

**CULTURAL RESOURCE ASSESSMENT SURVEY
IN SUPPORT OF FINAL DESIGN SERVICES FOR ORANGE AVENUE WIDENING
FROM THE ORANGE/OSCEOLA COUNTY LINE TO
TOWN CENTER BOULEVARD,
ORANGE COUNTY, FLORIDA**

**ORANGE COUNTY PROJECT No. Y23-818
SEARCH PROJECT No. 240119**

PREPARED FOR

DEWBERRY ENGINEERS, INC.

AND

**THE ORANGE COUNTY BOARD OF COUNTY COMMISSIONERS
ORLANDO, FLORIDA**

BY

SEARCH

MARCH 2026

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EXECUTIVE SUMMARY

This report presents the findings of a cultural resource assessment survey (CRAS) conducted in support of the proposed widening of Orange Avenue in Orange County, Florida. The Orange County Board of County Commissioners is proposing improvements to Orange Avenue from the Orange County line (Mary Louis Lane) to Town Center Boulevard for a distance of 2.2 kilometers (1.3 miles). Proposed improvements include widening Orange Avenue to a four-lane divided roadway, adding a buffered bicycle lane, drainage and lighting improvements, and sidewalk construction. Up to 100 meters (m; 328 feet [ft]) of additional right-of-way (ROW) will be required to accommodate the proposed widening. The project is being completed through the Orange County Public Works Capital Improvement Program (CIP), which utilizes funds from a combination of local taxes, fees, and state and federal grants. This CRAS was completed in anticipation of permitting requirements.

To encompass the potential improvements, the archaeological area of potential effects (APE) is defined to include the existing and proposed ROW where improvements are proposed and the construction footprints of two pond locations. The architectural history APE included the existing and proposed ROW and was extended to the back or side property lines of parcels adjacent to the ROW or a distance of no more than 100 m (328 ft) from the ROW line. The architectural history APE also included the construction footprints for the two pond locations in addition to a 30 m (100 ft) buffer.

The archaeological survey consisted of 52 planned shovel tests within the archaeological APE. Of these, only 17 were successfully excavated due to the presence of buried utilities, drainage features, and excessive slope from roadway berms and artificial landforms. None of the excavated shovel tests contained cultural materials. The remainder of the archaeological APE was examined via surface inspection and pedestrian survey. No artifacts were recovered, and no archaeological sites or occurrences were identified within the archaeological APE. No further archaeological survey is recommended in support of the proposed project.

A review of the Orange County Property Appraiser's database indicated that no parcels with historic-aged buildings (i.e., built prior to 1982) are within the architectural history APE. An examination of historic maps and aerial photographs of the area showed no buildings or other potentially historic-aged features in the APE. This is supported by the results of the architectural history survey, which identified no historic resources within the architectural history APE. No further architectural history survey is recommended.

Based on the results of this study, no National Register of Historic Places-listed or -eligible cultural resources were identified within the APE. The project will result in *No Historic Properties Affected*, and no further cultural resources work is recommended.

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INTRODUCTION

PROJECT DESCRIPTION

This report presents the findings of a cultural resource assessment survey (CRAS) conducted in support of the proposed widening of Orange Avenue in Orange County, Florida (**Figure 1**). The Orange County Board of County Commissioners is proposing improvements to Orange Avenue from the Orange County line (Mary Louis Lane) to Town Center Boulevard for a distance of 2.2 kilometers (km; 1.3 miles [mi]). Proposed improvements include widening Orange Avenue to a four-lane divided roadway, buffered bicycle lane, drainage and lighting improvements, and sidewalk construction. Up to 100 meters (m; 328 feet [ft]) of additional right-of-way (ROW) will be required to accommodate the proposed widening. The project is being completed through the Orange County Public Works Capital Improvement Program (CIP) which utilizes funds from a combination of local taxes, fees, and state and federal grants. This CRAS was completed in anticipation of permitting requirements.

AREA OF POTENTIAL EFFECTS

To encompass the potential improvements, the archaeological area of potential effects (APE) is defined to include the existing and proposed ROW where improvements are proposed and the construction footprints of two pond locations. The architectural history APE included the existing and proposed ROW and was extended to the back or side property lines of parcels adjacent to the ROW or a distance of no more than 100 m (328 ft) from the ROW line. The architectural history APE also included the construction footprints for the two pond locations, in addition to a 30 m (100 ft) buffer (**Figure 2**). In this document, the “APE” refers to the combined archaeological APE and architectural history APE.

APPLICABLE LAWS AND GUIDELINES

The purpose of the survey was to locate, identify, and bound archaeological resources, historic buildings or structures, and potential historic districts within the project’s APE 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. The work was performed in accordance with Part 2, Chapter 8, of the FDOT’s Project Development & Environment (PD&E) Manual (revised July 2024) and 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 Public Law 113-287 (Title

54 U.S.C.), which incorporates the provisions of the National Historic Preservation Act (NHPA) of 1966, as amended, and the Archeological and Historic Preservation Act of 1974, as amended. The study also complies with the regulations for implementing NHPA Section 106 found in 36 CFR Part 800 (*Protection of Historic Properties*).

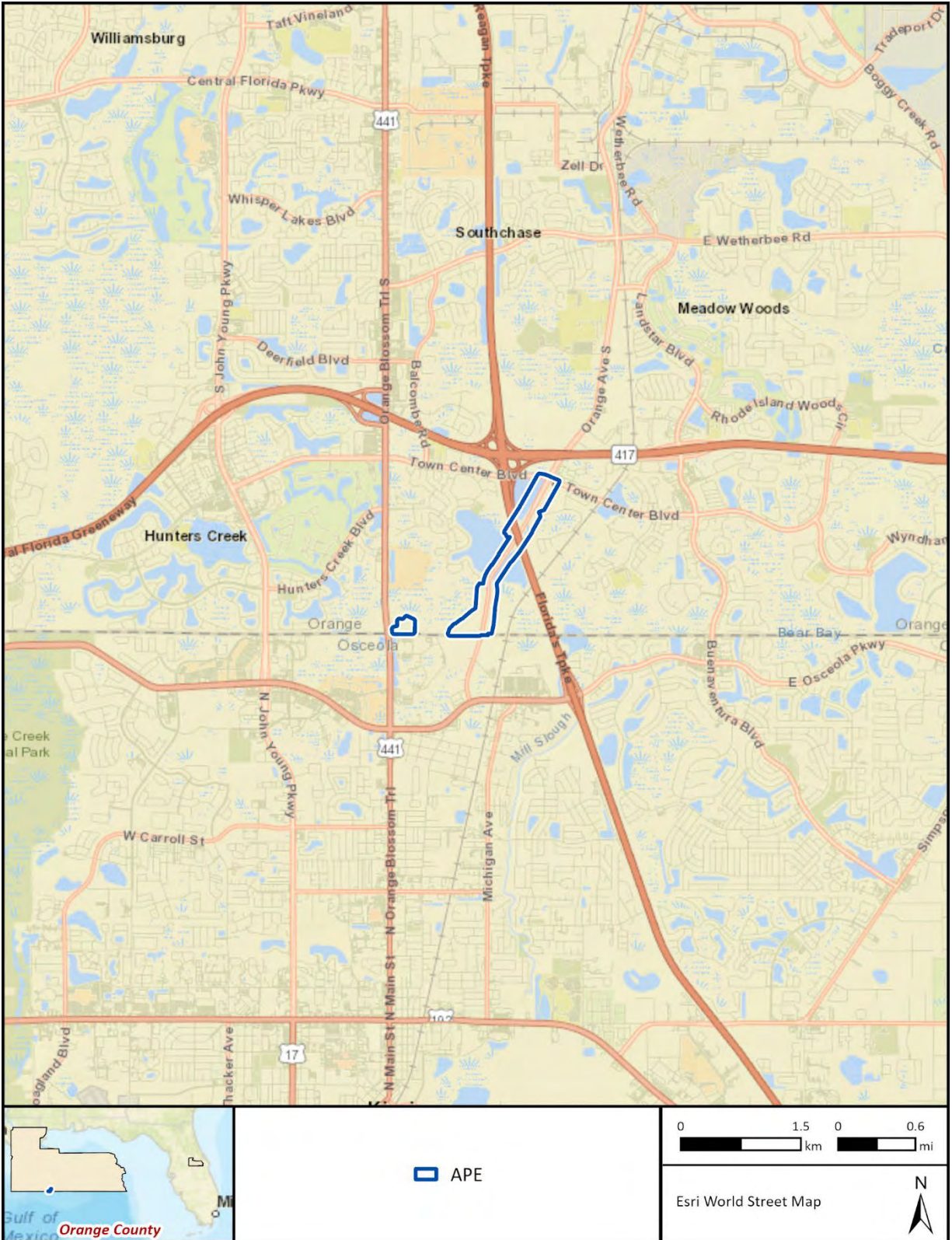


Figure 1. Location of project in Orange County, Florida.

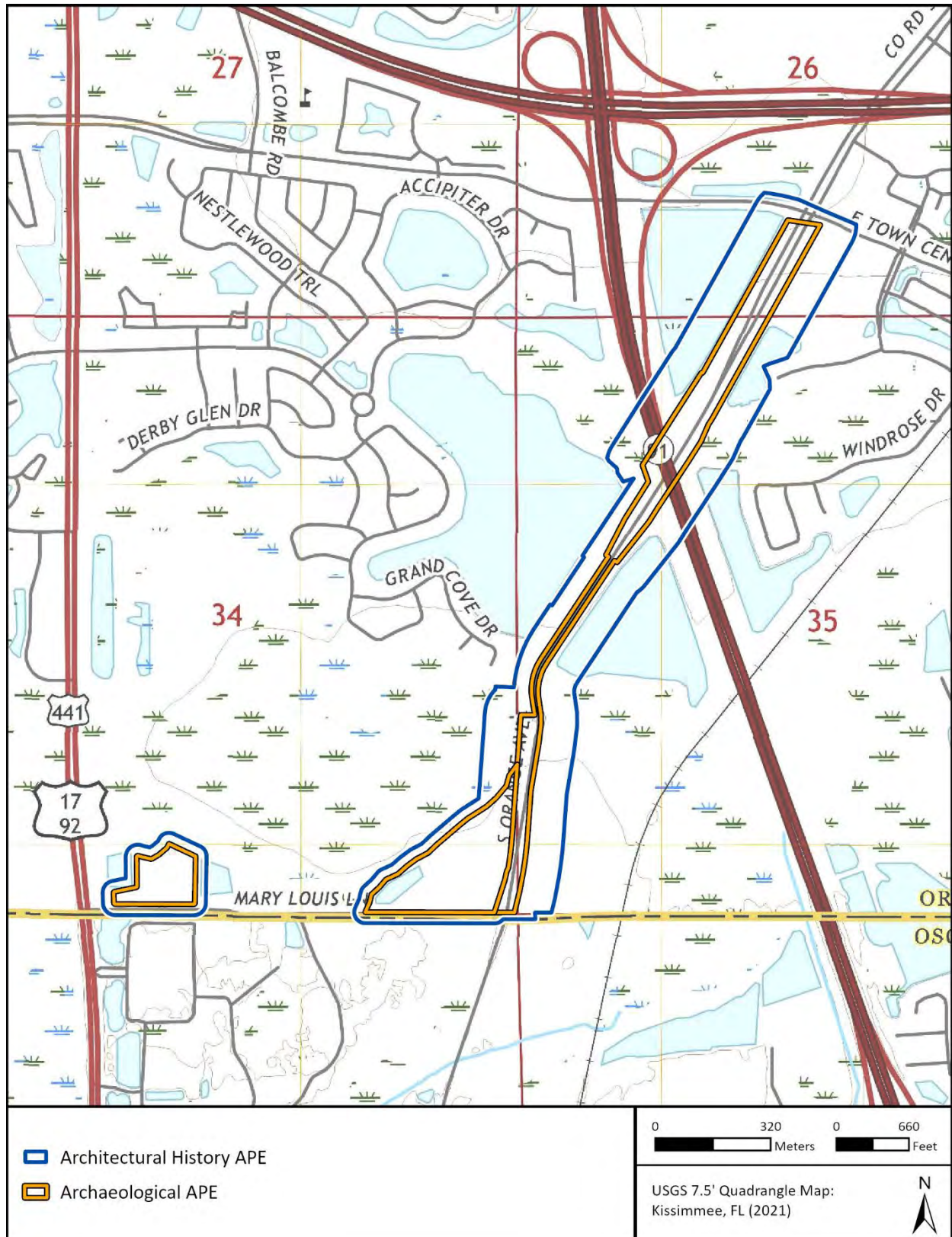


Figure 2. The archaeological APE and architectural history APE in Orange County, Florida.

