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Appendix I

Cultural Resource Assessment Survey

CULTURAL RESOURCE ASSESSMENT SURVEY

CITY OF PLANTATION MIDTOWN BRIDGE
PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY

BROWARD COUNTY

ETDM 14481

Prepared for:

City of Plantation

Prepared by:

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1107 North Ward Street
Tampa, Florida 33607

DRAFT REPORT

March 2022

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.

EXECUTIVE SUMMARY

In 2022, the City of Plantation, in cooperation with the Florida Department of Transportation (FDOT), District 4, engaged Janus Research, in association with Miller Legg, to conduct a Cultural Resource Assessment Survey (CRAS) as part of the Project Development and Environment (PD&E) Study for a proposed Midtown Bridge in the City of Plantation, Broward County.

The purpose of this CRAS was to locate and evaluate archaeological and historic resources within the Area of Potential Effect (APE) and to assess their eligibility for inclusion in the *National Register of Historic Places* (National Register) according to the criteria set forth in 36 CFR Section 60.4.

This assessment complies with Section 106 of the *National Historic Preservation Act (NHPA) of 1966* (Public Law 89-665, as amended), as implemented by 36 CFR 800 -- *Protection of Historic Properties* (incorporating amendments effective August 5, 2004); Stipulation VII of the *Programmatic Agreement among the Federal Highway Administration (FHWA), the Advisory Council on Historic Preservation (ACHP), the Florida Division of Historical Resources (FDHR), the State Historic Preservation Officer (SHPO), and the FDOT Regarding Implementation of the Federal-Aid Highway Program in Florida* (Section 106 Programmatic Agreement, effective March 2016, amended June 7, 2017); Section 102 of the *National Environmental Policy Act (NEPA) of 1969*, as amended (42 USC 4321 et seq.), as implemented by the regulations of the Council on Environmental Quality (CEQ) (40 CFR Parts 1500–1508); Section 4(f) of the *Department of Transportation Act of 1966*, as amended (49 USC 303 and 23 USC 138); the revised Chapters 267 and 373, *Florida Statutes (F.S.)*; and the standards embodied in the FDHR's *Cultural Resource Management Standards and Operational Manual* (February 2003), and Chapter 1A-46 (*Archaeological and Historical Report Standards and Guidelines*), *Florida Administrative Code*. In addition, this report was prepared in conformity with standards set forth in Part 2, Chapter 8 (*Archaeological and Historical Resources*) of the FDOT *Project Development and Environment (PD&E) Manual* (effective July 1, 2020). All work also conforms to professional guidelines set forth in the *Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716, as amended and annotated).

Principal Investigators meet the *Secretary of the Interior's Professional Qualification Standards* (48 FR 44716) for archaeology, history, architecture, architectural history, or historic architecture. Archaeological investigations were conducted under the direction of Rudy J. Westerman, M.A. Historic resource investigations were conducted under the direction of Amy Groover Streelman, M.H.P.

No previously recorded archaeological sites and no locally designated archaeological sites or zones were located within the APE, nor within a one-mile buffer encompassing the APE. No subsurface testing was possible within the archaeological APE due to the presence of existing roadways, hardscape, landscaping, canal berms, and buried utilities. The desktop analysis and

pedestrian survey determined that the archaeological APE exhibits a low potential for containing intact archaeological sites.

Historical research and field survey resulted in the identification of one previously recorded historic linear resource, the North New River Canal (8BD3279). The portion of the North New River Canal (8BD3279) within the project APE has been determined National Register eligible numerous times, most recently in 2014 (Janus Research 2013). The current portion of the canal has not been altered since its most recent documentation and evaluation and maintains adequate integrity to express its association with the Everglades Drainage District. Therefore, the portion of the North New River Canal (8BD3279) within the current project APE is considered individually National Register eligible under Criterion A in the area of Community Planning and Development for its association with the development of South Florida.

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

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Project Description

The City of Plantation, in cooperation with FDOT District 4, is conducting a study that analyzes the impacts of a new bridge over the South Florida Water Management District (SFWMD) New River Canal between Westbound SR 84 and SW 17th Street in the City of Plantation, Broward County, Florida. The typical section is anticipated to accommodate motorized traffic only as there

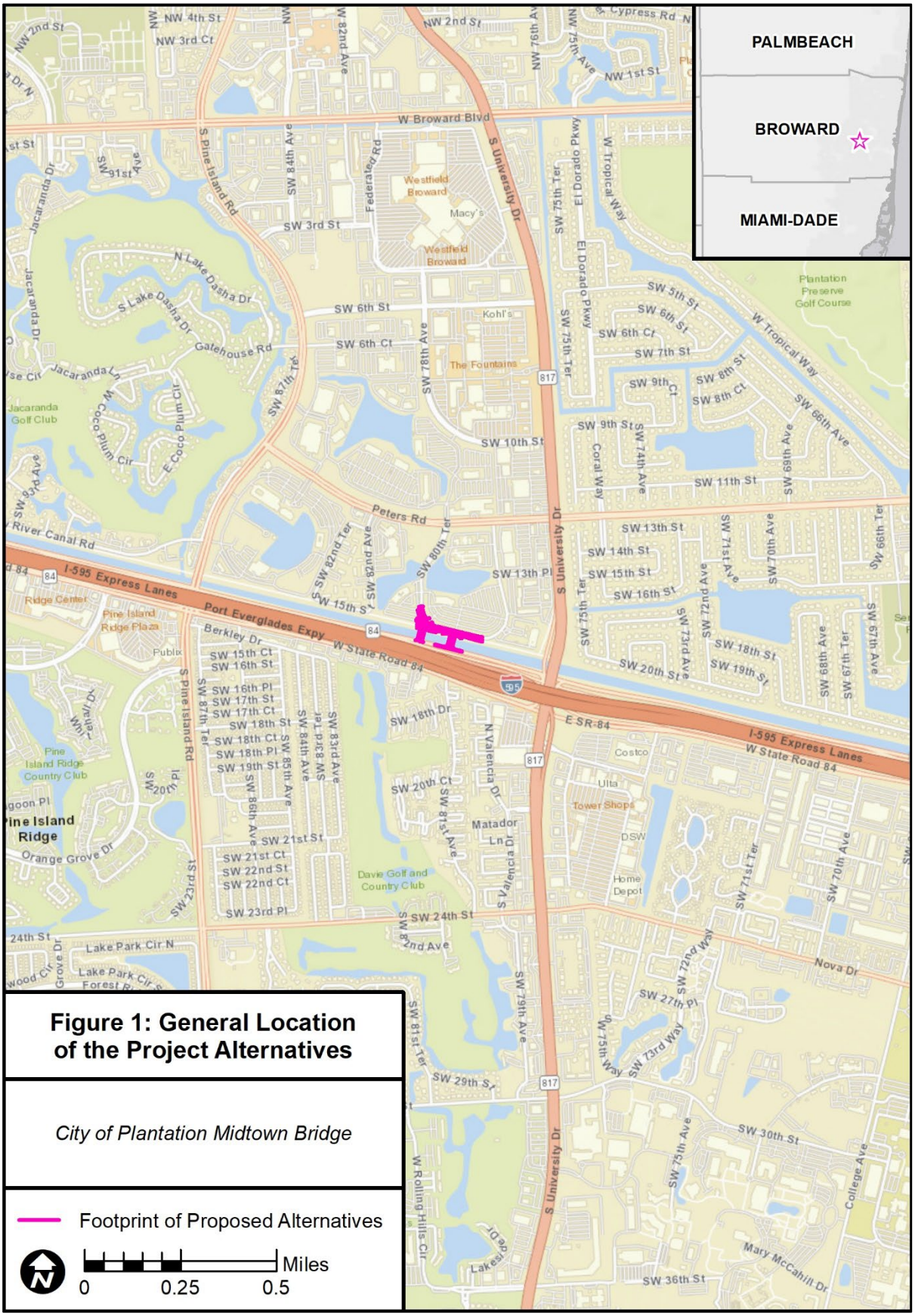
are no existing or planned non-motorized facilities on Westbound State Road (SR) 84. The proposed bridge was identified in the joint Broward Metropolitan Planning Organization (MPO) and FDOT District 4 Interstate 595 (I-595) Arterial Connectivity Study (I-595 ACS) as an alternative that has the potential to relieve congestion on Pine Island Road and University Drive and to provide a new system linkage between Westbound SR 84 and the Midtown Plantation Business District. The I-595 ACS analyzed daily traffic impacts for the bridge that shows potential to reduce traffic on both University Drive and Pine Island Road. This study will complement the I-595 ACS effort by analyzing the peak period traffic impacts of the new bridge on study area roadways and intersections.

The project study area is bounded by the Pine Island Road intersections at Peters Road and SR 84/I-595 to the west, Peters Road on the north, SR 84 bound on the South and the University Drive intersections at Peters Road and SR 84/I-595 to the east. The total proposed new connection could be 200 feet in length from Westbound SR 84 to the south and SW 17th Street to the north.

The proposed bridge alternative will bisect the New River Bridge Greenway on the northside of the canal outside of the Limited Access Facility (LAF) boundary. The bridge alternative will identify non-motorized facilities where it bisects the greenway including Americans with Disabilities Act (ADA) accommodations and high visibility pavement markings and signage.

There are low level bridges upstream and downstream that already limit navigation and since the bridge is on the west side of the SFWMD Broward Memorial Lock, located west of the Florida's Turnpike, this project study area should not be considered navigable waters. It is anticipated the bridge structures will generally have the same dimensions and height as the Pine Island Road and University Drive bridges.

The project area (Figure 1) is in Section 16 of Township 50 South, Range 41 East, on the Cooper City (1963 Photorevised [PR] 1984) United States Geological Survey (USGS) quadrangle map. The proposed bridge is within the City of Plantation north of the North New River Canal and within the Town of Davie south of the canal.

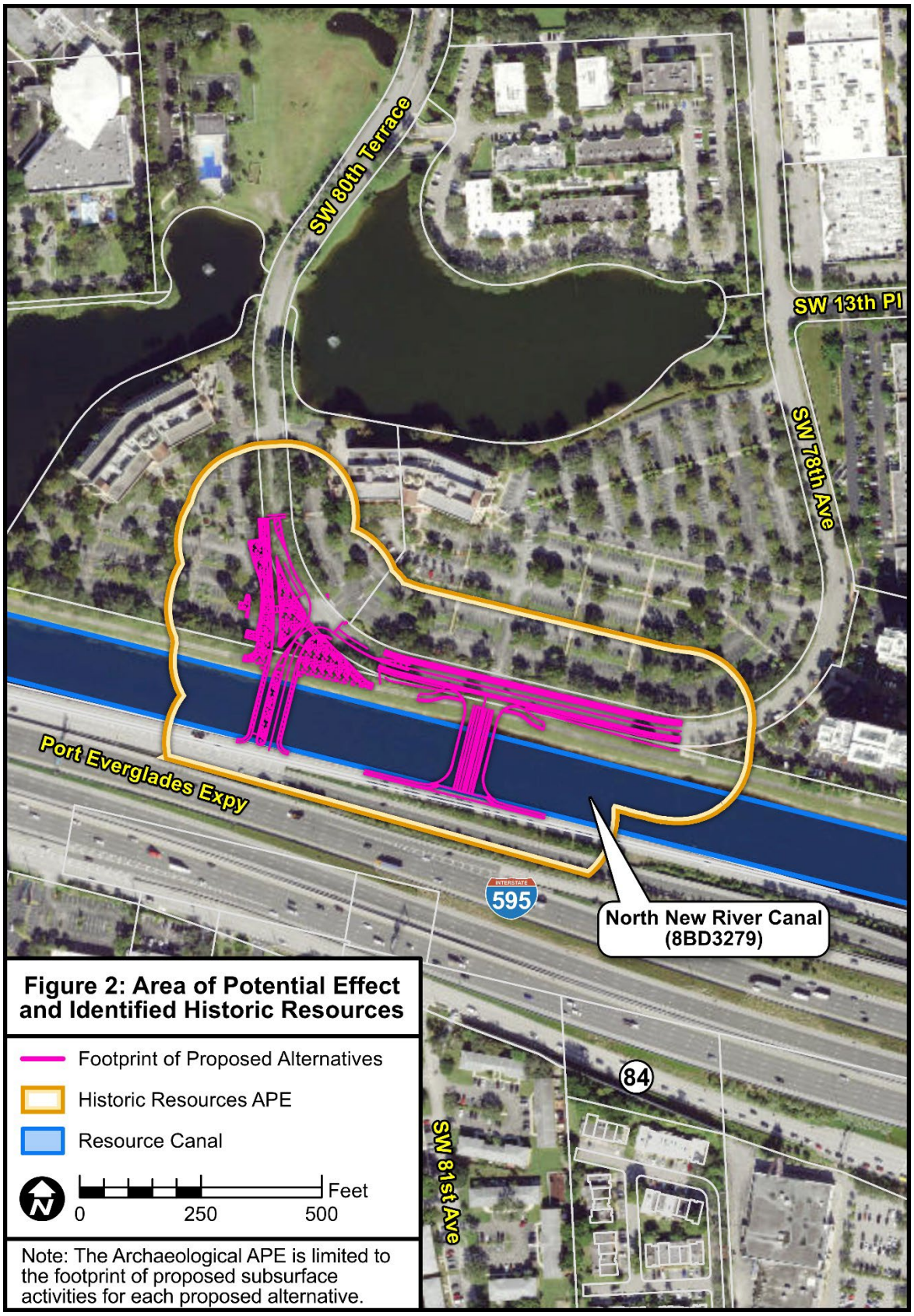

PALMBEACH
BROWARD
MIAMI-DADE
Figure 1: General Location of the Project Alternatives
City of Plantation Midtown Bridge
Footprint of Proposed Alternatives
Miles
0
0.25
0.5

AREA OF POTENTIAL EFFECT

In order to comply with federal and state regulations, a CRAS is conducted to identify all historic and archaeological resources that may be affected by the project improvements. The CRAS is a major task required as part of the Section 106 process. An APE must be established in order to determine the physical area in which cultural resources will be identified. For this CRAS, the APE was determined by considering the type of improvements being proposed and the potential effects these improvements could have on cultural resources. The APE determination also considered the urbanized character of the project corridor.

