

ARCHAEOLOGICAL EVALUATION AND RESOURCE
MANAGEMENT PLAN FOR EPISCOPAL HIGH SCHOOL
FACULTY HOUSING, 1200 N. QUAKER LANE
ALEXANDRIA VIRGINIA

JOHN MILNER ASSOCIATES, INC.

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ALEXANDRIA, VIRGINIA

Prepared for

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ABSTRACT

John Milner Associates, Inc. (JMA), was retained by Episcopal High School in Alexandria, Virginia to conduct an archeological investigation on a 0.67-acre (.27 hectare) area on the high school campus in preparation for development of the area for faculty housing. The project area is located at 1200 N. Quaker Lane and is in the southeast quadrant of the campus. The project's goal was to determine if significant archeological resources existed in the parts of the project area affected by the proposed new construction and make management recommendations. The investigation consisted of background research, a shovel test survey, and a metal detector survey. The Phase I investigation identified one archeological site, 44AX200, that consists of a scatter of Civil War artifacts associated with a Civil War camp, but earlier and later artifacts are also present.

Fieldwork consisted of a systematic shovel test survey and metal detection. Forty-six shovel tests were excavated within the project area. Eight shovel tests were placed along the west edge of the access driveway, and five shovel tests were placed in the footprint for the proposed sewer. The remaining 33 shovel tests were excavated within the south side of the project area, in the area of the footprints of the proposed houses, yard areas, and associated parking areas. In general, subsurface testing identified and recorded disturbance throughout the project area. The location of the proposed residences and associated parking area is disturbed. The natural soil sequence along the existing driveway is also disturbed.

Phase I investigations identified and examined a multi-component historic site (44AX200) dating from the eighteenth- through early twentieth-centuries. The most intensive occupation was during the Civil War when the site was part of the larger Federal encampment in the vicinity of the Virginia Theological Seminary. Several relic-hunters that were interviewed report searching the project area and vicinity in the past, but recollect only finding artifacts in the open space along Main Drive; the archeological investigation confirms this observation. Unknown units of the Federal Army camped in the open space south of Main Drive. This occupation resulted in a sparse scatter of Civil War artifacts across the landscape. The occupation was present in the area where the proposed residences are to be located, but only in one small area. The camp was most likely a summer camp where the soldiers lived in tents. No features were found, suggesting this was not a winter encampment.

Presumably, based on observations, the site area was a plowed field. Plowing throughout the nineteenth and possibly into the early twentieth century has resulted in a lack of site integrity. Artifacts dating throughout the occupation are mixed in a plowzone. Because Site 44FX200 lacks stratigraphic integrity and intra-site patterning could not be identified, this site is not considered eligible to the National Register of Historical Places. However, the portion of the site located along Main Drive is locally significant and the Episcopal High School should limit ground-disturbing activities in this area. Construction plans include modifications to the driveway, but these modifications will not impact archeological resources near Main Drive. Therefore, no additional investigations are warranted, and the proposed construction will have no impact on significant archeological resources.

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PUBLIC SUMMARY

Archaeological Evaluation and Resource Management Plan for Episcopal High School Faculty Housing, 1200 N. Quaker Lane, Alexandria, Virginia

John Milner Associates, Inc. (JMA), was retained by Episcopal High School to conduct an archeological investigation on a 0.67-acre (.27 hectare) area on its campus prior to construction of new faculty housing. The investigation consisted of limited background research, a shovel test survey, and a metal detector survey. The Phase I investigation identified archeological Site 44AX200 that consists of a scatter of Civil War artifacts associated with a camp, but earlier and later artifacts are also present.



Shovel testing

Forty-six shovel tests were excavated within the project area. The location of the proposed residences and associated parking area is disturbed. The natural soil sequence along the existing driveway is also disturbed.

Site 44AX200 is a multi-component historic site dating from the eighteenth- through early twentieth-centuries. The most intensive occupation was during the Civil War, when the site was part of the larger Federal encampment in the vicinity of the Virginia Theological Seminary. Several

relic-hunters, when interviewed, reported searching the project area and vicinity in the past, but recollect only finding artifacts in the near vicinity of the new residences. The Phase I investigation confirms this observation.

Unknown units of the Federal Army camped on the high school grounds. This occupation resulted in a sparse scatter of Civil War artifacts across the landscape. The occupation was present in the area where the proposed residences are to be located, but only in one small area. The camp was most likely a summer camp, where the soldiers lived in tents. No features were found that would have suggested a winter encampment. Plowing throughout the nineteenth and possibly into the early twentieth century has resulted in a lack of site integrity. Artifacts dating throughout the occupation are mixed in a plowzone. Because Site 44FX200 lacks stratigraphic integrity and intra-site patterning could not be identified, this site is not considered eligible to the National Register of Historical Places.



Metal detection.

At 2:00 a.m. on May 24, 1861, eight Federal regiments crossed the Potomac River and took up positions in Virginia. During the initial occupation of Virginia, Alexandria was brought into national attention when it was learned that James W. Jackson, a citizen of Fairfax County, and Colonel Elmer Ellsworth, United States Army, had been killed after Ellsworth removed a secessionist flag hoisted above the Marshall House, owned by Jackson. Each man became a martyr for his cause: Ellsworth died suppressing rebellion, and Jackson died defending his private property and the flag of his new country. Jackson was the first civilian Confederate casualty of the war.

Alexandria was recognized for its important role in regional transportation. The roundhouse and yards of the Orange and Alexandria Railroad (O&A) were located in Alexandria's west end. Federal authorities recognized the strategic value of the O&A Railroad for supporting a Federal advance on Richmond. The line traversed Fairfax County on its way from Alexandria to Manassas Junction; controlling this line became of paramount importance.

Initially, Federal troops occupied Arlington Heights and the City of Alexandria and began erecting fortifications to defend Washington. The Federal Army would stay for the remainder of the war. The Civil War had a tremendous impact on Alexandria and vicinity. These impacts were especially felt on the west side of the city in the vicinity of the Theological Seminary.

The Virginia Theological Seminary was approved by the general convention of the Episcopal Church in 1817. It was established in 1823 at St. Paul's Church in Alexandria, but soon moved to a house at the corner of King and Washington Streets because of the increase in enrollment to 14 students. By 1827, the need for more space dictated a move to a newly acquired 59-acre parcel located approximately three miles west of what was Old Alexandria. The first

buildings were constructed on the new seminary grounds between 1827 and 1835. This land was partially cleared, had some forest and meadow, and included a brick house and outbuildings, and another house. After the Seminary purchased the land, these houses became the faculty residences. In 1839, the Seminary purchased a 100-acre parcel of land from William Alexander and his wife. This land is where the Protestant Episcopal High School was built.

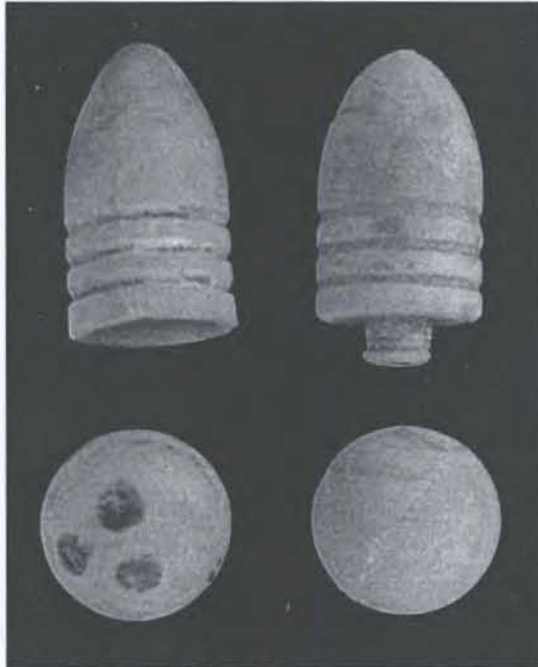


Episcopal High School button.

The Seminary's faculty was from the north and financial support came from both the north and the south. During the 1860-1861 semester, half of the student body was from the north; these students left the Seminary to return to their homes and join the Union Army. Only one professor and seven students remained. Finances became a serious problem, and the remaining professor and students left the campus. Classes were conducted at a professor's home in Staunton, Virginia, from 1862 until the war ended.

In June 1861, the campus and buildings of the Seminary and the high school were commandeered for a hospital and campground for Federal troops. Tent camps were set up, and barracks and other buildings were erected on the Seminary grounds. Seminary buildings and professors'

Packages of ammunition contained 10 rounds each. Until 1864, Union-made packages included one or more Williams Type bullets. Initially, the ratio was 1 to 9, but by 1863 it had increased to 3 to 7. The paper used as wrappers for cartridges containing Williams bullets was sometimes died red or blue in order to make the "cleaners" more readily identifiable

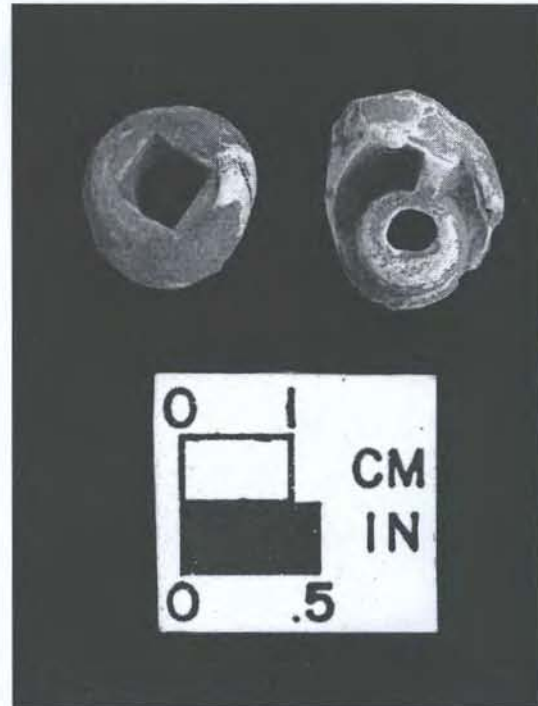


Minié ball, William's cleaner, and round balls

Minié balls were also found. These .577/.58 caliber projectiles were used in rifle muskets. The rifle musket is a shoulder arm approximately 56 inches long, muzzle-loaded, and primed by a percussion cap. The rifle musket was highly accurate, due to a manufacturing process whereby evenly spaced spiral grooves were cut into the rifle bore. When fired, the grooves would cause the projectile to spin, resulting in a truer flight to the target. The Civil War and the decade preceding it saw the development and eventual abandonment of the rifle musket. By the end of the Civil War, advances in breech-loading weapons and metallic cartridges enabled faster loading speeds and essentially rendered the use of the rifle musket obsolete.

The .64 caliber round balls would have been used in Model 1842, .69 caliber, smooth-bore muskets. The use of a ball of a smaller caliber than the bore was needed, because the ball was wrapped in a cloth to facilitate loading and to reduce windage (space between the bullet and the barrel) when the gun was fired. Because of these factors, smooth-bore muskets were not accurate.

The Model 1842 musket was produced at the Springfield, Massachusetts, and Harpers Ferry, Virginia, Federal armories; it was the standard gun used by the military between 1844 and 1855 and was the first to use a percussion cap system. A large number were kept by state militia units. Although these weapons were common throughout the war, they saw extensive use in 1861 and 1862. At the battle of Gettysburg, at least eight Federal regiments were still armed with smooth-bore muskets.



Cone protectors.

Two types of rifle muskets were issued in greater numbers than any other. The United States Model 1855/1861 .58 caliber rifle musket and the British Model 1853 .577 caliber Enfield rifle musket were the most

common shoulder arms used during the war. The Model 1855 rifle musket was also manufactured at the Federal armories at Harpers Ferry, West Virginia, and Springfield, Massachusetts. From adoption until 1865, the Springfield armory and 20 government subcontractors produced over 700,000 Model 1861 rifle-muskets.



Watch key.

Both the North and the South were active importers of firearms during the Civil War. Arms dealers in Great Britain were principal players in the arms trade and they supplied an estimated 900,000 pattern 1853 Enfield .577 caliber rifle muskets to the combatants. The arms were copies of the standard issue English infantry weapon; however, independent arms manufacturers supplied the Enfield rifles exported to North America. The Enfield Model 1853 was attractive, because the gun used the same ammunition as the American-made .58-caliber rifle musket. The slight difference in bore diameters of each weapon, less than .003 caliber, was not considered a hindrance.

Concomitant with the development of the rifle musket were advances in the projectiles shot from them. In order for the projectile to fly true, there could be no windage within the gun. If the projectile does not fit into the bore tightly, the bullet will move through the gun bore unevenly, resulting in an inaccurate trajectory. In 1849, French military officer Captain Claude Minié developed a cylindro-conical (i.e. cylinder topped by a cone) projectile having three grease grooves around the body and an iron plug inserted into the projectile's base. Refinements in the design led to the dropping of the iron plug when it was realized that a cone-shaped hollow cavity in the projectile's base would create the same expansion of the projectile when fired. Upon firing, the hollow basal cavity would expand, forcing the projectile into the rifling, and thus eliminating windage. The resulting projectile form is the classic Minié ball, probably the most common artifact of the Civil War. The projectiles were rolled in paper cartridges with their powder charge. Packages of ammunition contained 10 rounds. Included within the ammunition packages were percussion caps.

Other artifacts associated with the Civil War occupation include two General Service Eagle "T" buttons and a shoulder scale attachment, one canteen spout fragment, and two gun cone protectors. The cone protectors were made by the soldiers, and consist of lead from a bullet, reshaped to cover the cone, which held the percussion cap on the firing mechanism of their rifles. These field-made cone protectors were intended to keep moisture and dirt out of the cone and torch-hole and reduced ignition malfunctions.

Also found were two pieces of carved or shaped lead and two pieces of melted lead. These artifacts reflect the activities of soldiers in camp. Often soldiers spent their idle time melting or modifying lead ammunition.

Ten non-military clothing artifacts (nine buttons and one belt buckle) were found and include three artifacts bearing Episcopal High School designations. Two of these artifacts were cloak buttons and the third was a twentieth-century belt buckle. The buttons show a Maltese cross in the center with the letters "EHS" above. Flanking the cross on either side is a row of ivy. Beneath the cross is the letter "V", presumably for Virginia. The buttons are from a school uniform which was adopted in the 1850s. It is not known when the uniform was discontinued. The remaining six buttons include a large flat button that may date to

the Colonial period and five buttons that date to the early to mid-nineteenth century.

The metal detector survey resulted in the recovery of a variety of other artifacts both identifiable and unidentifiable. In addition to the 1774 Virginia halfpence, five other coins were found ranging from 1837 to ca. 1930. Other miscellaneous finds include a pocket watch, pocket knife and a watch key bearing the likeness of an angel playing a lyre.



Episcopal High School buckle and button.