PROJECT LOCATION AND ENVIRONMENT

LOCATION AND MODERN CONDITIONS

The project includes a 2.2 km (1.3 mi) section of Orange Avenue and two pond footprints between the cities of Orlando and Kissimmee in southern Orange County, Florida, within Sections 26, 34, and 35 of Township 24 South, Range 29 East. The area surrounding the APE is characterized by open retention ponds and undeveloped forests, with some residential and commercial buildings. The terrain crossed by the corridor has an elevation range of 25.9 to 27.4 m (85 to 90 ft) above mean sea level.

Geologically, the APE is a part of the Kissimmee Valley province of the larger Eastern Flatwoods district (Brooks 1981). This area is typically characterized by seasonally flooded lowlands of river swamp and grassland prairies. Soils within the archaeological APE are primarily very poorly drained, with small areas containing moderately well-drained, very poorly drained, and “pits” (indicating previously excavated) soils (**Figure 3**). There are many small ponds in the vicinity of the project, in addition to Lake Tohopekaliga, which is approximately 8 km (5 mi) south of the APE.

PALEOENVIRONMENT

An understanding of regional paleoenvironmental data is critical to determining how archaeological deposits were affected by post-depositional processes such as water and wind erosion, aggradation, and inundation—forces that impact or destroy archaeological sites or that create palimpsests at surface sites (Rees 2010:36–37). Conversely, sites near rivers or streams may have been buried by alluvium, sometimes deeply, and therefore may have been preserved. In addition, environmental change may have prompted technological, subsistence, social, and settlement strategy changes (Mandel and Holliday 2017).

Approximately 24,000 to 18,000 years ago, during the Last Glacial Maximum, global ice volumes were at their greatest, and temperatures were about 11°F colder than they are today (Ehlers and Gibbard 2004). However, this period was also characterized by a slow warming trend that melted massive ice sheets and resulted in global sea-level rise (Rohling et al. 1998). Around 22,000 years ago, Gulf of Mexico sea levels were at a low stand of 125.0 to 130.0 m (410.1 to 426.5 ft) below modern levels (Joy 2019:109), and Pleistocene shorelines extended at least 200 km (124 mi) farther south than today (Balsillie and Donoghue 2004; Gagliano et al. 1982; Saucier 1994:49–50). Under these conditions, most of Florida’s lakes and ponds were dry basins, and water in river channels was variable because water tables are tied to sea-level base levels (Thulman 2009).

After about 17,000 years ago, global melting of the ice sheets (deglaciation) led to sea-level rise and transgression of the continental shelves, particularly Florida’s western margins that drain the



Figure 3. Soil drainage within the APE.

Floridan aquifer-fed rivers. Even during the Younger Dryas, the last return to glacial conditions about 13,800 years ago, meltwaters slowed, but sea level continued to rise at least 60.0 m (196.9 ft) over the next 2,400 years (Joy 2019). Sea levels, though higher, were still much lower than at present; along the Gulf Coast, extensive grasslands probably existed, possibly attracting mammoth, bison, and other large grazing mammals.

The rate of sea-level rise was generally slow for 13,000 years to about 4,500 years ago; however, the rate and magnitude of ice melt was punctuated by three “melt-water pulses” that occurred in the late Pleistocene and early Holocene at approximately 14,200, 11,400, and 8,000 years ago (Blanchon 2011). Florida’s wetlands, lakes, and ponds formed mostly after 9,000 years ago (Watts and Hansen 1988). By 6,000 years ago, Florida’s climate included increased precipitation and surface water flow, as indicated by increased pine and wetland pollens, including abundant cypress, which indicates broad new areas of wetland habitat in the later pollen records (Watts and Hansen 1988; Watts et al. 1992). Higher sea levels and elevated water tables created essentially modern conditions by the late Holocene, approximately 4,500 years ago. The climate, water levels, and plant communities of Florida have been relatively stable during the past 4,000 years.

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HISTORIC OVERVIEW

NATIVE AMERICAN CULTURE HISTORY

The Native American precontact period of east-central Florida is characterized by a four-part chronology spanning more than 12,000 years: each period is based on distinct cultural and technological characteristics recognized by archaeologists. A fifth Native American period is also recognized, beginning with the advent of European contact. From oldest to most recent, the five temporal Native American periods are Paleoindian, Archaic, Woodland, Mississippian, and Contact/Mission (protohistoric/historic); however, it is not until the Middle to Late Archaic Mount Taylor period (about 6,000 years ago) that the region was intensively occupied.

Paleoindian Period (12,000–8000 BC)

While definitive evidence of human occupation in the region is generally attributed to the Clovis culture with its signature fluted projectile points, beginning at about 12,000 years ago, traces of earlier occupation are present at several eastern North American sites (Goodyear 2005; Lothrop et al. 2016). The Meadowcroft Rockshelter site in southwestern Pennsylvania (Adovasio et al. 1998), the Barton site in western Maryland (Lothrop et al. 2016), the Cactus Hill site in southern Virginia (McAvoy and McAvoy 1997; Virginia Department of Historic Resources 2022), the SV-2 site in southwestern Virginia (Goodyear 2005), and the Topper site in South Carolina (Goodyear 2005) have all yielded carbon dates pre-dating Clovis occupation, although no clear diagnostic artifacts have been identified in the earliest deposits at these sites. Regardless, it is now accepted that pre-Clovis peoples precede the traditional Paleoindian-period peoples, though it is unknown if the area that is now Seminole County was occupied before the Paleoindian period.

Excavations at the Harney Flats site in Hillsborough County have led many archaeologists to believe that people during the Paleoindian period in Florida lived part of the year in habitation sites near critical resources such as fresh water. The climate during the Paleoindian period was cooler than at present, the land was drier, and coastal sea levels and the inland water table much lower (Carbone 1983; Watts and Hansen 1988). The paucity of potable water sources is thought by some archaeologists to have played a crucial role in the distribution of people across the landscape. They hypothesize that human groups frequented sinkholes and springs to collect water and exploit the flora and fauna that were also attracted to these locations (Dunbar 1991; Milanich 1994; Webb et al. 1984). Further, many of these freshwater sources were in areas of exposed Tertiary-age limestone that had become silicified, providing people with a raw material source (chert) for tool manufacture. Thus, it is thought that permanent freshwater sources (sinkholes and springs) and locations of high-quality chert were primary factors influencing Paleoindian settlement patterns in Florida.

Material culture of the Paleoindian period consists of a limited number of temporally diagnostic projectile points, primarily the Clovis, Suwannee, and Simpson types. Formal unifacial tools, most notably end- and side-scrapers, are also common in Paleoindian assemblages, as are blade tools,

utilized flakes, and, occasionally, bola stones. Florida's rivers have produced aspects of Paleoindian material culture not recoverable in most other regions of North America, notably tools of bone and ivory. Among these are various pins and points, as well as foreshafts, which are believed to have been employed in attaching projectile points to spears, allowing for new points to be "reloaded" into the spear shaft (Milanich 1994:49).

Archaic Period (8000–500 BC)

Around 8000 BC, the environment and physiography of Florida underwent pronounced changes due to climatic shift. These changes were interconnected and included a gradual warming trend, a rise in sea levels, a reduction in the width of peninsular Florida, and the spread of oak-dominated forests and hammocks throughout much of Florida (Milanich 1994; Smith 1986). Concomitant with these environmental changes were alterations in subsistence strategies, which became more diverse due to the emergence of new plant, animal, and aquatic regimes. Also occurring at this time was a significant increase in population numbers and density, and groups developed regional habitat-specific adaptations and material assemblages (Milanich 1994; Smith 1986:10). As conditions became wetter, coastal, riparian, and lacustrine adaptations became increasingly common. Archaeologists typically divide the Archaic period into the Early, Middle, and Late subperiods.

Early Archaic (8000–6000 BC)

The early Holocene era was marked by changes in the climate, which began to approach that of the present, although the changes were gradual and took several thousand years. Sea levels began to rise, inundating land that was previously exposed and gradually reducing the landmass of present-day Florida. The shift toward a warmer, less arid climate resulted in changes in the types and distributions of plants and animals. For example, many of the large Pleistocene mammals, such as mastodon, ground sloth, camelids, and glyptodont, became extinct by 8000 BC. As a result, the subsistence and settlement strategies of the people occupying Florida also changed, becoming more diverse and including new plant and animal species, thus marking the onset of the Early Archaic subperiod.

The Early Archaic subperiod can be viewed as a time of transition from adaptation to the environment of the terminal Pleistocene to an environment more like the present environment, which began to develop around 6,000 to 7,000 years ago. Consequently, there is continuity in settlement patterns and technology with the preceding Paleoindian cultures. Many Early Archaic sites are found in similar places, such as near permanent water sources in the karst region of the state. Early Archaic stone technology is very similar to that of the Paleoindian period, particularly the use of large, unifacial scrapers, bifacial cores, and a dependence on high-quality siliceous stone for tool making. One obvious difference between the Paleoindian and the Early Archaic is the shift from lanceolate-shaped projectile points, like the Suwannee and Simpson forms, to smaller side-notched and stemmed projectile points and knives, such as Bolen and Kirk (Bullen 1975; Milanich 1994). The technological shift from large, lanceolate-shaped bifaces to smaller,

side-notched projectiles occurred throughout the Southeast during the Pleistocene-Holocene transition, and it is often assumed that the cause of this shift was the disappearance of the large Pleistocene mammals and a greater emphasis on smaller mammals (e.g., deer) for food.

Middle Archaic (6000–3000 BC)

Further environmental change in the Mid-Holocene coincides with the development of lifeways characteristic of the Middle Archaic. Evidence for this period is found throughout the Florida peninsula and is registered by the appearance of stemmed, triangular-bladed projectile points. Changing technology, subsistence, settlement, and mobility strategies, as well as social elaboration, emerged at this time. Projectile-point types such as the Newnan, Hillsborough, Marion, Hardee, Sumter, Alachua, and Putnam are common (Smith and Bond 1984:53–55). Lithic technology, apart from the bifaces mentioned above, consisted of informal modified and utilized flake tools. Where preservation allows, bone and shell tools are also found, notably in coastal and riverine shell middens but also in submerged contexts in rivers and lakes. In rare instances, wood artifacts, textiles, and cordage are sometimes preserved, typically in submerged, anaerobic environments (Purdy 1994).

As Archaic-period people became more sedentary, an array of site types evolved that included residential bases, short-term settlements, specialized procurement camps, mounds, and cemeteries (Aten 1999; Endonino 2007; Milanich 1994:75–85). For the first time, shell middens and mounds appeared along the St. Johns River and the Atlantic and Gulf Coasts, beginning some time at or around 4200 BC and coinciding with the beginning of the Mount Taylor tradition along the St. Johns River and Atlantic Coast of Florida (McGee and Wheeler 1994). It should be noted, however, that several radiocarbon assays have pushed the start of Mount Taylor back a millennium to 5300 BC (Randall 2007). Subsistence practices can be characterized as broad-spectrum or generalized foraging that took advantage of a wide variety of terrestrial and aquatic food resources. Freshwater and marine aquatic resources figured prominently in subsistence practices during the Middle Archaic, and once established, this pattern lasted for several millennia (Austin et al. 2002; McGee and Wheeler 1994; Russo et al. 1992). Figuring prominently into the diet of hunter-gatherers during the Middle Archaic are freshwater fishes, such as largemouth bass, bowfin, sunfishes, and gar, and several species of turtle. During this period, shellfish entered the diet and included freshwater snails and several species of mussel. Along the Atlantic and Gulf Coasts, marine shellfish were also collected and consumed, notably oyster and coquina clams. Once the use of these resources became established, it persisted throughout the duration of the precontact historical sequence. A variety of plants, nuts, and fruits were also eaten (Newsom 1994).