The archaeological APE focuses upon identifying and evaluating resources within the geographic limits of the proposed action and its associated ground disturbing activities. Therefore, the archaeological APE consisted of the footprint of the proposed subsurface improvements for all alternatives (Figure 2).

The current APE for historic resources includes an area within 150 feet of the improvements for the proposed alternatives. The elevated I-595 facility serves as the southern boundary of the historic resources APE, as it provides a visual barrier from the project area. The APE was judged to be sufficient based on the nature of the improvements and the highly developed nature of the corridor. Figure 2 shows the historic APE for this project on an aerial map.


SW 80th Terrace
SW 13th Pl
SW 78th Ave
Port Everglades Expy
595
North New River Canal
(8BD3279)
84
SW 81st Ave
Figure 2: Area of Potential Effect
and Identified Historic Resources
Footprint of Proposed Alternatives
Historic Resources APE
Resource Canal
N
0
250
500
Feet
Note: The Archaeological APE is limited to
the footprint of proposed subsurface
activities for each proposed alternative.

ENVIRONMENTAL SETTING

Environmental and ecological factors through time are used to reconstruct past conditions that influence early human occupation of the project area.

Paleo-Environment and Macro-Vegetational Change

Since the termination of the Pleistocene Epoch at the end of the Wisconsin glaciation, roughly 11,550 BC, Florida has undergone significant climatic and environmental change. Notable changes in climate and subsequently in flora and fauna required human groups to adapt to their surroundings. These adaptations resulted in cultural changes in their hunting/foraging strategies and seasonal migration patterns. Within the archaeological record, these changes can be observed by differences in settlement patterns, midden composition, refuse disposal patterns, and the kinds of stone tools or pottery made.

Paleobotanical evidence suggests that between 31,050 and 11,550 BC, Florida was dry, windy, and cool (Whitehead 1973). By the early Holocene, roughly 11,550 BC, the climate in west-central Florida had warmed, and it is likely that precipitation increased; as a result, the shallow, perched lake levels rose. At about 3,050 BC, sea levels had risen to within a few meters of their current levels (Griffin 1988). Increased rainfall resulted in the formation of Lake Okeechobee, the Everglades, and other modern ecosystems (Watts and Stuiver 1980; Brooks 1984:38; Gleason et al. 1984:311). The relative sea level stability combined with freshwater discharge allowed for the development of coastal estuaries (Widmer 1988). Around 750 BC, the rising sea level had slowed to the point that some modern beach ridges in southern Florida, like Cape Sable, began to form. Increased precipitation in the interior made cypress common in many areas, including the Big Cypress Swamp, and made droughts in the Everglades less common (Griffin 1988). The southern rim of Lake Okeechobee reached its maximum height about this time (Brooks 1984:38). Vegetation reached its present distributional patterning and estuaries were fully formed and supplied by enough freshwater drainage to become highly productive (Widmer 1988; Griffin 1988).

The climatic fluctuations that have occurred over the past 13,000 years have affected the way human groups were able to exploit resources. The Paleoindian and Early Archaic inhabitants would have found the area drier and access to water restricted, possibly only seasonally available at perched water ponds, or in solution lakes (sinkholes). The Florida peninsula was wider as sea level was as much as 49 m (160 ft.) lower than present level (Milanich 1994:38). The continental shelf was exposed in what is now the Gulf of Mexico. Mixed forests of oak and pine probably dominated the lower, riparian areas and the higher, arid locations were covered with rosemary scrub and grass species.

By Late Archaic times, the environment of the region approached present conditions. With the incipient development of the Everglades, Lake Okeechobee, Lake Kissimmee, swamps, wetlands, and other drainages, water was no longer the limiting factor to site and resource location. The choice of site location was probably more a matter of finding a reasonably dry spot rather than a nearby water supply (Almy 1976, 1978; Grange et al. 1979). Sea levels were

still fluctuating but were within one meter of current levels (Mörner 1969; Widmer 1988). Woodland Period culture groups exploited microhabitats that existed until modern logging, ranching, and land drainage practices were instituted.

Regional Environment

The project area is located within the Everglades physiographic region which occupies a broad trough extending from Lake Okeechobee to Florida Bay, and bounded by the Atlantic Coastal Ridge to the East and the Big Cypress Spur and Immokalee Rise to the west (White 1970). The Everglades is low-lying and near-sea level, with freshwater peatlands directly overlying carbonate bedrock (Richardson and Huvane 2008; Richardson 2010). The Everglades are of Holocene origin, and geochronological analyses place widespread freshwater peat deposition between 5000 and 3000 cal. BP (Davies 1980; Gleason and Stone 1994; Spackman et al. 1966; Willard and Bernhardt 2011). Historically, the greater Everglades ecosystem exhibited macro-scale patterns in biogeography, organized by hydroperiod, water depth, salinity, and fire regimes (see Dreschel et al. 2018). A narrow band of mineral-rich peats along the southern and eastern banks of Lake Okeechobee supported swamps dominated by pond apple and cypress. From the southern edge of this narrow swamp-band, vast plains of tall sawgrass extended over 20 km southward atop deep (10 to 15 ft thick) organic peat deposits (Baldwin and Hawker 1915). Deeper-water wetlands extend between the sawgrass plains and the coast, and are characterized by complex aquatic sloughs separated by linear ridges of sawgrass and tear-drop shaped tree islands.

Prior to intensive hydrological alteration, water generally flowed south from Lake Okeechobee and across sawgrass plains into complex sloughs systems that emptied into the Ten Thousand Islands, Florida Bay, and Biscayne Bay. “Transverse glades” and other drainages, such as the Loxahatchee Marsh or Slough, drained water from the Everglades to the north or east into rivers and creeks, such as the Loxahatchee and New River (McVoy et al. 2011). These drainages cut through the Atlantic Coastal Ridge and emptied into the Atlantic along Florida’s southeastern coast.

Historic water levels in the Everglades fluctuated depending on the amount of rainfall in the interior of the Florida peninsula. Despite seasonal fluctuations, most of the Everglades were inundated for 9-10 months in most years. Water levels were consistently shallow enough to sustain vast swaths of sawgrass marsh and to conversely retard the formation of cypress swamps. Centuries of decomposing sawgrass led to thick layers of peat under many portions of the Everglades, particularly in the vast sawgrass plains province (McVoy et al. 2011; Stone et al. 2002).

Tree islands are located throughout all the historic Everglades and associated marshes. Some of these islands are so low in elevation that they only support forested wetland vegetation, such as willow and maple. Tree islands with higher elevations support temperate and/or tropical hammock vegetation. Many of these islands are “teardrop-shaped,” with southern tails dominated by wetland species and hardwood vegetation located on the northern “heads” of the islands (Armentano et al. 2002; Heisler et al. 2002; Sklar and van der Valk 2002).

Within the last 100 years, an extensive network of canals has been excavated in the Everglades to drain areas for agricultural and other uses. This drainage system includes both major and minor systems. Parts of the major system are the West Palm Beach Canal, Hillsboro Canal, North New River Canal, South New River Canal, St. Lucie Canal, and Miami Canal, all of which tie Lake Okeechobee with the east coast. Ocean Canal and Bolles/Cross Canal link four of the major canals. Numerous other smaller canals are included in the minor drainage system. Under natural conditions, water from Lake Okeechobee, as well as direct precipitation, maintained water tables and hydroperiods that facilitated near-continuous peat accumulation, and exposed the ground surface only during anomalously dry seasons. The dredging of canal systems and subsequent drainage infrastructure (e.g., pump stations, levees, control structures, subsidiary canals) in the early to mid-20th century hydrologically disconnected the Everglades from Lake Okeechobee, and substantially decreased the residence time of aerial precipitation. Drainage dropped water tables below the peat surface, and led to the rapid subsidence of everglades peatlands due to open-air oxidation, burning, and compression (Aich et al. 2013; Snyder 2004; Stephens and Johnson 1951).

Outcrops of silicified limestone or chert, often sought out by precontact people as raw material sources for the manufacture of stone tools, do not occur in this area (Lane 1980). The closest known outcrops lie to the northwest along the Peace River in the central part of the state (Scott 1978; Upchurch et al. 1982). Shell was the material of choice for the manufacture of precontact tools in this area.

Physical Environment of the APE

A review was conducted of the General Land Office (GLO) historic plat maps (Florida Department of Environmental Protection [FDEP] 1899a) for Township 50 South, Range 41 East. The only features depicted on this map are a series of islands surrounding Pine Island, and the far northern limits of Big City Island. Pine Island is over a mile away from the project area, and Big City Island is much farther south. Surveyor's field notes do not specifically address the vicinity of the proposed project, but they describe most of the area beyond the islands as sawgrass marsh (FDEP 1899b). A note inscribed on the GLO plat map broadly labels the area as "Indian Lands." No hammocks, knolls, or tree islands are noted within the archaeological APE. Similarly, no military forts, roads, encampments, battlefields, or historical Native American villages or trails are observable within the APE. Pine Island, over a mile west and southwest of the project area, is illustrated with Native American villages.

When the Township was resurveyed in 1911 and 1912, the North New River Canal alignment was depicted as dividing the Township. No other features were depicted on the map (FDEP 1912).

Aerial photographs from 1950, 1968, and 1971, and 1973 (FDOT Office of Surveying and Mapping 2022, USGS 2022) were reviewed to examine the recent history of land use and to assess the nature of the environments encompassing and surrounding the APE. By the time the earliest available aerial image was taken in 1950, the North New River Canal had been dredged. Dredge spoil from the canal is visible on this aerial and encompasses the current

project's archaeological APE north of the canal. No development, and no evidence of ridges, knolls, or relict tree islands are visible in the area. Agricultural fields can be observed to the south of the canal. Very little had changed within the project APE by 1968, but in 1971 roadway construction to the south of the canal had begun. As late as 1973, there was no development within the project APE aside from an unpaved road or path along the north canal bank and a paved road along the south canal bank.

Soil surveys were reviewed to help determine the predevelopment environment, assess the level of modification, and identify natural features within the APE indicative of increased archaeological site potential. The *Soil Survey of Broward County, Florida, Eastern Part* (United States Department of Agriculture [USDA] 1984) mapped the APE as containing Pompano fine sand, 0-2% slopes, Water (the canal), and Udorthents. The portion of the archaeological APE on the south side of the canal, as well as the northernmost potential roadway improvements are within an area mapped as Pompano fine sand. Pompano fine sand is a nearly level and poorly drained soil that is typically found in sloughs and flatlands containing pepper, slash pine, guava trees, native grasses, and sometimes cypress trees. The Udorthents soil classification covers most of the archaeological APE north of the canal. It represented the excavated and redeposited soils from the excavation of the adjacent canal and is therefore a disturbed soil.

The APE is located within an area that formerly contained the Everglades, which would have provided freshwater sources. However, there is no indication of natural hammocks, knolls, or tree islands within the APE. By the late 1920s, the construction of a canal, placement of spoil on adjacent banks, and the construction of roadways had changed the overall environment of the project area. The current APE contains existing roadway, hardscape, landscaping, and various buried utilities.

PRECONTACT OVERVIEW

Native peoples have inhabited Florida for at least 14,000 years. The earliest cultural stages are pan-Florida in extent, while later cultures exhibited unique cultural traits. The following discussion of the precontact time period in the vicinity of the APE is included in order to provide a framework within which the local archaeological record can be understood.

Paleoindian Period (12,000–7500 BC)

The earliest inhabitants of Florida are known archaeologically as Paleoindians. The prevailing view of the Paleoindian culture, a view based on the uniformity of the known tool assemblage and the small size of most of the known sites, is that of a nomadic hunting and gathering existence, in which now-extinct Pleistocene megafauna were exploited. Settlement patterns were restricted by availability of fresh water and access to high-quality stone from which the specialized Paleoindian tool assemblages were made. Waller and Dunbar (1977) and Dunbar and Waller (1983), from their studies of the distribution of known Paleoindian sites and artifact occurrences, have shown that most sites of this time period are found near karst sinkholes or spring caverns.

The majority of Paleoindian sites in Florida consist of surface finds. The most widely recognized Paleoindian tool in Florida is the Suwannee point, typically found along the springs and rivers of northern Florida. Other points, including Simpson and Clovis points, are found in lesser numbers. Other Paleoindian stone tools tend to be unifacial and plano-convex, with steeply flaked, worked edges (Purdy and Beach 1980:114–118 and Purdy 1981), bifacial and "hump-backed" unifacial scrapers, blade tools, and retouched flakes, including spokeshaves (Purdy 1981; Daniel and Wisenbaker 1987:62–81, 86–87). Some tools are little more than flakes or blades that were struck from cores, used, and discarded (Milanich 1994:51).

By the end of the Paleoindian period, the climate had become warmer and wetter. It is possible that at this time the modern wetlands of southern Florida began to emerge. Sea levels began a fairly rapid rise, shrinking the available land mass through coastal inundation. These dramatic climate changes, and possible pressure from Paleoindian hunters, led to the extinction of the Pleistocene megafauna and other species.

Archaic Period (7500–5000 BC)

During the Archaic period, climate and sea levels gradually stabilized and southern Florida began to take on its current appearance. The Archaic period is known for the adaptations made by Florida's earliest inhabitants to the modernizing climate and landscape. At the beginning of the Archaic, lifeways in Florida were quite similar to those of the preceding Paleoindian period. However, by the end of the Archaic, Florida's native people had developed more sedentary lifestyles, made many technological innovations, the most important of which was the invention of pottery, and began to differentiate themselves into distinct regional subcultures. Florida's Archaic is divided into an Early, Middle, and Late sub-periods, each of which have recognized horizons that are limited to restricted geographic areas and/or times.

Early Archaic Period (7500–5000 BC)

By the beginning of the Early Archaic sub-period, the Pleistocene megafauna and other characteristic fauna had become extinct. The settlement patterns and tools of Early Archaic people in Florida were initially very similar to those of the preceding Paleoindian period. As the Early Archaic progressed, more wetland habitats within southern Florida began to emerge.

By the end of the Early Archaic, local environments were becoming more subtropical. Additionally, interior ponds had begun to form (Carr 2002:194–195; Wheeler 2004:7). Sea levels throughout the Early Archaic were also still lower than modern levels.

