REPORT >

Phase III Investigations and Historical Study of the Spring Hill Plantation

LOCATION > Chesterfield County, Virginia

DATE> MARCH, 2015

PREPARED FOR >

Dominion Virginia Power

PREPARED BY >

Dutton+Associates, LLC

VDHR FILE NO. >

2007-0796

Dutton + Associates
CULTURAL RESOURCE SURVEY, PLANNING, AND MANAGEMENT

PHASE III INVESTIGATIONS AND HISTORICAL STUDY OF THE SPRING HILL PLANTATION

CHESTERFIELD COUNTY, VIRGINIA

***PREPARED BY*:**
DUTTON + ASSOCIATES, LLC
812 MOOREFIELD PARK DRIVE, SUITE 126
RICHMOND, VIRGINIA 23236
804.644.8290

PRINCIPAL INVESTIGATOR:
DAVID H. DUTTON, M.A.

ARCHITECTURAL HISTORIAN:
ROBERT J. TAYLOR, JR, M.A.

PROJECT ARCHAEOLOGIST:
CARA METZ, M.A.

PREPARED FOR:
DOMINION VIRGINIA POWER
ONE JAMES RIVER PLAZA
CARY STREET,
RICHMOND, VIRGINIA
816.822.3986

VDHR FILE #
2007-0796

MARCH 2015

ABSTRACT

Between July 2013 and July 2014, Dutton + Associates, LLC (D+A), conducted a Phase III Investigation and Historical Study of Spring Hill Plantation (44CF0696) in Chesterfield County, Virginia. The project was conducted under contract to Dominion Virginia Power and the work was done in partial fulfillment of a Memorandum of Agreement for the mitigation of adverse effects associated with the proposed Chesterfield Power Station Fossil Fuel Combustion Project Management Facility.

Spring Hill Plantation consists of a standing residence (VDHR Structure Number 020-0187) and associated archaeological site (44CF0696), both of which have been determined to be eligible for listing in the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR).

The Spring Hill property is associated with some of the most prominent families in Chesterfield County. The property was originally part of the 1,380 acre "Kingsland" Plantation owned by Christopher Branch, a prominent early settler, from the 1630s through 1681. At the time of his passing, the plantation was divided between his son and grandsons, and the portion that now comprises Spring Hill was passed initially to Benjamin Branch the first. Little information on this Benjamin Branch or his son Benjamin Branch II related to their use of the property is known. Archaeological, architectural, and dendrochronology data indicate that the standing Spring Hill house was constructed in the spring of 1767. The property remained in the Branch family until the early 1800s at which time it was sold to the Cox's, another prominent family in early Chesterfield history. Subsequently, it came into the ownership of the Gregory's, yet another distinguished family in the region who owned the property during the Civil War when it was the site of several engagements and action.

Throughout the twentieth century, the home was passed through several owners and periods of occupation in which improvements were made; however, the home and property remained largely intact from its original eighteenth-century construction. By the 1950s, the property came into the possession of the Reynolds Corporation who used the house as office space and the surrounding land for building various structures and performing materials testing.

The Phase III investigation was guided largely by the data recovery plan prepared by D+A (Metz et al. 2013), which developed research questions that could be addressed at the site. The data recovery plan drew largely on the results of the archaeological evaluation conducted by the cultural resource management firm TRC in 2001 and 2007 (Olsen et al. 2010). Spring Hill Plantation, which measures approximately 198.1 meters (650 ft) east/west and 91.4 meters (300 ft) north/south, includes a dwelling dating to the eighteenth century and a more recent, rebuilt outbuilding.

The five primary topics defined in the data recovery plan were:

1. *the architectural chronology and sequence of the Spring Hill House;*
2. *the spatial organization and arrangement of the domestic core and overall plantation;*

3. *trends or patterns in the consumerism and economic status of the property's owners and occupants;*
4. *evidence or characteristics indicative of gender and ethnicity on the property; and*
5. *the effects and impacts on the property brought about by the Civil War.*

In order to provide the most comprehensive and complete story of the property, the D+A study drew from an array of disciplines, research sources, and available information. Documentary research was combined with architectural history, ethnography, folklore, and archaeology so that all facets of the property's history and the owner's and r occupant's experiences could be understood and interrelated. Being largely uninhabited or modified from the mid-twentieth century onwards, the Spring Hill house provided an excellent opportunity to study and document a third-quarter eighteenth century home with few more recent modifications. As the building is to be moved from the property after this study, the controlled dismantling and disassembly of the structure provided a unique opportunity to inspect and study the internal framing, construction, and materials. This permitted unobstructed access to primary timbers that were indispensable for dendrochronological testing.

The documentary record provided much of the history related to property ownership and family lineage while architectural history provided dates of construction and modification, tastes and trends of the owners, and a sense of place. Archaeological investigation allowed for and supplemented the dating of various elements of the home and outbuildings and provided invaluable insight into the material possessions of the property's owners and occupants. Folklore and ethnography supplemented the archaeology in many cases where unique and/or unusual artifacts were encountered, often helping to align them with specific associations or information encountered in the documentary record.

The result is a comprehensive story of the Spring Hill plantation from the seventeenth century through the present day. Invaluable information was learned about Spring Hill and plantation life during this period. Dendrochronology supplemented architectural and archaeological investigation and was able to show that the currently standing building was first built by Benjamin Branch III in 1767. While the archaeological record was somewhat compromised by grading that has occurred on the property, several features, including a kitchen outbuilding, were identified.

The extensive historical research, along with architectural and archaeological investigation, developed an intriguing history not only of the Branch, Cox, and Gregory families, but also of plantation life in Chesterfield County over the course of three centuries.

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1. INTRODUCTION

Under contract to Dominion Virginia Power (Dominion), Dutton + Associates, LLC (D+A) conducted a Phase III Investigation and historical study of the Spring Hill Plantation in Chesterfield County, Virginia. The Spring Hill Plantation consists of a standing residence (020-0187) and associated archaeological site (44CF0696), both of which have been determined to be eligible for listing in the National Register of Historic Places (NRHP) by the Virginia Department of Historic Resources (VDHR). The D+A study was conducted between July 2011 and August 2014 and consisted of a review of existing and known survey data, preparation of historical context, intensive architectural analysis and archival documentation of the Spring Hill house, and Phase III archaeological data recovery of the associated domestic site.

The study was undertaken as the result of a Memorandum of Agreement (MOA) titled *MOA Among Virginia Electric and Power Company Doing Business as Dominion Virginia Power, The Virginia State Historic Preservation Office, and The Norfolk District, Corps of Engineers Relative to Chesterfield Power Station Fossil Fuel Combustion Products Management Facility in Chesterfield, Virginia.* The MOA was developed pursuant to Section 106 of the National Preservation Act of 1966 (as amended) and was executed November 2012. All work undertaken as a result of the MOA has been conducted in accordance with the guidance specified in the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (Federal Register, Vol. 48, No. 190, 1983) and VDHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (Oct. 2011).

PROJECT BACKGROUND

As part of the proposed Chesterfield Power Station Fossil Fuel Combustion Products Management Facility project, Dominion plans to utilize property on which the Spring Hill Plantation is located. Both the Spring Hill house (VDHR #020-0187) and associated archaeological domestic site (44CF0696) have been determined through consultation with VDHR to be eligible for listing in the NRHP.

Spring Hill derives significance from its association with several of the earliest settlers in Virginia and its role in Chesterfield County history from the seventeenth through mid-twentieth century. The property was originally part of the 1,380 acre "Kingsland" Plantation owned by Christopher Branch, a prominent early settler, from the 1630s through 1681. At the time of his passing, the plantation was divided between his son and grandsons, and the portion that now comprises Spring Hill remained in the Branch family until the early 1800s. At that time it was sold to the Cox's, another prominent family in early Chesterfield County history, and subsequently came into the ownership of the Gregory's, yet another distinguished family in the region. The Gregory's owned the property during the Civil War when it was the site of several engagements and assorted action. During the May 1864 Battle of Proctors Creek, the property was raided by federal troops who occupied the property and house, but were eventually pushed back to Bermuda Hundred Peninsula by a confederate counteroffensive from Drewry's Bluff. Beginning in September 1864 and through the end of the war, the property was also the site of Battery Brooke, a naval-gun fortified entrenchment that was part of the James River defense of Richmond.

The Spring Hill Plantation, which is the subject of this study, derives significance from the above associations, its unique and relatively intact architecture, and its associated archaeological sites including the domestic yard, which contains important information and research potential.

PROJECT GOALS

The goal of this study is to prepare a comprehensive interpretive work of the Spring Hill Plantation site that draws on multiple aspects of history, anthropology, and architectural history. The study area focuses specifically the Spring Hill house and domestic site (VDHR # 020-0187/44CF0696). Although the focus area is limited, references are made to the surrounding landscape and historic property boundaries when pertinent and information is available.

The intent is to combine an intensive architectural evaluation of the standing house with an exhaustive documentary research effort and data recovery of the surviving archaeological record around the house to create a developmental narrative of the property. The narrative includes discussions of ownership and occupation, patterns in consumerism, economic status, gender, ethnicity, and lifeways. Development of the built environment including construction sequences, form and fashion, architectural evolution, and representative regional influences in taste and aesthetic will be discussed as will spatial organization of the property including agricultural arrangement, the domestic yard, outbuildings, and landscape.

SCOPE OF WORK

To complete this study D+A, in accordance with the stipulations of the MOA, developed a research design titled, *Archaeological Data Recovery Plans for Sites 44CF0696 Spring Hill and 44CF689 Chesterfield County, Virginia (VDHR File # 2007-0796) Mitigation of Adverse Effects for the Proposed Chesterfield Power Station Fossil Fuel Combustion Products Management Facility Chesterfield County, Virginia (March 2013)*(Appendix A). The research design provides a detailed discussion of previous investigations, proposed research themes and questions, research, field, and analysis methodologies, and reporting strategies. Specific tasks outlined in the research design include:

- Review previous studies conducted within the project area to gain an understanding of the existing level of knowledge related to the property, buildings located there, and archaeological record;
- Conduct in-depth research at primary source repositories to expand upon the existing historic overview in order to synthesize an exhaustive documentary historical narrative;
- Perform an intensive architectural investigation of the property;
- Undertake archaeological data recovery;
- Prepare a report summarizing survey findings; and
- Update VDHR Site File forms and VCRIS documentation records for both the Spring Hill house and domestic site.

David H. Dutton, M.A. served as Project Manager and Principle Investigator for the overall project. Cara H. Metz, M.A. directed archaeological investigations, performed documentary and

archival research, inventoried and analyzed recovered material culture, and coauthored this report. Architectural Historian Robert J. Taylor, Jr. M.A. undertook documentary research, prepared historical and context narratives, conducted architectural survey and coauthored this report. Special thanks is given to several individuals who contributed to this study through expertise or specialized services including Dr. Carl Lounsbury, Senior Architectural Historian with the Colonial Williamsburg Foundation; Calder Loth, architectural historian; Michael Worthington and Dr. Jane Seiter of the Oxford Tree Ring Laboratory; and Dr. John Metz, Director of Archives, Records and Collections Services, at the Library of Virginia. Appreciation is also given to Jim Daniels of the Chesterfield County who through generosity enabled the thorough forensic evaluation through funding of the controlled disassembling of the Spring Hill house.

REPORT FORMAT

The report is organized in such a way as to provide the reader, first with a summary of the project and previous investigations then a description of the existing conditions. These are followed with a summary of the research design and questions proposed to be answered during the study. The findings of the study are organized and presented according to time periods that align with major occupation/ownership periods and include the following:

- Comprehensive documentary history of the property with ownership, occupation, and recorded events pertaining to Spring Hill;
- Results of the physical investigations including architectural and archaeological data that together are used to interpret the historic use and appearance of the property, developmental phases, spatial organization, and lifeways of the occupants over time; and
- Site interpretations and how they provide insight into the research questions developed at the outset of the study.

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2. PROJECT LOCATION

The Spring Hill Plantation is located at the eastern terminus of Reymet Road in the Bermuda Magisterial District of Chesterfield County, Virginia (Figure 2-1). The current property consists of ±228 acres bordering the east side of the CSX Railroad and is generally situated between U.S. 1 and the James River. It is bordered to the south by Proctors Creek and the Chesterfield Power Facility (Figure 2-2).

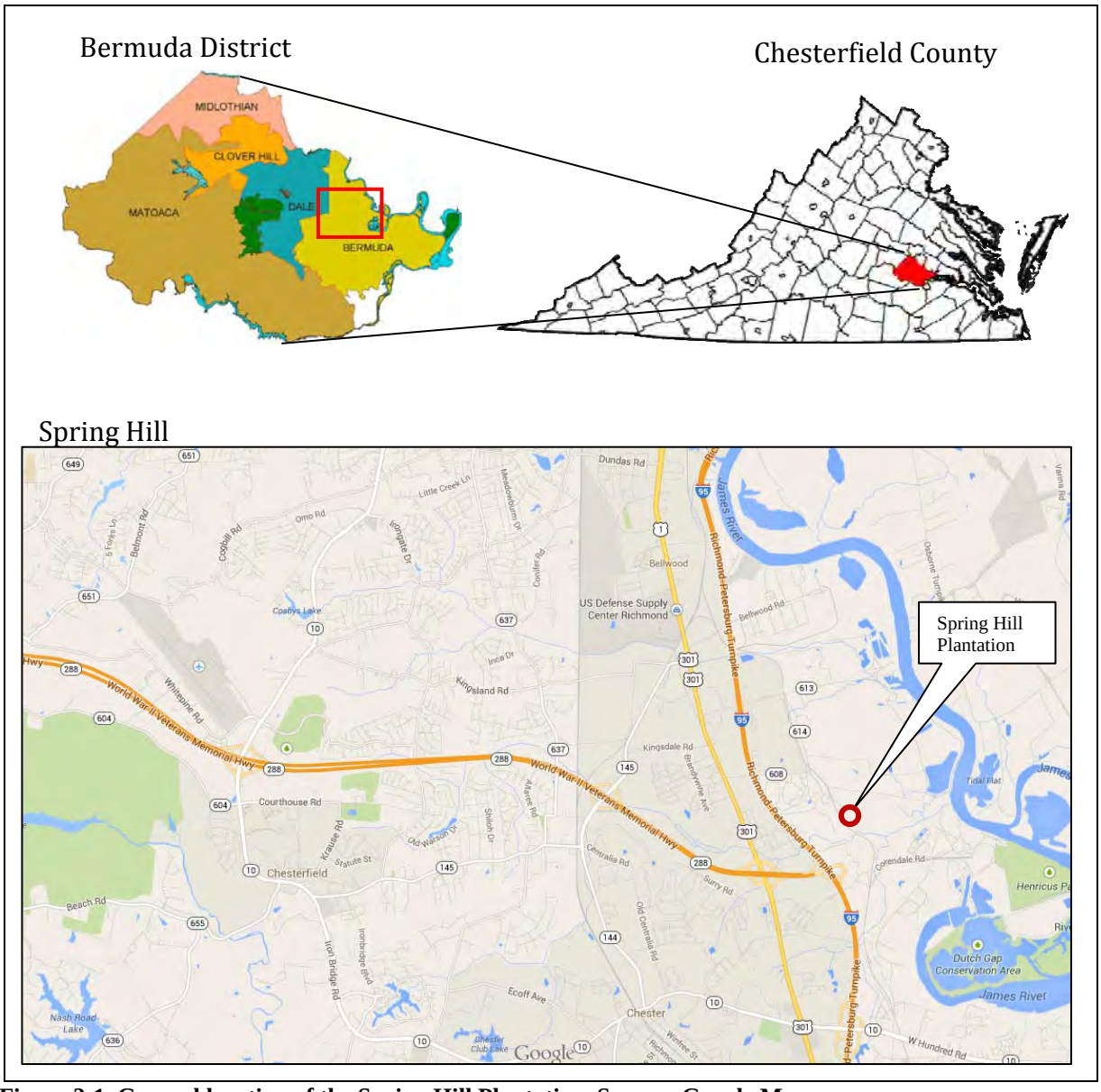

Figure 2-1. General location of the Spring Hill Plantation. Source: Google Maps

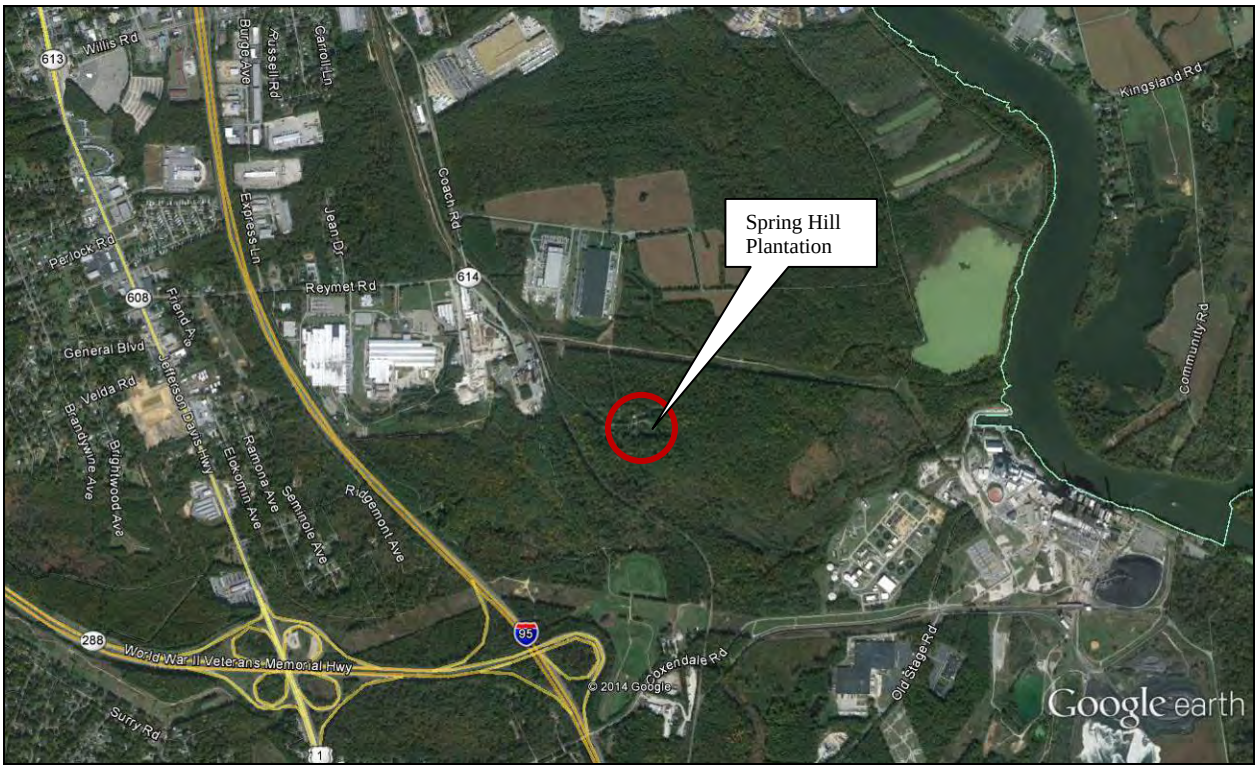

Figure 2-2. Spring Hill Plantation setting on aerial photograph. Source: Google Earth

3. PREVIOUS INVESTIGATIONS

Prior to the D+A study, the Spring Hill Plantation house and property were subject to a number of survey efforts. Most of these studies focused and specialized on particular aspects of the property such as architecture or archaeology only, and therefore do not provide a comprehensive analysis of the property as a complex historic resource with associated, yet diverse components and features. Because of their limited scope, the earlier studies did not allow for the in-depth research and analysis necessary to fully understand the extensive and unique history of the property. Previous investigations are summarized below.

ARCHITECTURAL RECONNAISSANCE (1978)

The first formal survey of the property took place in 1978 by architectural historian Jeffrey O'Dell as part of a comprehensive study of historic architecture in Chesterfield County. As part of that effort, O'Dell performed a site visit to the property to assess the physical conditions of the house. Both the exterior and interior of the house were documented and preliminary evaluations of its construction, evolution, and significance were noted. He also conducted basic research of the property including talking to past property owners, descendants of previous property owners, and other local informants about the history of the home.

PHASE I AND II INVESTIGATIONS (2001-2009)

Between 2001 and 2009, TRC Environmental Corporation (TRC) undertook a multi-part study of the property related to the Proposed Chesterfield Power Station (CPS) Fossil Fuel Combustion Products Management Facility project resulting in the report titled *Cultural Resources Survey and Evaluation for the Proposed Chesterfield Power Station Fossil Fuel Combustion Products Management Facility, Chesterfield County, Virginia* completed in 2010. The first phase of this study was conducted in 2001 and consisted of reconnaissance level survey of an ±89.8-acre project area to aid in project planning. The second phase began in 2007 and consisted of an intensive archaeological survey and architectural evaluation.

Reconnaissance Survey (2001)

In 2001, TRC conducted a preliminary, reconnaissance-level survey of the ±89.8 acre project area. The survey was conducted in order to collect information regarding previously recorded cultural resources, provide basic information on the likelihood of additional resources to be present, and gather information on the level of disturbance resulting from industrial use of the property. The report was prepared for the Reynolds Corporation, the previous owner of the property (ERM 2001).

Reconnaissance testing consisted of excavation of shovel tests on a 15-meter (50-foot) grid in the grassy area immediately surrounding the Spring Hill house and outbuilding and focused primarily on the yard adjacent to the house. Limited testing was conducted south, east, and west of the house. A total of 28 shovel tests were excavated of which 12 yielded cultural material, the majority of which were historic period artifacts. Shovel testing southwest of the house revealed a high density of brick and included a variety of artifacts such as salt glazed stoneware, redware,

pearlware, creamware, porcelain, whiteware, bottle and window glass, cut and wire nails, a ball clay pipe bowl fragment, brick fragments, daub, and bone fragments. Date ranges for recovered artifacts suggested a mid-eighteenth through early twentieth century occupation of the site

No subsurface cultural features were identified during the shovel testing; however, one surface feature, a possible well, was identified just inside the tree line southeast of the Spring Hill house. Evidence of a stone lining was partially visible, as was a trench or "sluice-like" feature leading into the possible well. Remaining surface features identified during the reconnaissance survey included a more modern well to the east of the house and a modern pump and cistern located at the northeastern corner of the house.

Phase I and II Survey (2007-2009)

Between 2007 and 2009, more extensive background research and field investigations were undertaken on the property and documented in the report titled, *Cultural Resources Survey and Evaluation for the Proposed Chesterfield Power Station Fossil Fuel Combustion Products Management Facility, Chesterfield County, Virginia,* prepared by Heather L. Olsen et al. of TRC, Chapel Hill, North Carolina (Olsen et al. 2010).

The effort included phase II architectural survey of the Spring Hill house and outbuilding and comprehensive archaeological survey of the larger ±228 acre project area. The architectural survey included both exterior and interior inspection of the structure. The archaeological survey methodology included the excavation of shovel test pits on a 15-m grid in high probability areas and on a 30-m grid in low probability areas. In total, 1,426 shovel test pits were excavated, and 10 archaeological sites (44CF0681, 44CF0686–44CF0693, and 44CF0696) and 11 isolated finds were indentified within the project area.

During these investigations, excavations at the Spring Hill domestic site (44CF0696) consisted of systematic shovel testing in 15-meter (50-foot) intervals over most of the site with more intensive testing at 5-meter (15-foot) intervals around the Spring Hill house and outbuilding (Figure 3-1).

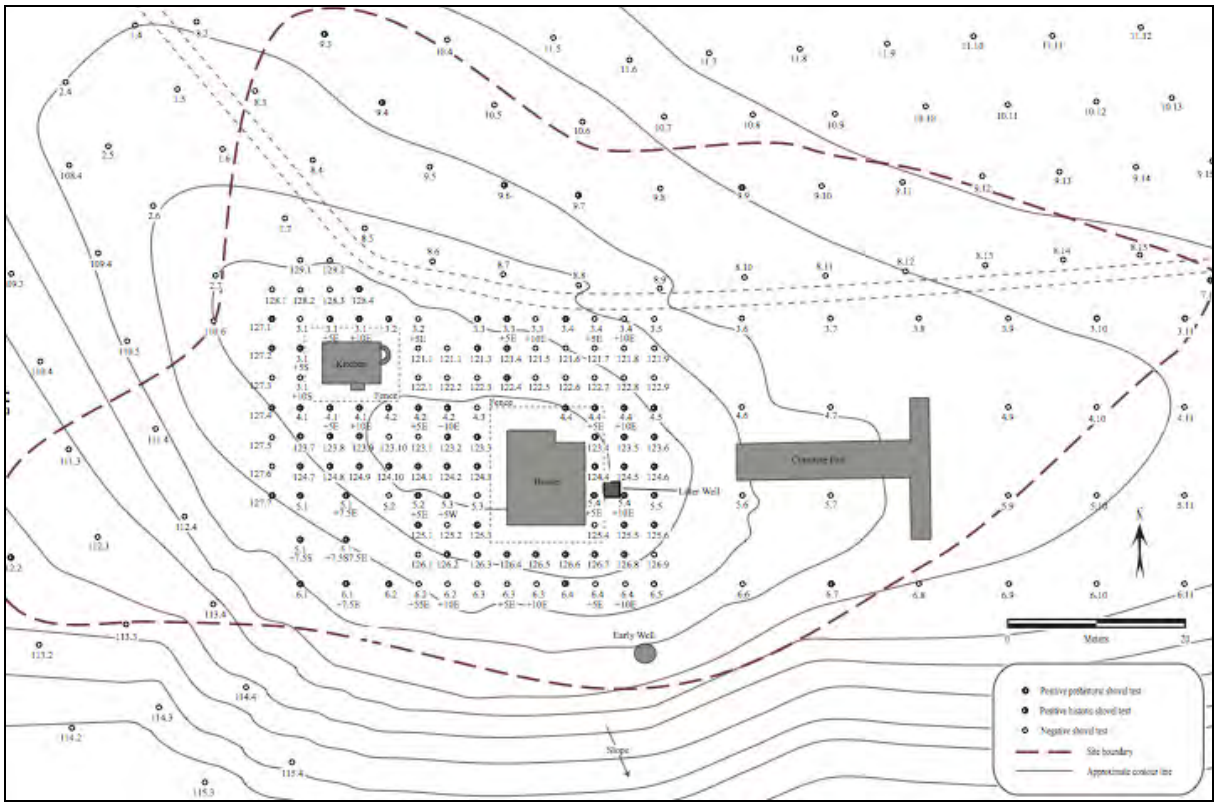

Figure 3-1. Site plan from Phase I and Phase II excavations at Site 44CF0696. (Source: Olsen et al. 2010)

A total of 161 shovel test units were excavated around the Spring Hill domestic site with 77 yielding historic (n=708) artifacts and two containing prehistoric (n=3) artifacts. Artifacts were recovered from as deep as 40 cm below the ground surface, but most of the historic artifacts were found in the plowzone, which was generally in the top 20 cm of soil.

At the time of the TRC survey in 2007, the property had not been in use for at least five years and damage to the Spring Hill house and outbuilding was evident. Dominion installed a seven foot high fence around the perimeter of the house and outbuilding at this time and TRC archaeologists monitored the excavation of the postholes for the fence, screened the soil from the auger holes, and collected the artifacts. Construction of the fence required a total of 45 postholes placed at 3.04-meters (10-foot) intervals located approximately 3.04-meters (10-feet) from the structures. Twenty-eight of the auger holes produced a total of 295 historic-period artifacts and one auger hole contained a cobble.

Metal Detector Survey (2008)

In addition to the archaeological survey, a metal detector and ground penetrating radar (GPR) study of the project area was completed. The metal detector and GPR survey focused on the Battery Brooke site (44CF0681), a Civil War-era naval shore battery erected by Confederate forces in September and October 1864 on the Spring Hill property east of the domestic compound, as well as select areas west of the earthworks. Metal detection was not undertaken at the Spring Hill domestic site (44CF0696). The goals of the metal detector and GPR survey were to identify historic activity areas that may not have been located during the 2007 shovel testing

survey and to assess the integrity of the archaeological sites based on the horizontal and vertical placement of ferrous and non-ferrous artifacts. The metal detector survey identified 103 ferrous and non-ferrous artifacts clustered into at least 12 metal concentrations that may have been associated with soldiers manning Battery Brooke. The metal detector survey also revealed artifacts associated with Civil War battle activity in the northwestern corner of the project area, likely related to the May 1864 Battle of Proctor's Creek (part of the Bermuda Hundred Campaign). The GPR study targeted four block areas within the earthworks to help identify the location of deeply buried cultural features or deposits that may have existed below the ground. Survey of these blocks identified a number of subsurface anomalies that may indicate cultural remains including buried metal artifacts of significant size and portions of the battery's structural components (such as platforms, building foundations, and post features).

HISTORIC STRUCTURE REPORT

In 2013, D+A prepared a *Historic Structure Report* and documentation package of the Spring Hill house as partial mitigation called for in the executed MOA. This effort included documentary research, survey and documentation of existing conditions, a physical description of the building, and large format photography.

PREVIOUS SURVEY RESULTS/FINDINGS

The summary finding of the previous survey efforts found that the Spring Hill house (020-0187) is eligible for listing in the NRHP as a rare example of eighteenth/early nineteenth-century double-pile, side-passage domestic architecture in Chesterfield County. Likewise, the associated domestic site and landscape (44CF0696) was recommended eligible for listing in the NRHP for its high likelihood to contain intact subsurface cultural features in the yard areas surrounding the house and kitchen that may yield significant information on early lifeways in the county.

4. EXISTING CONDITIONS

Spring Hill is currently sited on a 228-acre parcel owned by Dominion. The buildings and property are both currently vacant and awaiting development by Dominion as part of the Chesterfield Power Station Fossil Fuel Combustion Products Management Facility expansion project. The property has been vacant and unused since 2001 when it was purchased by Dominion from the Reynolds Corporation. The following sections provide descriptions of the property including the Spring Hill house and the surrounding landscape at the outset of this study. The Spring Hill house and surrounding landscape are known to have undergone a variety of alterations and additions; however, this description summarizes the current state and configuration of the building and site. Notes on modifications are included; however, a detailed discussion of construction sequences and interpretations will be discussed in the following chapters.

BUILT ENVIRONMENT

Currently, there are two standing structures associated with Spring Hill that remain on the property including the main house and a reconstructed kitchen outbuilding.[1] Both buildings are located on a slight knoll at the end of a gravel drive, roughly one-half mile southeast of Reymet Road and the entrance to the property. Previous surveys concluded that the home appeared to have been constructed around the turn of the nineteenth century. The kitchen was believed to be a twentieth century reconstruction of an early nineteenth century outbuilding.

The building and property have not been in use since at least 2001 and damage to the Spring Hill house and outbuilding is evident. Both of the buildings show signs of deterioration from neglect as well as vandalism. Many of the doors and windows have been broken or removed, the exterior and interior cladding has begun to crumble and fall off, and the structures have become overgrown and infested with vegetation and pests.

LANDSCAPE

The current property parcel on which Spring Hill is located is mostly wooded, consisting of a mix of old-growth hardwoods and young-growth scrub and pine. The domestic area around the Spring Hill house remained cleared and manicured until approximately 2001 when the building and property were vacated by the Reynolds Metal Corporation. Since that time, the area has been allowed to become overgrown with a mix of tall grasses, brush, and sapling trees. Many of the surface features such as brick walkways, well pads, landscaping, and other ornamental elements have become obscured and hidden.

From a subsurface point of view, little has impacted the property or domestic area since 2001 other than the excavation of pits for the chain link fence posts around the house. Prior to that date, however, archaeological testing, reported accounts, and visual observation shows that a variety of actions and events impacted the historic subsurface integrity of the property.

[1] Additionally, there are a number of buildings and structures on the property outside of the defined boundaries of the Spring Hill domestic site that were built by the Reynolds Corporation during the second half of the twentieth century that were not subject to this study.

The Phase I and II survey report describes the stratigraphy within the Spring Hill Plantation site as typically consisting of plowzone (0–26 cm) of dark grayish brown (10YR 4/2) silt loam overlying a B horizon (26–34 cm) of yellowish brown (10YR 5/6) silt loam underlain by a second B horizon (34–50+ cm) of strong brown (7.5YR 4/6) clay loam (Figure 4-1). Descriptions of the stratigraphy noted during previous work suggest that the first B horizon is only located in some portions of the site and consists of a relict plowzone or transitional zone between the plowzone and the subsoil.

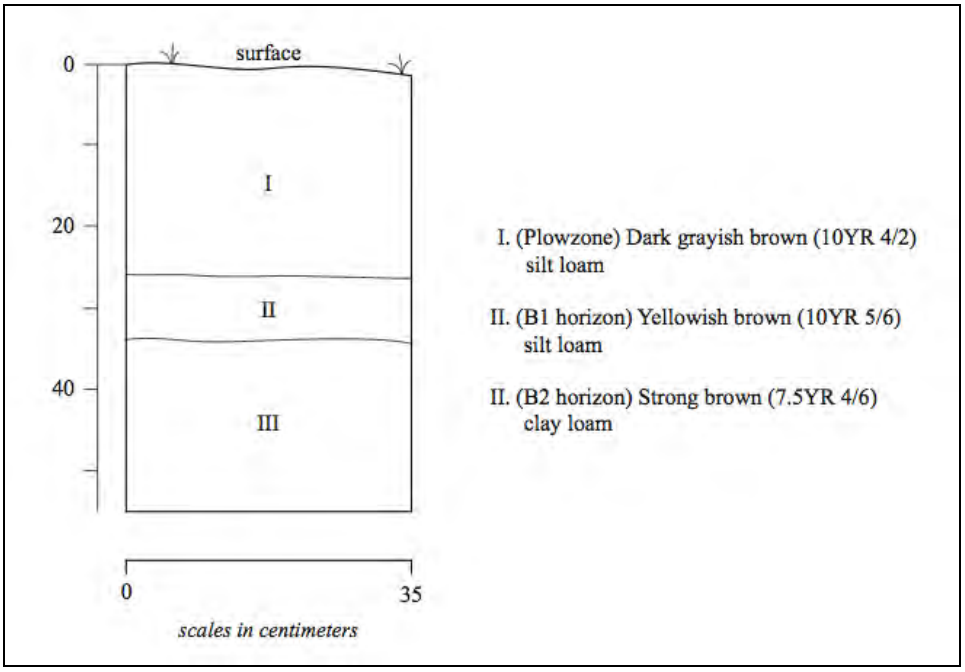

Figure 4-1. Profile of shovel test (123.7). (Source: Olsen 2010).

Testing also indicated that much of the property immediately around the vicinity of the house and outbuilding has been heavily graded and/or "scraped." The exact cause of this scraping is not known and may be related to previous landscaping efforts. Reynolds Corporation who owned the property from the 1950s through 2001 is also known to have undertaken extensive sitework and construction.

Despite the apparent surface disturbance, intensive testing in the yard surrounding the house and outbuilding produced moderate densities of historic artifacts with the highest concentrations located west of the Spring Hill house and south of the existing outbuilding. Analysis of the artifact inventory suggests that artifacts with the earliest dates were also recovered from this same general area. While there were moderate densities of artifacts recovered from shovel tests immediately around the house and outbuilding, artifact counts diminished as one moved further from the structures with most dating to the late nineteenth and early to mid-twentieth centuries.

The only evidence of subsurface features identified during the intensive shovel testing program were three buried brick walkways, sections of which were further uncovered to determine their relationship with the house and each other (Figure 4-2). One walkway originates at the concrete steps at the rear (north side) of the house and runs to the west, approximately 3.04 meters (10 ft)

from the house. This path probably connected the house with a driveway known to have existed between the house and the outbuilding. A second walkway originates at the steps on the east side of the front porch of the house and curves gradually toward the later well, located approximately 5.48-meters (18-ft) southeast of the house. A third walkway crosses the well access walkway and leads from the east side of the house at a crawlspace access door and continues across the well walkway in a straight line for at least 30.4 meters (100 ft) southeastward, down toward Proctor's Creek where it is bordered by a brick and cobble sluice that empties into a cobble-lined pit, believed to possibly be an early well feature.

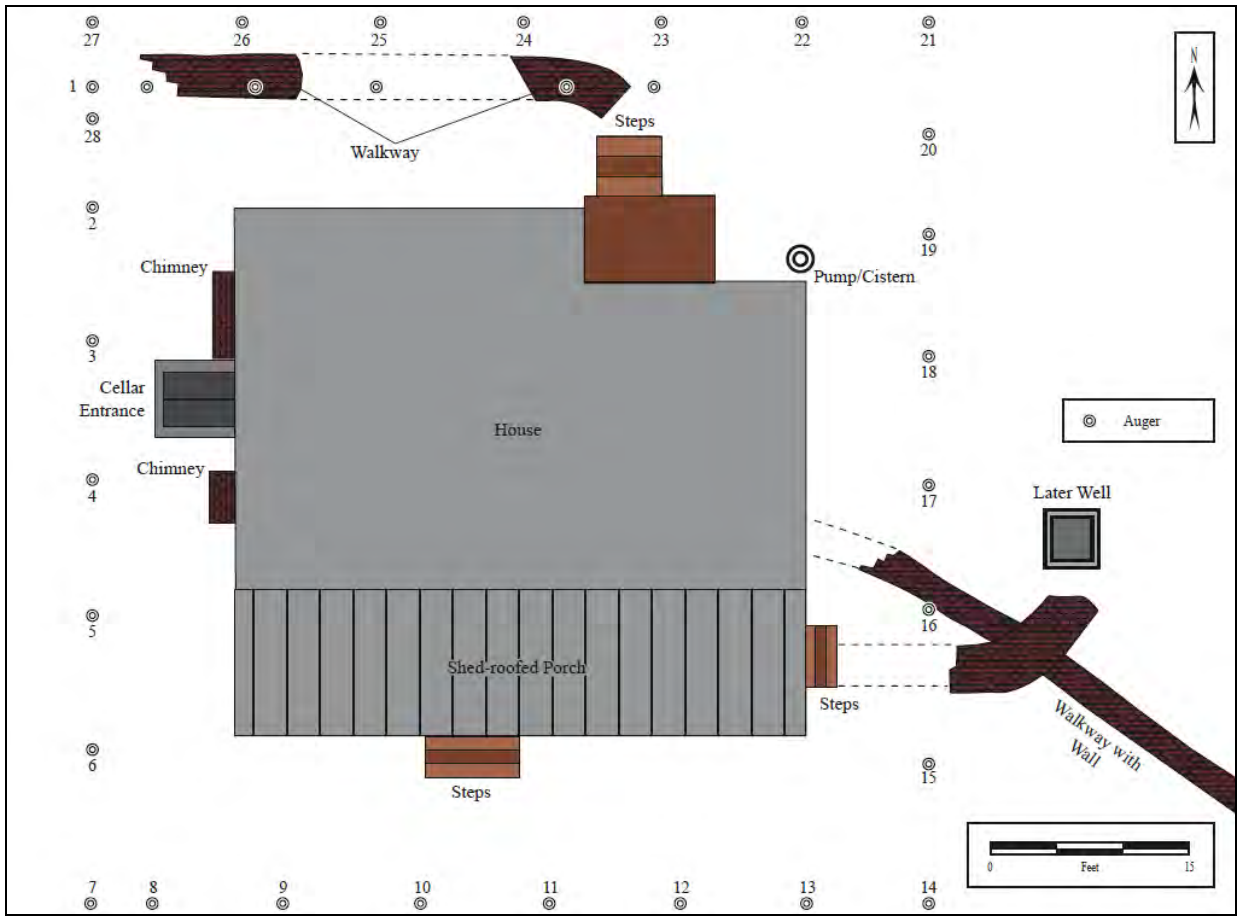

Figure 4-2. Plan view of Spring Hill house illustrating identified walkways and fence post hole locations. Source: TRC.

Examination of the bricks and patterning associated with the walkways suggests they are contemporary with other twentieth-century renovations to the house and property. The bricks themselves appear to be a mixture of machine made and reused handmade brick, likely from earlier renovation work on the property. Photographic evidence provided in the Phase I and Phase II survey report illustrates walkways dry set in a combination of a basket weave and half basket weave pattern (Plate 4-1).

Plate 4-1. Walkways uncovered during Phase II investigations. Source: TRC.

5. RESEARCH FRAMEWORK AND QUESTIONS

While previous survey efforts provide some insights into the Spring Hill house and site, property ownership, and general land use there are many details that are not readily understood. Spring Hill represents a unique opportunity to examine a single house and domestic yard in detail, and through intensive architectural investigation and archaeological data recovery establish a construction sequence and developmental narrative of the house; spatial organization of the property, activity areas, domestic yard, outbuildings, and home; and discard patterns of its occupants.

The ownership of Spring Hill is fairly well documented, and while the property was passed down through generations, only three extended families—the Branch family from 1635 until 1814, the Cox family from 1814 until 1849, and the Gregory family from 1851 until 1895—owned the property from the seventeenth through twentieth centuries. This continuum in ownership provides the opportunity to look at changes occurring as a result of household succession. Archaeologists have identified changes in households by shifts in the location of trash pits or refuse disposal areas, expansion of buildings, and changes in activity areas (Groover 2004:27). The passing down of a property from one owner to a son or daughter has been recognized as a profound event and can produce data that can be quantified in both the architectural and archaeological record (Gross 1996:193).

In addition to the general site patterns that will serve as a context for the interpretation of Spring Hill, a number of specific research questions are addressed, which include the sequence and chronology of building construction at the site, the spatial organization of the house lot, patterns in consumerism and economic status of Spring Hill's owners and occupants, status, gender, and ethnic markers present at the site, and identifiable impacts of war on the home front during the Civil War. Each research theme and with its associated questions are discussed in further detail below.

CONSTRUCTION SEQUENCE AND CHRONOLOGY OF BUILDINGS AT SPRING HILL

One of the more intriguing questions at Spring Hill is related to the architectural chronology and evolution of the home. As part of the *Historic Structure Report* and documentation package prepared in 2013, the presence of an early chimney base beneath the present structure was identified. Examination of the crawlspace during the architectural documentation of the building revealed an abandoned, interior brick chimney base with what appears to be at least two and possibly three fireboxes. The question of how this chimney relates to Spring Hill is an intriguing one. Some researchers have suggested that in the Chesapeake region it was often considered easier to build a new dwelling than to modify an existing one (Walsh 1977). The availability of land and an ample supply of trees for framing and clapboarding provided both opportunity and material for building. On the other hand, the chimney—especially if it has three fireboxes—is quite elaborate and would appear to be part of a substantial house. If someone with the financial means to construct such a considerable dwelling was living at Spring Hill, what became of the property? Why would another house have been constructed on top of this one several decades later?

One of the research questions that can be addressed at archaeological sites from this period relates to the consumer choices made by colonial settlers. As fashions changed and as the influx of money from growing and selling tobacco during the early eighteenth century made it possible to take part in the market economy, building styles changed rapidly. Is it possible that the earlier building was abandoned in favor of a newer style?

It is also possible that the chimney is part of an even earlier structure; in this case, a seventeenth-century building that was no longer standing at the time the 1704 plat was drawn up. In that case, archaeological investigation of Site 44CF0696 will shed light on some of the earliest settlement in the region—perhaps related to the original owner of the land, Christopher Branch, and his sons.

Some of the questions addressed in this study include:

> *What is the date and configuration of the chimney base beneath the current building? Why was it abandoned after a relatively short occupation?*
>
> *What is the orientation and style (e.g. post in ground, brick foundation) of the building that it was part of? Can features related to this earlier building be isolated?*
>
> *Is there evidence of the foundation/footprint of the chimney being incorporated into the existing Spring Hill house?*

SPATIAL ORGANIZATION OF SPRING HILL

Archaeologists have long recognized the importance of the layout of the house lot in establishing how residents used the space immediately around them and how this changed over time. It is likely that features and artifacts located in a yard immediately around a house have been deposited by those who lived on the property and are generally expected to reflect the tastes of the residents of the property (Spencer-Wood and Heberling 1987: 2).

While the Spring Hill house lot in this case is a relatively small portion of the larger parcel under the control of the property owner, the house lot is more likely to indicate status and taste of its occupants since it is usually the part of the property subject to the most intensive treatment as a landscape. A detailed analysis of the Spring Hill house lot offers the potential to examine specific evidence of historical land use that may shed light on the degree to which landscape alterations reflected the prosperity of the plantation and the social status of its owners and occupants as they changed over time.

It is important to note that in some cases, multiple occupations over many years can lead to confusion with separating one group of residents from another. A feature may also have other intrusive features cut into it, making it difficult to fully interpret archaeological findings (Beaudry 1986). Careful examination of identified features, their chronological and spatial relationships, can aid in the identification of discrete activity areas within the house lot further illuminating the use and public and private space. Among the questions addressed during this investigation are:

Where are activity areas and outbuildings located?

Can patterns of use over time be established? Are outbuildings used repeatedly over time or are they replaced during documented periods of rebuilding and renovation of the property?

Are there outbuildings and/or yard features that corroborate evidence for occupation of the site earlier than the existing home?

Are structural features such as fence lines and walkways present that further define use of space and functional relationships of buildings?

CONSUMERISM AND ECONOMIC STATUS

Material culture plays a significant role in establishing the economic status of a site's occupants. A proliferation of utilitarian ceramics accompanied by a noticeable lack of refined wares might suggest financial struggles and gains of the residents. Since Spring Hill was under the ownership of the same extended families over a long period of time, there is a particularly good opportunity to establish the ups and downs in the fortune of the family.

In light of the limited number of artifacts recovered during the Phase II, it is possible that the Spring Hill house was not continuously occupied. Documentary information shows that the property was almost continuously owned by members of the same extended families during the mid-eighteenth century until the mid-twentieth century. Despite this, the artifact density at the site, based on the identification and evaluation investigations, appears to be very low. The diagnostic artifacts also point more towards a mid-eighteenth century occupation than any other time period. A careful analysis of artifacts, therefore, may demonstrate that there are periods during which Spring Hill was vacant, or perhaps leased by tenants

The data recovery efforts at Site 44CF0696 yielded a variety of ceramics, glass container fragments, animal bone and other kitchen and consumption-related materials. These materials have long been used by archaeologists to shed light on the life of the occupants of a site and can provide fascinating information on socioeconomic status, market access, and consumer choice. Consumer choice and the concept of economic status as a factor that determines which material goods make their way into the archaeological record has been an important theme in historical archaeology (e.g. Spencer-Wood 1987, Klein 1991, LeeDecker 1994). A wealth of research has been done on vessel types and forms as some types, such as tea wares, are indications that the owners had both the means to acquire these items and the status to entertain in a conspicuous display of their wealth. A study of vessel types can also help identify and separate food preparation and service areas. Since there is an extant building that has been known as the kitchen but has been heavily rebuilt, a study of the location of kitchen-related artifacts (e.g. coarsewares, cooking utensils, storage vessels) may help determine the function of this building.

Additional materials will help clarify the chronology of the site and identify changes in the location of activity areas over time. It is likely that various domestic components (kitchen, privy, trash pits, activity areas, etc.) can be isolated based on the assemblages recovered. Further, the identification of features at Spring Hill should provide sealed contexts that will be helpful to

break down the evolution of the site. Among the questions to be addressed are:

How does archaeological and historical data reflect the changes in economic and social status of the residents?

What do vessel forms suggest about status and diet, are there predominately more bowls to plates and platters suggesting soups versus plated meals? Is there evidence of tea and coffee service? How are these represented through time and how do they reflect or not the status of the owners?

Proportionately, how do refined wares compare to unrefined or more utilitarian wares through time?

Is there evidence of a greater reliance on domestic versus imported ceramic and glasswares during any specific period?

How does the material culture record reflect the economic circumstances of the owners following the Civil War versus their pre-war status?

GENDER AND ETHNICITY

In some cases, archaeologists have been able to distinguish between the spheres of the work of women and the work of men within the yard space as some artifacts have been associated with women and others with men. Artifacts related to sewing (e.g. needles, thimbles, pins, scissors), for example, were typically used by women, and a collection of these in a particular part of the site would indicate the place where women may have worked on mending or the manufacture of clothing. Other artifacts, like pipes or gun-related artifacts are more commonly associated with men and can indicate places where men spent more time (Brown 1996: 24-25).

It should be noted that Site 44CF0696 may not yield enough artifacts that can be used to pinpoint gender-specific areas. Previous archaeological work did not result in a large enough collection to indicate whether this type of analysis is possible. There were also no artifacts recovered that can be related to either men or women. If over the course of the data recovery, artifacts typically associated with gender roles are recovered, this will be taken into account and discussed in the report resulting from the fieldwork.

While historic documents show that the property relied on a labor force of enslaved laborers, there is only a slight possibility that archaeological evidence of this will be located during data recovery. Use of the property by Reynolds Metals over the course of the second half of the twentieth century, and the resulting impacts on the landscape is one reason for this. Another factor limiting the likelihood of finding dwellings associated with enslaved laborers is that during the course of the eighteenth century, the layout of plantations in the region changed significantly. During the seventeenth century, slaves lived within or relatively close to the owner's dwelling (Upton 1982: 2-3; Carr et al. 1991). A number of factors in the mid-to late eighteenth century changed this pattern. By the time the present Spring Hill house was constructed, it is not likely that substantial quarters would have been constructed directly adjacent to the structure. This does not mean that there would not have been slaves working in

the house, kitchen, or other areas immediately around the house; it does, however, mean that there is less of a likelihood of isolating the presence of enslaved labor among the features and artifact assemblages at the site. Given limited relevant data recovered during the Phase II investigations, the primary questions to be addressed are:

Does the site have evidence of activity areas or features that can be linked to gender or ethnicity?

Are there patterns that can be established?

How can evidence of gender and ethnicity shed light on the evolution of Spring Hill?

IMPACTS OF WAR ON THE HOME FRONT DURING THE CIVIL WAR

Letters sent from residents of Spring Hill during the Civil War describe heavy artillery fire at the property. With accounts describing heavy artillery fire aimed at Spring Hill, evidence of shrapnel, shells, and other similar artifacts should be present in the archaeological record. However, no evidence of Civil War related artifacts were discovered around the Spring Hill house during the previous investigations.

A letter from Margaret Gregory to her cousin describes the chaos. It reads, in part, "…The balls fell so thick around my house but did not strike it. I had a great deal of fine furniture, they broke all the modern and left the old." Margaret apparently also tried to return to Spring Hill a few months later but again tells her cousin, "the gunboats were bearing on my house, the shells would fly over my house every time...at last the shelling became so bad I had to leave. The day after I left a shell weighing 132 pounds passed my chamber and went through my cook kitchen." Examination of the structure itself showed that a number of timbers in the framing of the roof had been replaced. It is possible that this is evidence of the shelling, but the descriptions of Margaret Gregory indicate that there is likely more destruction or damage on the property. The limited work done to date has not documented this. With substantial documentary evidence supporting destruction of the Spring Hill house during the Civil War, specific questions to be addressed archaeologically include:

Is there evidence in the yardscape of military use of the property and of artillery fire?

Is there evidence of fire or destruction layers associated with outbuildings?

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6. METHODOLOGY

DOCUMENTARY RESEARCH

To provide context for the architectural and archaeological investigations at Spring Hill, an exhaustive documentary search was undertaken in order to collect data on the property and its owners and occupants and supplement the existing historic context. As part of this effort, in-depth research was conducted at and through a variety of local, state, and national repositories including the Chesterfield County Courthouse and records room, Chesterfield County Historical Society, Henrico County Courthouse and Records Room, the Library of Virginia, Virginia Historical Society, Valentine Richmond History Center, Earl Gregg Swem Library at the College of William and Mary, the Virginia Department of Historic Resources (VDHR) the Virginia Department of Transportation (VDOT) Aerial Photography Collection, the Library of Congress, United States Geological Service, and assorted online-based historical and genealogical sources.

Primary source information gathered or examined included royal land grants, deed records, land and property tax records, plat maps, historic maps, and aerial photographs, colonial tithables lists, Quit Rent lists, Virginia Gazette postings, probate inventories, last will and testaments, Continental General Assembly commissioner's books and public service claims, U.S. and state census data including agricultural and slave schedules, and photographs. Secondary source information included family and local histories, journal and magazine articles, theses and dissertations, published and unpublished manuscripts and survey reports, NRHP nominations, and assorted genealogical data.

The intent of the documentary search was to be able to compile a chain of ownership for the property along with known dates of property transfer, building construction or modification, and other developmental milestones. As much information as possible about the lives of the owners and occupants was also gathered in order to better understand their economic and social status, use of the property, lifestyles, and roles within local, regional, and state history.

ARCHITECTURAL STUDY

Following the documentary research and context development, a phased architectural study of Spring Hill was undertaken to establish a developmental history and narrative of the building and property. The initial step was documentation of the property's existing conditions at the outset of the project. Inspection included the exterior and interior of the main house and outbuilding; as well as visible man-made or altered features within the domestic area of the property. Detailed physical descriptions were prepared of both buildings on the property, noting distinctive features, architectural styles and details, visible alterations, and relationship to adjacent features. Attention was paid to interpreting dates of construction, addition, and modification though materials, construction techniques, and stylistic influences. The overall setting was inspected for circulation patterns, landscaping, and spatial arrangement, paying attention again to indications of relative time period. Floor plan and site sketches were prepared and all buildings and features were marked on USGS 7.5-Minute Quadrangle maps and aerial photographs. High-resolution digital photographs were taken noting view and direction to document the house and associated features.

The second phase of the architectural study consisted of an intensive investigation of the Spring Hill house through forensic architectural study. This effort included only the main house as the kitchen outbuilding can confidently be determined to be a modern reconstruction. The intent of this effort was to collaborate documentary research and assumptions made during initial survey through controlled disassembly of the building along with archaeological investigation. To conduct the investigation, layers of the building were slowly removed in a controlled manner to inspect construction details such as plaster composition; nail and other joinery; framing and construction techniques; hidden details like abandoned mortises, scars and ghosts, and infilled or relocated door and window openings; materials preparation indicators such as hewing scars, saw marks and brick mold impressions; and builders' marks. The primary frame, roof, exterior sheathing, and flooring were left intact throughout this process to ensure building stability and preservation until it is completely disassembled and relocated at the conclusion of this study.

The intensive architectural inspection coincided with archaeological investigations around the footprint of the house and builder's trench, as well as within the cellar to aid in dating the building and subsequent alterations. To further define and prove dates of construction and modification, dendrochronology was conducted on components of the primary framing, in addition to elements or components believed to be later alterations. Throughout the process, numerous photographs were taken, sketches were made, and notes were taken so that the data and details revealed could be disseminated and summarized in the developmental history and narrative that brings together information from the documentary research, architectural study, and archaeological investigations.

ARCHAEOLOGICAL DATA RECOVERY

Data recovery at 44CF0696 consisted of three stages of work. The first and third stages focused on the Spring Hill house, on the remains of the chimney base beneath the structure, and the outbuilding. The second stage focused on the house lot and on identification of features and outbuildings to better define spatial organization and patterning.

Methods

To ensure consistent levels of effort throughout the fieldwork, standardized forms were used to record all aspects of fieldwork. Project maps were maintained and illustrate field conditions, the location of test units, trenches, and the location of cultural features. Photographs were taken of general field conditions, and of all features identified. The field methods presented below were employed to address the research questions posed in the research design and discussed in the preceding chapter.

Grid Establishment

An arbitrary grid was established at 15 meter (50 ft) intervals and a site datum was established at an arbitrary point. The datum is easily distinguished on maps and photographs. The grid and grid labeling system conform to the grid established during the Phase I and Phase II investigations of the site and serve to relate all structures, features, test units and trenches to a datum point to aid in mapping and to establish horizontal control over the site.

Test Units

The placement of test units was based on the likelihood of recovering data related to the research questions that have been presented. The presence of the Spring Hill house and the relict chimney base were helpful in guiding this process.

Test units were placed to find builder's trenches associated with construction of the Spring Hill house, as well as the associated outbuilding. The test units located adjacent to the Spring Hill house were placed to maximize the potential to locate the presence of features indicating an earlier structure that may have been associated with the relict chimney base.

Test unit size varied depending on location and generally measured 1 meter by 1 meter (3 ft by 3 ft) or 1 meter by 2 meters (3 ft by 6 ft). Around the foundation of the existing structures, for example, excavated test units measured 1 meter (3ft) by 2 meters (6 ft). Beneath the floor of the Spring Hill house and around the remains of the chimney base area excavation was undertaken following removal of unconsolidated debris and soils. In addition, controlled hand cleaning of the crawl space was undertaken in order to identify the presence of absence of additional subsurface features.

Excavation generally proceeded in stratigraphic layers. Arbitrary levels were employed in cases where features had homogeneous fill that exceeded 10 centimeters (4 in) in depth. Soil was screened through 0.63 centimeter (0.25 in) wire mesh and artifacts were bagged in reference to the southeast corner of the unit and the stratigraphic layer from which they were collected. When stratigraphic breaks were identified, newly encountered soil was uncovered completely. Test units were excavated until it was clear that sterile subsoil had been reached.

Following completion of excavation, test units were photographed and profiled. When test unit excavation revealed sub-plowzone cultural features, the features were mapped and photographed in plan view and D+A excavated a sample of the features following standard D+A procedures. The feature(s) were referenced to the previously established grid, bisected and excavated one half at a time. When stratigraphy was determined within the feature, then the feature was excavated stratigraphically. Otherwise, features were excavated in arbitrary 10 centimeter (4 in) levels. Following excavation of one half of the feature, photographs were taken and a profile of the remaining portion of the feature was drawn. Features were also photographed following complete excavation.

Mechanical Removal of Plowzone

Fieldwork involving mechanical removal of the plowzone included excavation of a series of trenches across a discrete area of the yardscape. Previous archaeological work indicated that the plowzone ranged from 10 centimeters (3.9 in) to 26 centimeters (10.2 in) in depth. The goal of this work was to identify postholes and features related to outbuildings and fencelines. As such, a backhoe with a smooth bucket was used to remove plow-disturbed soil from trenches running in a roughly northeast to southwest direction across the site. This work was done under the direct supervision of an archaeologist.

Once the trenches were excavated and cleaned, all features or potential features were mapped onto the site plan and excavation of the features commenced. Features were excavated according to standardized procedure where possible. Each was recorded in plan and photographed. For non-linear features, one half of the fill was removed to reveal a section in profile. Once the profile was recorded, the remaining half of the feature fill was removed. Fill was removed in natural layers and was screened through 0.63 centimeter (0.25 in) wire mesh. For small features encountered (e.g. fence posts) and where profiling was not feasible, the fill was removed in its entirety and a profile drawing was prepared.

Both halves of all non-linear features were excavated, including postholes and other smaller cultural features. When during the sectioning process it was determined that the feature was a natural anomaly such as tree hole or root stain, the excavation was terminated unless it was clear that the natural feature was used for cultural purposes (i.e. a tree hole trash pit). Linear features (e.g. ditches, drainage ditches, etc.) were sampled by removing representative sections, unless after limited testing it was determined that features of this type should be excavated in their entirety.

Following excavation, the location of all buildings, landscape features, test units, trenches and archaeological features were professionally surveyed and mapped.

Specialized Analyses

No features were identified during the data recovery at Site 44CF0696 that contained data where specialized analyses would yield important information. Similarly, previous fieldwork resulted in the identification of only five (5) pieces of faunal material (bone) and the current fieldwork only yielded an additional 28 pieces of faunal material. Therefore there is not a large enough quantity of bone to yield a sufficient sample to make significant statements regarding dietary patterns and preferences. Without a sufficient sample size of faunal material, D+A did not undertake detailed faunal analysis beyond simple quantification and classification.

Phasing

Stage I: Refining the Construction Sequence and Chronology of Spring Hill

The first stage of the fieldwork was to investigate the area immediately adjacent to the north, south, and west foundations of the Spring Hill house. The goal was to identify builder's trenches to more clearly define the construction chronology of the building. The area around the English bond foundation walls, the area around the Flemish bond chimney and the base of the rebuilt chimney were tested with a series of test units measuring approximately 1 meter (3 ft) by 2 meters (6 ft). Two test units were located along the western edge of the house foundation adjacent to the chimney bases, and on the southern edge of the house foundation under the modern porch addition. Any features encountered were drawn, sectioned, and then removed. The testing strategy was adapted in the field to accommodate any unusual features or to avoid areas found to be significantly disturbed.

No units were excavated on the eastern and northern sides of the house or around the twentieth-century addition. The twentieth-century addition on the eastern side of the house has likely obscured the remains of any significant features, and the twentieth-century history of the property is considered to be sufficiently well documented to no warrant further work in this area. Furthermore, TRC's investigation of the property showed that a relatively modern well and a large concrete pad dating to the Reynolds use of the property are located on that side of the house.

Another area that was investigated during this stage is the area near the chimney of the extant outbuilding. Architectural investigation suggests that the outbuilding has been rebuilt, and dates to the twentieth century. Based upon background research it appears that the existing structure was constructed on the site of the previous outbuilding, as indicated by the presence of artifacts around the building recovered during the TRC testing. A test unit was placed adjacent to the existing chimney base in order to identify a builder's trench or other features related to construction.

Following the completion of this phase of work, archaeological work shifted to the areas north, east, and west of the Spring Hill house (Stage II).

Stage II: Locating Outbuildings and Features in House Lot

The second stage in the archaeological fieldwork focused on identifying activity areas in the house lot between the existing Spring Hill house and the extant outbuilding, north of the Spring Hill house across the existing drive, and east of the house on a level terrace between areas of Reynolds' disturbance and an active ATV trail. Previous investigations by TRC (Olsen 2010) did not identify any significant concentrations of artifacts at Site 44CF0696. There is, however, some evidence of grading or scraping of the yard area (based on shovel test profiles). Small unit excavation will not easily allow for the recognition of artifact patterns or distribution of features in order to interpret the various periods of construction at the site. To locate outbuildings, activity areas, and features associated with the various periods of occupation of Spring Hill, mechanical removal of plow disturbed soils was employed to locate evidence of cultural activity.

This testing protocol varied depending on results of the fieldwork. That is, field personnel determined if there were groups of features that should be further investigated by expanding some of the excavation areas. A total of seven (7) trenches were machine excavated in the yard area west of the Spring Hill house. The trenches were excavated by a bobcat machine with a four-foot smooth edged bucket. Excavation was guided by the project archaeologist and consisted of removal of plow disturbed soils only. Excavated soils were placed adjacent to each trench. All trenches measured 1.2 meters (4 ft) in width and were between 10.6 meters (35 ft) and 48.7 meters (160 ft) in length. All trenches were shovel cleaned then troweled and inspected for evidence of features and artifact concentrations. In addition, machine excavated soils were trowel sorted and inspected for diagnostic artifacts and areas of artifact density.

Stage III: Investigating the Spring Hill Basement

Flooring in the Spring Hill house was removed in order to expose the remains of the chimney base that was identified beneath the structure. Care was taken during the removal of the flooring to protect soils of the area that were tested archaeologically. This ensured that any potential remains of postholes or other features were not harmed during the floor removal process.

Once the ground surface around the chimney base was exposed, the ground surfaces in the crawl space surrounding the chimney were troweled and inspected for evidence of features. Following cleaning, the area was inspected for evidence of builder's trenches, root cellars, and structural postholes related to perhaps an earlier building. Attention was also paid to the area under the porch on the south side of the Spring Hill house.

Excavation under the existing building was somewhat challenging due to the presence of a series of piers that were constructed during the twentieth century. The piers are located at regular intervals and resulted in some damage to the existing soils.

LABORATORY PROCESSING AND ARTIFACT ANALYSIS

All artifacts generated in the course of the data recovery were placed in bags labeled with the provenience, date, location, test unit and/or feature number, and the initials of the excavator. Provenience was maintained throughout the excavation by the use of a field specimen (FS) log, which in turn was used to generate an inventory of materials recovered. Following fieldwork, the artifacts were transported to the laboratory facilities of D+A for processing, inventory, and analysis. Artifacts were processed in a manner designed to ensure their stability and to accommodate special analyses, if warranted. Following processing, all artifacts were inventoried using Microsoft Excel. A computer-printed artifact inventory of all artifacts is included as an appendix to this report.

Analyses of historic material remains included standard typological methods applied as a prelude to chronological reconstruction. Artifacts were assigned dates through the comparison of identified artifacts with other material culture classes having documented use-popularity patterns. Ceramics and glass provided primary chronological information. Historic artifacts from the project area were also examined to establish use patterns and the functional nature of the site.

Artifact analysis was conducted using a wide range of resources including Olive Jones' and Catherine Sullivan's *The Parks Canada Glass Glossary* (1989), Ivor Noel Hume's *Guide to Artifacts of Colonial America* (1969), and *The Colonial Williamsburg Foundation Laboratory Manual* (Pittman et al. 1987). Study collections available at VDHR and at the Colonial Williamsburg Foundation were examined for comparative purposes when necessary. Minimum vessel counts were established if possible.

Other studies and analysis were aimed at gaining a better understanding of site structure, chronology and function and included mean ceramic dates, cross-mending of ceramics and glass and application of the Miller CC-Index values for English ceramics (Miller 1991).

Material culture research and documentary evidence from the ceramic industries in Europe and the Americas over the course of decades have provided manufacture dates for various ceramic types. At archaeological sites, the types of ceramics making up artifact assemblages and the frequency of those ceramic types are important temporal markers, providing dates of occupation for historic-period sites.

Using a methodology first employed by Stanley South (1977)[2], archaeologists use the midpoint of manufacture to find the date when a site was occupied. Studies of ceramics as well as refuse disposal patterns have shown these dates to be quite accurate. The formula, which includes a standard deviation to account for the length of time that it is likely to take for a piece of ceramic to make it into the archaeological record, is as follows:

$$MCD = \frac{\sum_{k=1}^{n} m_k f_k}{\sum_{k=1}^{n} f_k}$$

where m_k median date for type k; f_k frequency of type k; n total number of types

Ceramics recovered during the archaeological investigation of Spring Hill were entered into a spreadsheet to calculate the mean date of features and other archaeological contexts as well as the high and low date ranges of the ceramics encountered in the contexts.

Permanent Curation of Artifacts

All materials recovered during archaeological fieldwork are temporarily curated at D+A in accordance with requirements specified in *Curation of Federally Owned and Administered Archaeological Collections* (36 CFR Part 79) and VDHR's *State Curation Standards* while analysis and subsequent report writing are in progress. Following approval of the final report, all artifacts, field notes, laboratory records, photographs, and other project-related materials were delivered to the Chesterfield Historical Society of Virginia for permanent curation.

REPORTING

Drawing from the documentary research, architectural study, and archaeological investigations, a comprehensive developmental history and interpretation of the Spring Hill property was prepared in accordance with the terms of the MOA and the Secretary of the Interior's *Standards and Guidelines for Archeology and Historic Preservation* (Federal Register, Vol. 48, No. 190, 1983) and VDHR's *Guidelines for Conducting Historic Resources Survey in Virginia* (Oct. 2011).

[2] South, Stanley
1977 *Method and Theory in Historical Archaeology*. Academic Press, New York.

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7. DOCUMENTARY HISTORY

To provide context for the architectural and archaeological investigation of Spring Hill, the historic context provided in previous survey efforts was supplemented with additional in-depth research and data. The intent was to provide a detailed historical narrative of the property with information on property transfer, owners and occupants, and recorded information relevant to the development and evolution of the property. The following sections provide a synopsis of the history of the property as broken down by property owner. The narrative is organized and grouped by time periods reflective of major changes in ownership beginning with the Branch family (seventeenth century through 1814); the Cox family (1814-1849), the Gregory family (1851-1895); and the twentieth century.

BRANCH FAMILY OWNERSHIP (1631-1814)

Anglo ownership of the land on which the Spring Hill house is located can be traced back as far as the early seventeenth century when it was part of several land grants issued to Christopher Branch (b.1598 d.1681). Christopher Branch was born in London in 1598 and first came to Virginia in 1619 aboard the vessel *London Merchant* (Cabell 1907: 26). By the first census of Virginia in 1623 he and his wife Mary were residing in Henrico and by 1625 they were reportedly living on the "College Land," a large area adjacent to the City of Henricus that had been set aside for the first educational institution in the colony but abandoned and opened for public settlement following the Indian Massacre of 1622 (Cabell 1907: 26).