Late Archaic (3000–500 BC)

Increased sedentism and more circumscribed territories continued into the Late Archaic period, as environmental and climatic conditions approached those of today. According to Milanich (1994:86), most of the changes during the Late Archaic are related to demography and not new

lifeways. New stemmed and corner-notched projectile-point types were also produced during this time and include the Culbreath, Clay, Lafayette, and Levy (Bullen 1975). A major technological innovation of the Late Archaic was the development of fired-clay pottery around 2100 BC. Referred to as Orange pottery by archaeologists, this early ware was tempered with plant fibers (Spanish moss; Bullen 1972; Griffin 1945). Orange fiber-tempered pottery was first described by Jeffries Wyman (1875) and Clarence Moore (1893). During a span of approximately 600 years, plain, incised, and punctated types were produced and are now known to be contemporaneous (Sassaman 2003a), undermining the previous chronology established by Bullen (1972). With regard to vessel form, pots were both hand-molded and coiled and are both thick- and thin-walled and basin-shaped. People belonging to the Orange culture lived along the St. Johns River in Florida, but fiber-tempered pottery can be found along the Atlantic Coast between southern South Carolina and southeastern Florida. While fiber-tempered pottery is found throughout Florida, it is concentrated in the eastern and central portions of the state.

St. Johns pottery, with its characteristic spiculate-tempered paste and chalky feel, has its origins in the Late Archaic. This ceramic series has been found in association with Late Archaic-aged radiocarbon dates (1400 BC) along the southeastern coast of Florida (Russo and Heide 2002) and has even been dated to the very early part of the Late Archaic (2200 BC) at Tick Island (Jenks 2006). St. Johns Plain and Incised pottery has been found in secure stratigraphic context below the ridges at Poverty Point in Louisiana, where it was an exotic trade item. Radiocarbon dates were taken above and below a sherd of St. Johns Incised and returned dates of approximately 1040 BC and 1160 BC (Hays and Weinstein 2004:159). Along the St. Johns River and throughout much of east and central Florida, St. Johns pottery was the dominant ware from nearly the inception of pottery making until the arrival of Europeans, with only minor stylistic and technological variation.

Woodland and Mississippian Periods (500 BC–AD 1565)

St. Johns Culture

Sites affiliated with the St. Johns culture are often identified by the presence of chalky pottery that was primarily produced between 500 BC and AD 1565 (but did have an earlier origin as discussed above). During this period, there was an increase in population and settlement numbers, construction of sand burial mounds, continued economic dependence on aquatic resources, and greater emphasis on plant cultivation (Goggin 1952:40; Milanich 1994:243–274; Sassaman 2003b). While St. Johns pottery is found across the peninsula, the St. Johns River drainage in central and northeastern Florida was the core area of the St. Johns culture. In eastern and central Florida, the St. Johns culture grew directly from the preceding Orange culture. The pottery types bearing their names were essentially contemporary, although spiculate-tempered St. Johns wares persist throughout precontact history. Within the St. Johns period, there are two major subdivisions (I and II).

St. Johns I

The St. Johns I period is divided into three subperiods (I, Ia, and Ib) based on observable changes in material culture, most notably pottery (Goggin 1952:40; Milanich 1994:247). People of the St. Johns I culture (500 BC–AD 100) were foragers who relied primarily on hunting, fishing, and wild-plant collecting. During this time, the resources found near freshwater wetlands, swamps, and the coastal zones were typically the most heavily exploited. St. Johns I sites are typically shell middens along the St. Johns and coastal zones. Other sites containing St. Johns Plain and Incised pottery are also found around the interior lakes in central Florida, some of which appear to be long-term habitation sites containing midden accumulations.

At St. Johns Ia sites (AD 100–500), St. Johns Plain and Incised pottery continued to be produced, and a red-painted St. Johns variant called Dunns Creek Red was also made. Exotic Hopewellian artifacts also occur in burial mounds. Weeden Island pottery (primarily a Gulf Coast type) has been recovered from late St. Johns Ia sites, apparently acquired as a trade ware. The St. Johns Ib period (AD 500–750) is similar to the Ia period, with the carryover of St. Johns Plain and Incised wares and Dunns Creek Red, but Weeden Island pottery is more common. However, most everyday vessels were plain. As the St. Johns culture progressed, sand mounds continued to be constructed and became larger through time.

St. Johns II

The St. Johns II period is further divided into three subperiods (IIa, IIb, and IIc). As populations grew, the number and size of mounds and villages increased. The emergence of check stamping marks the beginning of the St. Johns II period around AD 750 and, along with plain pottery, dominates the assemblages throughout the period. During St. Johns IIa (AD 750–1050), incised and punctated wares, possibly a reflection of Gulf Coast influences, occur with some frequency in mounds and middens. Late Weeden Island pottery continued to be traded into the St. Johns region and is recovered in sand burial mounds.

The St. Johns II culture reached its apex in terms of social, political, and ceremonial complexity during the St. Johns IIb period (AD 1050–1513). Classic Mississippian traits, such as the construction of large, truncated mounds and the presence of Southern Ceremonial Complex burial paraphernalia in association with perceived elite burials, are evident (Milanich 1994; Smith 1986), indicating influence from northwestern Florida. Some sand burial mounds were quite large and ceremonially complex, including truncated pyramidal mounds with ramps or causeways leading to their summits (Milanich 1994:269–270). The increased number of St. Johns village and mound sites implies greater cultural complexity compared to the earlier St. Johns I period (Milanich 1994:267–274; Miller 1991). Shell and bone ornaments, worked copper, and other exotic materials and artifacts occur with some frequency in burial mounds (Goggin 1952; Milanich 1994).

In addition to the exploitation of aquatic resources for subsistence, it has been suggested that there was an increased dependence on horticulture during St. Johns II times (Goggin 1952;

Milanich 1994:263–264). In fact, sixteenth-century French and Spanish documents report that beans, squash, and maize were extensively cultivated by the Timucua of northern Florida (Bennett 1964, 1968, 1975; Lawson 1992), although direct evidence of precontact horticulture is lacking for the east and central region.

Contact Period

St. Johns IIc (AD 1513–1565) is characterized by the introduction of European artifacts. Prior to the founding of St. Augustine by Pedro Menéndez de Avilés in 1565, Spain made several forays into Florida, beginning with Juan Ponce de León in 1513 (Davis 1935). Except for intermittent exposure to European goods and diseases, St. Johns IIc seems to represent a continuation of the earlier St. Johns II period. Items such as glass beads, European pottery, hawk’s bells, mirrors, and metal hoes, axes, and chisels have been recovered in association with St. Johns IIc burials. Other metals, such as copper, silver, and gold, were also acquired and reworked by native artisans.

The groups living in the project vicinity at the time of Spanish contact were known as the Mayacas and Jororos, named for the larger villages in the region and their chiefs. These groups subsisted primarily by hunting animals, by collecting locally available root, nuts, fruits, and tubers, and by fishing (Milanich 1995:68). Mayaca and Jororo peoples lived in an area defined by the areas directly and indirectly under their control, broadly described as the area extending from the southern end of Lake George to the Atlantic Coast, and from Orlando eastward to Cape Canaveral (Hann 1993:112). The Mayacas and Jororos spoke Mayacan, a language distinct from Timucuan, and appear to have been tied linguistically and politically to the Ais and other peoples of south-central Florida.

Spanish records document four large Jororo villages in the central lakes region: Jororo, Atissimi, Atoyquime, and Piaja. The Spanish established missions in the largest of these villages. Efforts to missionize the Jororos were not successful. In 1696, Friar Luis Sanchez was killed, along with a local chief and two boys who had been converted to Christianity, at the mission at Atoyquime (Hann 1996:244). The Spanish retaliated and captured the people involved in the killings, but many of the Jororos had already left the area and moved to the St. Augustine area (Hann 1993:130–131).

Little is known about the material culture of the Mayaca and Jororo peoples. They were like the Ais in several respects but shared the St. Johns pottery assemblage of their northern Timucuan-speaking neighbors (Hann 1993:118–119). There was some contact with the Spanish mission system in the late seventeenth century, but most of the Spanish artifacts recovered have been recovered from burial contexts. None of the village sites identified in Spanish documents have been identified, and there are no known and recorded Mayaca and Jororo village sites.

After the destruction of the mission system by the British in 1702, central and northern Florida were essentially abandoned, as the few remaining Native Americans fled to St. Augustine for safety (Milanich 1995). Warfare and disease decimated the populations native to Florida. Groups of Creek began to move south from Georgia and Alabama into an unpopulated central Florida

after being pushed off their ancestral lands by European pressure and inter-Creek warfare. These people settled in Spanish Florida and utilized some of the feral cattle abandoned by the Spanish 50 years before. They later became known as the Seminole.

POSTCONTACT HISTORY

This historical context presents an overview of Orange County with a focus on southern portions of the county and its development between the late nineteenth century and the present. Early Spanish settlements in Florida concentrated on the coasts and in the northern half of the peninsula (Thomas 1990). Spanish missionaries established a few missions in central Florida during the early seventeenth century but soon abandoned them (Deagan 1978; Milanich 1995). They instead focused on the northern and coastal regions, meaning little Spanish activity in the early period in present-day Orange County (Wickman 1999). By the 1690s, Spanish missionaries actively set up missions among the Jororo, whom the Spanish combined in their writings with the Mayaca because they spoke a similar language. The Spanish traveled down the St. Johns River into Mayaca territory (Seminole, Lake, and possibly Orange County) and farther south to the Jororo (Orange and Osceola Counties). The Spaniards called the Mayaca and Jororo region *la rinconada*, meaning “a corner or nook, a place away from major activities” (Milanich 1995:63–64). The Spanish mission system caused a drastic decline in Native American populations in Florida from war and disease, allowing the Creek from Alabama and Georgia, who were later known as the Seminole, to migrate into the area (Fairbanks 1975; Fernald and Purdum 1992).

At the end of the Seven Years War in 1763, the British traded their recent conquest of Havana to Spain for the Florida peninsula (Wright 1975). In place of the Spanish mission system, the British set up several trading posts in Florida (Wright 1975). In 1783, the Treaty of Paris ended the American Revolution and returned Florida to Spain. Andrew Jackson’s invasion of Florida in 1818 highlighted Spain’s weak control over the region and led to the transfer of the territory to the United States in 1821 (Coker and Parker 1996). During a massive reorganization of the Florida territory in 1824, the territorial government created Mosquito County (which would later be renamed Orange County) as Florida’s eleventh county, originally encompassing entire portions of central Florida and the Atlantic coastline, including parts of present-day Brevard, Flagler, Indian River, Lake, Marion, Martin, Palm Beach, Seminole, and Volusia Counties (Drayton 1827; Porter et al. 2009). In the early nineteenth century, a few white settlers, especially cattlemen, arrived in the area; however, Seminole occupied most of the lands of the new county, and much of Orange County was within the Seminole Reservation boundary established by the Treaty of Moultrie Creek in 1823 (Mahon 1985). During Second Seminole War (1835—1842), the United States established several forts in the region, including Fort Gatlin near present-day Orlando. Trails connecting these mid-nineteenth century forts often served as the earliest territorial roads (Mahon 1985; Roberts 1988).

In 1842, following the Second Seminole War, the United States government passed the Armed Occupation Act to encourage white settlement. The act made 80,937 hectares (ha; 200,000 acres

[ac]) of land once reserved for the Seminole Reservation available for homesteading, awarding homesteads of 65 ha (160 ac) to any head of a family or single man 18 years of age or older who would agree to cultivate at least 2 ha (5 ac), build a dwelling, and defend the land for five years. The Homestead Acts of 1866 and 1876 provided further incentives to settlers (Tebeau 1980). A cattleman from Georgia named Aaron Jernigan arrived among the early white pioneers who ventured into present-day Orange County. He built a stockade near Lake Holden, and a small settlement emerged around it, originally known as Jernigan and later as Orlando (Bacon 1975). Florida was admitted to Union as the twenty-seventh state in March 1845 (Schafer 1996). Soon after, the new Florida Legislature changed the name of Mosquito County to Orange County. In 1856, the county seat moved from the village of Enterprise to Orlando. The population in the county remained sparsely settled at the time of statehood; however, it continued to increase over the next few decades, reaching nearly 1,000 by the start of the Civil War (Blackman 1927). During the 1850s, more people started settling around Orlando. The fertile land provided ideal farming conditions, and settlers raised hogs and cattle (Robinson and Andrews 1995).

