; and individual objects can be included in the Register if they meet the criteria specified in the National Register's Criteria for Evaluation (36 CFR 60.4). Such properties, usually over 50 years old, reflect many kinds of significance in architecture, history, archaeology, engineering, and culture.

The process by which properties are added to the National Register is described in 36 CFR Part 60, NRHP. Of critical importance in evaluating the eligibility of a property for listing in the National Register is Part 60.4, which provides the National Register criteria for evaluation. These criteria state that significance is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

- A) that are associated with events that have made a significant contribution to the broad patterns of our history; or
- B) that are associated with the lives of persons significant in our past; or
- C) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D) that have yielded, or may be likely to yield, information important in prehistory or history.

EVALUATING A TRADITIONAL CULTURAL PROPERTY (TCP)

There are many definitions of the word "culture" but in the National Register programs, the word is understood to mean the traditions, beliefs, practices, lifeways, arts, crafts, and social institutions of any community, be it an Indian tribe, a local ethnic or social group, or the people of the nation as a whole. One kind of cultural significance a property may possess, and that may make it eligible for inclusion in the National Register, is "traditional cultural significance." In this context, "traditional" refers to those beliefs, customs, and practices of a living community that have been passed down through the generations, usually orally or through practice (Parker and King 1990:1). The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, identity, and practices.

A TCP must be a tangible resource – a district, site, building, structure, or object – associated with the beliefs or practices of the study group. This association between beliefs and resource gives the property its significance and makes it eligible for inclusion in the National Register. It also serves to distinguish a TCP as a property that not only meets the criteria for a standard historic property (e.g., a building, site, or structure) but is also a property that represents a continuing association with maintaining the culture and is important in maintaining cultural identity and practice within a large group.

An identified historic property usually must be 50 or more years old to be considered a TCP and must maintain its integrity. The latter refers to whether the property has an integral relationship to traditional cultural practices or beliefs and if its existing condition is sufficient to convey significance. If a property meets these requirements, it is further evaluated against the four basic criteria for eligibility established in 36CFR Part 60 (A-D above).

The criteria for identifying and evaluating TCPs are specified in National Register Bulletin 38 (Parker and King 1990, revised 1992, 1998). In identifying TCPs, it is necessary to consult with groups and individuals who have special knowledge about and interest in the history and culture of the property under study. Because New South Associates was not granted access to Osceola Camp, nor were interviews with residents granted, a TCP evaluation was made using second hand accounts (Melissa Memory, NPS, and Natalie Garrett, USACE, personal communication July 2009).

VI. SURVEY RESULTS

Two properties were surveyed for this project, including Coopertown Restaurant and Airboat Rides and the headquarters of the Airboat Association of Florida (AAF)(Table 3). A third property, the Miccosukee Osceola Camp, was also supposed to be evaluated for consideration as TCP but access to the property was denied. The Coopertown property contains two 1947 buildings that were evaluated for this study and five non-contributing buildings. The AAF property contains three buildings that were evaluated; they were built between 1954 and 1962. The surveyed buildings on both properties are identified as either Frame Vernacular or Masonry Vernacular depending on the construction method.

Table 3. Locations Identified for Architectural Recording

Name	Construction Date	Location	NRHP Eligibility
Coopertown Restaurant and Airboat Rides	1947	22702 SW 8th Street, Miami	Criterion A – Entertainment/Tourism
Airboat Association of Florida	1954, 1962	25400 Tamiami Trail, Miami	Criterion A – Conservation, Entertainment/Tourism
Miccosukee Osceola Camp	Circa 1930 with later additions	West End of Project Area, Tamiami Trail	Not Evaluated

COOPERTOWN RESTAURANT AND AIRBOAT RIDES – 8DA6767

The Coopertown Restaurant and Airboat Rides property is located on the south side of the Tamiami Trail in Township 54 South, Range 38 East, Section 8 (Coopertown Quadrangle 1973), in Coopertown, Miami-Dade County, Florida. The NRHP contributing restaurant and residence on the property were both constructed in 1947 by John Cooper, the property's original owner and uncle of Jesse Kennon, the current owner. The property also contains a bait and tackle shop, sheds, alligator ponds, and chickee huts built in the 1980s and 1990s that are non-contributing (Figures 6 and 7). All of the buildings and structures are built on fill material. Coopertown was previously surveyed by Janus Research (2001) and New South Associates (Azzarello et. al 2006) and determined eligible for the NRHP. No changes to the physical integrity of the property have occurred since that time, and no change in its NRHP status (eligible under Criterion A in the areas of Entertainment/Recreation and Exploration/Settlement) is recommended.

AIRBOAT ASSOCIATION OF FLORIDA – 8DA6768

The 10-acre AAF headquarters property is located on the south side of the Tamiami Trail in Township 54 South, Range 38 East, Section 10 (Coopertown Quadrangle 1973), just west of Coopertown in Miami-Dade County, Florida. The property contains three buildings surveyed for this project, including the 1954 clubhouse, the circa 1954 kitchen, and the 1962 caretaker's cottage (Figures 8 (which also shows archaeological test locations as discussed below), 9, and 10). The clubhouse is a one-story concrete block building with a side-gable composite shingle roof, stucco

