ARCHAEOLOGICAL IDENTIFICATION SURVEY AND ARCHAEOLOGICAL EVALUATION INVESTIGATIONS AT 7NC-B-11, THE WELDIN PLANTATION SITE 7NC-B-49, THE AUGUSTINE CUTOFF SITE AND 7NC-B-51, THE RONALD MCDONALD HOUSE SITE BLUE BALL PROPERTIES AREA TRANSPORTATION IMPROVEMENT PROJECT BRANDYWINE HUNDRED, NEW CASTLE COUNTY, DELAWARE

Submitted To:

UNITED STATES DEPARTMENT OF TRANSPORTATION
Federal Highway Administration

and

DELAWARE DEPARTMENT OF STATE
Division of Historical and Cultural Affairs
State Historic Preservation Office

Prepared For:

DELAWARE DEPARTMENT OF TRANSPORTATION
Division of Transportation Solutions
Environmental Studies Office

Shailen Bhatt
Secretary of the Department of Transportation

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Kathleen M. Diehl
David G. Kimmerly, MA

McCORMICK TAYLOR, INC.
Newark, Delaware

April 2012

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Abstract

The results of the Phase I Archaeological Identification Survey and Phase II Evaluation Surveys of the Weldin Plantation Site (7NC-B-11), the Ronald McDonald House Site (7NC-B-54), and the Augustine Cutoff Site (7NC-B-49) conducted for the Blue Ball Properties Area Transportation Improvement Project, Brandywine Hundred, New Castle County, Delaware are presented in this report. The archaeological investigations were performed by McCormick Taylor, Inc. for the Delaware Department of Transportation (DelDOT) and the Federal Highway Administration (FHWA).

The project involves improvements to the Route 202 (Concord Pike) corridor between the Interstate 95 interchange and the project's northern terminus at the AstraZeneca corporate entrance, just north of Delaware Route 141. The proposed project includes the construction of a new alignment for Delaware 141 between the existing Astra Zeneca plant and Rockland Road to a new end at the interchange with U.S. 202 and Delaware 261. Proposed West Park Road will travel between Augustine Cut-off and Delaware 141 to the west of U.S. 202 and proposed East Park Road will be built between Augustine Cut-Off and Weldin Road to the east of U.S. 202. New overpasses are planned for Concord Pike over relocated Delaware 141 and relocated Delaware 261 (Foulk Road).

A total of 496 STPs were excavated during the Phase I Archaeological Identification Survey. No archaeological sites were identified during the Phase I Survey. Three previously identified archaeological sites were subjected to Phase II Archaeological Evaluation Testing. These included the Weldin Plantation Site (7NC-B-11), the Augustine Cutoff Site (7NC-B-49), and the Ronald McDonald House Site (7NC-B-54). At the completion of the Phase II Archaeological Evaluation Survey, McCormick Taylor recommended the Weldin Plantation Site (7NC-B-11) eligible for listing in the National Register of Historic Places under Criterion D for the significant information it can contribute to our understanding of the evolution of rural farm life in New Castle County Delaware from the late eighteenth to early twentieth centuries. The Ronald McDonald House Site (7NC-B-54) was also recommended eligible for listing in the NRHP under Criterion D, as the site offers a unique opportunity to consider a procurement site in the context of the broader network of sites within the Piedmont region. The Augustine Cutoff Site (7NC-B-49) was recommended not eligible for listing in the NRHP. The site was heavily disturbed during the widening of Concord Pike and the subsequent placement of utilities along the edge of the western roadway in the twentieth century.

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I. Introduction

The results of the Phase I Archaeological Identification Survey and Phase II Evaluation Surveys of the Weldin Plantation Site (7NC-B-11), the Ronald McDonald House Site (7NC-B-54), and the Augustine Cutoff Site (7NC-B-49) conducted for the Blue Ball Properties Area Transportation Improvement Project, Brandywine Hundred, New Castle County, Delaware ***(Figure 1)*** are presented in this report. The archaeological investigations were performed by McCormick Taylor, Inc. for the Delaware Department of Transportation (DelDOT) and the Federal Highway Administration (FHWA).

The project involves improvements to the Route 202 (Concord Pike) corridor between the Interstate 95 interchange and the project's northern terminus at the AstraZeneca corporate entrance, just north of Delaware Route 141. The proposed project includes the construction of a new alignment for Delaware 141 between the existing Astra Zeneca plant and Rockland Road to a new end at the interchange with U.S. 202 and Delaware 261. Proposed West Park Road will travel between Augustine Cut-off and Delaware 141 to the west of U.S. 202 and proposed East Park Road will be built between Augustine Cut-Off and Weldin Road to the east of U.S. 202. New overpasses are planned for Concord Pike over relocated Delaware 141 and relocated Delaware 261 (Foulk Road).

The archaeological survey was conducted in compliance with applicable state and Federal guidelines. State and Federal mandates that apply to the project include: the Federal Highway Act of 1966 as amended; the National Historic Preservation Act of 1968 as amended; the National Environmental Policy Act of 1969; the Archaeological and Historic Act of 1974; Executive Order 11593; the regulations of the Advisory Council on Historic Preservation (36 CFR § 800); and the Delaware State Historic Preservation Office's *Guidelines for Architectural and Archaeological Surveys in Delaware* (October 1993).

The Phase I Archaeological Identification Survey was performed pursuant to 36CFR§800.4(b), *Identify historic properties*, which specifies that "The agency official shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey." The Phase II Archaeological Evaluation Survey was conducted in accordance with 36CFR§800.4(c), *Evaluate historic significance*. This clause indicates that "The agency official shall apply the National Register criteria (36CFR§63) to properties within the area of potential effects that have not been previously evaluated for National Register eligibility."

McCormick Taylor completed the identification and evaluation of architectural (Arnold and Post 2001) and archaeological properties within the area of potential effects for the project. The Federal Highway Administration determined that the following properties within the area of potential effects for the project were eligible for the National Register of Historic Places: the Concord Pike Milestone (N-12684), 1 Rock Manor Avenue (N-12673), 13 Rock Manor Avenue (N-12676), the Nemours Historic District (N-14008), "Wartime" Deerhurst Development (N-13802), the Porter Reservoir (N-14003), the Jewish Community Cemetery (N-14004), the Ronald McDonald House Archaeological Site (7NC-B-54/N-13785), and the J. R. Weldin

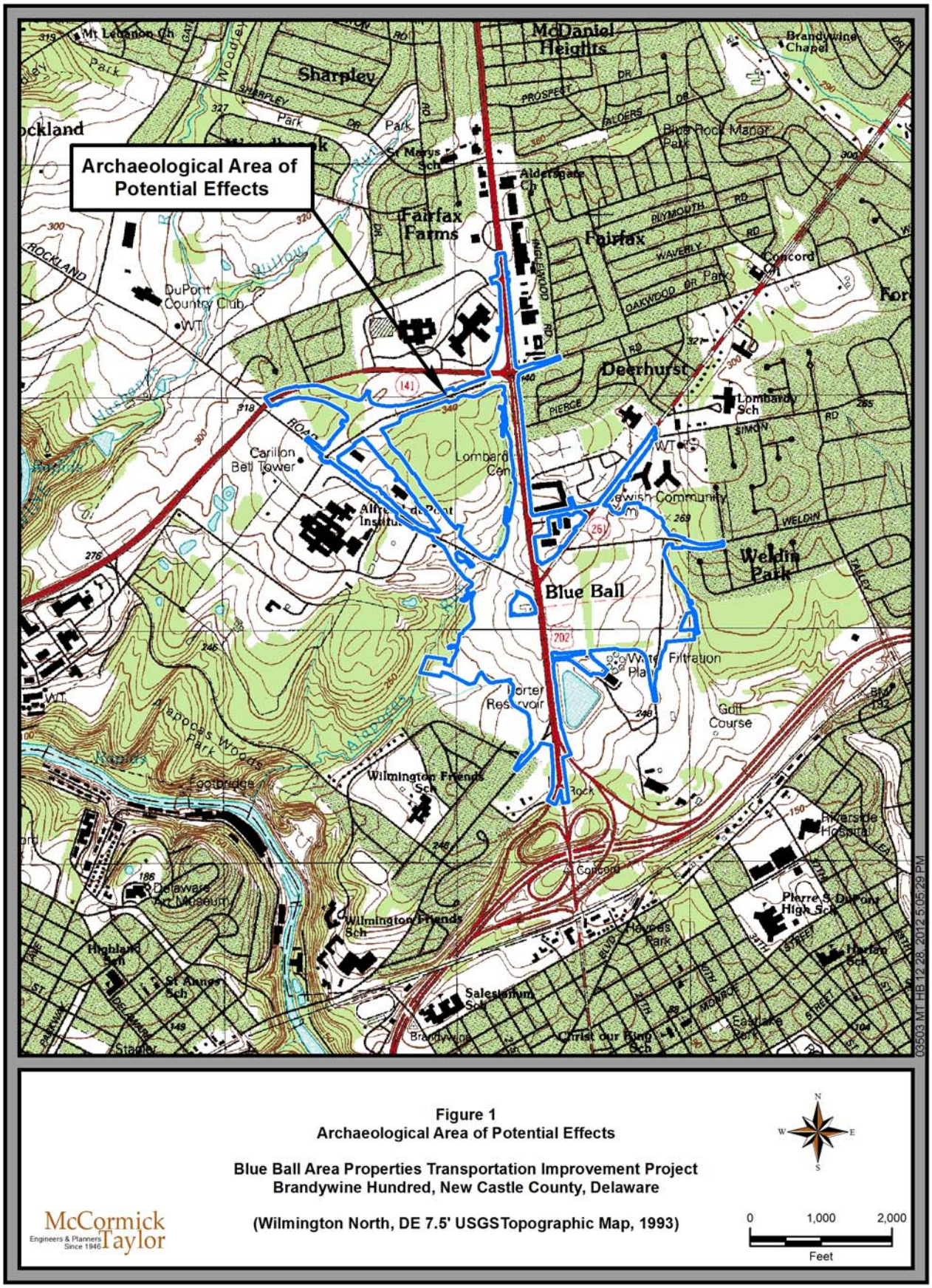

Figure 1
Archaeological Area of Potential Effects

Blue Ball Area Properties Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

(Wilmington North, DE 7.5' USGS Topographic Map, 1993)

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N W E S

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Archaeological Site (7NC-B-11/N-9453). In addition, Lombardy Hall is a National Historic Landmark.

The Federal Highway Administration found that the project would have an adverse effect on numerous historic properties eligible for or listed in the National Register of Historic Places, including the Weldin Plantation Site, 7NC-B-11. DelDOT and FHWA developed mitigation for the adverse effects in consultation with the Delaware State Historic Preservation Office (SHPO) and other consulting parties for the project. A Memorandum of Agreement (MOA) was subsequently executed on January 30, 2002 ***(Appendix A)***.

A project's area of potential effects (APE) is defined by 36CFR§800.16(d) as "the geographic area or areas within which an undertaking my directly or indirectly cause alterations in the character or use of historic properties." The area of potential effects (APE) is defined for archaeological resources as any area in which ground disturbance may occur. The APE for the Blue Ball Properties Area Transportation Improvement Project is approximately 181.63 acres (73.50 hectares). Approximately 36.84 acres (14.91 hectares) was determined to have been previously disturbed and approximately 67.33 acres (27.25 hectares) was previously subjected to archaeological investigations. In addition, approximately 32.62 acres (13.20 hectares) were not tested after consultation with the SHPO determined that the testing was not warranted. Approximately 44.84 acres (18.15 hectares) of the APE was tested during the Phase I Archaeological Identification survey.

A total of 496 STPs were excavated during the Phase I Archaeological Identification Survey. No archaeological sites were identified during the Phase I Survey. Three previously identified archaeological sites were subjected to Phase II Archaeological Evaluation Investigations: the Weldin Plantation Site (7NC-B-11), the Augustine Cutoff Site (7NC-B-49), and the Ronald McDonald House Site (7NC-B-54). At the completion of the Phase II Archaeological Evaluation Survey, McCormick Taylor recommended the Weldin Plantation Site (7NC-B-11) eligible for listing in the National Register of Historic Places under Criterion D for the significant information it can contribute to our understanding of the evolution of rural farm life in New Castle County Delaware from the late eighteenth to early twentieth centuries. The Ronald McDonald House Site (7NC-B-54) was also recommended eligible for listing in the NRHP under Criterion D, as the site offers a unique opportunity to consider a procurement site in the context of the broader network of sites within the Piedmont region. The Augustine Cutoff Site (7NC-B-49) was recommended not eligible for listing in the NRHP. The site was heavily disturbed during the widening of Concord Pike and the subsequent placement of utilities along the edge of the western roadway in the twentieth century.

Management summaries were prepared and submitted to DelDOT, FHWA, the Delaware SHPO, and other Consulting Parties as testing was completed for certain portions of the APE. Two management summaries were prepared for the initial Phase I work (Shaffer 2000; Shaffer 2001a), and a management summary was prepared for each of the three Phase II investigations (Shaffer and Eiswert 2000; Shaffer and Eiswert 2001a; Simons *et al.* 2001). As the project design progressed, additional areas were proposed for development, and supplementary Phase I testing was conducted (Shaffer 2001b; Shaffer and Eiswert 2001b). In addition, there are certain areas that were proposed for development after the survey was completed that the SHPO agreed

did not need to be tested archaeologically. This document includes all of the information that was contained in the seven management summaries. All of the work described in this report was included in previous management summaries and was reviewed and concurred upon by DelDOT and the SHPO. The purpose of this report is to provide a comprehensive description of the Phase I Archeological Identification and Phase II Archaeological Evaluation Investigations that were completed for the project.

The Principal Investigator for the Phase I Archaeological Identification and Phase II Evaluation Investigations was Barbara Shaffer. Robert Eiswert served as the Archaeological Field Director for the Phase I Archaeological Identification Survey and the Phase II Archaeological Evaluation Investigations for 7NC-B-11 and 7NC-B-54. Jonathan Bream was the Archaeological Field Director for 7NC-B-49. Kevin Simons evaluated 7NC-B-11, the Weldin Plantation Archaeological Site, for eligibility for listing in the National Register of Historic Places. Richard Baublitz provided technical assistance and evaluated 7NC-B-54, the Ronald McDonald House. Francine Arnold, Barbara Shaffer, Kevin Simons, Andrew Wyatt, Kathleen Diehl, David Kimmerly, and Robert Eiswert completed the background research. Dorothy Daly completed the vegetation survey. Macon Coleman, Scott Emory, and John Mark Joseph were Archaeological Field Technicians and served as Field Supervisors when necessary. Additional Archaeological Field Technicians included Elise Alexander, Daniel Angelo, Jeffrey Bowdoin, Brenda Weller, Timothy Coan, James Di Vietro, Kathryn Ersoz, Colin Ferriman, Bonnie Lassiter, Elizabeth Korb, Timothy Manscl, Wayne Mellin, David Orr, Kevin Simons, Rebecka Weinsteiger, and Joshua Wilson. Pre-contact artifacts were analyzed by Andrew Wyatt and the historic artifacts were analyzed by Brenda Weller. Graphics were produced by Mike Goeckel, John Watson, Jennifer Regina, and Charles Kumpas. Qualifications of key personnel are in ***Appendix B***.

II. Background Research

Background research was conducted to provide a context for the identification of archaeological resources. The locations of known archaeological sites, both pre-contact and historic, was used to determine the types of settings on which archaeological sites may be found. Historic maps and documentation were utilized to determine whether any archaeological sites were previously known, or were likely to be located, within the project area. Historic documents were examined to provide a context for the survey and to determine what activities had occurred within the APE. Historic maps and other relevant documents were examined to determine if non-extant buildings or other structures were once located within the APE.

Background research was conducted in the following repositories: New Castle County Recorder of Deeds, Historical Society of Delaware, Hagley Museum and Library, Nemours Mansion and Archives, New Castle County Land Use Department, Delaware State Archives, Delaware State Historic Preservation Office, the Delaware Planning Commission, Widener University Law Library-Brandywine Valley Historical Collection, Wilmington Department of Public Works Water Department, and the Wilmington Institute Libraries.

A. Physical Environment

Delaware is one hundred miles long and from nine to thirty-five miles wide. It is divided into three counties; New Castle, Kent and Sussex. Each county is further subdivided into Hundreds (unincorporated subdivisions of counties) and the current project lies in Brandywine Hundred. Although they served as legislative districts in the Colonial period, today Delaware's Hundreds are used for property tax assessment. The eastern shore abounds with rivers, creeks, and streams, all eventually finding their way to either to the Delaware River or Delaware Bay (Scharf 1888). The APE for this project is drained by Alapocas and Matson Runs, which are tributaries of Brandywine Creek. Brandywine Creek joins the Christana River approximately two miles north of the Christana River's confluence with the Delaware River. The elevations within the APE range from approximately 250 to 350 feet (~76 to 107 meters) above sea level. The landforms within the archaeological APE are upland and are mostly comprised of open fields or wooded zones along field margins. Portions of the project area have been disturbed by modern residential and commercial development.

1. Climate

New Castle County has a humid continental climate that is altered by the nearby Atlantic Ocean. Generally weather systems move from west to east in the warmer half of the year, but during the colder half, alternating high and low pressure systems dominate the weather. Winds from the west and northwest are associated with high pressure systems, and bring cooler temperatures and clear skies. Easterly winds caused by low pressure systems are affected by the Atlantic, providing higher temperatures, clouds, and much of the precipitation to the county (Mathews and Lavoie 1970).

The average annual temperature in New Castle County is 54 degrees Fahrenheit, with an average daily temperature of 33 degrees in January (the coldest month) and 76 degrees in July (the

warmest month). The County averages about 45 inches of annual precipitation, which is fairly evenly distributed throughout the year. In Wilmington, the growing season lasts from the middle of April to the end of October, but this varies in other parts of the county. In the western and northwestern parts it is 175 to 185 days, while it is 195 to 205 days in the eastern and southeastern parts of the county. Annually, Wilmington receives 21.4 inches of snow, but this varies greatly from year to year (from as little as 1 inch up to as much as 50 inches). Elevations range from sea level to about 400 feet (~122 meters) above sea level in New Castle County (Mathews and Lavoie 1970).

2. Geology and Soils

The APE for this project is located on the Piedmont Physiographic Province, near the Fall Line marking the transition from the Piedmont to the Coastal Plain. The Piedmont province is an eroded and dissected area of uplands developed on metamorphic crystalline bedrock. The majority of the APE is underlain by the Bryn Mawr Formation ***(Figure 2)***, which is characterized red and brown quartz sand with silt, clay and fine gravel. Rockford Park Gneiss (Orpg), an Ordivician age rock composed of medium aged felsic gneisses, is located mostly within the southeast corner of the APE. These sands and gravels are poorly sorted and erratically distributed. They typically overlay the gneiss at depths of up to 5 or 10 feet (Ramsey 2005). The southwest corner of the APE contains Brandywine Blue Gneiss (Obbg), which is characterized as medium to coarse grained granulites and gneisses composed of plagioclase, quartz, orthopyroxene, clinopyroxene, brown-green hornblende, magnetite, and ilmenite. Typical depths to bedrock are up to approximately 20 feet (~6 meters) (Ramsey 2005).

The soil underlying the majority of the APE is Talleyville silt loam, 3-8 percent slopes (TaB) ***(Figure 3).*** This well-drained soil found on uplands was formed in a silty mantle and the underlying residuum from basic igneous rocks (United States Department of Agriculture). Glenville silt loam, 0-3 percent slopes (GnA), a moderately well-drained soil to somewhat poorly drained soil that has a fragipan, is mapped to the east of S.R. 202. A sliver of Wachtung silt loam, 3-8 percent slopes (WaB), a soil type with numerous stones and boulder near the ground surface, is located along the west shoulder of S.R. 202. The developed/disturbed portions of the project, particularly in the area to the west of S.R. 202, contain Udorthents, Bedrock Substratum, 0-8 percent slopes (UaB). Smaller areas of disturbed soils in the APE included Urban land Wheaton Complex 0-8 percent slopes (VwB) and Urban land, bedrock substratum (Uy) (United States Department of Agriculture).

3. Flora and Fauna

New Castle County was a densely forested region before Euro-American settlement. Hardwoods such as oak were the most popular tree. Tulip poplar, gum, and yellow pine were also present, but true stands of pine were probably few in number. The stands of pine that exist today were made possible by a change in the composition of soils, due to clear-cutting and farming. Only a small part of New Castle County remains wooded today, with a higher ratio of pines to hardwoods, as compared to the time before deforestation (Mathews and Lavoie 1970).

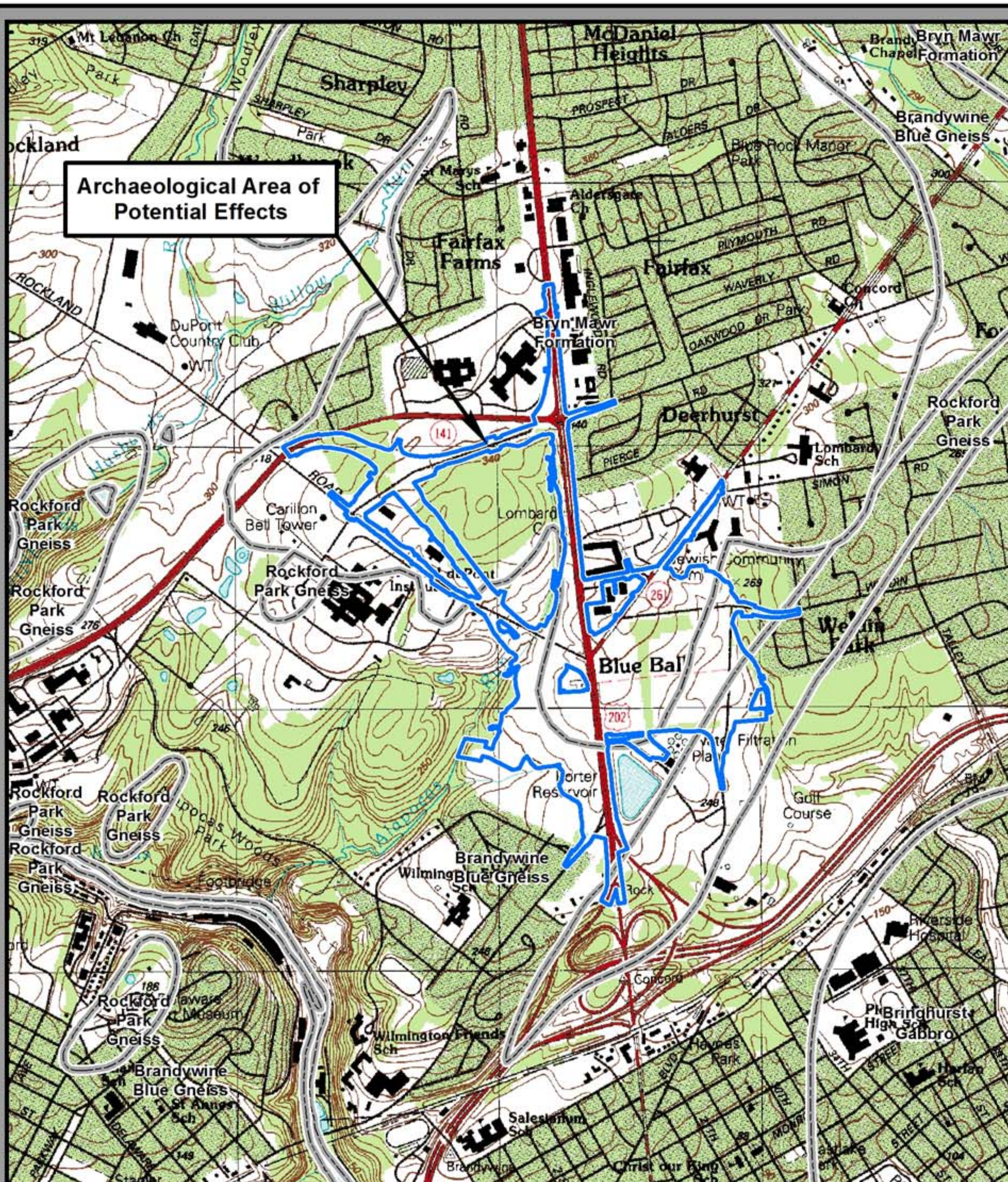

Figure 2
Bedrock Geology within the Archaeological Area of Potential Effects

Blue Ball Area Properties Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

(Delaware Geological Survey, 2005
Wilmington North, DE 7.5' USGSTopographic Map, 1993)

0 1,000 2,000 Feet

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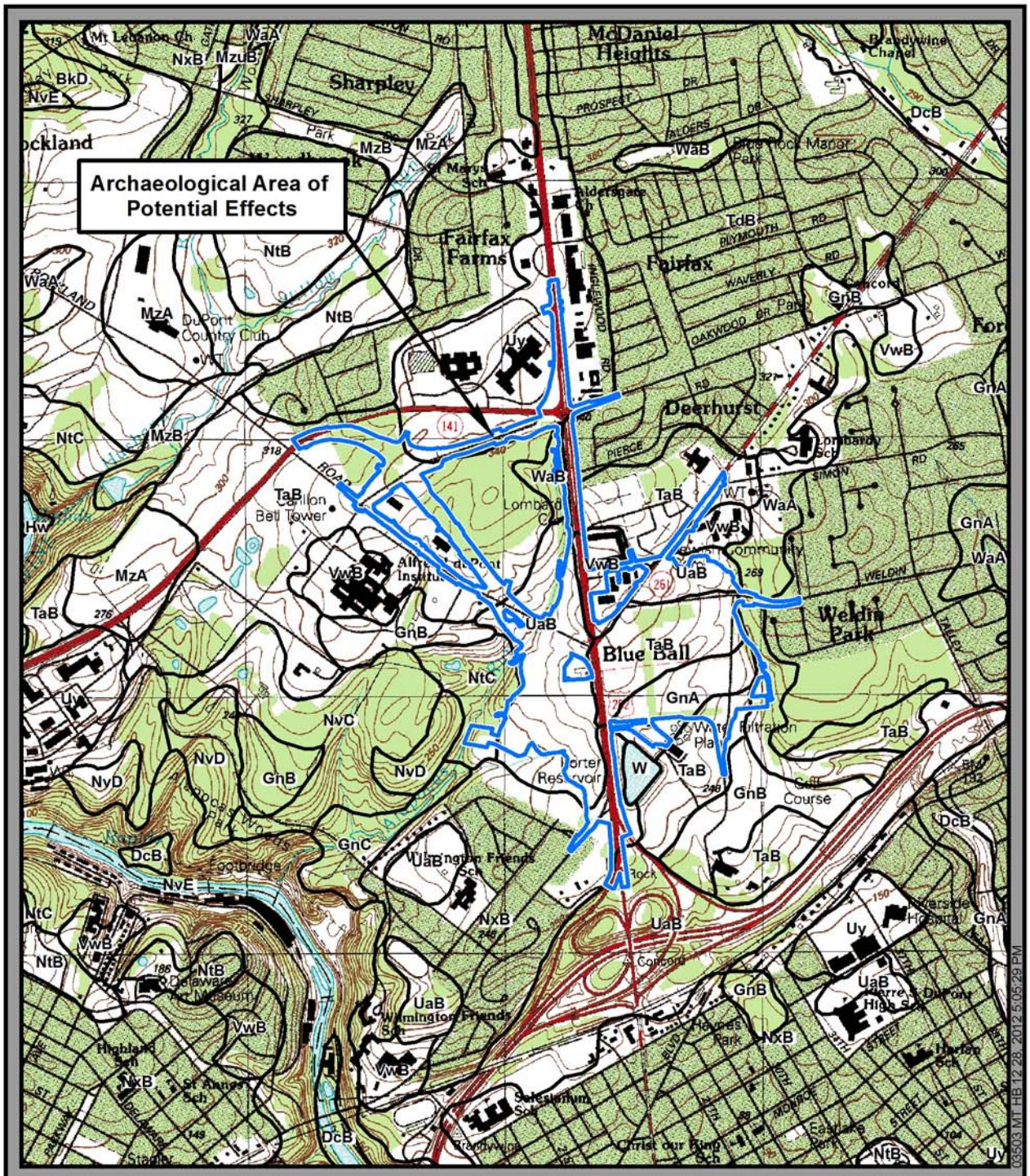

Figure 3
Soil Mapping Units within the Archaeological Area of Potential Effects

Blue Ball Area Properties Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

(Soil Data: USDA, 2010
Wilmington North, DE 7.5' USGS Topographic Map, 1993)

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Pre-contact faunal resources within New Castle county were numerous with a wide variety over a small area. Although no megafauna remains, such as mammoth and mastodon, have been found in New Castle County, faunal remains from the submerged Continental Shelf and the Coastal Plain of New Jersey serve as evidence of the distribution of these animals into the Delaware Coastal Plain during the Pleistocene (Custer 1986). Deer, elk, bear, turkey, rabbits, squirrels, and other small mammals were prevalent, as well as migratory birds, fish, and shellfish (Mathews and Lavoie 1970).

B. Pre-Contact Context

1. Pre-Clovis (ca. 16000 to 11, 500 B.P.)

The presence of pre-Clovis peoples in eastern North America remains controversial. Meadowcroft Rockshelter in Pennsylvania and the Cactus Hill site in Virginia offer the most robust evidence for pre-Clovis occupation in the eastern United States. The Cactus Hill site in Virginia's Coastal Plain has produced quartzite blade cores, blade tools, and thinned, lanceolate bifaces with an associated radiocarbon date of 15,070 ± 70 B.P. This occupation is vertically separated from an overlying Clovis component dated to 10,920 ± 250 B.P. by a ca. 0.12 meter-thick sand stratum (McAvoy and McAvoy 1997). Recent investigations at the Miles Point site on the western shore of the Delmarva Peninsula have produced a small assemblage of lithic artifacts below a buried A horizon which yielded AMS dates of 21,490 ± 140 B.P., 26,920 ± 230 B.P., and 27,240 ± 230 B.P. The assemblage included a thinned chert lanceolate biface, quartzite cobble-based tools, quartzite flake tools, and a chert multidirectional core (Lowery et al. 2010). If the radiocarbon assays from Cactus Hill and Miles Point accurately date their respective assemblages, which is supported by pedological analysis at both sites (Lowery et al. 2010, Wagner and McAvoy 2004), current models for the time of initial colonization and the appearance of Clovis will require significant revision.

2. Paleoindian (ca. 11,500 to 8,500 B.P.)

Early Paleoindian groups (~11,500 to 10,000 B.P.) inhabited Late Pleistocene ecosystems with no exact modern analogs. Their sites are most commonly identified by the presence of distinctive fluted bifaces. Other parts of the toolkit include formal flake tool types, large bifacial cores, and possibly by blade cores. In comparison to those of later pre-contact periods, Paleoindian toolkits are marked by a conspicuous use of high-quality cryptocrystalline lithic materials from sources that are sometimes far removed from the sites on which their artifacts are recovered. Their use of high-quality toolstone is thought to have resulted from a need for durability over numerous episodes of intensive use at locations distant from sources (Goodyear 1989), and distances from sites to bedrock sources have been used to estimate maximum travel distances ranging from 75 to 400 kilometers for eastern North America (Custer and Stewart 1990). While western fluted point occupations are often associated with the remains of extinct megafauna, eastern Paleoindian subsistence is more poorly understood due to the relative dearth of preserved food remains. The few fluted point sites excavated in the Middle Atlantic region do not include the specialized tools for plant processing that became common during the Archaic period, a fact that has been interpreted to signify limited reliance on gathered foods (Carr and Adovasio 2002, Custer 1989). A greater emphasis on hunting has also been proposed on

theoretical grounds (Kelly and Todd 1988, Waguespack and Surovell 2003), however charred seeds and fish remains from Shawnee-Minisink suggest that more generalized foraging adaptations may have been practiced (Dent 2002, Dent and Kauffman 1985, cf. Gingerich 2011).

Custer's initial environmental reconstruction of the terminal Pleistocene (ca. 15,000-10,000 B.P.) for the Delmarva Peninsula suggested that early Paleoindians lived in a mosaic of spruce-pine forests interspersed with areas of wet and dry grasslands. This environment likely supported faunal communities composed of extinct and extirpated animals species together with those that survived into the Holocene, however is no direct faunal evidence from the Peninsula (Custer 1989:47-51, 88-93). Custer's general reconstruction of this interval remains useful, however more recent research has yielded important environmental data. Climate during the terminal Pleistocene changed from cold and wet to cold and dry with the advent of the Younger Dryas climate event, ca. 10,900 to 10,100 B.P. The effects of this event on North American Paleoindians and their environments is a subject of ongoing debate (Meltzer and Holliday 2010, Newby et al. 2005, Anderson et al. 2008). Loess deposits burying Paleoindian sites on the western Delmarva Peninsula appear to have been emplaced during the Younger Dryas (Lowery et al. 2010, Wah 2003), and Lowery (2002:129-130) suggests that deteriorating conditions during this event may have resulted in reduced early Paleoindian populations on the Peninsula. Drying associated either with the Younger Dryas or the onset of warm and dry conditions by 10,000 B.P may have been responsible for the depositional hiatus seen in High Coastal Plain bay\basin features after ca. 11,000 B.P. (Webb et al. 1994).

Custer presented two models of early Paleoindian settlement systems on the Delamarva Peninsula that link three concentrations of early Paleoindian sites in different ways, using the working hypothesis developed by Gardner (1974, 1977) for the Flint Run Paleoindian Complex that sources of preferred toolstone constrained mobility. The first model proposed two coeval settlement systems. Site concentrations in the Piedmont and Mid-Peninsular Drainage Divide represent group movements from the toolstone sources of the Delaware Chalcedony Complex to subsistence rounds in the lithic-poor Mid-Peninsular Drainage Divide. Similarly, site concentrations in the Choptank/Nanticoke represent a system in which groups moved between an area with abundant toolstone in cobble form and locations in the Mid-Peninsula. The second model posits peninsula-wide movement of one group that alternated movements between the two toolstone sources and the Mid-Peninsula. Both of these models are variations within a larger-order model of cyclical settlement developed by Custer et al. (1983). His analysis of projectile point length and condition from the three areas supported a cyclical model of movement between the Piedmont and Mid-Peninsular Drainage divide concentrations, however it is unclear how the Choptank/Nanticoke concentration functioned (Custer 1989:109-112).

Custer predicted that a cyclical model of early Paleoindian settlement should apply to the Peninsula based on the assumption that high-quality toolstone sources were relatively rare and that the full range of site types envisioned for the Flint Run Paleoindian Complex should be found near these sources. However, the constituent sites of each of these concentrations are based primarily on surface finds of fluted points, and Custer noted that additional field studies are necessary to test the various models (1989:105). Large-scale field surveys in Delaware over the two decades since Custer's writing have identified few early Paleoindian sites. Single fluted point fragments were recovered from the Snapp site, southern New Castle County (Custer and

Silber 1994) and the Two Guys site, Sussex County, Delaware (LeeDecker et al. 1996). Surface collection data from the Thomas Paleoindian site suggest a possible early Paleoindian quarry reduction site (Stanzeski and Hoffman 2006).

Lowery's work on the Delmarva's western shore at the Paw Paw Cove site complex and shoreline erosion sites (Lowery 1989, 2002) however, produced data that challenges the cyclical model. Over the last 20 years, Lowery has systematically documented over 100 fluted point sites exposed by shoreline erosion and conducted test excavations at the Paw Paw Cove site complex. Compared to the large number of sites and fluted points per site on the western shore, Lowery (2002:179-180) suggests that the 15 fluted points from six sites around the Delaware Chalcedony Complex do not indicate a cyclical system on the scale of Flint Run or Williamson, which feature high numbers of quarry-related sites. Also, Lowery noted that despite the concentration of cobble lithic sources near the present mouths of the Choptank and Nanticoke, none of the sites along the western shore of Delmarva can be presently be categorized as quarry-related (2002:187-188). Lowery emphasizes that sea level rise since the Pleistocene has left a very partial Paleoindian settlement record that over-represents sites that may have been the most interior and upland portions of settlement rounds (Lowery 2002:120), and that that the majority of fluted points sites currently known on the Peninsula appear to be short-term hunting-related sites. Because sea level rise has covered approximately half of the Delmarva landmass since the terminal Pleistocene, larger base camps, lithic sources and quarries in the ancestral Susquehanna and Delaware River valleys are submerged and inaccessible. Finally, Lowery suggests that even though the number of known early Paleoindian sites on the western shore is higher than the rest of the Peninsula, their true number is artificially depressed due to aeolian burial during the Younger Dryas, while sites in the Mid-Peninsular Drainage divide are more visible due to net soil deflation (2002:186-187).

Another significant point of contrast between Lowery and Custer has to do with the record of Delmarva's immediate post-Clovis sites represented by Cumberland/Barnes, Crowfield, Holcombe, and Hardaway-Dalton points. Lowery suggests that these later types, particularly Crowfield through Hardaway-Dalton are very rare on Peninsula sites, possibly due to depopulation brought on by the Younger Dryas (2002:125-130). Custer, however, indicated that these later types are only slightly less common than Clovis, but that Dalton and Hardaway-Dalton points are quite rare (1989:Table 8). A single Hardaway-Dalton point was recently recovered from the Beech Ridge site in Delaware's Low Coastal Plain (Barse and Marston 2007). Although the assemblage is limited to the point and a few flakes, the component was housed in an eroded B horizon below aeolian sands, therefore its context has significant implications for conducting identification-level surveys in the Low Coastal Plain.

In contrast to more traditional chronological schemes, Custer (1984, 1989) included notched points typically assigned to the Early Archaic (Palmer, Amos, Kirk) with the later portion (ca. 10,000 to 8500 B.P.) of his Paleoindian cultural period. This reassignment was proposed by Gardner (1974, 1989) based on his analysis of the Flint Run Paleoindian Complex in Virginia's Shenandoah Valley. In Gardner's and Custer's formulations, the Early Archaic is included as a subperiod within an encompassing Paleoindian period, based on perceived continuities in settlement patterns and lithic raw material preferences. Early Holocene notched point concentrations are located in the same physiographic zones as early Paleoindian sites, however,

sites numbers increase in the Mid-Peninsular Drainage Divide and in the Fall Line Zone around Churchman's Marsh. Custer attributes this more dispersed pattern to the emergence of freshwater swamps in the early Holocene. The sites themselves however, are generally located in the same stream headwater and swamp-proximal settings as fluted points sites. Similarly, notched projectiles, particularly the earlier Palmer and Amos types, continue to be manufactured on high-quality cryptocrystalline materials. Beginning with Kirk Corner Notched and Kirk Stemmed, non-local rhyolite and argillite were used to a much greater degree than before, which may represent either direct procurement or exchange (Custer 1989:107-108, 114, 117).

Data from excavated, radiocarbon-dated early Holocene sites in the upper and middle Delaware drainage (i.e. Shawnee-Minisink [McNett 1985], Harry's Farm [Kraft 1975], Sandt's Eddy [Bergman et al. 1994]) highlight the addition of chipped stone adzes, drills, and significant numbers of cobble tools to toolkits, which serve as proxy data for a greater diversity of subsistence and activities after ca. 10,000 BP. Notched points cross-dated to ca. 10,000 to 9,000 B.P. have been recovered in low numbers from excavated sites featuring more extensive manifestations of later components in the Piedmont and Coastal Plain (e.g., the Two Guys site [Leedecker et al . 1996]). As is true for fluted point sites, no notched point sites with datable features and appreciable artifact assemblages have been excavated on the Peninsula. Known notched point site that would probably yield important data of this type include the Crane Point site (Lowery and Custer 1990) and the Chance site (Cresthull 1971, 1972) in Maryland's Low Coastal Plain.