1.0 INTRODUCTION

1.1 PROJECT BACKGROUND

John Milner Associates, Inc. (JMA), was retained by Episcopal High School in Alexandria, Virginia to conduct an archeological investigation on a 0.67-acre (.27 hectare) area on the high school campus in preparation for development of the area for faculty housing (Figure 1). The project area is located at 1200 N. Quaker Lane and is in the southeast quadrant of the campus. The project's goal was to determine if significant archeological resources existed in the parts of the project area affected by the proposed new construction and make management recommendations. The investigation consisted of background research, a shovel test survey, and a metal detector survey. The Phase I investigation identified an archeological site, 44AX200, that consists of a scatter of Civil War artifacts associated with a Civil War camp, but earlier and later artifacts are also present. Investigations were consistent with the *City of Alexandria Archaeological Standards* (Alexandria Archaeology 2005) and the *Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation*.

Alexandria Archaeology reviewed the proposed faculty housing development project and determined that archeological investigations were warranted, because it has a potential for containing both prehistoric and historic cultural resources. The project area is near a small stream and may have potential to yield Native American archeological resources. The project area lies within Site 44AX173, which encompasses the adjacent Virginia Theological Seminary and Episcopal High School campus.

This high school was founded in 1839 as a preparatory school for the Virginia Theological Seminary, located on property adjacent to and south of the project area. The high school property originally contained a house, "Mount Washington," built between 1804 and 1805, by Elizabeth Custis Law, granddaughter of Martha Washington. Mount Washington was standing on the property when it was purchased by the Seminary in 1839 to be used for the Protestant Episcopal High School. The house (Hoxton Hall) became the first building used as a residence and classrooms by the High School.

During the Civil War, both the high school and the seminary were used as an extensive hospital complex by the Union Army. At times, many thousands of Union troops were camped in this area. The property thus has the potential to yield artifacts and other archeological information which could provide insight into Native American life, but also residential and military life on the outskirts of the city.

Field investigations were undertaken between 20 March and 23 March 2006. Bryan Corle, Kerri Holland, and Mike O'Donnell conducted the field investigations under the direction of Joseph Balicki. Joseph Balicki served as project manager and principal investigator. Sarah Ruch, Rob Schultz, and Mary Paradise produced the graphics. Casey Gonzalez produced the document with the assistance of Marcia Gibbs. Dr. Charles Cheek reviewed and edited the document for quality control. The resumes of selected team members are included in Appendix III.

1.2 PROJECT DESCRIPTION

The project area is located in the southeast quadrant of the Episcopal High School campus approximately 500 feet (ft.) west of Quaker Lane and 100 ft. south of Main Drive (Figures 1 and 2). The southern portion of the project area is wooded and is bounded on the east and west sides by existing faculty housing (Figure 3). Along the south side of the project area is an intermittent stream that flows to the northeast. The northern portion of the project area parallels an existing paved driveway (Figure 4). The driveway is bounded on the east and west sides by maintained lawn.

The project area is in the City of Alexandria, Virginia (Figure 1). The project area is within the Coastal Plain physiographic province and the Potomac/Shenandoah River drainage. The project area is located in an upland flat area. The northern portion of the project area is in maintained lawn and the southern portion is within a wooded area dominated by maple and poplar trees.

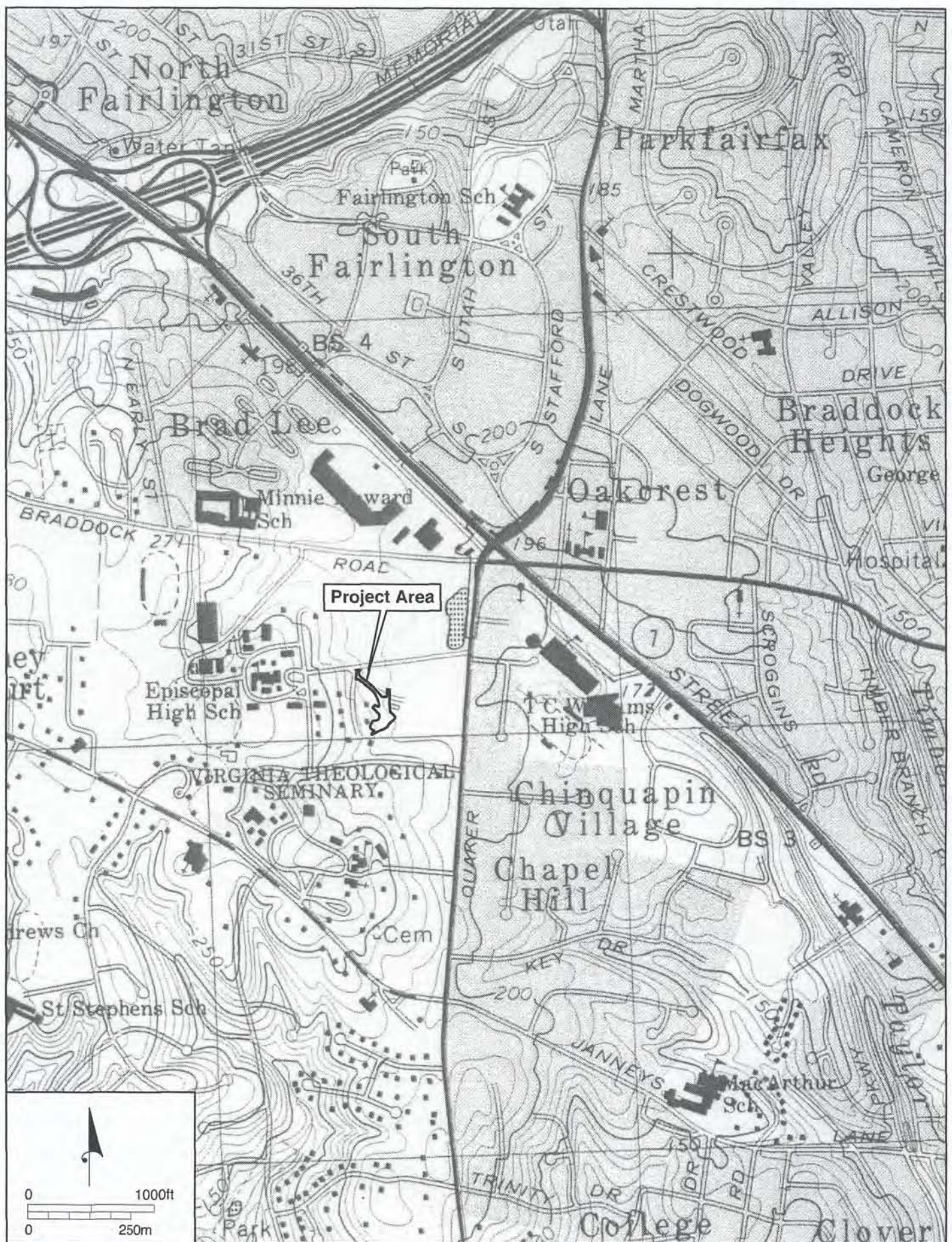


Figure 1. Detail of USGS *Alexandria, VA.-D.C.-MD.* quadrangle, USGS 1965, photorevised 1983 showing the location of the project area.

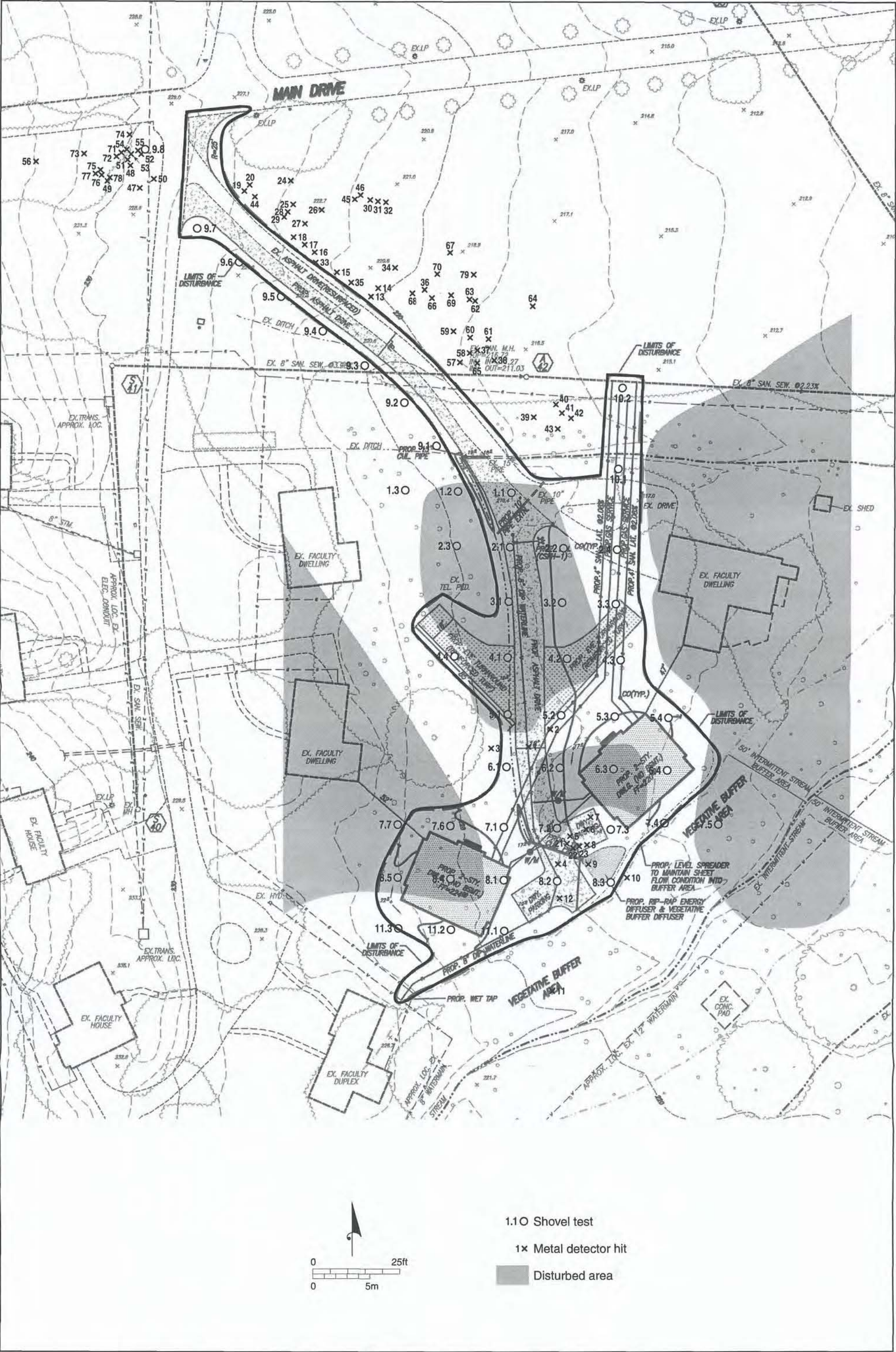


Figure 2. The Episcopal High School proposed faculty homes project area.



Figure 3. Overview of project area showing proposed location of housing, facing west.



Figure 4. Overview of project area along the driveway, facing southeast.

2.0 RESEARCH DESIGN

2.1 PURPOSE AND OBJECTIVES

The investigations were designed to identify the presence or absence of archeological resources in the project area. The project area was considered to contain a high potential for prehistoric resources, due to its location near a water source. The presence of historic occupation was also considered to be high, since the project area is located within the campus of the Episcopal High School that was established in the first half of the nineteenth century. The project area, also considered to contain a high potential for Civil War occupation, is located approximately 1 mile east of Fort Ward and 0.5 miles north of Fort Williams. During the Civil War, the campus was the location of a Federal hospital. The following questions guided the development of the methods used during the Phase I investigations. These methods included both shovel testing and metal-detector surveys.

- Was the project area occupied in the past?
- Do historic maps depict possible resources in the project area?
- What is the potential for archeological sites?
- The entire Seminary has been designated 44AX173, if present, how do cultural resources relate to 44AX173?
- Is there archeological evidence of Civil War occupation?

2.1.1 ARCHEOLOGICAL INVESTIGATIONS IN THE VICINITY

Several archeological investigations have been undertaken in the project vicinity (Embrey et al. 2004, Balicki et al. 2005, Daugherty et al. 1989, Feidel and Corle 2001, Jirikowic et al. 2004, Shephard 2004, Miller and Westover 1990, and Westover 1991). In general, these surveys did not identify a significant prehistoric occupation of the area. Civil War sites were identified by several of the investigations (Embrey et al. 2004, Balicki et al. 2005, Feidel and Corle 2001, Jirikowic et al. 2004, Miller and Westover 1990). In 1990, Tellus undertook a survey of the location of the Episcopal High School Tennis Courts (Miller and Westover 1990). This project area is located on the southwest side of the high school grounds, approximately 4,000 ft. west of the project area. The tennis court investigations included the stripping of a 375-by-215 ft. area and surface collection. Four Minié balls were found, suggesting a sparse scatter of Civil War artifacts, but no features were identified and a site was not defined (Miller and Westover 1990). In 1993, Alexandria Archaeology conducted limited excavations at the kitchen and meathouse of the Civil War-era hospital located on the nearby Episcopal Theological Seminary. The investigations identified features associated with both buildings. Additional investigations were recommended if the former kitchen and meathouse locations were to be disturbed (Shephard 2004). Table 1 lists sites in the vicinity.

Hoxton Hall (structure number 100-0252), first known as "Mount Washington," was constructed in 1805 by Elizabeth Parke Custis Law, a granddaughter of Martha Washington, after her divorce from Thomas Law (VDHR form 100-0252). It was standing on the property purchased by the Seminary in 1839 to be used for the Protestant Episcopal High School. The house became the

first building used as residence and classrooms by the High School. The location is on a prominent hill, approximately 700 ft. west of the project area.

2.1.2 EXPECTED RESULTS

The project area has a potential for containing both prehistoric and historic cultural resources. The project area is near a small stream and may have potential to yield Native American archeological resources. It is likely that any prehistoric cultural resources would be small, limited-activity upland exploitive camps reflecting short-term forays into upland settings by hunter-gatherers during the Archaic Period (8000-1000 BC).

The project area was part of a large farmstead in the early eighteenth century. It is possible that cultural resources associated with the ca. 1805-1839 Elizabeth Parke Custis Law tenure are present.

There is a high probability that cultural resources associated with the Civil War are present. The project area is within the defensive perimeter the Federal Army established, west of Alexandria, to protect the city. The Theological Seminary grounds, including the high school, were used at various times as a hospital and encampment area for troops.

2.2 DOCUMENTARY RESEARCH METHODS

Limited documentary research was conducted on the property. This included research on historic maps and information from reports of archeological investigations on other properties in the vicinity. Relic-hunters who searched the property, in the past, were contacted and interviewed to ascertain if Civil War artifacts have been collected from the project area.

