CULTURAL RESOURCE ASSESSMENT SURVEY OF THE NEW INTERCHANGE AT I-95 AND ELLIS ROAD PD&E STUDY BREVARD COUNTY, FLORIDA

FINANCIAL MANAGEMENT # 426905-1-22-01

SEARCH PROJECT # 2546-10063

PREPARED FOR

THE FLORIDA DEPARTMENT OF TRANSPORTATION, DISTRICT FIVE

IN COOPERATION WITH

REYNOLDS, SMITH & HILLS, INC.

BY

SOUTHEASTERN ARCHAEOLOGICAL RESEARCH, INC.

AUGUST 2012

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ELIZABETH J. CHAMBLESS, MS, RPA
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AUGUST 2012

EXECUTIVE SUMMARY

This report presents the findings of a Phase I cultural resource assessment survey (CRAS) conducted in support of a Project Development and Environment (PD&E) Study for a new interchange on Interstate 95 (I-95) at Ellis Road in Brevard County, Florida. The Florida Department of Transportation (FDOT), District 5, is considering the proposed construction of a new interchange at Mile Post (MP) 22.07 on I-95 as well as capacity improvements along Ellis Road between I-95 and NASA Boulevard. The project corridor for the present survey extends from Wickham Road along Ellis Road to the proposed interchange with I-95.

The project Area of Potential Effect (APE) was developed to consider visual, audible, and atmospheric effects that the project may have to historic properties. The APE was defined to include the existing and proposed right-of-way along the Ellis Road corridor, including the proposed interchange with I-95. The APE was extended to the back or side property lines of parcels adjacent to the corridor and interchange, limited to a distance of no more than 330 ft from the proposed right-of-way. The archaeological shovel testing was conducted within the existing and proposed right-of-way. The architectural survey included the entire APE.

A total of 31 shovel tests (STs) were excavated within the proposed and existing right-of-way. Numerous utilities are located along both sides of Ellis Road, leaving few undisturbed areas for testing, and shovel tests within the existing right-of-way were noted as heavily disturbed. Two shovel test locations (STs 11 and 20) were considered too disturbed by underground utilities to warrant excavation. Outside the existing right-of-way, the shovel tests appeared to be less disturbed, and in a few cases natural strata were observed.

The survey resulted in the identification of one new archaeological site, 8BR2784, located along the north side of Ellis Road, east of John Rodes Boulevard and west of Stan Drive. Laboratory analysis of the recovered glassware indicates that the bulk of the identifiable materials have manufacture dates beginning in the early part of the twentieth century to recent times. Also, aerial photography indicates that the area adjacent to the site, which contains Quartzipsamments soils, appears to have been utilized as a borrow pit at some time between 1951 and 1958. Thereafter, the borrow pit was likely utilized as a trash dump, and as the region became more developed, the refuse was burned. In the opinion of the Principal Investigator, site 8BR2784 is not eligible for listing in the National Register of Historic Places (NRHP).

Three historic resources (8BR2781–8BR2783) were recorded within the APE. They were evaluated as to their potential for listing in the NRHP. The resources all lack the architectural distinction or significant historical associations necessary to be considered for listing in the NRHP and have been determined ineligible. No potential NRHP districts were located due to the lack of concentration of historic structures. No NRHP-listed or eligible resources were identified within the Ellis Road PD&E APE. No further work is recommended.

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INTRODUCTION

This report presents the findings of a Phase I cultural resource assessment survey (CRAS) conducted in support of a Project Development and Environment (PD&E) Study for a new interchange on Interstate 95 (I-95) at Ellis Road in Brevard County, Florida (**Figure 1**). The Florida Department of Transportation (FDOT), District 5, is considering the proposed construction of a new interchange at Mile Post (MP) 22.07 on I-95 as well as capacity improvements along Ellis Road between I-95 and NASA Boulevard. The project corridor for the present survey extended from Wickham Road along Ellis Road to the proposed interchange with I-95.

The purpose of the survey was to locate, identify, and bound archaeological resources, historic structures, and potential districts within the project's Area of Potential Effect (APE) and assess their potential for listing in the National Register of Historic Places (NRHP). This study was conducted to comply with Chapter 267 of the Florida Statutes and Rule Chapter 1A-46, Florida Administrative Code. All work was performed in accordance with Part 2, Chapter 12 of the FDOT PD&E Manual (revised January 1999) and the Cultural Resource Management Handbook (revised November 2004), as well as the Florida Division of Historical Resources (FDHR) recommendations for such projects as stipulated in the FDHR's *Cultural Resource Management Standards & Operations Manual, Module Three: Guidelines for Use by Historic Preservation Professionals*. The Principal Investigator for this project meets the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (48 FR 44716-42).

The project APE was developed to consider visual, audible, and atmospheric effects that the project may have to historic properties. The APE was defined to include the existing and proposed right-of-way along the Ellis Road corridor, including the proposed interchange with I-95. The APE was extended to the back or side property lines of parcels adjacent to the corridor and interchange, limited to a distance of no more than 330 ft from the proposed right-of-way (**Figure 2**). The archaeological shovel testing was conducted within the existing and proposed right-of-way along Ellis Road and the proposed right-of-way on either side of I-95; the existing I-95 right-of-way was tested during a previous survey (Janus Research 2001; Florida Master Site File [FMSF] Survey No. 6794) and was not revisited during the present study. The architectural survey included the entire APE.

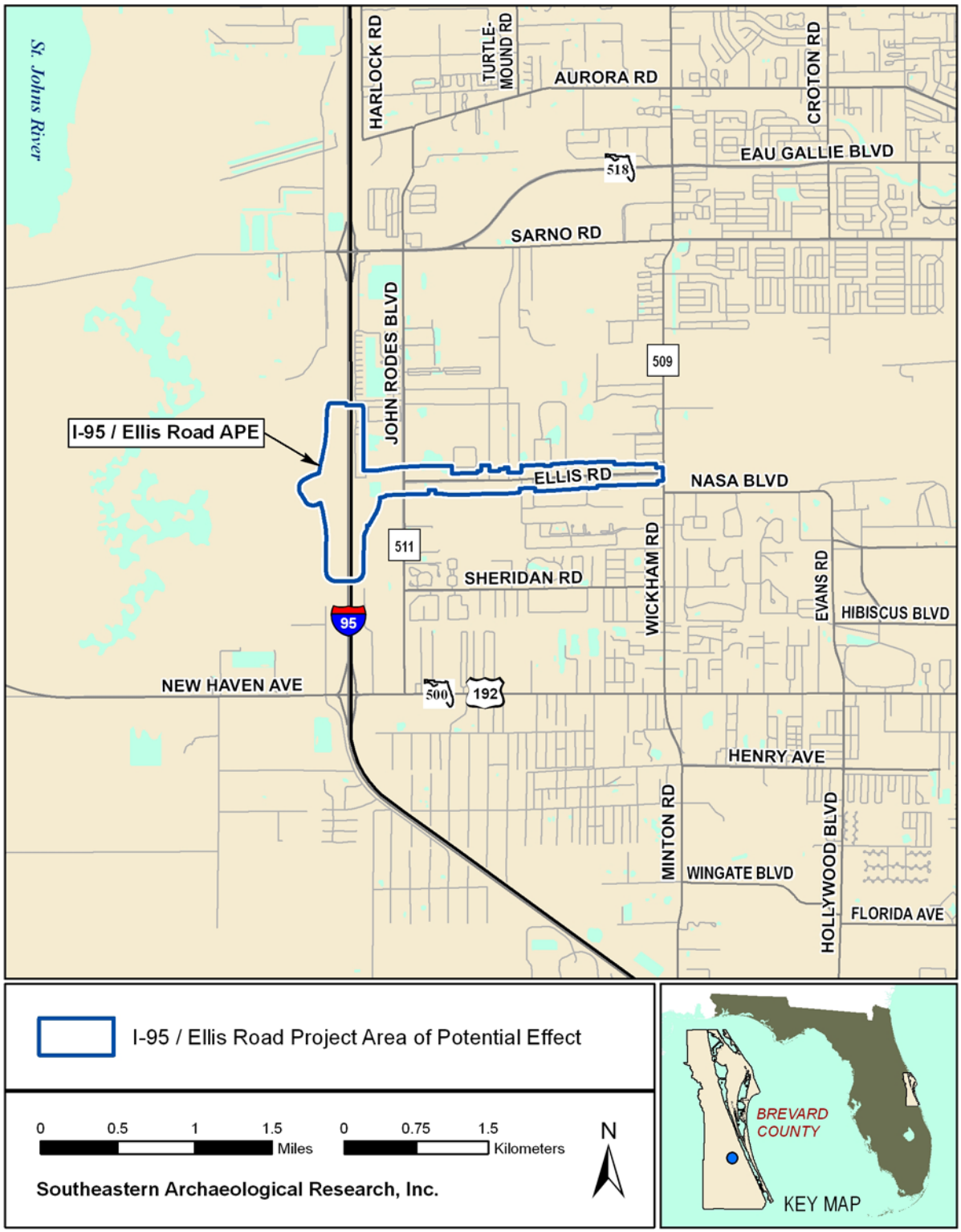

Figure 1. I-95/Ellis Road Project location in Brevard County, Florida.

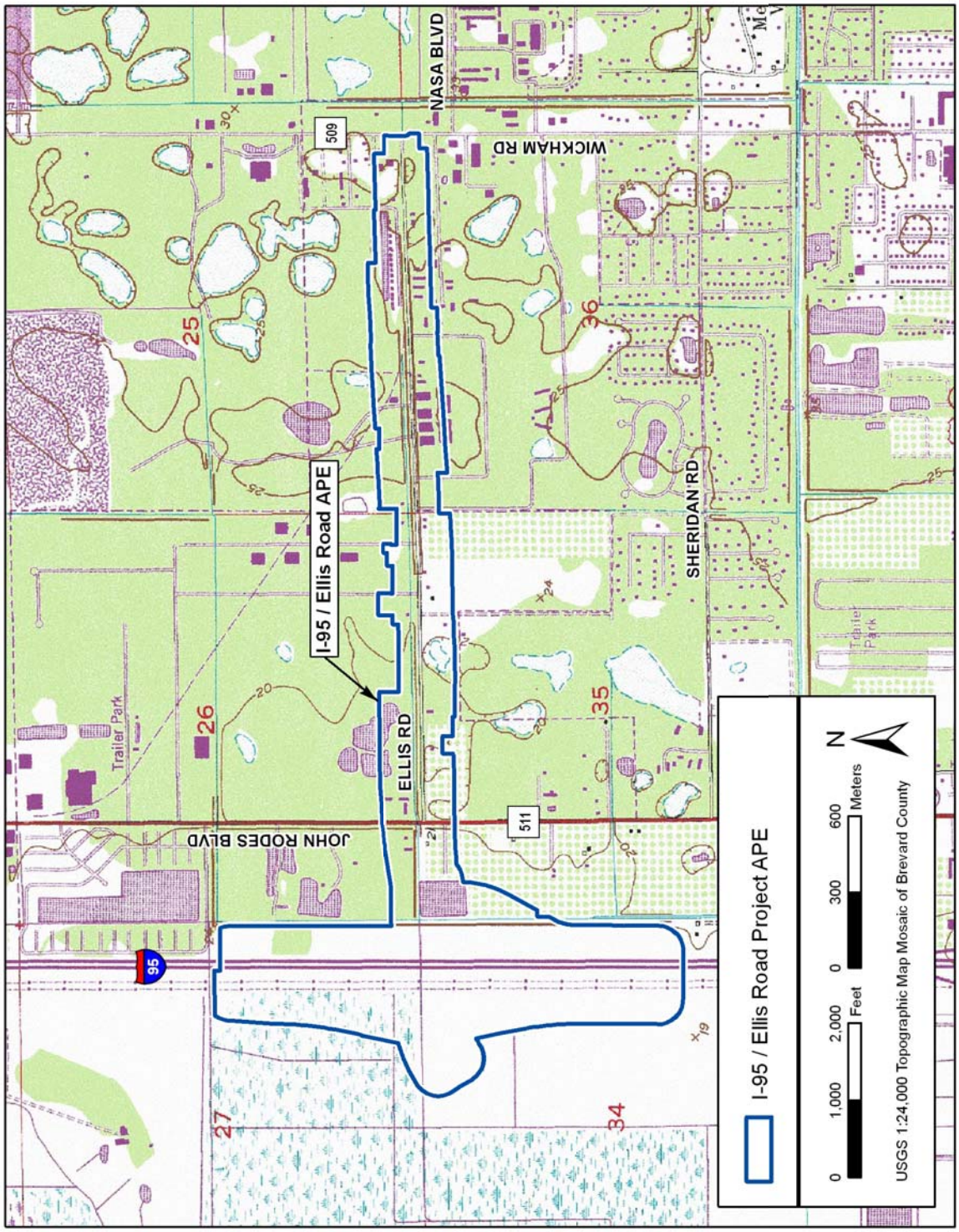

Figure 2. I-95/Ellis Road Project APE in Brevard County, Florida.

PROJECT LOCATION AND ENVIRONMENT

LOCATION AND MODERN CONDITIONS

The I-95/Ellis Road project corridor is located in southern Brevard County, in the town of West Melbourne. The Indian River is located approximately 3.7 mi east of Wickham Road, and the St. Johns River is located approximately 2.6 mi west of I-95. The St. Johns River widens to form Lake Washington and Sawgrass Lake to the north and south, respectively, of the current project APE. The area between I-95 and the St. Johns River consists of a large marsh, of which some portions closer to I-95 have been drained or filled for agricultural use. Elevations within the APE are generally level, ranging from 20 to 25 ft above mean sea level (amsl).

Prior to modern development, the project APE would have been composed of a combination of flatwoods and marsh. The flatwoods community generally occurs along level terrain, as the name implies. Soils are poorly to somewhat poorly drained with coarse texturing. Pine flatwoods are typically a pyric or fire-dependent pine (*Pinus elliottii* var. *elliottii*), south Florida slash pine (*Pinus elliottii* var. *densa*), and pond pine (*Pinus serotina*). Fire restrains hardwood growth while promoting pine regeneration (Abrahamson and Hartnett 1990:131). Minor tree species include live oak (*Quercus virginiana*), water oak (*Quercus nigra*), sweet gum (*Liquidambar styraciflua*), and red maple (*Acer rubrum*).

Flatwoods soils are typically nutrient-deprived, acidic sand with minimal clay content. As a result, most of the soil nutrients are derived from organic matter produced by leaf litter. The sandy soils, however, are prone to a high degree of leaching. Fluctuating water tables make a complicated problem much worse by hindering the nutrient uptake levels of plants within the community (Abrahamson and Hartnett 1990). Soils within the project APE are generally poorly to very poorly drained, with two small areas of moderately well-drained Quartzipsamments soils to either side of John Rodes Boulevard (**Figure 3**). This soil type represents sandy soils that have been modified by earthmoving equipment for use as prepared construction surfaces or fill material and is not a naturally occurring soil (US Department Agriculture [USDA] 1974).

PALEOENVIRONMENT

Between 18,000 to 12,000 years before present (BP), Florida was a much cooler and drier place than it is today. Melting of the continental ice sheets led to a major global rise in sea level (summarized for long time scales by Rohling et al. 1998) that started from a low stand of -120 meters at 18,000 BP. The rise was slow while glacial conditions prevailed at high latitudes but became very rapid in the latest Pleistocene and earliest Holocene. It became warmer and wetter rather rapidly during the next three millennia. By about 9000 BP, a warmer and drier climate began to prevail. These changes were more drastic in northern Florida and southern Georgia than in southern Florida, where the “peninsular effect” and a more tropically

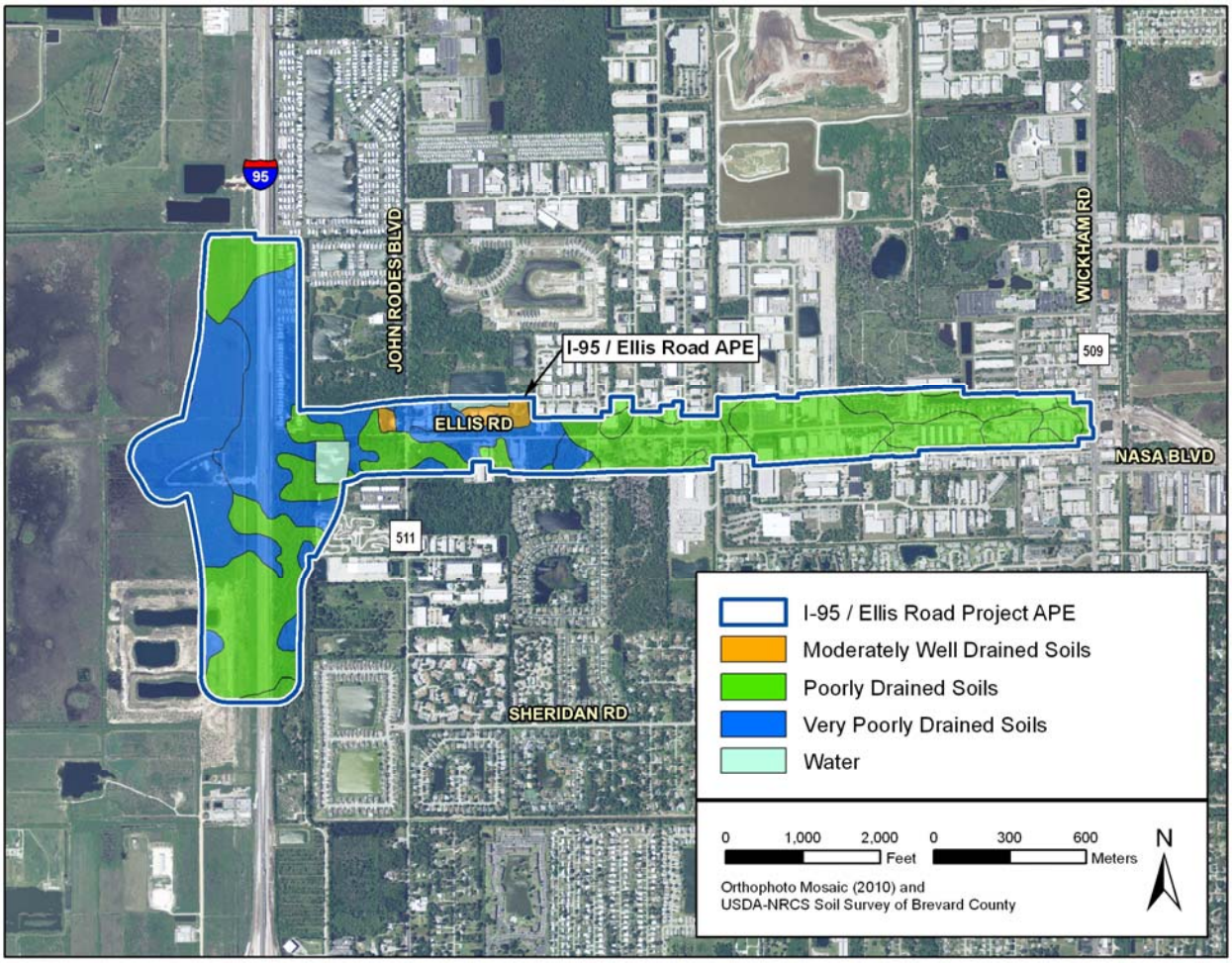

Figure 3. Soil drainage in the I-95/Ellis Road Project APE.

influenced climate tempered the effects of the continental glaciers that were melting far to the north (Watts 1969, 1971, 1975, 1980). Sea levels, though higher, were still much lower than at present; surface water was limited, and extensive grasslands probably existed, which may have attracted mammoth, bison, and other large grazing mammals. By 6000–5000 BP, the climate had changed to one of increased precipitation and surface water flow. By the late Holocene, ca. 4000 BP, the climate, water levels, and plant communities of Florida attained essentially modern conditions. These have been relatively stable with only minor fluctuations over the past 4,000 years.

HISTORIC OVERVIEW

NATIVE AMERICAN CULTURE HISTORY

Paleoindian Period (12,000–10,000 BP)

Prehistoric native peoples entered Florida at least 12,000 years ago. While there is abundant archaeological evidence for an early occupation of northern and central Florida (Milanich 1994), there is only limited evidence for people inhabiting southeast Florida at this early time. Discoveries of human skeletal remains near Vero Beach in 1915 and Melbourne in 1925 were presumed to be of early origin because of their inferred association with extinct Pleistocene mammals (Gidley and Loomis 1926; Sellards 1916, 1917). Analysis of the Vero Beach finds by Hrdlicka (1918, 1922) concluded that the human remains were intrusive into Pleistocene deposits. However, more recent analyses of the skeletal remains (Stewart 1946) and a comparison of the geological context of those finds with similar discoveries in southwest Florida (Cockrell and Murphy 1978) indicate that the original interpretations may have been correct. To date, the Helen Blazes (8BR27) site is the only archaeological site in the immediate vicinity to be associated with this time period. Due to changes in hydrology (e.g., rising sea levels, increased rainfall, and subsequent increase in ground and artesian water), it is probable that Paleoindian-period settlement or activity areas were close to, or adjacent to, water sources that may not exist or be accessible in a modern climate (e.g., inundated sites or lands that have been altered as a result of alluvial or aeolian deposition).

Early Archaic Period (10,000–7000 BP)

The beginning of the Archaic period coincides with the onset of the Holocene at approximately 10,000 BP. This period can be divided into two horizons, based on differences in stone tool types: (1) Side-Notched, or Bolen (10,000–9000 BP), and (2) Stemmed, or Kirk (9000–8000 BP). Both horizons are well represented in northern and central Florida (Milanich 1994).

The earliest firm evidence for human occupation in southeast Florida dates to about 10,000–9500 BP. At the Cutler site in Miami, side-notched stone projectile points, called Bolen points, were recovered in association with animal bones and a hearth feature (Carr 1986). Based on radiocarbon dates from a cultural stratum believed to be associated with the Bolen points, the Cutler site is believed to date to around 9600 BP. At this time, south Florida was just emerging from a period that was much drier than at present (Brooks 1974; Gleason et al. 1974). Lake Okeechobee and the Everglades did not exist, sea levels were much lower than at present, surface water was limited, and extensive grasslands probably existed, which may have attracted mammoth, bison, and other large grazing mammals. This bleak landscape inhibited intensive human habitation except perhaps along the coast; however, any coastal sites are probably now inundated by higher sea levels.

By the Early Archaic period, or the time that the Cutler site was occupied, precipitation had begun to increase in frequency and duration, resulting in an increase in surface water. In addition, sea levels were rising, which inundated formerly dry land offshore. The large Pleistocene mammals died off, and native peoples in southeast Florida adapted their lifestyles to the hunting and gathering of more modern animal species.

The Kirk Horizon is not well represented on the lower east coast, although the mortuary pond at Windover in Brevard County may contain a Kirk component. Radiocarbon dates associated with human bone or wooden artifacts range from 8120±70 BP to 6980±80 BP (Doran 2002), placing it at the terminal end of the Kirk Horizon as it has been defined throughout the rest of the southeastern United States (Chapman 1985; Sherwood et al. 2004). Three possible Kirk Stemmed projectile points were associated with the burials.

The Windover site provides some of the best information on Early Archaic burial practices and nonlithic material culture. It is a wetland cemetery, which, when excavated, revealed the remains of 168 individuals along with numerous perishable items such as bone pins, awls, incised tubes, shell tools and beads, an antler atlatl weight, wooden stakes, cordage, mats, and fabric. The radiocarbon dates indicate that the interments were made over a long period of time and suggest that the pond was used repeatedly for interments for more than a millennium. The high degree of preservation of the bodies, and the lack of any evidence for scavenging of the remains by animals, suggests that they were placed in the cemetery within a few days or even hours after death (Dickel 2002). The interments were apparently placed in five or six discrete groups within the pond, and individual clusters may have been marked by stakes (Dickel 2002:80). The presence of marine shells at the site would seem to support the hypothesis that these people moved from the coast, which at this time was much farther away from the site than it is today, to the interior on a relatively regular basis. Analysis of archaeobotanical remains from the site indicates occupation during late summer–early fall (Newsom 2002:208; Tuross et al. 1994:297–298).

Middle Archaic Period (7000–5000 BP)

A dramatic increase in precipitation and runoff in south Florida is indicated by peat deposits in the Everglades that began to form about 6000–5000 BP (McDowell et al. 1969). This enabled native peoples to expand into formerly inhospitable locations. Sea levels reached modern levels and may have exceeded them for short periods (Dorsey 1997; Tanner 1991). Modern estuaries began to form, and exploitation of coastal resources began in earnest, particularly along the northern Atlantic coast (Ste. Claire 1990). The expansion of populations into new locations resulted in a variety of settlement and subsistence strategies, each adapted to local conditions. Sedentary settlements were established along productive rivers, such as the St. Johns, or in coastal areas in southwest and northeast Florida (e.g., Russo 1991; Ste. Claire 1990). In other areas, a more mobile lifestyle was practiced (Austin 1996, 1997).

