

3.4 Malabar Period (2000 BP–AD 1565)

The Malabar Period evolved from the Orange ceramic culture, which existed at the end of the Late Archaic and lasted until the arrival of the Spanish in AD 1565. Malabar was first defined by Irving Rouse (1951) as a unique culture located within the confines of the Indian River, beginning at the northern headwaters of the coastal Indian River lagoon and extending to its southern opening at the St. Lucie Inlet. It can be described as a transition zone between the Glades culture to the south and St. Johns culture to the north. Characteristics of the culture included the absence of corn agriculture, and differences in language, religion and social organization. Rouse (1951:244) divided the period into two main subperiods: Malabar I and Malabar II. They are based upon changes in ceramic styles and some subsistence practices (Milanich 1994:248-254).

Archaeologically, the only observable differences existed is the significant amounts of sand-tempered wares in the ceramic assemblages in the Indian River area. Nonetheless, Rouse (1951) considered the region a distinct archaeological area and suggested the cultural periods be classified as Malabar I and II with minor subdivisions and roughly paralleled those of the St. Johns periods. The predominance of sand-tempered ceramics in the southern portion of the region and St. Johns ceramics in the northern portion of the region show the Indian River area as a transitional zone between the Glades and St. Johns areas (Campbell, et. al. 1984). Recent analyses suggest that both St. Johns and sand-tempered wares of the region could have come from local clay sources.

Malabar cultures, overall, were nonagricultural chiefdoms that subsisted primarily by collecting plant resources, fishing and hunting of small game. As of yet, no direct evidence of corn agriculture in Malabar periods has been recovered, although corn was undoubtedly grown at the time in cultures to the west and north. They may have practiced a limited horticulture of cucurbits such as bottle gourds. The Malabar culture utilized villages or household sites that formed a nucleus for many small, specialized single use sites. Villages were often associated with middens and one or mounds nearby that served as cemeteries or house locations for the chief. This pattern was consistently used in the interior marshlands along the St. Johns River and along the coastal region (Milanich 1994:252).

Burials in all Malabar periods can be extended, flexed, or bundled. In some mounds, burials were placed in a spoke fashion around the center of the mound and then capped with sand, while others were placed head to toe in a circle in the center of the mound (Rouse 1951:253). Loose human bone is common in mound fill and may represent cleanings from charnel activity or disturbance of old burials when new burials were interred. A number of burial mounds are capped with sand containing hematite.

Lithic points appear to be of types associated with other regions or temporal boundaries. Common lithic tools in the Malabar area are limestone, coquina and sandstone abraders. Shanks were commonplace tools at coastal sites (Kozuch 1993). Other faunal artifacts from this period are fishhooks, leisters, barbed points, pins and awls, drilled turtle shell, and weaving shuttles (Milanich 1994:266; Rouse 1951:227). Exotics include steatite and hematite stone tools, and copper objects. Important sites within the region are Gauthier (8 BR 193) and Futch Cove (8 BR 773).

3.4.1 Malabar I (3000 BP-AD 750)

Malabar I is identified by the presence of plain chalky ceramics. In early examples of ceramics from this period inclusion of fiber tempering suggests the evolution from Orange Period wares. Use of linear decorative motifs is found in sites from this period and continues into the Malabar II Period. A red slipped ceramic known as Dunn's Creek Red is found only during Malabar I. During this period inhabitants lived along the St. Johns River and its tributaries, near coastal lagoons and on the coast

Table 2. Malabar Sub-Period Chronology

Date	Cultural Period
3000 BP-AD 750	Malabar I
100-500	Malabar Ia
500-750	Malabar Ib
750-1565	Malabar II
750-1050	Malabar IIa
1050-1513	Malabar IIb
1513-1565	Malabar IIc

* Adapted from Milanich (1994) and Rouse (1951) corresponds with St. Johns Periods

with sites adjacent to wetlands. There appears to have been some influence in the Malabar I culture from the Weeden Island and Yent (Mississippian) complexes. Malabar I is characterized by truncated sand burial mounds with both primary and secondary burial pattern, with secondary burial being the most common (Milanich 1994).

Larger truncated cone burial mounds identify the Malabar Ia Sub-period (AD 100-500). There are primary flexed single and mass interments within the mounds. Higher status individuals were buried with exotics such as copper, galena, greenstone, quartz and mica. This suggests a wide spread trade network. Deptford ceramics and local ceramics with Deptford characteristics are also seen during this period. Dunns Creek Red ceramics begin to appear at the end of Malabar Ia.

Malabar Ib (AD 500-750) is identified by the influence of Weeden Island belief systems within cultures in central Florida. Ceramics include trade ware or local copies of Swift Creek and Weeden Island ceramics, Dunns Creek Red, St. Johns Plain and Incised ceramics. By the end of Malabar Ib, Dunns Creek Red disappears from the archaeological record. Greenstone objects continue to be seen in burials but there is a dearth of galena, copper and mica.

3.4.2 Malabar II (AD 750-1565)

During Malabar II Period there appears to be a continued use of the same sites used in the Late Archaic and Orange Periods. Malabar II is also marked by limited agriculture and horticulture subsistence patterns supplementing hunting-gathering-fishing. Malabar II Period people exploited freshwater food species and marine resources. The rise of agriculture (though limited) and more extensive horticulture subsistence patterns facilitated the rise of social integration with big men or lineage groups controlling villages. The number of mounds and villages during this period suggests a population increase and change in subsistence and social systems. St. Johns Checked Stamped is the hallmark ceramic of this period. Mississippian and Southeastern Ceremonial Complex influence characterizes the middle Malabar II Period and European culture during the later part (Milanich 1994:250-254).

The Malabar IIa Subperiod (AD 750-1050) is typified by the presence of ochre layers in burial mounds. Large pyramid mounds, some of which were used for the internment of elite individuals or lineage groups, characterize Malabar IIb (AD 1050-1513). Some sites with these mound complexes also have causeways linking the mounds to small lakes or ponds. Motifs and art styles associated with the Mississippian culture and Southeastern Ceremonial Complex are seen during this subperiod. Ft. Walton and Safety Harbor ceramics are seen in Malabar IIb site. In addition, galena, copper,

greenstone and mica reappear in Malabar Iib burials. Malabar Iic (AD 1513-1565) sites are distinguished from Malabar Iib sites by the presence of European goods in sites from this sub-period (Milanich 1994: 268-274).

4.0 HISTORIC PERIOD

4.1 First Spanish Period (1513-1763)

There are accounts that encounters between Native Americans (Ais) and the Spanish occurred prior to 1513 (Milanich 1995:66-67). Ponce de Leon on his voyage of discovery of *La Florida* reported that his crew was attacked by the Ais when they anchored offshore opposite an Ais village and attempted to land (Bense and Phillips 1990:20). Between 1513 and 1565 (Table 3) there were several Spanish expeditions to Florida. Narvaez landed near present day Tampa Bay in 1528 and traveled along the Gulf coast. In 1539, there was the DeSoto expedition that traveled through Florida up into the greater southeastern United States. It is known that he also landed near Tampa Bay and traveled through the Gainesville area, passed close to Lake City and west to Tallahassee. From there he entered Alabama (Hann 1993: 116-118; 127-136).