After the Younger Dryas, climate began a long-term warm and dry trend that lasted until ca. 8500 B.P. Decreases in nonarboreal pollen and an increase in pine pollen in sediments dated between 10,000 and 8500 B.P. suggest a decrease in the extent of grasslands and expansion of pine-dominated forests during the Pre-Boreal and Boreal climate intervals. The changes in the extent of these floral communities would have likely resulted in a decrease of faunal diversity as forest-edge and grassland settings were reduced. Custer theorizes that emerging poorly-drained interior and coastal settings would have become more attractive to terrestrial game and their human predators during the Early Holocene, and that the carrying capacity within closed boreal forests was generally low (Custer 1989:93). Although the locations of notched point sites generally support this interpretation, some poorly-drained settings dried out (Webb et al. 1994).

3. Archaic (8,500-5,000 B.P.)

This cultural period tracks the mid-Holocene transition to predominantly deciduous forests, which is attributed to a change from warm and dry conditions during the Pre-Boreal and Boreal climatic periods to warmer and wetter conditions during the Atlantic climatic period ca. 8,500 B.P. (Davis 1983, Delcourt and Delcourt 1994, Vento and Rollins 1990). The most widely accepted explanation for the shift in climate, proposed by Knox (1983), has to do with the final ablation of the Laurentide ice sheet. By 8,000 B.P., the glacier was restricted to a small portion of Quebec Province (see maps in Jacobsen 1987). Zonal flow from the Pacific Airmass was weakened, allowing the penetration of polar and tropical systems into the Midwest and Middle Atlantic. Regardless of the causes of vegetation change at the Early to Middle Holocene transition, the development of oak-dominated deciduous forests by 8,000-7,000 B.P. would have had obvious consequences for Native Americans. Delcourt and Delcourt (1994) indicate that

chestnut, hickory, and beech were present in Ridge and Valley forests by ca. 6,000 B.P. These incremental increases in the variety of mast-producing species would have increased the carrying capacity of the environment, resulting in higher terrestrial game populations. The same vegetational succession is likely to have occurred slightly earlier on the Delmarva Peninsula given the more favorable edaphic conditions in these unglaciated, lower relief physiographic zones. Custer (1989:47) reports an oak-hemlock pollen zone dated 7790±340 B.P. from a sinkhole at the Mitchell site (7NC-A-2). A similar, but undated hemlock-oak pollen zone overlies boreal and tundra pollen zones at the Marsh Creek locality in the Pennsylvania Piedmont near the Delaware/Maryland state lines (Martin 1958).

In his chronology for the Delmarva Peninsula, Custer (1989) set the beginning of the Archaic period at 8,500 B.P. based on what he saw as major changes in Native American lifeways from those of the early Holocene. In Custer's formulation, these cultural changes reflect Native Americans' adaptation to environmental conditions that were more like those of the present (1989:122-127). Diagnostic artifacts from the beginning of the period are the bifurcate-base projectile series (St. Albans, LeCroy, Kanawha) which were first dated in the Ohio drainage at the St. Albans site (Broyles 1971). These types are followed after ca. 8,000/7,500 B.P. by less easily recognized stemmed types which may be similar to those in sequences developed in the Northeast (Dincauze 1974) and Southeast (Coe 1964). Custer's idea that new cultural adaptations began ca. 8,500 B.P. was based on changes in the range of artifacts produced and changes in preferred site locations and settlement patterns. Radiocarbon-dated and/or stratified sites throughout eastern North America indicate that many of the ground stone tool types (i.e. axes, gouges, pestles) were new additions to Native American toolkits, suggesting greater efforts at localized forest clearance, woodworking, and more intensive plant processing. Within the Middle Atlantic region a wider range of lithic materials began to be used for the production of chipped stone tools. Custer suggested that increased use of local toolstone sources represents the replacement of quarry-focused, cyclical settlement systems of the terminal Pleistocene/early Holocene with serial systems in which toolstone procurement took place at a number of locations that were embedded within the seasonal round (1989:128). Perhaps the most compelling evidence of systemic change ca. 8.500 B.P. is site location. Throughout the greater Middle Atlantic, the earliest sustained use of non-riverine uplands appears to be associated with bifurcate occupations, which several researchers have linked to the spread of mast-bearing trees into interior areas (Carr 1998, Gardner 1987, Stewart 1989). Similarly, Custer suggests that bifurcate-using groups on the Delmarva Peninsula regularly exploited more diverse environmental settings than late Paleoindian groups. These included freshwater swamps near the Fall Line, bay/basin features and other poorly-drained areas in the Mid-Peninsular Drainage Divide, tidal swamps near the modern Chesapeake and Delaware Bay coasts which may have been freshwater swamps prior to sea level rise, as well as larger rivers (Custer 1989:131-139).

Custer's settlement model for the Delmarva Archaic included three basic site types (1989:129-131). Macro-band base camps represent occupations by multiple family groups. Characterized by the widest range of tool types and large numbers of artifacts and manufacturing debris, these sites should be located to exploit several different resource zones. Micro-band base camps represent fissioning of the maximum social group into individual families or smaller related groups to areas with significantly lower carrying capacity. These sites may contain the same range of tool types as macro-band sites, but artifact density should be lower. Finally,

procurement sites represent short-term hunting/gathering forays by smaller task groups in support of either macro- or micro-band camps. These sites are the smallest and contain the lowest diversity of tool types and debris. Group fissioning from macro- to micro-band camps corresponded to seasonal downturns in resource availability or local resource depletion around the former site types. Custer identified potential base camps near the most resource-rich areas of the Delmarva. These sites included the Clyde Farm site near Churchman's Marsh at the Fall Line, the Chance site near coastal swamps at the Wicomico/Nanticoke estuary, several sites near the Burnt/Cedar Swamp-Upper Pocomoke Drainage of south-central Delaware, and a few sites along major tributaries to the Chesapeake and Delaware Bays . Archaic site density in the Mid-Peninsular Drainage Divide increased greatly over Paleoindian levels, and Custer suggests that many of these are probably procurement sites. Similarly, characterizes many of the small sites with Archaic components near poorly-drained settings in the Piedmont as probable procurement sites.

As was true for the preceding Paleoindian period, Custer's Archaic settlement model is based on diagnostic artifacts (bifurcate types) from surface collected and excavated plowzone sites. Tests of this model are hampered by the small number of bifurcate sites with radiocarbon-dated features with clearly associated artifacts assemblages. It is also unknown how the model applies to the later portion of the period from ca. 8,000/7,500 to 5,000 B.P. due to difficulties involved to confidently identifying diagnostic artifacts from this interval on the Delmarva (Custer 1989:124) and elsewhere in the Middle Atlantic (Carr 1998, Custer 1996, Bergman et al. 1994). The Two Guys site in the Mid-Peninsular Drainage Divide zone of the Lower Coastal Plain in Sussex County, Delaware may be the most intact late Paleoindian to bifurcate-age site excavated on the Delmarva, yet it illustrates some of the difficulties in assessing component function. The site was located on a small sandy knoll surrounded by extensive forested freshwater wetlands (LeeDecker et al. 1996). Phase III efforts documented stratified contexts with evidence for increased use during the latest portion (ca. 9,000 to 8,000 B.P.) of the traditional Early Archaic sub-period as represented by Kirk Stemmed and bifurcate points. Compressed stratigraphy and post-depositional movement, however, prevented the assignment of an undated formal hearth area and several artifact concentrations to a specific component. LeeDecker et al. (1996:147) characterized the site as a procurement camp based on low artifact diversity. However, a variety of tasks were likely undertaken during the interval of its most intensive use (plant processing, butchering, hide preparation, and stone toolkit replacement and maintenance) which could be interpreted as evidence for a small base camp. The excavation of additional sites with separable occupations should provide the necessary data to develop more explicit criteria for site function. Nevertheless, analysis of data from the Two Guys site supported the trend identified by Custer for increased use of poorly drained settings in the Mid-Peninsular Drainage Divide by the early portion of the Archaic period (compare Figures 10, 12, 23 in Custer 1989).

4. Woodland I (5,000 to 950 B.P.)

This period bridges the late mid-Holocene and late-Holocene environmental periods and the combines the Late Archaic, Early Woodland, and Middle Woodland subperiods used by most archaeologists in eastern North America. The most significant regional vegetational change of the Middle Holocene was the catastrophic reduction in hemlock ca. 4,500 B.P. Although Custer (1989:178) suggested that the hemlock decline probably indicates a change to warm-dry

conditions associated with the Sub-Boreal climatic period, Davis (1983) attributes the sharp and nearly simultaneous drop in hemlock pollen throughout its range to a possible pathogen attack. Prior to its recovery nearly 2,000 years later, increased oak, hickory, and beech pollen apparently filled the gap created by hemlock's decline in the northern Middle Atlantic and Northeast (Delcourt and Delcourt 1994, Gaudreau 1988). More recent work in central Delaware has provided somewhat conflicting evidence for environmental conditions during the Woodland I sub-period. Webb et al. (1994) suggested that dessication of bay/basin features ended ca. 6,000/5,500 B.P., however Brush (1994) documented a protracted interval of dry climate and possibly fires from ca. 5,000 to 3,000 B.P. in the Leipsic River valley followed by dry-wet cycles from ca. 3,000 to 2,000 B.P. Farther north in the Duck Creek watershed, a tributary of Leipsic, data indicative of drying and periodic fire from were dated to ca. 4,500 to 1,500 B.P. with a return to wet conditions until European settlement. Farther south in the Low Coastal Plain, wetlands adjacent to the St. Jones River registered wet conditions ca. 2,000 B.P. changing to dry with fire from 2,000 to 1,000 B.P.. Curry and Custer (1982) presented evidence for increased aeolian deposition at Piedmont and Coastal Plain sites, which would have required unvegetated or sparsely vegetated sediment source areas, indicating some level of dessication between ca. 5,000 and 2,500 B.P. Perhaps the most significant environmental change that occurred near the Archaic/Woodland I period boundary, however, was a decrease in the rate of sea-level rise, which would have created more laterally stable estuarine environments resulting in increased carrying capacity for both coastal and anadromous fish species and shellfish (Belknap and Kraft 1977, cited in Custer 1989:182).

Custer argues that the most significant cultural changes associated with Woodland I are greater levels of sedentism, more evidence for domestic structures and storage, increasing population, the appearance (and decline) of stratified societies, and the elaboration of exchange systems (Custer 1989:142), each of which is manifested at different times during the period. Although evidence for horticulture during Woodland I times is sparse (Custer 1994:128), charred sumpweed recovered in feature contexts radiocarbon dated to 2,460 ± 130 B.P. at the Two Guys site may indicate that some level of horticulture was practiced (LeeDecker and Holt 1996:136-137). For the northern portion of the Delmarva Peninsula, archaeological sites from ca. 5,000 B.P. to 2,500 B.P. are grouped under the Clyde Farm Complex (originally conceived by Thomas 1977, Custer 1994:20, 24, 1989:193-221, 185). Larger sites of this complex are much larger than Archaic sites, and contain a wide variety of chipped and ground stone tool types, steatite bowls, and early ceramic types (i.e. Marcey Creek, Dames Quarter, Selden Island). A small percentage of non-local lithic material (rhyolite, argillite, steatite) are frequently recovered from these sites, indicating exchange with groups to the north and northwest. In addition to the ceramic types listed above, various broadspear and Orient projectile types are diagnostic of the complex, however, stemmed varieties such as Bare Island/Lackawaxen appear to have been used throughout the Woodland I period and have restricted value as short-term temporal indicators (Custer 1989:151-155).

In the Piedmont the largest Woodland I sites are typically situated on or near the floodplains of major drainages, while in the Fall Line and High Coastal Plain, these are more frequently located at confluences of the Delaware River with the largest-order tributary streams, or near extensive wetland settings such as Churchman’s Marsh (1989:192-220). Excavations at the Clyde Farm site (Custer, Watson, and DeSantis 1986) revealed a feature interpreted as a pithouse together

with possible storage pits and a platform hearth which was dated to 2,955 ± 90 BP (Custer 1989:197-198). At the nearby Delaware Park site (7NC-E-41, Thomas 1981) similar house features were dated to 3,800 ± 100 and 2,740 ± 40 B.P. (Custer 1989:199). Features interpreted as pithouses were also encountered at the Snapp, Leipsic, and Pollack sites (Custer and Silber 1994, Custer et al. 1994a, Custer et al. 1994b), however, their identification as houses is not universally accepted (Egghart 2005, Mueller and Cavallo 1995, Petraglia et al. 2005). Although Custer formerly interpreted these sites as macro-band base camps (1989:196-198), he later revised this aspect of Woodland I site typology. Based on feature patterning at the Snapp, Leipsic, and Pollack sites, Custer has suggested that the majority of sites previously classified as Woodland I macro-band base camps probably represent repeated occupations by nuclear family groups. Put another way, the largest Clyde Farm Complex sites are the result of the overprinting of numerous, non-sequent micro-band base camps (1994:74-83). Nevertheless, the dense concentration of storage and processing features, the presence of possible house features, and the large size of these and other sites indicate a greater degree of sedentism than was the case during the preceding Archaic period. A more extensive pattern of land use is suggested by investigations at the Lums Pond site (7NC-F-18, Petraglia et al 1998) located in the Mid-Peninsula Drainage Divide Zone of the High Coastal Plain near a tributary of St. Georges Creek. A portion of this site contained numerous storage features dated between 2,960 ± 60 and 2,660 ± 100 B.P. (Petraglia et al. 1998:61) that are not clearly associated the range of features that would indicate a base camp occupation. One implication of the data at Lums Pond is that Woodland I land-use at many sites was much more complex than current settlement models suggest, however, this is to be expected as more sites are subjected to a wider battery of analytical techniques, particularly those aimed at establishing tighter chronological controls between different activity areas within a single site.

Smaller sites with features and a range of tool types have been interpreted as micro-band base camps. These smaller sites are typically located along smaller tributary streams in both the Piedmont and Fall Line Zones. Even smaller sites with more limited tool types are characterized as resource procurement sites which supported both macro- and micro-band base camps. Procurement sites are common in headwater portions of drainages. The Hawthorn site, a Clyde Farm complex site located near the Fall Line Zone yielded evidence for plant processing and butchering areas adjacent to a possible tent ring (Custer and Bachman 1983). A date of 4200±75 BP was returned on the plant processing feature (Custer 1989:149, 360). Considered slightly larger than most procurement sites, but with lower artifact diversity than micro-band base camps sites, Custer created a new site type, the "procurement staging site" to account for these anomalies (Custer 1989:200-201). It is similar in many ways to the Piedmont Hockessin Valley site, which yielded a single radiocarbon date of 5205 ± 70 B.P. (Custer and Hodny 1989:33). Analysis of the small but unplowed Ronald McDonald House site (7NC-B-54) located in the Piedmont near a low-order tributary of Brandywine Creek highlights some of the problems in characterizing small, very short-term sites within standard site typologies (Gundy et al. 2008).

In the northern Delmarva Peninsula, the Black Rock Complex succeeds the Clyde Farm Complex between ca. 2,500 and 1,500 B.P. Differences between the two complexes are mainly related to changes in pottery, projectile points, the possible intensification of food collecting and storage, and the lack of evidence for shellfish utilization (Custer 1994:24, 1996:247-248). Quartz or other rock tempered, cord- and net-marked ceramics assignable to Wolfe Neck Ware

or Vinette I along with Rossville and later Fox Creek projectiles are diagnostic of the complex (Custer 1989:249-250). Custer noted that the settlement system probably remained unchanged from the Clyde Farm Complex, with macro- and micro-band base camps and procurement camps comprising the most common site types (1989:253-256). The Delaware Park site provides the most convincing evidence for extensive storage and more intensive collecting efforts Custer 1989:254).

Sites of the ensuing Delaware Park Complex date ca. 1450 to 950 B.P. are recognized by quartz tempered, fabric- and cord-impressed Hell Island pottery and Jacks Reef projectiles. Excavated examples of Delaware Park Complex components are restricted to the type site, although sites with Hell Island ceramics and Jacks Reef projectiles are present in the Piedmont and Fall Line Zones (Custer 1989:289-291). Custer noted no significant changes in settlement patterns or economic focus for the complex (1989:280). Storage pit features at the Delaware Park site dated between 1,885 and 1,495 B.P. indicate similar usage of the site from earlier times (Thomas 1981, cited in Custer 1989:277).

5. Woodland II (950 to 350 B.P,)

In the middle and lower portions of the Delaware Valley, sites of the Woodland II (Late Woodland) period most commonly contain pottery ascribable to the Overpeck, Bowmans Brook, and Minguannan series, all of which display slightly different arrangements of complex incised or cordmarked decoration. The stylistic differences between these Delaware drainage pottery types and Shenks Ferry types of the Susquehanna drainage have led several researchers to view the former types as cultural markers for proto-Lenape groups (Custer 1987, Stewart 1998). In contrast to early Late Woodland Pahaquarra phase sites in the upper Delaware, Minguannan complex sites of the lower Delaware Piedmont have not been shown to contain house patterns, storage features, or dense middens. Evidence for Mesoamerican cultigens is limited to finds of squash rind and possible maize kernels at the Pearsall site in Chester County, Pennsylvania (Hart and Cremeens 1991, cited in Custer 1996:288-289), which is surprising given the horticultural focus established for the Shenks Ferry complex (Kinsey and Graybill 1971, Nass and Graybill 1991). Custer notes that most Minguannan complex base camps are located on multicomponent Woodland I sites, which suggests that these groups were not shifting the focus of their primary settlements towards landforms and soils with high agricultural potential. The implication of these traits is that Minguannan groups continued a hunting and gathering settlement system from earlier times (Custer 1996:287-289). In general, Minguannan complex sites have not been as extensively excavated or radiometrically dated as neighboring Shenks Ferry complex sites. Although Shenks Ferry complex sites are most numerous in the lower Susquehanna drainage, a few of their sites are located farther east in the Piedmont in the Brandywine watershed of Chester County (Custer 1996:286-287).

C. Historic Context

1. Contact, Exploration, and Frontier Settlement (1524 to 1730 A.D.)

Historical documents indicate that contact between Delaware's coastal Native American groups and Europeans may have occurred as early as 1524, with the frequency of encounters increasing

from the last quarter of the sixteenth century through the first quarter of the seventeenth century A.D. (Quinn 1979),Weslager and Dunlap 1961). The Delaware River Drainage and the coastal areas of the Delaware Bay was home to several culturally- and linguistically-related Native American groups referred to collectively as "Delaware" Indians only after their removal to the Susquehanna River Valley in the early- to mid-eighteenth century. Today, Delaware is the self-designation for descendants in Canada and Oklahoma (Goddard 1978a:213, 235). Major language divisions included Munsee, spoken by groups in the Lower Hudson and Upper Delaware drainages, and Unami, used by groups from the Delaware Water Gap south to Cape Henlopen (Goddard 1978b:72-73). After 1624, when sustained contact with Dutch and Swedish colonists on the Lower Delaware River and Delaware Bay began, both Munsee and Unami speakers appear to have been organized in small, autonomous local groups. These local groups would sometimes act together for mutual defense, in large hunting or fishing parties, and in diplomatic and land transactions. Although chiefs or village headmen were consistently chosen from a specific lineage they had no coercive power; they typically served as spokesmen and ceremonial leaders for their local group (Goddard 1978a:216). Contact period Lenape subsistence was based on a combination of maize, bean, and squash horticulture, hunting, fishing, and gathering. Settlement types recorded by Europeans included both palisaded and open longhouse villages, as well as smaller houses at hunting and fishing camps (Goddard 1978a:216-219). Kraft, however, points out that palisaded villages are unknown for both the Late Woodland and Contact periods in the Delaware Drainage (1986:122).

Although no unequivocal Contact period sites have been identified in Delaware (Custer 1989:340), mid-seventeenth century A.D. documents indicate that Native American groups in the Brandywine River and White Clay Creek drainages were Unami-speaking Lenape collectively referred to as the Brandywine Indians (Weslager 1972). Like many of the other Lenape groups, they were organized as bands that came together in small villages during the agricultural season and fissioned into nuclear families in the winter (Becker 1988, Weslager 1972). The Brandywine Indians held their land until ca. 1729 A.D., moving north to the Seneca-Susquehannock after this date (Weslager 1972). Although they have been described as "subject to" the Susquehannock in 1697, the exact nature of their relationship was probably more reciprocal given the politically weak condition of the people at Conestoga Town (Kent 1993).

The first attempt at permanent European settlement in Delaware was the Dutch whaling/trading station "Swanendael" ("valley of the swans"), which was founded in 1631 by patroons of the Dutch West Indies Company. Located near the modern town of Lewes, Swanendael was the first semi-private venture sanctioned by the Dutch West Indies Company, and only its second attempt at settlement in over twenty years of exploration and trade on the Delaware River. Unlike the Hudson River area, where the Dutch West Indies Company had established a number of permanent, year-round settlements, in its earliest days, the Delaware was administered as a seasonal interest, with intermittent visits from the Company's trade center, Fort Amsterdam, on present-day Manhattan. Swanendael's individual sponsors hoped that their year-round settlement on the Delaware, or "South River" as it was then called, would stimulate the Company to a greater interest in the entire region (Weslager 1987, 1961).

The patroons' settlement proved to be a tragic failure. In 1632, the Swanendael settlers were massacred by members of the local "Ciconisin," group of Unami-speaking Lenape. The

following year, the Dutch reoccupied the site, but failed in their efforts to establish a whaling operation. The Company soon reverted to its prior use of the Delaware region as a catchment area for the lucrative fur trade. Several times a year, the Company's ships would sail into the Delaware to trade with the Minquas, known to the English as Susquehannock, a powerful inland Iroquoian group that was linguistically and culturally distinct from the Lenape. Because they enjoyed a virtual monopoly in this trade, initially, the Dutch saw little reason for an increased investment in the Delaware or another attempt at a year-round presence (Weslager 1961).

By the late 1630's, the Dutch West Indies Company's ambivalence towards the South River was rewarded by challenges from other European interests, specifically English and Swedish. The first serious incursion occurred in 1634, when an English ship, led by Thomas Yong, entered the river. During their foray into the Delaware, the English crew mapped much of upper regions of the river, and briefly occupied Fort Nassau, the Dutch seasonal trading post (then vacant) on the east side of the river (Williams 1985; Weslager 1961).

In 1638, Peter Minuit, the former governor of the Dutch West Indies Company, erected the first Swedish settlement on the Delaware. Shrewdly purchasing land on the west side of the river--nearest the Minquas' trade routes--he directed the colonists to erect a fort at the confluence of the Christina and Brandywine Rivers, within present-day Wilmington (Weslager 1987). Because of its location, "Fort Christina" posed an immediate threat to the Dutch monopoly on trade with the inland native groups. In defense of their interests, the Dutch made a show of aggression towards the Swedes. But Minuit, who had extensive knowledge both of the Delaware region and of the Dutch Company's activities within it, was not perturbed, and the Swedes took up residence on the Delaware (Becker 1999; Gehring 1995; Weslager 1987).

The inhabitants of "New Sweden" were actually a combination of Dutch, Swedish, and Finnish settlers. Unlike the Dutch, who used the region only for trade with the Minquas, the Swedes intended a more intensive occupation of the region. A motley crew of farmers, soldiers, and commuted prisoners, the settlers of "New Sweden" hoped to supplement their activities in the fur trade with cash crops (such as tobacco and wine) and subsistence farming (Dahlgren 1995; Ordahl-Kupperman 1995).

By the late 1640s, the Swedish settlers were ensconced on the Delaware. Several expeditions had brought additional settlers to the valley, and "New Sweden" was being administered by a Swedish noble named Johan Printz, whose palisaded trade post was located south of present-day Philadelphia. Parceled out on small, riverfront plots that they had purchased from the Lenape--who had fled to the eastern shore of the river following conflicts with the more powerful Minquas--the Swedes outnumbered the Dutch on the Delaware by a margin of 7 to 1 (Gehring 1995; Williams 1995). Their small farms were engaged in a variety of agricultural pursuits, ranging from livestock to orchards, tobacco, and hemp (Catts and Kellogg 2000).

Despite its geographic advantages, its impressive recruitment of settlers, and its commitment to a wider variety of activities in the area, New Sweden was never able to displace the Dutch trade cartel as the primary European agent in the fur trade on the Delaware. This was primarily because the Swedish colonists lacked access to the most crucial element in the fur trade: a steady supply of European trade goods. Unlike the Dutch, who maintained a continuous flow of

blankets, beads, and hatchets from their storehouses at Fort Amsterdam, New Sweden was infrequently provisioned by its continental backers. Finding the Swedish traders empty-handed, the Susquehannock continued to favor the Dutch at Fort Nassau until well into the 1660's (Gehring 1995; Weslager 1987).

Following the appointment of Peter Stuyvesant to the directorship of the Dutch East Indies Company in 1647, the Company began a slow shift in its policy towards its use of the Delaware. In 1648, Stuyvesant ordered his Fort Nassau contingent to erect a second fort, this one on the west side of the Delaware, at the mouth of the Schuylkill (within present-day Philadelphia). Next, he met with the Lenape to re-affirm the Dutch Company's settlement rights in areas to the south that were then occupied by New Sweden. After receiving assurances from the Lenape, Stuyvesant funneled soldiers and settlers from the northern forts (Nassau and Beversreede) to a new, much larger fort at present-day New Castle.

The Swedes quickly retaliated against this invigorated Dutch interest in the Delaware. In a bloodless maneuver, they seized the new Dutch fort, called "Fort Casimir," and renamed it "Fort Trinity." The Swedish occupation of the Dutch fort was brief, though. In 1655, Stuyvesant returned to the Delaware with a force of seven armed ships and over 300 men. Recapturing Fort Casimir, the Dutch force went on to take the Swede's Fort Christina, to the north, effectively bringing "New Sweden" to an end. Since the Swedish settlers living on the Delaware offered no resistance to the invasion, they were allowed to remain on their farms along the river (Weslager 1987).

Just two years after the Dutch West Indies Company reclaimed its rivers from the Swedes, the cartel was dissolved, and "New Amstel," the town that had grown up around Fort Casimir, was turned over to the city of Amsterdam. However, very little changed on the Delaware until 1664, when Charles II, King of England, granted all lands between the Connecticut and Delaware Rivers to his younger brother, James, Duke of York. Just as the Dutch had done a decade before, England claimed the lands occupied by the Swedes and Dutch on the Delaware by right of prior discovery. The crown asserted that John Cabot's "discovery" of the Northeast coast in 1497 superseded the Dutch claim to the Delaware, which was based on Henry Hudson's "discovery" in 1609.

Acting to solidify his grant, James sent a fleet of 4 ships and 450 men to seize New Amsterdam, New Amstel, and all lands held by the Dutch in the Northeast. After New Amsterdam was subdued, Sir Robert Carr sailed into the Delaware and captured both New Amstel and the southern Dutch trading post on the "Hoerenkil" (the original site of Swanendael). Carr's men killed four Dutch soldiers at Fort Casimir and pillaged both of the Dutch trading posts, but once again, the settlers were permitted to remain on the river, unmolested, in exchange for their allegiance. Except for a brief reoccupation by the Dutch in 1674, English sovereignty of the three counties of modern Delaware went uncontested until the American Revolution.

When the English assumed the colonial mantle in the late 1660's, modern-day New Castle County was a melting pot of Dutch, Swedish, English, and Finns. The settlers were primarily farmers and tradesman, settled on small tracts of land fronting the Delaware River. The fur trade was on the wane, and, following the dissolution of the Susquehannock around 1664, Lenape

groups continued to occupy their ancestral lands in the Pennsylvania, New Jersey and what would become Delaware before moving north and west, away from European settlement at various between ca. 1660 and 1750 (Becker 1995). Those Lenape that remained in their homeland made various cultural accommodations with people of European and African ancestry. They, along with other dispossessed Native Americans, continue to live in Delaware (Heite and Bloom 1999, Speck 1915).

In 1682, Sussex, Kent, and New Castle, the three "lower counties" of Delaware, were conveyed to William Penn and annexed to Pennsylvania. Under Penn's directorship, a flood of English, Welsh, Scottish, and Scots-Irish settlers entered the lower counties. Dutch, Swedish, and Finnish farmers gradually began to move inland, clearing new tracts along the tributaries of the Delaware (Munroe 1978; Hoffecker 1977; Bridenbaugh 1976; Scharf 1888). By 1683, all of Penn's six counties were at least partially cultivated, and the combined regional population exceeded 4000 persons (Myers 1912).

Accompanying this population shift was a shift in the economic base of the region. As the English Empire integrated the Delaware valley more fully into its own vast economic network, area farmers shifted from primarily subsistence activities to market-oriented agriculture. The principal Swedish/Dutch grains (rye and barley) were replaced by corn and English wheat. Even tobacco, which had been the region's cash crop for several decades, was eclipsed by an emerging market demand for wheat (Pursell 1958).

Throughout this period, waterways provided the primary mode of transportation. Since most farms were located adjacent to streams, farmers were able to ship their grain directly to small milling facilities that were located on the tributary rivers and creeks throughout the valley. Two of the earliest such stations were located in New Castle (1658), and along the Red Clay Creek (1679). After milling, wheat flour was transported to Philadelphia or shipped directly to markets in the West Indies, southern Europe, or other parts of North America (Catts and Kellogg 2000: 10; Walzer 1972). Farms remained wholly dependent upon water-based transportation until the first quarter of the 18th century, when overland trade routes first began to emerge across the region. As late as 1730,it could be said that, "over one half of the colony's farmers were located within a half-day's journey (eight miles)" of a gristmill or shipping wharf (Walzer 1972: 163).

During the early years of Penn's proprietorship, he established a system of "hundreds," which were clusters of farms roughly equivalent to townships in other states (Siders *et al.* 1991: 6). Within the hundreds, lands were sold in parcels averaging 200-299 acres in size. Farmhouses were usually located on high, well-drained soil, in proximity to a fresh water source (either a spring or brook). Structures were typically earth-fast, log or wood-framed, with a small minority of brick structures in urban areas. Land clearing on farms was minimal, with small lots typically located close to the house and outbuildings, while the majority of the property was kept in wood lot (De Cunzo and Catts 1990: 36-40).

Starting in the early 1700's, population and development pressures abated and the Delaware Valley entered a period of minimal growth. In the wake of the first 35 years of English colonization, Philadelphia had emerged as the primary economic, political, and cultural center of

a broad “hinterland“ stretching west to Lancaster, north to the Lehigh Valley, east to southern New Jersey, and south to include all of modern Delaware (Lemon 1967; Walzer 1972).

While New Castle, Kent and Sussex Counties were inextricably linked to Philadelphia’s markets, political and cultural ties between the southern and northern counties were strained. For years, the southern counties had bemoaned their lack of a central judicial facility, while the northern counties (Philadelphia, Chester, and Bucks) resented the control that the less populous lower counties exercised over the General Assembly. In 1704, a compromise was reached, and New Castle, Kent and Sussex were permitted to sever their political tie to the other Pennsylvania counties. The town of New Castle--which had been the regional hub during the first decade of England’s rule--became the political center of the “lower counties,“ and the seat of the new region’s General Assembly (Munroe 1978).

2. Intensified and Durable Occupation (1730 to 1770)

Most discussions of 18th century urban development in Delaware and Southeastern Pennsylvania draw on the seminal work of geographer James T. Lemon (1967). Advocating a central-place model of urban development for Philadelphia and its “hinterland,” Lemon defined a hierarchy of urban “types” to characterize the variety of communities that emerged across the region from the late 1600s to 1800. Based on economic and population trends, he divided this timespan into five periods: 1652-1680, 1681-1700, 1701-1729, 1730-1770, and 1766-1800. Since the bulk of his discussion deals with developments that took place after the 18th century, we have not used it as a reference in the preceding section.

As noted above, the first quarter of the 18th century witnessed an increase in the settlement of inland areas and an attendant growth in the network of connecting roads. To a great extent, the period 1730-1770 represented an intensification of this trend, driven by a second influx of immigration. Farms emerged across the interior, extending Philadelphia‘s farming hinterland across northern Delaware and into Maryland (Lemon 1967). Because of its excellent soils and access to markets, New Castle County evolved into a commercial farm community, characterized by its growing affluence and the numbers of artisans, professionals and merchants in its population (Main 1973).

During the middle of the 18th century, “hamlets” began to emerge at transportation junctures. The largest of these communities had grown from early mill stations along waterways and were typically located at a point where a major road crossed a tributary stream. The fast-flowing Brandywine River (which runs to the southwest of the project area), boasted over 8 large commercial mills by the 1770’s (Cooper 1983: 31-32). Connected to the interior farms by a nexus of new roads, similar mill stations in Wilmington and the surrounding area drew grain from as far away as Maryland and southeastern Pennsylvania (Lemon 1967).

Accompanying the growth and spread of the internal road system, hamlets also emerged at major road crossings. Generally comprised of no more than a handful of dwellings, these marginal communities thrived because they offered necessary services to travelers in remote areas. Typically, they centered around taverns and blacksmith/wheelwright shops (Lemon 1967).

The changes that took place in the economy and settlement pattern of New Castle County during this period was driven by a wave of English and Scots-Irish immigrants who arrived in the region between 1725 and 1755. Most of these immigrants were indentured servants, contracted to local farmers for a period of 3 to 7 years of service (Munroe 1978: 196). In addition to these laborers, some Delaware farmers also owned African slaves (Catts and Kellogg 2000: 12). By 1740, the county's population had ballooned to 6,000 people, 80-90% of whom were involved in some form of agriculture (De Cunzo and Catts 1990: 42; Egnal 1975).

Farm practices of the period took the form of mixed husbandry, typically combining grain cultivation with livestock raising (Bidwell and Falconer 1941: 84). Land use is described as "extensive," meaning that crop fields were not rotated, nor fertilized with manure or lime. When soils became exhausted, new areas were opened up for cultivation. Though soil conservation and crop rotation were practiced in Europe at this time, Delaware farmers clung to older techniques because they lacked adequate labor to clear areas for rotation and also because the market demand for wheat discouraged the use of other crops to replenish fields (Lemon 1972: 179).

In the mid-1700's, the average size of a New Castle County farm was about 200 acres. By extrapolating from a study of farms in southeastern Pennsylvania (Lemon 1972: 167), we can estimate land-use on an average local farm. Typically, 40 acres (20%) were sown in wheat; 22 acres (11%) in meadow for hay; 32 acres (16%) for pasture; and 14 acres (7%) for flax, hemp, roots, other vegetables, fruits, and tobacco. The remaining acreage - roughly half of the total - was left to woodlot.

The average farmstead occupied a little less than half an acre and was comprised of a domestic structure as well as six to eight outbuildings. Outbuilding types included: detached kitchens, corn cribs, stables, meat or smokehouses, barns, and tenant houses (in descending order of appearance). Domestic-oriented outbuildings and gardens were located in proximity to the house, while agricultural buildings were closer to fields. Gardens contained the draw-well, and were fenced to keep out farm animals (Herman *et al.* 1989: 63-65).

Farmhouses of the period averaged 16 to 20 feet (~5 to 6 meters) square. Typical construction was log or frame (or stone depending on locality) on a one-room plan, and either one or two stories high. The ground-floor room was accessed directly from the outside, with windows on either side of the entrance as well as a window in the gable opposite the chimney. If it was a two-story structure, the second floor was usually accessed by a spiral staircase in the corner adjacent to the hearth. This "hall-plan" style house afforded scant privacy within the family and little separation between it and the outside world. While New Castle farmsteads typically had either a separate or adjoining kitchen, most domestic and social interaction took place within the ground-floor room of the main house (Herman *et al.* 1989: 14-19).

3. Early Industrialization (1770 to 1830)

During the late 18th and early 19th centuries, the Piedmont region of northern New Castle county remained predominately agricultural in character. Directly to the south and east of the project area, in the valley communities of Brandywine Village and Wilmington, respectively,

nascent industries emerged and began to re-shape the economic and social landscape of the lower Brandywine and Christina Rivers (Catts and Kellogg 2000: 14; Blume *et al.* 1990: 14, 44).

These shifts in the region's mode of production occurred against a backdrop of fluctuating agricultural markets and periods of conflict with England over taxation and trade-restrictions against American farm-products in the British West Indies. Both the Revolutionary War and the War of 1812 resulted in boycotts of American goods and blockades of American shipping centers by British forces (Lindstrom 1978: 20). These political and economic conflicts resulted in profound changes to the cultural fabric of the entire Delaware region (Catts and Kellogg 2000).

Two episodes of military activity occurred in New Castle County during the Revolutionary War. During the "Philadelphia Campaign" of 1777-1778, General Howe's troops marched from the Chesapeake, through northern Delaware, en route to battles in southeastern Pennsylvania. After routing a far smaller continental force at the Battle of Cooch's Bridge at Akinstavern (Glasgow), British troops captured and occupied Wilmington for a month (Munroe 1954:92-93). In 1781, General Lafayette reversed this route on his way to face Benedict Arnold in northern Virginia.

The most significant and enduring effect of the Revolutionary War on Delaware was the British blockade of the Delaware and Chesapeake Bays. The blockade forced regional manufacturers and agriculturalists to shift from ocean-based international trade to land-based regional trade in the Philadelphia - Delaware - Baltimore corridor. The emergence of this trade network facilitated the growth and diversification of manufacturing and agricultural goods throughout the region. In northern Delaware, much of this growth was localized to the Piedmont region, where commercial growth surged from 1790 through 1810 (De Cunzo and Catts 1990: 58-59; Shaffer *et al.* 1988; Welsh 1956).

In the post-war economy, Wilmington emerged as northern Delaware's most important and diverse urban / manufacturing community. Classified by Lemon (1976) as a "processing town," a 1791 report of Wilmington's industry's reported, "12 flour mills, 6 saw mills, 1 paper mill,1 slitting mill [metal cutting], and 1 snuff mill" (Shaffer *et al.* 1988; Hancock 1947). At Brandywine Village, paper, powder, and textile mills were added to the existing conglomeration of grain-processing mills, which had appeared during the previous period. Quite different from earlier "custom mills," the mills of this period were larger and far more commercialized (Munroe 1954: 28-29).

In contrast to the strides being made in local industry, agriculture was beset by crises. Following a century of extensive farming, farm productivity dropped dramatically during this period. Across New Castle County, eroded and exhausted fields failed to produce significant yields, and as a result, many smaller, marginal farms were abandoned or left fallow. A great many such properties were consolidated into large estates by wealthy landowners.

In the early 1800s, national financial crises worsened prospects for local farmers. Hard-pressed to support themselves even on a subsistence level, a considerable portion of the working agrarian population either moved west to clear new areas or was absorbed into the emergent industrial sector in and around Wilmington (De Cunzo and Catts 1990: 52-53, 59; Herman *et al.* 1989;

Lindstrom 1979: 300; Hancock 1947: 374). While population and agricultural growth leveled in the period between 1810-1830 (Hancock 1947: 374), by the end of the period, some local agriculturalists had made productive in-roads by diversifying crop species. The popularity of this technique increased during the following period (Lindstrom 1978: 20).

4. Industrialization and Capitalization (1830 to 1880)

The years between 1830 and 1880 encompass the most complex and dynamic period of social and economic development in the history of northern Delaware. Improvements in local and regional transportation, the continued expansion and diversification of industrial activities in the Wilmington and Brandywine Valley, the rise of Baltimore as a trading center, and the revolution in agriculture taking place across the region all contributed to a shift away from market-dependence on Philadelphia and a movement towards a more locally-based economy (Lindstrom 1978: 122).

Improvements in regional transportation routes had begun in the first quarter of the century with the completion of a number of interstate turnpikes. One local example was the Wilmington and Great Valley Turnpike, or, modern Route 202. Completed in 1811 this road provided local farmers with a dependable overland route to markets in Wilmington as well as Pennsylvania.

These early road works were the first stage in a campaign of internal transportation improvements that reached its zenith with the completion of the Philadelphia, Wilmington, and Baltimore Railroad in 1839. Competing with the Chesapeake and Delaware Canal, which was begun in 1809 but not completed until 1829, the Philadelphia, Wilmington, and Baltimore Railroad soon handled the bulk of transportation and shipping across the state (Potter 1960; Dare 1856). After its completion, a number of other railroads soon connected northern Delaware to the Pittsburgh area and the Ohio River Valley.