Figure 6. Coopertown Site Map

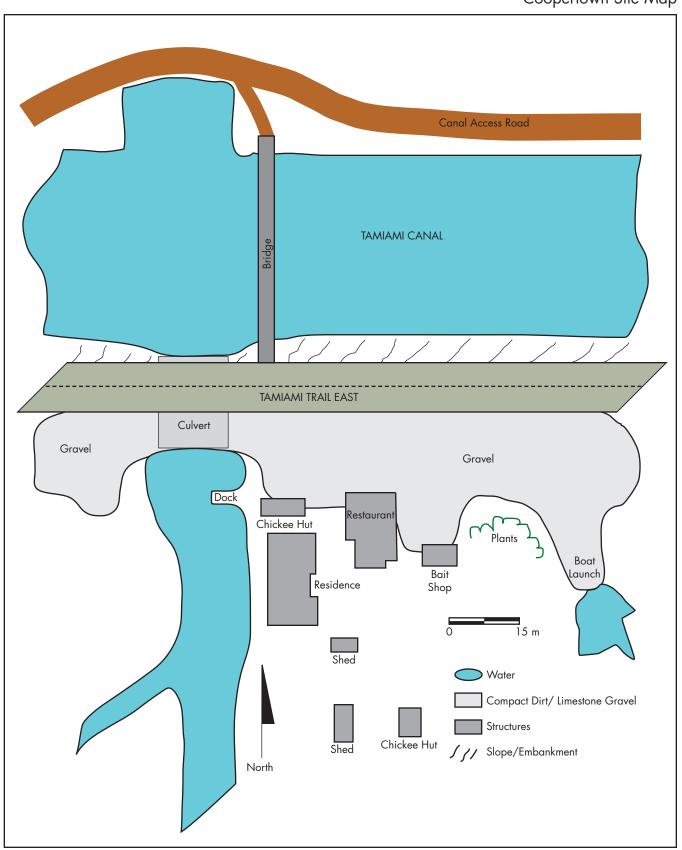


Figure 7.
Coopertown Restaurant and Airboat Rides



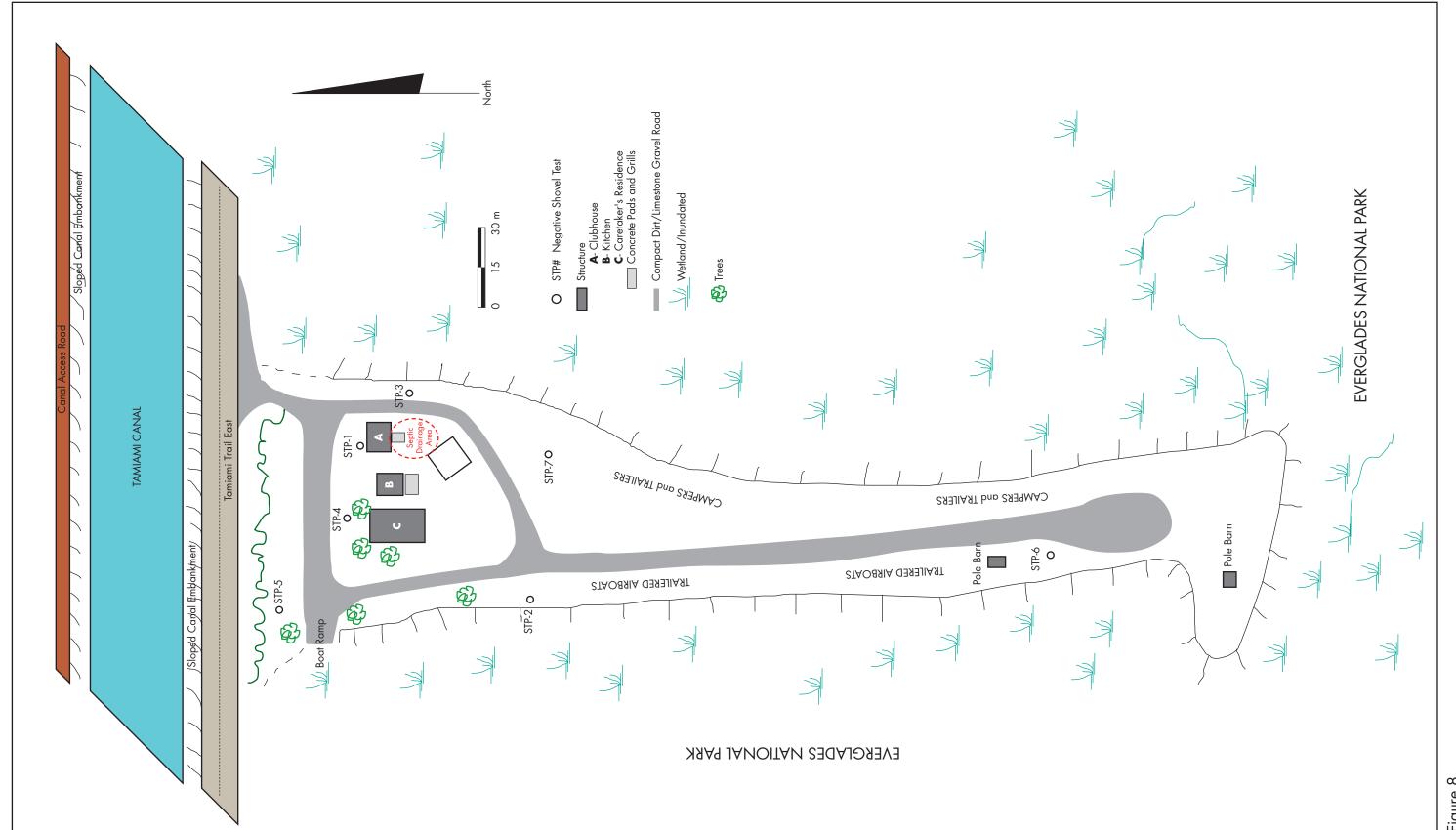
A. Restaurant



B. Signage



C. Residence







A. Clubhouse



B. Clubhouse Interior



C. Clubhouse Exterior, Rear View

Figure 10. Airboat Association of Florida Clubhouse Buildings



A. Kitchen



B. Caretaker's Residence

exterior, and concrete slab foundation. It has a single-room open interior used for meetings and a rectangular floor plan. The symmetrical façade features a central entrance with a modern hollowcore metal door and four enclosed windows. The building originally had 14 jalousie type windows, which are common in Florida buildings of this era. Due to repeated storm damage, however, six of the original windows were removed and enclosed by the AAF, including all four windows across the main façade and two in the rear. The east and west elevations of the building retain their original windows, which are presently protected with removable plywood covers, and there are four more original windows on the rear of the building. There is a central rear ell on the clubhouse that contains two bathrooms that are connected to the main building by a covered walkway. Figure 8c shows that the bathroom ell at one time also served as an observation deck looking over the Everglades.

Immediately west of the clubhouse is the circa 1954 kitchen, which features a design similar to a concession stand where food is prepared inside and then handed out through service windows. The lower third of the building is constructed with concrete blocks and the upper two thirds are frame. It has an end-gable asphalt shingle roof with deep eaves that provide shade from the hot Florida sun. On the ground under the eaves are a concrete walkway and a wooden handrail that extend around the entire building. The building has a rectangular floor plan, and concrete slab foundation. The kitchen originally had screen windows and no air conditioning, but in recent years, the AAF installed air conditioning and replaced the screen windows with custom fixed-pane windows (most of which are currently covered with removable plywood covers). Built on the south elevation of the building is an open seating area with pole and frame construction and a corrugated metal roof. AAF members say that the seating area was built at the time of the main kitchen construction, or shortly thereafter.

Just west of the kitchen is the 1962 caretaker's cottage, which features a vernacular Ranch style with a side-gable asphalt shingle roof, frame construction, stucco exterior, a rectangular floor plan, and a concrete slab foundation. The façade has an offset entrance and three original jalousie windows.

The three buildings of the AAF headquarters are recommended eligible to the NRHP under Criterion A in the areas of Conservation and Entertainment/Recreation. Founded in 1951, the AAF is the principal proponent for the sport of airboating in the area and has consistently advocated for airboat access to and conservation of the Everglades. The 1954 clubhouse is the primary historic resource on the property as it hosted the main business and other activities of the AAF since its construction. The adjacent circa 1954 kitchen and 1962 caretaker's cottage are considered contributing resources that illustrate the AAF's growth as an organization. The proposed NRHP boundary around the three AAF buildings would include the existing road and the approximately two-acre portion of the property that was historically associated with the organization before dredging and fill dirt were used to create the RV parking and camping areas to the south.

INTEGRITY STATEMENT

The AAF headquarters retains five out of seven NRHP aspects of physical integrity, including location, setting, workmanship, feeling, and association. The AAF headquarters is in the same location in which it was built and has never been moved. The setting of the property has changed somewhat in that the AAF property was enlarged through the years, but the overall rural Everglades setting remains intact. The functional workmanship of the original builders remains evident. The historic feeling of the building remains intact, especially on the interior, which very much feels like a mid-century vernacular building with few changes. Since the building is still serving its original use, is decorated with years of AAF memorabilia, and is surrounded by current members' many airboats, the headquarters retains its association with the people and activities that define the history of the AAF. The property's integrity of design and materials were compromised by the removal and replacement of original windows in the clubhouse and kitchen. The window replacements could easily be restored to their original appearance, and the buildings contain very few other alterations. The AAF is eligible to the NRHP under Criterion A in the areas of Conservation and Entertainment/Recreation.

ARCHAEOLOGICAL TESTING AT THE AAF

Shovel testing was conducted judgmentally throughout the Airboat Association of Florida property. The placement of these test locations was dependent upon approval from the association members. Areas such as the southernmost portion of the property and within the area designated for trailer camping (see Figure 8) were not approved for testing. Interviews with members of the association indicated that these areas did not exist at the conception of the association, and were very low areas that were not used until fill dirt was brought in. The soil stratigraphy of the area consisted of approximately six centimeters of a modern humic layer above limestone and gravel fill. Shovel tests 1, 3, 4, 5, and 6 terminated when water was reached. Shovel Test 2, located just north of Structure A, contained fill to a termination depth of 95 centimeters below surface (cmbs). Shovel Test 7 was terminated due to a large limestone boulder encountered at 32 cmbs. The soils encountered in the area correlate with association member interviews stating that before the construction of the AAF no upland environment existed in the area, and the present landform was created as a result of fill brought in from other locations. Cultural material recovered (small bottle glass fragments, unidentified metal fragments, and pull tops from cans) could not be clearly shown to be over 50 years of age, so no archaeological site form was warranted at this time.

MICCOSUKEE OSCEOLA CAMP

The Miccosukee Osceola Camp is located on the south side of the Tamiami Trail in Township 54 South, Range 38 East, Section 10 (Coopertown Quadrangle 1973), west of the Airboat Association of Florida in Miami-Dade County, Florida. Project staff was not granted access to the property for this project and the camp could not be recorded. According to documentary and local sources, the camp has been in this location since the construction of the Tamiami Trail in the 1920s but has undergone extensive changes since that time, including the addition of non-historic buildings such as mobile homes, frame single-family homes, and other buildings. Additionally, in anticipation of increased water levels due to the Tamiami Trail modifications, fill material was recently brought in to elevate and/or replace camp buildings above the anticipated increased water level. To evaluate the camp's historical significance and integrity, it would be necessary to have documentation of what the camp looked like and what the elevations were both before and after fill episodes and building replacement. However, many of the present buildings are known to be modern and would not qualify for recording as historic structures. It remains to be determined if any buildings at Osceola Camp are over 50 years old.

Regarding the proposed evaluation of Osceola Camp as a TCP, neither access nor interviews were granted. In identifying TCPs, it is necessary to consult with groups and individuals who have special knowledge about and interest in the history of the property under study. No

direct evaluation of the camp's TCP status could therefore be made. However, documented telephone conversations between Fred Dayhoff, NAGPRA and Section 106 Representative for the Miccosukee Tribe, and the NPS and USACE indicate that the Miccosukee Tribe does not consider Osceola Camp to be a TCP (Melissa Memory, NPS, and Natalie Garrett, USACE, personal communication with Greg Smith in July 2009). Because Osceola Camp has been in existence since the 1930s and may have seen intermittent occupation as far back as the Seminole War Era (Natalie Garrett, personal communication July 2009), it may contain archaeological remains that would make it eligible for listing as an archaeological site. Such determinations would require archaeological testing of subsurface deposits.

VII. ALTERNATIVES AND ASSESSMENTS **OF EFFECT**

Three historic properties, Coopertown (8DA6767), the Airboat Association of Florida (8DA6768) and Tamiami Trail (8DA6510) are eligible to the NRHP, so the effects of the proposed Tamiami Trail Modifications undertaking must be taken into consideration to comply with the Section 106 process. The following chapter presents the No Action and other alternatives as presented in URS Corporation's Alternatives Development Report, Tamiami Trail Modifications "Next Steps" (URS Corporation 2009:21-27). Following the description of the alternatives is a discussion of the effects that each will have on the surveyed properties as well as Osceola Camp and the Shark River Slough National Register Archeological District.

