FINAL REPORT

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PHASE I ARCHIVAL AND ARCHEOLOGICAL INVESTIGATIONS AT THE GUNSTON HALL APARTMENTS, ALEXANDRIA, VIRGINIA

PREPARED FOR:

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Phase I Archival and Archeological Investigations at the Gunston Hall Apartments, Alexandria, Virginia

Final Report

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ABSTRACT

The Phase I Archival and Archeological Study of the Gunston Hall Apartments in Alexandria, Virginia, was conducted during December 2000, by R. Christopher Goodwin & Associates, Inc., on behalf of Gunston Hall Realty, Inc., of Springfield, Virginia. The project area occupies the block bounded by Washington, Church, Columbus, and Green streets at the southern edge of the city, and encompasses a total area of approximately 2.3 ac (99,000 sq ft). The project was undertaken to enable Gunston Hall Realty, Inc. to gain clearance for the project area prior to undertaking redevelopment of the property.

The specific objectives of the Phase I study were to identify any evidence of two historic resources on this parcel: the ca. 1863-1869 Freedmen's (Contraband) Cemetery of Alexandria, which may have extended into the southern portion of the project block, and the O'Neal and Corbett brickyard, which occupied the entire block after 1875. Research methods included archival research, completion of a preliminary archeological disturbance study, sub-surface testing of designated portions of the project area, and laboratory analysis of recovered materials. The research design and field strategies were designed by and coordinated with the professional archeological staff of the City of Alexandria.

Five backhoe trenches and one test unit were excavated within the project area. One portion of the project area originally scheduled for testing was omitted from the study due to interference from live utility lines. Features exposed during field investigations included a sheet midden of twentieth century trash and a planting hole related to recent landscaping activities around the apartment complex; neither feature was assessed as significant. The test excavations revealed no evidence of surviving grave shafts associated with the Freedmen's Cemetery, nor did they identify any intact features related to the nineteenth century brickyard.

The study concluded that no further archeological investigations are recommended or warranted within tested areas of the Gunston Hall Apartment property. However, additional archeological work was recommended along the Church Street perimeter of the property in areas that were not available for testing during the current study. This additional work was conducted in 2003 and is included as an appendix, herein.

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CHAPTER I

INTRODUCTION

Project Location and Description

This report presents the results of a Phase I Archival and Archeological Study of the Gunston Hall Apartments in Alexandria, Virginia (Figures 1 and 2). The study was undertaken during December 2000, by R. Christopher Goodwin & Associates, Inc., on behalf of Gunston Hall Realty, Inc., of Springfield, Virginia. Gunston Hall Realty, Inc. is considering redevelopment of the apartment property; however, the nature and timing of these redevelopment plans have not been ascertained, and no preliminary site plans have been filed with the City of Alexandria.

The Gunston Hall apartment project area comprises all open space portions of the 900 block of South Washington Street. The project area is bounded on the east by Washington Street; on the south by Church Street; on the west by Columbus Street; and on the north by Green Street. The total project area measures approximately 2.3 ac (99,000 sq ft). The apartments that currently occupy this block were constructed ca. 1940, and consist of eight semi-detached apartment units arranged around a central landscaped courtyard.

All work was conducted in accordance with standards established in the Secretary of Interior's *Standards and Guidelines for Archeology and Historic Preservation* and *Guidelines for Archaeological Investigations in Virginia* (Virginia Department of Historic Resources [VDHR] 1996), and under terms of a permit issued by the City of Alexandria, Virginia.

Research Design and Objectives

The primary objective of Phase I investigation was to identify potential archeological resources within the project area; to determine the potential significance of any identified cultural resources; and to make recommendations for managing potentially significant resources, if any. Specifically, the investigations were designed to look for evidence of two types of historic archeological resources that potentially were located within the Gunston Hall apartment complex: the ca. 1863-1869 Freedmen's (Contraband) Cemetery of Alexandria, which may have extended into the southern portion of the project block; and the O'Neal and Corbett brickyard, which occupied the northern half of this block after 1875. The project objectives were realized through a combination of archival research, completion of a preliminary archeological disturbance study, sub-surface testing of specifically designated portions of the project area, and laboratory analysis of recovered materials. The research design and field strategies were designed and coordinated with the professional archeological staff of the City of Alexandria.

Christopher R. Polglase, M.A., ABD, was Principal Investigator and supervised all aspects of the project. Martha R. Williams, M.A., M.Ed., managed the project and conducted the archival research. David Soldo, M.A., served as assistant project manager and provided direct supervision of the fieldwork.

Organization of the Report

The organization of this report deviates slightly from the standard format utilized by Goodwin & Associates, Inc. At the express request of Alexandria Archaeology staff, data on the natural setting and the generalized regional prehistoric and historic contexts for the project area have been omitted.

Chapter I of this report describes the general scope of the project and the project area, and presents the specific research objectives of the study. Chapter II discusses the methods used to conduct the study. The results of the archival investigations, including a review of archeological studies previously completed adjacent to the project area, are presented in Chapter III. Field results are discussed in Chapter IV. Chapter V summarizes the findings of the study and presents recommendations for further work. Three appendices complete the report. Appendix I contains an inventory of archeological artifacts recovered from the site. Appendix II presents excerpts from a *Scientific American* (1886) article on brickmaking technology. Appendix III contains the results of the additional work conducted in 2003, and Appendix IV includes resumes of key project personnel.



Figure 1. Map of Virginia, showing location of the project area.

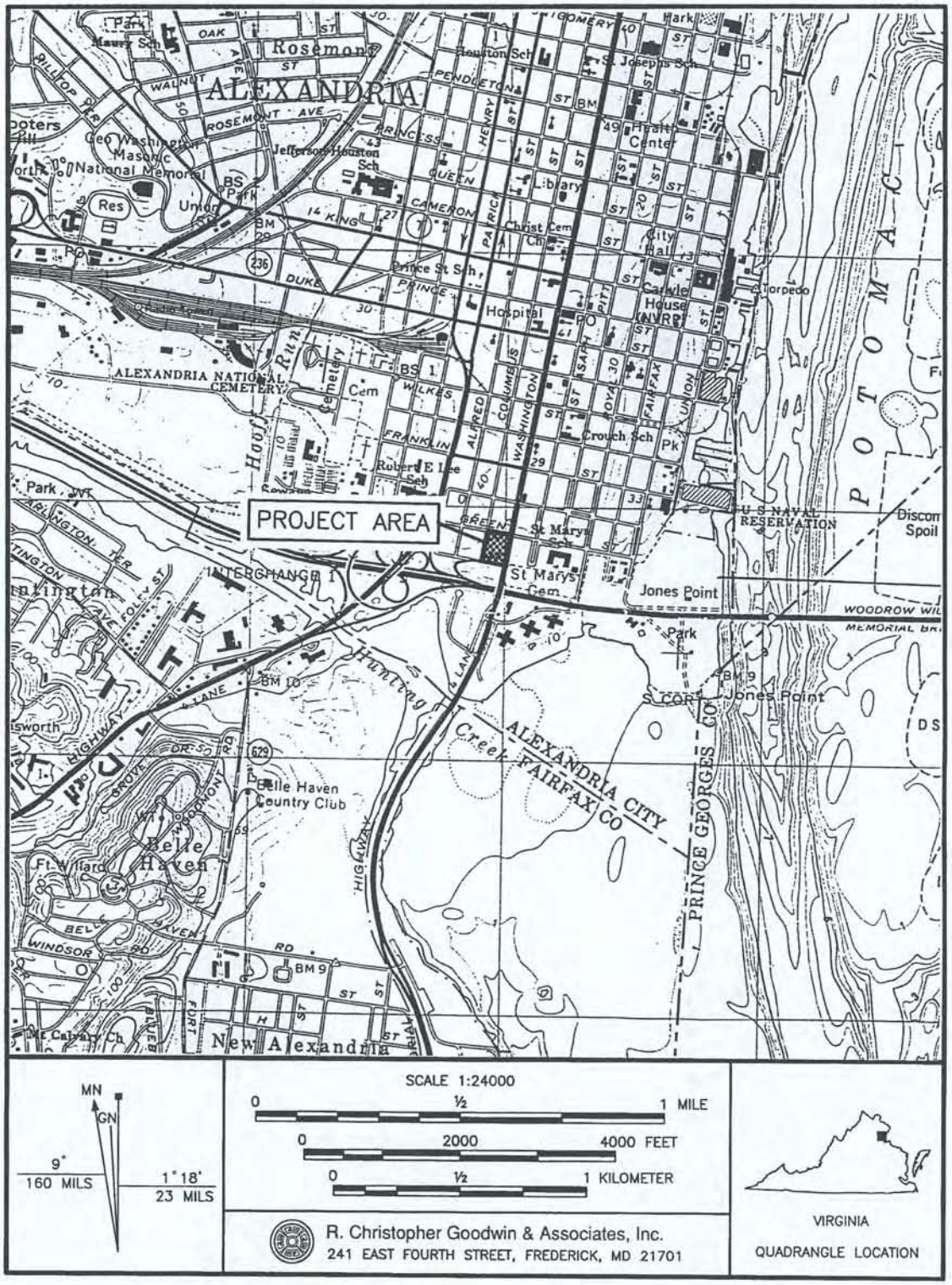


Figure 2. Excerpt from 1983 Photorevised USGS Alexandria, Virginia, 7.5' quadrangle, showing the location of the project area.

CHAPTER II

METHODS

Archival Methods

Archival research for the Gunston Hall Apartment project pursued three lines of inquiry: (1) a review of archival and archeological studies previously conducted in the vicinity of the project area, with particular reference to the Freedmen's (Contraband) Cemetery; (2) generation of a chain-of-title and other relevant data to define more clearly the boundaries of the Freedmen's Cemetery and adjacent parcels, and to determine the uses to which the project area had been put historically; and (3) preparation of a brief context on the brickmaking industry in the City of Alexandria, with particular emphasis on the Corbett and O'Neal brickyard.

A variety of repositories were visited to obtain relevant archival material. The property chain-of-title was constructed utilizing resources at the Judicial Archives of Fairfax County and at the Land Records Office of the City of Alexandria. Historic maps were obtained from the Geography and Map Division of the Library of Congress, and manufacturing census data for the years 1870 and 1880 were reviewed at the Virginia Room of the Fairfax County Public Library. Relevant secondary sources were found in the vertical files maintained at Alexandria Archaeology and at the research library of R. Christopher Goodwin & Associates, Inc., in Frederick. Additional information concerning URS Greiner's investigations of the Freedmen's Cemetery site was obtained through direct contact with their project director, Mr. Bernard Slaughter. The draft report of these investigations currently is under review by the Virginia Department of Historic Resources (VDHR) and is not available for inspection (Mr. Bernard Slaughter, personal communication, December 2000); however, URS Greiner did supply relevant maps detailing their investigations (Figure 3).

Field Methods

Research Design and Original Methodology

The Scope-of-Work for this project was designed by Alexandria Archaeology because the close proximity of the previously identified Freedmen's (Contraband) Cemetery to the southernmost portion of the project area raised the possibility that burials from that cemetery might have intruded into the Gunston Hall apartment property. Nineteenth century maps (e.g., Hopkins 1877) also depicted the O'Neal and Corbett brickyard on the site after the Civil War; two frame structures associated with that brickyard were located in the northern half of the project area. Given these factors, the Gunston Hall Apartments project area was deemed to have a high potential for yielding significant archeological resources.

Excavations in the southern portion of the project area focused on identifying potential archeological remains associated with the Civil War/Reconstruction Era Freedmen's (Contraband) Cemetery. The project Scope-of-Work called specifically for mechanized excavation of a 5 x 200 ft trench along the southern edge of the project area and an additional 3 x 50 ft diagonal trench in lawn areas of the southwest quadrant of the property. These trenches were to be excavated "to the top of the natural subsoil." The surface of the exposed subsoil then was to be trowel-scraped manually to identify any remaining elements of existing grave shafts. All identified grave shafts were to

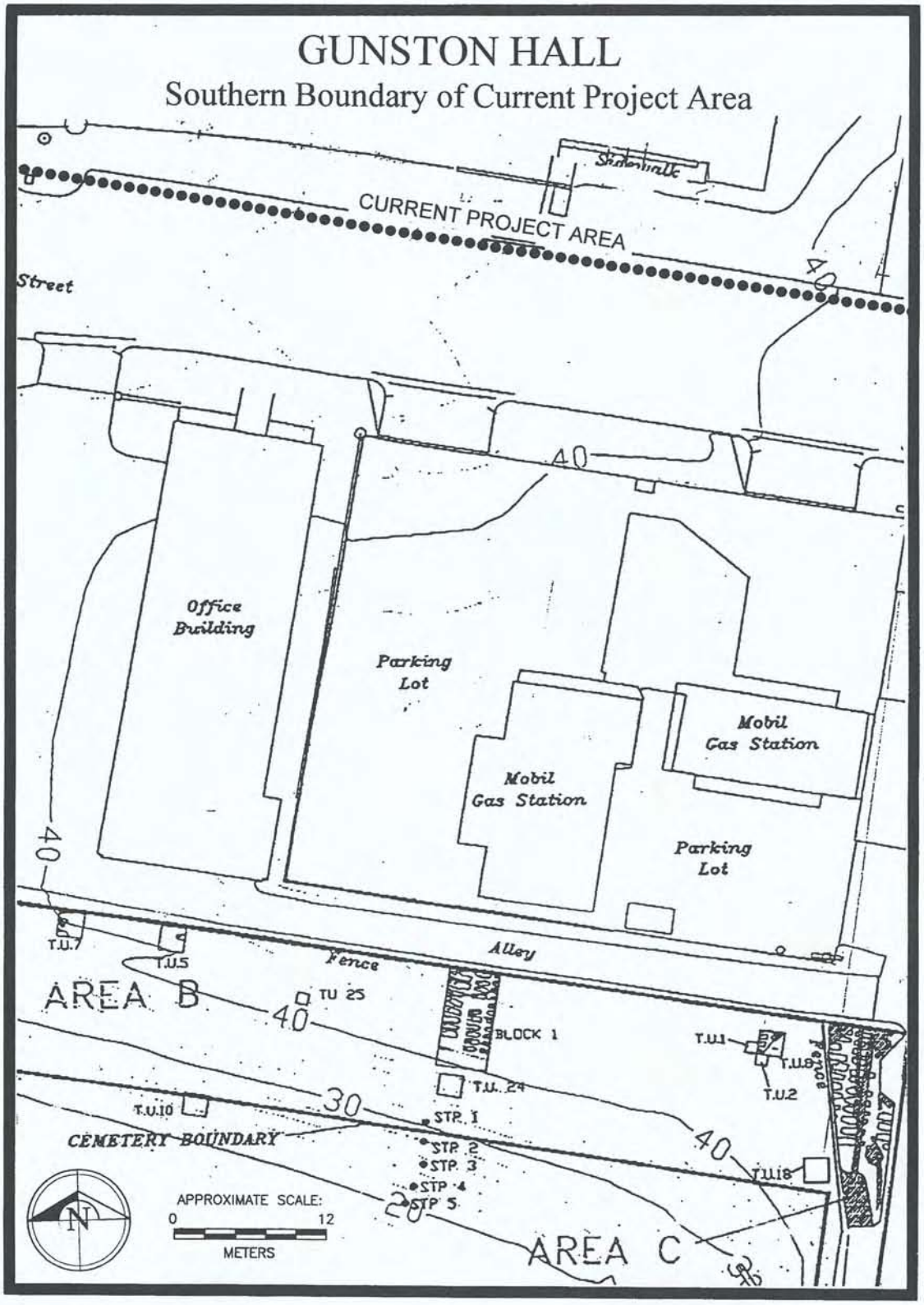


Figure 3. Portion of U. R. S. Greiner field map (1999), showing Greiner's Areas B and C, the locations of grave shafts associated with the Freedmen's Cemetery, and the southern boundary of the Gunston Hall Apartments project area.

be photographed and mapped to scale on a base map of the block; however, no excavation of the shafts was to be undertaken during this phase of the project.

The original Scope-of-Work also required mechanized excavation of three 3 x 50 ft trenches in the central and northern portions of the project area, to determine whether remains of any structures associated with the nineteenth century brickyard were intact. A maximum of three 3 x 3 ft test units were to be excavated manually adjacent to any trench that exhibited intact cultural features or artifact-bearing strata.

Pedestrian Survey and Preliminary Disturbance Assessment

Prior to the onset of fieldwork, utility line corridors were marked and a pedestrian survey of the project area was conducted to assess ground conditions and to evaluate the feasibility of the trench locations requested by Alexandria Archaeology. After assessing the results of these initiatives, discussions with Alexandria Archaeology were initiated, and changes were made in the number and placement of the trenches. Subsequent modifications to field strategies also were necessitated by discoveries during fieldwork itself.

Preliminary reconnaissance determined that the 200 ft trench proposed along the southern boundary of the project area could not be excavated continuously due to the presence of buried utility lines; a steep embankment running parallel to and between the existing apartment buildings and Church Street; and a cement driveway running perpendicular to, and cutting across the proposed trench location. Because the existing apartment complex currently is tenanted, excavation strategies were modified to avoid disrupting utility service and blocking access to the buildings. Avoidance of the obstacles enumerated above required omission of an approximately 100 ft long portion of the original proposed exploratory trench.

Instead, two discontinuous trenches were placed within the southern half of the project area. The easternmost trench (Trench A) extended west from the sidewalk of Washington Street for a distance of approximately 45 ft; Trench B began approximately 100 ft west of the obstructions and extended for a distance of approximately 82 ft to the sidewalk along South Columbus Street. Trench B also was shifted 5 ft north to avoid additional buried utility lines that extended along Church Street. The total extent of trenching along the southern border of the project area therefore measured 127 ft instead of the 200 ft required by the original Scope-of-Work. The additional 50 ft diagonal trench that was to be excavated within the southwest quadrant of the property also was abandoned, since the relocation of Trench B adequately tested the entire southwestern quadrant of the property.

The Scope-of-Work also required excavation of two 50-ft trenches within the enclosed apartment complex courtyard: Trenches C and D. Trench D, originally scheduled for excavation within the northwestern portion of the courtyard, subsequently was subdivided into two 25 ft trenches: Trench D_1, tentatively placed in the northeastern corner of the enclosed apartment courtyard; and Trench E, located between the existing building complex and the intersection of Washington and Green streets. This division was necessary because of buried utility lines and the placement of the structures of the complex. Based on results observed after excavation of Trench C and the presence of numerous utility lines in the northeastern corner of the courtyard, and after consultation with Alexandria Archaeology, Trench D_1 was abandoned. Trench F, in the northwest corner of the project block, also was moved slightly south of its original proposed location to avoid buried utility lines.

The final locations and designations of all mechanically excavated trenches are depicted in Figure 4.

Remote Sensing Study

A conductivity and susceptibility survey of portions of the project area also was undertaken prior to the initiation of fieldwork (Figure 5), using a Geonics Limited EM38B Ground Conductivity Meter. The EM38B measures both earth conductivity and magnetic

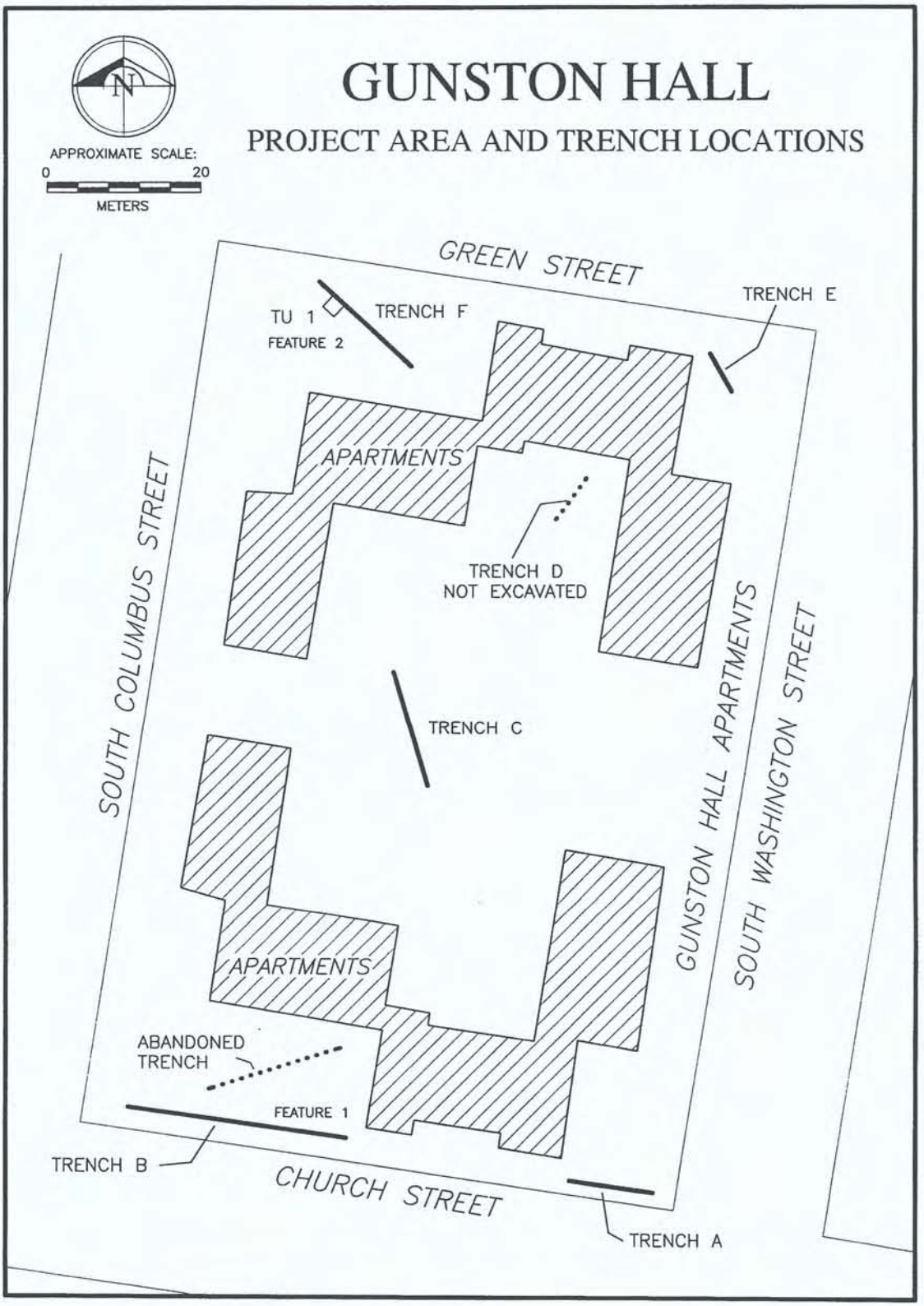


Figure 4: Map of the Gunston Hall Apartments project area, showing the final locations of Mechanized Trenches A – F and Test Unit 1.

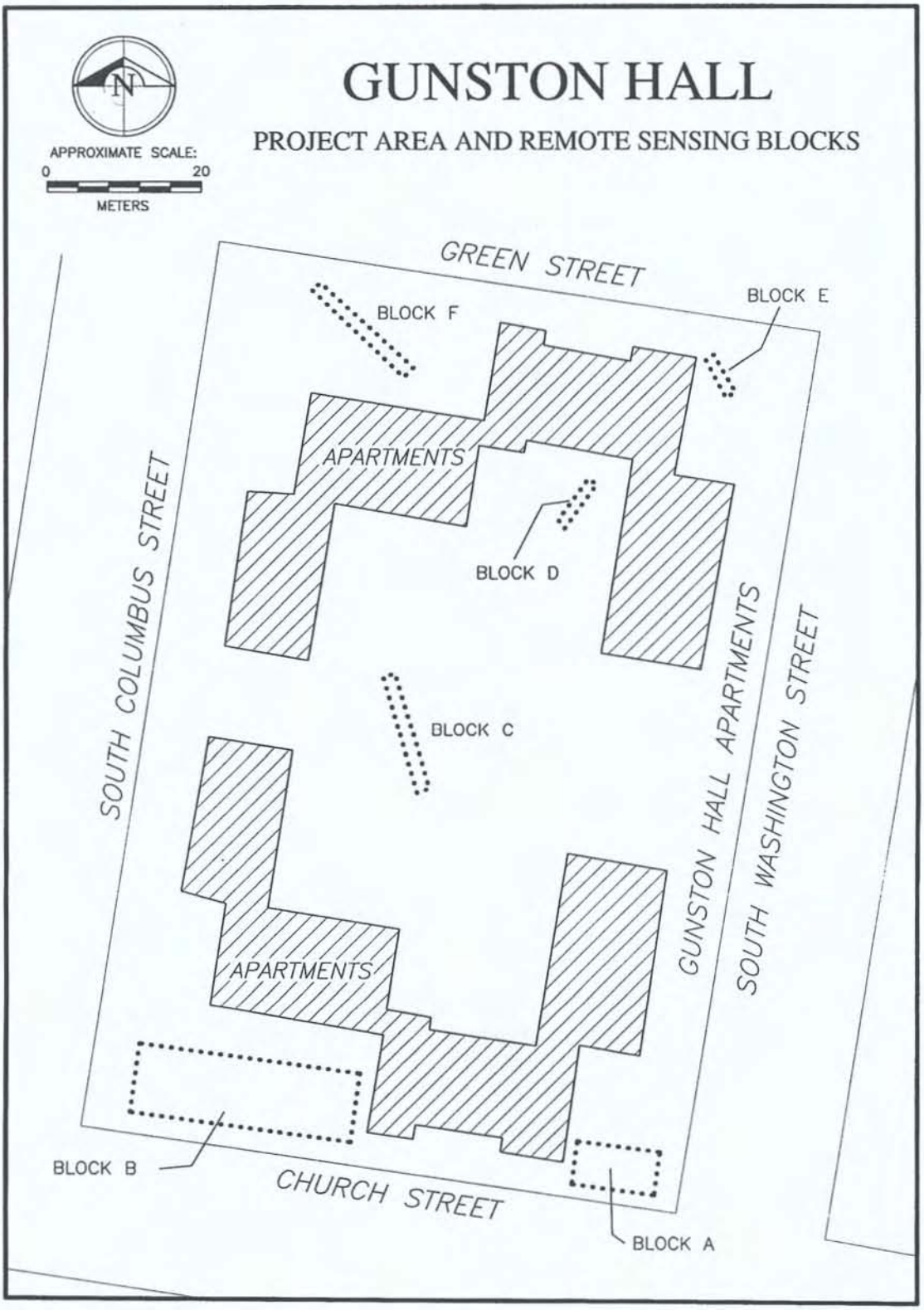


Figure 5. Map of the Gunston Hall Apartments project area, showing locations of areas subjected to remote sensing survey.

susceptibility "by inducing very small electrical 'eddy' currents into the ground and measuring the magnetic field that these currents generate. A small transmitter coil located at the rear of the EM38B is used to generate the time-varying primary magnetic field which induces the eddy currents into the ground, and a small receiver coil located at the front end measures both this strong magnetic field and the much smaller secondary magnetic field arising from the eddy currents in the ground" (Geonics Limited 1999).

Earth conductivity is "a measurement of the difficulty or ease with which an electrical current can be made to flow through the soil" (McNeill 1980). Magnetic susceptibility is defined as the ratio of the induced magnetic field of a material to the applied magnetic field of iron oxides (hematite) that occur naturally in soil (Challands 1992). In general, the conductivity mode of the instrument detects the effects of fire on soil (e.g., the baking of clay in the soil caused by hearths, fireplaces, fire pits, or kilns) and minor changes in the clay content of the soil, like those that would be created when a pit is excavated and then backfilled. In the susceptibility mode, the instrument measures the effects of burning and the presence of organic decay where ferromagnetic maghematite is produced.

The machine also functions as a powerful metal detector. It can read changes in the electrical field caused by historic metal artifacts as well as discarded modern metal. Consequently, this ability to read metal signatures requires a survey area relatively free of metal trash. Modern metal trash and buried metal objects (i.e., pipes and power lines) can obscure more subtle changes in the electrical field associated with prehistoric and historic features. In addition, the operator of the EM38B also must be metal free.

The remote sensing survey was conducted within six blocks of various sizes in the enclosed courtyard and on lawn areas surrounding the Gunston Hall Apartments (Figure 4). Prior to the beginning of survey, any visible metal object was removed from the ground surface. In all blocks, lanes spaced at 1 m intervals were traversed either grid north-south or east-west. Along these lanes, conductivity and susceptibility readings were taken every 0.5 m. The instrument was operated in the vertical mode to allow for maximum depth penetration. With the instrument carried 10 cm above ground surface, the vertical mode of operation examined soils between 30-140 cm below ground surface. The EM38B measured earth conductivity and magnetic susceptibility in the same pass, allowing for an exact overlay of both data sets, if necessary.

Upon completion of the survey, remote sensing data were downloaded into a *Microsoft Excel* spreadsheet for processing. Changes in earth conductivity and magnetic susceptibility were plotted using Golden Software's *Surfer* 6.0 graphics program, and correlated with the project grid at the site. The post-processed data then was analyzed to identify any anomalous disturbances and their spatial distribution patterns. Earth conductivity and magnetic susceptibility results from the Gunston Hall Apartments project were compared with remote sensing survey results from both prehistoric and historic sites (e.g., Davis et al. 1999; Lowthert 1998, 1999; Lowthert and Pelletier 2000; Lowthert et al. 2000; Paonessa and Lowthert 2000; and Stone et al. 2000).