Bolstered by new transportation routes, a large native and immigrant labor pool, and a ready supply of raw materials, northern Delaware's industries grew and diversified at an unprecedented rate during this period. Having devoting much of its resources to industrial development, by the start of the Civil War, New Castle County boasted a total of 380 manufactures (De Cunzo and Catts 1990: 73; Lindstrom 1978: 122). Local facilities included grain mills, textile mills, paper mills, powder mills, ironworks, slitting mills, wheel rights, cooperies, and tanneries. In the vicinity of the Brandywine, scattered industrial enclaves evolved into full-fledged company towns. By the 1860's, Wilmington emerged as the state's most densely settled urban region. In addition to its textile mills, the city was also becoming a leading manufacturer of transportation-related equipment such as carriages, railroad cars, and iron ships (Hoffecker 1977).

These dramatic changes in industry were paralleled by important shifts in agricultural practices in the region's hinterland. After abandoning its market reliance on wheat exports to Philadelphia during the first quarter of the century, the farm economy of northern and central Delaware restructured itself around a diversified and locally consumed produce base in the middle of the century. By providing fruits, meat and dairy items to the new urban markets in Wilmington, farmers in New Castle County rebounded from the stagnancy of the past decades. In the

Piedmont region, dairy farming supplanted livestock raising as the principal agricultural activity (Bidwell and Falconer 1941: 427).

From a productivity standpoint, the most important change to local agriculture was the adoption of progressive farming techniques. Local farmers incorporated modern farm machinery, fertilization, and drainage measures to significantly increase productivity while simultaneously employing less human labor. These methods also helped to bring marginal regions that had been abandoned during the last period back under cultivation. By the end of the period, New Castle farmers had managed to cultivate over 90% of the county's total acreage (De Cunzo and Catts 1990: 67-70).

During this agricultural revolution, roughly half of the farms in New Castle County were worked by tenant laborer families. Tenancy took many forms, but it can be defined generally as the working of a plot of land in exchange for a rent and/or a portion of the yield. Begun in the late-eighteenth century, its practice became pervasive after the crop disasters and economic crises of the previous period concentrated large tracts of land into the hands of wealthy landowners who were either unable, or disinclined, to work the land by themselves (Siders *et al.* 1991).

While tenancy left no clearly recognizable farm "type," its effects upon the agricultural landscape of the late nineteenth century were profound (Siders *et al.* 1991: 22). Most notably, tenancy, or rather, the concomitant rise of an agricultural class-system, led to a rebuilding of the local landscape that reflected the ideas, values, and beliefs of the landed elite. By examining the layout of farms of this period, researchers have demonstrated that while the size of the average farm in northern New Castle County shrank to 79 acres during this period, farmhouses and outbuildings virtually doubled in size (Siders *et al.* 1990; Herman *et al.* 1989: 146). This was especially true for old "landed" families, whose rebuilt or remodeled hall and parlor homes, stone bank barns, and corn cribs communicated, "the new values of the agricultural reform movement" (Herman *et al.* 1989: 200-202).

5. Urbanization and Suburbanization (1880 to 1940)

General census figures from the turn of the century show that, for the first time in its history, agriculture ceased to be the predominant occupation in the state. While a number of trade occupations rose in importance during the years between 1870 and 1900, the largest shift occurred between industry (rising from 23.5% to 31% of the state's work force) and agriculture (declining from 39.5% to 26%). Since the majority of industrial and trade jobs would have been centered around Wilmington, these numbers would have been even more skewed towards industry in New Castle County (De Cunzo and Catts 1990: 77-78).

Nonetheless, agriculture continued to play an important role in the regional economy. The trend towards non-staple crops, perishables, and truck farming initiated in the second quarter of the nineteenth century continued in much of New Castle County, as new transportation routes connected the region to emerging urban areas throughout the northeast. Wilmington's continued growth insured continued demand for dairy products from the Piedmont, allowing this form of agriculture to thrive well into the twentieth century. Agricultural tenancy and share-cropping

also held even, with over half of all farms engaged in some form of tenant arrangement at the turn of the century (De Cunzo and Catts 1990: 78-80; Shannon 1945: 418).

While the latter decades of the nineteenth century witnessed growth in New Castle's industries, Wilmington's industrial prominence began to diminish during the early years of the twentieth century. Still one of the most diverse industrial districts in the nation, upper Delaware, "fell behind" industrial sectors in the rest of the nation (Hoffecker 1977). In the early twentieth century, many of Wilmington's firms were purchased by national conglomerates or went bankrupt trying to compete with companies located in the emergent industrial cities of the Midwest (Shaffer *et al.* 1988: 29). Nonetheless, Wilmington continued to attract a large population of European immigrants, especially from eastern and central European countries (De Cunzo and Catts 1990: 85).

Catts and Kellogg (2000: 18) note that the rise of suburban development outside of Wilmington was initiated in the early decades of the twentieth century. Quite unlike any settlement pattern then seen in the state, the settlement of areas north of Wilmington was initially tied, as it is still today, to the spread of light industries outside of the traditional urban industrial core of the city. Both in and around the city, transportation networks were expanded or rerouted to accommodate increased automobile traffic. While New Castle's population declined almost 13 % in the years between 1920 and 1960, formerly rural New Castle County saw a population gain of an incredible 455.9 % (Hoffecker 1977: 60). Indeed, the effects of this shift in settlement pattern continue to be manifest throughout the state up to the present time.

6. History of the J. R. Weldin Property

Originally part of the massive proprietary holding called "Rockland Manor," the 103 acre tract called "Chestnut Hill" was first surveyed in 1680. The exact location of the farm's initial dwelling is not known. However, a 1710 will mentions that the property included a house and cleared land (Taylor *e* 1989: 205). While there is no firm documentation for the location, size or nature of buildings on the property until 1796 (a fire blotter from this date describes a two-story stone house in the vicinity of the existing ruins), existing documents and archaeological evidence suggests that at least a portion of the existing ruins date to as early as 1740.

During much of the farm's eighteenth century occupation, northern Delaware agriculturalists, primarily English and Scotch-Irish settlers, participated in the region's first phase of commercial agriculture. Wheat, the primary crop grown during this period, was shipped to regional mill stations. From these it was sent, via New Castle and Philadelphia merchants, to the West Indies, southern Europe, and other North American Colonies.

Following years of extensive mono-crop farming, agricultural lands in the region became exhausted, and, by the late eighteenth century, local farming appears to have entered into a period of decline. Economic crises in the early years of the nineteenth century combined to force many farmers to abandon their lands and settle elsewhere. At this time, many small farm holdings were bought up by wealthy landowners. Workable farms were tenanted, while more marginal properties were left fallow or put in pasture for livestock (De Cunzo and Catts 1990; Munroe 1978).

These large scale economic events are reflected in the occupation history of Chestnut Hill. Following at least seventy-five years of owner-occupancy, in 1785, the farm was sold to an absentee landowner named John Dickinson, who resided in Philadelphia. Like roughly half of the farms in the state, Chestnut Hill was rented and farmed by a string of tenant farmers during the late eighteenth and early nineteenth centuries (Siders 1991).

Mid-nineteenth century occupations of Chestnut Hill coincided with what some authors have termed a "revolution" in Delaware agriculture. Beginning in the 1830's, local farmers started to incorporate crop-rotation, soil-fertilization, drainage measures, and modern farm machinery in their operations (De Cunzo and Garcia 1992; De Cunzo and Catts 1990). In tandem with this technological progress, the region had also shifted away from its economic dependence on exports to Philadelphia wholesalers. Following the completion of a number of transportation improvements (overland turnpikes in the early nineteenth century, the Chesapeake and Delaware Canal in 1829, and the Philadelphia, Wilmington, and Baltimore Railroad in 1839), local farmers abandoned wheat as their staple crop and began to diversify their produce to include other grains, fruits, dairy products and other perishables. These goods were distributed to regional markets, particularly the emerging urban / industrial centers in Wilmington.

The records relating to Chestnut Hill show evidence of these changes. Census data from 1850 and 1860 indicate that the farm's last tenant, John Bradford, was farming a variety of crop types, including wheat, corn, oats, Irish potatoes and hay. Like other Piedmont farmers of the time, he focused on livestock raising, with some dairy farming as well. Though census data indicate that his dairy operations produced above average yields (Taylor et al. 1989: 208), the farm appears to have been in a state of decline when it was purchased by Jacob R. Weldin in 1862. Much of the arable land was fallow, and the farm's appearance is described by one of his descendants as, "impoverished...dilapidated" (Talley 1899: 178).

Within eight years, Weldin, who had previously split his time between his family's smaller farm adjacent to Chestnut Hill and shad fishing on the Delaware, affected considerable improvements to the farm. By 1870, he had brought a total of 224 acres under cultivation, and by 1881, he appears to have added and improved a number of buildings at the site. When Jacob died in 1892, his estate included "the machinery and other capital required to operate a large dairy farm" (Taylor et al. 1989: 208). Numerous items in his will, including silver utensils, marble table tops and other luxury goods, books, and a telescope, attest to an above-average lifestyle and some degree of learning.

His son, J. Atwood Weldin, seems to have continued his father's agricultural successes. A member of the local Tallyville Grange (Scharf 1888: 910), he is described as, "one of the most extensive dairy farmers in the Hundred" (Runk 1899: 501). By 1905, the property included a blacksmith/wheelwright shop, two tenant houses, and stables. By the time of his death in 1914, the dairy farm appears to have been thoroughly modernized (Taylor et al. 1989: 208). In his will, J. Atwood Weldin conveyed the property to his son, and the farm appears to have been in a state of decline when it was conveyed to a land development company in 1934.

7. Augustine Cutoff Tract

Background research indicates that there were two houses on this property in the early twentieth century. Historic maps and photographs were used to identify the period in which the houses were extant. The houses do not appear on the 1893 Atlas of New Castle County by G. William Baist. They are not extant in a circa 1927 aerial photograph from the Regional Planning Federation of the Philadelphia Tri-State District or on an aerial photograph of the Porter Reservoir and Rock Manor Golf Course taken by Dallin Aerial Surveys in 1935. The houses do appear, however, on a photograph of construction of the Porter Reservoir ***(Photograph 1)***. The Porter Reservoir was completed in 1909. Therefore, the houses must have been constructed sometime after 1893 and were demolished before 1927.

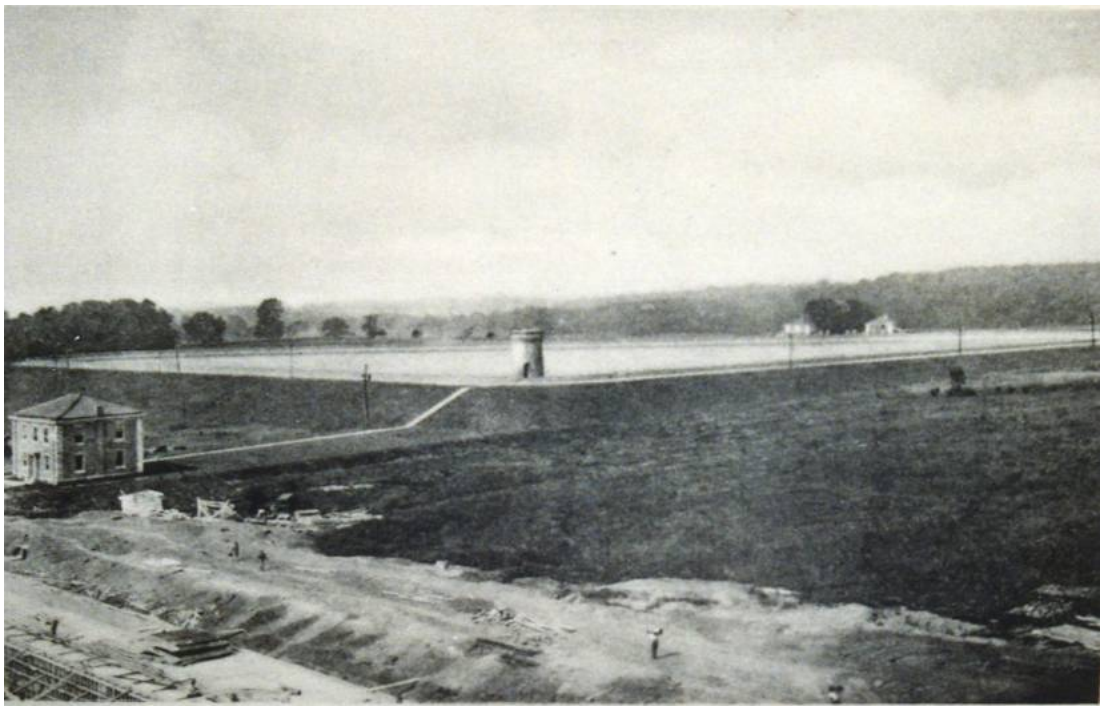
A sketch map of early twentieth century landmarks along Concord Pike (Mariane 1992) includes the two houses. The map consists of the recollections of a woman who lived in the area in the early twentieth century. The land across from Porter Reservoir is referred to as "Alfred I duPont Farmland" and the buildings are labeled "duPont Employee's Homes".

The plans for the 1952 widening Concord Pike from DelDOT (then the State Highway Department) depict Concord Pike as consisting of only two lanes (one lane in each direction).

D. Previous Archaeological Investigations in the Vicinity of the APE

Throughout the last 20 years, the Blue Ball area has been subjected to numerous archaeological investigations associated with DelDOT projects as well as with private developers. As a result of this previous work, it is estimated that approximately 67.33 acres (27.25 hectares), or 37% of the APE, had been previously subjected to Phase I Archaeological testing. The previous surveys were successful in locating 16 archaeological resources in the vicinity of the Blue Ball Area Transportation Improvement project ***(Table 1)***, three of which are located within in the APE for this project ***(Figure 4).*** Information regarding these previous archaeological investigations in the Blue Ball area is summarized in this section.

One of the first cultural resource management surveys of the Blue Ball area was conducted by Middle Atlantic Archaeological Research, Inc. in the late seventies. This work was associated with the proposed improvements to Concord Pike from Interstate 95 to the Pennsylvania state line (Thomas 1980). These investigations included archival and architectural studies of seven historic properties. The Blue Ball Tavern Site (7NC-B-22), located on the west side of the intersection of Concord Pike and Rockland Avenue ***(Figure 4; Table 1),*** was the only archaeological resource subjected to field investigations. The Phase I/II work conducted at the site consisted of a surface collection and subsurface investigations using a posthole digger, followed by the excavation of four test units and four trenches (Thomas 1980: II-2). The excavations successfully located the foundation remnants and builder’s trenches associated with the Tavern, possible outbuildings, a potential well, and two midden features. The site was recommended eligible for the National Register of Historic Places and data recovery excavations were subsequently conducted.



Photograph 1: View of the Porter Reservoir during its construction, facing west. The structures associated with the Augustine Cutoff Site are behind the reservoir, on the right side of the photograph.

Table 1: Previously Identified Archaeological Sites

Project	References	Identified Site #/Name	Chronological Affiliation	Eligible
Cultural Resources Assessment of Concord Pike	**Thomas 1980; Wholey and Walker 2002**	7NC-B-22/Blue Ball Tavern	Historic	Yes
Proposed Route 141 Corridor Improvements	**Taylor et al 1989**	7NC-B-12/Concord Pike	Pre-Contact	No
		7NC-B-13/Alopocus Run	Pre-Contact	No
		7BC-B-13/Matson Run	Pre-Contact	No
		7NC-B-15/Rock Manor	Pre-Contact	No
		7NC-B-4/William Murphy	Historic	No
		Rockland Dump	Historic	No
		7NC-B-17/Sweeney	Historic	No
		7NC-B-16/Bird-Husbands	Historic	No
		7NC-B-10/Smithy	Historic	No
		7NC-B-9/T. Husbands	Historic	Undetermined
		7NC-B-11/Weldin	Historic	Yes
Investigations of the Augustine Cutoff Area	**Anderson 1996; Wholey et al 2000**	7NC-B-13/Alopocus Run Expanded	Pre-Contact	No
		7NC-B-16/Bird-Husbands House Expanded	Historic	No
		7NC-B-50/DuPont Dairy	Historic	No
		7NC-B-49/Augustine Cutoff	Historic	No
Astra-Zeneca Triangle Property	**Roberts 1999; Catts et al 2000; Catts 2000; Kellogg 2000**	7NC-B-13/Alopocus Run Expanded	Pre-Contact	No
		7NC-B-54/Milner Site 1	Pre-Contact	Yes
		7NC-B-55/Milner Site 2	Pre-Contact	No
		7NC-B-53/Triangle Woods	Historic	No
		7NC-B-52/DuPont Tenant Houses	Historic	No

The data recovery work included further archival research that revealed that the site originally functioned as a tavern from 1787 to 1849 and subsequently functioned as a tenant farm until 1909, when the Blue Ball Dairy took occupancy of the site (Wholey and Walker 2002). One hundred features were identified and excavated during the data recovery. According to the investigators, each of the three phases of the site's use was discernable archaeologically, and could be subdivided into earlier and later sub-phases. Contexts associated with the tavern operation included the "north foundation room," an adjacent buried yard surface, three pit features, in addition to an eight foot deposit south of the foundation that appeared to be associated with the later tavern operation (Wholey and Walker 2002). Contexts dating to the farm tenancy included a 54 foot stone wall near the main foundation, and the remains of a 13x14 foot stone outbuilding 50 feet (~15 meters) to the south of the foundation, as well as a large midden feature covering approximately 65 square feet (~20 square meters). Features associated with Blue Ball Dairy included a "post 1864" foundation remnant, and the "post 1910" stone remains of another structure.

During 1985 and 1986, Thunderbird Archaeological Associates, Inc. conducted a Phase I Archaeological Identification survey for the proposed Route 141 corridor from Route 100 to SR 0202 (Taylor et al 1989). These investigations identified 10 archaeological sites in the vicinity of the Blue Ball Transportation Improvement Project APE, four of which were pre-contact. These included the Concord Pike Site (7NC-B-12), the Alopocas Run Site (7NC-B-13), the Matson Run Site (7NC-B-14), and the Rock Manor Site (7NC-B-15).

The Concord Pike Site and the Alopocas Run Site were both discovered during a walkover reconnaissance of the fields north of Rockland Road and west of Concord Pike. The Concord Pike Site is situated on a small knoll just west of Concord Pike and east of Alopocas Run, approximately 1100 feet (~335 meters) north of the Concord Pike (SR 0202)/Rockland Road intersection ***(Figure 4).*** The artifacts were recovered from a 150x250 foot (~46x76 meter) area and included one Kirk quartzite corner-notched point, one untyped quartz point fragment, 1 early stage quartz biface, 1 quartzite core fragment, 1 quartz core, 1 bifacially worked quartz chunk, six quartz flakes, one quartzite flake, and four quartz chunks (Taylor et al. 1989: 269-270). A second surface collection conducted at the Concord Pike Site failed to yield additional artifacts, therefore no additional work was recommended at the site (Taylor et al. 1989: 270). The Alopocas Run Site was discovered on the west side of Alopocas Run just north of Rockland Road, approximately 800 feet (~244 meters) west of the Rockland Road/Concord Pike (SR 0202) intersection ***(Figure 4).*** The artifacts were recovered from a 100x150 upland knoll and included 12 quartz flakes, seven quartz chunks, and one chert flake (Taylor *et al.* 1989: 268). Because Thunderbird considered this a "very thin lithic scatter," no additional work was recommended at the site (Taylor *et al.* 1989: 268, 270).

The Matson Run Site was discovered during an initial walkover of the field just north of Weldin Road and west of Matson Run, directly across from the entrance to the Rock Manor Golf Course ***(Figure 4).*** During the walkover survey, 54 artifacts were recovered including one quartzite contracting stem point, one small quartz stemmed point, one quartzite abraded milling stone, one quartz endscraper, one quartz core fragment, one early stage quartz biface, 32 quartz flakes, and 15 quartz chunks (Taylor *et al.* 1989: 278). Because the recovered artifacts were interpreted to

suggest a "certain degree of permanence and a variety of activities not expected for a lithic scatter," extended Phase I excavations were recommended (Taylor et al. 1989: 278). This work consisted of the excavation of the excavation of 36 2.5x2.5 foot TUs at fifty foot intervals. An additional 50 artifacts were recovered during the extended Phase I testing. These included 43 quartz flakes, one piece of quartz shatter, one quartz biface fragment, one quartz point fragment, one quartz core fragment, one jasper flake, one jasper biface fragment, and one chalcedony flake (Taylor *et al.* 1989: 280). South of Weldin Road, the initial Phase I testing consisted of the excavation of a transect of 12 STPs placed along the east side of Carruthers Lane. The pre-contact Rock Manor Site (7NC-B-15) was discovered at this location ***(Figure 4).*** Subsequent extended Phase I testing included the excavation of an additional 14 2.5x2.5 foot TUs placed according to the site topography (Taylor *et al.* 1989: 280-281). A total of 25 pre-contact artifacts were recovered from the Rock Manor Site. These included 10 quartz flakes, two pieces of quartz shatter, one quartzite flake, seven jasper flakes, one jasper biface fragment, three chert flakes, and one feldspar chunk (Taylor *et al.* 1989: 322). At both the Matson Run and Rock Manor Sites, Thunderbird archaeologists concluded that artifacts densities were relatively low and that the sites were interpreted as "small, temporally limited occupations" (Taylor *et al.* 1989: 280). For these reasons, no further archaeological investigations were recommended at either of the sites (Taylor *et al.* 1989: 283).

Six sites dating to the historic period were identified during Thunderbird's investigations, and based on the results of archival research, future Phase I fieldwork was recommended at one historic resource, the William Murphy House (Taylor *et al.* 1989: 297). (Because the house was occupied at the time, Thunderbird did not conduct field investigations at the Murphy House at the time of their survey. Phase I/II excavations were subsequently conducted in 1997; these results are summarized below). The historic sites included the Rockland Dump Site, the Sweeney Site (7NC-B-17), the Bird-Husbands House Site (7NC-B-16), the Smithy Site (7NC-B-10), the T. Husbands Site (7NC-B-9), and the Weldin Plantation Site (7NC-B-11).

The Rockland Dump Site was discovered at the southwestern edge of the current AstraZeneca Triangle property, during the excavation of ten shovel tests on the flat, well drained landforms in Thunderbird's Shovel Test Area 2 (Taylor *et al.* 1989: 263). The site consisted of two nineteenth to twentieth century trash dumps that contained glass, metal, ceramics, and architectural debris which did not appear to be associated with any structures, therefore, no additional archaeological investigations were recommended at the site (Taylor *et al.* 1989: 263, 268).

The Sweeney Site (7NC-B-17) was located at the northwest corner of the Rockland Road/Old Murphy Road intersection ***(Figure 4).*** Archival research indicated that the house associated with the site was constructed sometime between 1841 and 1847 (Taylor *et al.* 1989: 175). The house served as a rental property until 1878, when the Sweeney family purchased the property (Taylor *et al.* 1989: 175). The Sweeney utilized the property as a small family farm until 1918. The Sweeney house and its associated springhouse was demolished just before Thunderbird's Phase I survey. Thunderbird's archaeological investigations of the property involved the excavation of 10 5x5 foot test units and 21 STPs placed in the rear and west yard areas adjacent to the house (Taylor *et al.* 1989: 177). A portion of the springhouse was also exposed and mapped as part of the investigations. The results of the fieldwork indicated that the yard areas were disturbed by the installation of a series of underground water pipes associated with water towers on the

adjacent property, the installation of a septic system, and the demolition of the house (Taylor *et al.* 1989: 181). Due to the lack of intact contexts associated with the farmstead, no further archaeological investigations were recommended (Taylor *et al.* 1989: 181).

The extant Bird-Husbands House is situated just south of Rockland Road approximately 1500 feet (~457 meters) west of SR 0202 ***(Figure 4).*** The house was likely constructed sometime shortly before 1816, and likely functioned as an owner occupied farmstead until 1879, when the property was rented to tenants and was subsequently used to grow garden produce to be sold at market (Taylor *et al.* 1989: 189, 190). The archaeological investigations at the Bird-Husbands House consisted of the excavation of 12 5x5 foot TUs placed in the rear and east yard areas. In addition, two backhoe trenches were excavated in the area northwest of the house in order to investigate the presence of potential barn remains. The archaeological fieldwork indicated that modern construction and landscaping activities heavily disturbed the land surfaces associated with the house and that no intact contexts associated with the farmstead were present (Taylor *et al.* 1989: 190, 194). Although no further archaeological investigations were recommended, Thunderbird conducted additional work in this area in 1998 and found no significant archaeological deposits (Dan Griffith, personal communication, 2000).

The Smithy Site (7NC-B-10) was a blacksmith shop located on the original Chestnut Hill tract on the east side of the existing Concord Pike, just south of its intersection with Foulk Road ***(Figure 4).*** Although a structure labeled "Smithy" was indicated on the 1849 Rea and Price map at this location, no definitive evidence of a blacksmith shop was documented until the 1905 South Brandywine Hundred tax assessment of J.Atwood Weldin's holdings, in which he was taxed for the business (Taylor *et al.* 1989: 190, 196). During the Phase I survey, Thunderbird archaeologists identified a 150x100 foot concentration of artifacts on the ground surface in the location of the blacksmith shop. This area was further investigated with 17 excavation units that exposed the remains of a twentieth century gas station (Taylor *et al.* 1989: 201-202). No features or artifacts directly related to the blacksmith shop were found; therefore no further archaeological investigations were recommended at the Smithy Site.

The T. Husbands Site (7NC-B-9) was a historic farmstead located on either side of SR 141 (New Murphy Road) just east of the intersection of Rockland Road ***(Figure 4).*** Archival research suggested that the first farmhouse was constructed on the property around 1804 (Taylor et al. 1989: 136). The farmstead was subsequently occupied by four generations of the Husbands family until the property became part of the Dupont landholdings in the twentieth century (Taylor *et al.* 1989: 141). No above ground remains of the farmhouse were observed at the time of the Phase I survey, although barn ruins were noted to the north of SR 141. A backhoe trench was initially excavated within the project area south of SR 141 in order to investigate the presence of the original farmhouse (Taylor *et al.* 1989: 135). The test trench penetrated building debris associated with the house, and as a result, an extended Phase I survey was conducted at the site that focused on the location of the house and its associated yard, in addition to the barn and barnyard areas to the north of SR 141. One by one foot shovel tests were arbitrarily excavated at 10 foot intervals in areas where high artifact densities were likely to occur. This was followed by the excavation of 2.5x2.5 foot or 3x3 foot TUs where information regarding stratigraphy was beneficial or in locations where features such as wells and privies were expected (Taylor et al. 1989: 141). Thirty-six STPs and 6 TUs were excavated in the area

around the barn foundation and 35 STPs and 15 TUs were excavated in the area around the house and its associated yard (Taylor et al. 1989: 142). Relatively few artifacts were found in association with the house and those that were recovered came from mixed contexts (Taylor et al. 1989: 156). The tests excavated near a fence line north of the house did yield earlier artifacts and revealed a potential midden feature. Based on these results, additional archaeological investigations were recommended for the portion of the site in the North Fence Line area (Taylor *et al.* 1989: 158). Thunderbird regarded the site as "unique opportunity to study a small working farm which was owned by one family for an extended period of time" (Taylor *et al.* 1989: 158).

Thunderbird's relatively extensive archival investigations of the 103 acre "Chestnut Hill" tract that lay between Alopocas and Matson Runs indicated that this property was first documented in 1680, and was likely developed as a farm during the first quarter of the eighteenth century and was utilized as such into the middle of the twentieth century (Taylor *et al.* 1989: 205, 261). During this time the farmstead was occupied by a number of its owners, except for the period between 1785 and 1861, when it was likely worked by tenant farmers. In 1861, Jacob Weldin acquired the dilapidated property and gradually converted it into a dairy farm. The farmstead operated as a dairy until 1934 when it was acquired from the Weldin estate by a real estate company (Taylor *et al.* 1989: 217). At the time of the Phase I survey, the abandoned structural remains of a number of buildings was found to lie beneath thick vines and thick brush, just south of Weldin Road approximately 200 feet (~61 meters) east of the intersection with Foulk Road ***(Figure 4).*** Due to the likelihood of locating intact archaeological contexts associated with the ruins, Thunderbird conducted an extensive Phase I survey of the property. Thunderbird's field studies included the arbitrary placement and excavation of 24 STPs, 31 3x3 foot TUs, and two linear trenches. Their investigations were successful in locating the remains of six structures associated with the farmstead. These included the main farmhouse (Structure A), a potential detached dependency to the main residence (Structure B), an equipment shed (Structure C), an additional outbuilding (Structure D), a concrete pad associated with a structure of unknown function (Feature 3), and a barn/barnyard complex (Taylor et al 1989: 220-253). They noted that intact archaeological contexts were located at the site. These included a brick-lined sump or well in Structure A, the fill beneath the basement floor in Structure A, the well outside Structure B, Feature 4, the fill horizons present in TU N422E175, the road fill in TU N432E215, and possible builder's trenches associated with the bulkheads in Structure A (Taylor *et al*. 1989: 261). Based on the results of the Phase I work, Thunderbird recommended Phase II investigations because the site would "provide valuable information on tenancies form the late 18th century through the last quarter of the 19th century…In addition, the site provides a valuable opportunity to study owner occupied sites in the last part of the 19th century and contrast this to the tenant occupation" (Taylor *et al*. 1989: 261).

As previously stated, Phase I fieldwork was recommended at the William Murphy House based on the results of the archival research conducted by Thunderbird during the Route 141 survey (Taylor *et al.* 1989: 297). Thunderbird subsequently undertook Phase I/II fieldwork at this property in 1997 ***(Figure 4).*** Phase I fieldwork involved the excavation of 20 2.5x2.5 foot TUs in the yard areas around the extant William Murphy House, followed by the excavation of an additional eight 2.5x3 foot TUs and two 1.5x2 foot TUs during the Phase II (Walker *et al.* 1997: 25, 35). The results of the archaeological investigations revealed that the yard areas contained mixed contexts and no significant concentrations of artifacts were encountered (Walker *et al.*

1997: 25, 35). Evidence of an outbuilding of unknown function was revealed, but half of this remnant foundation was destroyed, likely by twentieth century construction activities (Walker *et al.* 1997: 50). Due to the level of disturbance and lack of intact contexts, the archaeological component of the property was recommended not eligible for nomination to the National Register of Historic Places (Walker *et al.* 1997: 50).

In 1996, Thunderbird archaeologists undertook investigations at the possible location of a Civil War cemetery in the area to the northwest of the intersection of SR 0202 and the Augustine Cutoff, on the periphery of the Alopocas and Alopocas II subdivisions. The possibility of the presence of this cemetery came to the attention of DelDOT after a local citizen contacted the Delaware Bureau of Archaeology and Historic Preservation about the site in 1990 (Anderson 1996). Although background research did not indicate the presence of a cemetery at this location (Anderson 1996: Appendix I), field studies were conducted. The investigations consisted of the excavation of 19 strip trenches of various sizes, placed in the APE of the proposed realignment of the Augustine Cutoff (Anderson 1996: 2). The survey failed to identify any evidence of individual or mass graves and no further work was recommended (Anderson 1996: 3).

Thunderbird undertook additional Phase I work in the area of the Augustine Cutoff in July 1998. The testing was preformed in the 10-12 acre APE for the proposed new road alignments for the Augustine Cutoff and Rockland Connector, a new storm water management basin, a stockpile area, and three wetland mitigation areas (Wholey *et al.* 2000: 1). The surface reconnaissance and subsequent excavation of five 2.5x2.5 TUs and four STPs placed within Wetland Mitigation Area A2 and the portion of the Rockland Road Connector just west of Rockland Road did not identify any archaeological resources. The area associated with Wetland Mitigation Area B, located between the Alopocas Run Site and Alopocas Run, was initially surface collected. The walkover yielded 62 pre-contact artifacts associated with the Alopocas Run Site, with the highest concentrations coming from the edge of the terrace flanking Alopocas Run. These recovered artifacts included one Bare Island point base, a biface fragment, a chert point fragment, and a quartz core, in addition to pieces of debitage (Wholey *et al.* 2000: 30). Quartz was the most prevalent lithic material found, with lesser quantities of quartzite, hornfels, and unidentified metamorphic rock (Wholey *et al.* 2000: 30). An additional two TUs and one STP were subsequently excavated in this area that failed to yield additional pre-contact materials. Thunderbird recommended that no further work be conducted for the portion of the Alopocas Run Site within the APE (Wholey *et al.* 2000: 31). Wetland Mitigation Area D was located on the south side of Rockland Road, just east of the Bird-Husbands House. Ten 2.5x2.5 foot TUs were excavated in this area. A scatter of historic artifacts associated with the Bird-Husband House was recovered, but no features or buried yard surfaces were identified, therefore no additional work was recommended in this portion of the APE (Wholey *et al.* 2000: 35). The part of the APE delineated the Storm Water Management Area and Portions of Road Alignments was located just south of Rockland Road east of the Blue Ball Dairy Barn and east of Alopocas Run. Testing in this area consisted of the excavation of 15 TUs and 13 STPs. A low density of historic artifacts was recovered, although several historic features were encountered; these included a stone foundation, a stone and concrete pier, a low stone wall and architectural debris (Wholey *et al.* 2000: 49). The artifacts and features were considered to be part of the Du Pont Dairy Site (7NC-B-50). Because additional archaeological investigations were considered to be likely unproductive, Thunderbird recommended that additional documentary research and

construction monitoring be an alternative to additional fieldwork if more information regarding the Site was needed (Wholey *et al.* 2000: 67). Seven widely scattered pre-contact artifacts were also recovered from this area that did not constitute an archaeological Site (Wholey *et al.* 2000: 51). The area between the Blue Ball Dairy and the Augustine Cutoff was delineated the Portions of Road Alignments and Stockpile Area. Background research of this area revealed that A.I. Dupont expressed interest in controlling the area, and by 1935, a subdivision map indicates that the property was indeed owned by Du Pont (Wholey *et al.* 2000: 52). Archaeological investigations included a combination of surface collection and the excavation of 15 STPs. The Augustine Cutoff Site (7NC-B-49) was identified in the southern portion of this area. A cistern, a concentration of brick and mortar near the cistern, an artifact concentration north of the cistern, and a rock concentration were found to be associated with the site (Wholey *et al.* 2000: 59). Although it was unclear whom the site was associated, the recovered artifacts suggested a late nineteenth/early twentieth century date and Phase II excavations were recommended (Wholey *et al.* 2000: 59, 67-68).

In November 1999, John Milner Associates, Inc. (JMA) conducted a Phase I survey of the Astra Zeneca Triangle Property, located in the area bounded by S.R. 0202, Old Murphy Road, and Rockland Road ***(Figure 4).*** Within this property, the Phase I survey was conducted in areas of the APE that were considered archaeologically sensitive by the SHPO (Roberts 1999: 6). The fieldwork initially entailed the excavation of 256 STUs (shovel test units) placed at 10 meter intervals in a series of transects within the project area (Roberts 1999: 3). Five archaeological sites were identified that were further investigated through the excavation of EUs (excavation units).

The first was the Alapocas Run Site (7NC-B-13), originally identified during Thunderbird's Phase I survey for the proposed Route 141 corridor from Route 100 to SR 0202. Of the eleven STUs excavated on the site knoll, two contained pre-contact materials, yielding a total of ten quartz flakes (Roberts 1999: 3). Two 1x1 meter EUs were subsequently excavated at the site; these produced an additional six quartz artifacts, including a non-diagnostic quartz biface fragment. The Alopocas Run Site was interpreted as a limited activity area that was heavily disturbed by modern agriculture, therefore no additional investigations were recommended at the site (Roberts 1999: 3).

The second site, the Milner Site 1 Site (7NC-B-54), is located near the headwaters of an ephemeral tributary to Alopocas Run ***(Figure 4).*** It was initially identified in three STPs that contained a total of seven quartz flakes and a quartz tool (Roberts 1999: 4). Two 1x1 meter units were then excavated at the site that yielded an additional four pieces of debitage, a quartzite biface fragment, and a quartz biface base (Roberts 1999: 4). AstraZeneca planned to avoid the site during their proposed construction; however, JMA recommended a Phase II Archaeological Evaluation if proposed construction would adversely affect the site (Catts and Kellogg 2000).

The third site, the Milner 2 Site (7NC-B-55) was discovered at the head of an ephemeral drainage along the west side of the AstraZeneca Triangle property ***(Figure 4).*** Thirty-two jasper flakes were recovered from one of the initial STUs excavated in the area, and subsequent STUs placed at five meter intervals around the original find failed to yield additional artifacts (Roberts 1999: 4). Additional tests were placed at 2.5 meter intervals around the STU containing the

artifacts, and only one of these produced additional artifacts (two jasper flakes). Two 1x1 meter EUs were then excavated, one adjacent to the original positive STU and one directly overtop of it. An additional 280 flakes were recovered in the two EUs (Roberts 1999: 4). JMA's analysis indicated that the site represented one episode of lithic reduction of Pennsylvania jasper. The site lacked a diagnostic artifact, but based on the workmanship of the artifacts and the non-local raw materials, the site was hypothesized to date to either the Early Archaic or Paleoindian period (Roberts 1999: 4). The Milner 2 Site was considered "very likely" to be eligible for the National Register of Historic Places, and further evaluation of the site was recommended (Roberts 1999: 4). Phase II investigations were conducted at the site in March and April, 2000. The boundaries of the site were further initially refined through the excavation of 39 shovel tests placed at 10 meter intervals along four transects, which failed to produce additional cultural materials. A grid of an additional 31 shovel tests were excavated around the original find spot, and an additional two jasper flakes, a utilized jasper flake, and two possible quartz flakes were recovered from two of these tests (Kellogg 2000: 2). Eight additional EUs were also excavated at the site as part of the Phase II. Because the original construction plans for the project indicated that the site would be adversely affected, data recovery excavations were recommended due to the site's high degree of integrity, the exotic raw materials present, and the nature of the flaking technology (Kellogg 2000: 5, 6).

During pedestrian reconnaissance of the APE, JMA identified a forth archaeological resource, the Triangle Woods Site (7NC-B-53) ***(Figure 4).*** A rectangular depression with mortared stone was visible on the ground surface and the excavation of 15 EUs in the area around the depression yielded very little cultural material (Roberts 1999: 5). Two EUs were subsequently placed within the depression that yielded a high density of twentieth century artifacts. Phase II investigations, that were comprised of a surface reconnaissance and the excavation of an additional 10 EUs, identified several features including a backfilled trash pit, possible hearth areas, and a brick pad. In addition 2300 historic artifacts were recovered (Catts 2000: 5). The site was interpreted as a potential gypsy camp, although the background research regarding the site's association with gypsies was not definitive (Catts 2000: 5). For this reason, the site was not recommended eligible for the National Register (Catts 2000: 6).

The final site found by JMA was the Dupont Tenant Houses Site (7NC-B-52), located on the western periphery of the Triangle Woods property ***(Figure 4).*** Surface features such as concrete block foundation walls, brick scatters, and cement-lined sewer drains were identified on the ground surface. Background research indicated that three tenant occupied structures were located in the area by the late 1930s to early 1940s, and none of the buildings were extant by 1982 (Roberts 1999: 5). Six shovel tests were excavated and the results indicated that the site lacked integrity due to modern disturbances. Additionally, it appeared that the recovered artifacts were deposited after the site was abandoned, therefore no further investigations were recommended at the site (Roberts 1999: 6).

In the fall of 1999, a Phase I survey was conducted by JMA for the proposed storm water management work in the area south of Rockland Road and east of the DelDOT retention basin. The limits of the Blue Ball properties delineated this project area to the west and south (Catts and Kellogg 2000: 3-6). The southwestern portion of the project area was found to be covered by two large spoil piles of dirt that encompassed an area of approximately 5.5 acres. The only

cultural resource encountered during the survey was a remnant of the Nemours Estate stone wall (Catts and Kellogg 2000: 3-6). JMA concluded that the stone wall represents a contributing element to the Nemours Historic District (Catts and Kellogg 2000: 3-6).