Christopher Branch (-1681)

By 1634, Branch was residing at "Arrowhattocks," an area located up the James River from the former City of Henricus and College Land. That year, the Land Office issued Christopher Branch 100 acres of property on the south side of the James River across from Arrowhattocks bordering the land of John Sheffield (Sheffield's land was located just north of Kingsland Creek (Virginia Colonial Land Office 1634). In 1635, he was granted an additional 250 acres of land on the south side in return for his sponsoring the transportation of four settlers to the colony. In 1636, he was issued another 100 acres of land for the transportation of two persons and appears to have traded some portion of his land at Arrowhattocks to James Place for an additional 60 acres of land on the south side. In 1638, Branch received an additional 350 acres on the south side for providing transport of seven more headrights (Virginia Colonial Land Office 1638).

By this time, Christopher Branch was a member of the wealthy planter class and had served a term representing his county in the Virginia House of Burgesses. The following year, he and his neighbor to the south, Captain Thomas Osborne, were selected as "Tobacco Viewers," a prominent position of authority, which charged them with inspecting and ensuring the quality of all tobacco grown and sold in the county (Cabell 1907: 28). In 1656, he was appointed to serve as a justice of the peace for Henrico County.

In 1665, Christopher Branch added 50 acres escheated from John Griffin and 630 acres for transporting an additional 13 persons and officially patented for the first time "Kingsland," his plantation of 1,380 acres on the south side of the James River (Virginia Colonial Land Office

1665). Kingsland occupied a large area of land along the west bank of the James River, north of Proctors Creek. The western boundary roughly followed what became Stage Road (today's Coach Road and Hopewell Spur of the CSX Railroad) and the northern boundary was approximately half of a mile north of present-day Willis Road. Kingsland was bordered to the south of Proctors Creek by "Coxendale," the plantation owned by Branch's neighbor and friend Captain Thomas Osborne. The proximity of estates and joint interest in political and economic ends without doubt bonded Branch and Osborne whose families mingled, intermarried, and shared associated ventures over the next century (Cabell 1927: 28).

In 1681, Christopher Branch's will was proven in court following his passing and his plantation was divided amongst his son and grandsons (Branch 1681). The northern portion of Kingsland was deeded to his oldest son Thomas, who according to the will, had already been informally granted the land by his father while living, and who was already residing on and tending this area. Christopher's second son, William had already been given land across the James River, and his sons were only granted the right to hunt and fish upon the Kingsland tract according to Christopher's will. The lower portion of Kingsland was divided and granted to his three grandsons from his third son, Christopher Branch II, who had moved to Charles City County and then died at a young age. As these three grandsons were all still young when their father passed away, they had come to live with their grandfather, Christopher I at Kingsland. Interesting to note was the probate of Christopher Branch's belongings, that show that while he was a wealthy man, the vast majority of his worth was in land, slaves, and crops; for the inventory shows very little in the way of luxuries or material possessions (Cabell 1907: 32).

Christopher Branch III (1681-1686)

According to the will, the lower portion of Kingsland was to be divided roughly into thirds, with each grandson getting a portion, beginning with Christopher III (b.1659 d.1727), who was to receive all the land between the James River and a "long slash", from Proctors Creek to the northern portion of the plantation deeded to Thomas. All of the land between the long slash and the bottom called by the name "Jacks Bottom" between Proctors Creek and Thomas' land was given to Samuel, and all of the land west of Jacks Bottom was given to Benjamin (Figure 7-1). As only Christopher was of age to receive land at the time of his grandfather's passing, the will also mandated that Samuel and Benjamin were to reside with Christopher III until they were of age to seat their own land. The will said that each older brother was to assist their younger brother in clearing their land and building a home as they reached proper age. It stated that each house was to be "four lengths of board every length to be five foot," or approximately 20-feet (Henrico County Deed Book 1: 209-210).

The location of the Kingsland Plantation house and domestic core is not known definitively, however it is probable that the building identified as Christopher Branch house (referring to Christopher III) represents the Kingsland house, passed down to Christopher III. This would place it well closer to the James River, and not on or near the property that became Spring Hill (Figure 7-2).

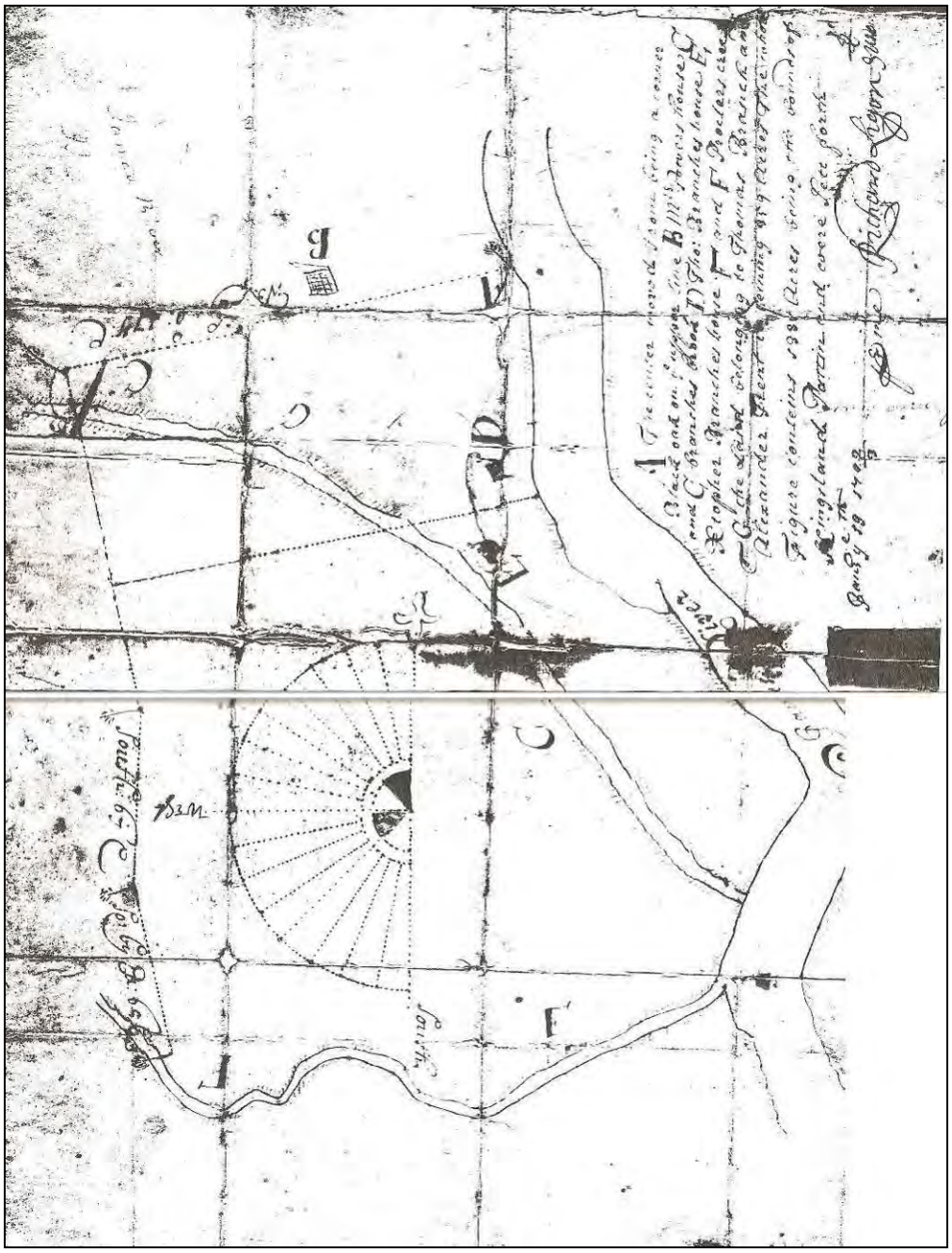

Figure 7-1. Plat of the division of Kingsland, 1702. Source: Virginia Historical Society

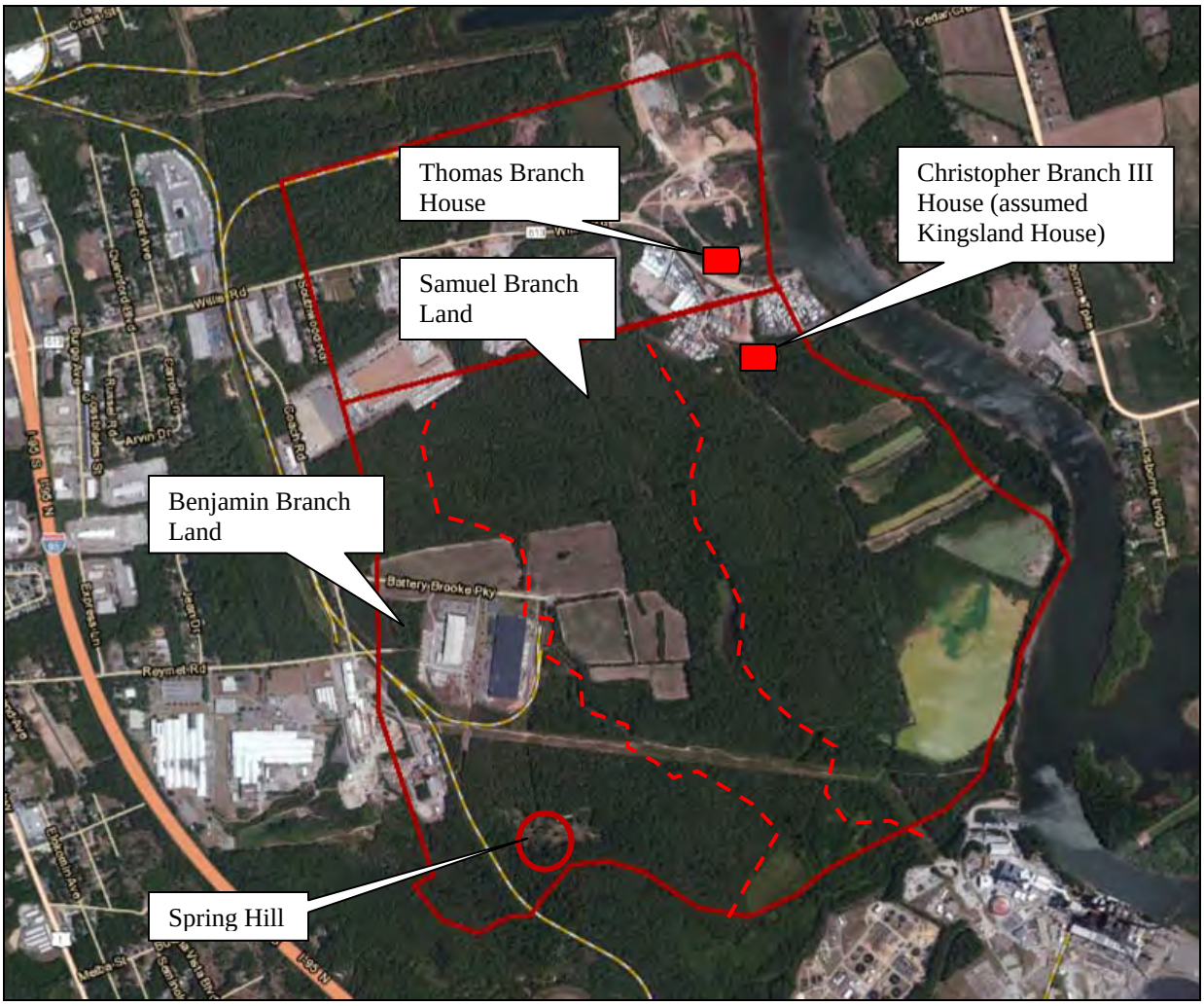

Figure 7-2. 1702 map of the division of the 1,380-acre Kingsland Plantain with notes overlaid on modern aerial photography. (Boundaries Approximate).

Benjamin Branch (1686-1706)

The Spring Hill site is located on what was part of the land given to the youngest grandson, Benjamin (b.1665 d.1706). What was referred to as "Jacks Bottom" is the small creek that now flows below the remains of Civil War Battery Brooke. The western boundary was the edge of Kingsland, which as stated previously, roughly coincides with the former Stage Road (now Coach Road) alignment (from George Cox Papers Collection VHS). According to his grandfather's will, Benjamin was to clear this piece of land, plant a crop of corn, and build his home there with the help of his brothers around his coming of age in 1686. Whether or not Benjamin built a home as dictated by his grandfathers will and exactly where it may have been located is not known; although in February 1686/7 Benjamin Branch did petition the county court that he was of lawful age to receive his estate from the guardianship of his brother Christopher (Henrico Co. Orders & Wills 1678-93, p 229). A family history written in 1907 describes this Benjamin Branch as a relatively idle man, who continued to farm his modest share of the Kingsland plantation without ever increasing its size or acquiring land elsewhere (Cabell 1906: 40). This does not necessarily prove true, as Henrico County Quit Rent records indicate

that in 1704, Benjamin Branch was taxed on 550 acres which reveals he had acquired roughly 150 additional acres beyond his initial share of Kingsland.[3] He possibly obtained additional land from his brother Samuel Branch who died in 1700 and it is not known what happened to his share of the Kingsland estate. Not only do the quit rents reveal that Benjamin had 550 acres, but also indicate that Christopher III was taxed on 646 acres, indicating it is possible that both of them acquired some of Samuel's share as 646 and 550 would both be larger than their original shares. The 1907 family history furthers that he is not known to have ever occupied any public position, nor enjoyed any particular prominence. A probate of his property taken in 1706 also contradicts the 1907 description and reveals that Benjamin Branch maintained a fairly wealthy estate that would have been considered very respectable; if not elite. Benjamin did remain a bachelor until he reached the age of 30, unusually old for a marriage at the time; however his reputation or family name did still allow him to marry Tabitha Osborne in 1695, the elder daughter of the wealthy Edward Osborne, the son of Captain Thomas Osborne of Coxendale. By Tabitha, he had one son, Benjamin II, born around 1700, although soon after his son's birth, Benjamin died in 1706 (Cabell 1907: 40). Perhaps as a result of an untimely death at a young age, Benjamin died intestate and therefore his belongings and property were probated as part of a court appraisal. This inventory lists a variety of possessions, livestock, and outbuildings with a value of 32,740 lbs. of tobacco and slaves valued at 105L (Henrico County Miscellaneous Court Records, Vol. 1, page 167-168, 1706).

Archaeological investigations on the property including around the domestic core did reveal a small number of artifacts that could date to as early as the late-seventeenth century; however, no indication of architectural features from this time period or aligning with the Branch will-mandated 20-foot house "of four lengths of board every length to be five foot," were identified. Signatures of architectural development from this period can be elusive as buildings were likely constructed using post-in-ground techniques, or sometimes only a sill-on-ground; however, the light density of artifacts from this period also do not coincide with the relatively wealthy material possessions of Benjamin Branch as indicated by his probate. Such a contrast suggests that development of the property during the 1685-1706 period may likely have been in a different location than the current Spring Hill house, or possibly not on the property at all.

Regardless of the location of Benjamin Branch's house, upon his death in 1706, his widow Tabitha received a third of the estate, which included three slaves, by court order. Interestingly, she married Thomas Cheatham, one of the court administrators who performed the court appraisal, the same year. Such an act may explain why several years later, Benjamin II appeared in Orphans' Court in April of 1712, and chose his uncle on the maternal side, Edward Osborne, Tabitha's brother, and the heir of the northern portion of Coxendale just across Proctors Creek, as his guardian rather than his estranged mother and Thomas Cheatham (Cabell 1906: 41). While this reasoning for selecting his uncle as guardian is mere speculation, and it cannot be determined assuredly why the young Benjamin Branch II selected his uncle rather than his mother as guardian; however, the decision likely aided in his later economic success, as Edward Osborne was a wealthy man and may have guided and secured Benjamin II's prosperity (Cabell 1906: 41).

[3] The exact acreage of Benjamin Branch's share of Kingsland is not known, however a survey taken before the property was sold in 1814 indicate it was 412 acres by that time.

Benjamin Branch II (1721-1762)

What happened to Benjamin's property and home following his death is not known. Whether or not Tabitha and Thomas Cheatham chose to reside there, if it was leased, or left vacant cannot be determined, but presumably, Benjamin II (b.1700 d.1762) living just across Proctors Creek with his uncle, received the estate upon his coming of age in 1721. At that time, Benjamin II began a life of growth and success (Cabell 1927: 42). In 1727, he married his cousin Mary Osborne, and by her had three sons, Benjamin III, Thomas, and Edward. In 1736, Henrico County taxed Benjamin on six levies and 300 acres.[4] By the 1740s, he came into possession of at least a portion of the Redwater Mill, a water mill located at the mouth of Redwater Creek and Proctors Creek just across from his portion of Kingsland. The mill was established in 1711 by the Hatcher, Mosely, and Turpin families, and exactly how Benjamin came into possession of it or a portion of interest therein is not clear. All three of the founding families were closely intertwined through marriage with both the Branch family and the Osborne families, and therefore it is likely that the mill was inherited or otherwise passed down until it reached Benjamin II. Benjamin also likely continued to be a planter and by the time of his death in 1762, had amassed nearly 1,500 acres of additional land in western Chesterfield County along the Sappony Creek, as well as additional land in Amelia County, placing him among the upper level of wealth in the county (Will of Benjamin Branch 1762). His tithables for that year indicate he had 13 slaves on his home plantation. Where his home plantation was, and whether it was on his father's part of the original Kingsland plantation or if it was in western Chesterfield or Amelia County is not clear.

Benjamin II's will shows that he divided his land and estate between his three sons. His oldest son, Benjamin III, later known as Captain Benjamin Branch, was only granted half of Benjamin II's interest in the Redwater Mill and one slave; however, it can be assumed that following the Branch family tradition, he had already been given his share of land before his father's death. Benjamin II's younger two sons, Thomas and Edward were each given land in the Sappony Creek area of western Chesterfield County and some land in Amelia County along with 20 slaves to divide. Thomas was also given a variety of livestock he already had in his possession while Edward also received the other half interest in the Redwater Mill. Two daughters were each given 3 lbs current money of Virginia, and another daughter was given 8 slaves along with some furniture and other possessions. All remaining household goods and possessions were to be divided among Thomas and Edward. The seemingly lack of inheritance for his oldest son Benjamin III can likely be explained by his having already been given ownership or possession of a large value of the estate, likely the family tract at Kingsland on which Spring Hill is now located; however, this could not be documented.[5] Further, the actual value of his estate is difficult to discern as he placed full trust in his sons to divide the estate equally, and therefore

[4] This is likely the former Kingsland tract deeded to his father.

[5] This assumption is supported by the fact that by the end of the eighteenth century, the Spring Hill tract was in the possession of an Edward Branch (Chesterfield County 1791). Two of Benjamin Branch II's sons, Captain Benjamin Branch III and Edward Branch, subsequently had sons named Edward that would have been of the correct age to own the land by this time; however it is more likely that it was Captain Benjamin Branch's son Edward. Family genealogy records indicate that the other son Edward was identified with a middle initial "O" for Osborne, which according to contemporary Land Book records existed, but owned land in the Sappony Creek area, consistent with Benjamin II's granting of land in the Sappony Creek area to his son Edward (Cabell 1927: 47; Chesterfield County Land Books 1791-1840).

requested that it only be inventoried but not appraised following his death (Will of Benjamin Branch 1762).

Captain Benjamin Branch (III) (1762-1786)

Benjamin Branch (III) (b.1732 d.1786), also known as Captain Benjamin Branch, and sometimes Benjamin Branch of Willow Hill (a name propagated by the 1907 family history), appears to have inherited the Kingsland tract originally deeded to his grandfather Benjamin I, and was a successful man who was intimately involved with the dealings of Chesterfield County. In 1755 he married Mary Goode of the prominent Goode family, and by her had three sons, Benjamin IV, Thomas, and Edward. It was this Benjamin Branch who after acquiring the Spring Hill tract from his father in 1762 began construction of the existing Spring Hill house. Dendrochronology indicates that builders began felling trees for the home in the winter of 1766 and likely completed the house the following spring of 1767. Two years later, Branch was made a county justice and when the Revolution erupted, he was named Captain of the Chesterfield County militia for which he earned an honorable reputation for his service during the 1781 campaign through Virginia (Cabell 1927: 46).

Throughout the Revolutionary War, Benjamin and his sons contributed to the cause not just through their service, but through donation as well. Commissioner accounts reveal that Benjamin III, and his sons Edward and Thomas all gave a variety of produce, horses, and other goods to the continental army and cavalry. In fact, the number of horses given during the war plus the number accounted for in Captain Benjamin Branch's will indicates the family was moderately to heavily involved with raising and tending of horses (Will of Benjamin Branch, 1786).

Throughout his life, he expanded his land holdings though acquisition of an additional 150-acre plantation in Amelia County which he purchased in 1778. It seems that he also acquired a plantation in western Chesterfield on the Sappony Creek, called "Willow Hill," from his brother Thomas Branch who died in 1778. It is from this plantation for which Benjamin Branch III's name is popularly derived; however, it is unclear if he ever actually lived there. Despite his plantation in Amelia County, he appears to have remained in residence in Chesterfield, for in 1782 Amelia County listed Benjamin Branch an absentee landowner with twelve slaves (*Southside Virginia Genealogies*). Records indicate that specifically, he seems to have remained in residence at Spring Hill.[6] In 1783, Chesterfield County listed him head of a family of four with 16 slaves. Later, he served as Sheriff and Magistrate for Chesterfield County.

Unfortunately, his life was cut short in 1786 when he was killed after falling from his horse. At that time, his estate was divided according to his last will and testament prepared just several years earlier. According to his will, Captain Benjamin Branch's widow Mary Goode received all of the slaves which he received by her upon marriage, seven horses, 20 head of cattle, 15 sheep, 20 hogs, all of the furniture she was possessed of when they were married, 50 barrels of corn, 50 bushels of wheat, and 1500 pounds of pork, all in lieu of her dower. His oldest son, Benjamin (IV), was given three slaves, a horse, and a desk already in his possession. His son Edward,

[6] Several facts support this conclusion: first, a 1779 Virginia Gazette post indicates one of his slaves had run away, and he requested it be delivered to him near Osborne's warehouse which was located on the James River just below Proctors Creek. Secondly, his will leaves to his son Edward the "plantation, home, and lands adjoining on which I now live." It is this Edward who was in possession of Spring Hill and subsequently sold it several decades later.

received the home, plantation, and lands adjoining on which Captain Benjamin lived, and likewise, his half interest in the Redwater Mill, as well as three slaves. To his son Thomas, he left the plantation and lands he had in Amelia County along with three slaves. His daughter Anne received three slaves, a feather bed, and miscellaneous furniture, while his daughter Obedience received three slaves and a horse. The rest of his estate was to be divided equally between his sons Edward and Thomas. It is unclear in this case what land or inheritance his oldest son Benjamin received. According to Branch family tradition, the oldest son received very little from his father's will, indicating that he had likely already been given his share of land before his father's death. Presumably, this was typically the largest, finest, and/or home tract; however, interestingly in this case, Captain Benjamin Branch's will reveals that his second son Edward, received the home and plantation on which his father had resided. It is likely that Benjamin IV received the Willow Hill tract in western Chesterfield County on the Sappony. Meanwhile, Thomas received Captain Benjamin Branch's only other known land in Amelia County. Benjamin IV died the same year as his father though, and his youngest brother Thomas appears to have inherited Willow Hill, thus becoming known as Thomas Branch of Willow Hill.[7] It was therefore Captain Benjamin Branch's son Edward that received the "home plantation" in 1786, which contained the existing Spring Hill house.

Edward Branch (1786-1814)

Contemporary records on this Edward Branch are slim, and little is known of his life and/or occupation of the property. Edward (b.1757 d. unknown) is known to have been involved with the business and affairs of his father and therefore the county during his lifetime. During the Revolutionary War, he served in the Chesterfield militia with his father and was promoted to the rank of First Lieutenant (In the Order Book of the April Court, 1781, page 319, of the Chesterfield County Records). Just like his father and brother Thomas, he also contributed to the revolution effort by providing produce and goods to the continental army. Upon the death of Captain Benjamin Branch, Edward and Thomas were tasked with completing the collection of taxes for the year 1786 which as Sheriff and Magistrate, their father had been responsible for. Throughout the 1790s, Edward also appears to have become involved with real estate transactions as he shows up holding several Deeds of Trust for neighbors and their properties. He also sold off his interest in the Redwater Mill in 1797. In 1804, Edward Branch was appointed a justice of the county and at an unknown date, he married Sarah Patteson (Cabell 1915 *The Majors and their Marriages*). It appears that during the War of 1812, Edward was appointed the rank of Major, although little could be found of his service.

Data on Edward and Sarah's occupation of the Spring Hill property is equally scarce. Chesterfield County land book records do not indicate that Edward and Sarah acquired or possessed any additional lands, at least in Chesterfield County, and therefore it is assumed they lived in the Spring Hill house through their tenure.

For unknown reasons in 1814, Edward and his wife Sarah sold the Spring Hill plantation to George Cox, an ancestral relative and member of the illustrious and wealthy Cox family of Henrico County (Chesterfield County Deed Book 20: 1–3). The sale may perhaps have been

[7] It is this Thomas Branch and his family who are buried in the cemetery at Willow Hill. The house has been demolished and little information is known about it.

related to Edward's service during the War of 1812 such as having received a pension allowing the purchase of a larger home, economic struggles forcing the sale, real estate speculation, or for reasons completely unrelated. Census records do indicate that Edward and Sarah remained in Chesterfield County after the sale through the rest of their lives in the 1830s and 1840s respectively (U.S.C.B. various). This sale, however, marked the end of direct Branch family association to the Spring Hill property.

COX FAMILY OWNERSHIP (1814-1849)

During the first half of the nineteenth century, the Spring Hill property was owned by members of the Cox family, who were prominent in the Chesterfield and Henrico County areas, and had been so since the seventeenth century when original members of the Cox family came to Virginia and established plantations near Henricus and at Coxendale along with Sir Richard Dale.

George Cox Sr. (1814-1837)

In 1814, the Spring Hill property was purchased by George Cox (b. circa 1758 d. 1837) from Edward Branch for the sum of $4,140 (Chesterfield County Deed Book 20: 1–3). The sale consisted of 414 acres, although how closely this parcel coincides with the original tract given to Benjamin Branch in 1686 cannot be determined. A plat map found in the Cox Family papers at the Virginia Historical Society drawn by the county surveyor for Major Edward Branch in 1813 accompanies the transfer, and depicts the boundaries of the property as similar to the former Kingsland tract given to Benjamin Branch, although possibly extended further to the north (Figures 7-3 and 7-4). Also of interest is the fact that the plat map depicts the entire property as one tract, but shows a dotted division line and notes acreage for two separate parcels. The existing Spring Hill house would have fallen in the southern parcel, however is not depicted.

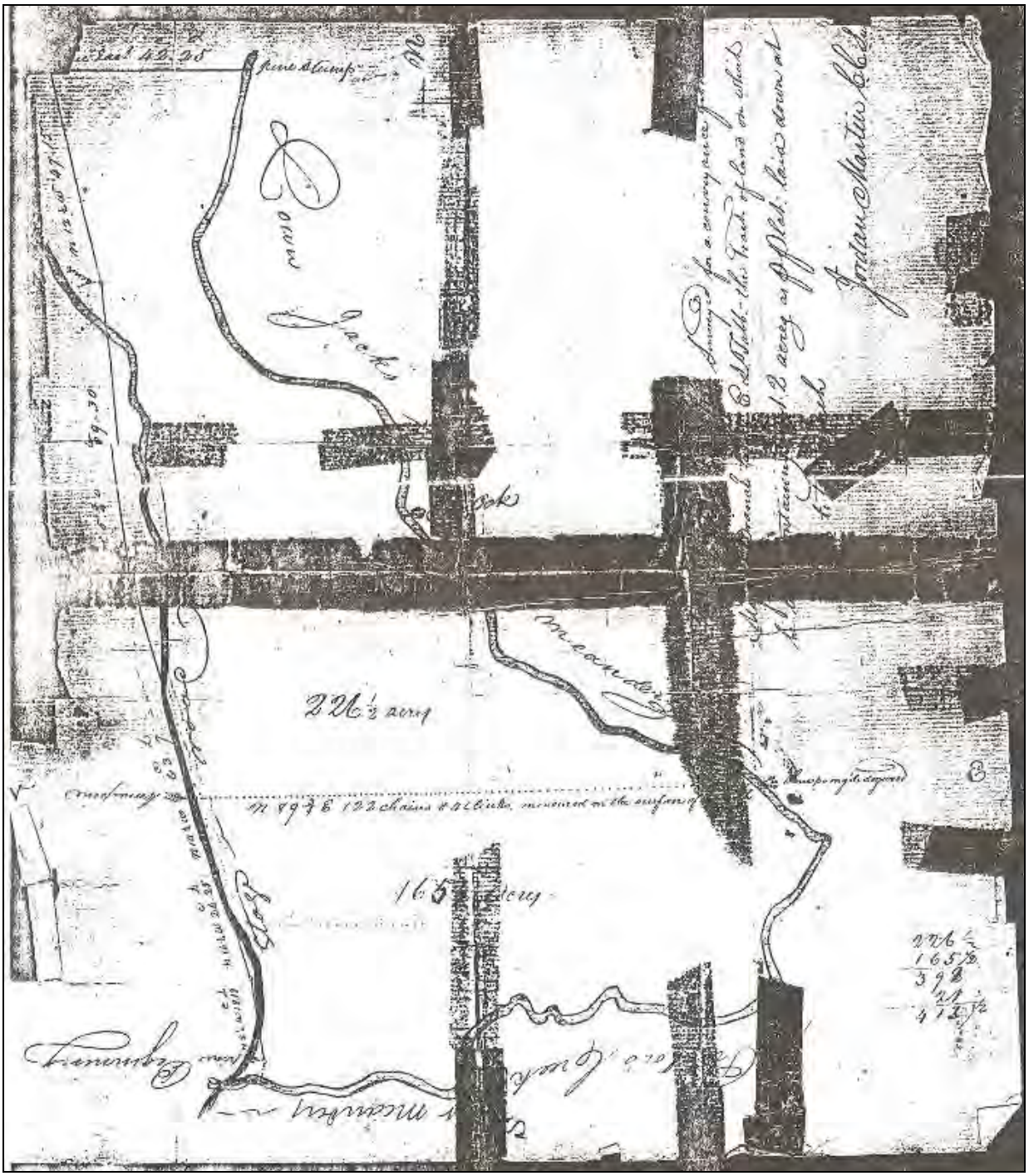

Figure 7-3. Survey of 414 acres in Chesterfield County (Spring Hill) for Major E. Branch, October 30, 1813, by Jordan Martin, County Surveyor. Source: Cox Family Papers at the Virginia Historical Society

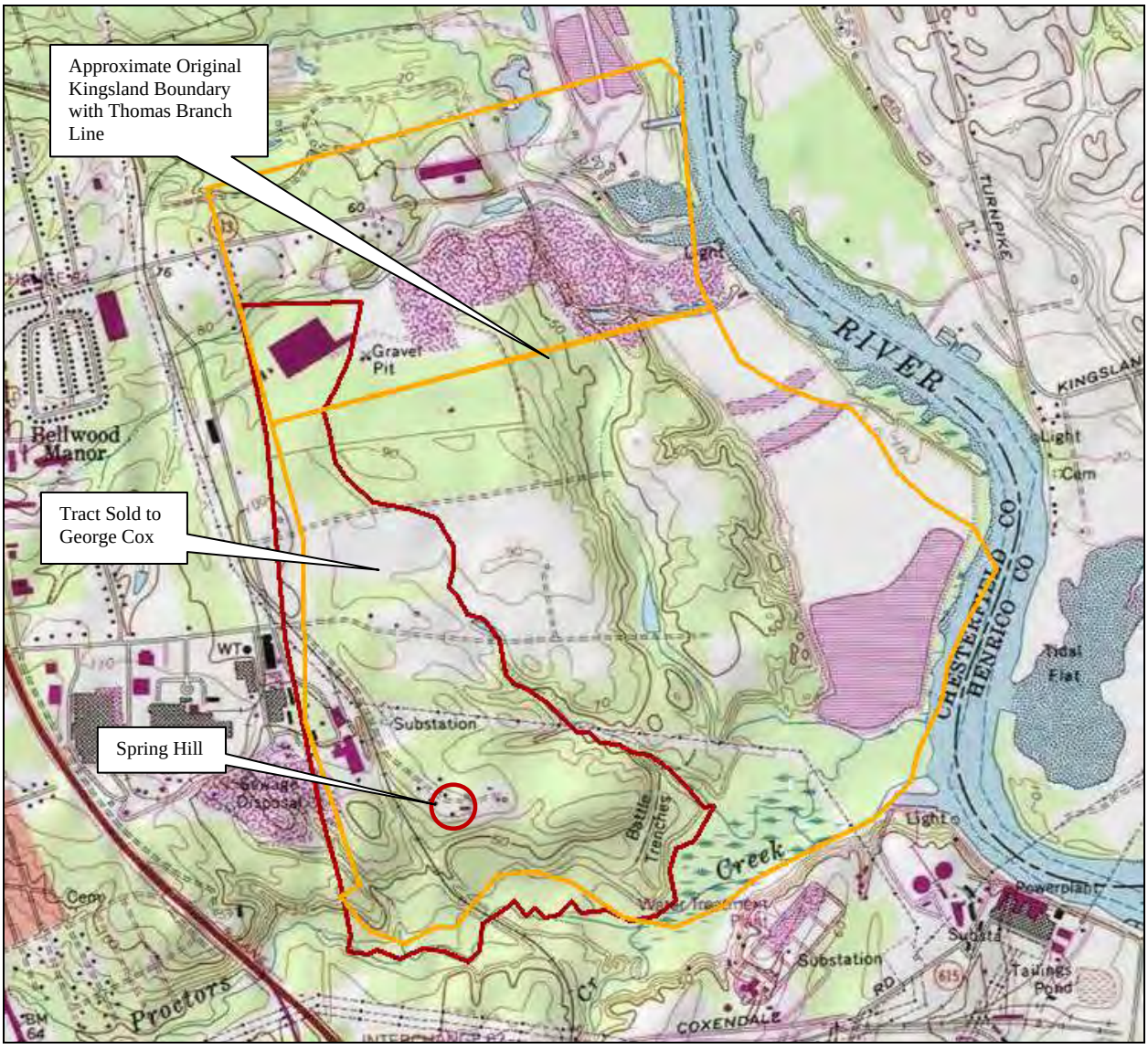

Figure 7-4. Approximate boundaries of the Spring Hill tract, October 30, 1813. Detail of Drewry's Bluff, Topographical Quadrangle, 2010. Source: USGS

Acquiring the Spring Hill tract was part of George Cox's partial reassembly and expansion of the first Christopher Branch's Kingsland plantation. In the years before and after acquiring Spring Hill, George Cox acquired the additional property to the east that formerly formed the Kingsland tract and also appears to have expanded it to the south and possibly the west across Stage Road bringing the total acreage to 2,379; far larger than the original 1,380-acre tract.[8] Kingsland was just one of George Cox's many land holdings in the area. Early in life, George Cox inherited the Coxendale Plantation to the south of Proctors Creek, along with Chestnut Hill to the southwest, as well as a plantation in Amelia County, from his father, another George Cox, by will in 1780. Later, George Cox's holdings were expanded through outright acquisition, his marriage to Mary

[8] He does not appear to have acquired the northern portion of Kingsland originally granted to Thomas Branch that by the early nineteenth century was the property of Dr. William Tazewell and his plantation called "Richmond View"

Friend of the landed Friend family, and further inheritance from his brother Henry Cox, from whom he received plantations at Ware Bottom, Baldwins, and Farrars Island (Will of George Cox 1837- WB 13 pg. 579). By the 1830s, George Cox owned nearly 4,000 acres along both sides of the James River, encompassing a number of plantations (Chesterfield County Land Books 1791-1840) (Figure 7-5).

Figure 7-5. Location of George Cox properties in Henrico and Chesterfield counties. Depicted on Civil War-era Map.

It cannot be determined exactly how George Cox used the Spring Hill house, tract, or the larger Kingsland property throughout his entire ownership. Prior to the time George Cox purchased the property, census and genealogical records indicate that he was likely living at Chestnut Hill which is where his son Henry Cox was born in 1807. In 1820, the federal census reveals that George Cox may have been living on his Kingsland Plantation as his name is just three entries down from Richard Gregory who is known to have lived at New Oxford, just north of Kingsland. At the time of George Cox's death in 1837, it is known from the appraisal and inventory of his estate that he was living at Kingsland along with his daughter Martha with her husband Charles W. Friend in a separate house (Chesterfield County WB 14, p. 163 -Inventory of George Cox 1837). By that time, however, George Cox had expanded Kingsland and annexed some of his earlier property to it, including land on the south side of Proctors Creek. This did not include the Coxendale property which was still considered a separate tract. It therefore cannot be determined whether he was living on the original Kingsland plantation north of Proctors Creek, somewhere south of the creek, or possibly on additional land to the west of the original boundary (and the Spring Hill tract).

By that time, Spring Hill would have been considered a relatively old and small house for a man with the wealth and land of George Cox. Although drawn over 30 years later, Civil War-era maps may reveal some insight into the location of George Cox's home (Figure 7-6). Maps at that time depict just two primary dwellings on what had been the eighteenth century Kingsland Plantation; the existing Spring Hill house, and another house just to the north along Stage Road. An additional home is depicted just west of the plantation, as well as one just south of Proctors Creek. George Cox's will implies that the property south of Proctor's Creek and west of the Stage Road was where his son George Cox, Jr. was living[9], leaving the three north of Proctors Creek as possible residences. Little information is known about the two houses other than Spring Hill as both have long been demolished. By the Civil War, both have much larger collections of outbuildings and better agricultural land surrounding them. The one just north has direct access to the river with a road leading from the house to the river directly across from "Kingsland Road" in Henrico County. This home too, was valued significantly higher than Spring Hill by the 1850s when the properties were subdivided and separate values can be ascertained.

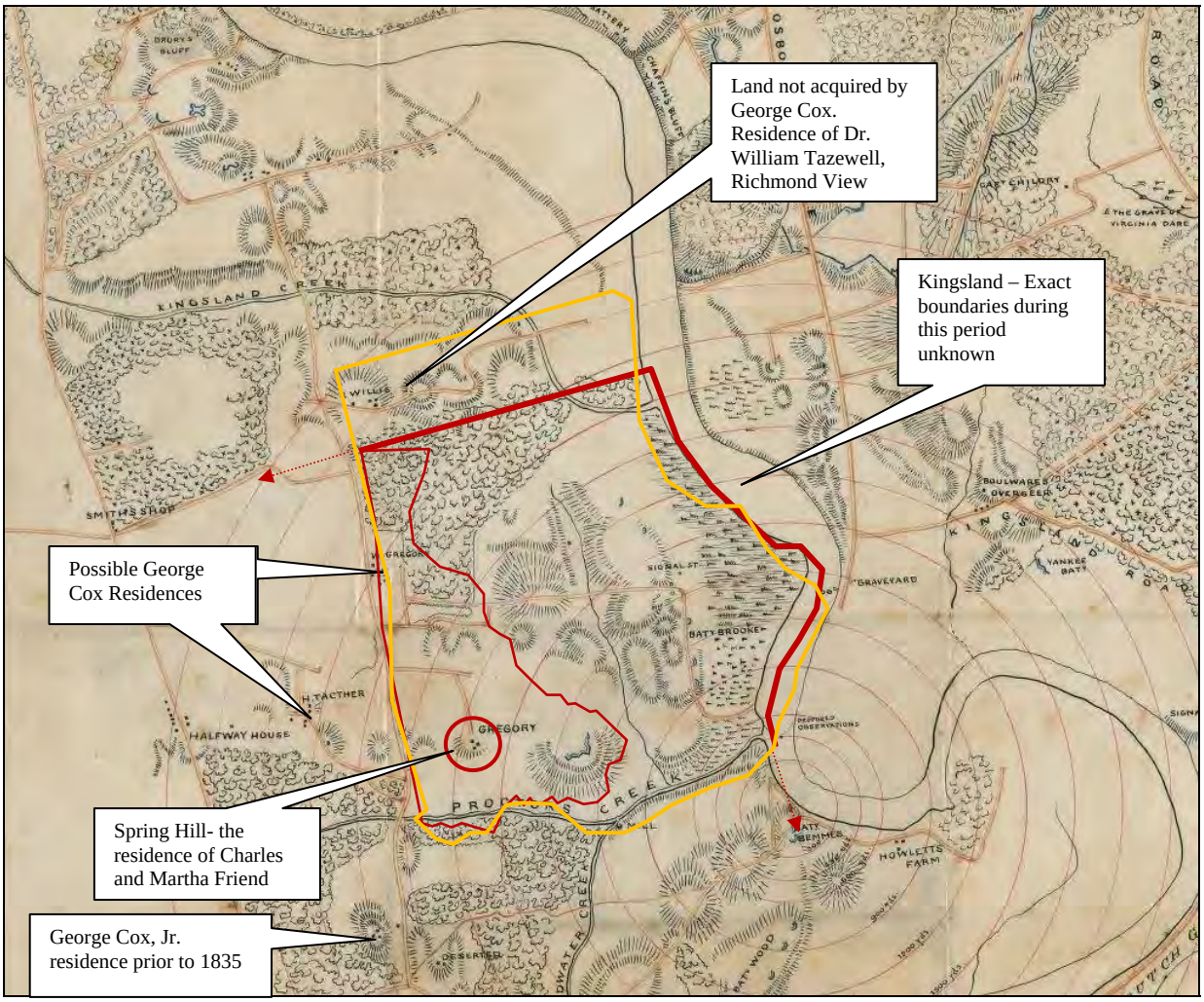

Figure 7-6. Detail of Semmes Battery depicting potential residences of George Cox

[9] George Cox, Jr. apparently lived at this property south of Proctors Creek until 1835 when he purchased land west of the Richmond-Petersburg Turnpike Road and built a new home called "Bolling Hall".

While it cannot be determined if George Cox ever resided in the existing Spring Hill house, it is reported through family history that Martha and Charles W. Friend were living there as of 1837. George Cox's will implies they may have been living there by 1832, and their family bible confirms they were living there by 1845. The earliest likely date that the Friends would have moved in was 1822 when they were married. Therefore, if George Cox did not live in the existing Spring Hill house, it cannot be determined what the home was used for, or who may have lived there beginning in 1814 through whatever date the Friends took residence.

When George Cox, Sr. died in 1837, he left a complex last will and testament. He originally wrote the will in 1832, but remarried that year prompting him to write a codicil. He wrote another codicil in 1837 after the death of a daughter, and just months before his death. The second codicil made substantial changes to the division of his estate, likely prompted by the real estate acquisition and construction of a new home by his son George Cox, Jr. in 1835. George Cox Sr.'s initial will written in 1832 had left Coxendale as well as land in Nottoway County to George Cox, Jr.[10] Meanwhile, his second son, Henry Cox was to receive Farrar's Island in Henrico County. The will went on to say, that his daughter Martha and her husband Charles W. Friend were to get the southern half of Kingsland, while his daughters Judith Cox and Susanna F., wife of Thomas C. Friend, were to receive the north half. This is consistent with Martha and Charles W. Friend already living at Spring Hill, which falls within the southern half of Kingsland, by 1832. Meanwhile his daughter Frances Gregory, the wife of Richard A. Gregory of New Oxford (now called Bellwood) was to receive the "Baldwins" and Ware Bottoms Tracts. Some additional money, possessions, and slave were to be left to his daughter Mary Graves, the wife of Charles C. Graves, his nephew Edward Cox, and his daughter Elizabeth Smith, wife of Edward Smith (Will of George Cox 1837- WB 13 pg. 579).

The codicil that George Cox wrote in February 1837 just a month before he died changed many of the mandates. One of the largest changes was that it revised the division and inheritance of Kingsland. Whereas originally, it was to be split by his daughters while his son George Cox, Jr. was to receive Coxendale where he was living at the time the will was written. In 1835, several years after George Cox wrote his will; George Cox, Jr. purchased a tract of land just west of Kingsland and constructed a large new house. This acquisition prompted George Sr. to trade Kingsland to his son, while his daughters, including Martha Friend, were to get Coxendale (Will of George Cox 1837- WB 13 pg. 579) (Figure 7-7).

[10] It notes that George Cox, Jr. was living on property on the north side of the road from Coxendale to Chesterfield Court House, west of the old Richmond Stage Road.

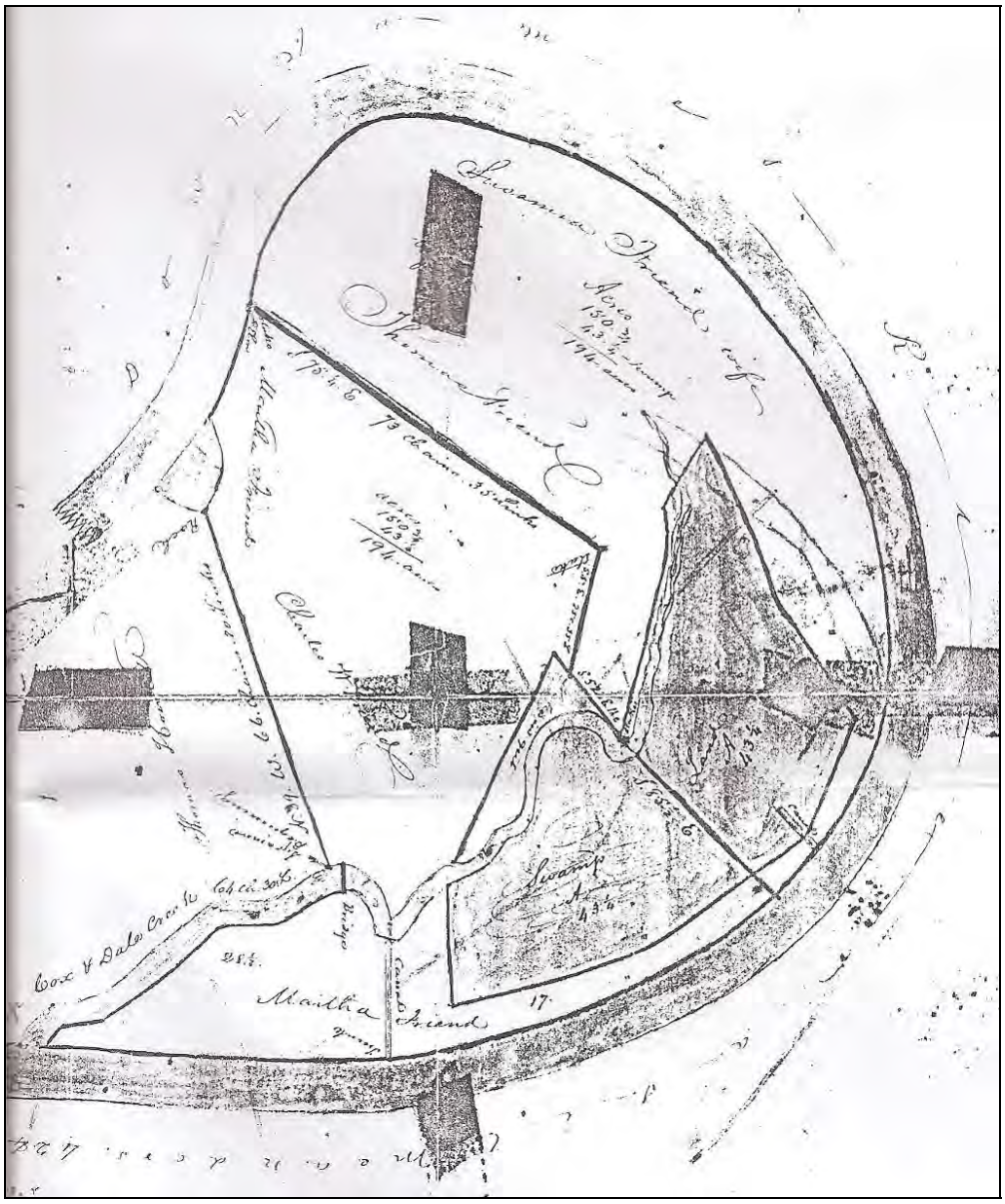

Figure 7-7. Division of Coxendale Farm amongst Cox and friends, 1838. Source: Chesterfield County WB 13, pg. 579)

George Cox Jr. (1837-1849)

According to the codicil of George Cox, Sr.'s will, all of the land north of Proctors Creek including Spring Hill/Kingsland went to his son George Cox Jr. (b.1796 d. 1845) while Coxendale was divided amongst just his daughters that had married into the Friend family, Martha and husband Charles Friend, and Susanna and husband Thomas Friend, but not Judith for reasons unknown (Chesterfield County Will Book 13: 579-586). The portion of Kingsland north of Proctors Creek that came to George Cox, Jr. consisted of 1,258 acres, indicating that much the land George Cox, Sr. annexed to it was south of Proctor's Creek, as it had contained 2,379 acres in total.

It is known that George Jr. did not reside at Kingsland, because he had just a year earlier completed the construction of a large new residence on the property he purchased in 1835, west of Kingsland, on the west side of the new Richmond-Petersburg Turnpike Road (built 1824). He may have purchased this land and built the house to be nearer to his in-laws after marrying Peggy Cole Gregory, the daughter of Richard A. Gregory of New Oxford. George Jr.'s new house called "Bollings Hall" was a two-story brick house exhibiting influences of the fashionable Greek Revival style, much larger and more fashionable than the Spring Hill house. Presumably the home must have been larger and/or nicer than the undocumented house that his father lived in at Kingsland, as George, Jr. elected to remain at Bolling Hall following his father's death rather than move to the home he had lived in (Figures 7-8 and 7-9).

Figure 7-8. "Bolling Hall", the residence of George Cox, Jr., built 1836. Photograph circa 1864. Source: Chesterfield County Historical Society

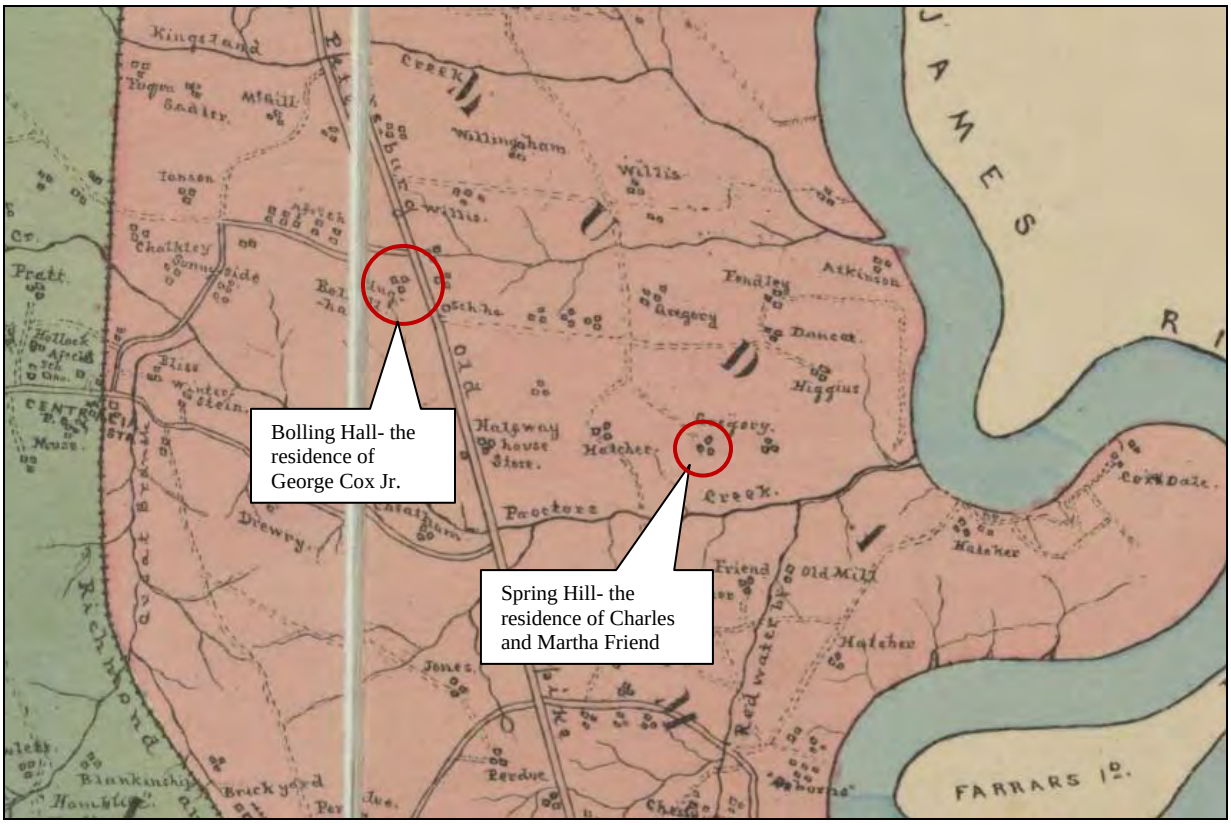

Figure 7-9. Location of George Cox, Jr.'s properties, depicted on 1888 Map. Source: Library of Congress

Family histories indicate that George Cox, Jr. continued to allow his sister Martha and Charles W. Friend to live at Spring Hill (Chesterfield County Historical Society 2007- interview with C.E. Friend, Jr. in 1972; http://boards.ancestry.com/surnames.coxe/144/mb.ashx). Meanwhile he used the Kingsland property for the cultivation of corn (Appraisal and inventory of his estate WB 17 pg 300).

When George Cox, Jr. passed away in 1845, his last will and testament was far less detailed and exacting than that of his father's. To his brother Henry Cox who he named as executor, he devised one-seventh of his estate, the selection of which was up to Henry. To his nephews William T. Gregory and George Cox Gregory, the sons of his sister Frances (Cox) and her husband Richard A. Gregory, he granted one slave. To his nephew Richard A. Gregory III, and his nieces; all children of Frances and Richard Gregory, he left $150 each. The rest of his slaves were to be equally divided among the children of his other sisters. All of his land in Chesterfield County was to be sold, and the profits divided into sevenths, with the six remaining portions not given to Henry to be divided amongst the children of his sisters (Chesterfield County Will Book 16: 473).

His 376-acre home property and plantation, Bollings Hall, was purchased by Charles and Martha Friend, and they moved there from Spring Hill that year (Appraisal and inventory of his estate WB 17 pg 300). It took several years for the Kingsland property to sell, but in 1849 the entirety of the plantation, including the Spring Hill tract, sold at auction to Henry C. Willson, an in-law to George Cox, Jr. as the high bidder (Chesterfield County Deed Book 38: 250).

GREGORY FAMILY OWNERSHIP (1851-1895)

Throughout the second half of the nineteenth century, the Spring Hill property was owned by the Gregory family, who by the nineteenth century, were directly related to the Cox family through marriage. The Gregory family seat and home plantation was established by Richard Augustus Gregory I, at New Oxford (now called Bellwood) near Drewry's Bluff in the early nineteenth century.

Henry Willson (1849-1851)

Following George Cox, Jr.'s death in 1845, all of his property was sold and the profits divided amongst his heirs. The property sold to Henry C. Willson, who paid $15,600 for the 1,280-acre Kingsland Plantation (Chesterfield County Deed Book 38: 250). Willson was related to the Cox family through several marriages. One of his sisters, Lucy, was married to Henry Cox, while another was married to Richard A. Gregory, Jr. the son of Frances Cox.

Henry Willson's intentions for buying the property are not clear. He does not appear to have lived on the property, for in 1850, a year after buying it, he is listed in the census as living with his sister and Henry Cox in Henrico County. That same year, he is listed in the agricultural census with a variety of livestock and crops; however, no property, indicating he was utilizing someone else's property for his crops and animals. Interestingly, his name in the 1850 agricultural schedule is listed just below that of George Cox Gregory, who is enumerated as possessing 300 acres worth $3,000.

George Cox Gregory (1851-1869)

It was this George Cox Gregory who purchased 300 acres "commonly referred to as Spring Hill" according to the deed, from Henry Willson in 1851 (Chesterfield County Deed Book 39: 383). Presumably the 300 acres listed with George Cox Gregory in 1850 is the same land that he bought the following year as the price he paid in 1851 was $3,000, the same as it was valued at in the agricultural schedule. This implies that George Cox Gregory was residing at Spring Hill prior to his purchase of it in 1851. It is possible that he began renting or leasing the property from Henry Willson after he purchased it at auction in 1849, however it is also possible that he may have moved in as early as 1845 when the Friend family moved out. George Cox, Jr. was George Cox Gregory's uncle, and therefore it is possible he was permitted to move into the house while it was in escrow. It is known that George Cox Gregory and his siblings were relatively close to their uncle as they were all orphaned when their parents passed away in 1835. At that time George Cox Gregory was just 11 years old. Who raised him and his other young siblings is not known, however they were all provided for in their uncle's will. Coincidently, the year George Cox died in 1845 aligns with the year that George Cox Gregory would have turned 21 years old, and the possibility he moved into Spring Hill at that time is supported by the fact that he purchased a wide variety of household wares, farm tools, and other goods at the estate sale of George Cox, Jr.[11]

[11] George Cox Gregory bought a bedstand, a piano, two saddles, a watch, a table, a mirror, a secretary, a pair of andirons, a shovel and tongs, lot of tin ware, tea china, china ware and waiter, a glass pitcher, a washstand, pictures

The deed transfer from Henry Willson to George Cox Gregory took place on October 8, 1851, just a week before he married Margaret T Willson (commonly called Meg), Henry's sister and also George Cox Gregory's first cousin.[12] Interestingly, the two were married by Minister Charles W. Friend, the former occupant of the Spring Hill house (chesterfield book 1771 p. 474). Also of interest is that in 1850, Margaret Willson was identified in the census as living with her sister Elizabeth and her husband Richard A. Gregory, III who was George Cox Gregory's brother.

The deed from Willson to George Cox Gregory, mandates that Gregory must keep open "the hillside ditch now established from a point below a tobacco house on the Kingsland Tract" indicating that tobacco was likely still grown on the property, or at least the larger Kingsland tract by that time. The remains of this hillside ditch are still visible at the southeastern edge of the property; however no remains of the tobacco house referenced have been identified during archaeological survey.

It is believed that soon after purchasing the property, the Gregorys may have made some improvements and renovations to the home and/or property. In 1855, tax records raised the value of buildings on the property from $0 to $747 noted as "added for improvements". Why the initial value was $0 cannot be determined as it is known that the house was present on the property. It is possible that the home was not accounted for in earlier assessments as it was not considered the primary dwelling for the Cox family Kingsland plantation, and then was not updated during the estate sale of the property to Willson or the transfer to the Gregorys. The jump to $747 may simply reflect the home was again considered a primary dwelling, but the reassessment may also have spurred by some renovation. Making improvements to the home would be consistent with the Gregorys being the first family since the Branch's to truly own and occupy the dwelling. After having been the residence of the Friend family during the 1840s who may not have engaged in significant farming of the property, part of the improvement by the Gregorys may also have been the construction of various barns and/or outbuildings.

Throughout the first decade of the Gregory ownership, the family continued to farm the Spring Hill property productively. The 1860 Federal Census identifies George Cox Gregory as a farmer with property valued at $9,000 including 16 slaves. His crops and produce included 5,000 lbs of tobacco; 2,150 lbs of corn, wheat, and oats; 50 bushels of peas, beans, and potatoes; 10 tons of hay; and 250 lbs of butter, placing him among the wealthy, but not top echelon, of Chesterfield residents (USBC 1860).

The productive use and improvement of the property was cut short in 1861 when the Civil War broke out. George Cox Gregory enlisted to fight in the 9th Virginia Infantry Regiment, Company C, mustered in at Norfolk. The rest of the family and servants remained in residence at Spring Hill to tend the farm on their own. George returned home the following summer however, in June 1862, after being discharged for "rheumatism resulting from exposure." George's absence from the Confederate cause did not last long though, as he soon after enlisted in the Southside Artillery, a battalion composed mostly of men from the Chesterfield area that were assembled by

and books, lot of feathers, a travelling bag, 2 geese, hoes, spade and shovel, two toilets, from the estate sale of George Cox, Jr. in 1845.

[12] George Cox Gregory who was the son of Richard Gregory and Frances Cox.

Captain Augustus H. Drewry, for whom Drewry's Bluff is named and was also an in-law to George Cox Gregory. In addition to his artillery service, family accounts state that George also acted as an informant and guide to Confederate General P.G.T. Beauregard during the Bermuda Hundred Campaign of 1864 (Gregory 1865).

The Bermuda Hundred Campaign in May 1864 was when Spring Hill first witnessed direct Civil War action. As part of the campaign, federal forces under General Benjamin Butler mounted a series of advances from their entrenchments on the Bermuda Hundred Peninsula on the south side of the James River north towards Richmond. The confederate forces under Beauregard established a defensive position just north of Proctors Creek extending from the Richmond and Petersburg Turnpike all the way to the James River, including on the Spring Hill property. According to a letter written by Meg Gregory recounting the events, there were 3,000 troops around the house in a battle line. The Battle of Proctors Creek began on May 12 when union forces under Butler advanced against the confederate right flank along the turnpike, although shelling occurred all along the battle front. Meg Gregory recounts that the shelling became so bad she had to leave, taking her seven children with her to her sister in-law's home, New Oxford, to take refuge (Gregory 1865).

Initially, the infantry assault was to the west, along the Turnpike Road, while General P.G.T. Beauregard's report of June 23, after the battle, stated that just "a small force [of Union troops] occupied a ridge in the edge of George Gregory's woods, north of Proctor's Creek. This force, with an insignificant body of cavalry, believed to be Negroes, and a report of threatening gun-boats...were the only menace to our left" (U.S. War Department 1891:202).

Over the course of May 15-16, however, Butler mounted a full-fledged infantry assault along the entire battle line, and eventually overpowered the outlying confederate defenses along Proctors Creek and pushed the confederates north to their inner-line of defenses along Kingsland Creek and at Fort Drewry, overrunning the Spring Hill property in so doing. For a short period of time, General Weitzel who was in charge of the Union right, ordered a skirmish line forward to secure the Spring Hill property (Figure 7-10). The house was occupied and the property looted by the troops.

Figure 7-10. Detail of *Sketch of the Road Between Bermuda Hundred and Enemy's First Line of Intrenchments on the North and Petersburg on the South*, June 15, 1864. Source: Library of Congress

Not being provided the gunboat support he wished along the James, Butler slowed his advance and ordered a defensive position. Aware of Butler's halt, Beauregard used the lull in the battle to reinforce his own lines, and counterattacked with an advance against Butler's right flank beginning on May 16. The counter was successful, and the confederate lines pushed south, presumably through Spring Hill again and resulted in Butler retreating to a defensive position to the south at Bermuda Hundred, ending the immediate threat to Richmond.

Meg Gregory's letters provide first-hand details of the battle. In a letter to her cousin, Minerva Gregory Richardson written after the war, she states that at the outset of the May 1864 battle, at least one military battery had been constructed on her property and she was surrounded by other batteries "in sight of my place, the river on my right, the turnpike battery on my left." (Gregory 1865). Meg was nine months pregnant with her sixth child when she was forced to evacuate Spring Hill. She says "my house was left in the yankee lines, they took possession of my [gap in text] burning kitchen. I had seven fine cows with calves, 52 fine hogs and a fine lot of sheep killed....The balls fell so thick around my house but did not strike it. I had a great deal of fine furniture, they broke all the modern and left the old." She also states that the family had stashed 18 barrels of flour in one of the rooms of the house; however, the union troops did not search it

or find them. The Gregory family bible, which is part of the collections of the Library of Virginia, was also apparently taken from the house during the looting and was then recovered by a Mrs. George Cooper at Fort Monroe and later returned to the Gregory family.[13]

Meg continues to tell her cousin that she left her home to live at her uncle Henry Cox's house, and tried to return to Spring Hill a few months later only to find "the gunboats were bearing on my house, the shells would fly over my house every time...at last the shelling became so bad I had to leave. The day after I left a shell weighing 132 pounds passed my chamber and went through my cook kitchen" and another shell "fell into my garden making a hole large enough to bury a horse" (Gregory 1865). The Gregory family remained away from the house for the remainder of the war.

The gunboats were part of the Federal Navy advance up the James River beginning in the summer of 1864. After the infantry advance on Richmond was ended after the Battle of Proctors Creek, Butler and the Union army mounted a naval advance up the river to weaken the Confederate defenses. In response, beginning in August 1864, the confederate engineers department began construction of a series of batteries and gun emplacements along the bluffs of the river.

Meg Gregory noted "I am in sight of Howell's Battery. Battery Brown [Brooke?] is in my field and several other batteries are in sight of my place, the river is on my right and the turnpike battery on my left" (Gregory 1865). When referencing Battery Brown, Gregory appears to have been mistakenly referring to Battery Brooke which was constructed on the Spring Hill property just east of the house along the bluff in September 1864. Throughout the fall and winter of 1864, union gunboats attempted to sail up the James River several times, exchanging fire with the confederate batteries (Figures 7-11, 7-12, and 7-13).

[13] Inside the cover of the bible is a note: "Captured by Lt. Jh. Spengler May 15th 1864". A letter within the bible reveals that it eventually came into the possession of a Mrs. George Cooper of Fort Monroe, Virginia, and was returned to the Gregorys by Major Samuel Drewry after the war.