The Tamiami Canal is a borrow canal on the north side of the Tamiami Trail. The canal was created during construction of the highway because material had to be excavated to elevate the roadbed above the surrounding terrain of the Everglades. Increasing the depth of the water in the Tamiami Canal, which is conveyed into the canal through outlet structures of the levees of Water Conservation Areas 3A and 3B that are adjacent to the north side of the Tamiami Canal, increases the head (pressure) that would force more water through the 19 existing sets of culverts beneath the Tamiami Trail and any new bridge openings. Because the south bank of the canal is the north bank of the roadbed, an increase in the height of water in the canal would erode or saturate and compromise the structural integrity of the roadbed. The design stage (maximum water level) in the canal was set at 7.5 feet above sea level (as measured from the National Geodetic Vertical Datum) prior to authorization of the no-action alternative. Because the no-action alternative increased the design stage to 8.5 feet, the roadway will be raised to protect the structural integrity of the highway.

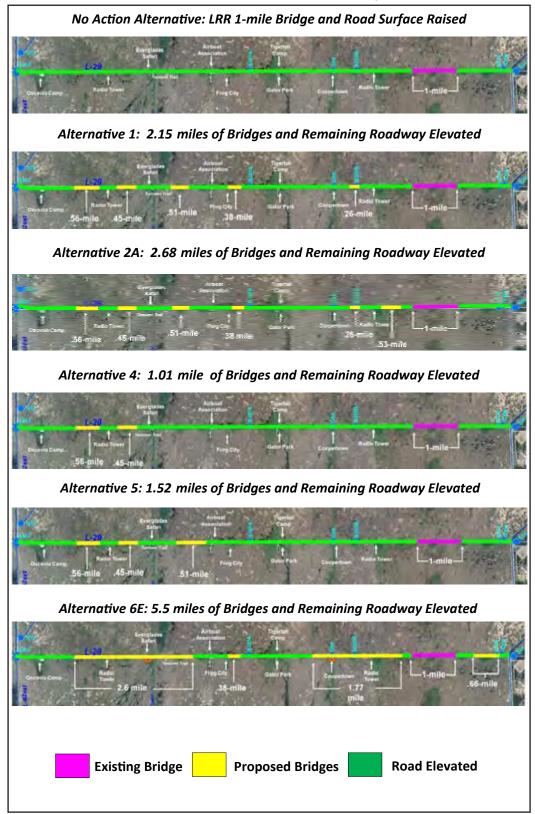
The Tamiami Trail Modifications Next Steps alternatives are described in the following sections, and compared in Figure 11.

NO ACTION ALTERNATIVE

The No-Action Alternative is authorized by the 2008 Limited Reevaluation Report (LRR) and consists of a 1-mile eastern bridge and elevation of the remaining roadway to allow for 8.5 feet stages in the L-29 Canal.

All of the following action alternatives assume the one-mile eastern bridge (2008 LRR) has been constructed. The lengths of the bridges, transition areas between the bridges and the roadway, and the roadway are separated in the descriptions.

Figure 11. Comparison of Alternatives



ALTERNATIVE 1

This alternative includes 4 bridges (for a total of 1.90 miles of bridges): a 0.563-mile bridge (Bridge A1) located between the Osceola Camp and the Jefferson Pilot Radio Tower; a 0.451-mile (Bridge B1) located between the Jefferson Pilot Radio Tower and Everglades Safari Park facility; a 0.507-mile bridge (Bridge C1) located between the Everglades Safari Park facility and Frog City; a 0.376-mile bridge (Bridge E1) located between Frog City and Gator Park; and a 0.261 Conspan (Conspan H1) located just west of Coopertown, at control structure S-355B. The bridges and conspan would create a conveyance opening through Tamiami Trail by removing the sections of the existing highway and embankment under the bridges and conspan. The bridges would be constructed over the openings to replace the removed sections of road and maintain motor vehicle traffic. The remaining highway embankment (approximately 4.99 miles) would be reconstructed to raise the crown elevation to 12.3 feet, the minimum required based on the design high water of 9.7 feet and the roadway cross section geometry.

ALTERNATIVE 2A

The bridge configurations include: (1) a 0.563 mile bridge located between the Osceola Camp and the Jefferson Pilot Radio Tower, (2) a 0.451 mile bridge located between the Jefferson Pilot Radio Tower and Everglades Safari Park, (3) a 0.507 mile bridge located between Everglades Safari Park and the Airboat Association, (4) a 0.376 mile bridge located the Airboat Association and the Tiger Tail Camp, (5) a 0.258 mile ConSpan located between the Coopertown facility and the Radio One Tower, and (6) a 0.526 bridge located between the Radio One Tower and the existing one-mile bridge.

Alternative 2a would involve creating conveyance openings through Tamiami Trail by removing 2.68 miles of the existing highway and embankment. Bridges would be constructed over the openings to replace the removed section of road and maintain motor vehicle traffic across the openings. The remaining highway embankment would be reconstructed to raise the crown elevation to 12.3 feet, the minimum required based on the design high water of 9.7 feet and the roadway cross section geometry.

ALTERNATIVE 4

This alternative includes 2 bridges: A1 and B1 (for a total of 1.01 miles), as described for Alternative 1. The bridges would create a conveyance opening through Tamiami Trail by removing the sections of the existing highway and embankment under the bridges and conspan. The bridges would be constructed over the openings to replace the removed sections of road and maintain motor vehicle traffic. The remaining highway embankment (approximately 7.80 miles) would be reconstructed to raise the crown elevation to 12.3 feet, the minimum required based on the design high water of 9.7 feet and the roadway cross section geometry.

ALTERNATIVE 5

Alternative 5 consists of 3 bridges; bridges A1, B1, and C1 (for a total of 1.52 miles) as described for Alternative 1. The bridges would create a conveyance opening through Tamiami Trail by removing the sections of the existing highway and embankment under the bridges. The bridges

would be constructed over the openings to replace the removed sections of road and maintain motor vehicle traffic. The remaining highway embankment (approximately 6.57 miles) would be reconstructed to raise the crown elevation to 12.3 feet, the minimum required based on the design high water of 9.7 feet and the roadway cross section geometry.

ALTERNATIVE 6E

Alternative 6E is the maximum bridging option and consist of 5.4 miles of bridges and elevating the remaining roadway. The bridge configurations include: (1) a 2.60 mile bridge located between the Osceola Camp and the Airboat Association, (2) a 0.376 mile bridge located between the Airboat Association and the Tiger Tail Camp, (3) a 1.77 mile bridge located between the Tiger Tail Camp and the existing one-mile bridge, and (4) a 0.66 mile bridge located between the existing 1-mile bridge and the S-334 structure. The bridges would create a conveyance opening through Tamiami Trail by removing the sections of the existing highway and embankment under the bridges. The bridges would be constructed over the openings to replace the removed sections of road and maintain motor vehicle traffic. The remaining highway embankment would be reconstructed to raise the crown elevation to 12.3 feet, the minimum required based on the design high water of 9.7 feet and the roadway cross section geometry.

ASSESSMENTS OF EFFECT

The impacts of all the action alternatives are evaluated as having a major impact [adverse effect as defined by regulations for Protection of Historic Properties (Title 36, Code of Federal Regulations, Part 800.5)] because they would remove segments of the historic Tamiami Trail (8DA6510) in addition to the one mile of the highway that is being removed under the No Action Alternative. Because the highway created the blockage of water flows to the Everglades that is being addressed by the Next Steps project, there is no way to address the problem without affecting the highway. The variation among the alternatives in the length of highway that would be removed (ranging from 1.01 to 5.41 miles) is a small fraction of the total length of the Tamiami Highway, which is about 245 miles long.

AIRBOAT ASSOCIATION (8DA6768) AND OSCEOLA CAMP

All action alternatives would have the same minor impacts on the 10-acre Airboat Association of Florida property (8DA6768) and the approximately 5-acre Miccosukee Osceola Camp. The raising of the highway in front of those properties and the relatively small right-of-way expansions and temporary construction easements within those properties are expected to have no effect on their historic values.

COOPERTOWN RESTAURANT AND AIRBOAT RIDES (8DA6767)

Alternatives 1, 2a, 4, and 5 would have similar moderate impacts on the approximately 3-acre Coopertown Restaurant and Airboat Rides property (8DA6767). The parcel is smaller than the Airboat Association of Florida parcel and Miccosukee Osceola Camp and because the two historic buildings on the parcel are closer to the road than are the buildings on the other two properties, they might need to be moved farther south on the parcel. Those impacts are not expected to adversely affect the historic values of the two historic buildings. Alternative 6e would involve

construction of an elevated bridge across the front of the property and an access ramp that would require about 40 percent of the parcel for expanded right-of-way. Continued operation of the business probably would not be viable and the National Park Service probably would acquire the entire parcel and raze and remove the buildings because adaptive reuse probably is not feasible, which would be a major impact (adverse effect).

The evaluated alternatives do not include an operations plan, which will be addressed by a subsequent project. The analysis of an operations plan would address water supply and the actual volume of water that might flow beneath the Tamiami Trail as a result of any increase in capacity provided by an alternative approved by a record of decision at the termination of the Next Steps EIS. That analysis would address potential impacts on cultural resources due to raised water levels south of the Tamiami Trail.