However, in September 1565, Pedro Menendez de Aviles founded St. Augustine, which began a 200-year occupation of *La Florida*. That same year he attacked and destroyed the French colony Ft. Caroline. Some of the French colonists escaped, but were later shipwrecked as the result of a fierce storm. In October 1565, Menendez set out from St. Augustine with a combined land and sea force. In early November, he encountered the Frenchmen at a place several miles north of Cape Canaveral, where they had constructed an earthwork fortification protected by cannon salvaged from one of their ships. Except for a few, the Frenchmen surrendered to Menendez. The Spanish then destroyed the fortification and all remnants of the French presence at the cape and proceeded south until reaching a narrow isthmus between the Atlantic Ocean and the Indian River. It was here; Menendez encountered a concentration of Native American villages and the chief of the Ais. He decided to fortify and settle the area and left a group of 200 Spanish to implement his orders. Shortly after Menendez departed, a number of the Spanish mutinied and abandoned the area, thus ending the first attempt by Europeans to settle the east central Florida region (Milanich 1995:149-151; Bryne 1984:23).

The English, also eager to exploit the wealth of the Americas, increasingly came into conflict with Spain's expanding empire. In 1586 the English captain Sir Francis Drake looted and burned the tiny village of St. Augustine. However, Spanish control of Florida was not diminished. The English colonists in the Carolina colonies were particularly hostile toward Spain. Led by Colonel James Moore, the Carolinians and their Creek Indian allies attacked Spanish Florida in 1702 and destroyed the town of St. Augustine. However, they could not capture the fort, named Castillo de San Marcos. Two years later, they destroyed the Spanish missions between Tallahassee and St. Augustine, killing many native people and enslaving many others. The French continued to harass Spanish Florida's western border and captured Pensacola in 1719, twenty-one years after the town had been established. In 1740 colonists from Georgia attacked Florida, laying down a siege on the Castillo de San Marcos at St. Augustine for almost a month.

The Indian River region was part of Spanish Florida for nearly two hundred years. Yet except for the native population, it remained unsettled. In 1605, Alvaro Mexia, a Spanish soldier, led an expedition to the Ais area, where he visited several villages. He was able to secure an agreement with the Indians to limit their attacks to Dutch, French, and English intruders and report the presence of Spanish shipwreck survivors to the authorities at St. Augustine (Historic Property Associates, Inc. 1987:2-3;

Table 3. Historic Period Chronology

Date	Cultural Period
1513-1763	First Spanish Period
1763-1783	British Period
1783-1821	Second Spanish Period
1821-1842	American Territorial Period
1842-1861	Early Statehood
1861-1865	American Civil War
1865-1899	Reconstruction and Late 19 th Century
1900-1999	American Twentieth Century

Bryne 1984:23). One of the most famous accounts of the Ais during this period was by Jonathan Dickinson. In 1696, Dickinson and several others were shipwrecked near Jupiter Inlet and were captured by the Ais. They spent several months traveling among the Ais from Jupiter Inlet through northern Brevard and southern Volusia Counties. The Dickinson party was released to the Spanish who brought them to St. Augustine and eventually were sent to the Carolina colonies (Andrews and Andrews 1981).

4.2 British Period (1763-1783)

With the transfer of Florida to England in 1763, most of the Spanish and their Native American allies evacuated the colony (Table 3). The British divided Florida into two territories. East Florida had its capital in St. Augustine and West Florida with its capital in Pensacola. British policy emphasized the economic development of East Florida. The population of East Florida grew, hastened by the immigration of British loyalists fleeing from the revolutionary north. In 1768, Dr. Andrew Turnbull brought a group of 1200 colonists from the Mediterranean region known as Minorcans. The group was composed of Greeks, Spaniards, and Italians, as well as residents of the island of Minorca. They settled an agricultural colony at New Smyrna to grow indigo, which was used for blue dye. The Turnbull colony enlarged the Kings Highway and expanded it south of New Smyrna. Within the first year over half the colonists died due to starvation, overwork and malaria. In May 1777, the remaining Minorcans abandoned the colony. They marched to St. Augustine where they met with the governor. They accused Turnbull and his overseers of brutality, mismanagement, murder and cruelty. The governor released the colonists of their period of indenture and Turnbull's colony failed (Panagopoulos 1966; Griffin 1991).

The outbreak of the American Revolution altered the development of British Florida. Florida colonies remained loyal to the British crown and attracted large numbers of loyalist investors and settlers. The British crown and the Florida governor distributed numerous grants during the period. Plantations were established as far south as the Indian River. Among the plantations was that of Captain Robert Bisset. The Bisset Plantation encompassed approximately one thousand acres and was located at the confluence of the Indian and Hillsborough rivers, near the current boundary between Volusia and Brevard Counties. Bisset transported his crops to Turnbull Bay for shipments to ports to the north. Bisset also secured the contract for the southern extension of the King's Road, the most important public works project in Florida during the British period. In 1779, raiders from a Spanish privateer attacked Bisset's plantation and forced him to flee the area, thus ending British efforts to settle Brevard County (Historic Property Associates, Inc. 1987:5; Ehrenhard 1976:18).

4.3 Second Spanish Period (1783-1821)

The British transfer of Florida to Spain in 1783 (Table 3) initially slowed development as the majority of British Loyalists settlers left the colony for the Bahamas, or other parts of the British Empire. The population of East Florida during the Second Spanish period included Spanish, Minorcans, Native American, Anglo settlers, and blacks (free and slave). Among those settling or owning land in or around Brevard County was Domingo Reyes. Reyes was the inspector and overseer of the Spanish Royal Hospital at St. Augustine. He planted sugar cane and established a sugar mill at the plantation, which was about 40 miles northeast of Titusville in Brevard County. The Reyes Grant was located at the headwaters of the Indian River and encompassed 1,000 acres. The plantation was in operation from about 1804 until 1835 when it was destroyed during the Second Seminole War. Delespine Grant was the other major tract of privately held land in Brevard County during the Second Spanish Period. Governor Jose Coppinger conceded a 43,000 acre tract to Joseph Delespine in 1817 (Historic Property Associates, Inc. 1987:6).

During the Second Spanish Period, the United States was anxious to acquire both East and West Florida. Florida was seen as a potential threat to national security of the United States due to the Seminoles who were involved in armed conflict with settlers residing along the southern limits of the United States. East Florida provided a setting for contraband trade and slave smuggling, both of which were in conflict with the policies and laws of the United States government. In 1818, Andrew Jackson invaded Florida, as part of the First Seminole War and it became apparent that Spain could no longer control Florida. In 1819, the United States and Spain signed the Adams-Onis Treaty transferring Florida to the United States though the actual transfer did not happen until 1821.

4.4 American Territorial Period (1821-1842)

The United States Territory of Florida was established in 1821 (Table 3) with Andrew Jackson serving as the first governor. After territorial status was granted, the two Floridas were merged into one entity with a new capital city in Tallahassee. Established in 1824, Tallahassee was chosen because it was halfway between the existing governmental centers of St. Augustine and Pensacola. Jackson created St. Johns and Escambia Counties as the first two political subdivisions in the newly formed territory. Brevard County initially encompassed all of Florida east of the Suwannee River. As part of the Adams-Onis Treaty, the United States government agreed to confirm title to recipients of former Spanish land grants who had fulfilled the terms of the grants. After the United States acquired Florida, an influx of new settlers arrived in the territory.