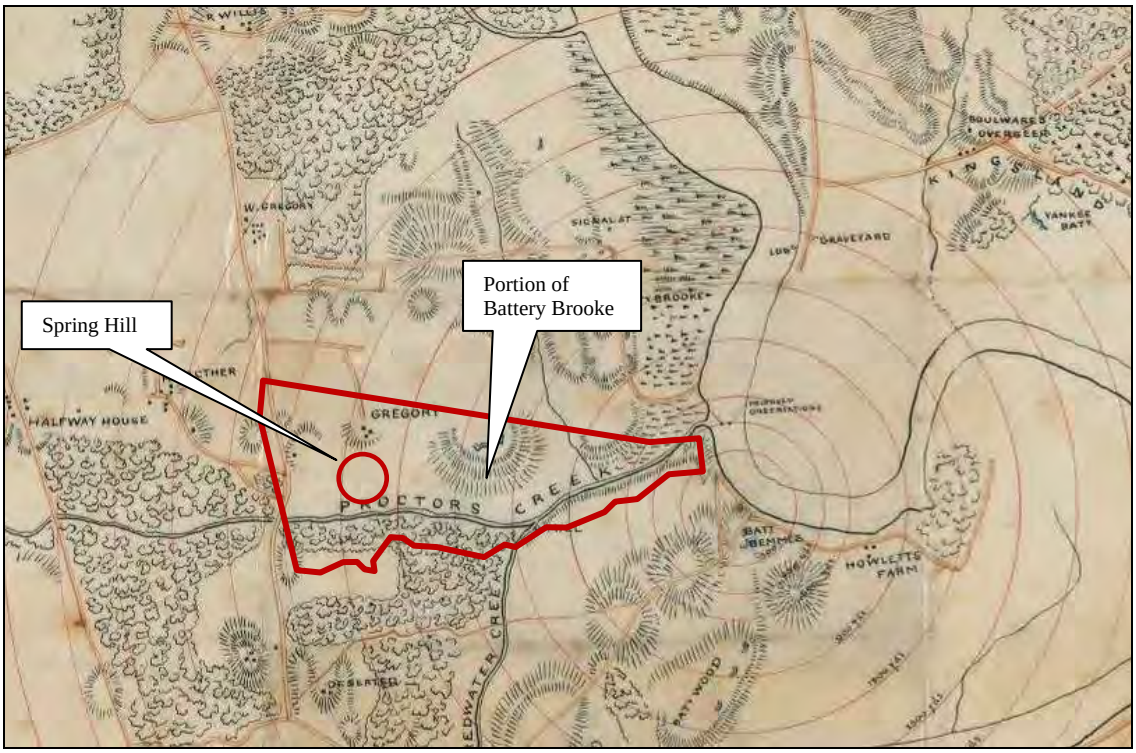

Figure 7-11. Detail of 1864 Charles J. Ost Map *Semmes Battery and Vicinity, Chesterfield County, Virginia*. Source: Library of Congress

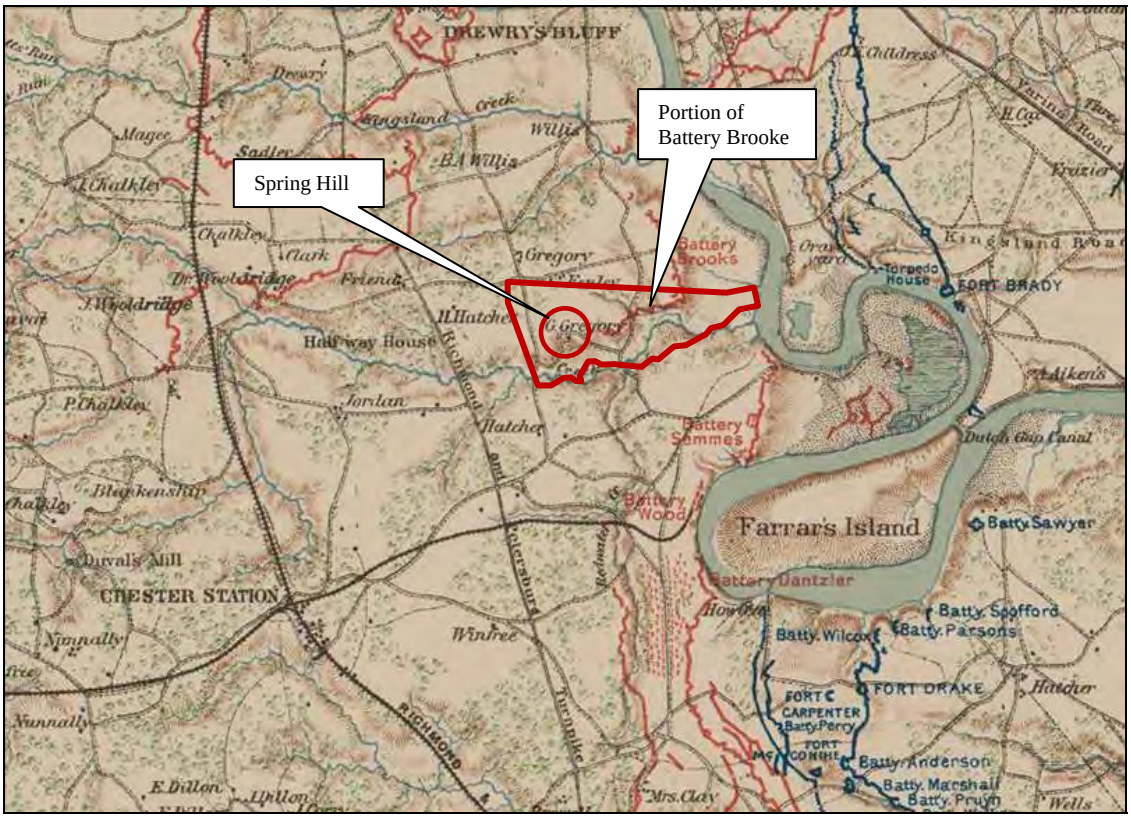

Figure 7-12. Detail of *Bermuda Hundred, Va.* from surveys drawn under the direction of Brig. Gen. N. Michler, Major of Engineers. Source: Library of Congress

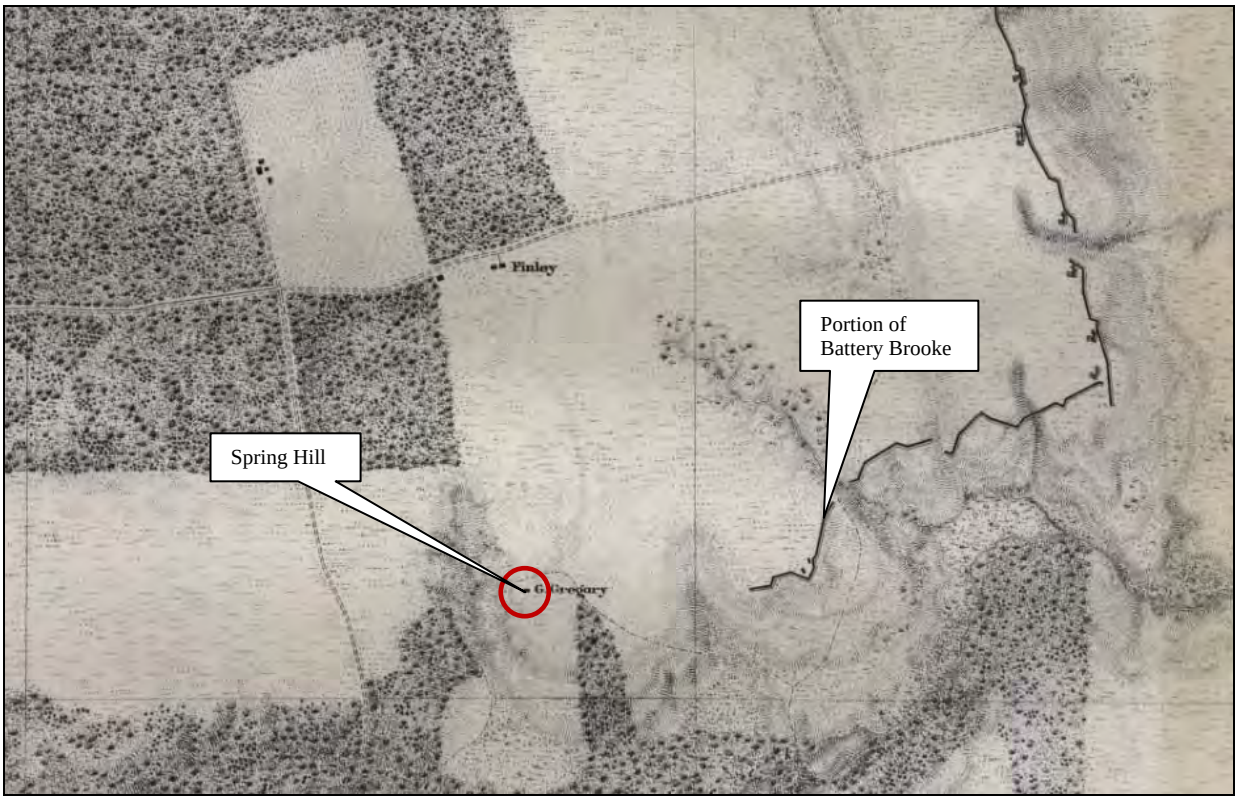

Figure 7-13. Detail of *Defenses of Richmond and Vicinity, 1864*. Source: Library of Congress

Following the end of hostilities Meg and the children returned home and were joined by George Cox Gregory; however, the family fell on hard financial times as did many southern families after the war. In 1869, Gregory was forced to declare bankruptcy and all of his goods and property were sold at auction. Fortunately, his uncle Henry Cox had survived the war without severe financial strife, and remained according to Meg Gregory, "one of the wealthiest men in the county".[14] Henry Cox purchased the plantation and many of the goods, and loaned them back to the Gregory family and allowed them to continue to live at the house (Chesterfield County Deed Book 50:376–378, 52:572–573). An inventory of the goods purchased by Henry Cox and loaned back to his nephew include household furniture (a sofa, tables, bedsteads, a washstand, a bureau, a clothes press, and a butter churn), three cows, 22 pigs, cooper's tools, a myriad of farm tools (hoes, shovels, scythes, a wheat gleaner, corn planter, a set of plows, a threshing machine, and a corn sheller), an "old wagon," an "old carriage," an "old buggy," a saddle and bridle, as well as a lot of oats and a quantity of wheat all totaling $358.86 (Chesterfield County Deed Book 50:377).

Henry Cox/George Cox Gregory/Margaret Gregory (1869-1895)

The Gregorys continued to farm the Spring Hill property during this period, shifting more heavily to the raising of livestock, particularly pigs. Indian corn, potatoes and butter along with some wheat and oats remained the primary crops (USCB 1870). According to family history,

[14] As referenced by Meg Gregory in a letter

George Cox Gregory served in the Legislature during this time and was also an active Mason (interview With R.E. Gregory III).

Following an extended illness, George Cox Gregory died on April 5, 1878; at which time he was still considered a prominent citizen of the county according to his obituary in the Petersburg Index Appeal and the Daily Dispatch. After George's death, Henry Cox allowed for Meg and the Gregory children to retain possession of the Spring Hill farm (Chesterfield County Will Book 27:512).

In 1880, the census reveals that all six of the Gregory children were still living on the Spring Hill property; however, mother Meg was listed as a widow and boarder in the home of an "L" or "J" R Dillon and classified as "insane." The Supplemental Census Schedule for the Defective, Dependent, and Delinquent Classes, states that she first showed signs of insanity in 1876; however further details about her case are illegible on the document (USCB 1880). Coincidentally, 1876 lines up with a fairly substantial drop in property value at Spring Hill; however, the connection between the two may be coincidental.

Henry Cox died in 1888, but his will provided for Meg and the children's continued use of the property (Chesterfield County Will Book 27:512). This is evidenced by an 1888 map that depicts a second cluster of buildings on the property which are likely agricultural-related and aligns with improvements and farm landscape revealed in a real estate posting for the property from ten years later listing a variety of barns, sheds, and outbuildings (Figure 7-14). Meg died the next year, in 1889, and the Gregory children entered into an extended dispute over the property. The property was eventually sold in 1895 in order to resolve the lawsuit and pay back taxes. The buyer was Mrs. Minda R. O'Donnell (Chesterfield County Deed Book 91:31). The deed states that the property included "all lands devised to Maggie Gregory and children by will of Henry Cox probated in Henrico County Court July 28 1888" (Chesterfield County Deed Book 91:31).

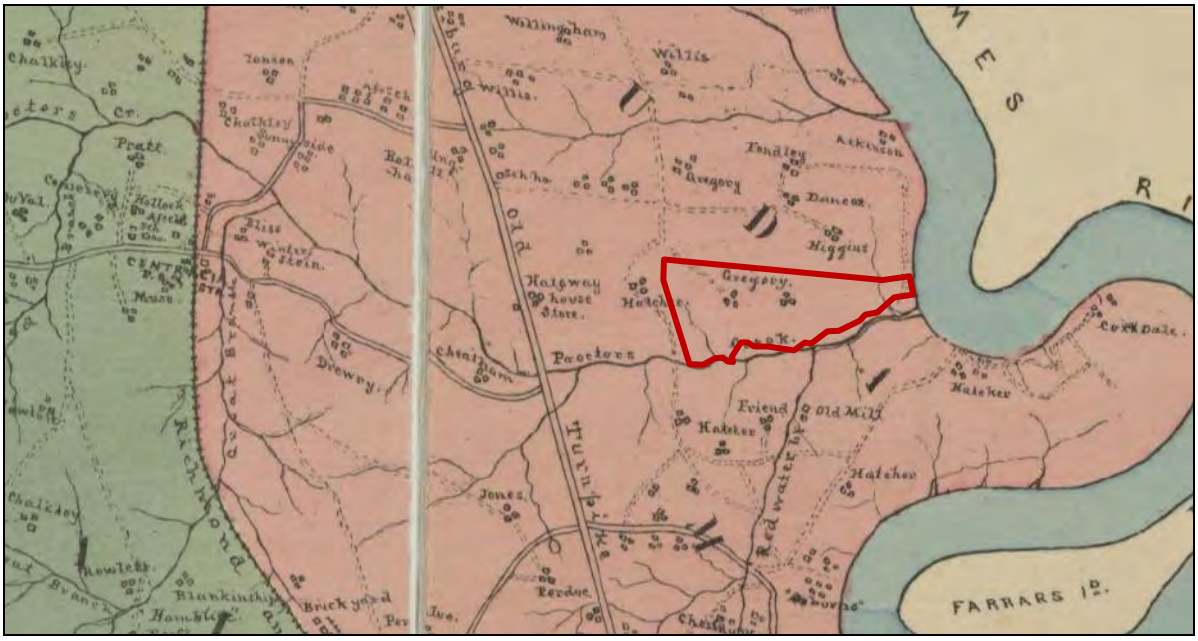

Figure 7-14.: Detail of LaPrade Brothers Map of Chesterfield County, 1888. Source: Library of Congress

TWENTIETH CENTURY OCCUPATION (1896-PRESENT DAY)

Minda O'Donnell (1895-1896)

In 1895, the Spring Hill property was purchased by Minda O'Donnell and her husband Martin at auction for back taxes plus interest. Little is known of the O'Donnells, except that they were from Syracuse, New York and at time of the sale, were in their late-20s. Minda is identified in the census as a "home maker" and Martin O'Donnell as a machinist. It is assumed the property purchase was merely speculation or investment as they turned around and sold the property again the following year in 1896.

E.T. Duval/J.F. Duval/J. Morton Graves (1896-1902)

In 1896, the property was purchased by Emmit (E.T.) Duval, his brother Julian Fay (J.F.) Duval, and an in-law, J. Morton Graves (Chesterfield County Deed Book 93: 130). It is possible that the Duvals also purchased the property as an investment or speculation, as they tried to sell it just two years later. Interestingly and maybe coincidentally, the 1898 classified ad was posted in a newspaper in a small town in New York just 30 miles from Syracuse where the O'Donnells were from. The ad identified the property as 300 acres with the primary house, a number of agricultural outbuildings, and various fields, pastures, and improvements (Deruyter Gleaner, December 1898) (Figure 7-15).

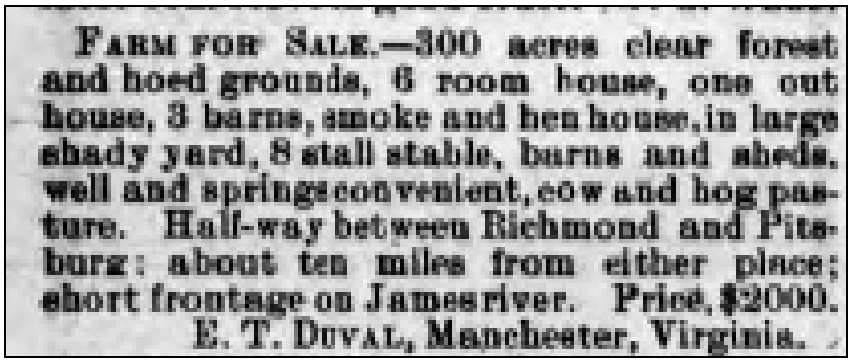
FARM FOR SALE.—300 acres clear forest and hoed grounds, 6 room house, one out house, 3 barns, smoke and hen house, in large shady yard, 8 stall stable, barns and sheds, well and spring convenient, cow and hog pasture. Half-way between Richmond and Pitsburg: about ten miles from either place; short frontage on James river. Price, $2000.
E. T. DUVAL, Manchester, Virginia.

Figure 7-15. Real estate ad for Spring Hill, Deruyter, New York, 1898. Source: Fulton History

E.T. Duval is known to have been involved in the banking business, working at the Mechanics & Merchants Bank South Richmond in Manchester. He also served as Chairman of the Finance Committee for the Manchester City School Board (USCB 1900; Time Dispatch March 10, 1907). J.F. Duval was a clerk with the railroad, as well as musician and served as Musician Officer for the Lodge of the Knights of the Golden Horseshoe, and is also known to have travelled the country playing in the Symphony (USCB 1900; Times Dispatch archives at Library of Virginia). J. Morton Graves was a local agent for the Standard Oil Company. According to the 1900 census, all of these men lived in Manchester and not at Spring Hill.

The combination of a banker, railroad man, and oil man co-purchasing the property and then trying to sell it a year later is consistent with a speculative interest, as is the fact that the sale was advertised in New York newspapers, where an influx of residents came to Virginia during and

after the Reconstruction era. The property as a whole apparently did not sell, although they were able to sell off the 85½-acre portion of the property east of the "hillside ditch" (east of Battery Brooke) and stretching to the James River to E.W West (another real estate investor) in 1901 (Chesterfield County Deed Book 101:76). The following year, the three original investors sold the remainder of the property with the house to another Duval brother, Frank Nelson.

Frank and Ada Duval (1902-1920)

In 1902, the 214-acre Spring Hill property containing the Spring Hill house was bought by Frank Nelson Duval along his wife Ada Morris. Frank and Ada, along with their family presumably moved into the Spring Hill house that year or soon thereafter from their home in Manchester. Whereas Frank was listed in the 1900 census as an "iron moulder" in Manchester, he is listed in the Bermuda District of Chesterfield County as a "general farmer" in 1910. While living at Spring Hill, the assessed property value increased substantially for the Duvals in 1906, indicating improvement the prior year. This increased value is assumed to be reflective of the Duvals constructing a wing addition to the east side of the Spring Hill house. The family is pictured in front of this addition, standing on what was at the time, an inset porch on the north side of the structure, sometime circa 1909-1910 (Chesterfield County Historical Society) (Figure 7-16).

Figure 7-16. Photograph of the Duval and Morris families at Spring Hill, Circa 1909-1910. Source: Chesterfield County Historical Society

By 1920, Ada Duval had been widowed, and sold the Spring Hill property to Owen Jeffrey (USCB 1920; Chesterfield County Deed Book 167: 132).

Owen Jeffrey/Investment Realty Corporation (1920-1923)

Following the ownership by the Duvals, the property went through two rapid, speculative sales and acquisitions in the early 1920s. In 1920, it was purchased by Owen Jeffrey. Little is known of Owen Jeffrey, and the only Owen Jeffrey identified in the 1920 and 1930 censuses was recorded as residing in Buckingham County, Virginia. Jeffrey subsequently sold the property the following year to the Investment Realty Corporation (Chesterfield County Deed Book 167: 132). The Investment Realty Corp turned around and sold the property the same year to Isaac William Francis (Chesterfield County Deed Book 167: 589).

Isaac William Francis/John Sloan (1923-1932)

Isaac William Francis and his wife Mary purchased the 220-acre Spring Hill property from the Investment Realty Corporation in 1923 (Figure 7-17). According to the census, Francis was the proprietor of a grocery store in Richmond and as he was elderly at the time, may have purchased Spring Hill as a home in the country to retire. That same year, John Sloan obtained some interest in the property from the Francis's, although his exact association is unclear (Chesterfield County Deed Book 172: 108). The only information found on John Sloan is that he was actively involved with real estate and transactions throughout the Richmond area at the time.

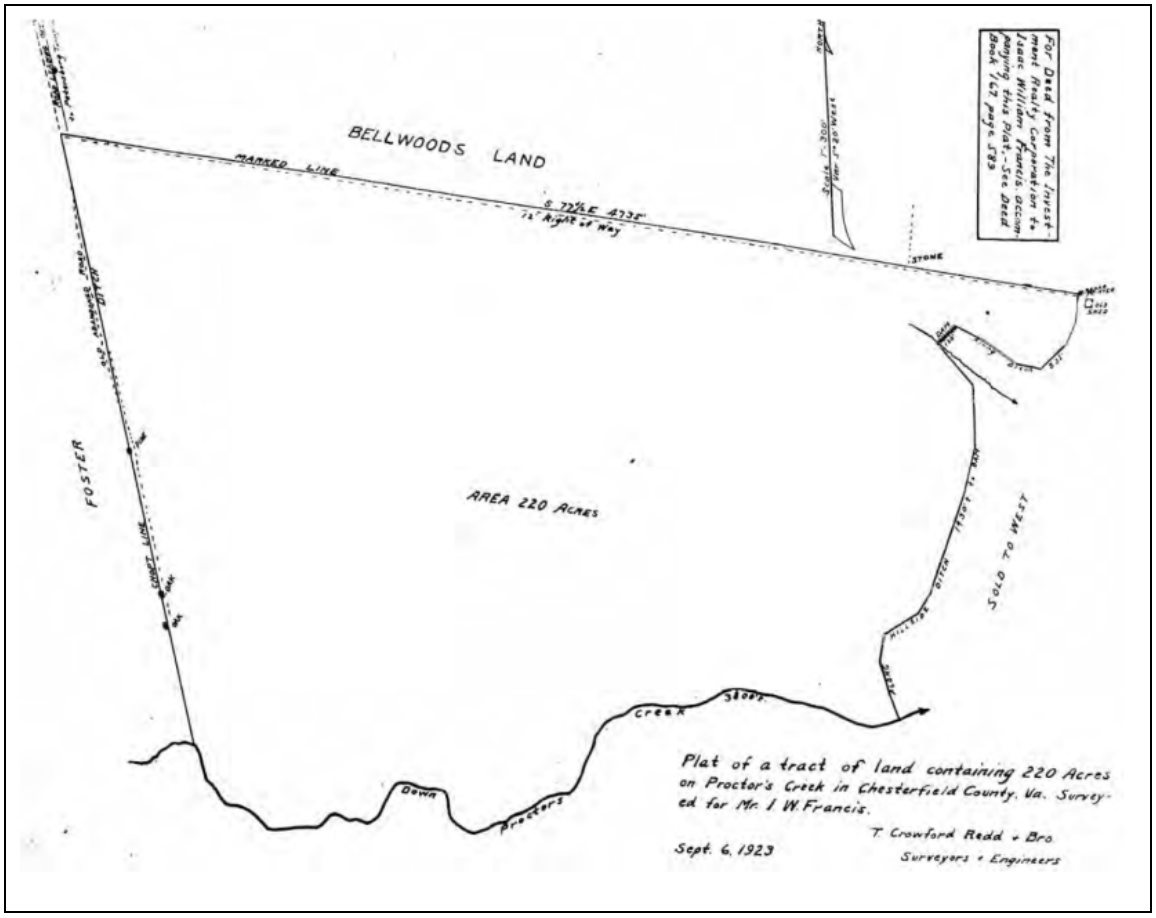

Figure 7-17. Plat Map of 1923 depicting the 220-acre property purchased by Isaac William Francis. Source: Library of Virginia

Between 1925 and 1926, tax records indicate a sizeable increase in building value reflective of the Francis's making improvements and renovations to the home. Unfortunately, Isaac W. Francis died just a year later, although his wife and children remained at the property. In 1930, she sold a narrow strip of land along the western edge to the Seaboard Air Line Railroad (Chesterfield County Deed Book 167: 589; Chesterfield County Deed Book 197: 172) (Figure 7-18). Despite the profit and increased property value from the sale of right-of-way to the railroad, the Francis's appear to have been caught up in nationwide economic struggles of the Depression and defaulted on the property in 1932.

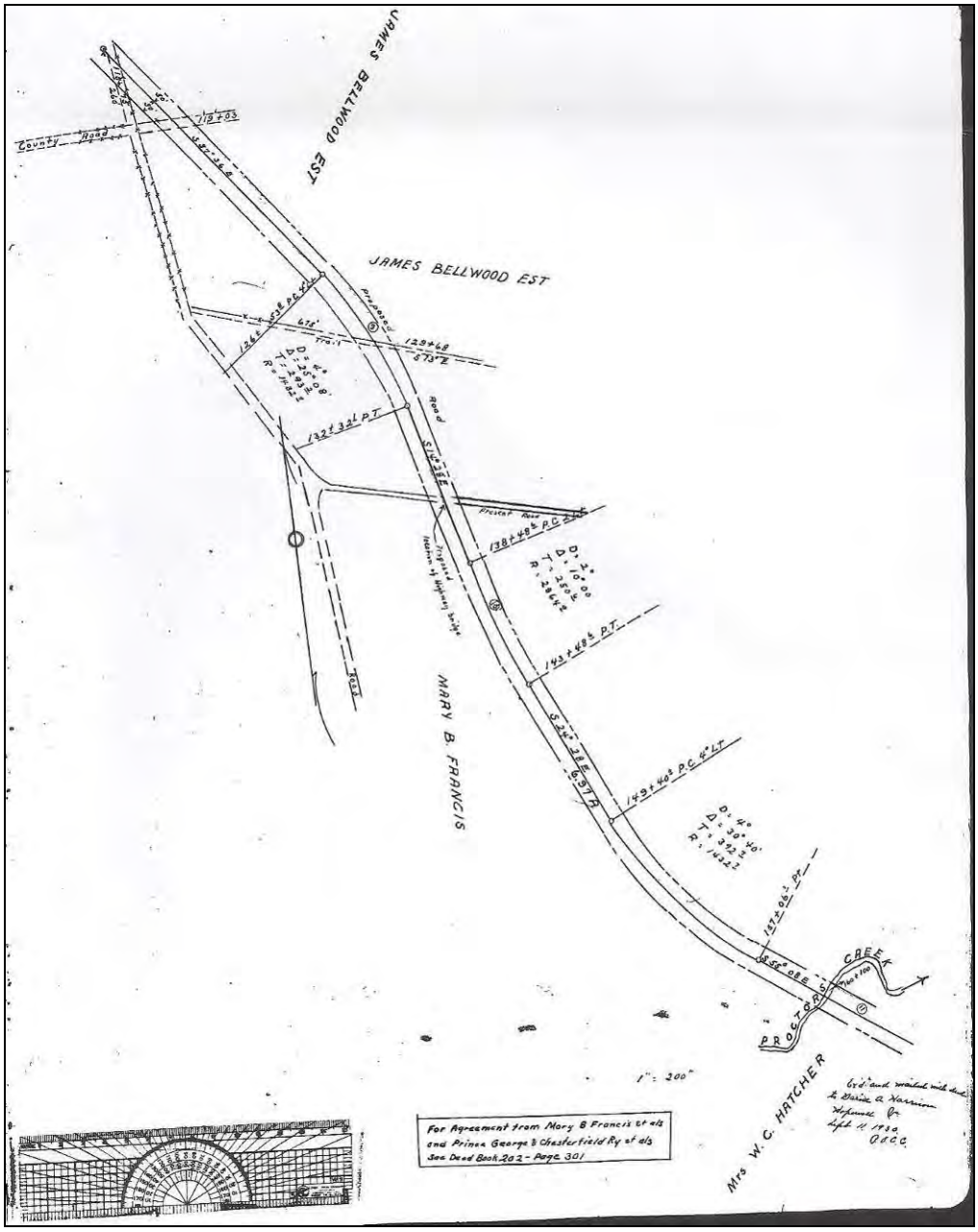

Figure 7-18. Plat of railroad right-of-way sold by Mary Francis, 1930. Source: Chesterfield County

Katherine and Mary Davis (1932-1948)

Following the foreclosure, Spring Hill was sold at auction and it was purchased by the Davis family, consisting of father Elbert Davis and his two daughters, Katherine and Mary (Chesterfield County Deed Book 213: 303). At that time of the purchase, Elbert Davis was a retired 80-year old man with both of his daughters in their 40s, single and living at home (USCB 1930). Elbert died soon after the purchase and the property was passed to Katherine who lived at Spring Hill with her sister for the next 16 years.

Katherine Davis was a teacher and athletic coach in the public school system which afforded her a relatively high and steady income during the years of the Depression. Although her sister Mary was reported as a home maker their income (possibly coupled with unknown additional wealth) allowed the sisters to make a variety of updates and improvements to the house. According to the census, they also continued to farm, or at least lease out use of the property agriculturally, bringing in some profit (USCB Ag Schedule 1940). The exact renovations and improvements the sisters made to the property are unknown; although according to the accounts of later occupants, the renovations were fairly extensive. Some may have taken place in 1938/1939 as evidenced by a rise in the taxable building and property value, although this may simply be a result of improving economic conditions at the end of the Depression. A major renovation does seem to have taken place in 1943 when the building value more than doubled, from $900 to $2,100 (Chesterfield County Land Books).

Katherine Davis sold the Spring Hill property in 1948, at which time reportedly the two sisters moved to Mechanicsville. Their motivation or cause for relocation is not known, but at that time, the property was purchased by the Colonial Pine Company (Chesterfield County Deed Book 343: 332).

Colonial Pine Company/Victor Stewart (1948-1955)

In 1948, the property was purchased by the Colonial Pine Company, a lumber business based in Petersburg, Virginia owned and managed by Victor Stewart. Stewart was an avid forester and established the Colonial Pine Company at a young age, in addition to several other endeavors to advance the education of forestry such as the Virginia Forests, Inc. and the Virginia Forest Educational Fund.

The purchase of Spring Hill by Colonial Pine is interesting as it may not have been strictly related to timber on the property. Stewart and his wife were also keenly interested in Virginia history and he served as a Trustee on the Boards of the Jamestown Foundation (predecessor to the current Jamestown and Yorktown Foundation) and the Jamestown Corporation. Stewart and his wife purchased the Chippokes Plantation in Surry County in 1917 and begin a lifelong process of restoring the property as a model farm and historic plantation. As part of the effort, they rebuilt, replaced, and renovated the mansion and a number of outbuildings using influence from the Colonial Williamsburg project to aid the process. His wife also went to lengths to create a “colonial formal garden” around the house. Such a coincidence to the various features observed at Spring Hill is intriguing. A number of features and elements at Spring Hill appear to have been

replaced in the twentieth century, but in such a manner and using materials to lend the appearance of colonial craftsmanship and may be attributed to the Stewarts.

Whether or not Stewart was involved or associated with these renovations at Spring Hill cannot be determined. It is known that he remained in residence throughout his life at Chippokes and therefore did not live at Spring Hill. Further, he purchased the property under the name of his company, Colonial Pine Co. which was based in Petersburg. This too is interesting as typically a lumber company would only lease or purchase the rights for timbering a property and not purchase the property out right. It retained ownership for seven years which seems an unusual time period as well; too long for one run at timbering it, yet not long enough to plant and wait for a second growth. Perhaps Stewart purchased the property to use as a field office or model tree farm. Aerial photographs been 1937 and 1955 do not show any evidence of timbering, and actually depict the property becoming more vegetated (Figures 7-19 and 7-20).

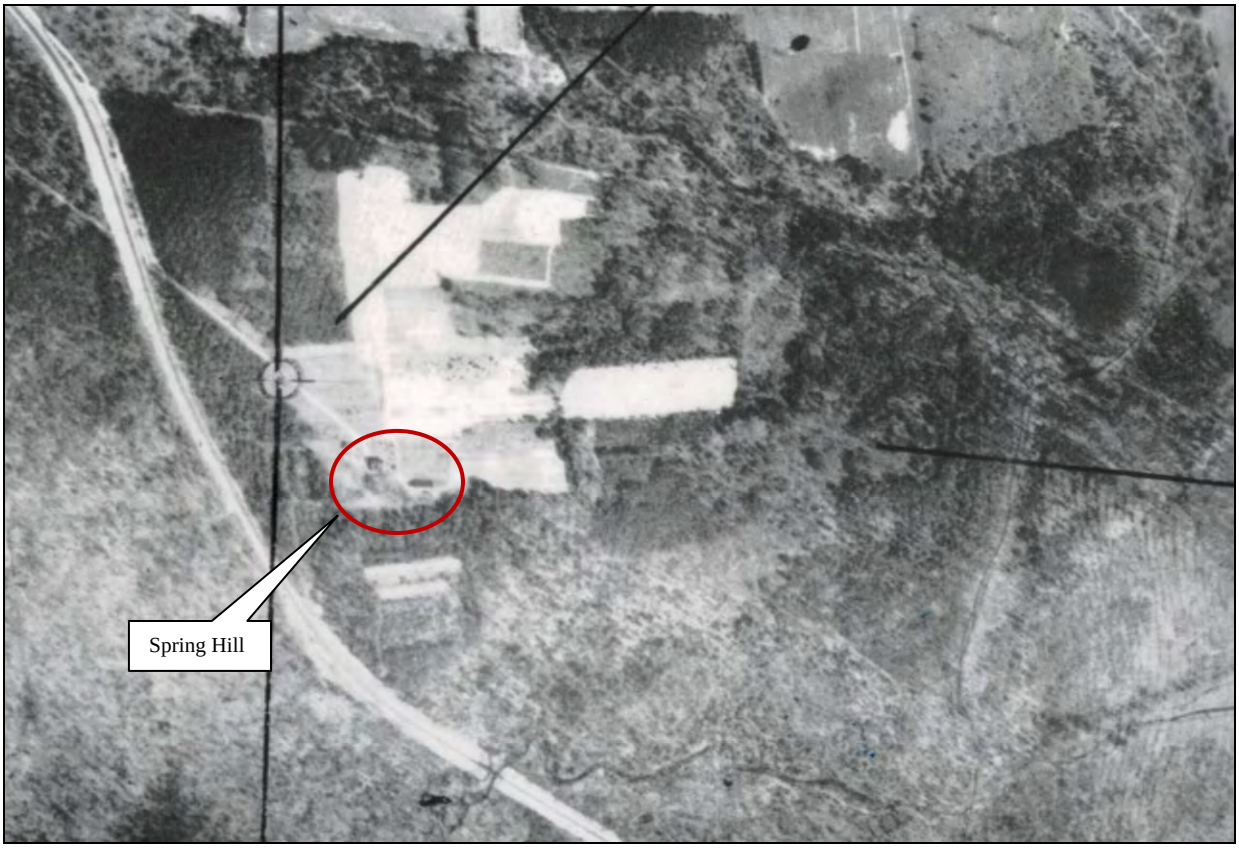

Figure 7-19. Aerial photograph, 1937. Source: VDOT

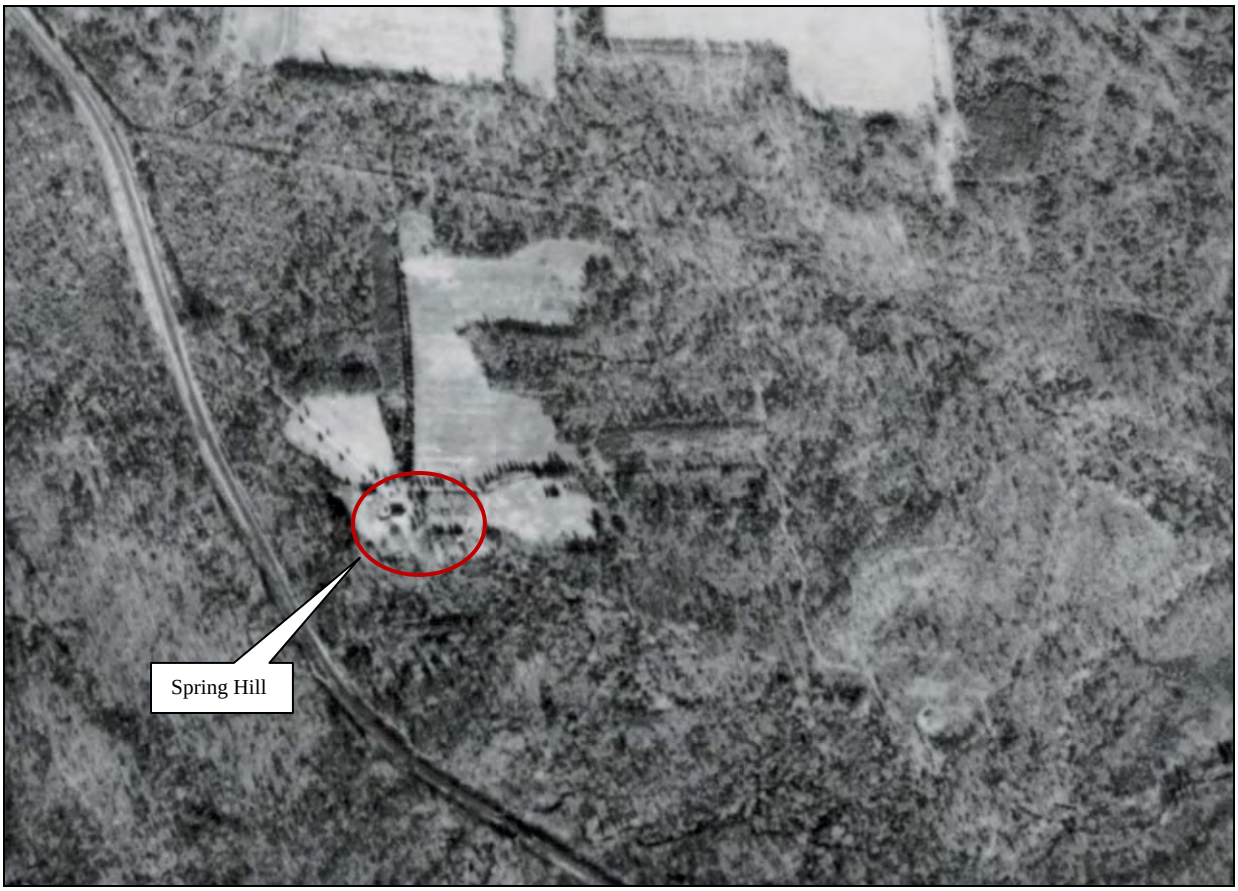

Figure 7-20. Aerial photograph, 1955. Source: VDOT

Dwight W. Murphey (1955-1956)

In 1955, the Colonial Pine Company/Victor Stewart sold the property to the Honorable Dwight W. Murphey, a prominent Richmond lawyer and circuit judge (Chesterfield County Deed Book 482: 384; Silvers 1992: 184). Despite the deed transfer in 1955, the Murpheys in a 1978 interview claim to have lived at the property beginning in 1951 (O'Dell 1978). In 1955, the Murpheys offered an interest in the land with an option to buy, to a group called "Experiment, Incorporated." According to the Murpheys, the group's use of the property resulted in an abundance of ash being tossed in the air that settled over everything forcing the family to leave their home. The following year in 1956, Experiment, Inc. exercised their option to purchase the property (Chesterfield County Deed Book 499: 264).

Experiment Inc. (1956-1959)

Little information on Experiment, Inc is available; however, minimal records indicate that it was a small government-financed research and development company in Richmond that conducted research on combustion engines and liquid propellants that played a large role in the U.S. Navy's development of the ramjet propulsion system (Kingsport Times Tennessee 1949). The exact use of the Spring Hill property is unknown; however, it appears that it was used in conjunction with (or under the guise of) Reynolds Metal Corporation for the testing of various metals related to impact and explosion. An underground shooting range to test the permeability of various sheet

metal compounds, and an underground lithium explosion test bunker are known to have been constructed on the property (Environmental Resources Management [ERM] 2001). Several years later, Experiment, Inc. dissolved or formally merged into Reynolds, and the property came under the ownership of Reynolds Metal Corporation who retained the property, continuing to conduct assorted tests in metal weathering and stress for the rest of the twentieth century. Reynolds sold the property to Dominion Power in 2001.

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8. PHYSICAL INVESTIGATIONS

ARCHITECTURAL ANALYSIS

Main House Exterior

The Spring Hill house in its current state is what can best be described as a wood-frame, one-and-a-half story, double-pile, side passage dwelling with double end chimneys and a two-story wing addition with a full-width front porch that spans the two blocks. Dendrochronology reveals that the original block of the building was constructed in 1767 and originally had a different layout consisting of one end chimney serving a full-width room in the northern half of the house, and an internal chimney serving two rooms in the southern portion of the house. Testing was not conducted on the wing or porch additions; however, construction details indicate they were likely added in the early-twentieth century at the same time as the reconfiguration of the original block to its current layout, likely circa 1905. The original block of the house measures approximately 7.9 meters (26 ft) wide by 9.1 meters (30 ft) deep. The wing addition measures approximately 4.2 meters (14 ft) wide by 6.0 meters (20 ft) deep and is set back only one foot from the front façade of the main block roughly nine feet from the rear wall. The full-width front porch extends out approximately nine-feet from the front facade. The building is oriented towards Proctors Creek, and therefore the front façade is to the south (Figure 8-1).

Figure 8-1. Spring Hill house, front and west side

The building is set on continuous brick foundations in various bonds and configurations. The foundation walls of the original block of the house are laid in Flemish bond with glazed headers but have been covered with a thin concrete veneer on the north and west sides (Figure 8-2). The rear half of the house is underlain by a full basement, and therefore the foundation walls extend

down further whereas the front half of the house has only a crawlspace. The foundation walls inside the full-basement exhibit an English bond pattern, which appears to be a later veneer over the original structural foundation wall. The center division wall, which also supports the central girder, is laid in a patchwork of bonds and appears to have been laid or repaired in several phases. A small area of this wall near the floor several feet away from the chimney base consists of stacked cobbles, and it cannot be determined whether they predate the wall or if they were inserted into the wall later as a repair. It appears that they likely pre-date the brick wall over top from the presence of integral "closer" bricks, and may have been laid as a security measure against moisture after it was discovered during excavation for the basement (Figure 8-3).

Figure 8-2. Original foundation laid in Flemish Bond

Figure 8-3. Cobbles in cellar wall

The remains of the former internal chimney base in the crawlspace portion of the basement partially ties into the north side of this wall (Figure 8-4). This internal chimney was original to the house as evidenced by the system of dragon beams framing the floor above which tied into the chimney and allowed the hearths to be supported. Dendrochronology proves that these beams are original to the building, and therefore so was the internal chimney. Newer pressed-brick

piers, intermixed with the original chimney base and likely dating to the early-twentieth century, reinforce the floor framing over the crawlspace area that originally would have been tied into the internal chimney (Figure 8-5). These brick piers match the foundation of the wing addition and porch and therefore were likely installed contemporaneously to the construction of those additions, indicating the internal chimney was removed at the same time.

Figure 8-4. Original interior chimney base

Figure 8-5. Brick piers reinforcing framing over removed internal chimney

The later wing of the house is also built atop a continuous brick foundation with a crawlspace underneath. The foundation walls of this addition are constructed of pressed brick laid in a common bond. A separate foundation of pressed brick laid in a common bond supports the full-width front porch.

The original block of the building is constructed of heavy timber frame clad with twentieth century beaded clapboards. At the base of the house are massive hewn pine sills set atop the brick foundation walls. The floor is framed by a series of heavy 15.2 cm (6 in) by 33 cm (13 in) hewn joists in the outer bays supported centrally by a pine girder on top of the brick partition wall. The joists have been notched down to just 22.8 cm (9 in) thick in the full-basement portion to allow more headroom. The floor framing in the central area of the building consists of joists that only span the half of the building above the full basement while the area above the crawl space is framed with a dragon beams that originally tied into the internal chimney and supported its hearths, but have subsequently been infilled with sub-joists to frame in the floor over where the chimney no longer exists (Figure 8-6). The walls are formed by heavy guttered cornerposts with down braces and two primary posts delineating the wall bays and to which the doors and windows are attached (Figure 8-7). Between the primary posts are a series of common studs. These posts and studs are topped by a heavy plate on which the roof joists sit. The roof joists, which also function as the second story floor joists, continue beyond the wall plates where the roof rafters tie onto them via a flat board falseplate, and form a boxed cornice on the exterior (Figure 8-8). The roof rafters join at the ridge where they are half-lapped. Collar beams on each truss form the attic floor/second story ceiling. Knee studs form the second story walls under the angled roofline (Figure 8-9). All of the joinery for the original framing is accomplished with mortise-and-tenon or half-laps, and are held together with a combination of wood pegging and wrought nails. The wing addition is built with balloon frame composed of dimensional lumber. The walls are set atop small sills and are supported by a system of common studs. Fasteners include a mixture of cut and wire nails. The exterior walls are covered with plain clapboards.

Figure 8-6. Dragon beams with later infill sub-joists.

Figure 8-7. Guttered corner post and down braces.

Figure 8-8. Plate and falseplate.

Figure 8-9. Second floor framing showing collars and knee walls.

The entire building is covered by a relatively steep-pitched gable roof with a continuous ridge that extends over both the original block and the wing addition. The way in which the roof system over the addition ties into the original block and covers the wing is unusual in that the wing was constructed to match the one-and-a-half story design on the front (south) of the house, and to be a full two-stories on the rear (Figure 8-10). As a result, the roof joists in the addition form the second story floor, but tie into a wall girt on the rear instead of the roof rafters. The rafters themselves are notched onto the first floor wall plate on the front façade and the second story wall plate on the rear façade. The front slope of the roof is pierced by three gable dormers, two of which are spaced over the original block while one is set on the addition. The dormer on the addition is contemporary to its construction, while those on the original block appear to be earlier, likely sometime in the nineteenth century. The rear slope is pieced by two gable dormers spaced over the original block. These dormers appear to be contemporary to the demolition of the internal chimney and reconfiguration of the first floor, as the original partition wall studs were reused to frame these dormers as evidenced by their matching the height of the first floor and the presence of tenons on each end. The entire roof is clad with standing-seam metal; however damaged sections indicate it is laid over hexagonal asphalt shingles applied in a floral pattern on at least the wing portion of the dwelling.

Figure 8-10. Gable roof over wing Addition, 1.5-story on front (Left) and 2-story on rear (Right).

The roof at the gable end of the original block is interrupted by two brick end chimneys flanking the ridge (Figure 8-11). The northern chimney is slightly engaged into the wall of the house while the southern chimney is set against the exterior wall and therefore only interrupts the roof overhang. The northern chimney is constructed of brick laid in a Flemish bond adorned by a chevron pattern created by glazed headers in the lower portion of the stack. Just above the first story, it narrows with matching brick shoulders and haunches and continues beyond the roofline where it is capped by a six-course corbeled capital. Dendrochronology on framing for the hearths on this chimney and flanking closets indicate that it was original to the house in 1767. The southern chimney is rebuilt, and is built atop an older chimney base which extends up three or four several courses from the ground before the new stack begins (Figure 8-12). The older base is assumed to be contemporary to the demolition of the internal chimney and reconfiguration of the house circa 1905. The new stack is narrower than the original by roughly four stretchers, and is laid in a common bond with cement mortar. It too tapers just above the first story with brick shoulders and is capped by a simple two-course capital. A newspaper clipping found in the hearth box from the first (wider) southern end chimney dates from 1925, indicating that is likely the date it was torn down and replaced by the narrower chimney. As the beaded clapboarding overlaps where the wider chimney would have been, and is set inside the standing chimney, the siding was likely replaced at this same time as well.

Figure 8-11. West side end chimneys.

Figure 8-12. Southern end chimney with replacement stack over older base.

A full-width porch set on a continuous pressed brick foundation stretches along the front of the building and was added contemporaneously to the wing addition (Figure 8-13). The porch has a wood floor with simple aprons that wrap around the foundation. It has been nonhistorically partially enclosed with foamboard kneewalls, likely in the 1950s or 60s, and was screened above the foamboard; however, all screening has been removed. An aluminum storm-type door provided access to the porch from a set of poured concrete steps. The porch is covered with a shed roof that ties into the front slope of the building just above the original eave, thus creating an integral roof, although the slope of the porch roof is slightly shallower than that of the house.

Figure 8-13. Full-width front porch.

The front porch shelters two entrances into the house; the main entrance which is located in the eastern bay of the original block, and a secondary entrance set centrally on the wing addition (Figure 8-14). The main entrance consists of a single, six-paneled wood door set within the original pegged frame. The exposed frame has a beaded corner and functions as the architrave along with cove molding that has been added around its juncture with the later clapboarding. The secondary entrance into the wing has a single door with a large fixed pane of glass above three full-width panels. Above the door is a single fixed-pane, Victorian-type transom. The door and transom are set in a simple frame with flat board architraves. A third entrance into the house is located on the rear of the wing addition. This entrance is offset and approached by an open brick stoop that appears to be later than the addition. The door for this entrance appears to mid-twentieth century with a single fixed pane of glass above three full-width panels. The door is set within a simple frame with flat board architraves. This rear entrance leads into what appears to have been originally an inset porch that was later enclosed. A fourth entrance leads into the basement from a bulkhead located between the two chimneys. This entrance holds a paneled wood door and is approached by a twentieth century concrete bulkhead with stairs.

Figure 8-14. Front entrances (Left) and rear entrance (Right).

Window fenestration on the building consists solely of individual, double-hung sash openings. The windows on the original block are set within the original frames, but the sashes appear to be later replacements. The windows on the wing addition also appear to be replaced as they are identical in construction technique and muntin details to those on the enclosed inset porch, as well as those on the original block. Nearly all of the first floor windows have nine-over-nine light configurations with the exception of one small window on the rear of the original block that is six-over-six (Figure 8-15). The few second floor windows are all six-over-six. The original block has a single double-hung sash window located in the western bay of the front facade under the porch. There was originally a second window on this façade adjacent to the doorway, although it was later removed and covered with beaded clapboard. The rear façade of the original block is divided into three bays with two taller double-hung sash windows in the central and western bays and a shorter window in the eastern bay lighting the stair landing inside the house. The west side of the original block is pierced by a single window on the outer corner of first floor immediately adjacent to the replaced chimney. This window could not have been placed here until the current, narrower chimney was added circa 1925. It is possible this window was borrowed from the front façade under the porch and moved to this side location to allow more light after the full-width porch was added. The west side of the original block also has two smaller windows set between the two chimneys on the second floor. Fenestration on the north side of the wing addition consists of a single double-hung sash window adjacent to the rear entrance (one the enclosed inset porch) with two evenly-spaced windows on the second floor wall above. The east side of the wing has three unevenly spaced windows on the first floor (two one main mass and one on the enclosed porch portion) and no fenestration above (Figure 8-16). All of the dormers are later additions and hold double-hung sash windows with six-over-six light configurations. All of the window surrounds appear to have been replaced contemporaneously to the recladding of the house in the early-twentieth century. They are a simple flat board design with no trim or molding.

Figure 8-15. Fenestration on original block.

Figure 8-16. Fenestration on wing addition.

Like the door and window frames, the building overall is only minimally adorned or embellished. The primary embellishment on the original block was exhibited through brickwork with the stylish Flemish bond and glazed headers. The single end chimney is adorned through matching Flemish bond construction but with glazed brick forming a chevron pattern near the shoulder. The shoulders or "haunches" themselves are brick paved and flanked by brick wings. The frame portions of the building are less decorative, with the primary decorative feature being the original beaded siding that is now mostly replaced (a small section of original beaded siding remains on the eastern gable in the attic of the wing addition). The cornice on the rear of the

original block remains unobscured and is of the simple boxed variety with only narrow cyma reversa molding adorning the lower edge of the cornice where the soffit meets the wall of the house. The front cornice of the building has been obscured by the later full-width front porch addition, which exhibits exposed rafter tails at its cornice. The cornice of the wing is also boxed, but with a smaller profile than that of the original. The edges of the roof extend slightly beyond the side walls of the house to form narrow eaves that are adorned only with a flat raking frieze board.

Main House Interior

In its current double-pile, side passage form, the interior of the building is two rooms deep with a hallway running the entire length within the original block. Both of the rooms are accessed from single doorways off the passage, and are divided by a central partition wall that runs under the ridge of the roof. Currently, the wall is pierced and the rooms are connected with a large central opening featuring Tuscan columns set on paneled knee walls that appears to be contemporary to the southern chimney replacement in 1925 (Figure 8-17). As evidenced by mortise holes in the joists under the floor in the passage, this partition wall stretched completely across the building in its original form. At that time, the north side consisted of a single room, heated by a fireplace flanked by closets on the end chimney (Figure 8-18). The southern half of the house was divided into two rooms at the internal chimney which abutted the central partition wall. The internal chimney had two angled fireboxes, one in the corner of each room. These rooms were connected by a doorway between the internal chimney and the front wall of the house, and connected to the northern room by a doorway in the central partition wall near the east side of the house. When the house was reconfigured in the early-twentieth century, the partition between the two small southern rooms was removed and a new partition wall was built from the front to back of the house to make the full-length side passage. Across this passage or hallway, the wing addition was attached and is accessed through a doorway off the passage. Within the first floor of the wing is a large room, likely a dining room that occupies the majority of the mass. A small room to the rear of this room was originally the inset rear porch, but was later enclosed to function as a kitchen, likely in the mid-twentieth century (Figure 8-19).

Figure 8-17. Partition wall with columns on knee walls.

Figure 8-18. Fireplace in northern room with flanking closets.

Figure 8-19. Dining room in addition with enclosed porch to rear.

The second floor of the house is accessed by U-shaped run of closed stringer stairs set in the rear of the hallway (Figure 8-20). Ghosts in the plaster underneath these stairs, as well as mortises in the floor joists indicate that in their original configuration, these stairs had a single dogleg and opened into the northern room along the rear wall. When the floor plan was reconfigured and the hallway partition wall built, the lower flight of stairs were turned 90 degrees, and the landing extended so that the stairs could open into the hallway. Currently, the lower flight of stairs and landing encloses a small closet that is accessed by a board and batten door. At an unknown, but early date, a bulkhead and flight of stairs leading to the basement was cut through the floor under the upper stairs and landing (this bulkhead was subsequently closed at a later date, reportedly in the 1940s). The upper flight of original stairs feature molded trim along the side of the stringer. A molded railing with square balusters lines the stairs and terminates at a square newel.

Figure 8-20. Stairway at end of side passage.

These stairs lead to the finished half-story above the original block, as well as the second floor of the wing. The original block is divided into three primary rooms, with the primary division wall running the length of the roof ridge, and a secondary partition wall dividing the south half into two smaller rooms. The wall between the two bedrooms is original as evidenced by the joinery of its studs to the collar beams in the attic. The partition between the two smaller rooms appears to be original, but may have been shifted slightly following the removal of the internal chimney. A small landing at the top of the stairs provides doorways into the large bedroom along the northern half of the original house (Figure 8-21) and into the smaller southeast room, which most recently functioned as a bathroom, likely converted in the mid-twentieth century (Figure 8-22). Within the bathroom, a small closet was partitioned off in the 1950s and is accessed through the northern bedroom. A door from the bathroom as well as small doorway cut through the primary division wall from the north room allows access into a bedroom in the southwest corner of the original block (Figure 8-23).

Both bedrooms and the bathroom in the original block are illuminated by non-original dormer windows. Gable windows provide additional light on the west side of the house and were originally located on the east end as well, but were removed and covered when the wing addition was added. The dormers on the north slope were apparently added at the same time as the addition was put on (and the first floor layout reconfigured) circa 1905, as studs from the original first floor partition wall were used to frame the dormers (as evidenced by matching length and the presence of tenons on each end). The south slope dormers are constructed differently and therefore assumed to have been added at a different time, likely earlier, as dormers would have

been required to light the southeast bedroom following the construction of the wing addition which covered the gable end windows, the only other natural source of light. If they were not added at the same time as the addition (as noted from their different construction from the northern dormers which are known to have been added then), than it stands to reason they were already present at that time. They are built with circle sawn lumber and cut nails, so presumably they were added in the second half of the nineteenth century.

Figure 8-21. Northern bedroom with fireplace.

Figure 8-22. Bathroom in southeast room.

Figure 8-23. Bedroom in southwest room with door to bathroom.

A third doorway from the second floor stairway landing leads into a single bedroom in the wing addition. This room is lit by two windows on the north wall as well as a dormer on the south wall. This dormer is flanked by two small built-in closets (Figure 8-24). This room appears to have been unheated until radiators were added in the mid-twentieth century.

Figure 8-24. Bedroom in wing addition.

The interior has a variety of finishes indicative of periods of renovation. Through the original block and wing addition, most of the wood floors are exposed and the walls and ceilings are plastered. The floor boards run from side-to-side throughout both the original block and the wing. The boards in the north room and most of the hallway in the original block are original wide-plank pine. There are two different floor types in the south room, reflective of renovations. The majority of the room is floored with medium-width pine that matches the floor in the wing

addition was installed to cover the floors after removing the internal chimney. When the end chimney built at that time was torn down roughly twenty years later in 1925 and replaced by a narrower chimney and fireplace, the gap from the smaller hearth was covered with narrow-width pine that was carried across the southern portion of the room (Figure 8-25). This narrow-plank floor was carried under the hallway partition wall and installed in front of the front door as well, likely to replace the floor just inside the door that may have had severe wear from over 150 years of dirt and sand being tracked in. Several courses of the narrow-plank floor were also installed between the two first floor rooms when the wall partition was opened in 1925. The floors throughout the wing addition are medium-plank pine. The floor in the enclosed rear porch kitchen is covered with asbestos tiles. The second story floors also reflect the various periods of renovation. The majority of the original block has original wide-plank floors although the gap where the internal chimney projected through is covered with medium plank floors matching the addition. The hearth from the first southern end chimney torn down in 1925 is infilled with narrow-width flooring.

Figure 8-25. Hearth framing for first (Larger) and second (Smaller) southern end chimneys.

Although all of the walls throughout the house are finished with plaster, various periods of application have resulted in a variety of forms and treatments. Most of the plaster walls throughout the house have been covered with several layers of wallpaper. Much of the wallpaper is peeling though, allowing the inspection of the plaster underneath. Further, many sections of the plaster are crumbling and/or have been knocked down which enables the inspection of the plaster composition and application. The original plaster, of which some remains on assorted walls and ceilings, is a three-coat finish over split pine lath (Figure 8-26). It consists of a rough or scratch coat with natural hair binder (probably hog or cattle), beneath a brown coat, and finally a thin white lime finish coat. The lath is affixed to the studs with wrought nails. There are some later sections of two-coat gypsum plaster with horsehair also applied to the hand-split lath as well as to industrial lath attached with cut nails. In some areas, there are sections of gypsum

plaster applied to 1920s metal mesh lath with wire nails (Figure 8-27). Summer beams in the ceiling of the hallway and an enclosed plumbing–run, also in the hallway, have been covered with gypsum board and metal corner beading.

Figure 8-26. Original split pine lath under stair landing.

Figure 8-27. Remnants of metal lath under plaster on 1925 chimney.

The majority of doors and doorframes throughout the house, including the two from the passage into the first floor rooms, and the two from the second floor landing into the rear bedroom and bathroom, appear to be original and were simply moved and reused when the layout was reconfigured in the early twentieth century. The frames and jambs in the original block are of solid construction with beaded corners and pegged at the corners (Figure 8-28). Single-tier cyma reversa trim with subtle Greek Revival influence has been added around the edges, and may date to the mid-nineteenth-century (Figure 8-29). The doors themselves are mortise and tenoned six-

panel doors. They are suspended by replacement butt-hinges designed to appear like eighteenth century H-L hinges, but are likely twentieth century replacements (Figure 8-30). The door frames in the wing are composite construction with simple board architraves. They also held six-panel doors suspended by simple butt hinges, but they have all been removed and broken.

Figure 8-28. Detail of original pegged door frame.

Figure 8-29. Greek Revival molding on original door frame.

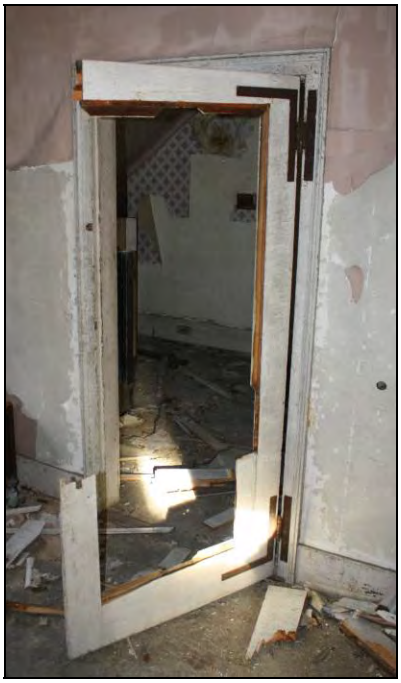

Figure 8-30. Modern H-L hinges.

All windows appear to be in their original locations with the exception of one window added next to the replaced 1925 chimney in the front room of the original block (Figure 8-31). This window was likely relocated from the front (south wall) next to the doorway. The window frames also appear to all be original; however as stated previously, the sashes are replacements. The windows are minimally ornamented with only single tier cyma reversa molding around the edges of the frame, which are likely a mid-nineteenth century application. The windows in the original block sit on bullnosed sills atop a plain apron. The windows in the wing are ornamented only with plain board surrounds and sit on a square sill.

Figure 8-31. Window added to west side.

In the original configuration, the first floor of the house had a large fireplace in the north room served by the single end chimney. The two smaller south rooms were heated by corner fireplaces on the internal chimney. The second floor also featured a fireplace in the north room and the southern two rooms may or may not have originally been heated by fireplaces on the internal chimney. Following the removal of the internal chimney, an additional end chimney was added which had fireplaces in both the first and second floors. When this chimney was torn down in 1925, the currently standing chimney was built which features a fireplace on the first floor and vented a wood stove in the southwest bedroom on the second floor. This stove was removed with the addition of radiators in the mid-twentieth century.

There are currently four fireplaces, or remnants thereof, throughout the house. This includes one in each room on the first floor of the original house, one in the second floor rear room, and a former fireplace in the basement. The fireplace in the first floor northern room is the largest and was presumably always the finest. An inspection of the brick reveals this fireplace originally had an arched firebox that may or may not have originally had a mantel. It was later relined with newer brick modified to have a rectangular box with a wood surround, likely in the mid-nineteenth century. It was subsequently refaced again contemporaneously to the replacement of the southern end chimney in 1925, as both first floor fireplaces feature matching surrounds. Both are lined with pressed brick, faced with black rug bricks, and surrounded with simplistic Colonial

Revival mantels consisting of fluted architraves, blank corner blocks, and a bull-nosed mantel (Figure 8-32).

Figure 8-32. Matching fireplaces in first floor rooms.

The fireplace in the basement that shares this chimney originally had a large arched opening, but was later infilled and converted to a flue for the oil-burning furnace. The presence of this fireplace in the basement suggests that the room may have served as a kitchen or food preparation room, or possibly just a heated room for a domestic servant. The fireplace in the second floor northern room, on the original end chimney, appears to have been modified in the mid-nineteenth century with a Greek Revival surround that remains, but has been detached from the chimney.

Most of the ornamentation throughout the Spring Hill house is from later applications. The baseboard throughout the house is plain and likely original. There is no crown molding although it cannot be determined if there ever was and it was later removed. There appears to have been a renovation to add some Greek Revival decoration, likely in the mid-nineteenth century. This included adding cyma reversa moldings to the door and window frames and replacing the second floor fireplace mantel (and possibly the first floor as well, although these were replaced again later). The home underwent an addition and renovation in the early twentieth century to add the east wing and reconfigure the layout the original layout. The wing is very simple in ornamentation with the only embellishment being a molded chair rail in the main room. Another renovation took place in the early-twentieth century to replace the southern end chimney, reface the fireplaces, and add a partition wall cut through with Colonial Revival influences. This renovation even may or may not be the same time when additional Colonial Revival elements such as faux H-L hinges were added.

Kitchen Outbuilding

In the yard to the northwest of the main house is an outbuilding that was reconstructed in the twentieth century (Figure 8-33). The exact date cannot be determined, however it appears to be from the second half of the twentieth century as evidenced by materials and construction techniques. The building seems to have been intended to lend the appearance of a nineteenth century kitchen with a large chimney stack. This small one room building is constructed on a continuous poured concrete foundation and has a dimensional lumber frame structural system with wood clapboard cladding. It is topped by a steep pitch side-gabled roof covered with standing seam metal. Fenestration consists of a single door and single window on the front (eastern) façade, a window adjacent to the chimney on the south side, and small windows on the second floor gable ends. All of the window sashes have been removed. The building features a large brick chimney on the south side with a single brick shoulder inside the gable. It is set on a heavy concrete base, and is laid in an irregular English bond ranging from six to eleven courses of stretchers between rows of all headers. Above the shoulder it transitions to all stretchers and is capped by a six-course corbeled capital. An enclosed shed is appended to the rear of the building, although appears to be original from the continuity of the foundation.

Figure 8-33. Reconstructed kitchen outbuilding.

The interior of the building consists of one room on the first floor and one room in the attic above. The first floor room has wood floors and paneled wood walls. The panels used on the wall are tongue and groove and exhibit early saw mill marks (parallel 90 degree marks). Utilizing panels with this saw marking was presumably used to be consistent with the attempt to reconstructed a “period-looking” outbuilding. The framing and joists are exposed on the ceilings, although nail holes and staining reveal they were covered with lath and plaster in the past. The focal point of the room is the large brick fireplace and hearth with a nineteenth century style pot armature. The now missing mantel was supported by hand-hewn brackets, again consistent with

a “period” building. A narrow flight of steep dogleg stairs in the front corner provides access to the attic above which has a wood floor, but is otherwise unfinished (Figure 8-34).

Figure 8-34. First floor fireplace (Left) and stairs (Right) in the kitchen outbuilding.

ARCHAEOLOGICAL SURVEY

Between July 2013 and July 2014, D+A conducted archaeological data recovery at Site 44CF0696, also known as the Spring Hill plantation site, in Chesterfield County, Virginia. Over the course of the fieldwork, archaeological investigations focused principally on the area of the "domestic yard" immediately surrounding the structure, as well as beneath the extant Spring Hill plantation house. As the investigation proceeded, additional questions about the property, its owners, and how the landscape around them evolved over the course of nearly 300 years began to emerge. Additional archaeological investigations, supplementing the original scope of the data recovery plan, were conducted to address some of these new questions and to provide a more complete picture of the history of the property.

Prior to initiating fieldwork, D+A prepared a data recovery plan, dated March 2013 (Metz et al. 2013). The plan, reviewed by the VDHR, outlined the existing conditions at the site, summarized the previous archaeological findings, and discussed current research issues related to late eighteenth and nineteenth-century research in the field of historical archaeology. The purpose of the plan was to develop research questions that could be addressed by recovering data at the site and how this data would ultimately contribute to the body of knowledge that exists related to the history of Chesterfield County.

The data recovery plan drew largely on the results of the archaeological evaluation conducted by the cultural resource management firm TRC in 2001 and 2007 (Olsen et al. 2010). The TRC field investigation included the excavation of shovel tests in a systematic grid across the majority of the property around Spring Hill, and delineated the boundaries of the site based on positive shovel tests. The site measured approximately 198.1 meters (650 feet) east/west and 91.4 meters (300 feet) north/south. The data recovery efforts were conducted within these established boundaries.

The TRC study concluded that the area around the Spring Hill house, as well as the larger property, had undergone a significant amount of disturbance and that ground surfaces particularly within the domestic yard appeared to have been "scraped." As such, the area to the west of the structure was determined to have the highest potential for archaeological remains based on the combination of positive shovel tests, level ground surface, and proximity to the Spring Hill house. The majority of the area immediately to the east of the house appeared to have been previously disturbed, as indicated by several large expanses of concrete that had been installed by the Reynolds Corporation during their ownership of the property, as well as the construction of an early twentieth century well. To the south of Spring Hill, the land is sloped, and therefore unlikely to contain significant structural remains.

The data recovery plan included a strategy for archaeological investigation primarily in the domestic yard area west of the Spring Hill house. The plan included the excavation of strategically placed test units, as well as mechanical removal of topsoil in order to expose subsurface features and to address research questions posed in the plan. The majority of the data recovery effort was completed during the summer of 2013, and additional investigation of the property was conducted in several phases during the first half of 2014.

Overview of Data Recovery Phases and Results

A total of ten (10) test units were excavated near the Spring Hill house and seven (7) trenches and one area were excavated within the domestic yard space and examined for features. In addition, areas underneath the Spring Hill house were also examined. In order to investigate areas slightly further from the structure, a combination of judgmental supplemental shovel testing was also conducted to the north, south and east of the house site. Finally, a walkover survey was performed to determine if any surface remains were visible and to determine if other portions of the property appeared to have high potential for archaeological features based on topography or proximity to other identified landscape or natural features (Figure 8-35).

The data recovery effort, particularly the excavation of the trenches in the yard, effectively documented the level of disturbance that has taken place on the property over time. Overall, the topsoil was very shallow and many of the artifacts recovered were very fragmented and worn, indicating that they had been re-deposited or moved around over time. In some areas, sterile subsoil, indicated by expanses of orange clay, was encountered beneath a thin layer of topsoil. In other areas, lenses of subsoil that had been deposited over the topsoil were found, beneath which natural, sterile subsoil was found, showing that low areas had been filled to level out the ground surface.

Despite the overall lack of integrity of the site, however, data recovery resulted in the identification of one previously unrecorded structure, likely a kitchen that was rebuilt, as well as nearly fifty additional features. While a number of these were postholes that suggest fence lines or small outbuildings, not enough evidence remained to provide a complete picture of how the use of the area around Spring Hill evolved over time.

The material remains recovered from the site and some of the data from 53 features that were excavated provided valuable information that corroborates the historical research and addresses the research questions developed for the archaeological study (Table 8-1). The mean date for features is based on calculation of the Mean Ceramic Date. In cases where no mean ceramic date is given for a feature, there were either no ceramics recovered or the feature was non-cultural, meaning that any ceramics found would not be a valid indicator of when the feature was created. Over 1500 artifacts were recovered from D+A's archaeological investigation of Spring Hill. Ceramics accounted for a large proportion of the finds and a "mean ceramic date" of 1846 was calculated for the site.[15]

[15] The mean ceramic date is based on the average number of fragments of each type of ceramic recovered from the site and a calculation of the midpoint of the manufacture of the ceramic. While some assumptions have to be made, e.g. lag time between manufacture and use, etc., it is known that the ceramics industry changed rapidly between the mid- to late-eighteenth century and the second half of the nineteenth century, making this type of analysis very useful on sites in colonial and post-colonial America, particularly on the east coast. The midpoint in the period of manufacture is generally recognized as the date of deposition.

Figure 8-35. Aerial view of data recovery excavations illustrating locations of trenches, test units, and shovel test pits.

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Table 8-1. List of identified archaeological features.