Locally, sea level rise is indicated by the deposition of coastal marsh mud in the Indian River lagoon at approximately 6000–5000 BP (Bader and Parkinson 1990). Yet there is limited

archaeological evidence for Middle Archaic occupation of southeast Florida. Preceramic Archaic sites have been documented in the interior around Lake Okeechobee (Gleason and Stone 1994; Hale 1989:48, 55–56), and one documented Middle Archaic site has been identified at the Westridge site on Pine Island Ridge in Broward County (Carr et al. 1992). The Gauthier site in Brevard County contains a Middle Archaic cemetery (Carr and Jones 1981; Sigler-Eisenberg 1984).

This lack of Middle Archaic sites in southeast Florida may be due in part to their low archaeological visibility. The lack of any lithic raw materials for tool production in south Florida forced a greater emphasis on the use of perishable materials such as wood, bone, and shell. The highly acidic soils of the region would have destroyed these organic materials, leaving little behind for archaeologists to discover. The dependence on perishable materials for much of the material culture of Archaic peoples is reflected by the abundance of organic artifacts recovered from Windover Pond and the near absence of lithic artifacts (Dickel 2002).

Late Archaic Period (5000–2500 BP)

By 5000 BP, the climate and environments of Florida had reached essentially modern conditions. This allowed further regionalization of cultures throughout Florida, as individual societies developed increasingly sophisticated adaptations to their local environments (Milanich 1994). During the Late Archaic period, the first pottery was made by the native peoples of Florida. In southern Florida, two separate Late Archaic cultures can be identified archaeologically: the Orange culture and, for lack of a better term, the Glades Archaic culture.

The Orange culture is known primarily from northeast Florida, including both the Atlantic coast and the St. Johns River drainage basin. The Orange peoples made a distinctive pottery tempered with fiber. Other artifacts include whelk shell (Busycon spp.) adzes and conch shell (Strombus spp.) celts. It is likely that the Busycon adzes found in northeast Florida at this time were of local origin, while the Strombus celts were traded into the area from southeastern Florida (Wheeler 1992). Site types are generally oyster and coquina shell middens along the coast and freshwater pond snail middens along the inland rivers and streams. Some coastal shell rings also have been observed (Newman and Weisman 1992).

Recent work in St. Lucie County provides evidence of a Late Archaic culture in this region. At the Ten Mile Creek project area, four sites (8SL7, 8SL1180, 8SL1181, and 8SL1182) that have fiber-tempered or fiber/mixed pottery indicative of a Late Archaic component were identified (New South Associates 2003). In Martin County, Orange populations were present and were almost exclusively coastal (Carr et al. 1995). Only semi-fiber-tempered sherds were recovered from the Mt. Elizabeth site (8MT30), and Orange populations may have migrated to that area from the Indian River estuary farther north. The Joseph Reed shell ring (8MT13) on Jupiter Island may represent something of an anomaly as it is Late Archaic in age but possesses a ceramic assemblage characterized by spiculate and sand-tempered pastes. Although the Joseph Reed site has been damaged by storm surges, it was once probably a constructed ring made up

mostly of oyster shell. In this respect, it seems quite similar to other Orange-period shell rings located farther north (Newman and Weisman 1992).

Jim Pepe (Carr et al. 1995) suggests that a separate Late Archaic culture, which he refers to as the Glades Archaic, also was present in southern Florida, and probably had only limited ties to the Orange culture (Carr et al. 1995). The presence of this culture is suggested by nonceramic bone middens now recognized as typical on nearly every interior tree island or former tree island and in nearly every marsh or former marsh in southern Florida (e.g., Carr and Steele 1993; Ehrenhard and Taylor 1980; Ehrenhard et al. 1978, 1979). Several of these types of sites also have been identified in the Loxahatchee Slough and Allapatah Flats of Martin and Palm Beach Counties (Carr et al. 1995). Faunal remains from these sites are mainly freshwater species, such as turtle, fish, and pond apple snail, which were plentiful in the surrounding marshes.

Post-Archaic Period (2500–500 BP)

By 2500 BP, regional adaptations had become so well established that it is possible for archaeologists to subdivide the state by geographic areas that share similar archaeological traits. The Indian River region extends from the Indian River–St. Lucie county line northward along the Atlantic coast to Merritt Island in Brevard County. The western boundary extends about 20 mi inland and to the St. Johns River drainage and tributaries. Rouse (1951) referred to the regional culture as Malabar, and this term is still used in some reports (e.g., Sigler-Eisenberg 1985).

Irving Rouse (1951) was the first to describe the archaeological cultures in the Indian River area, referring to them as Malabar. His chronology paralleled that of the St. Johns Region, with St. Johns Check Stamped pottery indicating the break between Malabar I and Malabar II. However, there also are significant amounts of sand-tempered pottery in the Indian River area, and, instead of indicating influence from adjacent culture areas, at least some of this sand-tempered pottery appears to have been made from the same local clays as the St. Johns wares (Espenshade 1983). Cordell's (1985) analysis of pottery from several sites in Brevard County resulted in the ceramic sequence that appears to hold for other portions of the Indian River region as well (Milanich 1994:250). The dates assigned to these periods are estimates and have been extrapolated from Milanich's chronology for the entire East and Central Lakes District (Milanich 1994:247).

Cordell takes Rouse's original Malabar I period and divides it into three subperiods based on changes in ceramic frequencies. Early Period I (ca. 2500–2000 BP) is recognized by the introduction of non-fiber-tempered wares to the ceramic assemblages of local native peoples. St. Johns Plain dominates these early components, but sand-tempered plain also is present in small amounts. Middle Period I (ca. 2000–1500 BP) is distinguished by a substantial increase of sand-tempered plain ceramics in middens, a decrease in the proportion of St. Johns Plain, and the introduction (albeit in very small quantities) of Belle Glade Plain at some sites. Late Period I (ca. 1500–1250 BP) is marked by the return to dominance of St. Johns Plain and the

corresponding decrease of sand-tempered plain pottery. There also is a slight increase in the amount of Belle Glade Plain. The appearance of St. Johns Check Stamped pottery is the marker for Period II (ca. 1250–500 BP). It, along with St. Johns Plain, is the major pottery type during this period. Sand-Tempered Plain comprises about 10 percent of most assemblages, and Belle Glade Plain remains a minority ware.

Both interior and coastal sites are known in the Indian River region. Site types in the interior include small, special-use campsites and larger, multicomponent sites that possess extensive midden deposits and were probably used for permanent habitation. Russo's (1986, 1988) analysis of faunal remains from interior sites indicates a dependence on aquatic resources (turtle, ducks, fish, freshwater mussels). Throughout the post-Archaic period, wetland resources expanded and water sources became deeper, providing suitable habitats for more and larger fish, such as bass and pickerel. However, during the dry months of the year (winter and spring), these water sources shrank, providing habitat for fish species that favor shallow, muddy-bottomed ponds, such as bowfin and gar. Terrestrial animals (deer, raccoon, rabbit) also were exploited, but the emphasis was clearly on acquiring most of the diet from freshwater wetlands. Coastal sites were once present in many locations along the Indian River lagoon, the adjacent uplands, and on the barrier islands. Modern development has destroyed many of these sites, but a few have been investigated and provide information on costal adaptations. At present, it appears that the coast was utilized seasonally during the winter and spring months, when interior wetlands were less abundant. The data indicate that some sites were small, extractive sites occupied by only a few individuals, while other, larger sites served as habitations sites. Marine fish, shellfish (especially coquina), and some terrestrial animals were exploited for food (Milanich 1994:252–253). What is unknown at present is how the coastal and interior sites relate to one another. For example, it is not clear whether the same people occupied both locations during different parts of the year or whether different groups occupied each area year-round.

Contact Period

In the Indian River region, the historic period (referred to as Period III) is marked by the presence of European goods in otherwise native assemblages. The St. Johns ceramic series remains the dominant native pottery. The native groups encountered by Europeans at this time on the Atlantic coast were the Ais. The Ais appear to have been an independent tribe, but large amounts of St. Johns pottery and other artifacts from the Indian River and St. Johns areas during this time suggests that their cultural influences may have come from the north instead. During his travels through the area, Jonathan Dickinson observed that the Jeaga were forced to hand over shipwrecked cargo to the Ais, their neighbors to the north (Andrews and Andrews 1985 [1699]).

Of course, European contact marked the beginning of the end for the native populations throughout Florida. It has been estimated that there were about 20,000 natives in southern Florida when the Spanish arrived (Milanich and Fairbanks 1980). By 1763, when the English gained control of Florida, the population had been reduced to several hundred. These tribal

remnants were reported to have migrated to Cuba with the Spanish (Romans 1961 [1775]). However, it is likely that the "Spanish Indians" who raided Indian Key in 1840 were the mixed-blood descendants of the Calusa, and/or refugees from the northern Florida missions that were raided by the English in the early eighteenth century (Sturtevant 1953). These Spanish-Indians became part of the Seminoles, who had fled into southern Florida after the 1838 Battle of Okeechobee.

POST-CONTACT HISTORY

Early Spanish Exploration

The area that is now Brevard County served as an important stage for many early European expeditions in North America. Some historians believe that the Italian captain John Cabot sailed south along the Brevard coast during his 1498 explorations (Dovell 1952; Eriksen 1994). There is also evidence that Spanish slave traders raided the indigenous coastal villages, for when Juan Ponce de León came to Florida he found a local who understood Spanish. Ponce de León left Puerto Rico on March 3, 1513, with three ships. After sailing on a northwesterly course for 30 days, the ships landed either north of Cape Canaveral (Milanich 1995) or in the vicinity of modern-day Melbourne Beach (Eriksen 1994; Gannon 1996). Ponce called this land *La Florida* since it was sighted during the Feast of Flowers (*Pascua Florida*) (Milanich 1995). Ponce remained at this initial landing place for six days before pulling anchor and sailing toward Jupiter Inlet, where he landed to restock firewood and water for the ships. The fleet rode the countercurrents of the Gulf Stream to Biscayne Bay and eventually rounded the southern tip of the peninsula (Gannon 1996; Milanich 1995). The island off the Brevard coast was named Cape Canaveral, the Spanish term for canebrake. The Cape is found on many sixteenth-century maps and is one of the oldest place names in North America (Eriksen 1994).

The Gulf Stream flowing from south to north off the Brevard coast was an important thoroughfare for the transportation of New World supplies to Europe. The Spanish treasure galleons rode this warm current from Havana through the Bahama Channel. Wrecks were common in the treacherous shoals around Cape Canaveral, and the local Indian tribe, the Ais, would often recover the cargo. The Spanish crown realized the importance of this trade route, and when they heard that the French were developing a colony, Fort Caroline, on the St. Johns River near modern-day Jacksonville, they decided to act. Pedro Menéndez de Avilés, a highly respected officer in the Spanish navy, was issued the task of eradicating the French influence in the area and starting a colony in *La Florida* (Milanich 1995). The French colony was awaiting supplies and reinforcements coming from France under the command of Jean Ribault. Menéndez felt it was crucial to reach and destroy Fort Caroline before Ribault arrived. The Spanish force searched for six weeks along the northern Florida coast before it found the French fort. In August 1565, Menéndez with his fleet of 10 ships sighted Cape Canaveral (Gannon 1996; Milanich 1995). A tropical storm had scattered the French defenses and left the fort an easy target for Menéndez to destroy. During the gale, a ship of French colonists had

wrecked somewhere near Cape Canaveral. While Menéndez marched south along the coast to meet the wayward French force, he kept a detailed description of the area including Brevard County. The Spanish garrison Santa Lucia was constructed on the high plateau near Jupiter Inlet as a line of defense for the new colony (Eriksen 1994; Milanich 1995). **Figure 4** provides a portion of a sixteenth-century Spanish map showing Florida.

Figure 4. ***Americae sive qvartae orbis partis nova et exactissima description*****, by Diego Gutierrez (1562), showing Florida. Courtesy of Florida Center for Instructional Technology.**

In 1605, the Spanish sent a delegation under the command of Alvaro Mexia to the Brevard area. The diplomat was charged with placating the aggressive Ais and mapping the region. His mission was a success. Mexia was named an honorary chief of the tribe, and the Indian and Banana Rivers (which the Spanish called Rio de Ais and Ulumay Lagoon) were explored and recorded. Mexia's maps detail many Indian settlements along the shores of Mosquito Lagoon (at the north end of the Banana River). It is possible that Mexia's entourage spread orange seeds along the banks of the Indian River (Eriksen 1994).

On July 24, 1715, a flotilla of 11 Spanish ships carrying 14 million pesos in gold, silver, and jewels left Havana for Europe. A few days into the voyage, 10 of the 11 ships wrecked off the East Florida coast between St. Lucie and Mantanzas. Approximately 700 sailors died, and an additional 1,500 were washed up on the coast. The Ais aided the Spaniards by providing them with supplies and instructions for gathering food in the dunes. The Spanish government, desperate to recover the lost treasure, established an encampment of salvers in the vicinity of the present-day Sebastian State Park. Salvers recovered only one-third of the lost cargo (Eriksen 1994).

British Period and Second Spanish Period

In the mid-1700s, European colonial powers fought a worldwide war, the Seven Years War, as a means to consolidate their colonial holdings. After its victory in the Seven Years War in 1763, Britain traded its Havana conquest to Spain for Florida. The British divided the colony along the Apalachicola River into East and West Florida (**Figure 5**). In 1765, the botanist John Bartram and his son William searched for the St. Johns River headwaters (Eriksen 1994; Tebeau 1971). The two became the first Europeans to document the Brevard region (Eriksen 1994). In 1783, the Treaty of Paris restored Florida to Spain, whose control of the territory was now quite tenuous (Tebeau 1971). Zespedes, the Spanish governor, wrote to the king in 1785 that isolated groups of Americans had settled in the area (Eriksen 1994; Tebeau 1971). Immigrants from the Indian tribes north of Florida now numbered 5,000 to 6,000 in the colony. The

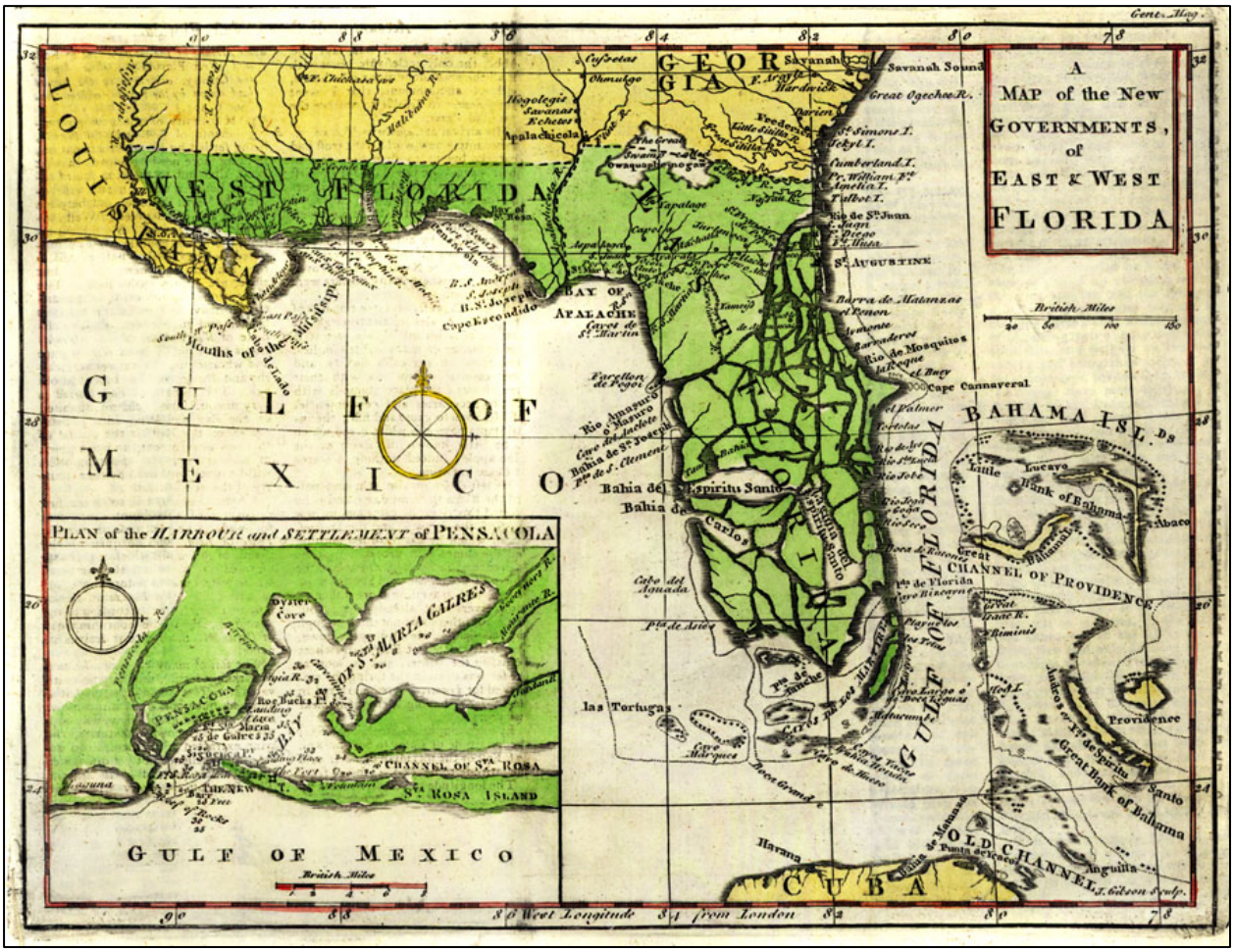

Figure 5. ***A Map of the New Governments of East and West Florida*****, ca. 1763.**
Courtesy of the USF Libraries Digitization Center.

majority of these "Seminoles" were confined west of the St. Johns River. Brevard County at this time was known as the Mosquito Coast (Eriksen 1994).

Territorial Period

Florida became a territorial possession of the United States after President James Monroe ratified the Adams-Onís Treaty on February 22, 1821. General Andrew Jackson was appointed governor of the territory later that same year (Eriksen 1994; Tebeau 1971). Jackson partitioned Florida into two counties, Escambia to the west and St. Johns to the east. In 1824, the area encompassing most of east-central Florida, including Brevard County, was designated as Mosquito County. Colonel James Gadsden led a survey party through the eastern portion of the county in 1825 to find a route for a road from St. Augustine to what is now Dade County (Eriksen 1994; Fernald and Purdum 1992). Close to four million acres of the interior of the state was the reservation of the Seminoles, including the southwestern corner of modern-day Brevard County (Mahon 1985).

Second Seminole War

On Christmas Day 1835, the beginning of the Second Seminole War was seen in East Florida when Indian forces razed Mosquito Lagoon plantations. Along with a severe freeze in 1835, the war decimated Mosquito County's population, as most everyone fled to safe havens outside the county (Shofner 1995:36). The military erected forts throughout the Brevard area. Six hundred mounted militiamen, under General Joseph Hernandez's command, constructed Fort Ann a mile south of modern-day Haulover Canal. Camp Hernandez was erected south of present-day Scottsmoor in northern Brevard. General Hernandez collected his troops at the camps on January 3, 1838, and proceeded to advance south along the eastern coast. Their path followed the high ground along the western side of the Indian River Lagoon before swinging west to meet Fort Taylor on Lake Winder, then angling southeast on a course parallel to what is now I-95. Of all the military trails created in Brevard, this is the only one historians are able to pinpoint accurately (Eriksen 1994:38–39). The war ended in 1842, and on March 14, 1844, Saint Lucie County (present-day Brevard County) was created from Mosquito County (present-day Orange County) (Carter 1962:994–995; Dunn 1998:34).

Statehood and Civil War

On March 3, 1845, Florida became the twenty-seventh state admitted to the Union (Eriksen 1994). Judge Theodore Washington Brevard settled in Tallahassee two years later. He spent 12 years as state comptroller and was honored for his work on January 6, 1855, when St. Lucie County was renamed Brevard County. This new county encompassed more than 7,000 mi^2 and had its seat of government in the small town of Susannah, north of Fort Pierce (Eriksen 1994; Fernald and Purdum 1992; Morris 1995). John Houston established Arlington, the first permanent US settlement in south Brevard County, in 1854. This town was located on land fronting the Indian River and Elbow Creek (Eriksen 1994).

On January 10, 1861, Florida seceded from the Union (Tebeau 1971). Brevard County was far removed from the battlefields to the north but still played an important role in the war. The settlers along the Indian River engaged in salt production for the Confederate Army, and the cattle range in western Brevard supplied beef. Blockade runners frequently utilized the inlets and bays of the Indian River and Mosquito Lagoon during their smuggling ventures.

Late Nineteenth Century

Prior to the 1880s, water transportation, both sea and river, was the dominant mode of long-distance travel for most of Florida's residents. Due to Florida's dearth of population, underdevelopment, and lack of capital, railroads penetrated into the state slowly. By the mid-1800s, Florida claimed only one successful rail line, and it connected Tallahassee to the Gulf of Mexico at St. Marks (Brown 1991:13–14). Most of Florida's roads were slow, bumpy, waterlogged (during summer months), sand-laden trails that even ox teams had a difficult time traversing. As one weary Florida traveler wrote to a friend back home in 1851, "My [horse]

rides were somewhat fatiguing, but they secured me two of the greatest comforts of life, a keen appetite & sound sleep" (Norwood 1951:270). With the arrival of Henry Flagler and Henry Plant in the 1880s, trains began to cross the Florida landscape. Especially for communities located in the interior of Florida, trains provided "rapid transit" for agricultural produce to northern markets. While agriculture and other Florida products flowed north along the rails, tourist, immigrants, and goods traveled south in the new trains. Railroads generally brought growth to the communities and regions they touched (Covington 1957:136, 169; Johnson 1966:129).

Citizens elected Titusville as the permanent seat of government for Brevard County in 1879. The population of the Indian River area was rapidly expanding due to a solid economic base of agriculture and recreational fishing (**Table 1**). In 1880, Melbourne, founded by Richard W. Goode, obtained a post office. Titusville was chosen as a stop on the Jacksonville, Tampa, and Key West Railway in 1885. Columbus Willard established Cocoa in 1882, and by 1887 the town had six stores and was quickly expanding around its deepwater landing. In 1890, a group of wealthy Harvard graduates founded the 18,000-acre Canaveral Club, which is now the Merritt Island National Wildlife Preserve. In 1893, the Flagler East Coast Railway line came to Titusville and Eau Gallie. In 1895, a double blast of freezing temperatures devastated the area's citrus industry. The orange and pineapple groves recovered by 1897. The economy of the area boomed with the rejuvenated citrus industry and the new railway.

Table 1. Brevard County Population.

Date	Population	Date	Population
1860	246	1930	13,283
1870	1,216	1940	16,142
1880	1,478	1950	23,653
1890	3,401	1960	111,435
1900	5,158	1970	230,006
1910	4,717	1980	272,959
1920	8,505	1990	398,978

Not until the end of the nineteenth century did Florida realize any concerted effort in road development. With the proliferation of railroads, farmers, merchants, and others clamored for better roads to get goods and people to and from the railroad depots. Additionally, during the 1910s and 1920s, the number of automobiles in the state and nation increased exponentially, exerting more pressure on the government to develop roads. Prior to 1924, only 748 miles of hard-surfaced road existed in the state. By 1928, this number grew to 1,588 miles with an additional 59 miles in the process of being paved (Jackson 1992; Kendrick 1964; Tebeau 1971). Not surprisingly, as car ownership increased and roads improved, train dominance diminished.

Melbourne's Early Development 1869–1895

With the exception of the few Spanish forays into present-day Brevard County and the scattered forts established by the US military during the Second Seminole War, Brevard County, Eau Gallie, and Melbourne remained bereft of nonnative settlers. With the conclusion of the Seminole Wars, new settlers began to slowly trickle into the region. In 1859, John C. Houston and his wife, children, and slaves became the first settlers in present-day Melbourne when he obtained an 80-acre homestead at the confluence of the Indian and Eau Gallie rivers (Shofner

1995:65; Stone 1988:27–28; US Department of the Interior 1997). In 1869, William Gleason purchased 16,000 acres along the Indian River and eventually created the community of Eau Gallie (Morris 1995:75; Shofner 1995:89). Gleason worked as a special agent to the Freedmen's Bureau to determine if a freedmen's colony could be established in Florida (Bentley 1950:4; Shofner 1974:135). Gleason concluded that Florida was not conducive to a freedmen's colony, but he decided to move to Florida. In 1868, voters elected Gleason lieutenant governor of Florida. Gleason resigned two years later and focused on his landholdings in south Florida. Houston opened Eau Gallie's post office on May 15, 1871 (Bradbury and Hallock 1993:24; Shofner 1995:89). In 1874, the board of directors of a proposed state agricultural college agreed to build the college in Eau Gallie, and the state legislature also proclaimed the nascent community the seat of Brevard County (Shofner 1995:76, 89–90). By 1876, a 10-room coquina-rock building, a two-room dormitory, several outbuildings, and a 6-mi road connecting the building to the Indian River and Lake Washington had been built (Shofner 1974:152–153, 1995:90). Despite this initial start, the college did not open in Eau Gallie; instead, the board opened the college in Lake City in 1884. In 1884, Gleason recorded the Eau Gallie Village Plat, and a year later, nearly 100 people resided in the community, many of whom had migrated from the northern states and Canada (Historic Properties Associates 1991:9; Webb 1885:33).