Consultation with the State Historic Preservation Office and other interested parties pursuant to Section 106 of the National Historic Preservation Act is ongoing. It is possible that the treatment of the adverse effects of the No-Action Alternative, which involves development of a display within the Shark Valley Interpretive Area of the Everglades National Park to publicly interpret the history of the Tamiami Trail and associated properties, would adequately address the removal of additional segments of the Tamiami Trail under Alternatives 1, 2a, 4, and 5. Alternative 6e would result in additional adverse impacts to the two historic buildings at the Coopertown Restaurant and Airboat Rides property but both buildings have been well recorded and their history has been documented. Additional documentation is not likely to add important information.

SHARK RIVER SLOUGH ARCHAEOLOGICAL DISTRICT

There are 62 midden sites on tree islands in the Shark River Slough Archaeological District, which was listed in the NRHP in 1996 (Schwadron 1996). None of the alternatives would directly affect any of those sites. Because all action alternatives would increase the maximum high water level in the Tamiami Canal to 9.7 feet above sea level (1.2 feet higher than authorized by the No Action Alternative), water levels within the Shark River Slough Archaeological District also would increase and could encroach on and erode archaeological deposits on the tree islands. Detailed topographic maps are unavailable to determine the extent of potential impacts, but erosion is expected to be negligible and minimal because the increased water level would still be below historic flood stage.

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APPENDIX A. FLORIDA MASTER SITE FILE SURVEY LOG



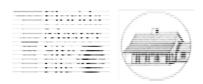
Consult Guide to the Survey Log Sheet for detailed instructions.

Identification and Bibliographic Information
Survey Project (name and project phase) Tamiami Trail EIS
Report Title (exactly as on title page) Documentation and Evaluation of Coopertown (8DA6767) and the Airboat Association of Florida (8DA6768) and an Assessment of Effects from Modifications to Tamiami Trail, Miami-Dade County, Florida
Report Author(s) (as on title page— individual or corporate; last names first) Price, David, Smith Greg C., and Thomas, Cindy
Publication Date (year) 2009 Total Number of Pages in Report (count text, figures, tables)93 Publication Information (Give series and no. in series, publisher and city. For article or chapter, cite page numbers. Use the style of <i>American Antiquity</i> .)
Supervisor(s) of Fieldwork (whether or not the same as author[s]; last name first) Greg Smith, RPAAffiliation of Fieldworkers (organization, city) New South Associates
Survey Sponsors (corporation, government unit, or person who is directly paying for fieldwork) Name URS Corporation
Mapping
Counties (List each one in which field survey was done - do not abbreviate; use supplement sheet if necessary) Miami-Dade County USGS 1:24,000 Map(s): Map Name/Date of Latest Revision (use supplement sheet if necessary): Coopertown 1973
Description of Survey Area
Dates for Fieldwork: Start 7/27/2009 End 7/31/2009 Total Area Surveyedhectaresacres Number of Distinct Tracts or Areas Surveyed2 If Corridor (fill in one for each): Widthmeters feet Length kilometersmiles

Research and	Field Methods				
Research and Field Methods Types of Survey (check all): X archaeological X architectural historical/archival underwater other: Scope/Intensity/Procedures Survey and NRHP evaluation of properties along the Tamiami Trail, including Coopertown Restaurant and Airboat Rides and the Airboat Association of Florida with assessment of effects of Tamiami Trail Modifications					
Preliminary Methods (✔ Check as many as apply to the property search X Site File survey search X Site File survey search X Site File survey search Check as many as apply to the property search Ribrary research - local purelibrary-special coller A Site File property search X Site File survey search X Site File survey search X Site File survey search A Site File survey search Check as many as apply to the property search Ribrary research - local purelibrary-special coller X Site File property search X Site File survey search X Site File survey search A Site File survey search	blic local property or tax records lother historic maps ction - nonlocal X newspaper files local soils maps or data t DEP)X literature search X windshield survey				
Archaeological Methods (Check as many as apply to the project as a whole.) □ Check here if NO archaeological methods were used. □ surface collection, controlled □ other screen shovel test (size:) □ block excavation (at least 2x2 M) □ surface collection, uncontrolled □ water screen (finest size: □ soil resistivity X shovel test-1/4″ screen □ posthole tests □ magnetometer □ shovel test-1/8″ screen □ auger (size:) □ side scan sonar □ shovel test 1/16″ screen □ coring □ pedestrian survey □ shovel test-unscreened □ test excavation (at least 1x2 M) □ unknown □ other (describe):					
Historical/Architectural Methods (✔ Check as many a Check here if NO historical/architectural methods were used building permits	sed. ☐ neighbor interview ☐ subdivision maps ☐ tax records				
Site Significance Evaluated? x Yes No If Yes, circle NR-eligible/significant site numbers below. Site Counts: Previously Recorded Sites DA6767, DA6768 Newly Recorded Sites Previously Recorded Site #'s with Site File Update Forms (List site #'s without "8." Attach supplementary pages if necessary) 8DA6765, DA6767 Newly Recorded Site #'s (Are you sure all are originals and not updates? Identify methods used to check for updates, i.e., researched Site File records. List site #'s without "8." Attach supplementary pages if necessary.) Site Form Used: Site File Paper Form X SmartForm II Electronic Recording Form					
REQUIRED: ATTACH PLOT OF SURVEY AREA ON PHOTOCOPY OF USGS 1:24,000 MAP(S)					

DO NOT USE	SITE FILE USE ONLY DO NOT USE	
BAR Related □ 872 □ 1A32 # □ CARL □ UW #	BHP Related State Historic Preservation Grant Compliance Review: CRAT	

APPENDIX B. HISTORIC RESOURCE FORMS



Chimney Location(s) _

HISTORICAL STRUCTURE FORM Electronic Version 1.1.0

Site #8 **DA06767** Recorder # Field Date 7/27/2009 Form Date 8/26/2009
FormNo 200907

First Site Form Recorded for this Site?NO	FormNo 200907 FormNo = Field Date (YYYYMM)
	GENERAL INFORMATION
Site Name (address If none) Coopertown Residence	
Other Names	>>
Survey or Project Name Modifications to the T	
National Register Category Building(s)	amiami iiaii Eis, ENF Suivey#
	OCATION & IDENTIFICATION
Address	OCATION & IDENTIFICATION
	0
Street No. Direction Street Name	Street Type Direction Suffix
22702 SW 8th	Street
Cross Streets (nearest/ between) SW 177th Ave.	
	In Current City Limits? YES
County Dade Tax Parc	
Subdivision Name	Block Lot
Ownership Private Individual	
Name of Public Tract (e.g., park)	ami on the Tamiami Trail (Hwy 41), approximately six miles
west of SW 177th Ave (Hwy 997)	ami on the lamiami frail (hwy 11), approximately bix miles
	MAPPING
USGS 7.5' Map Name	Publication Date >> COOPERTOWN;1973
	1/4 section: >> 54s ;38E ;8;Vague / Unknown
Irregular Section Name:	
Landgrant	
UTM: Zone 17 Easting 544031 Northing 284	19257
Plat or Other Map (map's name, location)	
	DESCRIPTION
Style Frame Vernacular Other Sty	rle
Exterior Plan Irregular	Other Exterior Plan
Number of Stories 1	
Structural System(s) >>	Balloon wood frame
Other Structural System(s)	
Foundation Type(s) >>	Piers
Other Foundation Types	
Foundation Material(s) >>	Poured Concrete Footing
Other Foundation Material(s)	
Exterior Fabric(s) >>	Asbestos
Other Exterior Fabric(s)	dh a d
Roof Type(s) >>	Shed
Other Roof Type(s) >>	Asphalt Shingles
Other Deef Meterial(s)	
	>> Not applicable
Other Roof Secondary Structure(s)	// And application
Number of Chimneys 0	
Chimney Material	
Other Chimney Material(s)	

DESCRIPTION (continued)

· ————	g features metal 3-light awning windows covered with metal storm
Shutters. Main Entrance Description (stylistic data	oile) mt - 1
main Entrance Description (Stylistic deta	The building's main entrance is a modern panel door.
Porches: #open0 #closed Porch Roof Types(s) N/A Exterior Ornament N/A	#incised Location(s)
Interior Plan Irregular	Other Interior Plan
Condition Fair	
Structure Surroundings	
Commercial:	Residential:
Institutional:	
Ancillary Features (Number / type of outbu	ildings, major landscape features) This residence is located in the side yard of the
Coopertown Restaurant and	
Narrative Description (optional) One-	ras an Archaeological Site Form completed?story frame vernacular building with shed roof, asbestos siding, concrete floor plan. Metal awning windows and a modern panel door entrance.
pier roundation, irregular	Tioor plan. Metar awning windows and a modern paner door entrance.
	LUCTORY
0 1 1 1045	HISTORY
Construction year 1947 Architect (last name first): N/A	Builder (last name first): John Cooper
Changes in Locations or Conditions	Dunder (last flame mist).
	Year of Change Date Change Noted Description of Changes
>>	
Structure Use History	
<u> </u>	Year Use Started Year Use Ended >> Restaurant;1947;
	Teal Use Statted >> Research (1947)
Other Structure Uses	
	owner, dates, profession, etc.) Original owner was John Cooper, who established the ess. Later passed to Cooper's cousin Jesse Kennon who runs it now.
	RESEARCH METHODS
Research Methods	>> Formal archaeological survey
Other research methods	
	SURVEYOR'S EVALUATION OF SITE
Potentially Eligible for a Local Register?	LIKELY Name of Local Register if Eligible
Idividually Eligible for National Register' Potential Contributor to NR District?	
Area(s) of historical significance	>> Tourism
	residence is associated with and is considered a contributing resource
to the Coopertown Restaura	
Explanation of Evaluation (required) C	oopertown is associated with the history of tourism along the Tamiami
Canal in the post World Wa	r II era. It is reported to be the first commercial tourist attraction
that offered airboat rides	into the surrounding Everglades.