When the United States acquired Florida in 1821, they considered the Seminoles a nuisance obstructing settlement of the territory and sought to isolate them on a reservation. A series of forts were constructed across Florida and were garrisoned by local militia or regular troops. After the First Seminole Indian War, the United States government and the Seminoles signed the Treaty of Moultrie Creek. The Seminoles agreed to move to the center of the peninsula. The treaty established a four million-acre reservation for the Seminoles, but it failed to eliminate tensions between them and whites. Native American removal was popular with white settlers because the native people occupied lands that white people wanted and because their communities often provided a sanctuary for runaway slaves from northern states. Clashes between Native Americans and settlers were frequent until 1835. The Second Seminole War (1835-42) began over the question of whether the Seminoles should be moved westward across the Mississippi River into what is now Oklahoma.

In December 1835, Chief Phillip led a revolt and attacked several plantations and sugar mills within Mosquito County. Several colonists were killed and this led to the Second Seminole Indian War. General Joseph Hernandez was the military commander of St. Augustine and mobilized the St. Augustine Guard to stop the uprising. On January 17, 1836, the St. Augustine Guard moved down the

Halifax River to find the Seminoles and was informed that Chief Phillip's force moved to the area of Lake Monroe. General Hernandez then moved his troops to that location and established Fort Kingsbury on the northeast shore of Lake Monroe (Macay and Blake 1839; Shofner 1994:36). From Lake Monroe, the troops marched eastward to the headwaters of the Indian River and set up a temporary camp directly on the mainland, west of Ft. Ann. Here the St. Augustine Guard linked with the local militia known as the *Mosquito Roarers* and additional soldiers from St. Augustine. The combined force traveled south on the mainland never more than one-mile inland from the Indian River. At the same time a naval contingent moved south on the river. They reached the southern mouth of the Indian River and established Fort Pierce at this location. Ft. Ann was completed in 1838 and guarded the point between Mosquito Lagoon and the Indian River, where canoes and other shallow draft vessels were portaged. A naval unit and three companies of artillery garrisoned Ft. Ann. This formed the original settlement of what is now Brevard County (Shofner 1994:36; Sunderman 1963: 170-173).

4.5 Early Statehood (1842-1861)

The Second Seminole War stimulated the first significant development of much of the Florida peninsula. Land was cleared, roads were built, and fortifications were constructed. Furthermore, the United States government created a real estate boom in Florida by promising a grant of land to any volunteer over eighteen who enlisted to fight the Seminoles. Congress enacted legislation in 1842 to encourage the settlement and development of the Florida peninsula south of Palatka. The legislation, known as the Armed Occupation Act, granted 160-acre homestead tracts to heads of family settling within the prescribed area. The act produced the first concentrated development of the Indian River region. Several prominent figures in the history of Brevard County including Douglas Dummett, Nathaniel Scobie, Charles Scobie and William Heath settled in the area during this period (Historic Property Associates, Inc. 1987:7-8; Shofner 1994:45-47).

Following the Seminole War, Dummett took advantage of the land program under the Armed Occupation Act and settled an area near Ft. Ann to grow citrus. Douglas Dummett is credited with creating the Indian River oranges by grafting wild sour orange trees with sweet oranges he grew in groves to the north (New South Associates 1994:51; Shofner 1994:180-181). The first Haulover Canal was built just south of Ft. Ann and was completed in 1854. It was used for shallow draft vessels. It was one of the first major man-made improvements to the inland waterway system, which had served Florida travelers since prehistoric times. However, the canal never did not function well and was used for a short period of time. Further to the south at Cape Canaveral, the first lighthouse was built in 1843 due to currents and shallows off the coast (New South Associates 1994: 55). A community called Sand Point (later named Titusville) was founded west of Ft. Ann.

4.6 American Civil War Period (1861-1865)

During the Civil War, Florida was not ravaged as several other southern states were. No decisive battles were fought on Florida soil. While Union forces occupied many coastal towns and forts, the interior of the state remained in Confederate hands. Florida provided an estimated 15,000 troops to the Confederacy. During the Civil War, many Brevard County settlers left their land and families and enlisted in the Confederate Army. Douglas Dummett sold his slaves at the outset of the war and allowed his grove to decline. He was the highest-ranking Confederate official in the area, serving as collector of customs. The principal economic activities during the war were cattle ranching to supply meat to the Confederacy, contraband trading, and salt making. Salt was important as a meat preservative to the Confederate war effort. One salt making plant was located near Ft. Anne and the other was reportedly built on the Indian River in the vicinity of Broad Street at Titusville. The citrus from the area played an important role in the Civil War. Confederate doctors sought citrus fruit for use as treatments as early as 1861. This helped to revitalize a flagging industry. Interestingly, Union

troops occupying Florida were picking the fruit and some even managed to ship boxes of the fruit home beginning a tradition that continues to this day (Wynne and Taylor 2001:81).

In addition to agriculture, cattle and salt Florida's third most important contribution to the war effort was aiding blockade runners and smuggling. The most important bodies of water in Volusia and Brevard Counties for blockade-runners were the Mosquito Lagoon and Indian River Lagoon. During the war, Union forces were in control of Fernandina, Jacksonville and St. Augustine, thus preventing the Confederacy from using these ports. The coast along central Florida was close to the British controlled islands in the Caribbean. Supplies were offloaded and moved inland by wagons to the St. Johns River where they were conveyed north to Georgia and Tallahassee (Taylor 1995: 32-34; Wynne and Taylor 2001:93-97).

In southern Volusia County and northern Brevard County, Mosquito Lagoon provided shelter for small cargo ships and kept out the larger Union blockade ships. Blockade-runners used the Indian River, particularly the Sand Point area, as a haven. The Mosquito Lagoon area was so important to the Confederate war effort that Union forces targeted the area for a raid. On March 22, 1862, Union forces launched a raid in hopes of capturing the blockade runner *Kate* and her cargo. The attack was unsuccessful when Confederate troops repelled the attack. The Confederate government was so concerned that valuable cargo might be lost in route from Mosquito Lagoon they had government wagon trains from Madison County meet the ships to unload the cargo. Also, in 1862 and 1863 Union troops shelled and raided New Smyrna destroying ships, cargo and buildings occupied by Confederate troops. In Brevard County, the Indian River Lagoon was an excellent source of shelter to smaller blockade runners. The two inlets into the Indian River Lagoon were at Haulover Canal and Jupiter Inlet. Both prevented the larger blockade ships from following them into the lagoon. By 1863, the Union navy allocated a large number of ships along the coast at Jupiter Inlet and Mosquito Lagoon making it almost impossible for blockade-runners to operate in this area. Tallahassee was the only southern capital east of the Mississippi River to avoid capture during the war, spared by southern victories at Olustee (1864) and Natural Bridge (1865). Ultimately, the South was defeated, and federal troops occupied Tallahassee on May 10, 1865 (Table 3) (Taylor 1995: 32-34; Wynne and Taylor 2001:93-97; Sweet 1954: 83-85; Historic Property Associates, Inc. 1987:10).