While Gleason was busy developing Eau Gallie, three African American men—Peter Wright, Wright Brothers, and Balaam Allen—settled in present-day Melbourne by 1877 (Shofner 1995:90; US Department of the Interior 1997). Wright Brothers, along with his wife, Mary Silas Brothers, moved from West Virginia and settled on 7.5 acres of land along the south side of Crane Creek (Cleveland 1980:21). Wright Brothers served as Brevard County's only African American public official between 1867 and 1924, when he served as the county's voter registrar in 1867 and 1868 (Brown 1998:151). Brothers' Frame Vernacular house, constructed around 1892, still stands at 230½ Lipscomb Street (McCarthy 1995:176–177). In 1877, Richard W. Goode arrived from Chicago, and Cornthwaite Hector soon settled in the area (Goode 1980:1). Goode built a log cabin at the present-day location of Roxy Lane and Melbourne Avenue for his wife, Jessie, and their three children (Goode 1980:1). Hector purchased from Peter Wright the point at the end of present-day Front Street on the harbor and built a rooming house. The building also housed a general store and a post office that opened on June 17, 1880 (Bradbury and Hallock 1993:53; Smith 1884:328). Wright Brothers served as the community's first mailman, delivering mail twice weekly from Titusville on his sailboat *Nely*. The community was named after Melbourne, Australia, the homeland of Cornthwaite Hector (Morris 1995:161).

Jacob Lorillard of New York City established steamer service along the Indian and Halifax Rivers during the early 1880s. The *Indian River* and the *Haulover*, both 70 ft long and 12 ft wide, serviced the area, with the *Indian River* delivering freight and passengers to Eau Gallie and Melbourne (Shofner 1995:102–103). A trip to Jacksonville cost a traveler $14 and took approximately 11 hours (Historic Properties Associates 1991:11; Webb 1885:35). The Atlantic Coast, St. Johns, and Indian River Railroad was chartered in 1883 and caused a real-estate rush in Titusville and Melbourne. With steamer service and the prospects of a railroad, Eau Gallie and Melbourne experienced a boom during the 1880s (Shofner 1995:102, 106). By 1886, William Camp filed the first plat of Melbourne, and the community's population reached 70,

with oranges, vegetables, and pineapples being the primary agricultural export (Historic Properties Associates 1991:9; Richards 1886:296). Melbourne's community supported two hotels, one school, one general store, and an Episcopal church. Land sold for $50 to $300 an acre. As the community prospered, new plats were filed. John and Margaret Goode platted Harland's subdivision west of Camp's Melbourne plat, and the Riverview Heights subdivision was platted to the north (Historic Properties Associates 1991:9). A year later, the steamer *Rockledge* made Melbourne its home port, and another store was built in the town (Hawks 1887:96; Shofner 1995:134–135). The prosperity continued when Guy Metcalf began publishing the *Melbourne News*, Frank Fee opened a hardware store, and the town was incorporated. Mr. Campbell was elected the first mayor, receiving 27 of the 28 votes cast (Goode 1980:1). The Indian River Steamboat Company moved its dry-dock operation from Titusville to Eau Gallie in the late 1880s (Shofner 1995:132). By 1890, 99 people resided in Melbourne and 88 lived in Eau Gallie (State of Florida 1945:83, 85).

Eau Gallie's citizens were well aware of the potential prosperity of the train and offered land and town lots to Henry Flagler as an inducement to build train tracks to the town (Shofner 1995:113). Flagler responded, and the arrival of the Jacksonville, St. Augustine, and Indian River Railway in Eau Gallie on June 26, 1893, fueled the continuing prosperity (McCarthy 1995:176; Pettengill 1998:105). The same year the train arrived, the Melbourne State Bank was created, with J. H. Phillips serving as president and E. P. Branch as cashier; Eau Gallie was incorporated; and the State Bank of Eau Gallie opened (Historic Properties Associates 1991:9; Shofner 1995:132, 135–136). One year later, two hotels catered to Eau Gallie tourists, and Dr. William Fee and Dr. H. D. Brown tended to Melbourne's medical needs. John Beach operated the Indian River Nurseries, a successful operation that imported stock from the Bahamas. Pineapples, citrus, and cattle were important engines for the local economy (Shofner 1995:187–191, 193). Melbourne's population tripled between 1890 and 1895, reflecting the town's prosperity (State of Florida 1945:83).

The train, while bringing prosperity, also caused shifts in the economy. Melbourne had long served as a transfer point for steamers between the upper and lower portions of the Indian River (Shofner 1995:135–136). Businesses were developed to service the freight transfer and cater to the people who stopped over. These businesses suffered as trains replaced the steamers that plied the Indian River. Coupled with the shift in the economy, the depression of 1893 made its way to Melbourne. C. J. Hector declared bankruptcy in 1894, closing his business and selling his inventory.

Oranges had been grown in Florida since the Spanish occupation, but they were primarily grown in limited quantities in northern Florida. After the United States gained control, orange production began in earnest, and the latter half of the nineteenth century proved to be a boom time for orange growers. Between 1884 and 1886, Florida nearly doubled the number of boxes of citrus produced, from 600,000 to 1,260,000. This number grew to 2,150,000 boxes in 1890, of which 60,000 were grown in the Indian River region, and four years later 5,055,367 boxes were picked, worth an estimated $4.5 million (Dovell 1952:629–630; Historic Properties Associates 1991:10). During the winter of 1894–1895, the citrus industry suffered one of its

most devastating setbacks ever. On December 27, 1894, Tallahassee's temperature plunged to two degrees below zero, Tampa's temperature plummeted to 14 degrees, Titusville dropped to 18 degrees, and communities around Florida recorded similar lows. Oranges were frozen on the tree in many north and central Florida citrus groves. Much of Florida's fruit was destroyed, but the trees survived. Lulled into a sense of security by rising temperatures, farmers replanted crops and prayed for new buds on their orange trees. On February 7–9, temperatures again dropped below freezing, destroying not just the new growth but also the trees themselves. These freezes wiped out much of north Florida's citrus industry and set back central Florida's for several years. In 1896, a year after the freeze, Florida growers only produced 150,000 boxes of oranges (Chapin 1914:206–210; Dovell 1952:630–631). Coupled with the depression, the freeze impacted local farmers and Melbourne businesses (Shofner 1995:135–136). Melbourne's population reflected the impacts of the depression and the freeze, dropping by 56 percent between 1895 and 1900 (State of Florida 1945:83).

Consolidation and Pre-Boom Development (1896–1920)

After the freeze, the local economy began to diversify, with investments in fishing, cattle, citrus, naval stores, and sawmills (Shofner 1995:187–191, 193; Stone 1988:37–38). Eau Gallie's population increased from 172 in 1900 to 310 five years later, and Melbourne's population nearly doubled during the same period (State of Florida 1945:83, 85). In 1897, hotels, boat services, dry-goods stores, groceries, lumber mills, men's furnishings stores, and wholesale and retail fish and oyster sellers operated in Eau Gallie (Shofner 1995:133). By 1912, the Kentucky Military Institute, the *Eau Gallie Record*, two hotels, several boardinghouses, five general stores, a jewelry repair shop, a meat market, a drugstore, an ice factory, three marine railway and machine shops, turpentine businesses, a sawmill, and several fish houses conducted business in Eau Gallie (Shofner 1995:250). Melbourne's commercial district supported a barber shop, hardware stores, grocery stores, fish houses, and other establishments (Goode 1980:1–2; R. L. Polk and Company 1906:284). Other businesses not located in the business districts included the Union Cypress Lumber Company at Hopkins, located in present-day South Melbourne west of the railroad tracks between Main and Grant Streets, and the East Coast Lumber and Supply Company, established by George F. Paddison at the northeast corner of Pineapple Avenue and Ninth Street in Eau Gallie (Goode 1980:2; Historic Properties Associates 1991:12). A fire swept through Melbourne's commercial district in 1919, and many of the businesses relocated near the railroad along Melbourne and New Haven Avenues. The next year, the Union Cypress sawmill burned to the ground, and like Melbourne's commercial district, the sawmill was rebuilt four years later (Cleveland 1980:34–36).

The Florida Land Boom (1921–1926)

Despite the fire setbacks, Melbourne and Eau Gallie prospered during the Roaring Twenties, also known as the Florida Land Boom period. Northern tourists began invading Florida during the late 1910s and early 1920s. Land speculators followed the tourist trails, selling "get-rich-quick" schemes to any person willing to listen. Businessmen promoted the state to prospective

tourists and settlers through advertisements, pamphlets, and books touting Florida's climate, agricultural bounty, and economic fortunes (Sakolski 1932:337). Land values around the state skyrocketed; lots that cost a few dollars before the boom sold for thousands of dollars during the height of the boom (Gannon 1993:77). Like Florida's property values, the state's population increased by 63 percent, from 968,470 to 1,468,211 between 1920 and 1930 (Gannon 1993:85; State of Florida 1945:9). While towns such as Miami and Palm Beach are most closely associated with the boom, most of Florida participated in the real-estate speculation.

The development of roads and the proliferation of automobiles fueled the boom. The Dixie Highway was built between 1915 and 1927 and stretched 5,706 miles from Ontario, Canada, to Miami, Florida (Sharp 1996). Carl Graham Fisher, an Indiana native, entrepreneur, and developer of Miami Beach, is credited with bringing the idea of the highway to fruition (Marder 1998:7). By 1920, plans to develop a cross-state road that would connect Tampa to the Atlantic Ocean came to fruition when construction on the Brevard portion between Melbourne and Kissimmee was begun (Shofner 1995:228). Property values around the Dixie Highway and other tourist roads were high because of the tourist trade (Sakolski 1932:339–340). Road developments throughout the state fueled the boom, ushering in a new class of tourists (Sakolski 1932:335). While wealthy tourists continued to utilize the trains to travel to Florida, now working- and middle-class Americans traveled in their newly purchased automobiles along the Dixie Highway to Melbourne and other destinations. The roads also helped the region's farmers get their products to market.

Melbourne's population reflected the influence of the 1920s boom with a 400 percent increase between 1920 and 1930 (State of Florida 1945:84). Eau Gallie's population rose from 507 to 871 during the same time period (State of Florida 1945:86). Both communities benefited from record levels of citrus production and tourist visits during the first half of the 1920s (Historic Properties Associates 1991:16). As "tin-can" tourists traveled Florida's newly built roads during the 1920s, Melbourne as well as Titusville, Eau Gallie, and Cocoa established "auto camps" to house these travelers (Shofner 1996:14–15). Melbourne experienced a rush in residential, public, and commercial architectural development. New subdivisions were platted north and west of the town, with Mediterranean-style buildings dominating much of the built fabric (Historic Properties Associates 1991:17). In response to the growing population and demands for expansion, the Town of Melbourne reincorporated as a city in 1923, and Eau Gallie reincorporated two years later. Eau Gallie did not participate in the boom as extensively as its neighbor did. Experiencing a smaller population boom, the city did not have nearly the amount of new subdivision development and residential construction.

The Great Depression (1927–1942)

The boom did not last. By October 1925 the boom had peaked, and by February 1926 newspapers stated that a "lull" had occurred (Gannon 1993:82). By July 1926, the press reported the boom had busted. Plummeting land values, two hurricanes, the Mediterranean fruit fly, and the collapse of the stock market marked the end of the Roaring Twenties. The Florida East Coast Railway stopped shipment of all freight except fuel, petroleum, livestock, and

perishable goods because over 1,000 carloads of material were waiting to be unloaded in Jacksonville and Miami, with another 700 cars on their way (Tebeau 1971:385–386). Consequently, building supplies could not be brought to South Florida, bringing much of the real-estate speculation to its knees. Furthermore, non-Florida newspapers began questioning the profitability and ethics of the speculation. As doubts arose, land sales declined and the money disappeared. Between 1926 and 1930, the state's real-estate value plummeted from $623 million to $441 million (Tebeau 1971:393–394). On September 17–18, 1926, a hurricane struck Miami and wreaked havoc over much of South Florida (Reardon 1926). Winds were estimated at 150 mph, and casualties included 392 dead and 6,281 injured (Tebeau 1971:387). Two years later, almost to the day, a hurricane with 125-mph winds swept across the region on September 16, 1928, leaving $30 million in damages in its wake (*Palm Beach Independent*, 21 September 1928:1). Nearly 2,000 people perished from the storm, many in the Everglades and Lake Okeechobee regions. Many of the dead were brought to West Palm for mass burials (*Palm Beach Independent*, 5 October 1928). On April 6, 1929, the Mediterranean fruit fly was discovered in an Orlando citrus grove (Tebeau 1971:395). In order to stop its spread, the state burned all trees suspected of infestation. By 1930, nearly 1,000 groves were infested, accounting for 80 percent of Florida's citrus crop (Gannon 1993:84–85). Citrus production fell from 28 million boxes to 17 million by 1930. Finally, on Thursday, October 24, 1929, the stock market crashed, and by the end of the day the New York Stock Exchange had lost $4 billion (Klingman 1989:261–270, 278). By October 28, $14 billion had been lost on all the exchanges, including Chicago, Boston, Baltimore, Cleveland, and Philadelphia.

In response to the loss of revenue, collapse of investments, and foreclosures on property loans, banks began closing around the state. Eau Gallie and Melbourne's banks declared bankruptcy in 1928 and 1929, respectively (Shofner 1996:30). Despite the end of the boom and the economic downward spiral of the Great Depression, Melbourne's population increased by 76 people between 1930 and 1935, but declined by 131 people between 1935 and 1940 (State of Florida 1945:84). Farmers owned 24,347 acres in Brevard County with 11,084 acres under cultivation, growing mostly citrus and truck crops (Florida State Chamber of Commerce and Florida Emergency Relief Administration 1935:19). Consequently, agriculture still served as an important economic engine during this era. A citrus packing plant, two bakeries, souvenir shops, a power company, a tent and awning company, a cigar factory, a mattress factory, a bottling company, and a sheet-metal manufacturer employed locals (Florida State Chamber of Commerce and Florida Emergency Relief Administration 1935:22). The Federal Writers' Project (1939:308) described Melbourne and activities for visitors, detailing that the town:

> contains buildings more rococo in style than other Indian River communities. The town is a point of departure for hunting parties going inland to the headwaters of the St. Johns River, where small game and an occasional deer and bear are found (*guides available; inquire at sporting goods stores*). Both fresh- and salt-water fishing attract anglers throughout the year. Melbourne has a golf course (*greens fees* $1.50), and the annual International Motorboat Races are held during the winter.

Eau Gallie experienced a small population boom when its population increased from 871 in 1930 to 1,055 in 1935, but like Melbourne, the town's population decreased to 874 by 1940 (State of Florida 1945:86). By 1935, Eau Gallie's major employers included a jelly manufacturer, a boat manufacturer, and a citrus packing plant (Florida State Chamber of Commerce and Florida Emergency Relief Administration 1935:22). The Federal Writers' Project (1939:308) noted the decline of Eau Gallie: "Lying on the shores of Indian river and Elbow Creek, Eau Gallie was once a busy port." In July 1938, Eau Gallie filed for bankruptcy, but World War II and the ensuing Cold War saved both Eau Gallie and Melbourne (Eriksen 1994:189).

As they did for the rest of the country, alphabet agencies such as the CCC, WPA, FWP, and others created by the Franklin Roosevelt administration helped residents face the dark days of the 1930s. In 1928, Melbourne built the county's first airport 6 mi west of the city, off the Kissimmee Highway (Eriksen 1994:176; Stone 1988:44). Local citizens decided the airport was too far away from the city, and in 1933, with aid from 126 men employed by the Civil Works Administration (CWA), work began on the Melbourne–Eau Gallie Airport (Cleveland 1980:31; Eriksen 1994:174; Stone 1988:44). Part of the expansion in population that occurred for both communities during the first half of the 1930s can be attributed to the airport and other public facilities construction. This airport evolved into the present-day Melbourne Airport.

Wars and Space (1942–2001)

As Europe became embroiled in World War II, the United States began establishing military bases throughout the South and West in preparation for entry into the war. The US Navy acquired 1,750 acres of Merritt Island, several miles northeast of Melbourne, for a Naval Air Station (Shofner 1996:72, 85–86). By 1940, the government had spent $20,000 to acquire the property and an additional $10 million in improvements to the Banana River Naval Air Station. By 1942, the Navy employed hundreds of civilians and 1,500 military personnel at the base. The Melbourne Naval Air Station wasopened in October 1942 at the Melbourne–Eau Gallie Airport (Stone 1988:44, 51). The military spent $5 million to improve the facility, and trained pilots to fly Hellcats that were launched from aircraft carriers during the war (Eriksen 1994:196, 199). Wooden barracks were erected for the pilots southwest of the airport. The building at 625 Harvey Ogden Drive and the building at 1205 Eddie Allen Road are some of the last remaining vestiges of the base (Historic Properties Associates 1991:19). The pilots took off from the station and practiced landing on a replicated aircraft carrier deck created by the Seabees in Valkaria and on a runway west of Malabar. Searching for German submarines became an important task for the air station personnel (Shofner 1996:83–84). The Navy spotted a U-boat off the coast of Florida in January 1942. Less than a month later, the Germans sank their first ship, an American tanker, off Cape Canaveral. Brevard County residents witnessed German submarines sinking Allied ships off the Atlantic coast during the remainder of the war. With the influx of jobs and military personnel, Melbourne's population reached 4,010 in 1945, consisting of 2,912 whites and 1,098 African Americans (State of Florida 1945:16). Eau Gallie's population rose to 1,084 in 1945, consisting of 863 whites and 221 African Americans (State of Florida 1945:16).

Melbourne has participated in the county's prosperity with the birth of the space industry and the tremendous development of the state since the end of the war. War World II ended, and the military deactivated the Banana River Naval Air Station in 1947 and returned the Melbourne Naval Air Station back to civilian use, but within a few years Brevard County and Melbourne's residents would be on the front lines of the Cold War (Eriksen 1994:203, 205). With the development and increasing importance of Cape Canaveral, residents from as far away as Orlando began to work in the nation's missile and space program (Shofner 1996:76, 100–117). Along with the growth of Cape Canaveral, the Air Force acquired the Banana River Naval Air Station, renaming it Patrick Air Force Base, and in the process spurring the growth of Melbourne and surrounding regions. As Cape Canaveral and Patrick Air Force Base grew in the 1950s, Melbourne's population nearly tripled between 1950 and 1960, and more than tripled between 1960 and 1970 (Andriot 1993:102; Shofner 1996:157–158). As part of this growth, Brevard Engineering College was founded in 1958 to serve area education needs, especially those of the space industry. Eventually renamed the Florida Institute of Technology, its Melbourne Campus opened in 1961 at the intersection of University Boulevard and Babcock Street (Patterson 2000). Eau Gallie experienced a more dramatic population explosion, growing from 1,554 residents in 1950 to 12,300 residents in 1960 (Shofner 1996:152). Much of Eau Gallie's growth occurred along Sarno Road to the west and US 1 to the north, while Melbourne expanded toward Turkey Creek to the south and westward along US 192. The two communities grew so quickly in population and size that they merged in 1969 (Stone 1988:78). As a result of the Cold War, Melbourne grew to more than 56,646 by 1990 (Andriot 1993:102).

BACKGROUND RESEARCH

FLORIDA MASTER SITE FILE REVIEW

Data from the FMSF in GIS format from the first quarter of 2012 were reviewed in order to identify previous cultural resources in the vicinity of the current project area. The FMSF review indicated that 12 previous cultural resource surveys (not including cell tower surveys) have been conducted within 1 mi of the project APE. These surveys are summarized in **Table 2**.

Most pertinent to the present study is Survey No. 6794, conducted by Janus Research in 2001. This survey included the excavation of 353 shovel tests within the I-95 right-of-way and proposed pond sites along I-95 from SR 415 to SR 50. This survey did not identify any archaeological or architectural resources within the current I-95/Ellis Road Project APE.

Two cultural resources have been recorded within 1 mi of the project APE (**Figure 6**). Archaeological site 8BR46 represents a relict shell ridge. The surveyor who recorded the site indicated that in addition to cultural remains, the site also had a paleontological component. Very little information is provided on the site form for this resource, and the State Historic Preservation Officer (SHPO) has not evaluated the site.

Table 2. Previous Cultural Resource Surveys within 1 mi of the I-95/Ellis Road Project APE.

Survey No.	Title	Date	Author
399	A Survey to Ascertain if Proposed Development of 145 Acres Adjacent to the Melbourne Regional Airport Might Damage or Destroy an Archaeological Site	1976	Bob Gross
1152	Reconnaissance Survey in the Upper St. Johns River Flood Control Project, Osceola, Brevard and Indian River Counties, Florida	1984	L. Janice Campbell
1842	Proposed Multilaning of Existing Two-lane US 192 from CR 532, near St Cloud, to I 95, in Osceola and Brevard Counties, Florida	1989	William B. Browning
2391	Archaeological Assessment of Six Selected Areas in Brevard County: A First Generation Model	1990	Judith A. Bense
2978	Historic Architectural Survey: Melbourne, Florida	1991	Stephen A. Olausen
4796	A Cultural Resource Assessment Survey of Proposed Pond Locations along SR 500 (US 192), Osceola and Brevard Counties, Florida	1997	Keith H. Ashley
6415	Cultural Resource Assessment Survey for NASA Boulevard Realignment with Ellis Road, Brevard County, Florida	2000	Janus Research
6794	Cultural Resource Assessment Survey for the Interstate 95 PD&E Study from State Road 514 to State Road 50, Brevard County, Florida	2001	Janus Research
8791	Cultural Resource Assessment Survey of the Palm Bay Parkway PD&E Study from Malabar Road to Ellis Road, Brevard County	2003	Janus Research
10891	Reconnaissance Survey of Seven Ponds along Interstate 95 from SR 50 to SR 514	2004	Janus Research
15512	A Phase 1 Cultural Resource Survey of the CarMax Property, Brevard County, Florida	2008	SEARCH
16582	A Phase 1 Cultural Resource Survey of the Melbourne Lateral Replacement Project, Brevard County, Florida	2009	SEARCH

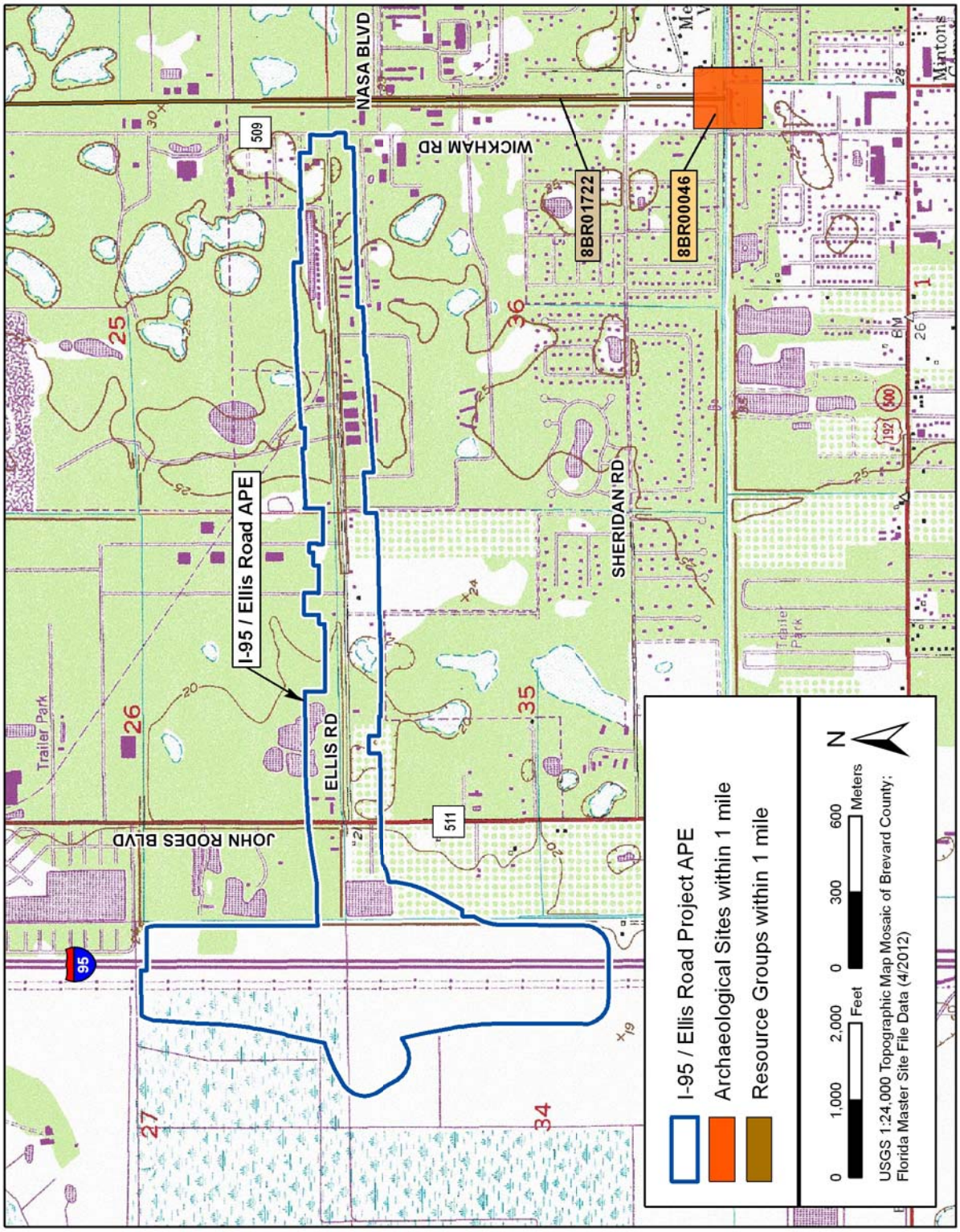

Figure 6. Previously recorded cultural resources located within 1 mi of the I-95/Ellis Road Project APE.