In the 1870s, farmers began experimenting with citrus agriculture in Orange County, and it grew to dominate the economy soon after. The arrival of railroad lines in the Orlando area boosted the new industry and enabled the growers to transport crops to northern and western markets. The South Florida Railroad, guided by Henry Plant and set to operate from Tampa to Sanford, promised the county an increased connection with the rest of the state, a major benefit to the area's agricultural exchange (Turner 2003). With the advent of citrus agriculture and the railroad, the population of Orange County increased, and new towns developed along the railroad corridors. Between 1870 and 1880, the county population tripled to 6,600 residents. By 1887, Orlando had 4,500 residents; that year, Orange County lost some of its territory with the establishment of Lake County from the western portion and Osceola County from the southern portion (Porter et al. 2009). The so-called Great Freeze of 1894–1895 nearly destroyed the citrus industry in Orange County, though growers in the county recovered by the start of the twentieth century. Farmers began diversifying on a larger scale. Many in the county cultivated an array of crops in addition to citrus, including corn, sweet potatoes, cassava, lettuce, celery, watermelons, cantaloupes, and strawberries (Anonymous 1906).

Other industries emerged in Orange County at the turn of the twentieth century. The timber and naval stores industries became especially prominent due to acreage covered in pine forests. Black Americans made up most of the workforce for both. The use of state convict labor remained prevalent in the naval-store industry until the 1910s. Even the end of convict labor failed to end the exploitative labor practices that characterized the industry (Shofner 1981). The value of Orange County real estate swelled during the Florida land boom of the 1920s. Contemporary historian William Fremont Blackman estimated that three to five thousand realtors went to Orange County. Bank clerks, store clerks, teachers, stenographers, nurses, and high school pupils entered the real estate business at the height of the land boom. The boom went bust within several years, though at the time of Blackman's writing (1927), the economy appeared to be recovering. Railroad extensions and improvements, public utility companies, hard-surfaced roads, and modern schoolhouses built during the land boom continued to serve residents through the difficult days of the Great Depression (Blackman 1927:78–79).

In the first decades of the twentieth century, a significant effort on state and national levels helped develop a sophisticated highway system. With the rise of automobile ownership, these highways helped connect people and products with other parts of the state, region, and nation. Early highways often followed the routes of railroad lines, as these routes already connected towns with market centers (Bacon 1975). State Road (SR) 2 traveled north–south through Orange County by the 1910s, extending northward to Georgia and south and southwest to Fort Myers. In Orange County, this route largely traveled the path of the Atlantic Coast Line Railroad and was realigned by the 1930s to more closely follow the rail route (Florida State Road Department [FSRD] 1917, 1926, 1934/35; Turner 2003). Citrus remained the mainstay of Orange County well into the twentieth century. The industry in Orange County held strong through the Great Depression, as it had through frosts, pestilence, and drought in earlier years. Shortly before the stock market crashed, the *Wall Street Journal* reported that Orlando was the center of marketing for fruit grown in the central region of the state. This accounted for about 80% of the total citrus crop in Florida. Citrus had effectively modernized Orlando, which had been, several decades earlier, a backwoods outpost (*Wall Street Journal* 9 February 1929). By 1935, Orange County claimed to be the largest shipping center for citrus fruits in all of Florida. The industry in the county had grown dramatically since the beginning of the century. The county counted 310,000 fruit-bearing trees circa 1905, which grew to approximately 2.3 million by 1934 (Anonymous 1906; Orange County Chamber of Commerce ca. 1935:1–3). Aside from groves, other visible signs of the citrus industry in the county included numerous citrus packing, shipping, and canning plants (*Wall Street Journal*, 13 December 1937).

During World War II, millions of people from outside Florida arrived in the state looking for construction jobs associated with military installation building or training for the armed forces. Many were introduced to Florida’s climate and beaches for the first time (Brotemarkle 2016). Following World War II, many of the servicemen and women stationed in Florida during the war returned to the state to make it their home. In the postwar era, Florida transformed from a predominantly rural, agricultural state into a populous, urban one. As more people moved into the state, Florida real estate became more valuable (Shofner 1982:267). Between 1960 and 1975, Orange County’s presence in the Florida citrus industry began to wane, and tourism took on a much larger role (Swanson 1975:19–20). Though small theme and animal parks developed in the county and greater region during the first half of the twentieth century, the postwar era saw the development of major tourist attractions that brought visitors from around the world. The most substantial addition was the creation of Walt Disney World in 1971, which transformed Orlando and southern Orange County into a modern metropolis. Between the opening of the theme park and the end of the twentieth century, the population of Metro Orlando had more than tripled, reaching 1.6 million residents by 2000. Orlando and Orange County became of a hub of tourism, extending into neighboring Lake, Osceola, and Seminole Counties. An economy formerly based on citrus agriculture turned into one that revolved around the service industry, spurring the development of restaurants, hotels, and additional theme parks. The continued growth of the population brought the development of additional housing, accommodations, and road improvements to better serve area residents and tourists alike (Mormino 2005:28-30).

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BACKGROUND RESEARCH

FLORIDA MASTER SITE FILE REVIEW

SEARCH reviewed Florida Master Site File (FMSF) data from January 2026 to identify previously recorded cultural resources within the APE. The FMSF review indicates eight previous cultural resource surveys overlap the current APE (**Table 1; Figure 4**). Of these, the most relevant to the current project are Survey Nos. 5120 and 20138 as they included subsurface testing within the APE.

FMSF Survey No. 5120 was conducted in 1998 in support of a realignment and roadway upgrade to Orange Avenue (SR 257). The survey consisted of ground-surface reconnaissance and the excavation of 65 subsurface tests along the proposed realignment corridor (Hutchunson-Neff 1998). No map of shovel test locations was provided in the FMSF data nor the project report; therefore, the number and location of shovel tests that were excavated within the current APE is unknown. No resources were recorded within the APE by the survey.

FMSF Survey No. 20138 was conducted in 2012 in support of the construction of two commercial tracts, residential areas, an upland preservation tract, and two wetland conservation areas north of Mary Louis Lane (Archaeological Consultants, Inc. 2012). This Module Three-compliant survey consisted of surface reconnaissance and a combination of systematic (50 m [164 ft] intervals) and judgmental subsurface testing along the edge of the cypress swamp and throughout the rest of the project area. Twenty-three shovel tests were excavated within the current APE during Survey No. 20138, all of which were within the two proposed pond footprints. No artifacts were recovered from the excavated shovel tests, and no cultural resources were identified within the APE.

The FMSF review also indicates that there are no previously recorded cultural resources, including archaeological sites, historic buildings, bridges, cemeteries, and resource groups, within the APE.

Table 1. Previous Cultural Resources Assessment Surveys within the APE.

| FMSF No. | Title | Year | Consultant/Author |
|----------|--|------|--|
| 4380 | <i>Florida Gas Transmission Mainline Archaeological Site Testing of 8WL81, 8CA163, and 8LI176 in Walton, Calhoun, and Liberty Counties, Florida.</i> | 1994 | Styer, Kenneth F., and Thomas R. Wheaton |
| 5120 | <i>A Cultural Resource Assessment Survey, Orange Avenue (SR 527) from the Osceola/Orange County Line to Taft-Vineland Road, Orange County, Florida</i> | 1998 | Hutchunson-Neff, Lee |
| 5840 | <i>Cultural Resources Assessment Survey of the Proposed Buccaneer Gas Pipeline, Florida [Volume 1: Final Report of Findings; Volume 2: Appendices]</i> | 2000 | Panamerican Consultants, Inc. |
| 6800 | <i>Cultural Resource Follow-up Surveys for Lines 500 and 600 (Supplemental Report 5)</i> | 2002 | Janus Research |

Table 1. Previous Cultural Resources Assessment Surveys within the APE.

| FMSF No. | Title | Year | Consultant/Author |
|-----------------|---|-------------|--|
| 8660 | <i>Cultural Resource Survey and Assessment Southmeadow, Orange County, Florida</i> | 2003 | Matson, Lindsay, and Lucy B. Wayne. |
| 9230 | <i>Cultural Resource Assessment Survey of Florida's Turnpike Mainline PD&E Study From US 192 to SR 50 (Clermont), Orange and Osceola Counties</i> | 2003 | Janus Research |
| 20138 | <i>Cultural Resource Assessment Survey Tupperware Heights Orange County, Florida</i> | 2012 | Archaeological Consultants, Inc. (ACI) |
| 22463 | <i>Cultural Resource Assessment Survey, TOD Property, Osceola County, Florida</i> | 2015 | ACI |

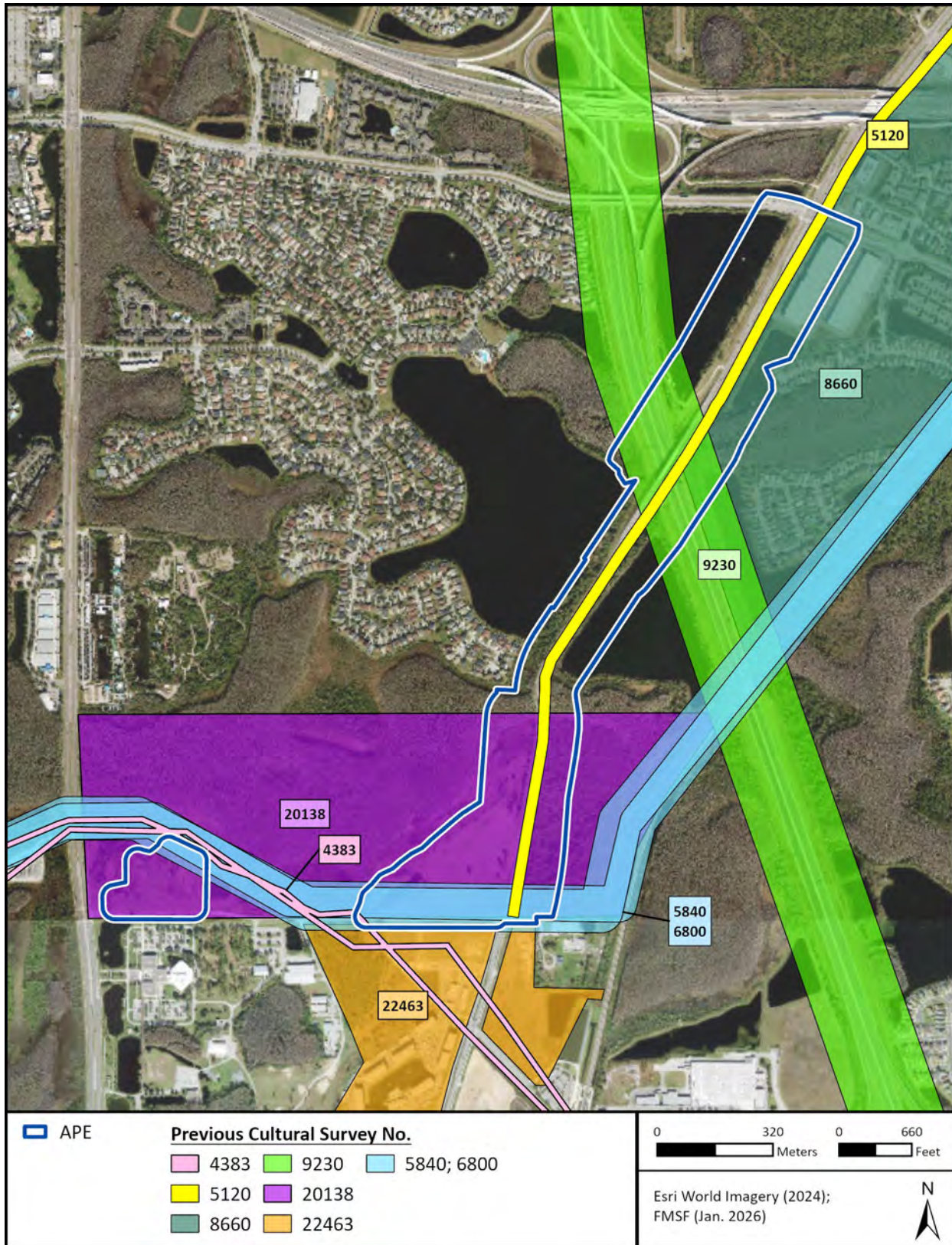


Figure 4. Previously conducted cultural surveys intersecting the APE.