III. Research Design

A. Research Objectives

The research goals and objectives for the Phase I Identification Survey were to identify all archaeological resources within the APE and, if any resources were identified, to evaluate whether the resources are eligible for listing in the National Register of Historic Places. All archaeological resources, even those that are not eligible for listing in the National Register of Historic Places, should be identified, as the recordation of all sites contributes to our knowledge of settlement patterns throughout pre-contact and historic periods.

The background research identified the specific locations of previously recorded sites within and in the near vicinity of the APE (see previous section). The potential for locating pre-contact sites within the APE was evaluated using information on site locations provided in *A Management Plan for Delaware's Prehistoric Cultural Resources* (Custer 1986) and from background research undertaken for the project.

Known sites dating to the Paleoindian period in northern Delaware are most heavily concentrated near primary sources of high quality cryptocrystalline lithic material (e.g. the Delaware Chalcedony Complex) located to the west of the project area. The APE is subsumed under "Paleo-Study Unit II," which is hypothesized to contain non-quarry sites related to the Delaware Chalcedony Complex (Custer 1986: Figure 8). Due to its distance from these lithic sources, base camp settlements are not predicted for the APE, although hunting sites are a possible resource type, particularly if the undisturbed wetland areas within the APE were in place during the Glacial/Early Holocene transition.

For the Archaic period, the project APE falls within the "Archaic Study Unit I, Piedmont Uplands" (Custer 1986: Figure 14). Resource procurement sites are predicted in proximity to the swampy floodplains of low order streams during this period, while micro-and-macro band camps appear to be associated with terrace positions near high-order streams or extensive swamps. The former setting more closely approximates the APE for this project due to the presence of low order streams and their associated tributaries and the lack of high order streams; therefore the probability of locating an Archaic period camp during the survey would be considered moderate to high. It is important to note, however, that functional site types for both the Paleoindian and Archaic periods are based on surface collections; there are no intact, excavated examples of "macro-band", "micro-band", or "procurement" sites or any of the hypothesized Paleoindian site types in the Delmarva Peninsula (Custer 1986: 127-128). The proposed settlement patterns are based on those developed elsewhere in the Middle Atlantic region and the likely locations of any given site type are predicted primarily inferred pre-contact resource potentials. This caveat is necessary because our understanding of pre-contact resource distributions, particularly of the Late Glacial and Early Holocene, are imperfect and subject to change.

For both the Woodland I and Woodland II periods, the APE is located within Custer's "Piedmont Uplands" study unit (1986: Figures 26 and 31). Within this physiographic zone, Custer notes that macro-band base camps for both cultural periods are usually located on well-drained terraces in proximity to higher order streams and at stream confluences near sinkholes and/or springs in

limestone lowlands (Custer 1986: Tables 12 and 15). Procurement sites are most likely located on upland slopes adjacent to ephemeral or low order streams, swampy floodplains, and lithic sources. The APE lacks floodplains associated with high order streams, as a result, it exhibits a relatively low probability for containing Woodland I and/or Woodland II macro-band base camps. Conversely, the APE does contain several well-drained uplands near ephemeral drainages; therefore the probability for locating Woodland I and/or Woodland II procurement sites within the APE should be considered high. The preciously identified 7NC-B-54 is located within the project APE on a similar topographic setting. Based on site location predictions contained in Custer's *A Management Plan for Delaware's Prehistoric Cultural Resources* (1986), small resource procurement sites from all pre-contact periods are likely to be present on these types of settings within the APE, with higher potential for more functionally diverse site types during the Woodland I and II periods.

The potential for locating historic archaeological sites within the APE was evaluated using information provided in *A Management Plan for Delaware's Prehistoric Cultural Resources* (De Cunzo and Catts: 1990) and from the background research undertaken for the project.

During the early part of the Exploration and Frontier Settlement Period (1630 to 1730), the majority of settlements in Delaware consisted of Dutch and Swedish trading stations concentrated near the Delaware River. As the population of European settlers increased, small commercial centers, such as Newport and Christiana, grew as shipping centers for moving goods to Philadelphia. Throughout this period, waterways provided the primary mode of transportation. As a result, settlement patterns consisted of scattered family farmsteads along major drainages. At this time, the Blue Ball area was largely unpopulated, although archival investigations indicate that the "Chestnut Hill" tract that lay between Alopocas and Matson Runs was acquired through a deed in 1680, and likely represents one of the earliest properties to be developed within the APE during this period. The potential for locating additional undiscovered historic sites dating to the Exploration and Frontier Settlement Period was considered low due to the unpopulated nature of the area in the late seventeenth and early eighteenth centuries, in addition to the disturbances associated with modern development within the archaeological APE.

During the Intensified and Durable Occupation Period (1730 to 1770), New Castle County witnessed a population increase as the number of farm-related inland settlements multiplied. As the network of roads improved transportation, hamlets began to emerge at transportation junctures. For example, Land surveys from 1745 demarcate the "Road to Brandywine Ferry" within the Chestnut Hill tract. This early road followed the approximate alignment of present day Concord Pike (Wholey et al. 2000: 15). Although this area's population was increasing and transportation networks were improving, the area containing the APE was still mostly undeveloped or was used as farmland during the third quarter of the eighteenth century; therefore discovering addition archaeological sites dating to the Intensified and Durable Occupation Period was considered low.

Northern New Castle County retained its agricultural character through the Early Industrial Period (1770 to 1830), although the extensive farming undertaken during the previous period drastically cut agricultural productivity due to the eroded and exhausted fields. Due to the hard times, many farmers were forced west to clear new areas or went to work in the emerging

industrial economy in and around Wilmington. Population stagnated in New Castle County, and the area containing the project APE remained largely undeveloped. Notably, the Wilmington and Great Valley Turnpike, which follows the same general alignment of modern S.R.202, was finished during this period in 1811. New businesses emerged in association with this new roadway during the Early Industrial Period. One of these businesses, the Blue Ball Inn, (known archaeologically as the Blue Ball Tavern Site) was located within the project APE ***(Figure 5).*** Archival research revealed that the Blue Ball Inn originally functioned as a tavern from 1787 to 1849 and subsequently functioned as a tenant farm through the following Industrial and Capitalization Period until 1909, when the Blue Ball Dairy took occupancy of the site (Wholey and Walker 2002). Due to the modern land altering disturbances within the project area, the probability of finding additional sites dating to the Early Industrial Period within the APE was considered low.

The Industrial and Capitalization Period (1830 to 1880) ushered in a new era of growth in northern Delaware. Factors such as improvements in transportation networks, a large immigrant labor pool, and an abundance of raw materials led to the growth of industry and shifts in agricultural practices. In the vicinity of the Brandywine, industrial enclaves evolved into company towns. The farm economy restructured itself around a diversified and locally consumed product base. Progressive farming practices, such as the use of modern machinery and improvements in fertilization and drainage, increased productivity while relying less on human labor. During this agricultural revolution, roughly half of the farms in New Castle County were worked by tenant labor families. This includes the Chestnut Hill tract, which, according to archival research, was owned by heirs of the Logan family of Philadelphia during the early to mid nineteenth century. The farmhouse associated with the Chestnut Hill tract, located to the east of the Concord Pike, is labeled "D. Logan" as depicted on ***Figure 5.*** During the period of the Logan's ownership, this tract appeared to be in the tenure of Joshua Hutton and Hiett Hutton, based on the will of Maria D. Logan (Wholey et al. 2000: 16). In addition, several other structures that originated during the Industrial and Capitalization Period are depicted on the 1849 map in the vicinity of the project APE; these include the Blue Ball Inn on the west side of Concord Pike and the Smithy House (archaeologically known as the Smithy site) located on the original Chestnut Hill tract on the east side of Concord Pike just south of its intersection with Foulk Road ***(Figure 5).*** The archaeological sites associated with these structures were investigated prior to McCormick Taylor's Phase I survey (see previous Section).

With the advent of the Urbanization and Early Suburbanization (1880 to 1940), agriculture ceased to be the predominant occupation in the state for the first time in its history, although agriculture continued to play an important role in the regional economy. The trend towards non-staple crops, perishables, and truck farming initiated in the second quarter of the nineteenth century continued in much of New Castle County, as new transportation routes connected the region to emerging urban areas throughout the northeast. Wilmington's continued growth insured continued demand for dairy products from the Piedmont, allowing this form of agriculture to thrive well into the twentieth century. Historic maps dating to this period reveal little additional development in the vicinity of the APE during this time ***(Figures 6, 7, and 8)***, although previous archaeological investigations located the remains of the Augustine Cutoff Site (***Figure 4).*** Additional review of early twentieth century photographs, aerial photographs and historic maps indicated that there were two structures on this property. An early sketch map of

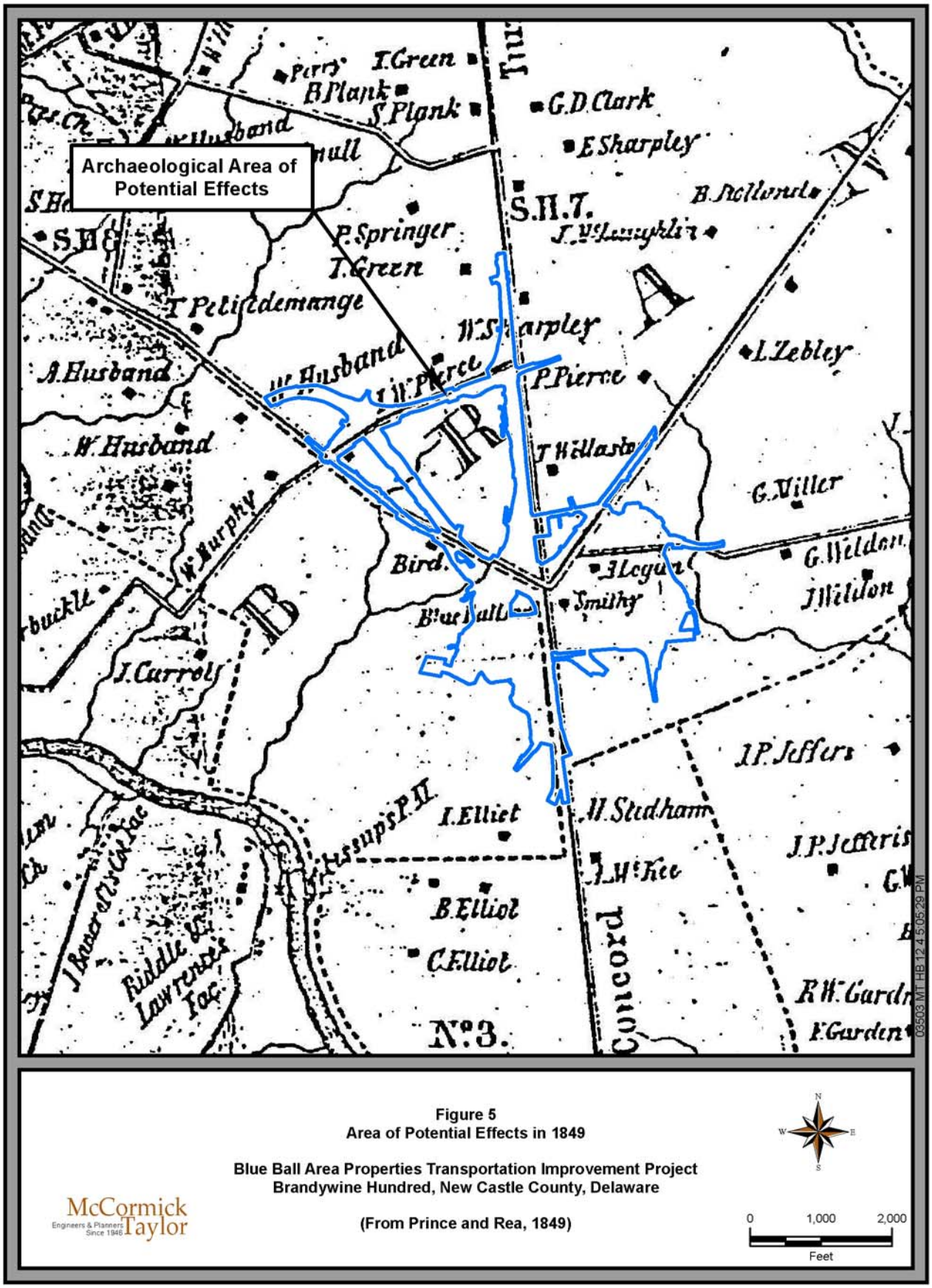


Figure 5
Area of Potential Effects in 1849

Blue Ball Area Properties Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

(From Prince and Rea, 1849)

McCormick Taylor
Engineers & Planners Since 1946

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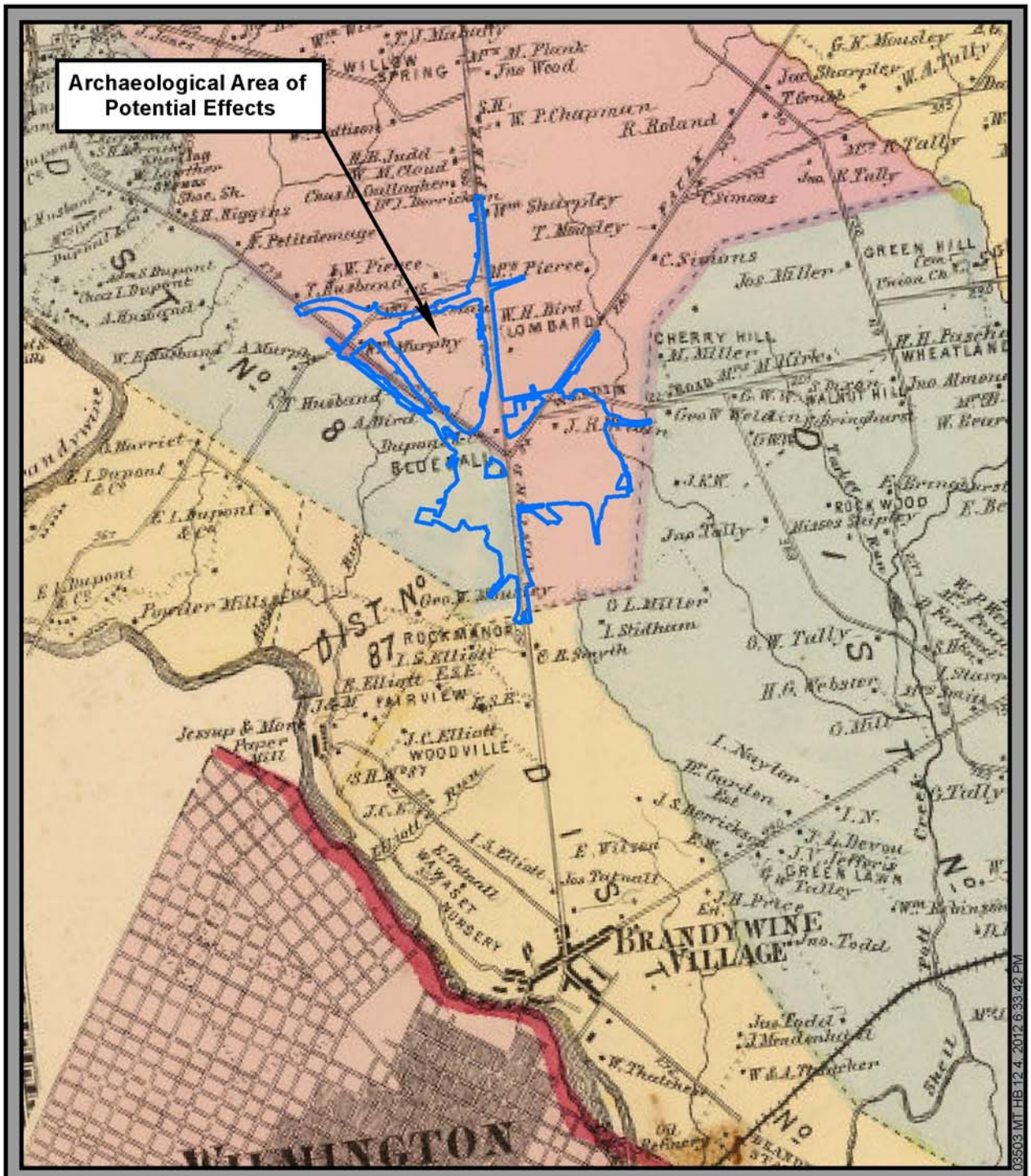

Figure 6
Area of Potential Effects in 1868

Blue Ball Area Properties Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

(From Beers, 1868)

McCormick Taylor
Engineers & Planners Since 1946

Not to scale

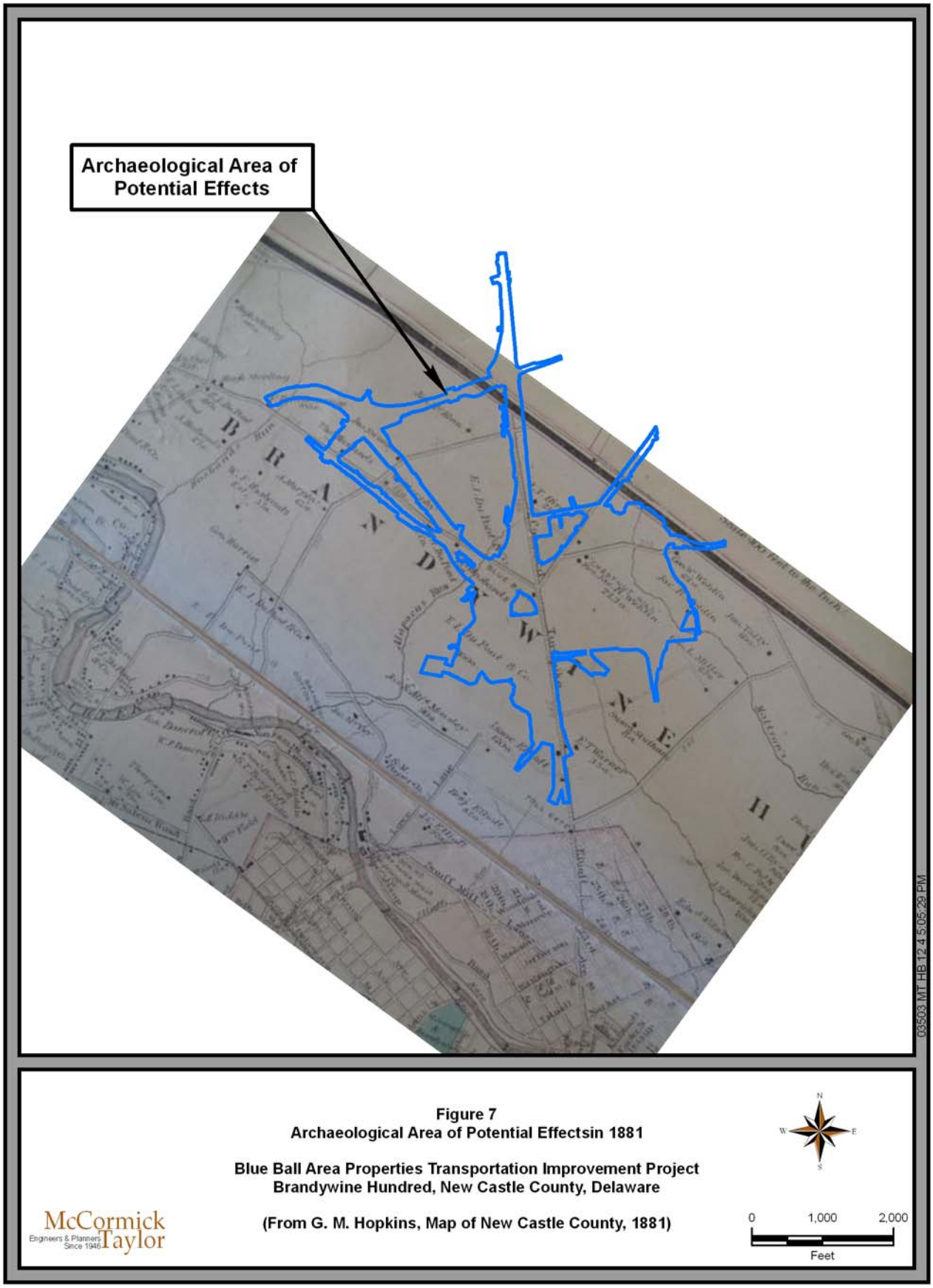

Figure 7
Archaeological Area of Potential Effectsin 1881

Blue Ball Area Properties Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

(From G. M. Hopkins, Map of New Castle County, 1881)

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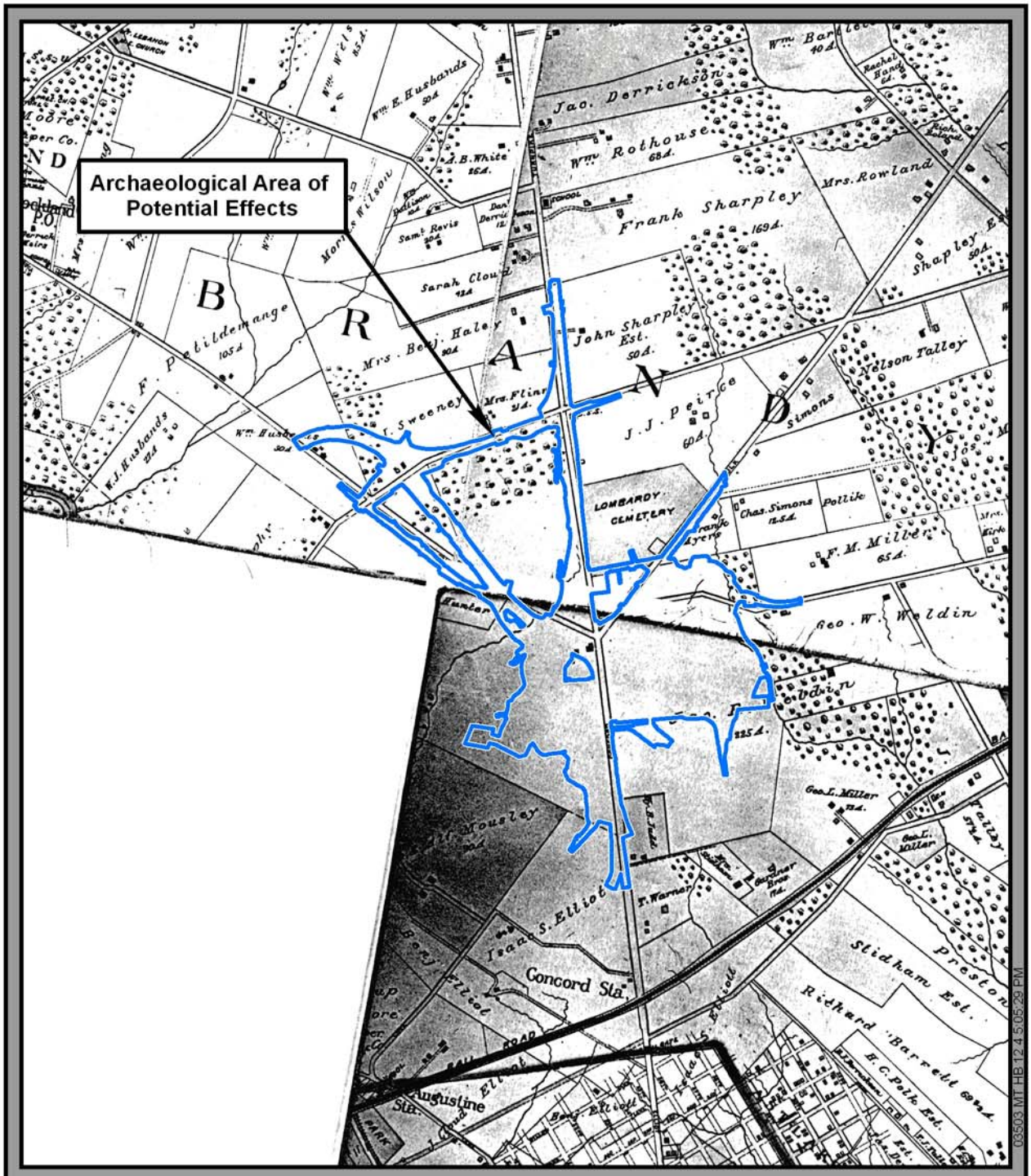

Figure 8
Archaeological Area of Potential Effects in 1892

Blue Ball Area Properties Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

(From G. W. Baist, Atlas of the New Castle County, DE, 1892)

McCormick Taylor
Engineers & Planners Since 1946

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early twentieth landmarks along Concord Pike (Mariane 1992) includes two houses in the location of the Augustine Cutoff Site. The maps consist of the recollections of a woman who lived in the area in the twentieth century who referred to the land across from the Porter Reservoir as "Alfred I DuPont Farmland" and the buildings are described as "duPont Employee Homes. These houses do not appear on the 1892 Atlas of New Castle County ***(Figure 8),*** the 1904 West Chester, Pennsylvania USGS 15 Minute Series Quadrangle ***(Figure 9)***, nor a circa 1927 aerial photograph from the Regional Planning Federation of the Philadelphia Tri-State District, although a circa 1918-1935 property ownership map of the project area depicts the property's association with A.I. Dupont **(*Figure 10*).** Aerial photographs taken by Dallin Aerial Surveys in 1935 also failed to provide evidence of the structures. However, the houses do appear in the distance in a photograph taken of the Porter Reservoir during its final stages of construction ***(Photograph 1)***. The construction of the Porter Reservoir was completed in 1909. Therefore, the houses were likely constructed between 1904 and 1909, and were demolished before 1927.

B. Archaeological Survey Methodology

1. Phase I Archaeological Identification Survey

Due to the extensive previous archaeological investigations and the amount of modern disturbance within the APE, representatives from DelDOT, the Delaware SHPO, and McCormick Taylor, Inc. met during a field view held on November 27, 2000 that established the portions of the APE that required Phase I testing. These areas, designated Areas A-M, are graphically depicted on ***Figure 11.*** Subsequent to the completion of the Phase I testing, consultation between DelDOT archaeologist Kevin Cunningham and the SHPO determined that due to the extensive identification testing that had been conducted in the area by McCormick Taylor as well as other consultants, certain portions of the APE (designated Areas 1-4) did not to be sampled ***(Figure 11) (Appendix C)***. Therefore, no archaeological testing was conducted in these areas.

The portions of the APE where archaeological testing was determined to be necessary were tested with shovel test pits (STPs) measuring 0.57 meter in diameter placed at 15 meter intervals. The STPs were dug by natural strata and were excavated 0.10 meter (~0.33 foot) into the sterile subsoil. The excavated soils were screened through ¼ inch mesh hardware cloth. Profile maps of each STP were recorded in the field on standardized forms.

All artifacts recovered during the Phase I Survey were processed, inventoried, catalogued and analyzed as per *Curation Guidelines and Standards for Archaeological Collections*, Delaware State Museums, 1997.

2. Archaeological Evaluation Surveys

Archaeological Evaluation Surveys were conducted for the the Weldin Plantation Site (7NC-B-11), the Augustine Cutoff Site (7NC-B-49), and the Ronald McDonald House Site (7NC-B-54). All three of the sites were tested with a similar general methodology. Initially, the portion of the APE containing the site was investigated through the excavation of an arbitrary grid of STPs in

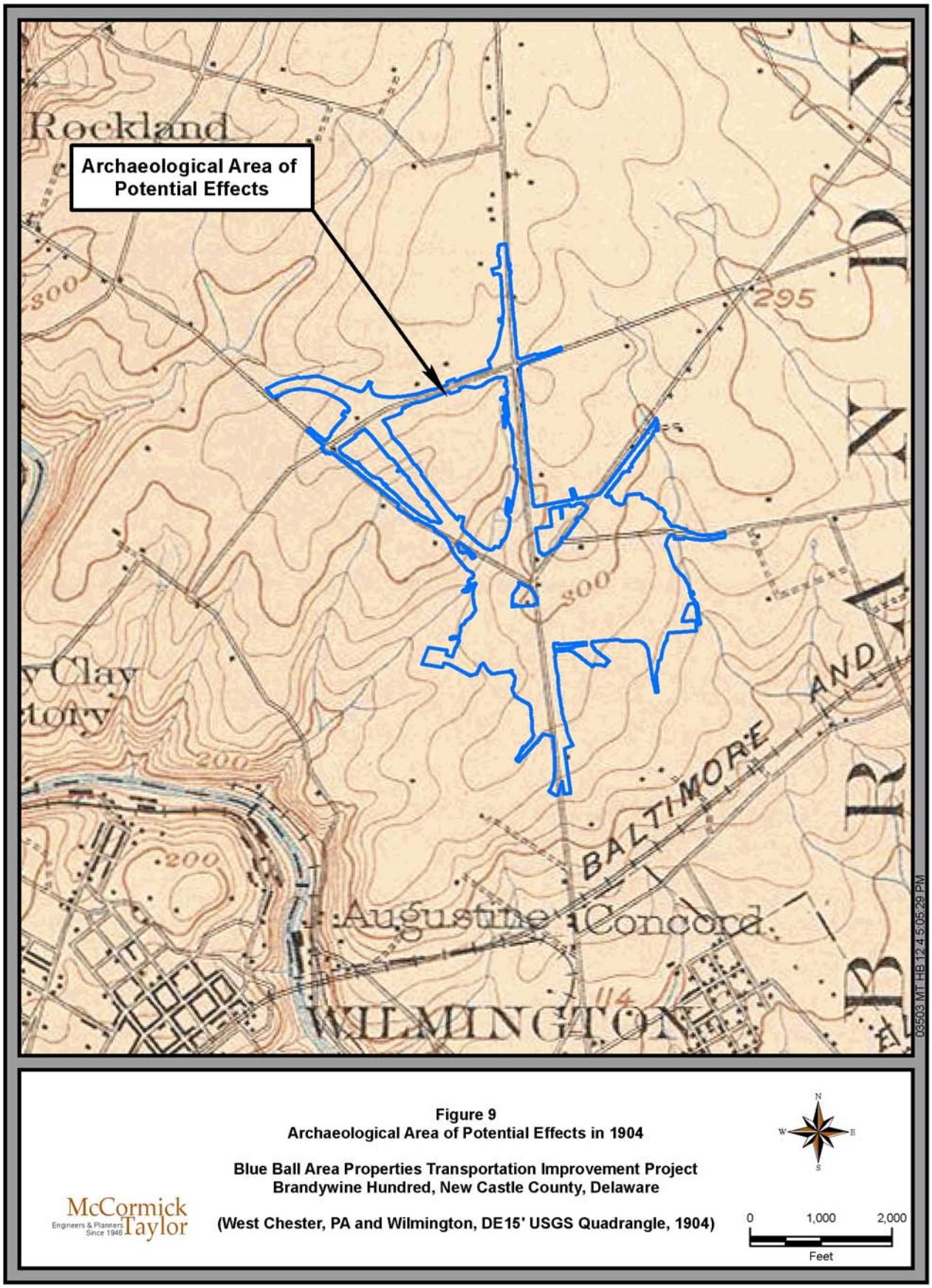

Figure 9
Archaeological Area of Potential Effects in 1904

Blue Ball Area Properties Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

(West Chester, PA and Wilmington, DE15' USGS Quadrangle, 1904)

McCormick Taylor
Engineers & Planners Since 1946

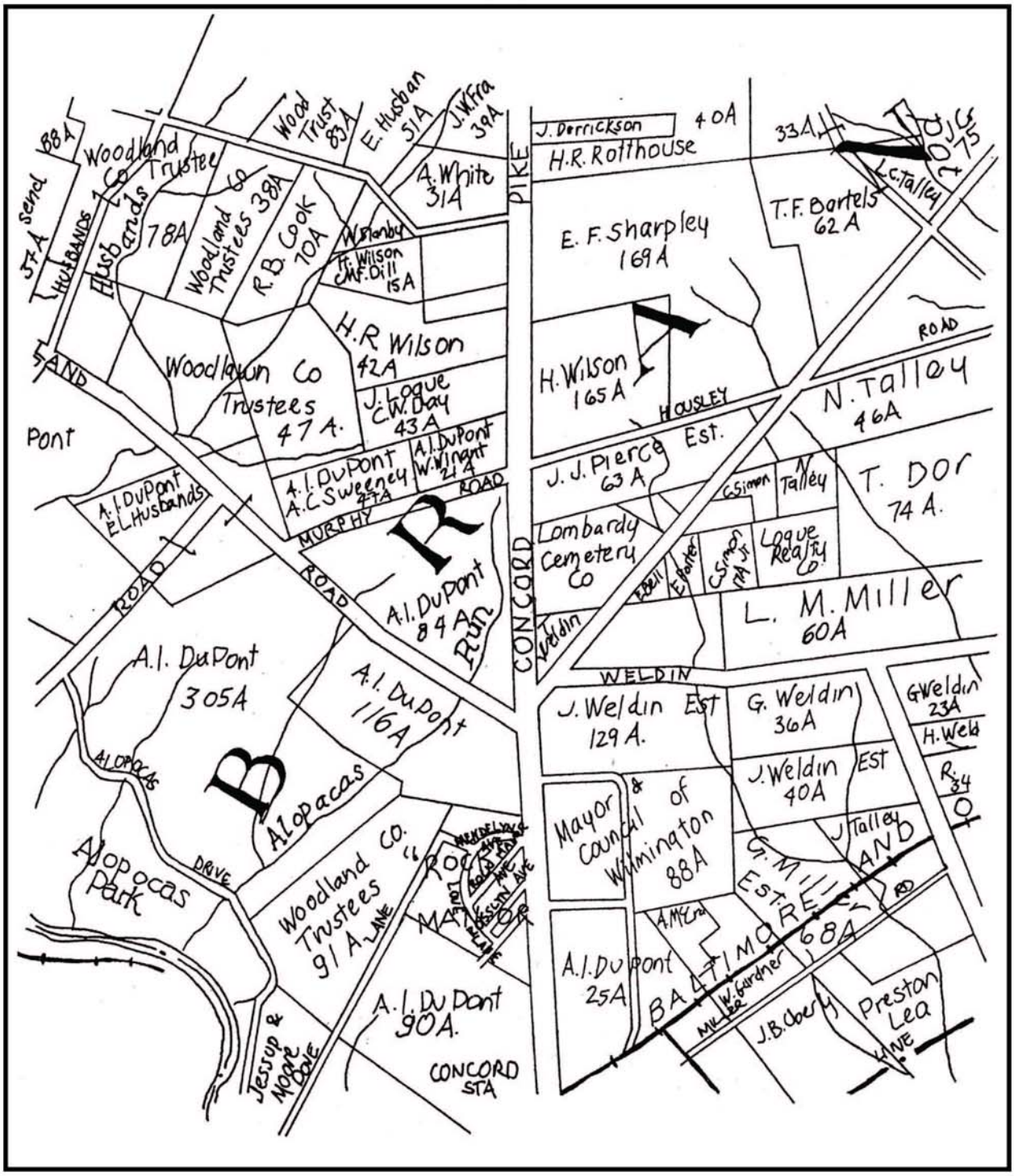

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Figure 10

Property Ownership Map of the APE, circa 1918 to circa 1935

Collections of the Historical Society of Delaware, Wilmington
Blue Ball Area Properties Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

(From Wholey et al. 2000:56)

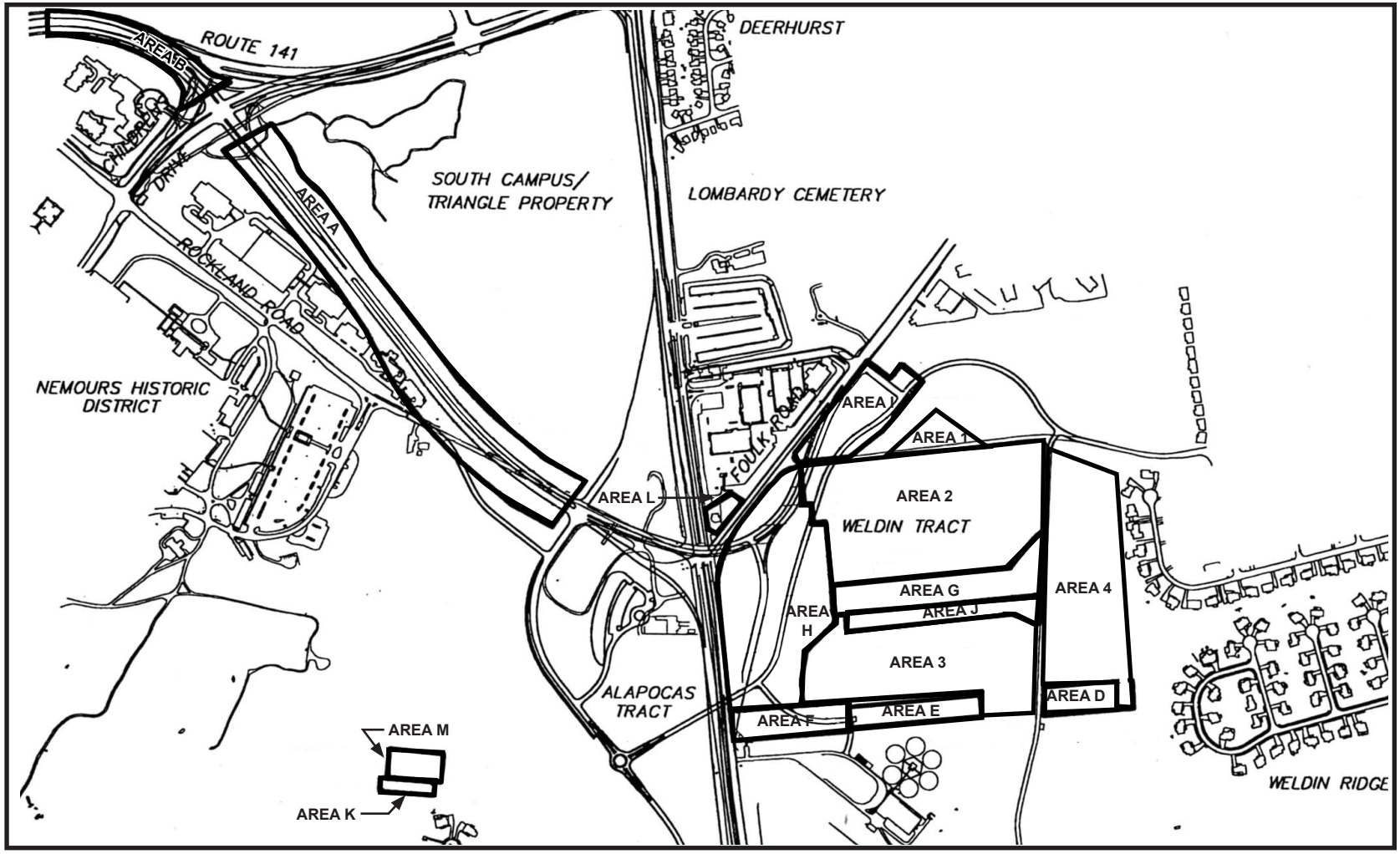

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Figure 11

Phase I Archaeological Identification Survey Areas

Blue Ball Area Properties Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

order to establish site boundaries and to identify areas within the site that contained high artifact densities and/or cultural features. The STPs were 0.57 meter in diameter and were excavated by natural strata. Subsequent to the excavation of the shovel tests, test units of various sizes were excavated in areas of interest to further examine features and provide additional data regarding site integrity and artifact distribution.

All soils removed from the STPs and TUs excavated for the three Archaeological Evaluation Surveys were screened through ¼ inch, mesh hardware cloth. The STPs and TUs were excavated by natural strata (designated Levels). Notes regarding excavations were recorded on standardized forms and plan view and profile maps were drawn in the field. Black and white and color photographs were taken where appropriate.