The other resource in the vicinity of the current project is the Melbourne Airport Drainage Canal (8BR1722). This linear resource represents an early- to mid-twentieth-century agricultural drainage canal. Resource 8BR1722 was determined not eligible for NRHP listing in 2009. Neither resource is located within the project APE.

HISTORIC MAP AND AERIAL PHOTOGRAPH REVIEW

Historic maps and aerial photographs were examined in order to identify past land use in the vicinity of the current project APE, which lies within Sections 25, 26, 27, 34, 35, and 36 of Township 27 South, Range 36 East. The earliest available maps of detail are the General Land Office (GLO) survey maps created by state land surveyors in the first half of the nineteenth century. These maps characteristically show landscape features such as vegetation, bodies of water, roads, and Spanish land grants. The level of detail in GLO maps varies, with some depicting structures, Indian villages, railroads, and agricultural fields.

A GLO survey map of this area of Brevard County was created in 1845. The entire western half of the current project APE is described as "Prairie." Just east of the prairie, a north–south trail is illustrated and identified as the "Hernandez Trail" (GLO 1845) (**Figure 7**). This trail was laid out during the Second Seminole War by General Joseph Hernandez and his troops as they traveled south from the headwaters of the Indian River into the St. Lucie and Lake Okeechobee

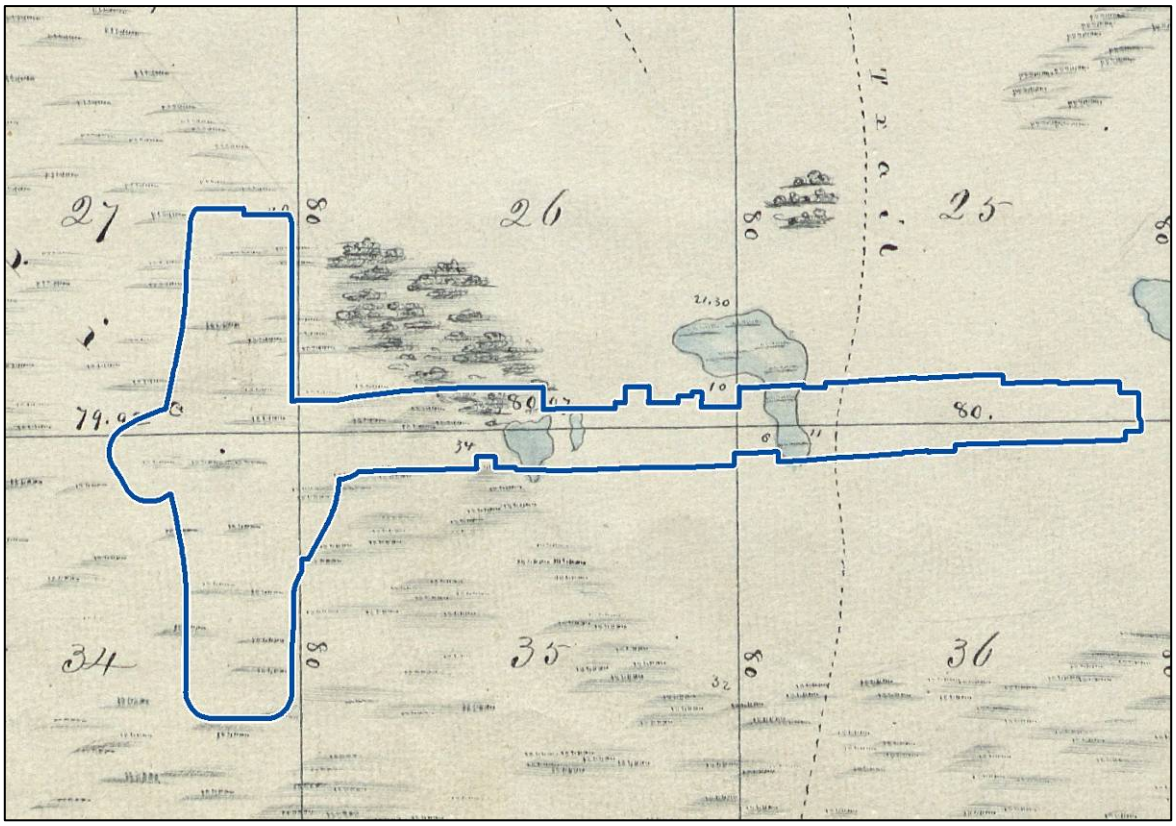

Figure 7. 1845 GLO survey map; the I-95/Ellis Road Project APE is shown in blue and is intersected by the Hernandez Trail in Sections 25 and 36.

areas (Shofner 1995). After the war, the trail was reportedly used in subsequent decades by cattlemen to move their herds (Shofner 1995).

By the time the USDA began taking aerial photographs of this area of Brevard County, no sign of the aforementioned Hernandez Trail remained. In fact, 1951 aerial photographs show very little development within the vicinity of the current project APE. Present-day Ellis Road is visible as an east–west corridor, and one small farmstead is visible along the southern side of the road. A large citrus grove is also visible along the southern side of the road, within the far western end of the current APE. A canal is also visible along the eastern edge of the citrus grove, running north–south and intersecting Ellis Road at its intersection with present-day John Rodes Boulevard (USDA 1951). Later aerial photographs taken in 1958 show no significant changes to the project area aside from evidence of mining operations to the immediate north of the current project APE (USDA 1958). By 1969 I-95 had been constructed within the western edge of the current APE, and several roads had been laid out within the eastern end of the APE (USDA 1969).

RESEARCH DESIGN

PROJECT GOALS

A research design is a plan to coordinate the cultural resource investigation from inception to the completion of the project. This plan should minimally account for three things: (1) it should make explicit the goals and intentions of the research, (2) it should define the sequence of events to be undertaken in pursuit of the research goals, and (3) it should provide a basis for evaluating the findings and conclusions drawn from the investigation.

The goal of this cultural resource assessment survey was to locate and document evidence of historic or prehistoric occupation or use within the APE (archaeological or historic sites, historic structures, or archaeological occurrences [isolated artifact finds]), and to evaluate these for their potential eligibility for listing in the NRHP. The research strategy was composed of background investigation, a historical document search, and field survey. The background investigation involved a perusal of relevant archaeological literature, producing a summary of previous archaeological work undertaken near the project area. The FMSF was checked for previously recorded sites within the project corridor, which provided an indication of prehistoric settlement and land-use patterns for the region. Current soil surveys, vegetation maps, and relevant literature were consulted to provide a description of the physiographic and geological region of which the project area is a part. These data were used in combination to develop expectations regarding the types of archaeological sites that may be present and their likely locations (site probability areas).

The historical document search involved a review of both primary and secondary historic sources as well as a review of the FMSF for any previously recorded historic structures. The

original township plat maps, early aerial photographs, and other relevant sources were checked for information pertaining to the existence of historic structures, sites of historic events, and historically occupied or noted aboriginal settlements within the project limits.

CULTURAL RESOURCE POTENTIAL

Based on an examination of environmental variables (soil drainage, relative elevation, nearness to water or wetland resources), as well as the results of previously conducted surveys, the potential for prehistoric archaeological sites to be present within the project APE was considered low. The historic map/aerial review indicated a moderate potential to identify archaeological remains associated with the citrus industry and other historic activities in the area.

SURVEY METHODS

ARCHAEOLOGICAL FIELD METHODS

The Phase I field survey consisted of systematic subsurface shovel testing according to the potential for containing buried archaeological sites. Shovel tests were excavated along parallel unaligned transects, one on either side of the existing roadway. The effective distance between shovel tests staggered in such a way was 100 m. The proposed right-of-way to either side of I-95 was tested at 100-m intervals; the existing I-95 right-of-way had been previously tested (Janus Research 2001; FMSF Survey No. 6794) and thus was not retested during the present survey. The entire project corridor was investigated except for areas with buried utilities or untraceable fiber-optic lines.

Shovel tests measured approximately 50 cm in diameter and were excavated to a minimum depth of 100 cm below surface (cmbs), subsurface conditions permitting. All excavated sediments were screened through 1/4-inch-mesh hardware cloth. The location of each shovel test was marked on aerial photographs and recorded on WAAS-enabled handheld GPS units. All artifacts were placed in zip-top plastic bags with the provenience information written on their exteriors. The cultural content, soil strata, and environmental setting of each shovel test were recorded in field notebooks.

ARCHITECTURAL FIELD METHODS

The architectural survey for the project utilized standard procedures for the location, investigation, and recording of historic properties. In addition to a search of the FMSF for previously recorded historic properties within the project area, property appraiser information

and USGS quadrangle maps were reviewed for structures that were constructed prior to 1967. The field survey inventoried existing buildings, structures, and other aspects of the built environment within the project APE. Each historic resource was plotted with a GPS unit and on USGS quadrangle maps and project aerials. All identified historic resources were photographed with a digital camera, and all pertinent information regarding the architectural style, distinguishing characteristics, and condition was recorded on FMSF structure forms. Upon completion of fieldwork, forms and photographs were returned to the SEARCH offices for analysis. Date of construction, design, architectural features, condition, and integrity of the structure, as well as how the resources relate to the surrounding landscape, were carefully considered. The resources were categorized according to their significance for listing in the NRHP and then recommended eligible, potentially eligible, or not eligible.

LABORATORY METHODS

Artifacts were brought to SEARCH's laboratory facility in Newberry, Florida, where they were washed, sorted, analyzed, and classified according to a coding system loosely based on South's (1977) method of artifact classification. This information was recorded in a Microsoft Access database under the supervision of the Lab Director. All of the artifacts were given code numbers that allow for systematic, comparable data entry. Prehistoric lithic artifacts were analyzed by source material, method of manufacture, and artifact function. Prehistoric ceramics were analyzed by temper, surface decoration, and vessel morphology. Historic artifacts were analyzed by use, material type, and function. Materials were then rebagged and organized by provenience and artifact class. Field specimen (FS) catalog numbers were assigned in the lab, and the FS log is provided in **Appendix A**.

CURATION

The original maps and field notes are presently housed at the Newberry office of SEARCH. Artifacts recovered during the survey along with the original maps and field notes will be turned over to FDOT District 5 upon project completion; copies will be retained by SEARCH.

PROCEDURES TO DEAL WITH UNEXPECTED DISCOVERIES

Every reasonable effort has been made during this investigation to identify and evaluate possible locations of prehistoric and historic archaeological sites; however, the possibility exists that evidence of cultural resources may yet be encountered within the project limits. Should any evidence of unrecorded cultural resources be discovered during construction activities, all work in that portion of the project area must stop. Evidence of cultural resources includes aboriginal or historic pottery, prehistoric stone tools, bone or shell tools, historic trash pits, and historic

building foundations. Should questionable materials be uncovered during the excavation of the project area, representatives of FDOT District 5 will assist in the identification and preliminary assessment of the materials. If such evidence is found, the FDHR will be notified within two working days.

In the unlikely event that human skeletal remains or associated burial artifacts are uncovered within the project area, all work in that area must stop. The FDOT District 5 Environmental Administrator must be contacted. The discovery must be reported to local law enforcement, who will in turn contact the medical examiner. The medical examiner will determine whether or not the State Archaeologist should be contacted per the requirements of Chapter 872.05, Florida Statutes.

Appendix B provides more detailed information on actions to take should any unanticipated discoveries found subsequent to this report.

RESULTS

ARCHAEOLOGICAL RESOURCES

A total of 31 shovel tests (STs) were excavated within the proposed and existing right-of-way (**Figure 8**). Numerous utilities are located along both sides of Ellis Road, leaving few undeveloped areas for testing, and shovel tests within the existing right-of-way were noted as heavily disturbed. Three shovel test locations (STs 11, 15, and 20) were considered too disturbed by underground utilities to allow excavation. Outside the existing right-of-way, the shovel tests appeared to be less disturbed, and in a few cases natural strata were observed. The proposed right-of-way for the future interchange was marshy, with standing water visible at the time of the field survey. In this area it was only possible to excavate three shovel tests, none of which contained archaeological material. **Figure 9** provides photographs of the project area at the time of the survey.

The survey resulted in the identification of one new archaeological site, 8BR2784, located along the north side of Ellis Road, east of John Rodes Boulevard and west of Stan Drive. The site is a dense scatter of modern and historic refuse, located beneath a canopy of Brazilian pepper, along with some scattered live oak and cabbage palm. The site is bounded to the south by a canal and large spoil piles likely related to the construction and maintenance of the canal. To the north and west are retention ponds, and to the east is a paved parking lot. The surface scatter measures approximately 80 m east–west by 40 m north–south.

Two positive shovel tests were excavated approximately 40 m apart, and a surface collection was made. Both shovel tests contained a dense mixture of modern and historic debris, mostly bottle glass. A sample was retained from both shovel tests in order to identify a more specific date range of the assorted glass wares. A very compact conglomerate of burned metal and

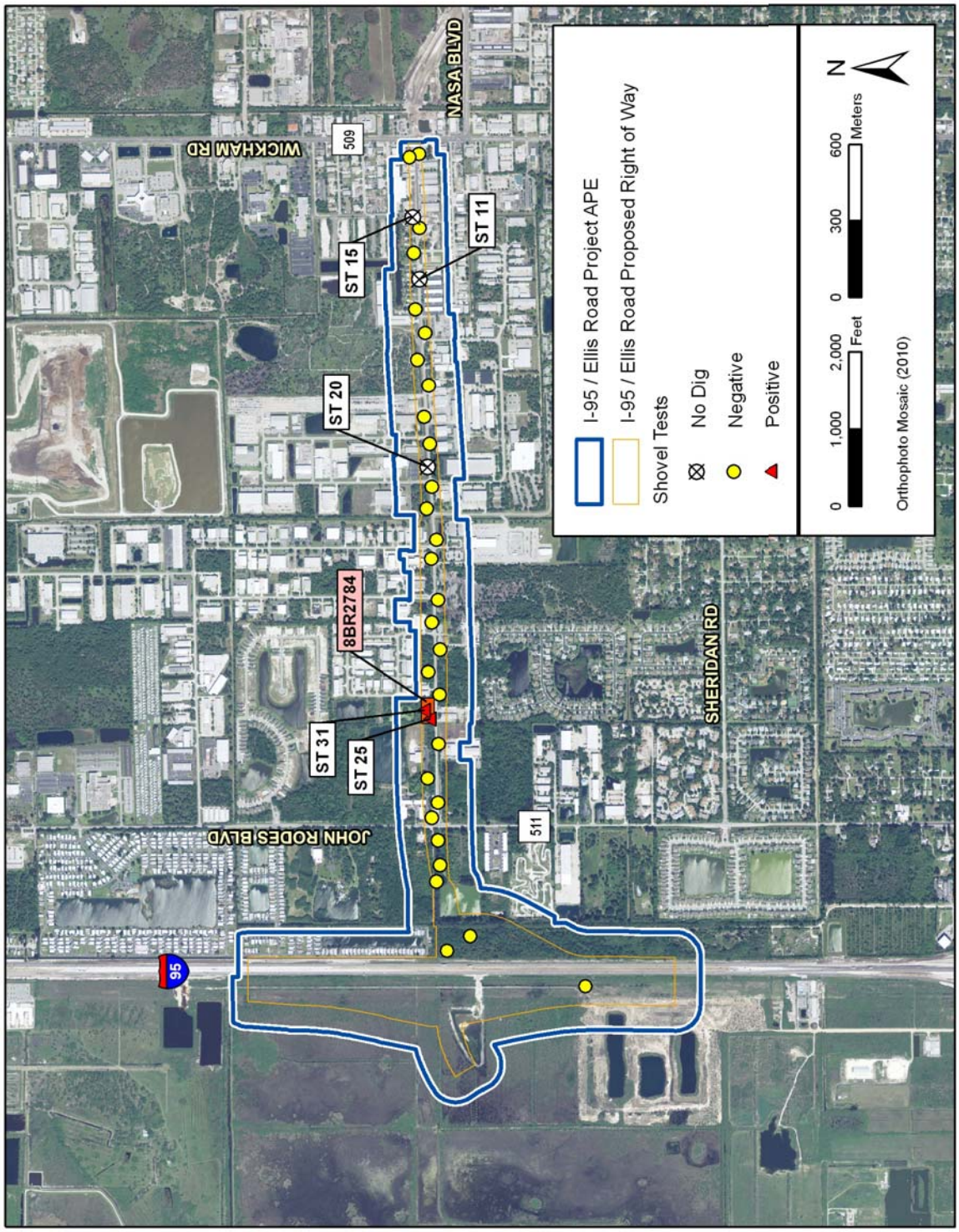

Figure 8. Shovel test locations in the I-95/Ellis Road Project APE.

Figure 9. Representative photos of the project area at the time of the field survey, clockwise from top left: (1) proposed right-of-way west of I-95, looking southeast; (2) northern right-of-way along Ellis Road, between West Drive and Stan Drive, looking west; (3) overgrown spoil pile vicinity of ST 25, looking west; (4) right-of-way along Ellis Road, looking west.

melted glass was encountered in both shovel tests at approximately 60 cmbs. The shovel tests were terminated at this point. No additional shovel tests were excavated, and the site was delineated through surface inspection.

Laboratory analysis of the recovered glassware indicates that the bulk of the identifiable materials have manufacture dates beginning in the early part of the twentieth century to recent times. Some of the machine-made glass wares are still manufactured today. Numerous nonhistoric items were recovered or noted: a rubber ball, assorted plastic, and a metal clip for an automobile part. One AA-size battery was noted in ST 25 at approximately 35 cmbs. The historic and modern materials were intermixed throughout each shovel test to a depth of 60 cmbs, at which point the impenetrable melted material was encountered.

A discussion of the soil types within the site provides some insight into the possible genesis of this site. *Soil Survey of Brevard County, Florida* (USDA 1974) identifies the soils as Chobee

Mucky Loamy Fine Sand, Depressional and Quartzipsamments, Smoothed. Chobee sands are nearly level, poorly drained soils found in or near wetlands. Quartzipsamments are generally recognized as having been "reworked and shaped by earthmoving equipment" (USDA 1974:39). Of further note is the statement that excavated areas and filled areas are generally located together, with the excavated areas becoming fill material for the adjacent areas.

Combining background research with field observations, it appears that the site falls entirely into the heavily disturbed Quartzipsamments soil variety. The excavated shovel tests displayed the same general subsurface characteristics: very dense fragmented artifacts terminating on an impenetrable layer of melted metal/glass conglomerate. Also, aerial photography indicates that the area adjacent to the site appears to have been utilized as a borrow pit sometime between 1951 and 1958. Thereafter, the borrow pit was likely used as a trash dump, and as the region became more developed, the refuse was burned. More soil was added to cover the heavy concentration of conglomerated metal and glass. Heavy machinery used to level the area would account for the crushed and broken glass fragments observed over the conglomerate layer.

Based on these observations, it appears that further work at the site would offer little insight into regional domestic trash scatters of mid-twentieth-century inhabitants of Brevard County. In the opinion of the Principal Investigator, site 8BR2784 is not eligible for listing in the NRHP. No further work is recommended.

ARCHITECTURAL RESOURCES

Three historic resources (8BR2781–8BR2783) were recorded within the APE. They were evaluated as to their potential for listing in the NRHP (**Table 3; Figure 10**). The resources all lack the architectural distinction or significant historical associations necessary to be considered for listing in the NRHP and have been determined ineligible. No potential NRHP districts were located due to the lack of concentration of historic structures. FMSF forms were completed for the three resources (**Appendix C**).

Table 3. Historic Resources Recorded within the Project APE.

FMSF No.	Name	Style	Year Built	NRHP Status
8BR2781	7680 Ellis Road	Mobile home	1965	Not eligible
8BR2782	600 S. John Rodes Boulevard	Agricultural Vernacular	1958	Not eligible
8BR2783	West Melbourne Drainage Canal	Canal	1951	Not eligible

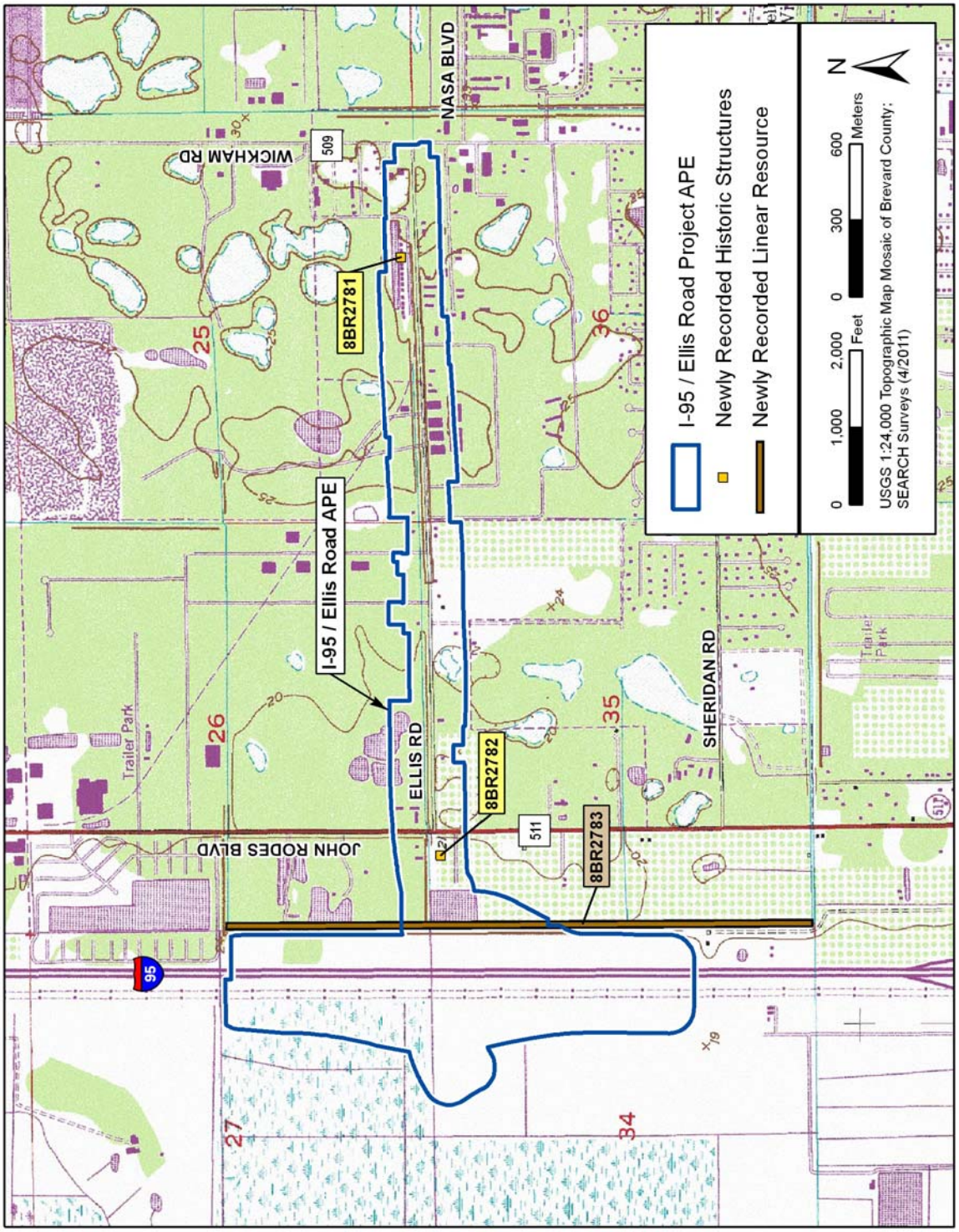

Figure 10. Architectural resources recorded in the I-95/Ellis Road Project APE.

8BR2781, 7680 Ellis Road

Resource 8BR2781 is a one-story mobile home located at 7680 Ellis Road in Section 25 of Township 27 South, Range 23 East, as shown on the *Melbourne West, Fla.* USGS quadrangle map (see **Figure 10**). This ca. 1965 structure features an aluminum-frame structural system set on a concrete block foundation. The low-pitched gable roof with shed extension is sheathed in an unknown metal. A large wooden access ramp extends from the south elevation, and a concrete stoop from the east elevation. Fenestration consists of three-light awning windows and large fixed windows that enclose the attached porch on the east elevation. The exterior wall fabric is aluminum and vinyl siding (**Figure 11**).