HISTORIC MAP AND AERIAL PHOTOGRAPH REVIEW

Historic maps and aerial photographs were examined to identify past land use in the vicinity of the APE. The earliest detailed maps consulted were General Land Office (GLO) survey maps, created by government land surveyors during the nineteenth century as part of the surveying, platting, and sale of public lands. GLO maps of Florida Township 24 South, Range 29 East, and Township 25 South, Range 29 East, created in the 1840s show no clear signs of development within the APE. The land within the APE contains small bodies of water and otherwise undeveloped land. Two roads—one to the west in Section 33, Township 24 South, Range 29 East, and one to the south within Section 3, Township 25 South, Range 29 East—are illustrated within the vicinity of the APE but do not cross through its boundaries (**Figure 5**; GLO 1845, 1849). An 1882 map of Orange County illustrates the South Florida Railroad extending southward from Orlando and connecting with Kissimmee, passing in proximity to the APE. This map does not include any named settlements or features near or within the APE (Colton & Colton 1882).

By 1917, a state highway followed a similar route as the railroad line from Orlando to Kissimmee. On the 1917 and 1926 highway maps, this road appears to cross over the railroad line north of the Orange–Osceola border, traveling on the east side of the rail line before entering Osceola County. As such, this road likely would not have traveled through the APE. The 1926 highway map labels this road as part of SR 2, while the railroad line is labeled as part of the Atlantic Coast Line (Florida State Road Department [FSRD] 1917, 1926). A mid-1930s highway map of Orange County shows a new route for SR 2, which is also labeled as part of US 17 and US 92 on this map. The new route follows the west side of the railroad line, traveling through Sections 34 and 35, Township 24 South, Range 29 East, and passing through the APE (FSRD 1934/35).

A 1947 aerial photograph confirms this highway traveling from northeast to southwest into the APE and curving to the south before exiting the southern end of the APE. A bridge is evident in the southern portion of this APE, carrying the highway across a small waterway. The railroad line is evident to the east and southeast of the larger APE. Most of the land within the APE, outside of the highway, appears uncleared and undeveloped. A small unimproved road or trail travels east–southeast to west–northwest through the APE, connecting with the highway in the southcentral portion. A small, squared lake crosses into the boundary of the westernmost pond footprint of the current APE. Additionally, a north–south highway is evident to the west of this westernmost footprint, traveling past its western boundary (**Figure 6**; US Department of Agriculture [USDA] 1947).

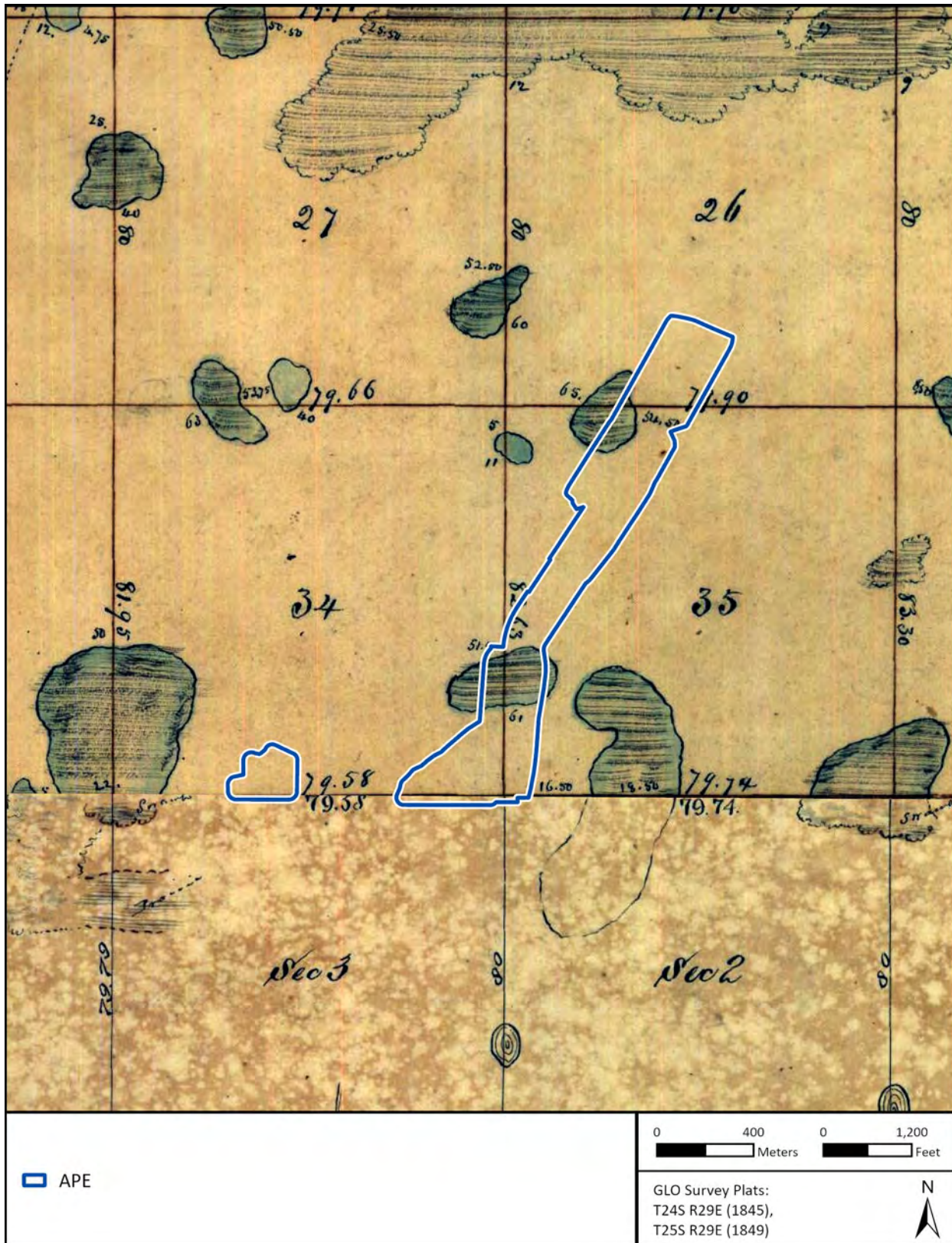


Figure 5. GLO maps of Florida Township 24 South, Range 29 East and Township 25 South, Range 29 East with APE (GLO 1845, 1849).



Figure 6. USDA aerial photograph of Orange County, Florida, with APE (USDA 1947).

A 1953 topographic map labels the north–south highway west of the APE as the new route of US 17/92 and also includes the designations US 441 and SR 600. This map labels the highway through the APE as SR 527. This map also marks the boundary line for Orange and Osceola Counties, which crosses through the southern portion of the APE. No additional details are readily apparent (**Figure 7**; US Geological Survey [USGS] 1953).

A 1969 aerial photograph shows another roadway traveling through the APE. This divided highway crosses through the north-central portion, traveling under SR 527. A squared retention pond is evident west-southwest of the intersection of the new highway and SR 527, though this pond does not cross into the APE. Additionally, a new road extends west-southwest from SR 527, beginning within the southern portion of the APE (**Figure 8**; USGS 1969). These changes are illustrated on a 1970 updated topographic map. This map labels the new highway through the north-central portion of the APE as the Florida Turnpike. The west-southwest road in the far southern portion of the APE forks to the west on this map (**Figure 9**; USGS 1970). No changes are evident on topographic map updates from 1980 and 1987 (USGS 1980, 1987).

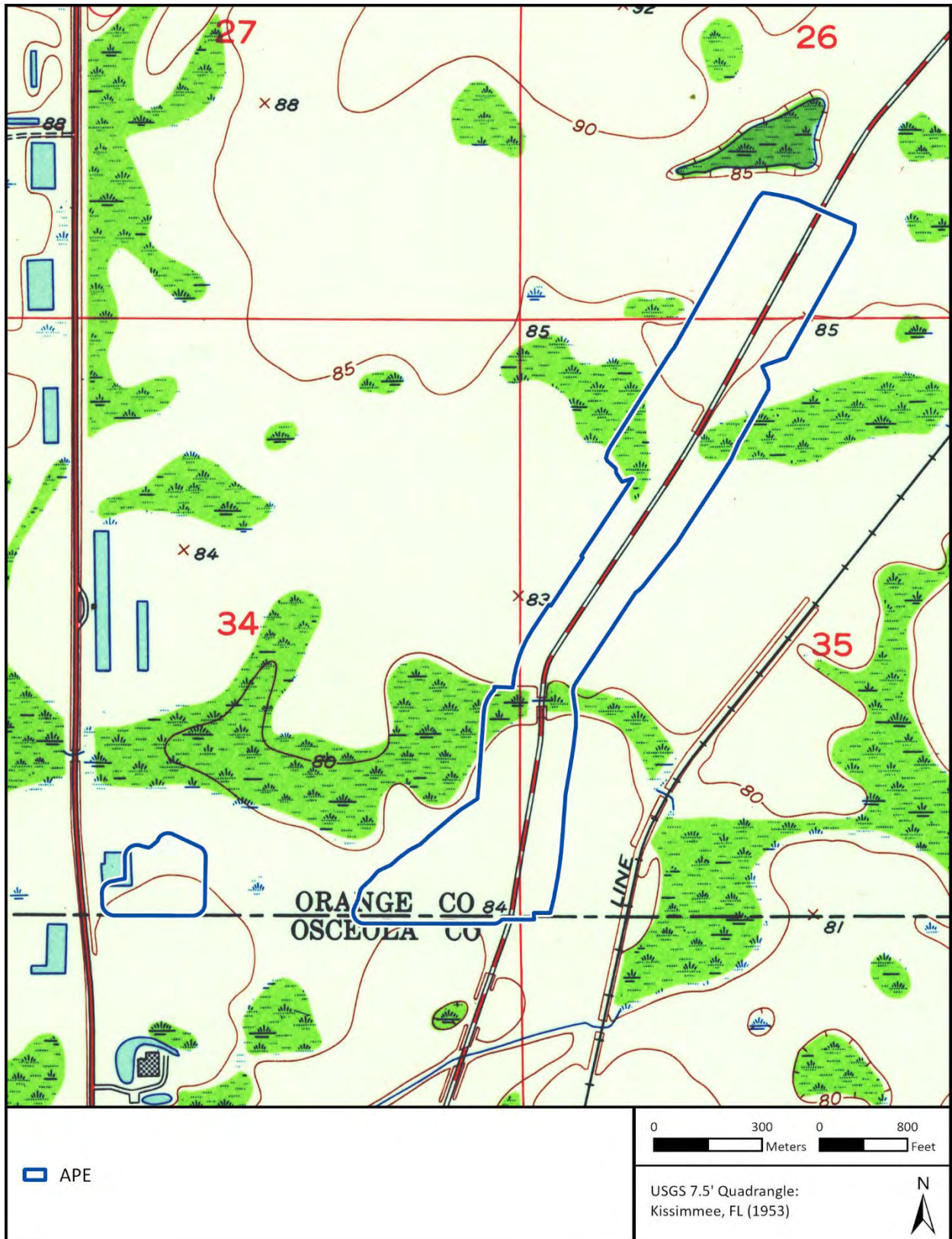


Figure 7. USGS topographic map of Kissimmee, Florida, with APE (USGS 1953).