Most of what is known about Early Archaic subsistence comes from highly preserved materials recovered from the anaerobic muck of the Windover Pond site in Brevard County. The Windover analysis (Andrews et al. 2002) indicates that Early Archaic peoples utilized the fibers of sabal palm, saw palmetto, and other plants in the weaving of baskets and textiles. Windover also illustrates that at least some Early Archaic populations had developed an intensive exploitation strategy focused on inland aquatic resources supplemented by terrestrial game (Dickel and Doran 2002:54). Within southern Florida, sites dating to this time period are rare. The Cutler Fossil site (8DA2001) in the Deering Estate, Miami-Dade County, is one definite Early Archaic site (Carr 1986). Other possible Early Archaic sites in southern Florida include Sunset Lakes (8BD3176), Blue Cow (8BD2150) (Davis and Carr 1993), and Silver Lakes (8BD1873) (Carr et al. 1991).

Middle Archaic Period (5000–3000 BC)

During the Middle Archaic period, the environment of southern Florida approached that of modern times, becoming less arid and supportive of a broader range of animal and plant resources. Broad wetlands, lakes and rivers began to develop, and sea levels began to stabilize (Dixon 1999; Littman 2000). The human populations began to develop distinct regional adaptations to the changing environmental conditions. For the first time, such distinct regional adaptations and cultures appeared across all of Florida, including the southern portion of the peninsula. Along the southwest coast, populations developed year-round adaptations to the developing estuaries, producing large shell middens and constructing shell mounds in the process. Within southern Florida, Middle Archaic populations began to adapt to the developing Everglades ecosystem as well as the more dispersed wetland resources to the north of what is now Lake Okeechobee. The unique adaptation to the interior marshlands of southern Florida that can be seen developing during the Middle Archaic has been labeled the Glades or Everglades Archaic (Pepe 2000:32; Pepe and Jester 1995:19; Wheeler 2004; Wheeler et al. 2002:143-144).

Large coastal shell middens dating to the Middle Archaic are known for the southwestern coast of Florida, providing ample evidence of fully developed estuaries there during these times (Russo 1991; Torrence 1996). Within the interior, peat formation became widespread toward the end of this period, eventually giving rise to the Everglades ecosystem. The Middle Archaic artifact assemblage is not well documented but includes Florida Archaic Stemmed (FAS) and

related points. Thonotosassa points, related to FAS points but larger, thicker, and more crudely made, have also been found in southern Florida at sites dating to the Middle Archaic (David Dickel, personal communication with James Pepe 2007; Farr 2006:91). Within southern Florida, an example of this point was noted at Ryder Pond (8LL1850). Wooden artifacts known from the Middle Archaic include dugout canoes and a variety of wooden stakes and other tools recovered from wet sites. Although a variety of shell tool types are known from Middle Archaic sites, the main shell tool type known for southern Florida during this time is the *Strombus* celt (Wheeler 1994).

Several Middle Archaic sites have been identified on sandy ridges along the eastern edge of the Everglades. Sites such as Ranch Ridge (8BD1119) and Hiatus #2 (8BD3283) consist of scatters of lithic artifacts, including Middle Archaic point types and lithic debitage. Other probable Middle Archaic sites located in the Everglades, such as Bass Creek/Blockbuster #1 (8BD2878) and Cheetum (8DA1058), may represent early manifestations of the aforementioned Glades Archaic culture. All are, or were, hammock tree island sites surrounded by what would have been marshlands before modern drainage and other disturbances.

Late Archaic Period (3000–500 BC)

By the beginning of the Late Archaic, all of the modern physiographic regions and ecosystems of southern Florida were present in essentially their modern forms, including the entire Kissimmee-Lake Okeechobee-Everglades drainage system. Although the environment of southern Florida had achieved some sense of stability, the archaeological record of this period is much more dynamic. As a result, there is a great deal of variability between Late Archaic sites in southern Florida. 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, fiber-tempered pottery, the earliest pottery type known for all of North America, was considered to be a marker for the pottery of the Late Archaic. The generally accepted chronological sequence for the Late Archaic was expressly unilineal, with plain (undecorated) fiber-tempered pottery, followed by decorated fiber-tempered pottery, replaced finally by plain pottery that was not tempered with fibers (Bullen 1954, 1955, 1972). It was also understood that sand was eventually added as a tempering agent to fiber-tempered pottery. Orange pottery tempered with both fiber and sand is sometimes referred to as "semi-fiber tempered." The application of this chronology to southern Florida seemed to indicate that most of the area, especially the Everglades, was sparsely settled during the Late Archaic due to the general absence of Orange pottery at sites (Griffin 2002:146-149; Widmer 1988:201-201).

Investigations have questioned the use of the "standard" fiber-tempered sequence for the Late Archaic in southern Florida and suggest that, at some sites or in some areas, the earliest pottery present may be Sand-tempered Plain or thick, chalky wares. Investigations of a Late Archaic period site in Jupiter, the Joseph Reed Shell Ring, resulted in a tentative new chronology for the Late Archaic in southeastern Florida (Russo and Heide 2002). The proposed 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 Late Archaic III, is distinguished by the presence of plain sand-tempered pottery along with the chalky pottery. Pepe and Jester (1995:19) propose 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, perhaps giving 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).

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 of any kind. These sites are notoriously difficult to date because, not only do they often lack chronologically diagnostic artifacts, but most of the faunal bone at the sites lacks collagen, the datable material in bone samples sent to radiocarbon labs. Nevertheless, many sites clearly have aceramic components that underlie pottery-bearing strata, logically indicating that these aceramic components most likely date at least as far back as the Late Archaic. Ongoing research by the National Park Service in the Big Cypress National Preserve and Everglades National Park has identified dense aceramic faunal bone middens yielding radiocarbon dates between 2850 and 1550 BC (Michael Russo, personal communication with James Pepe 2007; Schwadron 2006).

Formative Period (500 BC – AD 1513)

The Formative Period represents a time when changes in pottery and technology occurred throughout Florida. The specific changes in pottery traditionally used by archaeologists to mark the beginning of this period include the replacement of fiber-tempered pottery with sand-tempered, limestone-tempered, and chalky-paste ceramics. Three different projectile point styles (basally-notched, corner-notched, and stemmed) also occur in some areas in contexts contemporaneous with these new ceramic types. This profusion of ceramic and tool traditions suggests population movement and social interaction between culture areas. The earliest known major occupations of southern Florida date to this period (Bullen et al. 1968; Sears 1982). The regional diversity that marked this period has been primarily attributed to local adaptation to varied ecological conditions within the state. The ceramic tradition for southern Florida, characterized by sand-tempered bowls with incurvate rims, is known as the Glades or Everglades cultural tradition.

The project area is located in the Glades (Milanich 1994:301). As defined by Milanich (1994:298), the Glades cultural region (Figure 3) includes all of south Florida "east and south of the Caloosahatchee and Okeechobee regions. It includes most of St. Lucie County, "the Everglades, a largely sawgrass marsh in Hendry, Palm Beach, Broward, Dade, and Monroe counties; the Big Cypress Swamp west of the Everglades in Collier County; and extensive saltwater marshes and mangrove forests ounce found along both coasts, now almost totally destroyed in Broward and Dade counties."

Glades Culture

Environmentally, the interior portions of the Everglades area are dominated by inundated or formerly inundated humic or peat soils which are drained by massive sheet-flow instead of river channeling. The Atlantic coast, which has developed from beach dune deposition, has a few rivers cutting through the Atlantic Coastal Ridge and a coast-parallel lagoon system.

John Goggin established a ceramic sequence for the Glades region on the basis of work he conducted from the 1930s to early 1950s (Goggin n.d.). Subsequent research has refined his basic chronological framework (Griffin 1988; Griffin et al. 1982). Table 1 is based on Griffin's 1988 work and presents the most thorough chronological framework for southern Florida. Summaries of the ceramic markers associated with each period are provided, as well. It is important to note that the information provided in this table is most applicable to the heartland of the Glades archaeological area: the Big Cypress Swamp, Everglades, and coastal portions of southern Florida to the south of Lake Okeechobee.

Glades period sites include those at Gordon's Pass (Goggin 1939), Goodland Point (Goggin 1950), Marco Island (Van Beck and Van Beck 1965), Useppa Island (Milanich et al. 1984), Horr's Island (McMichael 1982), Sanibel Island (Fradkin 1976), and the Turner River site (Sears 1956). An interesting feature of these large coastal sites is the progressive movement of habitation areas toward the water (Cushing 1896; Goggin 1950; Sears 1956), and indications are that dwellings may have been built to extend out over the water. Inland sites consist of shell and dirt middens along major watercourses (Laxson 1966) and small dirt middens containing animal bone and ceramic sherds in oak/palm hammocks or palm islands associated with freshwater marshes. The coastal Glades subsistence pattern is typified by the exploitation of fish and shellfish, wild plant food, and inland game, while Glades sites in the Big Cypress Swamp show a greater, if not exclusive, reliance on interior resources.

Table 1: Glades Cultural Sequence

Period	Dates	Distinguishing Characteristics
Glades I early	500 BC–AD 500	First appearance of sand-tempered pottery; no decoration
Glades I late	AD 500–750	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 IIa	AD 750–900	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 IIb	AD 900–1100	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 IIc	AD 1100–1200	Almost no decorated ceramics; some grooved lips but no more lip arcs or crimped rims; Plantation Pinched appears

Period	Dates	Distinguishing Characteristics
Glades IIIa	AD 1200–1400	Plantation Pinched is no longer present; Sand-tempered plain and grooved lips persist; appearance of Surfside Incised and St. Johns Check Stamped
Glades IIIb	AD 1400–1513	Glades Tooled, sand-tempered plain and St. Johns Check Stamped are present, Surfside Incised and grooved lips are not present
Glades IIIc	AD 1513–ca.1700	Same as previous period with the addition of historic artifacts

Griffin 1988: 124–142

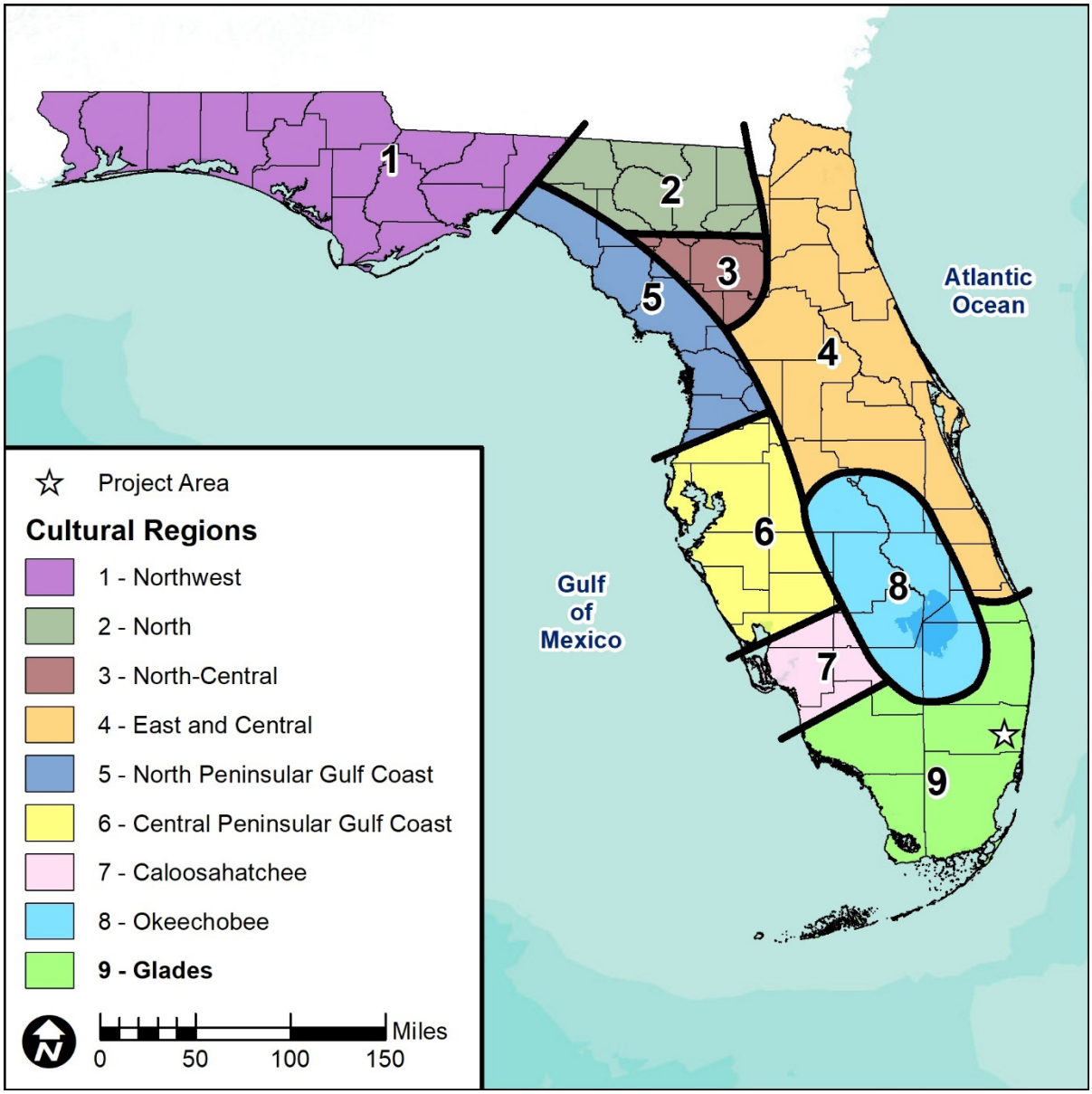


Figure 3: Glades Cultural Region

HISTORICAL OVERVIEW

The following overview traces the historical development of the general project area from the European settlement through the twentieth century. The intent of this historical overview is to serve as a guide to field investigations by identifying the possible locations of any resources within the project APE and to provide expectations regarding the potential historic significance of any such resources.