Feature #	Location	Feature Type	Related to:	Mean Date	Owner
1	TU 1	Post hole	-	1890	Gregory
2	TU 2	Planting hole	-	-	
3	TU 2	Trench	-	-	
4	Trench 1	Post hole	-	n/a	
5	Trench 1	Large area of coal, slag	7	1873	Gregory
6	Trenches 1, 3	Utility trench	-	n/a	
7	Trench 1	Large area of coal, slag	5	1873	Gregory
8	Trench 2	Compact clay	-	n/a	
9	Trench 2	Shallow pit, erosion?	-	1806	Branch
10	Trench 2	Post?	-	-	
11	Trench 2	Posthole	-	1904	
12	Trench 2	Shallow depression, erosion?	-	n/a	
13	Trench 2	Large rectangular post hole w/brick	-	1828	Cox
14	Trench 2	Post hole, mold	-	1827	Cox
15	Trench 3	Tire rut?	-	n/a	
16	Trench 3	Tire rut?	-	n/a	
17	Trench 3	Utility trench	-	n/a	
18	Trench 3	Compact clay	-	n/a	
19	Trench 3	Compact clay	-	n/a	
20	Trench 3	Post hole, mold	-	1803	Branch
21	Trench 3	Outbuilding	28, 29	1859	Gregory
22	TU 3	Brick-filled posthole	-	1836	Cox
23	Trench 3	High area around root	-	n/a	
24	Trench 3	Erosion/small post	-	-	
25	Trench 3	Plow scar	-	-	
26	Trench 4	Small post hole with brick	-	1803	Branch
27	Trench 4	Small post hole	-	n/a	
28	Trench 4	Plaster concentration near outbldg.	21, 29	1859	Gregory
29	Trench 5	Outbuilding	21, 28	1859	Gregory
30	Trench 5	Linear feature with ash	31	1819	Cox
31	Trench 5	Large pit feature, crater	30	1801	Branch
32	Trench 5	Small brick-filled post	-	1807	Branch
33	Trench 6	Square post hole	-	n/a	
34	Trench 6	Compact clay	-	n/a	
35	Trench 6	Compact clay	-	n/a	
36	Trench 6	Compact clay	-	n/a	
37	Trench 7	Buried A layer	-	n/a	
38	Trench 7	Posthole	-	n/a	

Feature #	Location	Feature Type	Related to:	Mean Date	Owner
39	Trench 7	Area around roots	-	1831	Cox
40	Trench 7	Gravel trench with clay sides	-	1885	Gregory
41	Trench 7	Drip line at structure	-	1905	
42	Area 8	Dark red clay-capped posthole	-	1886	Gregory
43	Area 8	Erosion pit/trench	-	1809	Branch
44	TU 2	Posthole, brick filled	-	1735	Branch
45	Basement	Rodent burrow near chimney base	-	-	
46	Trench 5	Small post hole	-	n/a	
47	Basement	Construction fill, western half	-	-	
48	TU 5	Builder's trench around chimney base	-	-	
49	TU 5	Poss. Post in northwest corner of unit	-	-	
50	TU 6	Possible post northern side of unit	-	-	
51	TU 3	Builder's trench for modern chimney	-	-	
52	TU 7	Posthole near cobble feature	-	-	
53	TU 7	Cobble filled feature	-	-	

Archaeological Exploration of the Spring Hill House

At the start of the archaeological data recovery at Spring Hill, it was believed that the brick chimney base remains in the crawl space beneath the southwestern room of the building represented the remains of an earlier building. While the archaeological exploration of the yard area was primarily aimed at finding outbuildings, the goal of the exploration of the chimney base, at least at the outset of fieldwork, was to learn more about the early occupation of the property and perhaps locate an earlier structure.

D+A's initial assessment of the Spring Hill property prior to preparation of the data recovery plan, included an examination of the crawlspace from the full basement beneath the northwestern portion of the house. Two to three courses of brick were visible, and the relationship of the chimney base to the building was not understood, and was thought to possibly be the remains of an earlier structure. Following removal of the floorboards in the southwestern room, the chimney base remains became accessible and its relationship to the standing building became clearer. Coupled with more intensive architectural survey, it was revealed that the base was originally an interior chimney for the existing building.

As fieldwork began, soil and debris were removed in order to expose the ground surface, as the area around the chimney base was characterized by a thick layer of loose, unconsolidated mixture of soil, dust, plaster, brick fragments, ceramic and glass fuses, and organic material including nutshells, leaves, and vines. Despite spraying water over the surface, the silty nature of the fill caused sidewall of sections that were removed to collapse.

Because this context was disturbed and contained deposits with modern inclusions, the debris was removed by hand until an undisturbed surface was reached. The unconsolidated fill ranged in depth over the surface of the crawlspace, but averaged approximately 25.4cm (10 in). Due to the difficulty of removing the soil, only the area around the chimney base was cleared, resulting in a "window" measuring approximately 3.0 meters (10 feet) by 3.0 meters (10 feet). Once the area around the chimney base was exposed, several features were visible (Figure 8-36).

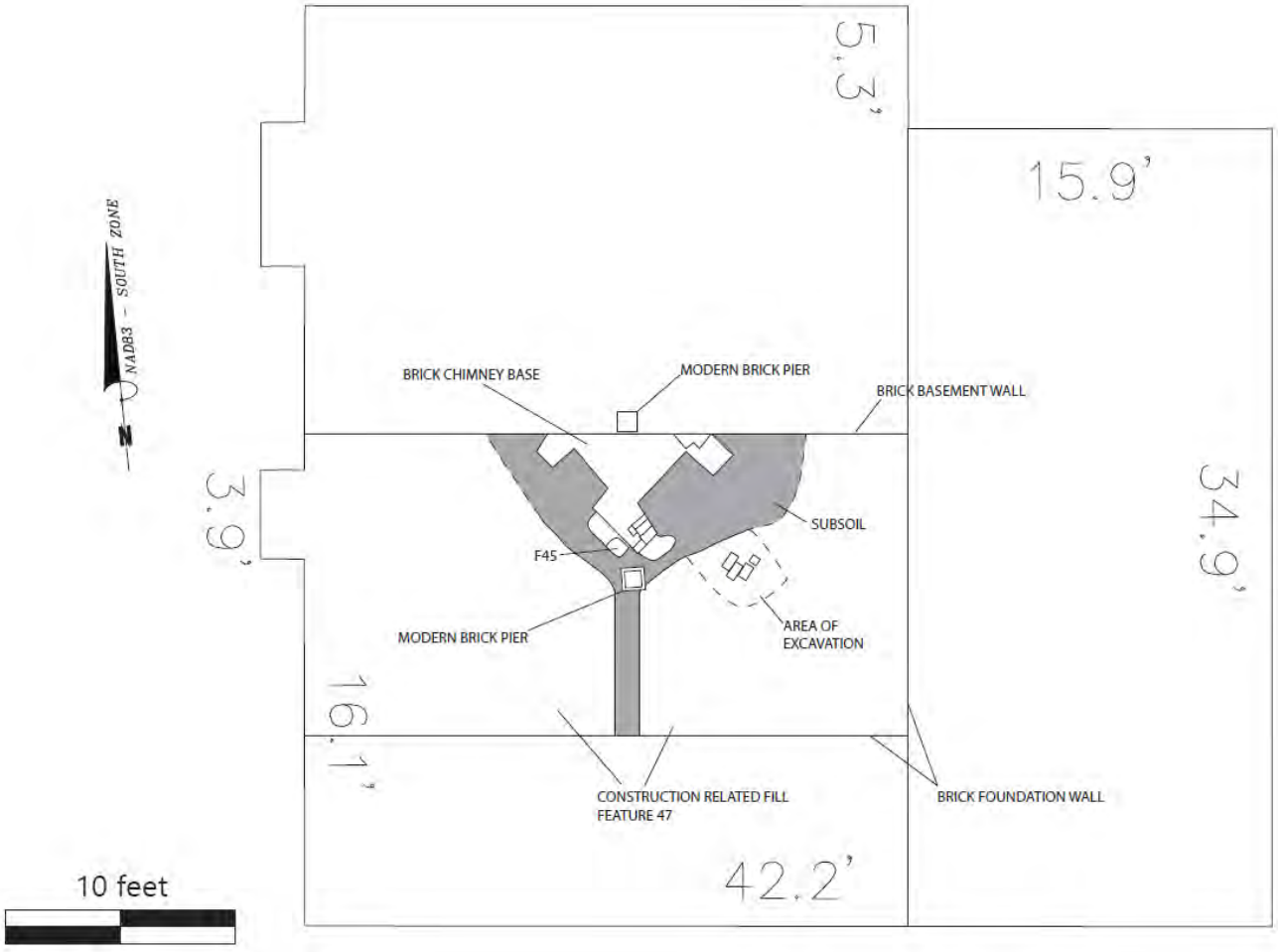

Figure 8-36. Plan view of excavations around chimney base beneath the southwestern room of Spring Hill.

Feature 45

Immediately adjacent to the brick chimney base, a dark brown (10YR3/3) extremely loamy soil was visible. The feature measured approximately 27cm (0.9 feet) by 24.3cm (0.8 feet) (Figure 8-37).

Figure 8-37. Plan view of Feature 45.

Once excavation began, the boundaries of the feature were no longer visible and the fill branched off beneath the subsoil, indicating that it was an animal burrow. One artifact, an animal bone, was found.

Feature 47

Also visible following the removal of the overburden of debris in the basement were two areas of soil that appeared to be pits. Each was in front of the "opening" that supported a hearth on each side of the base and appeared to mirror each other with a narrow ridge of compact subsoil running north/south between them.

The eastern part of the feature was more accessible, and was tested. An exploratory trench was excavated through the center of the feature in order to determine the vertical limits. This was determined to be 24.3cm (0.8 ft) deep (Figure 8-38). Excavation of the feature continued in order to examine a larger sample size; however, very few artifacts were recovered. At the surface, several pieces of brick were found, but beneath this, artifacts were limited to three wrought nail fragments, a piece of flint, a brick fragment, 4 pieces of plaster, and 2 pieces of sand mortar. The very sandy soil also had very small inclusions of brick that appeared to have been over-fired and very friable. Based upon the size and composition of the feature it is interpreted as a shallow pit related to the construction of the building. The lack of artifacts suggests that the feature was excavated prior to the occupation of the property or from demolition of the interior chimneystack, when surface scatter would likely have been incorporated into the fill.

Figure 8-38. Profile view of Feature 47.

The overall lack of domestic features such as root cellars, domestic artifacts, and evidence of burning associated with use of the brick feature suggests that its function was not as a hearth but rather a support for hearths on the first floor of the structure.

Several other areas in the crawl space of Spring Hill were also explored over the course of the project. The area under the addition on the east side of the original structure was examined after the discovery that a secondary entry door for the house was located on the eastern, gable end of Spring Hill. Removal of the flooring in the addition revealed soil conditions similar to those encountered near the interior chimney base: the dry, unconsolidated debris and dirt was extremely difficult to remove without causing adjacent soils to collapse into the excavation area.

Once the area was somewhat exposed, a section of a brick wing wall or pier was visible abutting the original foundation of the building (Figure 8-39). This articulated section of brick would have served as a support for stairs leading to the entry door. Only the brick on the southern side of the door was accessible due to the piers for the addition, but it is likely that another wing wall or pier would have been located on the other side of the door.

Figure 8-39. Wing wall east side of house.

The northwestern portion of Spring Hill had a full basement, but investigation of that area was not possible due to a poured-concrete floor.

Excavation of Test Units at Spring Hill

During the first phase of fieldwork, in July 2013, a total of six (6) test units were excavated in areas around the two standing structures at Spring Hill in order to determine if builder's trenches or other evidence related to the construction sequence of the buildings was present. Following the completion of the majority of the fieldwork, 4 (four) additional test units were excavated in order to address questions resulting from additional information collected following the data recovery effort (Figure 8-40).

Test Unit 1 (Mean Ceramic Date 1839)

Test Unit 1, measuring 1.8 meters (6 ft) north/south by 0.9 meters (3 ft) east/west, was placed on the south-western side of the house and was bounded by the base of the south-west end chimney to the north. The test unit was placed in this location in an attempt to learn when the southern end chimney had initially been constructed and also to determine if a builder's trench associated with the house itself could be found.

Removal of the first level of soil, consisting of dark brown (10YR4/3) silty clay loam and measuring 12cm (0.3 ft) in depth revealed a series of irregular disturbances that appeared to be rodent burrows. The disturbed soils were removed and excavation of the first level of soil proceeded but was removed as a new Level B, which was slightly less organic, but had the same soil color value. Both Level A and what was removed as Level B were very disturbed. In addition to the rodent burrows, the soil appears to have been impacted by roots and water collecting at the foundation of the building. At approximately 30cm (1 ft) below ground surface, the base of the topsoil was reached, and a feature was identified cutting the subsoil (Figures 8-41 and 8-42).

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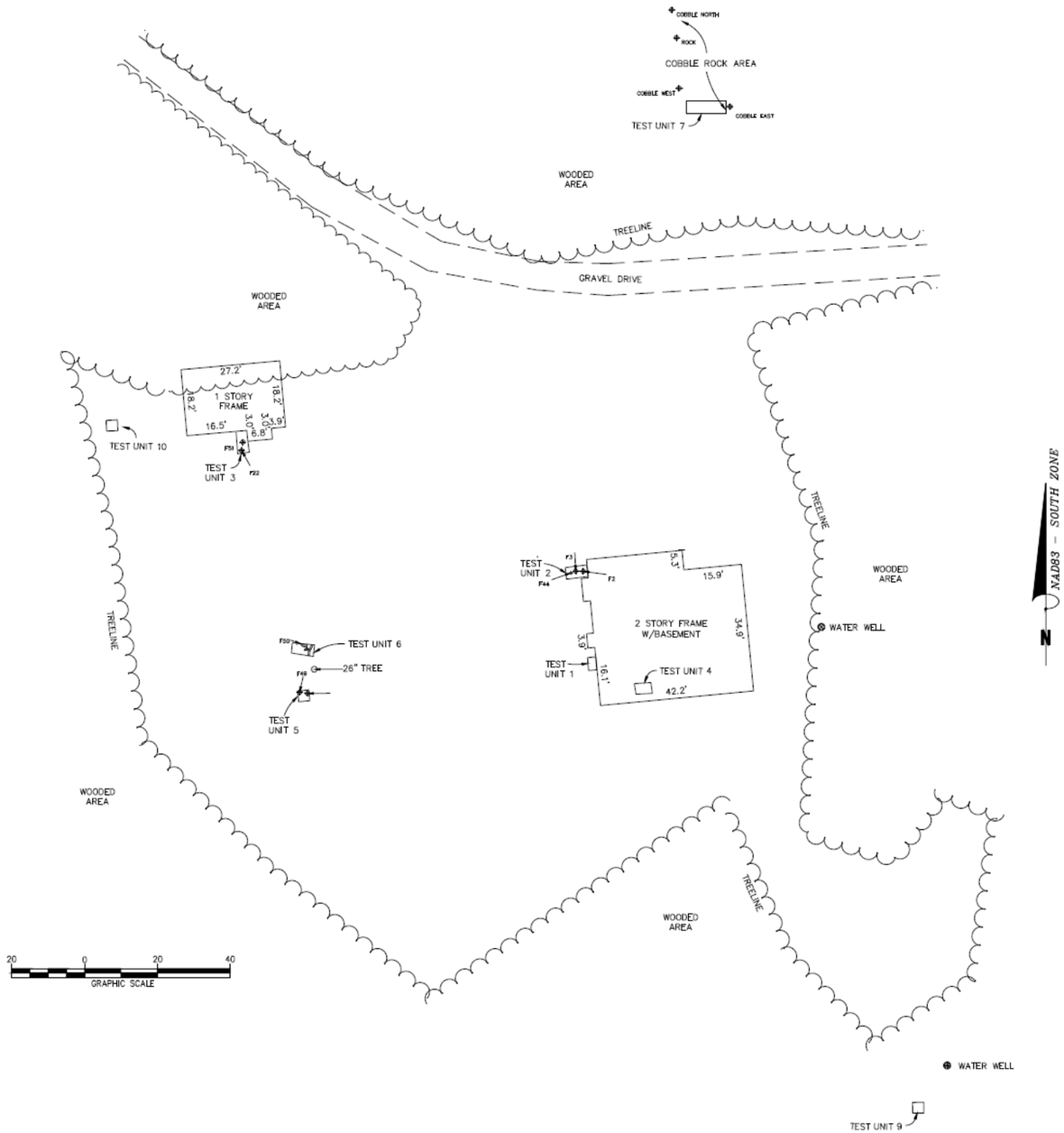

Figure 8-40. Plan view of unit excavations at Site 44CF0696 (Spring Hill).

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Figure 8-41. Profile of Test Unit 1.

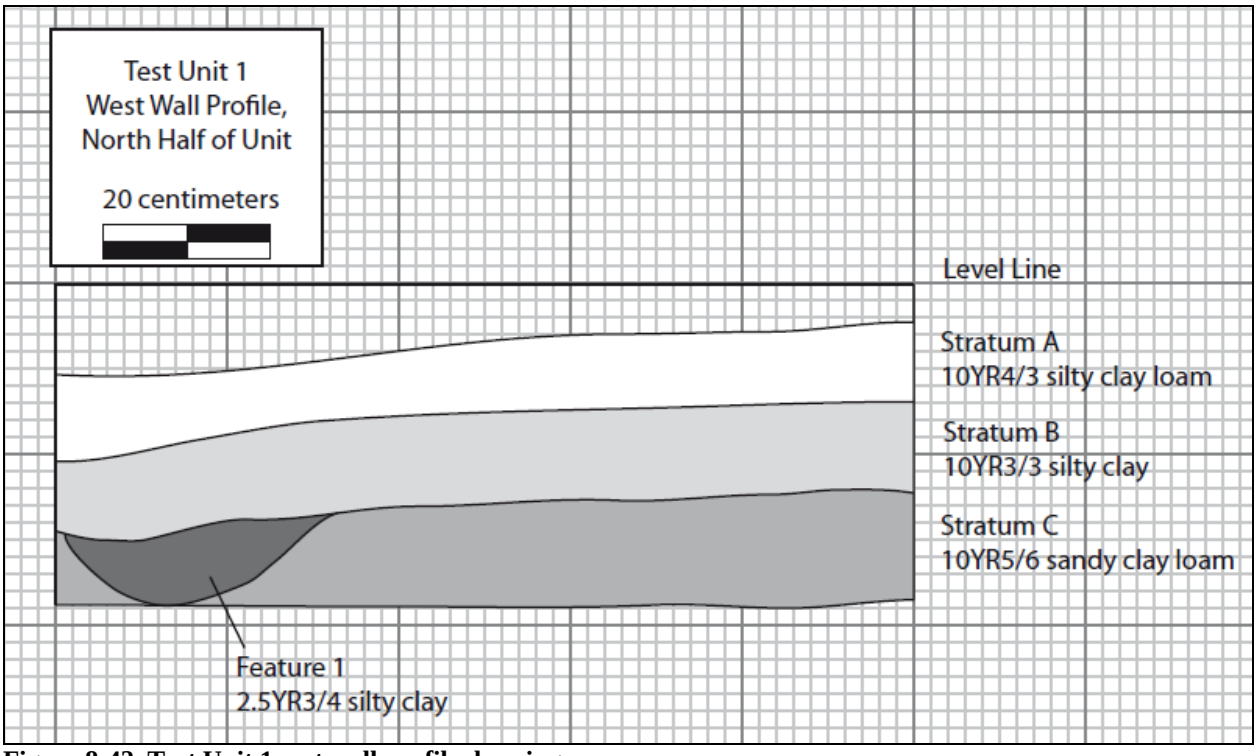

Figure 8-42. Test Unit 1west wall profile drawing.

Once the feature had been removed, Level C was removed, but excavation was limited to the northern half of the test unit due to the extremely compact soil. No artifacts were recovered, but a gradual transition to yellowish soil was noted, and excavation was terminated 36.5cm (1.2 ft) below ground surface. Subsoil consisted of yellowish brown (10YR5/6) sandy clay.

Artifacts recovered from Level A of Test Unit 1 consisted of large quantities of window glass that were, for the most part, incorporated into the root mat and were not collected. Ceramics recovered consisted of one sherd of pearlware, one sherd of graniteware, and one sherd of porcelain. The mean date for the ceramics was 1795, although this is greatly skewed due to the presence of window glass and the fact that these were very near the surface. Other artifacts from the first level included two small tools: a wrench and a pair of pliers that were likely mid-twentieth century.

Level B also included a significant amount of window glass (n= 25), possibly from an earlier window replacement on this elevation of the house. Other artifacts consisted of three pieces of mortar, 2 brick fragments, and 4 nails. Ceramics from Level B consisted of one sherd each of creamware, graniteware, and pearlware, providing a mean date of 1839 for Level B. The third level, C, had 3 pieces of window glass, 6 plaster fragments, one brick fragment and 1 nail fragment.

Feature 1 (Mean Ceramic Date 1890)

Feature 1 consisted of a shallow, generally oval pit. The soil consisted of a dark reddish brown (2.5YR3/4) sandy clay cap that was 5.0cm (0.1 ft) deep and sealed a second layer of dark red (2.5YR3/6) clay. Overall, the feature was 24.3cm (0.8 ft) deep (below topsoil) (Figure 8-43).

Figure 8-43. Feature 1 Profile facing north.

Artifacts recovered from the feature included 22 pieces of window glass, four ceramic sherds, a brick fragment, two cut nails, and two mortar fragments. The ceramics included two sherds of graniteware and one each of whiteware and hand-painted pearlware. The mean date for the feature based on the ceramics is 1890.

As the excavation of Test Unit 1 came to a close, a trowel was also used to probe the area between the house and the base of the earlier chimney in this location. Very little space was between the bricks, but when the trowel met a solid surface, a portion of a porcelain doll's leg was removed. It is not known if the artifact was placed there intentionally, but there did not appear to be enough space for casual discard. The artifact is discussed further in the latter part of this report.

Feature 1 appears to be related to the construction of the southern end chimney, and was likely used as a posthole to support scaffolding while the chimney was built. The construction date of

the chimney according to architectural and historical research is closer to 1905, but the mean ceramic date is well within the standard deviation.

Test Unit 2 (Mean Ceramic Date 1800)

Test Unit 2, also 0.9 meters (3 ft) by 1.8 meters (6 ft), was placed north of the northwest end chimney and was oriented east/west. The test unit was placed in this location to learn more about the northern end chimney and to determine if a former bulkhead entrance to the basement had been located in the area as this was a possibility that had been discussed.

The first level of soil consisted of brown (10YR4/3) sandy clay loam. Significant disturbance was noted, and roots and vines were located throughout the soil. As with Test Unit 1, disturbed soils were located beneath the root mat and amorphous soil color and texture changes were present, along with rodent burrows. Once the majority of the roots and disturbed soils had been removed, removal of soil continued and was called Level B. The topsoil measured approximately 19.8cm (0.65 ft) in depth, and was removed in two levels due to the amount of disturbance and to maintain stratigraphic control.

Once Level B, which consisted of (10YR5/2) silty clay loam was exposed, two features were identified in the test unit. Feature 2, in the northern portion of the test unit and Feature 3, a trench-like feature in the western portion of the test unit and cut by Feature 2. Once Feature 2 was removed and Level C was exposed, an additional feature, Feature 44, was visible. Level C, subsoil, showed evidence of standing water and had gley characteristics. It consisted of mottled (10YR3/6) and (10YR5/1) soils (Figures 8-44 and 8-45).

Figure 8-44. Plan view of Test Unit 2 with detail of Feature 2 removed and Feature 3 bisected.

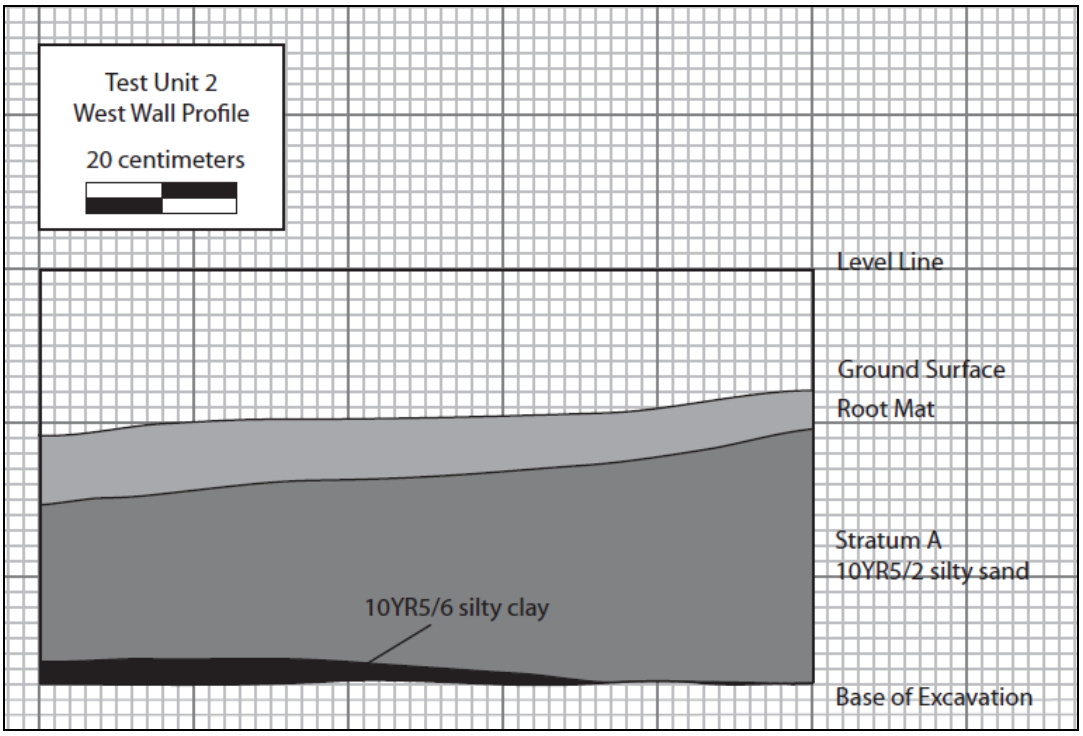

Figure 8-45. Test Unit 2 west wall profile drawing.

Feature 2

The soil of Feature 2 consisted of red (2.5YR5/6) sandy clay. A block of concrete approximately 0.4 feet by 0.6 feet was in the center of the feature, which appeared to be circular based on the portion exposed in the test unit. During removal of the fill, it was noted that the center of the feature was deeper than the outside perimeter.

Artifacts recovered from Feature 2 consisted of a sherd that appeared to be from the rim of a chamber pot made of white saltglazed stoneware with a "scratch blue[16]" decoration (Figure 8-46), along with a portion of a creamware cup handle, a piece of window glass, a terra cotta flowerpot sherd, four nail fragments, and a sherd of whiteware.

[16] The decorative technique known as "Scratch Blue" was popular on white saltglazed stoneware between 1742 and 1795, although by the 1760s is became debased. Unlike other types of white salt glaze, it was frequently used for chamberpots along with the full range of other ceramic vessel types.
http://www.jefpat.org/diagnostic/ColonialCeramics/Colonial%20Ware%20Descriptions/WhiteSalt-glazed.html

Figure 8-46. Rim fragment from scratch-blue chamberpot.

The feature's conical shape and the mixture of artifacts from multiple periods suggest that it may be a planting hole. Photographs from the early 1980's show several large boxwoods and other shrubs in this location, and it is known that a significant number of plantings were installed in the early to mid-twentieth century.

Feature 3

Feature 3 consisted of a linear feature of dark yellowish brown (10YR4/4) very silty clay loam (Figure 8-47). Only one nail fragment was recovered from the feature, making its interpretation difficult. Based on its location, soil texture, and shape, it is possible that the feature is related to drainage issues at Spring Hill and that it served to draw rainwater away from the foundation.

Figure 8-47. Excavation of Feature 3 in Test Unit 2.

Feature 44 (Mean Ceramic Date 1735)

In the eastern portion of Test Unit 2, a posthole was found very near the building foundation. The feature was sealed by the topsoil and had yellowish brown (10YR4/4) compact silty clay loam. Once removal of the fill began, the northern quarter of the feature was quite shallow, while the remainder of the feature had relatively steep sides. The feature measured 36.5cm (1.2 ft) in diameter and extended to a depth of 33.5cm (1.1 ft) into subsoil, for a total of 73.1cm (2.4 ft) below ground surface (Figure 8-48).

Figure 8-48.Test Unit 2 base of excavation with Feature 44 removed.

The posthole had several pieces of brick filling it, and also contained two English brown stoneware sherds that appear to be from the same ovoid-shaped vessel, with a taupe body and iron oxide dipped top and a pink interior (Figure 8-49). The stoneware pieces are some of the largest artifacts recovered during the data recovery, and the breaks in the sherds are not worn, indicating that they are at this location as a result of a primary deposit.

Figure 8-49. English Brown Stoneware sherds and a vitrified brick fragment recovered from Feature 44.

English brown stoneware was produced over a long period, with a range of 1671 and 1800. The median date is approximately 1735, suggesting that it was present during the first period of the occupation. One of the brick fragments recovered from near the base of the feature was also vitrified on four surfaces, which is indicative of the brick being a "waster," and was at the site during construction and then discarded. Based on the location of the feature and the condition, age, and nature of the fill, that Feature 44 is a posthole that was used for scaffolding during the construction of the northern end chimney.

Test Unit 3 (Mean Ceramic Date 1844)

In order to determine the date of construction of the extant outbuilding at Spring Hill, which was thought to be a relatively modern reconstruction, Test Unit 3 was placed near the base of the large chimney on the southern elevation of the building. The test unit measured 0.9 meters (3 ft)

by 1.8 meters (6 ft) and extended north/south from the corner where the chimney and the frame structure meet on the western side of the chimney (Figure 8-50).

The first level of soil consisted of brown (10YR4/3) sandy clay loam, which sealed subsoil (Figure 8-51). Artifacts recovered from Test Unit 3 consisted of large quantities of window glass, of which only a representative sample was collected. Several brick fragments, nails, other bottle glass, an iron spike, and a large piece of iron that appears to be part of a plow or other machinery. Ceramics recovered from the test unit provide a mean date of 1844, with a range from 1816 to 1873.

Two features, 22 and 51, were identified in Test Unit 3. Feature 22 was a posthole in the southern portion of the unit and Feature 51 was the builder's trench for the poured concrete foundation of the outbuilding.

Figure 8-50. Plan view of bottom of Layer A in Test Unit 3 showing Feature 22.

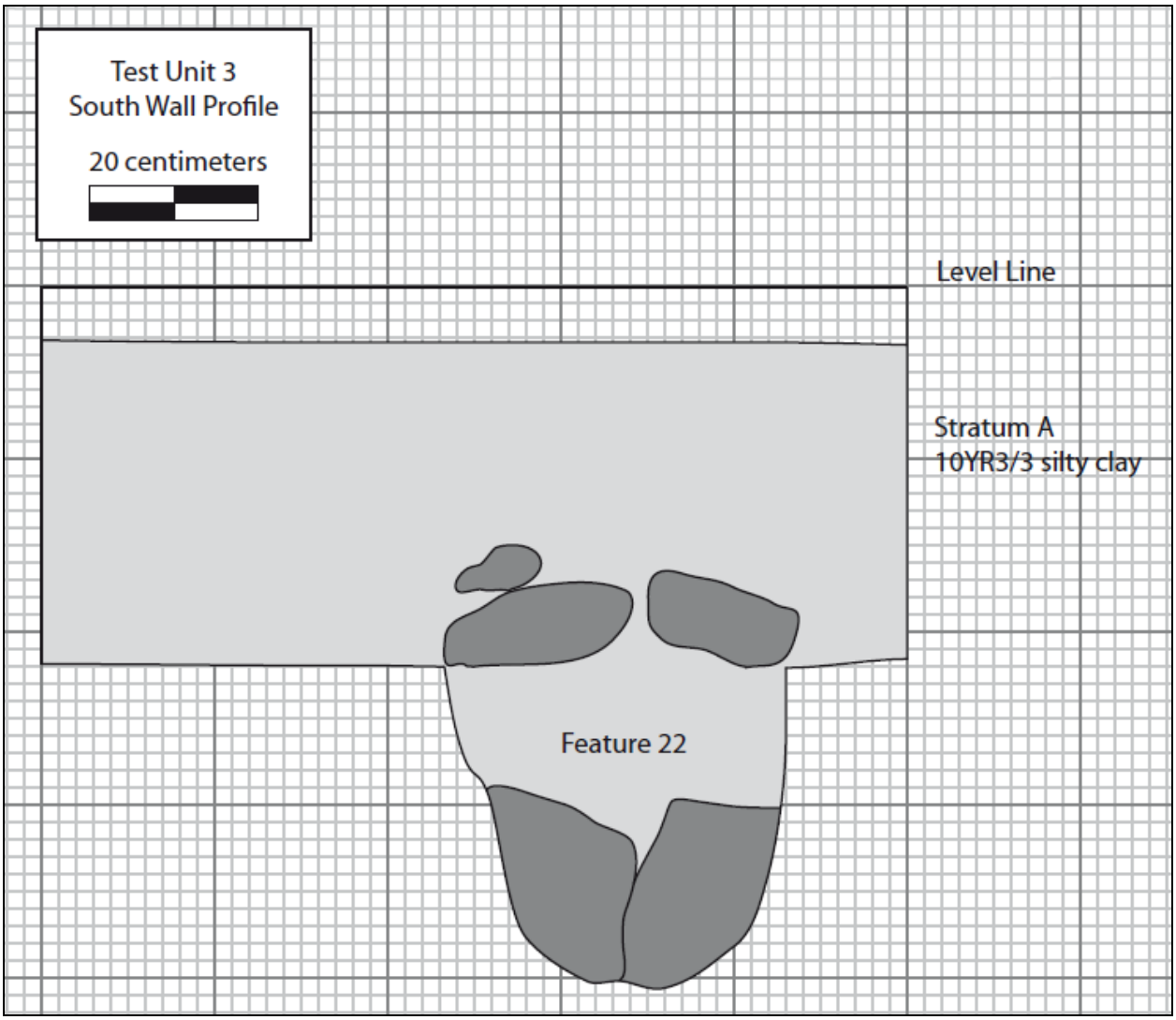

Figure 8-51. Test Unit 3 south wall profile drawing.

Feature 22

Feature 22 was located at the southern edge of Test Unit 3 and consisted of a brick-filled posthole. The soil consisted of dark brown (10YR3/3) silty clay and had several large brick fragments. Small brick fragments were also recovered from the fill. The base of the feature extended 60.9 cm (2 ft) beneath the present ground surface.

Additional artifacts recovered from the feature consist of ceramics including pearlware and white ware (n=3 each), two sherds of stoneware, and 1 sherd of porcelain. A large quantity of glass was found (n=87), the majority of which was window glass. Five pieces of dark green bottle glass were also recovered along with several pieces of molded glass and two pieces of opalescent depression glass. While the recovered artifacts have a relatively wide date range of popularity usage, the quantity of early twentieth century materials suggests a twentieth century date for the feature (Figure 8-52).

Figure 8-52. Sample of artifacts recovered from Feature 22, Test Unit 3.

Interpretation of the feature is that it is a possible fence posthole dating to the construction and use of an earlier outbuilding at Spring Hill. It is likely related to the small outbuilding shown on the 1937 aerial or earlier structure, both of which preceded the current kitchen outbuilding.

Feature 51

The test unit was intentionally laid out to abut the outbuilding and the chimney to narrow down the possible date of construction for the building. Relatively close to the ground surface, the poured concrete footer for the building and chimney was identified. The trench followed the concrete around the perimeter of the chimney and the portion of the foundation that was exposed along the northern edge of the test unit. The builder's trench was removed as Feature 51. The soil consisted of brown (10YR5/3) sandy clay loam and extended approximately 27.4cm (0.9 ft) into subsoil.

Artifacts recovered from this context included 1 piece of bone, 4 segments of wire, and 12 nails. Of the nails, several appeared to be cut, but most were highly corroded. The feature is modern and relates to the construction of the current outbuilding.

Test Unit 4

Test Unit 4 was located beneath the floor of the modern porch on the southern elevation of Spring Hill, and was placed in this area to learn more about the construction sequence of the Spring Hill house.

Excavation of the test unit began with clearing debris from the surface, including roots, vines, and loose, unconsolidated soil that had accumulated beneath the porch. A number of modern artifacts were found in this context, including plastic toys, glass, ceramics, and nails. Once the surface debris had been removed, intact soil contexts were removed (Figures 8-53 and 8-54).

Level A consisted of dark brown (10YR4/4) sandy/silty clay loam. Twenty-two pieces of ceramic were recovered from Layer A, and had a mean date of 1872. Level A also contained a number of relatively modern artifacts despite the fact that the soil was quite compact, unlike the surface deposits. It is likely that this level of soil had been disturbed by rodents, water, and roots over the course of many years.

The second layer of soil, Level B, extended over only a portion of the unit, as it seemed to slope towards the east, making the area closer to the door lower in elevation, which would be consistent with foot traffic or a worn path. No evidence of a walkway was identified, although the test unit did not extend as far as the door. Level B consisted of light yellowish brown (10YR6/4) sandy loam and sealed subsoil, which was yellowish red (5YR5/8) sandy clay.

No features were located in Test Unit 4, but a small pier of articulated brick was exposed in the eastern part of the unit. The Brick abutted the foundation of the building but only two courses of brick remained in situ. It appears that several more courses of brick were in place at one time as the remains of mortar are visible on the foundation. The brick appears to have been part of a pier to support stairs leading to the southern door to the structure. A similar configuration of brick was found beneath the floor of the addition leading to the door on the eastern side of the house.

The two remaining courses of brick were removed, and only a very shallow depression was left. There was no builder's trench excavated into subsoil. Two artifacts were recovered from between the two courses of brick, however, and consisted of one piece of devitrified window glass and a sherd of pearlware with a black transferprinted decoration.

Figure 8-53. Plan view of base of Unit 4 with brick piers/stair support.

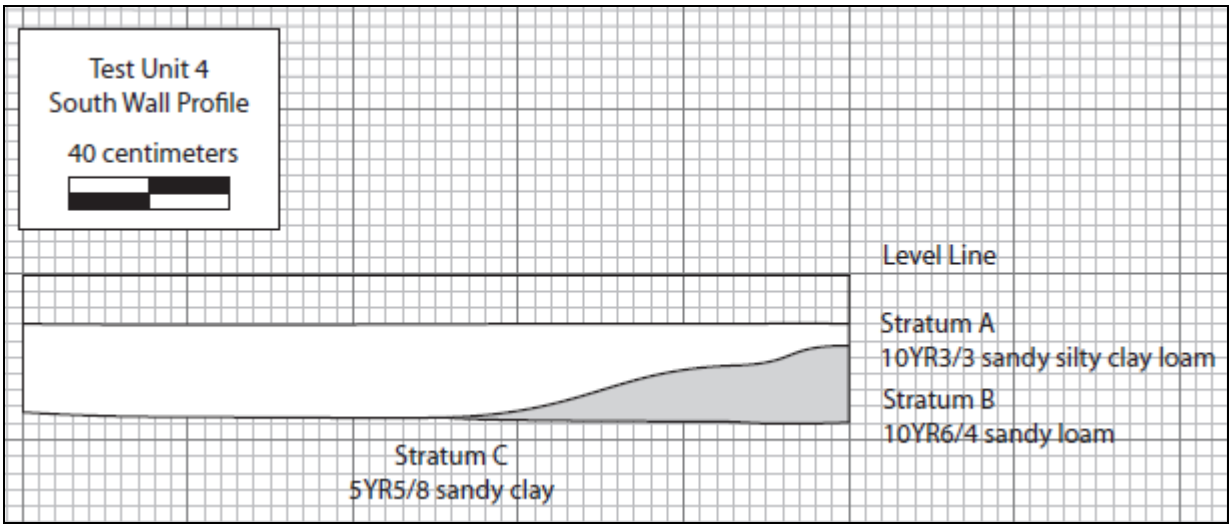

Figure 8-54. Test Unit 4 south wall profile drawing.

Test Unit 5

Test Unit 5 was placed south of the walnut tree in the outbuilding identified in the yard area. Once the topsoil had been removed a small section of articulated brick was revealed, and Test Unit 5 was placed in this area. The coursed brick was identified as Feature 48, and a second feature within the test unit, Feature 49, was also located.

Test Unit 5 measured 3 feet by 3 feet. The roots from the adjacent walnut tree intruded into the test unit, which was laid out to include the brick foundation (Figure 8-55).

The articulated brick is interpreted as the base of a chimney that served the kitchen (Figure 8-56). The large concentration of brick encountered around the walnut tree appears to be the location of the chimney fall.

Figure 8-55. View of Test Unit 5 at base of Layer B.

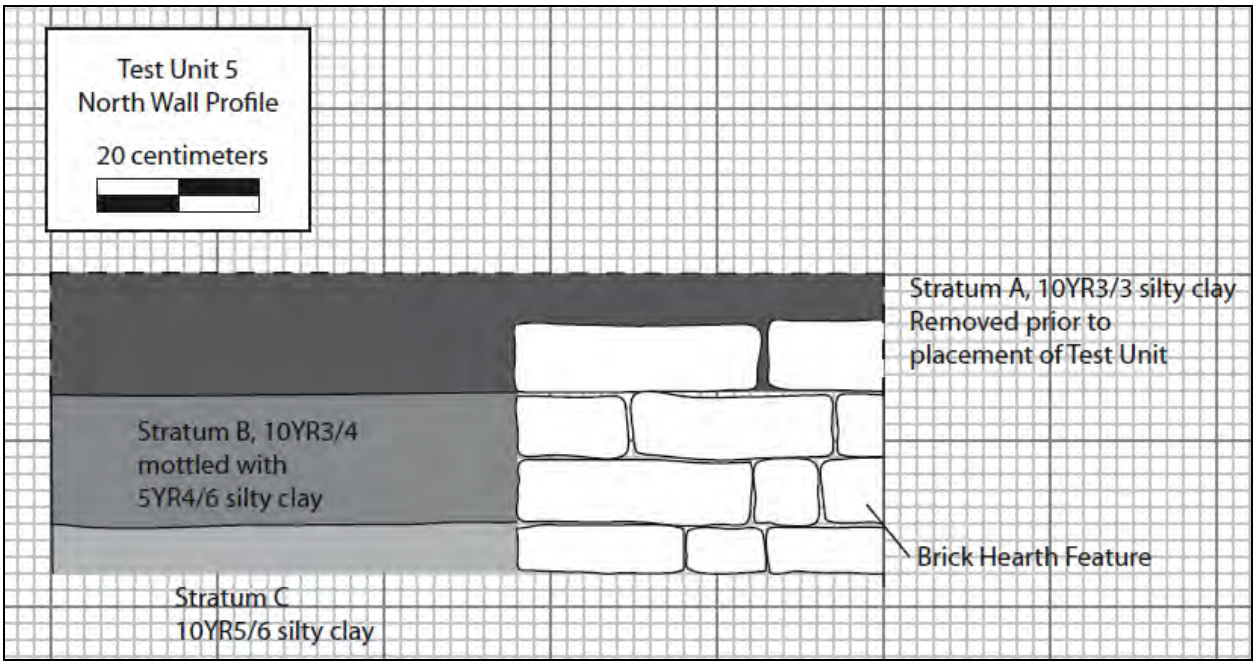

Figure 8-56. Test Unit 5 north wall profile drawing.

Feature 49

Feature 49 was identified in Test Unit 5. The roughly square feature was located in the northwest corner of the unit and measured approximately 24 cm (0.8 ft) by 24 cm (0.8-ft). The fill of the feature consisted of mottled soil (10YR3/4, 10YR4/3, and 5YR4/6) with a high concentration of charcoal inclusions. The soil consisted of a friable silty clay loam that had a friable texture.

Feature 49 appears to be a posthole, possibly associated with one of the kitchen outbuildings. Artifacts recovered from the feature included 33 pieces of iron including 31 cut nails and two (2) pieces of miscellaneous iron. The nails all appeared to be cut and many of them showed evidence of burning. Additional artifacts included one (1) each of a mortar fragment, a small bone appearing to be from a bird, a piece of devitrified glass, and a Civil War era copper alloy button with a molded eagle emblem, signifying that it was from a Union soldier's jacket.

Test Unit 6 (Mean Ceramic Date 1845)

North of Test Unit 5, a second test unit, Test Unit 6, was placed in the location of the suspected chimney fall to determine if any structural remains were located beneath the brick rubble. Artifacts recovered from Level B of the test unit consisted of 10 sherds of pearlware, 8 sherds of graniteware, 4 sherds of stoneware, and one sherd each of creamware, lead-glazed redware, and porcellaneous porcelain. These ceramics, as a group, have a mean ceramic date of 1845. Two of the sherds of pearlware had maker's marks identifying them as the India Temple pattern produced by the firm of John and William Ridgway (Figures 8-57 and 8-58). The maker's mark provides a very concise time of production as John Ridgway and his brother William were only in a partnership between 1815 and 1830.

Figure 8-57. Indian Temple mark on sherd from Test Unit 6.

Figure 8-58. Example of India Temple pattern plate by JWR Ridgway (Source: Ruby Lane).

The soil level sealing subsoil, Level C, contained 5 ceramic sherds. These consisted of one sherd each of graniteware, creamware, and Nottingham stoneware and two sherds of pearlware, one of which was a burned rim section with an embossed edge known to have been produced around 1820-1830. The mean ceramic date of Level C was 1796, which is earlier than most other contexts encountered at Spring Hill. It is likely that the depth of this context and the fact that it was directly adjacent to the walnut tree prevented it from being impacted during earth moving and grading at the site, as was the case with several other contexts.

Figure 8-59. (Left) Child's plate rim, (Right) Detail of Staffordshire child's plate (1830s-1840s).

Feature 50

Feature 50 was identified in the northern half of Test Unit 6, just east of the chimney fall from the remains of the structure archaeologically identified in the domestic yard (Figures 8-60 and 8-61). The feature cut into subsoil and was located in the center of the test unit, where it was bounded on the east by a large root from the adjacent walnut tree. In plan, Feature 50 measured 30.4 cm (1.0 ft) by 39.6 cm (1.3 ft). The soil consisted of brown/dark brown (10YR4/4) silty clay. The feature was bisected, beginning with removal of the eastern half. As the depth of the feature increased and due to the size of the adjacent root, excavation of the fill as one context proceeded.

The maximum depth of the feature was 65.5 cm (2.15 ft) from the ground surface and had a base that was stepped slightly, with the eastern portion being slightly shallower than the west.

Figure 8-60. View of Feature 50 excavation in progress.

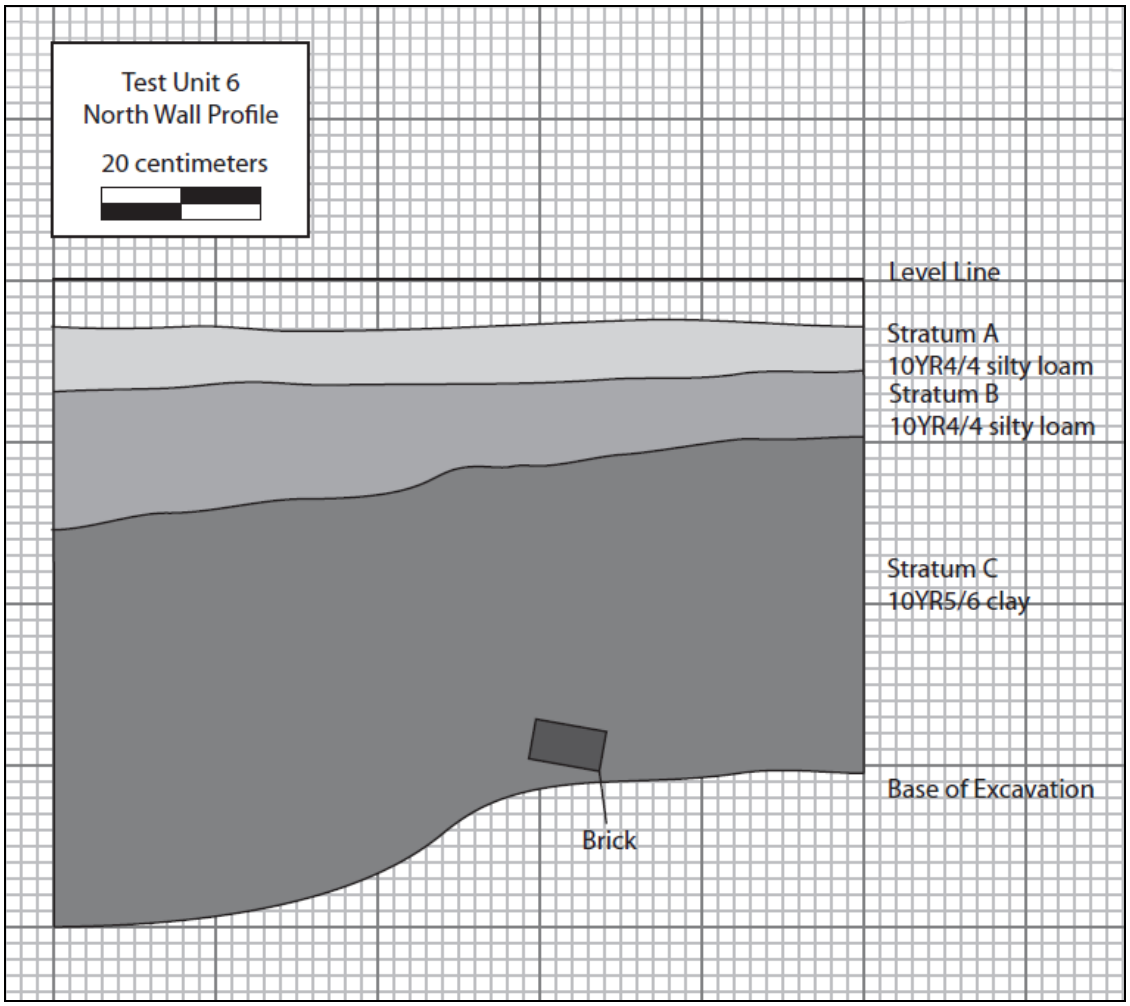

Figure 8-61. Test Unit 6 west wall profile drawing.

Artifacts recovered from the first level of Feature 50 include 17 pieces of ceramic, including pearlware (n=9), graniteware (n=5), creamware (n=2), and whiteware (n=1). Three (3) brick fragments and two (2) pieces of marl were also found along with two (2) nail fragments. Also found in Level A of Feature 50 were two large iron hooks which are a matched pair of pot hooks that would have been used for cast iron cooking pots or wash tubs (Figures 8-62, 8-63, and 8-64).

The second level of Feature 50, Level B, contained 25 pieces of ceramic, including pearlware (n=12), graniteware (n=6), gray saltglazed stoneware (n=3), porcellaneous ware (n=2), and one sherd each of creamware and whiteware. Other artifacts include nails (n=39), bone fragments that have butcher marks (n=3), coal and slag (n=3), and miscellaneous metal (n=3) including a handle, an iron strap, and a section of wire.

Figure 8-62. Iron pot hooks recovered from Feature 50.

Figure 8-63. Iron pot hooks from Spring Hill holding a pot.

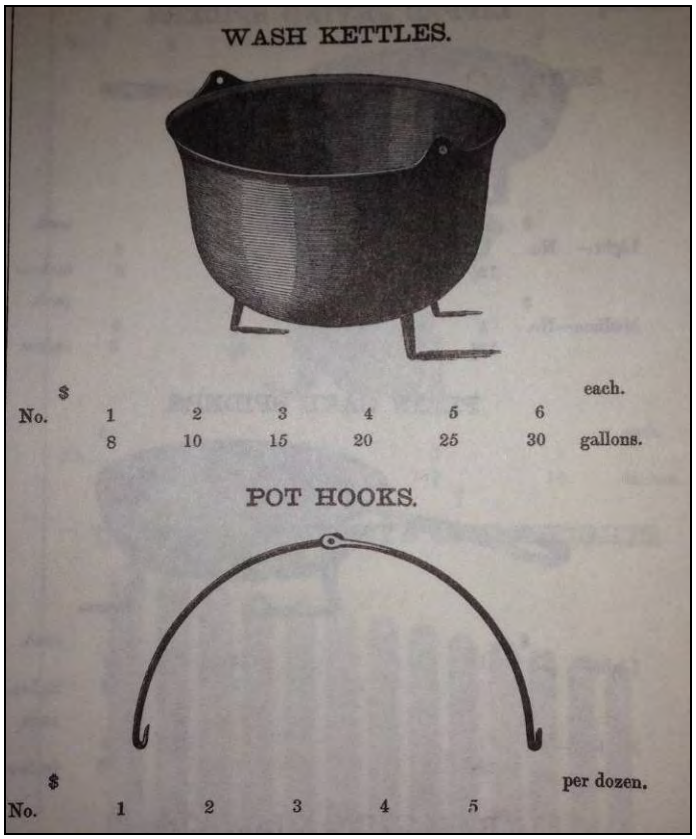

Figure 8-64. Image from 1865 catalog showing pot hooks similar to those recovered from Feature 50.

Test Unit 7

During the initial phase of archaeological data recovery at Spring Hill, the area north of the house and immediately north of the gravel road was observed to have a concentration of large cobbles. While much of the surrounding area has outcrops of rock, the concentration in this area appeared to be too regular to be considered natural. Furthermore, the cobbles were found over an area within a perimeter measuring approximately 3.0 meters (10 ft) by 6.0 meters (20 ft), suggesting that the cobbles marked the foundation of a structure.

During the summer of 2013, a total of 4 (four) judgmental shovel tests were placed in the area to determine if any cultural material was present. Two shovel tests were placed inside the boundaries formed by the cobbles and two were placed outside. The shovel tests place outside the cobble perimeter had soil profiles that included plowzone of brown (10YR5/3) sandy clay loam approximately 30.4 cm (1.0 ft) deep and sealing subsoil, yellowish brown (10YR5/8) sandy clay.

The shovel tests on the "inside" contained organic soil, were deep, and no soil color change was observed. Shovel Test J-3, for example, extended 57.9 cm (1.9 ft) below ground surface. The soil was brown/dark brown (10YR4/3) sandy loam and was homogenous throughout. At 57.9 cm (1.9 ft), a very hard, compact sandy surface was reached. The same profile was found in STP J-1,

which was 54.8 cm (1.8 ft) deep. The depth of the shovel tests did not allow for more exploration at the time, but in the spring of 2014, larger scale unit excavation was undertaken.

In May 2014, a test unit measuring 0.9 meters (3 ft) by 2.7 meters (9 ft) was placed within the concentration of cobbles across the road north of the Spring Hill house. Initially, the test unit was laid out to measure 0.9 meters (3 ft) by 1.8 meters (6 ft), but was expanded in order to more fully expose the cobble-filled feature. The first level of soil consisted of brown/dark brown (10YR4/3) sandy loam, and a number of cobbles were exposed just beneath the root mat (Figures 8-65 and 8-66).

Beneath Level A, which measured 15.2cm (0.5 ft) in depth in the eastern part of the test unit, the soils comprising Level B consisted of yellowish brown (10YR5/4) sandy loam were exposed. Once the topsoil was removed, two features, 52 and 53, were visible.

Figure 8-65. Test Unit 7 base of excavation.

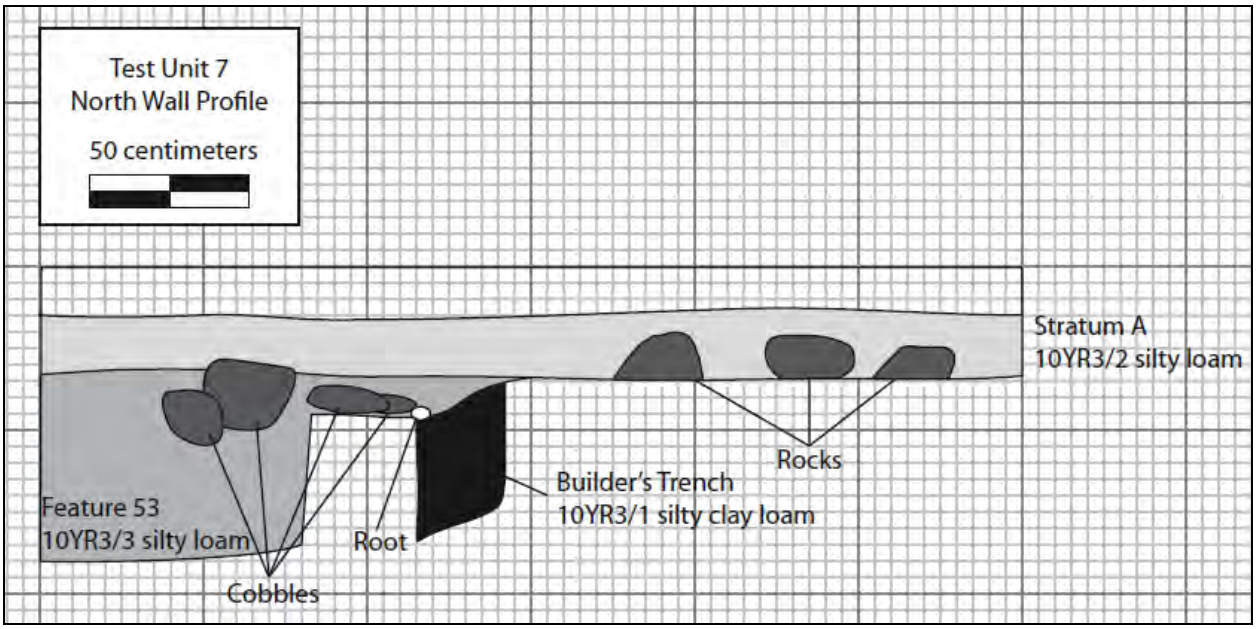

Figure 8-66. Test Unit 7 north wall profile drawing.

Feature 52

In the southeastern corner of the test unit, a square posthole feature was visible. The feature measured 48.7cm (1.6 ft) by 48.7cm (1.6 ft) and the soil was dark brown (10YR3/3) sandy loam. The feature was 18.28cm (0.6 ft) deep, with artifacts consisting only of several brick fragments.

It is not possible to determine what the feature is related to, particularly since it is the only posthole found in this area and because of the paucity of artifacts. The systematic shovel testing conducted by TRC did not indicate any concentrations of artifacts in this area that would suggest that the posthole is related to a particular activity area or structure.

Feature 53

The cobble-filled area was recorded as Feature 53. The feature soil was very organic and consisted of dark brown (10YR3/3) with large quantities of roots. The feature fill was removed, and at 39.6cm (1.3 ft) below ground surface, a section of a concrete foundation was revealed (Figure 8-67). The foundation had small cobbles set into the top, and it appeared that the larger cobbles in the area of the feature were concentrated around the concrete portion. Excavation of the fill continued and the base or floor of the feature was reached at 1.0 meter (3.3 ft) below ground surface

Figure 8-67. Profile view of Feature 53 with concrete foundation.

Five pieces of ceramic were recovered from the feature, but only one was intact enough to be diagnostic. A single sherd of green shell-edged pearlware was found, but the remaining sherds were damaged, and while they were white earthenware, no further determination was possible. Other artifacts found in the fill consisted of a shotgun shell and four pieces of concrete. The shotgun shell, the most notable recent artifact, was recovered from near the base of the feature fill.

The purpose of the feature is unknown. While it is clearly a relatively modern feature, it is not a likely location or design for a building. The concrete in this feature is similar to that lining the well or pond that is south of the Spring Hill house. It is possible that they are contemporary and due to the fact that they are both lined with concrete, may have held water. It is also possible that this feature served as a cistern during the early twentieth century.

Test Unit 8

The placement of Test Unit 8 was determined largely on the basis of artifacts that had been observed washing out of an ATV trail southeast of the Spring Hill house. At the edge of the terrace before the ground slopes towards Proctor's Creek, fragments of ceramic, brick, and dark green bottle glass were visible. An aerial photograph from 1937 showed a dark area or shadow in

this area, but no information on what it might be could be found. The goal of the test unit was to determine if a feature was present or if material culture from the area could provide more information.

The topsoil, measuring 17.9cm (0.59 ft) in depth, consisted of brown/dark brown (10YR4/3) silty clay loam with small inclusions of charcoal. The plowzone below this was 27.1cm (0.91 ft) deep reddish yellow (7.5YR6/8) silty clay. While very small flecks of charcoal and brick were evident in the subsoil, these were likely due to the roots in the test unit (Figures 8-68 and 8-69).

Artifacts recovered from the test unit consisted of 2 pieces of dark green bottle glass, 6 brick fragments, 5 nail fragments, and 2 unidentifiable pieces of metal. Three pieces of plastic were also recovered from the first level.

No features were located in Test Unit 8. The absence of features is consistent with the results that were expected considering the placement of the test unit at the edge of the terrace.

Figure 8-68. Test Unit 8 base of excavation.

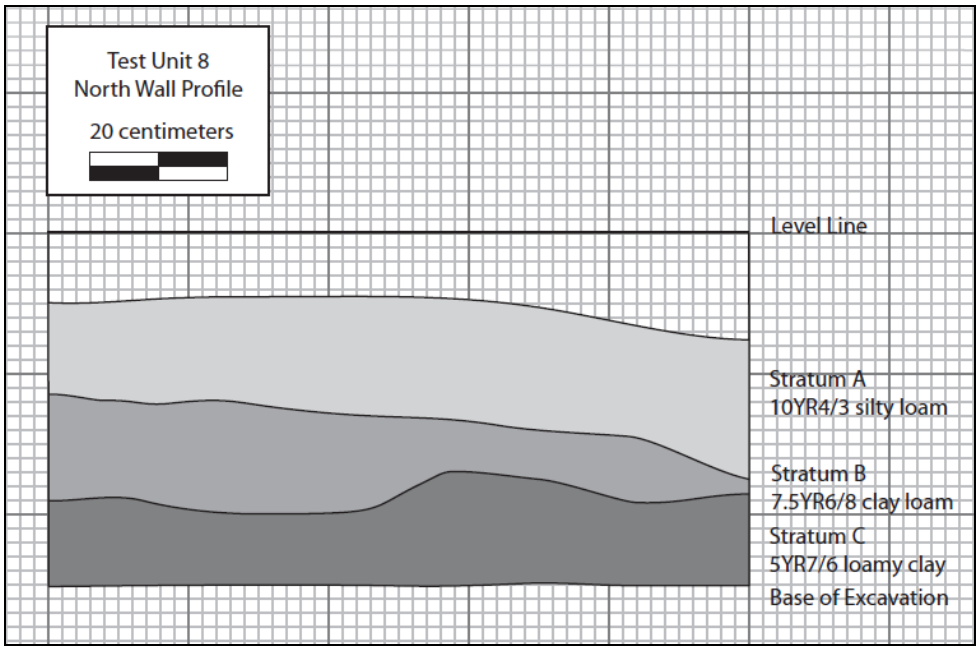

Figure 8-69. Test Unit 8 north wall profile drawing.

Test Unit 9

One of the landscape features first noted during the TRC archaeological identification survey consisted of a circular feature with a deep depression. The feature was located southwest of the house near the edge of the terrace where it slopes towards Proctor's Creek.

When first encountered, TRC assumed the feature to be a well. In archaeological excavations, wells can provide valuable data for a number of reasons, including providing an anaerobic environment that prevents organic materials from fully decomposing and because they are often used as readily available trash pits once they have been abandoned as a source for water. Wells are also, however, dangerous to explore archaeologically due to their depth and generally unstable sidewalls. It is because of these dangers that the data recovery plan specifically excluded the feature from the investigation and the remaining domestic yard was the focus of the data recovery plan.

As fieldwork was taking place at Spring Hill plantation, brush clearing was done in areas that had become overgrown. As clearing was done in the area of the depression, it became evident that the feature contained evidence suggesting that it was not likely used as a well.

The feature was lined with concrete and had a bowl-shaped profile. In the center of the bowl, a hole was located in the concrete. It is not known how deep this extends, and care was taken to avoid it in the event that the area around it was not stable.

One artifact was found contained in the rootmat lining the feature, and was the remnant of a fishing pole. The pole was marked "Great Lakes Products," which provides a date of manufacture ranging from between 1953 and the late 1960s.[17]

Test Unit 9 was excavated south of the depression, and the placement of the test unit was aimed at revealing additional information about the purpose and date of the feature. Due to the combination of cut blocks of granite alongside cobbles, it was suspected that there were two different episodes of use represented at this feature. Given the placement of granite blocks and large cobbles and the concrete lined floor, it is possible that a pond was located in this area. The presence of sufficient cobbles and blocks to serve as a foundation also suggests that prior to use of as point, the feature may have served as an ice house or spring house making use of a spring or another natural feature. The feature itself was not investigated further due to the potential danger associated with a feature with an unknown subsurface.

Test Unit 9 consisted of three soil strata. Stratum A was a 10YR4/3 silty loam overlying a 7.5YR6/8 clay loam, which sealed subsoil. No artifacts were recovered and no cultural features were identified (Figures 8-71 and 8-72).

Figure 8-70. Test Unit 9 base of excavation.

[17] http://www.collectorsweekly.com/stories/39679-stanley-clay-fishing-reel--1957

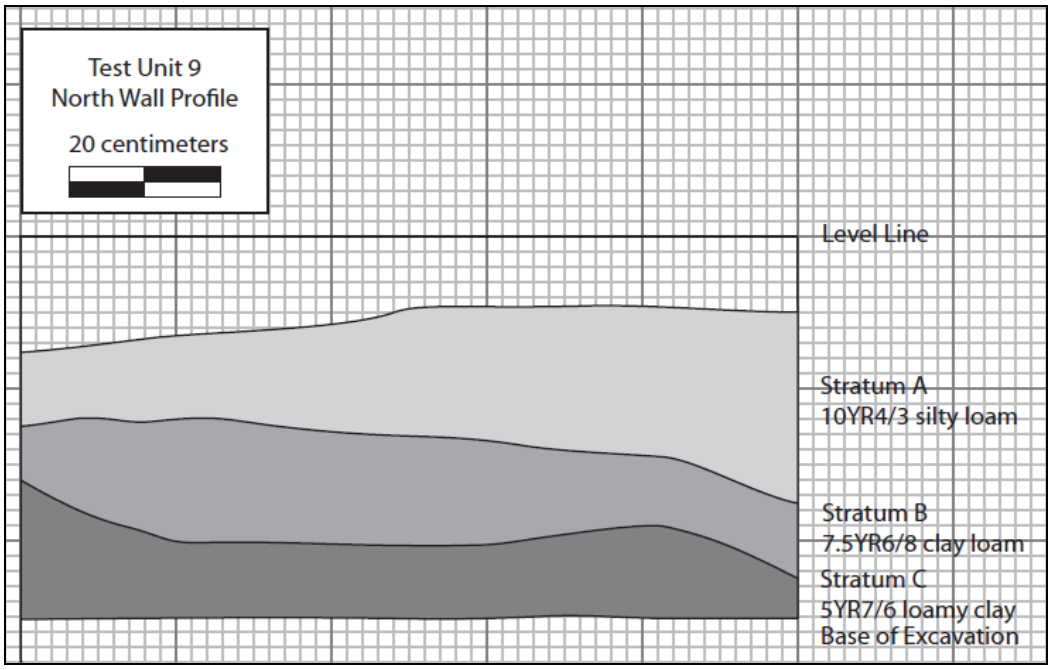

Figure 8-71. Test Unit 9 north wall profile drawing.

Test Unit 10 (Mean Ceramic Date 1855)

Test Unit 10 was placed west of the reconstructed outbuilding. The unit measured 0.9 meters (3ft by 0.9 meters (3 ft). Level A, including the root mat, measured 21.9cn (0.72 ft) in depth and consisted of brown/dark brown (10YR4/3) silty clay loam. No features were identified in the test unit, and Level A sealed sterile subsoil (Figures 8-72 and 8-73).

Figure 8-72. Test Unit 10 base of excavation.