DOCUMENTATION (Photos, Plans, etc.)

Photographic Negatives or Other Collections I	Not Filed with FMSF, Including Field Notes, Plans, other Important Documents.	
Document type:	Maintaining Organization:	
File or Accession #:	Descriptive Information:	
>>		
	RECORDER INFORMATION	

Recorder Name (Last, First) Price, David Recorder Address / Phone 118 S. 11th St., Nashville, TN 37206; 615-262-4326 Recorder Affiliation New South Associates Other Affiliation Is a Text-Only Supplement File Attached (Surveyor Only)? NO

****** MASTER SITE FILE USE ONLY ******

Cultural Resource Type: SS	SHPO's Evaluation of Resource
Electronic Form Used: S110	Date
Form Type Code: NORM	
Form Quality Ranking: NEW	
Form Status Code: SCAT	
Supplement Information Status: NO SUPPLEMENT	FMSF Staffer:
Supplement File Status: NO SUPPLEMENT FILE	Computer Entry Date: 8/26/2009
Form Comments:	

REQUIRED **PAPER ATTACHMENTS** (1) USGS 7.5" MAP WITH STRUCTURE PINPOINTED IN RED

(2) LARGE SCALE STREET OR PLAT MAP

(3) PHOTO OF MAIN FACADE, B&W, AT LEAST 3"X5"

DA06767-200907

Supplementary Printout

>	[Other	name	(s)	1

> USGS map name/year of publication or revision:

COOPERTOWN;1973

> Township/Range/Section/Qtr:

54S;38E;8;Vague / Unknown

> Foundation types:

Piers

> Foundation materials:

Poured Concrete Footing

> Exterior fabrics:

Asbestos Board and batten

> Roof types:

Shed

> Roof materials:

Asphalt Shingles

> Roof secondary structures (dormers etc):

Not applicable

> Change status/year changed/date noted/nature:

> Original, intermediate, present uses/year started/year ended:

Restaurant;1947; Residence--private;1947;

> Research methods:

Formal archaeological survey Interview Occupant FL Master Site File-Cultural Resources

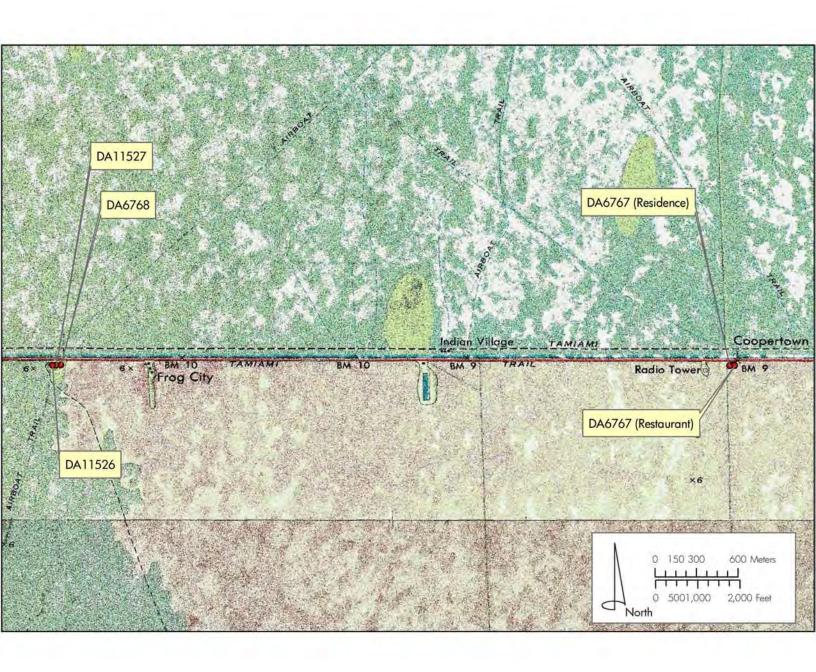
> Area(s) of historical significance:

Tourism Entertainment / recreation

> Repositories: Collection/Housed/Accession#/Describe

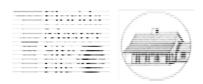
> Structural system(s):

Balloon wood frame









Electronic Version 1.1.0

Site #8 DA06767 Recorder # Field Date 7/27/2009 Form Date 8/26/2009

First Site Form Recorded for this Site? NO

FormNo 200907 FormNo = Field Date (YYYYMM)

GENERAL INFORMATION				
Site Name (address If none) Coopertown Restaurant and Airboat Rides Multiple Listing (DHR only)				
Other Names >>				
Survey or Project Name Modifications to the Tamiami Trail EIS, ENP Survey#				
National Register Category Building(s)				
LOCATION & IDENTIFICATION				
Address				
Street No. Direction Street Name Street Type Direction Suffix				
22702 SW 8th Street				
Cross Streets (nearest/ between) SW 177th Ave.				
City / Town (within 3 miles) Coopertown In Current City Limits? YES				
County Dade Tax Parcel #(s) Subdivision Name Block Lot				
Subdivision Name Block Lot Ownership Private Individual				
Name of Public Tract (e.g., park)				
Route to (especially if no street address) West of Miami on the Tamiami Trail (Hwy 41), approximately six miles				
west of SW 177th Ave (Hwy 997)				
MAPPING				
USGS 7.5' Map Name Publication Date >> COOPERTOWN;1973				
Township: Range: Section: 1/4 section: >> 54S ;38E ;8;Vague / Unknown				
Irregular Section Name:				
Landgrant				
UTM: Zone 17 Easting 544031 Northing 2849257				
Plat or Other Map (map's name, location)				
DESCRIPTION				
Style Frame Vernacular Other Style Exterior Plan Irregular Other Exterior Plan				
Exterior Plan Irregular Other Exterior Plan Number of Stories 1				
Structural System(s) >> Balloon wood frame				
Other Structural System(s)				
Foundation Type(s) >> Piers				
Other Foundation Types				
Foundation Material(s) >> Poured Concrete Footing				
Other Foundation Material(s)				
Exterior Fabric(s) >> Asbestos				
Other Exterior Fabric(s) Vertical Wood Siding				
Roof Type(s) >> Gable				
Other Roof Type(s)				
Other Roof Type(s) Roof Material(s) >> Asphalt Shingles				
Other Roof Type(s) Roof Material(s) >> Asphalt Shingles Other Roof Material(s)				
Other Roof Type(s) Roof Material(s) >> Asphalt Shingles Other Roof Material(s) Roof Secondary Structure(s) (dormers etc) >>				
Other Roof Type(s) Roof Material(s) >> Asphalt Shingles Other Roof Material(s)				
Other Roof Type(s) Roof Material(s)				
Other Roof Type(s) Roof Material(s) >> Asphalt Shingles Other Roof Material(s)				

DESCRIPTION (continued)

Window Descriptions The building features several types of windows including metal awning windows with				
2 and 4 lights and metal sliding windows with simple wood surrounds				
Main Entrance Description (stylistic details) The building's main entrance is a modern, half-glazed door.				
Porches: #open 0 #closed #incised Location(s) Porch Roof Types(s) N/A Exterior Ornament Several handpainted signs on the facade.				
Interior Plan				
Condition Good				
Structure Surroundings				
Commercial: Residential:				
Institutional: Undeveloped: ALL this category				
Ancillary Features (Number / type of outbuildings, major landscape features) Six outbuildings, including three sheds, a modern bait shop, a chickee hut, and a 1947 residence (entered on another survey form).				
Archaeological Remains (describe):				
If archaeological remains are present, was an Archaeological Site Form completed? Narrative Description (optional) One-story frame vernacular building with gable roof, board-and-batten and asbestos siding, concrete pier foundation, irregular floor plan. Metal awning and sliding windows and a modern half-glazed entrance.				
HISTORY				
Construction year 1947				
Architect (last name first): N/A Builder (last name first): John Cooper				
Changes in Locations or Conditions				
Type of Change Year of Change Date Change Noted Description of Changes				
>> Addition;c1950;;Addition on rear of restaurant				
Structure Use History				
Use Year Use Started Year Use Ended >> Restaurant;1947;				
Other Structure Uses Tourism				
Ownership History (especially original owner, dates, profession, etc.) Original owner was John Cooper, who established the restaurant and air boat business. Later passed to Cooper's cousin Jesse Kennon who runs it now.				
RESEARCH METHODS				
Research Methods >> Formal archaeological survey				
Other research methods				
SURVEYOR'S EVALUATION OF SITE				
Potentially Eligible for a Local Register? Idividually Eligible for National Register? Potential Contributor to NR District? LIKELY Name of Local Register if Eligible YES NO				
Area(s) of historical significance >> Tourism				
Other Historical Associations				
Explanation of Evaluation (required) Coopertown is associated with the history of tourism along the Tamiami Canal in the post World War II era. It is reported to be the first commercial tourist attraction				

that offered airboat rides into the surrounding Everglades.