European Contact and Colonial Period (c. 1513–1821)

Official credit for the European discovery of Florida belongs to Juan Ponce de León, whose voyage of 1513 took him along the eastern coast of the peninsula (Tebeau 1971:21). He is believed to have sailed as far north as the mouth of the St. Johns River before turning south, stopping in the Cape Canaveral area and possibly at Biscayne Bay. Other Spanish explorers followed Juan Ponce de León, and over the next 50 years the Spanish government and private individuals financed expeditions hoping to establish a colony in "La Florida." In 1565, King Philip II of Spain licensed Pedro Menéndez de Avilés to establish a settlement in St. Augustine, Florida. Between 1565 and 1566, Menéndez sailed along the Florida coast placing crosses at various locations and leaving Spaniards "of marked religious zeal" to introduce Christianity to the Native American people (Gannon 1965:29). Settlements with associated missions were established at St. Augustine, San Mateo (Ft. Caroline) and Santa Elena, and smaller outposts and missions were located in Ais, Tequesta, Calusa, and Tocobaga territory (Gannon 1965:29).

Jesuit missions were established in what are now referred to as the Central Peninsular Gulf Coast and Glades archaeological regions, including the mission of Carlos at Charlotte Harbor, the mission of Tocobaga at Tampa Bay, and a mission at a Tequesta village at the mouth of the Miami River. In 1567, Brother Francisco Villareal was sent to one of the large Tequesta villages located on Biscayne Bay. In 1568, a skirmish between the Spanish soldiers and the Tequesta Indians temporarily closed the mission. By the end of 1568, the Tequesta were willing to reopen the mission, largely due to the work of Don Diego, a Tequesta who had visited Spain. Despite zealous attempts, the native groups in Florida continued to resist conversion, and in 1572 Jesuit authorities decided to abandon their missionary efforts in Florida.

Another attempt to build a mission in southeastern Florida took place nearly 150 years after the establishment of St. Augustine. Because it was in Spain's best interest to maintain control along the Florida coastline and alliances with the native groups inhabiting the coast, a missionary effort was supported in the Biscayne Bay area (Parks 1982:55–65). Father Joseph María Monaco and Joseph Xavier Alaña were sent from Cuba in 1743, and arrived at a Native American village located at the mouth of the Miami River. The village did not appear any more receptive towards accepting Christianity than before. After Joseph Xavier Alaña conveyed this to the Governor of Cuba, the mission was closed, and the fort they had erected was destroyed to prevent its fall into hostile hands (Parks 1982:55–65). Although the Spanish were resigned to the fact that missionization and settlement of South Florida came at too high a price, they strived to maintain good relations with the various native people who lived in the area.

By the beginning of the eighteenth century, the Native American population of South Florida had declined considerably as a result of disease, slave raids, intertribal warfare, and attacks from a new group of Native Americans, the Seminoles. The Seminoles, descendants of Creek Indians, moved into Florida during the early eighteenth century to escape the political and population pressures of the expanding American colonies to the north (Wright 1986:218).

The Seminole Indians were the dominant Native American group in the state by the end of the eighteenth century. Groups of fugitive African American slaves settled among the Seminoles by the early nineteenth century (Brown 1991:5–19). Armed conflict with pioneers, homesteaders, and eventually the United States Army resulted in the removal of most of the Seminoles from Florida. This action forced the withdrawal of the remaining Seminole population to the harsh environment of the Everglades and Big Cypress Swamp by the late nineteenth century (Fairbanks 1978:185).

The first known non-Indian residents of what is now Fort Lauderdale were the Charles Lewis family, who arrived from the Bahamas with the British adventurer William Augustus Bowles in the late eighteenth century. Bowles tried to establish a sovereign nation of the native Creek Indians, and Lewis established a plantation along the New River. In 1810, the Spanish government awarded nobleman Juan Arrambide a huge land grant extending from New River south to Biscayne Bay. Arrambide developed this land as a lumber source and, in the process, introduced black slaves to the region (Historic Property Associates 1995:28–29).

Territorial and Statehood Period (1821–1860)

In 1821, after several years of negotiations with Spain, the U.S. acquired Florida as a territory. The population of the territory at that time was still centered in the northern areas around Pensacola, St. Augustine, and Tallahassee. By 1830, the New River Settlement included approximately 60 to 70 inhabitants. The leader of the settlement was William Cooley. Richard Fitzpatrick established plantation practices on his property (Historic Property Associates 1995:29–30). His assistant was Stephen Russell Mallory, who traveled from Key West to the New River area in 1830 and established a plantation in the Fort Lauderdale vicinity. Only there 12 months, he spent his time fishing, hunting and learning woodcraft from the Seminoles, who fished around the coast (Kemper 1981:4–6). In 1840, a skirmish occurred between the Seminoles and a small command of soldiers near the West Lake tract (Kemper 1981:4). Apparently, the Indians fired on two boats under the command of Lieutenant Rankin. The Indians were pursued inland but were not apprehended.

As more European-American settlers moved into the region, conflicts arose with the Seminole people over available land. Pressure began to bear upon the government to remove the Seminoles from northern Florida and relocate them farther south. The Treaty of Moultrie Creek (1823) restricted the Seminole people to approximately four million acres of land in the middle of the state, running south from Micanopy to just north of the Peace River (Mahon 1967: Rear foldout map). The Seminoles did not approve of this treaty because they were reluctant to move from their established homes to an area that they felt could not be cultivated. Other treaties soon followed such as Payne's Landing (1832) and Fort Gibson (1833), which called for

Seminole emigration to the western territories (Mahon 1967:75–76, 82–83). These treaties fostered Seminole resentment of settlers that would culminate in the Second Seminole War in 1835.

At the beginning of the Second Seminole War, the conflict was centered near the Withlacoochee region. In 1838, U.S. troops moved south to pursue the retreating Seminoles into the Lake Okeechobee and Everglades regions. Colonel Zachary Taylor was sent to the area between the Kissimmee River and Peace Creek. Colonel Persifor Smith and his volunteers were dispatched to the Caloosahatchee River, and U.S. Navy Lt. Levi N. Powell was assigned the task of penetrating the Everglades (Mahon 1967:219–220). Powell's detachment had several skirmishes with Seminole people near Jupiter Inlet. Powell established a depot on the Miami River and erected Fort Dallas in the approximate location of present-day downtown Miami. For three months, Fort Dallas was a base of operations as Powell led his men into the Everglades in search of the Seminoles (Gaby 1993:47).

Following the Second Seminole War, the New River settlement was brought to an end. Seminoles massacred Cooley's family in 1836 and the settlers fled to Cape Florida. In March 1838, Major William Lauderdale of the Tennessee Volunteers and his troops constructed an outpost near New River called Fort Lauderdale, which was later replaced by two other forts. The Third Seminole war in 1855 was fought primarily in other parts of the state, but some troops did visit New River (Historic Property Associates 1995:32–35). Figure 4 shows the development in South Florida during this period including the location of Fort Lauderdale and Fort Dallas (located at modern-day Miami).

The Second Seminole War had a deleterious effect on new settlement in Florida. To encourage settlement in the middle portion of the territory after the war, the Armed Occupation Act of 1842 offered settlers 160 acres of land at no cost, provided they built a house, cleared five acres, planted crops, and resided on the land for five years. Any head of a family or single man over 18 years of age and able to bear arms, was eligible to receive a homestead. This act, plus the end of the Second Seminole War, created a small wave of immigration by Anglo-American pioneers to central Florida. Most of these immigrants were Anglo-American farmers and cattle ranchers, or "crackers," from the southeastern United States (Gaby 1993).

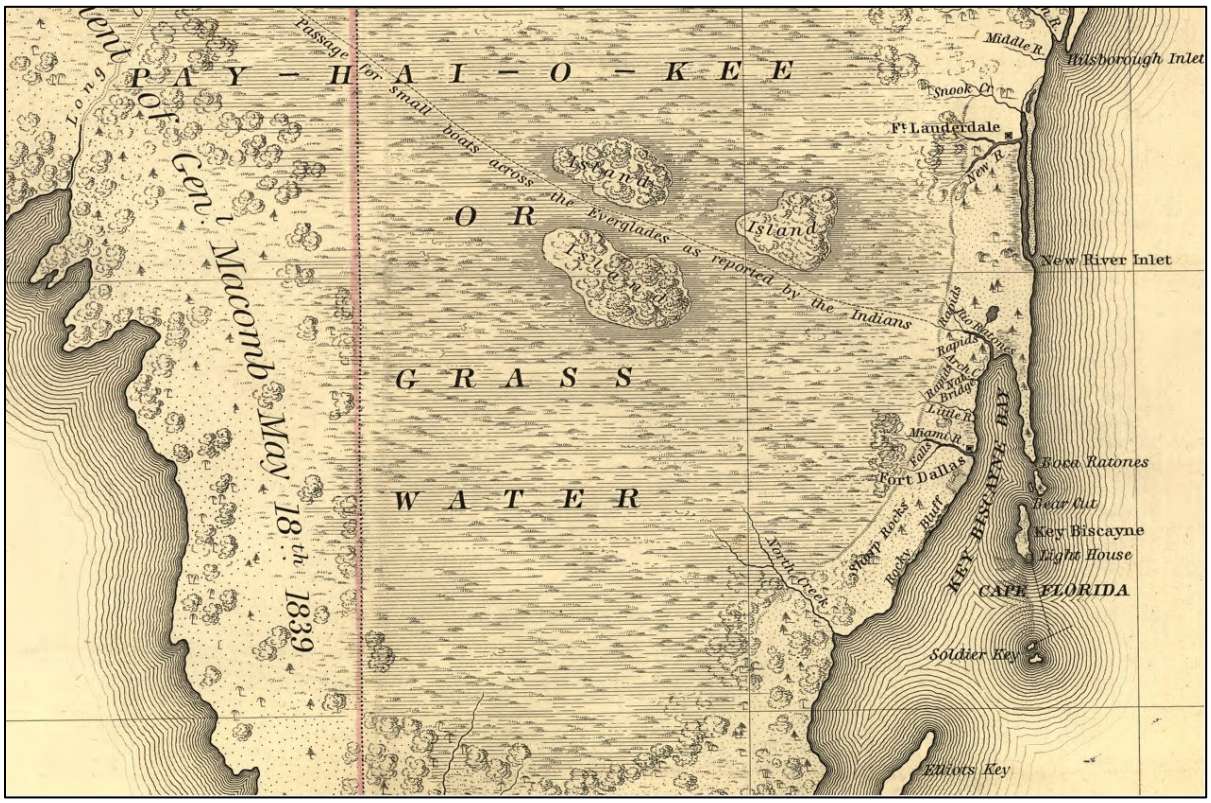


Figure 4: 1839 Map Showing Fort Lauderdale and Fort Dallas (*Courtesy of* The Library of Congress)

Civil War and Post War Period (1860–1898)

With the beginning of the Civil War, the Confederate Army required cattle to support their war efforts. Herds from as far south as central Florida were driven to railheads near the Georgia border. However, cattle ranchers discovered they could sell their herds in Cuba for a greater profit and began dealing with blockade-runners. Cattle ranchers from all over Florida drove their cattle to Punta Rassa to be shipped to Cuba for payment in Spanish gold. The United States attempted to stop all shipping from Florida ports, but blockade-runners were too abundant. It is not known how many cattle were shipped from the port during the Civil War but one estimate is 600 per week during the war (Gannon 1993, Gannon 1996).

The New River region was sparsely settled during the Civil War. A Miami Unionist who served as a gunboat pilot, Isaiah Hall, and his family lived there after being driven from the Miami area by Confederate sympathizers (Historic Property Associates 1995:35). In 1868, hog farmer and beachcomber John J. "Pig" Brown settled on New River with his family. Brown was elected to the Florida Legislature in 1876 and never returned from Tallahassee. During the same time, the United States Life Saving Service established 10 Government Houses of Refuge for shipwrecked sailors along the uninhabited eastern coastline, and the first permanent white settler in present day Fort Lauderdale came to the area in 1876 to occupy one of the cabins (Nance 1962:334). At this time, the population center of present-day Broward County was Pine

Island, west of present-day Davie. Approximately 30 Seminole families cultivated gardens and roamed the Everglades in search of game (McGoun 1978).

Concern for future settlement created survey activity in Broward County. It had already been surveyed in 1845, but in 1870 many more areas were surveyed. The Florida Surveyor General approved a plat map on November 30, 1870 (Kemper 1981:12). Isolated events such as the surveying would lead to increased development of Broward County. Another such event was the purchase of four million acres of Florida's land with a drainage project in mind. The drainage project would turn swampland into agriculture and development lands.

In the 1880s, interest in the resources of South Florida increased due in large part to people like Hamilton Disston and Henry B. Plant. By 1881, the State of Florida faced a financial crisis involving a title to public lands. On the eve of the Civil War, land had been pledged by the Internal Improvement Fund to underwrite railroad bonds. After the War, when the railroads failed, the land reverted to the state. Almost $1 million was needed by the state to pay off the principal and accumulated interest on the debt, thereby giving clear title.

Hamilton Disston, son of a wealthy Philadelphia industrialist, contracted with the State of Florida in two large land deals: the Disston Drainage Contract and the Disston Land Purchase. The Drainage Contract was an agreement between Disston and the state in which Disston and his associates agreed to drain and reclaim all overflow lands south of present-day Orlando and east of the Peace River in exchange for one-half the acreage that could be reclaimed and made fit for cultivation.

The Disston Land Purchase was an agreement between Disston and the state in which Disston agreed to purchase Internal Improvement Fund Lands at $0.25 an acre to satisfy the indebtedness of the fund. A contract was signed on June 1, 1881 for the sale of 4,000,000 acres for the sum of $1 million, the estimated debt owed by the Improvement Fund. Disston was allowed to select tracts of land in lots of 10,000 acres, up to 3,500,000 acres. The remainder was to be selected in tracts of 640 acres (Davis 1938:206–207). Before he could fulfill his obligation, Disston sold half of this contract to a British concern, the Florida Land and Mortgage Company, headed by Sir Edward James Reed (Tischendorf 1954:123).

During 1881 and 1882, channels were dug between the lake systems to the north and the Kissimmee River (Tebeau 1971:288). The Atlantic and Gulf Coast Canal and Okeechobee Land Company was responsible for opening up Lake Okeechobee to the Gulf of Mexico by dredging a channel to the Caloosahatchee River. Disston and his associates received 1,652,711 acres of land under the Drainage Contract, although they probably never permanently drained more than 50,000 acres (Tebeau 1971:280). Drainage operations began, and the Florida Land and Improvement Company and Kissimmee Land Company were formed to help fulfill the drainage contract (Hetherington 1980:6).