4.7 Reconstruction and the Late Nineteenth Century (1865-1899)

The concentrated development of Titusville did not begin until after the Civil War (Table 3). In 1867, the founder of Titusville, Colonel Henry T. Titus, arrived at Sand Point. During the Civil War, he was a blockade-runner on the Indian River, where he was captured by Union forces. In 1867 Titus settled at Sand Point on a piece of land owned by his wife. He conceived the idea of founding a town and opening up the Indian River country. Colonel Titus established a stage line between Enterprise and his new settlement in 1869. In 1870, he completed the Titus House which became the community center of the fledgling settlement and the surrounding Indian River Region. He paid for the clearing of land at the new town and the laying out of many of the first buildings. Titus helped establish a mail route to Sand Point and served as postmaster and as justice of the peace. He shipped freight to Titusville by boat and wagon and then filled them with citrus and pineapples for re-shipment north. In 1873, the name of the post office was changed from Sand Point to Titusville and was annexed to Brevard County in 1879. Colonel Titus pushed for the location of the county seat at Titusville (Historic Property Associates, Inc. 1987:11).

On the barrier islands, Dummett reopened his groves and employed many workers in the area of his homestead. A freed slave named Andrew Jackson married Dummett's daughter and founded his own citrus groves. He became a substantial grove owner and shipped oranges for 50 years (Shofner 1994:84-85). Butler Campbell, another freed slave, purchased groves from Jackson and became

another prominent citrus grower. Henry Wilson, son in law of Mills Burnham, became the first mail courier for the Cape Canaveral and Merritt Island area. He carried mail by boat from New Smyrna to Fort Pierce using Haulover Canal to move from the Indian River to the coast (Shofner 1994:85).

By the late 1870s, George Dummett had died and his grove passed hands several times. In 1879, Captain J. Francis LeBaron laid out Joynerville, the first subdivision within the present corporate limits of Titusville. The new subdivision was originally owned by Mary M. Carlin and was probably named for J.W. Joyner, Henry Titus's business partner. In 1880, J. Francis LeBaron platted the original town of Titusville. Within the newly platted town were the Titus House and Lund's Hotel, post office, wharves, and a sawmill. It was accessible by steamer to Enterprise and then by a stage, which ran three times a week. That same year George Webster Scobie settled there and established the first successful commercial fishing business (Historic Property Associates, Inc. 1987:12).

In late 1880s, a yellow fever epidemic spread through Florida. Cities like Jacksonville and Tallahassee were decimated by the outbreak. The fear of yellow fever created checkpoints and quarantine stations. Anyone suspected of having yellow fever at the checkpoints was sent to quarantine stations until they showed no signs of the sickness. Such facilities were established outside of Titusville and at Haulover Canal. Charles Nauman became the postmaster of the community of Haulover. He later became a grove owner and county leader. In 1881, Ecole Tamajo purchased Dummett Grove. He claimed to be nobility and called himself the Duke of Castalucci. The Duke built a large octagon shaped house from wood salvaged from shipwrecks and named the place Villa de Castalucci (Shofner 1994:172). During this period the town of Shiloh was founded on the Volusia/Brevard County line. The founders included the Kuhl, Griffis, Taylor and Pattillo families. Their graves can be seen in the area today. Shiloh post office was part of a line of mail stops along a line that ran south through Orsino and Cape Canaveral (Shofner 1994: 136, 150).

In 1885, the Atlantic Coast, St. Johns, and Indian River Railroad began a spur line from Enterprise to Titusville. Shortly thereafter, the line was leased to the Jacksonville, Tampa, and Key West Railroad, which extended the track to Titusville. The owner of the railroad was Henry Flagler and he extended the train service to Titusville and Cocoa in 1893. In 1895, Flagler changed the name of the railroad to the Florida East Coast Railway (FEC) and quickly supplanted the steamboat as the principal means of transportation along the Indian River. The transportation infrastructure of Titusville was supplemented by the construction of a railroad wharf on the Indian River at what is now Broad Street. The wharf was a transfer point where freight and passengers boarded the Indian River steamers for points farther south. Steamship companies coordinated their schedules with those of the railroad to insure continuity of travel. The railroad had an immediate impact on the economy of Titusville and the entire Indian River region. It allowed the rapid entry of tourists and permanent settlers, while facilitating the shipment of products from the region, particularly fish and fruit, to markets to the north. Businesses directly and indirectly associated with the fish and fruit industry, such as ice plants, packinghouses, and canneries developed (Historic Property Associates, Inc. 1987:13-14).

In 1886, Titusville was incorporated and the city hall was housed in a rented building on Main Street. Population growth followed the arrival of the railroad. Titusville had five stores, express and telegraph offices, two hotels, two public schools, and a steam saw mill. With the only rail connection, it was the hub of transportation for the Indian River region. There was steamer service to Melbourne and other points on the river. In the 1890s, a post office was founded at Cape Canaveral. It was located on a dock on the east shore of the Indian River and mail was delivered by boat (New South Associates 1994: 74). In December 1895, the major portion of Titusville's central business core was destroyed by fire. The business district was concentrated between Broad and Julia on Washington Avenue. In virtually every town in Florida the first commercial buildings were nearly always wood frame,

constructed of extremely flammable pine. As a result of these early building practices, fires were common, particularly in commercial areas where buildings were sited in closed proximity to each other. In the fire, Titus House and the entire business district was destroyed (Historic Property Associates, Inc. 1987:13-15).

4.8 American Twentieth Century (1900-1999)(Table 3)

By 1900 Titusville the population had grown to 900 and its business district was being rebuilt. It was the seat of government for Brevard County, transportation center and distribution point for Indian River fruit, vegetables, and fish. During the 1920s, as the state entered its "Boom" era, America's middle class had discovered the pleasures of Florida's climate and beaches. Many who had visited had remained. Due to the increased use of automobiles and to accommodate tourists, the Dixie Highway was constructed through Titusville and the first bridge to Merritt Island was constructed in 1921 (Historic Property Associates, Inc. 1987:16; Shofner 1994: 13, 21).

During the 1920s, Titusville entered a period of rapid growth due to what was known as the Florida Land Boom. The Boom had its genesis in South Florida. Buildings designed by architect Addison Miltner in Palm Beach and subdivisions such as Coral Gables became models for real estate developments around the state, including Titusville. The building boom of the 1920s meant the development of areas of Titusville beyond the traditional center of town. A number of new subdivisions were platted at that time. In 1922, Titusville's mayor W.F. Allen sold land to the DeSoto Beach Improvement Company, which became the DeSoto Beach community. In 1923, Allen with other investors organized the Titusville Beach Company and sold property to the Playa Linda Development Company (Shofner 1995:21). In addition to businesses directly involved in citrus, it helped support secondary businesses such as the railroads, trucking, banking, hardware stores, and fertilizer companies. Other significant economic activities were cattle ranching, truck farming, and commercial fishing. The Florida Boom collapsed in 1926 and subsequent Great Depression brought to a close a significant period of growth for Titusville (Historic Property Associates, Inc. 1987:16-17).