2.3 FIELD METHODS

2.3.1 SUBSURFACE TESTING

Shovel tests were excavated at 30-foot (ft.) intervals along parallel transects in the south portion of the project area, within the footprint of the proposed houses, associated parking areas, and lawns (Figure 2). Judgmentally-placed shovel tests were excavated at 30-ft.-intervals along the west side of the existing paved driveway and the north side of the proposed sewer. Shovel tests measured 1.5 ft. (45 cm) in diameter (Figure 5). All shovel tests were excavated 10 cm (0.3 ft.) into subsoil. The soil excavated from the shovel tests was screened through 1/4-inch hardware cloth. Information on each shovel test was recorded on standardized forms that included the provenience information, the presence or absence of artifacts, the number and types of artifacts, and soil designations and textures according to standard scientific nomenclature (Foss et al. 1985; Munsell 1992).

A project-specific map (Figure 2) using the construction plan as a base map includes the locations of the shovel tests and denotes locations where there were obvious indications of ground-disturbing activities, which resulted in disturbance to the natural setting. The field investigations were also documented in black-and-white print film, color slides, and digital media.



Figure 5. Shovel testing in progress, facing east.

Table 1. Archeological Sites within the Project Area Vicinity

Site No.	Name	Type	Time Period	Use	Artifacts	Features
44AX31		Prehistoric	Undetermined	Camp	unidentified projectile point, quartz debitage	
44AX32		Prehistoric	Undetermined	Camp	preform, core	
44AX36		Prehistoric	Undetermined	Camp	quartz debitage	
		Historic	19th century	Undetermined	French ceramic pipe fragment	
44AX90	Fort Ward Bastion	Historic	1861-1865	Civil War Fort	brick, cement, nails, container glass, oyster shell, barbed and gabion wire, preserved and charred wood	buried surface
44AX118		Historic	19th Century	Dwelling	ceramics	
44AX122		Prehistoric	Undetermined		quartz debitage	
		Historic	19th Century: 2nd half-20th Century: 1st half	Dwelling	nails, window glass, ceramics, coal, container glass, window glass	
44AX130		Historic	1843-1919	Cemetery	none collected	stones present
44AX138		Historic	Undetermined	Cemetery	none collected	
44AX150		Historic	19th century: 4th quarter-20th century	African-American Cemetery	none collected	brick church with steeple at northeast corner
44AX151	Oakland Baptist Church and Cemetery, Fort Ward	Historic	19th Century: 4th quarter-20th century	African-American Cemetery	none collected	stones present
44AX152		Historic	19th century: 2nd half-20th century	Dwelling	brick, nails, shingles, concrete, window glass, ceramics, copper washers, wire, charcoal, steel pipes, furnace blower.	
44AX153	Oakland Baptist Cemetery, Fort Ward	Historic	19th Century: 4th quarter-20th Century: 1st quarter	Cemetery	none collected	3 graves with stones
44AX155	Fort Ward Barracks, Mess	Historic	19th century-20th century	Civil War fort	no detail given	

Site No.	Name	Type	Time Period	Use	Artifacts	Features
	Hall, Trash Dump					
44AX166		Prehistoric	Late Archaic	Undetermined	Brewerton projectile point	
44AX167		Historic	20th century	Dwelling	container glass, ceramics, ceramics, bone, oyster shell	house remains and stone and concrete wall livestock yard
44AX173	Protestant Episcopal Virginia Theological Seminary	Historic	19 th century 19 th century-20 th century 1861-1865	Farmstead School Civil War hospital	19th and 20th century artifacts (no detail given)	
44AX173a	Virginia Theological Seminary	Historic	1861-1865	Civil War camp	container glass, Minié balls, round balls, military buttons, melted lead	
44AX174		Prehistoric	Undetermined		corner-notched quartz point, quartz and chert debitage, oyster shell fragments, fire-cracked rock	
		Historic	19th century: 2nd half-20th Century	Dwelling	clinkers, ceramics, container glass	
44AX176		Prehistoric	Undetermined	Camp	projectile point fragments, debitage	
44AX184		Historic	20th century	time capsule		stone marker
44AX186		Historic	1861-1865	battery and rifle trench	none collected	earthworks
44AX191		Historic	1861-1865 19th century	Civil War Camp Dwelling	container glass, Minié balls, pistol bullets, nails, horseshoes	
44AX193		Historic	1861-1865 19th century	Civil War Camp Dwelling	ceramics, bottle glass, nails, Minié balls, military and non-military personal objects	Crimean oven
44AX195		Historic	1861-1865	Civil War Camp	.54 cal. round balls, military uniform buttons, container glass, knapsack parts	Crimean oven; fire pits

2.3.2 METAL DETECTION

The project area was surveyed using metal detectors with the intent of covering all the area with more than one type of machine and with different operators (Figure 6). The experience of the metal detectorists was 35, 10, and 5 years. Metal-detectors used included White's Blue and Grey, Tesoro Vequero, and White's XL-PRO. The metal detection was not systematic, in the sense that each area was covered in pre-determined sweeps spaced at pre-determined intervals. Instead, the metal detection was intensive in terms of coverage, both in area and in the amount of times locations were checked. This technique reduces the missing of artifacts for reasons caused by machine and operator error. In the wooded portions, a weed-eater was used to remove the ivy ground-cover; thus, increasing the effective depth of the metal detectors.

Metal detectors are unreliable machines that easily miss objects. Environmental conditions, such as soil moisture, temperature, humidity, soil composition, and how objects lay in the soil cause variations that affect performance of metal detectors. Furthermore, operator error must also be considered, because success with a metal detector is an acquired skill. Consequently, repeated passes over an area, at different times, by different detectorists, and with different machines will greatly increase the rate of recovery and accuracy of the metal detector survey. This was the strategy employed at the project area.

Initially, the field team investigated all positive signals, but this strategy was changed when it became apparent that a large amount of modern metallic trash covered the project area. The non-significant twentieth-century metal artifacts are associated with occupation of the twentieth-century residence and included such items as modern screws, bolts, coins, pull-tabs, wire nails, galvanized roofing nails, and aluminum foil. These items were not retained. All historic artifacts from the metal detection were flagged, assigned a unique provenience number, and collected. The location of metal detector recoveries were plotted on the project map (Figure 2).

2.4 LABORATORY METHODS

Artifacts recovered during field investigations were returned to JMA's Alexandria laboratory for cleaning and cataloguing. Artifacts were processed in accordance with the guidelines set forth in the *City of Alexandria Archeological Standards*. Artifacts with stable surfaces (such as ceramics and glass) were washed. Other artifacts (such as metal and bone) were brushed to remove the dirt. The cleaned artifacts were placed in resealable polyethylene bags labeled with provenience information. The bags were stored sequentially in acid-free boxes labeled with provenience information. To the extent possible, JMA identified recovered artifacts by type, material, function, and cultural and chronological association. Appendix I contains the 130-item artifact inventory. The field notes, photographs, and artifacts will be stored at JMA until a designated final repository is determined.

3.0 BACKGROUND RESEARCH

Investigations did not include a large background research component. However, previous investigations in the vicinity by JMA (Embrey et al. 2004; Balicki et al. 2005) presented general contexts of the project vicinity, which are synthesized in the following sections.

3.1 PREHISTORIC CONTEXT

The prehistoric cultural sequence for the Coastal Plain of Maryland and Virginia parallels that identified for other areas of the Middle Atlantic region. It consists of seven time periods divided as follows: Paleo-Indian (11,000 to 8000 BC), Early Archaic (8000 to 6500 BC), Middle Archaic (6500 to 3000 BC), Late Archaic (3000 to 1000 BC), Early Woodland (1000 to 500 BC), Middle Woodland (500 BC to AD 900), and Late Woodland (AD 900 to 1600) (Griffin 1967). Paleo-Indian and Early and Middle Archaic sites in the area are very rare and poorly documented. More intensive occupation began in the Late Archaic period when people associated with the Savannah River culture moved into the area. The exploitation of anadromous fish during the spring and early summer was the focal point of the subsistence and settlement rounds of these people. In general, prehistoric populations would have favored the Riverine ecotones closer to the Potomac River and only utilized upland areas, such as the project vicinity, on a situational basis.

Technological innovations, such as the invention or adoption of pottery and the bow and arrow, mark the Early and Middle Woodland periods. Intensive exploitation of floral resources in floodplain environments led to increased sedentism during these periods. The Late Woodland period is characterized by the introduction of agriculture and a shift in settlement locations. Hunting, fishing and the gathering of plant foods still contributed much to the diet.

Native Americans first encountered Europeans in the very early 1600s. By the late seventeenth century, European settlement had reached well into the Tidewater area of the Potomac and its influence had reached further into the interior. Introduced European diseases and the increased hostilities between groups led to the disruption of the Native American populations and the abandonment of many areas. By the early 1700s, the native populations were little barrier to European settlement (Feest 1978).

3.2 HISTORIC CONTEXT

The first permanent English settlement in North America was established by the Virginia Company of London at Jamestown, Virginia, in 1607 (Salmon 1983). By 1625, the Virginia Company charter was revoked by the British king and the land became a royal colony. Increasing population made the creation of counties and county governments necessary. In 1645, Northumberland County was established between the Rappahannock River and the Potomac River, enabling settlement in Northern Virginia (Jirikowic et al. 2004).

Land in the colony was granted to individuals by the governor on the authority of the king. Much of the land became farms and larger plantations growing tobacco as the main crop. By 1730, Fairfax County was formed from the part of Prince William County north of the Occoquan River (Jirikowic et al. 2004).



Figure 6. Metal detection in progress, facing southeast.

In 1749, the town of Alexandria was formed on the west bank of the Potomac River on land that had been granted to Margaret Brent and to Richard Howson who sold his land to a Scotsman named John Alexander (Voges 1975). There had been sheds and a wharf near the mouth of Great Hunting Creek for some time; this small community was called Belhaven. The General Assembly directed that a town be established, with a public warehouse for the inspection, storage, and shipping of tobacco, on the north bank of Great Hunting Creek. In 1749, by official act, a 60-acre-tract of land belonging to Phillip Alexander, John Alexander, and Hugh West was appropriated to form the town named Alexandria (Voges 1975). The town was surveyed and marked off into lots that were sold at public auction. The town grew so rapidly that the trustees asked permission of the General Assembly to enlarge the town area, and 46 additional lots were surveyed and sold at auction (Voges 1975). In 1779, Alexandria was incorporated as a town, and was thus able to exercise some self-government; its area extended west to include Washington Street.

The late eighteenth century was a period of economic growth and development for the town. There was extensive shipping and the attendant maritime trades, and manufacturing and retail operations expanded. In 1795, the Fairfax and Loudoun Turnpike Company was established to build a better road between Alexandria and the farms of western Fairfax County. This road, Little River Turnpike, was finished in 1806 and ran from the waterfront in Alexandria to the Little River in Aldie, Virginia, a distance of 34 miles (Daugherty et al. 1989). Within the boundary of Alexandria, the road kept its eighteenth-century name, Duke Street. It became the main transportation artery into Alexandria and was vital to development on the west side of town.

In 1789, Virginia ceded 10 square miles of land to the Federal government to be used as the permanent seat of the government (Mitchell 1977). Boundaries for the new District of Columbia were set by President Washington. Alexandria became part of the District in 1801 and the boundary crossed Duke Street at Hooff Run (Cheek and Zatz 1986). Alexandria was returned to Virginia in 1846 as Alexandria County, no longer part of Fairfax County. Alexandria was chartered as a city in 1852, making it politically and administratively independent of the county in which it was located, and the boundaries were extended again to the north and west (Salmon 1983; Cheek and Zatz 1986).

At the beginning of the Civil War, Virginia voted to secede from the Union. Confederate leaders thought that Alexandria was not defensible (Daugherty et al. 1989). On 24 May 1861, Federal regiments crossed the Potomac River, entered Virginia, and occupied Alexandria with little resistance. Confederate troops were posted to guard Alexandria, but abandoned their posts in the city. The Confederates established headquarters at Fairfax Courthouse, approximately 12 miles west, along Little River Turnpike. Advance troops under General Jeb Stuart constructed fortifications at Masons and Minors Hills near Bailey's Crossroads, approximately three miles to the northwest. In 1861, the Federal command considered their hold on Alexandria as tenuous.

The Federal Army built a defensive line of fortifications, batteries, entrenchments, and military roads around Washington, D.C., to protect the Capitol. By the end of the war, three forts, Ft. Williams, Ft. Worth, and Ft. Ward, and a number of connecting infantry trenches and batteries for field artillery were constructed around the outskirts west of the city of Alexandria. This line of defenses is located approximately 2,500 ft. west of the project area. The extent of the works associated with some of these forts is shown in Figure 7. West of the city and north along Quaker

Lane near its junction with Seminary Road, southeast of the project area, was Fort Williams, constructed in 1863 by detachments of the 2nd Connecticut Heavy Artillery (Figure 8). The fort was built on land owned by Confederate General Samuel Cooper who resigned his commission in the United States Army and joined the south at the beginning of the Civil War. Union forces referred to his home and land as "Traitor's Hill" and destroyed his house to build Fort Williams (Cooling and Owen 1988:64).

Fort Worth was constructed in 1861 south of the land owned by the Seminary (called the Fairfax Seminary at that time). After the war, a member of the 2nd Connecticut Heavy Artillery wrote a history of his unit's service saying, "Fort Worth . . . was situated above a quarter of a mile in the rear of Fairfax Seminary, overlooking the broad valley of Hunting Creek, and the Orange and Alexandria Railroad and mounting some twenty-four guns of all kinds . . ." (Cooling and Owen 1988:70, 73).

Located along Braddock Road, northwest of the Seminary and the project area, was Fort Ward. Constructed hastily after the first battle of Bull Run in 1861, it was improved over time with knowledge gained during the war (Cooling and Owen 1988:31). It was claimed to be one of the most important defenses of Alexandria. A long series of infantry trenches was constructed between Fort Worth and Fort Ward (Figure 8). Batteries for field artillery were constructed at strategic positions along the infantry trench. In practice, the infantry trench and batteries were unmanned, except by an occasional picket. At no time was Alexandria threatened to a degree where the forts fired their guns or the infantry trenches were manned.

By 1915, the city annexed 866 acres from Alexandria County and 450 acres from Fairfax County as development and the need for land grew. The city continued to expand in the early to mid-twentieth-century through further annexations (Cheek and Zatz 1986).