All recovered artifacts were processed, inventoried, catalogued and analyzed as per *Curation Guidelines and Standards for Archaeological Collections*, Delaware State Museums, 1997. Further detailed information regarding the field methodology for each individual site is provided below.

a. The Weldin Plantation Site (7NC-B-11)

At the initiation of the archaeological testing, the area in the vicinity of the farmstead was covered by thick brush as well as old and young trees. A vegetation survey was conducted ***(Appendix D)*** which inventoried the plant species that would have been naturally occurring, deliberately planted, or invasive due to human activities. Subsequent to the vegetation survey the site was cleared of brush and trees less than 1 foot in diameter in order to relocate foundations, previous excavation units, and to improve overall site visibility.

After the site was cleared, a systematic grid of STPs was placed at 20 foot (~6 meter) intervals in known domestic areas or those yielding relatively high artifact densities**.** The STP interval was lengthened to forty feet (~12 meters) as artifact densities fell in the portion of the site surrounding the barnyard. The westernmost transect of STPs was placed just to the east of ground disturbance associated underground utilities and a parking area while the northernmost transect was placed 10 feet (~3 meters) south of Weldin Road. One hundred and seventy (170) STPs were excavated during the Evaluation Survey.

Subsequent to the excavation of the STPs, twenty 3x3 foot test units (TUs) were excavated. Twelve 3x3 foot TUs were placed adjacent to or inside of Structure A (these units excavated as 3x6s in order to facilitate deep excavations). Two TUs were placed within Structure B and one was excavated on the exterior. The remaining TU locations were selected based on the recovery of early nineteenth century artifacts or the identification of possible features during the excavation of the STPs.

b. The Augustine Cutoff Site (7NC-B-49)

Prior to the initiation of the Evaluation Survey, an arbitrary grid was established. The site's baseline was laid out perpendicular to the straight line between the two telephone polls 48735/44412 and 48739/44392 which are adjacent to the southbound lane of Concord Pike. A

datum with the coordinates N500 E800 was placed 25 feet (~7.5 meters) north of the southernmost pole, 4.7 feet (~1.4 meters) west of the Concord Pike curb.

The site was initially tested with shovel test pits (STPs) placed at 20 foot intervals. (Because of a staked utility line that lies approximately 30 feet (~9 meters) from Concord Pike, the first transect of STPs was placed 50 feet (~15 meters) from the edge the road. The STP interval was increased to 40 feet (~12 meters) as artifact densities decreased toward the western edge of the APE. Shovel tests that contained unusual artifacts or fill horizons were further investigated with four radial shovel tests. Each STP was numbered according to their grid coordinates.

One hundred and seventy-five (175) STPs and five 3x3 foot test units (TUs) were excavated during the Evaluation Survey. The location of the TUs were placed in association with features identified during the shovel test excavations and was concurred upon by DelDOT and the SHPO during a field view held November 27, 2000.

c. The Ronald McDonald House Site (7NC-B-54)

Subsequent to establishing an arbitrary grid based on JMA's Phase I excavation units, the APE was tested with STPs excavated at 5 meter intervals in order to establish the boundaries of the site, identify artifact concentrations, and/or potential cultural features. Phase II testing began in the vicinity of the tests in which pre-contact artifacts were recovered by JMA and proceeded in all cardinal directions. As excavations proceeded, alternating STP transects were offset 2.5 meters (~8 feet) to facilitate better coverage. The boundaries of the site were delineated when two consecutive non-artifact bearing STPs surrounded all the tests containing pre-contact artifacts. The northern portion of the site was disturbed while the Evaluation Survey was in progress. This area was surface collected subsequent to the disturbance. The recovered artifacts were bagged by the 5 meter block (identified by the southwest corner) in which they were found.

One hundred and sixty-three STPs were excavated during the Evaluation Survey. The excavation of nine 1x1 meter test units (TUs) followed the shovel testing. Test Units 1-7 were placed in areas yielding relatively high densities of pre-contact artifacts and/or lithic tools. Test Unit #8 was excavated in a relatively low density area to sample the northeastern portion of the site. Due to the limited information provided in TU 1 (bedrock was exposed near ground surface), TU 9 was placed nearby to provide a better sample of that area. The SHPO concurred with the selected TU locations during a field view on September 25, 2000.

C. Artifact Analysis Methodology

Artifacts were processed in the lab at McCormick Taylor, Inc-Harrisburg according to the current *Guidelines and Standards for the Curation of Archaeological Collections* published by the Delaware Division of Historical and Cultural Affairs. Artifact inventory was performed in MS Access 2003. The artifacts and associated field records, forms, photographs, and maps are currently stored at McCormick Taylor's Archaeology Laboratory located at 5 Capital Drive, Harrisburg, Pennsylvania. The artifacts are currently being prepared for transfer to the Delaware State Museums for permanent curation.

1. Pre-Contact Assemblage

The pre-contact artifact assemblage from the Ronald McDonald House Site (7NC-B-54) is comprised entirely of stone tools and debitage. The analysis that follows is both typological and quantitative. Each specimen was assigned to a category that reflects formal properties, stage of reduction, or use based on the presence of one or more key attributes. Several of these attributes were measured and recorded in order to examine variability within the assemblage. The categories used for this analysis were developed by Taylor (1991); however, in some cases the attributes used to assign specimens to categories have been modified.

a. Debitage

For this analysis, all by-products of lithic reduction are initially categorized either as cores, flakes**,** flake fragments, or blocky shatter. Cores, as defined here**,** are lithic specimens from which flakes have been detached, but do not display other uses aside from a source of usable flakes. Cores are classified as unidirectional if flake scars originate from a single striking platform, multidirectional if flake scars originate from multiple platforms, or bipolar. Bipolar cores are the source of usable flakes that are detached by the application of force at opposed ends of the core (hammer and anvil). Bipolar cores should display crushing at both points of applied force and/or compression rings originating from opposite ends of the specimen (Andrefsky 1998:120). Maximum length and thickness are measured and recorded for all cores and core fragments. Flakes display an intact or partially intact striking platform and recognizable dorsal and ventral surfaces. Striking platform morphology is widely thought to be an important attribute for identifying the form of the objective piece and is recorded as cortical, flat, bifacial, bifacial and abraded, partially removed/crushed, irregular, or transverse. Flake terminations are recorded as feathered, flat, hinged, overshot, damaged through use, or retouched. Maximum length, width and thickness at midpoint are measured and recorded for all complete flakes. Flake fragments possess identifiable ventral and dorsal surfaces, but lack platforms. Blocky shatter are detached pieces with no clearly identifiable platforms, ventral or dorsal surfaces. All debitage specimens are weighed individually and their raw material is recorded. Flakes are further classified into the following categories.

Decortication Flakes have cortex material covering 50% or more of their dorsal surface.

Early Reduction Flakes display cortical, flat, or transverse platforms. They may possess cortex on less than 50% of their dorsal surface and/or exhibit less than four dorsal flake scars, but platform morphology is the key attribute for inclusion in this category.

Biface Reduction Flakes display facetted platforms that represent the edge of a biface.

Bipolar Flakes display the same features as bipolar cores: crushing at both points of applied force and/or compression rings originating from opposite ends of the specimen (Andrefsky 1998:120). For the purposes of this analysis, bipolar flakes and cores will be distinguished solely by size**.**

Indeterminate Flakes are flakes which cannot be assigned to any of the categories listed above.

b. Tools

i. Bifaces

Early Stage Bifaces are cobbles, blocks, or large flakes with bifacially trimmed edges, equivalent to Callahan's Stage 2 bifaces (1979).

Middle Stage Bifaces have been initially thinned and shaped. A lenticular cross-section is developing, but edges are sinuous and patches of cortex may still remain on one or both faces. These bifaces are roughly equivalent to Callahan's (1979) Stage 3 bifaces. Biface reduction is a continuum; therefore middle stage bifaces are often difficult to distinguish from early- and late-stage bifaces, depending on the point at which their reduction was halted.

Late-Stage Bifaces are basically finished bifaces. The are well thinned, symmetrical in outline, their edges are centered. Areas of cortex may still be present. They are analogous to Callahan's Stage 4 bifaces (1979).

Projectile Points are bifaces that display hafting elements. Although "hafted bifaces" is a less functionally loaded term, "projectile points" is retained here for comparability with the work of most North American archaeologists, with the understanding that they could have been used as cutting tools as well as projectile tips.

Indeterminate Biface Fragments are too small or damaged to assign to a specific type.

ii. Flake Tools

Utilized Flakes are expedient tools that exhibit traces of use-related damage on one or more edges.

Retouched Flakes are tools that have had one or more edges retouched, either to sharpen the working edge, to create a dulled edge for grasping, or to form a specific angle or shape. These flakes are detached from all types of cores.

iii. Other Tools

Pebble Tools are those which have some portion of the pebble surface flaked off to fashion a cutting edge.

c. Lithic Raw Materials

The archaeological investigations yielded a variety of lithic raw material types. They are described in order of their decreasing representation in the assemblage.

Quartz: This material ranges in color from an opaque white to transparent. Within the site's assemblage, there is evidence for the reduction of quartz pebbles, which are present in the site's soil and for the utilization of quartz from bedded sources, possibly from the Wissahickon

Formation to the immediate west of the site (PA Bureau of Topographic and Geologic Survey 1981: Map 61).

Jasper: Within the assemblage, this material is yellow-brown to red in color and generally fine-grained. The nearest primary and secondary jasper sources available to the site's inhabitants would have been ca. 30 km to the west, in the environs around the Iron Hill, Heath Farm, and Cooch quarries (Custer et al 1986), although trade for or direct procurement of Hardyston formation jaspers from eastern Pennsylvania cannot be ruled out. There is good evidence that the occupants of this site used both primary and secondary sources of this raw material.

Chert: Cherts in the assemblage are fine-grained and black in color. Black cherts are known to co-occur with jasper at the locations mentioned above as well as in secondary contexts of the Columbia sediments (Custer et al 1986).

Chalcedony: Chalcedony occurs in the assemblage as a fine-grained white to light grey, translucent material. Although the chalcedony artifacts are small there is no evidence for the orange mottling common in Broad Run chalcedony described by Custer et al (1986), therefore the source of this material is unknown.

Quartzite: Metamorposed quartzite is represented by only six artifacts which range in color from a light brown to dark blue-grey and are medium- to coarse textured. Quartzite is present in Delaware's coastal plain in cobble and pebble form (Custer 1989:59). Primary sources of quartzite are located in Pennsylvania's piedmont within 40 km of the site (PA Bureau of Topographic and Geologic Survey 1981: Map 61).

Argillite: Only four artifacts of this material are present in the site's assemblage. Although extensive outcrops of argillite are present in the Lockatong Formation of Pennsylvania and New Jersey, their occurrence in Delaware is restricted to areas adjacent to smaller-scale volcanic dikes and sills in the Piedmont Uplands (Custer 1989:57).

2. Historic Artifact Assemblage

Artifact processing was carried out in accordance with the Delaware State Museums *Guidelines and Standards for the Curation of Archaeological Collections* (1997), which were current when excavations were completed and artifact processing began. All metal artifacts and organic textiles were dry-brushed and all remaining artifacts were cleaned with tap water and soft toothbrushes. Artifacts were placed in 4 ml thick polyethylene bags, with sorts made by raw material type and artifact type. The assemblage was then sorted by provenience and stored in acid-free storage boxes. Inventory of the assemblage included identification of basic traits, like raw material and artifact type, as well as identification of traits useful for dating the artifact, determining artifact function or providing more detailed description for assemblage review by future researchers.

Artifact inventory was performed utilizing a system similar to that advocated by the Society for Historical Archaeology (www.sha.org/research_resources/artifact_cataloging_system/SHARD_how_to_manual), and was aided by various printed and on-line references. Data entry and

analysis was performed in MS Access v. 2003. Traits recorded for each artifact were artifact class (e.g. Domestic, Architectural), raw material, artifact type (e.g. plate, nail), segment of artifact (e.g. rim, shank), manufacturing method, manufacturer including company name and location, beginning production date, end production date, additional traits (color, decoration, form/style), maker's marks, and any additional information unique to that artifact.

Artifact classes were assigned based upon the function of the artifact type. Domestic class was assigned to artifacts generally utilized within the household, but also was assigned to personal items, such as toys, smoking pipes and bottle glass, which could have been utilized inside or outside of the household. Dietary remains were also recorded as domestic class, and were determined to be dietary based upon the presence of butchery marks or burning, or identification as a domesticated species, probable domesticated species (e.g. large mammal that was likely cow), or species that would have been deposited as a result of dietary activities (e.g. fish remains, oyster shell). Artifact type associated with building construction were designated as architectural class, and included basic structural artifacts such as brick and mortar, as well as nails and electrical insulators, which were commonly associated with structures. The heating by-product class included material, such as coal and slag, used for or produced during fuel/fire activities. Farming-related artifacts included items such as livestock equipment, tools used specifically for agriculture, and fencing. The arms/ammunition class was assigned to armament and ammunition artifacts, which consisted solely of ammunition and gunflints in this assemblage. Ecological class artifacts were faunal remains that would not have been dietary-related, and botanical remains such as acorn and walnut shells that may or may not have been dietary. Gardening-related included artifacts utilized for gardening/landscaping activities, such as flowerpots and seed bags. Indeterminate class was used for any artifact type for which the specific function or artifact class could not be determined, and included bone that did not exhibit any cultural modification but was neither identifiable as a domesticated species or as a species that would not have been consumed.

IV. Survey Results

A. Archaeological Identification Survey

The archaeological APE included relatively large areas that were previously tested, disturbed or exhibited low potential ***(Figure 12)***. In order to facilitate the presentation of the field results, the portions of the project that were subjected to subsurface investigations was divided into thirteen arbitrary areas designated Areas A-M ***(Figure 11).*** A total of 496 STPs was excavated at a 15 meter (49.2 foot) interval during the Phase I survey.

1. Area A

Area A consists of the area to be impacted by the proposed S.R. 141 Spur east of Children's Drive. This portion of the APE begins on the west side of the existing S.R. 0202/Foulk Road intersection and veers to the northwest for a distance of approximately 3300 feet (~1006 meters), where it intersects with the proposed Children's Drive. Because the easternmost 1600 feet (~488 meters) of this section was disturbed archaeological testing was initiated in the area behind the Ronald McDonald House and proceeded to the northwest. In general, the landforms within Area A contain several low-lying wetlands that are interspersed among gently rolling woodlands. In some cases, the STP interval was adjusted due to presence of wetlands and some localized disturbances associated with the development of the Ronald McDonald House and the Nemours Health Clinic. A total of 67 STPs were excavated within Area A.

Shovel tests 1-27 were placed just north of the Ronald McDonald House and to the south of an existing wetland ***(Figure 12D).*** STPs 1-18 fell either within the Ronald McDonald House lawn or a denuded area adjacent to the lawn, while STPs 19-27 were inside the tree line of the woodlands. The soil profile for STP 14 is representative of the STPs excavated outside of the tree line; it consisted of two mixed fill levels over a poorly drained gray (2.5Y 5/1) and yellowish red (5YR 5/6) silty clay subsoil, suggesting that the mixed fill horizons comprising Strata I and II had been placed over a wetland ***(Figure 13).*** The STPs excavated inside the tree line, such as STP 26, were mostly intact and exhibited a brown (10YR 4/3) silt A/O horizon that lay overtop a light olive brown (2.5Y 5/4) silt E horizon and a yellowish brown (10YR 5/8) silt B horizon, respectively ***(Figure 13).***

STPs 28-67 were excavated in the mostly wooded settings to the west of the 7NC-B-54 site boundary ***(Figure 12C).*** The portion of the APE northwest of STP 39 and southeast of the transect containing STPs 46-48 was not tested due to the presence standing water associated with the existing wetlands. Additionally, several shovel test pits that were excavated in proximity to the Nemours Health Clinic ***(Photograph 2),*** such as STP 29, revealed a disturbed profile consisting of various levels of deep fill ***(Figure 13)***. As a result, the remainder of the STPs on the southernmost transect were not excavated on the landforms associated with the Health Clinic. The remaining STPs excavated in Area A exhibited mostly undisturbed profiles, consisting of an initial brown (10YR 4/3) silt loam overtop a yellowish brown (10YR 5/4) silt loam and a yellow to pale yellow subsoil horizon, as seen in the profile for STP 46 ***(Figure 13)***. The area north of STPs 66 and 67 was heavily disturbed by recent construction activities, therefore it was not tested ***(Photograph 3)***.

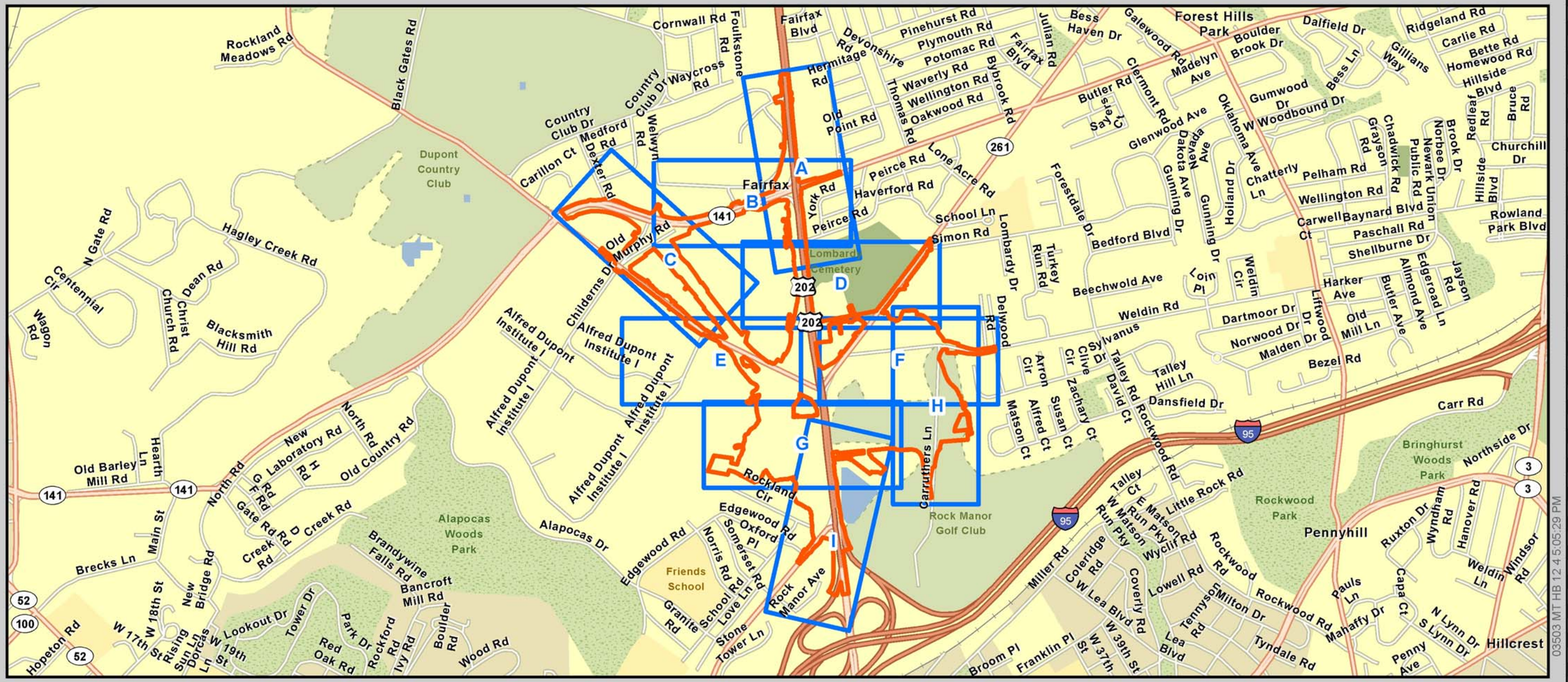


Figure 12
Index Map

Archaeological Area of Potential Effects
Phase I Archaeological Identification Survey

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

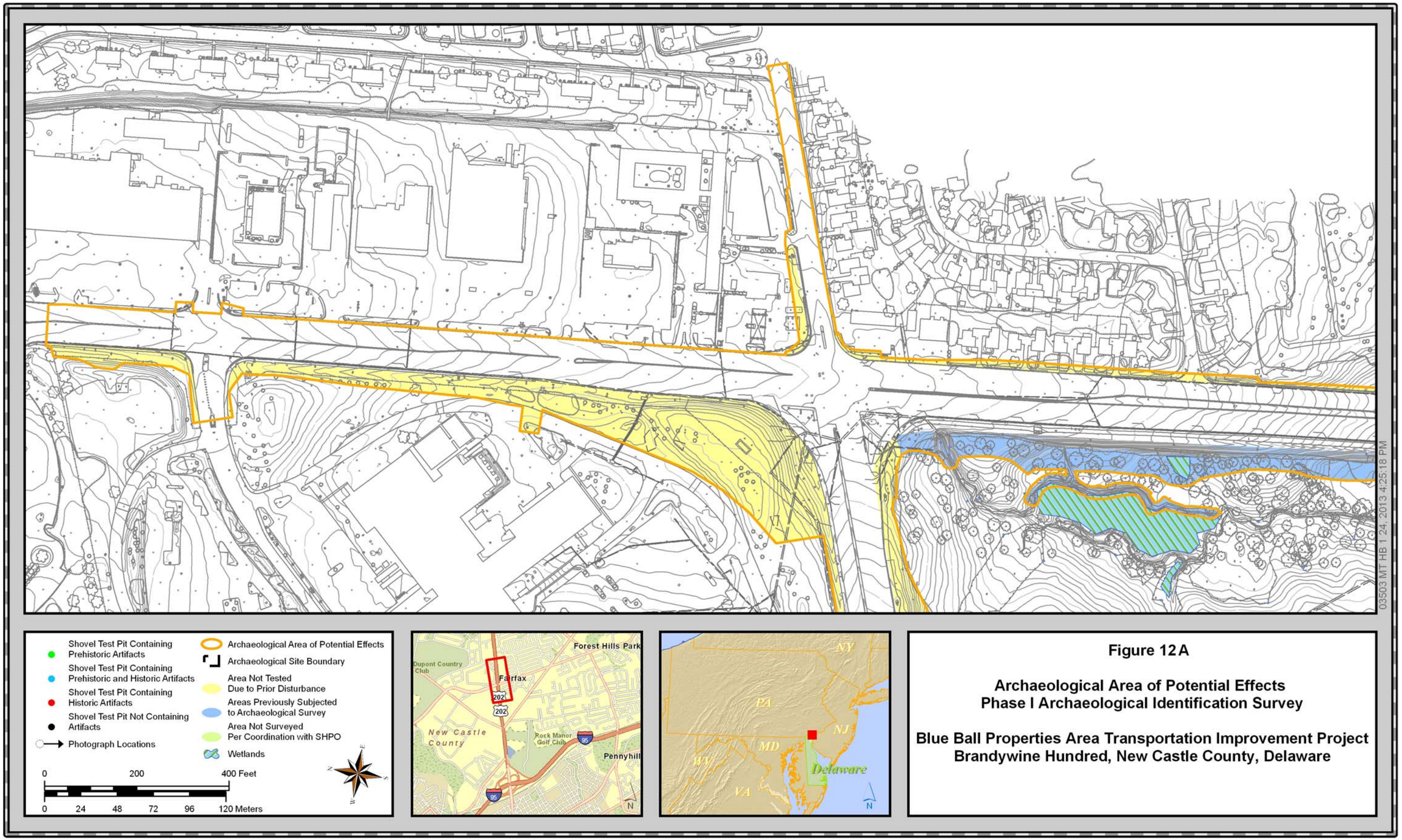
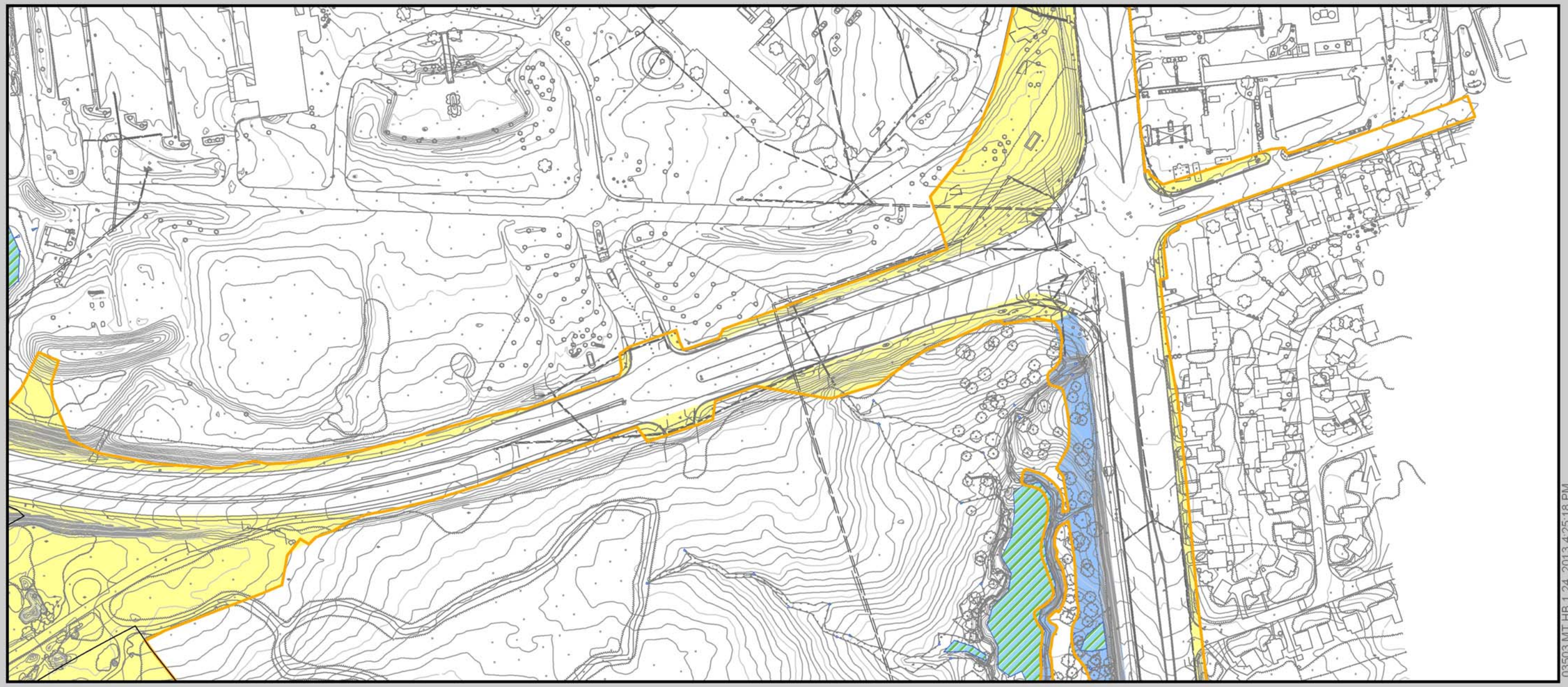


Figure 12A

Archaeological Area of Potential Effects
Phase I Archaeological Identification Survey

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



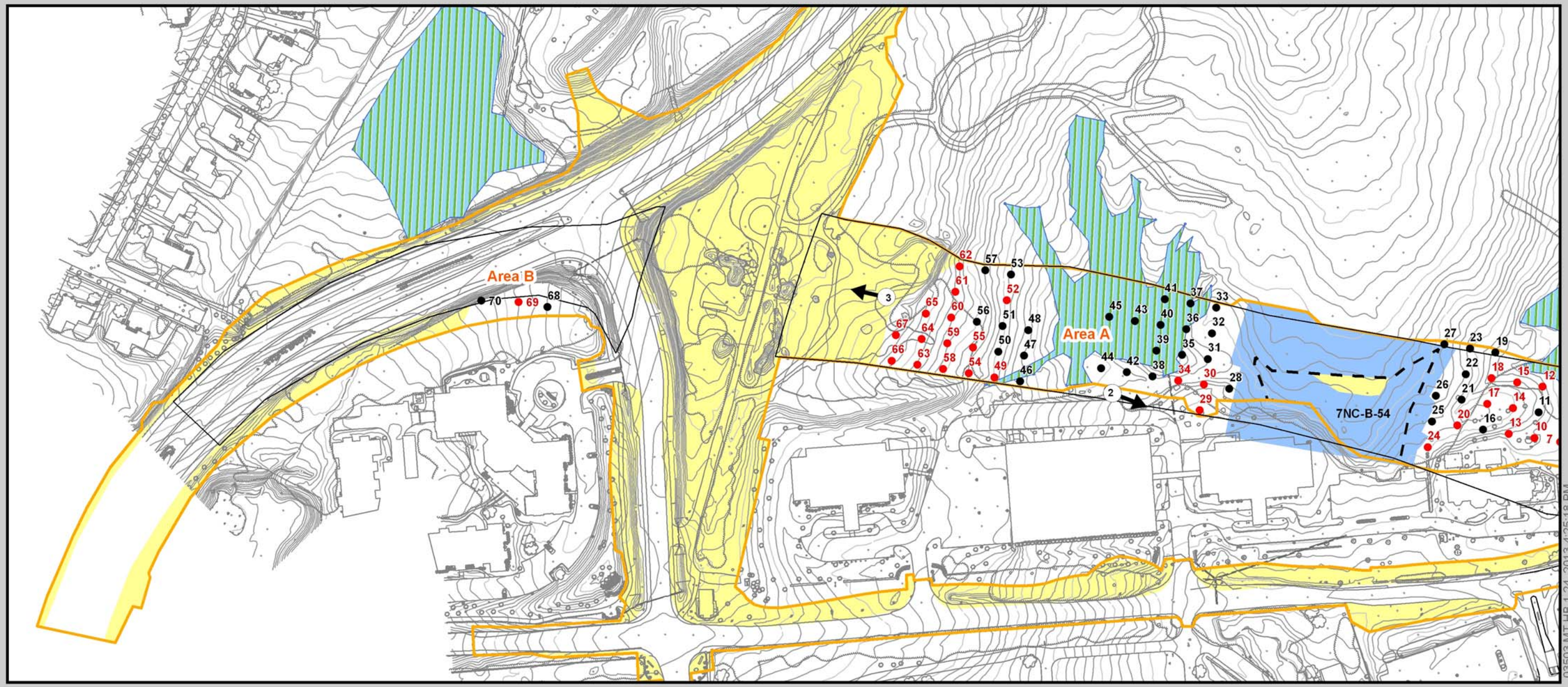
Shovel Test Pit Containing Prehistoric Artifacts
Shovel Test Pit Containing Prehistoric and Historic Artifacts
Shovel Test Pit Containing Historic Artifacts
Shovel Test Pit Not Containing Artifacts
Photograph Locations
Archaeological Area of Potential Effects
Archaeological Site Boundary
Area Not Tested Due to Prior Disturbance
Areas Previously Subjected to Archaeological Survey
Area Not Surveyed Per Coordination with SHPO
Wetlands

0 200 400 Feet
0 24 48 72 96 120 Meters

Figure 12B

Archaeological Area of Potential Effects
Phase I Archaeological Identification Survey

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



Shovel Test Pit Containing Prehistoric Artifacts
Shovel Test Pit Containing Prehistoric and Historic Artifacts
Shovel Test Pit Containing Historic Artifacts
Shovel Test Pit Not Containing Artifacts
Photograph Locations
Archaeological Area of Potential Effects
Archaeological Site Boundary
Area Not Tested Due to Prior Disturbance
Areas Previously Subjected to Archaeological Survey
Area Not Surveyed Per Coordination with SHPO
Wetlands

0 200 400 Feet
0 24 48 72 96 120 Meters

Figure 12C

Archaeological Area of Potential Effects
Phase I Archaeological Identification Survey

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

Shovel Test Pit Containing Prehistoric Artifacts
Shovel Test Pit Containing Prehistoric and Historic Artifacts
Shovel Test Pit Containing Historic Artifacts
Shovel Test Pit Not Containing Artifacts
Photograph Locations
Archaeological Area of Potential Effects
Archaeological Site Boundary
Area Not Tested Due to Prior Disturbance
Areas Previously Subjected to Archaeological Survey
Area Not Surveyed Per Coordination with SHPO
Wetlands

0 200 400 Feet
0 24 48 72 96 120 Meters

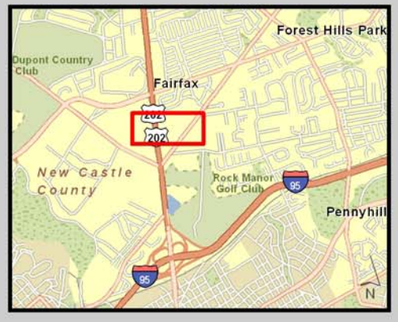
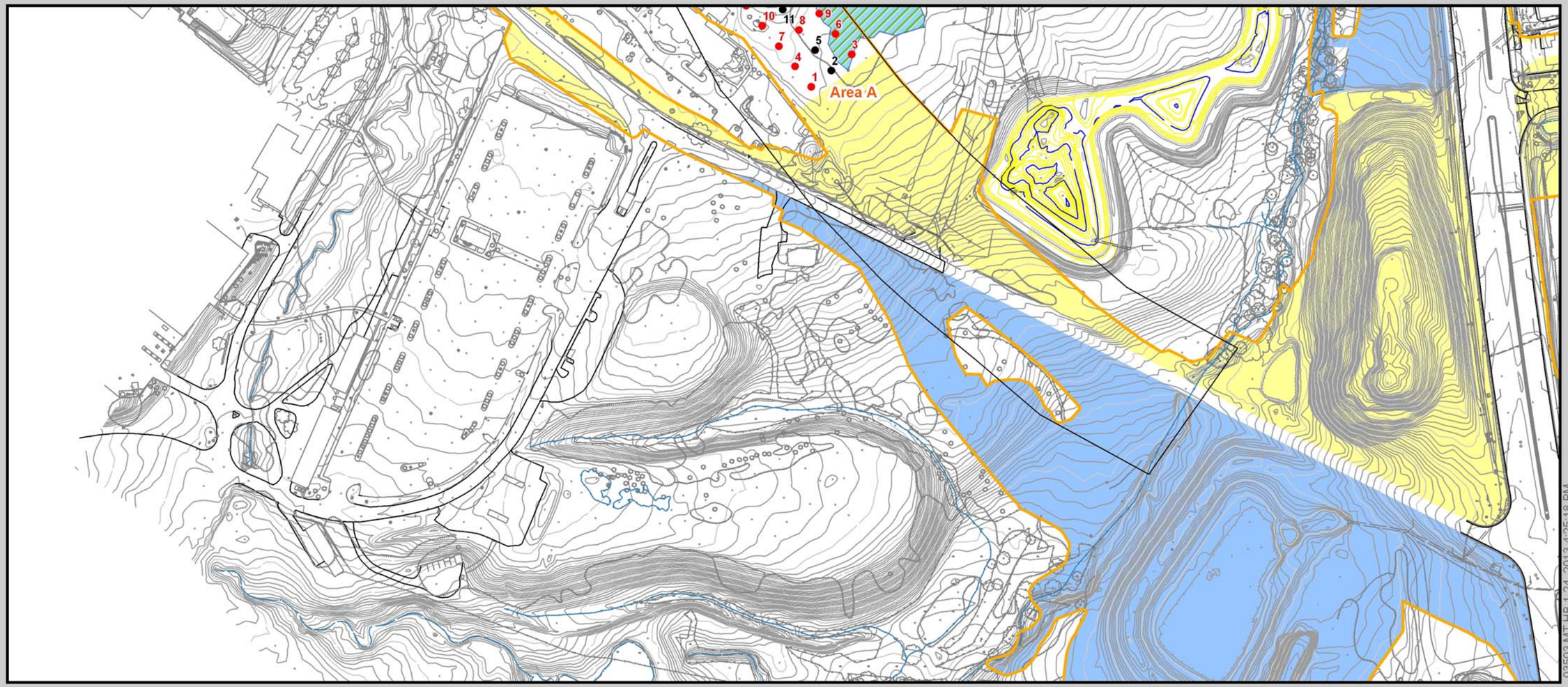


Figure 12D

Archaeological Area of Potential Effects
Phase I Archaeological Identification Survey

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



Shovel Test Pit Containing Prehistoric Artifacts
Shovel Test Pit Containing Prehistoric and Historic Artifacts
Shovel Test Pit Containing Historic Artifacts
Shovel Test Pit Not Containing Artifacts
Photograph Locations
Archaeological Area of Potential Effects
Archaeological Site Boundary
Area Not Tested Due to Prior Disturbance
Areas Previously Subjected to Archaeological Survey
Area Not Surveyed Per Coordination with SHPO
Wetlands

0 200 400 Feet
0 24 48 72 96 120 Meters

Figure 12 E

Archaeological Area of Potential Effects
Phase I Archaeological Identification Survey