After World War II, Titusville began a period of growth due to the development of the United States space industry complex at Cape Canaveral. The space industry began in 1950 with the establishment of a missile testing range at Cape Canaveral. When the space program began, the United States government already owned the land surrounding the Cape Canaveral lighthouse. It acquired the remaining acreage necessary for the facility from private landowners. The first launch occurred in 1950 and testing continued increasing throughout the 1950s. In 1958, the National Aeronautics and Space Administration began operations. Although the population of Titusville had grown steadily since the 1920s, its rate increased dramatically following the development of the space industry. The population tripled from 2,220 in 1940 to 6,410 in 1960. Titusville and the surrounding area also became integrated with the tourist industry for the first time as thousands visited the area to witness the launches. The rapid population growth has created increased demands for essential services and has generated specific concerns about the conservation of the natural and cultural resources of Titusville and other coastal areas of Brevard County (Historic Property Associates, Inc. 1987:17).

5.0 RESEARCH METHODOLOGY

5.1 Historical Research

The files of the Brevard County Historical Society, Brevard County Planning Office, Brevard County Property Appraiser's Office, and Tebeau Field Library of Florida History were reviewed for the parcels and adjoining parcels. This research included maps, land records, genealogical records, historic documents, and aerial photographs of the area. City directories for Titusville were reviewed for information related to possible historic structures on the subject property and immediately adjacent

parcels. A search was conducted of the Title and Records Section, Florida Department of Environmental Protection (FDEP) for historic records and information from previous surveys conducted in the project area. Additional research included a search of the Historic American Building Survey (HABS) and Historic American Engineering Record (HAER) databases for historic properties. Thomas Penders & Associates utilizes the services of Environmental Data Resources, Inc (EDR). EDR conducts research primarily for environmental assessments. Their databases include historical Department of Transportation (DOT) aerials, Sanborn Fire Insurance Maps, historical structures, and topographic maps. The standards set forth in the ASTM Standard Practice for Phase I Environmental Site Assessments (E-1527-00) were also utilized for this project. This includes a conducting reviewing at least one aerial photograph dating back at least 50 years and in intervals of 10-15 years, review of the FEMA floodplain maps, wetland maps, construction documents, Soil Conservation Service county soil book, interviews, and general public records. A systematic surface reconnaissance and archaeological testing was conducted of the property to located structures or remains of historic habitation of the site. An area survey was conducted of the adjacent parcels to record any potential impacts to adjoining historic properties. In the event there were structures within the project area or on adjacent parcels, an architectural historian was available to provide additional consultation. The purpose of the survey was to confirm the research that no structures within the project area were subject to the National Register of Historic Places (NRHP) criteria (Andrus, et. al. 1992; Derry, et. al. 1985; O'Donnell 1998; Seifert, et. al 1997; Sherfy and Luce 1996; Townsend, et. al 1993; USDI 1997, 1998). A brief outline of the basic criteria is:

- Significance in American history, architecture, archaeology, engineering, and/or culture if they possess integrity of location, design, setting, materials, workmanship, feeling, and association.
- Are associated with events that have made a significant contribution to the broad patterns of our history.
- Are associated with the lives of persons significant in our past.
- Embody the distinctive characteristics of 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.
- Have yielded, or may be likely to yield, information important in history.
- The property achieving significance within the past 50 years, if it is of exceptional importance.

6.0 ARCHAEOLOGICAL SURVEY METHODOLOGY

6.1 Phase I Archaeological Survey

As with the research to identify historic properties, Thomas Penders & Associates uses the standards set forth in the ASTM Standard Practice for Phase I Environmental Site Assessments (E-1527-00) for identifying prehistoric or historic archaeological sites. This includes a conducting reviewing at least one aerial photograph dating back at least 50 years and in intervals of 10-15 years, review of the FEMA floodplain maps, wetland maps, construction documents, Soil Conservation Service county soil book, interviews, and general public records. This criteria has been found to be helpful for identifying cultural resources that other research sources may not have identified, determining impacts that might have affected site probability, and identify possible health and safety risks.

As stated previously, the goals of this project were to assist the OAG with verifying the location of the Moore house and to collect any material that could be analyzed and used as evidence in their criminal investigation. Based on discussions with OAG investigators, there appears to have arisen some