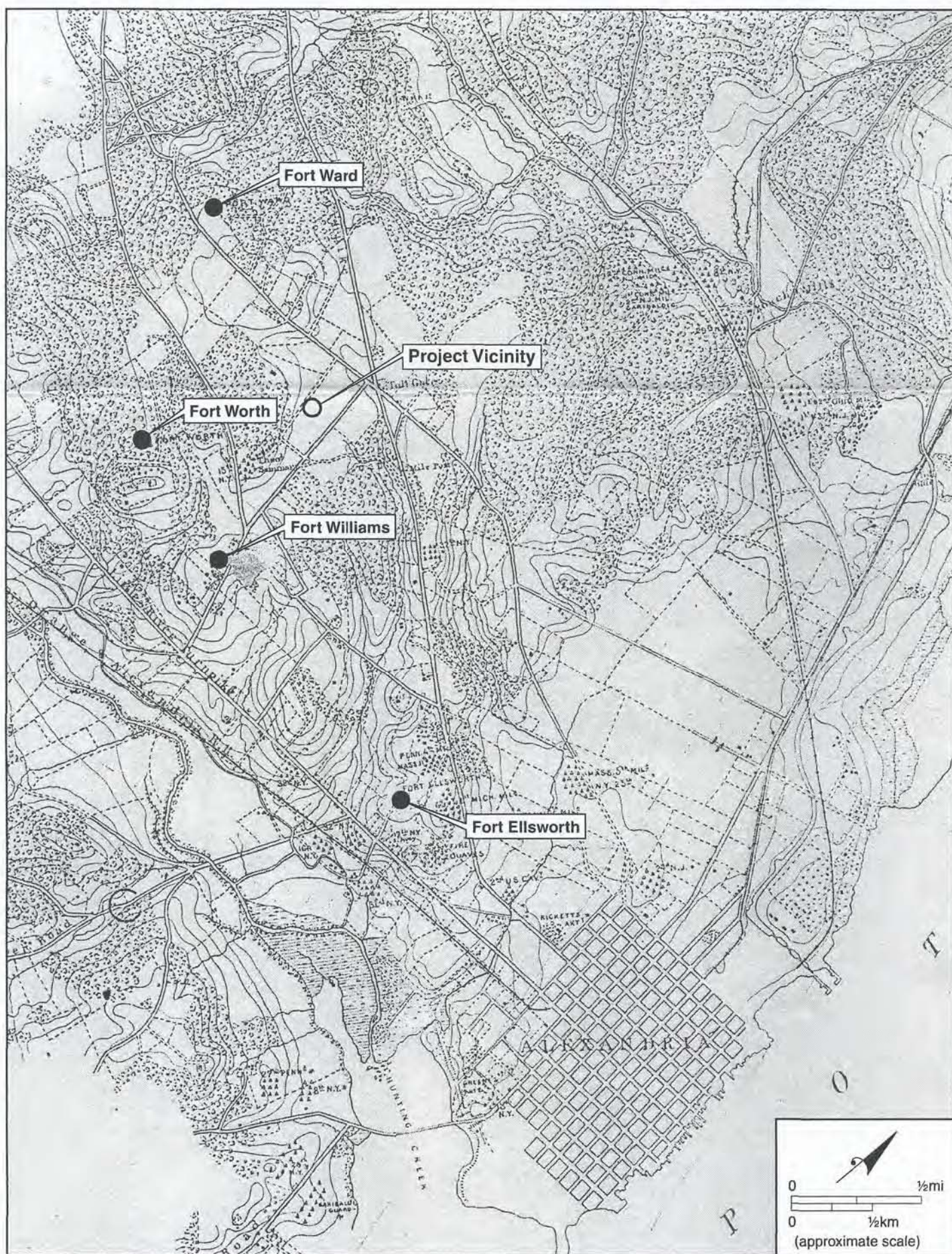


Figure 7. Detail of *Map of the ground of occupation and defense* (U.S. Coast Survey 1861) showing the location of the project vicinity.



Figure 8. Detail of *Defenses of Washington* (U.S. Engineers Bureau, 1865) showing the location of the project area.

4.0 FIELD RESULTS AND INTERPRETATIONS

4.1 SUBSURFACE TESTING

Forty-six shovel tests were excavated within the 0.67-acre (.27 hectare) project area (Figure 2). Eight shovel tests were placed along the west edge of the access driveway, and five shovel tests were placed in the footprint for the proposed sewer. The remaining 33 shovel tests were excavated within the south side of the project area, in the area of the proposed houses, yard areas, and associated parking areas.

Subsurface testing indicates that soils in the project area are disturbed. These disturbances can be attributed to several past occurrences, including construction of adjacent housing and the possible use of the area as an ash disposal dump. Construction events associated with the existing houses abutting the project area have resulted in the destruction of the natural soil sequence in the project area. These events include grading, underground utility installation, and landscaping. All shovel tests within the area of the footprints of the proposed houses, yard areas, and associated parking areas encountered disturbed contexts. Furthermore, the area also contains visible surface disturbance, including graded areas, push-piles, and buried utilities. Shovel tests in this area displayed a disturbed 0.4-to 0.8-ft.-thick silty clay loam that contained coal ash and coal slag. This stratum capped the silty clay loam subsoil (Figure 9 Shovel Tests 5.3 and 8.9).

The southern 90 ft. of the project area contained varying percentages of coal, ash, and slag. The ash and slag content was greatest in the vicinity of Shovel Tests (STs) 11.1, 11.2, and 11.3. The ash and slag may have been the result of dumping associated with a nearby concrete structure that may represent an abandoned incinerator, or some other type of coal-burning structure formerly used by the high school. The structure is located 75-ft. southeast of the project area. Slag and coal ash piles surround this foundation.

The natural soil sequence along the existing driveway is also disturbed. The disturbance is the result of grading and filling associated with the preparation of the roadbed for paving, where the original surface was graded and fill containing gravel was added to raise the grade above the natural topography and provide a stable surface for the black top. Shovel test profiles in this area varied between a 0.8-ft.-thick disturbed silt loam and silty clay loam capping a silty clay loam subsoil (Figure 9 ST 1.1). Other shovel tests in this area contained a 0.5-ft.-thick silt loam that in turn capped a clay loam subsoil (Figure 9 ST 3.1), or a 0.65-ft.-thick sand loam that contained coal slag and gravel on top of the clay loam subsoil (Figure 9 ST 4.3).

The shovel tests excavated along the west side of the paved driveway also exposed a disturbed stratigraphic sequence. Shovel-test profiles in this area varied between a disturbed stratum of 0.7-ft.-thick silt loam capping a clay loam subsoil. (Figure 9 ST 9.2) Shovel tests near the intersection of the driveway and Main Drive identified a 1-ft.-thick silty clay loam with coal ash and brick fragments capping the silty clay loam subsoil (Figure 9 STs 9.2, and 9.8).

Shovel testing indicated that the project area contains a scattering of modern artifacts, including fragments of aluminum cans, modern bottle glass, architectural materials, and plastic. These artifacts were noted in the field and discarded.

In summary, the subsurface testing did not identify the presence of intact soils within the project area. The shovel tests identified a scattering of modern trash across the project area.

4.2 METAL DETECTION SURVEY

The metal detection of the entire 0.67-acre (.27 hectare) project area resulted in the recovery of non-significant twentieth-century metal artifacts in all parts of project area and the recovery of eighteenth- and nineteenth-century artifacts, Civil-War-period artifacts, and Episcopal High School-related artifacts in two areas (Figure 2). Seventy-nine artifacts were recovered during the metal detector survey and plotted on the site map (Figure 2). In general, artifacts were mixed in the soil column; Civil War artifacts were found above modern artifacts: an indication that the site lacks stratigraphic integrity. A Virginia Department of Historic Resources site form was completed and the site was designated 44FX200 (Appendix I).

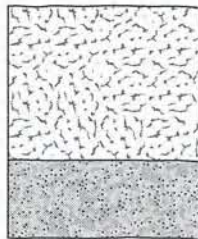
A cluster of metallic artifacts, including those associated with the Civil War and Episcopal High School, was identified at the south edge of the project area between the proposed driveway and the easternmost proposed residence (Figure 2). This approximately 30-by-30 ft. cluster is roughly bounded by STs 7.2, 7.3, 8.2, and 8.3. These shovel tests and the metal detector holes all displayed disturbed contexts (Figure 9 STs 7.2, and 8.2). This cluster of metal detector hits consists of 11 metal detector recoveries (4, 5, 6, 7, 8, 9, 10, 12, 21, 22, and 23). Civil War-period artifacts were recovered from metal detector (MD) locations 4, 21, and 22. Further MD 8 (a .31 caliber pistol bullet) and MD 12 (a burned brass button) may also date to the Civil War. Civil War period artifacts include two .577/.58 caliber Minié balls (MD 4 and 21) and a General Services eagle "I" button (MD 22). Metal detector location 21 contained 12 artifacts. In addition to the .577/.58 caliber Minié ball, artifacts included two fragments of a Civil War-era medicine bottle, a pistol bullet, seven cut nails, and a sherd of container glass. Additional artifacts from this cluster include an Episcopal High School belt buckle (MD 15). This buckle appears to be of twentieth-century manufacture. Fragments of a pocket watch (MD 6), a key (MD 7), a shovel (MD 5), and several pieces of miscellaneous metal (MD 10 and 23) were also recovered.

The cluster of Civil War artifacts is interpreted as a remnant of a larger occupation located in the general vicinity. The absence of additional Civil War artifacts from the disturbed area is an indication of the sparse distribution of Civil War artifacts in this area and/or the severity of disturbance to the natural soil sequence. Furthermore, the recovery of metallic artifacts from other time periods in this area, but not in the other areas where shovel testing occurred, attests to the degree of disturbance where the proposed residences and associated parking areas are located.

Additional metal detection was undertaken at this cluster to evaluate if the metal detection survey resulted in an accurate recovery of artifacts. Since no additional artifacts were recovered, this location is interpreted as a disturbed remnant with no additional potential to contribute information on the past occupation of this location.

The second cluster of metal detector recoveries is located adjacent to the driveway from Main Road to the proposed residences. Here, the existing driveway will be expanded and modified, and the proposed construction includes grading. Shovel testing determined that all construction will be within areas previously disturbed and containing fill. Metal detection of these locations did not result in the recovery of artifacts. The west side of the driveway is disturbed from landscaping

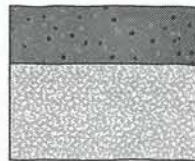
Shovel Test 1.1



10YR 4/2 dark grayish brown silt loam with 30 percent 10YR 5/2 grayish brown silty clay loam and 20 percent 10YR 6/6 brownish yellow silty clay loam; abrupt transition

10YR 5/2 grayish brown silty clay loam with 40 percent 10YR 6/6 brownish yellow silty clay loam; subsoil

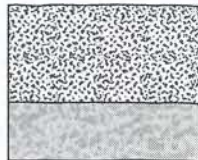
Shovel Test 8.2



10YR 3/3 dark brown silty clay loam with 20 percent coal ash and coal slag; abrupt transition

10YR 5/4 yellowish brown silty clay loam; subsoil

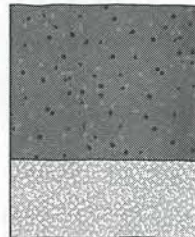
Shovel Test 3.1



10YR 3/2 very dark grayish brown silt loam; abrupt transition

10YR 5/2 grayish brown clay loam with 30 percent 10YR 6/6 brownish yellow clay loam; subsoil

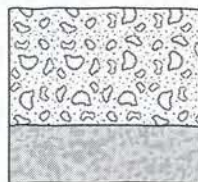
Shovel Test 8.9



10YR 3/3 dark brown silty clay loam with 30 percent coal ash and coal slag; abrupt transition

10YR 5/4 yellowish brown silty clay loam; subsoil

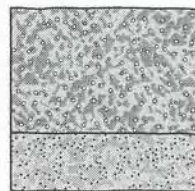
Shovel Test 4.3



10YR 3/2 very dark grayish brown sandy loam with 30 percent slag and gravel abrupt transition

10YR 5/2 grayish brown clay loam with 30 percent 10YR 6/6 brownish yellow clay loam; subsoil

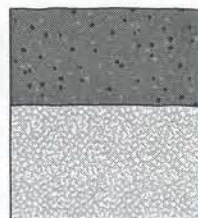
Shovel Test 9.2



10YR 4/2 dark grayish brown silt loam with 20 percent 10YR 6/4 light yellowish brown silt and 20 percent medium gravel; modern artifacts; abrupt transition

10YR 5/2 grayish brown silty clay loam with 20 percent 10YR 6/6 brownish yellow clay loam; subsoil

Shovel Test 5.3



10YR 3/3 dark brown silty clay loam with 10 percent coal ash and coal slag; abrupt transition

10YR 5/4 yellowish brown silty clay loam; subsoil

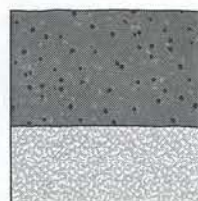
Shovel Test 9.8



10YR 4/2 dark grayish brown silt loam with 20 percent medium gravel and 5 percent brick fragments; abrupt transition

10YR 5/4 yellowish brown silty clay loam; subsoil

Shovel Test 7.2



10YR 3/3 dark brown silty clay loam with 20 percent coal ash and coal slag; abrupt transition

10YR 5/4 yellowish brown silty clay loam; subsoil

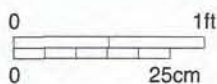


Figure 9. Representative shovel test profiles from the project area.

and the installation of large underground utilities. However, metal detection along the east boundary of the proposed driveway improvements and on the southwest side of the intersection of the driveway and Main Drive recovered evidence of eighteenth- through twentieth-century occupations. Metal detection was undertaken to establish archeological site boundaries. The east boundary of the site was not firmly established. Once it became clear that the metal detection was extending into areas actively used by youth athletic leagues for practice metal detection on the east side was stopped.

In general, the stratigraphic sequence on the east side of the driveway included an approximately 1.2-ft.-deep plowzone overlying natural subsoil. Metallic artifacts dating from the eighteenth-century through the present are scattered throughout the plowzone. It was as likely to discover a Civil War-era artifact in the top few inches of the plowzone as it was to recover 1940s artifacts from the base of the plowzone. Additionally, lawn care has resulted in the shredding of modern metallic artifacts and their distribution within the top several inches of the plowzone.

The metal detector survey resulted in the identification of a multi-component historic site (44AX200) dating from the eighteenth- through early twentieth-centuries, but the primary occupation dates to the Civil War. The site measures approximately 325-by-75 ft., but the east, north, and west boundaries are not clearly identified. The Civil War component is likely to extend further in these directions. The most intensive occupation was during the Civil War, when the site was part of the larger Federal encampment in the vicinity of the Theological Seminary. Several relic hunters interviewed report searching the project area and vicinity in the past, but recollect only finding artifacts in the open space along Main Drive. The archeological investigation confirms this observation. Unknown units of the Federal Army camped in the open space south of Main Drive. This occupation resulted in a sparse scatter of Civil War artifacts across the landscape. Artifacts dating to early periods were also found, but along with artifacts associated with the Episcopal High School, these artifacts are interpreted as the result of the accidental loss or field scatter (disposal of trash in agricultural fields) but not occupations.