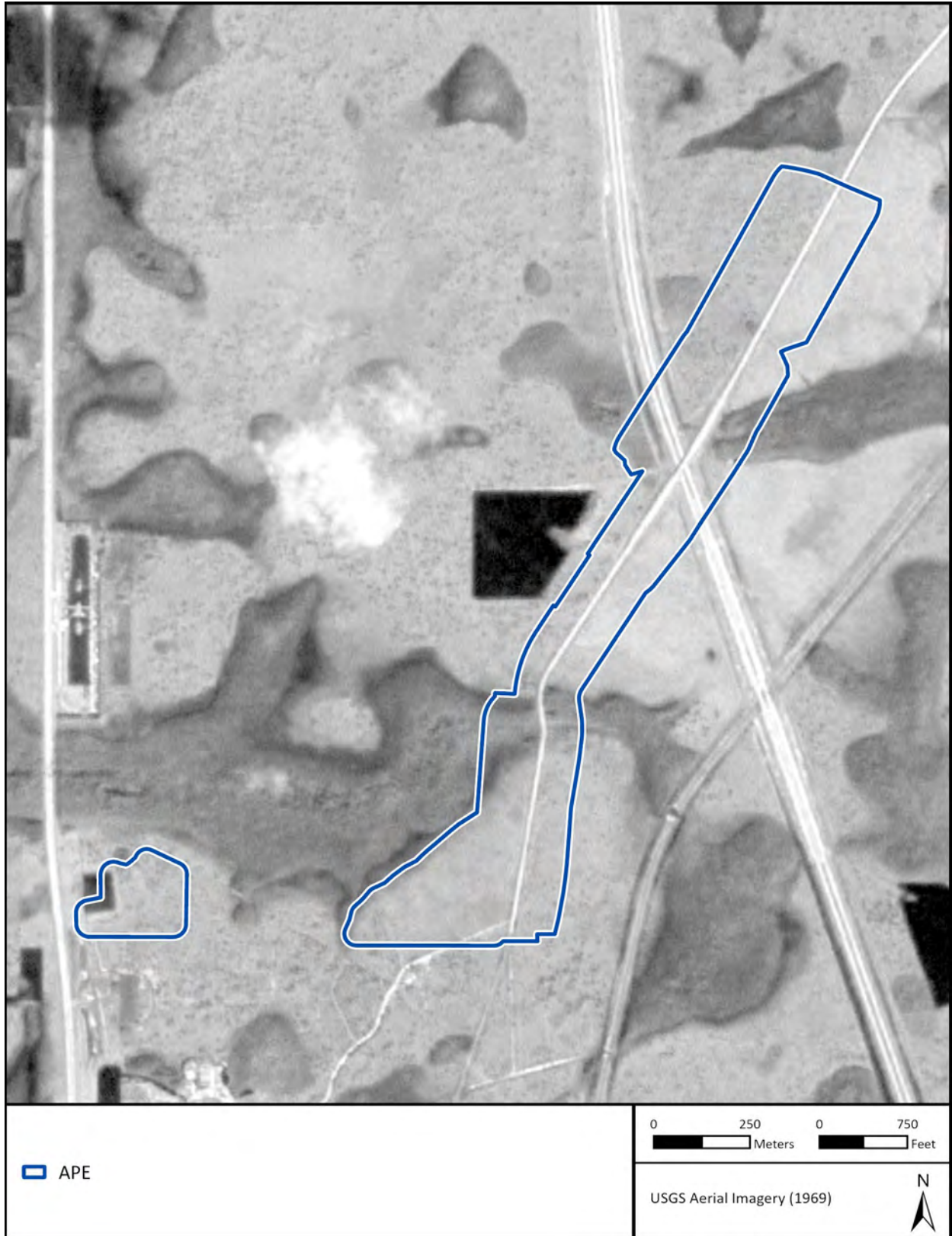


Figure 8. USGS aerial photograph of Orange County, Florida, with APE (USGS 1969).

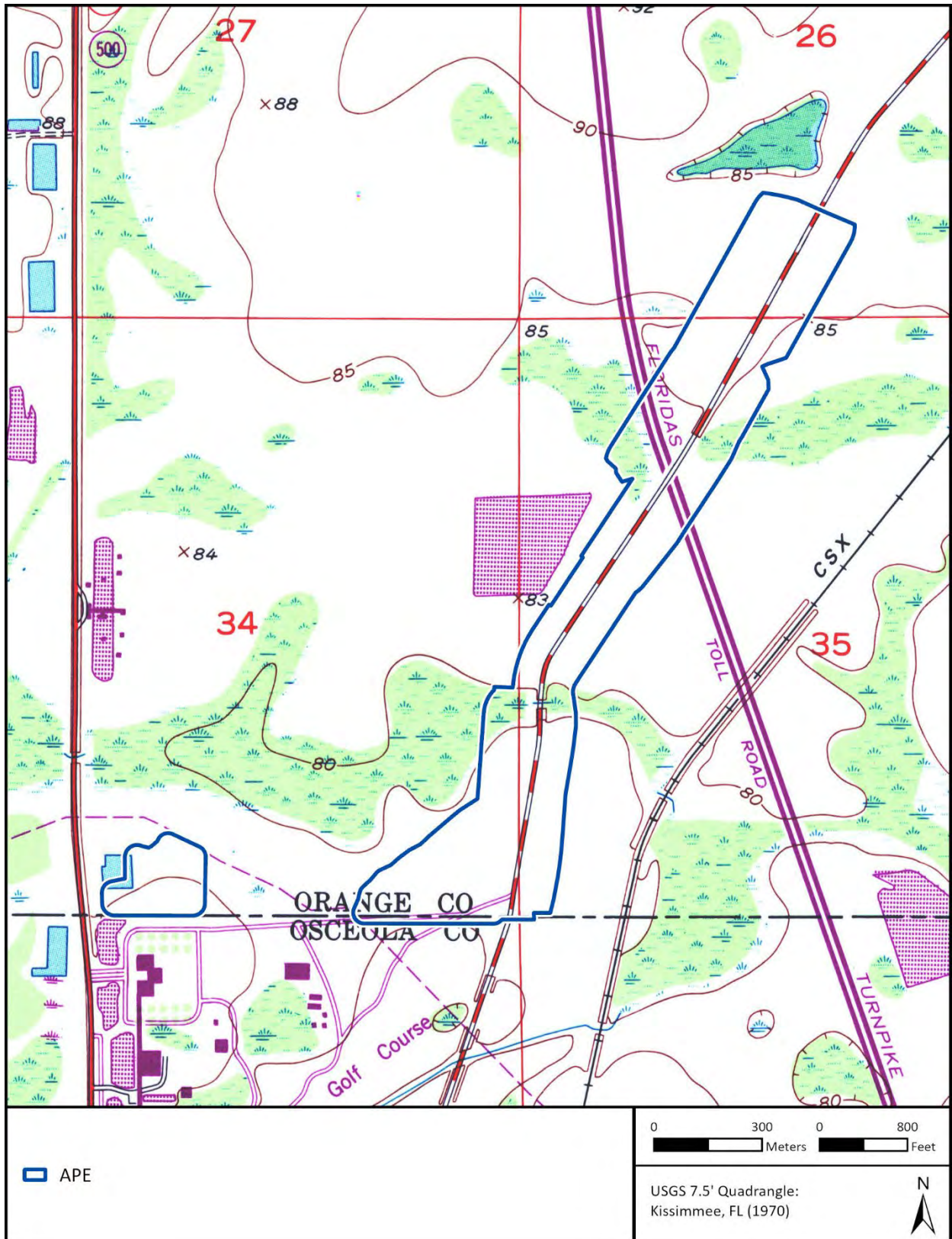


Figure 9. USGS topographic map of Kissimmee, Florida, with APE (USGS 1970).

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 survey was to locate and document evidence of historic or Native American occupation or use within the APE and to evaluate these findings' potential eligibility for NRHP listing. Such evidence includes archaeological or historic sites, historic resources, or archaeological occurrences (isolated artifact finds). 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 Native American 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 primary and secondary historic sources and a review of the FMSF for previously recorded historic resources. The original township plat maps, early aerial photographs, and other relevant sources were checked for information pertaining to the existence of historic structures or buildings, sites of historic events, and historically occupied or noted Native American settlements within the project limits.

NRHP CRITERIA

Cultural resources identified within the APE were evaluated according to the criteria for listing in the NRHP. As defined by the National Park Service (NPS), the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. that are associated with events or activities that have made a significant contribution to the broad patterns of our history; or
- B. that are associated with the lives of persons significant in our past; or

- C. that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. that have yielded, or may be likely to yield, information important in prehistory or history.

NRHP-eligible districts must possess a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development (NPS 1997 [1990]). NRHP-eligible districts and buildings must also possess historic significance, historic integrity, and historical context.

CULTURAL RESOURCE POTENTIAL

Based on an examination of environmental variables (soil drainage, access to wetlands and freshwater resources, relative elevation), and the results of previously conducted surveys, the potential for Native American archaeological sites to be present within the APE was considered low to moderate. No archaeological sites have been previously identified within the APE, and the soil drainage is predominantly poor; however, the entirety of the ROW has not been subjected to Module Three-compliant subsurface testing, and there are small areas with moderately well-drained soil in relatively elevated areas adjacent to wetlands. Alternatively, the ROW within which the proposed improvements will be built has undergone extensive disturbance due to road construction and maintenance and the installation of underground utilities.

Based on the results of the historic map and aerial imagery review, as well as a review of the Orange County Property Appraiser's database, the APE was judged to have a low potential for historic-period archaeological sites and historic resources.

SURVEY METHODS

Archaeological Field Methods

The archaeological field survey consisted of systematic subsurface shovel testing according to the potential for subsurface archaeological sites. The intensity of subsurface testing was based on the presence or absence of conditions conducive to human habitation (i.e., proximity to fresh water, topography, soil drainage). Proximity to previously recorded sites and evidence of existing disturbance was also considered. Based on these factors, subsurface tests were excavated at intervals of 50 and 100 m (164, and 328 ft), according to the medium and low potential for the presence of archaeological resources, as assessed using the criteria above, along two transects within the archaeological APE.

Shovel tests measured 50 cm (20 in) in diameter and were excavated to a minimum depth of 100 cm below surface (cmb; 39 inches below surface[inbs]), subsurface conditions permitting. All excavated sediments were screened through 0.64 cm (0.25 in) mesh hardware cloth. The location of each shovel test was marked on aerial photographs and recorded on handheld GPS units. The cultural content, soil strata, and environmental setting of each shovel test were recorded on field forms.

Architectural Field Methods

A review of the FMSF database and Orange County Property Appraiser's database, as well as historical maps and aerial images, was conducted prior to fieldwork to determine the probability for architectural resources within the APE. The architectural field survey included visual examination of the APE to confirm the absence of historic-aged buildings or structures.

Laboratory Methods

SEARCH did not recover any artifacts as a result of this survey; therefore, no laboratory analysis was required.

Curation

The original maps and field notes are currently housed at the New Orleans, Louisiana, SEARCH office. The original maps and field notes will be turned over to Orange County upon project completion; digital copies will be retained by SEARCH. Digital copies of required documentation will be uploaded and permanently retained by the FMSF database.

Certified Local Government Consultation

No Certified Local Government (CLG) exists for Orange County, and as such no CLG consultation was completed for the current project.

Local Informants

On March 9, 2026, SEARCH archaeologist Brittany Ricketts, MA, RPA, emailed Travis Puterbaugh of the Orange County Historical Society at the Collections & Brechner Research Center to discuss the project and inquire whether the society had any information related to cultural resources in the area. No response from the Orange County Historical Society has been received as of the submittal of this report.

Unexpected Discoveries Plan

SEARCH has made a reasonable and good-faith effort during this investigation to identify and evaluate possible locations of Native American and historic archaeological sites; however, the

possibility exists that evidence of cultural resources may yet be encountered within the project limits. Should 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 precontact or historic pottery, stone tools, bone or shell tools, historic trash pits, and historic building foundations. Should potential cultural artifacts or features be uncovered during the excavation of the project area, representatives of Orange County will assist in the identification and preliminary assessment of the resources. 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 County's designated cultural resources coordinator 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 the state archaeologist should be contacted per the requirements of Chapter 872.05, Florida Statutes.