Field Investigations

A total of five backhoe trenches and one 3 x 3 ft test unit were excavated during the course of the project. As the excavations proceeded, uniform 15-gallon volumetric samples were taken from each intact cultural stratum, and were dry screened through 0.0625 cm (¼") mesh. This technique provided a representative cultural material assemblage for each discrete stratigraphic deposit. Artifacts recovered from each stratum were placed in bags labeled with horizontal and vertical provenience information. All pre-modern artifacts were retained.

Specialized Mechanized Unit and Excavation Unit forms were completed for each unit of excavation. These forms permitted recordation of the nature, color, depth, and contents of the strata in each mechanized trench or excavation unit, utilizing standard soil nomenclature and Munsell (1996)

color chart designations. Representative profiles of the stratigraphy of each trench also were drawn, as well as individual profiles of features and/or disconformities observed in the trench walls. Finally, all significant features and trenches were documented photographically.

Upon completion of the archeological field operations, all trenches and test units were back-filled, and straw was spread over excavated areas to inhibit erosion and promote re-growth of vegetation.

Laboratory Analysis

Upon completion of the fieldwork, all artifacts were transported to the laboratory of R. Christopher Goodwin & Associates, Inc. in Frederick, Maryland, for cleaning, cataloging, and analysis. All laboratory procedures were performed in accordance with the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (National Park Service 1983). Artifacts were hand washed, air dried, and sealed in clean plastic bags. Provenience data were recorded on the outside of each bag. All artifacts were identified and classified by material, type, distinguishing attribute(s), and functional category(s). Functional classification of historic artifacts followed criteria established by South (1978).

The inventory for this project is presented in Appendix I of this report.

Records and Curation

Upon completion of the project, all artifacts, the artifact inventory, fieldnotes, photographs, and technical documentation will be turned over to Gunston Hall Realty, Inc. for permanent curation or for transfer to an approved curation facility. Alexandria Archaeology or the Virginia Department of Historic Resources are recommended repositories that meet current professional curation standards.

CHAPTER III

RESULTS OF ARCHIVAL INVESTIGATIONS

Previous Investigations

Two previous archeological studies have been conducted at the site of the Freedman's or Contraband Cemetery in Alexandria. In 1997, Stevens et al. conducted a ground-penetrating radar (GPR) and electromagnetometry (Geonics Limited EM-61) survey of the existing Mobil Station lot, which is located immediately south of the Gunston Hall Apartments project area. Anomalies identified during GPR survey were suggestive of intact burial shafts; however, the EM-61 results did not locate any evidence of intact burials within the project area, and the identified anomalies never were ground-truthed. Both geophysical methods were hampered by the presence of metal fences, numerous sub-surface utility lines, and underground storage tanks associated with the filling station and nearby buildings.

In 1999, URS Greiner conducted archeological investigations of the vacant areas south and west of the Mobil Station property referenced above; the studies were conducted in connection with the proposed replacement and realignment of the Woodrow Wilson Bridge. As part of these investigations, Bruce Bevan (1999) of Geosight also conducted a GPR survey (Geophysical Survey Systems Model SIR System-7), an earth conductivity survey (Geonics Limited EM-38), and a soil resistivity survey in areas west and south of the Mobil Station property. The results of these remote sensing surveys were inconclusive. One possible soil boundary was identified; however, it apparently was not associated with the cemetery but was interpreted as the result of a substantial cut made to accommodate highway construction in the 1960s. According to Bevan (1999), other areas of complex soil stratigraphy may have been associated with possible grave shaft fill or unrelated historic activities.

Greiner followed the remote sensing survey with a program of targeted and limited archeological testing, using a combination of shovel testing, mechanized trenching, and test unit and block excavation. They found no intact cultural resources or burials within their Area A (west of Columbus Street extended), but noted that fill deposits within this area were "deep," which they defined as exceeding 10 ft (Slaughter, personal communication December 2000). However, in Areas B and C, they identified and mapped nearly 60 grave shafts. These shafts were aligned in north-south rows; all individual burials were oriented east-west (Figure 3). The boundaries of the cemetery extended well out into the present Washington Street/George Washington Parkway right-of-way.

Historic Context

Antebellum Period

The nineteenth century property history for the parcel that originally encompassed the Gunston Hall Apartment project area has been well documented by the staff of Alexandria Archaeology (Alexandria Archaeology: Freedmen's Cemetery vertical files). Their research shows that, 13 years before the onset of the Civil War, George and Margaret Wise sold a 5 ¼ acre parcel of land generally bounded by Washington, Greene, and Columbus streets (east, north, and south, respectively), to Phineas Janney. David and Samuel Janney transferred the property, which extended southward to a point in the "center of

the Square between Church and South streets," to Francis L. Smith in 1853 (Fairfax Land Records [Fairfax Deeds] T3:11-13; Stevens et al. 1997:2-7). The subsequent history of the tract can be understood only within the context of developments in Alexandria during the Civil War.

The Freedmen's (Contraband) Cemetery

The Civil War Period. When the Civil War began, Union troops moved quickly to occupy the City of Alexandria, due to its strategic location on the Potomac River close to the national capital. Francis L. Smith, owner of the property on South Washington Street, was a prominent Alexandria attorney, a member of the City Council who had served as City Attorney, and a known Confederate supporter. As delegate to the Virginia General Assembly, he had fought for retrocession of the city from District of Columbia in the 1840s. As Union forces entered Alexandria, Smith fled town, leaving his city properties unprotected (Stevens et al. 1997:2-8). Had Smith remained, he would have been subject to arrest by the Union forces of occupation (Henn 1999). Smith reportedly resided in Liberty, Virginia during the war (Miller to Federico); he died in 1877.

The Union army commandeered and used the properties of many Alexandria residents during the war, particularly those of Confederate sympathizers. It is known that Union General John Slough commandeered Smith's Wolfe Street residence, for example (Stevens et al. 1997:2-8). The *Alexandria Gazette* reported in 1864 that a 1½ acre portion of Smith's property adjacent to Hunting Creek also was "used as a dumping ground for dead horses and human waste;" the overwhelming stench reportedly occasioned numerous complaints from residents in the area until the military cleaned up the area (Henn 1998; Miller to Federico).

One effect of the Civil War on the City of Alexandria was an immediate surge in its African-American population. Numerous units of the United States Negro Troops came to be attached to the Union armies of occupation. To care for their health, the Union Army opened the L'Ouverture Hospital, which initially occupied a property between 217 and 219 S. Payne Street and later was expanded, in 1864. Black troops also were cared for in a number of other branch hospitals around town, including churches, barracks, and even a prison (Miller 1998:17).

Even more problematic were the vast numbers of former slaves (called contrabands) who sought refuge behind Union lines in Northern Virginia during the war. The problem apparently was particularly acute in Alexandria. Contrabands were used extensively as laborers for building military facilities, including a palisaded stockade surrounding an entire railroad complex in the city's West End (Dennee n.d.). On September 13, 1864, the *Alexandria Gazette* published a letter from a Captain Pettijohn, a surgeon with the Union Army, who estimated that nearly 7,000 contrabands lived within the Military Government of Alexandria. Only 25 of these were on the Army's charitable ration list, in comparison to a "[F]ew hundred white refugees." Pettijohn noted that these refuges had built housing and paid for their lodgings by themselves. Further, he observed that many of them were skilled laborers who "know more than the men that are supervising them. They need only protection, and work to do at adequate wages" (Stevens et al. 1997:2-16). To see to the needs of these individuals, a branch of the Freedmen's Bureau was established in Alexandria, headed by Rev. Albert Gladwin, a black Baptist preacher (Miller 1998:18). Malnutrition and disease were common among these thousands of newly arrived Alexandria residents, and mortality among contrabands was high (Henn 1999).

In 1864, General Slough seized part of the Smith property along Hunting Creek for use as a burial ground for the many contrabands that had entered Alexandria. Because the United States apparently never acquired formal title to the property (Miller 1998:25), neither its exact boundaries nor its original intended function were entered into the public record at that time. Basing their conclusions on later deed research, Stevens et al. (1997:2-8) contended that the cemetery's original boundaries were the Manassas Gap Railroad cut to the south,

Table 1. Nineteenth-Twentieth Century Property Chain of Title: Gunston Hall Apartment Block

Date	Deed Ref	Grantor	Grantee	Metes and bounds
2/10/1868	Fairfax Book H4:531	Francis L. and Sarah Smith	John Tucker	4 ¼ acres, being a part of a parcel acquired in 1853 from Samuel and Daniel Janney.
4/16/1875	Fairfax Book S4:194	Robert and Annie Lucas and John Tucker	F. E. Corbett and I. C. O'Neal	Corner of Church and Columbus Sts, south on Columbus extended to South St; then with South Street extended 139 ft 11 inches, thence northwardly parallel with Alfred Street extended to Church street extended, thence east with same last named street to the beginning. AND "**all that lot of ground bounded as follows: Beginning on the north side of Green Street extended, 66 ft 2 inches eastward of the west line of Washington Street extended, running thence parallel with Washington Street S 12 ¼ W 486 ft 6 inches; thence with the *northern line of the Negro burying ground N 77 ¼ E 369 ft*, thence N 12 ¼ E 482 ft 9 inches, thence S 77 ¾ E 369 ft to the beginning, containing 4 1/10 acres**," being the lot conveyed to John Tucker by Francis L. Smith and Sarah Smith as recorded in Fairfax County Deeds H4:531.
9/4/1889	Fairfax Book I5:129	Israel O'Neal	F. E. Corbett and Charles Yohe	One-half interest in the property of O'Neal and Corbett. Property includes all real estate noted above, plus "all buildings, sheds, trucks, wheelbarrows, moulds, blacksmith tools, bricks, and all other personal property on the said lots," as well as all notes, judgements, liens, etc.
6/29/1906	Fairfax Book U6:343	Wibert (Corbett executor)	C. H. Yohe	Lot known as the "Brickyard Property," included both parcels transferred to Corbett and O'Neal in 1875
2/11/1915	Alexandria Book 65:588	C. H. Yohe	Louis Barley	Two tracts of land received from estate of F. E. Corbett ($10)
12/26/1916	Alexandria Book 65:589	Louis and Bessie Barley	David Grillbortzer	Two tracts of land purchased from C. H. Yohe. "Negro burying ground" still cited as southern boundary of Parcel 1
1914	Alexandria Wills	David Grillbortzer (I)	David Grillbortzer (II) and wife	"Interest in Taylor lot"
8/28/1928	Alexandria Book 95:382	David Grillbortzer (II) and wife	L. H. Dudley and Courtland Davis, trustees	Thirteen tracts in southwest Alexandria, including the two lots mentioned in earlier deeds, placed as collateral for note totaling $26,500.
9/1929	Alexandria Book 99:441	David Grillbortzer (II) and wife	John G. Graham, trustee	Subsequent deed of trust for second note totaling $10,000 +interest.
1930	Alexandria Book 103:588	John G. Graham, trustee	Frank L. Hurd	Grillbortzers default on both notes. Property sold at public auction in 1930, and purchased by Henry Blessing for $41,000. Blessing assigns his titles to Frank Hurd for amount of second trust ($14,500).
10/1/1934	Alexandria Book 121:111-113	Frank L. Hurd	Mount Vernon Floral Company	Transfers large area in southwest Alexandria (formerly Grillbortzer's), including the project area; refers to David Grillbortzer's deed of 1916 (Book 65:589)
8/17/1939	Alexandria Book 155:123	Mount Vernon Floral Company, Inc.,	Mount Vernon Development Corporation	Transfers project block

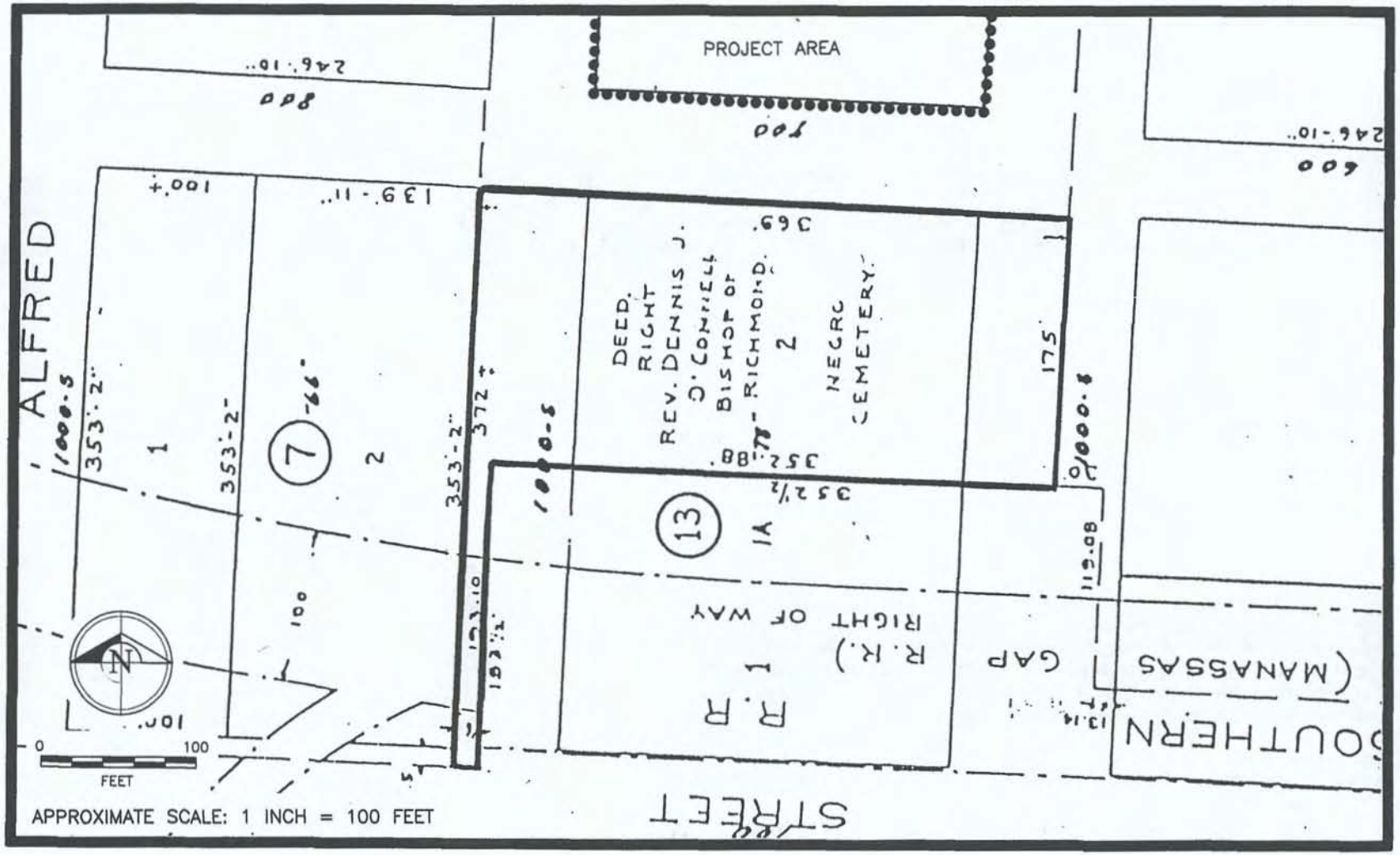


Figure 6. City of Alexandria property tax map (1939) showing the boundaries and ownership of the "Negro burying ground."

parcel, nor could alcoholic beverages be sold on it (Miller to Cressey 1997).

These use restraints apparently were forgotten or deliberately disregarded. In 1946, Eugene Olmi, apparently acting for Landrith, formally requested the rezoning of the northern half of the property bounded by Washington, Church, South, and Columbus streets. City Council minutes for June 25 of that year indicate that this application was granted unanimously by the City Council (Olmi 1946), but the nature of the proposed development was not specified. Although the present service station on the property was built in 1956 by Tidewater Associated Oil, and initially was known as "Charley's Flying A Gasoline Station" (Miller to Cressey 1997), it seems unlikely that the parcel would have lain undeveloped for a decade. In the 1970s, when the station's underground tanks were replaced, some bones reportedly were unearthed (Jeffries 1997).

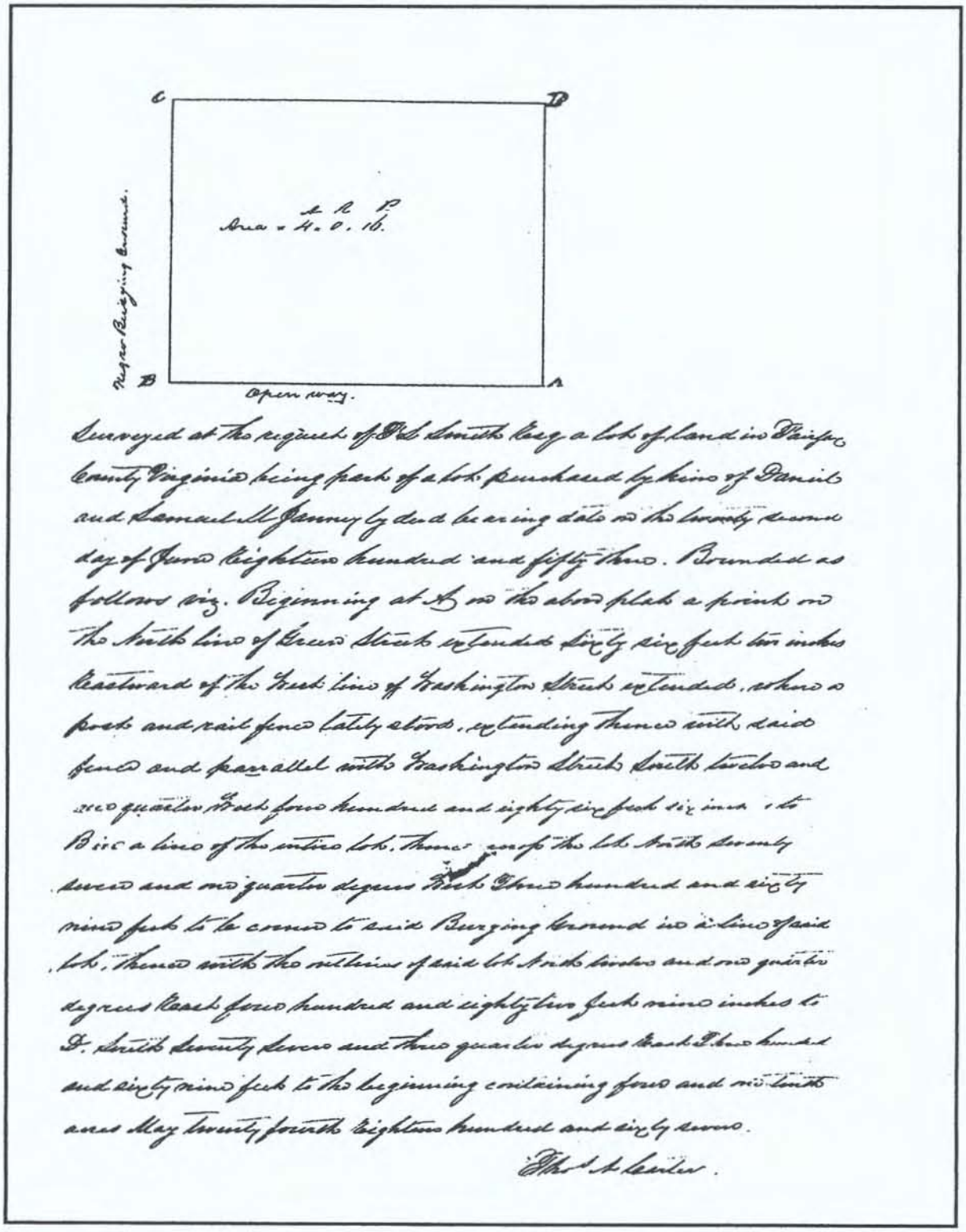
Gunston Hall Apartment Parcel

The tract that currently is occupied by the Gunston Hall Apartments originally was part of the property conveyed by the Janneys to Francis Smith in 1853. It became a separate land parcel in 1868, when Francis and Sarah Smith sold to John Tucker a 4¼ acre plot of land bounded by Washington, Church, Columbus, and Green streets (Table 1)(Figure 7). At this point, none of the perimeter streets had been established formally; all of these thoroughfares were identified as "extended,' meaning that at some time in the future, the precise rights-of-way would be established as settlement in the City of Alexandria expanded southward. The relatively high asking price ($1,230) suggests that some structures may already have been in place on the property, although no evidence was obtained to document this claim. The survey plat that accompanied the transaction (Fairfax Deeds H4:531) designates the future Washington Street as an "open way." More importantly, it shows that the southern boundary of the property, which at that time included the future right-of-way of Church Street, was the "Negro Burying Ground." John Tucker subsequently formed a partnership with Robert Lucas to operate a brickyard on this site (United States Census Bureau, Schedule of Manufactures [Manufacturing Census], Falls Church Township 1870:2).

In 1875, Tucker and Lucas sold their brickmaking business to F. C. Corbett and I. C. O'Neal for the sum of $7,700 (Fairfax Deeds S4:194-5). The substantially elevated price can be explained partially by the fact that a second parcel, located south of Church Street (extended) and west of Columbus Street (extended), was included in the transaction. Hopkins (1877)(Figure 8) clearly shows the business as occupying both the project block and a portion of the adjoining block immediately southwest. The element of this map that is particularly interesting for archaeology is that only two structures—both frame stables—are depicted on the Greene Street portion of the property.

Corbett and O'Neal continued their partnership on the two adjacent parcels until 1889, when O'Neal sold his half of the business to Charles Yohe (Fairfax Deeds I5:129). This transaction is of interest historically because the deed conveyed not only the land on which the Corbett and O'Neal business was located, but also included "buildings, sheds, trucks, wheelbarrows, moulds, blacksmith tools, bricks, and all other personal property on the said lots." The business may have been renamed the Alexandria Brick Works, since in 1894, the *Alexandria Gazette* referred to the "encroachments of the brickyard" that lay to the west of the Negro cemetery parcel. In 1906, when Corbett died, Charles Yohe, a former cigar manufacturer (U. S. Census of Manufactures 1870), assumed total control of the business, although it is possible that the brickyard itself already had ceased to function (Table 2).

Through the first third of the twentieth century, the former brickyard property appears to have remained undeveloped and its boundaries remained unchanged (Figure 9). Alexandria City land records involving property transfers in the southwestern portion of the city during this period suggest that the Grillbortzer family consolidated several smaller holdings in the area and apparently



Surveyed at the request of D. L. Smith Esq a lot of land in Fairfax County Virginia being part of a lot purchased by him of Daniel and Samuel M Janney by deed bearing date on the twenty second day of June Eighteen hundred and fifty three. Bounded as follows viz. Beginning at A on the above plat a point on the South line of Duke Street extended sixty six feet ten inches Eastward of the East line of Washington Street extended, where a post and rail fence lately stood, extending thence with said fence and parallel with Washington Street South twelve and one quarter West four hundred and eighty six feet six inches to B it's a line of the entire lot. Thence with the lot South twenty seven and one quarter degrees West three hundred and sixty nine feet to be corner to said Burying Ground in a line of said lot, thence with the outlines of said lot South twelve and one quarter degrees East four hundred and eighty two feet nine inches to D. South seventy seven and three quarter degrees East three hundred and sixty nine feet to the beginning containing four and nine tenths acres May twenty fourth Eighteen hundred and sixty seven.

Thos. A Lawler.

Figure 7. Excerpt from 1868 deed and survey plat for the Tucker and Lucas (later, O'Neal and Corbett) brickyard property.

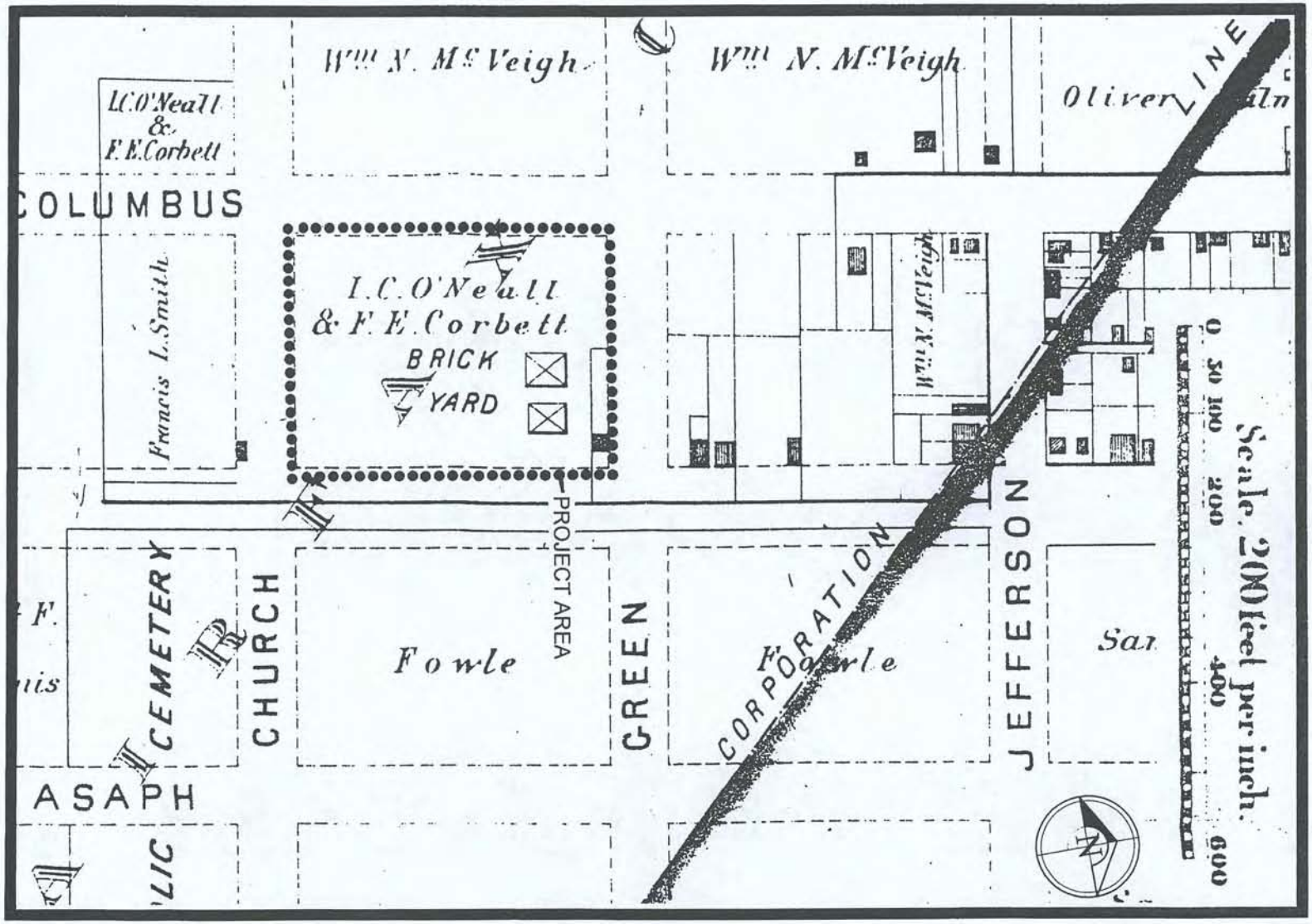


Figure 8. Excerpt from G. M. Hopkins *Map of the City of Alexandria* (1878), showing the location of and structures on the O'Neal and Corbett brickyard.

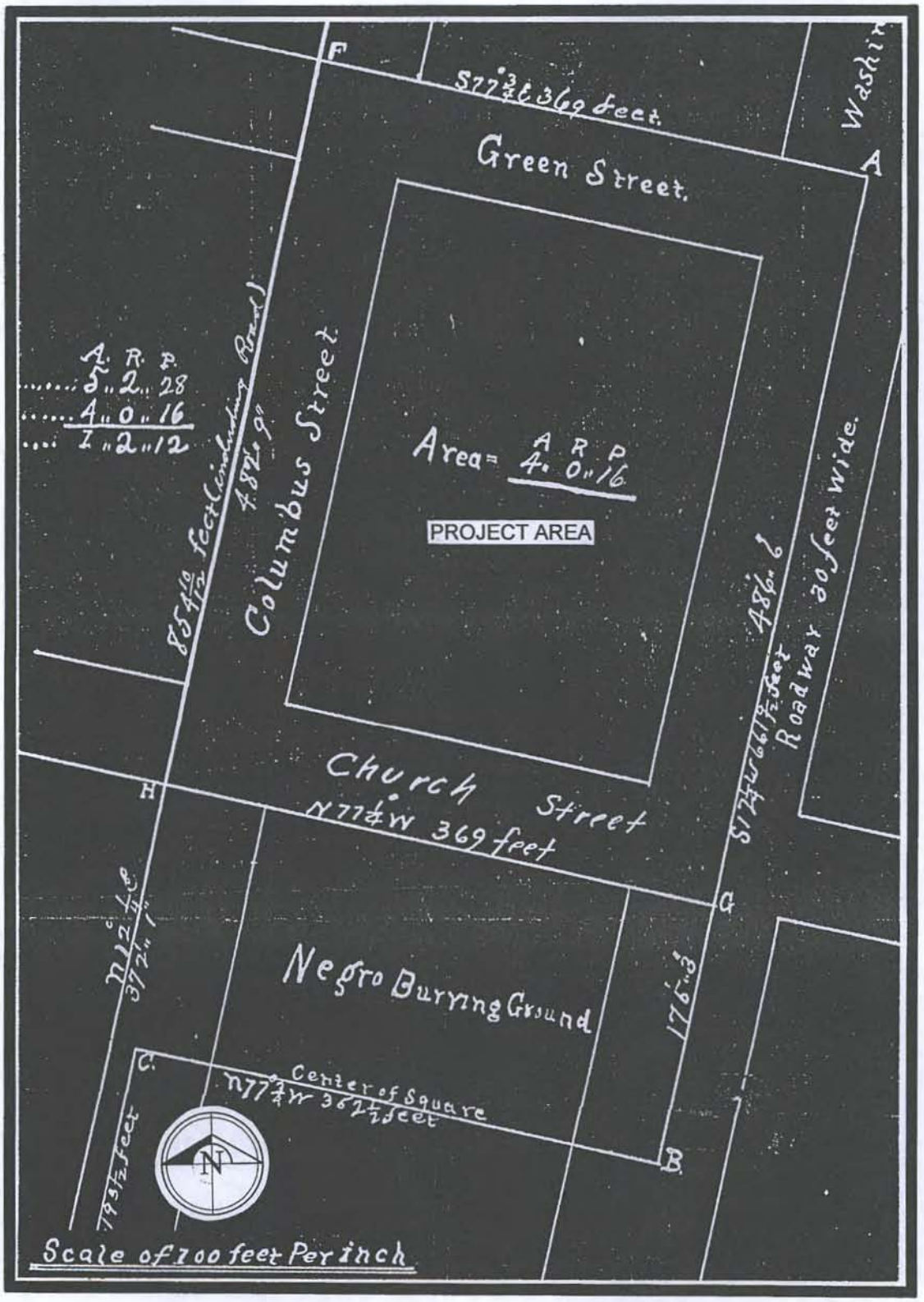


Figure 9. Ca. 1915 Alexandria survey plat of the brickyard property, showing the adjacent "Negro burial ground."