DOCUMENTATION (Photos, Plans, etc.)

Photographic Negatives or Other Collections Not Filed with FMSF, Including Field Notes, Plans, other Important Documents.			
Document type:	Maintaining Organization:		
File or Accession #:	Descriptive Information:		
>>			
RECORDER INFORMATION			

Recorder Name (Last, First) Price, David Recorder Address / Phone 118 S. 11th St., Nashville, TN 37206; 615-262-4326 Recorder Affiliation New South Associates Other Affiliation Is a Text-Only Supplement File Attached (Surveyor Only)? NO

****** MASTER SITE FILE USE ONLY ******

Cultural Resource Type: SS	SHPO's Evaluation of Resource
Electronic Form Used: S110	Date
Form Type Code: NORM	
Form Quality Ranking: NEW	
Form Status Code: SCAT	
Supplement Information Status: NO SUPPLEMENT	FMSF Staffer:
Supplement File Status: NO SUPPLEMENT FILE	Computer Entry Date: 8/26/2009
Form Comments:	

REQUIRED **PAPER ATTACHMENTS** (1) USGS 7.5" MAP WITH STRUCTURE PINPOINTED IN RED

(2) LARGE SCALE STREET OR PLAT MAP

(3) PHOTO OF MAIN FACADE, B&W, AT LEAST 3"X5"

DA06767-200907

Supplementary Printout

- > [Other name(s)]:
- > USGS map name/year of publication or revision:

COOPERTOWN;1973

> Township/Range/Section/Qtr:

54S;38E;8;Vague / Unknown

> Foundation types:

Piers

> Foundation materials:

Poured Concrete Footing

> Exterior fabrics:

Asbestos Board and batten

> Roof types:

Gable

> Roof materials:

Asphalt Shingles

- > Roof secondary structures (dormers etc):
- > Change status/year changed/date noted/nature:

Addition;c1950;;Addition on rear of restaurant

> Original, intermediate, present uses/year started/year ended:

Restaurant;1947;

> Research methods:

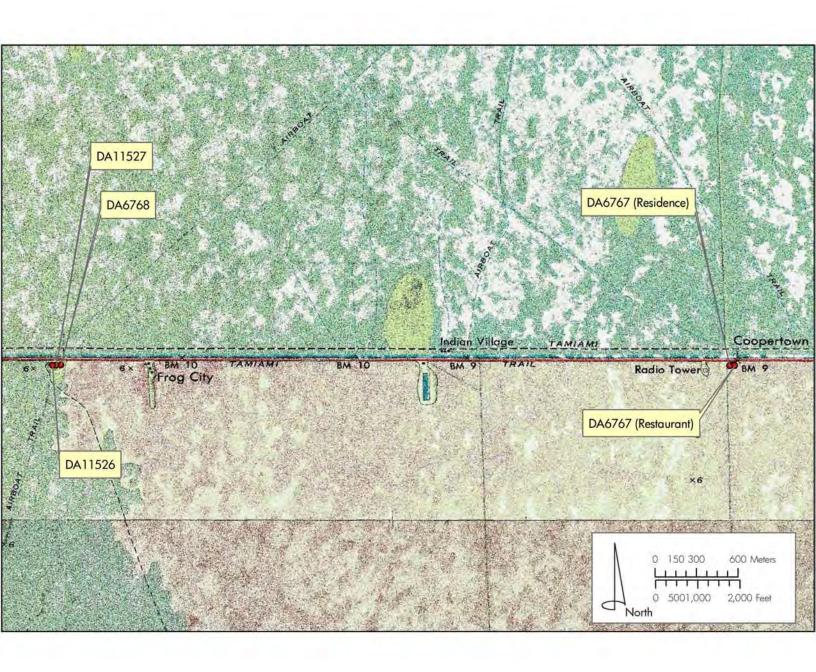
Formal archaeological survey Interview Occupant FL Master Site File-Cultural Resources Interior inspection

> Area(s) of historical significance:

Tourism Entertainment / recreation

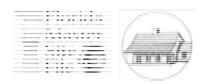
- > Repositories: Collection/Housed/Accession#/Describe
- > Structural system(s):

Balloon wood frame









Electronic Version 1.1.0

FormNo = Field Date (YYYYMM)

First Site Form Recorded for this Site? YES

	GENERAL INFO	RMATION		
Site Name (address If none) Airboat	Association of Florida	Mult	iple Listing (DHR only)	
	>>			
Survey or Project Name Tamiami Tr			Survey#	
National Register Category Building				
<u> </u>	LOCATION & IDEN	ITIFICATION		
Address				
	Street Name	Street Type	Direction Suffix	
	Street Name	Street Type	Direction Suffix	
25400	Tamiami Trail	Trail		
Cross Streets (nearest/ between) SW 1	- 77th Ave.			
City / Town (within 3 miles) Cooperto		In Current City Limits?	NO	
County Dade				
Subdivision Name		ck Lot		
Ownership Private-Corporate-				
Name of Public Tract (e.g., park)				
	Approximately 7 miles west	of SW 177th Ave. o	on the south side of the	
Tamiami Trail.				=
	MAPPIN	IG		
USGS 7.5' Map Name	Publication !	Date >> COOPE	RTOWN;1973	
	Section: 1/4 section:		S ;38E ;10;Vague / Unknown	1
Irregular Section Name:				
Landgrant				
UTM: Zone 17 Easting 539609	Northing 2849211			
Plat or Other Map (map's name, location)				
, , , , , , , , , , , , , , , , , , , ,	DESCRIPT	ΓΙΟΝ		
Style Masonry Vernacular				
Exterior Plan Rectangular				
Number of Stories 1	Other Exterior Flair			
Structural System(s)	>> Concrete block			
Other Structural System(s)				
Foundation Type(s)	>> Slab			
Other Foundation Types				
Foundation Material(s)	>> Poured Concrete	Footing		
Other Foundation Material(s)				
Exterior Fabric(s)	>> Stucco			
Other Exterior Fabric(s)				
Roof Type(s) Other Roof Type(s)				
Roof Material(s)	>> Asphalt Shingles	S		
Other Roof Material(s)				
Roof Secondary Structure(s) (dormers et	c)	Not applicable		
Other Roof Secondary Structure(s)	~/	and applicable		
Number of Chimneys 0				
- 				
Chimney Location(s)				
orminicy Education(3)				

DESCRIPTION (continued)

Window Descriptions The AAF building originally had fourteen jalousie type windows, but si have been removed and the openings enclosed.	x of them
Main Entrance Description (stylistic details) Modern metal panel door.	
Porches: #open #closed #incised Location(s)	
Exterior Ornament N/A	
nterior Plan Other Interior Plan Single room	
Condition Good	
tructure Surroundings	
Commercial: Residential:	
Institutional: Undeveloped: ALL this category	
uncillary Features (Number / type of outbuildings, major landscape features) The AAF property contains two outbuild	
ncluding the c.1954 Kitchen and 1962 Caretakers Cottage. Surrounded by the Everglad	des on all
ides.	
Archaeological Remains (describe):	
f archaeological remains are present, was an Archaeological Site Form completed? larrative Description (optional) The AAF headquarters is a one-story masonry vernacular buildin	g with a gable
coof, concrete block construction, and concrete slab foundation. It has a stucco ex	
of 14 original jalousie windows. There is a bathroom wing on the rear.	
HISTORY	
onstruction year 1954 rchitect (last name first): Builder (last name first): unknown	
hanges in Locations or Conditions	
Type of Change Year of Change Date Change Noted Description of Changes	
>> Altered-not to standards/unknown;c2005;;Enclosed original windows	
Structure Use History	
	254 •
Use Year Use Started Year Use Ended >> Recreation hall;19	134;
Other Structure Uses	
Ownership History (especially original owner, dates, profession, etc.) Orwned and maintained by the Airboat A of Florida since 1954.	ssociation
RESEARCH METHODS	
esearch Methods >> Formal archaeological survey	
ther research methods	
SURVEYOR'S EVALUATION OF SITE	
Potentially Eligible for a Local Register? LIKELY Name of Local Register if Eligible	
dividually Eligible for National Register? YES	
Potential Contributor to NR District? NO	
Area(s) of historical significance >> Conservation	
Other Historical Associations	
xplanation of Evaluation (required) The AAF headquarters is associated with the early history of	airboating
n South Florida, Gladesmen culture, and natural resource conservation efforts in the	

DOCUMENTATION (Photos, Plans, etc.)