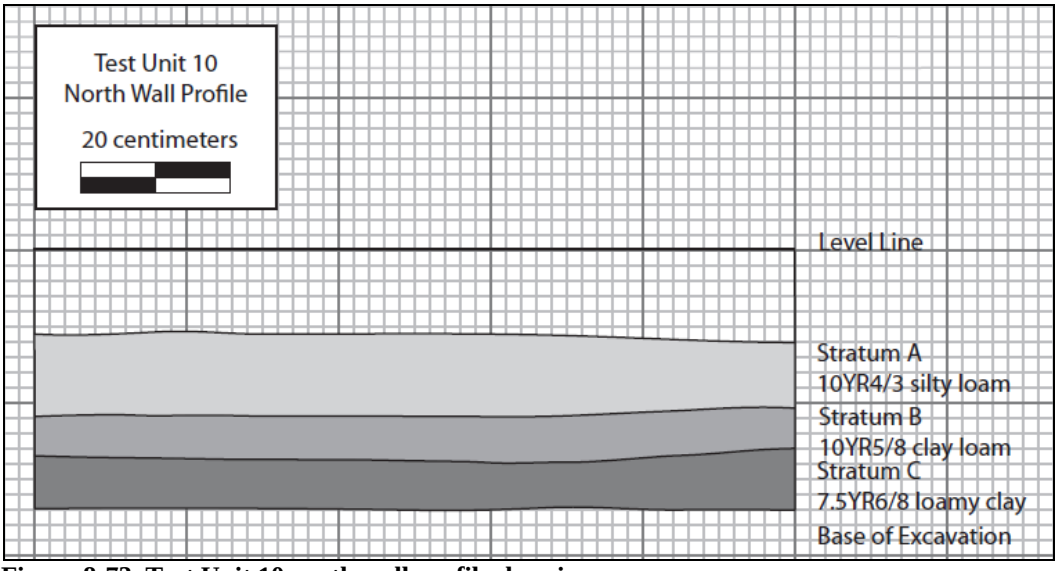

Figure 8-73. Test Unit 10 north wall profile drawing.

Artifacts recovered from the test unit included bottle glass, window glass, brick fragments and nail fragments. The artifacts recovered from Level B included two sherds of ceramic, of which there was one whiteware and one pearlware. The mean ceramic date was 1855.

Archaeological Features Identified Following Mechanical Excavation of Trenches

Seven (7) trenches and one area were mechanically excavated in the yard area west of the Spring Hill house (Figure 8-74). Each trench and its associated features are discussed below.

Trench 1

Trench 1, the northernmost of the areas where the topsoil was mechanically removed, was placed just south of the reconstructed outbuilding. The trench measured 1.2 meters (4 ft) wide and 25.9 meters (85 ft) long. The topsoil was very shallow in this area, measuring approximately 11.8 cm (0.39 ft). Relatively few artifacts were observed in the topsoil as it was removed.

Features found in the trench included utility trenches that likely contain electrical lines running between the main structure and the outbuilding, as well as evidence of sheet refuse containing large quantities of slag and coal and charcoal identified as Features 5 and 7. One feature found in Trench 1 consisted of a posthole of unknown date.

Feature 4

Feature 4 consisted of a small, poorly defined posthole with possible evidence of repair. The roughly square feature measured 17.6 cm (0.58 ft) by 17.6 cm (0.58 ft) (Figure 8-75). The northeast corner of the posthole had a circular area that appeared to represent repair to the post. Artifacts found in the feature included one piece of dark green bottle glass and a copper alloy button cover. In profile, the posthole extended only 15.2 cm (0.5 ft) into the subsoil, indicating that the topsoil in this area has been disturbed in the time since the feature was in use as this depth would not have been enough to give much support.

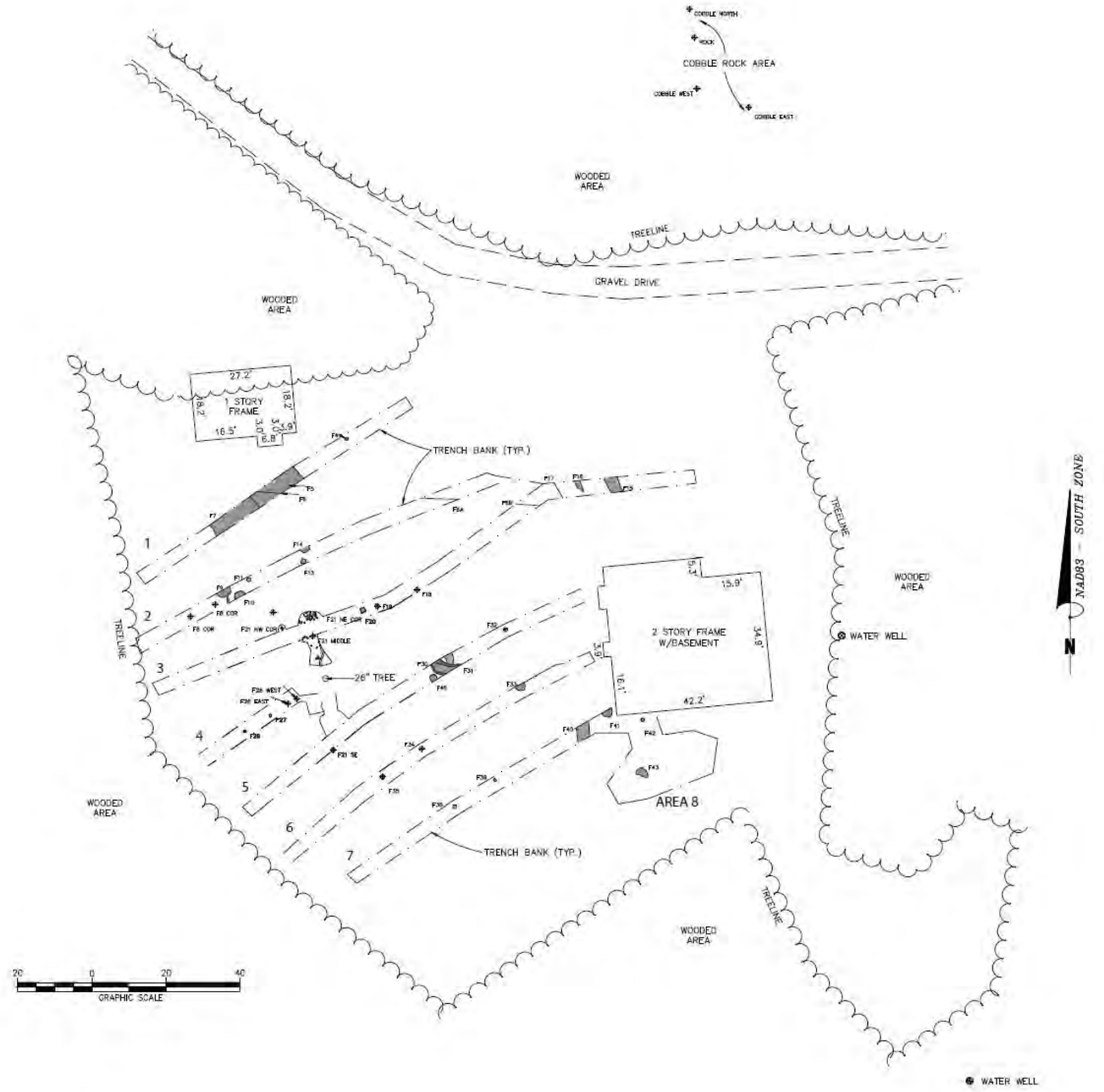

Figure 8-74. Plan view of trench excavations at Site 44CF0696 (Spring Hill).

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Figure 8-75. Plan view of Feature 4, Trench 1.

Features 5 and 7 (Mean Ceramic Date 1873)

Directly south of the extant outbuilding, two areas characterized by a high density of slag, coal, and other burned materials, including industrial window glass reinforced with metal mesh were designated as Features 5 and 7. Once the area had been troweled, it was clear that no clear boundaries could be determined and that the areas were connected. The area defined as Feature 5/7 extended across Trench 1 for a distance of 8.2 meters (27ft).

The lens of charcoal, ash, coal and slag over this area obviously indicates that some activity associated with burning took place here. It is known from the historical record that a smoke house was located somewhere on the property in the late nineteenth century, and it is possible that a structure was in the vicinity and the lens of burned materials is what remains. The fact that there is slag in the area, however, suggests an activity more likely related to a blacksmith shop. It is also known from the historical record that during the Duvall period of ownership, Mr. Duvall conducted smithing operations. It is also possible that this area housed a blacksmith's work shop during one period and that during another period the area included a smokehouse.

In addition to the concentration of charcoal, slag, and ashy soil in the vicinity of Feature 5/7, a total of 12 artifacts were recovered. These consisted of six (6) ceramics, including four (4) small sherds of whiteware, one (1) stoneware sherd, and one (1) pearlware sherd. Three (3) pieces of glass, including one dark green bottle glass shard, one colorless bottle glass shard and one

colorless window glass fragment were recovered. Other artifacts, of which only one (1) each was recovered, include an iron nail and a fragment of slate.

Feature 6

A buried utility line trench, leading from the roadway adjacent to the outbuilding, was identified in Trench 1. The same trench extended across Trench 3, where it entered the house via a junction box. The trench measured approximately 20 cm (8 in) in diameter and had very regular edges, indicating the trench was mechanically excavated. Feature 6 was not excavated.

Trench 2

The second trench excavated was slightly longer that the first measuring 1.2 meters (4 ft) by 33.5 meters (110 ft). It was bounded by a tree fall on the east and the tree line on the west. This trench was further from the existing outbuilding and didn't contain the lens of coal and slag that had been evident in Trench 1. A total of seven (7) features were identified in Trench 2.

Feature 8

In the western end of Trench 2, a large area with a compact orange clay was noted following removal of the topsoil. The feature was initially thought to be a possible posthole, but upon further cleaning and delineation of boundaries, it became clear that the orange, compact clay was instead subsoil. Several other areas of the site had similar characteristics, and were generally located where the surface appears to have been graded. The area to the west of this, which would have had a lower elevation is where Feature 9 was located.

Feature 9 (Mean Ceramic Date 1806)

Feature 9 was a large amorphous feature covering an area of approximately 1.4 meters (4.6 ft) along the northern wall of Trench 2 (Figure 8-76). The portion of the feature exposed by the trench extended approximately half the distance 0.60 meters (2 ft) across the width of the trench.

The soil in Feature 9 consisted of dark yellowish brown (10YR4/4) silty clay loam. The soil on the borders of the feature contained some mottled inclusions of brownish yellow (10YR6/6) silty clay loam. The feature had significant root disturbances, but was notable when it was exposed because it appeared to have a number of artifacts.

Excavation of the feature revealed that is was very shallow, only extending approximately 4.5 cm (0.15 ft) into subsoil with a few deeper pockets. It is likely that the feature is actually an area that had been lower in elevation and that soil washed into it.

Figure 8-76. Plan view of Feature 9, Trench 2.

The artifacts recovered from Feature 9 included five iron nail fragments, five pieces of colorless window glass, two sherds of whiteware, one sherd of pearlware, and two sherds of creamware. Glassware included one piece of colorless table glass and a shard of dark green bottle glass. One additional artifact consisted of an oval-shaped copper alloy artifact that appears to be a buckle or other decorative device.

The ceramics recovered from Feature 9 provide a mean date of 1806 for the feature, with a range from 1784 to 1828. If the feature is the result of erosion, then it likely dates to the same period as Feature 43, which also appears to be the result of erosion or filling (discussed below in Area 8).

Feature 10

Feature 10 was located in the southern portion of the Trench 2 wall. The feature measured 19.8 cm (0.65 ft) north/south and the portion that was exposed in the trench was 33.5 cm (1.1 ft) east/west. The soils consisted of dark yellowish brown (10YR4/6) silty clay loam, with soil along the northern edge mottled with clayey yellowish red (5YR4/6) soil and what appeared to be a post mold in the center of the feature (Figure 8-77).

In archaeology, postholes are relatively common features, as they serve as the structural foundation for many fence-lines, buildings, and virtually anything else that is dug into the ground

to give it stability. A posthole is created when someone digs a hole larger than the post they place in it. When the post is set, the soil is backfilled around it. The term “post mold” is used to describe the soil color difference in cases where the post itself has decomposed as remains visible.

The significance of postholes and postmolds is that the artifacts contained in the fill can be helpful in approximating when the post was put into use and when it was abandoned. For example, when a hole is dug, a post is put in, and the hole is backfilled, the soil is likely to include fragments of any trash scattered in the area. Likewise, as the post itself is removed or rots away, artifacts may wash in or even be intentionally placed in the hole to make the area level.

Because there is a wealth of information on the chronology of certain artifact categories and because the evolution of artifact types on sites is relatively consistent, it is sometimes possible draw valuable conclusions from the artifacts contained in postholes and molds. In the case of Feature 10, the artifacts recovered from the posthole included 2 nail fragments and one piece of colorless window glass and no artifacts were recovered from the mold. Unfortunately, these artifacts—unlike ceramics, in particular—the nails and class recovered from Feature 10 are not highly diagnostic.

In Feature 10, some root disturbance was present, but once the soils in the upper portions of the feature had been removed, the mottled soil comprised the post mold and the homogenous soil comprised the posthole. The post mold measured 15.2 cm (0.5 ft) in diameter. Excavation continued and at a depth of 24.3 cm (0.8 ft), the post mold was no longer visible, and at 27.4cm (0.9 ft) the feature fill changed in color and texture, becoming notably sandier and a slight lighter yellowish brown (10YR5/6). Subsoil was reached at 30.4 cm (1.0 ft) below the grade of the trench.

Figure 8-77. Plan view of Feature 10, Trench 2 following excavation.

Feature 11 (Mean Ceramic Date 1904)

Feature 11 was located 12.1 meters (40 ft) south of the extant outbuilding, and was fairly round in shape. The feature measured 27.4 cm (0.9 ft) by 24.3 cm (0.8 ft) and had soil that was dark brown (10YR3/3) silty clay loam (Figure 8-78). The posthole was quite shallow once excavated, extending only 12.1 cm (0.4 ft) into subsoil.

Figure 8-78. Plan view of Feature 11, Trench 2.

Six brick fragments, seven window glass fragments, and three pieces of whiteware were recovered from the feature. The mean date for the feature is 1904, which, when considered along with the relatively small size and shallow depth of the feature, suggests that the posthole is likely part of a fence line from the early twentieth century.

Feature 12

When first recorded, Feature 12 appeared to be an amorphous area of dark soil measuring approximately 30 cm (1 ft) in diameter. Upon further investigation, including troweling the surface to determine boundaries, the feature was instead determined to be a natural depression that had a thin lens of topsoil fill. It appears that this area had naturally filled in with soil as a result of erosion. No artifacts were recovered, and no further work was conducted.

Feature 13 (Mean Ceramic Dates 1819 and 1885)

Feature 13, a posthole in Trench 2, measured approximately 33.5 cm (1.1 ft) by 48.7 cm (1.6 ft), with one corner of the feature extending into the sidewall (Figure 8-79). The fill consisted of dark brown (10YR3/3) silty clay loam and appeared homogeneous in plan view. Once the upper portion of the fill was removed by troweling, however, a post mold was also visible, and these two contexts were removed separately. The soil in the post mold consisted of dark grayish brown (10YR4/2) silty clay loam. The entire feature measured 30.4 cm (1.0 ft) in depth, with the posthole slightly shallower than the mold.

As discussed earlier, in cases where a post mold can be distinguished from a post hole, archaeologists are sometimes able to extrapolate the date when the hole was first excavated for placement of the post and the date when the fence line or building was no longer in use, which is normally when the post mold becomes filled with sheet refuse or is intentionally filled because it is no longer needed.

Figure 8-79. Plan view of Feature 13, Trench 2.

Twenty-seven artifacts recovered from the posthole, and included six (6) nail fragments, eight (8) pieces of window glass, two (2) shards of dark green bottle glass, two (2) pieces of leaded table glass, four (4) sherds of pearlware, three (3) faunal bones, one (1) sherd of porcelain and one (1) sherd of gray, salt-glazed stoneware.

Eight artifacts that were collected separately from the postmold consisted of one (1) oyster shell, three (3) nail fragments, two pieces of window glass, one sherd of graniteware, and one sherd of a green, mottled ceramic similar to Rockingham-type earthenware.

While the small quantity of ceramics makes it unreliable for definitive dating of the feature, the posthole has a mean date of 1819 and the postmold has a mean date of 1885. As stated previously, the different dates for the posthole and mold could indicate that the feature was part of a small building or a fence line that was in service during the first, second, and third quarter of the nineteenth century and was then abandoned toward the last quarter of that century.

The depth and size of the posthole, especially when compared to other features found at the site, indicate that this was a quite substantial feature, and that it may have been related to a structure. Six meters (20 ft) south of Feature 13, Feature 20 (discussed below) is very similar in size, shape, and depth. The distance between these two posts is also consistent with the spacing of structural posts related to a building.

While the features cannot be linked with certainty, Feature 13 may also be related to Feature 14, located approximately 0.6 meters (2 ft) away.

Feature 14 (Mean Ceramic Date 1827)

Approximately 0.6 meters (2 ft) south of Feature 13, a second posthole was identified, and also consisted of a posthole and mold (Figure 8-80 and 8-81). Feature 14 extended into the northern sidewall of the trench, and was roughly rectangular in shape. The dimensions of the portion of the feature exposed measured 45.7 cm (1.5 ft) by 24.3 cm (0.8 ft). Since the majority of the post mold was visible, it appears that the bulk of the feature was within the excavation area.

Figure 8-80. Plan view of Feature 14, Trench 2.

Figure 8-81. Profile view of Feature 14, Trench 2.

The soil of the posthole consisted of yellowish red (5YR5/6) silty clay loam and the mold was strong brown (7.5YR5/6) silty clay. The feature was taken out as a single context since the mold was too small to effectively remove separately. It was quite shallow, and extended only 0.6 feet into subsoil.

Artifacts recovered from the feature included 1 brick fragment, 7 pieces of window glass, one sherd of Rockingham-type ceramic, and one sherd of blue transfer-printed pearlware. The mean date of the ceramics is 1827, with a range from 1809 to 1846. Again, this very small sample size makes it difficult to draw conclusions, but it is possible that this post was in use at the same time as Feature 13 and that its purpose was to shore up or support the structure or fence that Feature 13 was part of.

Trench 3

The longest of the trenches from which soil was mechanically removed was Trench 3 measuring 1.2 meters (4 ft) wide and 48.7 meters (160 ft) long. Beginning north of the Spring Hill house, its eastern end was parallel to the northern façade of the building and then extended to the southwest of the yard area. The eastern half of the trench revealed very few archaeological features other than utility lines and evidence of tire ruts. Findings were consistent with expectations following the Phase II evaluation, which suggested that large portions of the site had been "scraped" and that land disturbance during the twentieth century had removed much of the topsoil. In the western portion of the trench, several features were identified. The presence of some larger trees in this area appears to have spared portions of the site from more significant earthmoving.

Several features identified in Trench 3 suggest the remains of what appears to be a kitchen dating to the nineteenth century and evidence of a second structure, likely also a kitchen, rebuilt in the same location and also dating to the nineteenth century.

Feature 15

Very few features were identified in the eastern portion of Trench 3, and the area north of the Spring Hill house was considered to have been significantly disturbed at the time of the TRC survey. The shallow topsoil and lack of features or artifacts seemed to confirm this. Feature 15 consisted of what appeared to be a tire rut or disturbance related to excavation of the topsoil (Figure 8-82).

Figure 8-82. Plan view of Feature 15.

The fill of the feature was mottled dark brown (10YR3/3) silty loam mixed with brownish yellow (10YR6/6) and dark yellowish brown (10YR4/4). The feature was irregular, and ranged in width from approximately 0.7 meters (2.6 ft) to 1.0 meters (3.4 ft). The feature was bisected, revealing an irregular base, and soils were siltier in texture. The feature did not contain any artifacts and is consistent with a tire rut.

Feature 16

Feature 16 was located just west of Feature 15, and had an irregular shape in plan view (Figure 8-83). The feature was approximately 1.0 meters (3.6 ft) long. The soil consisted of dark brown silty sand and had a large amount of gravel mixed with the soil, which was heavier in

concentration near the base of the feature. Upon excavation, the feature measured only 9.1 cm (0.3 ft) in depth.

Figure 8-83. Plan view of Feature 16, Trench 2.

No artifacts were recovered from Feature 16, and it appears that it is either a drainage feature or that it was filled with gravel to prevent erosion. It is likely related to Feature 15, and represents episodes of parking and the formation of tire ruts and the subsequent filling of these depressions.

Feature 17

A trench extending across Trench 3 was identified as Feature 17. The trench was oriented along an axis between a utility pole and the front of the house where a junction box was located. The trench contained very mottled orange clay and was clearly modern. It was not excavated.

Features 18 and 19

Features 18 and 19 were observed as areas of orange compact clay following the mechanical removal of the topsoil. The features were amorphous, but the soil was not consistent with areas nearby.

Once these areas were cleaned and troweled, no feature boundaries were visible. The clay was extremely hard and a compact brownish yellow (10YR6/8) and yellowish brown (10YR5/6) silty clay. Upon further examination of close-interval topographic maps of the area around the Spring Hill house, it became apparent that this area, while appearing to be at the same elevation as the

majority of the "yard," is the highest point in the area. The compact clay identified as Features 18 and 19 is interpreted as subsoil that is higher to the ground surface than in other areas of the site as a result of grading of the property. This is consistent with other archaeological findings.

Feature 20 (Mean Ceramic Date 1803)

Feature 20 consisted of a deep posthole and postmold. In plan, the feature measured 30.4 cm (1.0 ft by 24.3 cm (0.8 ft) with the hole consisting of yellowish-red (5YR4/6) silty clay and a mold of brown (10YR4/4) silty clay loam (Figure 8-84 and 8-85). Several large brick fragments were in the fill, and a large root extended through the bottom of the feature, which extended 33.5 cm (1.1 ft) into subsoil.

Feature 20 is quite similar in size, shape, depth, and appearance to Feature 13, a posthole located 6.0 meters (20 ft) northeast. It is possible that these two features are related.

Figure 8-84. Plan view of Feature 20, Trench 3.

Figure 8-85. Profile view of Feature 20, Trench 3.

Artifacts recovered from Feature 20 consisted of three heavily corroded nail fragments, 1 sherd of American, gray salt-glazed stoneware, and two pearlware sherds. One of the pearlware sherds was finely hand-painted and the other was shell-edge with an incised border. The small sample of ceramics makes it challenging to interpret the date of the feature, but the three sherds recovered have a mean date of 1803, with a range from 1780 to 1826, making it generally consistent with the date attributed to Feature 13. It is possible that features 13 and 20 are associated with a single outbuilding.

Features 21 and 29 (Mean Ceramic Date 1859)

When first encountered during mechanical removal of the topsoil, two large areas with small artifact fragments, brick, and charcoal were encountered in both Trench 3 and Trench 5. A large walnut tree in the center of the yard space west of the Spring Hill house separated the trenches and it was not known if these features were related. For this reason, the feature in Trench 3 was identified as Feature 21 and the feature in Trench 5 was identified as Feature 29.

During the initial cleaning of the features, the concentrations of brick and artifacts continued into the walls of the trench. Soil adjacent to the features was further exposed by removing the soil

between the two trenches around the base of the large walnut tree. This resulted in the determination that the features were related, and that a single feature was present and was centered on the tree (Figure 8-86).

The elevation of the soil around the base of the tree was significantly higher than other areas of the yard. Removal of the soil revealed large quantities of artifacts around the base of the tree including bricks, many of which were whole (Figure 8-87).

As the soil was removed to expose the extent of the brick, a large and unconsolidated areas of soil with tree roots, air pockets, rodent burrows, and very organic soil was identified. The feature was consistent with a chimney fall, and it is likely that the extant walnut tree grew through this area, which was then avoided during subsequent grading of the yard. The area comprising Feature 21/29 measured approximately 10 meters (35 ft) north/south by 7.6 meters (25 ft) east/west.

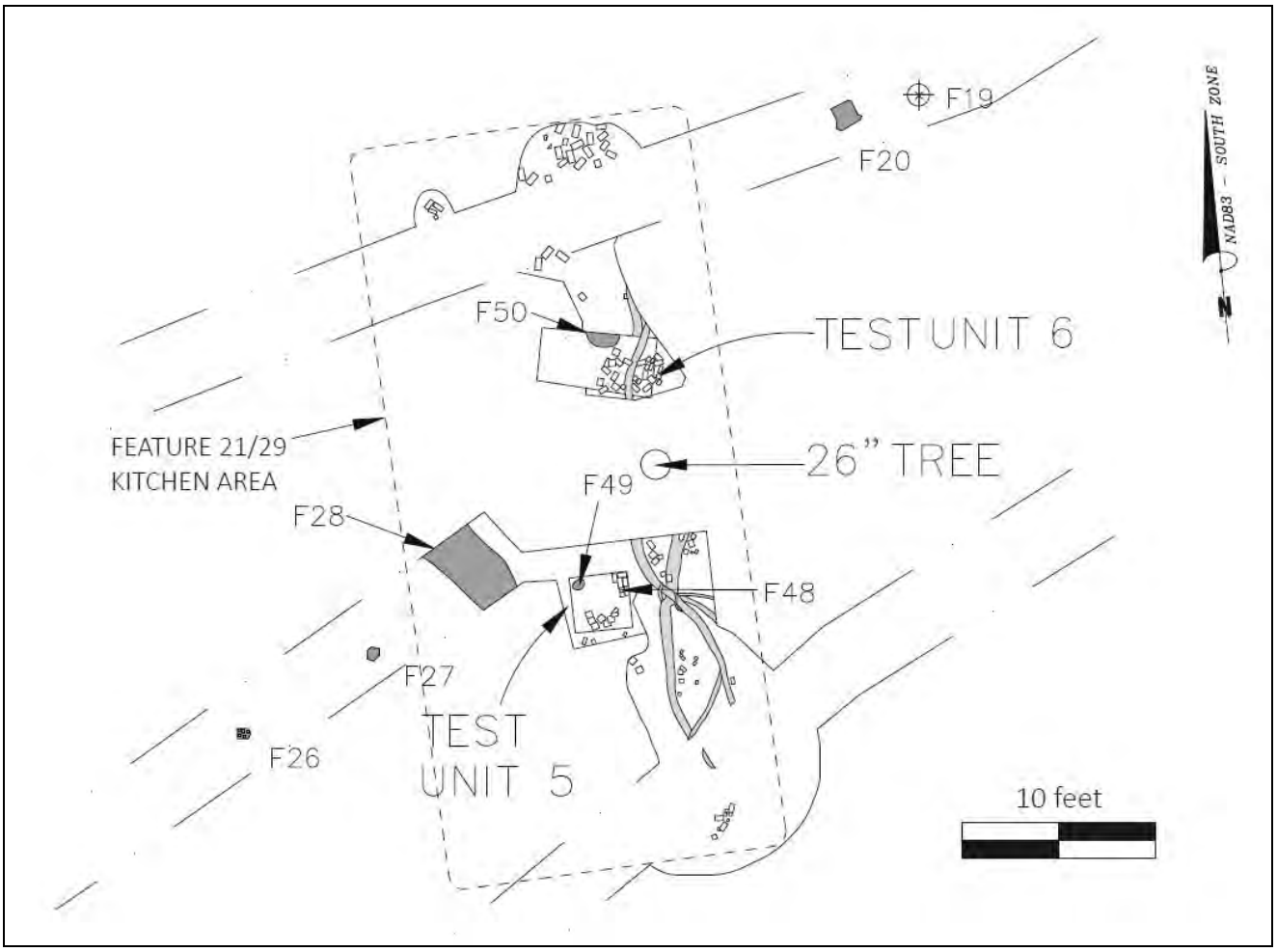

Figure 8-86. Detail of brick in area of Features 21 & 29.

Figure 8-87. Plan view of Feature 21 (chimney fall), Trench 3.

Once the chimney fall had been exposed, further testing was conducted to locate the boundaries of the building that the chimney was part of. Using a soil probe, shovels, and trowels, several small concentrations of brick were located. As shown in Figure 8-86 above, some of these areas of brick are consistent with building piers, but the amount of ground disturbance prohibited the full delineation of a building. The combination of the pier locations, however, suggests that more than one episode of construction is represented, and that two buildings were constructed in this area but that the footprints of the buildings were not placed in exactly the same location as the piers do not align and appear to be of different ages.

Artifacts recovered from Level A, the topsoil, ranged in age from the eighteenth through the twentieth centuries. Ceramics, some of the most diagnostic artifacts found on archaeological sites, provide compelling information into how mixed these upper layers of soil were. For

example, a sherd of North Devon gravel-tempered earthenware was found in the same soil context as a sherd of graniteware with a maker's mark.

North Devon gravel-tempered ware is a utilitarian earthenware with gray/pink paste and green or yellow glaze that was produced England over a relatively long period of time (1600 until about 1900). In the Chesapeake region, however, North Devon gravel-tempered wares are found on sites dating to the last quarter of the seventeenth century to the first quarter of the eighteenth century.[18] In contrast, graniteware was developed in England during the mid-nineteenth century, primarily for export to North America, where there was demand for durable and inexpensive china. While the amount of graniteware recovered from the site was significant, very few pieces were large enough to draw conclusions about their date. One of the sherds recovered from the topsoil in the area of the structure bears the maker's mark "J&G Meakin," a company formed in 1851[19] (Figure 8-88). The artifacts in the surface areas did not represent deposition over time, and therefore could not provide information on specific periods of time. Instead, the artifacts seemed clustered around the base of the tree.

Figure 8-88. Ceramic with J&G Meakin maker's mark.

The large quantity of artifacts and their variety in the area of the building are helpful in interpreting its use. Of the thousands of artifacts recovered from Spring Hill, those found in this

[18] http://www.jefpat.org/diagnostic-old/Historic_Ceramic_Web_Page/Historic%20Ware%20Descriptions/north_devon.htm

[19] http://www.thepotteries.org/mark/m/meakin_jg.html

area included several rims of large stoneware storage crocks (Figure 8-89), animal bone, and oyster shell. These, along with two hooks for a large iron pot found in an adjacent test unit along with the presence of the remains of a hearth, indicate that this building served as a kitchen.

Figure 8-89. Crock rims from vicinity of Features 21 & 29.

A total of 148 sherds of ceramic were recovered from this area, providing a mean date of 1859. These contexts were generally mixed, showing evidence of soil having been moved around over the property. The presence of the walnut tree is likely the reason for soil accumulating in this area.

While the kitchen outbuilding had been assigned two separate feature numbers when first identified, they represent a single activity area, and were treated as a single unit during analysis and interpretation of archaeological data.

Feature 23

After removal of the topsoil, Feature 23 appeared to be a small posthole or pit measuring approximately 45 cm (1.4 ft) east-west by 30 cm (1 ft) north-south. Once further troweling was completed, however, it was determined that the feature consisted of an area that had consisted of a shallow depression, but that soil had washed into the depression and filled it. The soil was removed quickly and no further investigation was necessary. The soil in the feature was very shallow and the base irregular.

Feature 24

Feature 24 was recorded as a small posthole when initially exposed. Located in the western portion of the trench and at a slightly lower elevation than the areas to the east, this area collected water after particularly heavy rainfall. When removal of the feature began and the surface was cleaned, there was no longer evidence of the feature. The feature appears to have

been a shallow depression in which soil had accumulated as was the case with other areas of the site.

Feature 25

Also located in the western portion of Trench 3, Feature 25 consisted of a small plow scar measuring approximately 9 cm (0.3 in) by 21 cm (o.7 in). The feature was linear, tapered and narrow. A small section was removed with a trowel to confirm that it had a shallow, u-shaped profile. Once it was determined that it consisted of a plow scar, it was not removed archaeologically.

Trench 4

Following the identification of the remains of a structure in Trench 3, a very short trench was excavated west of the large walnut tree in the center of the yard area. The trench measured 1.2 meters (4 ft) wide and 10.6 meters (35 ft) long. The purpose of the trench was to determine if more substantial structural remains and/or features were located in the area of the walnut tree.

Feature 26 (Mean Ceramic Date 1803)

In the western portion of Trench 4, Feature 26 consisted of a small, brick-filled hole (Figure 8-90). The feature contained small flecks of charcoal and consisted of brown (10YR3/3) sandy loam with a very heavy concentration of brick. The feature measured approximately 24.3 cm (0.8 ft) by 24.3 cm (0.8 ft) and was roughly square. Once excavated, the feature was 18.2 cm (0.6 ft) in depth and had a u-shaped profile.

Figure 8-90. Plan and profile view of Feature 26, Trench 4.

Artifacts recovered from Feature 26 consisted of nail and wire fragments (5), ten pieces of glass, including two silvered mirror fragments, two pieces of bone, one oyster shell, and a total of seven ceramic sherds. Of the ceramics, two were very burned, and the remaining five were pearlware. The mean date for the feature, based on the ceramics that could be identified, was 1803, with a range of 1787 to 1819.

The small size of the posthole suggests that it was not part of a substantial structure, but instead represents a fence line or served another ephemeral purpose.

Feature 27

A shallow posthole in Trench 4, identified as Feature 27, contained dark brown (10YR3/3) silty clay with small inclusions of brick. The feature measured 21.3 cm (0.7 ft) by 21.3 cm (0.7 ft) and extended into the sidewall of the trench. Excavation of the portion that was exposed showed that the feature was only 10.6 cm (0.35 ft) in depth and contained no artifacts other than brick flecks (Figure 8-91).

Figure 8-91. Plan view of Feature 27.

It is possible that this feature dates to the early occupation of the property, as it did not contain artifacts. In most cases, features contain artifacts that were present on a site at the time that the feature was created and were simply incorporated into the backfill. When an area is first occupied, however, there is little to no refuse on the surface, and features are less likely to have artifacts. There is no additional information to substantiate this, however, and without additional, related postholes there is no way to verify.

The shallow nature of the feature and the size of the posthole, however, indicate that it may have been a fence post but not enough of it remains for it to provide valuable data about the early organization of the landscape.

Feature 28

In the eastern end of Trench 4, an area with heavy mortar/plaster flecking was recorded after removal of the topsoil (Figure 8-92). The shallow topsoil sealed subsoil, but the mortar/plaster inclusions were pressed into the subsoil. The soil in this area was extremely compact, however,

and the mortar/plaster was included in the matrix with no visible boundaries. Feature 28 was a lens of mortar/plaster likely related to the remains of the outbuilding identified in Trenches 5 and 7 discussed below.

While a kitchen or most other types of outbuilding would not likely have interior wall surfaces finished with plaster, the exception is a dairy or milk house. Structures used to store milk products necessitated clean, cool spaces, and were therefore often plastered.

Figure 8-92. Plan view of Feature 28, Trench 4.

Trench 5

Trench 5, located south of the walnut tree and extending from the northwest corner of the Spring Hill house to the tree line, provided a window through the center of the side domestic yard of the property. The trench measured 1.2 meters (4 ft) wide and was 32 meters (105 ft) long. Roughly in the center of the trench, the outbuilding also located in Trench 3 and discussed above was revealed. This feature dominated the trench, with only two other features found in the remaining portions.

Features 30 and 31 (Mean Ceramic Dates 1819 and 1801)

Features 30 and 31 were two of the largest features identified following the mechanical removal of topsoil from the site. Located in the eastern portion of Trench 5, the related features consisted of a deep pit with grayish, ashy soil cut by a trench (Figure 8-93).

Feature 30 was a large circular feature measuring at its widest point 91 cm (3 ft) east-west and extended almost 2.4 meters (8 ft) north-south along the trench. Feature 30's profile included regular and steeply sloped sidewalls (Figure 8-94). Soils consisted predominantly of brown (10YR5/3) silty loam, with the perimeter soils slightly mottled with brown (10YR5/3) and yellowish red (5YR5/8) silty clay.

Figure 8-93. Plan view of Features 30 and 31

The ashy soils and the size, shape, and location of the feature suggest that the hole may have been created by one of the rounds that is known to have been fired in the vicinity of Spring Hill during the Civil War as federal gunboats fired at the Confederate position surrounding Spring Hill and at the batteries on the north side of the James River. While this cannot be determined with certainty, it is likely that a large crater made by a shell weighing 132 pounds like the one that reportedly struck the property and noted in the diary of Mary Gregory, would have been filled as part of the repairs made to the property when the Gregory family returned after the Civil War.

Figure 8-94. Feature 30, Trench 5, in Profile.

Artifacts recovered from Feature 30 included seven ceramic sherds, with a mean ceramic date of 1819, but while this would suggest that the feature is too early to be associated with the Civil War period, other artifacts have later dates of manufacture. For instance, single pieces of glass are generally difficult to date but a shard of red glass indicates a mid-nineteenth century date, ranging from the 1840s to the 1880s[20]. According to research, very little true red glass from outside of this timeframe is found. Similarly, a portion of a molded panel bottle was found. Panel bottles of this type were produced from the mid-nineteenth century on, and are most common between the 1870s and the 1920s[21]. Three pieces of slag were also recovered from the feature.

Feature 31 was cut by Feature 30, and therefore predates it. The portion of Feature 31 exposed within the trench measured 1.2 meters (4 ft) east-west by 91 cm (3 ft) north-south. Only three pieces of ceramic, including two pieces of creamware and one of American stoneware were recovered, but provide a mean date of 1801. Other artifacts include dark green bottle glass (n=19), a wrought nail fragment, a piece of coal, and three brick fragments.

The purpose of Feature 31 is unknown since the majority of it was impacted by Feature 30.

[20] Red glass: 1840s-1880s http://www.sha.org/bottle/colors.htm#Purple%20to%20Amethyst

[21] Molded panel bottle: mid 19th on, heyday from 1870s to 1920s
http://www.sha.org/bottle/medicinal.htm

Feature 32

Feature 32 appeared to be a brick-filled posthole when first identified. The feature measured 27.4 cm (0.9 ft) by 33.5 cm (1.1 ft) in plan. Two pieces of brick were in the top of the fill, and removal of the soil, however, showed that it was in fact a tree hole, possibly cedar, and that the root mass of the tree was in situ in the base of the hole (Figure 8-95). The bricks were likely added to the hole after the tree died in order to level the ground surface.

Figure 8-95. Profile view of Feature 32, Trench 5.

Three artifacts were recovered during excavation, including one piece of red glass, a portion of a pipe bowl with a molded leaf decoration, and a small sherd of transferprinted pearlware.

Feature 46

Feature 46 was identified adjacent to Features 30 and 31. The round feature was approximately 21.3 cm (0.7 ft) by 24.3 cm (0.8 ft) in diameter and had soil that was dark grayish brown (10YR4/2) sandy clay loam (Figure 8-96).

Figure 8-96. Plan view of Feature 46 outlined in red.

The depth of the feature once excavated was only 7.62 cm (0.25 ft), making it very shallow. No artifacts were recovered from the fill of the feature.

Trench 6

The eastern end of Trench 6 began at the base of the southwest end chimney of the Spring Hill house. Trench 6 measured 1.2 meters (4 ft) wide and 30.4 meters (100 ft) long. The purpose of locating the trench in close proximity of the chimney was initially to determine if an earlier building associated with the chimney base located in the crawlspace would be present just west of the structure. A total of four (4) features were identified.

Feature 33

A posthole recorded as Feature 33 was identified in the eastern portion of Trench 5. The feature extended into the northern wall of the trench, but a section measuring 70 cm (2.3 ft) east/west by 33.5 cm (1.1 ft) north/south was exposed in the trench (Figure 8-97).

The soil was yellowish red (5YR4/6) silty clay on the outer perimeter of the feature and siltier reddish brown (2.5YR5/3) on the interior. In profile, the feature was 39.6 cm (1.3 ft) deep, with lenses of yellowish brown (10YR5/6) and brown (10YR3/3) silty clay beneath the reddish brown soil visible in the plan view.

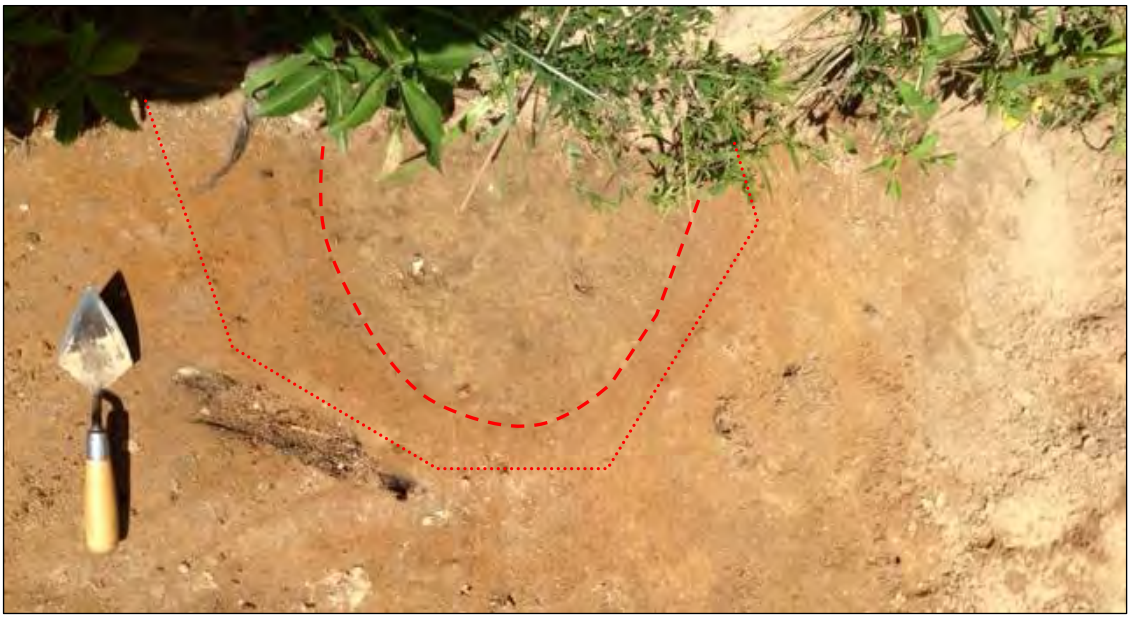

Figure 8-97. Plan view of Feature 33, Trench 6. Post hole is light dashed line and post mold is heavy inner dashed line.

No artifacts were recovered from the feature, so it is possible that the feature represents early settlement of the property, but there is no evidence to further substantiate this.

Features 34 and 35, and 36

In the western portion of Trench 6, a large area of orange clay was observed following removal of the topsoil. Recorded as Features 34, 35, and 36, the areas of clay were very amorphous and did not have clear boundaries (Figure 8-98). Once the area was carefully troweled, it was clear that these were not actually features cutting the subsoil but consisted of exposed subsoil that was very compact clay. The clay was the exposed subsoil in areas that were graded and also contained a circular driveway during the first half of the twentieth century.

Figure 8-98. Overall view of compact orange clay.

Trench 7

Located between the wooded area west of the house and extending to the southwestern corner of the structure, Trench 7 changed in elevation from east to west. The highest areas of the trench were on the landform at the house site with the lower elevations towards the edge of the slope towards Proctor's Creek. Trench 7 measured 1.2 meters (4 ft) wide and 24.3 meters (80 ft) long.

After mechanical removal of the topsoil, a total of five (5) features were visible in the trench.

Feature 37

When first exposed, Feature 37, at the far western end of the trench, appeared to be a broad amorphous expanse of deep orange clay immediately beneath the topsoil (Figure 8-99). Unlike the area recorded as Features 34, 35, and 36, however, the clay was less compact, and additional troweling suggested that this area was not subsoil. Since no feature boundaries could be

delineated, a section measuring 48.7 cm (1.6 ft) by 97 cm (3.2 ft) was marked off and was troweled in order to see the feature in profile.

Excavation revealed that the orange clay measured 23.7 cm (0.78 ft) in depth and consisted of a clay cap over what was natural topsoil. The natural topsoil measured 13.7 cm (0.45 ft) in depth and sealed the natural, sterile subsoil.

It appears that in this far western portion of Trench 7, in the location where the terrain begins to slope to the south and to the west, fill was used to smooth the ground surface and make the yard area level. It is likely that the soil comprising the clay cap was scraped from another portion of the site, since several areas with very compact and shallow subsoil were also identified in the course of data recovery.

Figure 8-99. View of Feature 37, Trench 7, bisection in progress, with subsoil at top of excavation area .

Feature 38

This feature consisted of a rectangular posthole comprised of light yellowish brown (10YR6/4) sandy clay loam. The feature measured 39.6 cm (1.3 ft) in diameter (Figure 8-100).

Figure 8-100. Plan view of Feature 38, Trench 7.

Upon excavation, the feature had a fairly flat bottom and proved to be quite shallow, extending 12.1 cm (0.4 ft) into subsoil (Figure 8-101). The only artifacts recovered from the area excavated consisted of 5 small, unidentifiable nail fragments.

Figure 8-101. Feature 38, Trench 7, post excavation.

Feature 38 is challenging to interpret due to the lack of diagnostic artifacts and because there are no similar posts in close proximity. The overall size of the hole suggests that it could possibly have been related to a structure. The depth would not lend itself to supporting a structural post, but mechanical removal of topsoil in this area revealed that a significant amount of earth moving has taken place, and it is possible that this post was much deeper when first in use.

Feature 39

Feature 39 measured approximately 33.5 cm (1.1 ft) by 24.3 cm (0.8 ft) and consisted of pale brown (10YR6/3) silty clay loam (Figure 8-102). A large root extended through the feature,

however, and once excavation had begun, feature soil continued underneath the subsoil and expanded into different directions. The feature appeared to be the remains of a root in which silty soil had collected near the surface as the root decomposed. Excavation was terminated once this was established.

Two artifacts, a piece of window glass and a sherd of porcelain, were recovered from Feature 39.

Figure 8-102. Plan view of Feature 39 outlined in red, Trench 7.

Feature 40 (Mean Ceramic Date 1885)

Located in the eastern portion of Trench 7, Feature 40 consisted of a wide, trench-like feature of brown/dark brown (7.5YR4/3) silty sand with a high percentage of gravel mixed with the soil

(Figure 8-103). The portion of the feature exposed in the trench was somewhat trapezoidal, extending north/south and measuring 39.6 cm (1.3 ft) at the northern section and 64.0 cm (2.1 ft) at the southern section. The eastern and western edges of the feature were bounded by dark yellowish brown (10YR4/4) clay. Once excavation was underway, the feature fill proved to be approximately 9.1 cm (0.3 ft) in depth and that the clay that had been visible on either side of the feature was sealed by Feature 40. Excavation continued by removing only a section of the clay to determine if there were any cultural layers sealed by the feature. No such indication was found and the excavation was terminated at 70 cm (2.3 ft) into subsoil, or 97.5 cm (3.2 ft) below ground surface.

Figure 8-103. Plan view of Feature 40, Trench 7.

A total of 17 artifacts were recovered from Feature 40. In addition to four brick fragments and an iron spike, two pieces of molded glass were recovered, both of which appeared to be tableware. Eight sherds of whiteware, one sherd of pearlware, and one sherd of gray stoneware with blue slip decoration comprised the ceramic assemblage. These ten sherds provide a mean date of 1885 for the feature. All materials other than the four brick fragments were recovered from the upper 42.6 cm (1.4 ft) of the excavation. No artifacts were recovered below 54.8 cm (1.8 ft).

Due to the amount of gravel in the upper portion and the trench-like nature of Feature 40, it appears to be associated with drainage on the property. The feature is oriented so that it would direct water towards the slope leading to Proctor's Creek, but the landscape modifications that have taken place over time do not indicate whether there would have been a need to drain the

area of the site north of the feature. It is also possible that the purpose of the gravel was to fill an area that was subject to erosion.

Feature 41 (Mean Ceramic Date 1905)

A feature recorded as Feature 41 was located in Trench 7 less than 0.9 meters (3 ft) from the house. The feature extended into the wall of the trench, but a portion measuring 45.7 cm (1.5 ft) east/west by 30.4 cm (1.0 ft) north/south was exposed (Figure 8-104). The feature was noted to contain a high proportion of gravel and very dark grayish brown (10YR3/2) silty loam. The feature was very shallow, with a depth of 12.1 cm (0.4 ft).

Figure 8-104. Plan view of Feature 41, Trench 7.

One sherd of whiteware was recovered from the feature. With its shallow, U-shaped profile and the amount of gravel, the feature appears to be a drip line resulting from rainwater coming off the

roof of the house. The mean date for whiteware is 1905, which is consistent with the construction of the porch along the southern elevation of the building, as the drip line could not have been formed prior to the existence of the porch.

Area 8

South of the house, a larger area measuring 9.1 meters (30 ft) by 6.0 meters (20 ft) was tested by mechanical removal of the plowzone. Instead of a single trench, a wider area was exposed in order to determine if structural remains were in the area.

The topsoil was removed and several large sections of what had been a concrete walkway were identified. The entire area also had a compact layer of gravel directly beneath the topsoil. Two (2) features were found in Area 8.

Feature 42 (Mean Ceramic Date 1886)

Feature 42 was characterized by very dark red clay and appeared to be a posthole. The feature measured 36.5 cm (1.2 ft) in diameter and was directly adjacent to the front porch south of the Spring Hill house. The red clay was quite shallow, measuring 6.0 cm (0.2 ft) deep, and beneath the clay, there was brown soil containing brick flecks. Once the brown soil was visible, it was apparent that the feature was actually significantly larger beneath the clay cap, and that the red clay cap appeared to be part of a post mold. Once the entire feature was exposed, it measured 76.2 cm (2.5 ft) in diameter. The feature was bisected since a portion was beneath the porch, and only the southern half was removed as it was a sufficient sample size (Figure 8-105).

Figure 8-105. View of Feature 42 in profile facing north.

Artifacts recovered from Feature 42 consisted of 8 pieces of window glass, 4 pieces of bottle glass, 5 brick fragments, 7 very corroded nail fragments, an iron spike, and 4 sherds of whiteware. The mean ceramic date for the feature is 1886, with a date range from 1871 to 1902.

While the purpose of Feature 42 cannot be determined, the builder's trench for the porch cuts the feature, so the feature predates the construction of the southern porch, which appears to have been added around 1905 according to architectural and historical research.

Feature 43 (Mean Ceramic Date 1809)

Located in excavation Area 8 and identified southeast of the house was Feature 43. An adjacent trench containing a cast iron drainpipe cut Feature 43 (Figure 8-106).

The feature first appeared roughly rectangular in plan and brick was found on the surface. Further delineation of the boundaries following troweling revealed that it actually consisted of a somewhat more amorphous shape and contained silty soil. Excavation showed that it had a U-shaped profile and was 9.4 cm (0.31 ft) deep. The brick was limited to the eastern portion of the feature.

Figure 8-106. View of Feature 43 looking north.

Artifacts found in the feature consisted of 4 ceramic sherds. These include one sherd of gray, salt-glazed stoneware with cobalt blue decoration, one piece of undecorated creamware, and 2 sherds of Mochaware, one with an engine-turned annular pattern and the other with a dendritic "mocha" pattern. The pearlware sherds are likely from the same vessel. Unlike many ceramics recovered from the site, the mochaware in particular was relatively large and had edges that seemed freshly broken, suggesting that they were the result of primary deposit (Figure 8-107).

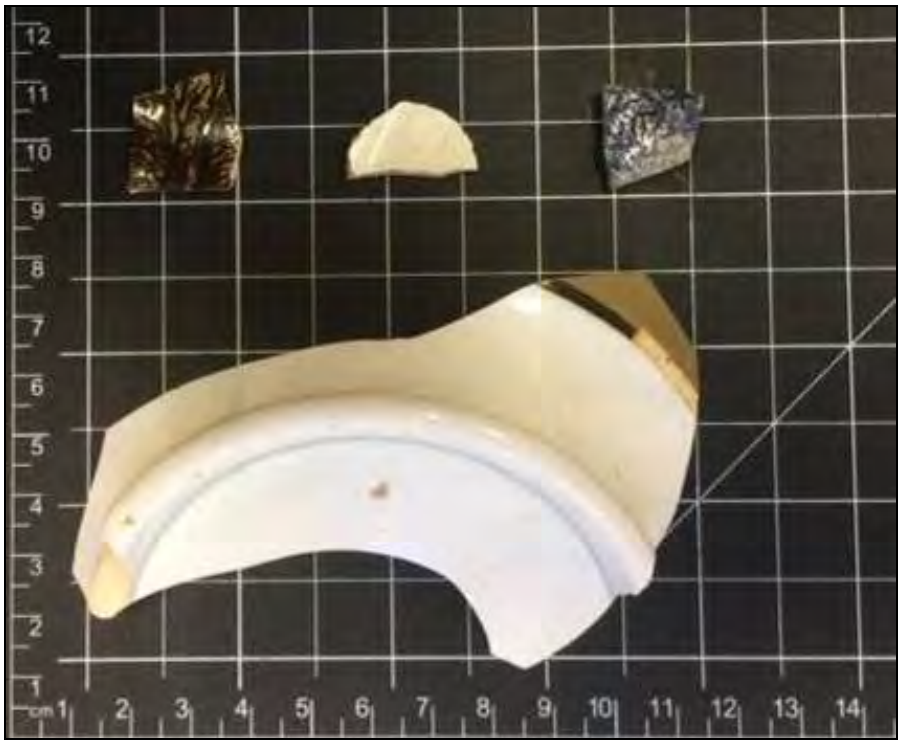

Figure 8-107. Ceramics recovered from Feature 43.

It is possible that the feature was an erosional gully that was intentionally filled with brick and other readily available material to prevent further erosion, but the presence of silt is generally indicative of a feature that filled in during successive rain events, so it is more likely that artifacts washed into the gully and that soil accumulated over time. The mean date of the ceramics is 1809, with low and high ranges of 1787 and 1831, respectively. As such, this feature represents a relatively early period at Spring Hill.

Results of Judgmental and Systematic Shovel Testing at Spring Hill

The initial Phase I identification survey of the Reymet Road property conducted by TRC (2007), resulted in the identification of several previously disturbed areas around the Spring Hill House and as such, many of these areas only received limited testing. The area immediately around the Spring Hill house had been shovel tested at intervals of 7.5 meters (25 ft) and 15 meters (50 ft) by TRC during identification efforts at the property (Olsen et. al. 2010). These results provided a foundation for the development of the data recovery plan, but despite the work conducted, few subsurface features that would be expected in the vicinity of a structure dating to the late-eighteenth century were identified.

TRC's interpretation that the area had been "scraped" was confirmed, and grading of the property immediately adjacent to the house was likely done to create an even surface for parking and/or for aesthetic purposes. This would have all but eliminated archaeological evidence of pier-set buildings and shallow features such as fence-lines and planting beds. Nevertheless, a dwelling that has been occupied for well over two centuries would be expected to have several deep subsurface features that would not have been completely eliminated by grading.

The absence of evidence related to privies, wells, trash pits, root cellars, and dairies suggested that these features may be located outside of the area where Phase II results had suggested the data recovery efforts be concentrated. In order to investigate the possibility that features associated with the Spring Hill house were located outside of the area most likely to contain these, supplemental shovel testing was conducted in areas that had either been omitted during the TRC testing as well as areas assumed to have been impacted by Reynolds development

As such, additional shovel tests at closer intervals (7.5 meters (25 ft) were excavated in select areas in order to shed further light on the nature and extent of expected disturbances, identify evidence of eighteenth-century domestic deposits and structural features, and to refine our understanding of stratigraphic sequences across the site (Figure 8-108). The results of these shovel tests are discussed below.

Six (6) of the shovel tests were judgmentally placed along a north/south transect extending from the southern side of Spring Hill towards the slope towards Proctor's Creek. The shovel tests were approximately 7.5 meters (25-ft) apart. Historic documents indicate that the primary access route was by this southern approach during some of Spring Hill's history. Because the front of the house would have been the southern elevation, it is not likely that outbuildings would have been constructed here, particular not any utilitarian or unsightly ones. In addition, the area appears to have been terraced and a number of ornamental plantings are in the area. Only three (3) of the shovel tests were positive for cultural material.

Another seven (7) judgmental shovel tests were randomly distributed around the property to determine whether intact stratigraphy existed. Two were placed east of Spring Hill, two were placed west of the house within the tree line, and three around the bases of large trees that were within the yard area. The purpose of these tests was 1) to determine if the area around the concrete loading dock east of the house had been heavily disturbed and 2) to determine if the soil around the large trees was more intact than other areas as was the case around the kitchen outbuilding west of the Spring Hill house. Six (6) shovel tests were positive for cultural material.

A total of 84 (eighty-four) shovel test pits were excavated at 15 meter (25 ft) intervals in a systematic grid to the north and east of the Spring Hill house. Thirty-five (35) of the shovel tests were positive, and contained a total of 123 artifacts. The majority of these consisted of very small brick fragments, indicating that the artifacts were secondary deposits, and that they have been subject to earth moving or other activity that caused them to become broken into small pieces. Of the artifacts recovered, six were ceramic, including three sherds of pearlware, two of creamware, and two sherds of stoneware. The stoneware sherds were not diagnostic, but one may be modern.

Figure 8-108. Plan view of additional shovel testing conducted during Phase III investigations of Site 44CF0696.

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The distribution of the artifacts over the area tested was relatively uniform and consistent with the results of the TRC Phase I identification survey. No concentrations of artifacts suggesting activity areas or cultural features were identified during the additional survey. Areas adjacent to the gravel roadway were more disturbed, and fewer artifacts were found in this area.

THE MATERIAL CULTURE OF SPRING HILL

Archaeological investigations consider a wide range of factors in the interpretation of human activity at a site. Cultural features, which indicate the presence of structures and overall organization of the landscape give a sense for the structure of the site. In general, the artifacts recovered from a site are viewed in the context their provenience, as they can shed light on the temporal affiliation and the purpose of the feature with which they are associated. Analysis of artifacts can be particularly useful when artifacts can draw connections between various features at a site. For example, when sherds of ceramics found in one feature mend with sherds found in another feature, it can mean that the features were in use at the same time, as the broken ceramic vessel would have been swept or thrown out.

In the case of Spring Hill, the shallow soil profiles that have been previously discussed, along with the highly fragmented artifacts, do not lend themselves to mending vessels or establishing connections between individual features. Nevertheless, the artifact collection itself can also provide an overview of the site and provides data about the material culture present at the site over the course of occupation of the site.

During the data recovery efforts at Spring Hill, a total of 1158 artifacts were recovered from test units, shovel test pits, feature excavation, and surface collection. This consisted of a wide range of materials and can be associated with human presence on the site from prehistoric times through the twentieth century.

When cataloguing artifacts, there are both functional and material factors to consider. When looking at functional connections between artifacts, for example, artifacts related to a blacksmith operation might consist of a variety of materials including iron, slag, or coal and when these artifacts are found in a discrete portion of a site, it is possible to associate that area with a blacksmith shop.

At Spring Hill, few functional connections in discrete portions of the site could be determined due to the deflated soil horizons. One area where artifacts were useful to interpret the historic use was the kitchen. In this area, the collection of stoneware crocks, ceramics, and iron pothooks discussed in previously was helpful in determining the use of the structural remains that were found.

In terms of the majority of the artifact collection, however, the major classification tool was the material of which the artifacts were made. Figure 8-109 shows a comprehensive view of all of the materials that were recovered from the site. Some of the materials can be combined, however, in order to gain a better understanding of the categories represented. For example, once ceramics and lithic materials are combined into single categories, and single artifacts are combined as miscellaneous materials, it is somewhat easier to establish an overview, which is

shown in Figure 8-110. Even more illustrative of the material culture, however, is a further consolidation of materials by combining architectural materials into a single group, as fragments of brick, slate, plaster, and mortar are all integrally related. This is shown in Figure 8-111. After this reduction of categories, the major classes of materials are more informative in the overall analysis of artifacts.

Of the 1158 artifacts recovered from the site, 44% (n=508) consisted of ceramics. This was the largest category represented in the collection, followed by glass and architectural materials, which each accounted for 22% (n=254 and n=252, respectively).

Glass, the second largest single category of artifacts made up 22% of the collection (n=252). Flat window glass made up the largest percentage within the glass category with 114 fragments found, for 45% of the assemblage. This appears to be the result of the location of test units 1, 2, and 3 being situated beneath windows, and is testament to the fact that the windows have been broken and replaced multiple times. Dark green bottle glass, typically associated with colonial through early nineteenth century bottles, and colorless bottle glass which is more recent, were recovered in almost equal quantities of 33 shards and 30 shards, respectively.

Artifacts of iron (other than nails, which were included with architectural materials), coal/slag, and other miscellaneous materials made up the remaining 12% (n=19) of the assemblage. Of the pieces of coal and slag found at the site, the majority (68%, n=13) was recovered from Feature 31, which appears to be a large crater, possibly dating to the shelling of the property during the Civil War, and may be further evidence of the damage that occurred to the property. Faunal material, or bone, made up 2% (n=24) of the artifact assemblage. Of these, 17 were recovered from the vicinity of the kitchen, meaning that 68% of the bone was in this area, lending support to the interpretation of this area as the kitchen, as food processing and preparation likely took place in the area.

Other categories of materials recovered from Spring Hill that are relatively small in terms of the quantity of artifacts are terracotta (n=8 sherds that appear to be the remains of a flower pot), oyster shell (n=7 pieces), and artifacts made of copper alley (n=7). Buttons and the handle of a spoon were among the copper alloy artifacts.

The remaining artifacts, which include prehistoric lithic materials, marl, and plastic were recovered in such small quantities that they each account for less than 1% of the collection. These statistically small sample sizes make it difficult to draw interpretive conclusions about the history and occupation of the property.

The category of artifacts with the largest number of finds was ceramics. As previously discussed, ceramics are extremely useful in the interpretation of colonial and post-colonial period sites. The well-documented manufacture dates and the research conducted on specific potteries provide accurate temporal data for archaeological sites. Of the ceramics, 44% (n=225) were recovered from the upper levels of soil in the area around the kitchen outbuilding. This is likely in part due to the fact that artifacts were concentrated around the large walnut tree where they were not subject to earth moving, but can also be attributed to the fact that this was the location of the kitchen.

Of the 508 pieces of ceramic found at Spring Hill, a total of 173 ceramics predating 1820 were recovered, compared to 202 dating to the second quarter of the nineteenth century and later, reflecting a fairly even temporal split in the ceramic assemblage. Even so, pearlware was the most prevalent ceramic type found, suggesting that the most intensive period of occupation occurred in the last decade of the eighteenth century through the second decade of the nineteenth century.

Figure 8-112 shows a comparison of the various refined earthenwares recovered from Spring Hill. Approximately 54% of the earthenware types dated to the first quarter of the nineteenth century and earlier. The pattern included tin-glazed (1%), creamware (10%), pearlware (36%), and porcelain (7%). The predominance of pearlware suggests that the most intensive phase of the occupation of Spring Hill, as reflected by the refined ceramic assemblage, occurred between 1790 and 1820, during the Branch period of ownership. The remaining 46% of the assemblage was represented by whiteware (22%), graniteware (22%), and porcellaneous wares (2%), suggesting a secondary phase of occupation in the second half of the nineteenth century, which is consistent with the Gregory family ownership.

A comparison of various types of stoneware (Figure 8-113) provides another view of periods of ownership. In this case, gray-bodied American and Rockingham slip stonewares, which are associated with the second and third quarters of the nineteenth century, account for 75% of the stonewares recovered from Spring Hill, while 25% (including white salt glaze, English brown stoneware, Nottingham, scratch blue and Westerwald) are associated more with the eighteenth century.

In addition to providing temporal data about archaeological sites, ceramics can be used as indicators of the socioeconomic status of the owners. Archaeologists have long understood the connection between ceramic types and overall wealth. While most late-eighteenth and nineteenth century domestic sites include coarse, utilitarian wares meant for food storage and preparation, wealthier landowners had the additional ability to acquire more refined dishes, many times in sets.

While refined wares predominated throughout the occupation of Spring Hill, the pattern reveals a higher percentage of utilitarian stoneware beginning in the second quarter of the nineteenth century. Prior to 1820, earthenware accounted for 91% of the assemblage compared to 9% stoneware. After 1820, the amount of utilitarian stoneware represented increased to 28%, compared to 72% earthenware. This overall consideration of the ceramics represented in the artifact assemblage recovered from Spring Hill supports the data collected during the archaeological, historical, and architectural investigations regarding the status of the Branch, Cox, and Gregory families.

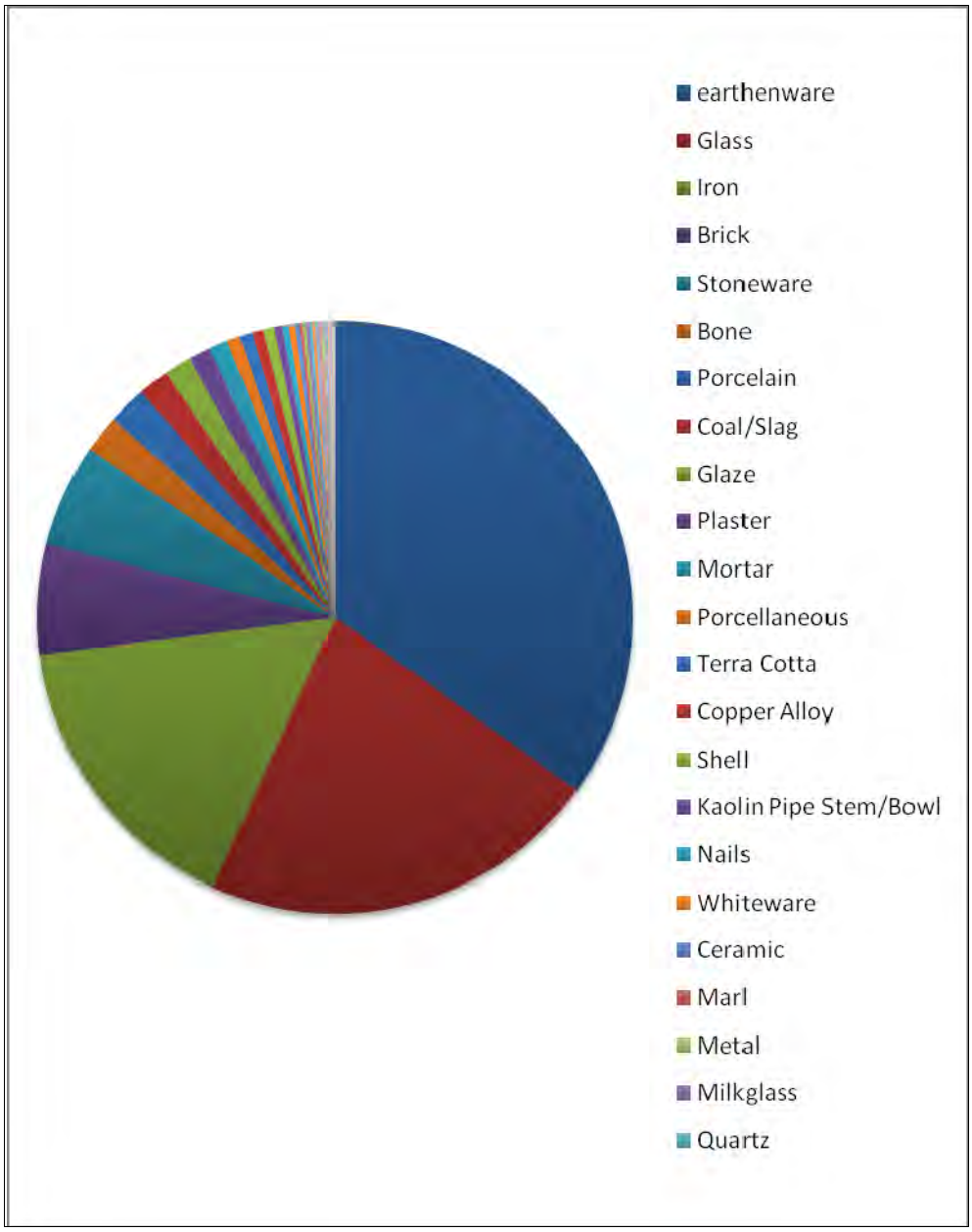

Figure 8-109. Spring Hill artifacts classified by material.