Disston changed Florida from a wilderness of swamps, heat, and mosquitoes into an area ripe for investment. This enabled Henry B. Plant to move forward with his plans to open the west coast of Florida with a railroad-steamship operation called the Jacksonville, Tampa & Key

West Railway. Through the Plant Investment Company, he bought up defunct rail lines such as the Silver Springs, Ocala & Gulf Railroad, Florida Transit and Peninsular Railroad, South Florida Railroad, and Florida Southern Railroad to establish his operation (Mann 1983:68; Harner 1973:18–23). In 1902, Henry Plant sold all of his Florida holdings to the Atlantic Coast Line, which would become the backbone of the southeast (Mann 1983:68).

Private land claims between 1881 and 1883 were probably squatters acquiring the land on which they lived prior to the land transfers under the Disston Land Purchase contract. The flurry of land transfers recorded in the early 1880s was mainly the result of two factors: large influxes of people as a result of the railroads, and the widespread unpopularity of the Disston Land Purchase and Drainage Contracts. The Disston Land Purchase and Disston Drainage Contract were disliked among many of Florida's residents. They resented the $0.25 per acre price Disston paid under the land contract, as they were required to pay $1.25 per acre under the terms of the Homestead Act of 1876. There were also claims that Disston was receiving title to lands that were not swamplands or wetlands (Tebeau 1971:278). Many residents bought up the higher, better-drained parcels of land for speculation, knowing that the surrounding wetlands and flatwoods would be deeded to Disston under the Land Purchase contract. Many hoped that their more desirable land purchases would increase in value.

In August 1881, at the same time Disston's companies were beginning their work, the legislature granted a state charter to the privately owned Florida Coast Line Canal & Transportation Company to construct a continuous waterway from the St. Johns River to Miami; the intracoastal channel would provide a sheltered, inland passage for shallow-draft vessels. The charter granted the company 3,840 acres of land for every mile of canal built. Construction began in 1883 on a 5-foot-deep, 50-foot-wide, intracoastal channel connecting coastal bays, rivers, and lakes (Buker 1975:117). Although the canal company dredged almost continuously from 1883 until the 268-mile channel was completed in 1912, the firm's waterway operations were never successful. While the channel was still under construction, the company faced a formidable challenge from competing transportation interests expanding into South Florida (Buker 1975:120).

Development in Broward County was slow, but sure. By the early 1890s, land was purchased and development was being planned (Kemper 1981:12). For example, in Hollywood, tract book records indicate the majority of the township's land, approximately 27 square miles out of the town's total 36 square miles, was purchased by the Florida Coast Line Canal and Transportation Company on September 24, 1890. By 1910, the first person lived in the Hollywood area. Fred Zirbs established a five-acre farm where he grew peppers and tomatoes (Kemper 1981:12). New River was the site of a ferry and an overnight camp for stage line passengers. Frank Stranahan, who is regarded as the first permanent white settler of what is now Fort Lauderdale, ran both the ferry and the camp (Historic Property Associates 1995:38).

Development and settlement would increase after the freezes of 1894 and 1895 that killed citrus crops, vegetables, and coconut palms north of Broward County. This event in part caused Henry M. Flagler to extend the Florida East Coast Railway 70 miles south to Miami, where no damaging frosts had occurred (Shepard Associates 1981:1–10). The completion of the railroad

to Miami in 1896 launched the most significant period in the region's development. The railroad brought farmers from the north, and agriculture was developed. Other businesses also began to emerge (Historic Property Associates 1995:39–42).

A review of the Florida Department of Environmental Protections (FDEP) Tract Book Records (n.d) indicates that settlement in the project area began in the late nineteenth century. Land apportionment within the project area is listed in Table 2 below.

Table 2: Historic Ownership of Land in the Vicinity of the Project Area

Section	Portion Owned	Owner	Date of Deed or Sale
Township 50 South, Range 41 East			
16	All North of Canal except Tiers 58, 60, and 62	M.S. Babst	June 7, 1917
	Tiers 58, 59 and 62	I. L. and Henrietta Daniel	March 18, 1943
	All South of Canal	John M. Bryan	September 22, 1919

Spanish-American War Period/Turn-of-the-Century (1898–1916)

At the turn-of-the-century, Florida's history was marked by the outbreak of the Spanish-American War in 1898. As Florida is the closest state to Cuba, American troops were stationed and deployed from the state's coastal cities. Harbors in Tampa, Pensacola, and Key West were improved as more ships were launched with troops and supplies. "The Splendid Little War" was short in duration, but evidence of the conflict remained in the form of improved harbors, expanded railroads, and military installations (Miller 1990).

Fort Lauderdale saw growth at this time despite a yellow fever epidemic in 1899. In the same year, the area's first schoolhouse was built. The 1900 census reported 52 residents in Fort Lauderdale. The area's first incorporated communities were Dania in 1904, Pompano in 1908, and Fort Lauderdale in 1911; these communities predate the formal incorporation of Broward County (McGoun 1978:19). Fort Lauderdale's downtown began to develop at this time; the commercial area centered on the intersection of the railroad and the New River. Unfortunately, a fire in June of 1912 destroyed most of the business district, but the disaster did little to impair Fort Lauderdale's growth (Historic Property Associates 1995:42–47).

In 1904, Governor Napoleon Bonaparte Broward initiated significant reforms in Florida's politics. Several of Broward's major issues included the Everglades drainage project, railroad regulation, and the construction of roads. The draining of the Everglades resulted in the construction of canals, an increase in land available for agriculture, and the fueling of Fort Lauderdale's growth. The Everglades Drainage District was established in 1905 by the State of Florida with the goal of draining enough of the Everglades to create 3 million acres of arable

land (Werndli and Kirk 1978). One of the first elements of the project was the dredging of the North New River Canal, which is within the current project APE. By 1908, the North New River Canal extended 6.25 miles into the Everglades west of Fort Lauderdale (Knetsch 1991: 139). Eventually the State of Florida contracted with the Furst-Clark Construction Company of Baltimore to complete the dredging of the North New River Canal along with the South New River Canal, Miami Canal, and the Gulf Coast Canal. As part of these canals, locks were also constructed to assist with water control and the transportation use of the canals (Werndli and Kirk 1978). By 1912, the North New River Canal was completed and extended from the South Fork of the New River to Lake Okeechobee. It became the major transportation corridor for agricultural products between Lake Okeechobee and Fort Lauderdale. Eventually, the focus of the Everglades Drainage District and subsequent entities who controlled the canal, shifted from land drainage to flooding control and irrigation (Janus Research 2005).

During this time, railroads were constructed throughout the state and automobile use became more prevalent. Improved transportation in the state opened the lines to export Florida's agricultural and industrial products (Miller 1990). As various products such as fruits and vegetables were leaving the state, people were arriving in Florida. Some entered as new residents and others as tourists. Between 1900 and 1910, the state population increased from 528,542 residents to 752,619. At this time, St. Lucie and Palm Beach counties were established, indicative of the increasing numbers of people moving to the east coast of the state. Broward County incorporated in 1915 with a population of 8,000, and Fort Lauderdale was named county seat (Historic Property Associates 1995:50). The county was named after the former Governor Broward. As recently as 1910, the County had been a wilderness of pine trees and swampland and had few homesteaders. Agriculture was still the main economy. Before 1915, Broward County had at times been part of St. Johns, Monroe, Mosquito, Dade, St. Lucie, Brevard, and Palm Beach counties. By the time of the County's incorporation, most citizens were living in the eastern areas along the coast such as Dania, Pompano, Fort Lauderdale, Deerfield, Hallandale, Davie, Colohatchee, and Progresso (Shepard Associates 1981:I-10).

The area's tourist trade began to emerge around the time of incorporation. Development of the Fort Lauderdale beach area began in 1914 when D. C. Alexander purchased 32 acres of beachfront property. In July 1915, the Dixie Highway, the first major highway linking Fort Lauderdale with the rest of the nation, was completed. This highway and other new Broward County roads would play a significant role in Florida's growing tourist trade (Historic Property Associates 1995:50–51).

Rapid and widespread growth was the theme of this period in Florida history. Thousands of miles of railroad tracks were laid, including the Florida East Coast, Atlantic Coast Line, and Seaboard Air Line railroads. While agriculture, especially the citrus industry, had become the backbone of Florida's economy, manufacturing and industry began growing during the beginning of the century. Fertilizer production, boat building, and lumber and timber products were strong secondary industries (Weaver et al. 1996:3).

World War I and Aftermath Period (1917–1919)

The World War I and Aftermath period of Florida's history begins with the United States' entry into World War I in 1917. Wartime activity required the development of several training facilities in the state, and protecting the coastlines was a priority at this time. Although the conflict only lasted until November 1918, the economy was boosted greatly by the war. An indirect economic benefit of the war was an increase in agricultural production, as beef, vegetables, and cotton were in great demand (Miller 1990).

Area development was halted temporarily during World War I, although the construction of bridges from the mainland over to the beaches at Pompano, Hallandale, and Fort Lauderdale were completed in 1917 (Historic Property Associates 1995:51). Truck farming still dominated Broward County's economy before the 1920s Boom Times development began in earnest. Higher areas in the county were preferred for planting crops like beans, squash, cabbage, tomatoes, pineapples, and turpentine mangoes (Shepard Associates 1981:I-11–13, 34).

While Florida industrialization and agriculture flourished, immigration and housing development slowed during the war. Tourism increased as a result of the war in Europe, which forced Americans to vacation domestically. Tycoons such as Henry Flagler and Henry Plant were building the hotels and railroads for people desiring winter vacations in sunny Florida. These magnates took an interest in the improvements and promotion of Florida in an effort to bring in more tourist dollars. The end of the war marked a slight increase in population, and Flagler and Okeechobee counties were created at this time.

Florida Land Boom Period (1920–1929)

After World War I, Florida experienced unprecedented growth. Many people relocated to Florida during the war to work in wartime industries or were stationed in the state as soldiers. Road building became a statewide concern as it shifted from a local to a state function. These roads made even remote areas of the state accessible and allowed the boom to spread. Besides the inexpensive property, Florida's legislative prohibition on income and inheritance taxes also encouraged more people to move into the state.

Earlier land reclamation projects created thousands of new acres of land to be developed. Real estate activity increased steadily after the war's end and drove up property values. Prices on lots were inflated to appear more enticing to out-of-state buyers. Every city and town in Florida had new subdivisions platted and lots were selling and reselling for quick profits. Southeastern Florida, including cities such as Miami and Palm Beach, experienced the most activity, although the boom affected most communities in central and South Florida (Weaver et al. 1996:3).

In the late 1910s and early 1920s Fort Lauderdale was used as a setting for movies. Real estate sales increased as swamps were dredged and "finger islands," narrow strips of fill alternating with channels of water, were developed. Building included exclusive and moderately priced homes, as well as hotels and commercial structures downtown. These activities in Florida's

southeastern "Gold Coast" represented the highest intensity of Florida's land boom. By 1925, Fort Lauderdale's population reached 16,000 people (Historic Property Associates 1995:51–54). Other cities in Broward County were incorporated during the Land Boom period including Hollywood, Deerfield, Davie, and Floranada (McGoun 1978:20).

In 1918, George Henry came to Fort Lauderdale to build the Broward Hotel. The city financed the development in part in hopes of bringing an economic boom similar to those that occurred in Palm Beach and St. Augustine. After the hotel's opening in 1919, tourists flocked to the area. In 1921, Joseph Young bought land that would transform the area of Hollywood from truck farming agricultural fields into a city. Development began full-scale in the summer of 1921; the town was based on the design for Indianapolis, Indiana, where Young had lived. By 1925, the town would have neighborhoods, a country club and golf course, and the famous Hollywood Beach Hotel (Shepard Associates 1981:I-11–13, 34).

An important development in Fort Lauderdale during the late 1920s was the division of the city into quadrants, which not only assisted tourists in finding their destinations, but also solidified racial segregation. Blacks arrived as laborers on the railroad and remained as farmers, settling in the northwestern section of the town. Following the adoption of the grid system, the city officially restricted black homes to the northwest quadrant (Historic Property Associates 1995:56–58).

The Boom period began to decline in August 1925, when the Florida East Coast Railway placed an embargo on freight shipments to South Florida. Ports and rail terminals were overflowing with unused building materials. In addition, northern newspapers published reports of fraudulent land deals in Florida. In 1926 and 1928, two hurricanes hit southeastern Florida, killing hundreds of people and destroying thousands of buildings. The 1926 hurricane hit Hollywood, killing 37 people there and 15 in Fort Lauderdale. The collapse of the real estate market and the subsequent hurricane damage effectively ended the boom. The 1929 Mediterranean fruit fly infestation that devastated citrus groves throughout the state only worsened the recession (Weaver et al. 1996:4).

For Broward County, 1926 saw a dramatic reversal of fortune, as real estate activity declined as a result of a stock market slump the previous November. People began defaulting on payments, and business came to a near standstill (Kemper 1981:47). Overspeculation in real estate, the F.E.C. Railway freight embargo, and the 1926 hurricane created economic havoc, further devastating the area's land boom (Historic Property Associates 1995:55–56). In order to promote morale and development, right-of-way was granted to the Seaboard Air Line Railway and infrastructure such as stations and rail were constructed (Shepard Associates 1981: I-43).

By the time the stock market collapsed in 1929, Florida was suffering from an economic depression. Construction activity had halted and industry dramatically declined. Subdivisions platted several years earlier remained empty and buildings stood on lots partially-finished and vacant (Weaver et al. 1996).