Photographic Negatives or Other Collections Not Filed with FMSF, Including Field Notes, Plans, other Important Documents.				
Document type:	Maintaining Organization:			
File or Accession #:	Descriptive Information:			
>> None known; Unknown;;				

RECORDER INFORMATION				
Recorder Name (Last, First) Price, David				
Recorder Address / Phone 118 S. 11th St., Nashville,	TN 37206; 615-262-4326			
Recorder Affiliation New South Associates Other Affiliation				
Is a Tayt Only Supplement File Attached (Supplement Only)? NO				

****** MASTER SITE FILE USE ONLY ******

Cultural Resource Type:	SS		SHPO's Evaluation of Resource
Electronic Form Used:			Date
Form Type Code:			
Form Quality Ranking:	NEW		
Form Status Code:	SCAT		
Supplement Information Status:	NO SUPPLEMENT	FMSF Staffer:	
	NO SUPPLEMENT FILE	Computer Entry Date: _	9/17/2009
Form Comments:			

(1) USGS 7.5" MAP WITH STRUCTURE PINPOINTED IN RED **REQUIRED PAPER** (2) LARGE SCALE STREET OR PLAT MAP **ATTACHMENTS**

(3) PHOTO OF MAIN FACADE, B&W, AT LEAST 3"X5"

DA06768-200907

Supplementary Printout

> [Other name(s)]:

> USGS map name/year of publication or revision:

COOPERTOWN;1973

> Township/Range/Section/Qtr:

54S;38E;10;Vague / Unknown

> Foundation types:

Slab

> Foundation materials:

Poured Concrete Footing

> Exterior fabrics:

Stucco

> Roof types:

Gable

> Roof materials:

Asphalt Shingles

> Roof secondary structures (dormers etc):

Not applicable

> Change status/year changed/date noted/nature:

Altered-not to standards/unknown;c2005;;Enclosed original windows

> Original, intermediate, present uses/year started/year ended:

Recreation hall;1954;

> Research methods:

Formal archaeological survey Interview Occupant Informant Interview FL Master Site File-Cultural Resources FL Archives-not FMSF Newspaper files Library research-local Interior inspection Pedestrian

> Area(s) of historical significance:

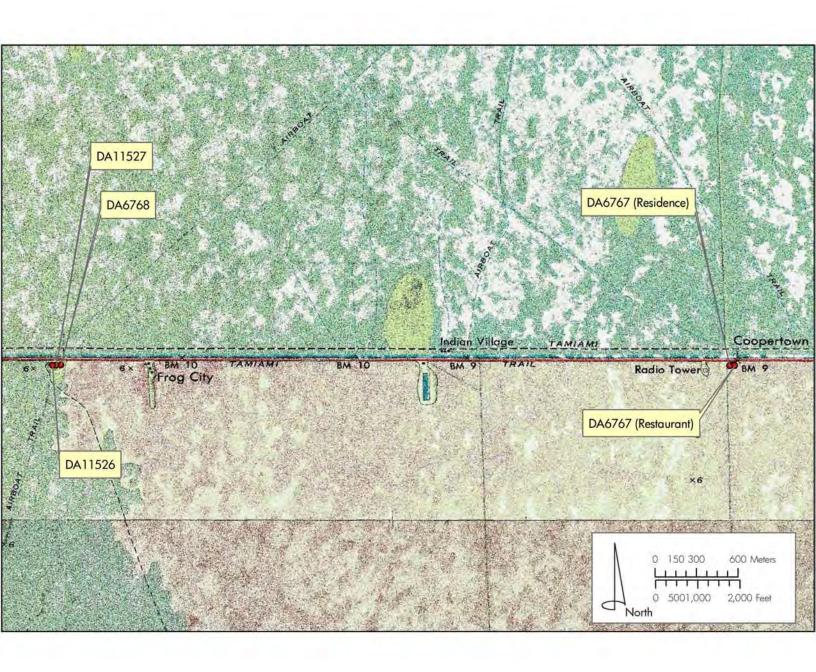
Conservation Entertainment / recreation

> Repositories: Collection/Housed/Accession#/Describe

None known;Unknown;;

> Structural system(s):

Concrete block

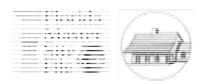






DESCRIPTION (continued)

Window Descriptions The AAF Caretaker's Co	ottage features metal triple-pane awning windows throughout.
Main Entrance Description (stylistic details) The main	in entrance is a modern panel door.
Porches: #open 1 #closed #incised Porch Roof Types(s) N/A	Location(s) Facade - west elevation
Exterior Ornament N/A	
Interior Plan Irregular	Other Interior Plan
Condition Good	
Structure Surroundings	
Commercial:	Residential:
Institutional: Ui	ndeveloped: ALL this category
Ancillary Features (Number / type of outbuildings, major lan	dscape features) The Caretaker's Cottage is one of three permanent
	is surrounded on all sides by the Everglades.
Archaeological Remains (describe):	1.16% 5
If archaeological remains are present, was an Archaeolo	
stucco exterior, and a slab foundati	story frame Ranch type house with with a side-gable roof,
staces exterior, and a stab roundary	on.
	HISTORY
Construction year 1962	
Architect (last name first):	Builder (last name first): unknown
Changes in Locations or Conditions	
Type of Change Year of Change	Date Change Noted Description of Changes
>> Altered-not to standards/unknown	;2009;2009;Replacement windows
Structure Use History	
	Vegeties Finded
Use Year Use Starte	ed Year Use Ended >> Kitchen;c1954;
Other Structure Uses	
Ownership History (especially original owner, dates, pro	ofession, etc.)
	RESEARCH METHODS
Research Methods	
Other research methods	
	RVEYOR'S EVALUATION OF SITE
Potentially Eligible for a Local Register?	Name of Local Register if Eligible
Idividually Eligible for National Register? Potential Contributor to NR District? NO	
Area(s) of historical significance	>> Conservation
	// GOMBEL VACION
Other Historical Associations	
· · · · · · · · · · · · · · · · · · ·	perty is associated with the early history of airboating in d natural resource conservation efforts in the Everglades.



Electronic Version 1.1.0

Site #8 **DA11526** Recorder # Field Date 7/27/2009 Form Date 9/17/2009

First Site Form Recorded for this Site? YES

FormNo 200907 FormNo = Field Date (YYYYMM)

GENERAL INFORMATION				
Site Name (address If none) Airboat As	ssociation of Fl - Car	etaker's	Multiple Listing (DHR only)	
	>			
Survey or Project Name Tamiami Trai			Survey#	
National Register Category Building(s				
Tutional registor outogory		IDENTIFICATION		
	LUCATION &	IDENTIFICATION		
Address				
Street No. Direction Stre	eet Name	Street Type	Direction Suffix	
25400 та	miami Trail			
Cross Streets (nearest/ between) sw 177	th Ave			
City / Town (within 3 miles) Coopertown		In Current City Lin	nits? <u>NO</u>	
County Dade	Tax Parcel #(s)			
Subdivision Name Ownership Private-Corporate-No.	n Drofit	Block L	ot	
Name of Public Tract (e.g., park)	II-PIOLIC			
Route to (especially if no street address)	Approximately 7 miles	west of SW 177th Ave	e, on the south side of	
Tamiami Trail.	<u></u>			
	MA	PPING		
USGS 7.5' Map Name		cation Date >> CO	ODERTOWN • 1973	
	Section: 1/4 section:		54S ;38E ;10; Vague / Unknown	
Township: Range: S Irregular Section Name:			545 ,50E ,10, vague / Sikilowii	
Landgrant				
UTM: Zone 17 Easting 539609	Northing 2849211			
Plat or Other Map (map's name, location)	g			
the control of the co	DESC	RIPTION		
Style Ranch	Other Style			
Exterior Plan Rectangular	Other Exterior Pla	n		
Number of Stories 1 Structural System(s)	>> Wood frame			
Other Structural System(s)				
Foundation Type(s)	>> Slab			
Other Foundation Types				
Foundation Material(s)	>> Poured Cond	rete Footing		
Other Foundation Material(s)				
Exterior Fabric(s)	>> Stucco			
Other Exterior Fabric(s)				
Roof Type(s)	>> Gable			
Other Roof Type(s)				
Roof Material(s)	>> Asphalt Shi	ngles		
Other Roof Material(s)				
Roof Secondary Structure(s) (dormers etc)		>> Not applicable		
Other Roof Secondary Structure(s)				
Number of Chimneys 0				
Chimney Material				
Other Chimney Material(s)		_		
Chimney Location(s)				

DOCUMENTATION (Photos, Plans, etc.)