Table 1. Nineteenth-Twentieth Century Property Chain of Title: Gunston Hall Apartment Block

Date	Deed Ref	Grantor	Grantee	Metes and bounds
2/10/1868	Fairfax Book H4:531	Francis L. and Sarah Smith	John Tucker	4 ¼ acres, being a part of a parcel acquired in 1853 from Samuel and Daniel Janney.
4/16/1875	Fairfax Book S4:194	Robert and Annie Lucas and John Tucker	F. E. Corbett and I. C. O'Neal	Corner of Church and Columbus Sts, south on Columbus extended to South St; then with South Street extended 139 ft 11 inches, thence northwardly parallel with Alfred Street extended to Church street extended, thence east with same last named street to the beginning. AND "**all that lot of ground bounded as follows: Beginning on the north side of Green Street extended, 66 ft 2 inches eastward of the west line of Washington Street extended, running thence parallel with Washington Street S 12 ¼ W 486 ft 6 inches; thence with the *northern line of the Negro burying ground N 77 ¼ E 369 ft*, thence N 12 ¼ E 482 ft 9 inches, thence S 77 ¾ E 369 ft to the beginning, containing 4 1/10 acres**," being the lot conveyed to John Tucker by Francis L. Smith and Sarah Smith as recorded in Fairfax County Deeds H4:531.
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10/1/1934	Alexandria Book 121:111-113	Frank L. Hurd	Mount Vernon Floral Company	Transfers large area in southwest Alexandria (formerly Grillbortzer's), including the project area; refers to David Grillbortzer's deed of 1916 (Book 65:589)
8/17/1939	Alexandria Book 155:123	Mount Vernon Floral Company, Inc.,	Mount Vernon Development Corporation	Transfers project block

Date	Deed Ref	Grantor	Grantee	Metes and bounds
		(James E. Colliflower, President)		
8/18/1939	Alexandria Book 155:124	Mount Vernon Development Corporation	Walter English et al., trustees (Navy Mutual Aid Association)	Deed of Trust for property block given to Navy Mutual Aid Association; insured by Federal Housing Administration (Price: $165K @ 4 ½%). Lien satisfied in 1959 (Deeds Book 388:273).
7/31/1970	Alexandria Book 717:192	Mount Vernon Development Corporation	UVA Bank/1st & Citizens National Bank (Executors: estate of Paul T. Stone)	Liquidation of Mount Vernon Development Corporation
12/30/1986	Deed Ref. 11971900		Best Industries, (Robert Test, Trustee)	

Table 2A. Brickmakers in Alexandria and eastern Fairfax County, 1870

Company Name	Valuation	Average # of Employees	Inventory	Annual Output	Comments
Tucker and Lucas (Alexandria)	$15,000	15 over 15 yr. old; 6 children	1,000,000 cu yd of clay; 500 cords wood	1 million brick valued at $8,500	Steam-powered operation. Machinery used at site included tempering wheels, a Franklin brick machine, and a brick press. Operated 6 months out of the year
W. Gillingham (Accotink)	$10,000	Unknown	Unknown	2,000 brick and 1,000 tile	Horse-powered operation. Machinery used included 1 tile machine, tempering wheels, a brick machine, and a brick press. Operated 3 months out of the year.
George Henderson (Alexandria)	$600	4 employees	Clay, wood, sand, lime, and 300,000 bricks	Unknown	This operation combined brickmaking and bricklaying. Lime and some sand probably related to production of mortar. Operation hand-powered; no machinery. Operated 6 months out of year.
James Piper (Alexandria)	$500	4 employees	Clay (40 cu yd), wood, sand, 126,000 brick	Unknown	Hand operation; no machinery. Operates 3 months out of the year.
Francis S. German (Alexandria)	$2,000	8 employees	Clay, wood, sand, 250,000 brick	Unknown	Hand operation; no machinery. Operates 6 months out of the year.

Source: *United States Census of Manufactures, Alexandria and Fairfax Counties*, 1870

Table 2B. Brickmakers in Alexandria County, 1880

Company Name	Valuation	Average # of Employees	Inventory (Common & pressed brick)	Inventory Value	Comments
O'Neal and Corbett	$10,000	10 men; 3 children	800,000 common	Unspecified	Work 8 – 10 hour days; average wages range between $.90 and $1.50 per day; no power source or machinery listed
Emmanuel Francis	$1,500	16 maximum; average 6	600,000 common 20,000 pressed	Unspecified	Work day and average wage same as above; no power source or machinery listed; operates 6 months out of the year
W. H. West and Brothers	$20,000	50 average	4 million common; 50,000 pressed	$34,500	Operate 10 hour days; average hourly wage is $1.50; operate 10 months out of the year; has coal-fired steam boiler generating 25 hp.
J. P. Appleman	$10,000	5 average	800,000 common	$4,800	Average 10 hour work day; average daily wage $1.25; operates 8 – 10 months out of the year; has coal-fired steam boiler generating 25 hp.
Adamanture Brick Works	Unspecified	4 workers	50,000 common	$300	Average 10-hour workday; average daily wages $1.25; operates 8-10 months out of year; has coal fired steam boiler generating 50 hp.
Thomas Smithson & Sons	$10,000	47 average	1,415,000 common; 85,000 pressed	$11,330	Average 8 hour work day; average daily wage is $1.25; operates 7 months full time and 5 months part-time; no boilers or machinery listed
Frederick Windsor	$20,000	50 men/10 children	1 million common; 52,000 pressed	$12,808	Average 8 - 10 hour work days; operates 8 months full and 1 month part time; has 2 coal-fired boilers and 2 engines generating 65 hp
Amon Woodward	$1,350	35 men	1.2 million common	$7,875	Averages 8 – 10 hour days; prevailing wages; operates 8 months full and 1 month part time; has 1 coal-fired boiler and 1 engine generating 8 hp
John Woodward	$1,800	17 men	800,000 common and 9,000 pressed	$4,000	Averages 8 – 10 hour days; prevailing wages; operates 7 months full time; has 1 coal-fired boiler and 1 engine generating 8 hp
Joseph Heiner	$13,000	30 men	1.5 million common and 70,000 pressed	$10,500	Averages 8 hour days; prevailing wages; operates 7 months full time; has 1 coal-fired boiler and 1 engine generating 10 hp

Source: *U. S. Census of Manufactures, Alexandria County, Virginia,* 1880

Table 2C. Brickmakers in Alexandria, 1902

Company Name	Company location	Structures mapped on property
Alexandria Brick Company	South end of Alexandria on Hunting Creek near Jones Point	Drying racks, kilns, clay mill, forming machines, variety of appurtenant 1 – 2 story frame structures
Washington Hydraulic Press	5 miles north of Alexandria City Hall	Massive complex, apparently automated; clay sheds connected to main plant by covered tramways; brick arched patent kilns, 8 stock sheds; adjacent to railroad siding
Ford's Estate	5½ mi. north of Alexandria City Hall	Four kilns, racks for air-drying; clay grinding and storage areas; drying tunnels. Two dwellings on property
Cockey	5½ mi. north of Alexandria City Hall	Two small kilns, covered clay mill, dwelling.
W. T. Walker	5½ mi. north of Alexandria City Hall	Four kilns, drying tunnels, air drying areas, office complex on site
Virginia Brick	Near Washington Hydraulic Press Co.	Four kilns, drying sheds, etc.
West Brothers	Columbia Turnpike	Six kilns, machine shop, drying sheds, etc.
Potomac Brick	4½ mi north of Alexandria City Hall	5 kilns; a clay pit; "dryers"
Jackson Phillips	4½ mi north of Alexandria City Hall	4 kilns, drying racks and tunnels
New Washington Brick Company	4 mi north of Alexandria City Hall	6 kilns, drying ovens; adjacent to railroad siding

Source: *Sanborn Fire Insurance Map of Alexandria, Virginia* 1902: Plates 19-23.

sold a few individual lots. However, Sanborn Fire Insurance maps through the early 1920s show little or no development in the blocks around the project area.

In the late 1920s, the Grillbortzer heirs utilized their collective properties, including the project area, as collateral for notes totaling nearly $41,000. Deeds of this period indicate the extent of their holdings, which extended from Jefferson Street on the north to the shoreline of Great Hunting Creek on the south, and from Washington to Payne streets (Alexandria Land Records [Alexandria Deeds] 99:441; 103:588). On default of these notes, the properties were sold *en bloc* to a trustee. In 1934, much of the former Grillbortzer property was acquired by the Mount Vernon Floral Company, probably to support a nursery operation. Five years later, the project block was purchased by the Mount Vernon Development Corporation, which constructed the apartment complex that today occupies the site (Figure 10)(Alexandria Deeds 121:111-113; 155:123).

The chain-of-title thus suggests that the current project area was the location of two major enterprises prior to construction of the Gunston Hall apartment complex: a brickyard and a nursery. Of the two uses, the brickyard would have impacted the project area more severely in terms of altering landforms and imposing archeologically detectable features, particularly the clay borrow pits. This area of the city apparently yielded good quality clays for brick manufacture. Not only did the *Alexandria Gazette* mention the adjacent Alexandria Brick Company in its 1894 rebuttal on the Negro cemetery, but when St. Mary's Cemetery across Washington Street was expanded and fenced in 1932, the parish notes observed that an "old clay quarry had to be filled with 2500 yards of dirt" (St. Mary's Parish Notes 1932).

Brick-making Technology

To understand the potential for archeological remains within this project area, it is necessary to develop an understanding of the late nineteenth century brick-making process, and then apply that understanding, along with site-specific archival information outlined above, to develop a predictive model for archeological resources within the project area.

The brick-making process entailed five principal stages: mining (known as "winning"); preparing the clays; molding (known as "forming"); drying; and firing (known as "burning")(McKee 1974:82). All of the phases of a typical late nineteenth century operation were depicted in the journal *Scientific American* in 1886 (Figure 11). The accompanying journal entry, which described the nineteenth century brick-making process, has been excerpted in Appendix II of this report.

Gurcke (1987:5) observed that, to obtain raw clays, "digging by hand in shallow pits seems to have been the common practice in both Great Britain and the United States during the nineteenth century." This "winning" process also could be executed in other ways that could result in the excavation of extremely deep pits. For example, horse-drawn (later, machine-powered) plows loosened the clay after the overburden soils had been removed, and then a scraper removed the suitable clays. In larger operations, clays frequently were removed in "benches" ranging in depth from 7 – 9 ft; removal of ever-widening "benches" produced an excavation that somewhat resembled an open-pit mine. "Glory-hole" mining involved excavation of a large, conical pit whose unsupported sides eventually slumped inward (Gurcke 1987:5-6). Adoption of either of these two methods by O'Neal and Corbett might well explain the deep, convoluted stratigraphy found by Greiner within their Area A trenches, particularly Trench 5, Section 2 (Bevan 1999: Figures 1.6 and 2.3). After its removal, the raw clay was permitted to weather as it lay exposed during the winter, a process that removed soluble salts and broke down the harder lumps in the matrix.

The second step in the operation involved preparing the clay. The raw material was tempered to make it pliable and to give it an even consistency. Various materials such as sand, ash, coal, or ground chalk might be added during this preparatory phase to reduce shrinkage of the final product. If firebrick was the intended end product, grog (ground dry clay) was added to reduce shrinkage and cracking (Gurcke 1987:13; *Scientific American*

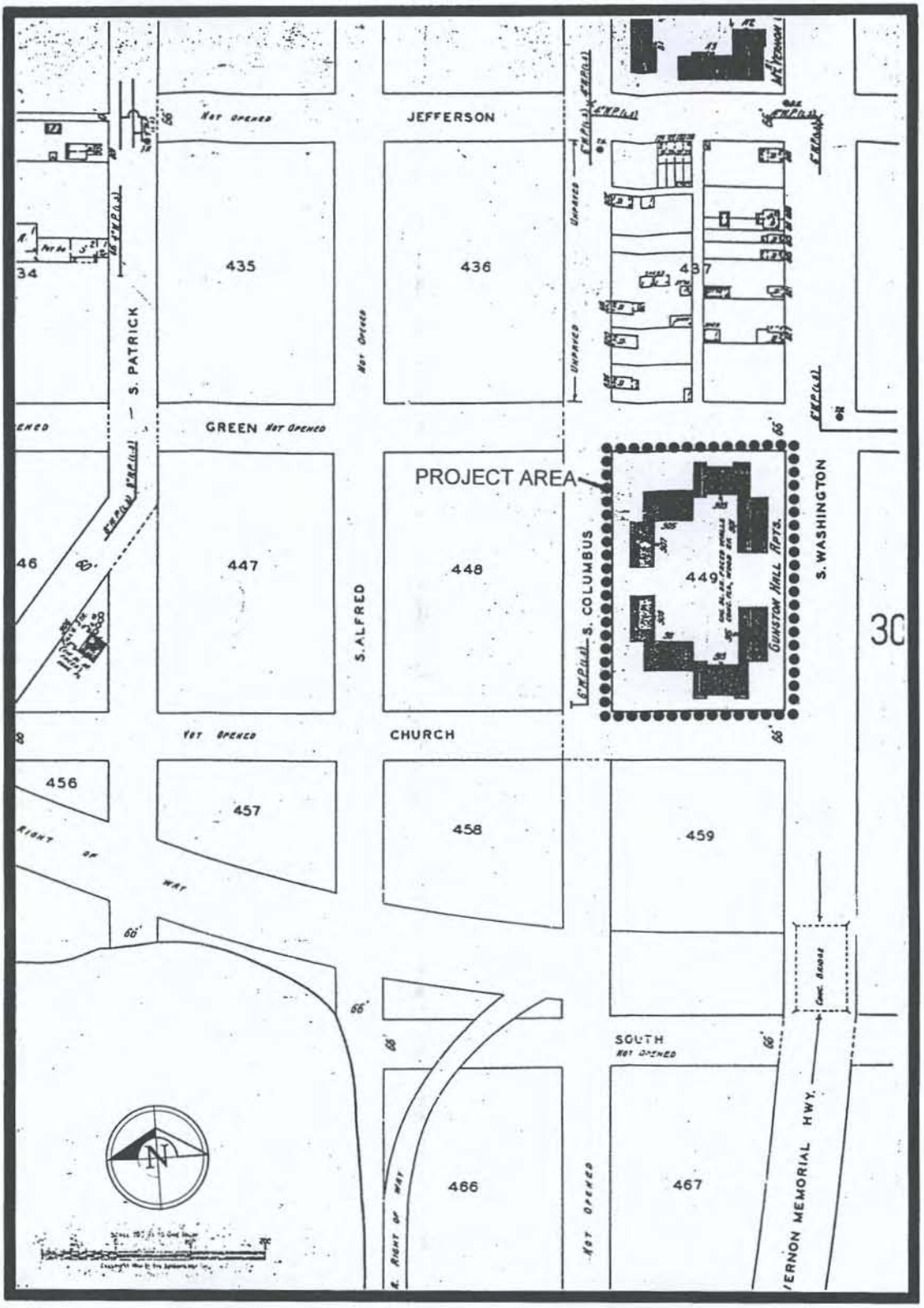


Figure 10. Excerpt from Sanborn's Fire Insurance *Map of Alexandria* (1941), showing the location and configuration of the newly constructed Gunston Hall Apartment complex.

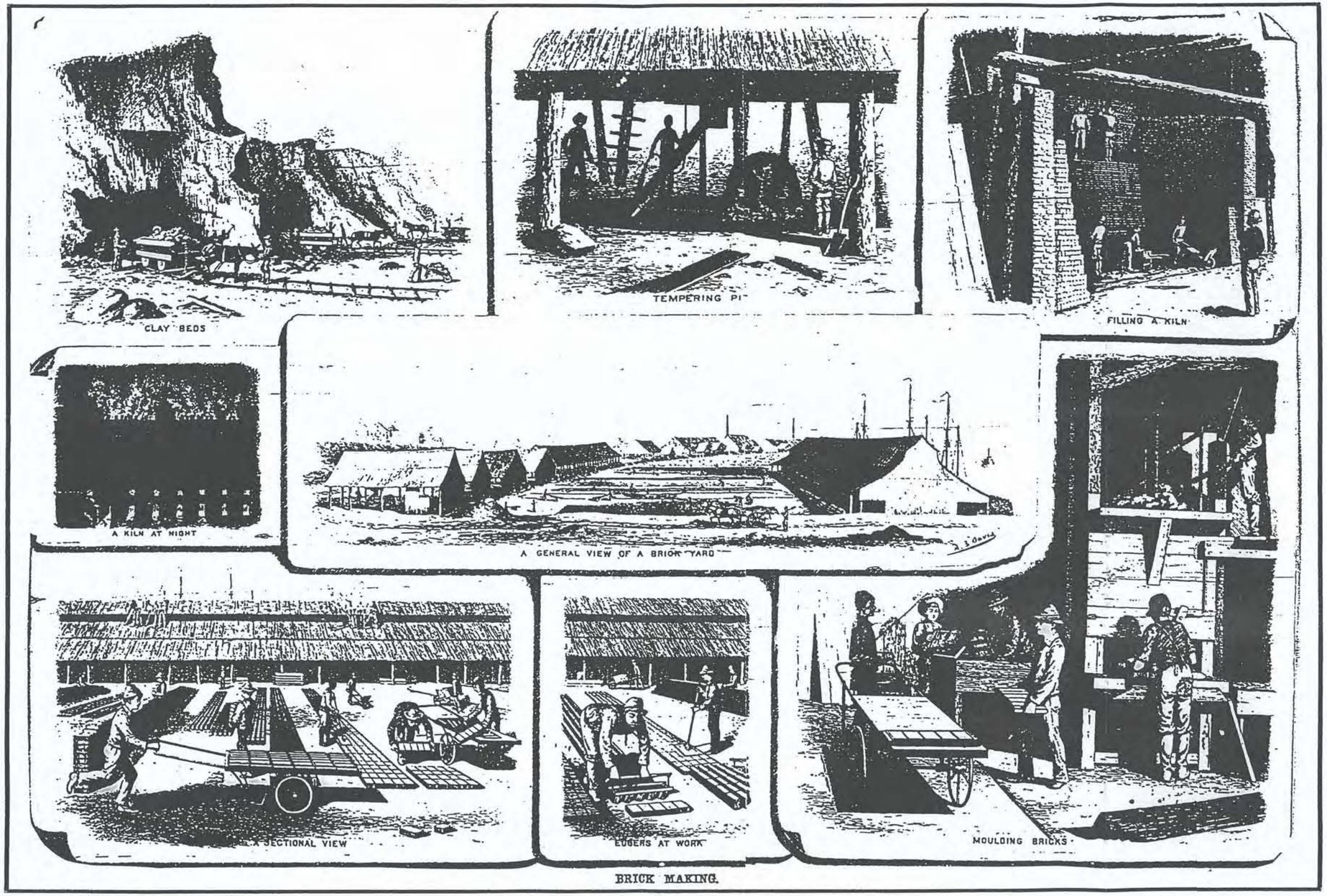


Figure 11. Panoramic view of the late nineteenth century brick-making process, as depicted in the November 27, 1886, issue of *Scientific American*.

1886). Complete amalgamation of the raw clay with the added tempering agents could be accomplished in several ways, depending upon the sophistication of the manufacturer. In the simplest process, the various elements were simply mixed with a shovel or in a ring pit, a circular horse-powered vat containing a wheel. Pug mills, which initially were developed by the pottery industry during the eighteenth century, differed from ring pits in that paddles rather than wheels were used to mix the ingredients. Clay, sand and water were introduced at the top of the machine and were forced out of an opening at the bottom of the machine (McKee 1974:84); this suggests that a pug mill was an aboveground structure rather than an in-ground one.

The tempered clay then was molded into its final form. In the simplest variation of the process, clay was pressed by hand into wooden or iron clad molds, a job that required the services of a skilled worker (McKee 1974:82). A top rate molder, working the length of a summer day, reportedly could turn out between 10,000 and 12,000 bricks, but the norm probably was approximately half that amount (McKee 1974:92, Note 2). Attempts to mechanize the molding process began during the late eighteenth century, and numerous patents were taken out during the first half of the nineteenth century to expedite this process and improve the product; three early nineteenth century patent drawings of mechanized brick molding machines are depicted in Figure 12. Depending on the method used, a mechanized molding operation could produce between 20,000 and 60,000 unfired bricks in a 12-hour day (McKee 1974:84-88).

Molded bricks next were air-dried in low stacks known as hacks. Gurcke (1987:25-26) noted that, until processes were devised to reduce the time required for this operation, brick drying was accomplished either in the open air or underneath open-sided sheds. In non-mechanized brickyards, this drying could take as long as three weeks, depending on the weather; product losses due to weather problems at this stage of the brick making process could run as high as 15 per cent of output. Weather constraints also limited the amount of time that eighteenth and nineteenth century brickyards remained operational; in Britain and the United States, most brick manufacturers were able to operate only six months during the year. Drying time was reduced in the 1890s when Chambers, Brother and Company, a Philadelphia steam engine manufacturer, developed a brick dryer. This device accelerated evaporation of moisture by introducing carloads of brick into a tunnel through which warm air was forced (Gurcke 1987:26; McKee 1974:88).

Kiln firing of the dried bricks was the final step in the manufacturing process (Gurcke 1987:4). The earliest kilns, known as "clamps" or "scove" kilns, were temporary. They consisted of a series of corbelled arches formed by stacking the unfired brick (Figure 13). After the stacked brick was covered with a mixture of clay and straw, fuel was introduced into the channels formed by the corbeling. The intense (1,800° F) heat built up within the passageways and was retained inside the structure for several days to complete the firing process (Rhodes 1968:44-45). The entire clamp then was dismantled, and the bricks were sorted. The soft, incompletely fired "samel" bricks on the exterior of the kiln were utilized for such purposes as "nogging." The most intensively fired bricks closest to the fire chambers acquired a shiny glaze, and often were utilized to create decorative patterns seen on exterior walls of eighteenth century buildings. The adoption of permanent kilns, such as the Newcastle kiln, permitted better control of the heat and thereby increased the useable output of a manufacturer by ensuring a more uniformly burnt product.

Figure 9 depicts all of the steps in the semi-mechanized brick manufacturing process that commonly was utilized during the late nineteenth century. Examination of the buildings and features associated with the various tasks suggests that, for the most part, structures associated with brick manufacturing at this stage were somewhat impermanent. For example, the structure that protected the tempering mill was a post-in-ground affair whose roof was supported by trees and boulders; the tempering pit itself was a sub-surface depression. The kilns (actually a more formalized version of a scove kiln)(Figure 13)

also were protected by post-in-ground supported sheds. Brick molding operations (lower right) also were housed in a frame structure, and the machine that delivered the mixed clays to the molds apparently also did not have any substantial or permanent sub-surface supports. Molded bricks were dried on pallets in the open air; their imprint on the landscape would have been minimal.

Thus, four principal types of relatively impermanent or ephemeral archeological features would characterize the traces of this type of operation:

1. large, deep, and (probably) slumped pits for extracting clays;

2. the post hole patterns representing frame supports for sheds and structures that housed various operations;

3. one or more circular pits associated with the tempering operations, possibly resembling the pug mill depicted in Figure 11; and

4. the rubble and scorched earth that would have been left after the demolition of the brick kilns or clamps themselves.

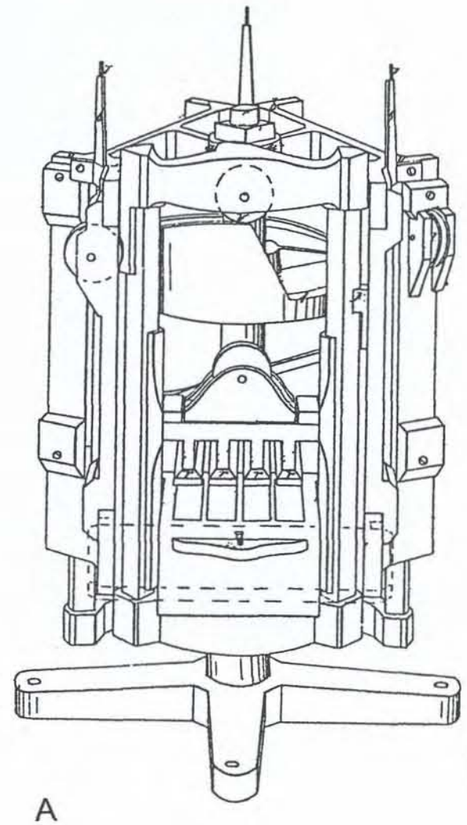
Late Nineteenth Century Brickmaking in Alexandria

General Context. After the Civil War, the Gunston Hall Apartments project area was utilized as the site of a brickyard. This enterprise apparently persisted in this location through the early twentieth century, operating under a variety of corporate names: Tucker and Lucas; Corbett and O'Neal; O'Neal and Yohe; and, possibly, the Alexandria Brick Company. To understand more clearly the nature of this particular brickyard and its relative position within Alexandria County and the region immediately surrounding it, research was undertaken to create a compendium of the late nineteenth century brickmaking industry in Alexandria. This research initiative involved a review of primary sources dating from 1870, 1880, and 1902.

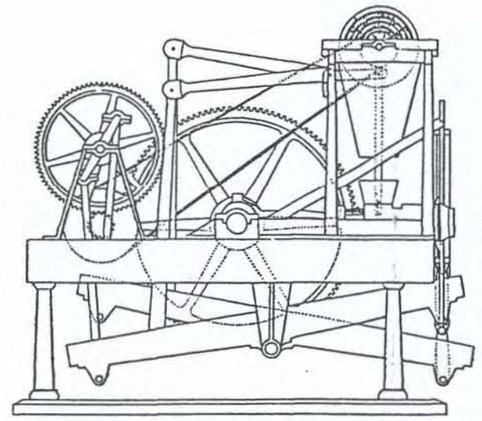
The results of this research, presented as Tables 2A, 2B, and 2C, provide the industrial context within which this particular brickyard operated. The results obtained from review of the 1870 United States Census for Manufacturing suggest that Tucker and Lucas' brickyard on South Washington Street (extended) was the largest such enterprise within the City of Alexandria and neighboring portions of Fairfax County. The degree to which the firm's operations had been mechanized at that time seemed to be, if not greater than, then certainly equal to, any other brickyard in the vicinity; in other words, the firm was reasonably *au courant* in terms of its sophistication. Tucker and Lucas had very little competition, given that only three other brickyards were in operation within the entire city.

However, Table 2b illustrates that, within one decade, the relative stature of this enterprise (now owned by O'Neal and Corbett) had diminished considerably. The number of brickyards operating within the City of Alexandria had more than doubled by 1880, and many of them apparently had applied the latest technology to the brickmaking process. Of particular interest is the power source utilized by the various firms, 70 per cent of which employed coal-fired steam boilers, rather than horsepower to operate their machinery; the O'Neal and Corbett works were part of the 30 per cent minority that had not adopted such equipment. Further evidence of the firm's declining market share is reflected by its relatively low inventory of finished product on hand; the comparatively short season of operation; the relatively low number of employees retained by the firm; and the nature of the firm's output, which was apparently confined entirely to common brick (rather than the more "finished" pressed brick).

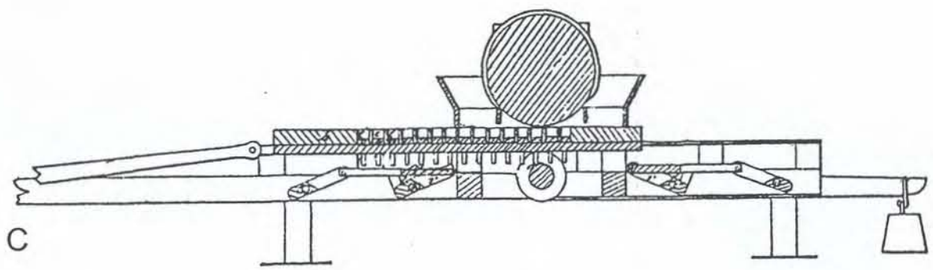
By 1902, under the ownership of Yohe and O'Neal, the brickyard on South Washington may have ceased operation entirely, since it was not identified on the 1902 Sanborn map as a separate corporate entity. Certainly, the brickyard no longer operated on the project block, which was depicted as vacant. Of course, the corporation name may have been changed to the Alexandria Brick Company, which Sanborn located within an area closer to Hunting Creek near Jones Point. Even if one assumes that name change, however, it is



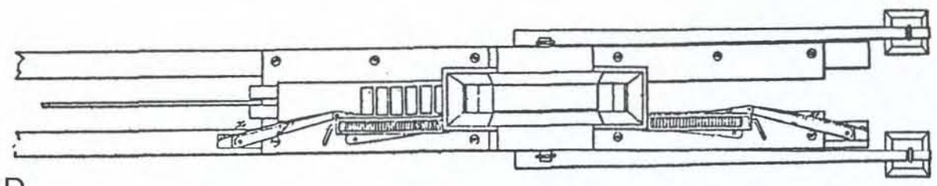
A



B



C



D

Figure 12. Patent drawings of three mechanized brick molding machines (from McKee 1974).