Figure 6. Establishing the grid across the site

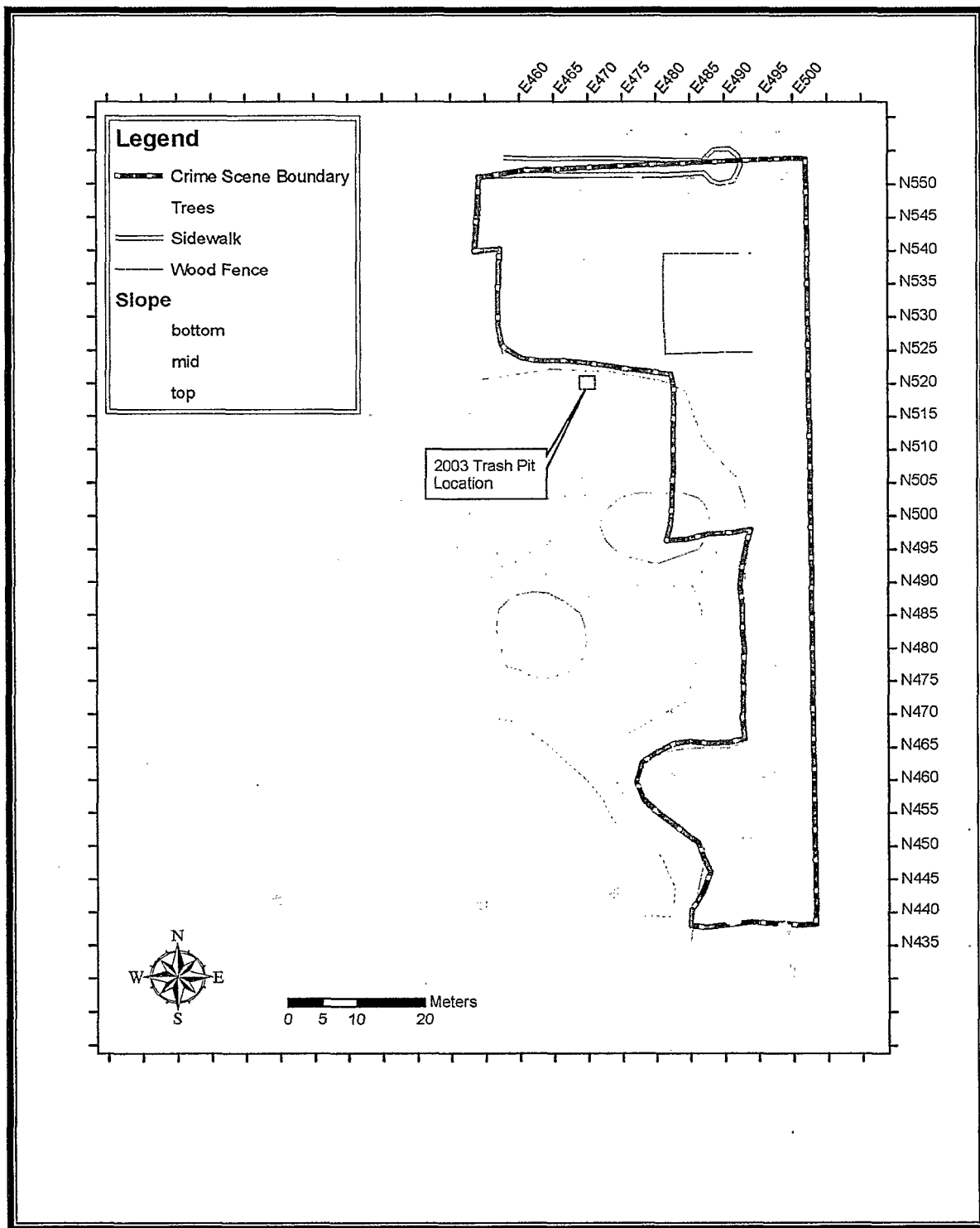


Figure 7. Grid established across the investigation area

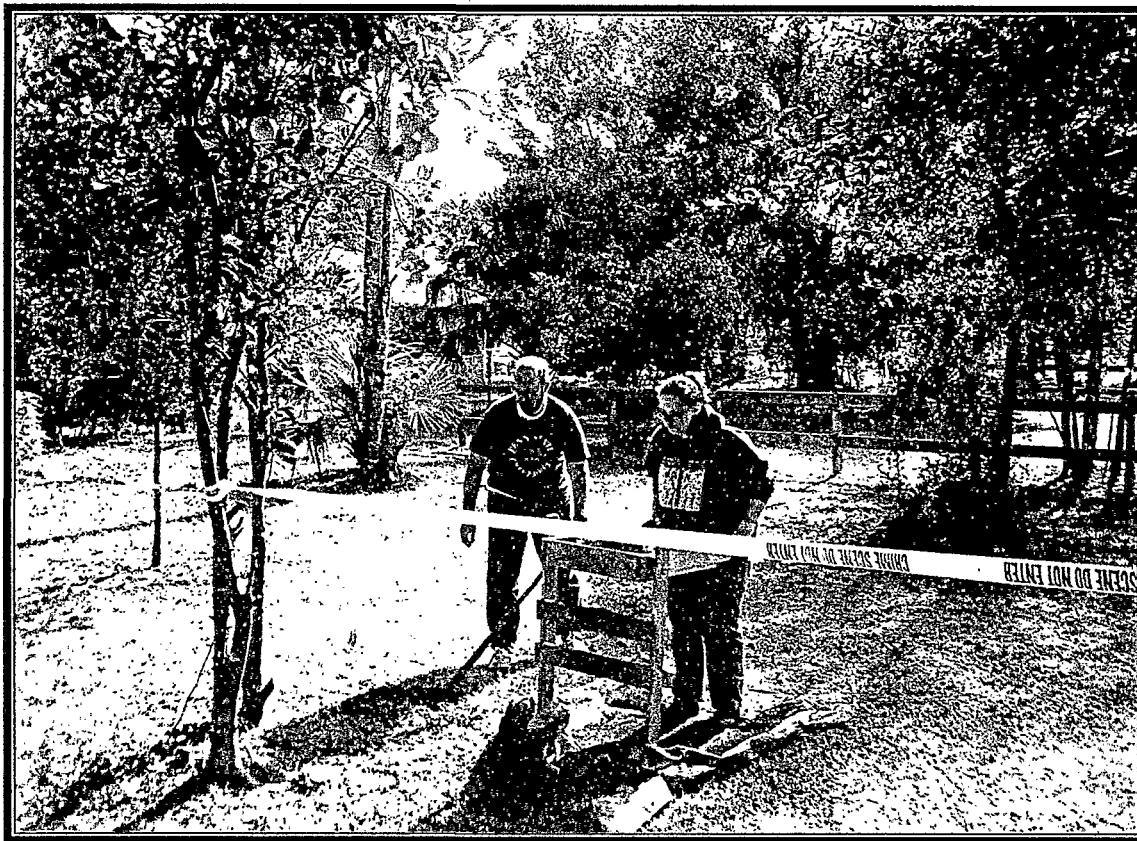


Figure 8. Crew members excavating shovel test during the Phase I archaeological survey.

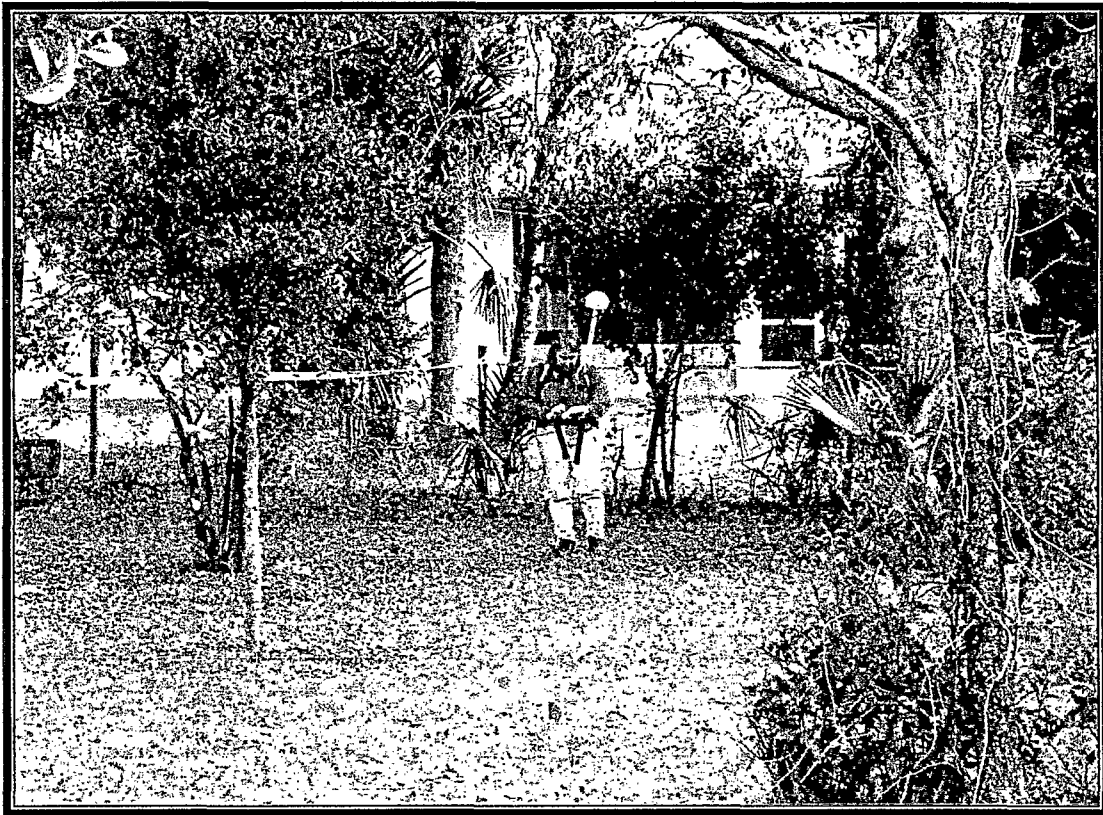


Figure 9. GPS data collection of testing locations

discrepancies in the location of the house site. Apparently, one witness identified the site east of the education center where a fence and sign mark the site. However, another witness based her location on the placement of trees which would place the house site approximately 60 m (197 ft) south of where it currently is marked.