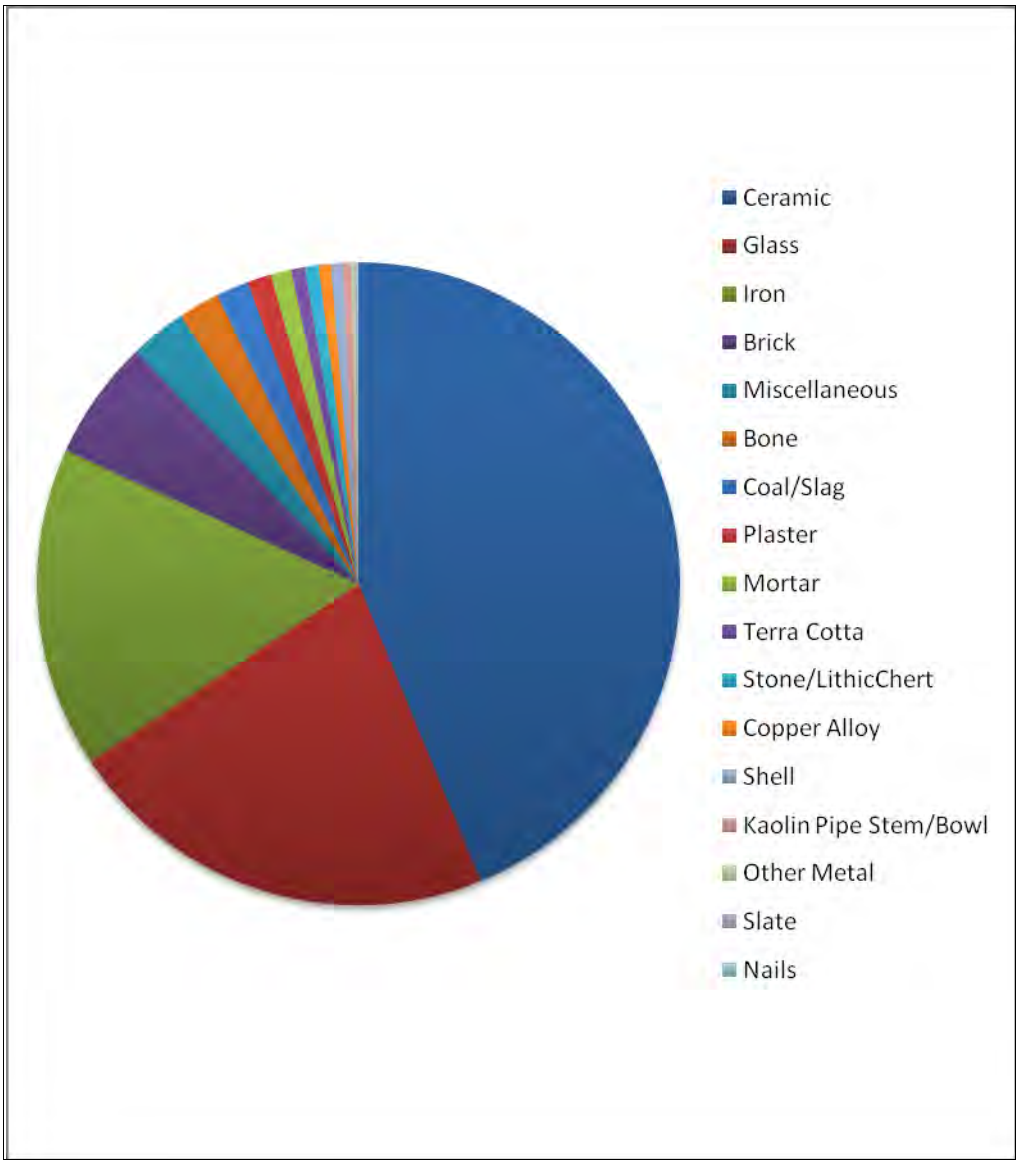

Figure 8-110. Spring Hill artifacts classified by material with single artifact types recorded as miscellaneous.

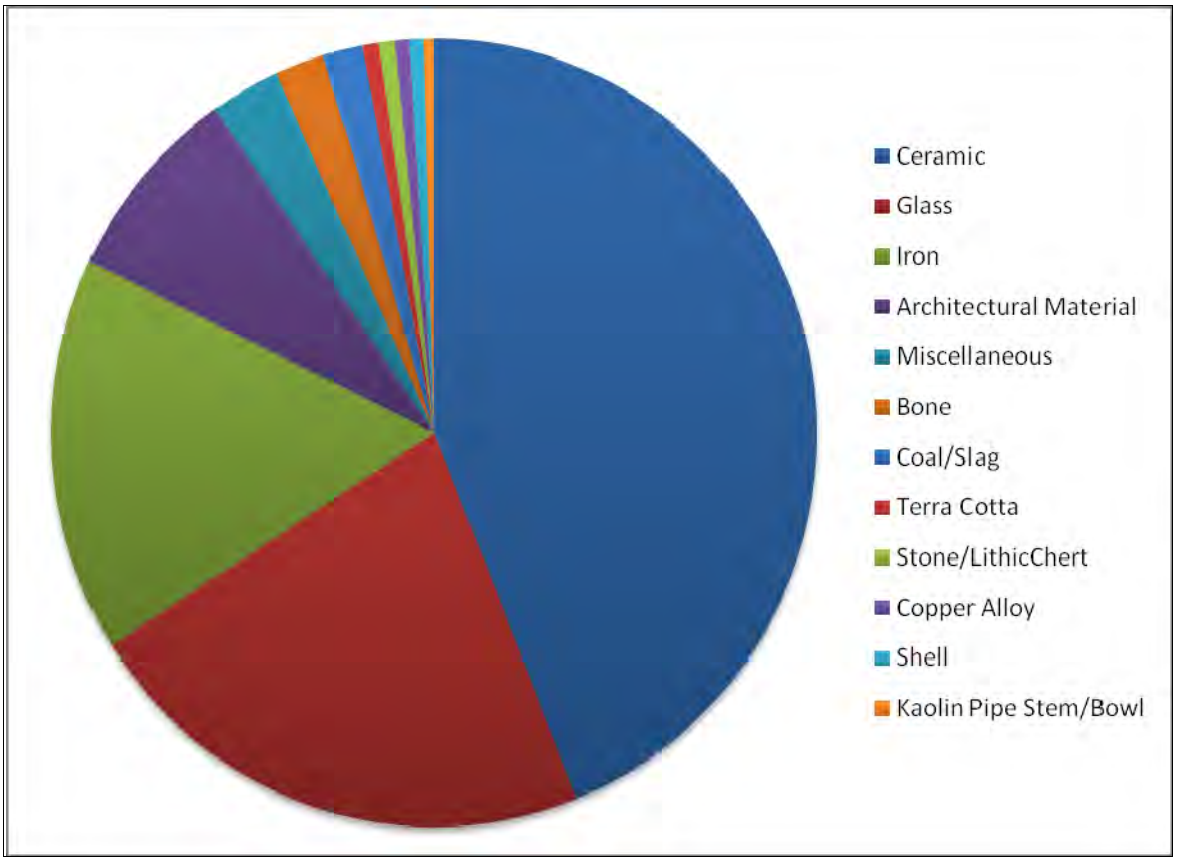

Figure 8-111. Spring Hill artifacts classified by material with architectural artifacts grouped separately.

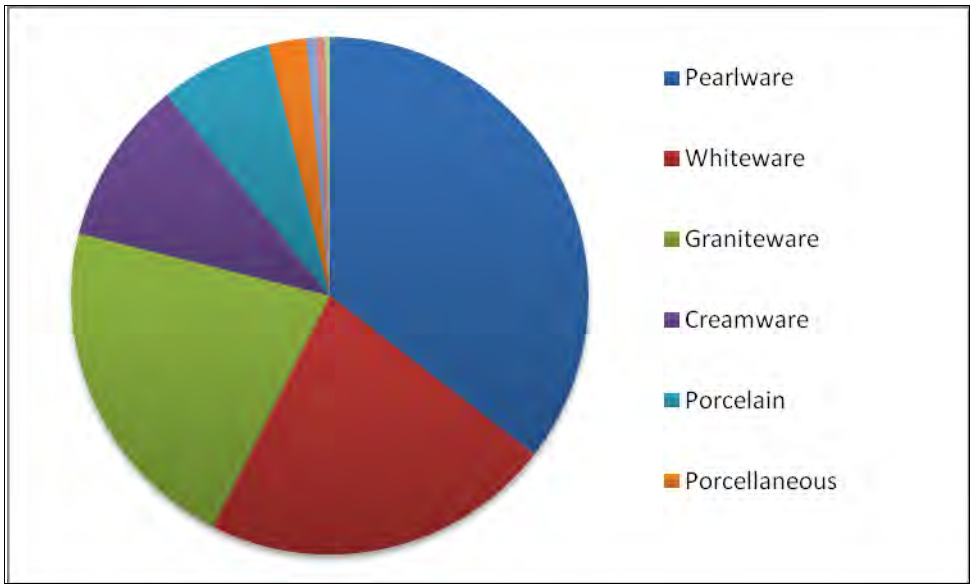

Figure 8-112. Spring Hill refined earthenwares classified by ware type

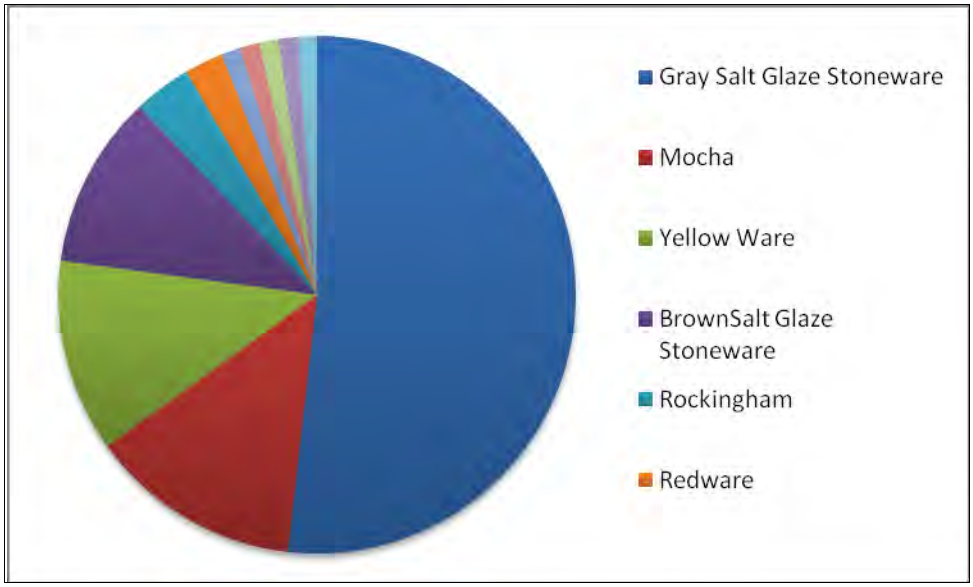

Figure 8-113. Spring Hill unrefined earthernwares and stonewares by type.

Distinctive Material Culture at Spring Hill

Many of the artifacts recovered from Spring Hill gave insight into the nature of the features identified during the data recovery process. The presence of pothooks, storage crocks, and animal bone, for example, indicated that the structural remains in the center of the yard were used as a kitchen. Other artifacts were helpful in interpreting the date of other features as well as providing insight to the occupants of the site. Below is a detailed discussion of some of the more unique and diagnostic artifacts and artifact groupings recovered during the data recovery excavations.

Children's Dolls

Small personal items found at archaeological sites are often the most direct link to the people who once lived there and toys in particular are capable of telling us about gender and pastimes of the children. Dolls are also relatively diagnostic in that changes over time in the materials used, hairstyles, and physical characteristics of the dolls are well documented.

A total of five (5) doll parts, including two heads and three legs, were found at Spring Hill. Three (3) of these, including the two heads, were recovered from the surface scatter in the area of the kitchen outbuilding. One of the legs was found in the topsoil that had been removed from Area 8 in front of the house (southern side), and the last leg was found tightly wedged between the foundation and the base of the southwestern chimney base.

While dolls have been toys since ancient times, porcelain, or china, dolls began to appear in Europe during the eighteenth century and became widely available in Europe and the United States in the early 1800s, making dolls readily available even for girls from moderate economic circumstances.

Mass production of porcelain dolls peaked between 1840 and 1890, but by 1860, unglazed (bisque) porcelain surpassed glazed porcelain in popularity because the matte surface created a more natural skin-like surface. Overall, porcelain was clearly not the most durable material for children's toys, and once celluloid and other manmade materials became available, porcelain use was reserved for dolls not intended for common toys. While there are many examples of dolls that have remained intact for centuries, it is safe to assume that vast quantities were broken within a limited time and subsequently became part of the archaeological record, making them quite useful diagnostic artifacts in cases where features can be identified.

Through the nineteenth century, dolls were made to look like adults, and it was not until the late nineteenth-century that the "baby doll" appearance took over. The appearance of dolls in general, however, evolved significantly over the course of the nineteenth-century. The earliest porcelain dolls had hair that was molded into distinct hairstyles.

Dolls known as "Frozen Charlottes" were produced between 1850 and 1920 (Figure 8-114). These dolls were made of all porcelain (as opposed to having a porcelain head with stuffed fabric limbs) and were either jointed at the shoulder and hip or were non-articulated and instead had bodies and heads molded into a non-movable shape.

Figure 8-114. Example of a Frozen Charlotte doll (SOURCE: Ruby Lane Antiques). This particular example measure 4.5" in height.

The name is taken from a folk song called Fair Charlotte or, alternatively, Young Charlotte, a ballad about a girl on a sleigh ride who did not want wear a warm coat over her beautiful dress and froze to death during the journey. The origin of the ballad is not very well documented, but it appears that the story itself was well-known by the mid- to late nineteenth-century and served as a cautionary tale. There is some evidence that the origin of the story is a notice in the *New York Observer*, stating that a young woman had frozen to death on her way to a New Year's Eve ball on December 31, 1839[22].

Frozen Charlotte dolls were produced in a variety of sizes, ranging from under one inch to over 18 inches and are characterized not only by their stiff bodies but also by their hairstyles[23]. It is likely that the two small doll heads recovered from Spring Hill were from Frozen Charlotte dolls simply because of their small size (Figure 8-115).

[22] http://umaine.edu/folklife/programs-and-events/maine-song-and-story-sampler-map/places/wells-young-charlotte/

[23] http://www.dollreference.com/china_head_dolls.html

Figure 8-115. Detail of doll heads recovered at Spring Hill.

One of the doll heads, which is approximately 2.5 cm (1 in) high, has smooth hair that falls into large curls, appears to be either the "Lydia" or the "Sophia" hairstyle. This style dates to the 1840s (Figure 8-116).

The second doll head, which is less than 1.2 cm (0.5 in) high, has a hairstyle known as the "Mary Lincoln,[24]" which was seen on dolls from 1860 on, and is recognizable by the large "buns" on each side of the head. This particular head also has evidence of black paint on the hair and subtle remains of pink or red on the lips, similar to the example shown in Figure 8-116.

Figure 8-116. Example of Sophia style doll (Left) and example of Mary Lincoln hairstyle (Right).

[24] http://www.dollreference.com/images/chinas_mary_lincoln_kathy.jpg

Doll legs are the most common doll parts found on archaeological sites. The styles of the legs found at Spring Hill, however, are quite different: one of the legs is very short and squat, while the other two are narrower (Figure 8-117). Some studies suggest that mid-nineteenth century doll legs are more likely to have straight calves and that the trend towards the end of the nineteenth century was for more rounded, bulbous calves[25].

Figure 8-117. Doll legs recovered at Spring Hill.

None of the legs includes a shoe, which can also be somewhat diagnostic. Of the two narrow legs, one is somewhat crudely molded and the other is not only finely molded, but also has a painted bow at what would have been the upper calf. The difference in quality is also interesting, and may be an indication of the shifting socioeconomic status of the residents of Spring Hill.

Children's Shoes

Another artifact found during the investigation of the Spring Hill house itself was a single shoe that had been intentionally placed on the south wall plate, roughly above the middle bay, concealed by second story knee wall near the dormer windows on the front (southern) elevation (Figures 8-118 and 8-119). The shoe was exposed after plaster and lathe that had concealed it since the mid-nineteenth century was removed.

[25] Ivor Noel Hume 1969

Figure 8-118. Concealed child's shoe recovered at Spring Hill.

Figure 8-119. Location where concealed shoe was found.

The concealment of shoes and other worn and ordinary personal artifacts—particularly shoes and clothing—behind walls or chimneys and in crevices around windows and doors is not terribly unusual, and is associated with warding off evil spirits and protecting the inhabitants of the house. Known as "apotropaic[26] concealments," these hidden artifacts frequently consist of single, worn-out shoes or boots and most often, they are children's shoes. The shoe was concealed during construction of the dormers on the southern elevation of the house and since the shoe dates roughly to the Civil War, it was likely placed there by the Gregory family.

Projectile Point

Spring Hill has been occupied for over 250 years since the Branch family land grant, but evidence of the area being used by Native Americans prior to colonization is also abundant, with numerous quartzite flakes and debitage from stone tool manufacture noted at the site during the previous investigations, as well as during data recovery. The number and type of artifacts was not significant enough, however, to suggest long-term prehistoric occupation around Spring Hill, but that the area was used for hunting. One prehistoric artifact, however, stood out as rather unique. In the topsoil removed from Trench 2, a projectile point made of Jasper was recovered. The point is 8.8 cm (3.5 in) in length and known as a Morrow Mountain I broad spear point[27], which is slightly larger than is normally the case for these tools, but all other characteristics, including the somewhat crude manufacture by direct percussion, profile, and shape are consistent (Figure 8-120).

The projectile point dates to the Middle Archaic period, 5100-4500 BCE and is greenish blue in color. The raw material used for this tool is unlike the raw materials found in other areas of the Reymet property where cobbles are known to have been worked into stone tools, including at a large prehistoric site approximately 0.6 km (2000 ft) from the Spring Hill house.

[26] Evil averting (see Manning 2012)
[27] Information on Morrow Mountain projectile points can be found at: http://www.dhr.virginia.gov/arch_DHR/LPCFlash.html

Figure 8-120. Projectile point recovered at Spring Hill.

While it is a possibility that the projectile point was discarded at the site thousands of years ago and became part of the archaeological record, it is more plausible that this object was a curiosity collected by one of the occupants of Spring Hill at some point during the past. Finding anachronistic artifacts like this at archaeological sites is sometimes referred to as "curation" by residents of a site. At some archaeological sites, these seemingly out-of-place objects are found together, as in the case of small caches of buttons, coins, shells, or other objects found in slave dwellings[28] or stone tools collected by eighteenth century colonists[29]. The practice of "curation"

[28] See Patricia Samford, Subfloor Pits and the Archaeology of Slavery in Colonial Virginia, 2007

[29] For further information on curation of artifacts, see the following:

King, Julia A.; Chaney, Edward E.
2004 Did the Chesapeake English Have a Contact Period?, In *Indian and European Contact in Context.* University Press of Florida, Gainesville.

Luckenbach, Al; Gadsby, David
2004 Native American Stone Celts From Colonial Contexts in the 17th Century Settlement of Providence, Maryland. *Maryland Archeology* 40(2):1-7.

Feest, Christian F.

among eighteenth and nineteenth-century populations is well documented, although in order to make the determination that an artifact has been collected, the context in which it is found is critical. In the case of this projectile point, the evidence is somewhat more tenuous.

1995 The Collecting of American Indian Artifacts, In *America in European Consciousness.* The University of North Carolina Press: Chapel Hill.

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9. INTERPRETATIONS AND CONCLUSIONS

The following interpretations and conclusions are organized according to the research questions posed in the research design at the beginning of the project. While research and fieldwork yielded a variety of data, some questions are less than definitively answered due to the lack of physical evidence. Where research and fieldwork suggests particular interpretive directions but perhaps lacks the specific data to draw concrete conclusions, suggestions are made and clearly noted as such. Each of the research questions identified in the research design are discussed below.

ARCHITECTURAL CHRONOLOGY

Branch Family

The first documentary reference to building construction on the property is in 1686 when Benjamin Branch, the youngest of Christopher Branch's grandsons who received the property on which Spring Hill is located by will, came of which and was supposed to employ the assistance of his brothers and their slaves to build him a house. The house was to be "four lengths of board every length to be five foot." Such a description represents a common home type in Virginia in the seventeenth century, when five foot boards were a standard length, facilitating excavating post holes for the bay system of construction. Whether or not this house was actually built, and if so, whether it was within proximity to the existing Spring Hill house cannot be determined. Archaeological testing revealed several post holes in the area; however, none big enough to reflect a seventeenth century building post, nor were they at the telltale 5-foot intervals. A small collection of seventeenth century artifacts were recovered; however, the types of materials and wares encountered have periods of production and use stretching well into the eighteenth century.

Recovered artifacts and materials dating to the third- and fourth-quarter of the eighteenth century indicate an initial construction and occupation date for the house during that period. Benjamin Branch III is believed to have received the property in 1762 from his father, which aligns with construction of the house just a few years later in 1767. The house, as-built at that time, consisted of the unusual arrangement of three rooms heated by a central chimney as well as an end chimney. Angled fireplaces on the internal chimney heated the two smaller rooms while the end chimney heated the large main hall. The finished second story was divided into three rooms with the largest one heated by a fireplace from the end chimney. Whether or not the other rooms were heated by fireplaces on the internal chimney cannot be determined (Figure 9-1).

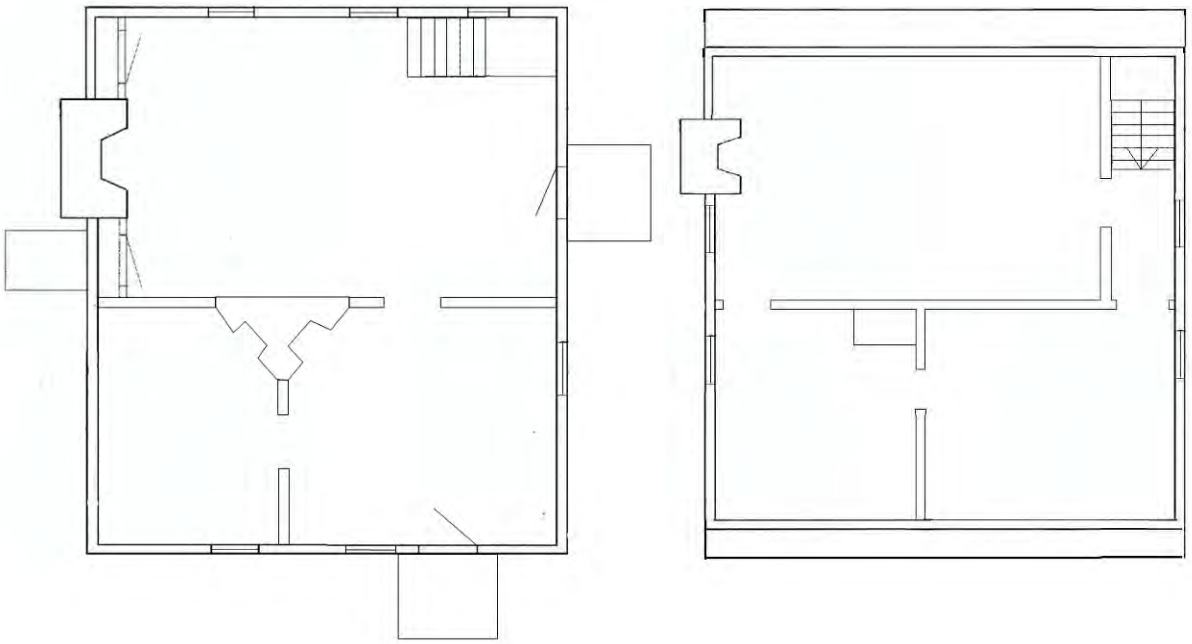

Figure 9-1. Conjectured original layout, first floor (Left) and second floor (Right). Oriented with north upwards.

Not only was the floor plan unusual, but the arrangement of rooms as well. The entrance on the formal front of the house led directly into one of the smaller two rooms. The main hall stretched along the back of the house and had a separate gable-end entrance. The stairwell was also located in this room. A full basement was located under this room and was served by a fireplace on the end chimney. An exterior bulkhead adjacent to the end chimney allowed access to the basement, and an interior stairwell from the main hall appears to have been cut-in later.

The house was relatively finely built and finished with glazed headers in the Flemish bond foundation, a glazed chevron pattern on the end chimney with paved haunches and wing walls, and a relatively large number of windows for its size, including two on the front, two on the east side, and three on the north rear. Presumably there was also a window on the west side, although this cannot be verified as the two chimneys added there in the twentieth century obscure the original construction. The second floor was lit by two additional small windows on each gable end (Figure 9-2). On the inside, the building featured scribe-cut and molding-embellished doorways, built-in closets flanking the fireplace in the main hall, and molded stair railings and trim. Guttered corner posts indicate that all of the rooms were plastered. The presence of brick footings discovered through archaeological testing along the exterior of house flanking each of the two doors indicates that the house had stoops, and possibly full porticos.

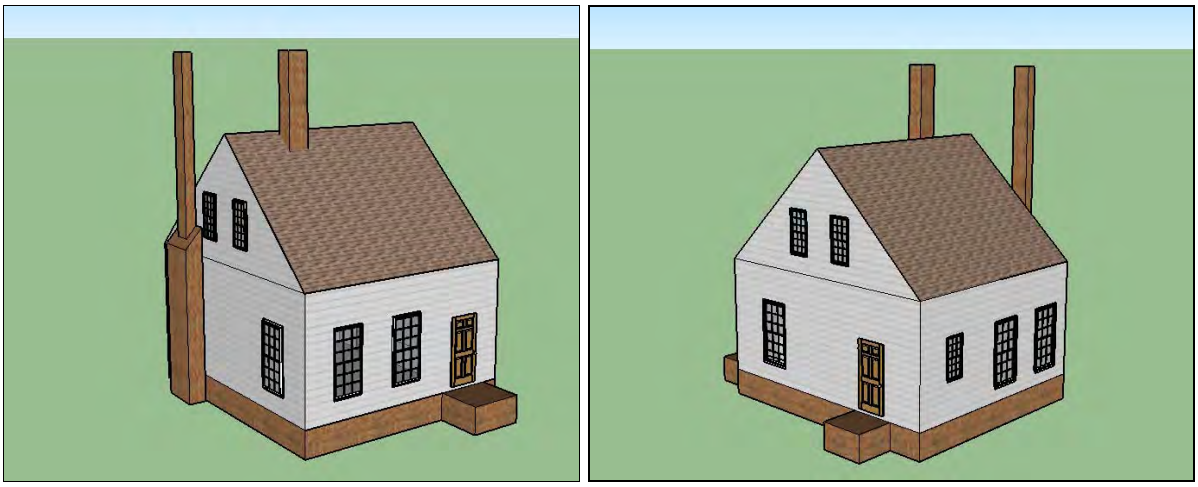

Figure 9-2. Conjectured rendering of original appearance, 1767, south front and west side (Left) north rear and east side (Right).

Cox Family

When George Cox, Sr. acquired the Spring Hill house in 1814, it likely retained the original form as constructed in 1767. By that time, and even more so throughout the ownership of the Cox's, the home would have been considered relatively small and antiquated for a family as wealthy as the Cox's. Although as it not immediately clear that either George, Sr. or Jr. made the Spring Hill house their primary residence for any substantial length of time (instead leasing or loaning it out to relatives), it is not likely, and does not appear, that they undertook any substantial effort to improve and/or enlarge the house.

Archaeological testing did reveal that there were at least two domestic outbuildings on the property and possibly a third during the Cox family ownership. It is possible, however, that the outbuildings were constructed at the end of the Branch family period of ownership, although there is no conclusive evidence of construction and use of these buildings prior to the turn of the nineteenth century. Two outbuildings were located on the west side of the main house, with the building directly west of the house appearing to have been the kitchen, and the second building to the northwest in what is now the rebuilt kitchen building. The function of this building is unknown.

The most substantial evidence of a detached kitchen outbuilding at Spring Hill consists of a hearth base (Feature 49) and the fallen chimney that it supported (Features 21 and 29). The immediate vicinity of the brick chimney fall appears to have been avoided during grading activity that is known to have taken place on the property, and the organic soils in the area provided ample opportunity for tree roots to take hold, making this an area with some of the deepest stratigraphy observed during the archaeological investigations. The combination of bricks and tree roots appears to have led to soil being pushed into the area during grading activity, as the topsoil around the walnut tree contained a high concentration of artifacts with temporal ranges from the eighteenth through the twentieth centuries, with no intact cultural horizons.

The chimney fall and surrounding area did, however, preserve some key evidence that allows for interpretation of the area as a kitchen. Two large iron hooks used for cast iron cooking pots were found beneath the chimney fall. A concentration of thick, stoneware crock sherds were also found in the area, as were numerous animal bones and oyster shell.

The lack of substantial structural remains or foundations is consistent with a post-in-ground or pier-set building. Archaeological investigation to identify piers or post holes was hindered due to the amount of earth moving that has occurred on the property. Several small concentrations of brick that likely represent the remains of piers were located, but too few of these remained *in situ* to definitively mark the perimeter of the building. These clusters of brick were recorded on maps since they could not be excavated or investigated in more detail. Their locations, however, provided clues about the presence of the building.

Additional features in the vicinity of the walnut tree related to the kitchen outbuilding consist of a concentration of plaster (Feature 28) and two features that are possible postholes (Feature 49 and Feature 50). West of the chimney fall, the concentration of plaster along with small brick fragments, mortar and mottled soil is consistent with demolition activity, and suggests that the building was demolished as a result of a traumatic event as opposed to a systematic removal or rebuilding. Historical documentation supports this conclusion as well, as Margaret Gregory's account from the Civil War indicates that the kitchen was burned by Union troops (see discussion of Gregory family below).

The purpose of the possible postholes (Features 49 and 50) is not known. It is possible that these were structural supports related to the kitchen or that they are features such as root cellars that were burned at the same time as the outbuilding. Feature 49, for example, contained a high concentration of nails that had been burned.

The concentrations of brick that appear to be the remains of piers consisted of clusters of porous, handmade brick and clusters of nineteenth century machine-molded brick. This indicates two separate episodes of construction took place in this area, meaning that a building located in the area was largely or completely replaced by a second building on almost the same footprint.

The potential third outbuilding is located approximately 30.4 meters (100 ft) southeast of the main house at the edge of the slope leading down to Proctor's Creek. This structure was initially identified in the TRC Phase I and II investigations as an early well feature. Clearing of vegetation around the feature during the data recovery investigations revealed the remnants of a cobble and stone foundation laid in a circular pattern with a concrete floor. Although the feature was not investigated during the data recovery due to safety reasons, its topographic situation, partial below ground construction, and circular pattern would be consistent with a spring house or dairy building both of which would be expected at Spring Hill. Little, however, is known of the appearance of these buildings. Each was most likely wood frame. The kitchen appears to have rested on brick pier foundations and had a single brick chimney on the north end. Less is known about the second building as a modern outbuilding is located on what is assumed to be the same location as the historic one, thus disturbing and obscuring evidence of the older. Similarly, little evidence exists beyond the circular configuration of the cobble and stone feature to suggest what a possible structure may have looked like.

Gregory Family

When the Gregorys acquired the Spring Hill house in 1851, they appear to have only made minor cosmetic changes to the house. Tax records indicate that in 1854, the building value on the property jumped from $0 to $747 “for improvements”. As stated previously, why the initial value was $0 cannot be determined as it is known that the house was present on the property. The increase to $747 may simply be a result of reassessing the property after the sale to the Gregorys and noting that the home was now the primary dwelling on the property. There are a number of small renovations that appear to date from the mid- to later nineteenth century which also may be attributed to the Gregorys. A number of features exhibit minimal Greek Revival influences which was popular at the time, and may have been the Gregory’s attempt at updating or modernizing the home. These include moldings and trim, interior doors, and the second floor mantel. The Gregorys may also have added the dormers to the front (south) slope of the roof to allow better light in the upstairs bedrooms (Figure 9-3). This assumption is partially attributed to the circle-sawn lumber and cut nails they are constructed with (consistent with second half of the nineteenth century), as well as the presence of third- or fourth-quarter nineteenth century children’s shoe discovered within the knee wall underneath the southwest dormer. The Gregorys had a number of children, and placing a shoe within a wall, ceiling, or other location was believed to have special meaning. Opening the wall to construct the dormers would have allowed the placement of this shoe, which stylistically appears to date to the Civil War era.

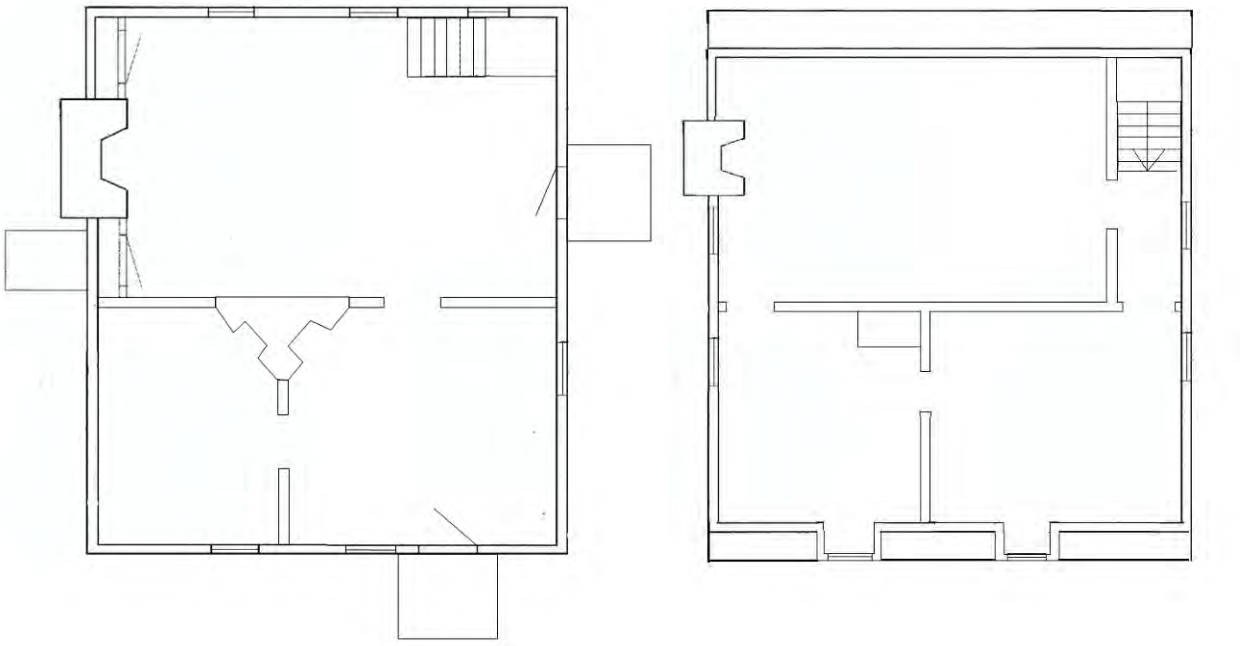

Figure 9-3. Conjectured layout during Gregory ownership, first floor (Left) and second floor (Right).

Other renovations that cannot be definitively attributed to the Gregorys, but would be consistent with their period of occupation includes adding the interior stairwell to the basement as well as the construction of or improvement of the entry porticos. When built in 1767, it would have been more acceptable for slaves to come and go through the primary doorways; however by the nineteenth century, it would have been preferred for the slaves to use a separate service entrance,

which in this case would have been allowed by the interior basement stairs. The porticos may also have been enlarged or rebuilt at this time reflective of current tastes. While there always had to be some sort of stairs or stoops to access the raised doors, the brick wing walls flanking both entrances encountered archaeologically may be from a nineteenth century renovation to formalize both entrances. Whereas the front (south) door was likely the original formal entrance when the home was oriented towards Proctors Creek, by the nineteenth century the primary road access appears to have come from the north and may have led to the east side entrance, thus requiring a more formal approach.

Archaeological evidence also suggests changes, specifically the kitchen outbuilding. According to an account from Margaret Gregory, her kitchen was burned as a result of Union artillery during the Civil War. The recovery of burned glass, nails and other fire damaged architectural and domestic materials supports this account (Figure 9-4). Archaeological features documenting at least two pier set buildings, one slightly off alignment with the other, suggests a second structure was built in roughly the same location following destruction of the first. The presence of a hearth remnant and evidence of a chimney fall document the final demise of the building sometime prior to 1898.

Figure 9-4. Burned glass recovered from Features 21 and 29 of the destroyed kitchen.

Twentieth Century

Inspection of the house reveals that most of the major changes and renovations to the building occurred in the twentieth century. The Duvals, specifically Frank Nelson and his wife Ada who acquired the property in 1902, appear to have undertaken the first major overhaul of the building since it was constructed. This overhaul consisted of a major reconfiguration of the floorplan including the removal of the original internal chimney and rearranging the layout of both the first and second floors, as well as appending a large addition to the east side (Figure 9-5). At that time, the floor plan of the original block was rearranged from its original three-room plan with both an end and internal chimney, to its current double-pile, side-passage form. A second end chimney was built on the south half of the west side to heat the new southern room on the first floor as well as the southwest room on the second floor. This chimney was apparently built with bricks reclaimed from the original internal chimney. They used modern pressed bricks to construct piers under the new floor built overtop of where the internal chimney was. The passage or hallway downstairs ran the length of the east side of the home and accommodated both the front and side doors, as well as the stairwell to the second floor. Because of the new partition wall, the stairwell was also reconfigured from a single turn, to a double-turn. Inspection also revealed that the dormers on the north slope of the roof were also added at the same time as this renovation as the wood used to frame them in are reclaimed studs from the first floor original division wall.

The reconfiguration of the house may simply have been an effort to create larger and more usable spaces, but was likely also to create a better flow for enlarging the house. As part of the same renovation event, the Duvals also constructed the wing addition to the east side of the building, and the hallway built in the original block allowed better connectivity of the two blocks. The new addition was built on a continuous foundation of pressed bricks that match those used to underpin the floor in the original block. It featured a small inset porch on the north and a large full-width porch spanning the two blocks on the south. The inset north porch allowed access into the original east side door on the main block, while the full-width south porch allowed access into the original front door as well as a door directly into the addition. The south porch had a central main set of stairs as well as a set of stairs on the east end which allowed access to the well beside the house. The addition overall is vernacular in form and style, with subtle Victorian influence through the use of a transom light over the front door.

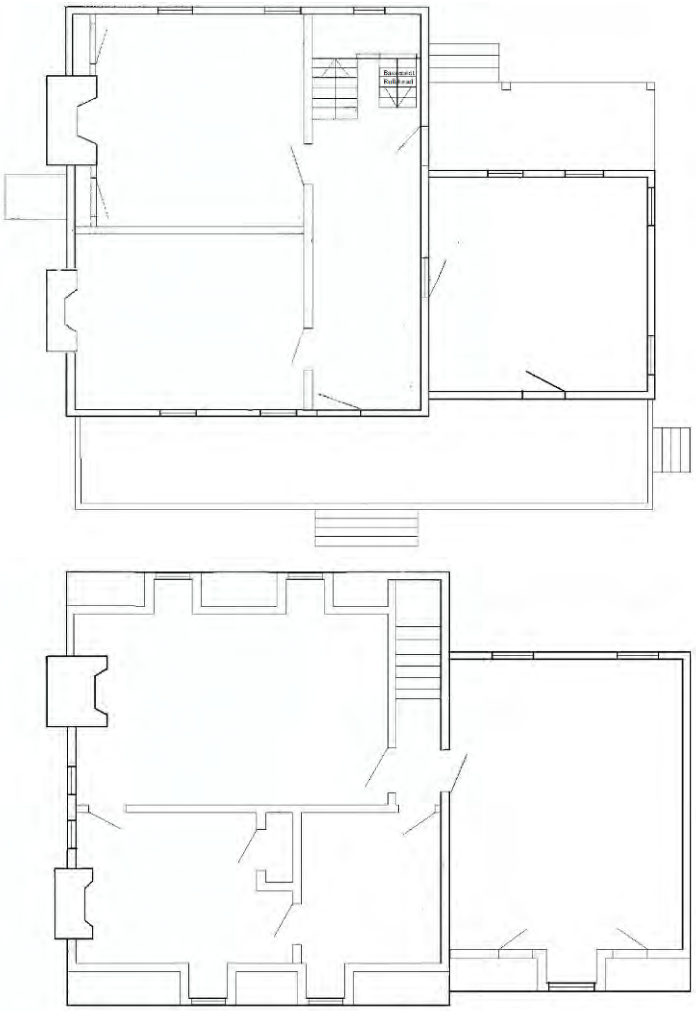

Figure 9-5. Reconfigured layout during Duval ownership, first floor (Top) and second floor (Bottom).

The date for this major overhaul and reconfiguration is believed to have been circa 1905 for a number of reasons. In 1898, the Duvals posted a real estate listing for the property at which they described the house as having "six rooms". When considering only the original block, six rooms could fit the original layout with three rooms below and three above, or the reconfigured layout if counting the large hallway as a room. However, considering that the east addition was contemporary to the reconfiguration of the original block, there is no way that this complete overhaul could have been present by that date. A photograph of the Duval family on file at the Chesterfield County Historical Society depicts them standing on what was at that time, the inset north porch on the addition. The photograph is recorded as having been taken in either 1909 or 1910 (which is verified through the relative age of the children in the photograph as compared to their listed ages in the census). This dates the addition and reconfiguration as taking place sometime between 1896 and 1910. The first Duvals to purchase the home, E.T. and J.F. presumably bought the home as a speculative investment as evidenced by their trying to sell it a year later in 1896. After the property as a whole did not sell, they sold off the riverfront portion in 1901 and sold the rest of the property with the house to their brother Frank in 1902. It cannot be determined if E.T. and J.F. lived at the house, but it is known that Frank and his family made

it their home. Tax records do not indicate a jump in building value during this period (or well before or after it for that matter); however, a sizeable jump in overall property value took place in 1906. It is assumed that this jump reflects the overhaul and renovation the year before in 1905, and the assessor or record keeper merely lumped the increase into the overall value instead of breaking out the value related to improvements.

We know from the advertisement placed by E.T. Duvall for sale of the Spring Hill property in 1898, that there were a number of outbuildings present on the property. Specifically, the advertisement notes the presence of an outhouse, three barns, a smokehouse and henhouse, as well as several barns and sheds suggesting there were located further away from the dwelling. With the exception of the outhouse and smokehouse, little would be expected to remain in the form of archaeological signatures for the more ephemeral barns and sheds. While archaeological investigations did not yield any evidence that would confirm the presence and location of any of the identified buildings, it is important to note that apparently neither the kitchen outbuilding nor a dairy were standing at the time of advertisement as they were not called out or otherwise mentioned.

After the Duvals sold the property in 1920, it went through two rapid speculative sales before it was purchased by Isaac William Francis and his wife in 1923, who owned and lived at the property until 1932. The Francis's also appear to have undertaken substantial renovation of the home. In 1925 (as evidenced by a newspaper clipping found in the hearth box), the Francis's replaced the southern end chimney built by the Duvals. Why a chimney that was only approximately 20 years old would require replacement is not completely clear, although some reasonable explanations may be made. An inspection of the bricks that remain in the base for the circa 1905 chimney reveal that the Duvals apparently reused bricks from the 1767 internal chimney they removed. While these bricks likely appeared sturdy when they were collected, their shift from the protected interior environment to an exposed exterior location likely caused them to rapidly soak up moisture and fail quickly. This forced the Francis's to remove and rebuild the chimney. In so doing, they also made several improvements including narrowing the chimney so that a new window could be placed on the west wall, allowing more natural light into the south room that was blocked by the large full-width porch. It appears that the Francis's moved a window from next to the front door, which would not have allowed in much light in that location, to its setting next to the new chimney. Covering the hole in the floor left by the smaller hearth resulted in them laying a strip of narrow-plank pine flooring which continued across the front door as well. The Francis's also took advantage of the new chimney to install what was likely a more efficient wood stove into the southwest room on the second floor. Both the chimney replacement on the west side and the window removal from the front wall necessitated that they also install new siding to the house, in which they replaced in-kind with beaded clapboard. The clapboard on the north wall was also replaced at this time. Whether or not it was required from any other modification, because the siding was old and deteriorating, or just to match the other sides cannot be determined.

An additional renovation undertaken by the Francis's was the opening of the partition wall between the two rooms on the first floor (Figure 9-6). To accomplish this, they cut through the wall which necessitated they lay a narrow strip of new narrow-plank flooring in the gap where the wall was. They then dressed the opening with Colonial Revival Tuscan columns set on

paneled knee walls. It is possible that they also installed the faux H-L hinges throughout the house, although this could be attributed to later owners as well.

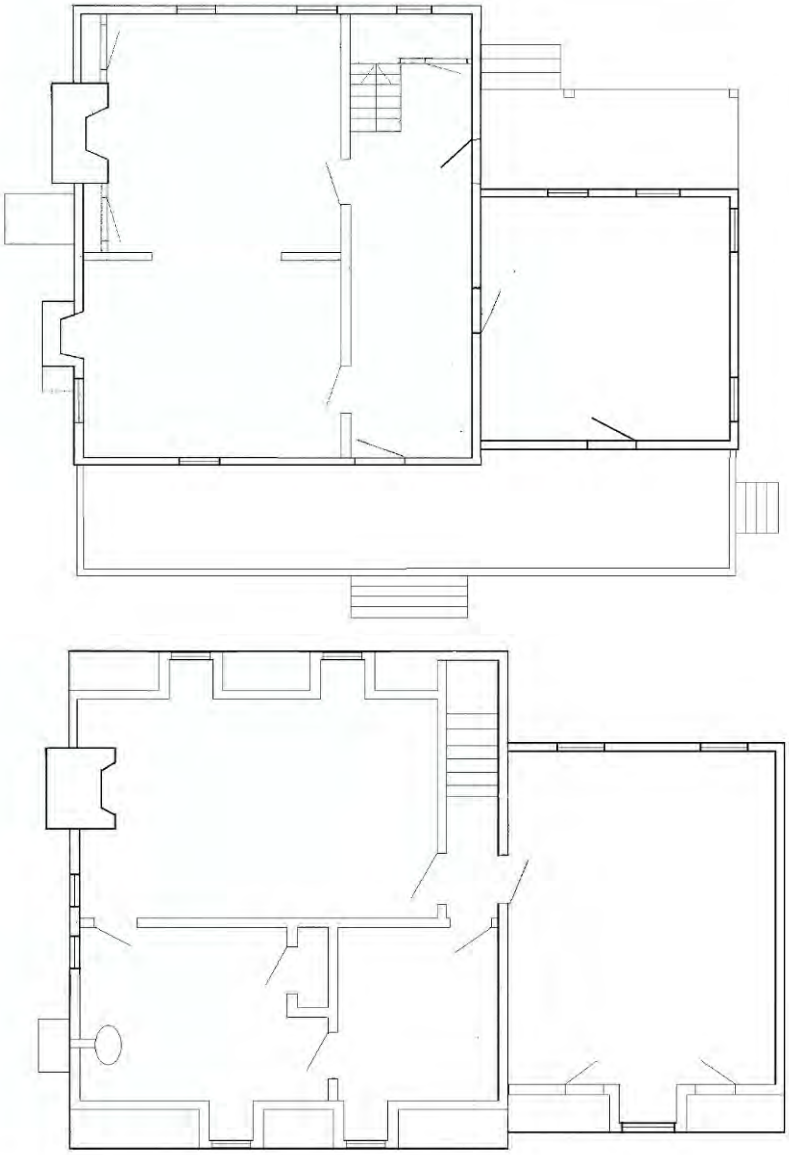

Figure 9-6. Conjectured layout during Francis ownership, first floor (Top) and second floor (Bottom).

The Francis's sold the home and property in 1932, at which time it was purchased by two sisters, Katherine and Mary Davis. The Davis sisters made additional substantial changes to the property, most of which were to modernize and update it. This included adding an oil furnace and steam radiator system, plumbing and an indoor bathroom, a more modern kitchen, and likely electricity. Most of these renovations appear to have taken place in 1943, which is somewhat unusual as building materials were scarce and expensive during World War II, but nonetheless, the taxable building value jumped from $900 to $2,100 between 1943 and 1944, a much larger increase than can be written off as inflation. The plumbing and radiator additions may have been enabled by their brother who, according to the census, was a plumber. Regardless, the sisters

added a large, oil-burning furnace in the basement of the house which heated steam for the system of radiators they installed throughout the house. The steam also fed a hot water tank which was installed in the attic to provide warm water to the new bathroom on the second floor. The bathroom was a modern mid-century bathroom with tiled floors and walls, a porcelain tub, and pedestal sink. The sisters also may have enclosed the inset rear porch to serve as a new kitchen, or an extension of the existing one.[30] The only observed floor drain representative of a kitchen sink was located in this room indicating it was the location of the first true running-water kitchen sink.

As the basement was no longer inherently usable or accessed on a regular basis because of the large oil furnace, the sisters closed off and floored over the interior basement stairs (according to interview with later occupants by O'Dell in 1978). It is also likely that the Davis sisters installed the first electricity to the house. There was no knob and tube wiring in the house revealing that it did not have early electricity, which is consistent with the Rural Electricity Administration (REA) not providing electricity to the majority of rural homes until the 1930s or 40s when knob and tube was phased out. Instead all of the wiring is within flexible metal conduit which was used throughout the mid-twentieth century, however the presence of an integral light fixture over the vanity in the bathroom they installed further supports electricity being introduced to the house in 1943.

In 1948, the property was purchased by Colonial Pine Company, a timber and forestry company owned and established by Victor Stewart. Victor Stewart did not likely live at the house during his ownership, although his exact use of the property cannot be determined. It is possible that he used the property as a sort of field office, a weekend retreat, or possibly just a hobby project. Stewart lived at the grand Chippokes Plantation in Surry County which he painstakingly preserved and rehabilitated throughout his ownership stretching from 1917-1967. He and his wife restored the home, reconstructed outbuildings, and recreated "historical" gardens. It appears that Stewart and his wife may have undertaken similar efforts at Spring Hill, although in a far less extensive and grand way. Between 1950 and 1951, the building value on the property increased from $2,100 to $2,760, a fairly large jump. Improvements he may have made which would be consistent with his background and experience in historic preservation include the faux H-L hinges and replaced window sashes with extra wide, colonial-style muntins. His work also likely included the completely reconstructed "kitchen" outbuilding. Although this building has the appearance of an early nineteenth century outbuilding, details of the materials and construction indicate a fairly recent building date, consistent with his ownership between 1948 and 1955. Historic details include the large brick chimney with pot armature, hewn mantel brackets, and steam mill-sawn wall paneling. Interestingly, it is known that because of his interest in history coupled with his profession as a forester, he established a working nineteenth century, steam-powered saw mill at Chippokes as an educational site. He may have utilized this mill to cut not only wood for his Chippokes plantation, but this kitchen building as well.

[30] Where the kitchen was up to that point is not completely clear. It was possibly still in the basement as evidence of gypsum board on the ceilings reveal it was still utilized as a finished space well into the twentieth century. It may possibly have been in the main room of the addition. Until the Davis sisters installed it, the house would not have had running water, instead relying on a hand pump at the outdoor well. This would be consistent with a "kitchen space" in the main room of the addition as a door led onto the porch which had an adjacent door and steps on the east end leading directly down to the twentieth century well.

Archaeological evidence supports a twentieth century construction date for the extant kitchen building. The documented presence of a formed concrete base for the chimney, as well as, the presence of safety glass, slag with modern artifact inclusions, wire nails, and other twentieth-century architectural artifacts confirm a mid-century construction date.

The last and final owners of the property to use it for residential purposes were Dwight and Patsy Murphey, who only lived there several years in the mid-1950s. Because of their short occupation and ownership, the Murpheys did not likely make many changes to the house. One renovation that may likely be attributed to them is the construction of a small closet in the upstairs bathroom to serve the adjacent bedroom on the north side of the house. The wood used to frame this closet is very modern dimensional lumber consistent with mid-1950s availability (Figure 9-7).

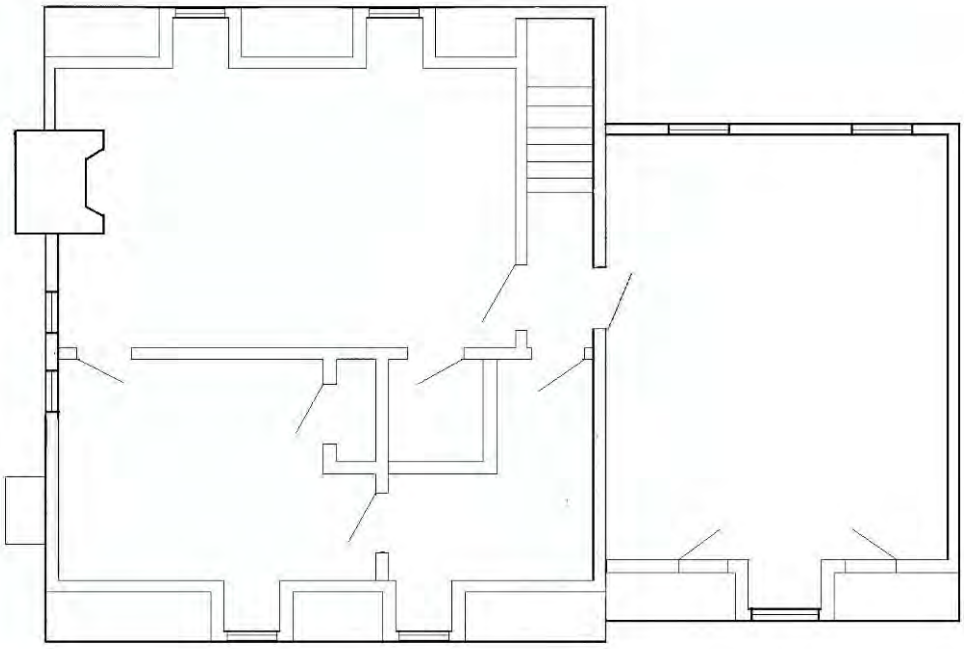

Figure 9-7. Current Layout as Created by the Murpheys circa 1955, Second Floor

SPATIAL ORGANIZATION

Branch Family

Under patent of Christopher Branch, the property on which Spring Hill lies was part of a 1,380-acre plantation called Kingsland. Christopher Branch was a tobacco planter, but whether he used the entirety of his plantation including the portion on which Spring Hill is located is not known. Upon his death in 1681, the plantation was divided between his son and three grandsons. His youngest son, Benjamin, received the lower, inland third of the property on which Spring Hill is located. Whether or not the property was improved at this time through building construction or clearing and farming cannot be determined. By the early-eighteenth century, the tract was bordered to the west by the Stage Road (predecessor to modern-day Coach Road), a primary north-south route. The arrangement and use of the property throughout the first-half of the eighteenth century is unclear; although presumably at least a portion of the property was cleared for agriculture or pasture. The Redwater Mill which was co-owned by the Branch family by 1762 and likely earlier, was located just across Proctors Creek at the mouth of Redwater Creek, near the southeastern corner of the property (Figure 9-8).

When the existing Spring Hill house was constructed in 1767, the house was oriented with the front facing south, towards Proctors Creek. The primary domestic yard appears to have been to the west side where at least one outbuilding appears to have existed from archaeological investigation, and likely more (Figure 9-9). Whether or not any of the outbuildings were constructed contemporaneously to the house cannot be determined assuredly. Archaeological testing provides mean ceramic dates of the turn of the nineteenth century for features in the vicinity of the outbuildings. It is therefore possible that the house was constructed first, and then domestic outbuildings were added at a later date. The presence of a full basement with a fireplace under the primary dwelling indicates that this space could possibly have functioned as the primary kitchen for a time until a separate kitchen building and other dependencies were constructed. Interestingly, the basement appears to not originally have been accessible from within the house which may support its function as a kitchen wear slaves may also have resided. Rather than having direct access to the primary family space within the house, these servants would have to use the exterior bulkhead to access the basement and then enter the home through the conventional exterior entrances.

Arrangement of the surrounding landscape is also unclear, although speculation provides some general layouts. The flattest and therefore best arable land was to the north of the yard. Additional field and pasture may have been located to the east of the house and the flat plateau before the property slopes downhill towards Jacks Bottom and Proctors Creek and the Redwater Mill. As the Branch family owned the Redwater Mill from 1762 onwards, coinciding with the construction date of the house in 1767, it was likely that a road or path connected the two properties.

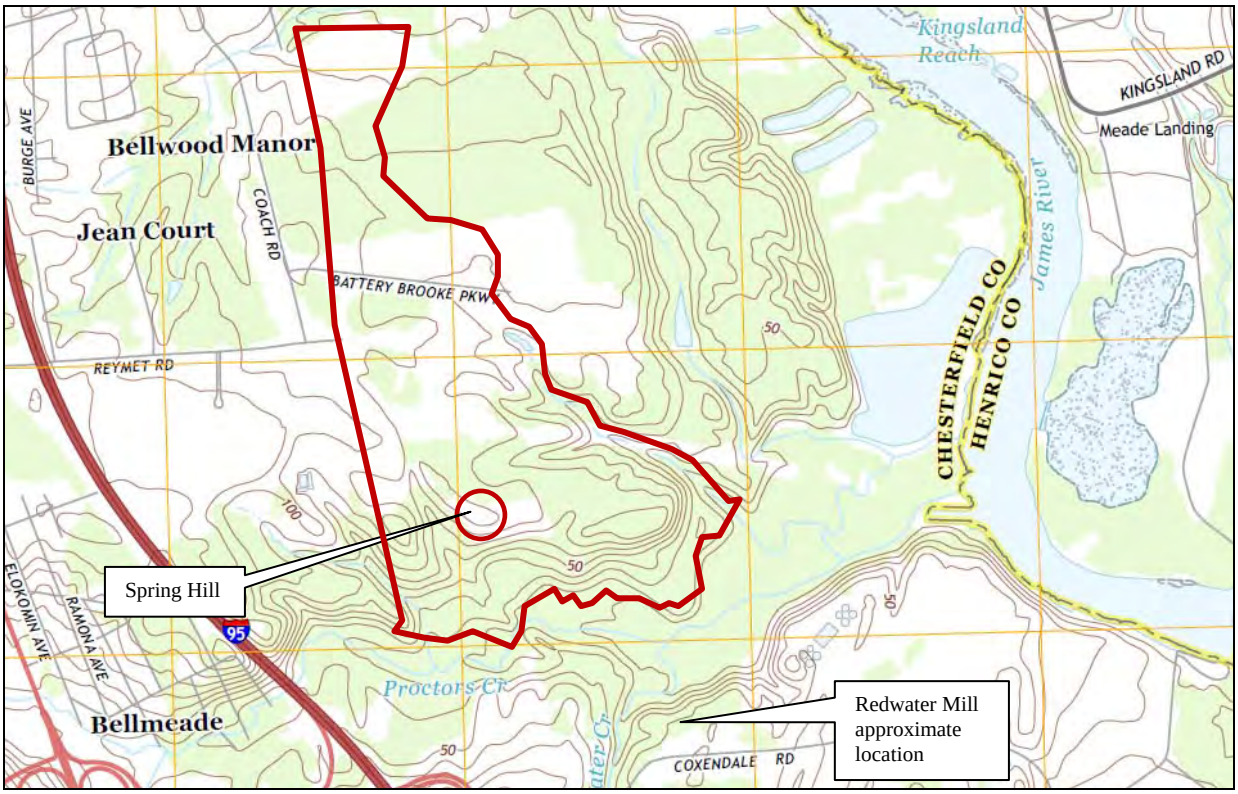

Figure 9-8. Approximate boundaries of the Spring Hill tract circa 1767. Detail of Drewry's Bluff, Topographical Quadrangle, 2010. Source: USGS

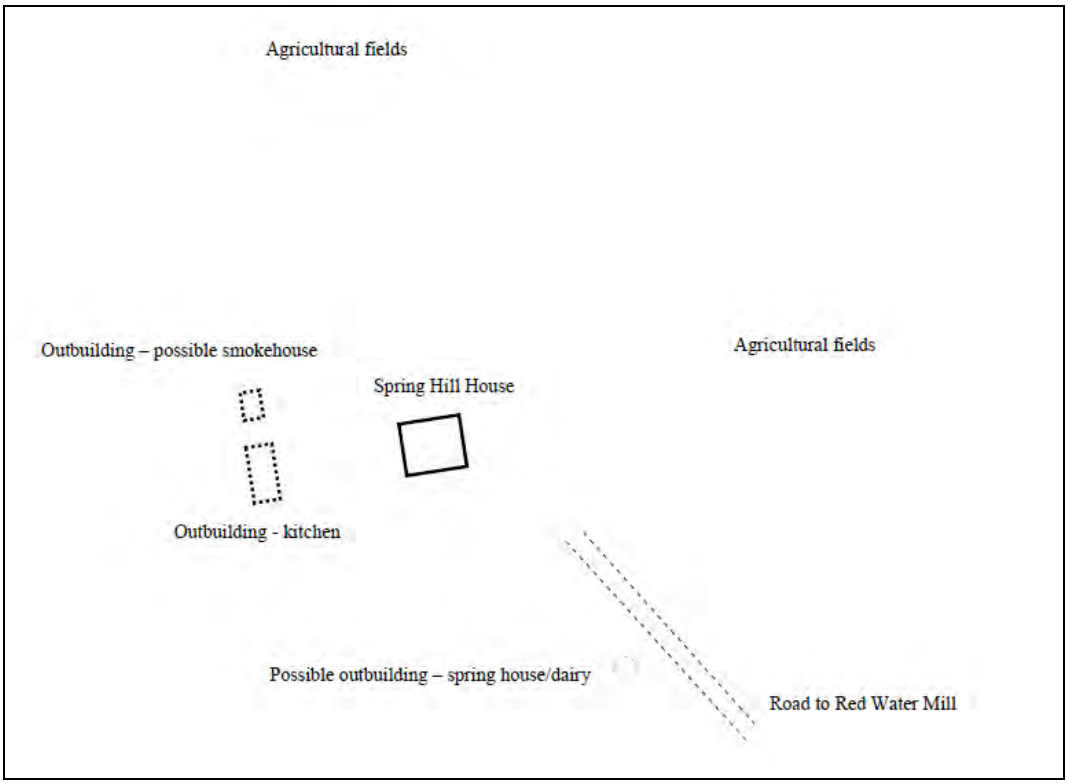

Figure 9-9. Conjectural layout of the domestic core during Branch family occupation. Not to scale.

Cox Family

Throughout the ownership of George Cox, Sr. and Jr., the 412-acre Spring Hill tract was reconsolidated with additional lands to the east formerly part of the original Kingsland Plantation as established by Christopher Branch in the seventeenth century, as well as additional lands acquired by George Cox to the west and south. The exact boundaries of the reassembled and expanded Kingsland are not known; however the acreage owned by the Cox's (2,379) was nearly twice as large as that owned by Christopher Branch (1,380). It is known that this property did not include the original northern portion of Kingsland (the tract given to Thomas Branch) just north of the Spring Hill tract, as it was by then owned by Dr. William Tazewell as part of the "Richmond View" Plantation. Therefore it can be assumed that the property extended a good distance to both the south and/or west.

Throughout the Cox ownership, it is possible that George Cox, Sr. may have lived in the existing Spring Hill house temporarily, however, it is know that by 1837 and likely earlier, the home was lived in by Charles and Martha Friend. As part of the larger Kingsland plantation, and not formally subdivided or partitioned off to the Friends, their use of the property cannot be determined. Charles W. Friend was a local minister and therefore may have farmed the property as well, but it is also possible that he and wife just leased the home, while the property was cultivated and tended with the rest of the estate by George Cox and his workforce. When George Cox died in 1837 he left the Kingsland property to his son George, Jr. and left another property at Coxendale to Charles and Martha Friend. Family histories state that the Friends continued to live in the Spring Hill house on Kingsland, although census records show they owned a sizeable workforce of slaves on the Coxendale property. This hints that the Friends' planting and farming was carried out at Coxendale, while the Spring Hill property may have been tended as part of the larger Kingsland plantation by George Cox, Jr.

Archaeological investigations provide additional insight into the domestic core of the property during this time, as many materials and features can be dated to this time period. Just as with the Branch family earlier, the primary domestic yard and activity area was to the west of the house and is believed to have contained at least two substantial outbuildings (Figure 9-10). The most prominent outbuilding was a kitchen located due west of the primary dwelling. While a detailed description of the building cannot be determined, it appears to have been set on brick piers and included a central brick chimney. At face value, it may appear unusual that the kitchen and other outbuildings be located on the west side of the house, the furthest from known formal entrances, but upon further analysis fits quite well with the conjectural circulation and use pattern. From its location in the domestic yard, the kitchen was located immediately across from the bulkhead entrance to the basement under the primary dwelling. This setup would permit servants to bring cooked food from the kitchen into the basement which may have functioned as a sort of prep kitchen where the food was plated and readied to be served to the family. A new interior bulkhead is believed to have been cut through basement ceiling during this time which would have permitted the servants to bring the food up to the dining room directly from the basement without having to use the formal entrances, thus provided a greater degree of separation between owner and servant.

Also within the domestic yard west of the house is believed to have been a second outbuilding located in generally the same location as the current reconstructed outbuilding. The use and function of this outbuilding is unclear although material and features around the vicinity, including the presence of brick possibly from a chimney indicate it could have been a smokehouse or a laundry. Postholes and molds revealed between and around this building and the kitchen indicate the presence of a variety of features typical to an early nineteenth century yardscape including fences, gardens, small sheds or outbuildings, and other features.

To the southeast of the house, down the hill and set within a moderate slope is a large depression, around which a variety of nineteenth century materials were found. What this depression represents could not be determined as intensive archaeological testing was not conducted. Initially it was believed the feature may have been an early well and therefore excavation was not permitted within the vicinity. During clearing efforts it was discovered that the feature contains a concrete base and was therefore determined to be a twentieth century feature; however, it is believed that it still may be an earlier feature repurposed for decorative purposes in the twentieth century. Because of its location set within a slope and the presence of large numbers of cobble, the feature may represent an early springhouse or dairy; however, its exact function will remain unknown.

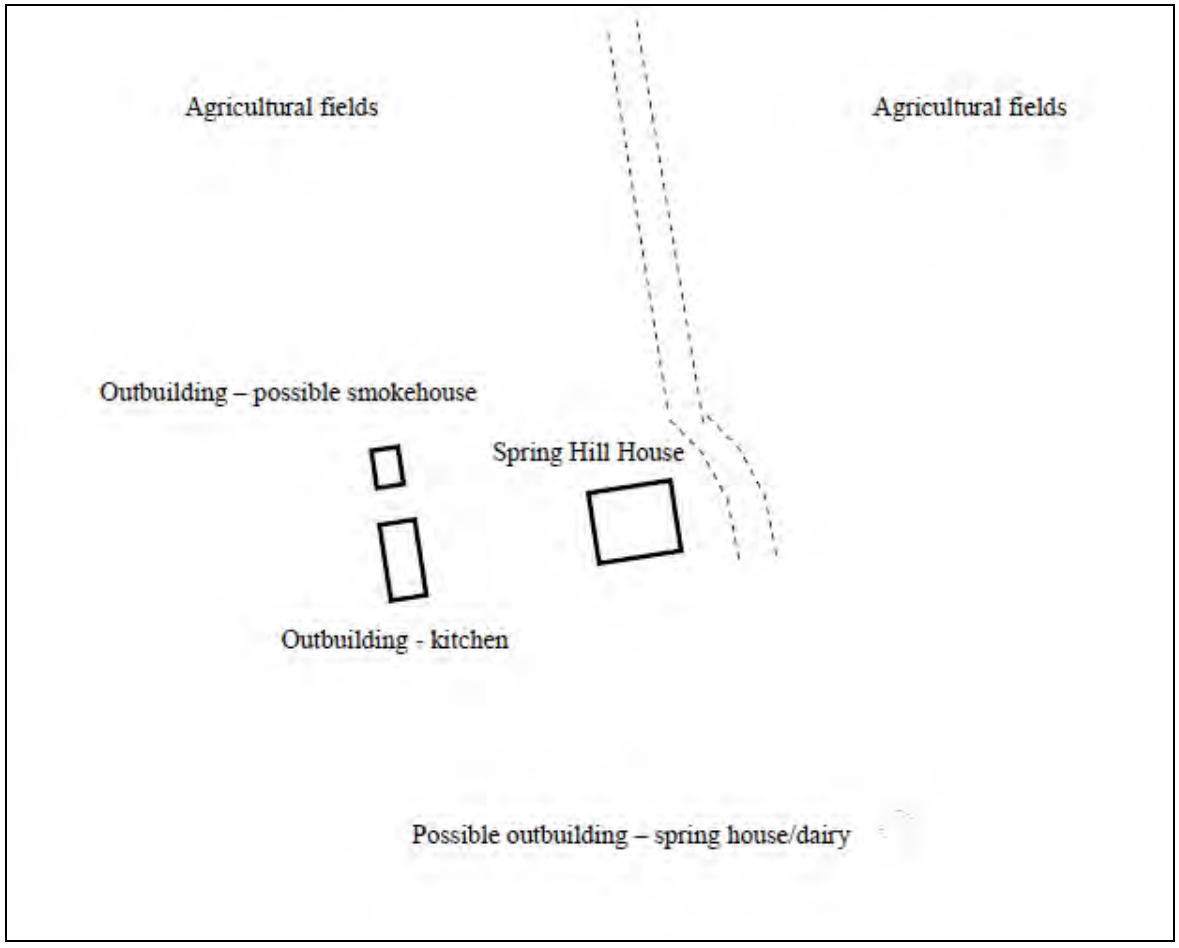

Figure 9-10. Conjectural layout of the domestic core during Cox Family occupation. Not to scale.