5.0 ARTIFACT ANALYSIS AND INTERPRETATIONS

The subsurface testing and metal detection recovered 130 artifacts. The majority of these artifacts were from the metal detection adjacent to the proposed driveway. Artifacts dated from the eighteenth- through twentieth-centuries and record past occupations of the project area.

The pre-Civil War occupation is represented by a 1774 Virginia halfpenny (MD 68) (Figure 10). Presumably, this artifact is associated with an as yet unidentified eighteenth-century occupation or with the ca. 1805-1839 Elizabeth Parke Custis Law tenure.

Artifacts associated with the Civil War occupation were the most abundant artifact type found. Tables 2-5 list these artifacts by their types. Ammunition (Table 2 and Figure 11) included the common range of Civil War ammunition including .64 caliber round balls, .577/.58 caliber Minié balls, and various pistol bullets. The one exception is the .58 caliber Williams Type I cleaner.

During the war, three types of Williams bullets were made: they functioned to remove powder residuals from the rifle bore before the gun became fouled (Thomas 1981:16 and 18). Tests indicated that the Williams bullets were efficient in keeping the bore clean and were as accurate as the standard issue .577/.58 projectile (Lewis 1956:125). Williams type III projectiles were introduced in 1863, and their shorter length readily differentiates them from earlier types (Thomas 1981:27 and Lewis 1956:125;[plate 28]). It is not clear if the Williams bullets Types I-III carry chronological implications other than the introduction of Type III in 1863. The Williams cleaner found at 44AX200 is a Type I. This version of the Williams cleaner has a nipple/plug on its base which held a zinc washer. Upon firing, the intent was that the explosion would force the expansion of the zinc washer, in effect scouring out the rifle barrel.

Packages of ammunition contained 10 rounds. Until 1864, Union-made packages included one or more Williams-type bullets (Lewis 1956:125, 200). Initially, the ratio was 1 to 9, but by 1863, it had increased to 3 to 7 (Thomas 1981:16). Williams bullets were designed in three parts: body, zinc washer, and disk/plug. The paper used as wrapper for cartridges containing Williams bullets was sometimes dyed red or blue in order to make the "cleaners" more readily identifiable (Lewis 1956: 125, 200, and 221).

The .64 caliber round balls would have been used in .69 caliber smooth-bore muskets. Lewis (1956:124) presents 1861 Ordnance Department information indicating that Model 1842 muskets used .655 caliber ammunition. The use of a ball of a smaller caliber than the bore was needed, because the ball was wrapped in a cloth to facilitate loading and to reduce windage when the gun was fired. Because of these factors, smooth-bore muskets were not accurate. The round balls recovered from 44AX200 were all .64 caliber, smaller than the .655 size given by Lewis (1956:124). This probably reflects different manufacturing techniques and an accepted range of ball size for .69 caliber weapons.

The Model 1842 musket was produced at the Springfield, Massachusetts, and Harpers Ferry, Virginia, Federal armories. It was the standard firearm used by the military between 1844 and 1855 and was the first to use a percussion cap system. A large number were kept by state militia

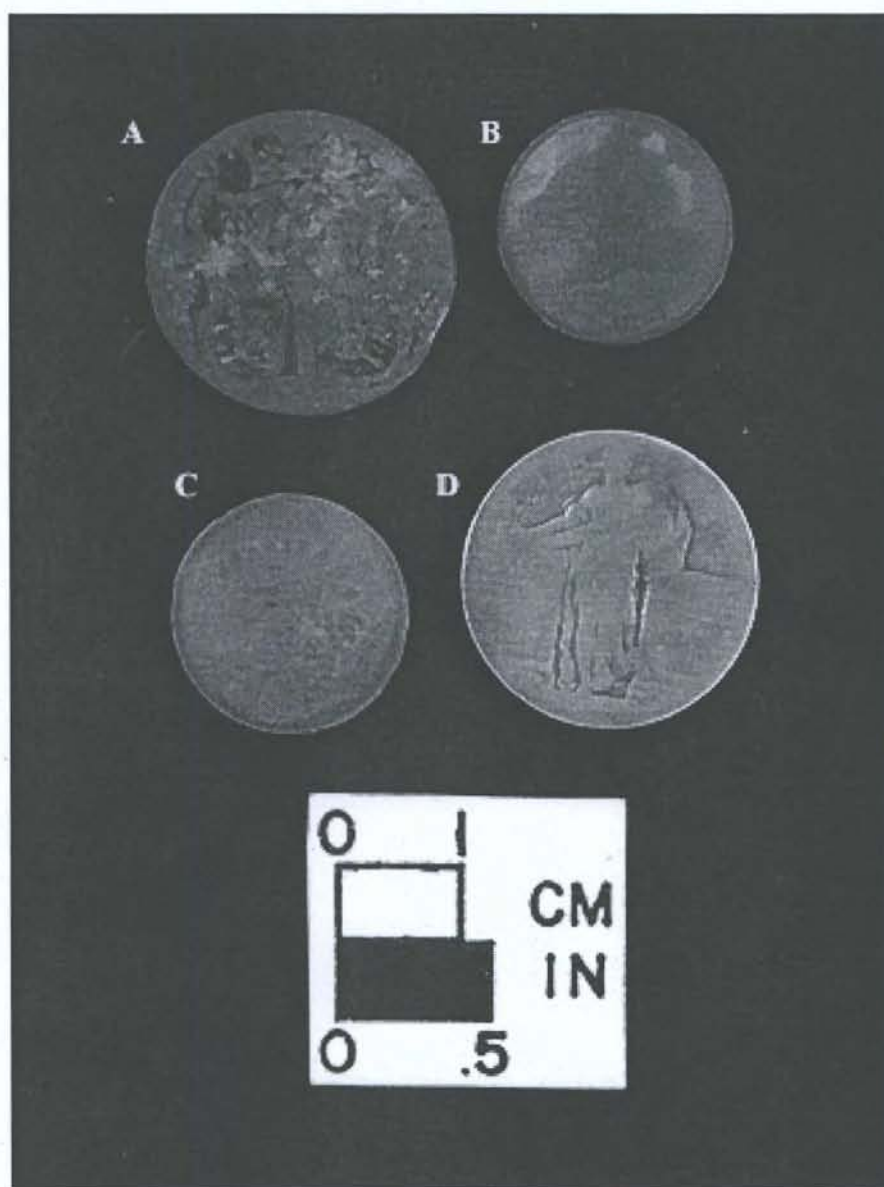


Figure 10. Coins (A)1774 Virginia halfpenny [MD 68]; (B) 1837 small cent [MD 19]; (C) 1859 Indian head penny [MD 72]; (D) 25-cent piece [MD 44].

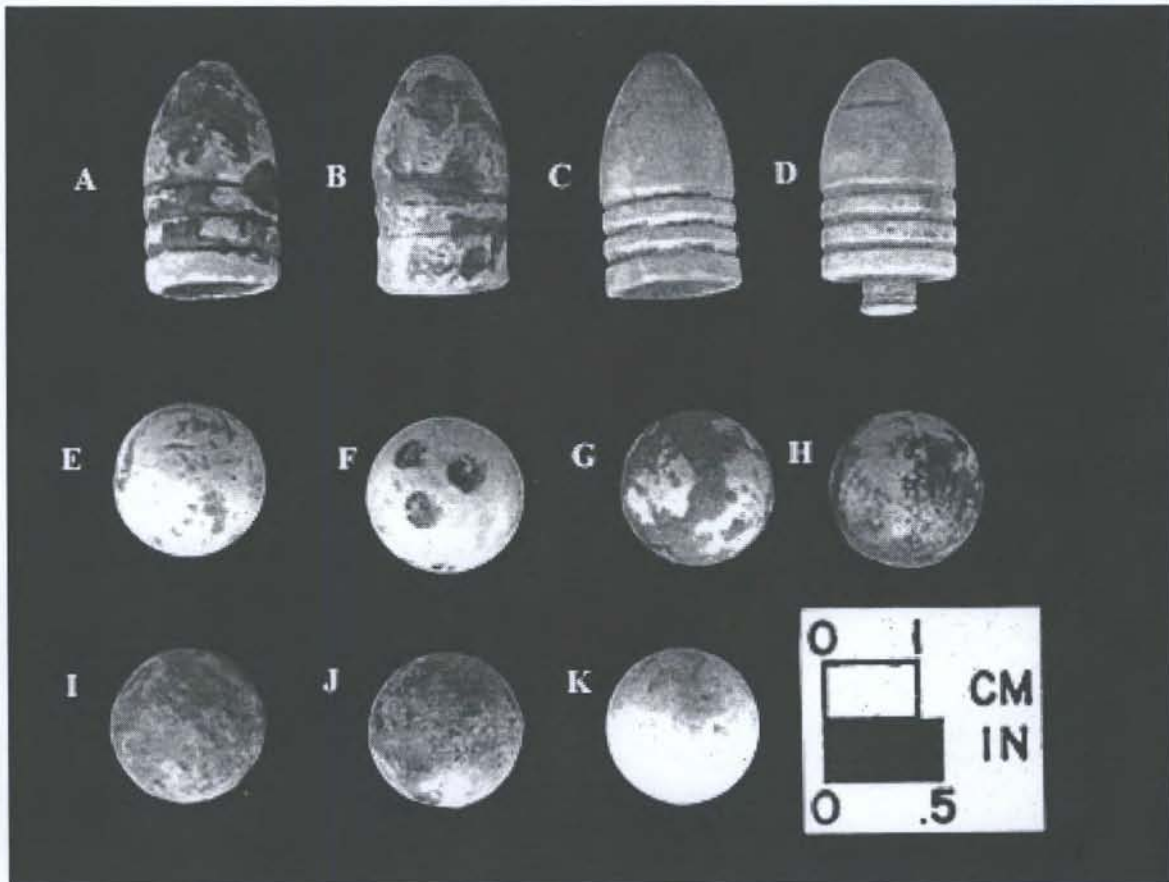


Figure 11. Ammunition (A-C) .577/.58 caliber Minié ball [MD 21/4, 4/2, and 28]; (D) .58 caliber Williams Cleaner, Type I [MD 41]; (E-K) .64 caliber round ball [MD 51, 17, 71, 75, 76, 77, and 40].

units (Coates and Thomas 1990:10). Although these weapons were common throughout the war, they saw extensive use in 1861 and 1862 (Coates and Thomas 1990:10). At the battle of Gettysburg in 1863, at least eight Federal regiments were still armed with smooth-bore muskets (Thomas 1981:12).

The second most common ammunition type is Minié balls (Table 2 and Figure 11). These .577/.58 caliber projectiles were used in rifle muskets. The rifle musket is a shoulder arm approximately 56 inches long, muzzle-loaded, and primed by a percussion-cap (Coates and Thomas 1990:83; Legg and Smith 1989:111-112). The rifle musket was highly accurate due to a manufacturing process whereby evenly spaced spiral grooves were cut into the rifle bore. When fired, the grooves would cause the projectile to spin, resulting in a truer flight to the target. The Civil War and the decade preceding it saw the development, use, and eventual abandonment of the rifle musket. By the end of the Civil War, advances in breech-loading weapons and metallic cartridges enabled faster loading speeds and essentially rendered the use of the rifle musket obsolete.

Table 2. Civil War Ammunition from 44AX200

Metal Detector Number(s)	Artifact Description	Count	Percentage of Type
8	Pistol Bullet: .31 caliber	1	
65	Pistol Bullet: fired round shot	1	
21	Pistol Bullet: undetermined caliber	1	
	Total Pistol: 3		20.00
4, 21, 28	Minié Ball: .577/.58 caliber	3	
	Total Minié Ball: 3		20.00
41	Williams Cleaner, Type I: .58 caliber	1	
	Total Williams Cleaner: 1		6.67
17, 40, 51, 71, 75, 76,			
77	Round Ball: .64 caliber	7	
14	Round Ball: smashed	1	
	Total Round Ball: 8		53.33
	Total Ammunition: 15		

A large variety of shoulder arms were used during the Civil War; however, two types of rifle muskets were issued in greater numbers than any other. The United States Model 1855/1861 .58 caliber rifle musket and the British Model 1853 .577 caliber Enfield rifle musket were the most common shoulder arms used during the war. The Model 1855 rifle musket was also manufactured at the Federal armories at Harpers Ferry, West Virginia, and Springfield, Massachusetts. At the armory in Springfield, Massachusetts, refinements made to the Model 1855 primer apparatus resulted in the Model 1861. From adoption until 1865, the Springfield armory and 20 government subcontractors produced over 700,000 Model 1861 rifle muskets (Coates and Thomas 1990:14-18).

Both the North and the South were active importers of firearms during the Civil War. Arms dealers in Great Britain were principal players in the arms trade, and they supplied an estimated 900,000 pattern 1853 Enfield .577 caliber rifle muskets to the combatants (Coates and Thomas

1990:19). The arms were copies of the standard issue English infantry weapon; however, independent arms manufacturers supplied the Enfield rifles exported to North America. The Enfield Model 1853 was attractive, because the gun used the same ammunition as the American-made .58-caliber rifle musket. The slight difference in bore diameters of each weapon, less than .003 caliber, was not considered a hindrance.

Table 3. Uniform and Miscellaneous Military Artifacts from 44AX200

Metal Detector Number(s)	Artifact Description	Count
66	Canteen spout, pewter	1
55, 73	Gun cone protector, field-made	2
46, 70	Carved or shaped lead	2
30, 62	Melted lead	2
22, 58	Uniform button: eagle and "I" shield	2
52	Uniform shoulder scale attachment	1

Concomitant with the development of the rifle-musket were advances in their projectiles. In order for the projectile to fly true, there could be no windage (space between the bullet and the barrel) within the gun. If the projectile does not fit into the bore tightly, the bullet, when fired, will move through the gun bore unevenly, resulting in an inaccurate trajectory toward the target. In 1849, French military officer Captain Claude Minié developed a cylindro-conical (i.e., cylinder topped by a cone) projectile having three grease grooves around the body and an iron plug inserted into the projectile's base (Thomas 1981:4). Refinements in the design led to the dropping of the iron plug when it was realized that a cone-shaped hollow cavity in the projectile's base would create the same expansion of the projectile when fired. Upon firing, the hollow basal cavity would expand the projectile into the rifling, eliminating windage. The resulting projectile form is the classic Minié ball, probably the most common artifact of the Civil War (Figure 11). The projectiles were rolled in paper cartridges with their powder charge and packaged for distribution (Lewis 1956:200, [plates 45 and 46]) Packages of ammunition contained 10 rounds. Included within the ammunition packages were percussion caps.