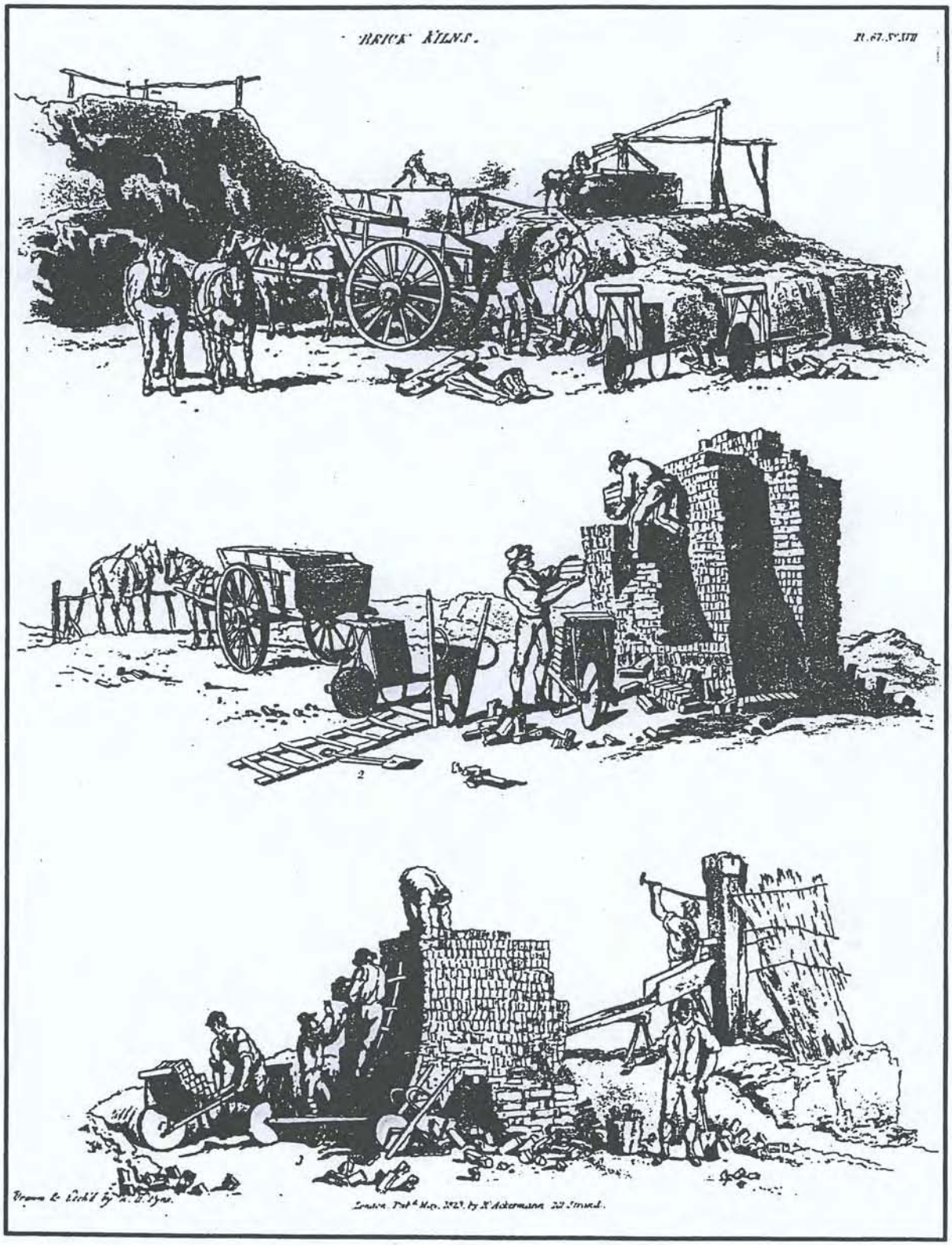


Figure 13. Ca. 1823 rendering of the process of erecting a brick clamp or scove kiln (from McKee 1974).

obvious that the Alexandria Brick Company was not one of the larger brickmaking establishments within the city, judging from the number of structures and equipment depicted on the Sanborn map.

Given the available documentation for the brickyard and its structural footprint as depicted by the Hopkins map, it is likely that the Tucker-Lucas /Corbett-O'Neal/Corbett-Yohe brick factory retained the level of late nineteenth century technology and utilized the processes that *Scientific American* outlined in its November 27, 1886 issue.

CHAPTER IV

ARCHEOLOGICAL RESULTS

Remote Sensing

Previous Investigations

Two previous remote sensing/geophysical surveys have been conducted at the site of the Freedman's or Contraband Cemetery in Alexandria, adjacent to the Gunston Hall Apartments project area. Stevens et al. (1997) conducted a ground-penetrating radar (GPR) and electromagnetometer (Geonics Limited EM-61) survey beneath the existing Mobil Station, located directly south of the Gunston Hall Apartments project area. Anomalies identified during GPR survey were suggestive of intact burial shafts, but the EM-61 results did not locate any evidence of intact burials within the project area. Both geophysical methods were hampered by the presence of numerous sub-surface utility lines and storage tanks associated with nearby buildings.

Bruce Bevan (1999) of Geosight also conducted GPR survey (Geophysical Survey Systems Model SIR System-7), earth conductivity survey (Geonics Limited EM-38), and resistivity survey in areas west and south of the Mobil Station property. The results of these surveys were inconclusive. One possible soil boundary was identified; however it apparently was not associated with the cemetery but was interpreted as the result of a substantial cut made to accommodate highway construction in the 1960s. Other areas of complex soil stratigraphy may have been associated with possible grave shaft fill or unrelated historic activities (Bevan 1999).

Results

The remote sensing survey in six previously selected blocks (Figure 5) at the Gunston Hall Apartments project area focused on identifying historic period grave shafts associated with the Freedmen's or Contraband Cemetery, and potential structural remains associated with I.C. O'Neal and F.E. Corbett Brickyard. The survey also was intended to refine locations of utility lines that had not been marked within the boundaries of the property by Miss Utility.

Block A, measuring 5 x 13 m (16.4 x 42.6 ft), was situated in the southeastern quadrant of the intersection of South Washington and Church streets on the periphery of the apartment complex. Block B, measuring 12 x 15 m (39.4 x 49.2 ft), was located in the northeastern quadrant of the intersection of Church and South Columbus streets outside of the apartment complex. Block C, measuring 3 x 15 m (9.8 x 49.2 ft), was located near the center of the apartment complex courtyard. Block D, measuring 3 x 9 m (9.8 x 29.52 ft), was located in the northeastern corner of the apartment complex courtyard; remote sensing in this area subsequently was abandoned due to the density of utility lines at this location. Block E, measuring 3 x 10 m (9.8 x 32.8 ft), was located in the southwestern quadrant of the intersection of Green and South Washington streets outside of the apartment complex. Block F, measuring 3 x 15 m (9.8 x 49.2 ft), was located near the intersection of South Columbus and Green streets outside of the apartment complex.

Earth conductivity and magnetic susceptibility results did not identify any anomalies associated with possible grave shafts in the Freedmen's or Contraband Cemetery. In Block A, two anomalies

identified in both earth conductivity and magnetic susceptibility results (Figures 14 and 15) appear to be associated with modern development within the project area. Anomaly 1, located parallel to a city sidewalk, likely represents a buried utility line. The strong dipole signature of Anomaly 2 suggested a large buried ferrous metal object, but this signature was not indicative of deeply buried grave hardware.

In Block B, earth conductivity results (Figure 16) identified three anomalies that appeared to be associated with modern utilities. Anomaly 3 appeared to reflect a buried utility/water line running parallel to the city sidewalk along the southern boundary of the project area. This anomaly appeared to connect with Anomaly 4 near the N1000/E1000 coordinates. Anomaly 4, associated with a manhole cover, may represent a storm water management or sewer line connection point. Anomaly 5, which consisted of several dipole readings, indicated buried metal objects. The roughly linear shape suggested another pipeline associated with the apartment complex.

In Block C, earth conductivity results identified two anomalies (Figure 17). Anomaly 6 was a strong dipole signature likely associated with a large metal object. The narrow width of the survey block limited further interpretation of this anomaly, but it likely represented modern activities associated with the apartment complex. Anomaly 7 was a slight conductivity low located near coordinates N1013/ E1000. This anomaly may have represented an old tree pull or a slight soil change and was not interpreted as a cultural feature.

In Block E, earth conductivity results identified one anomaly (Figure 18). This anomaly (Anomaly 8), centered at roughly N1006, likely represented a buried utility line associated with the apartment complex.

In Block F, magnetic susceptibility results identified three anomalies (Figure 19). Anomaly 9 was a broad area of susceptibility lows identified near the apartment complex. These susceptibility lows likely represent soil anomalies identified with apartment construction or with previous demolition in the area. Anomaly 10, a linear susceptibility high, likely represented a buried utility line associated with the apartment complex. Anomaly 11 was a series of susceptibility highs and lows that appeared to be associated with scattered buried ferrous objects. The entire area around Block F could represent a scatter of demolition or construction debris associated with unspecified historic activities.

Mechanized Trenching

A total of five trenches were excavated mechanically within the Gunston Hall Apartments project area; each mechanized trench received a discrete alphabetical designation (Figure 4). Originally planned to extend 200 ft in length, the trench running along the southern boundary of the project area was divided into two sections that were designated as Trenches A and B. The division was necessary because of a steep (4 ft) embankment that sloped abruptly from Church Street to the existing building complex; the presence of a driveway cutting through the proposed trench placement; and the existence of numerous utility lines along Church Street and the building complex. Trench C was located centrally within the apartment complex courtyard. Trench E was located at the northeastern corner of the project area and Trench F at the northwest corner.

Two additional trenches required by the original Scope-of-Work for these investigations were abandoned prior to the beginning of mechanical excavations. The relocation of Trench B 5.0 ft to the north and the presence of utility lines (gas and water) made the placement of an additional trench in this area unfeasible. Trench D, as originally planned, also was abandoned due to interference from underground utilities.

Trench A

Trench A was 6 ft in width and approximately 45 ft in length. This was one of two trenches placed along the southern border of the project area to explore for possible grave shafts associated with the Freedmen's (Contraband) Cemetery located immediately south of the project area. The trench was

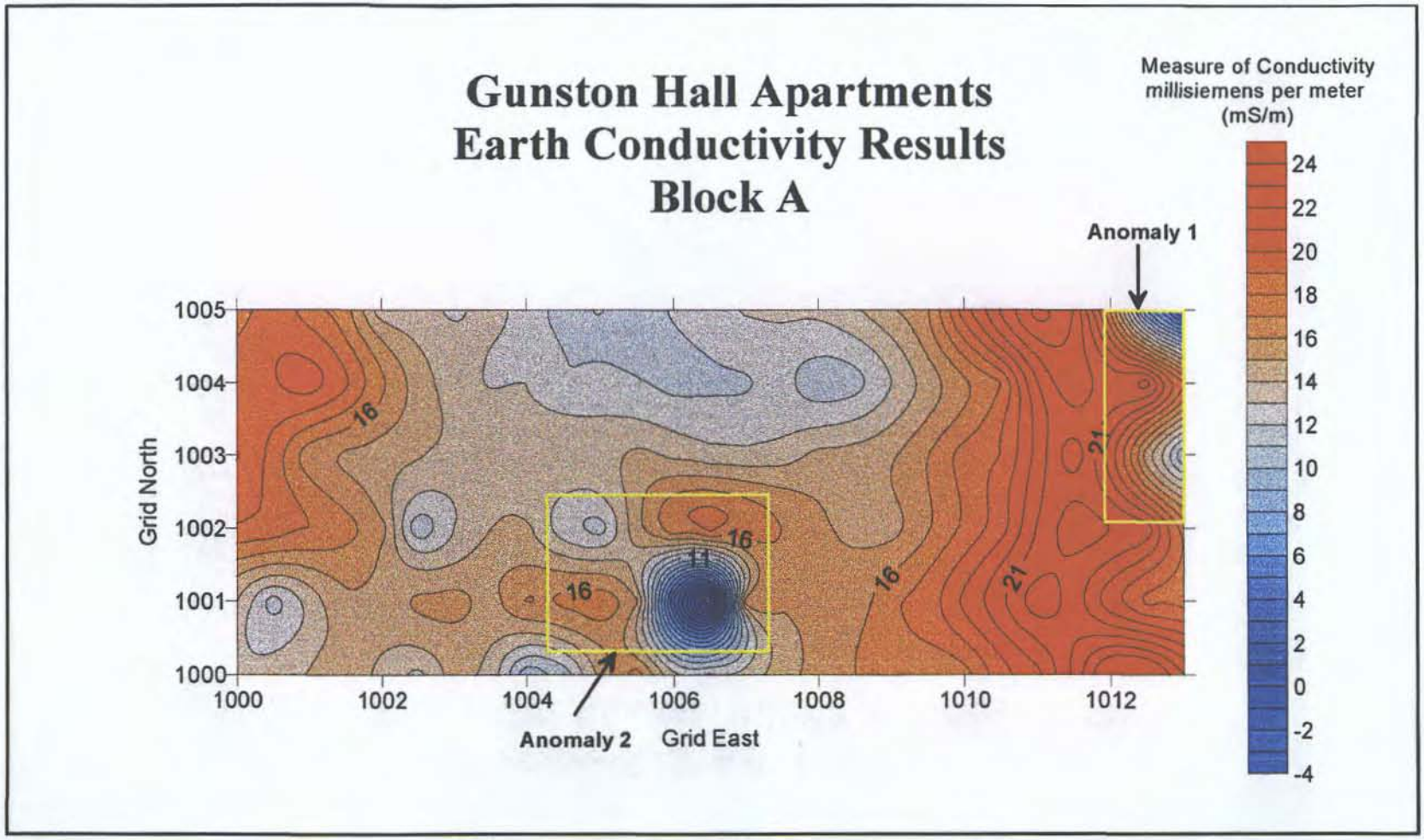


Figure 14. Earth conductivity results: Remote sensing survey, Block A.

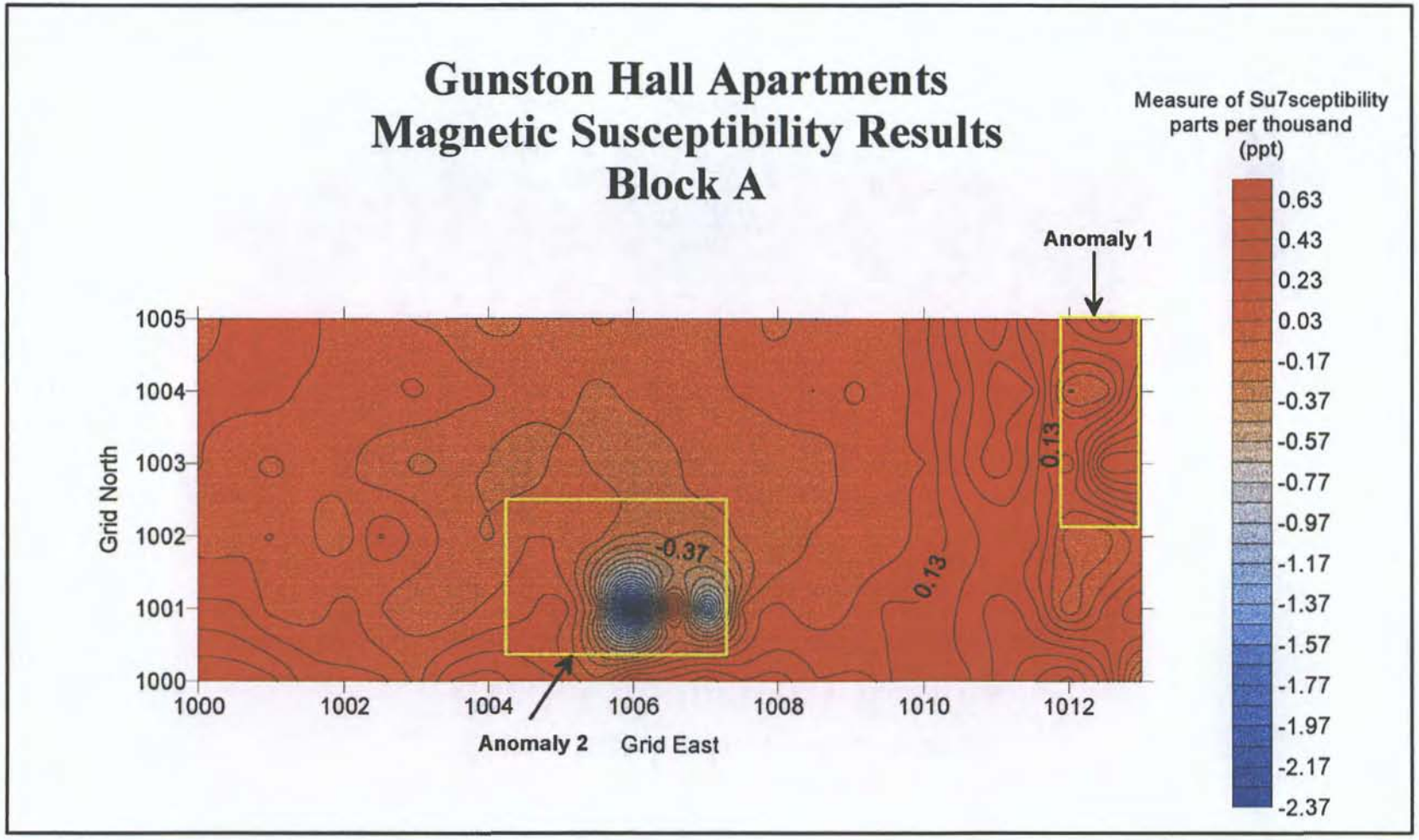


Figure 15. Magnetic susceptibility results: Remote sensing survey, Block A.

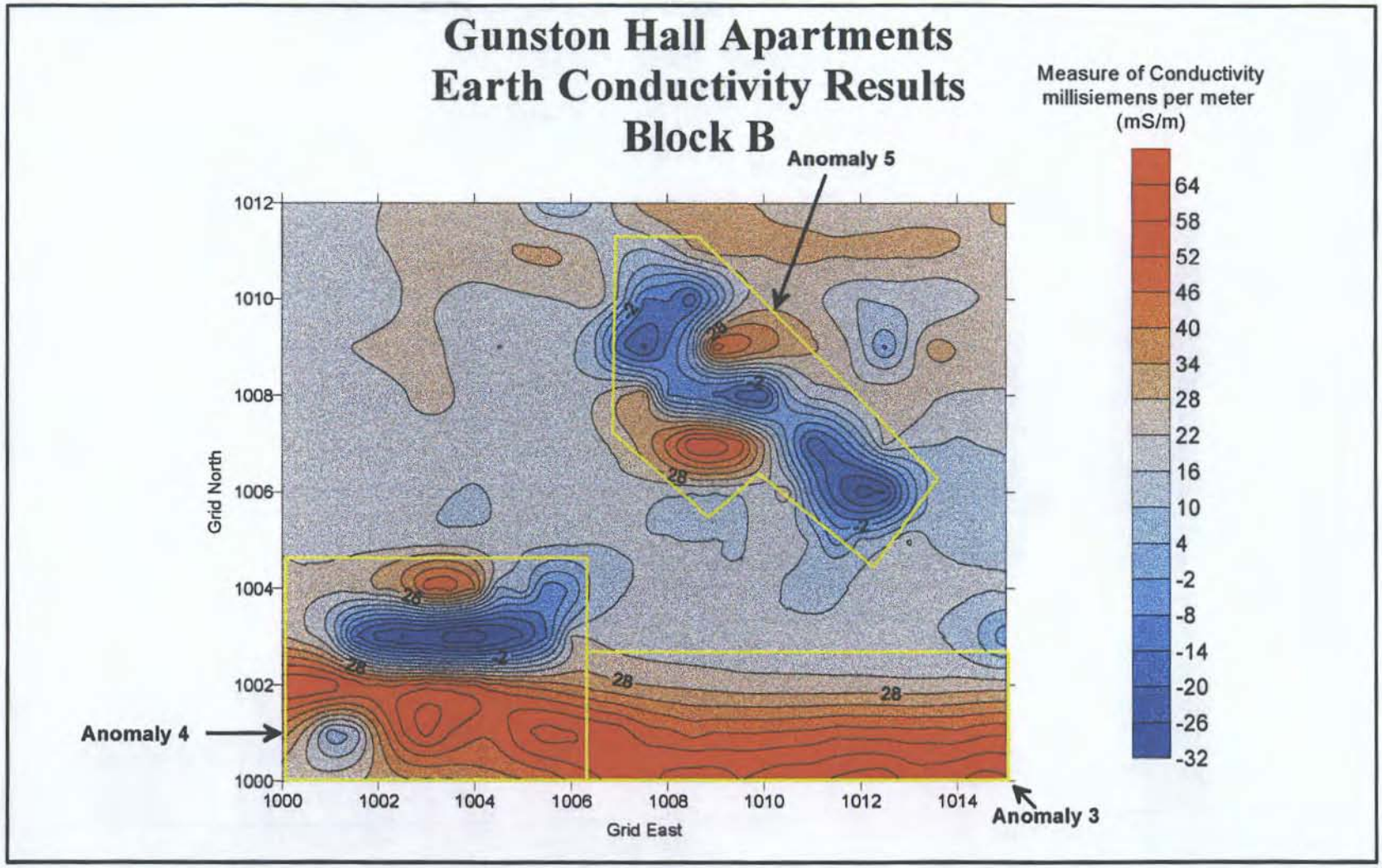


Figure 16. Earth conductivity results: Remote sensing survey, Block B.

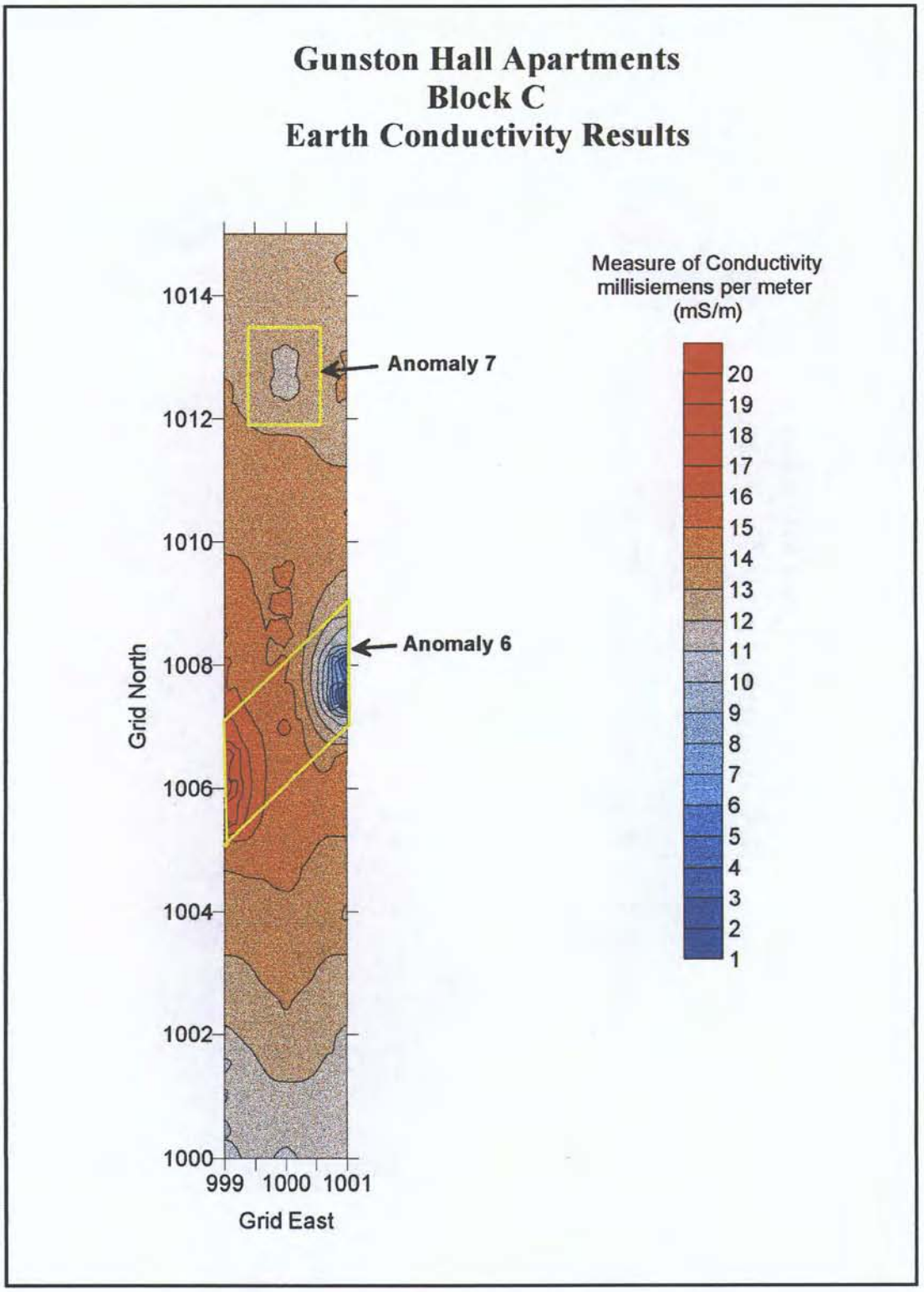


Figure 17. Earth conductivity results: Remote sensing survey, Block C.

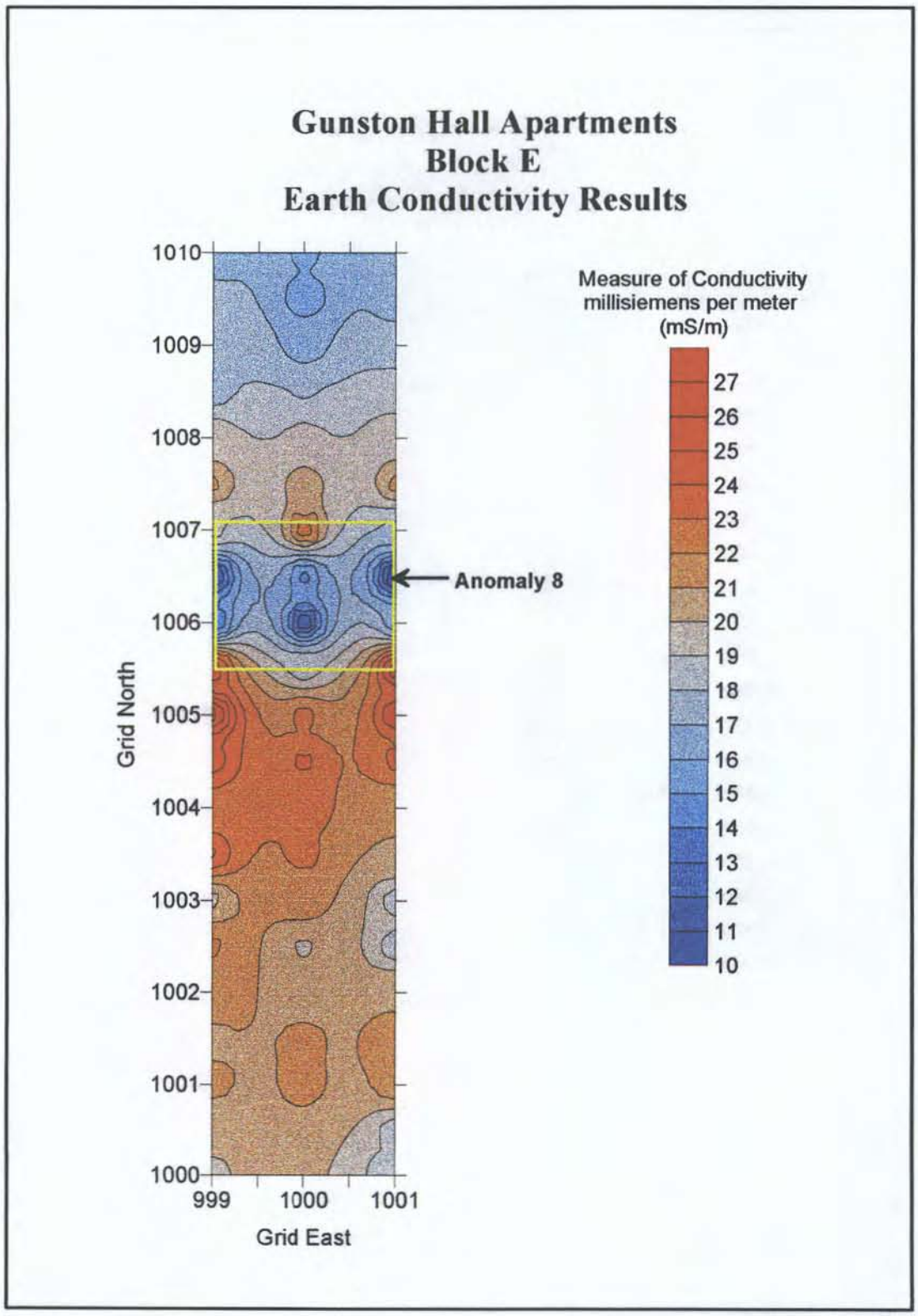


Figure 18. Earth conductivity results: Remote sensing survey, Block E.