Photographic Negatives or Other Collections Not Filed with FMSF, Including Field Notes, Plans, other Important Documents.				
Document type:	Maintaining Organization:			
File or Accession #:	Descriptive Information:			
>> None known; Unknown;;				

RECORDER INFORMATION				
Recorder Name (Last, First) Price, David	_			
Recorder Address / Phone $$ 118 S. 11th St., Nashville, TN 37206	; 615-262-4326			
Recorder Affiliation New South Associates Other Affiliation				
Is a Text-Only Sunnlement File Attached (Surveyor Only)? NO				

***** MASTER SITE FILE USE ONLY *****

Cultural Resource Type: Electronic Form Used:			SHPO's Evaluation of Resource Date
Form Type Code:	NORM		
Form Quality Ranking:	NEW		
Form Status Code:			
.,	NO SUPPLEMENT FILE	FMSF Staffer: Computer Entry Date:	9/17/2009
Form Comments:			

REQUIRED PAPER ATTACHMENTS (1) USGS 7.5" MAP WITH STRUCTURE PINPOINTED IN RED

(2) LARGE SCALE STREET OR PLAT MAP

(3) PHOTO OF MAIN FACADE, B&W, AT LEAST 3"X5"

DA11526-200907

Supplementary Printout

> [Other name(s)]:

> USGS map name/year of publication or revision:

COOPERTOWN;1973

> Township/Range/Section/Qtr:

54S;38E;10;Vague / Unknown

> Foundation types:

Slab

> Foundation materials:

Poured Concrete Footing

> Exterior fabrics:

Stucco Concrete block Wood/Plywood

> Roof types:

Gable

> Roof materials:

Asphalt Shingles

> Roof secondary structures (dormers etc):

Not applicable

> Change status/year changed/date noted/nature:

Altered-not to standards/unknown;2009;2009;Replacement windows

> Original, intermediate, present uses/year started/year ended:

Kitchen;c1954; Residence--private;1962;

> Research methods:

Formal archaeological survey Informant Interview FL Master Site File-Cultural Resources FL Archives-not FMSF Newspaper files Interior inspection

> Area(s) of historical significance:

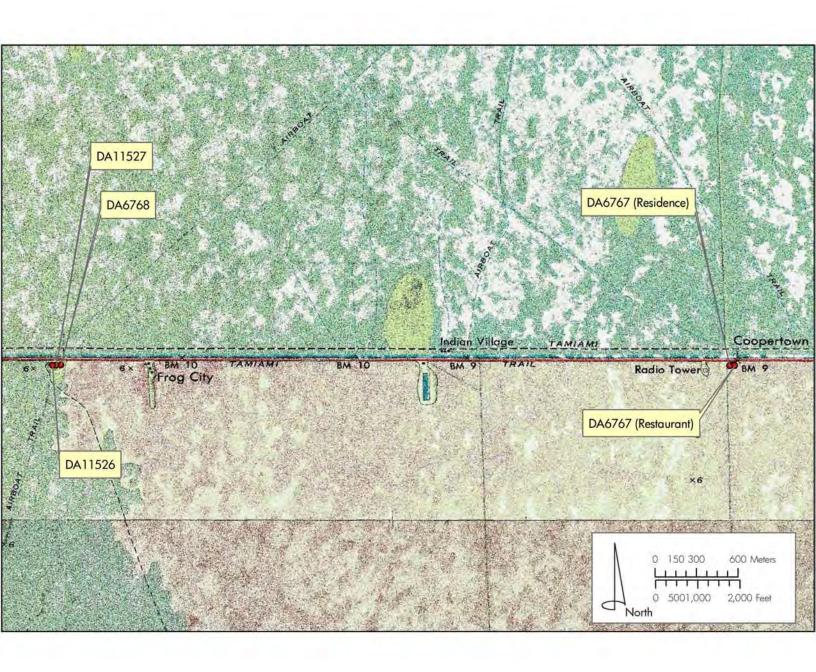
Conservation Entertainment / recreation

> Repositories: Collection/Housed/Accession#/Describe

None known;Unknown;;

> Structural system(s):

Wood frame Concrete block









Number of Chimneys _____O__ Chimney Material

Other Chimney Material(s)

Chimney Location(s)

HISTORICAL STRUCTURE FORM

Electronic Version 1.1.0

Site #8 DA11527

Recorder #
Field Date 7/27/2009

Form Date 9/17/2009

		Electronic version i	.1.0	Field	Date //2//200
`				Form	Date 9/17/200
First Site Form Recorded for this Site? YES			For	mNo 200907	
FIRST SITE FORM RECORDED FOR THIS SITE?				F	FormNo = Field Date (YY
	GEN	NERAL INFORM	MATION		
Site Name (address If none)	Airboat Association of F	lorida (Kitche	n) N	lultiple Listing (DHR only)	
	niami Trail Modification			Surve	ey#
National Register Category					
	LOCA	TION & IDENTI	FICATION		
Address					
Street No. Direction	on Street Name		Street Type	Direction Suffix	
25400	Tamiami Trail		Trail		_
Cross Streets (nearest/ betwe	en) SW 177th Ave.				
City / Town (within 3 miles)	Coopertown		In Current City Limi	ts? NO	
County Dade	Tax Parcel #(s)				
Subdivision Name		Block	Lot	t	
	porate-Non-Profit				
Name of Public Tract (e.g., pa	rk)				
Route to (especially if no stre Tamiami Trail.	et address) Approximately 7	miles west of	SW 177th Ave	on the south side	de of the
		MAPPING			
USGS 7.5' Map Name		Publication Date	e >> <mark>COO</mark>	PERTOWN;1973	

Irregular Section Name: Landgrant UTM: Zone <u>17</u> Easting <u>539609</u> Northing <u>2849211</u> Plat or Other Map (map's name, location) DESCRIPTION Style Masonry Vernacular Other Style Masonry and Frame Vernacular Exterior Plan Rectangular Other Exterior Plan Number of Stories 1 Structural System(s) Wood frame Other Structural System(s) Foundation Type(s) Slab Other Foundation Types Poured Concrete Footing Foundation Material(s) Other Foundation Material(s) Exterior Fabric(s) Wood siding Other Exterior Fabric(s) Roof Type(s) Other Roof Type(s) Asphalt Shingles Roof Material(s) Other Roof Material(s) Roof Secondary Structure(s) (dormers etc) >> Not applicable Other Roof Secondary Structure(s)

DESCRIPTION (continued)

	re custom homemade replacements with simple wood surrounds. details) Modern half-glass door
	/
Porches: #open0 #closed _ Porch Roof Types(s)	#incised Location(s)
Exterior Ornament N/A	
Interior Plan Other	Other Interior Plan Single room
Condition Good	
Structure Surroundings	
Commercial:	Residential:
Institutional:	Undeveloped: ALL this category
Ancillary Features (Number / type of ou	Itbuildings, major landscape features) The AAF property contains two outbuildings
	bhouse and 1962 Caretakers Cottage. Surrounded by the Everglades on all
sides.	
Archaeological Remains (describe):	
	t, was an Archaeological Site Form completed?
	e AAF kitchen is a one-story masonry and frame vernacular building with a ock and frame construction, and concrete slab foundation. On the south
	picnic pavilion with frame and pole construction
	HISTORY
Construction year <u>c1954</u> Architect (last name first):	Builder (last name first): unknown
Changes in Locations or Conditions	
Type of Change Altered-not to standards/unknown	Year of Change Date Change Noted Description of Changes
>> Altered-not to standard	ds/unknown;c2005;7/27/2009;replaced original windows
Structure Use History	
Use Kitchen	Year Use Started Year Use Ended >>
Other Structure Uses	
Ownership History (especially origina of Florida since 1954.	al owner, dates, profession, etc.) Orwned and maintained by the Airboat Association
	RESEARCH METHODS
Research Methods	>> Formal archaeological survey
Other research methods	
	SURVEYOR'S EVALUATION OF SITE
Potentially Eligible for a Local Regist Idividually Eligible for National Regis Potential Contributor to NR District?	
Area(s) of historical significance	>> Conservation
Other Historical Associations	
	The AAF headquarters is associated with the early history of airboating men culture, and natural resource conservation efforts in the Everglades.

DOCUMENTATION (Photos, Plans, etc.)

Photographic Negatives or Other Collections Not File	ed with FMSF, Including Field Notes, Plans, other I	mportant Documents.
Document type:	Maintaining Organization:	
File or Accession #:	Descriptive Information:	
>> None known;Unknown;;		

RECORDER INFORMATION				
Recorder Name (Last, First) Price, David				
Recorder Address / Phone 118 S. 11th St., Nashville, TN 37206;	615-262-4326			
Recorder Affiliation New South Associates Other Affiliation				
Is a Taxt-Only Supplement File Attached (Suppeyor Only)? NO				

****** MASTER SITE FILE USE ONLY ******

Cultural Resource Type: Electronic Form Used:			SHPO's Evaluation of Resource Date
Form Type Code: Form Quality Ranking: Form Status Code:	NEW		
Supplement Information Status: Supplement File Status: Form Comments:	NO SUPPLEMENT FILE	FMSF Staffer: Computer Entry Date:	9/17/2009

(1) USGS 7.5" MAP WITH STRUCTURE PINPOINTED IN RED REQUIRED **PAPER** (2) LARGE SCALE STREET OR PLAT MAP **ATTACHMENTS**

(3) PHOTO OF MAIN FACADE, B&W, AT LEAST 3"X5"

DA11527-200907

Supplementary Printout

> [Other name(s)]:

> USGS map name/year of publication or revision:

COOPERTOWN;1973

> Township/Range/Section/Qtr:

54S;38E;10;Vague / Unknown

> Foundation types:

Slab

> Foundation materials:

Poured Concrete Footing

> Exterior fabrics:

Concrete block Wood siding

> Roof types:

Gable

> Roof materials:

Asphalt Shingles

> Roof secondary structures (dormers etc):

Not applicable

> Change status/year changed/date noted/nature:

Altered-not to standards/unknown;c2005;7/27/2009;replaced original windows

> Original, intermediate, present uses/year started/year ended:

Kitchen;1954;

> Research methods:

Formal archaeological survey Interview Occupant Informant Interview FL Master Site File-Cultural Resources FL Archives-not FMSF Newspaper files Library research-local Interior inspection Pedestrian

> Area(s) of historical significance:

Conservation Entertainment / recreation

> Repositories: Collection/Housed/Accession#/Describe

None known;Unknown;;

> Structural system(s):

Concrete block Wood frame