The distribution of ammunition suggests that round balls are concentrated on the southwest side of the intersection of the driveway and Main Drive. Here five (MD 51, 71, 75, 76, and 77) round balls were found. The other ammunition is not clustered, but distributed sparsely across the site.

Ten additional artifacts were recovered that can be directly associated with the Civil War occupation. Three artifacts reflect uniforms. Two General Service, Eagle "I" buttons (MD 22 and 58) and an shoulder scale attachment (MD 52) were found (Figure 12). One canteen spout fragment (MD 66) and two gun cone protectors (MD 55 and 73) were also found (Figure 13). The cone protectors were made by the soldiers, and consist of lead, from a bullet, reshaped to cover the cone which held the percussion cap on the firing mechanism of their rifles. These field-made cone protectors were intended to keep moisture and dirt out of the cone and torchhole and reduced ignition malfunctions. The two pieces of carved or shaped lead and the two pieces of melted lead reflect the activities of soldiers in camp. Often soldiers spent their idle time melting or modifying lead ammunition.

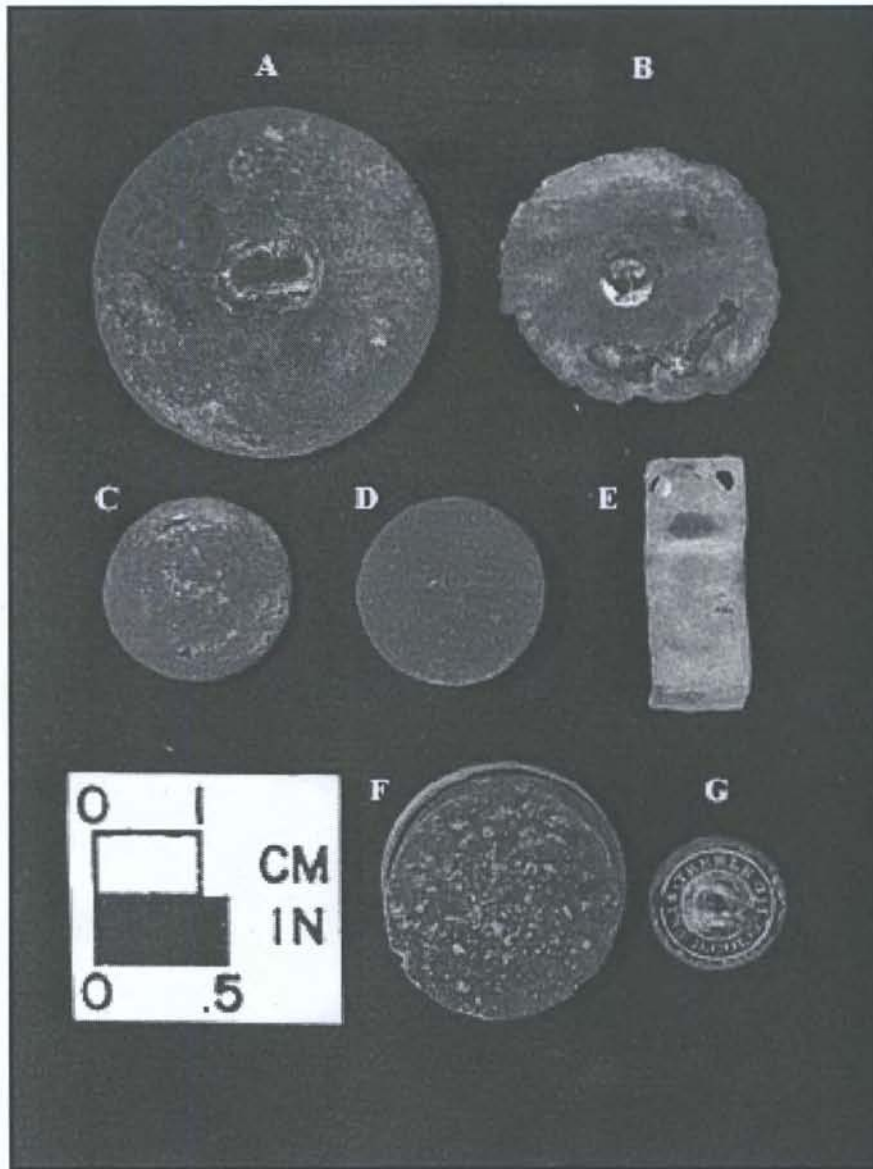


Figure 12. Buttons (A-B) flat brass buttons [MD 18 and 13]; (C) brass ball button [MD 63]; (D) flat brass button [MD 79]; (E) shoulder scale attachment [MD52]; (F) brass and wood button [MD 69]; (G) flat brass button, back stamped "TREBLE GILT STAND. COL" [MD 45].

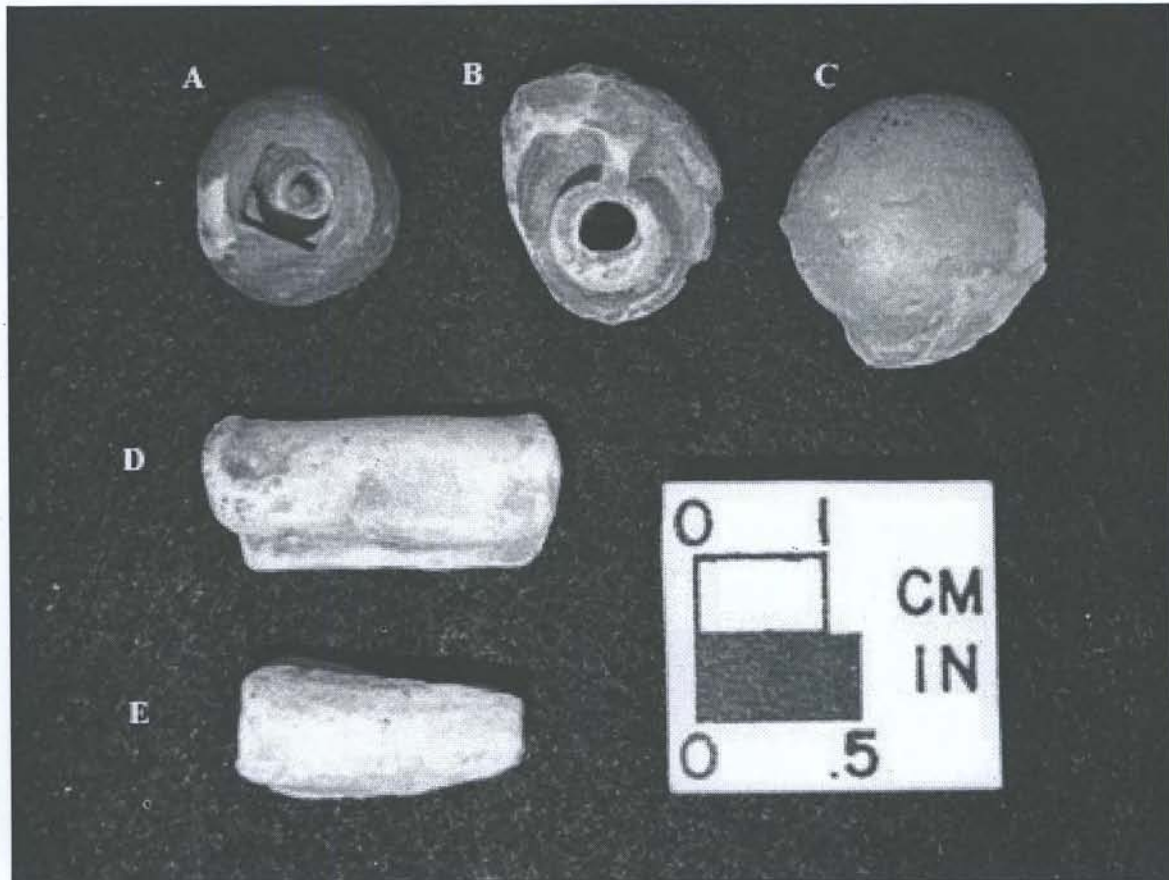


Figure 13. Cone protectors and lead (A-B) cone protectors, field-made [MD 55 and 73]; (C) smashed round ball [MD 14]; (D) flattened and folded lead [MD 46]; (E) carved lead [MD 70].

Ten non-military clothing artifacts, nine buttons and one belt buckle, were found (Figure 14). Three artifacts (MD 9, 15, and 67) bearing Episcopal High School designations were found (Figure 14). Two of these artifacts (MD 15 and 67) were cloak buttons and the third (MD 9) was a twentieth-century belt buckle. The buttons show a Maltese cross in the center with the letters "EHS" above. Flanking the cross on either side is a row of ivy. Beneath the cross is the letter "V", presumably for Virginia. The buttons are from a school uniform which was adopted in the 1850s (Tice 1997:499). It is not known when the uniform was discontinued. The remaining six buttons include a large flat button (MD 18) that may date to the colonial period and five buttons that date to the early to mid-nineteenth century.

Table 4. Clothing-Related Artifacts from 44AX200

Metal Detector Number(s)	Artifact Description	Count
9	Brass belt buckle: "E.H.S."	1
15, 67	Loop shank, 3-piece cast button: "E.H.S"	2
13	Flat brass button, no back mark	1
45	Flat brass button, back mark: "TREBLE GILT STAN D. COL"	3
63	Loop shank, 3-piece cast button: ball button	1
69	Composite button: wood, brass, iron	1
12	Unidentified brass button: burned	1
Total:		10

The metal detector survey resulted in the recovery of a variety of other artifacts both identifiable and unidentifiable (Table 5). In addition to the 1774 Virginia halfpence, 5 other coins were found ranging from 1837 to ca. 1930 (Figure 10). Other miscellaneous finds include a pocket watch, pocket knife and a watch key.

Table 5. Personal Artifacts from Site 44AX200

Metal Detector Number(s)	Artifact Description	Count
68	Virginia Halfpence: 1774	1
19	Domestic Small Cent: 1837	1
53, 72, 74	Indian Head Copper Cent: 1859	3
44	25-Cent Piece (1916-1930): illegible mint date	1
21	Medicinal bottle glass: blown-in-mold	2
7	Key, modern	1
6	Pocket watch	1
43	Pocketknife	1
57	Strap end: brass	1
60	Watch key: angelic figure with lyre; laurel wreath and staff on traverse	1
47	Unidentified brass accessory: band with stamped floral decoration	1
Total personal artifacts:		14

6.0 SUMMARY AND CONCLUSIONS

The Episcopal High School proposes to construct two faculty residences with associated parking and roadways within the .67-acre project area. The proposed location of the residences is wooded with heavy underbrush and contains evidence of surface disturbance. The proposed driveway from the proposed residences to its intersection with Main Drive follows the course of an existing paved driveway.

Fieldwork consisted of a systematic shovel test survey and metal detection. Forty-six shovel tests were excavated within the project area. Eight shovel tests were placed along the west edge of the access driveway and five shovel tests were placed in the footprint for the proposed sewer. The remaining 33 shovel tests were excavated within the south side of the project area in the area of the footprints of the proposed houses, yard areas, and associated parking areas. In general, subsurface testing identified and recorded disturbance throughout the project area. The location of the proposed residences and associated parking area is disturbed. At this location, disturbance includes construction of adjacent housing and the possible use of the area as an ash disposal dump. Construction events associated with the existing houses include grading, underground utility installation, and landscaping. The dense amount of ash and slag found in this area may have been the result of dumping associated with a nearby concrete structure located 75 ft. southeast of the project area. The structure may represent an abandoned incinerator, or some other type of coal-burning structure formerly used by the high school. The natural soil sequence along the existing driveway is also disturbed. The disturbance is the result of grading and filling associated with the preparation of the roadbed for paving where the original surface was graded and fill containing gravel was added to raise the grade above the natural topography and provide a stable surface for the blacktop.

Phase I investigations identified and examined a multi-component historic site dating from the eighteenth-through-early twentieth centuries. The most intensive occupation, at the site, was during the Civil War when the site was part of the larger Federal encampment in the vicinity of the Theological Seminary (44FX173). The Federal army occupied the Seminary, establishing a hospital and periodically regimental camps. Several relic hunters interviewed report searching the project area and vicinity in the past, but recollect only finding artifacts in the open space along Main Drive. The archeological investigation confirms this observation. Unknown units of the Federal Army camped in the open space south of Main Drive. This occupation resulted in a sparse scatter of Civil War artifacts across the landscape. The occupation was present in the area where the proposed residences are to be located, but only in one small area. The camp was most likely a summer camp where the soldiers lived in tents. No features were found suggesting a winter encampment. Presumably, based on observations the site area was a plowed field in the past. Plowing throughout the nineteenth and possibly into the early twentieth century has resulted in a lack of site integrity. Artifacts dating throughout the occupation are mixed in a plowzone. Because site 44FX200 lacks stratigraphic integrity and intrasite patterning could not be identified, this site is not considered eligible to the National Register of Historic Places. However, the portion of the site located along Main Drive is locally significant and the Episcopal High School should limit ground disturbing activities in this area. Construction plans include modifications to the driveway but these modifications will not impact archeological resources near Main Drive. Therefore, no additional investigations are warranted, and the proposed construction will have no impact on significant archeological resources.



Figure 14. Episcopal High School artifacts (A) belt buckle [MD 9]; (B-C) buttons [MD 15 and 67].