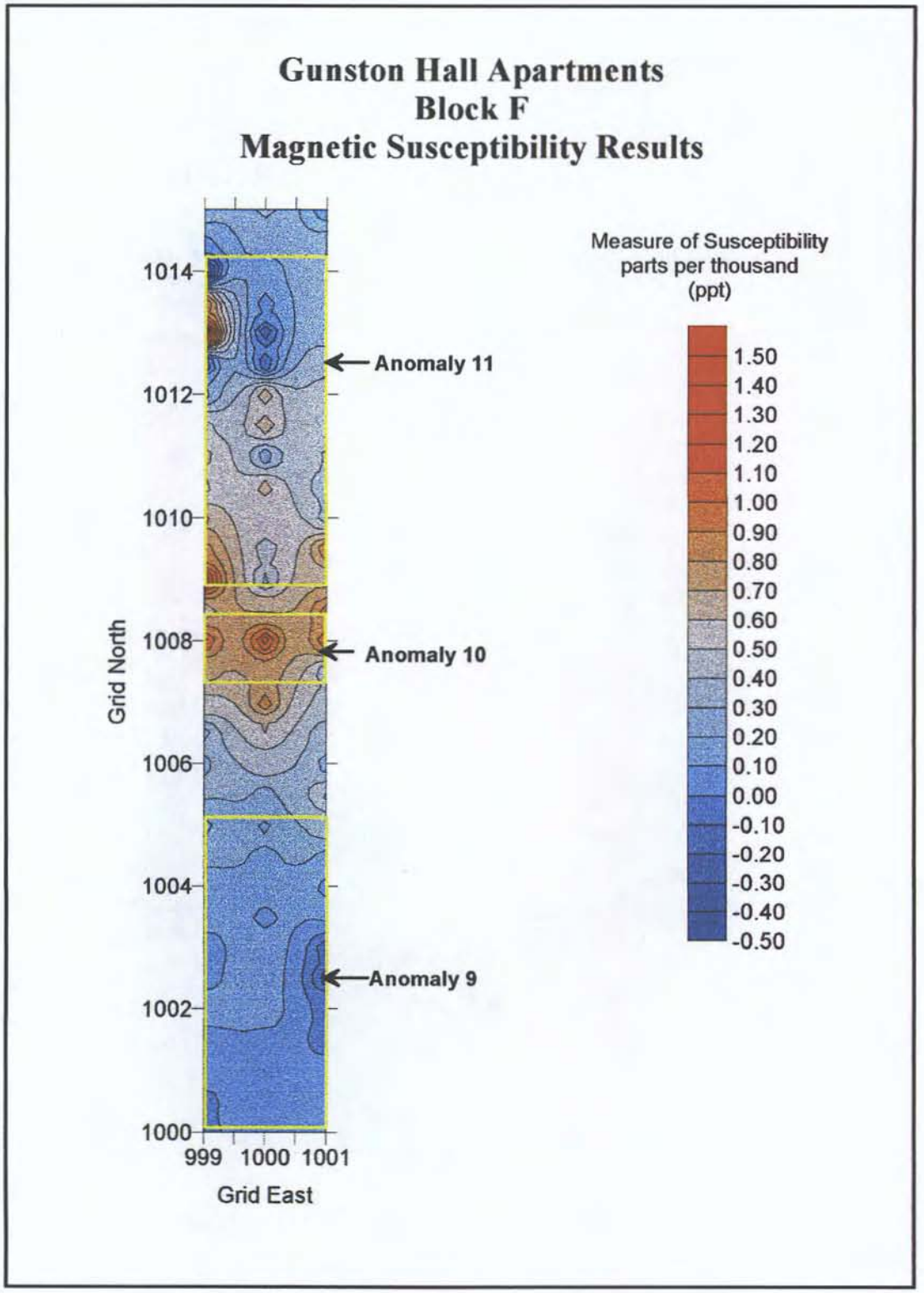


Figure 19. Magnetic susceptibility results: Remote sensing survey, Block F.

placed approximately 9 ft north of the northern curb line of Church Street. Based on observations made during the pedestrian survey of the project area and the results of previous archaeological work, this location appeared to offer the highest probability for finding rows of grave shafts similar to those exposed by Greiner and Associates in 1999 (Figure 3).

Excavation of Trench A revealed a deep deposit of disturbed soils (Figure 20). Stratum I was a shallow, loosely compacted dark brown (10YR 3/3) silty loam extending from 0 to 0.2 ft below modern ground surface (BNG). Stratum II, documented between 0.2 and 0.6 ft BNG, consisted of a moderately compacted dark brown (10YR 3/3) sandy loam mottled with 5 per cent strong brown (7.5YR 5/8) clay and approximately 60 per cent small gravel inclusions. Stratum III, which extended from a depth of 0.6 to 1.0 ft BNG, was a moderately compacted strong brown (7.5YR 5/8) clay that also contained 60 per cent small gravel inclusions. Stratum IV was a heavily compacted olive yellow (2.5Y 6/6) silty clay mottled with 2 per cent gray (10YR 5/1) and yellowish brown (10YR 5/8) silty clays; this stratum extended to a depth of 1.9 ft BNG. Stratum V comprised a yellowish brown (10YR 5/8) clay mottled with strong brown (7.5YR 5/8) and gray (10YR5/1) clays; this stratum extended from 1.9 ft BNG to a depth of more than 10.5 ft, the depth at which excavation of Trench A was discontinued. Construction debris was present in all strata; Anomaly 2 (Figures 14-15) recorded during remote sensing was determined to be a crushed steel drum buried under approximately 3 ft of fill. Late twentieth century debris such as plastic was recovered from the lowest stratum excavated.

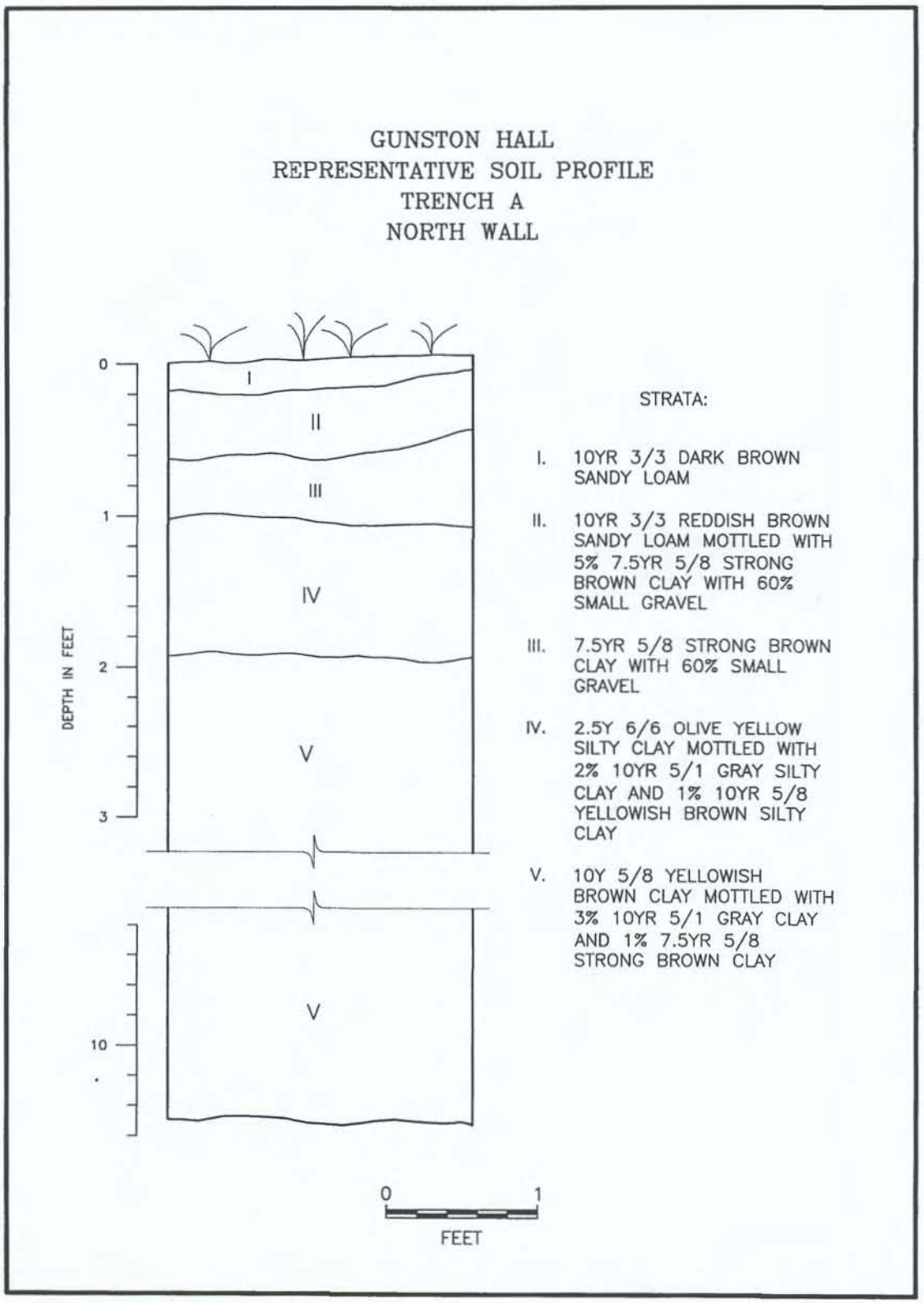
During the trench excavations, elevations were established for ground surfaces at various points within the apartment complex, so that their vertical relationship to previous studies conducted south of the current project area (Stevens et al. 1997; Bevan 1999) could be determined. Elevation readings taken from the northwest corner of South Washington Street, the highest point of our project area, to a known point adjacent to Greiner's 1999 project area indicated that the existing grade at the northeastern corner of the Freedmen's Cemetery site is between 14 and 21 in higher than that of the present project area.

Maps illustrating the results of excavations at the Freedmen's Cemetery site (Bevan 1999)(Figure 3) indicated that grave shafts had been exposed at depths of between 2.5 ft and 3.5 ft BNG. Since the elevations in previously investigated areas were higher than those within the current project area, it follows that any grave shafts present within the current project area should have been detected at relatively shallow depths, certainly no more than 2.0 ft below the existing grade. Given an average basal depth of 6 ft for the typical grave shaft, it also follows that the greatest depth at which any shaft remnant potentially might be exposed within the current project area would be 8.5 to 9.0 ft below the existing grade. Excavation of Trench A was halted at 10.5 ft, well below the depth to which any standard grave shafts would have been excavated (Figure 20). No evidence of grave shaft features was noted within Trench A.

The stratigraphy of this mechanized trench suggested that the southeastern corner of the project area had been impacted repeatedly by the construction of the George Washington Parkway (South Washington Street), the extension of Church Street, and the construction of the Gunston Hall Apartment complex. However, soil disturbances were documented to a depth of approximately 10.5 ft BNG; such deep fill levels also may reflect attempts to fill in clay borrow pits associated with one or more of the late nineteenth century brickyards in the area, although this hypothesis could not be substantiated archivally.

Trench B

Trench B comprised the western segment of the 200 ft trench that originally had been planned to extend along the entire southern perimeter of the project area. The trench was 6 ft in width and approximately 100 ft in length. The depth of the trench varied between 6.0 and 7.0 ft, and it deepened to the west due to the natural slope of the subsoil in a westerly direction.



Figures 20. Representative profile, Mechanized Trench A: North Wall.

In profile (Figures 21 A and B), Stratum I consisted of a thin (0.5 ft or less) very dark grayish brown (10YR 3/2) silty loam that yielded recent (post-1940) debris. This stratum most likely was the result of landscaping and grading activities associated with construction of the apartment complex and subsequent renovation episodes such as storm and drain line construction and/or utility installation. Stratum II was a fairly thick (>1.5 ft) mottled mixture of yellowish brown (10YR 5/8), light yellowish brown (5YR 6/4), and white (7.5YR 8/1) silty clay. This stratum also contained modern construction debris such as brick and metal fragments and wood. Both of these strata occurred uniformly across the test area.

Stratum III was a layer of yellow (10YR 7/6) silty clay thinly (1/16 in or less) laminated with extremely clean grayish brown (10YR 5/2) clay. The stratum followed the slope of the sterile sub-soils in a westerly direction, suggesting that these subsoils had been exposed at one time, possibly as a result of the operation of the brickyard. In the eastern third of the trench, Stratum III was very thick (2.5 ft or more); at the western end of the trench, it measured less than 0.5 ft in thickness. Careful examination of the Stratum III soils in the eastern portion of the trench revealed the presence of a sparse scatter of fairly small (1 in or less) brick fragments throughout the stratum. The deposits at the western end contained larger brick fragments, charcoal, metal and glass fragments, and ash. Stratum III appeared to represent recent, recurrent episodes of sheet-wash deposition of loose fill.

Stratum IV also differed between the eastern and western portions of the trench. In the eastern third of the trench, Stratum IV was a moderately thin (less than 1 ft) pinkish gray (5YR 6/2) clay; further west, this stratum changed to a yellowish brown (10YR 5/6) silty clay. Small brick fragments (less than 1/8 in) were observed sparsely scattered throughout Stratum IV. Because no clear line of demarcation between these two soil elements could be discerned, they were interpreted as a single stratum. The chromatic variation within Stratum IV apparently resulted from two factors: (1) the relatively thicker amount of deposition in Stratum IV at the western (downslope) end of the trench, and (2) the variation in the type and amount of architectural and other debris present in the overlying stratum. As noted previously, Stratum III, in the western portion of the trench, contained greater amounts of construction debris than the eastern portion; water leaching through these overlying thick deposits may have affected the chromatic values of the underlying stratum.

Stratum V was a culturally sterile subsoil that consisted of a mottled gray (10YR6/1) and strong brown (7.5YR5/6) slightly sandy clay. No cultural material was observed in or recovered from this stratum.

Feature 1, located at the eastern end of Trench B, was a circular stain approximately 19 in in diameter and 10 in deep. Bisection of this feature revealed that it represented the remains of a root-ball, most likely the result of prior landscaping within the project area. No artifacts were recovered from within the feature matrix or from the soils surrounding it.

Trench C

Trench C, located within the central courtyard of the apartment complex, was excavated to a depth of 2.5 ft below modern ground surface. Four intact strata were observed in this trench (Figure 22). Stratum I was a very dark gray silty loam approximately .5 in thick; in the southern portion of the trench, this stratum immediately overlay Stratum II, the sterile subsoil observed in the southern portion of this trench. Stratum II consisted of light gray (10YR 7/1) silty clay that was slightly mottled with strong brown (7.5YR 5/8) silty clay. Stratum IIa, observed only in the northern end of the trench, was a thin (less than 3 in) lens of yellowish brown (10YR 5/8) clay that lay immediately below Stratum II. Stratum III, a strong brown (7.5YR 5/8) silty clay, represented sterile subsoil in that portion of the trench north of the sewer line. No cultural materials were recovered from these soils and no cultural features were identified.

Remote sensing had indicated two anomalies in the trench. Excavation revealed that Anomaly 6 comprised the sewer line

mentioned above. Anomaly 7 was undetectable during excavation and indeed may have been an old tree pull or other similar feature.

This portion of the apartment complex project area apparently was impacted slightly by construction of the apartments, the placement of utility lines (cable television and sewer lines) servicing the complex, and probably by some landscaping efforts within the central courtyard.

Trench E

Trench E, located in the northeastern corner of the project area near the intersection of Green and South Washington streets, measured approximately 25 ft in length and was 3 ft wide. As with Trench C, Trench E was shallow; excavations were carried only to a depth of approximately 2 ft below the modern ground surface (Figure 23). Stratum I was a dark brown (10YR3/3) silty loam; Stratum II was a disturbed lens containing soils from Strata I and III with historic trash mixed in; and Stratum III was a yellowish brown (10YR5/6) heavy clay subsoil. Stratum III was encountered approximately 1.5 ft below the modern ground surface. Based on the refuse observed, which included paving block and concrete fragments, small metal fragments, and window glass, Stratum II appeared to be the result of construction and landscaping activities associated with the apartment complex.

Trench F

Trench F was placed in the northwestern corner of the project area, near the intersection of Greene and South Columbus streets. The trench measured approximately 55 ft in length and 3 ft in width, and was excavated to a depth of between 4.5 and 5 ft below the modern ground surface.

The soils observed in Trench F were severely disturbed, either as the result of destruction of earlier buildings, wholesale random deposition of household discards, or construction activities associated with the apartment complex. Further, the continuity of the soils across the trajectory of the trench had been interrupted by an intrusive utility line, identified as Anomaly 10 during the remote sensing phase of this study and confirmed as a buried electrical line during trench excavation.

Stratigraphy. Different profiles were observed in the northern and southern halves of Trench F (Figure 24). In the northern half of the trench, Stratum I appeared as a dark yellowish-brown (10YR 4/6) clay with coal, slag, small gravel, and brick fragment inclusions. These inclusions were distributed evenly throughout the stratum. Stratum II consisted of a disturbed reddish yellow (7.5YR 6/8) clay mottled with light gray (10YR7/1) clay; mortar and brick fragments, ash, coal, charcoal, and gravel also were intermixed within this disturbed matrix. The soils of Stratum III were the same as observed in Stratum II, but contained between 50 and 75 per cent inclusions of rust and small metal fragments. The soils in Stratum IV were the same as observed in Stratum V, an olive yellow (2.5Y 6/6) clay with 50 to 75 per cent inclusions of ash, coal, charcoal, and gravels; however, Stratum V contained no cultural material. Strata III and IV both contained high densities of construction and trash debris. Stratum VI, a mottled yellowish brown (10YR 5/8) and light gray (10YR 7/1) clay, was interpreted as sterile subsoil.

The profile at the southern portion of the trench differed slightly from that observed in the northern half. Stratum I consisted of a dark gray (10YR4/1), culturally sterile, silty loam; this stratum may represent a topsoil fill introduced for landscaping purposes following construction of the apartment complex. Stratum II was a brownish yellow (10YR 6/8) clay that was slightly mottled (30 per cent) with soils from Stratum I; no cultural material was observed in Stratum II. Stratum III was a lens of brownish yellow (10YR 6/8) clay with inclusions of brick fragments and charcoal; it appeared to be similar to Stratum III in the northern portion of the trench, and most likely resulted from soils washing downslope. Stratum IV was an olive yellow (2.5Y 6/8) clay with approximately 50 per cent inclusions of brick fragments that, with the exception of the brick fragments, coincided with Stratum V in the northern profile. The brick fragments appeared to be associated with Feature II,

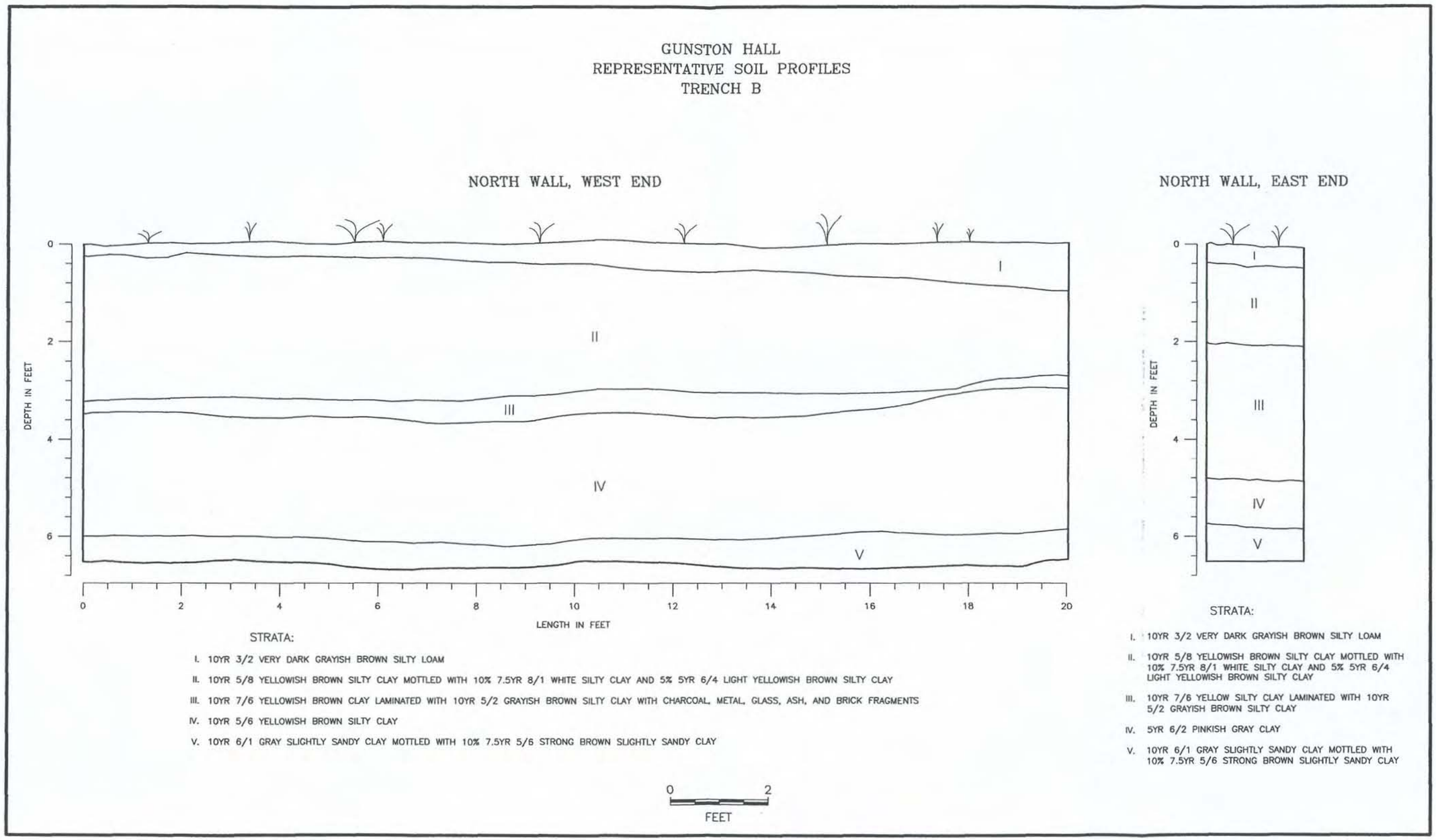


Figure 21. Representative profiles, Mechanized Trench B: North Wall, east and west end of trench.

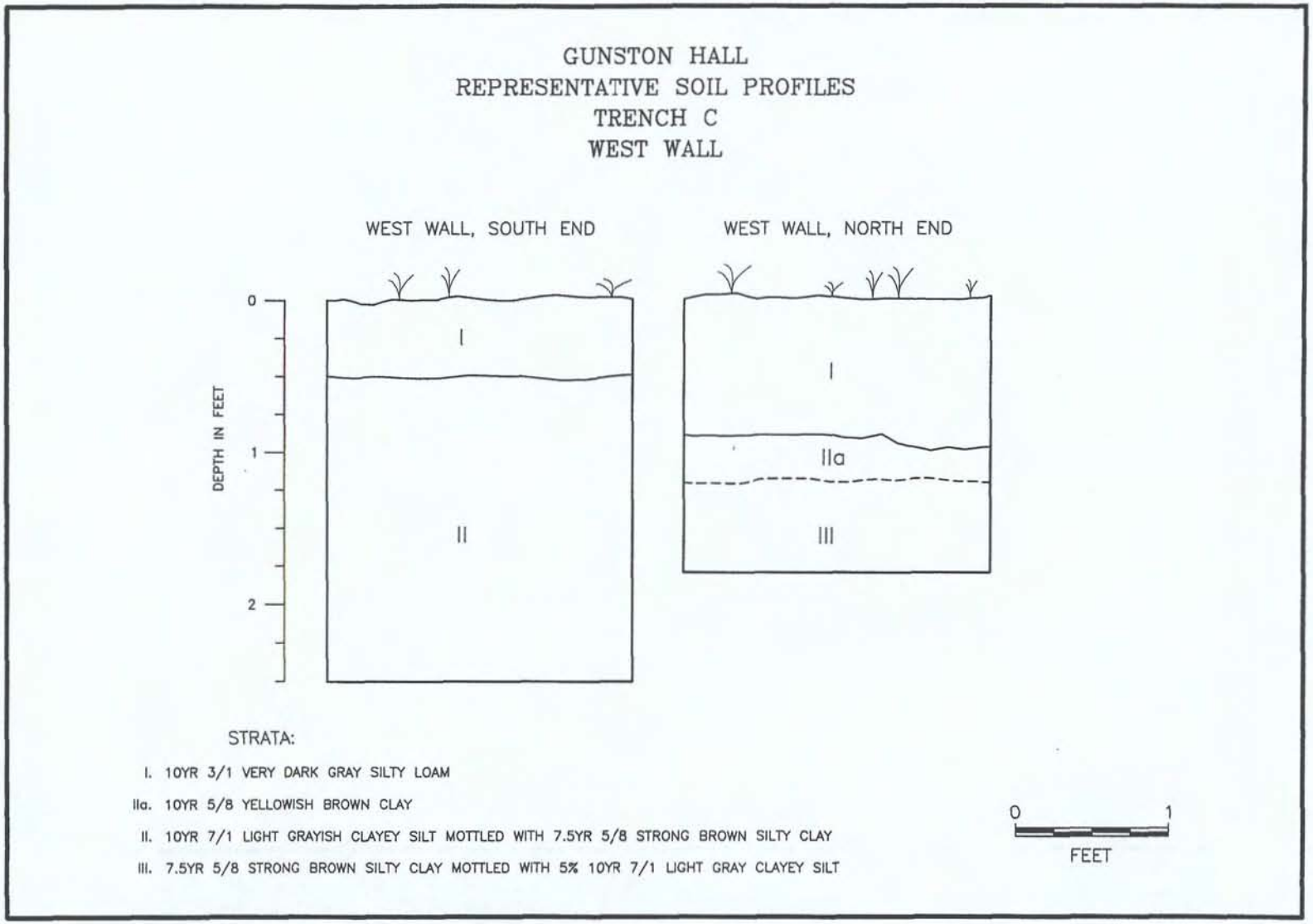


Figure 22. Representative profiles, Mechanized Trench C: West Wall, north and south ends of trench.

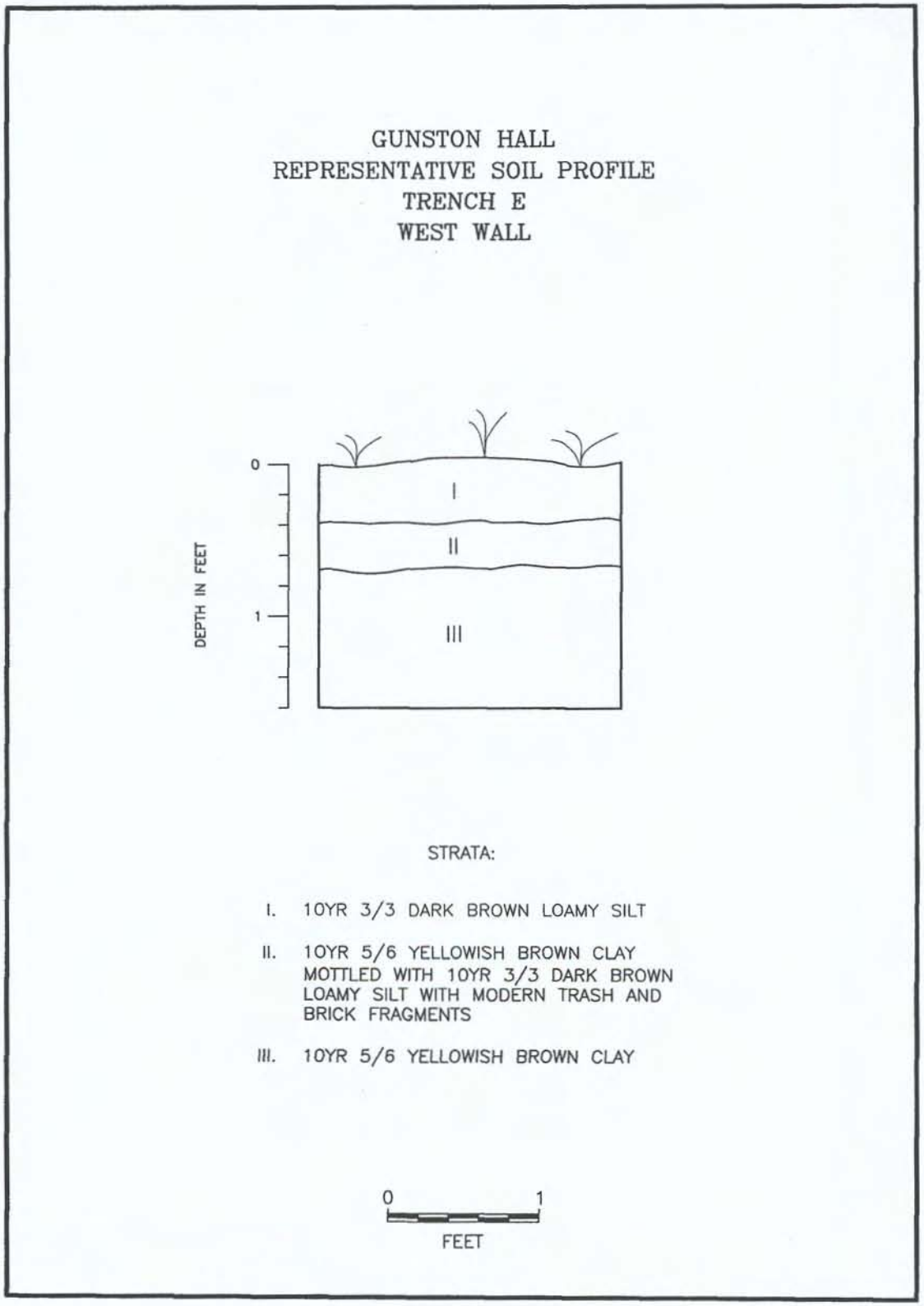
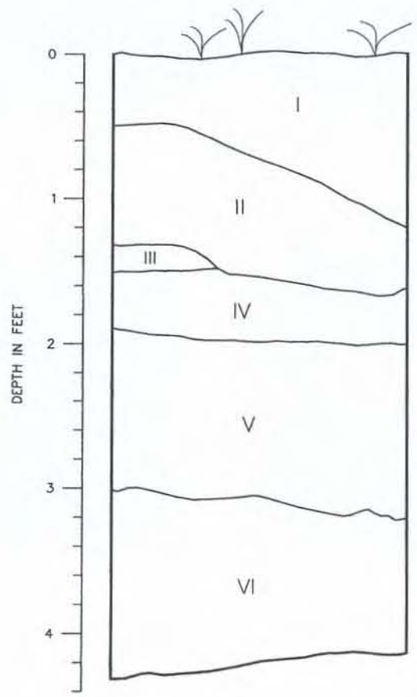


Figure 23. Representative profile, Mechanized Trench E: West Wall.