Despite the economic hardships of the Depression era, local financiers began a project to create a port in the Fort Lauderdale area. One of the greatest supporters of the port was the developer of the city of Hollywood, J. W. Young. Throughout the early 1920s, Young worked towards the creation of a deep-water harbor from a body of water originally known as Lake Mabel, but various circumstances including the bust of the real estate market, initially prevented its construction. A special act of the Florida Legislature established the Broward County Port Authority in 1927, and construction of the port was soon underway. After several years of financial difficulties, the port was opened in 1929 for use by cargo ships and military vessels. The name "Port Everglades" was chosen, as it represented the port as the "gateway to the rich agricultural area" of Florida (Port Everglades Authority 2001). In July 1929, the construction of a railroad to the port was underway, and several months later it was decided that storage warehouses were needed on the port property (Eller 1971:17). Another important infrastructure project was the 1929 opening of the Merle Fogg Airport in Fort Lauderdale (known today as the Fort Lauderdale-Hollywood International Airport). Named after the city's renowned aviator, the Merle Fogg Airport opened in May 1929 with a ceremony attended by over 5,000 people (Nelson 1963:22).

Depression and New Deal Period (1930–1940)

This era of Florida's history begins with the stock market crash of 1929. As previously discussed, there were several causes for the economic depression in Florida, including the grossly inflated real estate market, the hurricanes, and fruit fly infestation. During the Great Depression, Florida suffered significantly. Between 1929 and 1933, 148 state and national banks collapsed, more than half of the state's teachers were owed back pay, and a quarter of the residents were receiving public relief (Miller 1990).

As a result of hard economic times, President Franklin D. Roosevelt initiated several national relief programs. Important New Deal–era programs in Florida were the Works Progress Administration (WPA) and the Civilian Conservation Corps (CCC). The WPA provided jobs for professional workers and laborers, who constructed or improved many roads, public buildings, parks, and airports in Florida. The CCC improved and preserved forests, parks, and agricultural lands (Miller 1990).

The Depression affected most areas of the state's economy. Beef and citrus production declined, manufacturing slowed, and development projects were stopped. Even the railroad industry felt the pressures of the 1930s, and had to downsize. In addition, the increasing use of the automobile lessened the demand for travel by rail. Despite the Depression, tourism remained an integral part of the Florida economy during this period. New highways made automobile travel to Florida easy and affordable and more middle-class families were able to vacation in the "Sunshine State" (Miller 1990).

A slow recovery began as the thirties progressed in Broward County (Historic Property Associates 1995:58). In the mid-1930s, Federal loans were secured for several projects in Broward County, including the construction of U.S. 1, from south Dania to the Dade/Broward County line, and the construction of a water softening system at the municipal water plant in

1935 (Kemper 1981:49). Tourism and the hotel business were making a comeback. Additionally, Port Everglades was evolving into one of Florida's premier ports; it was ranked seventh in the state in imports and exports. At the end of 1934, the port's export commerce increased from 1,850 tons to 10,859 tons in one year (Burghard 1982:74).

In 1935, the first annual Collegiate Aquatic Forum was held at the Fort Lauderdale municipal pool, making Fort Lauderdale a popular college vacation destination (Historic Property Associates 1995:58–59). Agriculture and residential building began in the western suburbs of Hollywood, and several new businesses were started along Hollywood Boulevard (TenEick 1989:335–337,342).

World War II and the Post-War Period (1941–1949)

From the end of the Great Depression until after the close of the post-war era, Florida's history was inextricably bound with World War II and its aftermath. It became one of the nation's major training grounds for the various military branches including the Army, Navy, and Air Force. Prior to this time, tourism had been the state's major industry and it was brought to a halt as tourist and civilian facilities, such as hotels and private homes, were placed into wartime service. The influx of thousands of servicemen and their families increased industrial and agricultural production in Florida, and also introduced these new residents to the warm weather and tropical beauty of Florida.

Wartime activities brought an economic boom to Broward County (Shepard Associates 1981: I-51). Fort Lauderdale experienced the conflict in December 1939 when the British cruiser Orion drove the German freighter Arauca into Port Everglades, which opened in 1928. The Arauca remained there for over a year. The 1942 attack of Allied shipping by German U-boats was visible from the shoreline. The area lent itself to military training, and the influx of military personnel brought business to Broward County (Historic Property Associates 1995:58–60). Two military training centers were opened in Hollywood, the United States Naval Air Gunners School and the United States Naval Indoctrination and Training School. Soldiers trained in the schools and on Hollywood's beaches. The Navy also maintained a station in Fort Lauderdale where naval aviators were trained, and the site of the current Broward County Community College was used for military training during the war. Some of the servicemen stationed there returned at the war's end to live permanently (Shepard Associates 1981: I-51).

Port Everglades was used extensively for military operations. The port possessed numerous tanks for petroleum storage and modern equipment used for loading and unloading. Fuel reserved for the defense of the Caribbean Islands and molasses, which would be used later in the production of explosives for the Navy, also were stored at the port. The seaport accommodated an undersea warfare experimental station and a Navy boat service used in the recovery of torpedoes dropped by planes at the Fort Lauderdale Naval Air Station during training (George 1991:6).

The wartime activities of Port Everglades were inextricably connected to those at the Fort Lauderdale Naval Air Station, the area's largest military installation. Fort Lauderdale was

considered an ideal location for an air station due to its moderate climate, which allowed for year-round training, and its proximity to the Atlantic Ocean and the Everglades, that provided open areas for training, bombing targets, and ranges. Construction of the more than 1,000-acre naval air station began in 1942; the facility absorbed the City's Merle Fogg Airport. The facility, which could accommodate 3,000 people, included more than 4,000 feet of runways and 217 buildings. By late 1942, the base was complete. During the war, the Fort Lauderdale Naval Air Station was one of two facilities from Illinois to Florida equipped to combat train Navy pilots and crewmen in torpedo bomber planes (George 1991:7, 9). At the conclusion of the war, the facility was abandoned by the military and remained unused for several years.
During this time, railroads profited, since servicemen, military goods and materials needed to be transported. However, airplanes were now becoming the new form of transportation, and Florida became a major airline destination. The highway system was also being expanded at this time. The State Road Department constructed 1,560 miles of highway during the war era (Miller 1990).

Growth in Broward County continued to increase after the end of World War II, as a result of the leftover benefits of a wartime economy and the renewed availability of construction materials and durable goods (Kemper 1981:50, TenEick 1989:407). Servicemen stationed in the area returned to live, often convincing family and friends to return as well. Between 1940 and 1950, Fort Lauderdale's population more than doubled to 36,328. Lauderdale-by-the-Sea was established in 1951; Plantation and Lazy Lake in 1953; Margate and Miramar in 1955; Lighthouse Point in 1956; Sunrise, Davie, and Lauderdale Lakes in 1961; and Coconut Creek in 1967 (Port Everglades Authority 2001).

Modern Period (1950 to present)

The development of Florida during the modern period is marked by the rapid expansion of population and the modern transportation system including Interstate 95 and Interstate 595, which are near the current project area. Following the war, central Florida area experienced a population increase and an economic boom as large numbers of people began seeking permanent residence. As World War II veterans resided in the area in the late 1940s and early 1950s, new housing focused on the development of masonry tract homes in new subdivisions on land that had once been the outskirts of major cities such as Orlando, Tampa, and Lakeland. Broward County's greatest area of growth in the 1940s, 1950s and 1960s took place in numerous newly incorporated communities outside of Fort Lauderdale and other historic Broward County cities (Historic Property Associates 1995: 61-62).

Large portions of previously undeveloped Broward County were transformed into residential developments in the 1950s and 1960s. As Broward County's population soared toward one million, several developers became overextended or came under criticism because of the close ties between their firms and the cities which they had created. Also, a growing number of newcomers feared that too-rapid growth would create problems. At the beginning of the 1970s, residents began demanding that cities aim for slower growth and lower limits on the number of residences per acre. Gradually, governments began to respond (McGoun 1978).

Growth decreased in 1974, but not as a result of municipal actions. South Florida was hit by the recession sweeping the nation. Unsold properties were a major problem at this time, and at one point, there were an estimated 50,000 unsold condominium apartments in the area (McGoun 1978). By 1976, the building industry witnessed a revival. However, there were still concerns that the uncontrolled growth of the past would be repeated. A new county charter gave Broward's government broad powers to monitor and improve the quality of life and the environment. The passage of the 1977 Land Use Plan was a major step toward limiting urban sprawl and ensuring that the area's natural, economic, and social resources would be put to their best use (McGoun 1978).

The increase in population and development required the construction of a modern transportation system in Florida. The 1956 Highway Act initiated a plan for 41,500 miles of interstate highway throughout the country. During these years, the construction of Interstate 95 (I-95) affected many communities along Florida's east coast. Miles of fractured highway were incorporated into what would become the main vein of Florida's east coast. Construction of I-95 in southern Florida progressed throughout the 1960s. By 1976, most of the highway was complete from the Georgia State Line to Ft. Pierce and from Palm Beach Gardens to Miami, including the portion in Broward County. Interstate 4 (I-4), was another major transportation corridor constructed as part of the 1956 Highway Act. I-4 was constructed in the late-1950s and early-1960s and passed through central Florida, connecting Tampa to Daytona. I-4 quickly served as the beltway across central Florida, providing access to both coasts and many tourist attractions. After Walt Disney World opened in 1971, growth and development along I-4 exploded. Near the project area, I-595 was constructed between 1984 and 1989 to service the increasing population in western Broward County (Janus Research 2005).

The population expansion fueled an increase in construction. A review of historic aerials from the Modern Period shows the development that occurred in the current project area. The land use in the general project area in 1950 was agricultural. The North New River Canal (within the current project APE) was visible as was a roadway that paralleled the canal. There were some isolated homesites east of the project area, which are not located within the current project area (Figure 5). In 1968, the project area was still undeveloped and largely agricultural use. There still some isolated homesites and the road paralleling the North New River Canal had been improved (Figure 6). By the 1973 aerial, there was some industrial development south of the current project area and the roadway paralleling the North New River Canal had been widened and improved immediately east of the project area (Figure 7).

Figure 5: A 1950 Historic Aerial Photograph of the Project Area (*Aerial Courtesy of* USGS 2022)

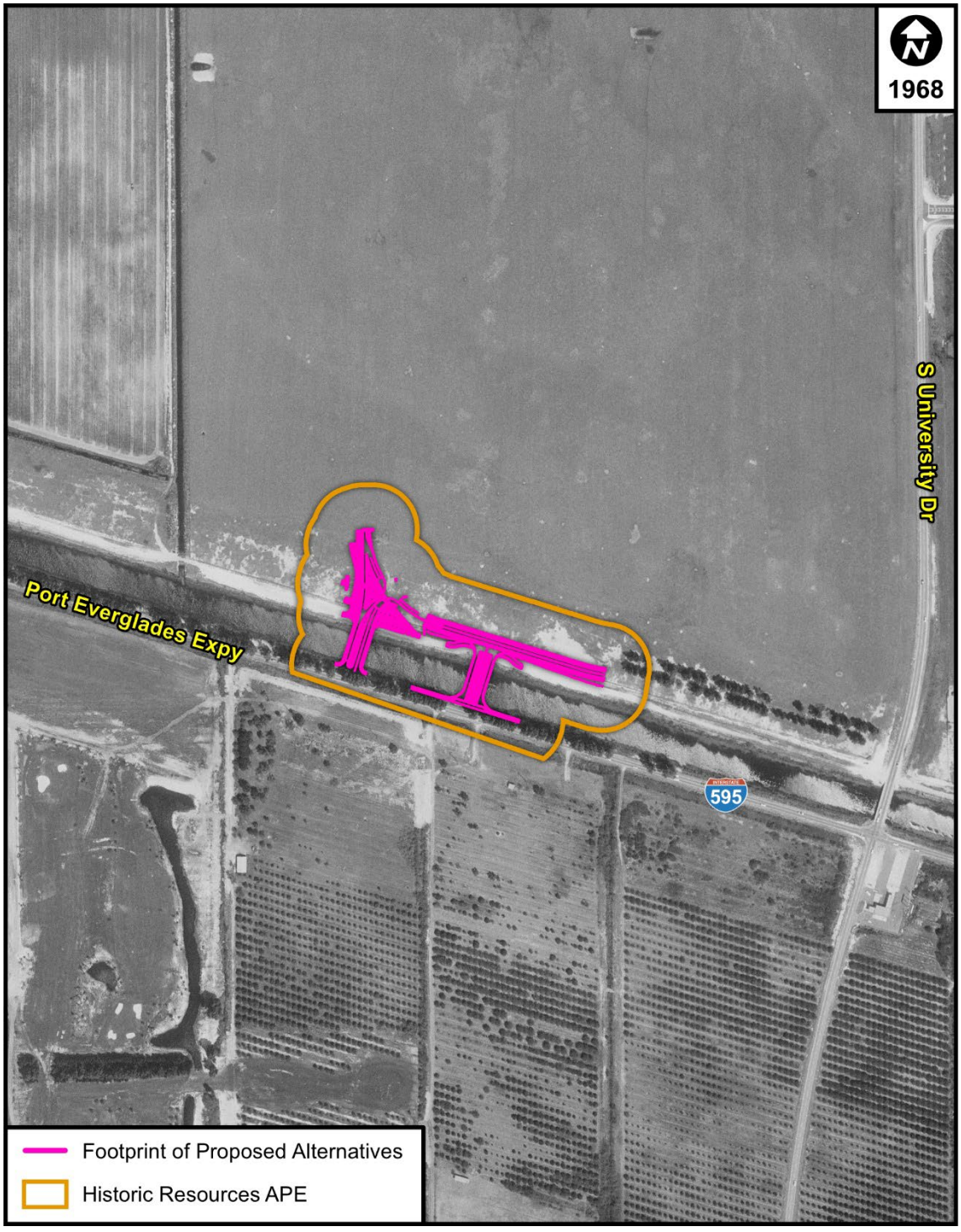


Figure 6: A 1968 Historic Aerial Photograph of the Project Area (*Aerial Courtesy of* Florida Department of Transportation, 2022)