To fulfill the goals of this project a 5 meter (16.5 ft) grid was placed across the site within the areas not disturbed by the stormwater retention areas, which had removed anywhere from 1-2 m (3-6 ft) of soil. The crew used a Silva® compass and metric tape to set the grid using magnetic north and the north to south fenceline as the baseline (Figure 6). The datum corner was designated as N500/E500 and was located at the point where three property lines meet. The entire grid was assigned grid location numbers based upon their location north and east of the datum (N500/E505, N510/E510, etc). Once the grid was established a surface survey was conducted over the entire project area along north to south and east to west transects within each 5 m (16.5 ft) square formed by the grid (Figure 7). A close inspection was conducted of exposed areas. When artifacts were found they were assigned a location based upon the grid location at the southwest corner of the 5 m (16.5 ft) square. The grid was also used for the metal detector survey. The number of "hits" were recorded for each 5-m (16.5-ft) square to determine trends in the distribution of metal objects across the site.

Shovel testing consisted of excavating 50-cm (1.5 ft) diameter and 100-cm (3 ft) deep test pits generally based upon the methodology outlined in *The Historic Preservation Compliance Review Program of the Florida Department of State, Division of Historical Resources Manual* (Tesar 1990). Soil from the shovel tests was screened through 0.25-in or 64 millimeter (64 mm) hardware cloth (Figure 8). Tesar (1990) states that areas of high archaeological potential should be tested at 25 m (82 ft) intervals and if positive the testing should drop to 10 m (33 ft). Thomas Penders & Associates felt due to the known presence of the house site and nature of the investigation all testing should be conducted at 5 m (16.5 ft) intervals. All data for each shovel test was recorded on shovel test form (Appendix C).

All material collected from the surface survey and shovel tests were collected from the screens wearing leather gloves and placed in freezer grade Ziploc® bags. The bag was marked with site name, site number, shovel test location, date, field specimen number, initials of the excavators, and a brief description of the specimens. All shovel tests, surface finds, features, etc were documented with field notes and forms, and placement on project and USGS quadrangle maps. All data was submitted to the Office of Attorney General, Civil Rights Section as evidence for their criminal investigation. All testing locations (grid) within the crime scene were mapped using a Trimble Navigation Pro XRS and converted to ArcGIS (Figure 9).

6.2 Phase II Excavation

Based upon the Phase I shovel testing two areas were designated for the excavation of test units. Each test unit was 2m x 2m square. A datum was established at one corner (typically the southwest corner) for collecting depth measurements. The datum consisted of a wooden stake driven into the ground and then notched at ground surface (Figure 10). A string was tied to the stake at the notch and line level attached. All measurements below surface were measured off of this line with a metric tape. Opening measurements were taken and documented on a test unit level form (Appendix D). Units were excavated in 10 cm (6 in) levels using shovels and trowels with the soil sifted through 0.25-in (64 mm) hardware cloth. All artifacts were collected from the screen by personnel wearing gloves. All information from each level was recorded on the level form. A field notebook was kept to provide additional information. At two test units extra care was taken during the excavation process. This area was believed to be the bomb site. All personnel working within the test unit were required to wear Tyvek suits and nitrile gloves as specified when investigating a crime scene (Hunter and Martin



Figure 10. Test Unit N539/E489 prior to excavation.



Figure 11. Crew excavating two-meter square unit during Phase II investigation

1997). Personnel not working within the excavation unit were not required to wear the suits (Figure 11). However, screeners were required to wear the gloves at all times. At the end of each level soil color was documented using a Munsell Color Chart. If there were unusual features or conditions photographs were taken of the unit floor. At the end of each unit soil profiles were drawn.

All material collected from the excavation units by level were placed in freezer grade Ziploc® bags. The bag was marked with site name, site number, unit location, level, date, field specimen number, initials of the excavators, and a brief description of the specimens. The bags were sealed as criminal evidence by the OAG investigator who was on site at all times. All data was submitted to the Office of Attorney General, Civil Rights Section as evidence for their criminal investigation.

7.0 LABORATORY METHODOLOGY

Typically, artifacts recovered during this project would have been sent to the facilities of Thomas Penders & Associates for processing. Thomas Penders & Associates cleans artifacts using dry brushing. If not sufficient to remove the soil matrix, water and a soft bristle brush would be used to gently clean the artifact. Washed artifacts are washed in 1/16 in (25 mm) mesh screens and allowed to dry overnight. Artifact analysis is accomplished by use of reference specimens and published references as appropriate (Loy and Powell 1977). The material would be organized by analytical groupings within provenienced units and placed in labeled, clear plastic bags. Catalog numbers would be assigned to each artifact or groups of artifacts using a system derived from the field specimen numbers assigned in the field.

However, this was a unique situation. Other than a generalized description of the artifacts no other processing was conducted during the project. Analysis of artifacts as stated above requires cleaning. It was thought that any cleaning or multiple handling of any artifacts could possibly destroy or alter evidence. At the completion of each shovel test the bag of artifacts were surrendered to OAG personnel who were on site for analysis at the FBI lab at Quantico, Virginia. By limiting the handling of all material from the surface collection and subsurface testing it was hoped to maintain the integrity of the evidence. All field notes, maps and related paperwork are curated at Thomas Penders & Associates, Titusville, Florida.

8.0 HISTORICAL RESEARCH RESULTS

8.1 Previous Regional Research

A search of the FSMSF was conducted for Brevard County to locate all site survey information. The intent was to determine number of projects conducted in and around the project area including the location, areas surveyed, total scope of the projects, and recorded sites. This data was also useful in determining the areas of archaeological potential. Archaeological investigations have been conducted in northern Brevard County for almost 200 years. In the late eighteenth century, botanist John Bartram and his son William traveled the St. Johns River in what is now Brevard County. They identified over twenty sites including the Mt. Royal site (Goggin 1952:31). In the late nineteenth century, Jeffries Wyman (1868, 1875) of the Peabody Museum at Harvard University conducted several systematic investigations of burial mounds and shell middens along the St. Johns River and coastal region. Clarence B. Moore conducted archaeological projects throughout Florida in the late 19th and early 20th centuries. He excavated or visited most of the mounds along the St. Johns River and investigated other sites along the Gulf coast and into the panhandle region of Florida (Moore 1892, 1894, 1900, 1901, 1902, 1903a, 1903b, 1905, 1907, 1918, 1919; Goggin 1952:31). His collection of material is now curated at the National Museum of the American Indian (formerly the Heye Museum of the American Indian).

In 1917, Nels Nelson applied the stratigraphic ceramic approach, developed by A.V. Kidder for sites in the southwestern United States, to the study of a mound in Oak Hill. He developed a ceramic sequence for the site (Goggin 1952:34; Milanich 1994:7). In the 1930s, various federal work relief programs such as the Work Programs Administration (WPA) and Civilian Conservation Corp (CCC) conducted archaeological surveys and excavations in Volusia County. Jesse Jennings excavated a site at Ormond Beach and Matthew Stirling made several collecting trips around the Deland area. It was during the collecting trips that Stirling developed the St. Johns Area concept based upon ceramic typology (Milanich 1994:9; Goggin 1952:35). The work by the WPA and CCC was used by Gordon Willey (1949) for his report of the archaeology of the Gulf coast region.