GUNSTON HALL
REPRESENTATIVE SOIL PROFILE
TRENCH F

WEST WALL – SOUTH END



STRATA:

I. 10YR 4/1 DARK GRAY SILTY LOAM

II. 10YR 6/8 BROWNISH YELLOW CLAY MOTTLED WITH 30% 10YR 4/1 DARK GRAY SILTY LOAM

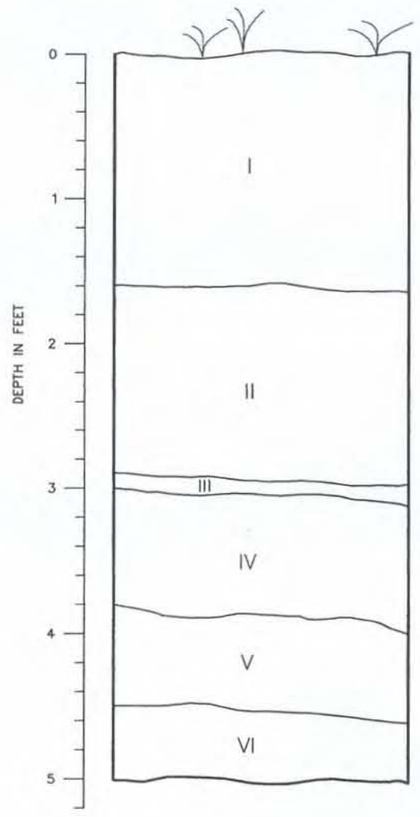
III. 10YR 6/8 BROWNISH YELLOW CLAY WITH BRICK FRAGMENTS AND CHARCOAL

IV. 2.5Y 6/8 OLIVE YELLOW CLAY WITH 50% BRICK FRAGMENTS

V. 7.5Y 6/6 REDDISH YELLOW CLAY MOTTLED WITH 10YR 7/1 LIGHT GRAY CLAY

VI. 10YR 5/8 YELLOWISH BROWN CLAY MOTTLED WITH 10YR 7/1 LIGHT GRAY CLAY

WEST WALL – NORTH END



STRATA:

I. 10YR 4/6 DARK YELLOWISH BROWN CLAY WITH COAL, COAL SLAG, BRICK FRAGMENTS, AND GRAVEL INCLUSIONS

II. 7.5YR 6/8 REDDISH YELLOW CLAY MOTTLED WITH 10YR 7/1 LIGHT GRAY CLAY AND 50% BRICK AND MORTAR FRAGMENTS

III. 7.5YR 6/8 REDDISH YELLOW CLAY MOTTLED WITH 10YR 7/1 LIGHT GRAY CLAY WITH 50–75% METAL AND RUST FRAGMENT INCLUSIONS

IV. 2.5Y 6/6 OLIVE YELLOW CLAY WITH 50–75% ASH, COAL, CHARCOAL, AND GRAVEL

V. 2.5Y 6/6 OLIVE YELLOW CLAY INCLUSIONS

VI. 10YR 5/8 YELLOWISH BROWN CLAY MOTTLED WITH 5% 10YR 7/1 LIGHT GRAY CLAY

0 1
FEET

Figure 24. Representative profiles, Mechanized Trench F: West wall, north and south end of trench.

which did not extend into the southern half of the trench. Stratum V consisted of mottled reddish yellow (7.5Y 6/6) and light gray (10YR 7/1) clays; it was similar to Stratum II in the northern half of the trench, but did not contain brick fragments. Stratum VI was composed of a mottled yellowish brown (10YR5/8) and light gray (10YR7/1) clay that comprised sterile subsoil.

Two other anomalies had been observed during remote sensing of this area (Figure 18). Anomalies 9 and 11, which had been interpreted as heavy sub-surface disturbances, in fact were found to represent disturbed areas that contained metal, brick, and glass rubble. The debris associated with Anomaly 9 was the result of the construction of the apartment complex.

Test Unit 1 was placed over Anomaly 11, designated as Feature 2, to obtain a stratified sample of temporally and functionally diagnostic artifacts from the feature. The 3 x 3 ft unit was placed along and south of the southern wall of Trench F, and was excavated to a depth of 2.8 ft below datum, which was established in the southwest corner of the unit 0.5 ft above the modern ground surface. Approximately 0.5 ft of overburden was removed mechanically before the unit was set up.

The soil profile noted within Test Unit 1 (Figure 25) differed significantly from those observed within the mechanized trench. Stratum I (Feather 2) was composed of a mottled very dark gray (10YR 3/1) and brown (10YR 4/3) loam that contained the highest density of cultural materials including ceramics, bottles, window glass, and metal fragments. Stratum II was a mottled yellowish brown (10YR5/6) and light gray (10YR7/1) clay; as a result of mixing from the feature above, the artifact density decreased dramatically in this stratum. The soils observed in Stratum III were the same as described above with approximately 30 per cent inclusions of brick fragments. Stratum IV was the subsoil observed throughout the trench. All soils that underlay the primary feature contained extremely low densities of artifacts, whose presence likely resulted from bioturbation.

Artifactual Evidence. Feature 2 was interpreted as an historic trash midden, composed primarily of domestic discards, whose contents dated from the very late nineteenth through the mid-twentieth centuries; an analysis of the contents of the midden is presented in Table 3. Functionally, analysis of the materials obtained both from the volumetric trench sample and from Test Unit 1 shows that the overwhelming class represented in the collective assemblage was that related to food preparation and service (e.g., "kitchen" in South's functional typology), including household or institutional ceramics, container and bottle glass, and table glass. However, elements of clothing, furniture, pharmaceutical products, and architectural debris also were included in the assemblage, producing a profile typical of domestic sites.

Two classes of artifacts—the ceramics and the container glass—support the temporal affiliation. While some of the ceramics recovered from this feature, particularly the whitewares, conceivably could have been produced during the mid-nineteenth century, other associated artifacts suggested a later nineteenth or early twentieth century manufacturing date. Makers' marks on ceramics included a "Homer Laughlin" registration, indicating that it dated from the late nineteenth century; Lehner's (1971) compendium of Laughlin marks indicates that the first name ("Homer") was used on company products shortly before the turn of the century, and continued thereafter. Unfortunately, not enough of this makers' mark was present to discern a more specific date. The "O.P. Co. Syracuse China" mark resembles one listed in Lehner (1971:456) as Mark #8, and identifies the maker as the Onondaga Pottery Company, a corporate designation used consistently between 1871 and 1966 (Lehner 1971:454).

All of the diagnostic container glass was manufactured by mechanized processes. Nearly all the container bases bore Owens suction scars, evidence of a manufacturing process that was not introduced until 1898. One bottle was a bit puzzling. The bottle/jar bore a British registry mark indicating

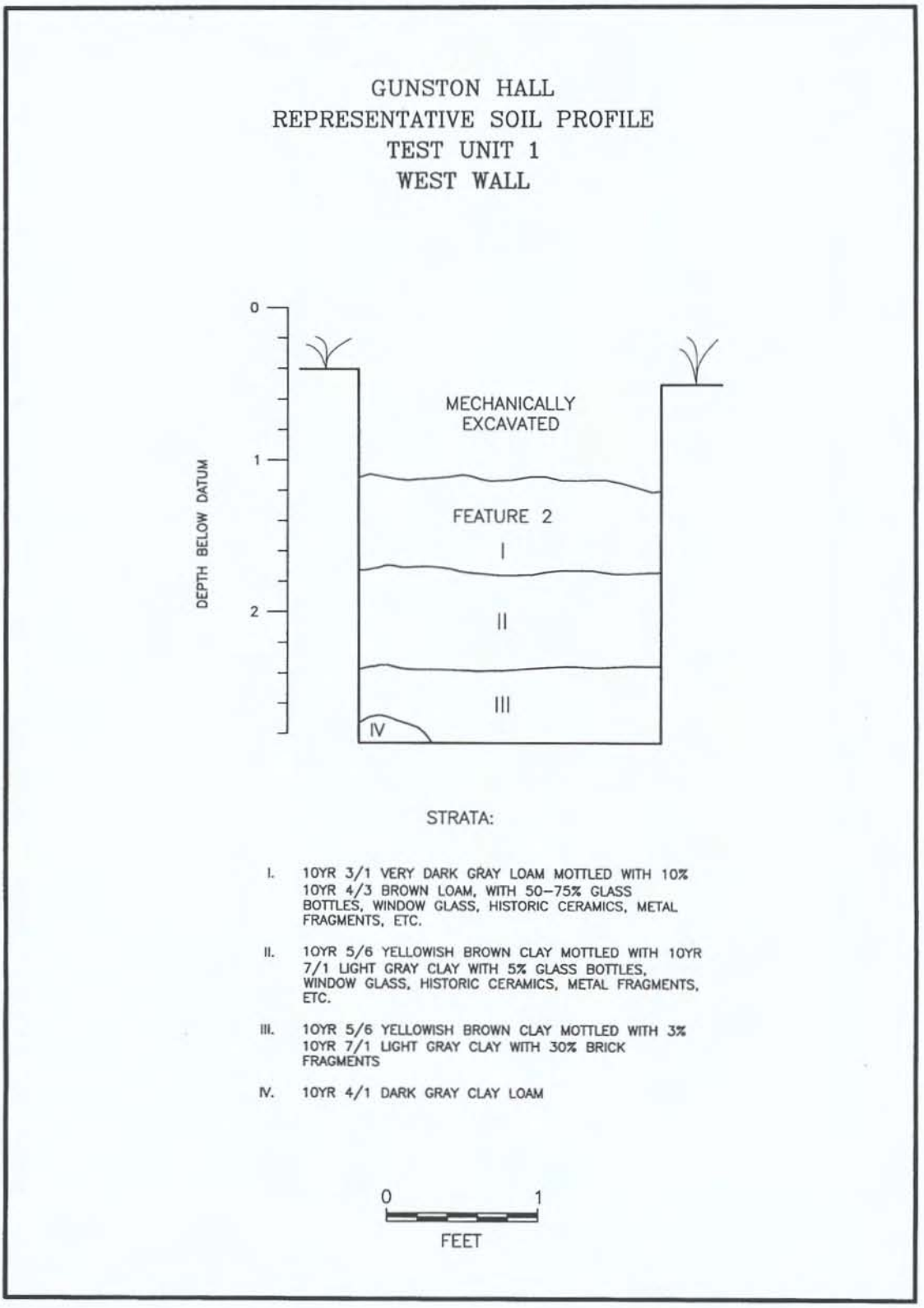


Figure 25. Test Unit 1: Profile of west wall, showing vertical position of Feature 2 (twentieth century trash midden).

Table 3A. Comparative Functional Analysis: Combined Feature 2 Sub-Assemblages (Trench F/Test Unit 1), Gunston Hall Apartments

Category	Volumetric Sample, Trench F N=32		Level 1, Test Unit 1 N=209		Level 2, Test Unit 1 N=16		Level 3, Test Unit 1 N=12		Total N=269	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Activities	---	---	1	0.5	---	---	----	---	1	0.4
Architecture	---	---	35	16.8	1	6.3	1	8.3	37	13.8
Clothing	---	---	2	0.9	---	---	---	---	2	0.7
Furniture	---	---	---	---	---	---	1	8.3	1	0.4
Kitchen	31	96.9	160	76.6	14	87.5	6	50.0	211	78.4
Miscellaneous	---	---	3	1.4	---	---	2	16.7	5	1.9
Unclassified Organic	1	3.1	8	3.8	1	6.3	2	16.7	12	4.5
Totals	**32**	**100.0**	**209**	**100.0**	**16**	**100.1**	**12**	**100.0**	**269**	**100.1**

Table 3B. Comparative Materials Analysis: Combined Feature 2 Sub-Assemblages (Trench F and Test Unit 1), Gunston Hall Apartments

Category/Type	Volumetric Sample, Trench F N=32		Level 1, Test Unit 1 N=209		Level 2, Test Unit 1 N=16		Level 3, Test Unit 1 N=12		Total N=269	
Ceramics	12	37.5	52	24.9	4	25.0	3	25.0	71	26.4
Glass	19	59.4	122	58.4	11	68.8	6	50.0	158	58.7
Metal	---	---	24	11.5	---	---	---	---	24	8.9
Manufactured	---	---	1	0.5	---	---	1	8.3	2	0.7
Biological/ Organic	1	3.1	9	4.3	1	6.3	2	16.7	13	4.8
Stone	---	---	1	0.5	---	---	---	---	1	0.4
Totals	**32**	**100.0**	**209**	**100.1**	**16**	**100.1**	**12**	**100.0**	**269**	**99.9**

manufacture prior to 1883, the last date when such marks were in use; however, it also bore an Owens suction scar. Further research revealed that the bottle in question was manufactured for the Durkee Spice Company, whose registry mark was used on all salad dressing bottles as a basal identification. The mark remained in use on all bottles made for the company, and does not reflect the true date of manufacture (Toulouse 1971). Other proprietary marks noted on the bottle/container glass from this midden included those of the Portner Brewery, Alexandria's largest late nineteenth-early twentieth century brewery; the Davis Baking Powder Company; "Vicks" pharmaceutical; the "Hauck" company of Cincinnati, Ohio; and "Lemon-Kola," probably representing a soft drink whose name is reminiscent of other brands produced during the 1920s.

Feature 2 (Anomaly 11) was an historic trash midden that was not associated directly with any intact or remnant structural components such as foundations. The dissimilar profiles observed over the length of Trench F and in Test Unit 1, appeared to reflect different formation processes, quite possibly sequential and intermittent episodes of trash disposal. Soils in the southern portion had been disturbed by construction of the apartment complex, while those in the northern half, downslope from Feature 2, had been impacted by the formation of that feature. The stratigraphy below and immediately adjacent to Feature 2 was formed as a result of the remnant cultural materials (rust, ash, coal slag, etc.) that percolated and leached through the soils surrounding the feature. Although coal slag was observed and some of the bottles had been burnt, no charcoal was identified within the feature matrix, an observation that suggested that the midden material represented a generalized, secondary trash deposit, rather than debris resulting directly from an on-site destruction episode. The artifacts recovered from the feature, particularly the bottles, confirmed that the dumping episodes occurred after the beginning of the twentieth century. The contents of the midden represented primarily domestic trash that had been deposited along with architectural materials, and did not reflect industrial processes associated with the operation of the brickyard.

Conclusion

The Phase I archeological investigations at the Gunston Hall Apartment property had two objectives: (1) the identification of any potential archeological remains associated with the Freedman (Contraband) cemetery along the extreme southern perimeter of the project area; and (2) the identification of structural remains or features associated with the O'Neal and Corbett brickyard that occupied the project area during the last quarter of the nineteenth century.

Freedmen's (Contraband) Cemetery

Archival research repeatedly confirmed that the northern boundary of the Freedmen's Cemetery was located along what is now the southern curb line of Church Street; the historic metes and bounds of the project parcel (Table 1) and extant maps consistently located the northern boundary of the cemetery as the southern boundary of the adjacent property to the north.

Excavations along the southern boundary of the Gunston Hall Apartments project area revealed that the soils in that area had been severely and deeply disturbed, at least in part by road and building construction activities within and adjacent to the project area. Soils in the southeastern quadrant of the apartment complex property had been disturbed to a depth of over 10 ft BNG, as evidenced by the presence of modern debris, such as plastic, amber brown bottle glass, and nails at that elevation. Soils in the southwestern quadrant of the apartment also were severely disturbed, although not as deeply. Modern construction debris, including brick and metal fragments, was observed to depths of approximately 6.5 ft below modern ground surface. The presence of such deeply disturbed soils suggests that, had any of the Freedmen's Cemetery grave shafts extended north of the northern boundary of the cemetery shown on nineteenth and twentieth century maps, they would have been impacted heavily and/or destroyed by later nineteenth and twentieth century construction activities.

No evidence of grave shafts or human remains was noted within the limits of either Trench A or Trench B.

O'Neal and Corbett Brickyard

Documentary research indicated that the entire Gunston Hall Apartments project block was occupied by the Tucker and Lucas/O'Neal and Corbett/Corbett and Yohe brickyard beginning no earlier than 1868 and extending no later than 1915, with cessation of brickmaking activities possible as early as 1906 (Table 1). Research into brickmaking technology and the brickmaking industry in Alexandria suggested that this brickyard probably utilized processes typical of the antebellum period, and did not substantially upgrade its facilities as innovations in brickmaking technology were advanced. Visual portrayals of typical brickyard facilities of the last half of the nineteenth century (Figure 11)(*Scientific American* 1886) suggest that structural or landscape features associated with such operations probably would have been fairly insubstantial, except for the borrow pits from which clays were extracted. Indeed, the G. M. Hopkins map of Alexandria (1878)(Figure 8) shows only two frame structures within the project block itself, and what appears to be a small domestic property or perhaps the brickyard office on its extreme northeastern corner.

Trenches C, D and E, excavated in the central and northeastern portions of the project area to identify remains of the brickyard complex, indicated that these areas had been slightly to moderately impacted by trash disposal, the installation of various utility and cable television lines, and, to a lesser extent, by the construction of the apartment complex itself. Subsoil in all these locations was fairly shallow (1.5 to 2.0 ft below ground surface) and intact.

Historic debris observed in Trench E was minimal and was altogether absent in Trench C. The debris midden in Trench E did not intrude into the subsoil, but rested on a thin A horizon lens immediately above the subsoil itself.

Trench F in the northwestern quadrant of the project area demonstrated that this portion of the apartment complex property had been impacted moderately by construction of the apartment complex, recurrent deposit of trash, and placement of utility lines. A north-south electrical main was exposed approximately in the center of this trench. One or more deposits of brick rubble, metal fragments, bottles and bottle glass, wood, and modern nails were observed throughout the length of Trench F to a depth of 5 ft in some places. The bricks within this rubble field appeared to be of twentieth century vintage, and did not appear to be related to either the structures or activities of the O'Neal and Corbett brickyard. The recovered artifact assemblage contained primarily artifacts relating to food preparation and service, and was not consistent with industrial processes. None of the trenches excavated in the northern half of the property revealed the presence of intact structural remains of any type.

Given the high degree of disturbance in portions of the project area and the relatively shallow nature of the subsoils in others, there is little potential for the existence of significant archeological remains within the northern half of the project area.

CHAPTER V

SUMMARY AND MANAGEMENT RECOMMENDATIONS

This report has presented the results of a Phase I Archival and Archeological Study of the Gunston Hall Apartments in Alexandria, Virginia. The project area, which is bounded by Washington, Church, Columbus, and Green streets, encompasses an area of approximately 2.3 ac (99,000 sq ft); the eight semi-detached apartment units in the complex, constructed ca. 1940, are ranged around a central landscaped courtyard. The study was undertaken during December 2000, by R. Christopher Goodwin & Associates, Inc., on behalf of Gunston Hall Realty, Inc., of Springfield, Virginia, to obtain preliminary clearance from the City of Alexandria for possible redevelopment of the property. All components of the study were performed to standards established in the Secretary of Interior's *Standards and Guidelines for Archeology and Historic Preservation*; the *Guidelines for Archaeological Investigations In Virginia* (Virginia Department of Historic Resources [VDHR] 1996); and the archeological permit issued by the City of Alexandria, Virginia.

The Gunston Hall Apartments study was designed to identify potential archeological remains associated with the historic Civil War era Freedmen's (Contraband) cemetery, located in the block immediately south of the project parcel, and structural remains associated with a historic brickyard that occupied the project block between ca. 1868 and 1915. These objectives were met principally through archival research, mechanized and manual sub-surface testing of specific portions of the project area, and laboratory analysis. Both the research design and the field strategies used were generated by and coordinated with the City of Alexandria's professional archeological staff (Alexandria Archaeology).

Mechanical excavation of two trenches along the southern boundary of the project area revealed that the soils in the southeastern and southwestern quadrants of the project block had been recently disturbed to a depth of between 6.5 and 10 ft below the present grade. Elements of modern trash and construction debris were recovered or observed down to those levels. The presence of soil disturbance to such great depths indicated that any grave shafts that might have been present north of the northern boundary of the cemetery would have been impacted heavily and/or destroyed by subsequent twentieth century construction activities.

Excavation of three mechanized trenches and one test unit (Trenches C, E, and F; Test Unit 1) in the central and northeastern portions of the project area revealed that these areas also had been lightly to moderately impacted by the placement of utility and cable television lines, construction of the apartment complex, and episodes of twentieth century trash disposal. Feature 2 was identified as a twentieth century sheet midden composed of domestic and architectural materials in a clay matrix containing ashes, coal, rust, and coal slag. None of the artifacts from this midden were characteristic of nineteenth century brickmaking technology, nor were any intact structural features (e.g. foundation walls,

posthole patterns, pits, or burned earth surfaces characteristic of the brickmaking industry) noted within the northern half of the project block.

Recommendations

Given the high degree of disturbance in most portions of the project area and the shallow depth to subsoil in others, there appears to be little potential for significant archaeological remains within the Gunston Hall Apartments project area. **Therefore, *except for the reservation cited below*, no further archeological work is warranted or recommended within those portions of the project area that were investigated during this study.**

There remain concerns that partial grave shafts from the Freedmen's Cemetery still may be present within a small (ca. 75 ft) strip of the property along Church Street that was not investigated during 2000 due to the presence of various utility lines. To allay these concerns, **it is recommended that additional archeological work be conducted within this restricted, uninvestigated space along Church Street. These additional investigations should be implemented during the early planning stages of property re-development and site design, but after the current apartment residents have vacated the property and utility service into the complex is no longer active.**

This additional investigation was conducted in 2003 and is included as an appendix, herein. This additional investigation did not identify any significant cultural resources; therefore, no further archeological investigation is warranted for the proposed Gunston Hall Apartments development.

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The resources available at several repositories were utilized while conducting the archival research for this project. Goodwin & Associates, Inc., wishes to thank the staffs of Alexandria Archaeology; the Fairfax County Judicial Archives; the Geography and Map and Microform Divisions of the Library of Congress; the City of Alexandria Clerk of Court Office; and the Virginia Room of the Fairfax County Public Library for guiding us to the appropriate resources.

Christopher R. Polglase, M.A., ABD, served as the Principal Investigator for this project, and supervised all aspects of the work. Mrs. Martha R. Williams, M.A., M.Ed. managed the overall project and completed the archival background study. David Soldo, M.A., served as Field Director and Assistant Project Manager; he was assisted in the field by Christian Davenport, M.A., Kristin Bastis, B.A., Brad Burkholder, B.A., and Darlene Hassler, B.A. Andrew Madsen, M.A., and Jennifer Bornemann, B.A., supervised the artifact analysis and cataloguing. David Olney, B.A., prepared the maps and figures for the report, and Sharon Little produced it.

APPENDIX I

ARTIFACT INVENTORY

Artifact Inventory

02/13/2001

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
Gunston Apts. Ph. I 44AXX								
	FS 1	**Block A**			**Strat V**			**1.9 to 4.4 ftbs**
HISTORICS	Clothing	Metal	Metal Clothing	Brass Button		1		one part domed button with wire eye shank
	Kitchen	Ceramic	Unidentified Ceramic	Unidentified Stoneware		1		hollowware
	Kitchen	Ceramic	Whiteware	Other		1		hollowware; rim; molded pattern on exterior of rim, 1820-PRESENT
					Total Count= 3		**Total Weight=**	

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
Gunston Apts. Ph. I 44AXX								
	FS 2	Block F		Feature 02	Level 1		1.9 to 2 ftbd	Gener
HISTORICS	Kitchen	Ceramic	Ironstone	Hand-Painted		1		hollowware; exterior gray/green motif, POST 1813
	Kitchen	Ceramic	Ironstone	Molded		1		hollowware; soap dish fragment, 1813-PRESENT
	Kitchen	Ceramic	Ironstone	White Undecorated		1		hollowware, 1850-PRESENT
	Kitchen	Ceramic	Ironstone	White Undecorated		1		hollowware; rim; molded fluting on exterior, 1850-PRESENT
	Kitchen	Ceramic	Later Porcelain Type	Decal Porcelain, Hard		1		indeterminate form; rim; floral decal, POST 1880
	Kitchen	Ceramic	Later Porcelain Type	Transfer-Printed Porcelain, Hard		1		hollowware; exterior floral motif; blue flow
	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard		1		hollowware
	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard		1		hollowware; foot fragment
	Kitchen	Ceramic	Later Porcelain Type	Underglaze Hand-Painted, Hard		1		hollowware; poss. bowl fragment
	Kitchen	Ceramic	Whiteware	Flow Blue		1		plate; rim with gilded swags at edge, 1820-1870
	Kitchen	Ceramic	Whiteware	Other		1		flatware; rim; interior molded pattern at edge of rim, 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown		1		indeterminate form; partial black globe transfer print, 1820-PRESENT
	Kitchen	Glass	Crown Cap	Clear		1		1892-PRESENT
	Kitchen	Glass	Machine Made Base	Aqua		1		base, 1898-PRESENT
	Kitchen	Glass	Machine Made Base	Aqua		1		1898-PRESENT
	Kitchen	Glass	Machine Made Base	Clear		2		1898-PRESENT

Artifact Inventory

02/13/2001

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
Gunston Apts. Ph. I 44AXX								
HISTORICS	Kitchen	Glass	Machine Made Bottle	Clear		1		complete bottle with Owen's suction scar on base; raised, molded numeral "8", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		complete bottle, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		complete bottle; patent lip, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		complete bottle; wide mouth; raised, molded screw cap bead, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		complete six faceted shaped bottle with raised, molded screw cap bead, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		Owen's suction scar on base; raised, molded letters, "12", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		complete bottle; "E.R. DURKEE & CO NEW YORK"; registry mark on base, 1882, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		complete bottle; raised, molded letters, "3 FLUID OUNCES", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		raised, molded letters, "REGISTERED LEMON-KOLA 5¢", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Cobalt Blue		1		complete Vick's bottle; raised, molded screw cap bead, 1898-PRESENT
	Kitchen	Glass	Patent and Prescription Lip	Aqua		1		complete bottle; raised, molded numeral, "11" on base, POST 1880s
	Kitchen	Glass	Unidentified Bottle Glass	Aqua		1		prob. machine made

Artifact Inventory

02/13/2001

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
Gunston Apts. Ph. I 44AXX								
HISTORICS	Kitchen	Glass	Unidentified Fragment	Clear		1		poss. inkwell piece
	Kitchen	Glass	Unidentified Fragment	Milk Glass		1		
ORGANICS	Organics	Shell	Unburnt	Unworked		1	51.82	
					Total Count= 32			**Total Weight= 51.82**

Gunston Apts. Ph. I 44AXX

FS 3 Block F Unit 01 N 998.2 E 1000.7 Feature 02 Level 1 1.9 to 2 ftbd

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
HISTORICS	Activities	Glass	Miscellaneous	Unidentified		1		poss. glass tube/fuse fragment
	Architecture	Glass	Architectural Element	Window Glass		12		
	Architecture	Manufactured	Brick	Fragment		1		
	Architecture	Metal	Construction Hardware	Spike		4		
	Architecture	Metal	Unidentified	Nail		18		
	Clothing	Biological	Bone/Leather Clothing	Shoe Leather		1		
	Clothing	Ceramic	Ceramic Clothing	Porcelain Button		1		one part; two holes
	Kitchen	Ceramic	Ironstone	Molded		1		flatware; rim; poss. platter, 1813-PRESENT
	Kitchen	Ceramic	Ironstone	Molded		1		indeterminate form; molded curvilinear motif, 1813-PRESENT
	Kitchen	Ceramic	Ironstone	Molded		1		hollowware, 1813-PRESENT
	Kitchen	Ceramic	Ironstone	Transfer-Printed		1		indeterminate form; partial mark on base, "...OS", POST 1813
	Kitchen	Ceramic	Ironstone	White Undecorated		2		hollowware; rim, 1850-PRESENT
	Kitchen	Ceramic	Ironstone	White Undecorated		1		flatware; base, 1850-PRESENT
	Kitchen	Ceramic	Later Porcelain Type	Molded, Hard		1		plate; rim
	Kitchen	Ceramic	Later Porcelain Type	Molded, Hard		1		indeterminate form; rim; poss. saucer
	Kitchen	Ceramic	Later Porcelain Type	Molded, Hard		1		hollowware; exterior textured pattern
	Kitchen	Ceramic	Later Porcelain Type	Molded, Hard		1		hollowware; closed form