Some features expected to be present on nineteenth century domestic sites, particularly on those owned by families with the status of the Cox's, are interestingly elusive from the Spring Hill site. Several features were almost assuredly present including a well, a privy, and trashpits; while other features such as slave quarters, additional domestic outbuildings, agricultural buildings, and family cemeteries may have been present as well. Disturbance brought about during the Civil War, early twentieth century residential development on the property, and late twentieth century development by the Reynolds corporation may likely have obliterated or obscured these features and components, and therefore how they fit into the larger special organization of the property cannot be determined.

Gregory Family

When George Cox Gregory purchased the Spring Hill tract from Henry C. Willson in 1851, the property consisted of 300 acres. It was bounded roughly by Stage Road to the west, Proctors Creek to south, the "Willson line" to the north, and James River on the east. The property tapered to the east, with only a short river frontage of approximately 850 feet. It was bisected at the bottom of the bluff leading down to the river by what was described as "the hillside ditch" which seems to coincide with what was described in Christopher Branch's will of 1681 as the "long slash." The hillside ditch was apparently an important aspect of draining and/or channeling water from the area north of the Spring Hill property as the deed from Willson to Gregory mandated that he "keep open the hillside ditch now established from a point below a tobacco house on the Kingsland tract" (Chesterfield County Deed Book 39: 383) (Figure 9-11).

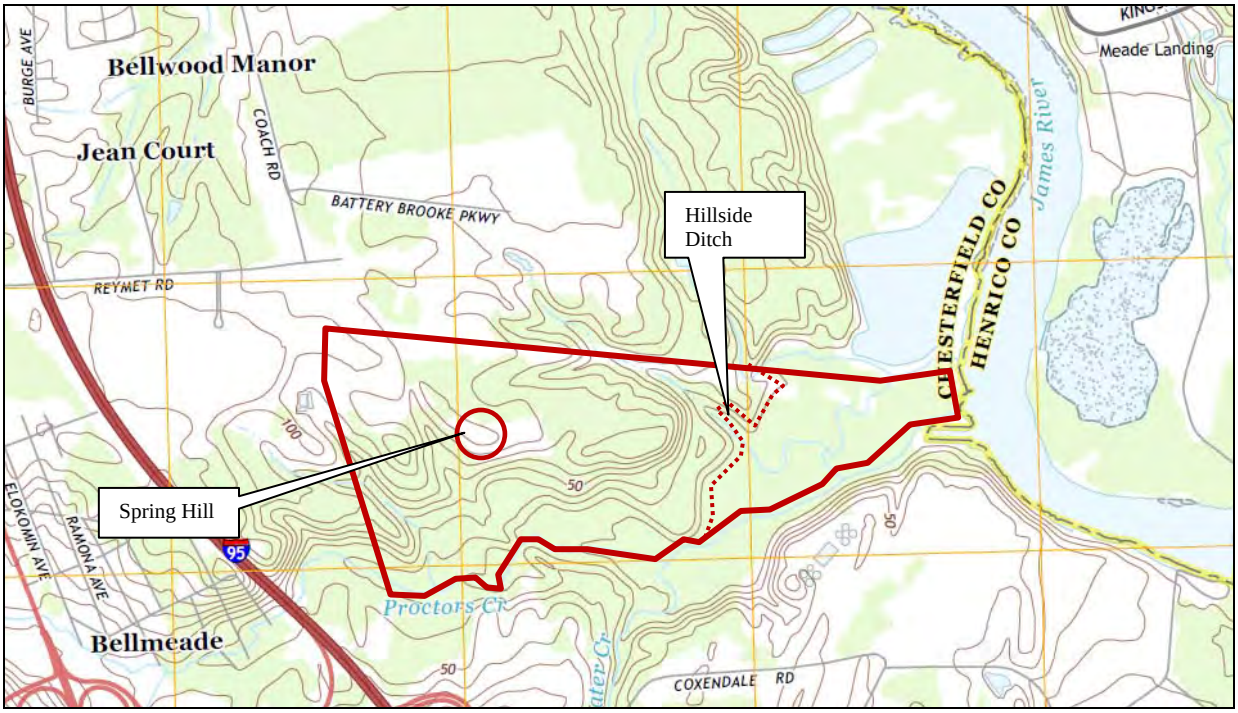

Figure 9-11. Approximate Boundaries of the Spring Hill tract circa 1851. Detail of Drewry's Bluff, Topographical Quadrangle, 2010. Source: USGS

A detailed arrangement and organization of the property cannot be developed; however, some inferences can be derived from the documentary and archaeological record. The majority of

contemporary maps depict the primary access road to the house approaching it from the north. Therefore, while the formal front of the home may still have been oriented south towards proctors creek as it was when constructed, the north side of the home likely became the primary façade for visitors.

According to the agricultural schedule of 1850, 100 acres of the property were cleared while the rest remained wooded. At that time, livestock was valued at $540 while the farm overall was valued at $3,000. The majority of livestock were mules related to field preparation for predominantly indian corn, but also some oats, wheat, clover seed, and other grasses. They also had several milk cows, likely to produce butter, along with other cattle which were presumably for beef, although slaughtered animals represented just a small portion of income. By 1860, it is clear that Gregory had grown and established the Spring Hill plantation into a successful and profitable business. The agricultural census of that year shows that he had cleared an additional 100 acres bringing the total cleared space to 200 acres. The amount of livestock, including mules, milk cows, and particularly beef cattle had increased, but the largest growth was in the number of swine representing a new source of production and income. His total livestock value at that time was $1,135. To account for the increase in livestock, Gregory's indian corn production grew significantly; however, the largest agricultural increase on the property overall was in tobacco production. At 2,000 pounds of production a year, Gregory had become a major tobacco producer by the outbreak of the Civil War. Between the increased livestock and produce growth on the property, nearly the entire Spring Hill property was presumably under use and would have been a bustling landscape. The farm overall was valued at $7,500.

The Civil War brought hard times to farmers throughout the south as crops and fields were destroyed, equipment looted, and their major source of labor no longer available. By 1870, the landscape of Spring Hill was indicative of this pattern, as a significant amount of property had been allowed to reforest, bringing the cleared area down to 150 acres. That year, livestock was valued at just $250 and the farm valued at $5,000. The reduced livestock not only lowered his income from slaughtered animals, but the lack of horses and mules likely hurt crop production as well. Swine remained the primary cash animal on the farm. Crop production was reduced substantially, with indian corn for the animals as the primary crop. The most valuable product coming from the farm at that time was the $200 worth of butter they were producing.

These records indicate that at least during the height of the Gregory ownership, nearly all of the elevated and relatively flat land was cleared for agriculture. The most arable and therefore cultivated lands are those to the north and east of the home. Meanwhile, the sloped land to the south and further east would likely have been favorable for livestock and remained wooded or only partially cleared. The far eastern portion of the property at the base of the bluff and across the hillside ditch was probably always wet and/or susceptible to flooding and therefore was not likely used to crop production or livestock. To accommodate crop production and livestock tending would have required at least one barn and probably more, however the location of such structures is not known. The only map that shows potential locations was drawn in 1888, although not to an accurate or reliable scale. It reveals a cluster of buildings to the east of the house, which may roughly coincide with a slight knoll depicted on more recent topographical maps. This would make sense for agricultural outbuildings as it is set an adequate distance from the house to prevent noxious smells, yet is right between elevated and flat arable land for crop

production and sloped hillside with water sources for livestock. Civil War-era maps do not show a similar cluster of buildings in this location or anywhere on the property, so it cannot be determined where earlier agricultural buildings may have been. The location depicted in 1888 is in the same general location as Battery Brooke and no references to buildings are made in correspondence or reports written during its construction[31] (Figure 9-12). It stands to reason then, that there may not have been agricultural buildings in that location prior to the Civil War, and if there had been, they almost assuredly would have been torn down and/or salvaged for construction materials.

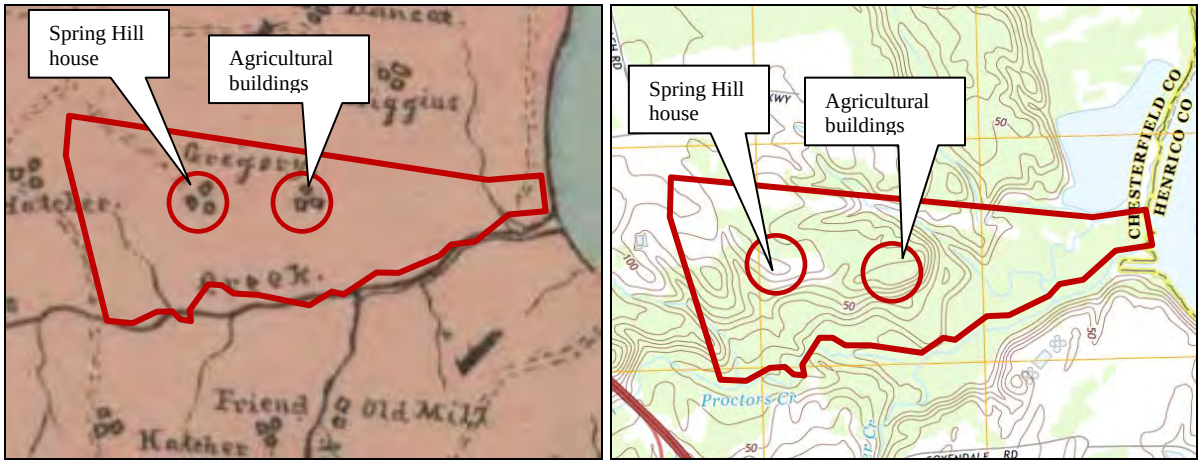

Figure 9-12. Detail of 1888 map illustrating buildings on Gregory property (Left) and their approximate location on a modern topographic map (Right).

The domestic area of the property centered around the existing Spring Hill house on a slight knoll in the western portion of the property. An exact number and description of outbuildings cannot be determined; although contemporary maps consistently reveal two buildings, both to the west of the house. This is consistent with the archaeological record which reveals a building directly west of the house that appears to have been a kitchen constructed around the turn of the nineteenth century. The second outbuilding of unknown function, possibly a smokehouse or laundry, was in the same general location as the existing reconstructed outbuilding and may have been built in the early nineteenth century. These outbuildings were likely surrounded and set amongst other domestic yard features such as gardens, fences, and other elements that have since been erased from the record. Just as with the Cox and possibly the Branch families before them, the Gregorys likely had their servants cook food in the detached kitchen, and then bring the food into the cellar entrance on that side of the main house where it could be warmed, plated, and brought discreetly into the family dining room via the interior bulkhead, alleviating the need for servants to use the formal first floor entrances reserved for the family and their guests.

Archaeological investigations revealed a variety of additional features and materials throughout the domestic yard west of the house as compared to earlier occupations; however, this area appears to have remained void of typical features such as a well, trash pits, and additional slave quarters (Figure 9-13). A well is known to exist east of the house although the exact date of its origins is unclear. If it did coincide with Gregory family occupation, it is unusual that the main

[31] There was a reference to a request made to William Gregory that he needed to remove a barn in the way of battery construction.

water source is on the opposite side of the dwelling and yard from the kitchen; however, this may simply have been mandated by water availability. Likewise, if the depression downhill to the front of the house was a springhouse or dairy, its location was derived from topography and not adherence to standard circulation patterns.

Archaeological investigations did not positively reveal the location of a privy, although a brick walkway leading southeast/downhill from the site entrance appears to have lead past a shallow depression in the treeline east of the home that may represent the former site of a privy. This path continues downhill to the foundations of several buildings that appear to have been built in the twentieth century, but may likely have been built in the same location as agricultural buildings or structures present during the Gregory family ownership.

Interestingly, several expected features including slave quarters and a cemetery were not located archaeologically. It is possible that slaves were housed in the basement, detached kitchen, and other outbuildings; however, the number of slaves owned indicates there were likely quarters on the property. The 1850 and 1860 census reveals that the Gregorys owned 16 slaves plus had a resident overseer. Such a situation would almost certainly have required some form of supplemental housing that has likely been erased from the archaeological record by later disturbance.

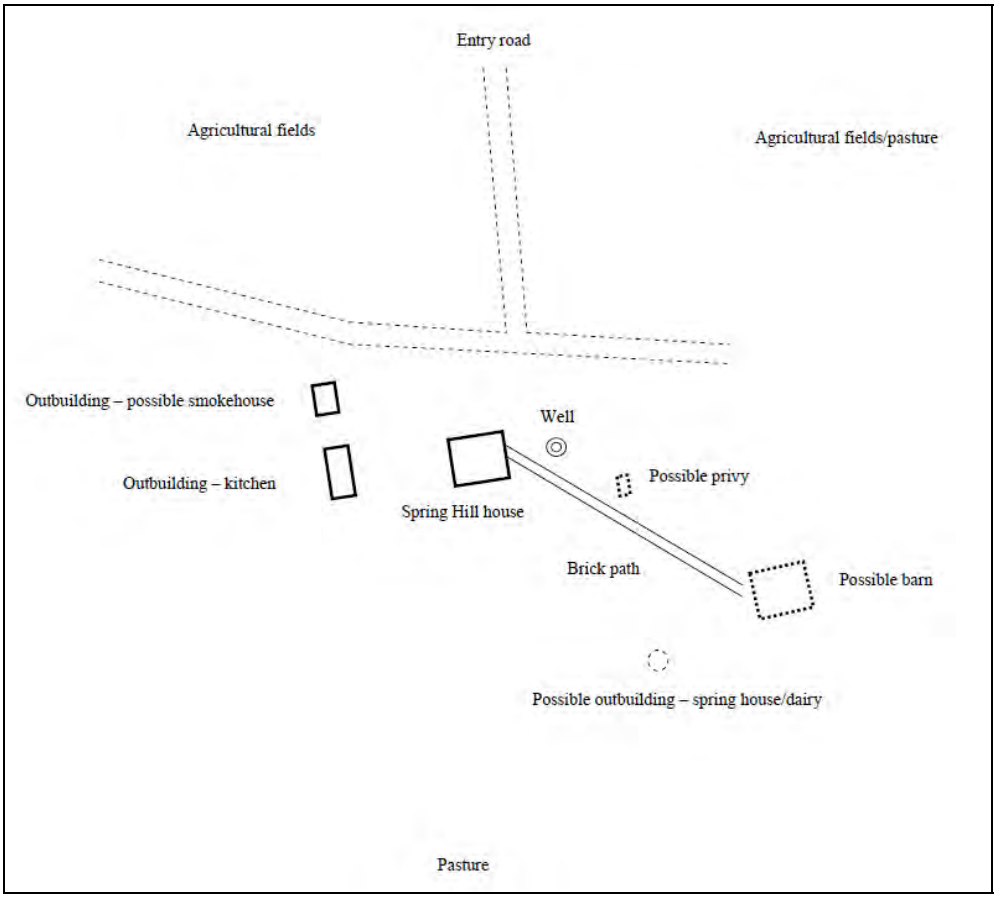

Figure 9-13. Conjectural layout of the domestic core during Gregory Family occupation. Not to scale.

Twentieth Century

After George Cox Gregory died in the 1870s, his children continued to run the farm; however, it is unclear to what degree of improvement or continued development they undertook. It was sold to a real estate speculator in 1895 who subsequently sold it the following year to another family that attempted to flip the house just two years later. The real estate posting of 1898 described the property in some detail and permits an interpretation of the improvements at that time. The ad describes the property as 300 acres consisting of a mixture of cleared, forest, and hoed grounds; thus it can be assumed the field patterning remained relatively consistent to its antebellum appearance. Presumably the more flat and arable lands to the north and east of the house were cleared for agriculture while the more sloped ground further to the east and south functioned as pasture or were left forested. The ad goes on to state the property includes a "six-room house, one out house, three barns, smoke and hen house, in large shady yard, eight-stall stable, barns and sheds. Well and springs convenient, cow and hog pasture." Some interpretations and observations on the layout of the property can be derived from the ad, such as the outhouse, three barns, smoke and hen house are set in close proximity to the house within the large shady domestic yard. The stable and additional barns and sheds seem to be set further from the house in the vicinity of the pastures. The fact that the well and spring are described after the agricultural facilities could be just the order it was thought of when preparing the ad, or could subtly imply that these important features are actually set closer to the agricultural buildings than the house and yard. Also of interest is that there is no mention of a kitchen, implying that the separate kitchen building was either never rebuilt following its destruction during the Civil War, or if it was, it was built to serve a different purpose. Additionally, whatever outbuilding may have been located downhill from the house where the depression is now located, whether it was a springhouse, dairy, or otherwise, is also not accounted for in the description implying it was likely gone by that time.

Archaeological evidence is consistent with the latter, revealing a building on pier foundations was built in generally the same location as the former kitchen. A second outbuilding, likely the smokehouse was located in generally the same location as the current reconstructed outbuilding. Evidence also shows that no longer was the domestic yard confined to just the west side of the house, but appears to have spread to the east side as well. A brick pathway leading from the east entrance of the house provided access to a variety of outbuildings and activity areas. The primary well was located just east of the house, allowing easy access from the side entrance, coincidently just inside of which, was the basement bulkhead, thus permitting direct access into the basement which was most likely functioning as the kitchen. Presumably the outhouse was also located along or near this path permitting easier and cleaner access to the facility. At the end of the brick path, downhill from the house is the foundation of what appears to be a fairly large structure, likely the stable or a barn. Additional barns, sheds, and agricultural structures may have been located further to the east of the domestic core in the fields and pastures to the east, however this area has been heavily disturbed and archaeological investigations proved inconclusive.

The road system also appears to have become slightly more established and formal by this time period as well. Primary access to the property was from the north, although two separate roads lead to the domestic core; one on an angle from Stage Road and another directly from the north via a road along the northern border of the property. It appears, at least by early in the twentieth

century that the angled road had become the primary road while the northern road was more of a relic. These roads converged just north of the house and seems to have continued past the house and extended downhill towards Proctors Creek where it may have crossed the creek or briefly rejoined Stage Road before crossing the creek. A trace of this road remains and is now part of an ATV trail. As the more automobile became more prevalent, the angled road was the primary driveway and a large circular drive was created in the yard to the west of the house that had previously been the site of the kitchen and other domestic activities. The road continuing south through the property to the creek also appears to have been abandoned (Figure 9-14).

Figure 9-14. 1937 Aerial photograph depicting road configuration. Source: VDOT

Throughout the first half of the twentieth century, the Duvals and Davis sisters made several improvements to the house that ultimately led to changes in the overall building complex. By enlarging the house, and then adding both an interior bathroom and formal kitchen, the detached outhouse/privy became no longer necessary and the smokehouse may have fallen out of use as well. The well to the east of the house became the primary exterior domestic feature and was easily accessed from the house through new doors on the north and south of the addition. Whether or not the other outbuildings remained standing cannot be determined, but by the late 1940s and 1950s when the property came into possession of the Stewart family, they appear to have no longer been present and property underwent some of the most substantial spatial arrangement and landscape changes in a long period of time.

Ultimately, the smokehouse was replaced with a reconstructed outbuilding intended to resemble an early nineteenth century kitchen. The outhouse also appears to have been demolished to make

way for a garden of sorts to the east of the house. Overall, the family undertook substantial gardening and landscaping efforts including lining the driveways with ornamental cedars and magnolias, planting a formal garden east of the house, boxwoods and other ornamental trees around the house, perhaps enlarging and expanding the system of brick walkways leading around the house and connecting to the driveways, and created a system of decorative terraces leading down the front slope (Figure 9-15). Whether or not any of the agricultural buildings remained on the property during this time is also unclear.

The Stewarts also may have been responsible for several decorative water features, the remains of which were encountered during archaeological investigations. The depression downhill from the house that may have once been the site of a springhouse or dairy appears to have been made into a cobble-lined decorative pond with a brick-lined walkway leading to it from the gardens east of the house. A cobble-lined pond north of the house may also be attributed to their efforts, although it cannot be determined if this site too was repurposed from any earlier feature (Figure 9-16).

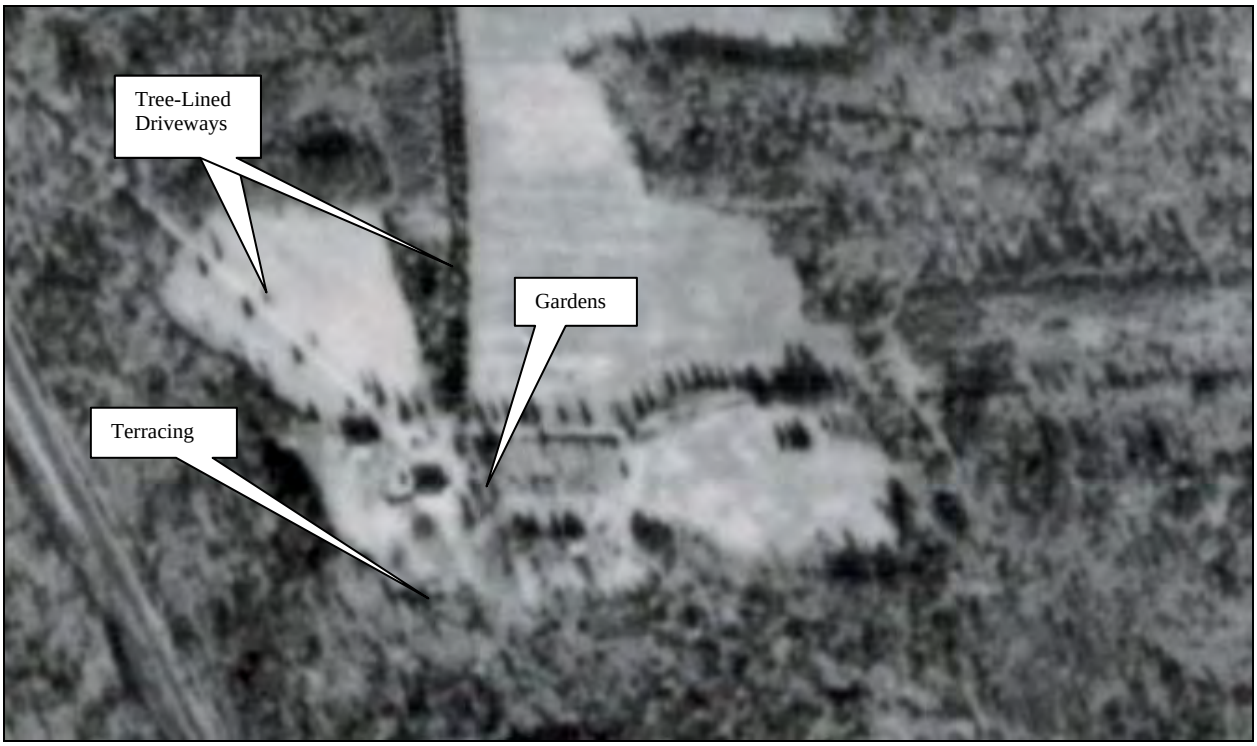

Figure 9-15. 1957 Aerial photograph. Source: VDOT

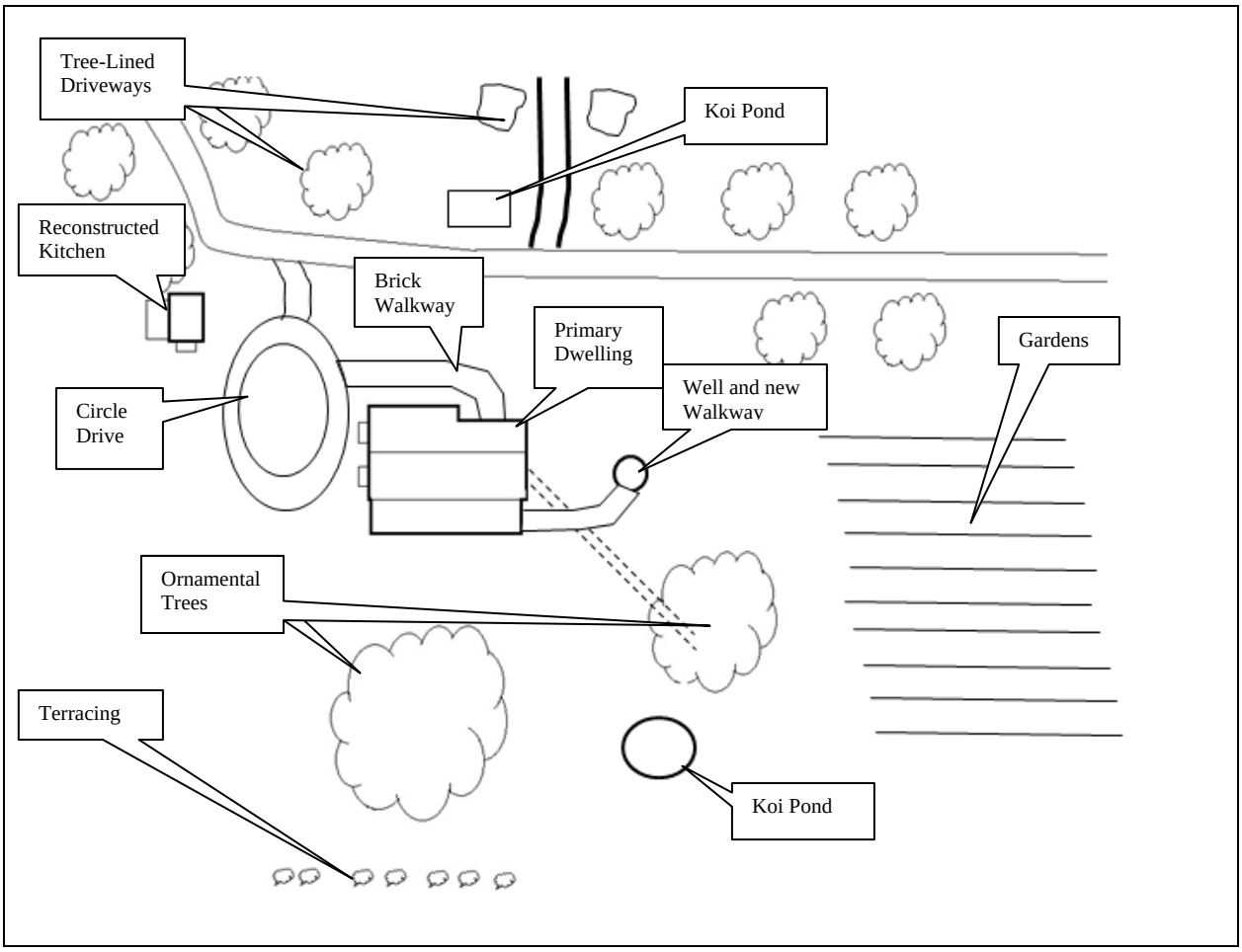

Figure 9-16. Conjectural layout of the property under Stewart ownership. Not to scale.

CONSUMERISM/ECONOMIC STATUS

Studies addressing consumer behavior use a variety of data sets including documentary records, photographs, architectural materials, period accounts, and economic and consumer indices among others. At Spring Hill, documentary evidence in the form of estate inventories, tax records, and the surviving house provided some of the more informative data on the occupant's economic circumstances and consumer choices.

The ceramics recovered from Spring Hill provide—aside from the structural and documentary evidence—one of the more traditional tools for looking at the status and everyday existence of the residents of the property. Archaeologists have long regarded ceramic sherds as diagnostic tools. Documentary evidence regarding manufacture dates and locations as well sufficient supporting data, show that ceramics generally provide reliable information from sites dating from early colonization through the nineteenth century. In addition to using ceramics to establish dates of use or occupation, they can provide information on the relative socio-economic status of the residents of a site.

Archaeological theory and research has effectively shown that factors such as vessel form, cost of the ceramics, and decorative details shed light on the status of their owners. While the presence of utilitarian wares, including redware or heavy stoneware crocks compared to refined porcelain or creamware are relatively obvious indicators of wealth, more detailed interpretations are also possible. For example, the presence of tea wares on sites dating to the early eighteenth century signify that the owners were not only able to partake of an expensive and rare product, but that they were engaging in consumption of tea using specialized ceramics, which were also costly.

The matter of vessel style and shape is frequently explored in archaeology. At sites where the majority of vessels consist of bowls and other hollowware instead of plates and flatware, it can be interpreted that the owners relied on soups, stews, and porridges and that it was unlikely that they could afford cuts of meat that would be served on a plate.

In the case of Spring Hill, vessel form was one of the factors recorded during the analysis of the artifacts in order to be able to consider their form and how this could be used to determine status. As discussed in the archaeological findings the ceramics recovered from Spring Hill were predominantly small fragments. Without a sufficient sample size of larger vessels, not enough data was available to make determinations about status based on vessel form.

The period during which Spring Hill was occupied and the period that the investigation focused on during data recovery, generally covers a span of time for which there is very good comparative data for ceramics. The primary challenge with the site, however, was that the archaeological data was somewhat compromised. The lack of vertical integrity at the site, for example, complicated the connection between individual features and the family that was present when the feature was in use. The small fragments of all artifacts, including the ceramics, made it difficult to evaluate the number of vessels present or which vessels could be mended with ceramics from various other parts of the site.

Branch Family

All the members of the Branch family associated with the property were wealthy and among the gentry of the time. Christopher Branch of Kingsland was appointed as a "viewer of tobacco," a prominent public position, and by the mid-seventeenth century when he fully assembled his 1,380-acre Kingsland plantation, he could certainly have been considered among the most landed and wealthy gentry. On April 13, 1682 the court recorded the inventory and appraisement of his estate at £38.7.10.

His youngest grandson Benjamin Branch inherited just a small portion of the Kingsland plantation, and is not known to have expanded his land holdings; however, a probate taken of his property upon his death in 1706 places his possessions at a worth of 32,740 lbs. of tobacco; which was very respectable for the time. Further, the inventory included a variety of luxury items such as a number of feather beds, pillows, and fine clothes, fine china and silver, several guns, a variety of furniture, and assorted other household goods.

The estate of Benjamin Branch II was not appraised as per his directive; however, his goods and chattels were inventoried in 1762. That inventory states he owned 15 slaves and a variety of possessions. As was typical at the time, most of his possessions were tools, farm implements, and service wares, and very little in the way of luxury items. It was far more common during this period for the vast majority of wealth to be in land and slaves rather than material goods, and Benjamin Branch II's inventory reflects this.

Benjamin Branch III, who built the Spring Hill house was a prominent, wealthy, and respected man; however, little documentary information could be found on his estate. He is believed to have inherited the Spring Hill tract as well as some amount of wealth from his father, and grew his holdings throughout his life. As was still common at the time, it is likely that most of his wealth was invested in lands and slaves. During his life, he purchased additional lands in Amelia County as well as a plantation in western Chesterfield County called Willow Hill. An appraisal and inventory of his estate was not located; and therefore the best documentation of his possessions may be derived from the architectural and archaeological record at his home plantation. The Spring Hill house, built in 1767 was a fine, if not unconventional dwelling. While not a massive brick manor house, with ranks of dependencies, all in the latest fashion; it was a very well-constructed and finished home for Chesterfield County which was still considered on the fringe of the "frontier" at the time. Benjamin Branch III's investment in the construction of this house reveals that while he was not among the highest gentry at the time and did not choose to construct the imposing home, he did elect to spend a fair amount of money on his living conditions.

During the archaeological data recovery, there were a few notable observations that could be made regarding socio-economic status as it relates to the Branch period ceramics. First, the number of mid to late eighteenth-century ceramics, including refined Astbury and Jackfield-type refined stoneware and molded, white saltglazed stoneware and creamware, would have been the highest fashion at the time that Spring Hill was constructed (Figure 9-17). These were recovered from the site in moderate quantities, although their presence does support the higher socio-economic status of the Branch's at that time, as suggested in the documentary record.

While no evidence pointing towards the site having been occupied prior to construction of the extant dwelling in 1767, the variety of early ceramics suggests that the Branch family—as the first patented land owners—were wealthy enough to have possession of a wide range of vessels.

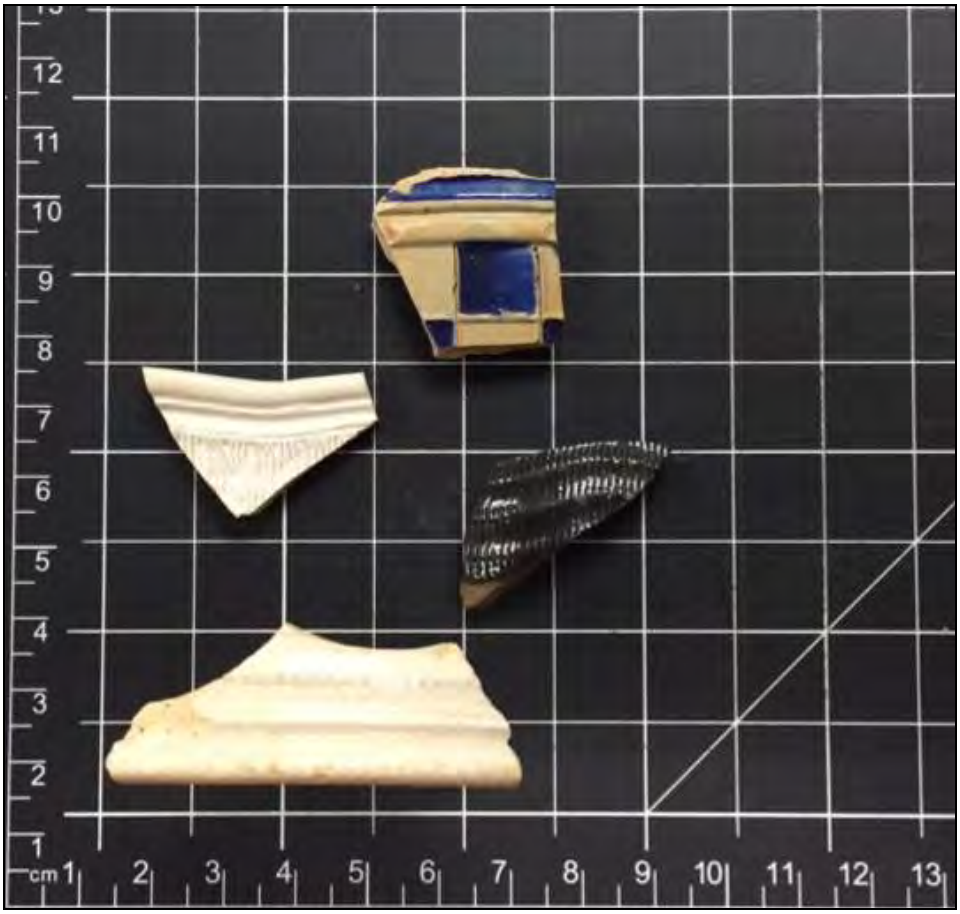

Figure 9-17. Representative Branch family period ceramics including geometric pattern Westerwald German stoneware, white saltgalzed stoneware and Jackfield type refined stoneware.

Cox Family

The Cox's were one of the earliest and most prominent families in Virginia and by the nineteenth century, had established tremendous landholdings in Henrico and Chesterfield counties. George Cox, Sr. who purchased Spring Hill in 1814 had already inherited thousands of acres of land from his father and acquired additional land through purchase and further inheritance.

Throughout his life he acquired extraordinary wealth and remained as one of the wealthiest residents of Chesterfield County. An inventory of his estate taken following his death includes $8,506 of personal property including household wares and farm implements. In addition to his residence, the inventory lists a barn, a kitchen, another shed, a dairy, a smokehouse, an animal barn/pens, a carpenter/blacksmith shop, "a log barn", a barn for threshing/milling, revealing a substantial plantation. He had an additional $369 worth of possessions in the home of Charles W. Friend (Spring Hill). As was typical of the time, his primary wealth was accounted for in land

holdings and slaves. The value of all his properties at the time is not known as they were not appraised during the probate, however the slaves in his direct possession were valued at $32,565. He had an additional $18,300 worth of slaves loaned out and "in the possession of" his sons Henry and George Cox, Jr., and his daughter Elizabeth Smith.

George Cox, Jr. who was also extremely wealthy, acquired the property from his father in 1837. George, Jr.'s estate consisted of a number of properties including much of the Kingsland plantation north of Proctors Creek, as well as his 376-acre home plantation with a brand new house called Bollings Hall. At the time of his death in 1845, George Cox, Jr.'s estate was valued at $47,529. This included $6,500 for land at Bollings, $20,000 for the land at Kingsland, and $16,125 for 49 slaves (appraisal and inventory of estate WB 17 pg 300).

Throughout George, Jr.'s ownership and for an unspecified amount of time earlier, Martha Cox, the daughter of George Sr. and sister of George, Jr. lived at Spring Hill with her husband Charles W. Friend. They too were relatively wealthy, although a detailed financial status is difficult to discern. Both came from wealthy families and therefore presumably were well-to-do following their marriage in 1822. Martha likely brought a sizeable dower to the marriage and the family received additional land at Coxendale, slaves, and money following the death of George Cox, Sr.[32] At that time, Charles and Martha already had a variety of goods and chattels in their home valued at $369 that belonged to George Cox. They no doubt had additional possessions of their own as well which are unaccounted for in the documentary record.

The mass production of ceramics and other goods that began in the nineteenth century ensured that goods, including ceramics, were more widely available to consumers. A significant increase in the variety of ceramics available to consumers also took place during the first quarter of the nineteenth century (Miller 1989) and the prices also began to drop.

Archaeological investigations resulted in the recovery of substantial quantities of refined earthernwares dating to the Cox family period of ownership. Examples include hand painted pearlwares, mocha decorated pearlware, and a variety of transferprinted wares (Figure 9-18). With the increased availability of a wide range of ceramics, occupants of Spring Hill during the first half of the nineteenth century demonstrated their economic means and purchasing power through the acquisition and use of some of the more refined wares of the period. The absence of definitive vessel types of any quantity limits the ability of archaeology to further define social customs related to usage (i.e. tea consumption, service sets, etc.) and limits interpretation to ware type analysis. Even with this limitation, the archaeological record supports the documentary data, which establishes the Cox family as a prominent and wealthy family of the period.

[32] In 1840, the census lists Charles W. Friend as owning 69 slaves, most of which were likely at Coxendale.

Figure 9-18. Representative refined earthenwares from Cox family period of occupation.

Gregory Family

George Cox Gregory was descended from prominent and wealthy families on both his father and mother's sides. His father was Richard Augustus Gregory II, the son of R.A. Gregory I, who prior to his death in 1844, was one of the wealthiest and largest landowners in Chesterfield County. His home, New Oxford, was one of the three highest valued homes in the county and the base for his labor force of 50 slaves, the fifth largest collection in the county (Barnes 2011-Bellwood NRHP Nomination). His mother was Frances Cox, the daughter of George Cox, Sr.

Both Richard and Frances Gregory died in 1835, leaving George Cox Gregory an orphan at the age of 11. It is not known where George Cox Gregory was raised before or after his parents' deaths. His grandfather R.A. Gregory I remained living at Bellwood until his death in 1844. His mother Frances was originally to receive plantations at Baldwins and Ware Bottom from her

father George Cox, Sr., however she died before he did. His father, R.A. Gregory II's will merely states that all his land and possessions should be sold and the proceeds distributed amongst his children. The executer was to be his brother in-law, George Cox, Jr. Therefore, George Cox Gregory received a portion of the estate, but where and by whom he was raised after his father died cannot be determined. Possibilities include living with his grandfather at New Oxford, with his uncle George Cox, Jr. at Bollings Hall, some combination of the two, or with another relative altogether. The 1840 census does not list the names of children in households, although both R.A. Gregory I and George Cox, Jr. have a number of young children in the households including a male in the age range that George Cox Gregory would have been. George Cox, Jr.'s will provides for all of his sisters' children, but interestingly lists George Cox Gregory first, and gave him a slave "which he already had in his possession" in addition to a share of the estate, while the other children only received money.

Where George Cox Gregory was raised or lived prior to Spring Hill may not be known, but as a result of his familial relations, he began his adult life with relative wealth. Throughout his first decade of ownership of Spring Hill, he appears to have increased his status through productive farming; however, never rose to the prominence of his grandfather, Richard Augustus Gregory I, or his maternal family, the Cox's. During this time period, he and his wife took frequent trips to Richmond where they stayed in fine hotels (Virginia Chronical newspaper archives). Whether or not these trips were strictly for pleasure and socialization or if they were business-related cannot be determined.

By 1860, the Spring Hill property was valued at $7,500 and George Cox Gregory's personal property was worth $5,000 (USCB 1860) including 16 slaves. Unfortunately, the war brought financial hardship to the Gregory family just as it did to many other families throughout Virginia and the south. In 1869, Gregory was forced to declare bankruptcy and all of his goods and property were sold at auction. Fortunately, his uncle Henry Cox, who was considered one of the wealthiest men in the area, survived the war without severe financial strife and purchased Spring Hill and many of the Gregory's belongings and then loaned them back to the family. The Gregorys continued to run the farm after the war, although it was far less profitable than the years prior. Much of the livestock had been killed and stolen, and presumably much of the equipment, barns, and fields themselves suffered damage during the war. Without the assistance of slave labor, production was diminished and the Gregorys never reacquired the wealth or status they held before the war. The stresses of the financial collapse may be the cause of Margaret Gregory's reported attack of insanity in 1876 that eventually led to conflict between the children who was to take over the farm after George Cox Gregory's death in 1878. Although they continued to farm the property for nearly twenty more years, when it was eventually sold in 1895, the property value was severely diminished and sold for a fraction of its worth at the high point of the Gregory's ownership on the eve of the Civil War.

Archaeological investigations at Spring Hill, where Gregory lived throughout his productive life, provide some insight into his wealth and the material possessions he acquired. Unlike his predecessor George Cox. The preponderance of ceramics recovered from George Cox's period of occupation are undecorated heavy molded granitewares (Figure 9-19). This particular ware type was produced in mass quantities for sale to the growing population all over the United Sates. Granitware was inexpensive, unrefined, and of substantially less value than the more

refined wares available at the time. As the economic fortunes of the Gregory family declines following the Civil War, so does their ability to maintain and participate in the latest trends in consumer behavior.

Figure 9-19. Representative granitewares from the Gregory family period of occupation.

Twentieth Century

By the twentieth century, Spring Hill would no longer have been considered a significant plantation, but rather more of an old-fashioned rural farm. The property's diminished status was likewise represented by the middle-class families who owned and occupied it. From 1896 through the 1920s, the property was owned by various members of the Duval family who were well to-do, but not high society. Initially purchased as a speculative property, Spring Hill did not sell and was assumed solely by Frank and Ada Duval. Frank was middle-aged by the time he acquired Spring Hill and had spent his life working in the metal foundries in Manchester before moving to Spring Hill to become a farmer. After acquiring Spring Hill, he appears to have invested a fair bit of capital into remolding and enlarging the house in order to accommodate his family. He built a sizeable addition to the home and remolded the interior of the original block which at face value would make it appear he had ample cash to invest, however inspection of the property and some of the changes show that various cost-saving measures were employed. Inspection shows that Duval reused bricks from the internal chimney he dismantled to construct a new exterior chimney, likely in effort to save money, however ultimately the chimney appears to have failed due to the unforeseen structural weakness of the old bricks. Also, despite putting a large addition on with a complete second floor, the Duvals did not provide the new space with its

own chimney, nor were any sort of central heating systems like radiators or even wood stoves employed.

Throughout the 1920s, the property was owned by Isaac William Francis who likewise could be considered middle-class. Francis is known to have owned and operated a small grocery store in Richmond prior to purchasing Spring Hill, presumably as a place to retire. Francis invested some capital into rebuilding the compromised chimney on the house and took advantage of the process to upgrade to wood stove heat, in at least half of the house. He also made some cosmetic changes to the house including opening the wall between the two primary rooms on the first floor. While his use of classical columns and entablature in this opening reveal that Francis was at least partially savy to fashion and architectural style, the work was not likely extremely costly or imply that he had large sums of capital available. Francis and his wife did likely make some decent income from the property from an investment point of view as they sold an easement along the western edge to the railroad company.

During the 1930s and 1940s, the property was owned by the Davis sisters who appear to have come from middle to upper-middle-class roots, and managed to do well for themselves through the Depression. Little is known of the sisters' upbringing or status, however by the 1930s, Katherine Davis was identified in the census as a teacher (Mary was not working). Their brother was a plumber, and their father while unemployed possessed fairly valuable real estate assets. Perhaps some inheritance from their father coupled with Katherine's consistent salary as a public school teacher through the Depression allowed the sisters to undertake some extensive and costly investments. During their time, the sisters added a boiler and radiator system to the house, most likely updated or created a new kitchen, and added an interior bathroom with running water. It was likely during their ownership that electricity was brought to the house as well. All of these changes show that the sisters were conscious and capable of modern comfort and conveniences; however, none indicate they were particularly driven by fashion or consumer trends. By the period of the Davis ownership, the archaeological record becomes more difficult to interpret with regards to materialism and economic status as mass production, trash removal, and other changes in lifestyle began to reduce the ability of archaeological record to provide insight.

The last owner occupants of Spring Hill that left a recognizable mark on the historic landscape were the Stewart family from the late 1940s through 1950s. The Stewarts were an extremely wealthy family that interestingly, may have never lived at Spring Hill, but whose taste, influences, and financial status may be seen throughout the property by way of the formal and ornamental landscape which they planted. Additionally, the Stewarts were interested in the "Williamsburg pattern" of reconstructing and interpreting historic buildings and were able to afford to employ the practice as a hobby. The reconstructed kitchen outbuilding northwest of the house is one of the most representative examples of this at Spring Hill. To build such a substantial outbuilding that serves no larger purpose than aesthetics or possibly as a leisure space would require a wealthy family to complete, which the Stewarts certainly were. Inside the main house, replaced replica H-L hinges, reconstructed colonial window sashes, and other details also reflect the ability of the Stewarts to invest substantial capital into the property on improvements that were intended almost solely for show purposes.

GENDER AND ETHNICITY

Branch Family

Indentured labor likely played an important role in the Branch family use and development of the property; however, little information on them is available. All available data comes strictly from the documentary record, with the current building stock and archaeological record revealing very little definitive data. Christopher Branch expanded his early land holdings through a combination of purchase and land grant for his sponsorship of a number of indentured servants. Many of these early servants were likely white Englishman who only able to come to America through an indentureship that would have expired after the prescribed period. He did eventually own at least one African slave for the mandate in his last will and testament is that each of his grandsons build their younger brother a home with the assistance of the negro Job. His grandson Benjamin Branch who received the portion of the Kingsland plantation on which Spring Hill is located only lived to the age of 35, but possessed 105L were of slaves. The exact number that accounts for is not known, but his widow did receive three slaves as part of the probate. Benjamin Branch II who owned the property between 1721 and 1762 was a fairly large slave holder owning 29 slaves, indicating not only his status, but the amount of land owned. He did own additional land in western Chesterfield County and Amelia County, so presumably not all of his slaves were based at the Spring Hill property.

Benjamin Branch III or Captain Benjamin Branch, who built the Spring Hill house, continued this trend owning a large number of slaves. The exact number is not known for his will enumerates 15 slaves to be divided amongst his children while his wife was to be given "all of the negroes I got by her when I married her" (Branch 1782). In 1782 Amelia County listed Benjamin Branch as an absentee landowner with twelve slaves, while Chesterfield County listed him head of a family of four with 16 slaves a year later. Of these 16 slaves, it is not clear how many may have resided on the Spring Hill tract, or if any were based on his lands in western Chesterfield. Presumably by this time, his son Benjamin was living on the western lands and may have had his own slave, indicating that all 16 of Captain Benjamin Branch's slaves were at Spring Hill, but this cannot be definitively documented.

No immediate evidence of slave occupation such as quarters, burials, or other cultural features from this time period have been located on the property. The house had a full basement with a fireplace and therefore it is possible a number of slaves, particularly domestic servants, lived there. Other slaves may have been placed in other outbuildings and barns; however, such an arrangement can only be speculated on.

Benjamin Branch III's son Edward Branch, the final Branch family owner of the property and owner of the property from 1786 through 1814 was also a slave owner; however, reflective of the fact he did not expand his land beyond the Spring Hill tract, the number he owned was less. Chesterfield County recorded him as possessing 6 slaves in 1790, and 10 in 1801; however, these numbers only reflect slaves above the age of 12, and therefore the actual number may be higher if any of his slaves had children. Once again, no immediate evidence of slave occupation such as quarters, burials, or other cultural features from this time period have been located on the property.

Cox Family

George Cox, Sr. was a large slave holder, indicative of his wealth, status, and landholdings. In 1820, he was listed in the census as possessing 85 slaves. In 1830, that number went down to 54 slaves, possibly as reflection of some working at different plantations or having been loaned to his children. The inventory of his estate taken at his death in 1837 listed 144 slaves, 89 of which were in his immediate possession while 56 had been loaned to his children. His son George Cox, Jr. was also a sizeable slave holder, although does not appear to have owned as many as his father. The census indicates that in 1820 he owned 12 slaves, in 1830 he had 30 slaves, and in 1840 he had 48 slaves. It is unclear with George Cox, Jr.'s slave holdings according to census data includes those loaned to him by his father or not. The inventory and appraisal taken of his estate following his death in 1845 lists 49 slaves (Appraisal and inventory of his estate WB 17 pg 300).

Charles W. Friend who lived at Spring Hill from at least 1837 through 1845 was also a sizeable slave-owner, listed in the census as owning 69 slaves in 1840, most of which were likely employed on his 200 acres at Coxendale property. Whether or not he had any slaves at Spring Hill cannot be determined. It is assumed that if he did, it was limited to a few domestic slaves while the property would have been tended and cared for by George Cox, Jr.'s slaves. This is supported archaeologically by the lack of slave-related features or materials near the Spring Hill house. During Charles W. Friend's occupation of the property is the first reference to children living at the house (although it can be presumed there were likely children during earlier periods as well). The Friend's had several children, one of which unfortunately is noted in the family bible as having passed away at Spring Hill. Further evidence of children on the property is shown by the archaeological record where several doll parts assumed to date to this period were encountered (see Figure 9-20 below).

Gregory Family

When George Cox Gregory and his wife Margaret purchased the Spring Hill property in 1851, they were newlywed and made the property into their family home. Between 1851 and the outbreak of the Civil War, the family had five children which would have made for cramped living conditions. Although they did not enlarge the house, they made several improvements, particularly on the second floor, in order to more fully utilize the space and accommodate their family. It appears the Gregorys added dormer windows to the south side of the house, further illuminating the two rooms that were likely occupied by their children.

It seems that the family may have been influenced by folklore and took the time during construction to place a children's shoe in the wall underneath the dormer, which as legend has it, would provide protection and luck for the children within the house. Interestingly, the estimated year they undertook the dormer construction in 1854, their first child would have been approximately two years old. The shoe that was discovered within the wall coincidently matches the approximate size of that for a two-year old at the time. Additional archaeological evidence of children at Spring Hill during the Gregory ownership is revealed through a variety of toys and doll parts found on the property.

Spring Hill under Gregory ownership was also the home to a number of slaves; roughly 16 throughout the ten-year period leading up to the Civil War. Unfortunately, there is little physical or documentary evidence of these occupants lives at Spring Hill. Archaeological investigations did not locate any evidence of slave quarters or occupation areas, or conclusively any materials owned or used by the slaves. The only documentary record of the slaves (besides their tabulation in the census) is a letter that Margaret Gregory wrote describing the family leaving Spring Hill during an artillery barrage. She notes that several servants were left behind to take care of the house and property.

Twentieth Century

By the twentieth century, women and children left a more imposing mark on the Spring Hill house and property. As opposed to the Gregory family who crammed their numerous children into the small rooms at Spring Hill, the Duval family in the early twentieth century took the opportunity to expand the living space. The large new addition permitted Frank and Ada Duval and their at least four children, to have larger and more comfortable living spaces. As the detached kitchen in the domestic yard appears to have not been rebuilt by the Gregorys or the Duvals, presumably the kitchen was moved into the home, accommodating family cooking without the assistance of slave labor. Evidence of the family was also found in the archaeological record by means of various toys, dolls parts, and a Sad Iron, recovered from the side yard west of the house (Figure 9-20)

Changes made to the home by the Davis sisters in the 1930s and 1940s are reflective of their occupation and bachelorette status. Installing radiator heat, indoor plumbing, and an upgraded kitchen not only reflect the sisters' attempts to modernize the home with the comfort and conveniences a modern female would want, but the fact that the task of hauling water in for cooking and cleaning, and cutting fire wood for a stove may have been beyond the desire or capability of the two sisters.

Evidence of children living at Spring Hill following the Davis ownership, likely during the Murphey occupation, can be seen in the house through the application of airplane and transit inspired wallpaper in what was presumably a child's bedroom upstairs, and through the collection of plastic toys in the archaeological record (Figure 9-20).

Figure 9-20. Representative toys recovered from the Spring Hill house including dolls, a Sad Iron, marbles, and toy trains.

EFFECTS OF THE CIVIL WAR ON SPRING HILL

Gregory Family

Spring Hill first witnessed Civil War action during the Bermuda Hundred Campaign in May 1864. As recalled by Margaret (Meg) Gregory, there were 3,000 troops around the house in a battle line and period maps illustrate Union picket lines north of the house. In a letter to her cousin, Minerva Gregory Richardson written after the war, she states that at the outset of the May 1864 battle, at least one military battery had been constructed on her property and she was surrounded by other batteries "in sight of my place, the river on my right, the turnpike battery on my left." (Gregory 1865). She says "my house was left in the yankee lines, they took possession of my [gap in text] burning kitchen. She goes on to state that her livestock was killed and her fine furniture destroyed. As discussed in the architectural chronology conclusions above, archaeological evidence does support burning and destruction of the kitchen in the mid nineteenth century.

A few months later gunboats were bearing on Spring Hill, as Meg recounted "…the shells would fly over my house every time...at last the shelling became so bad I had to leave. The day after I left a shell weighing 132 pounds passed my chamber and went through my cook kitchen" and another shell "fell into my garden making a hole large enough to bury a horse" (Gregory 1865). Archaeological evidence supporting her account of the battle and events is limited, although Feature 31 is consistent with a large crater possibly the result of an artillery shell. Additionally, the presence of Union soldiers on the property is supported by the recovery of uniform buttons and unfired munitions (Figure 9-21). While recovered in small quantities, these items support Meg Gregory's accounts of the battle.

Aside from the immediate environs of the Spring Hill house, Meg Gregory also noted "I am in sight of Howell's Battery. Battery Brown [Brooke?] is in my field and several other batteries are in sight of my place, the river is on my right and the turnpike battery on my left" (Gregory 1865). Physical evidence of Battery Brooke is still present on the property to the east of the house. It can be assumed that during construction of the battery large portions of the Gregory farmlands were impacted, timber cleared, and any nearby agricultural buildings dismantled or destroyed. Archaeological evidence of these actions were not identified during earlier Phase I and II investigations of the property by TRC.

The devastating effects of the Civil War took their toll on the Gregory family not only in physical possessions but also economically, as the family's financial circumstances declined rapidly and never fully recovered.

Figure 9-21. Select Civil War artifacts recovered from Spring Hill including round shot, unfired Minnie balls, and Union uniform buttons.

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11. APPENDIX A: ARTIFACT INVENTORY

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Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
	TU 1	Level B	1	earthenware	cup	body, handle	cream	creamware		
	TU 1	Level B	1	earthenware	?	body	white	Graniteware		
	TU 1	Level A	1	earthenware	?	body	white	Graniteware	fragment, molded	
	TU 1	Level A	1	earthenware	plate	rim	white, blue dec.	pearware, shell-edge, incised		
	TU 1	Level A	1	porcelain	plate	rim	white	porcelain, damaged		
	TU 1	Level B	1	earthenware	plate?	body	white with black, green, red dec	pearlware?	black transfer, red and green overglaze	
	TU 1	Level B	3	mortar						
	TU 1	Level B	2	brick	frags					
	TU 1	Level B	4	iron	nail	2 whole, 2 frags		whole nails 2.5 in		
	TU 1	Level B	24	glass	window		very pale aqua	window glass		
	TU 1	Level B	1	glass	window?			flat glass, window?	devitrified	
Feature 1	TU 1		1	brick	frag					
Feature 1	TU 1		2	earthenware	bowl?	foot	white	Graniteware, molded		
Feature 1	TU 1		18	glass	window		very pale aqua	window glass		
Feature 1	TU 1		4	glass	window		colorless	window glass		
Feature 1	TU 1		2	iron	nails			cut nails		
Feature 1	TU 1		1	earthenware				whiteware		
Feature 1	TU 1		1	earthenware	saucer?		white, blue dec.	Pearlware, handpainted		
Feature 1	TU 1	second half	2	mortar		foot		friable		
	TU 1	Level C	3	glass	window		colorless	window glass		
	TU 1	Level C	1	iron	nail	frag				
	TU 1	Level C	1	brick	frag	frag				
	TU 1	Level C	6	plaster	frags			sand based plaster		
	TU 1	wedged	1	porcelain	doll	leg	white		2 inches long,	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
		between chimney and foundation							foot missing	
	TU 2	Level A	1	stoneware		body	brown	brown saltglazed stoneware	English	
	TU 2	Level A	1	chert	flake		dark gray			
	TU 2	Level B	1	glass	bottle	body	dark green	DGBG		
	TU2	Level B	1	glass	table	rim	colorless	poss. Leaded table glass		
	TU 2	Level B	1	glass	window		colorless			
	TU 2	Level B	1	earthenware	saucer?	rim	cream	creamware?	?????	
Feature 2	TU 2	Rodent?	1	Stoneware	Chamber pot	rim	white, scratch blue	white saltglazed stoneware	scratch blue	
Feature 2	TU 2	Rodent?	1	earthenware	?	handle?	cream	creamware		
Feature 2	TU 2	Rodent?	1	glass	window					
Feature 2	TU 2	Rodent?	3	iron	nail	frags				
Feature 2	TU 2	Level A	1	iron	nail	frag				
Feature 2	TU 2	Level A	1	terra cotta	flower pot	frag				
Feature 2	TU 2	Level A	1	ceramic				whiteware		
Feature 3	TU 2	Level A	1	iron	nail	frag				
	TU 10	Level A	1	stoneware	crock?	body	gray, red paste	gray saltglazed stoneware	very thick	
	TU 10	Level A	1	earthenware	saucer?	rim	white, green dec	pearlware, shell edge		
	TU 10	Level A	1	porcelain	saucer	rim	white, gold dec	overglaze gold band		
	TU 10	Level A	1	earthenware	? Flat	body	white	whiteware	damaged	
	TU 10	Level A	1	earthenware	? Flat	body	white	Pearlware?	damaged	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
	TU 2	Level B	1	earthware	?	rim	white, red dec	Pearlware, handpainted polychrome		
	TU 2	Level B	1	kaolin	pipestem	stem, bowl	white	portion of bowl	5/64s	
	TU 2	Level B	1	glass	bottle	body	dark green	DGBG		
	TU 2	Level B	1	glass	tumbler?	rim	colorless	table glass	poss. Leaded	
	TU 2	Level B	1	glass	window	body	very pale aqua	window glass		
	TU 2	Level A	2	earthenware	?	body	white	Pearlware		
	TU 2	Level A	1	earthenware	plate	rim	white	Graniteware		
	TU 2	Level A	1	earthenware	?	body	brown	Rockingham-type		
Feature 44	TU 2		1	brick					vitrified on 4 surfaces	
Feature 44	TU 2		2	stoneware	pitcher? Jug?	same vessel? 1 body, 1 base	brown	English brown stoneware	Ovoid shape	
Feature 45	Basement		1	bone					butcher marks visible	
Feature 47	Basement		3	iron	nails	frags		wrought nails		
Feature 47	Basement		1	brick	frag			brick	1 vitrified surface	
Feature 47	Basement		1	stone	frag			flint		
Feature 47	Basement		2	mortar				sand mortar		
Feature 47	Basement		4	plaster					3 with smoothed surface	
	TU 3	Level A	1	earthenware	plate	rim	white	Graniteware	broken, mends	
	TU 3	Level A	2	earthenware	plate?	body	white	Pearlware		
	TU 3	Level A	2	earthenware	plate?	body	white	whiteware		
Feature 22	TU 3	Level A	1	earthenware	plate	rim	white, blue dec.	pearware,scalloped, incised		
Feature 22	TU 3	Level A	2	earthenware	plate?	body	white	Pearlware		
Feature 22	TU 3	Level A	1	porcelain	?	body	white	porcelain	fragment	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
Feature 22	TU 3	Level A	3	whiteware	?	body	white	whiteware		
Feature 22	TU 3	Level A	1	porcellaeous	plate	base	white	porcellaneous		
Feature 22	TU 3	Level A	2	stoneware	crock	1 rim, 1 body	gray, 1 with blue dec	gray salt-glazed stoneware		
	TU 4	Level A	4	earthenware	bowl?	1 rim, 3 body	yellow, 1 w/blue, 1 w/blue+brown, 1 w/brown+white	yellow ware		
	TU 4	Level A	4	earthenware	plate	2 rim, 2 body	white	Graniteware	J&G Meakin	
	TU 4	Level A	3	porcelain	? Flat	1 rim, 2 body	white	porcelain		
	TU 4	Level A	3	earthenware	? 2 flat, 1 cup?	2 rim, 1 body	white, blue dec.	Pearlware, transferprint		
	TU 4	Level A	5	earthenware	? 3 hollow, 2 indeter.		white	whiteware		
	TU 4	Level A	1	earthenware	cup?	body, handle	white	Pearlware		
	TU 4	Level A	1	earthenware	cup?	body	white int/brown ext	Pearlware	slip dipped	
	TU 4	Between courses of brick removed from pier	1	glass	window		colorless	window glass	devitrified	
	TU 4	Between courses of brick removed from pier	1	earthenware	holloware		white, black dec	whiteware? Black transferprint	fine transfer	
	TU 5	Level B	1	earthenware	?	body	gray	North Devon Gravel Tempered	Burned	
	TU 5	Level B	3	earthenware	?	body	white, blue dec.	Pearlware,	fragments	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
								transferprint		
	TU 5	Level B	1	earthenware	?	body	white, blue dec.	Pearlware, annular dec		
	TU 5	Level B	1	earthenware	plate?	body	white	Graniteware		
Feature 48										
Feature 49	TU 6		1	iron	frag	?			unidentified	
Feature 49	TU 6		1	copper alloy	button			union eagle uniform		
Feature 49	TU 6		1	mortar						
Feature 49	TU 6		1	glass	bottle	neck	colorless		devitrified	
Feature 49	TU 6		1	iron	staple					
Feature 49	TU 6		31	iron	nails	5 whole nails (2.5-3 inches)		cut nails, many burned	whole and frag	
Feature 49	TU 6		1	bone	frag				bird?	
Feature 50??	TU 6	West Half, Lvl 1	1	earthenware	?	rim	white	Graniteware	very small	
Feature 50??	TU 6	West Half, Lvl 1	3	earthenware	plate	body	white	Pearlware		
Feature 50??	TU 6	West Half, Lvl 1	1	earthenware	plate	body	white, blue dec.	Pearlware, transferprint		
Feature 50??	TU 6	West Half, Lvl 1	1	earthenware	plate	body	cream	creamware		
Feature 50??	TU 6	West Half, Lvl 1	2	iron	hook			pot hook		

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
	TU 6	Level C	1	stoneware	mug?	Body	brown	Nottingham Stoneware	incised wheel turned decoration	
	TU 6	Level C	1	earthenware	plate	rim	white, blue dec.	Pearlware, transferprint	scenic vignette	
	TU 6	Level C	1	earthenware	plate?	rim	white, blue dec.	Pearlware	burned, embossed edge	
	TU 6	Level C	1	earthenware	?	?	cream	creamware	fragment	
	TU 6	Level C	1	earthenware	plate	rim	white	Graniteware	--	
	TU 6	Level B	1	earthenware	plate	body	white, blue dec.	Pearlware, transferprint	India Temple Pattern, Maker's Mark J.W.R.	
	TU 6	Level B	4	earthenware	Flatware	body	white, blue dec.	Pearlware, transferprint	fragments	
	TU 6	Level B	1	earthenware	saucer	foot	white, blue dec.	Pearlware, transferprint		
	TU 6	Level B	1	earthenware	saucer?	body	white, blue dec.	Pearlware, transferprint	India Temple, partial Maker's Mark	
	TU 6	Level B	1	earthenware	?	?	red	lead-glazed redware	decorative element?	
	TU 6	Level B	1	earthenware	plate?	rim	cream	creamware?		
	TU 6	Level B		earthenware	plate	rim	white	porcellaneous		
	TU 6	Level B	8	earthenware	flateware	body	white	Graniteware		
	TU 6	Level B	3	stoneware	?	body	gray	gray saltglazed stoneware		
	TU 6	Level B	1	stoneware	?	body	brown	brown saltglazed stoneware	glazed int and ext	
	TU 6	Level B	1	stoneware	holloware	body	brown	brown saltglazed stoneware		
	TU 6	Level B	1	earthenware	saucer?	rim	blue, white, brown	Pearlware	Annular dec.	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
	TU 6	Level B	1	earthenware	plate?	rim	white, blue dec.	Pearlware, incised shell edge		
	TU 6	Level B	1	earthenware	plate?	rim	white, blue dec.	Pearlware, transferprint		
Feature 50	TU 6	Below surface	1	brick?				molded or worn	1/2-1/3	
Feature 50	TU 6	East Half, Lvl 1	2	earthenware	plate	rim	white	Graniteware		
Feature 50	TU 6	East Half, Lvl 1	2	earthenware	bowl	body	white	Graniteware	molded	
Feature 50	TU 6	East Half, Lvl 1	5	earthenware	plate	3 body, 1 foot, 1 rim	white	Pearlware	very small	
Feature 50	TU 6	East Half, Lvl 1	1	earthenware	?	body	cream	Creamware?	very small, crazed	
Feature 50	TU 6	East Half, Lvl 1	1	earthenware	?	body	brown	lead-glazed redware	very small	
Feature 50	TU 6	East Half	3	brick	frags					
Feature 50	TU 6	East Half	2	marl	frags					
Feature 50	TU 6	East Half	2	iron	nail	frags				
Feature 50	TU 6	East Half	1	earthenware	cup?	handle	white	whiteware		
Feature 50	TU 6	Both Halves, Lvl 2	1	earthenware	plate	rim	white	Graniteware	molded	
Feature 50	TU 6	Both Halves, Lvl 2	1	earthenware	bowl	rim	white, green dec	Pearlware, handpainted	Annular dec.	
Feature 50	TU 6	Both Halves, Lvl 2	1	earthenware	?	rim	white, blue dec.	Pearlware, transferprint	debased dec, polygon?	
Feature 50	TU 6	Both Halves, Lvl 2	1	earthenware	?	handle	white	Pearlware		
Feature 50	TU 6	Both Halves, Lvl	2	porcellaneous	bowl	foot	white	porcellaneous	poss. Same vessel	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
		2								
Feature 50	TU 6	Both Halves, Lvl 2	5	earthenware	?	body	white	Graniteware	damaged	
Feature 50	TU 6	Both Halves, Lvl 2	1	earthenware	?	body	cream	creamware		
Feature 50	TU 6	Both Halves, Lvl 2	1	earthenware	?	body	white	whiteware??	damaged	
Feature 50	TU 6	Both Halves, Lvl 2	3	stoneware	crock?	body	gray	gray saltglazed stoneware		
Feature 50	TU 6	Both Halves, Lvl 2	9	earthenware	?	body	white, blue dec.	Pearlware, transferprint	fragments, 1 molded	
Feature 50	TU 6	Both Halves, Lvl 2	3	coal/slag				2 coal, 1 slag		
Feature 50	TU 6	Both Halves, Lvl 2	39	iron	nail			nails		
	TU 6	Level C	13	glass	window		pale green	window glass		
	TU 6	Level C	4	glass	table	1 rim	colorless	leaded table glass		
	TU 6	Level C	1	glass	bottle		dark green	DGBG		
	TU 6	Level C	2	iron	nails			wrought nails		
	TU 6	Level C	2	shell				oyster		
	TU 6	Level C	1	earthenware		body	cream	creamware		
	TU 6	Level C	1	earthenware			red	Astbury	engine-turned dec	
	TU 6	Level C	1	earthenware	cup		white, blue dec.	Pearlware, transferprint		
	TU 6	Level C	1	earthenware	plate	rim	white	Pearlware		
	TU 6	Level C	1	earthenware			white?/burned	poss Pearlware	burned, embossed edge	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
Feature 60	TU 6	Western half	1	iron	?	?		large concretion	3"x2"x1.5"	
Feature 60	TU 6	"	1	iron	spike			cut	4.5" long	
Feature 60	TU 6	"	7	iron	nails			cut		
Feature 60	TU 6	"	1	coal/slag						
Feature 60	TU 6	"	1	glass	?	body	olive	indeterminate form		
Feature 60	TU 6	"	1	glass	?	body	pale aqua	indeterminate form		
Feature 60	TU 6	"	1	glass	tumbler	rim	colorless	leaded table glass		
Feature 60	TU 6	"	2	earthenware	?	body	pale cream	creamware, damaged		
Cobble Feature	TU 7	Level A	4	plaster			white	thin		
Cobble Feature	TU 7	Level A	1	earthenware	?	rim, fragment	white, green dec	pearlware, shell edge	damaged	
Cobble Feature	TU 7	Level A	4	earthenware	?	?	white	damaged, indeterminate		
	TU 10	Level B	1	earthenware	body	frag	white	whiteware		
	TU 10	Level B	1	earthenware	body	frag	white, blue dec.	Pearlware, transferprint	delicate transfer	
Feature 42	Area 8	Southern Half	4	earthenware	plate?	body	white	whiteware		
Feature 42	Area 8	Southern Half	8	glass	window		colorless to very pale aqau	window glass	various thickness	
Feature 42	Area 8	Southern Half	4	glass	bottle?	body	colorless	bottle glass	one w/molded letter	
Feature 42	Area 8	Southern Half	5	brick	frags		pale orange	brick	very porous	
Feature 42	Area 8	Southern Half	1	iron	spike			iron spike	6 inches	
Feature 42	Area 8	Southern Half	7	iron	nails	frags		iron nails, 1-2 in	very accreted w/brick and	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
									pebbles	
Feature 43	Area 8		1	earthenware		body	cream	creamware, undec		
Feature 43	Area 8		1	stoneware		body	gray	gray salt-glazed stoneware, blue dec		
Feature 43	Area 8		1	earthenware	bowl	base	brown, multi	mochaware, annular		
Feature 43	Area 8		1	earthenware	bowl?	body	brown	mochaware, mocha pattern	likely mends with base	
Feature 4	Trench 1		1	copper alloy	button	whole, loop missing		domed, 1 inch diam		
Feature 4	Trench 1		1	glass			dark green	DGBG		
Features 5&7	Trench 1	Level A	2	earthenware	plate (1), unk (1)	rim (1), body (1)	white	whiteware	one very damaged	
Features 5&7	Trench 1	Level A	1	iron	nail	frag		nail		
Features 5&7	Trench 1	Level A	1	slate	tile?	frag	gray	roofing		
Features 5&7	Trench 1	Level A	1	bone				small animal	burned	
Features 5&7	Trench 1	Level A	1	glass	bottle	frag	dark green	DGBG		
Features 5&7	Trench 1	Level A	1	glass	bottle	frag	colorless		mold scar	
Features 5&7	Trench 1	Level A	1	glass	window	frag	colorless	window glass		
Features 5&7	Trench 1	Level A	1	stoneware	crock?	frag	gray	gray saltglazed stoneware		
Features 5&7	Trench 1	Level A	2	earthenware	plate	rim (1) foot (1)	white	whiteware		
Features 5&7	Trench 1	Level A	1	earthenware	plate	foot	white	Pearlware		
Feature 9	Trench 2		5	iron	nail	frags				