Resource 8BR2781 is a simple mobile home of common design. This type of building represents a highly prevalent approach to residential design in Florida, as well as the United States in general. Because of its lack of historical and engineering significance, resource 8BR2781 is not eligible for listing in the NRHP. It is not significant under Criterion A because it is not indicative of a particular era and it is not associated with any significant period. It is not eligible under Criterion B because it lacks association with any person(s) significant in history, and it is not eligible under Criterion C because of its lack of engineering distinction. Finally, the building is not significant under Criterion D because it lacks the potential to yield further information of historical importance. In conclusion, resource 8BR2781 does not meet the minimum criteria for listing in the NRHP, either individually or as a contributing resource within a potential or existing historic district.

Figure 11. Resource 8BR2781, facing southwest.

8BR2782, 600 S. John Rodes Boulevard

Resource 8BR2782 is a one-story Agricultural Vernacular building located at 600 S. John Rodes Boulevard in Section 35 of Township 27 South, Range 23 East, as shown on the *Melbourne West, Fla.* USGS quadrangle map (see **Figure 10**). This ca. 1950s structure features a wood-frame structural system set on a poured-concrete slab foundation. The gable roof is clad with corrugated sheet metal, and the exterior surface is wrapped in 5-V crimp sheet metal. Entrance into the building is via a large horizontally sliding door located along the east elevation (**Figure 12**). Resource 8BR2782 is typical of the Agricultural Vernacular style, which describes buildings erected to support farming and ranching. Agricultural Vernacular buildings are typically associated with Florida's citrus, truck farming, and ranching industries. Resource 8BR2782 was most likely associated with Florida's citrus industry, as its location corresponds with the location of a historic citrus grove (as noted in the Map Review section of this report).

Figure 12. Resource 8BR2782, facing southwest.

Resource 8BR2782 is a simple Agricultural Vernacular structure of common design. This type of building represents a highly prevalent approach to the design of structures associated with agricultural uses in Florida, as well in as the United States in general. Because of its lack of historical and engineering significance, resource 8BR2782 is not eligible for listing in the NRHP. It is not significant under Criterion A because it is not indicative of a particular era and it is not

associated with any significant period. It is not eligible under Criterion B because it lacks association with any person(s) significant in history, and it is not eligible under Criterion C because of its lack of engineering distinction. Finally, the building is not significant under Criterion D because it lacks the potential to yield further information of historical importance. In conclusion, resource 8BR2782 does not meet the minimum criteria for listing in the NRHP, either individually or as a contributing resource within a potential or existing historic district.

8BR2783, West Melbourne Drainage Canal

The West Melbourne Drainage Canal (**Figure 13**) crosses through the project area in Sections 26 and 35 of Township 27 South, Range 23 East, as shown on the *Melbourne West, Fla.* USGS quadrangle map (see **Figure 10**). Historic aerial photography shows the canal as having been constructed within the current project area by 1951. The canal runs north–south within the western edge of the current project APE, roughly parallel to John Rodes Boulevard (which lies to the east of the canal). The total length of the canal is approximately 1.4 mi.

Figure 13. Resource 8BR2783, facing north.

Drainage and irrigation canals are common features in Florida. Since the mid-1800s, people have been constructing canal systems to reclaim swampland and marshland for farming. According to guidance from the FDHR, canals may be potentially eligible if they are "older canals (19th c.), transportation canals, larger regional canals dug as part of the early 20th c. reclamation activities, or canals used in industry (such as logging, cotton)" (Anderson 2005). It

appears that this portion of the canal system still possesses its integrity. Anderson (2005) suggests that when assessing a canal system, one should be "thinking in terms of 'bird's eye view' when assessing integrity. If you were flying above the resource, would these changes be visible?" Recent aerial photography and topographical maps still illustrate the canal system, and the canal is still visible from the ground. Therefore, on a reconnaissance level, the overall canal system retains a sufficient level of integrity. However, the canal was constructed in the post-World War II era and is not associated with any of the significant early twentieth-century reclamation activities. Further, drainage canals such as this are common across much of Brevard County. SEARCH recommends that, because of its lack of significant historical associations, the portion of 8BR2783 located within the APE is not eligible for the NRHP.

CONCLUSION AND RECOMMENDATIONS

This report presents the findings of a Phase I CRAS conducted in support of a PD&E Study for a new interchange on I-95 at Ellis Road in Brevard County, Florida. FDOT District 5 is considering the proposed construction of a new interchange at MP 22.07 on I-95 as well as capacity improvements along Ellis Road between I-95 and NASA Boulevard. The project corridor for the present survey extended from Wickham Road along Ellis Road to the proposed interchange with I-95.

The project APE was developed to consider visual, audible, and atmospheric effects that the project may have to historic properties. The APE was defined to include the existing and proposed right-of-way along the Ellis Road corridor, including the proposed interchange with I-95. The APE was extended to the back or side property lines of parcels adjacent to the corridor and interchange, limited to a distance of no more than 330 ft from the proposed right-of-way. The archaeological shovel testing was conducted within the existing and proposed right-of-way along Ellis Road and the proposed right-of-way to either side of I-95; the existing I-95 right-of-way was subjected to subsurface testing during a previous survey (Janus Research 2001; FMSF Survey No. 6794). The architectural survey included the entire APE.

A total of 31 shovel tests were excavated within the proposed and existing right-of-way, resulting in the identification of one new archaeological site, 8BR2784. Laboratory analysis of the recovered glassware, together with a review of historic aerials and the county soil survey, indicates that this site represents a historic refuse dump. Historic artifacts were recovered in association with modern trash, and no intact features were identified. Further work on this site is not likely to yield important information regarding the history of this area of Brevard County. In the opinion of the Principal Investigator, site 8BR2784 is not eligible for listing in the NRHP.

Three historic resources (8BR2781–8BR2783) were recorded within the APE and were evaluated as to their potential for listing in the NRHP. The resources all lack the architectural distinction or significant historical associations necessary to be considered for listing in the NRHP and have been determined ineligible. No potential NRHP districts were located due to

the lack of concentration of historic structures. No NRHP-listed or eligible resources were identified within the I-95/Ellis Road Project APE. No further work is recommended.

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APPENDIX A.

FS LOG

Site	Catalog	ST #	Depth	Provenience	Description	Count	Weight (g)	Date Range	Date Excavated	Exc/Rec
8BR2784	1.01	25	0-60		Bottle base, Owen's scar; clear	3	173.87	1905-1982	14-Apr-11	KP/RC
8BR2784	1.02	25	0-60		Bottle glass, Machine made base; clear	2	58.55	1905-present	14-Apr-11	KP/RC
8BR2784	1.03	25	0-60		Bottle finish, machine made; clear	2	31.29	1905-present	14-Apr-11	KP/RC
8BR2784	1.04	25	0-60		Bottle finish, machine made; dark green	1	85.53	1905-present	14-Apr-11	KP/RC
8BR2784	1.05	25	0-60		Milk glass	2	24.23	1870-present	14-Apr-11	KP/RC
8BR2784	1.06	25	0-60		Rubber ball	1	10.15		14-Apr-11	KP/RC
8BR2784	1.07	25	0-60		Bolts; With attached nut	1	28.30		14-Apr-11	KP/RC
8BR2784	1.08	25	0-60		Tile, ceramic; Marble tile with mortar	1	34.31		14-Apr-11	KP/RC
8BR2784	1.09	25	0-60		Whiteware, Red glaze	1	3.02	1830-present	14-Apr-11	KP/RC
8BR2784	2.01	31	0-60		Bottle finish, machine made; clear	1	26.05	1905-present	15-Apr-11	KP/RC
8BR2784	2.02	31	0-60		Bottle glass, Machine made base; teal, mend	2	29.78	1905-1920	15-Apr-11	KP/RC
8BR2784	2.03	31	0-60		Bottle base, Owen's scar; clear, melted	1	17.53	1905-1982	15-Apr-11	KP/RC
8BR2784	2.04	31	0-60		Bottle glass, Machine made base; amber	1	20.59	1905-present	15-Apr-11	KP/RC
8BR2784	2.05	31	0-60		Uid clear glass	17	33.38		15-Apr-11	KP/RC
8BR2784	2.06	31	0-60		Terra cotta pot	1	11.63		15-Apr-11	KP/RC
8BR2784	2.07	31	0-60		Refined earthenware, uid	2	10.97	1740-1950	15-Apr-11	KP/RC
8BR2784	2.08	31	0-60		Tile, ceramic	1	3.68		15-Apr-11	KP/RC
8BR2784	2.09	31	0-60		Uid plastic	1	0.25	1930-present	15-Apr-11	KP/RC
8BR2784	2.10	31	0-60		Cinder/clinker	1	25.91		15-Apr-11	KP/RC
8BR2784	2.11	31	0-60		Uid concretion; Metal and glass	5	569.46		15-Apr-11	KP/RC
8BR2784	2.12	31	0-60		Uid automobile part; Windshield wiper part; "ANCO"	1	4.57		15-Apr-11	KP/RC
8BR2784	2.13	31	0-60		Figurine, ceramic; Possible figurine; mend	3	12.00		15-Apr-11	KP/RC
8BR2784	3.01			Surface Collection, general vicinity of ST 25	Bottle finish, machine made; olive green	1	105.90	1905-present	15-Apr-11	RC
8BR2784	3.02			Surface Collection, general vicinity of ST 25	Jug/bottle finish, machine made external thread finish; amber	2	229.81	1905-present	15-Apr-11	RC
8BR2784	3.03			Surface Collection, general vicinity of ST 25	Bottle glass, Embossed, "federal law prohibits reuse"; clear	1	560.00	1933-present	15-Apr-11	RC
8BR2784	3.04			Surface Collection, general vicinity of ST 25	Wide mouth bottle base, Owen's scar; clear	1	156.50	1905-1982	15-Apr-11	RC
8BR2784	3.05			Surface Collection, general vicinity of ST 25	Bottle base, Owen's scar; clear	1	134.41	1905-1982	15-Apr-11	RC
8BR2784	3.06			Surface Collection, general vicinity of ST 25	Bottle finish, machine made external thread finish; clear	1	12.79	1905-present	15-Apr-11	RC
8BR2784	3.07			Surface Collection, general vicinity of ST 25	Milk glass	1	3.32	1870-present	15-Apr-11	RC
8BR2784	3.08			Surface Collection, general vicinity of ST 25	Tile, ceramic	1	12.93		15-Apr-11	RC

APPENDIX B.

UNANTICIPATED DISCOVERIES STATEMENT

UNANTICIPATED DISCOVERIES
OF ARCHAEOLOGICAL AND HISTORIC SITES
INCLUDING HUMAN REMAINS

Although a project area may receive a complete cultural resource assessment survey, it is impossible to ensure that all cultural resources will be discovered. Even at sites that have been previously identified and assessed, there is a potential for the discovery of previously unidentified archaeological components, features, or human remains that may require investigation and assessment. Therefore, a procedure has been developed for the treatment of any unexpected discoveries that may occur during site development.

If unexpected cultural resources are discovered the following steps should be taken:

1) Initially, all work in the immediate area of the discovery should cease and reasonable efforts should be made to avoid or minimize impacts to the cultural resources.
2) A qualified Professional Archaeologist should be contacted immediately and should evaluate the nature of the discovery.
3) The Archaeologist should then contact the State Historic Preservation Officer (SHPO) and if necessary, the State Archaeologist.
4) As much information as possible concerning the cultural resource, such as resource type, location, and size, as well as any information on its significance, should be provided to the SHPO.
5) Consultation with the SHPO should occur in order to obtain technical advice and guidance for the evaluation of the discovered cultural resource.
6) If necessary, a mitigation plan should be prepared for the discovered cultural resource. This plan should be sent to the SHPO for review and comment. The SHPO should be expected to respond with preliminary comments within two working days, with final comments to follow as quickly as possible.
7) If a formal data recovery mitigation plan is required, development activities in the near vicinity of the cultural resource should be avoided to ensure that no adverse impact to the resource occurs until the mitigation plan can be executed.

If human remains are encountered during site development, the stipulations of Chapter 872.05 (Offenses Concerning Dead Bodies and Graves) should be followed. All work in the near vicinity of the human remains should cease and reasonable efforts should be made to avoid and protect the remains from additional impact. In cases of inclement weather, the human remains should be protected with tarpaulins. A qualified Professional Archaeologist should be retained to investigate the reported discovery, inventory the remains and any associated artifacts, and assist in coordinating with state and local officials.

1) The County Medical Examiner should be immediately notified as to the findings. If the remains are found to be other than human, any construction will be cleared to proceed. If the remains are human, and are less than 75 years old, the Medical Examiner and local law enforcement officials will assume jurisdiction. If the remains are found to be human and older than 75 years, the State Archaeologist should be notified and may assume jurisdiction of the remains.
2) If jurisdiction is assumed by the State Archaeologist, he will a) determine whether the human remains represent a significant archaeological resource, and b) make a reasonable effort to identify and locate persons who can establish direct kinship, tribal community, or ethnic relationship with the remains. If such a relationship cannot be established, then the State Archaeologist may consult with a committee of four to determine the proper disposition of the remains. This committee shall consist of a human skeletal analyst, two Native American members of current state tribes recommended by the Governor's Council on Indian Affairs, and "an individual who has special knowledge or expertise regarding the particular type of the unmarked human burial."
3) A plan for the avoidance of any further impact to the human remains and/or mitigative excavation, reinterment, or a combination of these treatments will be developed in consultation with the State Archaeologist, the SHPO, and if applicable, appropriate Indian tribes or closest lineal descendents. All parties will be expected to respond with advice and guidance in an efficient time frame. Once the plan is agreed to by all parties, the plan will be implemented.

The points of contact for Florida are:

Mr. David Bendus, Director and State Historic Preservation Officer
Florida Division of Historical Resources
R.A. Gray Building
500 S. Bronough St.
Tallahassee, FL 32399-0250
PH: 850-245-6333

Dr. Mary Glowacki, Chief and State Archaeologist
Bureau of Archaeological Research
B. Calvin Jones Center for Archaeology at the Governor Martin House
1001 de Soto Park Drive, Tallahassee, FL 32301
PH: 850-245-6301

APPENDIX C.

FMSF RESOURCE FORMS

☒ Original
☐ Update

HISTORICAL STRUCTURE FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Site #8 BR02781
Field Date 4-11-2011
Form Date 5-4-2011
Recorder # _____

Shaded Fields represent the minimum acceptable level of documentation.
Consult the *Guide to Historical Structure Forms* for detailed instructions.

Site Name(s) (address if none) 7680 Ellis Road — Multiple Listing (DHR only) _____
Survey Project Name CRAS of Ellis Road PD&E Study — Survey # (DHR only) _____
National Register Category (please check one) ☒building ☐structure ☐district ☐site ☐object
Ownership: ☐private-profit ☒private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

	Street Number	Direction	Street Name	Street Type	Suffix Direction
Address:	7680		Ellis	Road	

Cross Streets (nearest / between) Ellis Rd/Lake Ibis Dr
USGS 7.5 Map Name MELBOURNE WEST — USGS Date 1988 — Plat or Other Map _____
City / Town (within 3 miles) West Melbourne — In City Limits? ☒yes ☐no ☐unknown — County Brevard
Township 27S — Range 23E — Section 25 — ¼ section: ☐NW ☐SW ☒SE ☐NE — Irregular-name: _____
Tax Parcel # 27-36-25-76-00000.0-0008.00 — Landgrant _____
Subdivision Name Lake Ibis — Block _____ — Lot 8
UTM Coordinates: Zone ☐16 ☐17 — Easting ☐☐☐☐☐☐ — Northing ☐☐☐☐☐☐☐
Other Coordinates: X: _____ Y: _____ — Coordinate System & Datum _____
Name of Public Tract (e.g., park) _____

HISTORY

Construction Year: 1965 ☒approximately ☐year listed or earlier ☐year listed or later
Original Use Private residence — From (year): c1965 — To (year): 2011
Current Use Private residence — From (year): c1965 — To (year): 2011
Other Use _____ — From (year): _____ — To (year): _____
Moves: ☐yes ☐no ☒unknown Date: _____ Original address _____
Alterations: ☒yes ☐no ☐unknown Date: _____ Nature wood access ramp on south elevation
Additions: ☒yes ☐no ☐unknown Date: _____ Nature attached porch on east elevation
Architect (last name first): _____ Builder (last name first): _____
Ownership History (especially original owner, dates, profession, etc.) _____

Is the Resource Affected by a Local Preservation Ordinance? ☐yes ☐no ☒unknown Describe _____

DESCRIPTION

Style Other — Exterior Plan Rectangular — Number of Stories 1
Exterior Fabric(s) 1. Aluminum 2. Vinyl 3. _____
Roof Type(s) 1. Gable 2. _____ 3. _____
Roof Material(s) 1. Other 2. Other 3. Aluminum
Roof secondary strucs. (dormers etc.) 1. _____ 2. _____
Windows (types, materials, etc.) 3-light metal awning, jalousie windows, and large fixed windows

Distinguishing Architectural Features (exterior or interior ornaments) _____

Ancillary Features / Outbuildings (record outbuildings, major landscape features; use continuation sheet if needed.) None observed.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

HISTORICAL STRUCTURE FORM

Site # 8 BR02781

DESCRIPTION (continued)

Chimney: No. 0 Chimney Material(s): 1. _____ 2. _____
Structural System(s): 1. Metal skeleton 2. _____ 3. _____
Foundation Type(s): 1. Continuous 2. _____
Foundation Material(s): 1. Concrete Block 2. _____
Main Entrance (stylistic details) wood access ramp accesses east elevation from south, porch accessed by concrete stoop on east elevation
Porch Descriptions (types, locations, roof types, etc.) open porch: E/entry/square wood supports/E, shed roof

Condition (overall resource condition): ☐excellent ☐good ☐fair ☒deteriorated ☐ruinous
Narrative Description of Resource One-story Mobile Home features aluminum frame structural system set on continuous concrete block foundation with a wooden access ramp extending from south elevation. Roof is low-pitched gable clad in metal with shed roof porch on east elevation.
Archaeological Remains _____ ☐Check if Archaeological Form Completed

RESEARCH METHODS (check all that apply)

☒FMSF record search (sites/surveys)	☒library research	☐building permits	☐Sanborn maps
☐FL State Archives/photo collection	☐city directory	☐occupant/owner interview	☐plat maps
☒property appraiser / tax records	☐newspaper files	☐neighbor interview	☐Public Lands Survey (DEP)
☒cultural resource survey (CRAS)	☐historic photos	☐interior inspection	☐HABS/HAER record search

☐other methods (describe) Windshield/pedestrian survey
Bibliographic References (give FMSF manuscript # if relevant, use continuation sheet if needed) _____

OPINION OF RESOURCE SIGNIFICANCE

Appears to meet the criteria for National Register listing individually? ☐yes ☒no ☐insufficient information
Appears to meet the criteria for National Register listing as part of a district? ☐yes ☒no ☐insufficient information
Explanation of Evaluation (**required**, whether significant or not; use separate sheet if needed) Resource 8BR2781 does not meet the minimum criteria for listing in the NRHP, either individually or as a contributing resource within a potential or existing historic district.
Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)
1. _____ 3. _____ 5. _____
2. _____ 4. _____ 6. _____

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location — Maintaining organization Southeastern Archaeological Research
Document description photos, maps, field notes — File or accession #'s 2546-10063T

2) Document type _____ — Maintaining organization _____
Document description _____ — File or accession #'s _____

RECORDER INFORMATION

Recorder Name VanDyke, Ryan — Affiliation Southeastern Archaeological Research
Recorder Contact Information 315 NW 138th Terr, Newberry, FL 32669/352-333-0049/352-333-0069/ryan@searchinc.com
(address / phone / fax / e-mail)

Required Attachments

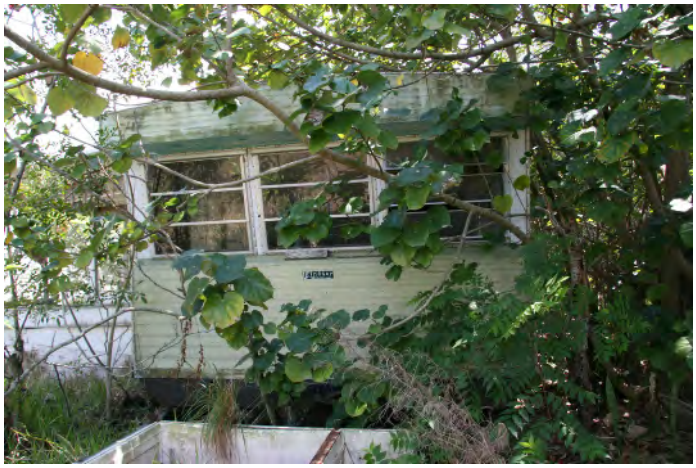
❶ **USGS 7.5' MAP WITH STRUCTURE LOCATION PINPOINTED IN RED**
❷ **LARGE SCALE STREET, PLAT OR PARCEL MAP** (available from most property appraiser web sites)
❸ **PHOTO OF MAIN FACADE, ARCHIVAL B&W PRINT OR DIGITAL IMAGE FILE**
If submitting an image file, it must be included on disk or CD AND in hard copy format (plain paper is acceptable).
Digital image must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

8BR2781 Facing North_b

8BR2781 Facing North

8BR2781 Facing Northeast

8BR2781 Facing South Southwest



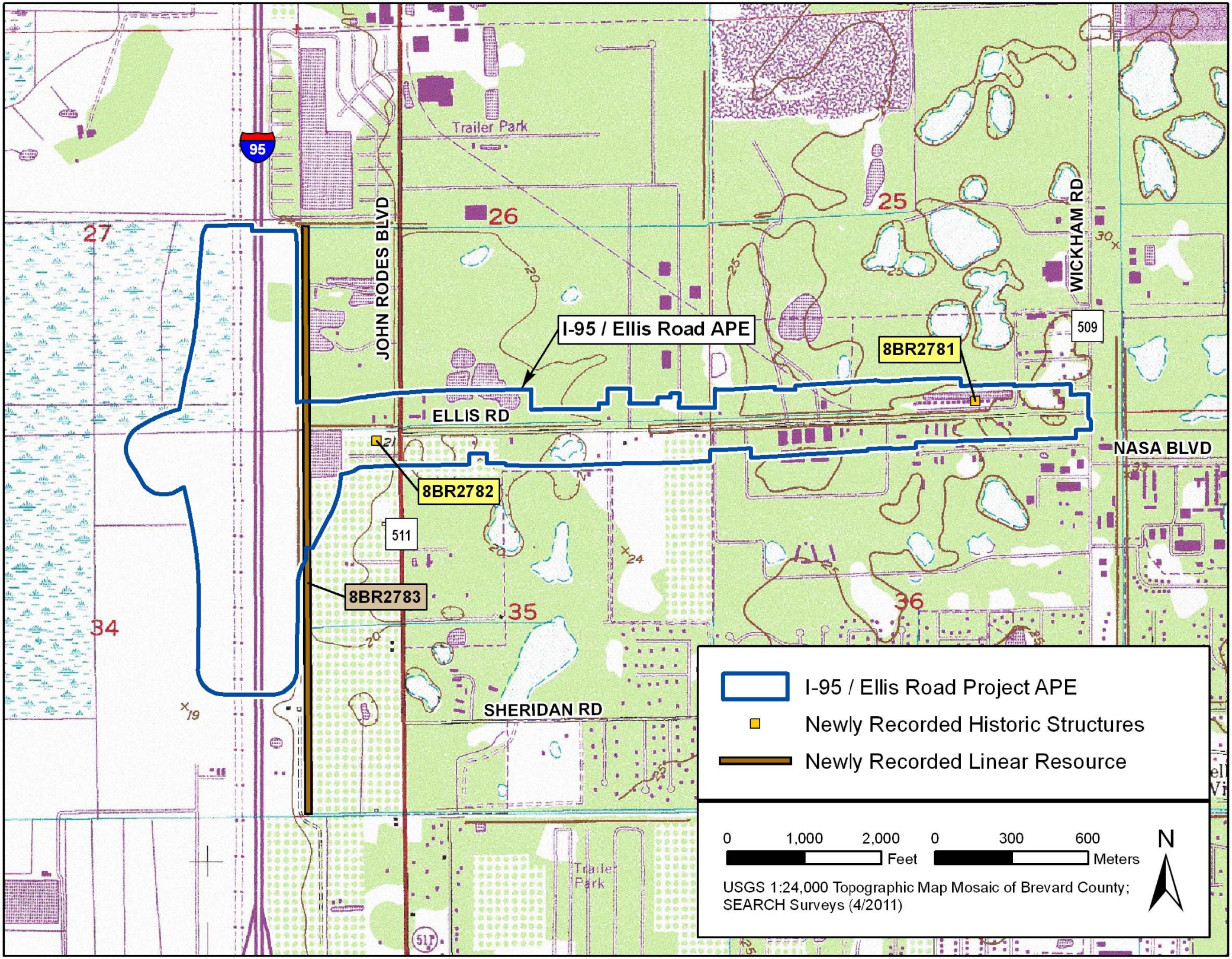
8BR2781 Facing South

8BR2781 Facing Southwest

8BR2781 Facing West Northwest

8BR2781 Facing West

8BR2781 at
7680 Ellis Road


95
Trailer Park
JOHN RODES BLVD
WICKHAM RD
26
25
27
34
35
36
I-95 / Ellis Road APE
8BR2781
509
ELLIS RD
NASA BLVD
8BR2782
511
8BR2783
SHERIDAN RD
Trailer Park
I-95 / Ellis Road Project APE
Newly Recorded Historic Structures
Newly Recorded Linear Resource
0 1,000 2,000 Feet
0 300 600 Meters
N
USGS 1:24,000 Topographic Map Mosaic of Brevard County;
SEARCH Surveys (4/2011)

☒ Original
☐ Update

HISTORICAL STRUCTURE FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Site #8 BR02782
Field Date 4-11-2011
Form Date 5-4-2011
Recorder # _____

Shaded Fields represent the minimum acceptable level of documentation.
Consult the *Guide to Historical Structure Forms* for detailed instructions.