Much of the archaeological investigations in Florida occurred after World War II. In 1946, the Florida Park Service established program in archaeology under the direction of John W. Griffin and Hale G. Smith. Both the University of Florida and Florida State University established Departments of Anthropology and conducted numerous excavations throughout Florida. In the 1940s through 1950s the work of James Griffin, John Griffin, Ripley Bullen and John Goggin further developed the archaeology of the region. John Goggin defined several of the cultural areas in Florida which further advanced the understanding of the prehistory of Florida including a comprehensive review of the archaeology of the St. Johns River area from northern Brevard County to Jacksonville (Bullen 1954, 1955, 1958, 1959; Goggin 1947, 1948a, 1948b, 1949, 1952; Griffin 1949, 1952). They also refined the work of Stirling and identified the place of the fiber-tempered ceramics within the region. Irving Rouse conducted a comprehensive archaeological survey of the Indian River area of Florida (Rouse 1951). Rouse visited sites all along the Indian River and St. Johns River from Volusia to Brevard Counties (Rouse 1951).

Through the 1960s through 1980s numerous archaeological surveys were conducted throughout Brevard County. During this period the majority of the surveys were conducted at the Kennedy Space Center, Merritt Island National Wildlife Refuge and Canaveral National Seashore/Playalinda Beach (Bryne 1989; Ehrenhard 1976; Griffin and Miller 1978; Smith 1973; Miller 1981). One of the most important projects in Florida archaeology was the Windover Site investigation in southwest Titusville (Doran and Dickel 1988; Doran 2002). The site was excavated from 1984 through the beginning of 1987 and yielded a wealth of data on the Early Archaic Period. In 1987, a historic property survey was conducted for the City of Titusville. It was during this period they documented a NRHP eligible church east of the subject property (Historic Property Associates, Inc. 1987). In the 1990s, there were a series of surveys conducted in Brevard County for FDOT, power line corridors and at the Kennedy Space Center (Archaeological Consultants, Inc. 1990, 1991, 1992; Austin 1992). In 1990, the University of West Florida (UWF) conducted a countywide archaeological survey of selected areas of Brevard County which included a visit to the project area (Bense and Phillips 1990). They determined that well-drained areas along permanent water sources had a high likelihood for containing prehistoric sites. They also determined that the western portion of current project area is within a High AAP. In 1991, Thomas Penders investigated the rumor of a prehistoric site at Holder Park, southwest of the project area. At the southeastern corner of the park was a site that extended into private property to the south. In 1999, Thomas Penders conducted a zones of archaeological potential study for the Titusville Environmental Commission and included the subject property. The results of the study indicated that all well-drained areas close to permanent water sources had a very high site probability (Penders 2000). In 1996, a local avocational archaeologist and University of Central Florida (UCF) conducted a rudimentary study of Indian Mound Station located approximately 1.6 km (1-mi) northeast of the subject property (Stephan 1996).

Between 2003 and 2005 were a series of archaeological surveys all located 3.2 km (2 mi) northwest of the parcel. A survey was conducted in 2003 by the Conservation and Recreation Lands Archaeology

Program (CARL) of the Salt Lake Wildlife Management Area. This included areas immediately northwest and west of the subject property. Their survey documented several archaeological sites within the project area (Glowacki, et. al. 2004). That same year Thomas Penders & Associates conducted a reconnaissance level survey at the Harry T. Moore site in southwestern Mims (Penders 2003). Southarc, Inc conducted an archaeological survey of the proposed Oaks Development located approximately 3.2 km (2 mi) southwest of the subject parcel. They documented a historic scatter which they determined to require no further action (Erbe, et. al 2003). In 2004, Southeastern Archaeological Research, Inc. (SEARCH) surveyed a parcel north of Parrish Road 3.2 km (2 mi) southwest of the subject property. Their survey failed to identify any sites within that parcel (Stokes 2004). In 2005, Thomas Penders & Associates conducted two surveys along both sides of Parrish Road, also 3.2 km (2 mi) southwest of the project area. The surveys identified two new sites and provided further documentation of Indian Mound Station (Penders 2005a, b). Another survey was conducted on the north side of Wiley Road at the Hamlin Groves (Penders 2005c). As a result of the survey Old Dixie Highway was documented.

8.1.1 Previously Identified Sites

A total of eight previously recorded sites and three unrecorded sites were documented within two miles (3.2 km) of the project area. Immediately to the east was the Hernandez-Capron Trail. This was a military trail used during the Second Seminole Indian War. It was also used as a major roadway and was important to the settling of Brevard and Indian River counties. It is now covered by a segment of the Florida East Coast railroad grade and Old Dixie Highway. Old Dixie Highway was assigned the FSMSF number 8 BR 1924. Approximately 1.6 km (1-mi), to the east was the community of Wiley. It was a small community centered around a citrus packing facility which burned down in the 1930s (Foster 2005: Personal communication). Approximately 3.2 km (2 mi) to the southeast was Paces Landing. This location was the main point of entry along the Indian River for the town of LaGrange. A road led from this point to the community of LaGrange. It is reported that an Indian trading post was located here (Foster 2005: Personal communication). Thomas Penders & Associates is currently working with a member of the Brevard County Historical Commission to document Paces Landing and record the site with the FSMSF. Approximately 2.4 km (1.5-mi) southeast of the subject property is the LaGrange Church and Cemetery (8 BR 454). This is a locally significant church and cemetery associated with the former town of LaGrange and is the cemetery containing the graves of many of the first families of Titusville and Mims. The church is listed on the National Register of Historic Places (Historic Property Associates 1987). East of the LaGrange Church was UWF 1 (8 BR 565) which was designated as a St. Johns Period camp site. In 1951, Irving Rouse recorded Indian Mound Station (8 BR 9) which is located approximately 2 mi (3.2 km) southwest of the subject property. The site was first identified by Jeffries Wyman in 1868 and was visited by several others in the past 117 years (Penders 2005a, b). It is known to be a Malabar Period burial mound. Adjacent to Indian Mound Station is the Timmy Site (8 BR 1893). This site may be associated to the mound and the Holder Park Site (8 BR 777) (Penders 2005a, b). Directly south of Indian Mound Station was the St. Johns and Indian River Railroad which is locally known as the Salt Lake/Lake Harney to Titusville Tramway (8 BR 1914). The railroad was the major transportation route from the St. Johns River to Titusville and the Indian River (Penders 2005b). To the south of the tramway was the Scattered Kitchen Site (8 BR 1851), a 19th century artifact scatter that actually may be associated with the tramway documented in 2005 (Penders 2005a; Erbe, et. al. 2004). A review of the Brevard County Property Appraiser data indicated several buildings within the town of Mims that meet the NRHP criteria for listing. They have not been documented to date. All the previously identified sites within a 3.2-km (2-mi) radius are indicated on Figure 12. FSMSF sites are indicated in blue and unrecorded sites are indicated in orange.