RESULTS

ARCHAEOLOGICAL SURVEY

The archaeological APE is a 2.2 km (1.3 mi) section of the Orange Avenue ROW, as well as two proposed pond footprints totaling 9.4 ha (23.3 ac) west of the corridor at the southern terminus of the roadway improvements. Modern conditions observed during survey consist of a maintained and heavily altered roadway corridor bordered by commercial buildings, forests, and low-lying pastures (**Figure 10**). Fifty-two shovel tests were attempted, although only 17 could be safely excavated due to the presence of buried utilities, drainage features, and excessive slope from roadway berms and artificial landforms (**Figure 11–Figure 14**). Excavated tests were conducted at 50 m (164 ft) and 100 m (328 ft) intervals according to the probability for cultural resources. Locations where shovel tests could not be excavated were marked as “no-digs” and were documented via photographs. No artifacts were recovered from any of the excavated shovel tests.

The two proposed pond locations were included in a previously conducted Module Three–compliant survey in 2012 during which 23 shovel tests were excavated at 50 m [164 ft] intervals (FMSF Survey No. 20138, ACI 2012; see **Figure 13** and **Figure 14**). None of the shovel tests from the 2012 survey contained cultural materials. As such, no additional subsurface tests were completed within the proposed pond locations during the current survey.

No artifacts or archaeological features were identified, and no archaeological sites or occurrences were recorded within the archaeological APE. A survey log is provided in **Appendix A**.



Figure 10. Overview of the archaeological APE. Top left: view south along the western side of Orange Avenue with roadway berm, inundated ditch, and utilities in northern portion of the APE. Top right: overview of utilities, inundated drainage ditch, and slope west of the Florida Turnpike overpass, view south. Center left: buried utilities and narrow ROW along the east side Orange Avenue in southern portion of the APE, view south. Center right: buried utilities along Orange Avenue in the central portion of the APE, view north. Bottom left: view north within westernmost pond footprint. Bottom right: view north within pond footprint immediately west of Orange Avenue.

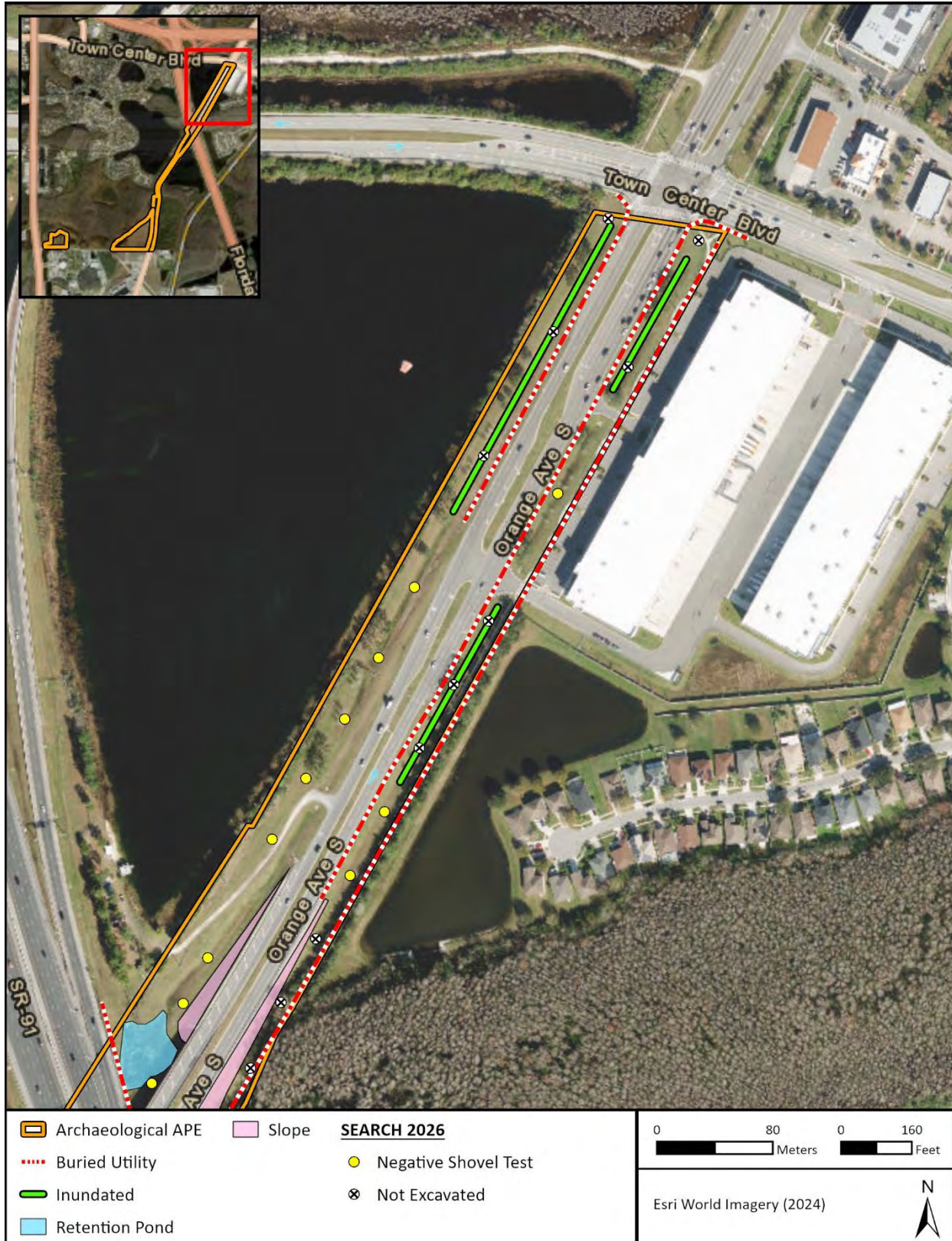


Figure 11. Results of archaeological survey, map 1 of 4.

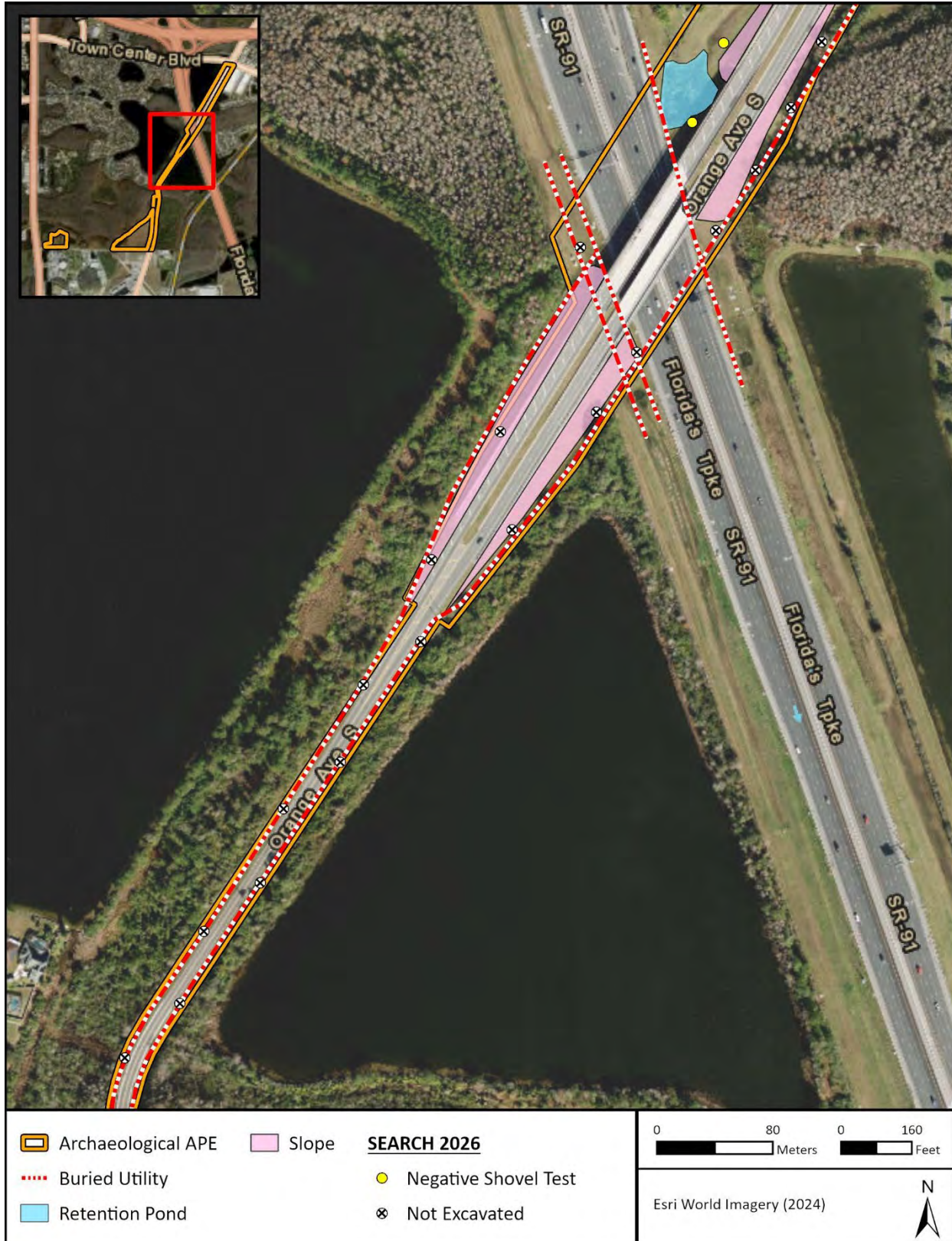


Figure 12. Results of archaeological survey, map 2 of 4.

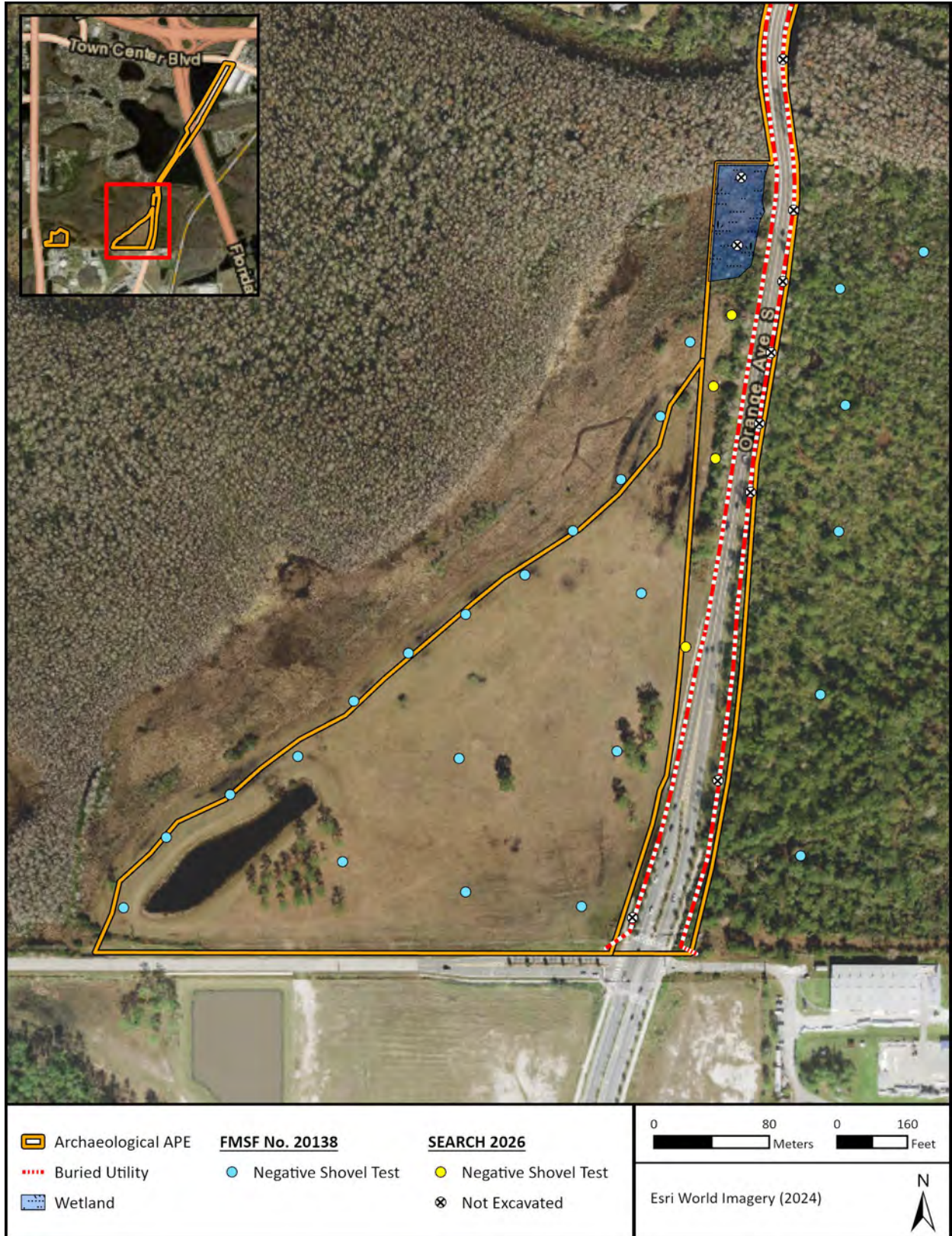


Figure 13. Results of archaeological survey, map 3 of 4.