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Appendix I

Artifact Inventory

Episcopal High School
44AX0200
Artifact Inventory
March 2006

Metal Detector	Artifact Number	Artifact Description	Count	Comments	Date Range
1	1	Unidentified Hardware, Metal: Copper Alloy/Brass	1	flat	
2	1	Unidentified Hardware, Metal: Copper Alloy/Brass	1	flat	
3	1	Unidentified Hardware, Metal: Iron	1	large ring on S hook	
4	1	Ironstone: Plain White	1		1813-1900
4	2	Projectile: Minié Ball	1	.58 caliber (.577 diameter)	1849-0
5	1	Tool, Metal: Shovel	1	flat spade	
6	1	Jewelry, Metal: Pocket Watch	1	6 fragments mend	
7	1	Accessory, Metal: Key	1	modern, "Atlas Keys"	
8	1	Projectile: Pistol Bullet	1	.31 caliber	
9	1	Fastener, Metal: Brass Belt or Other Buckle	1	"E.H.S."	
10	1	Stable, Metal: Horseshoe	1	fragment	
11	1	Electrical, Metal: Miscellaneous Part	1	brass	
12	1	Button, Metal: Brass	1	burned	
13	1	Button, Metal: Brass	1	flat	
14	1	Projectile: Round Ball	1	smashed	
15	1	Button, Metal: Brass, Loop Shank, 3-Piece Cast	1	"E.H.S. [Maltese cross] V"; illegible back mark; may have been altered into a charm	
16	1	Blown-In-Mold Bottle Fragment: Aqua	1		
16	2	Cut Common Nail: Fragment	1		1805-2006
17	1	Projectile: Round Ball	1	.69 caliber (.655 diameter), impression left by 3 buckshot and powder	
18	1	Button, Metal: Brass	1	flat	
19	1	Domestic Coin: Small Cent	1	1837	1856-2006
20	1	Unidentified Metal Object: Lead	1	possible hem weight	
21	1	Cut Common Nail: Fragment	7		1805-2006
21	2	Grooming/Hygiene, Glass: Medicine Bottle	2	mend; pontilled	
21	3	Unidentified Bottle Fragment: Aqua	1		
21	4	Projectile: Minié Ball	1	.58 caliber (.577 diameter)	1849-0
21	5	Projectile: Pistol Bullet	1	unknown caliber	
22	1	Military Uniform, Metal: Button	1	eagle and "I" shield; 3 pieces mend	
23	1	Unidentified Metal Object: Iron/Steel	1		
24	1	Fastener, Metal: Spike	1		
25	1	Stable, Metal: Horseshoe	1	fragment	
26	1	Stable, Metal: Horseshoe	1		
27	1	Tool, Metal: Wedge	1		
28	1	Projectile: Minié Ball	1	.58 caliber (.577 diameter)	1861-0
29	1	Cut Common Nail: Fragment	2		1805-2006
30	1	Miscellaneous, Metal: Melted Lead	1		
31	1	Lamp Part, Metal: Collar	1		

Metal Detector	Artifact Number	Artifact Description	Count	Comments	Date Range
32	1	Handwrought Rosehead Nail: Fragment	1		0-1820
32	2	Unidentified Hardware, Metal: Iron	1	possible handle	
33	1	Whiteware: Blue Transfer Print	1		1815-1915
33	2	Miscellaneous, Metal: Bolt	1		
34	1	Unidentified Hardware, Metal: Copper Alloy/Brass	1	brass band	
35	1	Cut Common Nail: Fragment	1		1805-2006
36	1	Window Glass: All Thicknesses	3		0-1820
36	2	Nail: Unidentified	12		
36	3	Electrical, Metal: Wire Fragment	2	brass/copper alloy	
36	4	Electrical, Metal: Miscellaneous Part	1	brass/copper alloy	
36	5	Unidentified Bottle Fragment: Olive Green	1		
37	1	Nail: Unidentified	1	large square head with rounded shaft	
38	1	Appliance, Metal: Cast-Iron Stove Part	1		
39	1	Cooking Vessel, Metal: Unidentified	1		
40	1	Projectile: Round Ball	1	.69 caliber (.655 diameter)	
41	1	Projectile: Minié Ball	1	.58 caliber (.574 diameter) Williams Cleaner, Type I	1861-0
42	1	Hardware, Metal: Unidentified	3	zinc	
43	1	Accessory, Metal: Pocketknife Part	1	two pieces: ferrous blade and bone handle. Handle missing inlay.	
44	1	Domestic Coin: 25-Cent Piece	1	1916-1930; illegible mint date	1796-2006
45	1	Button, Metal: Brass	1	flat, back mark: "TREBLE GILT STAND. COL"	
46	1	Miscellaneous, Metal: Carved or Shaped Lead	1	flattened into square and folded	
47	1	Accessory, Metal: Unidentified	1	brass band stamped with floral decoration	
48	1	Fastener, Metal: Spike	1		
49	1	Fastener, Metal: Spike	1		
49	2	Whiteware: Blue Transfer Print	1		1815-1915
49	3	Yellowware: Rockingham/Bennington	2		1840-1910
49	4	Unidentified Bottle Fragment: Aqua	2		
50	1	Hardware, Metal: Unidentified	1	possible bracket	
50	2	Whiteware: Blue Transfer Print	1		1815-1915
50	3	Yellowware: Rockingham/Bennington	2		1840-1910
50	4	Blown-In-Mold Bottle Fragment: Dark Green	1		
50	5	Unidentified Metal Object: Pewter	1	possible tube tip, threaded interior	
51	1	Projectile: Round Ball	1	.69 caliber (.645 diameter)	
52	1	Military Uniform, Metal: Shoulder Scale Attachment	1	flat brass	
53	1	Whiteware: Plain	1		1810-2006
53	2	Domestic Coin: Indian Head Penny	1	copper, 1859	1859-1909
54	1	Stable, Metal: Horseshoe	1		
55	1	Gun Part: Cone Protector	1	lead, field-made	
56	1	Hardware, Metal: Decorative Feature	1	cast lead lion head	
57	1	Accessory, Metal: Other	1	strap-end saver	

Metal Detector	Artifact Number	Artifact Description	Count	Comments	Date Range
58	1	Military Uniform, Metal: Button	1	3 pieces of one eagle cuff button	
59	1	Unidentified Hardware, Metal: Copper Alloy/Brass	1	brass tubular fragment, ribbed surface on exterior	
60	1	Jewelry, Metal: Watch Key	1	angelic figure with lyre; laurel wreath and staff on traverse	
61	1	Unidentified Hardware, Metal: Copper Alloy/Brass	1	possible brass canteen spout	
62	1	Miscellaneous, Metal: Melted Lead	1		
63	1	Button, Metal: Brass, Loop Shank, 3-Piece Cast	1	ball button	
64	1	Unidentified Hardware, Metal: Copper Alloy/Brass	5	thin sheet brass	
65	1	Pistol Bullet: round shot	1	fired	
66	1	Military Object, Metal: Canteen Spout	1	pewter	
67	1	Button, Metal: Brass, Loop Shank, 3-Piece Cast	1	"E.H.S. [Maltese cross] V"; illegible back mark	
68	1	Domestic Coin: Virginia Halfpenny	1	1774	1773-1774
69	1	Button: Composite	1	3 pieces; brass over wood disks with ferrous back	
70	1	Miscellaneous, Metal: Carved or Shaped Lead	1		
71	1	Projectile: Round Ball	1	.69 caliber (.65 diameter)	
72	1	Domestic Coin: Indian Head Penny	1	copper, 1859	1859-1909
73	1	Gun Part: Cone Protector	1	lead, field-made	
74	1	Domestic Coin: Indian Head Penny	1	copper, 1859	1856-2006
75	1	Projectile: Round Ball	1	.69 caliber (.65 diameter)	
76	1	Projectile: Round Ball	1	.69 caliber (.65 diameter)	
77	1	Projectile: Round Ball	1	.69 caliber (.65 diameter)	
78	1	Miscellaneous, Metal: Hook	1	wrought	
79	1	Button, Metal: Brass	1		
Total Artifacts			130		

Appendix II
Site Form

ARCHAEOLOGICAL REPORT**DHR ID#:** 44AX0200
Report Generated on: 5/11/2006**City/County:** Alexandria
VDHR Site Number: 44AX0200
Site Name: EHS Housing
Temporary Designation:**Other VDHR Number:****CULTURAL/TEMPORAL AFFILIATION****Cultural Designation**
Euro-American
Euro-American**Temporal Designation**
19th Century: 2nd half
20th Century: 1st half**Site Class:** Terrestrial, open air**THEMATIC CONTEXTS/SITE FUNCTIONS****Sequence Number:** 1
Category for thematic context:
Military/Defense**Example:** Camp**Comments/Remarks:**

This is based on an artifact scatter typical of Civil War camp sites. No earthworks or Civil War-related features were observed.

Sequence Number: 2
Category for thematic context:
Education**Example:** School**Comments/Remarks:**

The site contained artifacts associated with the Episcopal High School, established in 1839.

Specialized Contexts:**USGS Quadrangle(s):**
ALEXANDRIA**Loran:** **Restrict UTM Data?****Center UTM (for less than 10 acres):** 18/4299298/318480**Boundary UTMs (for 10 acres or more):****Physiographic Province:** Coastal Plain
Drainage: Potomac/Shenandoah River
Landform: bluff
Aspect: Facing northeast
Elevation: 210.00 **Slope:** 2-6%
Site Soils:
Adjacent Soils:
Nearest Water Source: Taylor Run
Distance: 2,020

INDIVIDUAL/ORGANIZATION/AGENCY INFORMATION

Individual Category Codes:

Honorif:
First:
Last:
Suffix:
Title:
Company/Agency:

Address:
City: State: Zip:
Phone/Ext:

Notes:

Ownership type: Private

Gov't Agency:

SITE CHARACTERISTICS

Site Dimensions: 265 feet by 120 feet Acreage: 0.73
Survey Strategy: Subsurface Testing

Site Condition: 25-49% of Site Destroyed

Survey Description:

46 shovel tests excavated at 30 ft intervals in proposed impact areas. Also, an intensive metal detection survey was conducted.

CURRENT LAND USE

CURRENT LAND USE # 1

Land Use: Education

Dates of Use: 2006/03/01

Example: School

Comments/Remarks:

The Episcopal High School is a boarding school that was established in 1839. It closed in 1861 due to the rise of the Civil War and reopened in 1866. It has operated continuously since 1866.

SPECIMENS, FIELDNOTES, DEPOSITORIES

Specimens Obtained? Yes

Specimens Depository: Episcopal High School or Alexandria Archeology

Assemblage Description:

1 Virginia Halfpence, 1774; 1 Domestic Small Cent, 1837; 3 Indian Head Copper Cent, 1859; 1 25-Cent Piece (1916-1930); Canteen spout, pewter; 2 Gun cone protector, field-made;
 2 Carved or shaped lead; 2 Melted lead; 2 Medicinal bottle glass: blown-in-mold; 1 Pocket watch; 1 Pocketknife; 1 Strap end; 1 Watch key: angelic figure with lyre,
 laurel wreath and staff on traverse; 2 Uniform button: eagle and "I" shield; 1 Uniform shoulder scale attachment; 1 Brass belt buckle: "E.H.S."; 2 Loop shank, 3-piece cast button: "E.H.S."; 4 Flat brass button, no back mark; 1 Loop shank, 3-piece cast button: ball button; 1 wood/brass/iron button;
 1 burned brass button; 3 Pistol bullets; 3 Minié Ball, .577/.58 caliber; 1 Williams Cleaner, Type I, .58 caliber; 8 Round Ball, .64 caliber; 2 horseshoes; window glass,
 wrought, cut, and wire nails.

Specimens Reported?

Assemblage description--reported:

Field Notes Reported? Yes

Depository: Alexandria Archeology and JMA storage

CULTURAL RESOURCE MANAGEMENT EVENTS

Date: 2006/03/20

Cultural Resource Management Event:

Phase I Survey

Organization or Person

First

Joseph

Last

Balicki

Id # Associated with Event:

CRM Event Notes or Comments:

John Milner Associates, Inc.

PHOTOGRAPHIC DOCUMENTATION AND DEPOSITORY

Sequence Number: 1

Photographic Documentation? Yes

Depository: Alex. Archeology; and JMA storage

Type of Photos: black and white prints; color slides; digital photos

REPORTS, DEPOSITORY AND REFERENCES

Sequence #: 1

Report (s)? Yes

Depository: VDHR and Alexandria Archeology

Reference for reports and publications:

2006 Balicki, Joseph. Archeological Evaluation for Episcopal High School Faculty Housing, 1200 Quaker Lane, Alexandria, Virginia.

VDHR Library Reference Number:

1 RECORD(S) IN THIS REPORT

Appendix III

Resumes of Key Personnel



JOSEPH BALICKI

Senior Associate

Principal Archeologist/Project Manager

John Milner Associates, Inc.

5250 Cherokee Avenue, Suite 410

Alexandria, VA 22312

(703) 354-9737 (phone)

(703) 642-1837 (fax)

jbalicki@johnmilnerassociates.com

EDUCATION

M.A.	The Catholic University of America	Anthropology	1987
B.A.	The George Washington University	Anthropology	1981

PROFESSIONAL CERTIFICATION

1999 Registered Professional Archeologist (RPA)

1992-2004 OSHA-certified 40-hour hazardous waste field training

YEARS EXPERIENCE: 27

EXPERIENCE PROFILE

Joseph Balicki is a graduate of The George Washington University and holds a Master's degree in anthropology from The Catholic University of America. Mr. Balicki's thesis research involved the analysis of prehistoric settlement and subsistence strategies along the Fall Line in southeastern Virginia, and was based on a large Phase I survey, he directed, that recorded Paleo-Indian through Late Woodland sites. Mr. Balicki has been involved in investigations of sites ranging from the Paleo-Indian through Historic periods. Since joining John Milner Associates, Mr. Balicki has supervised or assisted various archeological survey and testing programs in Virginia, Maryland, Massachusetts, Pennsylvania, New Hampshire, and Washington, D.C. These include multiple cultural investigations at Marine Base Quantico where prehistoric, rural community, farmstead, Civil War, and military cultural resources were investigated. Additional projects include a survey of over 850 Civil War sites in Fairfax County, Virginia, archeological data recovery at the Great Plaza, Federal Triangle, Washington, D.C. and for several other D.C. projects; three colonial sites in Boston associated with the Central Artery Project, and other cultural resources surveys and evaluations for private and local, state, and federal agencies. His broad-based archeological training and experience has provided the necessary background to develop and implement appropriate testing strategies for prehistoric and historic cultural resources. Mr. Balicki has presented eighteen papers at professional conferences and has published eight scholarly articles.

KEY PROJECTS

2006-2001 Project Manager and Principal Archeologist. Developed testing strategies, supervised investigations, and directed research for Phase I and Phase II Archeological Survey of proposed tracked vehicle routes, timber sales, road improvements, and recreational areas on Marine base Quantico, Virginia. Archeological sites included Archaic period prehistoric sites, a Civil War Confederate Army cantonment, slave quarters, nineteenth-century farmsteads, World War I training trenches, and an early twentieth-century Marine Corps refuse dump.