Site Name(s) (address if none) 600 S. John Rodes Blvd — Multiple Listing (DHR only) _____
Survey Project Name CRAS of Ellis Road PD&E Study — Survey # (DHR only) _____
National Register Category (please check one) ☒building ☐structure ☐district ☐site ☐object
Ownership: ☒private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

	Street Number	Direction	Street Name	Street Type	Suffix Direction
Address:	600	S	John Rodes	Boulevard	

Cross Streets (nearest / between) Ellis Rd/John Rodes Blvd
USGS 7.5 Map Name MELBOURNE WEST — USGS Date 1988 — Plat or Other Map _____
City / Town (within 3 miles) West Melbourne — In City Limits? ☒yes ☐no ☐unknown — County Brevard
Township 27S — Range 23E — Section 35 — ¼ section: ☒NW ☐SW ☐SE ☐NE — Irregular-name: _____
Tax Parcel # 27-36-35-00-00256.0-0000.00 — Landgrant _____
Subdivision Name _____ — Block _____ — Lot _____
UTM Coordinates: Zone ☐16 ☐17 — Easting ☐☐☐☐☐☐ — Northing ☐☐☐☐☐☐☐
Other Coordinates: X: _____ Y: _____ — Coordinate System & Datum _____
Name of Public Tract (e.g., park) _____

HISTORY

Construction Year: 1950 ☒approximately ☐year listed or earlier ☐year listed or later
Original Use Agricultural Unspecified — From (year): 1950s — To (year): unkn
Current Use Vacant — From (year): unkn — To (year): 2011
Other Use _____ — From (year): _____ — To (year): _____
Moves: ☐yes ☐no ☒unknown Date: _____ Original address _____
Alterations: ☐yes ☒no ☐unknown Date: _____ Nature _____
Additions: ☐yes ☒no ☐unknown Date: _____ Nature _____
Architect (last name first): _____ — Builder (last name first): _____
Ownership History (especially original owner, dates, profession, etc.) _____

Is the Resource Affected by a Local Preservation Ordinance? ☐yes ☐no ☒unknown Describe _____

DESCRIPTION

Style Other — Exterior Plan Rectangular — Number of Stories 1
Exterior Fabric(s) 1. Metal 2. _____ 3. _____
Roof Type(s) 1. Gable 2. _____ 3. _____
Roof Material(s) 1. Sheet metal:corrugated 2. _____ 3. _____
Roof secondary strucs. (dormers etc.) 1. _____ 2. _____
Windows (types, materials, etc.) None observed.

Distinguishing Architectural Features (exterior or interior ornaments) Exposed rafter tails, sheet metal:5V crimp exterior fabric

Ancillary Features / Outbuildings (record outbuildings, major landscape features; use continuation sheet if needed.) None observed.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

HISTORICAL STRUCTURE FORM

Site # 8 BR02782

DESCRIPTION (continued)

Chimney: No. 0 Chimney Material(s): 1. _____ 2. _____
Structural System(s): 1. Wood frame 2. _____ 3. _____
Foundation Type(s): 1. Slab 2. _____
Foundation Material(s): 1. Poured Concrete Footing 2. _____
Main Entrance (stylistic details) large sliding metal door on east elevation

Porch Descriptions (types, locations, roof types, etc.) _____

Condition (overall resource condition): ☐excellent ☐good ☐fair ☒deteriorated ☐ruinous
Narrative Description of Resource One-story Agricultural Vernacular building with wood frame system with gable roof clad in corrugated sheet metal. The exterior fabric is 5V crimp sheet metal and a large horizontally sliding door provides access on the east elevation.
Archaeological Remains _____ ☐Check if Archaeological Form Completed

RESEARCH METHODS (check all that apply)

☒FMSF record search (sites/surveys)	☒library research	☐building permits	☐Sanborn maps
☐FL State Archives/photo collection	☐city directory	☐occupant/owner interview	☐plat maps
☒property appraiser / tax records	☐newspaper files	☐neighbor interview	☐Public Lands Survey (DEP)
☒cultural resource survey (CRAS)	☐historic photos	☐interior inspection	☐HABS/HAER record search

☐other methods (describe) Windshield/pedestrian survey
Bibliographic References (give FMSF manuscript # if relevant, use continuation sheet if needed) _____

OPINION OF RESOURCE SIGNIFICANCE

Appears to meet the criteria for National Register listing individually? ☐yes ☒no ☐insufficient information
Appears to meet the criteria for National Register listing as part of a district? ☐yes ☒no ☐insufficient information
Explanation of Evaluation (**required**, whether significant or not; use separate sheet if needed) Resource 8BR2782 does not meet the minimum criteria for listing in the NRHP, either individually or as a contributing resource within a potential or existing historic district.
Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)
1. _____ 3. _____ 5. _____
2. _____ 4. _____ 6. _____

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location — Maintaining organization Southeastern Archaeological Research
Document description photos, maps, field notes — File or accession #'s 2546-10063T

2) Document type _____ — Maintaining organization _____
Document description _____ — File or accession #'s _____

RECORDER INFORMATION

Recorder Name VanDyke, Ryan — Affiliation Southeastern Archaeological Research
Recorder Contact Information 315 NW 138th Terr, Newberry, FL 32669/352-333-0049/352-333-0069/ryan@searchinc.com
(address / phone / fax / e-mail)

Required Attachments

❶ **USGS 7.5' MAP WITH STRUCTURE LOCATION PINPOINTED IN RED**
❷ **LARGE SCALE STREET, PLAT OR PARCEL MAP** (available from most property appraiser web sites)
❸ **PHOTO OF MAIN FACADE, ARCHIVAL B&W PRINT OR DIGITAL IMAGE FILE**
If submitting an image file, it must be included on disk or CD AND in hard copy format (plain paper is acceptable).
Digital image must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

8BR2782 Facing East

8BR2782 Facing North

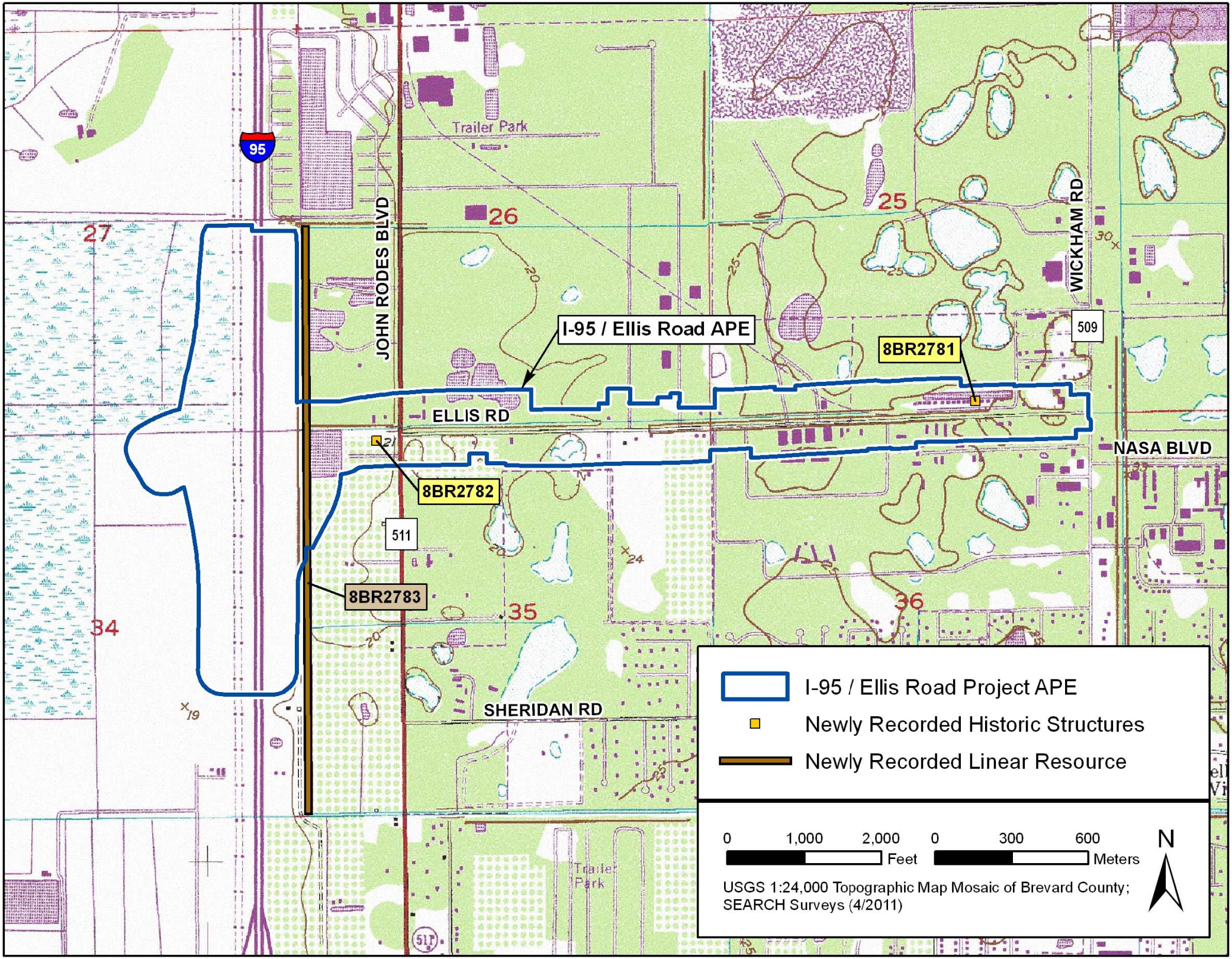
8BR2782 Facing Northwest

8BR2782 Facing Southwest

8BR2782 Facing West

SOUTHEASTERN ARCHAEOLOGICAL RESEARCH, INC.

8BR2782 at
600 S. John Rodes Boulevard


95
Trailer Park
JOHN RODES BLVD
WICKHAM RD
26
25
27
34
35
36
I-95 / Ellis Road APE
8BR2781
509
ELLIS RD
NASA BLVD
8BR2782
511
8BR2783
SHERIDAN RD
Trailer Park
I-95 / Ellis Road Project APE
Newly Recorded Historic Structures
Newly Recorded Linear Resource
0 1,000 2,000 Feet
0 300 600 Meters
N
USGS 1:24,000 Topographic Map Mosaic of Brevard County;
SEARCH Surveys (4/2011)

☒ Original
☐ Update

RESOURCE GROUP FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Site #8 BR02783
Field Date 4-11-2011
Form Date 5-4-2011
Recorder# _____

NOTE: Use this form to document districts, landscapes, building complexes and linear resources as described in the box below. Cultural resources contributing to the Resource Group should also be documented individually at the Site File. **Do not use this form for National Register multiple property submissions** (MPSs). National Register MPSs are treated as Site File manuscripts and are associated to the individual resources included under the MPS cover using the Site File manuscript number.

Check ONE box that best describes the Resource Group:

- ☐ **Historic district** (NR category "district"): buildings and NR structures only: NO archaeological sites
- ☐ **Archaeological district** (NR category "district"): archaeological sites only: NO buildings or NR structures
- ☐ **Mixed district** (NR category "district"): includes more than one type of cultural resource (example: archaeological sites and buildings)
- ☐ **Building complex** (NR category usually "building(s)"): multiple buildings in close spatial and functional association
- ☐ **Designed historic landscape** (NR category usually "district" or "site"): can include multiple resources (see *National Register Bulletin #18*, page 2 for more detailed definition and examples: e.g. parks, golf courses, campuses, resorts, etc.)
- ☐ **Rural historic landscape** (NR category usually "district" or "site"): can include multiple resources and resources not formally designed (see *National Register Bulletin #30, Guidelines for Evaluating and Documenting Rural Historic Landscapes* for more detailed definition and examples: e.g. farmsteads, fish camps, lumber camps, traditional ceremonial sites, etc.)
- ☒ **Linear resource** (NR category usually "structure"): Linear resources are a special type of rural historic landscape and can include canals, railways, roads, etc.

Resource Group Name West Melbourne Drainage Canal Multiple Listing [DHR only] _____
Project Name CRAS of Ellis Road PD&E Study FMSF Survey # _____
National Register Category (please check one): ☐building(s) ☒structure ☐district ☐site ☐object
Linear Resource Type (if applicable): ☒canal ☐railway ☐road ☐other (describe): _____
Ownership: ☐private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☐federal ☐Native American ☐foreign ☒unknown

LOCATION & MAPPING

	Street Number	Direction	Street Name	Street Type	Suffix Direction
Address:					

City/Town (within 3 miles) West Melbourne In Current City Limits? ☒yes ☐no ☐unknown
County or Counties (do not abbreviate) Brevard
Name of Public Tract (e.g., park) _____

1) Township 27S Range 23E Section 26 ¼ section: ☐NW ☒SW ☐SE ☐NE Irregular-name: _____
2) Township 27S Range 23E Section 35 ¼ section: ☒NW ☒SW ☐SE ☐NE
3) Township _____ Range _____ Section _____ ¼ section: ☐NW ☐SW ☐SE ☐NE
4) Township _____ Range _____ Section _____ ¼ section: ☐NW ☐SW ☐SE ☐NE

USGS 7.5' Map(s) 1) Name MELBOURNE WEST USGS Date 1988
2) Name _____ USGS Date _____
Plat, Aerial, or Other Map (map's name, originating office with location) _____
Landgrant _____
Verbal Description of Boundaries (description does not replace required map) Canal runs N/S between John Rodes Blvd and I-95 corridor, lies approximately 300m west of John Rodes Blvd

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

RESOURCE GROUP FORM

Site #8 BR02783

HISTORY & DESCRIPTION

Construction Year: 1951 ☐approximately ☒year listed or earlier ☐year listed or later

Architect/Designer(last name first): unknown Builder(last name first): unknown

Total number of individual resources included in this Resource Group: # of contributing 1 # of non-contributing _____

Time period(s) of significance (choose a period from the list or type in date range(s), e.g. *1895-1925*)

1. _____ 3. _____

2. _____ 4. _____

Narrative Description (*National Register Bulletin 16A* pp. 33-34; fit a summary into 3 lines or attach supplementary sheets if needed) Historic aerial photography shows the canal having been constructed within the current project area by 1951. The canal runs north-south, roughly parallel to John Rodes Boulevard. The total length of the canal is approximately 1.4 miles.

RESEARCH METHODS (check all that apply)

☒FMSF record search (sites/surveys)	☒library research	☐building permits	☒Sanborn maps
☐FL State Archives/photo collection	☐city directory	☐occupant/owner interview	☐plat maps
☒property appraiser / tax records	☐newspaper files	☐neighbor interview	☐Public Lands Survey (DEP)
☒cultural resource survey	☐historic photos	☐interior inspection	☐HABS/HAER record search

☐other methods (specify) Windshield/pedestrian survey

Bibliographic References (give FMSF Manuscript # if relevant) _____

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? ☐yes ☒no ☐insufficient information

Potentially eligible as contributor to a National Register district? ☐yes ☒no ☐insufficient information

Explanation of Evaluation (required, see *National Register Bulletin 16A* p. 48-49. Attach longer statement, if needed, on separate sheet.) Due to its lack of significant historical associations, the portion of 8BR2783 located within the APE is not eligible for the NRHP.

Area(s) of Historical Significance (see *National Register Bulletin 15*, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.)

1. _____ 3. _____ 5. _____

2. _____ 4. _____ 6. _____

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location Maintaining organization Southeastern Archaeological Research

Document description photos, maps, field notes File or accession #'s 2546-10063T

2) Document type _____ Maintaining organization _____

Document description _____ File or accession #'s _____

RECORDER INFORMATION

Recorder Name VanDyke, Ryan Affiliation Southeastern Archaeological Research

Recorder Contact Information 315 NW 138th Terr, Newberry, FL 32669/352-333-0049/352-333-0069/ryan@searchinc.com

(address / phone / fax / e-mail)

Required Attachments

❶ PHOTOCOPY OF USGS 7.5' MAP WITH DISTRICT BOUNDARY CLEARLY MARKED

❷ LARGE SCALE STREET, PLAT OR PARCEL MAP WITH RESOURCES MAPPED & LABELED

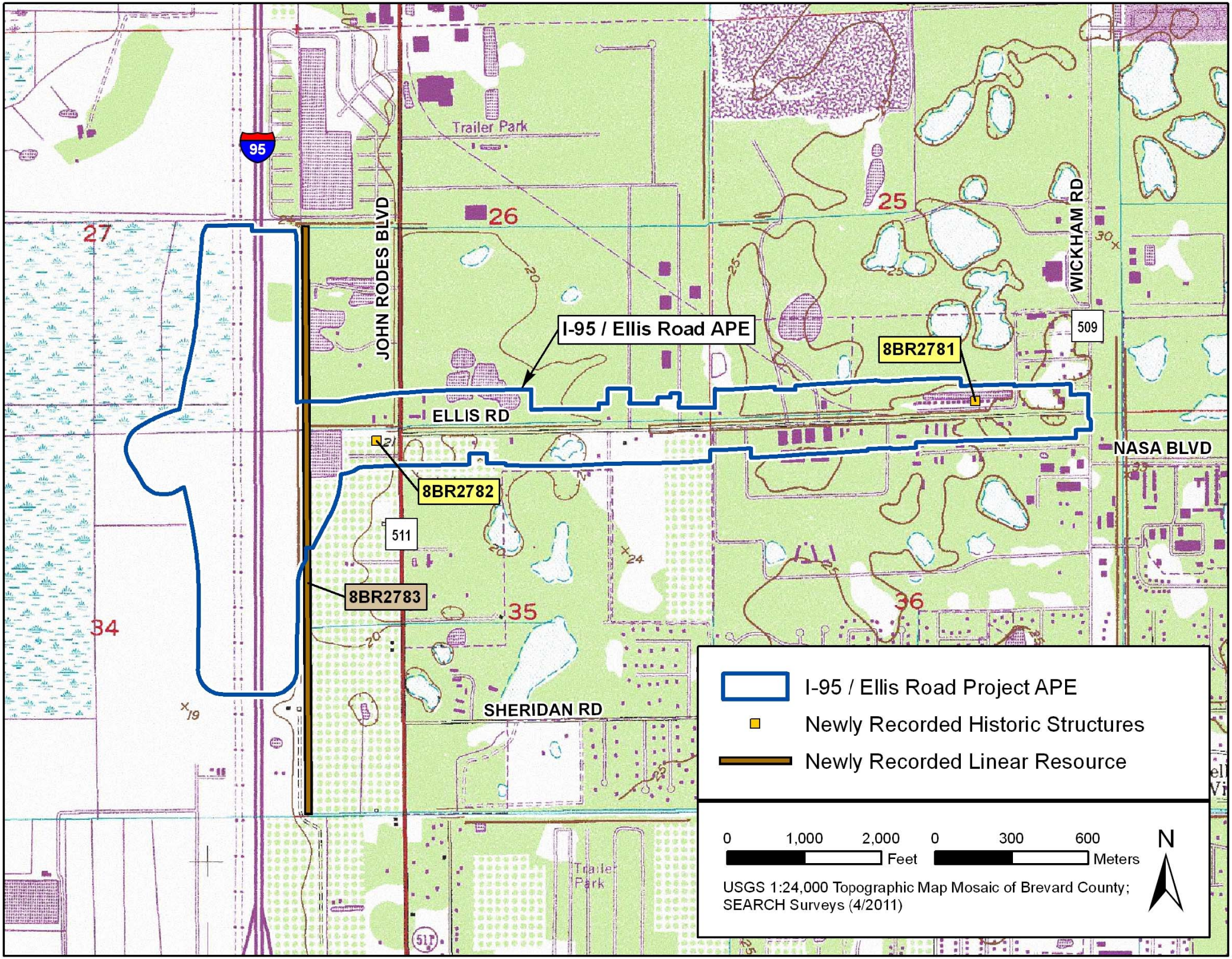
❸ TABULATION OF ALL INCLUDED RESOURCES (name, FMSF #, contributing? Y/N, resource category, street address or township-range-section if no address)

❹ PHOTOS OF GENERAL STREETSCAPE OR VIEWS **(Optional: aerial photos, views of typical resources)**

Photos may be archival B&W prints OR digital image files. If submitting digital image files, they must be included on disk or CD AND in hard copy format (plain paper is acceptable). Digital images must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

8BR2783 Facing South

8BR2783 Facing North


95
Trailer Park
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Newly Recorded Historic Structures
Newly Recorded Linear Resource
0 1,000 2,000 Feet
0 300 600 Meters
N
USGS 1:24,000 Topographic Map Mosaic of Brevard County;
SEARCH Surveys (4/2011)

☒ Original
☐ Update

ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 4.0 1/07

Consult *Guide to Archaeological Site Form* for detailed instructions

Site #8 BR02784
Field Date 4-14-2011
Form Date 5-6-2011
Recorder #

Site Name(s) Ellis Road Refuse Site
Multiple Listing (DHR only)
Project Name New Interchange at I-95 and Ellis Road PD&E
Survey # (DHR only)
Ownership: ☐private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☒state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

USGS 7.5 Map Name MELBOURNE WEST USGS Date 1988 Plat or Other Map
City/Town (within 3 miles) West Melbourne In City Limits? ☐yes ☒no ☐unknown County Brevard
Township 27S Range 36E Section 26 ¼ section: ☐NW ☐SW ☒SE ☐NE Irregular-name:
Township Range Section ¼ section: ☐NW ☐SW ☐SE ☐NE
Landgrant Tax Parcel #
UTM Coordinates: Zone ☐16 ☐17 Easting ☐☐☐☐☐☐ Northing ☐☐☐☐☐☐☐
Other Coordinates: X: Y: Coordinate System & Datum
Address / Vicinity / Route to: along the north side of Ellis Road, east of John Rodes Blvd and west of Stan Drive

Name of Public Tract (e.g., park)

TYPE OF SITE (select all that apply)

SETTING

☒ Land (*terrestrial*)
☐ Lake/Pond (*lacustrine*)
☐ River/Stream/Creek (*riverine*)
☐ Tidal (*estuarine*)
☐ Saltwater (*marine*)
☐ Wetland (*palustrine*)
  ☐ usually flooded
  ☐ usually dry
☐ Cave/Sink (*subterranean*)
  ☐ terrestrial
  ☐ aquatic

STRUCTURES OR FEATURES

☐ log boat
☐ agric/farm building
☐ burial mound
☐ building remains
☐ cemetery/grave
☒ dump/refuse
☐ earthworks (historic)
☐ fort
☐ midden
☐ mill
☐ mission
☐ mound, nonspecific
☐ plantation
☐ platform mound
☐ road segment
☐ shell midden
☐ shell mound
☐ shipwreck
☐ subsurface features
☒ surface scatter
☐ well

FUNCTION

☐ campsite
☐ extractive site
☐ habitation (prehistoric)
☐ homestead (historic)
☐ farmstead
☐ village (prehistoric)
☐ town (historic)
☐ quarry

Other Features or Functions (Choose from the list or type a response.)
1. historic refuse dump 2.

CULTURE PERIODS (select all that apply)

ABORIGINAL

☐ Alachua
☐ Archaic (nonspecific)
☐ Archaic, Early
☐ Archaic, Middle
☐ Archaic, Late
☐ Belle Glade
☐ Cades Pond
☐ Caloosahatchee
☐ Deptford
☐ Englewood
☐ Fort Walton
☐ Glades (nonspecific)
☐ Glades I
☐ Glades II
☐ Glades III
☐ Hickory Pond
☐ Leon-Jefferson
☐ Malabar I
☐ Malabar II
☐ Manasota
☐ Mississippian
☐ Mount Taylor
☐ Norwood
☐ Orange
☐ Paleoindian
☐ Pensacola
☐ Perico Island
☐ Safety Harbor
☐ St. Augustine
☐ St. Johns (nonspecific)
☐ St. Johns I
☐ St. Johns II
☐ Santa Rosa
☐ Santa Rosa-Swift Creek
☐ Seminole (nonspecific)
☐ Seminole: Colonization
☐ Seminole: 1st War To 2nd
☐ Seminole: 2nd War To 3rd
☐ Seminole: 3rd War & After
☐ Swift Creek (nonspecific)
☐ Swift Creek, Early
☐ Swift Creek, Late
☐ Transitional
☐ Weeden Island (nonspecific)
☐ Weeden Island I
☐ Weeden Island II
☐ Prehistoric (nonspecific)
☐ Prehistoric non-ceramic
☐ Prehistoric ceramic

NON-ABORIGINAL

☐ First Spanish 1513-99
☐ First Spanish 1600-99
☐ First Spanish 1700-1763
☐ First Spanish (nonspecific)
☐ British 1763-1783
☐ Second Spanish 1783-1821
☐ American Territorial 1821-45
☐ American Civil War 1861-65
☐ American 19th Century
☒ American 20th Century
☐ American (nonspecific)
☐ African-American

Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. 3.
2. 4.