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

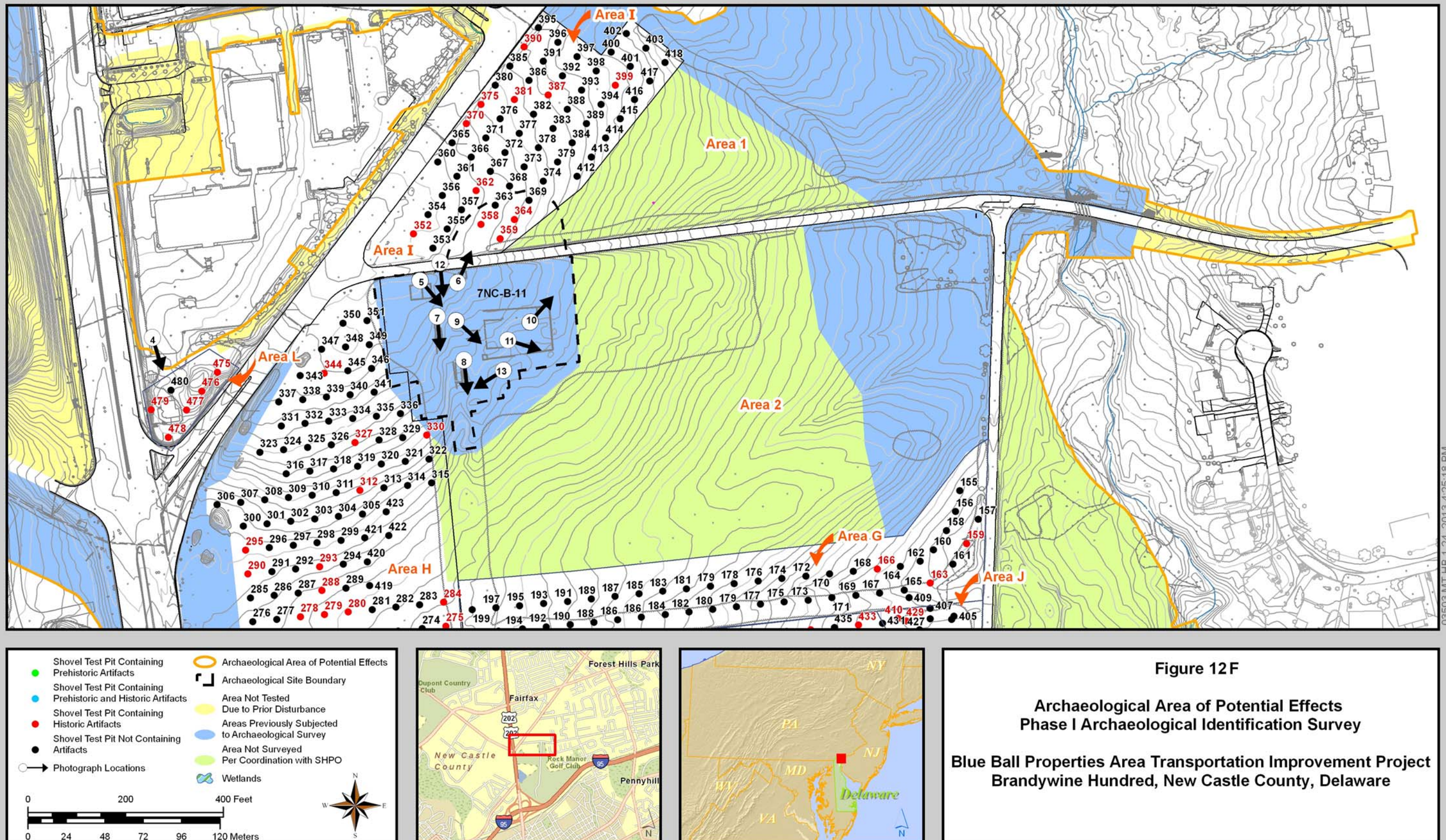
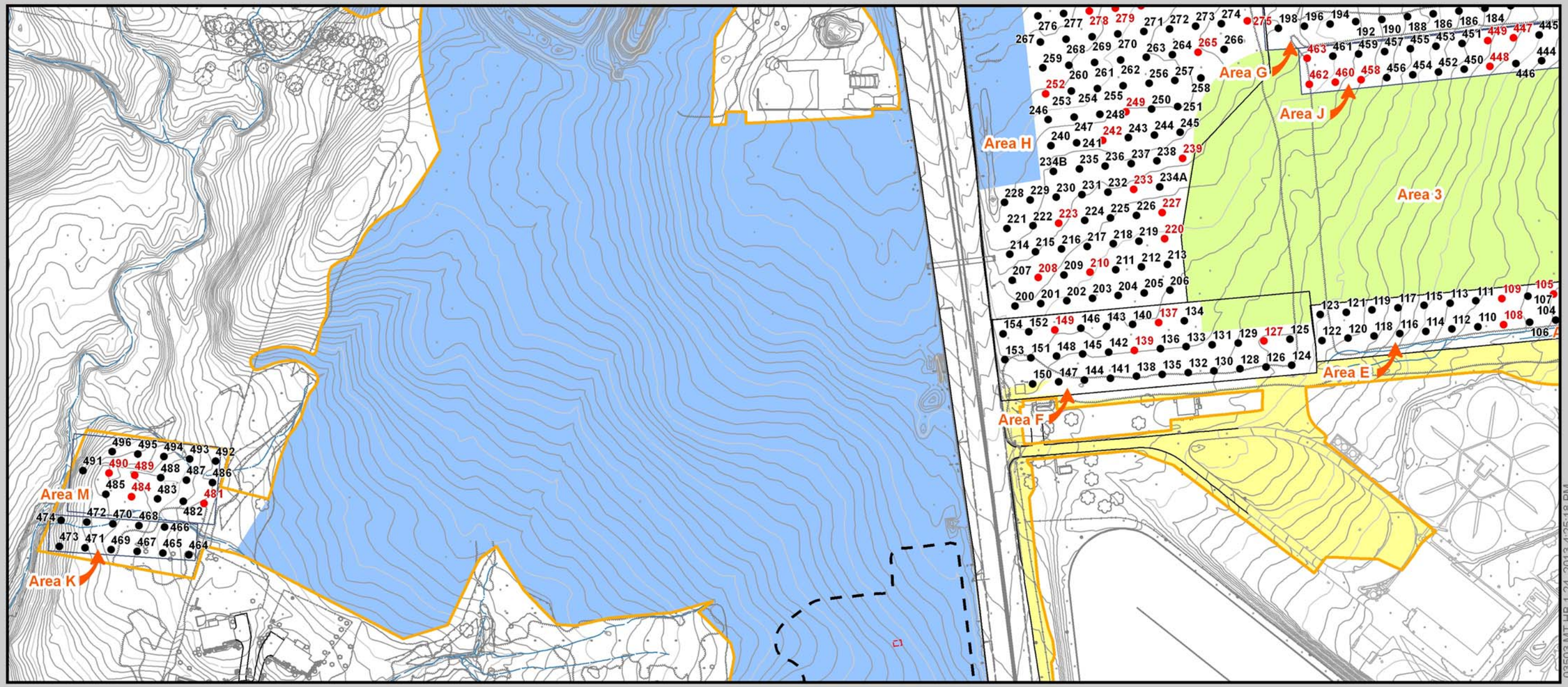


Figure 12 F

Archaeological Area of Potential Effects
Phase I Archaeological Identification Survey

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



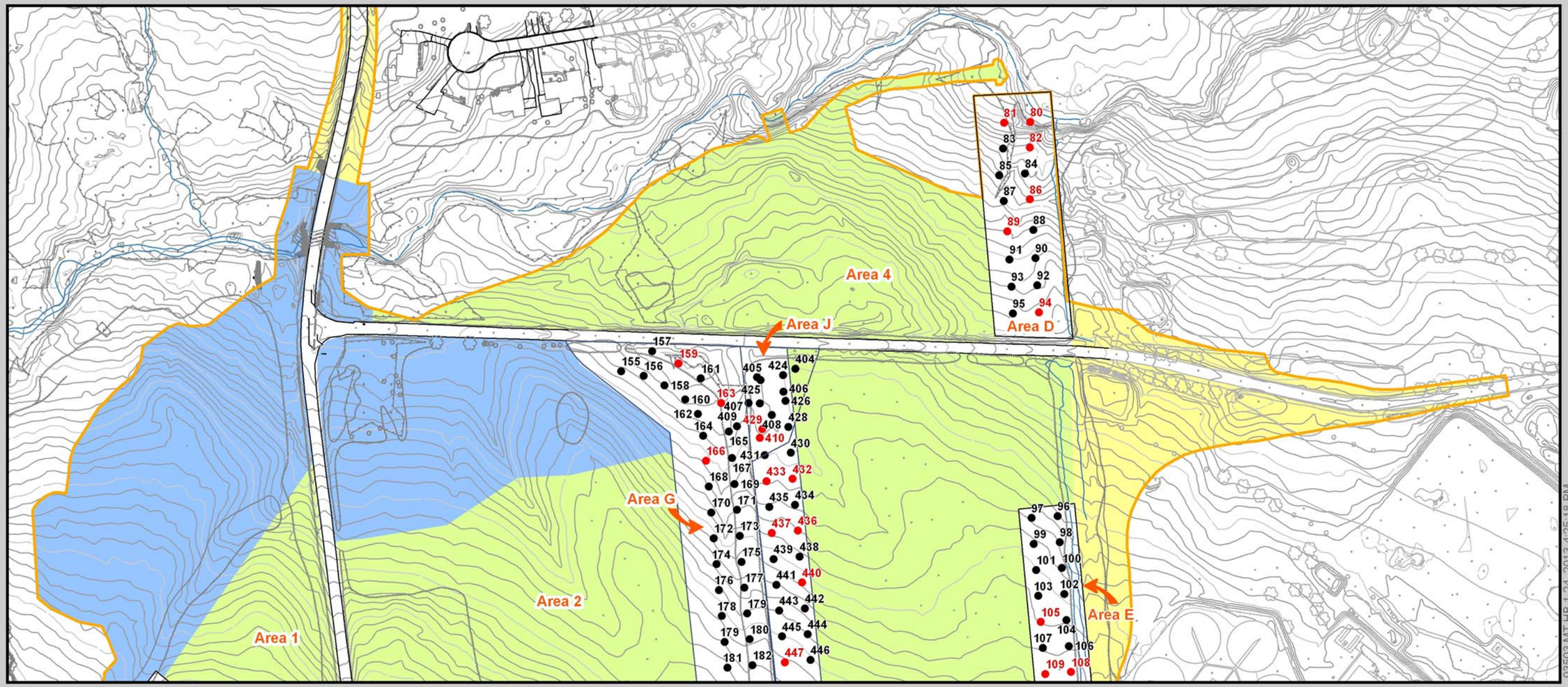
Shovel Test Pit Containing Prehistoric Artifacts
Shovel Test Pit Containing Prehistoric and Historic Artifacts
Shovel Test Pit Containing Historic Artifacts
Shovel Test Pit Not Containing Artifacts
Photograph Locations
Archaeological Area of Potential Effects
Archaeological Site Boundary
Area Not Tested Due to Prior Disturbance
Areas Previously Subjected to Archaeological Survey
Area Not Surveyed Per Coordination with SHPO
Wetlands

0 200 400 Feet
0 24 48 72 96 120 Meters

Figure 12G

Archaeological Area of Potential Effects
Phase I Archaeological Identification Survey

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



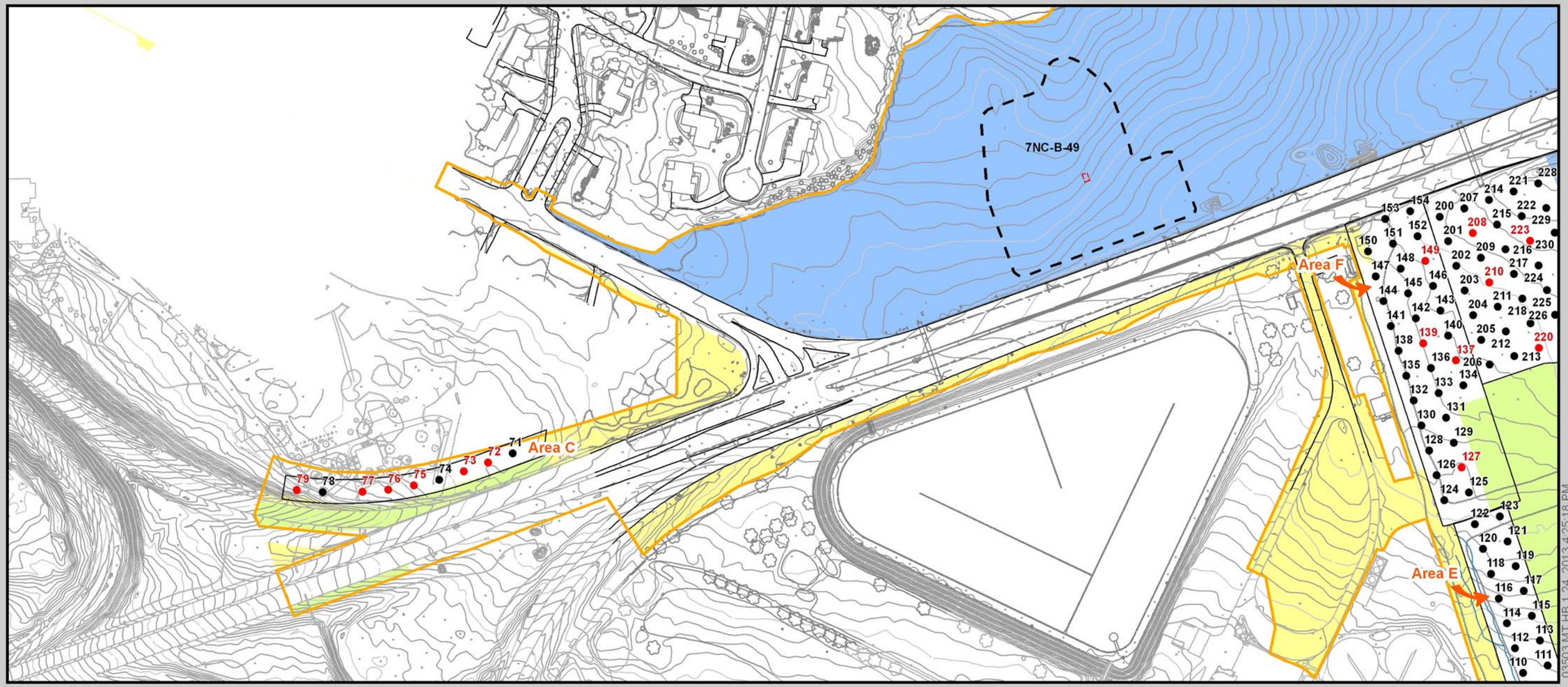
Shovel Test Pit Containing Prehistoric Artifacts
Shovel Test Pit Containing Prehistoric and Historic Artifacts
Shovel Test Pit Containing Historic Artifacts
Shovel Test Pit Not Containing Artifacts
Photograph Locations
Archaeological Area of Potential Effects
Archaeological Site Boundary
Area Not Tested Due to Prior Disturbance
Areas Previously Subjected to Archaeological Survey
Area Not Surveyed Per Coordination with SHPO
Wetlands

0 200 400 Feet
0 24 48 72 96 120 Meters

Figure 12 H

Archaeological Area of Potential Effects
Phase I Archaeological Identification Survey

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



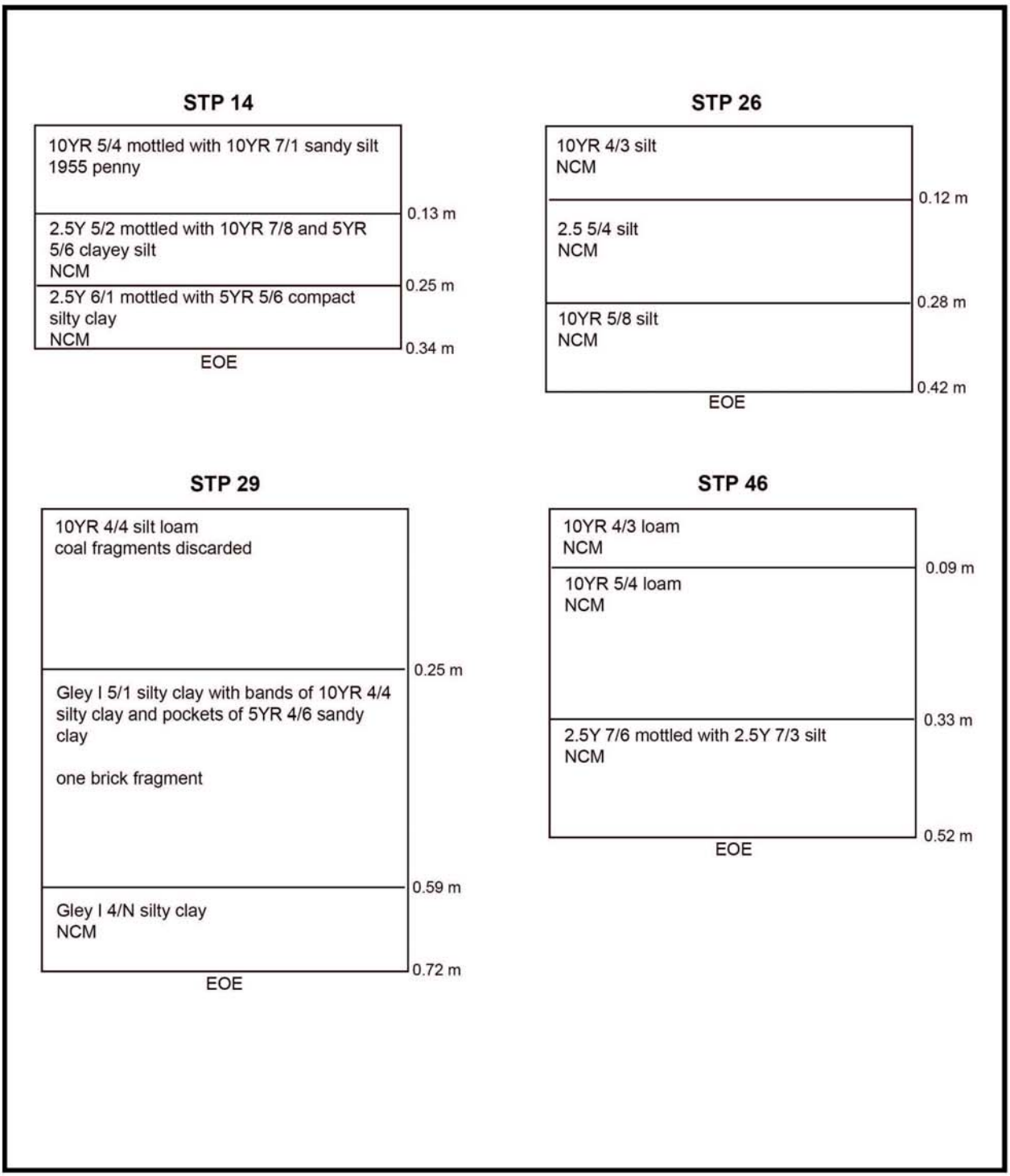
Shovel Test Pit Containing Prehistoric Artifacts
Shovel Test Pit Containing Prehistoric and Historic Artifacts
Shovel Test Pit Containing Historic Artifacts
Shovel Test Pit Not Containing Artifacts
Photograph Locations
Archaeological Area of Potential Effects
Archaeological Site Boundary
Area Not Tested Due to Prior Disturbance
Areas Previously Subjected to Archaeological Survey
Area Not Surveyed Per Coordination with SHPO
Wetlands

0 200 400 Feet
0 24 48 72 96 120 Meters

Figure 12I

Archaeological Area of Potential Effects
Phase I Archaeological Identification Survey

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



EOE - End of Excavation
NCM - No Cultural Material

0.10 0.20 meters

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Figure 13

Profile for STPs 14, 26, 29, 46

Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

Photograph 2: Disturbed landform adjacent to the Nemours Heath Clinic, facing southeast.

Photograph 3: Disturbed area at northern terminus of Area A APE, facing northwest.

Artifacts found in the STPs excavated in Area A were recovered from fill or A horizon contexts and included the following: one piece of bottle glass from STP 1; one machine part (a small metal ring) from STP 3; one wire nail from STP 4; one unidentifiable nail from STP 6; three pieces of floor tile, two pieces of window glass, a piece of plastic, and a piece of wood from STP 7; one piece of bottle glass from STP 9; one piece of brick and one piece of bottle glass from STP 10; one piece of bottle glass from STP 12; 13 pieces of bottle glass, one piece of window glass and three pieces of plastic from STP 13; one 1955 penny from STP 14; one piece of macadam and one piece of terra cotta pipe from STP 15; two pieces of bottle glass from STP 17; two pieces of macadam, two pieces of plastic, one piece of brown bottle glass, and one shard of redware from STP 18; one piece of bottle glass and one piece of brick from STP 20; one piece of bottle glass, one piece of window glass, one piece of macadam, one piece of plastic, and one piece of Styrofoam from STP 24; one piece of brick from STP 29; one piece of window glass from STP 30; one piece of whiteware and one piece of Styrofoam from STP 34; three pieces of brick, three pieces of bottle glass, and one piece of plastic from STP 49; one shard of whiteware and one piece of plastic from STP 52; one piece of window glass and two pieces of bottle glass from STP 54; one piece of creamware and one piece of bottle glass from STP 55; two pieces of window glass and one piece of bottle glass from STP 58; three pieces of coal, three pieces of brick, three pieces of window glass, two pieces of bottle glass, and one piece of plastic from STP 59; three pieces of window glass, one piece of plastic, and 26 pieces of beer bottle glass from STP 60; ten pieces of bottle glass, three pieces of window glass, three pieces of asphalt shingle, a furniture spring, one piece of metal, one piece of foil, two pieces of plastic, and two pieces of ironstone from STP 61; two pieces of glass from STP 63; one piece of bottle glass in STPs 64 and 65; two pieces of window glass, two pieces of bottle glass, one piece of coal, one piece of unglazed redware, and one piece of metal in STP 66; and three pieces of bottle glass in STP 67. The artifacts recovered in Area A were interpreted as field scatter and/or random refuse deposits and were not considered archaeological sites.

2. Area B

Area B consists of the area west of Children's Drive that will be impacted by the proposed S.R. 141 Spur. Within Area B, only a sliver of undisturbed ground in the southwest quadrant of the proposed S.R. 141/Children's Drive intersection was found to warrant archaeological testing; the remainder was previously disturbed by prior development. Shovel tests 68-70 were excavated in Area B ***(Figure 12C)***. This set of tests and was placed in a briar patch near a stone wall that was likely used as a property boundary. (Background research has not provided any evidence of any structures or other features in this area.) This set of shovel tests exhibited a relatively undisturbed profile similar to that found in STP 46. Two bullet casings found in STP 69 were the only artifacts recovered in Area B.

3. Area C

Area C is located along the western edge of the southbound S.R. 0202 entrance ramp to I-95. This portion of the APE will impact a section of the east lawn associated with 1 Rock Manor, an early twentieth century architectural property determined to be eligible for listing in the National Register of Historic Places (Delaware CRS N-12673). A set of nine STPs (71-79) were excavated within the Area C APE ***(Figure 12H)***. The area north of STP 71 had been previously

disturbed, probably by prior activities associated with the construction of SR 0202. Therefore, no testing was conducted north of STP 70.

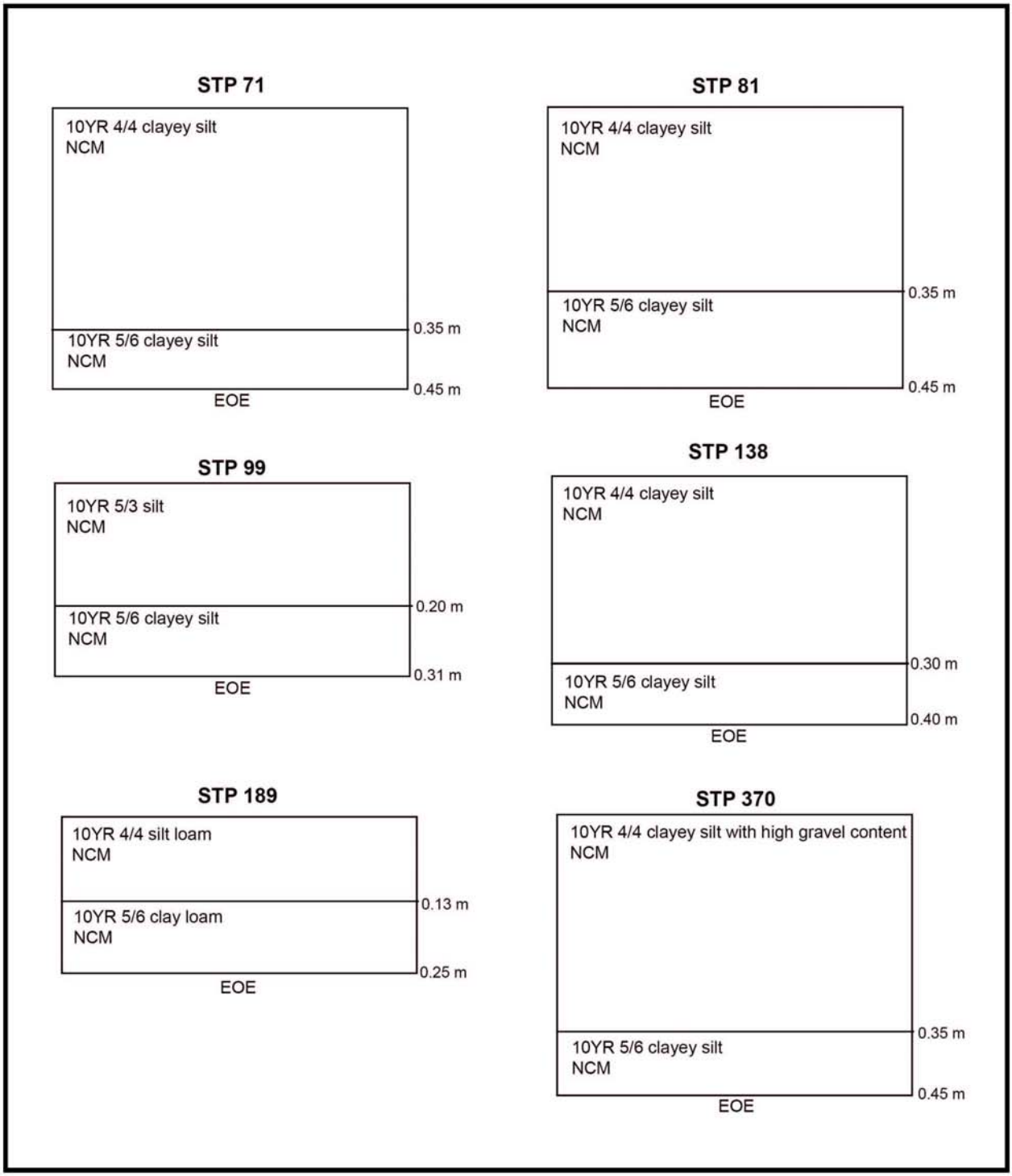
Some localized disturbances were noted within the lawn. The current property owner pointed out an area in which a sinkhole and tile drain is located, which was discernable in the field by differential vegetation. Due to the presence of the sinkhole and drainage, STP 78 was excavated 23 meters (~75.5 feet) to the south of STP 77 ***(Figure 12H).***

The soil profiles for the STPs excavated in Area C were composed of a dark yellowish brown (10YR 4/4) clayey silt plowzone overtop a yellowish brown (10YR 5/6) clayey silt subsoil ***(Figure 14).*** Shovel test 72 was an exception; a crushed rock driveway was exposed at 0.15 meter below ground surface in this STP. A total of fifteen artifacts associated with 1 Rock Manor were recovered from the Area C shovel tests, they included: one piece of bottle glass from STP 72; four pieces of bottle glass, one shard of whiteware, and one chunk of concrete from STP 73; one piece of bottle glass from STP 75; one piece of roofing slate from STP 76; three pieces of roofing slate from STP 77; and one piece of brick, one piece of window glass, and one piece of bottle glass from STP 79. Because only a remote small sliver of the side yard was sampled during the Phase I testing, it is very likely that more significant artifact-bearing deposits extend outside of the APE for this project (towards the house and backyard areas). The untested portions of the yard outside the APE may or may not have the potential to contribute significant information in history. However, the portion of the side yard within the confined APE does not have that potential. No additional archaeological work is recommended in this portion of the APE.

4. Area D

Area D is located to the east of Carruthers Lane and the west of Matson Run in the area of the proposed bike path. Due to the presence of Matson Run, a geomorphological evaluation was conducted in order to establish the depth of potential artifact bearing soils within the APE ***(Appendix E).*** The geomorphologist indicated that all the landforms within APE in Area D are upland settings; therefore testing was conducted through the excavation of STPs. The geomorphologist noted that the potential for the existence of pre-contact archaeological resources was high within the A horizon in this area. Additionally, the Matson Run Site was previously identified just north of the APE, increasing pre-contact archaeological potential.

Sixteen STPs, 80-95 were excavated in Area D ***(Figure 12G).*** This area was overgrown with briars at the time of the Phase I survey. The soil profiles exhibited a dark yellowish brown (10YR 4/4) clayey silt plowzone overtop a yellowish brown (10YR 5/6) clayey silt subsoil ***(Figure 14).*** Just eight artifacts were recovered from Area D, they included two pieces of brick from STP 80; one piece of whiteware in STP 81; one piece of bottle glass in STP 82; one piece of brick in STP 86; one piece of beer bottle glass in STP 89; and one piece of window glass and one piece of bottle glass from STP 94. The artifacts/trash were interpreted as field scatter/random refuse deposits; therefore no additional archaeological work is recommended in this portion of the APE.



EOE - End of Excavation
NCM - No Cultural Material

0.10 0.20 meters

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Figure 14

Profiles for STPs 71, 81, 99, 138, 189, and 370

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Brandywine Hundred, New Castle County, Delaware

5. Area E

Area E consists of the eastern portion of the proposed new entrance into the Porter Reservoir. This area is currently a fallow field. Twenty-eight STPs (96-123) were excavated in Area E ***(Figure 12F-12G).*** The soil profiles consisted of a brown (10YR 5/3) loam silt plowzone overtop a yellowish brown (10YR 5/6) subsoil ***(Figure 14).*** Recovered artifacts included one piece of coal and one piece of bottle glass from STP 105, one piece of bottle glass from STP 108, and one cut nail from STP 109. The artifacts were interpreted as field scatter/random refuse deposits. No additional archaeological work is recommended in this area.

6. Area F

Area F contains the western portion of the proposed new entrance road into the Porter Reservoir. Thirty-one (31) STPs, 124-154, were excavated in Area F ***(Figure 12F).*** As with Area E, soil profiles consisted of a brown (10YR 4/4) loam silt plowzone overtop a yellowish brown (10YR 5/6) subsoil ***(Figure 14).*** Recovered artifacts included one piece of unidentifiable metal from STP 127; one shard of ironstone from STP 137; one piece of window glass from STP 139; and one piece of window glass and one piece of bottle glass from STP 149. The artifacts were interpreted as field scatter/random refuse deposits. No additional archaeological work is recommended in this area.

7. Area G

Area G represents the APE for a proposed bike path that extends from the existing Carruthers Lane to a tree line that separates the fallow field comprising Area G from the field comprising Area H. Shovel tests 155-199 were initially excavated in Area G ***(Figure 12E-12G).*** After the initial STPs had been excavated, the proposed plans were revised. As a result, an additional seven STPs (404-410), were excavated to the south of the proposed bike path in this area. The STP profiles consisted of a brown (10YR 4/4) loam silt plowzone overtop a yellowish brown (10YR 5/6) subsoil ***(Figure 14).*** Artifacts recovered from Area G included one piece of bottle glass from STP 159, one shard of porcelain from STP 163, one piece of bottle glass from STP 166, in addition to one shard of whiteware from STP 410. The artifacts were interpreted as field scatter/random refuse deposits. No additional archaeological work is recommended in this area.

8. Area H

Area H is located east of SR 0202 and west of the tree line delineating Area G. Improvements to SR 0202, Weldin Road, and Foulk Road are proposed in this area, as well as the construction of a new bike path. One hundred and fifty-six (156) STPs, 206-351 and 419-423, were laid out in this area on a 15 meter grid ***(Figure 12E-F).*** Shovel Test Pits 307, 308, and 323, located near the intersection of Foulk and Weldin Roads, were not excavated due to the obviously disturbed ground surface in the area. It is likely that the disturbance was associated with construction staging activities during the construction SR 0202. The remainder of the STPs exhibited plowzone/subsoil stratigraphy similar to STP 189.

A total of 44 artifacts were recovered in Area H. These included one piece of window glass from both STPs 208 and 210; a pipe bowl fragment from STP 220; one piece of window glass and one piece of whiteware from STP 223; one shard of stoneware from STP 227; five pieces of metal and one piece of slag in STP 233; one shard of redware from STP 239; one shard of porcelain from STP 242; a chunk of mortar/lime and one shard of whiteware from STP 249; one shard of redware from STP 252; one piece of brick from STP 265; one shard of porcelain from STP 275; six pieces of brick from STP 278; three shards of redware and one piece of creamware in STP 279; one shard of redware in STP 280; one piece of canning jar liner, and three pieces of clay pigeon from STP 284; two pieces of bottle glass from STP 288; one piece of brick from STP 290; one piece of window glass from STP 293; one piece of ironstone from STP 295; one piece of glass from STP 312; one shard of porcelain from STP 327; and one metal machine part from STP 344. The artifacts were interpreted as field scatter/random refuse deposits. No additional archaeological work is recommended in this area.

9. Area I

Area I is associated with the proposed improvements to Foulk Road. This portion of the APE is located in the northwestern quadrant of the intersection of Weldin and Foulk Roads and lies directly across Weldin Road from the Weldin Plantation Archaeological Site. Fifty-nine (59) STPs, 353-403 and 412-418, were excavated in this field on a 15 meter grid ***(Figure 12E).***

The shovel test profiles exhibited a brown (10YR 4/4) clayey silt plowzone overtop a yellowish brown (10YR 5/6) clayey silt subsoil ***(Figure 14).*** A total of 47 historic or modern artifacts were recovered from Area I. Thirty four of these artifacts, the majority of which date to the nineteenth century, were recovered from a group of three STPs excavated within approximately 45 meters (~147 feet) of the Weldin Site, and were therefore considered to be associated with the site and were included within the site boundary. The highest density of artifacts recovered within the revised site boundary was from STP 359. The twenty five artifacts recovered from this test included a horseshoe, eight pieces of brick, two pieces of bottle glass, eight pieces of redware, one piece of creamware, one piece of whiteware, one unidentifiable nail, one piece of window glass, on chain link, and one piece of Styrofoam. Additionally, STP 364 contained three pieces of whiteware, one piece of creamware, one piece of brick, and one chunk of slag, and STP 358 contained two pieces of redware and one piece of Styrofoam.

Additional artifacts recovered from outside the Weldin Site boundary included one piece of redware from STP 352; one shard of redware and one chunk of slag from STP 362; one piece of window glass from STP 370; two pieces of bottle glass, one shard of redware, and one unidentifiable nail form STP 375; one piece of redware and one piece of whiteware from STP 381; one shard of porcelain from STP 387; one piece of bottle glass from STP 390; and one piece of window glass from STP 399. Due to the relatively low densities and distance from the Weldin Site, these artifacts were interpreted as field scatter/random refuse deposits and were not considered to be associated with the site.

10. Area J

Area J consists of the impact area for a proposed park road. It is located in the field west of Carruthers Lane, just south of the portion of the APE tested as Area G. In this Area, two rows of STPs (428-463) were excavated at 15 meter intervals ***(Figures 12F-G).*** The STP profiles were similar to the ones excavated in Area G and included a brown (10YR 4/4) loam silt plowzone overtop a yellowish brown (10YR 5/6) subsoil. Recovered artifacts included one piece of whiteware from STP 429; one piece of clear vessel glass and one piece of whiteware from STP 432; one piece of redware, one brick fragment, one piece of vessel glass, and one chunk of slag from STP 433; one piece of redware from STP 436; one piece of redware from STP 437; one piece of bottle glass from STP 440; one clay pigeon fragment, one chunk of slag, and one piece of whiteware from STP 447; one brick fragment from STP 448; one piece of redware from STP 449; one piece of whiteware from STP 458; one oyster shell fragment from STP 460; three pieces of glass from STP 462; and one piece of whiteware, one piece of ironstone, and one brick fragment from STP 463. The artifacts recovered from Area J were interpreted as field scatter and were not considered to constitute an archaeological site.

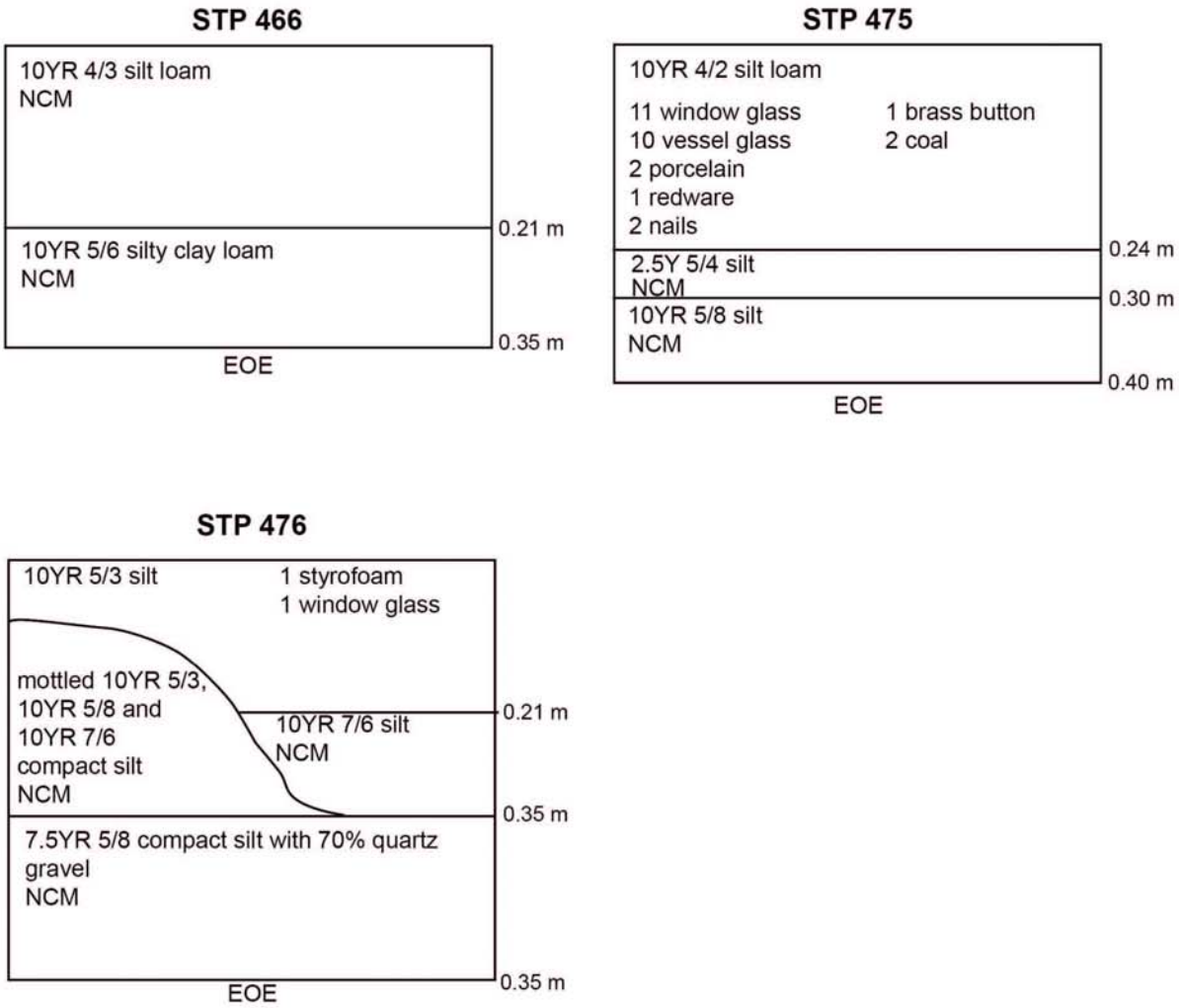
11. Areas K and M

Collectively, Areas K and M represent the APE for two proposed drainage easements. These adjacent areas are located to the west of the Augustine Cutoff approximately 250 feet (~76 meters) northwest of Rockland Circle, on a relatively flat partially wooded stream bench overlooking Alapocas Creek. Shovel tests 464-474 were excavated in Area K and 481-496 were excavated in Area M ***(Figure 12F).*** The area north of STP 464 was not tested due to disturbance associated with an existing drainage swale. The STPs excavated in Areas K and M exhibited upland soil profiles consisting of brown (10YR 4/3) silt loam plowzone overtop a dark yellowish brown (10YR 5/6) clayey silt subsoil ***(Figure 15).***

No cultural materials were recovered in Area K, although a light scatter of historic artifacts was found in Area M. These included one clear glass fragment, and one ironstone fragment in STP 481; one brick fragment, and a piece of coal in STP 482; two clear glass fragments in STP 484; one ironstone fragment in STP 489; and one brick fragment, one piece of mortar, one nail, two glass fragments, and one ironstone fragment in STP 490. The recovered artifacts were considered field scatter and were not considered an archaeological site.