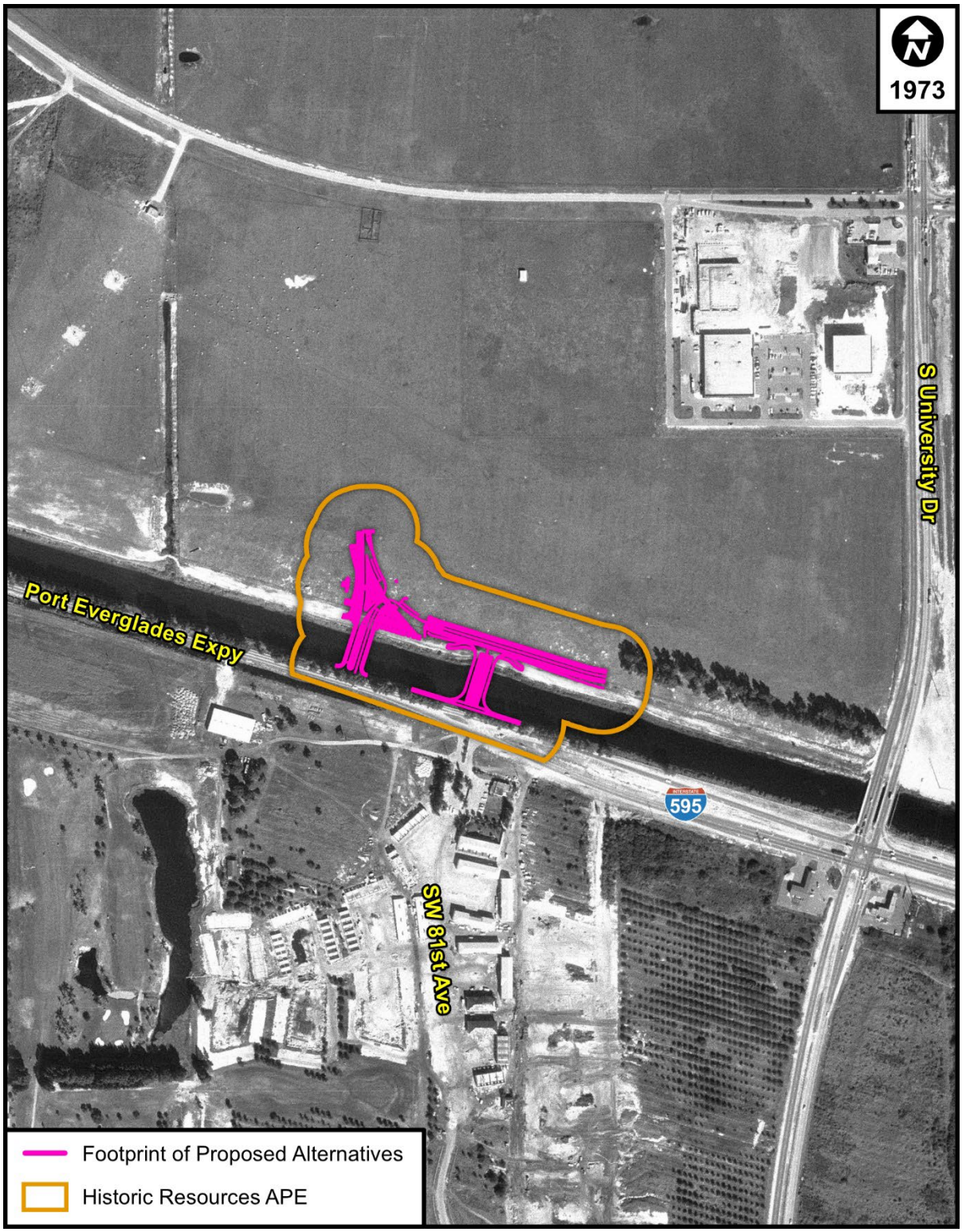


Figure 7: A 1973 Historic Aerial Photograph of the Project Area (*Aerial Courtesy of* Florida Department of Transportation, 2022)

FLORIDA MASTER SITE FILE SEARCH AND LITERATURE REVIEW

A comprehensive FMSF search and literature review was performed to determine the locations of previously recorded cultural resources. In addition, Geographic Information Systems (GIS) data, local property appraiser's data, information from the in-house Janus Research library, and historic aerials were consulted during the background research. The search revealed that previous work has been performed in the vicinity of the APE and a number of cultural resources exist in and surrounding the APE.

Previously Conducted Cultural Resource Surveys

The search of the FMSF GIS data identified five (5) previously conducted surveys within the project APE (Table 3). FMSF Manuscript No. 3633 was a County-wide effort that did not comprehensively or recently survey the project APE for archaeological or historic resources. FMSF Manuscript No. 8028 was a limited-scope survey conducted for a telecommunications tower that did not comprehensively survey the current project APE. FMSF Manuscript No. 21250 was also a limited-scope letter report that did not comprehensively survey the current project APE.

Table 3: Surveys Containing or Partially Containing the Project APE

FMSF Manuscript No.	Title	Author(s)	Publication Date
3633	An Archaeological Survey of Broward County, Florida: Phase II	Carr, Robert S., Kim Heinz, and Don Mattuci	1993
8028	Cultural Resources Reconnaissance Survey, Crown Castle Proposed Wireless Site DEYN (AMF Bowling Alley)	Luxon, Tiffany L.	2000
12945	Cultural Resource Assessment Survey, I-595 (SR-862) Project Development & Environment Study FM No. 409354-1-22-01 FAP No. 5951 539 I From the I-75 Interchange West of 136 Avenue to the I-95 Interchange, Broward County, Florida	Janus Research	2005
21126	CRAS Reevaluation of SR 862 (I-595) PD&E Study from the I-75 Interchange to the I-95 Interchange, Broward County, Florida	Janus Research	2013
21250	Cultural Resource Assessment Reconnaissance Survey, State Road 84 Roadway Resurfacing and Intermittent Minor Widening of the Paved Shoulder (Approx. 1 Foot)	Lewis, Scott	1995

The CRAS of the I-595 (SR-862) PD&E Study (FM No. 409354-1-22-01; FAP No. 5951 539 I) From the I-75 Interchange West of 136 Avenue to the I-95 Interchange, Broward County, Florida (Janus Research 2005; FMSF Manuscript No. 12945) surveyed an area within 300 feet of the I-595 ROW, which includes the current project APE on the south side of the canal, the

footprint of the proposed bridges, and a portion of the proposed improvements on the north side of the canal. The survey noted the presence of the National Register – eligible North New River Canal (8BD3279) and evaluated the surveyed portion of the current archaeological APE as exhibiting low archaeological site potential. The SHPO concurred with these determinations on January 9, 2006.

The CRAS Reevaluation of the SR 862 (I-595) PD&E Study from the I-75 Interchange to the I-95 Interchange, Broward County, Florida (Janus Research 2013; FMSF Manuscript No. 21126) only surveyed the portion of the current project APE from the North New River Canal south. No additional historic resources aside from the North New River Canal (8BD3279) were identified during this survey. The survey also confirmed the disturbed nature of the surveyed portion of the archaeological APE. The SHPO concurred with these determinations on August 25, 2014.

Previously Recorded Archaeological Resources

A search of the FMSF identified no previously recorded archaeological resources within one mile of the archaeological APE. The review of local cultural resources data identified no archaeological sites or zones designated by Broward County within one mile of the archaeological APE.

Previously Recorded Historic Resources

A search of the records of the FMSF identified one previously recorded historic resource located within the Historic Resources APE: the North New River Canal (8BD3279).

Potential Historic Resources

The Broward County Property Appraiser and GIS information was utilized in order to identify unrecorded parcels within the current historic APE with actual year built (AYRB) dates of 1974 or prior. The property appraiser data and field survey verified that there are no unrecorded historic resources in the project APE.

A review of aerial photographs from 1950, 1968, 1971, and 1973 (USGS 2022; FDOT, Surveying and Mapping Office 2022; University of Florida, George A. Smathers Libraries 2022) was conducted to identify any unrecorded historic resources located within the study area. Figures 5-7 show the project area in 1950, 1968, and 1973 and demonstrate the lack of development in the project APE.

METHODS

Archaeological Field Methods

A desktop analysis was conducted to identify the presence of significant, or potentially significant archaeological sites that may be impacted by proposed project activities, and to assess archaeological probability. These analyses included a review of General Land Office (GLO) historic plat maps, historic aerials, Broward County soil surveys, and pertinent environmental variables. The results of the desktop analysis were used to determine the feasibility and need for subsurface testing.

Archaeological field survey included a pedestrian survey that consisted of a visual inspection of exposed ground to look for evidence of mounds, middens, or other structural evidence of human occupation. Additionally, a careful surface inspection was undertaken in areas of minimal vegetation and/or upturned soil such as drainage ditches, recent clearings, and animal burrows. The pedestrian survey also identified that subsurface testing within the archaeological APE would not be feasible based on existing hardscape, landscaping, and underground utilities and drainage features.

Historic Resources Survey Methods

Two architectural historians conducted a historic resources survey in order to ensure that resources built during or before 1974 within the project area were identified, properly mapped, and photographed. The historic resources survey used standard field methods to identify and record historic resources. In addition, the previous studies of the project area were consulted. Resources within the APE received a preliminary visual reconnaissance. Resources with features indicative of 1974 or earlier construction materials, building methods, or architectural styles were noted on aerial photographs.

For each newly identified historic resource, FMSF forms were filled out with field data, including notes from site observations and research findings. FMSF forms were also updated for previously recorded historic resources where the resources exhibited modifications since they were last recorded, the current study disagreed with the previous surveyors' evaluation of significance, or a historic resource had obtained historic significance since it was last recorded. The estimated date of construction, distinctive features, and architectural style were noted. Photographs were taken with a high resolution digital camera. A log was kept to record the building's physical location and compass direction of each photograph.

In addition to a search of the FMSF, Broward County Property Appraiser information was also used to approximate building construction dates within the project area. Together, the GIS Data Sets and property appraiser information usually yield the dates of the majority of the historic resources located within the project area. The project architectural historian identifies any resource not accounted for by this information in the field based on the aforementioned methods.

Each resource's individual significance was then evaluated for its potential eligibility for listing in the National Register. Historic physical integrity was determined from site observations, field data, and photographic documentation. Local information was consulted to assist in the research for known significant historical associations.

Local Informants and Certified Local Government Coordination

The Town of Davie and Broward County are listed on the January 14, 2022, list of Certified Local Governments (CLG) available through the FDHR's website (FDHR 2022). Therefore, Mr. David Abramson, Deputy Manager of the Planning and Zoning Division for the Town of Davie and Mr. Rick Ferrer, Broward County Historic Preservation Officer, were contacted for more information on potential historic resources within the project area on March 7, 2022. Mr. Abramson confirmed on that same day via email that there were no locally designated historic resources in the project APE. On March 9, Brad Lanning (Broward County Archaeological Consultant) responded that there were no locally designated resources within or adjacent to the APE. Mr. Lanning requested that the Broward County Historic Preservation Program be updated on the effects of the proposed undertaking on the National Register eligible North New River Canal (8BD3279) and any avoidance or mitigation proposed if there are adverse effects to the resource.

PROJECT RESEARCH DESIGN AND SITE LOCATION MODEL

An archaeological site potential analysis provides information regarding which areas of a project have the highest probability of containing archaeological sites. Four environmental variables are typically used to predict site potential, including distance to fresh water, relative elevation, soil characteristics, and association with hardwood hammocks.

A review of the GLO historic plat maps (FDEP 1899a, FDEP 1912) identified no hammocks, knolls, or tree islands within the archaeological APE. Pine Island, one of the only features depicted on the map, is over one mile to the east of the current project APE. The entire Township was described as Native American territory, but no specific features were depicted in the vicinity of the current project APE. Prior to development, the archaeological APE was within the Everglades. Therefore, fresh water may have been available at various solution features across the landscape, but land suitable for occupation may have been scarce. No military forts, roads, encampments, battlefields, or historical Native American villages or trails were noted within the APE.

The archaeological APE is located within an area of poorly drained soil, except for the location of canal dredge spoil on the northern side of the North New River Canal. This canal berm is well drained but disturbed. The area has been developed since the most recent soil survey was conducted, and roadways and sidewalks now cover much of the current archaeological APE.

The pre-development environmental conditions within the APE suggest a low archaeological site potential. Furthermore, the subsequent land alterations from the construction of the canal, the placement of dredged fill on the new canal banks, the construction of roadways, sidewalks, and the installation of underground utilities have disturbed the area. Currently, the APE contains existing roadway, hardscape, landscaping, and buried utilities such as water, telecommunications lines, lighting, and subsurface drainage; it exhibits a low probability for containing intact archaeological resources.

RESULTS

Archaeological Results

No previously recorded archaeological sites, and no locally designated archaeological site or zones were located within the APE or within one mile of the APE. The archaeological desktop analysis determined that the APE had low archaeological site potential.

The archaeological field review identified that no subsurface testing was feasible within the archaeological APE, which was covered in roadways, sidewalks, parking lots, a canal berm, and areas containing buried utility lines (Figures 8-9). Water, telecommunications, and lighting utilities were identified within the APE, as well as a subsurface drainage system. North of the canal is a berm constructed of canal spoil that currently serves as a greenway with a paved bicycle path. Due to the pre-development environmental conditions and the high degree of disturbance from modern development, the archaeological APE is considered to have low archaeological site potential.

Figure 8: Paved roadway, existing sidewalk, and buried utilities within the archaeological APE on the westbound side of the SW 17th Street with berm and bike path in the background, facing northwest

Figure 9: Paved bike path, landscaping, parking lot, and water utilities within the archaeological APE from the canal berm toward the existing parking lot, facing north

Historic Resources Survey Results

Historical research and field survey resulted in the identification of one previously recorded historic linear resource, the North New River Canal (8BD3279). The portion of the North New River Canal (8BD3279) within the project APE has been determined National Register eligible numerous times, most recently in 2014 (Janus Research 2013). The current portion of the canal has not been altered since its most recent documentation and evaluation and maintains adequate integrity to express its association with the Everglades Drainage District. Therefore, the portion of the North New River Canal (8BD3279) within the current project APE is considered individually National Register eligible under Criterion A in the area of Community Planning and Development for its association with the development of South Florida.

The location of the resource in relation to the project APE is shown on Figure 2. Pictures and a narrative for the resource is provided below. Since the resource has not been altered and its determination of eligibility is not changing since its last recordation, the FMSF form was not updated.