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? ☐yes ☒no ☐insufficient information
Potentially eligible as contributor to a National Register district? ☐yes ☒no ☐insufficient information
Explanation of Evaluation (required if evaluated; use separate sheet if needed) Due to the knowledge and evidence of modern disturbance to the area, further work at the site would offer little insight into regional domestic trash scatters of mid twentieth century inhabitants of Brevard County.
Recommendations for Owner or SHPO Action No further work recommended.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date Init. KEEPER – Determined eligible: ☐yes ☐no Date NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

ARCHAEOLOGICAL SITE FORM

Site #8 BR02784

FIELD METHODS (select all that apply)

SITE DETECTION

- ☐ no field check
- ☐ literature search
- ☐ informant report
- ☐ remote sensing
- ☐ exposed ground
- ☐ posthole tests
- ☐ auger tests
- ☐ unscreened shovel
- ☐ screened shovel
- ☒ screened shovel-1/4"
- ☐ screened shovel-1/8"
- ☐ screened shovel-1/16"

SITE BOUNDARY

- ☐ bounds unknown
- ☐ none by recorder
- ☐ literature search
- ☐ informant report
- ☐ remote sensing
- ☒ exposed ground
- ☐ posthole tests
- ☐ auger tests
- ☐ unscreened shovel
- ☐ screened shovel
- ☐ block excavations
- ☐ estimate or guess

Other methods; number, size, depth, pattern of units; screen size (attach site plan) Two shovel tests (40 meters apart), approximately 50 cm wide and 60 cm deep. A 1/4" screen was used.

SITE DESCRIPTION

Extent Size (m^2) 40 Depth/stratigraphy of cultural deposit Dense mixture of modern and historic debris, mostly bottle glass.A very compact conglomerate of burned metal and melted glass was encountered in both shovel tests at app. 60cmbs.

Temporal Interpretation - Components (check one): ☒ single component ☐ multiple component ☐ uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

The surface scatter measures approximately 80 meters east/west by 40 meters north/south. Profile consisted of disturbed soils down to approximately 60cmbs wherein the dense 20th century trash pit begins and shovel tests

Integrity - Overall disturbance: ☐ none seen ☐ minor ☐ substantial ☒ major ☐ redeposited ☐ destroyed-**document!** ☐ unknown

Disturbances / threats / protective measures The site falls entirely into the heavily disturbed Quartzipsamments soil variety based on background research and field observations.

Surface collection: area collected 80 m^2 # collection units 1 | Excavation: # noncontiguous blocks 2

ARTIFACTS

Total Artifacts # _____ ○ count ○ estimate | Surface # _____ | Subsurface # _____

COLLECTION SELECTIVITY

- ☐ unknown
- ☐ unselective (all artifacts)
- ☒ selective (some artifacts)
- ☐ mixed selectivity

SPATIAL CONTROL

- ☐ uncollected
- ☐ general (not by subarea)
- ☐ unknown
- ☐ controlled (by subarea)
- ☒ variable spatial control
- ☐ other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

S	-	Glass
S	-	Miscellaneous historic
S	-	Metal
	-	
	-	
	-	
	-	
	-	

select a disposition from the list below for each artifact category selected at left

- A - category always collected
- S - some items in category collected
- O - observed first hand, but not collected
- R - collected and subsequently left at site
- I - informant reported category present
- U - unknown

Artifact Comments recovered glassware indicates that bulk of identifiable materials have manufacture dates beginning in the early 20th cent. or later. The historic and modern materials were intermixed throughout each

DIAGNOSTICS (type or mode, and frequency: e.g., *Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware*)

1.	bottle glass, Owen's scar	N= 6	4.		N=	7.		N=
2.		N=	5.		N=	8.		N=
3.		N=	6.		N=	9.		N=

ENVIRONMENT

Nearest fresh water: Type Wetland Name Unnamed Distance from site (m) 1

Natural community WET FLATWOODS Topography Other Elevation: Min 20 m Max 25 m

Local vegetation Pyric, slash pine, pond pine, live oak, water oak, sweet gum, and red maple.

Present land use Suburban, commercial

SCS soil series Quartzipsamments Soil association Myakka-Eau Gallie-Immokalee

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location Maintaining organization Southeastern Archaeological Research
Document description Maps, photos, field notes File or accession #'s 2546-10063T

2) Document type _____ Maintaining organization _____
Document description _____ File or accession #'s _____

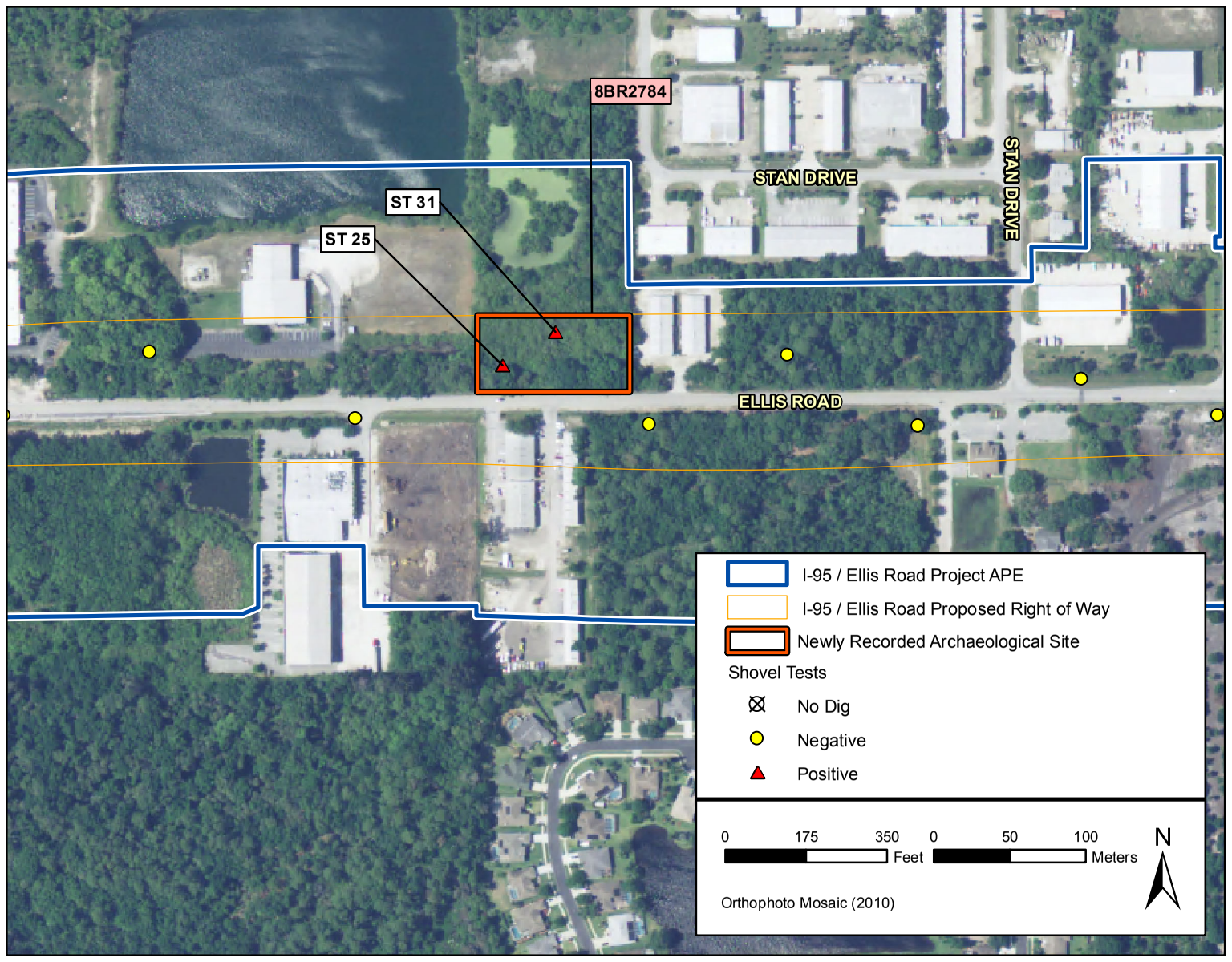
RECORDER & INFORMANT INFORMATION

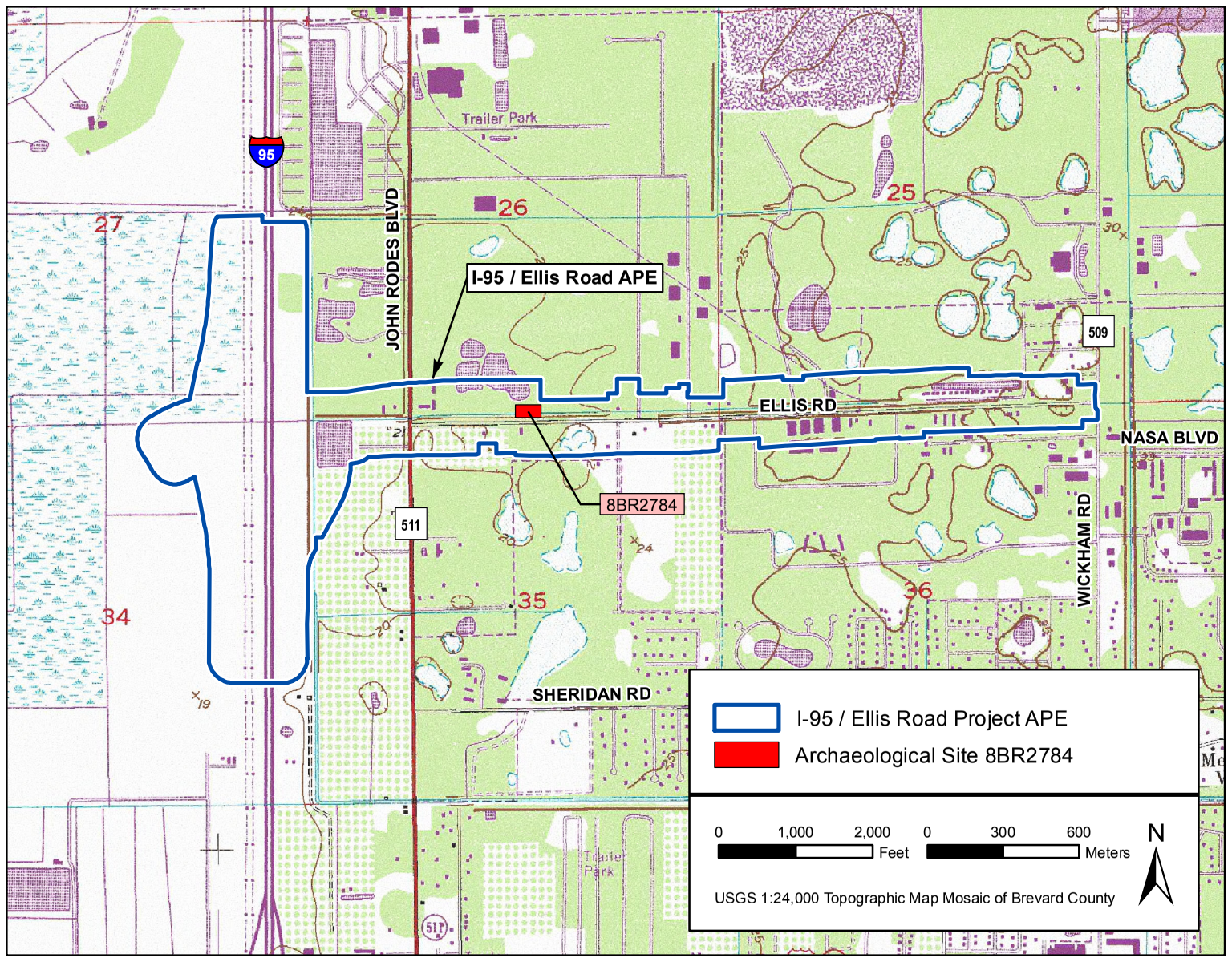
Informant Information: Name _____
Address / Phone / E-mail _____

Recorder Information: Name Elizabeth Murphy Affiliation Southeastern Archaeological Research
Address / Phone / E-mail 428 E. Government St., Pensacola, FL 32505 850-607-2846

Required Attachments

❶ **PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED *and* SITE PLAN**
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.


8BR2784
ST 31
ST 25
STAN DRIVE
STAN DRIVE
ELLIS ROAD
I-95 / Ellis Road Project APE
I-95 / Ellis Road Proposed Right of Way
Newly Recorded Archaeological Site
Shovel Tests
No Dig
Negative
Positive
0
175
350
Feet
0
50
100
Meters
N
Orthophoto Mosaic (2010)


I-95 / Ellis Road APE
8BR2784
JOHN RODES BLVD
ELLIS RD
NASA BLVD
WICKHAM RD
SHERIDAN RD
Trailer Park
95
509
511
27
26
25
34
35
36
I-95 / Ellis Road Project APE
Archaeological Site 8BR2784
0 1,000 2,000 Feet
0 300 600 Meters
N
USGS 1:24,000 Topographic Map Mosaic of Brevard County

APPENDIX D.

FDHR SURVEY LOG SHEET

Ent D (FMSF only)_____

Survey Log Sheet

Florida Master Site File
Version 4.1 1/07

Survey # (FMSF only) _____

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

Identification and Bibliographic Information

Survey Project (name and project phase) CRAS of New Interchange at I-95 and Ellis Road PD&E Study, Brevard County, FL

Report Title (exactly as on title page) Cultural Resource Assessment Survey of the New Interchange at I-95 and Ellis Road PD&E Study, Brevard County, Florida

Report Authors (as on title page, last names first) 1. Chambless, Elizabeth J. 3. _____ 2. Salo, Edward G. 4. _____

Publication Date (year) 2012 **Total Number of Pages in Report** (count text, figures, tables, not site forms) 48

Publication Information (Give series, number in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)
On File at FL DHR and SEARCH, Newberry, FL

Supervisors of Fieldwork (even if same as author) Names Chambless, Elizabeth

Affiliation of Fieldworkers: Organization Southeastern Archaeological Research City Newberry, FL

Key Words/Phrases (Don't use county name, or common words like *archaeology*, *structure*, *survey, architecture, etc.*)

1. Melbourne 3. mid-twentieth century sc 5. _____ 7. _____
2. drainage canal 4. _____ 6. _____ 8. _____

Survey Sponsors (corporation, government unit, organization or person directly funding fieldwork)

Name _____ Organization Florida Dept of Transportation - District 5

Address/Phone/E-mail DeLand, Fl

Recorder of Log Sheet VanDyke, Ryan M. **Date Log Sheet Completed** 8-1-2012

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

Mapping

Counties (List each one in which field survey was done; attach additional sheet if necessary)

1. Brevard 3. _____ 5. _____
2. _____ 4. _____ 6. _____

USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary)

1. Name MELBOURNE WEST Year 1988
2. Name _____ Year _____
3. Name _____ Year _____
4. Name _____ Year _____
5. Name _____ Year _____
6. Name _____ Year _____

Description of Survey Area

Dates for Fieldwork: Start 4-11-2011 End 4-13-2011 **Total Area Surveyed** (fill in one) _____ hectares 405 acres

Number of Distinct Tracts or Areas Surveyed 1

If Corridor (fill in one for each) **Width:** _____ meters _____ feet **Length:** _____ kilometers _____ miles

Survey Log Sheet

Survey #_____

Research and Field Methods

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

Scope/Intensity/Procedures STs excavated along parallel, unaligned transects along roadway at 100m intervals. STs measure 50cm diameter, 100cm in depth, & screened through 1/4" mesh-hardware cloth. Pedestrian survey of APE to inventory historic properties.

Preliminary Methods (check 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
☐Florida Photo Archives (Gray Building)	☐library-special collection - *nonlocal*	☐newspaper files	☒soils maps or data
☒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): _____

Archaeological Methods (check 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)
☐surface collection, **un**controlled	☐water screen	☐soil resistivity
☒shovel test-1/4"screen	☐posthole tests	☐magnetometer
☐shovel test-1/8" screen	☐auger tests	☐side scan sonar
☐shovel test 1/16"screen	☐coring	☒pedestrian survey
☐shovel test-unscreened	☐test excavation (at least 1x2 m)	☐unknown

☐other (describe): _____

Historical/Architectural Methods (check as many 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	☒exposed ground inspected	☐occupant interview	☐tax records
☐interior documentation	☒local property records	☐occupation permits	☐unknown

☐other (describe): _____

Survey Results (cultural resources recorded)

Site Significance Evaluated? ☒Yes ☐No

Count of Previously Recorded Sites 0 **Count of Newly Recorded Sites** 4

Previously Recorded Site #'s with Site File Update Forms (List site #'s without "8". Attach additional pages if necessary.) _____

Newly Recorded Site #'s (Are all originals and not updates? List site #'s without "8". Attach additional pages if necessary.) BR2781, BR2782, BR2783, BR2784

Site Forms Used: ☐Site File Paper Form ☒Site File Electronic Recording Form

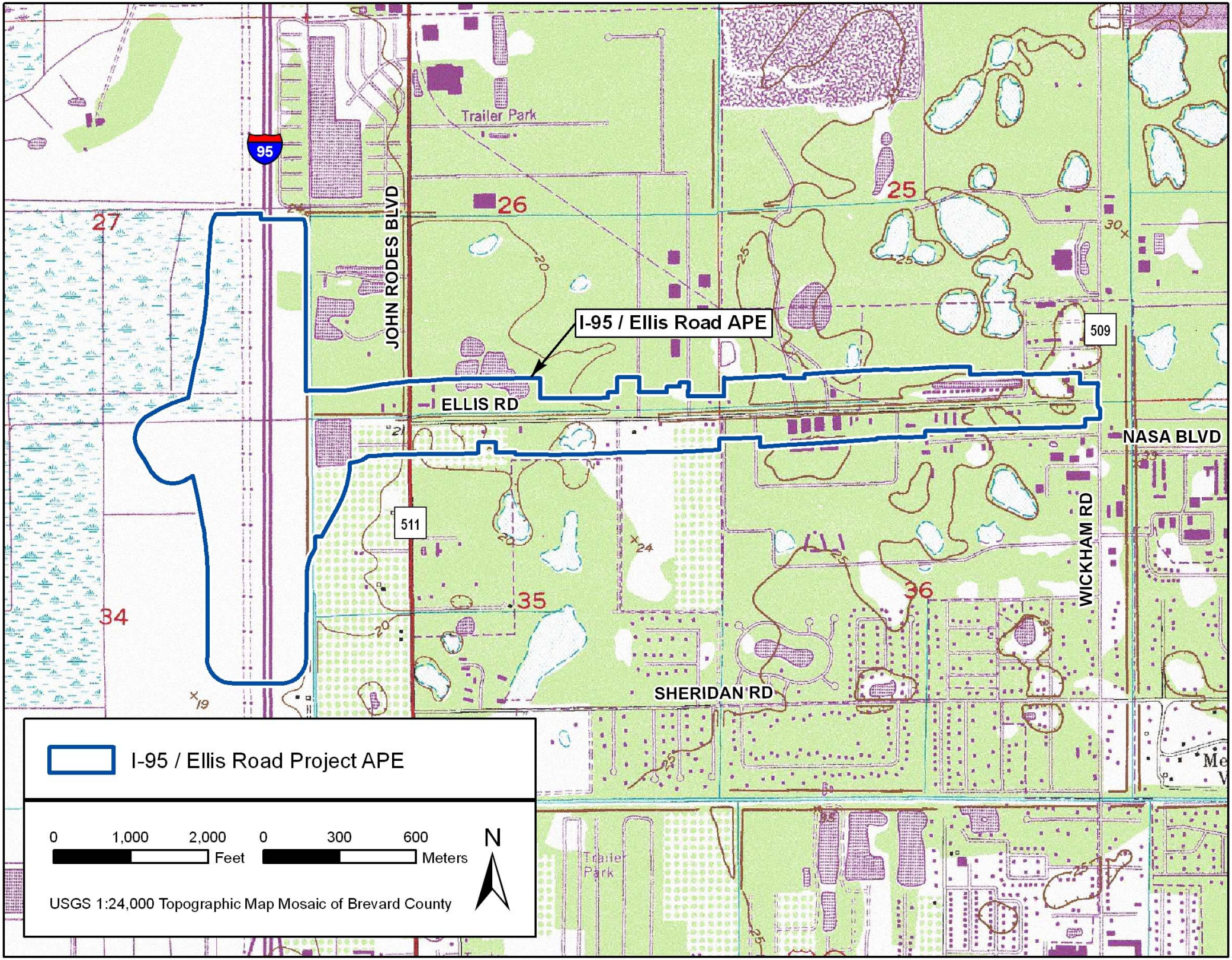
*****REQUIRED: ATTACH PLOT OF SURVEY AREA ON PHOTOCOPY OF USGS 1:24,000 MAP(S)*****

SHPO USE ONLY	SHPO USE ONLY	SHPO USE ONLY

Origin of Report: ☐872 ☐CARL ☐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 ☐MPS ☐MRA ☐TG ☐Other: _____

Document Destination: _____ **Plotability:** _____


I-95 / Ellis Road APE
ELLIS RD
JOHN RODES BLVD
NASA BLVD
WICKHAM RD
SHERIDAN RD
Trailer Park
95
509
511
27
26
25
34
35
36
I-95 / Ellis Road Project APE
0 1,000 2,000 Feet
0 300 600 Meters
N
USGS 1:24,000 Topographic Map Mosaic of Brevard County

APPENDIX E.

TECHNICAL MEMORANDUM: CULTURAL RESOURCE ASSESSMENT SURVEY OF SEVEN PROPOSED PONDS IN SUPPORT OF THE NEW INTERCHANGE AT I-95 AND ELLIS ROAD PD&E STUDY BREVARD COUNTY, FLORIDA

TECHNICAL MEMORANDUM:
CULTURAL RESOURCE ASSESSMENT SURVEY OF SEVEN PROPOSED PONDS IN SUPPORT OF THE NEW INTERCHANGE AT I-95 AND ELLIS ROAD PD&E STUDY BREVARD COUNTY, FLORIDA

CONSULTANT:	Southeastern Archaeological Research, Inc. (SEARCH) 428 E. Government Street, Pensacola, FL 32502
PRINCIPAL INVESTIGATOR:	Elizabeth J. Chambless, MS, RPA
CLIENT:	RS&H, Inc.
DATE:	September 2012
FM#:	426905-1-22-01

This technical memorandum details the results of a Cultural Resource Assessment Survey (CRAS) of seven pond locations associated with the Project Development and Environment (PD&E) Study for a new interchange on Interstate 95 (I-95) at Ellis Road in Brevard County, Florida. The Florida Department of Transportation (FDOT), District 5, is considering the proposed construction of a new interchange at Mile Post (MP) 22.07 on I-95 as well as capacity improvements along Ellis Road between I-95 and NASA Boulevard. The project corridor for the present survey extends from Wickham Road along Ellis Road to the proposed interchange with I-95.

This technical memorandum serves as an addendum to the 2012 SEARCH report titled *Cultural Resource Survey of the New Interchange at I-95 and Ellis Road PD&E Study, Brevard County, Florida*. The regional prehistory and history, environment, research design, background research, and field and laboratory methods for this study are discussed in the previous report and not repeated in this memorandum.

The purpose of the survey was to locate, identify, and bound any archaeological resources, historic structures, and potential districts within the project area and to assess their potential for listing in the National Register of Historic Places (NRHP). This study was conducted to comply with Chapter 267 of the Florida Statutes and Rule Chapter 1A-46, Florida Administrative Code. All work was performed in accordance with Part 2, Chapter 12, of the FDOT PD&E Manual (revised January 1999) and the Cultural Resource Management Handbook (revised November 2004), as well as the Florida Division of Historical Resources (FDHR) recommendations for such projects as stipulated in the FDHR's Cultural Resource Management Standards & Operations Manual, Module Three: Guidelines for Use by Historic Preservation Professionals. The Principal Investigator for this project meets the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716-42). This study also complies with Section 106 of the National Historic Preservation Act (as amended) and its implementing regulation 36 CFR Part 800 (Protection of Historic Properties).

The Area of Potential Effect (APE) defines the area in which visual, audible, and atmospheric effects that the roadway improvements and subsequent maintenance may have to historic properties will be considered. The APE defined for this project includes the proposed pond footprints (**Figure 1**). Ponds 1 and Existing Pond I-95 are located west of I-95. Regional Pond Alt B/Pond K is located east of I-95, between I-95 and John Rodes Boulevard in an area of a former orchard. Pond K is located within the boundary of Regional Pond Alt B. Pond 3B is located south of Ellis Road in a partially wooded lot. Pond 4B Expansion is located north of Ellis Road adjacent to an existing pond. Pond 5A Expansion is located at the corner of Wickham Road and NASA Boulevard.