12. Area L

Area L consists of the property associated the Weldin-Husbands House (N-4049/Phillip Husbands House). The Weldin-Husbands House was constructed circa 1882 and rests on an elevated landform overlooking the intersection of Foulk Road and S.R. 0202. A stone wall delineates the property boundary to the south and west of the house. At the time of the Phase I testing, the Weldin-Husbands house was abandoned and the majority of the east and north yard areas were covered by massive piles of earthen fill and stone rubble debris with the remainder of the property being covered by brush, shrubs, and trees of various age ***(Photograph 4)***. The presence of the large fill piles limited the testable areas associated with the house. Therefore, archaeological testing was limited to six STPs placed in areas that were not covered by fill and



EOE - End of Excavation
NCM - No Cultural Material

0.10 0.20 meters

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Figure 15

Profile for STPs 466, 475 and 476

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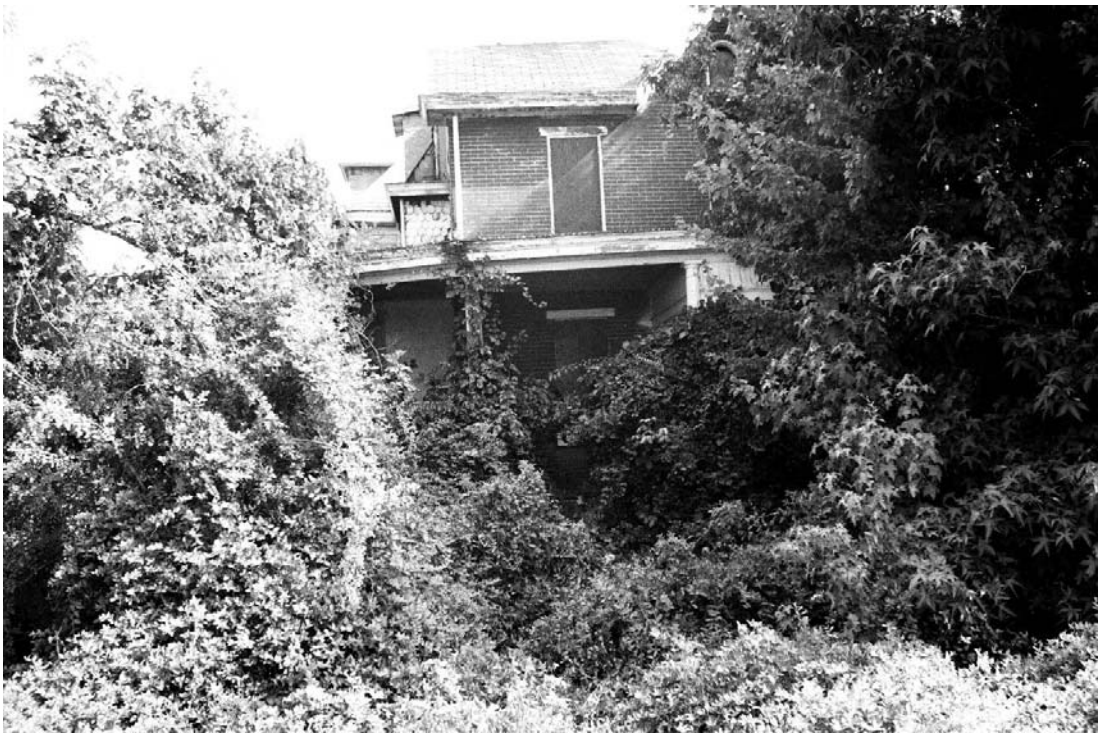
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



Photograph 4: Rear of the Weldin-Husbands House, facing south.

did not exhibit obvious prior disturbance. Three of these tests (STPs 475-477) were excavated at 50 foot (~15 meter) intervals parallel to Foulk Road, one STP (480) was placed 30 feet (~9 meters) to the south of the southwest corner of the house, one (STP 479) was placed 13 feet (~4 meters) to the west of the northwest corner of the house, and one (STP 480) was placed 20 feet (~6 meters) to the north of the house ***(Figure 12D-12E)***. Shovel tests 475, 477, and 478 appeared somewhat intact and were composed of an initial dark grayish brown (10YR 4/2) silt loam plowzone overtop a yellowish brown (10YR 5/4-5/8) silt subsoil ***(Figure 15).*** The remaining three STP profiles exhibited disturbed soils consisting of various layers of fill overlying subsoil ***(Figure 15)***.

A total of 55 artifacts were found within the STPs excavated in Area L. These included 28 artifacts from the surface horizon in STP 475 (11 pieces of window glass, seven pieces of bottle glass, two pieces of light bulb glass, one piece of milk glass, one shard of porcelain, one shard of redware, one brass button, two pieces of coal, and two unidentifiable nails); two artifacts from the disturbed surface horizon in STP 476 (one piece of window glass and one piece of Styrofoam); 14 artifacts from the surface horizon in STP 477 (four shards of ironstone, one piece of window glass, one piece of slate, two pieces of coal, four pieces of brick, one wire nail, and one unidentifiable nail); eight artifacts in STP 478 (six pieces of terra cotta pipe, one piece of redware, and one piece of bone); and three artifacts in STP 479 (one unidentifiable nail, one piece of shell, and one piece of glass). Due to the past dumping activities on the site and the disturbed nature of the STP profiles, the contextual integrity of the area surrounding the house was considered poor leaving the association of the recovered artifacts to the Weldin-Husbands house in question, therefore no additional archaeological investigations are recommended in Area L.

B. Archaeological Evaluation Survey

Archaeological Evaluation Surveys were conducted on three previously identified archaeological sites within the APE: 7NC-B11, the Weldin Plantation Site; 7NC-B-49, the Ronald McDonald House Site (formerly the Milner 1 Site); and 7NC-B-54, the Augustine Cutoff Site.

1. The Weldin Plantation Site (7NC-B-11)

The Weldin Plantation Site lies to the south of Weldin Road just east of its intersection with SR 241**.** It was discovered during Thunderbird's 1985-1986 Phase I survey (Taylor: 1989). Thunderbird's relatively extensive archival investigations indicated that the site was likely established during the first quarter of the eighteenth century and was utilized as a farm into the middle of the twentieth century (Taylor et al. 1989: 261). During this time the farmstead was occupied by a number of its owners, except for the period between 1785 and 1861, when it was primarily worked by tenant farmers. In 1861, Jacob Weldin acquired the dilapidated property and gradually converted it into a dairy farm. The farmstead operated as a dairy until 1934 when it was acquired from the Weldin estate by a real estate development company (Taylor et al. 1989: 217).

Thunderbird's field studies included the arbitrary placement and excavation of 24 STPs, 31 3x3 foot TUs, and two linear trenches. Their investigations were successful in locating the remains

of six structures associated with the farmstead. These included the main farmhouse (Structure A) ***(Photograph 5),*** a structure that they interpreted as a detached dependency to the main residence (Structure B) ***(Photograph 6),*** an equipment shed (Structure C) ***(Photograph 7),*** an additional outbuilding of unknown function (Structure D) ***(Photograph 8),*** a concrete pad associated with a structure of unknown function (Feature 3), and a barn/barnyard complex ***(Photographs 9, 10, and 11)***. Based on the results of the Phase I work, Thunderbird recommended Phase II investigations based on the presence of intact contexts and features that would provide information regarding tenant occupied farms from the late eighteenth though mid nineteenth centuries in contrast to the owner occupied period from in the late nineteenth century (Taylor et al 1989: 261).

The Phase II Evaluation Survey conducted by McCormick Taylor included an initial Vegetation Survey ***(Appendix D)*** followed by the excavation of 170 systematically placed STPs at either 20 or 40 foot intervals and 20 arbitrarily placed 3x3 foot TUs ***(Figure 16)***.

a. Shovel Test Pit Excavations

The majority of the STP profiles excavated at the Weldin Site consisted of a dark yellowish brown (10YR 4/4) loam silt A/Ap horizon overtop a yellowish brown to dark yellowish brown (10YR 5/6-4/6) clay loam subsoil, as seen in the profiles for STP 5 ***(Figure 17).*** In some cases, an initial very dark grayish brown (10YR 3/2) silt loam O horizon was found to overlay the A horizon ***(Figure 17).***

Several exceptions to this stratigraphic sequence were noted. In STP 51, excavated immediately to the west of Structure C (the equipment shed), two fill horizons were noted beneath the modern O horizon (Stratum I) and above the original A horizon (Stratum IV) ***(Figure 17)***. These fill horizons appeared to be associated with the excavation and re-deposition of the soils to the west the foundation prior to its construction. In STP 53 the original Ap horizon appeared truncated and the profile of this tests consisted of the modern O horizon (10YR 3/2 silt loam) overtop the subsoil (7.5YR 5/6 clay).

In addition, the majority of the tests in the two transects containing STPs 74-103 exhibited disturbances associated with Weldin Plantation Drive, the original road for the site ***(Photograph 12)***. Shovel test 91, excavated in the road, is representative of these tests. The soil profile consisted of several layers of fill overlying bedrock ***(Figure 17).*** The STPs south of 79 and 94 contained a large amount of oyster shell and gravel fill, which would have been used as fill to improve the drainage of the roadway. The roadway would have likely been susceptible to poor drainage due to the clay B horizon underlying the road.

The road was abandoned sometime after Weldin purchased the property in 1862. Weldin Road was constructed at some time during the third quarter of the nineteenth century; it is probable that the Weldin Plantation Drive was no longer in use as the main entrance to the property at that time. The Weldin Plantation Road was likely not being used as the entrance at the time that Structure D was constructed, Structure D was built in the center of the Weldin Plantation Road. The portion of the road north of Structure D was used as a driveway after the construction of Weldin Road.

Photograph 5: Weldin Plantation Site, view of Structure A, facing southeast.

Photograph 6: Weldin Plantation Site, view of Structure B, facing north.

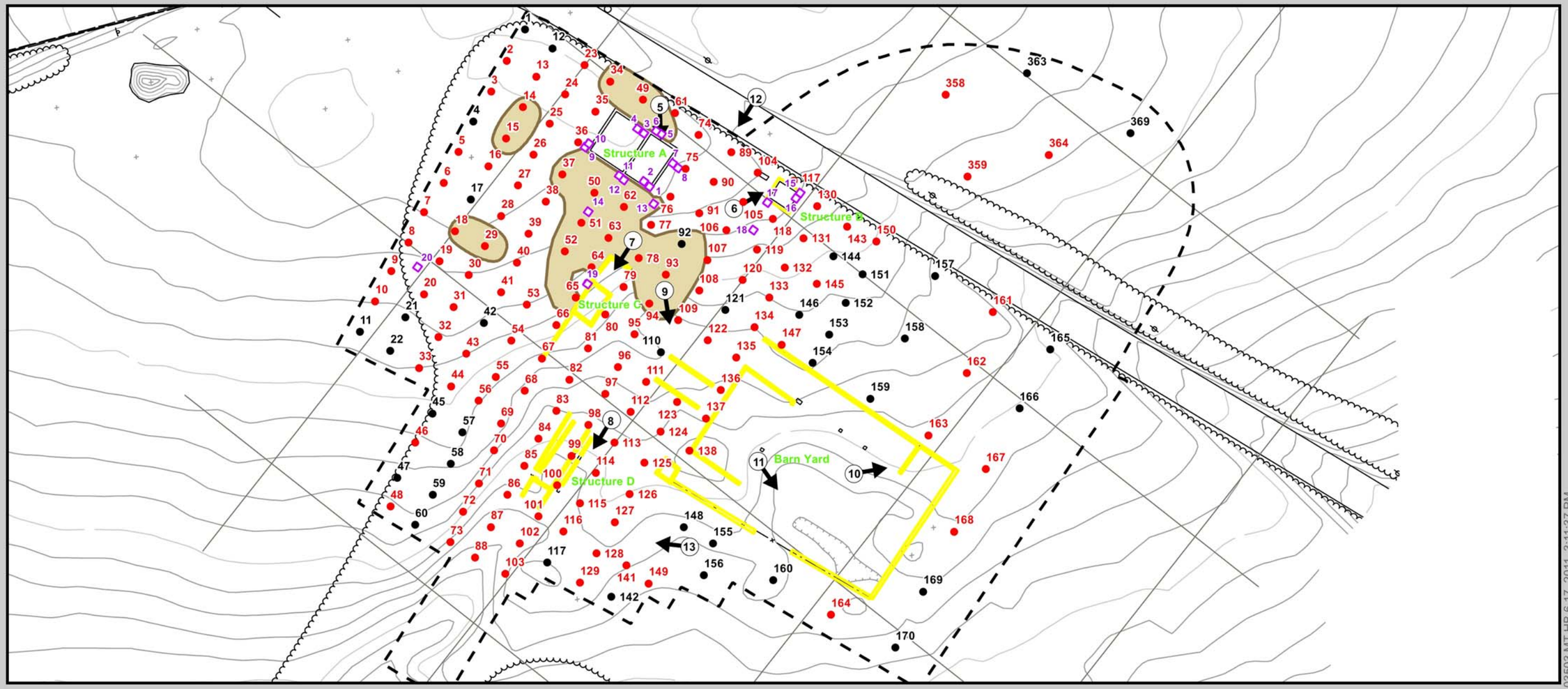
Photograph 7: Weldin Plantation Site, view of Structure C, facing south.

Photograph 8: Weldin Plantation Site, view of Structure D, facing south.

Photograph 9: Weldin Plantation Site, view of barn ramp, facing southeast.

Photograph 10: Weldin Plantation Site, view of barnyard, facing northeast.

Photograph 11: Weldin Plantation Site, view of barnyard, facing southeast.



Shovel Test Pit Containing Prehistoric Artifacts
Shovel Test Pit Containing Prehistoric and Historic Artifacts
Shovel Test Pit Containing Historic Artifacts
Shovel Test Pit Not Containing Artifacts
Photograph Locations
Archaeological Site Boundary
Structures Constructed after 1862
Context from which Pre-Mid 19th Century Artifacts Were Recovered
Test Unit

0 50 100 Feet
0 6 12 18 24 30 Meters

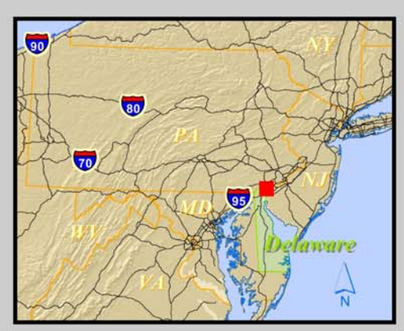
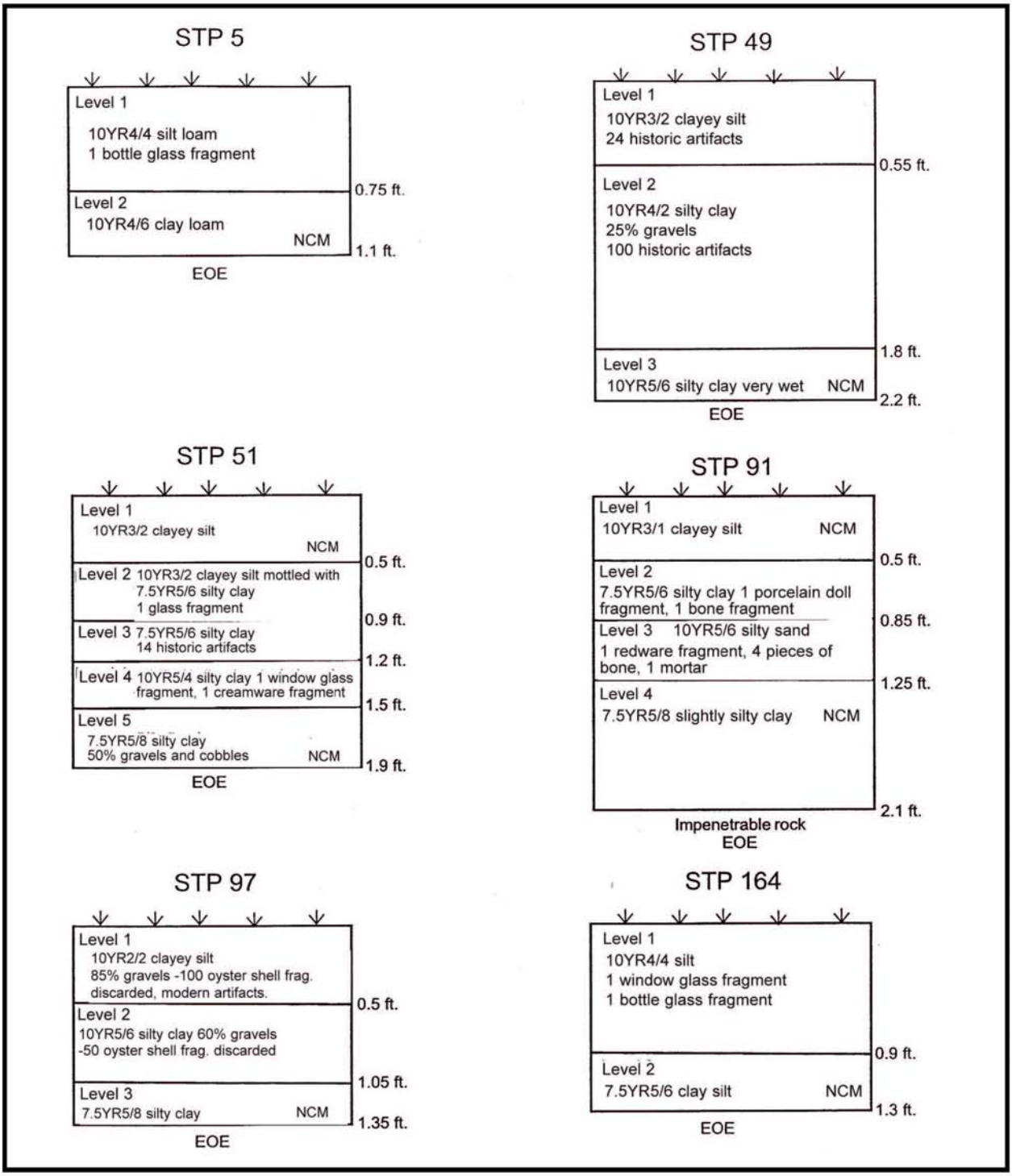


Figure 16

Weldin Plantation Site (7NC-B-11)
Phase II Archaeological Evaluation Testing

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



EOE - End of Excavation
NCM - No Cultural Material

0.5 1 foot

McCormick Taylor
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Figure 17

Profiles for STPs 5, 49, 51, 91, 97, 164

Weldin Plantation Site, 7NC-B-11
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

Photograph 12: Weldin Plantation Site, view of farm road, facing south.

The area roughly delineated by STPs 41, 45, 137, and 156 exhibited variable disturbances, as this portion of the site was used as a dump throughout the twentieth century. The soils encountered in STP 97 are representative of this portion of the site. It contained an initial gravel and oyster shell laden very dark brown (10YR 2/2) clayey silt O/A Horizon that was underlain by a predominantly yellowish brown (10YR 5/6) silty clay with gravels and oyster shell, and the strong brown (7.5YR 5/6) silty clay subsoil, respectively ***(Figure 17).*** As excavations proceeded towards the east, a relatively intact profile consisting of a dark yellowish brown (10YR 4/4) silt plowzone overtop the strong brown (7.5YR 5/6) silty clay subsoil, as seen in STP 164 ***(Figure 17).***

The Phase II shovel testing successfully identified the west, south, and east boundaries of the Weldin Site, which was found to roughly correspond to the existing tree line. The western and southernmost transects of shovel tests, excavated just inside the tree line, yielded relatively low densities of artifacts. Just one of the tests along the westernmost transect, STP 8, yielded more than 10 artifacts; it contained three pieces of bottle glass, a piece of clay pigeon, two pieces of whiteware, one piece of redware, one piece of pearlware, one ceramic electrical insulator, one piece of window glass, and one piece of coal. The area west of this transect of STPs was disturbed during the installation of underground utilities and is currently used a parking and staging area. Along the southern treeline, STP 129 yielded 32 artifacts, but 20 of these were bottle glass and five were pieces of an oil can; four pieces of roofing slate, two pieces of window glass, and one piece of bone were also recovered from the test. It represents one of two STPs along the southern edge of the site yielding more than 10 finds. Shovel test 103 yielded 11 artifacts, although eight of these were pieces of brown bottle glass; three pieces of clam shell were also recovered from the test. One transect of shovel tests was excavated to the east of the barnyard area. Shovel test 167 was the only STP on this transect containing more than 10 artifacts. It contained eight pieces of bottle glass, seven pieces of window glass, and one unidentifiable nail. No additional testing was conducted to the east due to the low artifact densities in the easternmost STP transect. The northern site boundary was delineated during the Phase I testing. Thirty four artifacts, the majority of which date to the nineteenth century, were recovered from a group of three STPs excavated north of Weldin Road (within approximately 45 meters [~147 feet] of the Weldin Site), and were therefore considered to be associated with the site and were included within the site boundary ***(Figure 16).*** The highest density of artifacts recovered within the revised site boundary was from STP 359. The twenty five artifacts recovered from this test included a horseshoe, eight pieces of brick, two pieces of bottle glass, eight pieces of redware, one piece of creamware, one piece of whiteware, one unidentifiable nail, one piece of window glass, on chain link, and one piece of Styrofoam. Additionally, STP 364 contained three pieces of whiteware, one piece of creamware, one piece of brick, and one chunk of slag, and STP 358 contained two pieces of redware and one piece of Styrofoam.

The density of historic artifacts across the site was found to be variable due to the amount of secondary deposition of twentieth century debris on the site, and for this reason, artifact counts encountered in the STPs were deceptively high. This was particularly evident in the area roughly bounded by STPs 41, 45, 137, and 156. This portion of the site was used as a dump throughout the twentieth century. Modern artifacts such as rusty buckets and barrels, tires, plastic and glass bottles, sheets of aluminum, mattress springs, chunks of concrete, assorted car parts and other twentieth century materials were observed on the ground surface ***(Photograph 13)***. Therefore,

Photograph 13: Weldin Plantation Site, view of twentieth century dump, facing southwest.

the majority of the STPs excavated in this area contain high volumes of twentieth century trash in the A horizon. For example, STP 67 contained a relatively high quantity of artifacts (267), but 185 of the finds consisted of pieces of broken glass (148 vessel glass, 35 window glass, one safety glass, and one piece of salad dressing bottle) that appear to date to the twentieth century. Additionally, 16 pieces of plastic were recovered from the test, in addition to an oil can, coal fragments, and miscellaneous pieces of metal. The artifacts datable to the nineteenth century included 39 ceramic fragments (18 redware, 15 whiteware, five ironstone, and 1 yellowware) but the association of these finds to the site's inhabitants is not clear due to the secondary deposition in this area. For this reason, this portion of the site lacks the level of integrity exhibited in the areas in which modern dumping has not occurred.

The highest quantity of artifacts dating to the mid-nineteenth century or earlier were recovered in the areas to the north and south of Structure A and to the west of Structure C. In the area north of Structure A Shovel test 49 contained 125 artifacts, 53% of which were domestic in nature. These included 17 ceramic sherds dating to the eighteenth century (13 pieces of creamware and four pieces of Jackfield), in addition to 39 shards of nineteenth century ceramics (19 pieces of pearlware, 19 pieces of redware, one piece of porcelain), one piece of oyster shell, and seven pieces of bottle glass. Forty-four % of the finds were architectural items. These included 17 pieces of brick, 26 pieces of window glass, two nails, and a chunk of plaster. Two pieces of mirror glass and one piece of slag were also recovered from STP 49.

To the south of Structure A, STP 50 contained 85 artifacts, the highest quantity in the south yard area. Architectural items represented 71% of the assemblage; these included 39 pieces of brick, 11 pieces of window glass, seven unidentifiable nails, four pieces of roofing slate, and an electrical insulator. Domestic finds included 11 pieces of redware, five pieces of creamware, two pieces of whiteware, one piece of pearlware, and two pieces of bottle glass. One piece of coal and one piece of bone were also recovered from STP 50.

The area west of Structure C also appeared to be an area used primarily for refuse disposal. Shovel test 65 contained the highest concentration, it yielded 82 artifacts. These included 10 shards of whiteware, 10 shards of redware, three pieces of Jackfield, 41 pieces of bottle glass, one piece of yellowware, three pieces of window glass, seven nails, four oyster shell fragments, and three pieces of automobile safety glass.

Relatively high artifact densities were also encountered recovered from the STPs excavated in the location of the original road, although many of the artifacts were interpreted as fill related. In STP 94, approximately 250 fragments of brick were recovered and STP 96 contained hundred of shell fragments. In both of the tests, the brick and/or shell appeared to be deposited as road fill.

b. Test Unit Excavations Associated with Structure A

Structure A is the main house on the site. It is located approximately 7.62 meters (~25 feet) south of Weldin Road at the northwest corner of the property. At ground surface, the structure is divided into two sections (an east section and west section) by a visible interior basement wall. Both sides of the cellar were filled with demolition debris at time of the Phase II Evaluation. Based on the results of the Phase I Survey (which located a well/sump in the western portion of

the building), the potential for features in the cellar were high. As a result, four TUs were excavated within Structure A; Test Units 1 and 2 were placed within the southwest corner of the eastern portion of the structure (just south of a suspected doorway to the first floor), and TUs 3 and 4 were placed within the northeast corner of the western portion of the structure.

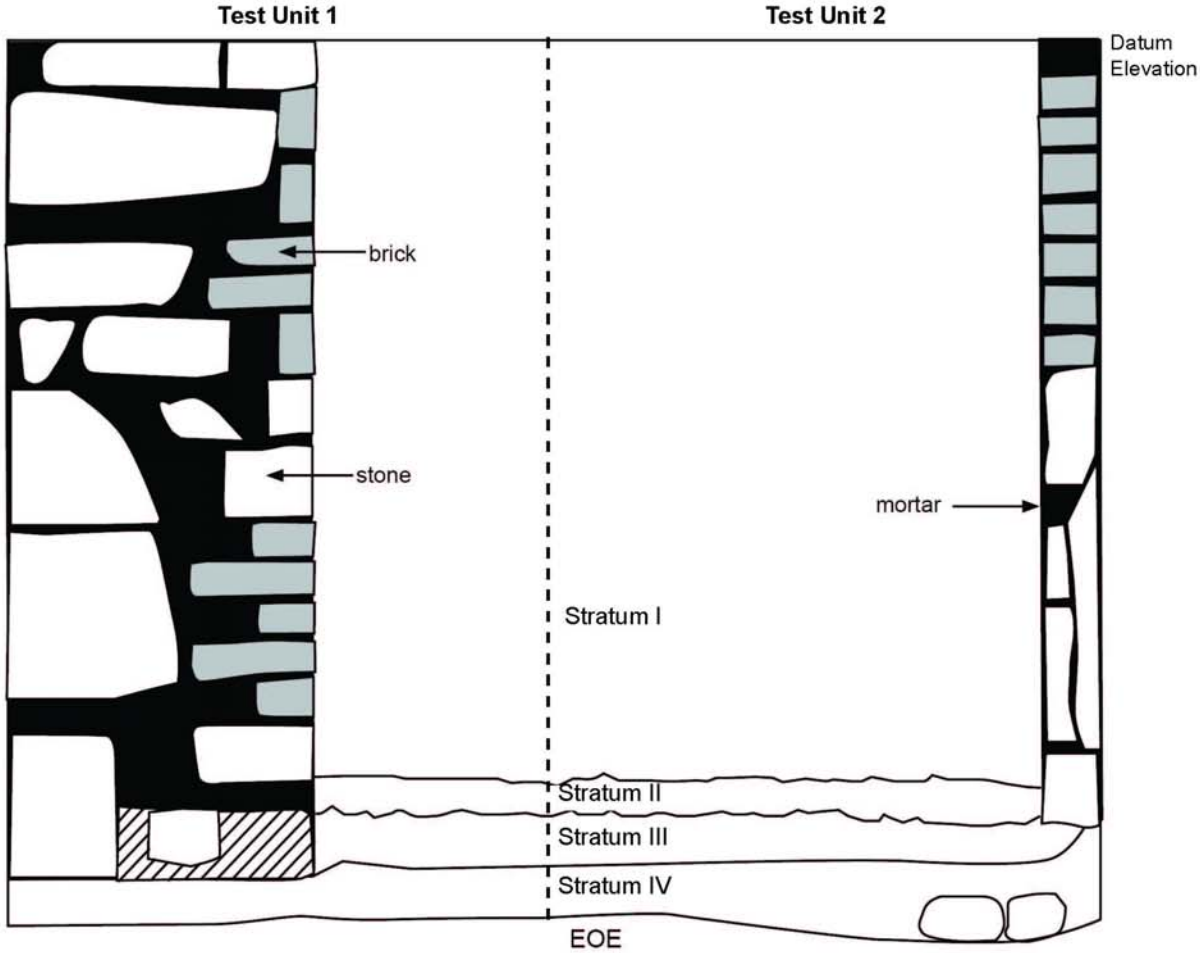
Eight additional TUs were placed on the exterior of the foundation; Test Units 5 and 6 were placed against the exterior of the north wall on the east side of the building in an area which tested positive for a relatively high concentration of early artifacts such as creamware, slipped redware and several varieties of pearlware. Test Units 7 and 8 were placed against the southern exterior of a potential bulkhead entrance near the northeast corner of the building to investigate the presence of a builder's trench associated with it. Test Units 9 and 10 were excavated at the southwest corner of the building to further investigate the buried A horizon contacted in STPs 36 and 37 that produced a low density of early artifacts including pearlware and slipped redware. Test Units 11 and 12 were placed adjacent to the southern wall of Structure A at the location where the interior partition wall of adjoins with the south foundation wall. The goal of this excavation was to obtain additional information regarding the construction chronology of the two sections of the house.

i. Test Units 1 and 2

Test Units 1 and 2 were placed in the southeast corner of the Structure A, several feet south of the suspected doorway to the house ***(Figure 16).*** Interestingly, a large rectangular stone with the initials "WT" carved into the face was located on the surface of the demolition debris near this location. This stone probably represents the lintel that would have been located above the doorway. The letters inscribed into the lintel stone may represent the last initials of Jacob Weldin and his wife Hannah Talley; deed research failed to identify any other inhabitants of the property with the initials WT.

Level I of the excavation consisted of demolition debris containing predominantly unconsolidated large foundation stones and decaying mortar. Several bricks were also noted within the architectural debris. The bricks were probably associated with a brick-lined bulkhead entrance which was situated along the south wall approximately 1.5 feet (~0.5 meter) west of the southeast corner. Level I was excavated to approximately 4.5 feet (~1.4 meters) below ground surface where a concrete basement floor (Level II) was uncovered. The concrete floor was removed and was found to overlie a layer of coal slag and ash fill (Level III) approximately 0.2-0.3 feet (0.06-0.09 meter) in thickness. Level III, was underlain by a thin mottled sand silt and clay fill horizon which (Level IV), in turn overlaid subsoil ***(Figure 18).***

Level I, the demolition fill, contained mostly late nineteenth and twentieth century artifacts which were deposited subsequent to the abandonment of the property. Level II consisted of the concrete floor, therefore it lacked artifacts, although it appeared to seal early to mid nineteenth century contexts. Level III (the coal and slag layer directly beneath the concrete) appeared to date to the mid-nineteenth century based on the recovery of eight nails (three machine cut and five unidentifiable), three pieces of window glass, and one shard of slipped redware. Level IV contained 27 artifacts that dated to the early to mid nineteenth century. These included 10 shards of redware, four shards of creamware, three shards of pearlware, two shards of whiteware, three



Stratum I - Bulkhead filled with demolition debris
Stratum II - Concrete
Stratum III - Ash and Coal Cinder Fill
Stratum IV - Mottled 7.5YR 5/8, 7.5YR 5/6, and 2.5Y 5/4 sand, silt, clay

EOE - End of Excavation

0.5 1 foot

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Figure 18

Test Unit 1 and 2 South Profile

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Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

pieces of non-diagnostic bottle glass, two pieces of window glass, two pieces of cow bone, and one pewter button. Additionally, Features 2 and 3 were identified during the excavation of TUs 1 and 2.

- **Feature 2**

Feature 2 was identified by a dark yellowish brown (10YR 4/6) funnel-shaped stain near the center of TU 1 ***(Figure 19)***. The anomaly measured approximately 0.8 feet (~0.24 meter) wide at the southern terminus of the unit and narrowed to 0.2 feet (0.06 meter) at the northern limits of excavation. Feature 2 was relatively shallow (0.1-0.2 feet [0.03-0.06 meter] in depth) and was excavated in its entirety. The feature fill was silty in texture and contained some carbon flecking. Artifacts recovered from the feature included six pieces of brick, five pieces of redware, and one piece of window glass. It is possible that Feature 2 represents the remains a small drainage channel associated with Feature 3.

- **Feature 3**

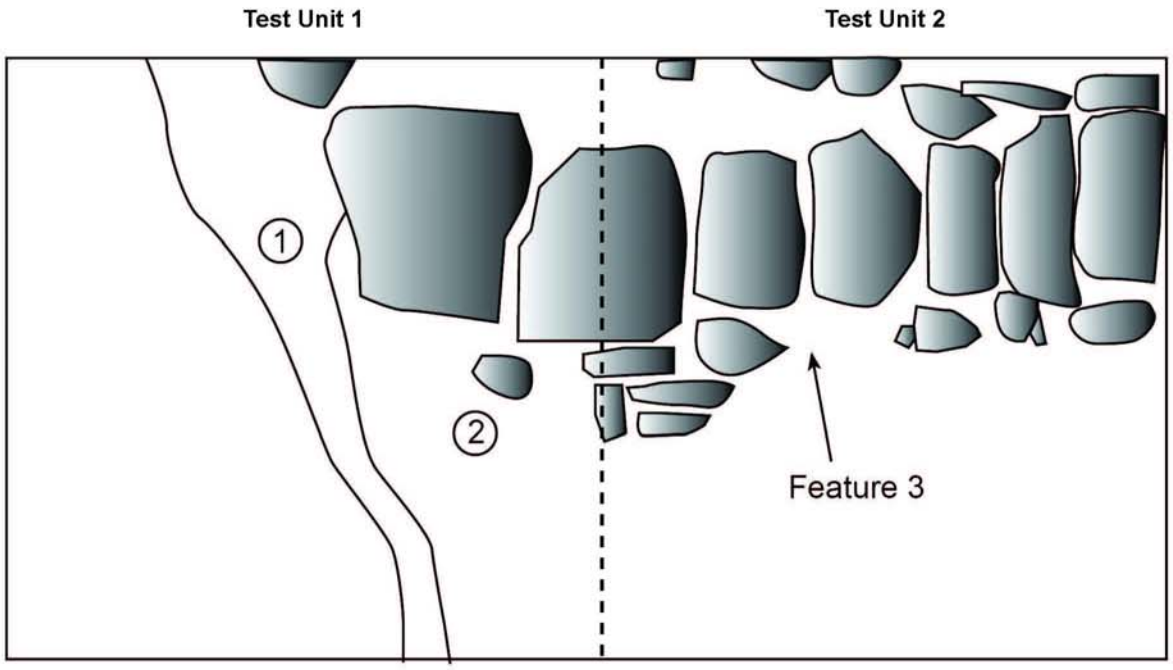
Feature 3 represents a series of deliberately placed rocks (oriented N-S) intrusive to Level IV, ***(Figure 19; Photograph 14)***. The removal of several of the larger rocks revealed that the feature was two courses deep, with the second layer of rocks being oriented E-W and laid into a shallow channel that was intrusive to the subsoil. The clayey soils surrounding the feature appeared poorly drained and heavily mottled (light gray [5YR 7/1], light olive brown [2.5Y 5/4], and strong brown [7.5YR 5/8]), indicating poor drainage. It is likely that the feature represents a French drain. Feature 3 appears to represent an early nineteenth century context based on the recovery of two shards of pearlware and one piece of non-diagnostic window glass.

ii. Test Units 3 and 4

Test Units 3 and 4 were excavated in the northeastern corner of the western portion of Structure A ***(Figure 16)***. Strata I and II were mostly composed of demolition debris, with Level 1 exhibiting a slightly darker matrix due to the accumulation of organic material. Both Levels yielded artifacts dating predominantly to the twentieth century. The architectural debris was underlain by a brick basement floor laid in a herring-bone pattern. The brick floor was found to overlie a relatively thin horizon of brown (7.5YR 5/6) sandy fill (Level IV), which was void of cultural materials. Subsoil (Level V) was contacted approximately 7.2 feet (~2.2 meters) below ground surface. It consisted of a mottled yellowish red (5YR 5/8) and light yellowish brown (2.5Y 6/4) silty clay. Feature 8 was discovered along the east wall of TU 3.

- **Feature 8**

A 1.25 foot wide trench feature oriented parallel to the interior basement wall was encountered at the interface with the subsoil. The feature fill, which was approximately 0.6 feet (~0.18 meter) in depth, consisted of rocks covered by deteriorating mortar and sand ***(Figure 20 and Photograph 15).*** A total of three unidentifiable nails were recovered from the feature. Feature 8 likely represents either a builder's trench or a drainage feature (such as a French drain).



1 Feature 2:10YR 4/6 silt

2 Mottled 7.5YR 5/8, 7.5YR 5/6, 2.5YR 5/4 sandy silty clay with streaks of 5YR 7/1

- Rock

0.5 1.0 foot

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Figure 19

Planview of Feature 2 and 3

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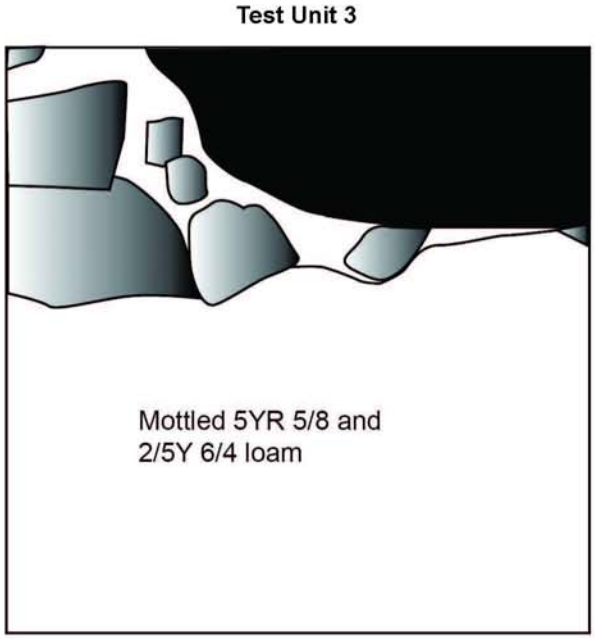
Photograph 14: Weldin Plantation Site, Feature 3 planview, facing south.



- Rock
- Mortar

0.5 1.0 foot

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Figure 20

Feature 8 Planview

Weldin Plantation Site, 7NC-B-11
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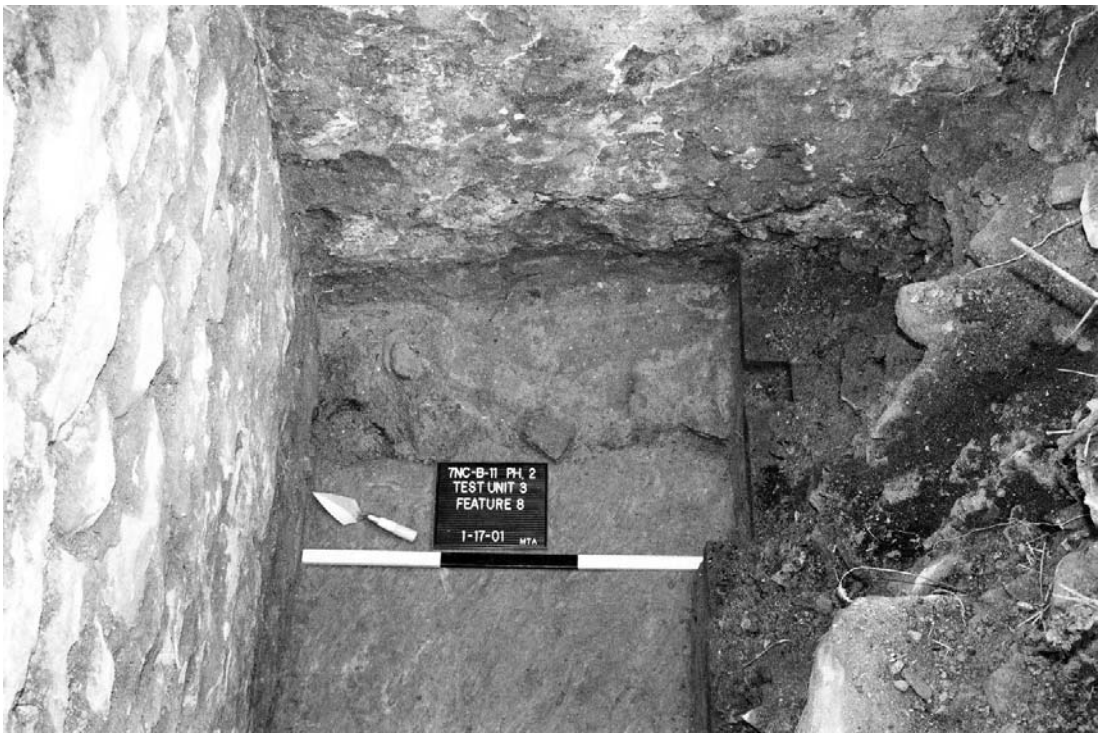


Photograph 15: Weldin Plantation Site, Feature 8 planview, facing east.

iii. Test Units 5 and 6

Shovel Tests Pits 34 and 49 both tested positive for artifacts dating to the late 18th and early 19th Centuries. Test Units 5 and 6 were placed in this area to investigate the potential early nineteenth century contexts ***(Figure 16).***

The upper four strata were found to correspond in the two units. Level I consisted of the initial A horizon, a very dark gray (10YR 3/1) silt loam with a maximum thickness of 0.6 feet (~0.18 meter). It overlaid a dark yellowish brown (10YR 4/4) sandy loam that ranged between 0.5-1.0 feet (~0.15-0.3 meter) in thickness; it was designated Level II. Both Levels I and II contained twentieth century artifacts in addition to numerous pieces of bottle glass (n=1631) and high quantities of window glass (n=575) and other architectural debris such as nails, roofing slate, mortar, plaster, and foundation stones. The mean dates for the artifacts recovered from Levels I and II are attributable to the early twentieth century. Based on the soil morphology and the relatively late dates of these contexts, Levels I and II appears to date to the structure's demolition in the early to mid-twentieth century.