Resource Determined National Register Eligible:

Figure 10: North New River Canal (8BD3279) within the project APE, determined National Register eligible, facing southwest

8BD3279 North New River Canal

The portion of the North New River Canal (Figures 10-11) within the current project area, constructed in 1906, is located in Section 16 of Township 50 South, Range 41 East on the Cooper City (1963 PR 1984) USGS quadrangle map. The portion of the canal within the APE is approximately 1,203 feet long and 139 feet wide. In its entirety, the North New River Canal extends from Lake Okeechobee in Palm Beach County to the South Fork of the New River in Broward County, for a total length of 66.3 miles (106.69 m). Presently, the North New River Canal, within the project APE, is bordered by SR 84 and I-595 to the south, and non-historic construction to the north.

The North New River Canal was originally constructed as one of the six initial canals constructed as part of the Everglades Drainage District. The Everglades Drainage District was established in 1905 by the State of Florida with the goal of draining enough of the Everglades to create 3 million acres of arable land (Werndli and Kirk 1978). By 1908, the North New River Canal extended 6.25 miles into the Everglades west of Fort Lauderdale (Knetsch 1991: 139). Eventually the State of Florida contracted with the Furst-Clark Construction Company of Baltimore to complete the dredging of the North New River Canal along with the South New River Canal, Miami Canal, and the Gulf Coast Canal. As part of these canals, locks were also constructed to assist with water control and the transportation use of the canals (Werndli and Kirk 1978). By 1912, the North New River Canal was completed and extended from the South Fork of the New River to Lake Okeechobee. It became the major transportation corridor

for agricultural products between Lake Okeechobee and Fort Lauderdale. Eventually, the focus of the Everglades Drainage District and subsequent entities who controlled the canal, shifted from land drainage to flooding control and irrigation (Janus Research 2005).

The portion of the North New River Canal (8BD3279) within the project APE has been determined National Register eligible numerous times, most recently in 2014 (Janus Research 2013). The current portion of the canal has not been altered since its most recent documentation and evaluation and maintains adequate integrity to express its association with the Everglades Drainage District. Therefore, the portion of the North New River Canal (8BD3279) within the current project APE is considered individually National Register eligible under Criterion A in the area of Community Planning and Development for its association with the development of South Florida.

Figure 11: North New River Canal (8BD3279) within the project APE, determined National Register eligible, facing southwest

CONCLUSIONS

In 2022, the City of Plantation, in cooperation with the FDOT, District 4, engaged Janus Research, in association with Miller Legg, to conduct a CRAS as part of the PD&E Study for a proposed Midtown Bridge over the North New River Canal in the City of Plantation and Town of Davie, Broward County. The purpose of this CRAS was to locate and evaluate archaeological and historic resources within the APE and to assess their eligibility for inclusion in the National Register according to the criteria set forth in 36 CFR Section 60.4.

No previously recorded archaeological sites were located within the APE, nor within a one-mile buffer encompassing the APE. No locally designated archaeological sites or zones are located within the APE or within one mile of the APE. No subsurface testing was possible within the archaeological APE due to the presence of existing roadways, sidewalks, bike path, parking lots, landscaping, and buried utilities. The desktop analysis and pedestrian survey determined that the archaeological APE exhibits a low potential for containing intact archaeological sites.

Historical research and field survey resulted in the identification of one previously recorded historic linear resource, the North New River Canal (8BD3279). The portion of the North New River Canal (8BD3279) within the project APE has been determined National Register eligible numerous times, most recently in 2014 (Janus Research 2013). The current portion of the canal has not been altered since its most recent documentation and evaluation and maintains adequate integrity to express its association with the Everglades Drainage District. Therefore, the portion of the North New River Canal (8BD3279) within the current project APE is considered individually National Register eligible under Criterion A in the area of Community Planning and Development for its association with the development of South Florida.

Curation

A survey log sheet is included in Appendix A. Field notes and other pertinent project records are temporarily stored at Janus Research until their transfer to the FDOT storage facilities.

Unanticipated Finds

Although unlikely, in the event that human remains are found during either construction or maintenance activities within the project area, the provisions of *Chapter 872, Florida Statute (872.05)* will apply. Chapter 872.05 states that when human remains are encountered, all activity that might disturb the remains shall cease and may not resume until authorized by the District Medical Examiner or the State Archaeologist. If human remains less than 75 years are encountered, or if they are involved in a criminal investigation, the District Medical Examiner has jurisdiction. If the remains are judged to be more than 75 years old, then the State Archaeologist may assume jurisdiction for determining appropriate treatment and options for the remains.

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APPENDIX A:

SURVEY LOG SHEET

Ent D (FMSF only) _____

Survey Log Sheet

Florida Master Site File
Version 5.0 3/19

Survey # (FMSF only) _____

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Manuscript Information

Survey Project (name and project phase)
Cultural Resource Assessment Survey, City of Plantation Midtown Bridge, Broward County, Florida

Report Title (exactly as on title page)
Cultural Resource Assessment Survey, City of Plantation Midtown Bridge, Broward County, Florida

Report Authors (as on title page) 1. Janus Research 3. _____
2. _____ 4. _____

Publication Year 2022 **Number of Pages in Report** (do not include site forms) 58

Publication Information (Give series, number in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)
1107 N Ward Street, Tampa, FL 33607

Supervisors of Fieldwork (even if same as author) Names Streelman, Amy

Affiliation of Fieldworkers: Organization Janus Research City Tampa

Key Words/Phrases (Don't use county name, or common words like *archaeology*, *structure*, *survey, architecture, etc.*)
1. North New River Canal 3. Plantation 5. _____ 7. _____
2. Midtown 4. _____ 6. _____ 8. _____

Survey Sponsors (corporation, government unit, organization, or person funding fieldwork)
Name City of Plantation Organization _____
Address/Phone/E-mail _____

Recorder of Log Sheet Janus Research **Date Log Sheet Completed** 3-8-2022

Is this survey or project a continuation of a previous project? ☒No ☐Yes: **Previous survey #s (FMSF only)** _____

Project Area Mapping

Counties (select every county in which field survey was done; attach additional sheet if necessary)
1. Broward 3. _____ 5. _____
2. _____ 4. _____ 6. _____

USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary)
1. Name COOPER CITY Year 1984 4. Name _____ Year _____
2. Name _____ Year _____ 5. Name _____ Year _____
3. Name _____ Year _____ 6. Name _____ Year _____

Field Dates and Project Area Description

Fieldwork Dates: Start 3-7-2022 End 3-7-2022 **Total Area Surveyed** (fill in one) _____hectares 14.36 acres
Number of Distinct Tracts or Areas Surveyed 1
If Corridor (fill in one for each) **Width:** _____meters _____feet **Length:** _____kilometers _____miles

Florida Master Site File / Div. of Historical Resources / R.A. Gray Bldg / 500 S Bronough St., Tallahassee, Florida 32399-0250
Phone 850.245.6440, Fax 850.245.6439, Email: SiteFile@dos.myflorida.com

Survey Log Sheet

Survey #_____

Research and Field Methods

Types of Survey (select all that apply): ☒archaeological ☒architectural ☒historical/archival ☐underwater
☐damage assessment ☐monitoring report ☐other(describe): _____

Scope/Intensity/Procedures

Visual survey for historic resources. Desktop survey and pedestrian survey for archaeological resources.

Preliminary Methods (select as many as apply to the project as a whole)

☐Florida Archives (Gray Building)	☐library research- *local public*	☒local property or tax records	☒other historic maps	☐LIDAR
☐Florida Photo Archives (Gray Building)	☐library-special collection	☐newspaper files	☒soils maps or data	☐other remote sensing
☒Site File property search	☐Public Lands Survey (maps at DEP)	☒literature search	☐windshield survey	
☒Site File survey search	☒local informant(s)	☐Sanborn Insurance maps	☒aerial photography	

☒other (describe): Janus Research library

Archaeological Methods (select as many as apply to the project as a whole)

☐Check here if **NO** archaeological methods were used.

☐surface collection, controlled	☐shovel test-other screen size	☐block excavation (at least 2x2 m)	☐metal detector
☐surface collection, **un**controlled	☐water screen	☐soil resistivity	☐other remote sensing
☐shovel test-1/4"screen	☐posthole tests	☐magnetometer	☒pedestrian survey
☐shovel test-1/8" screen	☐auger tests	☐side scan sonar	☐unknown
☐shovel test 1/16"screen	☐coring	☐ground penetrating radar (GPR)	
☐shovel test-unscreened	☐test excavation (at least 1x2 m)	☐LIDAR	

☒other (describe): Desktop Analysis

Historical/Architectural Methods (select as many as apply to the project as a whole)

☐Check here if **NO** historical/architectural methods were used.

☐building permits	☐demolition permits	☐neighbor interview	☐subdivision maps
☐commercial permits	☐windshield survey	☐occupant interview	☐tax records
☐interior documentation	☒local property records	☐occupation permits	☐unknown

☒other (describe): visual inspection of the project area

Survey Results

Resource Significance Evaluated? ☒Yes ☐No

Count of Previously Recorded Resources 1 **Count of Newly Recorded Resources** 0

List Previously Recorded Site ID#s with Site File Forms Completed (attach additional pages if necessary)

List Newly Recorded Site ID#s (attach additional pages if necessary)

Site Forms Used: ☐Site File Paper Forms ☐Site File PDF Forms

REQUIRED: Attach Map of Survey or Project Area Boundary

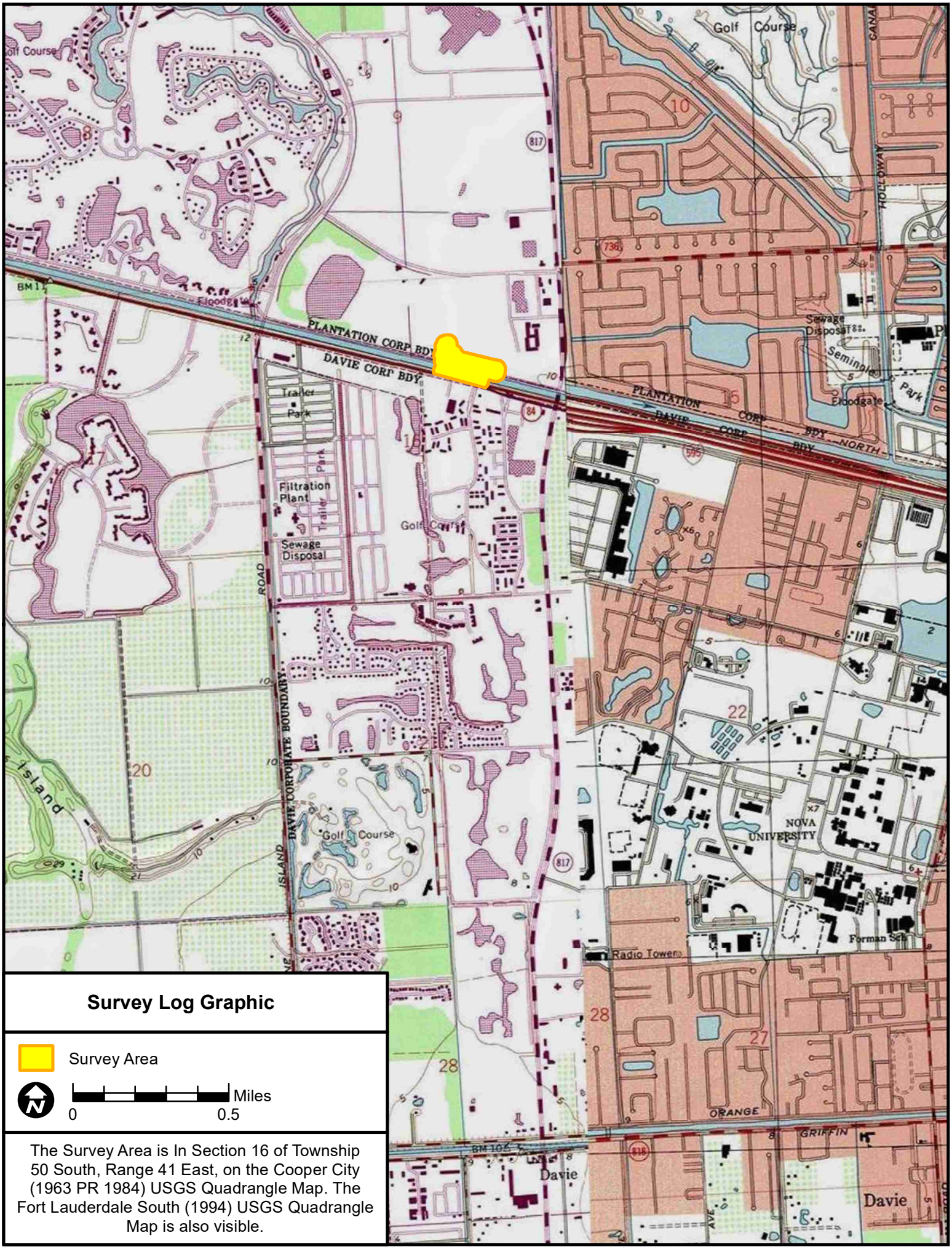
SHPO USE ONLY **SHPO USE ONLY** **SHPO USE ONLY**

Origin of Report: ☐872 ☐Public Lands ☐UW ☐1A32 # _____ ☐Academic ☐Contract ☐Avocational
☐Grant Project # _____ ☐Compliance Review: CRAT # _____

Type of Document: ☐Archaeological Survey ☐Historical/Architectural Survey ☐Marine Survey ☐Cell Tower CRAS ☐Monitoring Report
☐Overview ☐Excavation Report ☐Multi-Site Excavation Report ☐Structure Detailed Report ☐Library, Hist. or Archival Doc
☐Desktop Analysis ☐MPS ☐MRA ☐TG ☐Other: _____

Document Destination: Plottable Projects **Plotability:** _____

Florida Master Site File / Div. of Historical Resources / R.A. Gray Bldg / 500 S Bronough St., Tallahassee, Florida 32399-0250
Phone 850.245.6440, Fax 850.245.6439, Email: SiteFile@dos.myflorida.com



Survey Log Graphic

Survey Area

N

0 Miles 0.5

The Survey Area is In Section 16 of Township 50 South, Range 41 East, on the Cooper City (1963 PR 1984) USGS Quadrangle Map. The Fort Lauderdale South (1994) USGS Quadrangle Map is also visible.