SURVEY RESULTS

Archaeology Results

Information regarding soil drainage characteristics was examined in order to develop testing strategies for the seven ponds. Soil drainage characteristics are shown in **Figure 2**. Ponds 1 and Existing Pond I-95 are located on very poorly drained soils that are frequently flooded, west of I-95. Regional Pond Alt B/Pond K is identified in an area of a former orchard on very poorly drained and poorly drained soils. Pond 3B and Pond 4B Expansion are located south and north of Ellis Road, respectively, on poorly drained soils. Pond 5A Expansion is located at the corner of Wickham Road and NASA Boulevard in an area of poorly drained soils. Overall, the pond sites were determined to have low archaeological site potential.

In total, six shovel tests were excavated within the proposed boundaries of Regional Pond Alt B/Pond K (**Figure 3**). No shovel tests were excavated within the boundaries of Pond 4B Expansion as three shovel tests excavated immediately south of this area during the initial survey of Ellis Road indicated no need for additional testing in this area (SEARCH 2012:Figure 8). Due to standing water, it was not possible to test Pond 1 or Pond 5A; instead, each of these pond locations was visually inspected. No testing was conducted within Pond 3B due to access restrictions for this parcel. Existing Pond I-95 was not tested because this area is an artificial berm for an existing pond and it was surrounded by standing water at the time of field investigations. No archaeological sites or archaeological occurrences (AOs) were identified as a result of the archaeological survey.

Pond 1

No shovel tests were excavated within the footprint of Pond 1 because standing water precluded subsurface testing in this location. No archaeological sites or occurrences were identified within the proposed location of Pond 1.

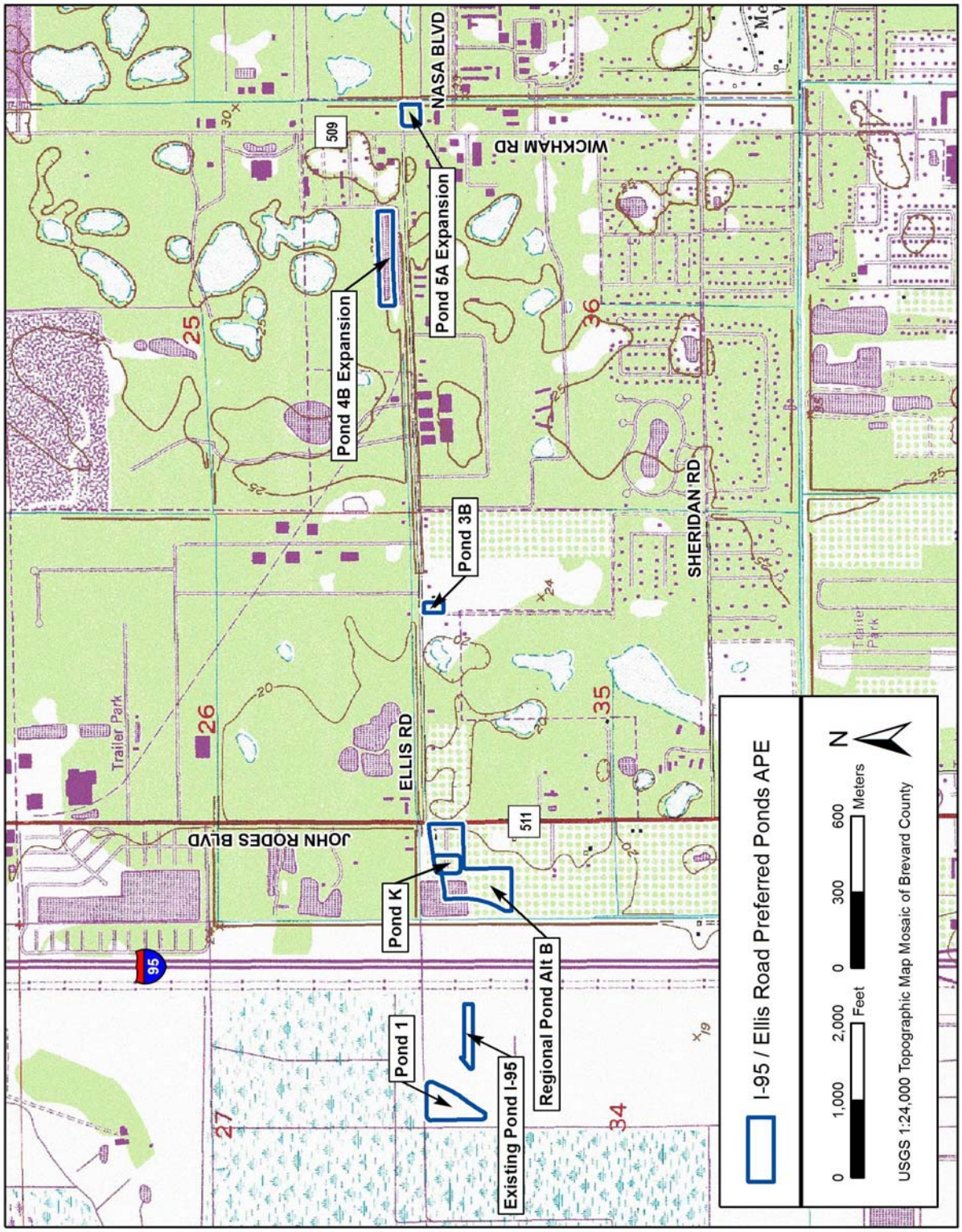


Figure 1. Pond locations for the proposed I-95 interchange at Ellis Road.

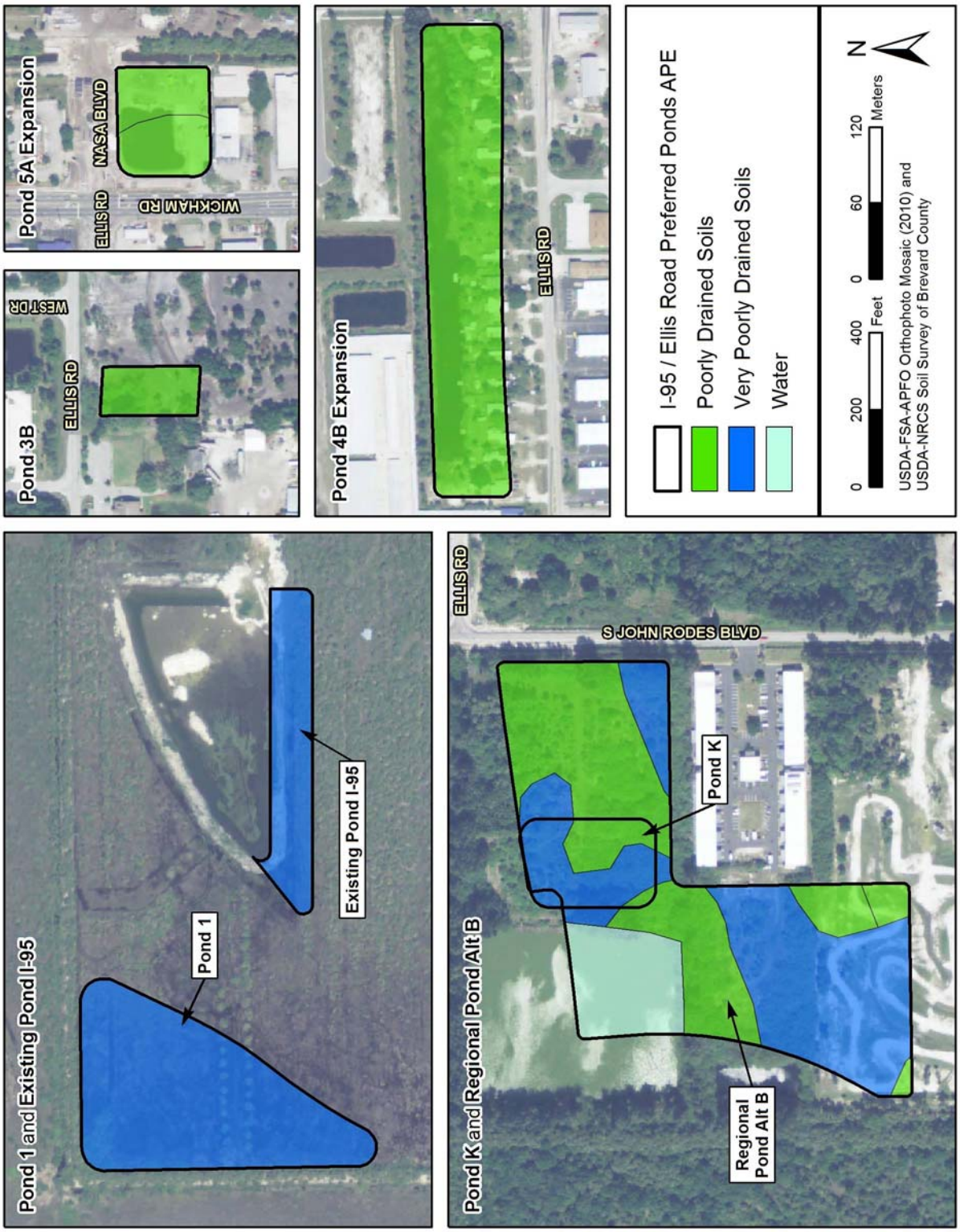


Figure 2. Soil characteristics for the proposed I-95 interchange at Ellis Road.

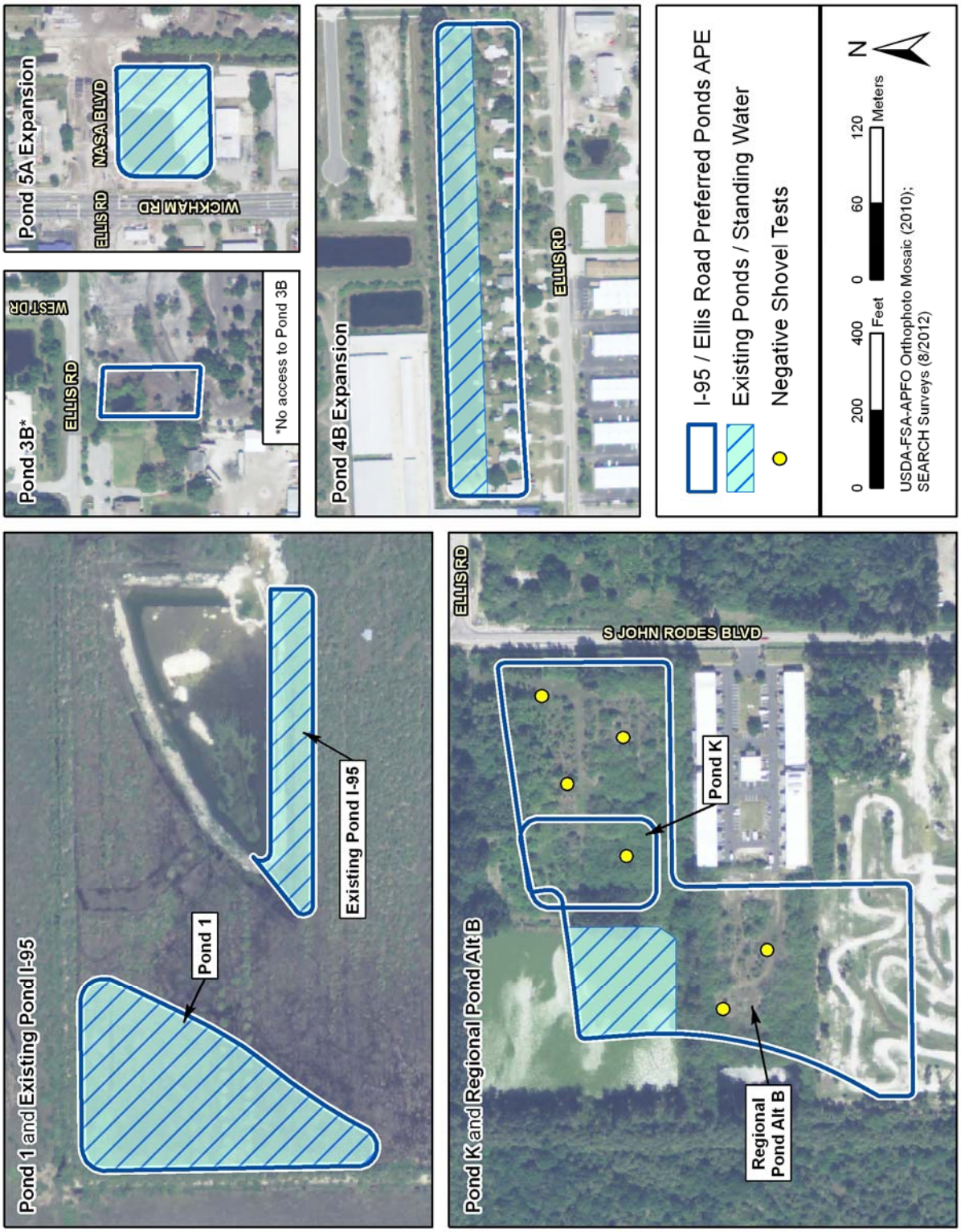


Figure 3. Shovel test locations for the proposed pond locations for the I-95 interchange at Ellis Road.

Existing Pond I-95

No shovel tests were excavated within the footprint of Existing Pond I-95 because this proposed location is an artificially constructed berm adjacent to an existing pond. SEARCH archaeologists noted this raised berm area was surrounded by standing water. No archaeological sites or occurrences were identified within the proposed location of Existing Pond I-95.

Regional Pond Alt B/Pond K

Six shovel tests were excavated judgmentally within the proposed boundaries of Regional Pond Alt B/Pond K. A typical soil profile revealed light yellowish-brown sand and shell fill to 60 centimeters below surface (cmbs) (23 inches), below which was dark grayish-brown sand to 100 cmbs (39 inches). No cultural material was recovered from any of the six shovel tests. No archaeological sites or occurrences were identified within the proposed location of Regional Pond Alt B/Pond K.

Pond 3B

Access to the location of Pond 3B was denied, and this area was not archaeologically tested. A high fence and locked gate prevented SEARCH archaeologists from entering the property. However, due to the poorly drained nature of the soils in this area, archaeological potential is very low and no further work is recommended.

Pond 4B Expansion

Pond 4B Expansion is located north of Ellis Road in an area currently occupied by a trailer park. A linear pond that parallels Ellis Road is located along the northern boundary of the trailer park. Three shovel tests were excavated within the Ellis Road right-of-way immediately south of the trailer park area during the initial survey of Ellis Road (SEARCH 2012:Figure 8). The first shovel test (ST 15) was in an area characterized as disturbed by buried utilities, and it was not excavated. The remaining shovel tests (STs 16 and 17) revealed artificial fill to an average depth of 47 cmbs (18 inches) underlain by sterile clayey sand and sand, respectively, to a terminal depth of 100 cmbs (39 inches). No cultural material was recovered from any of these shovel tests. Given the results of the previous testing in this area, no additional shovel tests were excavated within the specific location of the Pond 4B Expansion. No archaeological sites or occurrences were identified within the proposed location of the Pond 4B Expansion.

Pond 5A Expansion

No shovel tests were excavated within the footprint of Pond 5A Expansion because this proposed location is an existing pond. No archaeological sites or occurrences were identified within the proposed location of the Pond 5A Expansion.

Architecture Results

A review of the Brevard County Property Appraiser's database, in addition to a pedestrian survey of the seven pond locations, indicates that no historic resources are located within the proposed pond locations associated with the I-95/Ellis Road project.

CONCLUSIONS

This technical memorandum details the results of a CRAS of seven proposed pond locations for a new interchange on I-95 at Ellis Road in Brevard County, Florida, and serves as an addendum to the 2012 SEARCH report titled *Cultural Resource Survey of the New Interchange at I-95 and Ellis Road PD&E Study, Brevard County, Florida*. The project corridor associated with the seven pond locations extends from Wickham Road along Ellis Road to the proposed interchange with I-95.

The archaeological survey included the excavation of eight shovel tests within the proposed footprints of Regional Pond Alt B/Pond K. No shovel tests were excavated within the boundaries of the Pond 4B Expansion as three shovel tests excavated immediately south of this area during previous survey of the Ellis Road corridor indicated no need for additional testing in this area (SEARCH 2012). Due to standing water, it was not possible to test Pond 1, Existing Pond I-95, or Pond 5A; instead, each of these pond locations was visually inspected. No testing was conducted within Pond 3B due to access restrictions for this parcel. No archaeological sites or archaeological occurrences (AOs) were identified as a result of the archaeological survey.

No artifacts were recovered in any of the shovel tests, and no archaeological sites or occurrences were identified within the I-95 Ponds APEs. No historic structures were identified within any of the seven pond locations. No NRHP-eligible or listed resources were identified within the I-95 Ponds APEs, and no further work is recommended for these locations.

REFERENCES CITED

Southeastern Archaeological Research, Inc. (SEARCH)

2012 *Cultural Resource Survey of the New Interchange at I-95 and Ellis Road PD&E Study, Brevard County, Florida.* FMSF Survey No. TBA. On file, Southeastern Archaeological Research, Inc., Newberry, Florida.

ATTACHMENT 1:

FDHR SURVEY LOG SHEET

Ent D (FMSF only)_____

Survey Log Sheet

Florida Master Site File
Version 4.1 1/07

Survey # (FMSF only) _____

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

Identification and Bibliographic Information

Survey Project (name and project phase) CRAS of the New Interchange at I-95 and Ellis Road PD&E Study, Brevard County, Florida

Report Title (exactly as on title page) Technical Memorandum: Cultural Resource Assessment Survey of Seven Proposed Ponds in Support of the New Interchange at I-95 and Ellis Road PD&E Study, Brevard County, Florida

Report Authors (as on title page, last names first) 1. Chambless, Elizabeth J. 3. _____ 2. _____ 4. _____

Publication Date (year) 2012 **Total Number of Pages in Report** (count text, figures, tables, not site forms) 8

Publication Information (Give series, number in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)

On File at FL DHR and SEARCH, Newberry, FL

Supervisors of Fieldwork (even if same as author) Names Chambless, Elizabeth

Affiliation of Fieldworkers: Organization Southeastern Archaeological Research City Newberry, FL

Key Words/Phrases (Don't use county name, or common words like *archaeology*, *structure*, *survey, architecture, etc.*)

1. Phase I 3. I-95 5. _____ 7. _____
2. Ponds 4. _____ 6. _____ 8. _____

Survey Sponsors (corporation, government unit, organization or person directly funding fieldwork)

Name _____ Organization Florida Dept of Transportation - District 5

Address/Phone/E-mail DeLand, Fl

Recorder of Log Sheet VanDyke, Ryan M. **Date Log Sheet Completed** 9-17-2012

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

Mapping

Counties (List each one in which field survey was done; attach additional sheet if necessary)

1. Brevard 3. _____ 5. _____
2. _____ 4. _____ 6. _____

USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary)

1. Name MELBOURNE WEST Year 1988 4. Name _____ Year _____
2. Name _____ Year _____ 5. Name _____ Year _____
3. Name _____ Year _____ 6. Name _____ Year _____

Description of Survey Area

Dates for Fieldwork: Start 8-28-2012 End 8-30-2012 **Total Area Surveyed** (fill in one) _____ hectares 29.8 acres

Number of Distinct Tracts or Areas Surveyed 1

If Corridor (fill in one for each) **Width:** _____ meters _____ feet **Length:** _____ kilometers _____ miles

Survey Log Sheet

Survey #_____

Research and Field Methods

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

Scope/Intensity/Procedures Visual inspection and judgmental shovel tests placed within proposed pond/ pond expansion locations.

Preliminary Methods (check 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
☐Florida Photo Archives (Gray Building)	☐library-special collection - *nonlocal*	☐newspaper files	☐soils maps or data
☒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): _____

Archaeological Methods (check 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)
☐surface collection, **un**controlled	☐water screen	☐soil resistivity
☒shovel test-1/4"screen	☐posthole tests	☐magnetometer
☐shovel test-1/8" screen	☐auger tests	☐side scan sonar
☐shovel test 1/16"screen	☐coring	☐pedestrian survey
☐shovel test-unscreened	☐test excavation (at least 1x2 m)	☐unknown

☒other (describe): visual inspection of inundated areas

Historical/Architectural Methods (check 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	☐exposed ground inspected	☐occupant interview	☒tax records
☐interior documentation	☒local property records	☐occupation permits	☐unknown

☐other (describe): _____

Survey Results (cultural resources recorded)

Site Significance Evaluated? ☐Yes ☒No

Count of Previously Recorded Sites 0 **Count of Newly Recorded Sites** 0

Previously Recorded Site #'s with Site File Update Forms (List site #'s without "8". Attach additional pages if necessary.) _____

Newly Recorded Site #'s (Are all originals and not updates? List site #'s without "8". Attach additional pages if necessary.) _____

Site Forms Used: ☐Site File Paper Form ☐Site File Electronic Recording Form

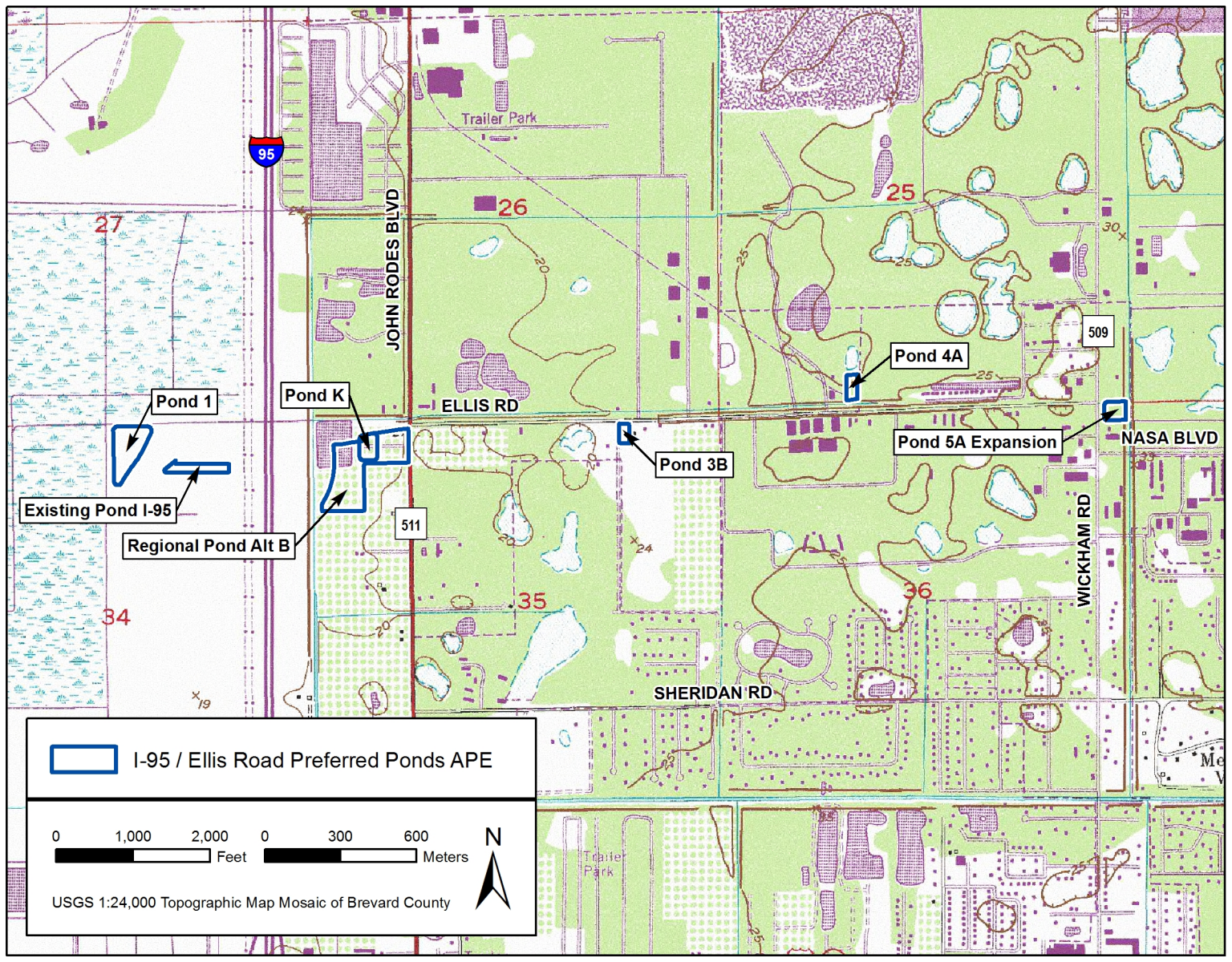
*****REQUIRED: ATTACH PLOT OF SURVEY AREA ON PHOTOCOPY OF USGS 1:24,000 MAP(S)*****

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

Origin of Report: ☐872 ☐CARL ☐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 ☐MPS ☐MRA ☐TG ☐Other: _____

Document Destination: _____ **Plotability:** _____


Trailer Park
95
27
26
25
JOHN RODES BLVD
ELLIS RD
Pond 1
Pond K
Pond 4A
509
Pond 3B
Pond 5A Expansion
NASA BLVD
Existing Pond I-95
Regional Pond Alt B
511
WICKHAM RD
34
35
36
SHERIDAN RD
Trailer Park
I-95 / Ellis Road Preferred Ponds APE
0 1,000 2,000 Feet
0 300 600 Meters
N
USGS 1:24,000 Topographic Map Mosaic of Brevard County