Gunston Apts. Ph. I 44AXX

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
HISTORICS	Kitchen	Ceramic	Later Porcelain Type	Overglaze Porcelain, Hard		1		indeterminate form; rim; green overglaze band; thin gilt band at edge of rim
	Kitchen	Ceramic	Later Porcelain Type	Transfer-Printed Porcelain, Hard		1		flatware; base; maker's mark on base, "O.P. Co. SYRACUSE CHINA"
	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard		1		hollowware
	Kitchen	Ceramic	Whiteware	Decal		2		indeterminate form; floral decal, 1880-PRESENT
	Kitchen	Ceramic	Whiteware	Decal		2		hollowware; mends; gilded; molded pattern on interior of rim, 1880-PRESENT
	Kitchen	Ceramic	Whiteware	Decal		1		flatware; base; green foliate decal, 1880-PRESENT
	Kitchen	Ceramic	Whiteware	Decal		1		hollowware; floral decal, 1880-PRESENT
	Kitchen	Ceramic	Whiteware	Flow Blue		1		plate; rim; gilded edge; molded curvilinear decoration, 1820-1870
	Kitchen	Ceramic	Whiteware	Gilt-Edged/Gilt		1		indeterminate form; gilded floral motif, (POST 1820)
	Kitchen	Ceramic	Whiteware	Other		5		indeterminate form; rim; molded pattern on interior, 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Other		1		indeterminate form; molded pattern on interior, 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Other		1		indeterminate form; rim; molded pattern on interior, 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Other		1		cup; rim; molded exterior, 1820-PRESENT

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
Gunston Apts. Ph. I 44AXX								
HISTORICS	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown		1		hollowware; exterior floral transfer print, 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown		2		hollowware; base; mends; partial black mark on base, "...D", 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Transfer-Printed, Blue/Black/Brown		1		hollowware; exterior blue print, 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Transfer-Printed, Red/Green/Purple		1		indeterminate form; partial maker's mark, "..ER LAUGHLIN", 1828-PRESENT
	Kitchen	Ceramic	Whiteware	Undecorated		9		indeterminate form, 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Undecorated		1		plate; base, 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Undecorated		2		hollowware; base; molded, 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Undecorated		1		indeterminate form; rim, 1820-PRESENT
	Kitchen	Ceramic	Whiteware	Undecorated		1		flatware; base; poss. saucer base, 1820-PRESENT
	Kitchen	Ceramic	Yellow Ware	Rockingham/Bennington		2		hollowware, 1830-1900
	Kitchen	Glass	Crown Cap	Clear		1		1892-PRESENT
	Kitchen	Glass	Crown Cap	Light Green		1		1892-PRESENT
	Kitchen	Glass	Lid Liner	Milk Glass		4		POST 1869
	Kitchen	Glass	Machine Made Base	Amber		1		1898-PRESENT
	Kitchen	Glass	Machine Made Base	Clear		4		1898-PRESENT
	Kitchen	Glass	Machine Made Base	Clear		1		Owen's suction scar, 1898-PRESENT
	Kitchen	Glass	Machine Made Base	Clear		1		Owen's suction scar on base; panel bottle, 1898-PRESENT

Gunston Apts. Ph. I 44AXX

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
HISTORICS	Kitchen	Glass	Machine Made Base	Clear		1		raised, molded number "9" on base, 1898-PRESENT
	Kitchen	Glass	Machine Made Base	Cobalt Blue		1		1898-PRESENT
	Kitchen	Glass	Machine Made Base	Light Green		1		1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Amber		1		raised, molded letters, "...QU...", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Amber		10		1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Amber		1		raised, molded letters, "HAUCK CIN. O."; Owen's suction scar on base; complete bottle, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Aqua		1		raised, molded letters, "...RFEG...", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Aqua		1		raised, molded letters, "...ORTNER C Co VOLI RIA VA", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		raised, molded letter "M", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		molded curvilinear pattern, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		3		mold seam, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		raised, molded letters, "...K VA...", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		raised, molded letters,"...IS...", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		raised, molded letters, "VA.", 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		partially intact paper label, 1898-PRESENT

Artifact Inventory

02/13/2001

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
Gunston Apts. Ph. I 44AXX								
HISTORICS	Kitchen	Glass	Machine Made Bottle	Clear		1		complete bottle; wide-mouth; Owen's suction scar on base, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		complete bottle; raised, molded letters, "BAKING POWDER DAVIS OK"; Owen's suction scar, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Clear		1		complete bottle, 1898-PRESENT
	Kitchen	Glass	Machine Made Bottle	Light Green		1		1898-PRESENT
	Kitchen	Glass	Machine Made Jar/Container	Aqua		1		raised, molded screw cap bead, 1881-PRESENT
	Kitchen	Glass	Machine Made Jar/Container	Milk Glass		1		raised, molded screw cap bead; complete ointment/cosmetic vessel, 1881-PRESENT
	Kitchen	Glass	Machine Made Jar/Container	Milk Glass		4		prob. container, 1881-PRESENT
	Kitchen	Glass	Machine Made Lip	Clear		1		1898-PRESENT
	Kitchen	Glass	Patent and Prescription Lip	Clear		2		POST 1880s
	Kitchen	Glass	Table Glassware	Clear		2		base; drinking glass
	Kitchen	Glass	Table Glassware	Clear		2		mends; molded geometric pattern; poss. bowl
	Kitchen	Glass	Table Glassware	Clear		2		drinking glass fragments; milled design bands
	Kitchen	Glass	Table Glassware	Milk Glass		2		molded; poss. vase fragment
	Kitchen	Glass	Unidentified Bottle Glass	Aqua		9		prob. machine made
	Kitchen	Glass	Unidentified Bottle Glass	Clear		28		prob. machine made
	Kitchen	Glass	Unidentified Bottle Glass	Green		1		prob. machine made
	Kitchen	Glass	Unidentified Bottle Glass	Light Green		8		prob. machine made
	Kitchen	Glass	Unidentified Bottle Glass	Solarized		2		prob. machine made

Artifact Inventory

02/13/2001

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
Gunston Apts. Ph. I 44AXX								
HISTORICS	Kitchen	Metal	Miscellaneous	Can		1		with paint adhering on interior
	Miscellaneous	Glass	Unidentified Glass	Melted		1		
	Miscellaneous	Metal	Unidentified Object	Slag		1		
	Miscellaneous	Stone	Miscellaneous Stone	Coal		1		
ORGANICS	Organics	Bone	Unburnt	Unworked		3	12.89	
	Organics	Shell	Burnt	Unworked		1	2.01	
	Organics	Shell	Unburnt	Unworked		4	95.64	
						Total Count= 209		**Total Weight= 110.54**
	FS 4	**Block F**	**Unit 01**	**N 998.2**	**E 1000.7**	**Feature 02**	**Level 2**	**2 to 2.5 ftbd**
HISTORICS	Architecture	Glass	Architectural Element	Window Glass		1		
	Kitchen	Ceramic	Ironstone	White Undecorated		3		flatware; base; mends, 1850-PRESENT
	Kitchen	Ceramic	Whiteware	Undecorated		1		hollowware; base, 1820-PRESENT
	Kitchen	Glass	Machine Made Base	Clear		1		1898-PRESENT
	Kitchen	Glass	Unidentified Bottle Glass	Aqua		1		
	Kitchen	Glass	Unidentified Bottle Glass	Clear		4		
	Kitchen	Glass	Unidentified Bottle Glass	Light Green		4		
ORGANICS	Organics	Shell	Burnt	Unworked		1	0.25	
						Total Count= 16		**Total Weight= 0.25**

Artifact Inventory

02/13/2001

Category	Group	Class	Type	Sub-Type	Heat	Count	Weight (g)	Comments
Gunston Apts. Ph. I 44AXX								
	FS 5	**Block F**	**Unit 01**	**N 998.2 E 1000.7**	**Feature 02**	**Level 3**		**2.5 to 3 ftbd**
HISTORICS	Architecture	Manufactured	Brick	Fragment		1		
	Furniture	Ceramic	Miscellaneous	Flower Pot		1		rim
	Kitchen	Ceramic	Later Porcelain Type	Undecorated Porcelain, Hard		1		indeterminate form; rim
	Kitchen	Ceramic	Unidentified Ceramic	Unidentified Stoneware		1		hollowware
	Kitchen	Glass	Machine Made Base	Clear		1		1898-PRESENT
	Kitchen	Glass	Unidentified Bottle Glass	Aqua		2		
	Kitchen	Glass	Unidentified Bottle Glass	Clear		1		
	Miscellaneous	Glass	Unidentified Glass	Fragment		1		poss. countertop/store display case glass
	Miscellaneous	Glass	Unidentified Glass	Fragment		1		with copper alloy wire attached
ORGANICS	Organics	Bone	Unburnt	Unworked		1	11.59	
	Organics	Shell	Unburnt	Unworked		1	36.99	
					Total Count= 12			**Total Weight= 48.58**

APPENDIX II

EXCERPTS FROM SCIENTIFIC AMERICAN (1886) ARTICLE ON BRICKMAKING TECHNOLOGY

Excerpts from "Brick Making" (*Scientific American*, November 27, 1886)

"A brickyard, as usually laid out, consists of a large and perfectly level piece of ground called the yard, along one side of which are the rough sheds covering the kilns, and along the opposite side of which are the moulding machines back of and near which are the tempering pits and clay banks.

"The clay is first brought to the tempering pit, which is a circular hole sunk three or four feet below the surface of the ground, and from twenty-five to thirty feet in diameter. In the center is a column, pivoted upon the top of which is a long horizontal arm carrying the wheel. This arm is revolved either by horses traveling around the edge of the pit or by steam. The wheel is large enough to rest upon the bottom, and as it rolls around it is gradually moved from the hub to the outside and then back again, so that in its passage the contents of the pit are surely and thoroughly commingled. The clay. . .is mixed with sand, and sometimes with a different clay, this being governed by the quality of the principal clay. In each quantity of clay sufficient to make a thousand bricks is mixed from one to a little over one bushel of coal dust or screenings. Until recent years, wood alone was used in the burning of brick, which was a slow and, as wood became scarce, an expensive operation. The mixing of fine coal with the clay reduces the time of burning to from three to four days, lessens the cost, and insures a more equal and thorough burning of the entire kiln.

"From the tempering pit the clay passes to the grinder, placed just at the edge of the yard. There is a vertically placed box, in which revolves a shaft carrying blades which force the wet clay down and through an opening in the bottom of one of the sides. The mould, which is a frame having spaces the size of the brick, is first sanded and then placed on a platform beneath the opening, when the clay is forced into each space by a descending plunger operated by a short crank on a shaft driven by the main shaft of the grinder. A forward movement of a lever by the moulder draws the filled mould forward, when it is placed on a platform barrow. When full, the barrow is rapidly run to the yard and the moulds emptied, the brick lying flat upon the ground. When partially dried by the sun, they are turned on edge by an edging machine, which resembles the mould in shape, but is not quite so deep. As the bricks leave the mould, their edges are apt to be rough and slightly drawn out or feathered. This is removed by spatting with a light board, of such size as to cover a mould of bricks, attached to the center of one surface of which is a long handle. Where there is plenty of room, the bricks are left in the yard until ready for the kiln. In smaller yards, they are put in back, that is they are piled up in a long row six or eight bricks high. When there are indications of rain, two boards nailed together along their edges to form a right angled trough are placed on top, while other boards are rested against the sides of the bricks, which are thus protected from the water.

"From here, the bricks pass to the kiln, in which they are placed on edge, with the longest dimensions of every alternate row running in the same direction. Between every two bricks there is a small space left for the passage of the heat, which, owing to the alternating arrangement of the rows, is obliged to take a most roundabout road from the arch to the top. The arches extend through the kiln, and in them at each end the wood for the fire is fed. After the bricks have been set, the outside is covered with a plastered clay that prevents the escape of heat. The fire in the arches is started gradually and increased in intensity and continued as long as the experience of the burner dictates. The small particles of coal distributed through the clay assist most materially in producing heat, and render more sure the even burning of the whole kiln.

"For convenience, the bricks from a kiln may be placed in three divisions: those subjected to the greatest heat, near the arch; those subject to the least heat, near the sides and top; and those in between. In the upper bricks—sometimes known as 'salmon'—small particles of unburned coal may be detected; in the middle bricks only the small cell formed by the coal remains, while the bricks which have been unduly heated are shrunken and glazed sufficiently to close those cells. The bricks from the center are the most valuable, and are most sought after by builders, although the others, especially the salmon, have their uses. . . .

". . .It seems strange that each of a thousand articles can be handled separately so many times and then delivered at a cost of only from six to eight dollars. As one of the oldest and most experienced brick makers in the country said to the writer, 'It is doubtful if any other manufactured article, weighting from four to five pounds, can be handled seventeen different times, moved considerable distances, be subjected to a high temperature for a long time, and be finally delivered, sometimes many miles from the clay bank, at a cost of only a little more than half a penny.'"

APPENDIX III

ARCHEOLOGICAL EVALUATION, 915 S. WASHINGTON STREET, ALEXANDRIA, VIRGINIA, GUNSTON HALL APTS DEVELOPMENT

R. CHRISTOPHER GOODWIN & ASSOCIATES, INC.
cultural resource management and preservation planning

December 29, 2003

Mr. Mark H. Fields
Basheer & Edgemoore
2071 Chain Bridge Road, #510
Vienna, Virginia 22182

Re: Archeological Evaluation, 915 S. Washington, Street, Alexandria, Virginia, Gunston Hall Apartments Development

Dear Mr. Fields:

R. Christopher Goodwin & Associates, Inc. is pleased to provide Basheer & Edgemoore with this letter report detailing the results of our archeological evaluations of the Gunston Hall Apartments Development, Alexandria, Virginia. This letter report is considered an addendum to the report entitled *Phase I Archival and Archeological Investigations at the Gunston Hall Apartments, Alexandria Virginia.* The draft of this report was accepted, without comment, by Alexandria Archaeology in May of 2003.

Project Background

Initial excavations for this project were undertaken by R. Christopher Goodwin & Associates, Inc. in 2000. This previous work entailed an extensive archival documents search and the excavation of six (6) backhoe trenches across the property to identify any extant cultural resources. The buildings present on the block remained intact and occupied during the 2000 investigation. Though planned, a small section of the block, immediately between the southern apartment building and Church Street was not examined due to the presence of utilities and the need to maintain access for and safety of the occupants. During consultations between Alexandria Archaeology and Basheer & Edgemoore in 2003, it was determined that this section required archeological investigation prior to the redevelopment of the block.

One goal of this investigation, as well as the work conducted in 2000 was to identify any burials located within the property that are associated with the Freedmen's, or Contraband, Cemetery located across Church Street. A second goal was to define any activity associated with the Alexandria Brick Works that occupied the block. A Scope of Work, prepared by Alexandria Archaeology, presented the requirements for investigation of an approximately 20 x 100 ft area immediately south of the southern Gunston Hall apartment building, the area not investigated during the 2000 Phase I study (Soldo and Williams 2001).

The project area in question encompasses a land surface with variable elevations. The highest point occurs at the southeast corner of the project area. The topography naturally slopes to the west from this point. Additionally, the slope has been cut into, to place the Gunston Hall apartments. The construction

of the complex, within the project area, has created a steep down slope from the street level north toward the building. In the southeast portion of the complex, this slope approaches five feet high, while in the southwest it is only 2 feet in height (Figure 1)

Field Methods

The 2003 investigations at the Gunston Hall apartments were to include both mechanical and manual excavations. Due to the topography of the project area, mechanical excavations (Trench G following the 2000 excavation nomenclature) were to be followed by manual cleaning of the exposed surfaces. An agreement was reached between Goodwin & Associates, Inc., Basheer & Edgemoore and Alexandria Archaeology that the limit of disturbance was to be four (4) feet below the garden apartment level, which equated to approximately eight (8) feet below street level in the southeast corner of the project area. Furthermore, Basheer & Edgemoore defined the project area as extending to within one foot of the curb. Subsequently, Alexandria Archaeology clarified the current project area as needing to cover the gap between Trenches A and B from the 2000 investigation.

Mechanical excavation was organized first to remove the concrete walkway and other concrete features within the project area and second to commence stripping of the various layers of soil (Figure 2, Upper). Manual clean up of the stripped area planned to identify any grave shaft stains should they be present. Furthermore, this plan was oriented to identify any archeological features or deposits that were associated with the Alexandria Brick Works. Mechanical stripping would continue, under scrutiny of the archeologists, down through the soil column in increments of no more than 30 cm (1 ft), though even these increments would be taken down in thin swipes.

Excavation was planned to continue until intact original subsoil was encountered or the limit of disturbance was reached. At the occurrence of either, Alexandria Archaeology was to visit the site, inspect the findings and determine the necessary course of action. Efforts were made, during the excavation process to ensure safety of the excavation and archeological personnel that needed to be within the excavation and to follow OSHA guidelines for excavation safety. The southern excavation wall, along Church Street, was to be stepped at a depth of 120 cm (4 ft) below surface. This step would extend 60 cm (2 ft) into the excavation and provided additional support to limit risk of the excavation wall collapsing. As the northern side of the excavation was never to be deeper than 120 cm (4 ft) and the overall width was greater than the proposed depth of excavation at the southern wall, the excavation was not considered as a collapse hazard or a confined space.

Excavation Results

Because the apartment complex remained occupied during the investigation, measures were required to minimize the impact to the tenants. As such, the project area was divided into three sections. The portion of Trench G to be excavated first was located in the middle of the current study area or that portion from the southeastern corner to the walkway and steps that provide entrance to the building from the south. The second area to be excavated was the eastern end, between the southeastern corner of the apartment

complex and the western end of the 2000 excavation, Trench A. Finally, the western end between the stairs and walkway and the eastern end of 2000 excavation Trench B was to be excavated.

Excavation of Trench G began at a point in alignment with the southeastern corner of the apartment building. Because the slope north toward the building is clearly artificial, excavation proceeded in levels parallel to the topography at the top of the slope. In this fashion, the levels widened as the excavation increased in depth. Removal of the topsoil exposed a mottled yellowish brown loamy clay layer that had characteristics of being redeposited fill. Further excavations of this deposit pieces of brick, asphalt and concrete. As the excavation proceeded, a cable TV conduit was exposed on the northern edge of and parallel to the sidewalk (Figure 2, Lower). The conduit originated on the eastern side of the apartment complex and continued around to the western side. The location of the conduit, approximately 50 cm below ground surface, was nearly central to the overall excavation. Excavation proceeded on either side of the conduit while it was being removed. Excavation continued to a depth of approximately 100 cm (3 ft), at which time the cable conduit was removed (Figure 3).

Once the conduit was removed, the remaining baulk was excavated, which facilitated the excavation of the remainder of the trench in single, complete levels. Excavation continued until a dense gray marine-like clay layer was exposed across the entire trench floor (Figure 4, Upper). The layers of soil above this clay were all fill episodes and consisted of unsorted and mixed loam and clay that included brick rubble, asphalt and some historic period artifacts. Notably, the brick rubble was not a continuous lens or deposit, but was mixed into the fill soil. Various fragments of bricks were examined for documentation and several were positively matched with the type used for the construction of the Gunston Hall Apartments. The other brick within the fill likely results from operation of the Alexandria Brick Works. The fill soil easily separated from the gray clay that lay beneath it (Figure 4 Lower). In fact, the gray clay had an organic rich layer, only a few centimeters thick immediately above it onto which the fill was placed. This layer, as well as impressions in the clay surface, suggests that the clay was exposed to the atmosphere for a sufficient time to allow grass or other ground cover to grow. Several whole bottles were recovered from this interface, further suggesting that it was exposed sufficiently to allow the accumulation of trash. These bottles generally appear to date from the first half of the twentieth century, but could date from the last quarter of the nineteenth century. Alexandria Archaeology was requested to inspect the excavation at this point to determine the next course of action. After a detailed review, Steven Shepard requested that the gray clay layer be excavated to verify that no burials were located within or below it (Figure 4 Upper).

Excavation proceeded through the gray clay and exposed a layer of dark grayish-brown clayey sand (Figure 5). This sequence of gray clay and grayish brown clayey sand were determined to be natural soils into which the brick factory and/or the Gunston hall Apartments were excavated. A brief consultation with Dr. Daniel Wagner (consulting Geomorphologist) confirmed that this sequence is, indeed, original undisturbed soil that likely dates from the Cretaceous Period (65-135 mya). After a second consultation with Alexandria Archaeology, and due to the lack of any burial features or other deposits associated with the Alexandria Brick Works, the excavation within the middle portion of the trench was considered complete at this depth. Excavations were then focused on the western end, including the steps and entrance walk as well as a concrete driveway apron and pad (Figure 6).

Excavation of the western end of Trench G exposed a similar soil sequence to that of the middle portion. As with the middle portion of the trench, disturbance and fill soils constituted the majority of the soil

sequence with only a minor exposure of the marine clay. This layer, identified as Stratum IVa and IVb in the profile drawing (Figure 5) maintained a consistent texture but variable color. The variability in color was attributed to the exposure of the soil to water. The darker gray clay results from post-depositional anaerobic conditions associated with a wet environment, while the yellowish brown marine clay observed in the western end of the trench was not as anaerobic. Removal of the clay in this area exposed unconsolidated strong brown sand. Again, Dr. Wagner suggests that the age of these soils significantly predates human activity in the Mid-Atlantic area. Excavation of the western end continued to a point where a substantial metal screw-eye anchor was buried in the ground and fastened to a guide wire that provided support to an adjacent utility pole. Goodwin & Associates, archeologists conferred with Alexandria Archaeology staff to determine the need to examine the remaining 5.5 meters (16 ft) section, which would require the relocation of the anchor assembly. The soil profile presented in the Phase I report Figure 21 (Soldo and Williams 2001) (Figure 7) closely matches the soil profile observed in the western end of Trench G (Figure 8 Figure 5). With the similarity in soil sequences, lack of identified features in either Trench and the minimal area between Trench B and Trench G, it is very unlikely that burial features or features associated with the Alexandria Brick Works would be located in the remaining, unexcavated, 5.5-meter (18 ft) section. Alexandria Archaeology concurred that no further excavation needed to take place on the western end. Final excavations associated with this investigation were undertaken at the eastern end.

Excavations in the eastern end were oriented to join Trench G with the western end of Trench A, excavated in 2000. Within the first 1.6 meters of excavation eastward, an underground iron waterline was exposed. This line, (Figure 9) was oriented perpendicular to the excavation and Church Street and situated approximately 1 meter (3 ft) below ground surface. Because this line appeared to be a supply line, was not shown on the project engineering maps and was not highlighted during the utility check by MISS Utility, excavation toward the east was discontinued. This left approximately five (5) meters (16.4 ft) unexamined between the east end of Trench G and the west end of Trench A. A conference with Alexandria Archaeology was initiated to determine if this small area needed to be excavated based upon the data available from Trenches A and G. Excavations in Trench A (Soldo and Williams 2001) identified fill soils to a depth of 3.05 m (10 ft) below grade (Figure 10). An exploratory excavation extended Trench A to a depth of approximately 4.5 m (15 ft) below grade. This "directors window" contained fill soils and a blue plastic 55-gallon container. When considering the lack of burial or Brick Works features within Trench G and the depth of disturbance and fill soils within Trench A, it is unlikely that any of such features would be located within the five (5) meter (16.4 ft) section that remains unexamined between Trenches A and G. Alexandria Archaeology staff concurred in the field that no additional excavations were warranted.

Summary

Excavations associated with the proposed Gunston Hall Apartments Development at 915 S. Washington, Street, Alexandria, Virginia, have concluded that no historic cultural deposits associated with the Alexandria Brick Works or burials associated with the Freedmen's (Contraband) Cemetery exist within the area immediately between the Gunston Hall Apartments and Church Street, (Trench G). Furthermore, none of these deposits, features or burials exist along the southern edge of the block currently occupied by the Gunston Hall Apartments as indicated by the excavations presented here and in 2000 (Soldo and

Williams 2001). **Due to the lack of intact deposits and features, no further archeological work is warranted for the southern end of the Gunston Hall Apartments Block. Furthermore, no additional archeological work is warranted for the Gunston Hall Apartments Development Project following acceptance, by Alexandria Archaeology, of the Draft Report entitled, *Phase I Archival and Archeological Investigations at the Gunston Hall Apartments, Alexandria Virginia*. Therefore, no further archeological work is recommended.**

It has been our pleasure to provide Basheer & Edgemoore with compliance with local cultural resources protection regulations. If there are any questions regarding this letter, or the project to which it relates, do not hesitate to contact us. We are at your service.

With best regards, I remain

Yours faithfully,

Colby A. Child, Jr., M.A.A
Project manager, Terrestrial Archeology

enclosures

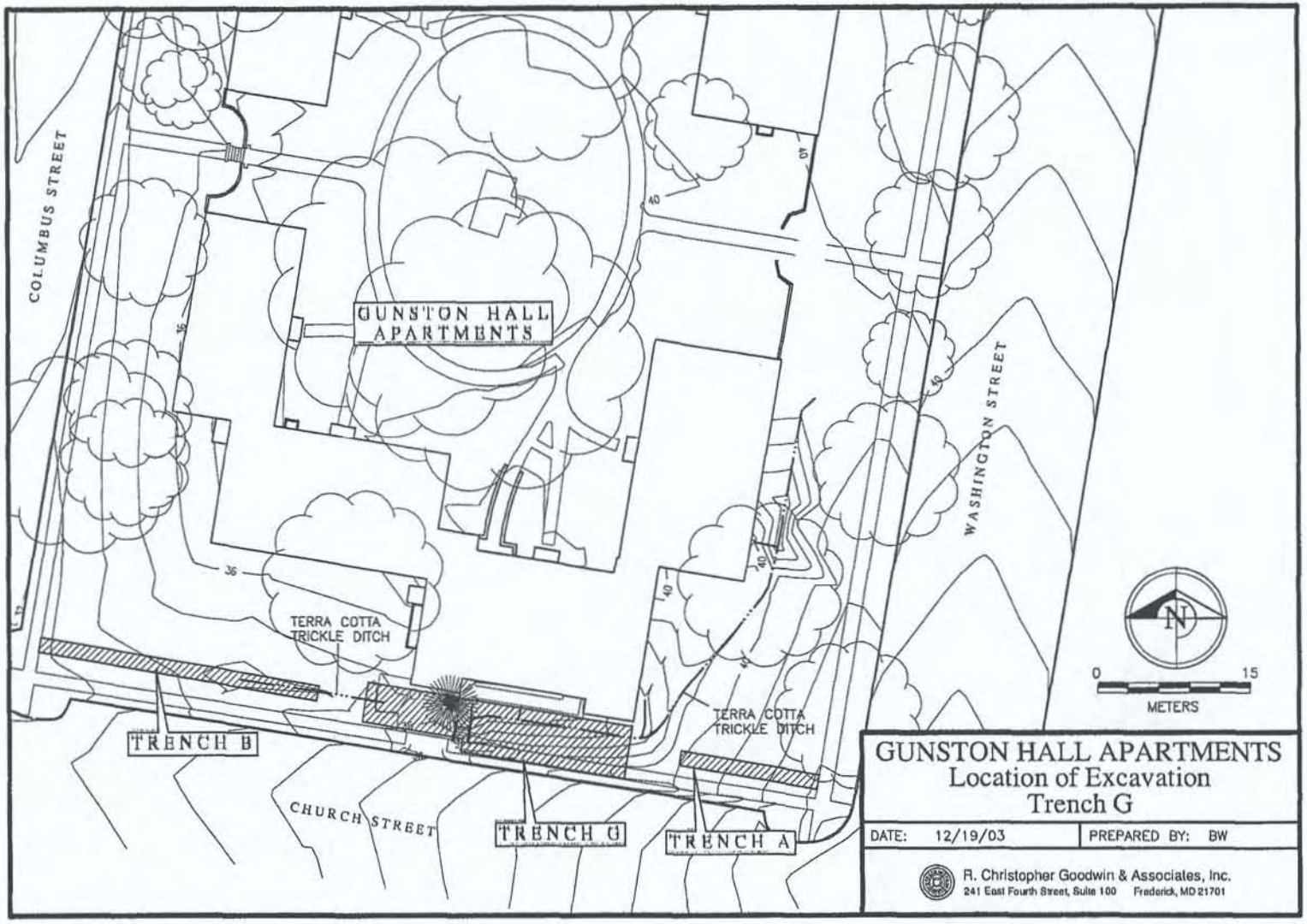


Figure 1. Plan Map depicting south end of Gunston hall Apartments, Trenches A, B, and G and Church Street.