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
Feature 9	Trench 2		5	glass	window					
Feature 9	Trench 2		1	glass			colorless	table glass		
Feature 9	Trench 2		1	copper alloy	Two-part, loop shape			poss hat device?	Civil War?	
Feature 9	Trench 2		1	glass	bottle	body	dark green	DGBG		
Feature 9	Trench 2		1	earthenware			brown,blue	Pearlware, annular dec		
Feature 9	Trench 2		2	earthenware	plate	rim	white	embossed whiteware		
Feature 9	Trench 2		2	earthenware			cream	creamware		
Feature 10	Trench 2		2	iron	nails					
Feature 10	Trench 2		1	glass	window		colorless	window glass		
Feature 11	Trench 2		6	brick	frags					
Feature 11	Trench 2		7	glass	window					
Feature 11	Trench 2		3	earthenware				whiteware		
Feature 13	Trench 2		6	iron	nails	frags				
Feature 13	Trench 2		8	glass	window		colorless	window glass		
Feature 13	Trench 2		2	glass	bottle		dark green	DGBG		
Feature 13	Trench 2		1	glass	bottle		colorless	table glass		
Feature 13	Trench 2		1	glass	tumbler	base	colorless	leaded table glass		
Feature 13	Trench 2		1	stoneware			gray	gray salt-glazed stoneware	gray paste	
Feature 13	Trench 2		1	porcelain	indeter			porcelain		
Feature 13	Trench 2		4	earthenware				pearlware		
Feature 13	Trench 2		3	bone				faunal	1 w butcher marks	
Feature 13 (mold)	Trench 2		1	shell		whole		oyster shell	2 inches	
Feature 13 (mold)	Trench 2		3	iron	nail	frags			heavily corroded	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
Feature 13 (mold)	Trench 2		1	glass	window?		med aqua	flat glass, window?		
Feature 13 (mold)	Trench 2		1	glass	window?		very pale aqua	flat glass, window?		
Feature 13 (mold)	Trench 2		1	earthenware	plate	body	white	Graniteware		
Feature 13 (mold)	Trench 2		1	earthenware	cup?	body	med green	mottled, rockingham?		
Feature 14	Trench 2		1	brick	frag					
Feature 14	Trench 2		7	glass	window			window glass		
Feature 14	Trench 2		1	earthenware			brown	Rockingham	molded	
Feature 14	Trench 2		1	earthenware			white, blue dec.	Pearlware, transferprint		
Feature 20	Trench 3		3	iron	nails	frags				
Feature 20	Trench 3		1	stoneware	crock?	body	gray	saltglazed stoneware	American, undec	
Feature 20	Trench 3		1	earthenware	plate	rim	white, blue dec.	shell edge		
Feature 20	Trench 3		1	earthenware	bowl?	body	white, blue dec.	Pearlware, handpainted		
Feature 26	Trench 4	Level A	4	iron	nail	frags				
Feature 26	Trench 4	Level A	1	iron	wire	frag				
Feature 26	Trench 4	Level A	3	glass	window		colorless	window glass		
Feature 26	Trench 4	Level A	2	glass	bottle		dark green	DGBG		
Feature 26	Trench 4	Level A	1	glass	bottle	frag	aqua			
Feature 26	Trench 4	Level A	2	glass	table	frags	colorless	poss. Leaded table glass		
Feature 26	Trench 4	Level A	2	glass	mirror					
Feature 26	Trench 4	Level A	2	bone						
Feature 26	Trench 4	Level A	1	shell				oyster		
Feature 26	Trench 4	Level A	2	ceramic					burned	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
Feature 26	Trench 4	Level A	4	earthenware			white	pearlware		
Feature 26	Trench 4	Level A	1	earthenware	plate?	body	white, blue dec.	Pearlware, transferprint		
Features 21& 29	Trenches 3&5	Clearing	1	porcelain	doll	head	white	very small doll's head	2 pc, mending	
Features 21& 29	Trenches 3&5	Clearing	1	earthenware	plate	rim	white	pearlware molded child's plate, letter 'A'	molded dec	1868-1894
Features 21& 29	Trenches 3&5		11	earthenware	plates, poss chamber pot	rims, body, base	white	some molded	graniteware	
Features 21& 29	Trenches 3&5		1	earthenware	?	body, fragment	white, black dec	whiteware?? Black transfer maker's mark	Wedgwood Mark	printed mark 1812-
Features 21& 29	Trenches 3&5		2	stoneware?	?	rim, body	red paste, blue and white slip	slip dec red stoneware	unknown	
Features 21& 29	Trenches 3&5		4	earthenware	flower pot? shallow bowl?	body (2), base, rim	red	bisque redware	shallow for flower pot	
Features 21& 29	Trenches 3&5		17	glaze	frag	indeter	white/cream	frags of glaze spalled from pearlware/creamware	some burned	
Features 21& 29	Trenches 3&5		3	earthenware	?	handle	white	pearlware handles	2 loop, 1 lug?	
Features 21& 29	Trenches 3&5		5	porcelain	plate, saucer	2 body, 3 base (1 with rim)	white, undecorated	porcelain		
Features 21& 29	Trenches 3&5		5	porcelain	saucer?	rims	white with green and gold band	porcelain	20th c?	
Features 21& 29	Trenches 3&5		3	earthenware	bowl	2 body, 1 rim	white, blue slip	mochaware	common cable dec	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
Features 21& 29	Trenches 3&5		2	earthenware	saucer? Cup?	1 body, 1 rim	white with green and brown	mochaware, annular and embossed	2 different vessels	
Features 21& 29	Trenches 3&5		2	earthenware	?	rim	white, brown dec	mochaware, annular		
Features 21& 29	Trenches 3&5		1	earthenware	plate, saucer	rim	white, blue dec.	pearlware, embossed edge	stylized foliage dec	1820-1830
Features 21& 29	Trenches 3&5		4	porcellaneous	cup?	body, rim	white	embossed porcellaneous		
Features 21& 29	Trenches 3&5		2	earthenware	?	body	white, red dec	pearlware, red transferprint	bird?	
Features 21& 29	Trenches 3&5		2	earthenware	cup	body, base	white, black dec	pearlware, black transfer print	"-s plain &.." visible on body sherd	
Features 21& 29	Trenches 3&5		10	earthenware	various	various	white, burned	burned, indeterminate		
Features 21& 29	Trenches 3&5		14	earthenware	plates, fragments	various	white, blue dec.	Pearlware, transferprint		
Features 21& 29	Trenches 3&5		6	earthenware	bowl?		yellow	yellowware		
Features 21& 29	Trenches 3&5		1	shell				clam		
Features 21& 29	Trenches 3&5		1	kaolin	pipe	stem fragment	white		5/64s	
Features 21& 29	Trenches 3&5		1	porcelain	doll	leg	white			
Features 21& 29	Trenches 3&5		1	stoneware?	?	body	burned	burned, indeterminate		
Features 21& 29	Trenches 3&5		1	glass	button?	half	black	faceted glass		1890s
Features 21& 29	Trenches 3&5		1	metal?	?	rim?	burned		burned metal?	
Features 21& 29	Trenches 3&5		1	stoneware?	?	body	burned		burned stoneware?	
Features 21& 29	Trenches 3&5		2	milkglass	button	frags	white	1 w 2 holes, 1 w 4 holes		
Features 21& 29	Trenches 3&5		1	glass	button		black	rectangle, Cu alloy frame	shank missing	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
Features 21& 29	Trenches 3&5		1	horn	button	half	brown	4 hole		
Features 21& 29	Trenches 3&5		1	metal	small rod	?		rolled iron? With evidence of something attached (missing)		
Features 21& 29	Trenches 3&5		1	stoneware	cup or bowl	body	black	jackfield	engine-turned dec	
Features 21& 29	Trenches 3&5		1	earthenware	plate	foot	burned	burned, indeterminate		
Features 21& 29	Trenches 3&5		1	celluloid	?		black			
Features 21& 29	Trenches 3&5		3	stoneware	?	body	gray	gray salt-glazed stoneware	fragments	
Features 21& 29	Trenches 3&5		1	stoneware	?	body	black?	saltglazed stoneware	appears black but not burned (dark gray?)	
Features 21& 29	Trenches 3&5		1	earthenware	?	body	buff	bisque	burnished?	
Features 21& 29	Trenches 3&5		1	stoneware	crock-large	base	gray	saltglazed stoneware	reddish int&paste	
Features 21& 29	Trenches 3&5		1	stoneware	crock-large	rim	gray	saltglazed stoneware	gray int&paste	
Features 21& 29	Trenches 3&5		1	stoneware	?	body	brown	English brown stoneware		
Features 21& 29	Trenches 3&5		1	stoneware	crock	base	gray	saltglazed stoneware	brown slip int, buff paste	
Features 21& 29	Trenches 3&5		4	stoneware	crock?	body	gray	saltglazed stoneware	reddish int/gray paste	
Features 21& 29	Trenches 3&5		3	stoneware	crock	body	gray	saltglazed stoneware	buff int	
Features 21& 29	Trenches 3&5		1	stoneware	crock	body	gray, blue dec	saltglazed stoneware	reddish paste, gray int	
Features 21& 29	Trenches 3&5		1	stoneware	crock	body	gray, blue	saltglazed stoneware	gray paste, reddish int	
Features 21& 29	Trenches 3&5		1	stoneware	crock	body	gray, blue dec	saltglazed stoneware	brown glazed int	
Features 21& 29	Trenches 3&5		15	bone	misc			bone, faunal		

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
Features 21& 29	Trenches 3&5		1	bone	tooth			cow or horse		
Features 21& 29	Trenches 3&5		1	copper alloy	button	whole		Union uniform, 2 pc with iron loop	embossed eagle, stamped "extra quality" on back	
Features 21& 29	Trenches 3&5		12	earthenware	frags	frags	cream	creamware frags	small, one feather	
Features 21& 29	Trenches 3&5		9	earthenware	frags	frags	white	pearlware frags	small, 3 embossed edge pattern, 1 blue shell, non-impressed	
Features 21& 29	Trenches 3&5		20	earthenware	frags	frags	white	Graniteware frags	small	
Features 21& 29	Trenches 3&5		32	earthenware	frags	frags	white	whiteware frags, 4 with blue slip		
Features 21& 29	Trenches 3&5		51	earthenware	frags	frags	white	very small fragments indeterminate		
Feature 30	Trench 5		2	iron	nail	frags				
Feature 30	Trench 5		3	coal/slag	clinker					
Feature 30	Trench 5		1	quartzite	flake			secondary flake		
Feature 30	Trench 5		1	glass	bottle	body	aqua	molded panel bottle	letters "sia"	
Feature 30	Trench 5		2	glass	bottle		dark green	DGBG		
Feature 30	Trench 5		1	glass			red	cranberry colored glass		
Feature 30	Trench 5		1	earthenware			white	whiteware		
Feature 30	Trench 5		2	earthenware		body	cream	creamware, undec		
Feature 30	Trench 5		2	earthenware		body	white	pearlware		
Feature 30	Trench 5		1	earthenware		rim	white, blue dec.	Pearlware, handpainted		
Feature 30	Trench 5		1	stoneware	crock	body	gray, white	Albany slip stoneware		
Feature 31	Trench 5		3	brick	frags			brick		
Feature 31	Trench 5		1	stoneware			gray	saltglazed stoneware	American,	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
									undec	
Feature 31	Trench 5		19	glass	bottle, case		dark green	DGBG	case bottle	
Feature 31	Trench 5		2	earthenware			cream	creamware, undec		
Feature 31	Trench 5		1	coal/slag	clinker			clinker		
Feature 31	Trench 5		1	iron	nail	frag		wrought nail		
Feature 32	Trench 5		1	glass		frag	red	cranberry colored glass		
Feature 32	Trench 5		1	kaolin	pipe	bowl	white	pipe bowl	molded leaf dec	
Feature 32	Trench 5		1	earthenware			white, blue dec.	Pearlware, transferprint		
Feature 35	Trench 6	Cleaning	1	lead	minie ball				half inch diam	
Feature 38	Trench 7		5	iron	nail	frags				
Feature 39	Trench 7		1	porcelain			white, blue dec.	porcelain	underglaze	
Feature 39	Trench 7		1	glass	window			window glass		
Feature 40	Trench 7	Eastern 1/2	4	brick		3 frags, 1 large		brick	sand struck	
Feature 40	Trench 7	Eastern 1/2 Level B	1	iron	spike			iron spike		
Feature 40	Trench 7	Eastern 1/2 Level B	8	earthenware			white	whiteware	several mends poss	
Feature 40	Trench 7	Eastern 1/2 Level B	1	glass	bowl?		colorless	molded		
Feature 40	Trench 7	Eastern 1/2 Level B	1	glass			colorless	leaded glass		
Feature 40	Trench 7	Level A	1	earthenware			white	pearlware		

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
Feature 40	Trench 7	Level A	1	stoneware			gray	stoneware blue slip dec		
	Trench 1	Surface	1	stoneware	crock?	body	gray, blue dec	gray saltglazed stoneware		
	Trench 1	Surface	1	earthenware	bowl?	body	white, blue dec.	Pearlware, transferprint	poss. Early	
	Trench 2	Surface	1	stoneware	crock	body	gray	gray saltglazed stoneware	large crock	
	Trench 2	Surface	1	porcellaneous	plate	foot	white	porcellaneous		
	Trench 2	Surface	2	earthenware	1 platter?	body	white	Graniteware		
	Trench 2	Surface	1	stoneware	crock	body	brown	brown saltglazed stoneware		
	Trench 2	Surface	1	button	4-hole	whole	white	porcelain		1840-present
	Trench 2	Surface	1	slate				unmodified slate	fragment	
	Trench 2	Surface	1	earthenware	? Flat	body	cream	creamware		
	Trench 2	Surface	1	earthenware	platter?	rim	white, blue dec.	Pearlware, transferprint	floral	
	Trench 2	Surface	1	earthenware	?	body	brown	Rockingham	molded dec	
	Trench 2	Surface	1	stoneware	crock?	body	gray, blue dec	gray saltglazed stoneware		
	Trench 2	Surface	1	jasper?	projectile point		green	Morrow Mtn I, broad spear sype	curated?	
	Trench 2	Surface	1	stoneware	crock?	body	gray, blue dec	American stoneware		
	Trench 2	Surface	1	iron	horseshoe	half		horseshoe		
	Trench 2	Surface	1	brick				vitrified on 2 surfaces		
	Trench 2	Surface	1	copper alloy	?	?		stamped with circular decoration		
	Trench 2	Surface	1	coppy alloy	wire			thin gauge	twisted as closure?	
	Trench 3	Surface	1	glass	bottle	body	dark green	DGBG		
	Trench 3	Surface	2	glass	bottle	neck	aqua		tooled neck/string lip	
	Trench 3	Surface	1	glass	stemware?	base	colorless	leaded table glass		

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
	Trench 3	Surface	1	stoneware	jug?	body, neck?	buff	saltglazed stoneware		
	Trench 3	Surface	1	stoneware		body	brown	English brown stoneware		
	Trench 3	Surface	1	stoneware	?	body, fragment	gray, blue	gray salt-glazed stoneware	thin walled-vessel	
	Trench 3	Surface	1	brick				molded or worn	see Feature 50	
Feature 41	Trench 7		1	earthenware			white	whiteware		
	Trench 7	Surface	1	stoneware	plate	rim	white	white saltglazed stoneware	molded, Barley pattern	
	Trench 7	Surface	1	stoneware	mug?	body	gray, blue	Westerwald stoneware	Checkerboard Pattern	
	Area 8	Surface	1	porcelain	doll	leg	white, red dec	overglaze red bow		
SW of House	ATV Trail	Surface	1	earthenware	?	body, fragment	white?/burned	Creamware?		
SW of House	ATV Trail	Surface	1	stoneware	crock	base, foot ring	gray	saltglazed stoneware	foot 21 cm diameter	
	Below Porch	Surface	1	earthenware	bowl?	rim	white	whiteware		
	Below Porch	Surface	5	earthenware	plate (3) cup (1)	rim (1)	white	Graniteware	plate molded dec	
	Below Porch	Surface	1	bisque earthenware	marble	whole	buff	toy, marble		
	wingwall under addition	fill	1	stoneware	crock	rim	gray ext, taupe int	saltglazed stoneware		
	wingwall under addition	fill	3	glass		2 rim, 1 body	colorless	leaded glass		

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
	Judgmental in Cobble	Level A	3	brick	frags				thin, table or lamp	
	Judgmental in Cobble	Level A	1	earthenware	frag		white	Pearlware?		
adj to load dock	J-1	Level A	1	iron	staple			large	for hasp or hook	
south load dock	J-2	Level A	1	kaolin	pipe	bowl	white	frag		
beside middle (dead) tree	J-3	Level A	1	porcelain, iron	clothes iron	toy	white	toy iron, sad iron		
northernmost (dead) tree	J-4	Level A	4	glass	window		colorless	window glass		
northernmost (dead) tree	J-4	Level A	1	glass	bottle		brown	panel bottle		
northernmost (dead) tree	J-4	Level A	1	mortar/cement				sand		
northernmost (dead) tree	J-4	Level A	1	stone				crushed quartz	natural	
at western tree line	J-5	Level A	15	glass	bottle	mending panels	colorless	mold blown	suction scar on base	
at western tree line	J-5	Level A	3	iron				frags	unidentified	
at western tree line	J-5	Level A	3	iron	nail			frags	unidentified	
at western tree line	J-5	Level A	3	brick	frags					
at western tree line	J-5	Level A	1	stoneware	crock	body	white, gray	white slip ext	Albany Slip	
Basement	Construction? Fill	Northern half	2	wood	frags					
Basement	Construction? Fill	Northern half	1	plaster					frag of scratch coat	

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
Basement	Clearing around chimney	surface	1	brick	1/3 brick bat			over-fired, vitrified on 4 surfaces		
Basement	Clearing around chimney	surface	2	shell				oyster	degraded	
south near tree	STP 1	Level A	1	earthenware	saucer?	body	white	whiteware		
"	STP 1	Level A	22	glass	bottle?		colorless	bottle glass		
"	STP 1	Level A	5	glass	bottle		green	modern green glass		
	STP 1	Level A	2	glass	bottle		pale aqua	botttle glass		
"	STP 1	Level A	2	glass	window		1 colorless, 1 aqua	window glass		
"	STP 1	Level A	1	earthenware	hollow	body	yellow, brown	Staffordshire Slip		
25' S of STP 1	STP 2	Level A	1	earthenware	flat	body	white, blue dec.	tin-glazed earthenware		
"	STP 2	Level A	1	earthenware	?	rim	buff paste	tin-glazed earthenware	glaze missing	
"	STP 2	Level A	1	earthenware	flat	body	white, blue dec.	Pearlware, transferprint		
"	STP 2	Level A	1	porcelain	?	body	white	undecorated		
"	STP 2	Level A	2	coal				coal		
"	STP 2	Level A	1	brick				brick		
100' S of STP 1	STP 5	Level A	2	iron	nail			nail frags		
	STP N500 E500	Level A	1	earthenware	plate	rim	white, green dec	pearlware, shell edge	embossed edge	
	"	Level A	1	glass	?	body	colorless			
	STP N375 E625	Level A	1	stoneware	?	?	white	indeterminate	hole? Modern?	
	"	Level A	1	brick	frag			brick frag		

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
	STP N325 E550	Level A	1	earthenware	?	fragment	cream	creamware	fragment	
	"	Level A	3	coal/slag				coal/slag		
	"	Level A	1	iron	nail			corroded nail		
	"	Level A	1	brick	frag			brick frag		
	STP N550 E500	Level A	1	stoneware		body	gray	saltglazed stoneware		
	"	Level A	7	terra cotta	flower pot	frags		flower pot		
	"	Level A	3	iron	nails			1 cut, 2 wire		
	STP N350 E575	Level A	1	brick				brick frag		
	STP N475 E550	Level A	1	earthenware	plate?	rim	white, blue dec.	pearlware, shell edge	damaged	
	STP N275 E550	Level A	1	earthenware	Plate?	rim	cream	creamware	Queen's Pattern	
	STP N300 E600	Level A	1	earthenware	?	fragment	white	pearlware		
	STP N375 E575	Level A	2	glass	bottle?	body	colorless	bottle glass		
	STP N475 E800	Level A	1	brick				brick frag		
	STP N375 E600	Level A	1	Brick				brick frag		
	"	Level A	1	iron				corroded nail		
	STP N400 E575	Level A	1	brick	frag			brick frag		
	STP N350 E625	Level A	1	iron	frag			corroded nail		
	STP N475 E525	Level A	1	brick	frag			brick frag		
	STP N400 E600	Level A	1	brick	frag			brick frag		
	STP N575 E475	Level A	1	brick	frag			brick frag		
	STP N475 E700	Level A	1	brick	frag			brick frag		

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
	"	Level A	1	glass		frag	dark green	DGBG		
	STP N650 E550	Level A	1	brick	frag			brick frag		
	STP N625 E550	Level A	1	iron	frag	?		rivet?		
	STP N300 E575	Level A	3	mortar/cement						
	"	Level A	1	brick				brick frag		
	"	Level A	3	coal/slag				coal/slag		
	"	Level A	2	glass	frag			1 colorless, 1 aqua glass		
	"	Level A	1	iron	nail			cut nail		
	STP N325 E625	Level A	1	iron	pipe?			threaded pipe		
	"	Level A	1	glass	bottle?			colorless glass		
	"	Level A	3	iron	nails			1 cut, 2 wire		
	STP N475 E675	Level A	3	iron	nails	frags		unident nails		
	"	Level A	2	brick	frags			brick frags		
	STP N300 E550	Level A	3	brick	frags					
	STP N575 E500	Level A	2	brick	frags			brick frags		
	"	Level A	1	iron	frag			nail frag		
	STP N600 N575	Level A	1	brick	frag			brick frag		
	STP N550 E550	Level A	1	brick	frag			brick frag		
	"	Level A	1	quartzite	flake			flake		
	"	Level A	3	iron	nails			nail frags		
	STP N525 E500	Level A	1	iron	nail			cut nail		
	STP N475 E650	Level A	1	glass			colorless	poss. Leaded		
	STP N675	Level A	1	brick	frag			brick frag		

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
	E500									
	STP N625 E500	Level A	1	brick	frag			brick frag		
	"	Level A	5	iron	frags			poss. Knife blade	heavily corroded	
	STP N550 E475	Level A	9	glass	window		very pale aqua	window glass		
	"	Level A	1	brick	frag			brick frag		
	"	Level A	4	iron	nails	frags		nail frags	heavily corroded	
	STP N675 E475	Level A	1	brick	frag			brick frag		
	"	Level A	2	quartz	poss. Shatter			poss. Shatter		
	STP N375 E550	Level A	6	glass	4 window, 2 curved	body	colorless	glass, 1 poss. Leaded		
	"	Level A	4	nails				1 cut, 3 unident.	1 burned, 3 heavily corroded	
	"	Level A	4	brick	frags			brick frags		
	STP N325 E575	Level A	1	brick	frag			brick frag		
	"	Level A	2	iron	bolts			iron bolts		
	"	Level A	1	iron	sheet metal?			sheet metal		
	"	Level A	1	iron	pipe?			iron pipe		
	STP N300 E625	Level A	1	brick	frag			brick frag	overfired	
	"	Level A	3	coal/slag				coal/slag		
	"	Level A	1	copper alloy	pipe fitting			pipe fitting		
Trenching	Surface		1	earthenware	plate	rim	cream	creamware	Feather edge	
Trenching	Surface		2	earthenware	plate	rim	white	pearlware		
Trenching	Surface		2	earthenware	cup?	1 rim, 1 body	white	Graniteware	molded	
Trenching	Surface		1	porcelain	?	body	white	porcelain	undecorated	
Trenching	Surface		1	kaolin	bowl		white	pipe bowl (part of	5/64s	1720-

Provenience	TU/STP	Strat	QTY	Material	Form	Part	Color	Description	Notes	TPQ
								bore)		1750
Trenching	Surface		2	earthenware	bowl	1 rim, 1 body	white, blue slip	mochaware	common cable dec	
Trenching	Surface		1	earthenware	bowl	rim	white, brown, blue slip	mochaware	green rouletting	
Trenching	Surface		1	earthenware	plate	rim	white, blue dec.	pearlware, shell edge	debased	
trenching	surface		1	stoneware	crock	body	gray, blue dec			
Trenching	Surface		1	stoneware	mug	base	white	white saltglazed stoneware	rouletting	
Trenching	Surface		1	whiteware	platter?	base	white, red transferprint	whiteware		
Trenching	Surface		1	stoneware	crock	base	gray, brown slip int	saltglazed stoneware		
Trenching	Surface		1	Stoneware	crock	base	Brown, brown slip int/buff paste	saltglazed stoneware		
		Total # artifacts	1158							

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12. APPENDIX B: DENDROCHRONOLOGY REPORT

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Oxford Tree-Ring Laboratory
Report 2014/15

The Tree-Ring Dating of the Spring Hill, Virginia

Michael J. Worthington and Jane I. Seiter

Oxford Tree-Ring Laboratory
25 East Montgomery Street, Baltimore, MD 21230
michael@dendrochronology.com
www.dendrochronology.com
410-929-1520

November 2014

Summary:

Spring Hill, Bermuda, Chesterfield County, Virginia (37.385936, -77.405000)

Main House *Felling dates:* **Winter 1761/2, Winter 1766/7, Summer 1767**

Posts (3/3) 1761 (C) 1766 (C); Joists (2/2) 1766 (C, ½C); Studs (5/6) 1766 (C) 1762; Collar (0/1) Trimmer (0/1).

Site Master 1615--1766 SHLVAx1 (*t* =9.38 SJC; 9.21 VAPINE2B; 8.97 WVVAP). Individual Timber 1604--1766 shlva8 (*t* = 6.14 WVVAP; 6.07 PHWV; 5.57 SHLVA).

The Spring Hill Plantation House in its current form, is a one-and-a-half story, double-pile, side passage single dwelling. The heavy frame building is clad with beaded clapboards and rests upon a continuous brick foundation laid in a Flemish Bond. It is covered with a side-gabled roof pierced by two dormers on each slope. A pair of brick chimneys on the west side wall, opposite the interior passage. The front façade of the building features an offset main entrance with a single double-hung sash window beside it. The rear façade is divided into three bays with two taller double-hung sash windows and a shorter window in the left bay as a result of the stairs in the interior passage.

Attached to the east side of the house is a large addition that was appended in the twentieth century.

As a double-pile, side passage residence, the interior of the original block is two rooms deep with a hallway running the entire length along one side. At the rear of the hallway is a flight of stairs leading to the finished half-story above. The half-story was divided into two or three rooms with the primary division wall running the length of the roof ridge. The addition contains one primary room on each floor, in addition to a small room at the rear of the first floor that was originally an inset porch that has subsequently been enclosed. The original portion of the house sits over a basement that is half finished with a full-height room in the rear-half of the building, and crawl-space under the front half.

Dendrochronological analysis has shown that the original structure was built in the summer of 1767 or shortly thereafter.

Date sampled:	August 12, 2014
Commissioner	Rob Taylor, Dutton + Associates, LLC
Owner:	Dominion Virginia Power Company
Street address	Off Reymet Rd. Richmond, VA 23237
Summary published:	**www.dendrochronology.com**

How Dendrochronology Works

Dendrochronology has over the past few decades become one of the leading and most accurate scientific dating methods. While not always successful, when it does work, it is precise, often to the season of the year. Tree-ring dating to this degree of precision is well known for its use in dating historic buildings and archaeological timbers. However, more ancillary objects such as doors, furniture, panel paintings, and wooden boards in medieval book-bindings can sometimes be successfully dated.

The science of dendrochronology is based on a combination of biology and statistics. In temperate zones, a tree puts on a new layer of growth underneath the bark every year, with the effect being that the tree grows wider and taller as it ages. Each annual ring is composed of the growth which takes place during the spring and summer and continues until about November, when the leaves are shed and the tree becomes dormant for the winter period. For the two principal American oaks, the white and red (*Quercus alba* and *Q. rubra*), as well as for the black ash (*Fraxinus nigra*) and many other species, the annual ring is composed of two distinct parts: the spring growth or early wood, and the summer growth, or late wood. Early wood is composed of large vessels formed during the period of shoot growth which takes place between March and May, before the establishment of any significant leaf growth. This is produced by using most of the energy and raw materials laid down the previous year. Then, there is an abrupt change at the time of leaf expansion around May or June when hormonal activity dictates a change in the quality of the xylem, and the summer growth, or late wood, is formed. Here the wood becomes increasingly fibrous and contains much smaller vessels. Trees with this type of growth pattern are known as ring-porous, and are distinguished by the contrast between the open, light-colored early wood vessels and the dense, darker-colored late wood.

Other species of tree, such as tulip poplar (*Liriodendron tulipifera L.*), are known as diffuse-porous. Unlike the ring-porous trees, the spring vessels consist of very small spring vessels that become even smaller as the tree advances into the summer growth. The annual growth rings are often very difficult to distinguish under even a powerful microscope, and one often needs to study the medullary rays, which thicken at the ring boundaries.

Dendrochronology utilizes the variation in the width of the annual rings as influenced by climatic conditions common to a large area, as opposed to other more local factors such as woodland competition and insect attack. It is these climate-induced variations in ring widths that allow calendar dates to be ascribed to an undated timber when compared to a firmly-dated sequence. If a tree section is complete to the bark edge, then when dated a precise date of felling can be determined. The felling date will be precise to the season of the year, depending on the degree of formation of the outermost ring. Therefore, a tree with bark that has the spring vessels formed but no summer growth can be said to be felled in the spring, although it is not possible to say in which particular month the tree was felled.

Another important dimension to dendrochronological studies is the presence of sapwood and bark. This is the band of growth rings immediately beneath the bark and comprises the living growth rings which transport the sap from the roots to the leaves. This sapwood band is distinguished from the heartwood by the prominent features of color change and the blocking of the spring vessels with tyloses, the waste products of the tree's growth. The heartwood is generally darker in color, and the spring vessels are usually blocked with tyloses. The heartwood is dead tissue, whereas the sapwood is living, although the only really living, growing, cells are in the cambium, immediately beneath the bark. In the American white oak (*Quercus* alba), the difference in color is not generally matched by the change in the spring vessels, which are often filled by tyloses to within a year or two of the terminal ring. Conversely, the spring vessels in the American red oak (*Q* rubra) are almost all free of tyloses, right to the pith. Generally the sapwood retains stored food and is therefore attractive to insect and fungal attack once the tree is felled and therefore is often removed during conversion.

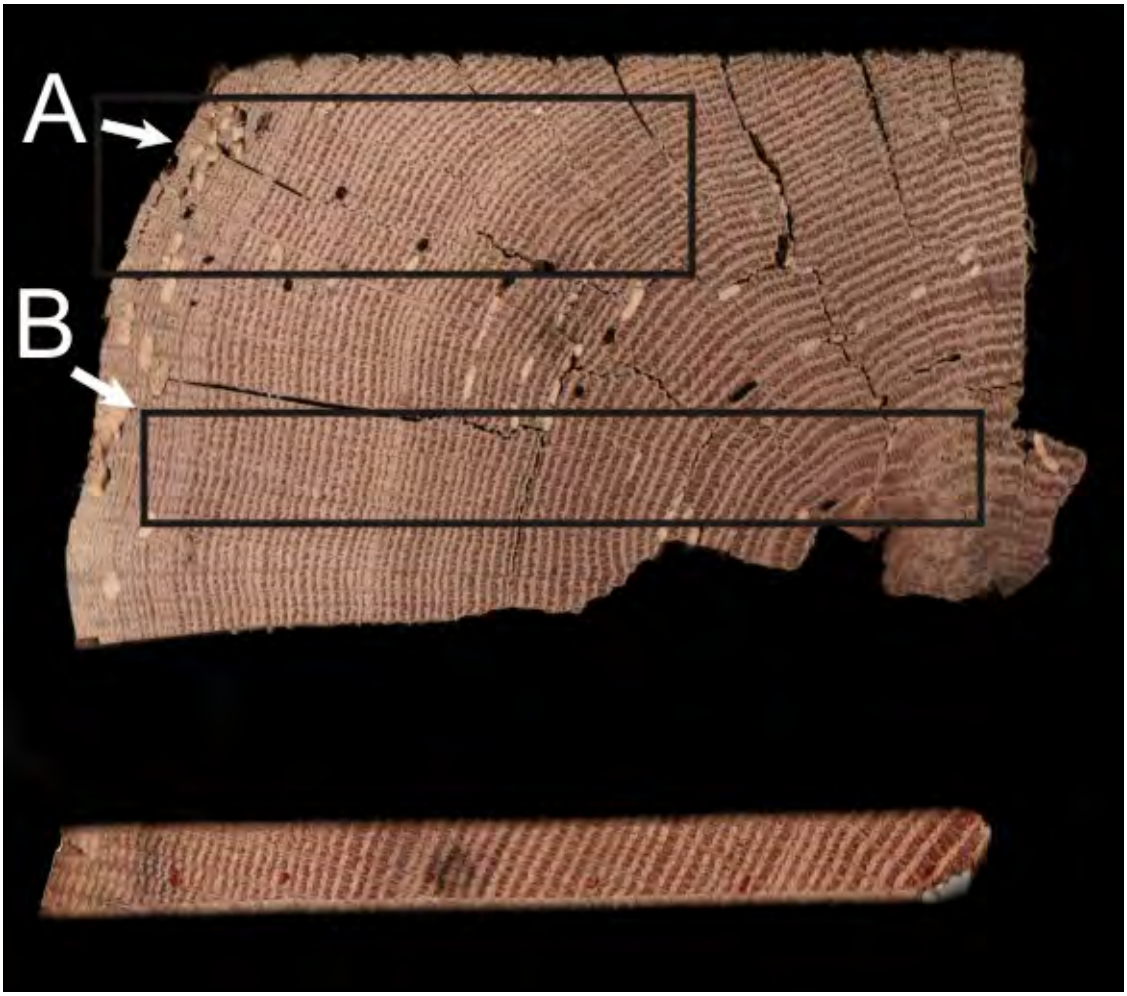

Figure 1. A cross-section of an oak timber with sapwood rings on the left-hand side (above). The boxes illustrate conversion methods resulting in **A)** a precise felling date and **B)** a *terminus post quem* or felled-after date. Also pictured is a core showing complete sapwood (below).

Methodology: The Dating Process

Twelve timber long-leaf yellow pine (Pinus L.) and one tulip poplar (*Liriodendron tulipifera L.*) timbers were sampled. All samples were from what appeared to be primary first-use timbers. Timbers that looked most suitable for dendrochronological purposes—those with complete sapwood or reasonably long ring sequences—were selected. *In-situ* timbers were sampled through coring, using a 16 mm hollow auger. Sections were cut from seven timbers, including two *ex-situ* timbers, to provide the best possible samples for measuring. Details and locations of the samples are given in the summary tables.

The dry samples were sanded on a linisher, or bench-mounted belt sander, using 60 to 1200 grit abrasive paper, and were cleaned with compressed air to allow the ring boundaries to be clearly distinguished. They were then measured under a x10/x30 microscope using a travelling stage electronically displaying displacement to a precision of 0.01mm. Thus each ring or year is represented by its measurement which is arranged as a series of ring-width indices within a data set, with the earliest ring being placed at the beginning of the series, and the latest or outermost ring concluding the data set.

As indicated above, the principle behind tree-ring dating is a simple one: the seasonal variations in climate-induced growth as reflected in the varying width of a series of measured annual rings is compared with other, previously dated ring sequences to allow precise dates to be ascribed to each ring. When an undated

sample or site sequence is compared against a dated sequence, known as a reference chronology, an indication of how good the match is must be determined. Although it is almost impossible to define a visual match, computer comparisons can be accurately quantified. While it may not be the best statistical indicator, Student's (a pseudonym for W S Gosset) *t*-value has been widely used among dendrochronologists. The cross-correlation algorithms most commonly used and published are derived from Baillie and Pilcher's CROS program (Baillie and Pilcher 1973).

Generally, *t*-values over 3.5 should be considered significant, although in reality it is common to find demonstrably spurious *t*-values of 4 and 5 because more than one matching position is indicated. For this reason, dendrochronologists prefer to see some *t*-value ranges of 5, 6, or higher, and for these to be well replicated from different, independent chronologies with local and regional chronologies well represented. Users of dates also need to assess their validity critically. They should not have great faith in a date supported by a handful of *t*-values of 3s with one or two 4s, nor should they be entirely satisfied with a single high match of 5 or 6. Examples of spurious *t*-values in excess of 7 have been noted, so it is essential that matches with reference chronologies be well replicated, and that this is confirmed with visual matches between the two graphs. Matches with *t*-values of 10 or more between individual sequences usually signify having originated from the same parent tree.

In reality, the probability of a particular date being valid is itself a statistical measure depending on the *t*-values. Consideration must also be given to the length of the sequence being dated as well as those of the reference chronologies. A sample with 30 or 40 years growth is likely to match with high *t*-values at varying positions, whereas a sample with 100 consecutive rings is much more likely to match significantly at only one unique position. Samples with ring counts as low as 50 may occasionally be dated, but only if the matches are very strong, clear, and well replicated, with no other significant matching positions. This is essential for intra-site matching when dealing with such short sequences. Consideration should also be given to evaluating the reference chronology against which the samples have been matched: those with well-replicated components that are geographically near to the sampling site are given more weight than an individual site or sample from far away.

It is general practice to cross-match samples from within the same phase to each other first, combining them into a site master, before comparing with the reference chronologies. This has the advantage of averaging out the "noise" of individual trees and is much more likely to obtain higher *t*-values and stronger visual matches. After measurement, the ring-width series for each sample is plotted as a graph of width against year on log-linear graph paper. The graphs of each of the samples in the phase under study are then compared visually at the positions indicated by the computer matching and, if found satisfactory and consistent, are averaged to form a mean curve for the site or phase. This mean curve and any unmatched individual sequences are compared against dated reference chronologies to obtain an absolute calendar date for each sequence. Sometimes, especially in urban situations, timbers may have come from different sources and fail to match each other, thus making the compilation of a site master difficult. In this situation samples must then be compared individually with the reference chronologies.

Therefore, when cross-matching samples with each other, or against reference chronologies, a combination of both visual matching and a process of qualified statistical comparison by computer is used. For this study, the ring-width series were compared on an IBM compatible computer for statistical cross-matching using a variant of the Belfast CROS program (Baillie and Pilcher 1973).

Ascribing and Interpreting Felling Dates

Once a tree-ring sequence has been firmly dated in time, a felling date, or date range, is ascribed where possible. For samples that have sapwood complete to the underside of, or including, bark, this process is relatively straight forward. Depending on the completeness of the final ring, i.e. if it has only the early wood formed, or the latewood, a *precise felling date and season* can be given. Where the sapwood is

partially missing, or if only a heartwood/sapwood transition boundary survives, then the question of when the tree was felled becomes considerably more complicated. In the European oaks, sapwood tends to be of a relatively constant width and/or number of rings, and it is possible to estimate the approximate number of sapwood rings that are missing from any given timber.

Unfortunately, it has not been possible to apply an accurate sapwood estimate to either the white or red oaks at this time. Primarily, it would appear that there is a complete absence of literature on sapwood estimates for oak anywhere in the country (Grissino-Mayer, *pers comm*). The matter is further complicated in that the sapwood in white oak (*Quercus alba*) occurs in two bands, with only the outer ring or two being free of tyloses in the spring vessels (Gerry 1914; Kato and Kishima 1965). Out of some 50 or so samples, only a handful had more than 3 rings of sapwood without tyloses. The actual sapwood band is differentiated sometimes by a lighter color, although this is often indiscernible (Desch 1948). In archaeological timbers, the lighter colored sapwood does not collapse as it does in the European oak (*Q rober*), but only the last ring or two without tyloses shrink tangentially. In these circumstances the only way of being able to identify the heartwood/sapwood boundary is by recording how far into the timber wood boring beetle larvae penetrate, as the heartwood is not usually susceptible to attack unless the timber is in poor or damp conditions. Despite all of these drawbacks, some effort has been made in recording sapwood ring counts on white oak, although the effort is acknowledged to be somewhat subjective.

As for red oaks (*Quercus rubra*) it will probably not be possible to determine a sapwood estimate as these are what are known as "sapwood trees" (Chattaway 1952). Whereas the white oak suffers from an excess of tyloses, these are virtually non-existent in the red oak, even to the pith. Furthermore, there is no obvious color change throughout the section of the tree, and wood-boring insects will often penetrate right through to the center of the timber. Therefore, in sampling red oaks, it is vital to retain the final ring beneath the bark, or to make a careful note of the approximate number of rings lost in sampling, if any meaningful interpretation of felling dates is to be made. Similarly, no study has been made in estimating the number of sapwood rings in chestnut oak, tulip-poplar, black ash, or any of the pines.

Therefore, if the bark edge does not survive on any of the timbers sampled, only a *terminus post quem* or *felled-after* date can be given. The earliest possible felling date would be the year after the last measured ring date, adjusted for any unmeasured rings or rings lost during the process of coring.

Some caution must be used in interpreting solitary precise felling dates. Many instances have been noted where timbers used in the same structural phase have been felled one, two, or more years apart. Whenever possible, a group of precise felling dates should be used as a more reliable indication of the construction period. It must be emphasized that dendrochronology can only date when a tree has been felled, not when the timber was used to construct the structure under study. However, it is common practice to build timber-framed structures with green or unseasoned timber and therefore construction usually took place within twelve to eighteen months of felling (Miles 1997).

Details of Dendrochronological Analysis

The results of the dendrochronological analysis for the buildings under study are presented in a number of detailed tables. The most useful of these is the summary **Table 1**. This gives most of the salient results of the dendrochronological process, and includes details for each sample, such as its species, location, and felling date, if successfully tree-ring dated. This last column is of particular interest to the end user, as it gives the actual year and season when the tree was felled, if bark or bark edge is present. If bark edge is not present, it gives a *terminus post quem* or date after which the timber was felled. Often these *terminus post quem* dates begin far earlier than any associated precise felling dates. This is simply because far more rings have been lost in the initial conversion of the timber. If the sapwood was complete on the timber but some was lost during coring, an estimated date range can sometimes be given.

It will also be noticed that often the precise felling dates will vary within several years of each other. Unless there is supporting archaeological evidence suggesting different phases, all this would indicate is either stockpiling of timber, or of trees that had been felled or died at varying times but were not cut up until the commencement of the particular building operations in question. When presented with varying precise felling dates, one should always take the latest date for the structure under study, and it is likely that construction will have been completed for ordinary vernacular buildings within twelve or eighteen months from this latest felling date (Miles 1997).

Table 2 gives an indication of the statistical reliability of the match between one sequence and another. This shows the *t*-value over the number of years overlap for each combination of samples in a matrix table. It should be born in mind that *t*-values with less than 80 rings overlap may not truly reflect the same degree of matching and that spurious matches may produce similar values.

First, multiple radii have been cross-matched with each other and combined to form same-timber means. These are then compared with other samples from the site and any which are found to have originated from the same parent tree are again similarly combined. Finally, all samples, including all same timber and same tree means, are combined to form one or more site masters. Again, the cross-matching is shown as a matrix table of *t*-values over the number of years overlaps. Reference should always be made to **Table 1** to clearly identify which components have been combined.

Table 3 shows the degree of cross-matching between the site master(s) and a selection of reference chronologies. This shows the state or region from which the reference chronology originated, the common chronology name, the publication reference, and the years covered by the reference chronology. The number of overlapping years between the reference chronology and the site master is also shown together with the resulting *t*-value. It should be noted that well replicated regional reference chronologies, which are shown in **bold**, will often produce better matches than individual site masters or indeed individual sample sequences.

Figures include a bar diagram that shows the chronological relationship between two or more dated samples from a phase of building and any plans showing sample locations, if available.

Publication of all dated sites for English buildings occurs annually in *Vernacular Architecture*, but regrettably there is at the present time no vehicle available for the publication of dated American buildings. However, a similar entry is shown on the summary page of the report, which could be used in any future publication of American dates. This does not give as much technical data for the samples dated, but does give the *t*-value matches against the relevant chronologies, provides a short descriptive paragraph for each building or phase dated, and gives a useful short summary of samples dated. These summaries are also listed on the web-site maintained by the Laboratory, which can be accessed at www.dendrochronology.com.
 Primary data and the resulting site master(s) used in the analysis are available from the Laboratory on request by the commissioner and bona fide researchers. The samples form part of the Laboratory archives, unless an alternative archive, such as the Colonial Williamsburg Foundation in association with the Oxford Tree-Ring Laboratory, has been specified in advance.

Sampling

A dendrochronological study of the Spring Hill was undertaken in an attempt to date the primary construction phase of the building. Thirteen timbers in total were sampled: three posts, two joists, six studs, a collar and a trimmer.

Each sample was given the code **shlva** (for Spring Hill, Virginia) and numbered 1 to 13 (see table 1). The position of each sample was noted at the time of sampling (see figures 2).

Summary of Dating

Bark edge survived on ten of the thirteen timbers deemed suitable for analysis. The outer wood on some of the timbers was extremely friable and therefore difficult to keep intact during coring. As a result, multiple samples were taken from two of these timbers in order to maximise the chances of retaining a complete core. The multiple samples were combined to form the four new individual sample sequences **shlva2,** and **shlva5**, which were used in the rest of the analysis (see table 2).

All of the timber sequences were compared with each other. Three timbers were found to match with t-values above 10 suggesting they were from the same tree (**shlva2**, **shlva5,** and **shlva12**), allowing them to be combined into a 118-year same tree mean **shlva2512,** which were used in the rest of the analysis (see table 3).

Six of the timbers (**shlva1**, **shlva3, shlva4**, **shlva6, shlva7,** and **shlva10**) along with the same tree mean (**shlva2512**)—were found to match each other, allowing them to be combined into the 82-year site master **SHLVAx1**.

The site master and the remaining unmatched samples were compared with over four hundred master chronologies from the East Coast of the United States. **SHLVAx1** was found to date spanning the years 1615 to 1766 (see table 3). One of the individual samples also matched against the dated master chronologies: taken from a Joist, **shlva8**, was found to date spanning the years 1604 to 1766.

Interpretation

The tree-ring analysis has resulted in the successful dating of the Spring Hill.

All ten of the timbers that formed the dated site master **SHLVAx1** were from the first floor and nine retained complete sapwood. One gave a precise felling date of the winter of 1761/2, seven gave a precise felling date of the winter of 1766/7, and one gave a precise felling date of the summer of 1767, leading to the conclusion that the primary construction phase of the house took place in the summer of 1767 or shortly thereafter. Sample **shlva8** also gave a date of winter 1766/7.

Acknowledgements

Thanks are given to Ed Cook, Gordon Jacoby, and Paul Krusic of the LDEO Dendrochronology Laboratory at Columbia University, New York, and to Bill Callahan for making available both published and unpublished reference chronologies. Christine Nell Heikkenen, who has donated the Heikkenen Archives in loving memory of her father, Dr. Herman J. Heikkenen.

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Table 1: Summary of tree-ring dating

SPRING HILL, VIRGINA

Sample number & type		Species	Timber and position	Dates AD spanning	Last Ring	No of rings	Mean width mm	Std devn mm	Mean sens mm	Felling seasons and dates/date ranges
House										
* **shlva1**	c	PISP	Post center east wall	1675-1766	C	92	0.94	0.36	0.228	Winter 1766/7
shlva2ar	c	PISP	Post 2nd from north east wall	1692-1764	h/w only	73	0.66	0.22	0.261	
shlva2b	c	PISP	ditto	1685-1766	C	82	0.75	0.28	0.205	
shlva2	m		Mean of **shlva2a** + **shlva2b**	1685-1766	C	82	0.73	0.28	0.215	Winter 1766/7
* **shlva3**	c	PISP	Joist 2nd from east wall	1672-1766	½C	95	1.58	1.09	0.245	Summer 1767
* **shlva4**	c	PISP	Post 1st from east south wall	1615-1761	C	147	1.10	0.44	0.234	Winter 1761/2
shlva5a	c	PISP	Stud 6th from west south wall	1665-1765	h/w only	101	0.75	0.34	0.200	
shlva5b1	c	PISP	ditto	-		12	1.34	0.33	0.267	
shlva5b2	c	PISP	ditto	1670-1766	C	97	0.73	0.34	0.202	
shlva5	m		Mean of **shlva5a** + **shlva5b2**	1665-1766	C	102	0.74	0.33	0.191	Winter 1766/7
* **shlva6**	c	PISP	Stud 3rd from west south wall	1665-1766	C	102	1.05	0.38	0.241	Winter 1766/7
* **shlva7**	c	PISP	Stud 2nd from west south wall	1705-1766	C	62	1.83	0.77	0.238	Winter 1766/7
shlva8	c	PISP	Joist 3rd from west cellar	1604-1766	C	163	0.99	0.38	0.208	Winter 1766/7
shlva9	c	PISP	Collar 5th from west	-	½C	63	1.64	0.85	0.219	
* **shlva10**	c	PISP	Stud center west wall	1684-1766	C	83	1.19	0.42	0.218	Winter 1766/7
shlva11	c	LITU	Trimmer south side of northern chimney	-	½C	58	2.18	0.81	0.365	
shlva12a	c	PISP	Stud 3rd from north west wall	1649-1762	h/w only	114	0.93	0.41	0.249	
shlva12b	c	PISP	ditto	1740-1766	C	27	0.62	0.14	0.195	
shlva12	c		Mean of shlva12a + shlva12b	1649-1766	C	118	0.92	0.40	0.250	Winter 1766/7
shlva13	c	PISP	Stud 1st from north west wall	-	h/w only	69	1.57	0.55	0.226	
* **shlva2512**				1649-1766		118	0.89	0.41	0.214	
* **SHLVAx1**				1615-1766		152	1.25	0.45	0.206	

Key: *, †, § = sample included in site master; c = core; mc = micro-core; s = slice/section; g = graticule; p = photograph; ¼C, ½C, C = bark edge present, partial or complete ring: ¼C = spring (last partial ring not measured), ½C = summer/autumn (last partial ring not measured), or C = winter felling (ring measured); h/w only = heartwood only; nm = number of unmeasured rings; std devn = standard deviation; mean sens = mean sensitivity; PISP = *Pinus L.* (Southern yellow pine), LITU = *Liriodendron tulipifera L.* (tulip poplar);

Explanation of terms used in Table 1

The summary table gives most of the salient results of the dendrochronological process. For ease in quickly referring to various types of information, these have all been presented in Table 1. The information includes the following categories:

Sample number: Generally, each site is given a two or three letter identifying prefix code, after which each timber is given an individual number. If a timber is sampled twice, or if two timbers were noted at time of sampling as having clearly originated from the same tree, then they are given suffixes '**a**', '**b**', etc. Where a core sample has broken, with no clear overlap between segments, these are differentiated by a further suffix '**1**', '**2**', etc.

Type shows whether the sample was from a core 'c', or a section or slice from a timber's'. Sometimes photographs are used 'p', or timbers measured *in situ* with a graticule 'g'.

Species gives the four-letter species code used by the International Tree-Ring Data Bank, at NOAA. These are identified in the key at the bottom of the table.

Timber and position column details each timber sampled along with a location reference. This will usually refer to a bay or truss number, or relate to compass points or to a reference drawing.

Dates AD spanning gives the first and last measured ring dates of the sequence (if dated),

H/S bdry is the date of the heartwood/sapwood transition or boundary (if identifiable).

Sapwood complement gives the number of sapwood rings, if identifiable. The tree starts growing in the spring during which time the earlywood is produced, also known also as spring growth. This consists of between one and three decreasing spring vessels and is noted as *Spring* felling and is indicated by a ¼ C after the number of sapwood ring count. Sometimes this can be more accurately pin-pointed to very early spring when just a few spring vessels are visible. After the spring growing season, the latewood or summer growth commences, and is differentiated from the proceeding spring growth by the dense band of tissue. This summer growth continues until just before the leaves drop, in about October. Trees felled during this period are noted as *summer* felled (½ C), but it is difficult to be too precise, as the width of the latewood can be variable, and it can be difficult to distinguish whether a tree stopped growing in autumn or *winter*. When the summer growth band is clearly complete, then the tree would have been felled during the dormant winter period, as shown by a single C. Sometimes a sample will clearly have complete sapwood, but due either to slight abrasion at the point of coring, or extremely narrow growth rings, it is impossible to determine the season of felling.

Number of rings: The total number of measured rings included in the samples analysed.

Mean ring width: This, simply put, is the sum total of all the individual ring widths, divided by the number of rings, giving an average ring width for the series.

Mean sensitivity: A statistic measuring the mean percentage, or relative, change from each measured yearly ring value to the next; that is, the average relative difference from one ring width to the next, calculated by dividing the absolute value of the differences between each pair of measurements by the average of the paired measurements, then averaging the quotients for all pairs in the tree-ring series (Fritts 1976). Sensitivity is a dendrochronological term referring to the presence of ring-width variability in the radial direction within a tree which indicates the growth response of a particular tree is "sensitive" to variations in climate, as opposed to complacency.

Standard deviation: The mean scatter of a population of numbers from the population mean. The square root of the variance, which is itself the square of the mean scatter of a statistical population of numbers from the population mean. (Fritts 1976).

Felling seasons and dates/date ranges is probably the most important column of the summary table. Here the actual felling dates and seasons are given for each dated sample (if complete sapwood is present). Sometimes it will be noticed that often the precise felling dates will vary within several years of each other. Unless there is supporting archaeological evidence suggesting different phases, all this would indicate is either stockpiling of timber, or of trees which have been felled or died at varying times but not cut up until the commencement of the particular building operations in question. When presented with varying precise felling dates, one should always take the *latest* date for the structure under study, and it is likely that construction will have been completed for ordinary vernacular buildings within twelve or eighteen months from this latest felling date (Miles 1997).

Table 2: Matrix of *t*-values and overlaps for same-timber means and site master

Components of timber mean **shlva2**

Sample:	**shlva2b**
Last ring date AD:	1685-1766
shlva2a 1692-1764	15.03 / 73

Components of timber mean **shlva5**

Sample:	**shlva5b**
Last ring date AD:	1670-1766
shlva5a 1665-1765	16.36 / 96

Components of timber mean **shlva12**

Sample:	**shlva12b**
Last ring date AD:	1749-1766
shlva12a 1649-1762	9.22 / 23

Components of same tree mean **shlva2512**

Sample:	**shlva2**	**shlva5**
Last ring date AD:	1685-1766	1665-1766
shlva12 1649-1766	12.90 / 82	11.61 / 102
	shlva2	11.43 / 82

Components of site master **SHLVAx1**

Sample: *Last ring date AD:*	**shlva10** 1684-1766	**shlva2512** 1649-1766	**shlva3** 1672-1766	**shlva4** 1615-1761	**shlva6** 1665-1766	**shlva7** 1705-1766
shlva1 1675-1766	6.19 / 83	8.16 / 92	8.18 / 92	5.34 / 87	6.21 / 92	4.46 / 62
	shlva10	5.82 / 83	7.50 / 83	3.82 / 78	3.67 / 83	5.95 / 62
		shlva2512	9.56 / 95	5.20 / 113	6.41 / 102	4.83 / 62
			shlva3	4.16 / 90	5.18 / 95	6.36 / 62
				shlva4	4.01 / 97	3.55 / 57
					shlva6	3.66 / 62

Table 3a: Dating of site master **SHLVAx1** (1615-1766) against reference chronologies

	State or region:	*Chronology name:*	*Short publication reference:*	*File name:*	*Spanning:*	*Overlap:*	t-*value:*
*	Virginia	St Johns Church, Richmond	Miles and Worthington 2008/36	SJC	1556-1849	152	9.38
	Virginia	Virgina Area Pine Master Chronology	Worthington 2012	**VAPINE2B**	932-1985	152	9.21
*	Virginia and West Virginia	Cofecha Dating Master Data Pine	Columbia Pers comm	**WVVAP**	1400-1750	136	8.97
	Maryland and Virginia	Chesapeake Bay Master Chronology	Heikkenen Archive	cpz3	1625-1988	142	7.36
	Virginia	James Geddy House	Heikkenen Archive	WBG	1654-1762	109	7.12
*	Virginia	Presidance House, College of Willaim and Mary Williamsburg	Miles and Worthington 2006/58	PHWV	1626-1783	141	6.62
	North Carolina	Cupola House, Edenton	Heikkenen Archive	ches3	1632-1757	126	6.53
	Virginia	Girl School, Petersburg	Heikkenen Archive	gss1	1663-1764	102	6.50
*	Virginia	Tuckahoe Plantation - Pine	Columbia pers com	**TUVA**	1433-1740	126	6.45

Chronologies in **bold** denote regional masters

* = Component of **VAPINE2B**

Table 3b: Dating of individual sample **shlva8** (1604-1766) against reference chronologies

	State or region:	*Chronology name:*	*Short publication reference:*	*File name:*	*Spanning:*	*Overlap:*	t-*value:*
*	Virginia and West Virginia	Cofecha Dating Master Data Pine	Columbia Pers comm	WVVAP	1400-1750	147	6.14
*	Virginia	Presidance House, College of Willaim and Mary Williamsburg	Miles and Worthington 2006/58	PHWV	1626-1783	141	6.07
	Virginia	Spring Hill,	Worthington and Seiter 2014/15	SHLVAx**1**	1615-1766	148	5.57
	Virginia	Virgina Area Pine Master Chronology	Worthington 2012	**VAPINE2B**	932-1985	163	5.32
*	Virginia	Tuckahoe Plantation - Pine	Columbia pers com	**TUVA**	1433-1740	137	5.15
*	Virginia	St Johns Church, Richmond	Miles and Worthington 2008/36	SJC	1556-1849	163	5.18
	Maryland and Virginia	Chesapeake Bay Master Chronology	Heikkenen Archive	cpz3	1625-1988	142	5.06
	Virginia	James Geddy House	Heikkenen Archive	WBG	1654-1762	109	4.79

Chronologies in **bold** denote regional masters

* = Component of **VAPINE2B**

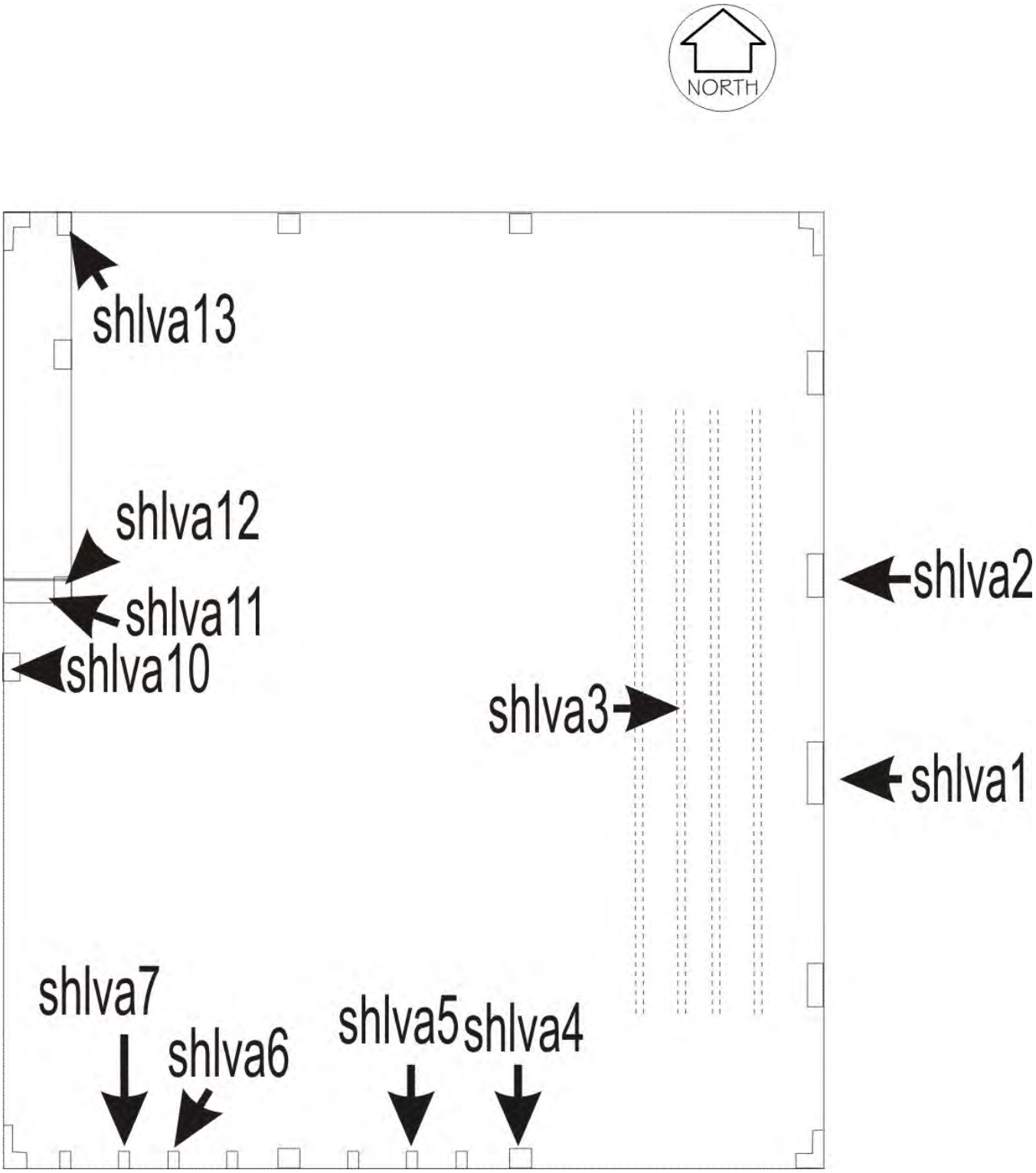

Figure 2. Sketch plan of Spring Hill showing sample locations

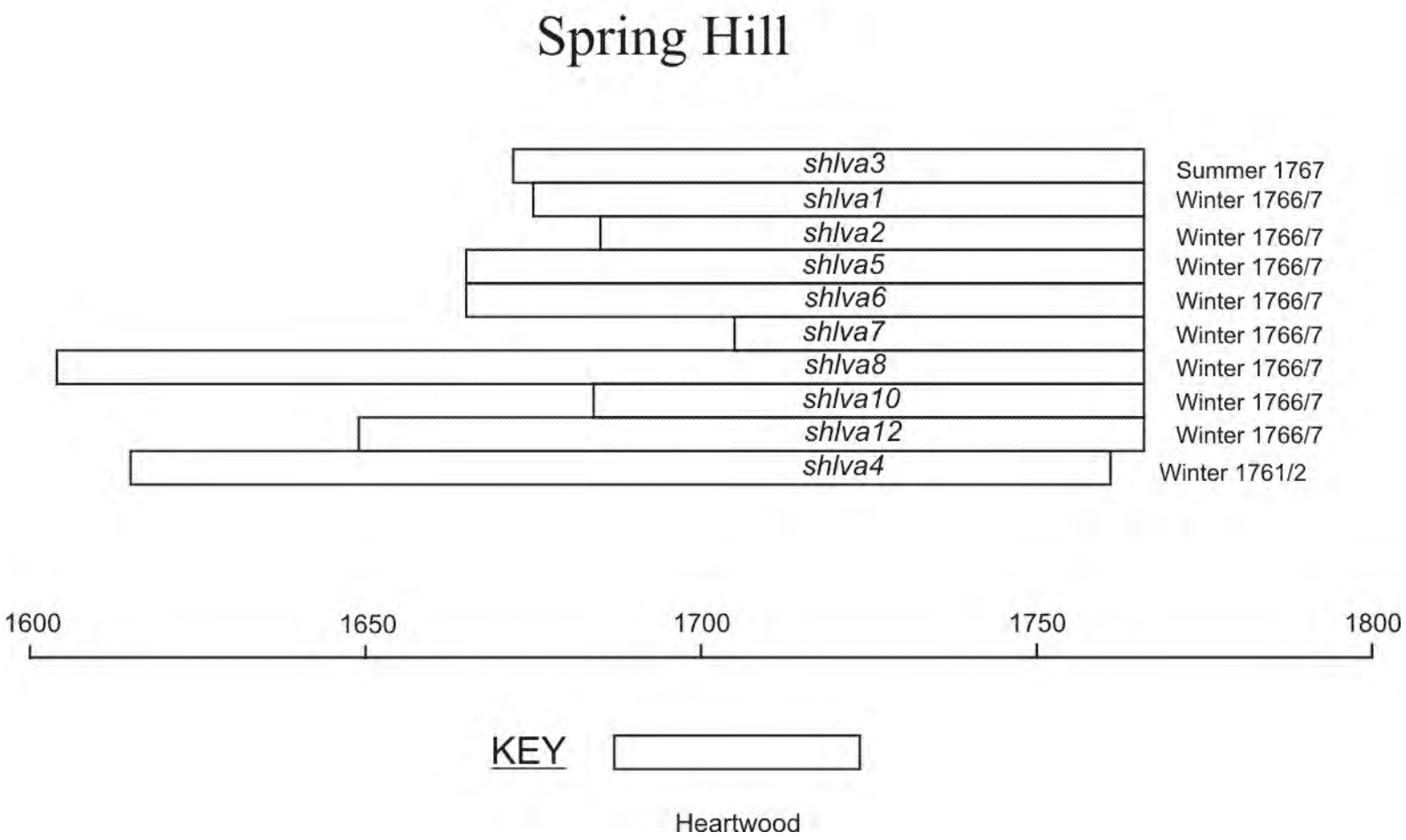

Figure 5. Bar diagram showing dated timbers in chronological order