- 2005-1999 Project Manager and Principal Archeologist. Developed treatment plans, supervised investigations, analyzed data for Archeological Investigations of the Proposed Rewatered Turning Basin, Crescent Lawn Archeological District (18AG227), Cumberland, Allegany County, Maryland. This multi-year project at the terminus of the C&O canal included investigation of two boatyards, two marine railways, the canal prism, a basin, and 18 canal boats. The project included coordination with multiple funding agencies including the United States Corps of Engineers Baltimore District Baltimore, Maryland, Maryland State Highway Administration, the Canal Place Preservation and Development Authority, and the City of Cumberland.
- 2004 Project Manager and Principal Archeologist. Directed research and fieldwork and developed treatment plan for an Archeological evaluation, resource management plan and investigations for the Quaker Ridge development, Alexandria, Virginia. Carr Homes, Alexandria, Virginia. Investigation of an 1861 Federal Army encampment.
- 2003 Project Manager and Principal Archeologist. Directed research and fieldwork Data Recovery Investigations at the Homeland Brick Clamp (Site 18CH664) MD5 Hughesville Bypass, Hughesville, Charles County, Maryland. Maryland State Highway Administration.
- 2002-2000 Principal Archeologist. Developed research design, conducted informant interviews, and directed fieldwork that identified 850 Civil War sites for the Fairfax County Civil War Sites Inventory, Fairfax County, Virginia. The Fairfax County Park Authority.
- 2002 Principal Archeologist. Directed field investigations and analysis, Phase II archeological investigations at sites 18PR48, 18PR549, and 18PR551, NASA Goddard Space Flight Center, Greenbelt, Maryland. NASA Goddard Space Flight Center. Evaluation of a Late Archaic site and two nineteenth-century farmsteads.
- 2001-2000 Principal Archeologist. Directed field investigations and analysis, Bailey Farm, archeological data recovery, Hunting Run Reservoir Project, Spotsylvania County, VA. Spotsylvania Utilities.
- 1997-1996 Directed field investigations and analysis of a systematic shovel test investigation that identified Prehistoric Late Woodland sites and nineteenth-century military occupations. Phase I Archeological Survey of Fort Monroe, York County, Virginia. Directorate of Peninsula contracting, Fort Eustis.
- 1996 Directed field investigations and analyzed data from investigations on sites with successive Late Archaic, Early, Middle, and Late Woodland occupations. Data Recovery at 44HE713 and 44HE714, James River Water Supply project, Henrico County, Virginia. Camp Dresser & McKee, Inc.
- 1996-1992 Directed field investigations and analyzed data from three stratigraphically complex urban sites dating to Colonial period Boston. Data Recovery at the Paddy's Alley, Cross Street Backlot, and Mill Pond, sites Boston, Massachusetts. The Central Artery/Tunnel Project and Bechtel/Parsons Brinkerhoff.
- 1995-1994 Supervised field investigations and conducted artifact analysis on a large late Woodland village site. Phase I archeological survey for the proposed wetlands replacement project area, Loudoun County, Virginia. Toll Road Investors Partnership II, L.P.
- 1990 Directed systematic surface collection of a multi-component prehistoric site occupied over a 9,500-time span between the Early Archaic and Late Woodland periods. Phase IB archeological investigations for the proposed expansion of the Verdon Quarry, Hanover County, Virginia. Hazel, Thomas, Fiske, Beckhorn, and Hanes, P.C.

- 1986 Conducted controlled excavations on Paleo-Indian and Late Archaic sites. The Thunderbird and Peer Sites, Virginia. Thunderbird Museum and Archeological Park.

PUBLICATIONS

- In press Landscape Use During the Potomac River Blockade. In *Fields of Conflict*, Douglas Scott, Lawrence Babbitts, and Charles Haecker editors. University of Nebraska Press, Lincoln NE
- 2006 "Masterly Inactivity" The Confederate Cantonment Supporting the 1861-1862 Potomac River Blockade, Evansport, Virginia. In *Huts and History*, Clarence Geier, David Orr, and Mathew Reeves, editors. University Press of Florida, Gainesville, FL.
- 2006 Finding Civil War Sites: What Relic Hunters Know; What Archeologists Should and Need to Know. In *Huts and History*, Clarence Geier, David Orr, and Mathew Reeves, editors. University Press of Florida, Gainesville, FL. (with Bryan Corle).
- 2005 Mary Ann Hall's House. In *Sin City*, edited by Donna J. Seifert. *Historical Archaeology* 39(1). (with Donna J. Seifert).
- 2001 Defending the Capital: The Civil War Garrison at Fort C.F. Smith. *Archeological Perspectives on the Civil War*, edited by Clarence Geier and Stephan Potter. University Press of Florida, Gainesville, Florida.
- 2000 Mary Hall's First-Class Bawdy House: The Material Culture of a Washington, D.C. Brothel. In *Archaeologies of Sexuality*, edited by Robert Schmidt and Barbara Voss. (with Donna J. Seifert and Elizabeth Barthold O'Brien)
- 1998 Wharves, Privies, and the Pewterer: Two Colonial Period Sites on the Shawmut Peninsula, Boston. In *Perspectives on the Archeology of Colonial Boston: The Archeology of the Central Artery/Tunnel Project*, Boston, Massachusetts, edited by Charles D. Cheek. *Historical Archaeology* 33(3).
- 1998 Katherine Naylor's "House of Office": A Seventeenth-Century Privy. In *Perspectives on the Archeology of Colonial Boston: The Archeology of the Central Artery/Tunnel Project*, Boston, Massachusetts, edited by Charles D. Cheek. *Historical Archaeology* 33(3). (with Dana B. Heck).

PAPERS PRESENTED AT PROFESSIONAL MEETINGS

The Watch-Fires of a Hundred Circling Camps: Theoretical Approaches to Investigating Civil War Campsites. The 2006 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Sacramento, California. 2006.

"... The watch-fires of a hundred circling camps" Archaeological Investigations at an 1861 Civil War Site (44AX195), Alexandria, Virginia. The 2005 Archeological Society of Virginia Annual Meetings, Winchester, Virginia. 2005.

The Confederate Cantonment at Evansport, Virginia: Winter Quarters Supporting the Potomac River Blockade. The 2004 Third International Battlefield Archeology Conference - Fields of Conflict III, within The American Battlefield Protection Program's 7th National Conference on Battlefield Preservation Nashville, Tennessee. 2004.

On The Waterfront: The Chesapeake and Ohio Canal in Cumberland, Maryland. The 2004 Middle Atlantic Archaeological Conference Rehoboth Beach, Delaware. 2004.

Camp French: Confederate Winter Quarters Supporting the Potomac River Blockade. The 2003 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Providence, Rhode Island. 2003.

Finding Civil War Campsites: What Relic Hunters Know, What Archeologists should know (co-author). The 2003 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Providence, Rhode Island. 2003 (with Bryan Corle). 2003.

Spanning the Great Divide: The Relevance of Relic Hunters to an Understanding of the Civil War in Northern Virginia. The Council for Northeast Historical Archaeology Conference and Meeting, Wilmington, Delaware. 2002.

Artifact Rain: Site Formation in Urban Backyards (co-author). The 2001 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Long Beach, CA. 2001 (with Charles Cheek). 2001.

To Rent: The Archeology of a Composite Household in Washington, D.C. (co-author). The 2001 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Long Beach, CA. 2001 (with Kerri Culhane). 2001.

The End of the Line: The Chesapeake and Ohio Canal in Cumberland, Maryland. The 2000 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Quebec City Quebec. 2000.

"If ... We Had No Definite Plans In Living, The Stay In These Forts Might Have Been Enjoyed.-' Garrison Life at Fort C.F. Smith." The 1998 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Atlanta, Georgia. 1998.

Mary Ann Hall's House. The 1998 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Atlanta, Georgia. (with Donna J. Seifert). 1998.

Archeological Investigations at Fort C.F. Smith, Arlington County, Virginia, "If There Had Been A Thousand Years of Life Before Us and We Had No Definite Plans In Living, The Stay In These Forts Might Have Been Enjoyed." The 1996 Middle Atlantic Archeologist Conference, Ocean City, Maryland. 1996.

Wharves, Privies and the Pewterer: Data Recovery at Two Colonial Period Sites on the Shawmut Peninsula, Boston, Massachusetts. The 1996 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Cincinnati, Ohio. 1996.

Once Upon A Privy: Data Recovery Investigations at Katherine Naylor's 'House of Office. The 1996 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Cincinnati, Ohio. (with Dana B. Heck). 1996.

Technological Strategies and Interaction Spheres: Results of a Phase I Survey at the Verdon Quarry Site (44HN180) Hanover, County, Virginia. Annual Meeting of the Archeological Society of Virginia, Richmond, Virginia. (with J. Sanderson Stevens). 1991.

Ceramic Indices as a Tool for Evaluating Consumer Behavior in a Working-Class Neighborhood, Washington, D.C. The 1991 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Richmond, Virginia. (with Charles D. Cheek). 1991.

Bottles, Bottles Everywhere and Not A Drop to Drink: Examining Washington, D.C. Bottles for Chronology and Function. The 1991 Middle Atlantic Archeologist Conference, Ocean City, Maryland. 1991.

SUMMARY OF PROFESSIONAL ACTIVITIES

Mr. Balicki is author or co-author of one hundred nine (109) cultural resources reports, eight (8) scholarly articles, and eighteen (18) papers presented at professional meetings.



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EDUCATION

B.A. George Mason University Anthropology Expected 2006

Years Experience: 16

EXPERIENCE PROFILE

Bryan Corle has a broad-based background in prehistoric and historic archeology. Mr. Corle has assisted archeological investigations ranging from early-archaic prehistoric sites to early-twentieth century farmsteads. Mr. Corle has assisted in numerous survey, testing, and data recoveries in Virginia, Maryland, Pennsylvania, West Virginia, and Washington, D.C. These include multiple cultural resource projects at Marine Base Quantico where prehistoric, rural community farmstead, Civil War, and military cultural resources were investigated. Additional projects include data recoveries at the National Museum of the American Indian, and Lot 12 Square 406, Washington D.C., The Homeland Brick Clamps Charles County, Maryland, his prehistoric experience includes data recoveries at stratified early-archaic-through late-archaic prehistoric sites in Dauphin County, Pennsylvania, four Monogahela Village sites in Washington and Somerset Counties, Pennsylvania. He has also assisted in numerous other cultural resource surveys for private, local, state, and federal agencies. Key areas of interest include Civil War military sites, Middle Atlantic prehistory, urban archeology, boatyards, early-twentieth century military training, and brickmaking. Mr. Corle has presented four papers at professional conferences, and contributed a chapter to *Huts and History: The Historical Archaeology of Military Encampment During the American Civil War* (publication date June 2006).

KEY PROJECTS

- 2006-2001 Assistant Archeologist. Supervised field investigations for Phase I and II Archeological survey of proposed tracked vehicle routes, timber sales, road improvements, and recreational areas on Marine Base Quantico, Virginia. Archeological sites included Archaic period prehistoric sites, A Civil War Confederate Army cantonment, slave quarters, nineteenth-century farmsteads, World War I training trenches, and an early-twentieth century Marine Corps refuse dump.
- 2005-1999 Assistant Archeologist. Directed field investigations at the Proposed Rewatered Turning Basin, Crescent Lawn Archeological District (18AG227), Cumberland, Allegany County, Maryland. Investigations included two boatyards, two marine railways, the canal prism, a basin, and 18 buried canal boats.

- 2004 Assistant Archeologist. Archaeological evaluation, resource management plan and investigations for the Quaker Ridge development, Alexandria, Virginia. Carr Homes, Alexandria, Virginia. Investigation of a 1861 Federal army encampment.
- 2003 Assistant Archeologist. Data Recovery Investigations at the Homeland Brick Clamp (Site 18CH664) MD5 Hughesville Bypass, Hughesville, Charles County, Maryland. Maryland State Highway Administration.
- 2002 Assistant Archeologist. Data Recovery Investigations at Buildings A, B, C within the Crescent Lawn Archeological District (18AG227), Cumberland, Allegany County, Maryland. Canal Place Preservation and Development Authority.
- 2002 Assistant Archeologist. Supervised Phase II archeological investigations at sites 18PR48, 18PR549, and 18PR551, NASA Goddard Space Flight Center. Evaluation of a Late Archaic prehistoric site, and two nineteenth-century farmsteads.
- 2001-2002 Assistant Archeologist. Supervised field investigations at Bailey Farm, a archeological data recovery on a nineteenth-through-twentieth-century farmstead, Hunting Run Reservoir Project, Spotsylvania county, Virginia,
- 2001 Assistant Archeologist. Phase I Archeological Investigations of Battery Heights (44AX186), City of Alexandria, Virginia, Carr Homes, Inc.
- 2000-2002 Fairfax County Civil War Sites Inventory, Fairfax County, Virginia. Fairfax County Park Authority, Virginia.
- 1999 Assistant Archeologist. Data Recovery, Lot 12, Square 406, Washington, DC. General Services Administration and Architrave.
- 1998 Archeological Technician. Data Recovery Maryland Route 36 in Lonaconing, Allegany County, Maryland. Maryland Department of Transportation, State Highway Administration.
- 1997 Assistant Field Supervisor. Data Recovery Investigations at South Strabane Site, Washington County, Pennsylvania. Indiana University of Pennsylvania, Archeological Services.
- 1996 Archeological Technician. Data Recovery at the National Museum of the American Indian Mall Museum Site, Washington, D.C. Venturi, Scott Brown and Associates, Inc., and the Smithsonian Institution, Office of Design and Construction.
- 1996-1993 Crew Chief/ Field Technician Prehistoric data recovery of three village sites, US.219 Meyersdale , Somerset County, Pennsylvania. Greenhorne and Omara Greenbelt, Maryland
- 1995 Archeological Technician Shepherd's Field data recovery, Shepardstown, West Virginia. Investigation of woodland through archaic site. U.S. Fish and Wildlife Service and the National Park Service, Denver Service Center, Center for Applied Archeology.
- 1994 Archeological Technician Data Recovery excavations at Fort McHenry National Monument and Historic Shrine, Baltimore Maryland. National Park service, Denver Service Center.
- 1992 Archeological Technician. Data Recovery Investigations at Simpsonville, Howard County, Maryland. Data recovery investigations of a historic grist mill. Maryland Department of Transportation, State Highway Administration.
- 1991 Crew Member. Crooked Creek Drainage Research Project. Armstrong County, Pennsylvania. Survey to construct a predictive model for upland prehistoric sites. Indiana University of Pennsylvania, Archeological Services.

SELECTED PUBLICATIONS AND PAPERS

Finding Civil War Sites: What Relic Hunters Know; What Archeologists Should and Need to Know. In Huts and History: The Historical Archaeology of Military Encampment During the American Civil War, Clarence Geier, David Orr, and Mathew Reeves, editors. University Press of Florida, Gainesville, FL. (with Joseph Balicki). (publication date June 2006).

Archeological Investigations of the World War I Training Trenches (44PW1558) at Marine Corps Base, Quantico, Virginia. The 2005 Archaeological Society of Virginia annual meeting, Winchester, Virginia

Two Shy of the Devil: The Archeological Excavation of Two Brick Clamps at Site 18CH664. The 2004 Middle Atlantic Archaeological Conference Rehoboth Beach, Delaware

Finding Civil War Campsites: What Relic Hunters Know, What Archeologists should know (co-author). The 2003 Society for Historical Archaeology Conference on Historical and Underwater Archaeology, Providence, Rhode Island. 2003

SUMMARY OF PROFESSIONAL ACTIVITIES

Mr. Corle is author or co-author of forty-nine (49) cultural resources reports, one scholarly article, and three (3) papers presented at professional meetings.



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