Figure 2. Photographs of the Gunston hall 2003 Project Area
Upper: Photograph depicting the mechanical removal of concrete
Lower: Photograph showing the initial excavation in middle portion of Trench G

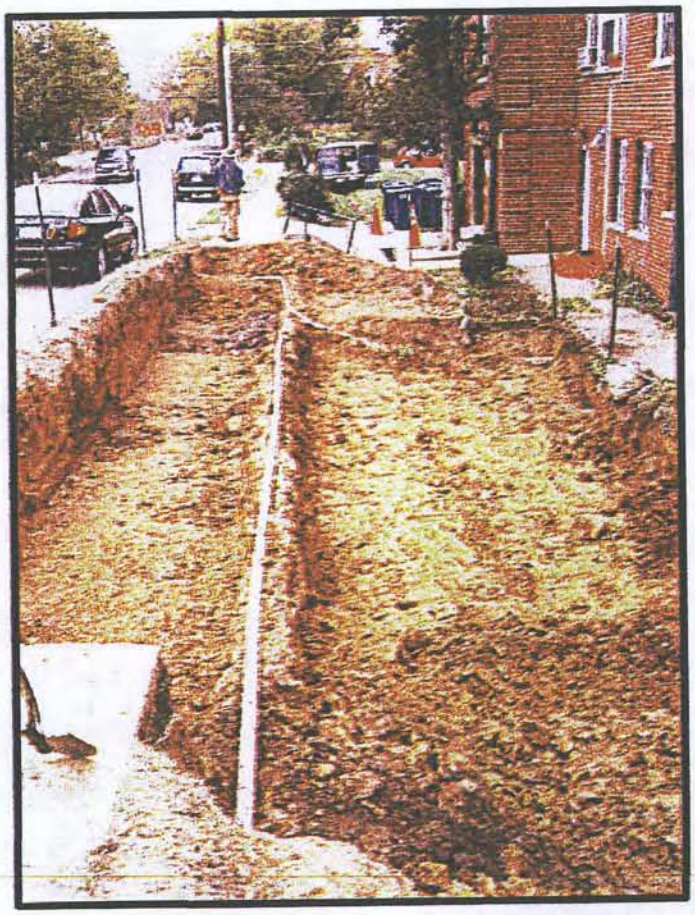


Figure 3. Photograph depicting the interim excavations in the middle portion of Trench G showing the Cable T.V. Cable conduit.

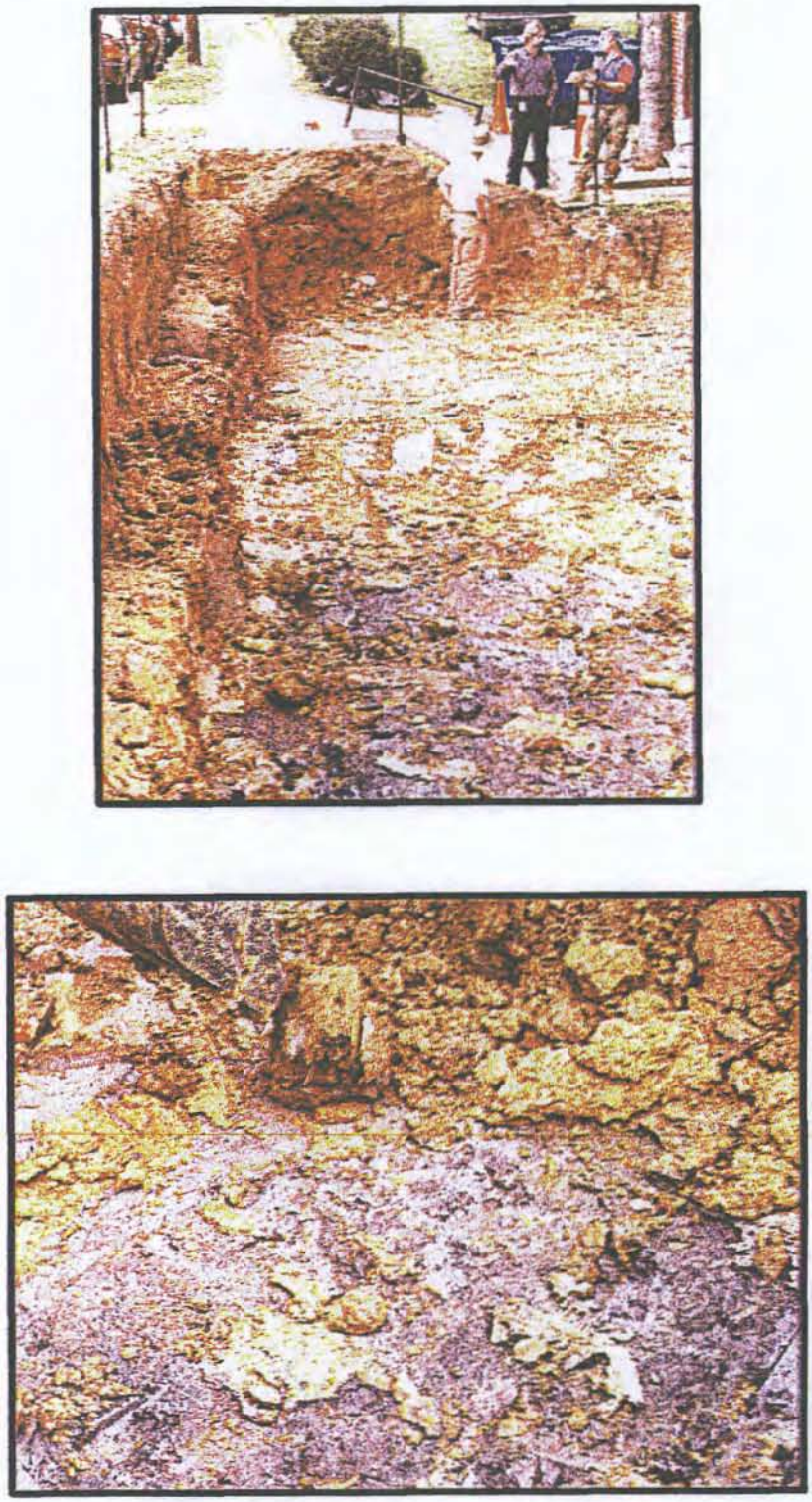


Figure 4. Photographs of the Gunston hall 2003 Project Area
Upper: Photograph depicting the western end of the middle portion of Trench G with the Cable T.V. conduit removed
Lower: Photograph showing the break between disturbed Fill soils and the Cretaceous Period gray Marine clay with vegetative layer.

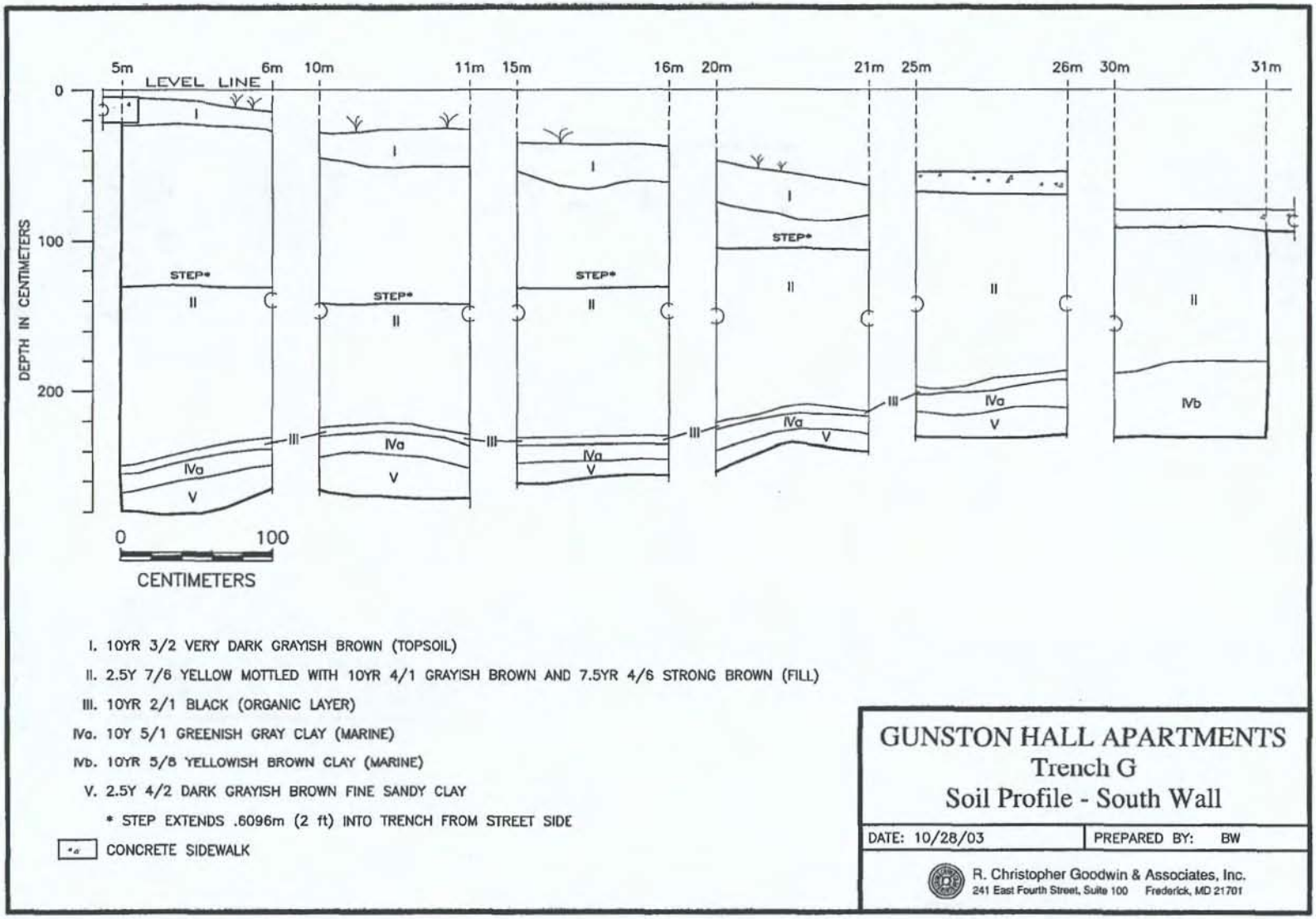


Figure 5. Representative Soil Profile Drawing of the South Wall of Trench G.

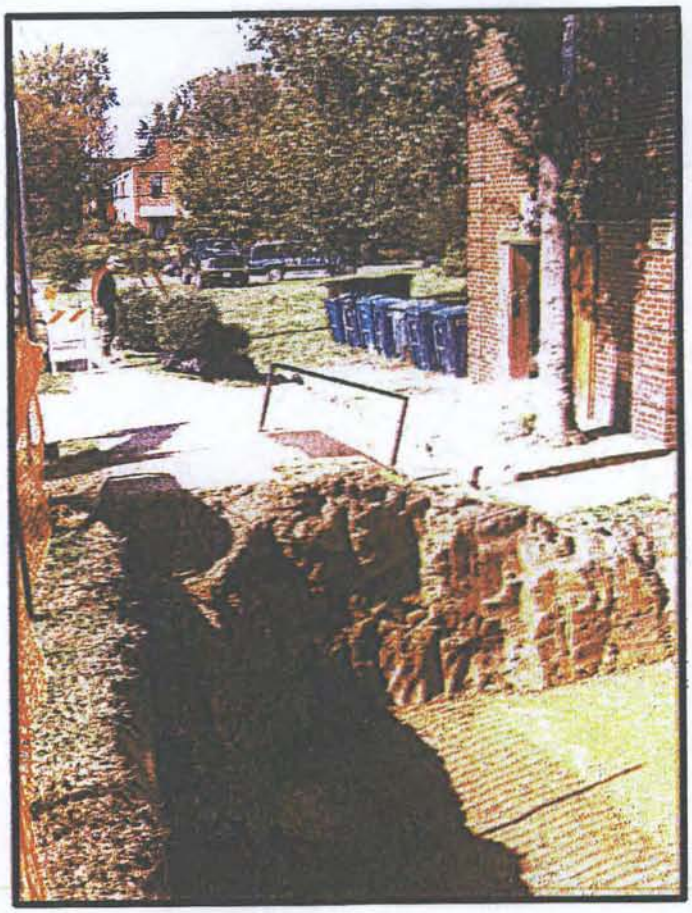


Figure 6. Photograph showing western end of middle portion of Trench G depicting the completed excavation including the Gray Clay (basal layer of soil profile) and the western end of Trench G including the concrete stair and driveway apron awaiting Excavation.

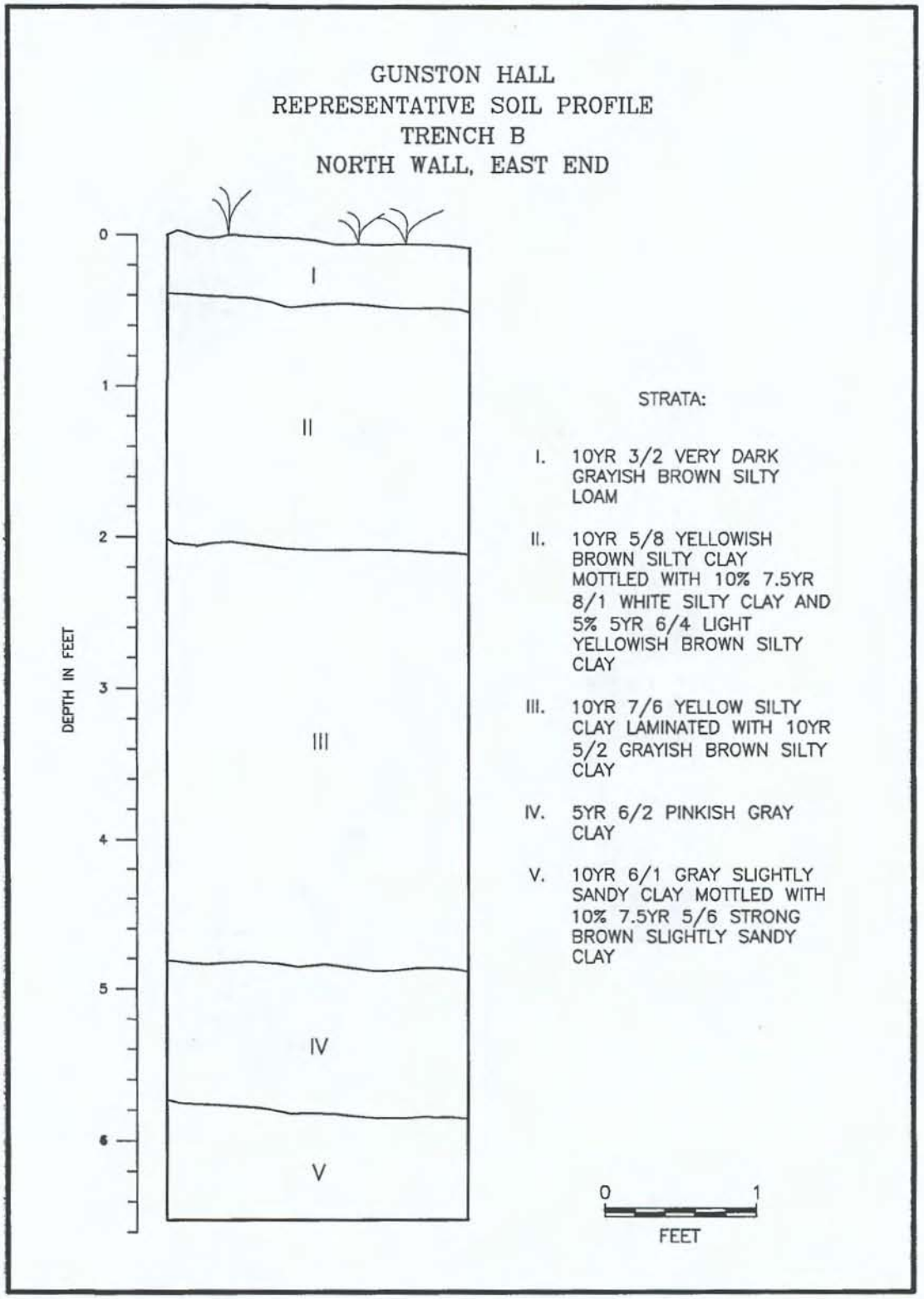


Figure 7. Representative Soil Profile Drawing of the East End of the North Wall of Trench B.

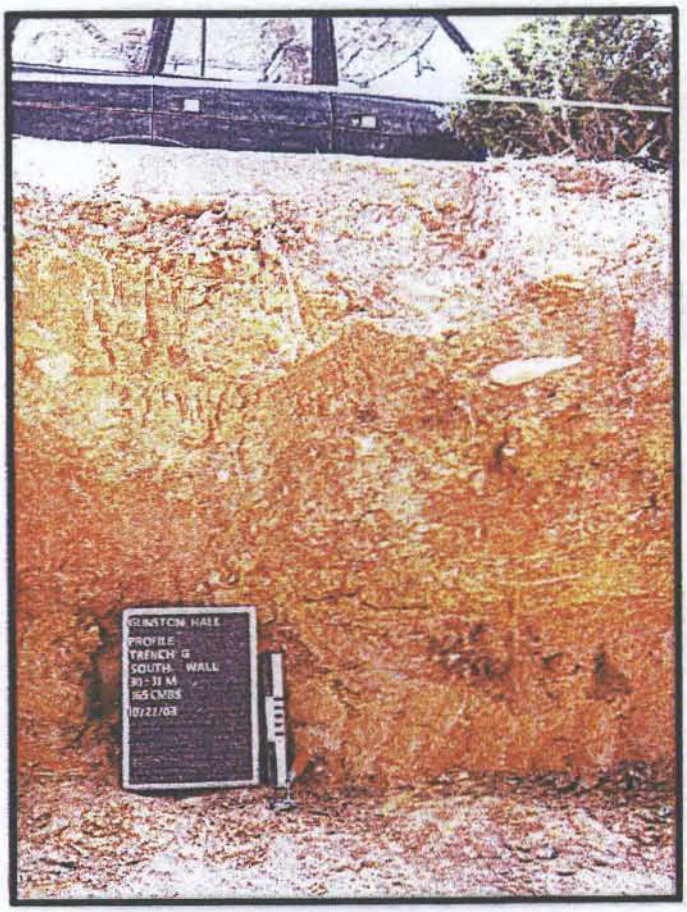


Figure 8. Photograph of west end of South Wall Profile of Trench G.



Figure 9. Photograph of East End of trench G depicting 3" water pipe exposed during excavation.

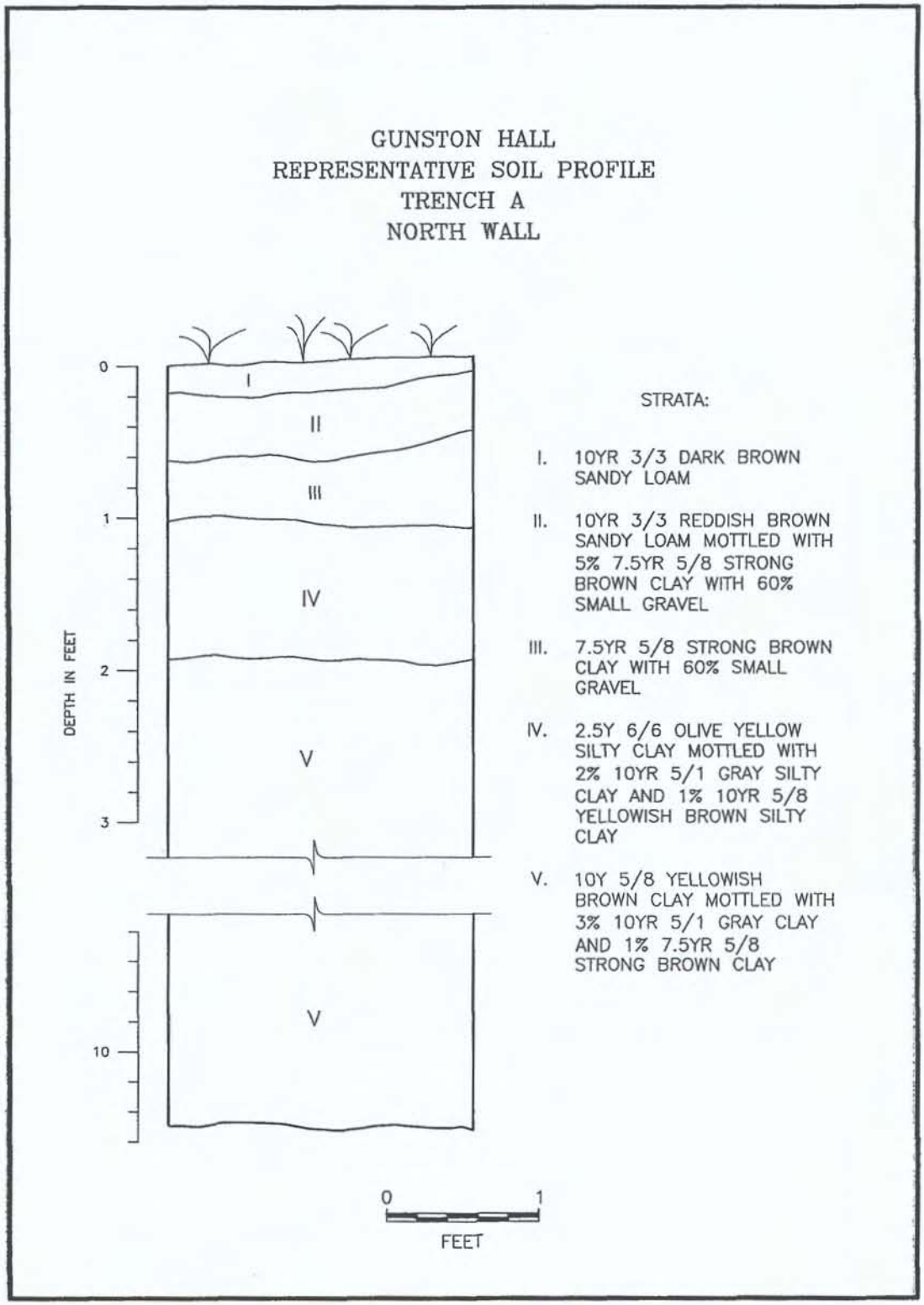


Figure 10. Representative Soil Profile Drawing of the North Wall of Trench A.

APPENDIX IV

RESUMES OF KEY PROJECT PERSONNEL

CHRISTOPHER R. POLGLASE, M.A., ABD
VICE PRESIDENT- ARCHEOLOGICAL SERVICE

Mr. Christopher Polglase received his baccalaureate degree from William and Mary in 1980, his M.A. from SUNY Binghamton in 1985, and he currently is A.B.D. at that institution. At SUNY Binghamton, Mr. Polglase served as a teaching, research, and graduate assistant, where he edited the multi-volume report on excavations at the Utqiagvik site in Barrow, Alaska. Mr. Polglase received considerable cultural resource experience at SUNY Binghamton, where he served as crew chief on Phase I-III projects. Mr. Polglase also served as crew chief for three seasons at Fort Christanna, an early eighteenth century frontier outpost, and as field supervisor for the survey of the proposed Roanoke River Parkway. He also has participated in large projects in Alaska and throughout Italy.

At Goodwin & Associates, Inc., Mr. Polglase has worked on numerous projects in the Middle Atlantic, Southeast, Mid-West and the Caribbean. He has directed data recovery at numerous prehistoric and historic sites in the Middle Atlantic and Phase I-II studies across the Eastern United States. Two of those projects, excavations at the Russett Center and at the Garman Site, received the Excellence in Archeology Awards from the Anne Arundel County Trust for Historic Preservation in 1991 and 1992. His projects also received awards from the Maryland Historical Trust for Education Excellence (1997) and from the Harford County Historic Preservation Commission for the Preservation Project of the Year (1999).

Mr. Polglase's experience at Goodwin & Associates, Inc. has encompassed the range of preservation planning and interpretation studies. He has directed the preparation of multi-disciplinary cultural resource planning studies for the Army Corps of Engineers, NAVFACENGCOM, the Department of Energy, and the Maryland Port Administration. These projects have included numerous Cultural Resource Management Plans (ICRMP) for such diverse facilities as the U.S. Naval Academy, Aberdeen Proving Ground, and Fort Belvoir. He has overseen the design of exhibits at several DoD installations, including preparation of panels, exhibit cases, and a touch screen computer kiosk. The development of that kiosk and subsequent projects led to an interest in the digital interpretation of archeological and historical resources, including 3D modeling of archeological sites. Mr. Polglase has directed the preparation of Geographic Information System (GIS) deliverables to DoD and private sector clients in the Middle Atlantic, including: (1) complete historic and natural resource data layers for 11 U.S. Navy installations in Tidewater Virginia; and (2) archeological and historical data for 29 counties in Pennsylvania. Mr. Polglase also oversees artifact curation compliance and conservation studies for Goodwin & Associates, Inc., including NAGPRA research for the U.S. Army Corps of Engineers in 21 states.

His research interests include lithic analysis, long-distance exchange, and the development of holistic preservation planning studies. In addition to numerous technical reports, he has published papers in the *Journal of Archeological Science*, *Preistoria Alpina*, and the *Journal of Middle Atlantic Archaeology*. He has presented professional papers to the Society for American Archeology, the Middle Atlantic Archeological Conference, the Archeological Societies of Maryland and Virginia, the Eastern States Archeological Federation, the Center for Medieval and Early Renaissance Studies, and the Valle dei Cavalieri.

DAVID J. SOLDO, M.A.

ASSISTANT PROJECT MANAGER

David Soldo, M.A., received his Bachelor's Degree in Anthropology in 1984 from Youngstown (Ohio) State University and was awarded a Master's degree in Anthropology from Wichita State University in 1999. He completed additional graduate level courses in Anthropology at Southern Illinois University at Carbondale during the 1984-1985 academic year, where he was a recipient of an S.I.U.-C Graduate Scholarship. He also served as a teaching and laboratory assistant at both Youngstown State University and S.I.U.-C. In addition to his formal academic training, Mr. Soldo completed a workshop on the National Historic Preservation Act and the Section 106 Process sponsored by the Bureau of Land Management, and the PADI Openwater Diving Course, through which he was certified as an open water Scuba Diver.

Mr. Soldo's 19 years of archeological experience have encompassed a wide variety of projects across an equally broad geographic area. He has served as field archeologist, crew chief, field director, and principal investigator on numerous projects ranging from Phase I identification surveys to data recovery projects, including the recovery of a number of Historic and Prehistoric human burials. From 1995-1996, he served as staff archeologist for the City of Wichita, Kansas. His prior work experience has included both private and public-sector projects in Arkansas, Arizona, California, Colorado, Florida, Hawaii, Illinois, Kansas, Ohio, New Mexico, Pennsylvania, and Texas, including long-term archeological investigations within several secure military installations.

Since joining R. Christopher Goodwin & Associates, Inc. in July 1999, Mr. Soldo has served as an archeological field technician for company projects in Ohio and Puerto Rico, and has directed and managed archeological field crews for an ongoing, multi-year/multi-task private development project in Alexandria, Virginia.

MARTHA R. WILLIAMS, M.A., M.ED.

PROJECT MANAGER/ARCHEOLOGIST/HISTORIAN

Martha R. Williams, M.A., M.Ed., Project Manager, holds a B.A. (1960) from Lebanon Valley College; a Master of Education, with emphasis in the Social Sciences, from the University of Pennsylvania (1965); and an M.A. in History, with emphasis in Applied History, from George Mason University (1987). She was a Coe Fellow in American Studies at SUNY Stony Brook in 1982 and 1989. While completing her internship with George Mason University, she co-authored the Heritage Resource Management Plan for Fairfax County, Virginia.

Ms. Williams' past experience in cultural resource management and in historical archeology began in Northern Virginia over 30 years ago, beginning with a field school with Colonial Williamsburg in 1972. As co-director of the Fairfax County Seminars in historical archeology for high school students (1973-1987), she assisted in or directed investigations at 15 archeological sites in Fairfax County. Her experience also included volunteer work on both prehistoric and historic sites with the Fairfax County Heritage Resources Branch, for the City of Alexandria, for the Virginia Division of Historic Resources, and for the National Park Service, including excavations at the Lost Colony site on Roanoke Island. She also has worked for the National Park Service as an archeological laboratory technician.

Since joining Goodwin & Associates, Inc., in 1989, Ms. Williams has served as historian, project archeologist, project manager, and public interpretation specialist for numerous studies conducted by the firm. As historian, she has conducted research for company projects in such diverse eastern seaboard and central states as Maryland, Virginia, New York, Illinois, Pennsylvania, Maine, Massachusetts, Vermont, North Carolina, Georgia, Mississippi, Arkansas, and Louisiana, as well as in the District of Columbia and Puerto Rico. She is familiar with archival resources for both terrestrial and underwater projects. She has managed all types of archeological projects, including preparation of archeological predictive models and disturbance studies; Phase I and II archeological surveys and evaluations; Phase III archeological data recovery projects; and cultural resource planning documents for Federal agencies and local governments. Her managerial experience encompasses military, domestic, commercial, and industrial sites in both urban and rural settings. As public interpretation specialist, she has designed and executed a wide range of public information activities, including public participation programs for the Camden Yards Stadium and the Juvenile Justice projects in Baltimore; site brochures for the Drane House in Garrett County, Maryland and Icehouse Square in Gettysburg, Pennsylvania; display panels for the Main Street and Naval Academy sites in Annapolis, Maryland; permanent exhibit panels at the Army's Aberdeen (Maryland) Proving Ground; and a popular history of Fort Belvoir (Virginia). She also prepared two public information and training booklets and a training video for the Legacy Program of the Department of Defense.

Ms. Williams is actively involved with professional preservation organizations. She has served as Vice-President of the Archeological Society of Virginia (ASV), and continues to sit on its Board of Directors. She has written for numerous publications, including the *Yearbook* of the Historical Society of Fairfax County, *Museum News, Interpretation* (NPS), the *Quarterly Bulletin* of the ASV, *American Antiquity*, and the *Journal of Mid-Atlantic Archaeology*. In 1991, the Fairfax County History Commission presented her its Distinguished Service Award for her contributions to local history and preservation. The ASV also recognized Ms. Williams as "Professional Archeologist of the Year" in 1996. On the national level, the Society for Historical Archaeology recognized her two-year service as Chair of that organization's Committee on Public Education in 1992; in January, 2001, she received SHA's prestigious Award of Merit for her contributions to archeological education.