Figure 14. Results of archaeological survey, map 4 of 4.

A typical soil profile exhibiting minimal disturbance within the archaeological APE consisted of grayish brown (10YR 5/2) sand from 0 to 30 cmbs (0 to 11.8 inbs; Stratum I) over dark grayish brown (10YR 4/2) sand from 30 to 60 cmbs (11.8 to 23.6 inbs; Stratum II) above very dark grayish brown (10YR 3/2) sand from 60 to 80 cmbs (23.6 to 31.5 inbs; Stratum III) over pale brown (10YR 6/3) sand from 80 to 100 cmbs (31.5 to 39.4 inbs; Stratum IV). Shovel tests terminated upon reaching a maximum depth of 100 cmbs (39.4 inbs) or terminated due to inundation from the shallow water table. Soil profiles observed within the existing Orange Avenue ROW exhibited extensive disturbance with mottling, fill layers, and modern debris (**Figure 15**).



Figure 15. Left: shovel test in southern portion of the APE. Right: typical soil profile exhibiting disturbance within the Orange Avenue existing ROW.

ARCHITECTURAL SURVEY

The architectural history survey did not result in the identification of new or previously recorded historic resources within the APE. Review of the FMSF database, historic maps, aerial photographs, and Orange County parcel data indicated that there are no historic resources within the APE. SEARCH confirmed these findings in the field visit of the current survey. No further architectural history work is recommended in support of the proposed project.

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CONCLUSION AND RECOMMENDATIONS

This report presents the findings of a CRAS conducted in support of the proposed widening of Orange Avenue in Orange County, Florida. The Orange County Board of County Commissioners is proposing improvements to Orange Avenue from the Orange County line (Mary Louis Lane) to Town Center Boulevard for a distance of 2.2 km (1.3 mi). Proposed improvements include widening Orange Avenue to a four-lane divided roadway, adding a buffered bicycle lane, drainage and lighting improvements, and sidewalk construction. Up to 100 m (328 ft) of additional ROW will be required to accommodate the proposed widening. The project is being completed through the Orange County Public Works CIP, which utilizes funds from a combination of local taxes, fees, and state and federal grants. This CRAS was completed in anticipation of permitting requirements.

The archaeological survey consisted of 52 planned shovel tests within the archaeological APE. Of these, only 17 were successfully excavated due to the presence of buried utilities, drainage features, and excessive slope from roadway berms and artificial landforms. None of the excavated shovel tests contained cultural materials. The remainder of the archaeological APE was examined via surface inspection and pedestrian survey. No artifacts were recovered, and no archaeological sites or occurrences were identified within the archaeological APE. No further archaeological survey is recommended in support of the proposed project.

A review of the Orange County Property Appraiser's database indicated that no parcels with historic-aged buildings (i.e., built prior to 1982) are within the APE. An examination of historic maps and aerial photographs of the area showed no buildings or other potentially historic-aged features in the APE. This is supported by the results of the architectural history survey, which identified no historic resources within the APE. No further architectural history survey is recommended.

Based on the results of this study, no NRHP-listed or -eligible cultural resources were identified within the APE. The project will result in *No Historic Properties Affected*, and no further cultural resources work is recommended.

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APPENDIX A.

FDHR SURVEY LOG SHEET

Ent D (FMSF only) _____



Survey Log Sheet

Florida Master Site File
Version 5.0 3/19

Survey # (FMSF only) _____

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

Manuscript Information

Survey Project (name and project phase)

CRAS for Orange Avenue Widening from Orange/Osceola County Line to Town Center Blvd

Report Title (exactly as on title page)

Cultural Resource Assessment Survey in Support of Final Design Services for Orange Avenue Widening from the Orange/Osceola County line to Town Center Boulevard, Orange County, Florida

Report Authors (as on title page)

- 1. Ricketts, Brittany
- 2. Pelier, Devi
- 3. Kent, Allen
- 4. Suphanniam, Anna

Publication Year 2026

Number of Pages in Report (do not include site forms) 56

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

Orange County Project #Y23-818; SEARCH Project #240119

Supervisors of Fieldwork (even if same as author) Names Drew Kinchen

Affiliation of Fieldworkers: Organization Southeastern Archaeological Research City Orlando

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

- 1. Orange Avenue
- 2. Orange County Line
- 3. Town Center Blvd
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____

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

Name FDOT District 5 Organization Florida Dept of Transportation - District 5

Address/Phone/E-mail DeLand, FL

Recorder of Log Sheet B. Ricketts Date Log Sheet Completed 3-26-2026

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

Project Area Mapping

Counties (select every county in which field survey was done; attach additional sheet if necessary)

- 1. Orange
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____

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

- 1. Name KISSIMMEE Year 2021
- 2. Name _____ Year _____
- 3. Name _____ Year _____
- 4. Name _____ Year _____
- 5. Name _____ Year _____
- 6. Name _____ Year _____

Field Dates and Project Area Description

Fieldwork Dates: Start 3-16-2026 End 3-18-2026 Total Area Surveyed (fill in one) 23.2 hectares 57.4 acres

Number of Distinct Tracts or Areas Surveyed 1

If Corridor (fill in one for each) Width: 100 meters _____ feet Length: 2.20 kilometers _____ miles

Research and Field Methods

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

Scope/Intensity/Procedures

Systematic shovel testing and pedestrian survey according to probability for cultural resources, recording of all pre-1982 resources.

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

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

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

Check here if NO archaeological methods were used.
surface collection, controlled shovel test-other screen size block excavation (at least 2x2 m) metal detector
surface collection, uncontrolled water screen soil resistivity other remote sensing
shovel test-1/4" screen posthole tests magnetometer pedestrian survey
shovel test-1/8" screen auger tests side scan sonar unknown
shovel test 1/16" screen coring ground penetrating radar (GPR)
shovel test-unscreened test excavation (at least 1x2 m) LIDAR
other (describe): _____

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

Check here if NO historical/architectural methods were used.
building permits demolition permits neighbor interview subdivision maps
commercial permits windshield survey occupant interview tax records
interior documentation local property records occupation permits unknown
other (describe): _____

Survey Results

Resource Significance Evaluated? Yes No

Count of Previously Recorded Resources _____ Count of Newly Recorded Resources _____

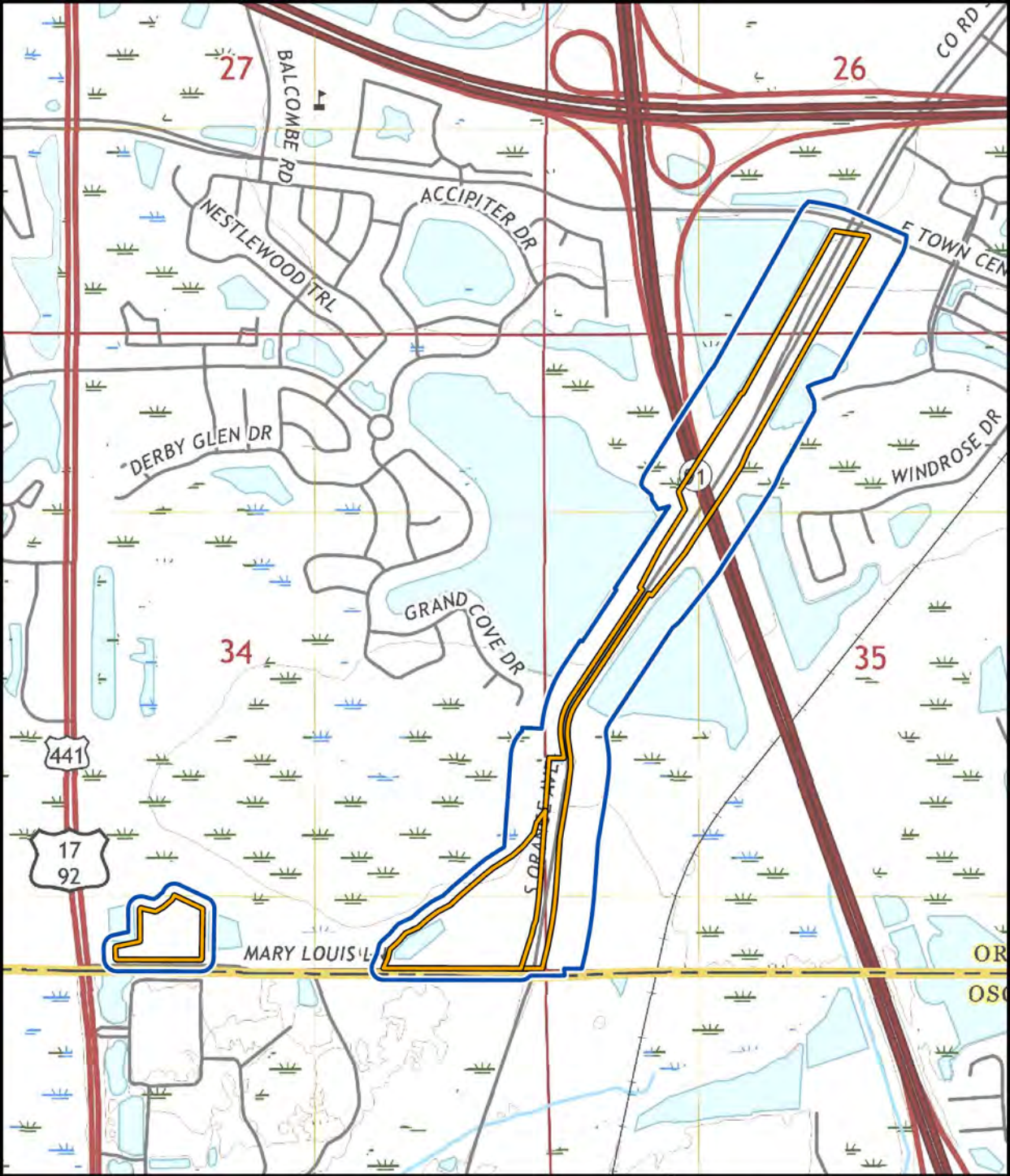
List Previously Recorded Site ID#s with Site File Forms Completed (attach additional pages if necessary)


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

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

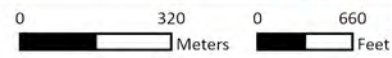
REQUIRED: Attach Map of Survey or Project Area Boundary

SHPO USE ONLY SHPO USE ONLY SHPO USE ONLY
Origin of Report: 872 Public Lands UW 1A32 # _____ Academic Contract Avocational
Grant Project # _____ Compliance Review: CRAT # _____
Type of Document: Archaeological Survey Historical/Architectural Survey Marine Survey Cell Tower CRAS Monitoring Report
Overview Excavation Report Multi-Site Excavation Report Structure Detailed Report Library, Hist. or Archival Doc
Desktop Analysis MPS MRA TG Other: _____
Document Destination: Plottable Projects Plotability: _____



 Architectural History APE

 Archaeological APE



USGS 7.5' Quadrangle Map:
Kissimmee, FL (2021)