Level III consisted of a friable yellowish brown (10YR 5/4) loam that ranged between 0.2-0.5 feet (~0.06-0.15 meter) in thickness. Combined, a total of 417 artifacts were recovered in TUs 5 and 6 from Level III. Seventy-four % of the finds were architectural by class. The finds from Level III generated a mean date of 1857 in TU 5 and 1859 in TU 6. Based on the recovery of numerous sherds of late eighteenth and early nineteenth century ceramics such as creamware, spattered whiteware, and transfer printed pearlware, this context appeared to represent a mid-nineteenth century context.

At the interface of Level II and III, a brick pier located adjacent to the southeastern corner of the wall was uncovered. The brick pier was found to be four courses high and cemented to a stone footer. The stone footer rested on the subsoil. The brick pier was interpreted as the footer for a porch, and based on its stratigraphic postion, likely dates to the mid nineteenth century.

The soils excavated from Level IV were composed of a yellowish brown (10YR 5/6) clayey loam mottled with carbon flecking and small pieces of burned wood. This soil horizon was heavily disturbed by rodent burrows, some of which penetrated the underlying subsoil. Combined, a total of 661 artifacts were recovered from Level IV (272 from TU 5 and 389 from TU 6). These included a high quantity of domestic artifacts including a bone handled fork and knife, a brass spoon, and historic ceramics such as pearlware, porcelain, redware, Jackfield, creamware, and delftware. A total of 324 pieces of bone were recovered from Level IV in the two units. A diverse array of specimens such as pig, cow, turkey, chicken, pheasant, rabbit, goose, and deer, in addition to ground hog and rat were found within this context. A relatively high number of architectural artifacts were recovered as well. The attribution for the diagnostic domestic artifacts was consistently to the late eighteenth to early nineteenth century, suggesting a secure context, probably the original ground surface associated with the farmhouse. Several pieces of mold blown bottle glass dating to the twentieth century were recovered from TU 6 (TU 5 was void of later artifacts), although these artifacts were likely intrusive from the overlying strata.

An additional lense of soil (Level V; a light brownish gray [10 YR 6/2] clayey silt) approximately 0.4 feet in thickness was encountered just above the B horizon in TU 6. This deposit feathered-out as excavations proceeded toward the east and was not observable in TU 5. Level V contained just four artifacts; a bone comb and three additional pieces of bone. A potential foundation wall was uncovered within the lower portion of Level IV in TU 6. It consisted of two courses of cut stone oriented perpendicular to the north wall of the house. A concentration of mortar was found to overlie the cut stones ***(Figure 21)*** supporting that the anamoly is the remains of a wall, rather than demolition debris. The soils compromising Level V were likely associated with the original construction of this wall.

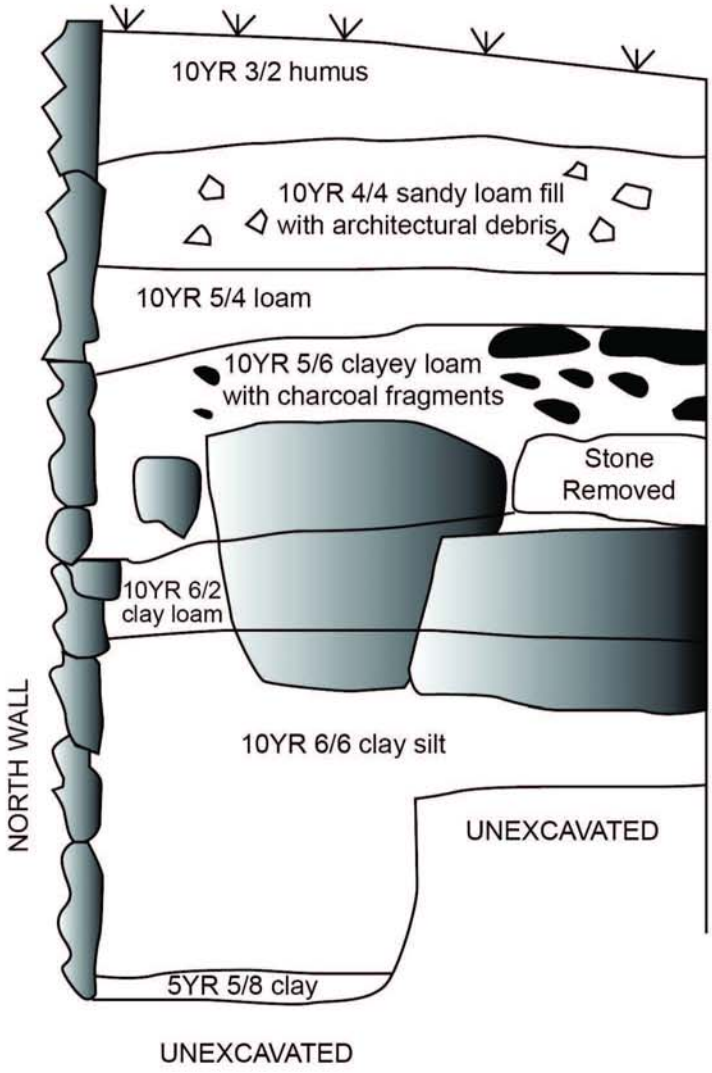
The brownish yellow (10YR 6/6) clayey silt subsoil was reached approximately 3.0 feet (~0.9 meter) below ground surface in both test units ***(Figure 21 and Photograph 16)***. It contained 16 artifacts in TU 5 and was void of artifacts in TU 6. The artifacts found in the subsoil were likely deposited through the heavy bioturbation noted within the overlying stratum.

iv. Test Units 7 and 8

TUs 7 and 8 were placed on the eastern side of Structure A against the south bulkhead wall ***(Figure 16).*** Level I was composed of a mottled dark yellowish brown (10YR 4/4) and strong brown (7.5YR 5/6) loam that contained foundation stones, brick fragments and numerous twentieth century artifacts It was interpreted as a fill horizon associated with the demolition of the structure in the twentieth century. Level II, a very dark grayish brown (10YR 3/2) silt loam appeared to represent an A/O horizon. Level III consisted of the yellowish brown (10YR 5/6) clay loam subsoil, although a small pocket of mottled brown (10YR 4/3) and yellowish brown (10YR 5/4 and 10YR 5/6) was found in TU 7 at the interface with the subsoil. This soil deposit may represent the original truncated A/Ap horizon ***(Figure 22).*** Two irregular soil anomalies containing modern artifacts were found to be intrusive to the subsoil. The first, located in TU 7, originated at the existing ground surface and was composed of Level I soils, and the second, located in the southwest corner of TU 8, originated at the interface of Levels II and III and contained Stratum II soils. All of the contexts from TUs 7 and 8 contained modern artifacts. It appears that the area around the bulkhead was subjected to relatively severe ground disturbing activities sometime during the 20th century, likely during the demolition of the structure.

v. Test Units 9 and 10

Test Units 9 and 10, excavated along the west wall of Structure A, penetrated four strata. Level I consisted of a layer of demolition debris that was composed of mostly foundation stones, brick, and mortar. The underlying Level II soils were comprised of a strong brown (7.5YR 5/8) silty clay fill that contained a total of 59 artifacts that date to the mid to late nineteenth century. Level III, a brown (10YR 4/3) silt loam, appeared to represent the original A horizon. It contained a total of 40 artifacts, 73% of which were domestic by class. These included shards of creamware, delftware, and shell edged whiteware that date the assemblage to the late eighteenth to early nineteenth century. The undisturbed subsoil (Level IV) was found to underlie the buried A horizon ***(Figure 23).***



- Rock
- Mortar

0.5 1.0 foot

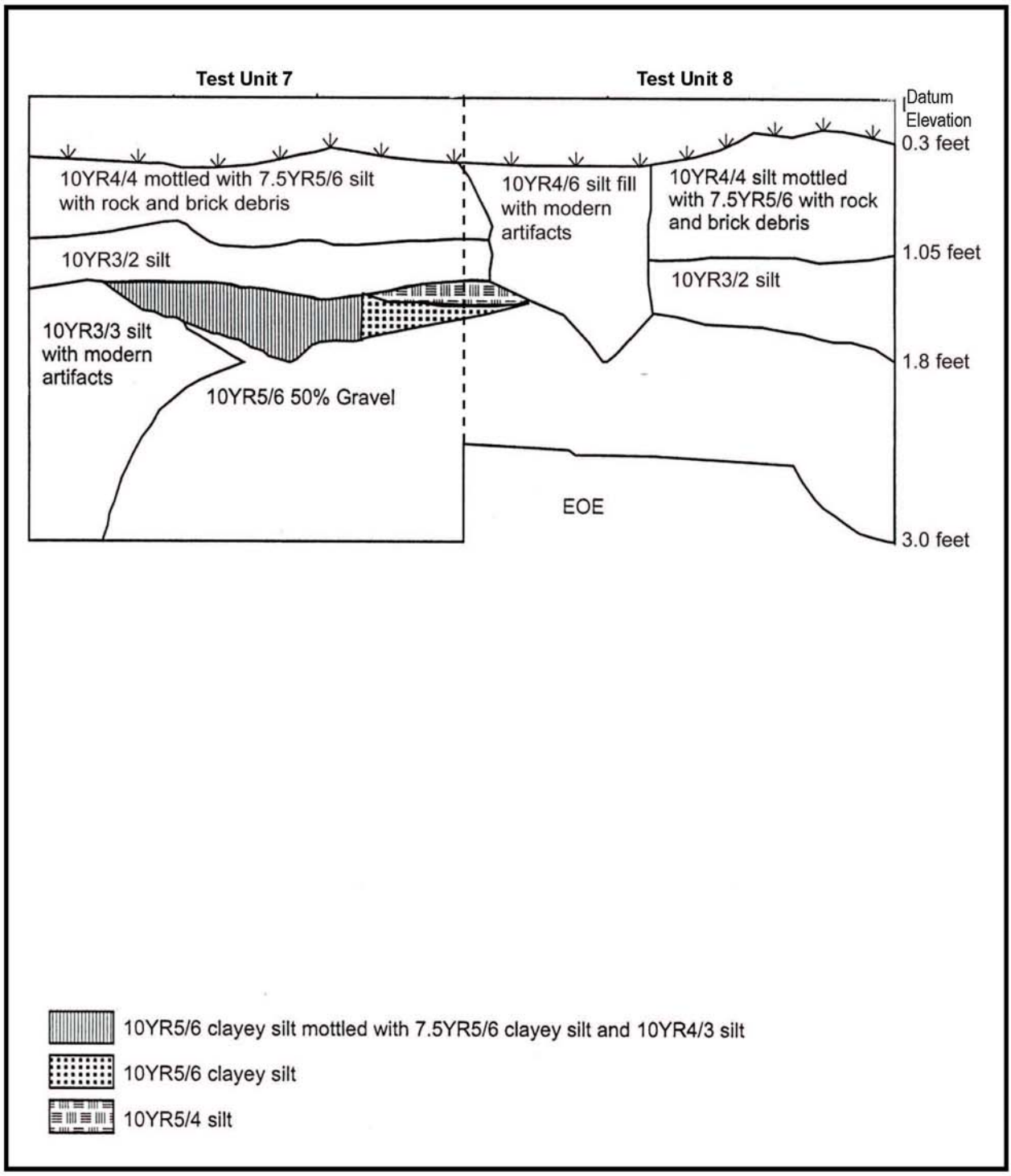
McCormick Taylor
gineers & Planners Since 1946

Figure 21

Test Unit 6 West Profile

Weldin Plantation Site, 7NC-B-11
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

Photograph 16: Weldin Plantation Site, Test Unit 6 west profile.



EOE - End of Excavation

0.5 1.0 foot

McCormick Taylor
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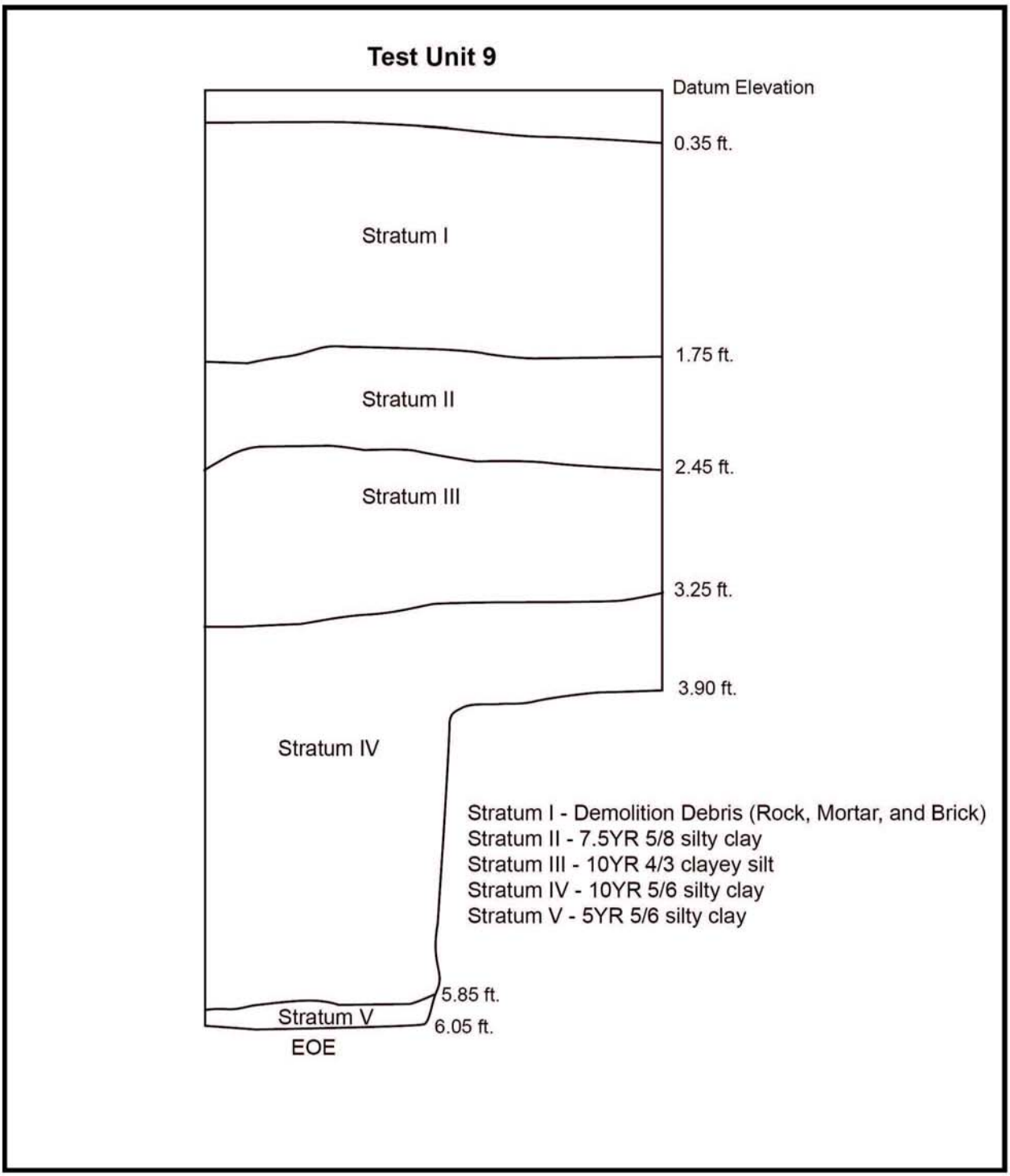
Figure 22

Test Unit 7 and 8 South Profile

Weldin Plantation Site, 7NC-B-11
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



EOE - End of Excavation

0.5 1.0 foot

McCormick Taylor
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Figure 23

Test Unit 9 South Profile

Weldin Plantation Site, 7NC-B-11
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

- **Feature 4**

Feature 4, a linear trench feature comprised of 7.5 YR 5/8 silty clay fill, was found at the interface of Levels II and III along the Structure A foundation ***(Photograph 17).*** This feature was possibly created during the excavation of the cellar hole and was filled subsequent to the construction of the foundation wall. The feature fill contained four chunks of mortar, one cut nail, one shard of creamware, and one shard of pearlware.

vi. Test Units 11 and 12

Test Units 11 and 12 were placed along southern wall of Structure A at the approximate location of the interior partition wall ***(Figure 16).*** The stratigraphy of the units closely matched that of TUs 9 and 10. The portion Structure A exterior exposed in TU 11 indicates that the western portion of the foundation likely represents a later addition to the house. The eastern portion of the foundation exhibited a finished wall at its southwest. At this point the western portion of the foundation appears to be butted against the east section ***(Photograph 18).***

- **Feature 9**

Feature 9 consisted of a brick footer that was four courses in thickness and two bricks in width ***(Photograph 19).*** The bricks were built upon a stone foundation that rested on the subsoil. Along with the brick footer found in TU 6, Feature 4 was interpreted as the footer for a porch. It was exposed within the fill layer overlying the original A horizon. Based on its stratigraphic position, it likely dates to the mid nineteenth century.

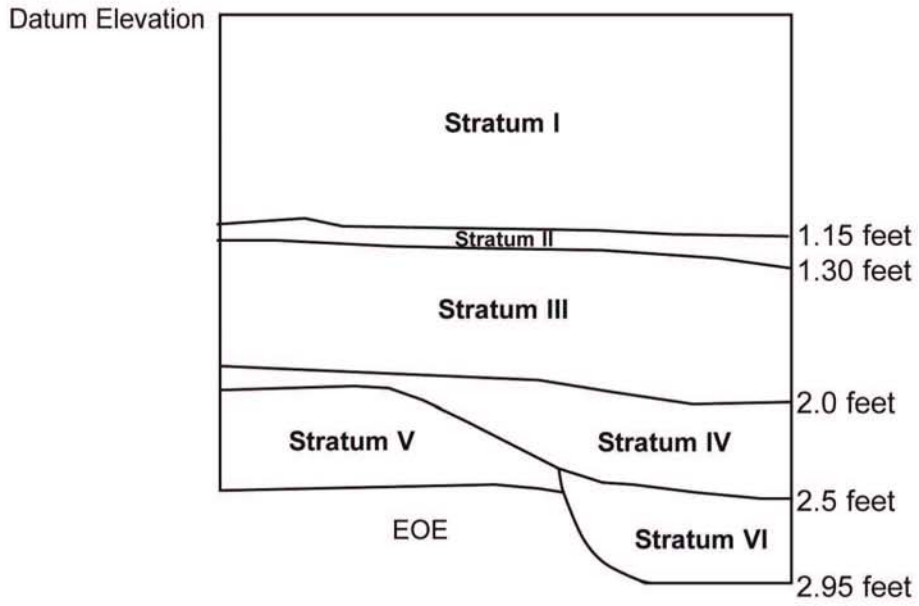
vii. Test Unit 13

TU 13 was excavated just outside the southeast corner of Structure A. Level I in this unit consisted of dark brown (10YR 3/3) A horizon that extended to approximately 1.1 feet (~0.34 meter) below ground surface. It contained a total of 79 artifacts that dated mostly to the late nineteenth to twentieth century. It was underlain by a thin ash lens (Level II) with a maximum thickness of 0.2 feet (~0.06 meter). The ash lense produced 44 artifacts including nineteenth century ceramics, architectural items, and two porcelain doll fragments. It rested on a mottled strong brown (7.5YR 5/8) and light gray (2.5Y 7/1) silty clay fill horizon that appeared to be re-deposited subsoil. This stratum, designated Level III, contained 71 artifacts that were mostly architectural (83%) by class. This fill deposit was found to overlie a dark yellowish brown (10YR 3/4) Ab horizon (Level IV) that ranged between 0.05 and 0.46 feet (~0.02 and 0.14 meter) in thickness. The Ab contained 172 artifacts that were consistent with a mid nineteenth century date. The Ab was underlain by the subsoil (Level V); a yellowish brown (10YR 5/6) clay loam. In the southeast corner of TU 13, a mottled dark yellowish brown (10YR 3/4) and yellowish brown (10YR 5/6) semi-circular stain was exposed (Level VI). In profile, this anomaly was basin shaped and reached a depth of 0.65 feet (~0.19 meter) ***(Figure 24).*** It contained 32 artifacts that date the context to the early nineteenth century.

Photograph 17: Weldin Plantation Site, Feature 4 planview, facing east.

Photograph 18: Weldin Plantation Site, Test Units 11 and 12 north profile.

Photograph 19: Weldin Plantation Site, Feature 9 planview, facing north.



Stratum I - 10YR 3/3 silt loam
Stratum II - Ash lense
Stratum III - Mottled 7.5YR 5/8, 10YR 4/4, and 2.5YR 7/1 Clay Silt
Stratum IV - 10YR 3/4 Silt loam
Stratum V - 10YR 5/6 Clay loam
Stratum VI - 10YR 3/4 and 10YR 5/6 Clay loam

EOE - End of Excavation

0.5 1.0 foot

McCormick Taylor
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Figure 24

Test Unit 13 East Profile

Weldin Plantation Site, 7NC-B-11
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

viii. Test Unit 14

Test Unit 14 was placed in the south yard of Structure A. The initial stratum, a brown (10YR 4/3) silty clay approximately 0.9 foot in thickness, contained 71 artifacts attributable to the late nineteenth to twentieth century. It was overtop a brown (10YR 5/3) clay loam that was approximately 0.6 foot in thickness. Level II yielded 31 artifacts, all of which were domestic by class. The mottled strong brown (7.5YR 5/8) and light gray (2.5Y 7/1) clay loam subsoil was excavated as Level III. It was void of cultural materials.

c. Test Unit Excavations Associated with Structure B

Structure B is located approximately sixty feet (~18 meters) east of Structure A, approximately ten feet (~3 meters) south of Weldin Road. At the time of the Phase II survey, the foundation walls are roughly 80% intact. While fieldwork was in progress, McCormick Taylor archaeologists were informed by the nephew of Jacob Weldin that this structure was in use during the Weldin dairy operation. It was utilized as an ice house to keep milk cold.

i. Test Units 15 and 16

Test Units 15 and 16 were excavated within the northeast corner of Structure B. Level I consisted of mostly demolition debris that contained predominantly twentieth century artifacts. It was found to directly overlie a concrete floor (Level II), which in turn, overlaid a brick floor (Level III) that was one course in depth and laid in no particular pattern. A layer of stone and mortar that was excavated as Level IV was found beneath the brick floor. The soils excavated from Level V consisted of a thin (approximately 0.05 feet [~0.02 meter]) dark yellowish brown (10YR 4/4) silt from which five brick fragments and one unidentifiable nail were recovered (from TU 16). It was underlain by the mottled strong brown (7.5YR 5/6) and light gray (2.5Y 7/1) silty clay subsoil (Level VI) that was void of artifacts.

ii. Test Unit 17

Test Unit 17 was excavated at the southwest corner of Structure B. It penetrated three strata. Level I consisted of a black (10YR 2/1) loam that contained a high quantity of deteriorating mortar, foundation stones, and broken pieces of concrete. It yielded 148 artifacts (54% bottle glass) that dated from the late nineteenth to twentieth century. It was underlain by a very dark grayish brown (10YR 3/2) silty sandy loam (Level II) that was approximately 0.4 feet (~0.12 meter) in thickness. It contained 255 artifacts that again dated to the late nineteenth to early twentieth century. Level III consisted of a very wet mottled yellowish brown (10YR 5/6) and very dark grayish brown (10YR 3/2) clay loam fill horizon that contained 43 artifacts and was underlain by subsoil ***(Figure 25).*** Based on the recovery of a dry cell battery, this context dates to the late nineteenth century.

- **Feature 10**

Feature 10, a dark circular stain approximately 0.55 feet (~0.17 meter) in diameter and 1.1 foot in depth was located in the eastern portion of the TU 17 at the interface of Levels II and III

(Figure 25). One unidentifiable nail was recovered from Feature 10. It is interpreted as a posthole.

iii. Test Unit 18

Test Unit 18 was placed in the south yard area associated with Structure B. It penetrated three strata. The first, a very dark grayish brown (10YR 3/2) silt loam A/O horizon contained 37 pieces of bottle glass, one cut nail, and one piece of redware in addition to a very high density of shell. It overlaid a mottled dark yellowish brown (10YR 4/4) and strong brown (7.5YR 5/8) loam that ranged between 0.25 and 0.44 feet (~0.0.08 and 0.13 meter) in thickness. It yielded 37 artifacts that were attributable to the mid nineteenth century. This level appeared to represent the truncated original Ap horizon. It was underlain by the culturally sterile yellowish brown (10YR 5/6) clay loam subsoil.

d. Test Unit Excavations Associated with Structure C

i. Test Unit 19

Test Unit 19 was placed adjacent to the west wall of Structure C. The initial A/O horizon consisted of a dark grayish brown clay loam that contained 262 artifacts, 170 of which were beer or soda bottle glass. Level II appeared to represent the original disturbed/truncated A horizon, it was characterized by a mottled brown (10YR 4/3) and strong brown (7.5YR 5/8) silty clay that was approximately 0.35 foot in thickness. It contained 195 artifacts that were attributable to the mid to late nineteenth century. Level III, the strong brown (7.5YR 5/8) silty clay subsoil, was excavated as Level III. It was void of artifacts. An amorphous area of brown (7.5YR 4/4) soil, that was excavated as Level IV, was noted in the southwest corner of the unit ***(Figure 26).*** In plan, this anomaly extended beyond the limits of the excavation. It contained a total of 48 artifacts (22 bottle glass, 23 window glass, one unidentifiable nail, and two pieces of pearlware).

e. Test Unit Excavations Not Associated with Structures

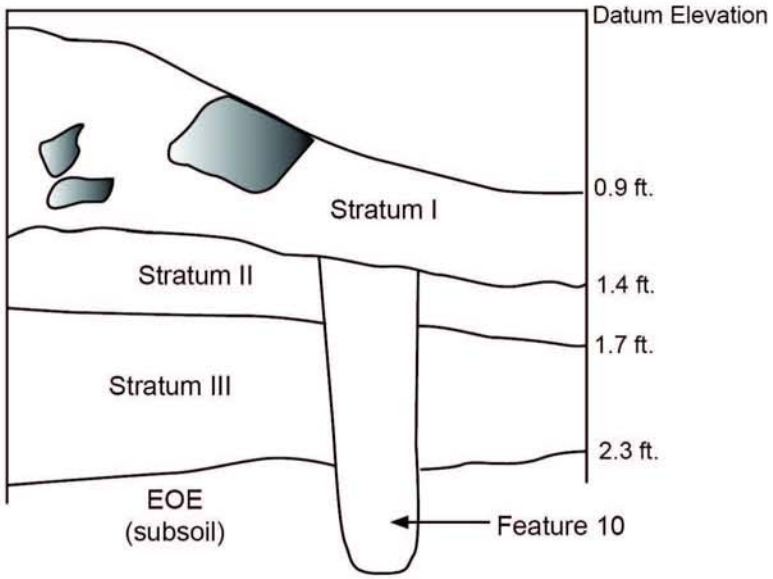
i. Test Unit 20

Test Unit 20 was placed along the western periphery of the site and exhibited plowzone/subsoil stratigraphy. It contained a total of 12 artifacts from A horizon contexts.

f. Artifact Analysis

Phase II excavations at the Weldin Site (7NC-B-11) produced a total of 13,603 historic artifacts and one pre-contact artifact ***(Appendix F).*** The assemblage was composed primarily of domestic class artifacts (64%) and architectural class artifacts (29%). Other artifact classes were farming-related, gardening-related, transportation-related, heating by-product, arms/ammunition, tool, ecological and indeterminate. The single pre-contact artifact was a projectile point. Terminus Post Quem (TPQ) dates were calculated to identify probable time period of deposition for all proveniences that possessed datable artifacts. Terminus Post Quem and Mean artifact dates

Test Unit 17



Stratum I - 10YR 2/1 loam with large rocks
Stratum II - 10YR 3/2 loam
Stratum III - mottled 10YR 5/8 and 10YR 3/2 clay loam

EOE - End of Excavation
- Rock

0.5 1.0 foot

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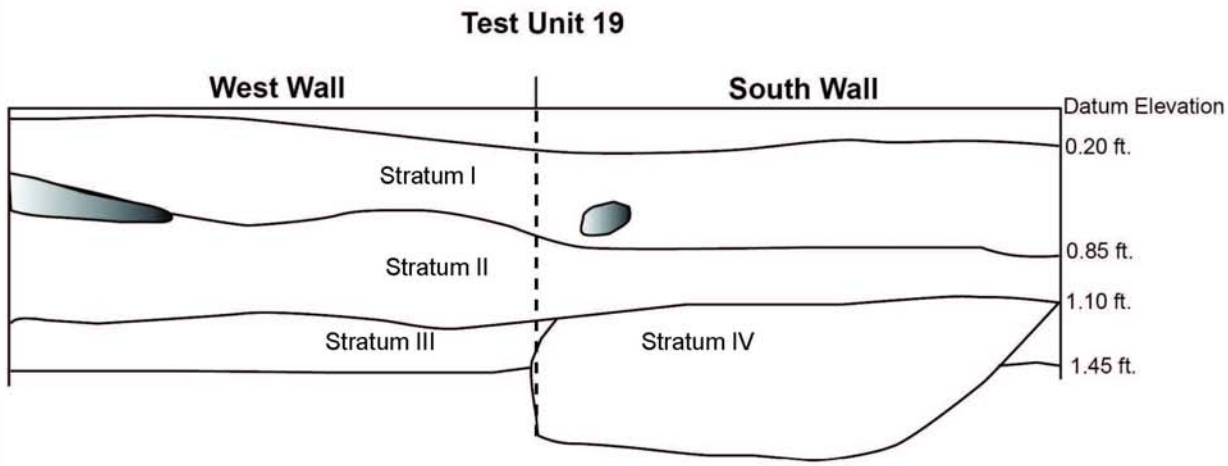
Figure 25

Test Unit 17 East Profile

Weldin Plantation Site, 7NC-B-11
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



Stratum I - 10YR 4/2 clayey silt
Stratum II -10YR 4/3 mottled with 7.5YR 5/8 silty clay
Stratum III - 7.5YR 5/8 silty clay
Stratum IV - 7.5YR 4/4 loam

EOE - End of Excavation
- Rock

0.5 1.0 foot

McCormick Taylor
Engineers & Planners Since 1946

Figure 26

Test Unit 19 West and South Profiles

Weldin Plantation Site, 7NC-B-11
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

aided in differentiating deposits formed during the Weldin family occupation and those formed prior to their occupation.

Artifacts classified as domestic were items generally used or stored within the home. The majority of domestic artifacts in this assemblage were beverage and food bottle parts (73%) and ceramic vessel fragments (12%). Other domestic artifacts included cooking and food storage items, kitchen/dining utensils, glass tableware, home furnishings, radio and television parts, lighting glass and light bulb parts, a d-cell battery, a paint can, sewing items, clothing parts, toiletry and pharmaceutical items, tobacco smoking equipment, toys, coins and other personal items such as pocket knives and writing utensils. Bone and shell identifiable as consumed species, or that exhibited butchery marks or burning (excluding burned remains of non-consumed species such as rat) were classified as domestic. Artifacts unidentifiable to form or function but consisting of material generally used in the domestic setting, such as aluminum foil and styrofoam, were also classified as domestic.

Architectural class artifacts were items used in building construction. Window glass (47%), nails (25%) and brick (15%) were the predominant architectural artifacts. Most of the nails were machine-cut (70%), which was a method used from 1791 to 1891. Wrought nails (to 1805) and wire nails (1850 to present) were also present. Other architectural artifacts included brick, building stone, mortar, plaster, lime, cement, floor and wall tiles, drainage tile and plumbing hardware, ornamental hardware, shutter fasteners, door and window hardware, roofing slate, tar paper, asphalt tile, spouting, electrical material, modified wood (some of which had nails driven through) and miscellaneous fasteners such as rivets, bolts and spikes.

The remaining 7% of the assemblage were artifacts related to other activities or that could not be identified to a specific function. Farming-related artifacts included barbed and fencing wire, horse and pony shoes, a livestock shoe nail, harness parts and a sickle mower part. Gardening-related artifacts were redware flowerpots. Transportation-related artifacts were auto safety glass, a valve stem and oil can fragments. Heating by-products were coal, cinder, slag, and ash. Arms/ammunition were shotgun casings and rim-fire and center-fire ammunition. Tools included hammers, sandpaper, a wrench, a file, a pulley, a chisel, and chain link. Ecological class remains were bone from non-consumed species and nutshells. Indeterminate class artifacts were unidentifiable to a specific activity and included unidentifiable glass, unidentifiable metal objects, miscellaneous machine parts, miscellaneous hardware, metal wire, leather, plastic, paper, rubber, unidentifiable textile, wood, macadam, metal cans unidentifiable to content/use and bone not identifiable as consumed or non-consumed species.

Terminus Post Quem (TPQ) and Mean artifact dates were calculated for all proveniences that contained datable artifacts. Occupational periods for each provenience were determined by TPQ and Mean artifact dates. When the Mean date fell within an occupational period later than the period suggested by the TPQ date, the context was defined by the later Mean date, because the mean production dates for the majority of the artifacts indicated a possibility that the deposit was formed during the later occupational period. When a context would have been defined as an earlier deposit than the context which lay stratigraphically below it (e.g. a Weldin deposit above a Post-Weldin deposit or a Pre-Weldin deposit above a Weldin deposit) the overlying deposit was assigned the same occupational period as the underlying deposit. A few mixed contexts

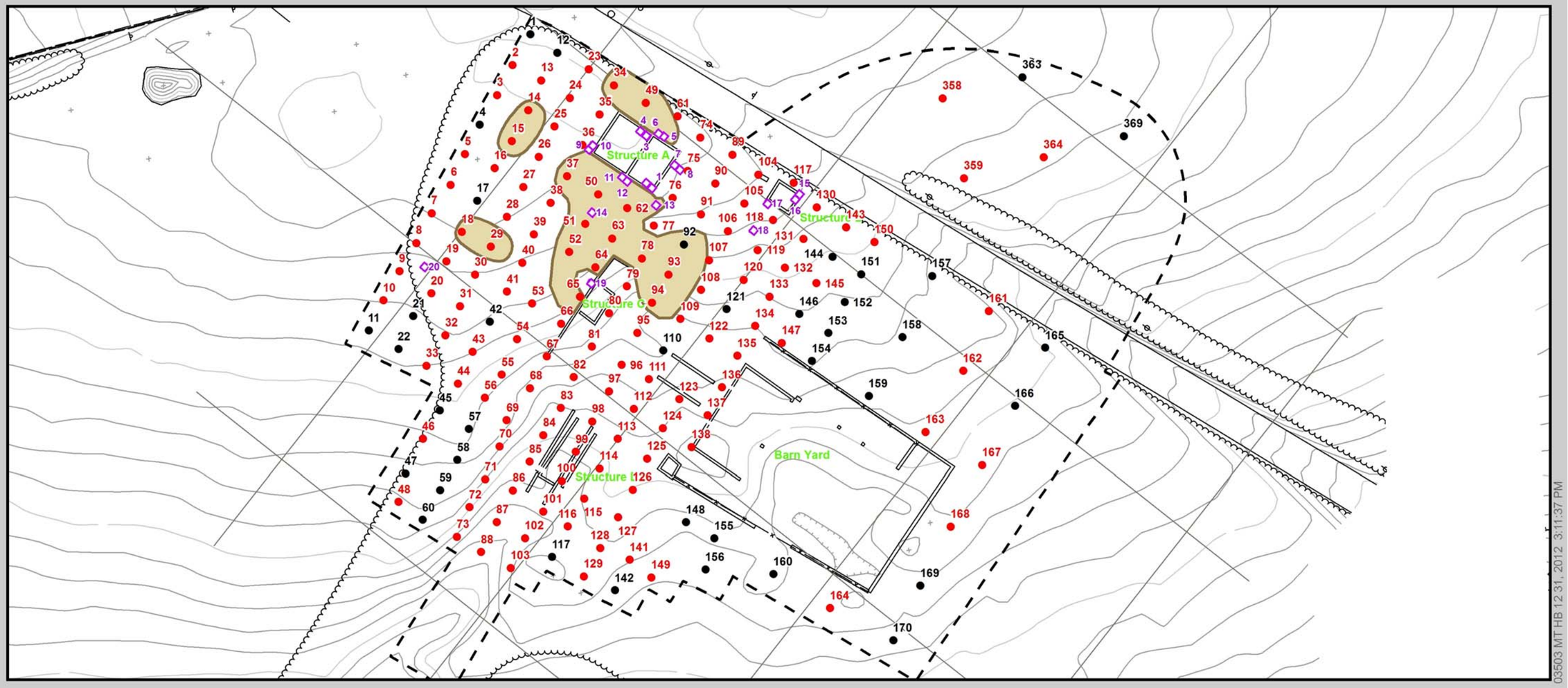
were observed; these were contexts with artifacts whose manufacturing periods were separated by 50 years or more (e.g. pearlware [1780-1840] in the same context as machine made bottles [1903-present]). Though two proveniences, Test Unit 5 Stratum III and Test Unit 6 Stratum IV, were mixed contexts they were identified as pre-Weldin because the few 20th century artifacts, which made them mixed contexts, were likely intrusive from Stratum II in Test Unit 5 and wall fall in Test Unit 6 and without those 20th century artifacts the TPQ and Mean dates were pre-1860. Proveniences with TPQs and Mean dates before 1860 were considered to be pre-Weldin family era deposits. Additionally, any provenience that did not have datable artifacts but underlay a pre-Weldin deposit was also considered a pre-Weldin deposit. Stratum I contexts with pre-1860 TPQ and Mean dates, however, were not considered to be pre-Weldin since these were modern surface and plowzone contexts in which older artifacts would have been deposited by rodent, plow or fill disturbance. Stratum I contexts that possessed pre-Weldin TPQs and Mean dates were defined as Weldin/post-Weldin. Proveniences that possessed TPQs between 1860 and 1933, or pre-1860 TPQs with Mean dates between 1860 and 1933, were defined as Weldin era deposits. Proveniences with post-1933 TPQs, or pre-1933 TPQs with post-1933 Mean dates were defined as post-Weldin deposits.

i. Pre-Weldin Era Assemblage

The pre-Weldin assemblage was composed of 2077 artifacts from sixty-one proveniences, most of which were within test units excavated near the house ***(Figure 27)***. Artifact classes represented were architectural, domestic, heating by-product, farming-related, indeterminate and ecological. The predominant artifact classes were architectural (45%) and domestic (42%). Though no portion of this assemblage was attributable to a particular resident, the pre-Weldin assemblage was typical of an assemblage deposited by late 18th century to mid-19th century residents of upper middle socioeconomic status.

A variety of architectural artifacts were present. Window glass (64% of architectural), nails (21%) and brick (10%) comprised the majority of the architectural artifacts. Most of the nails were machine cut nails (85%). A few wrought nails (1%, n=3) and wire nails (1%, n=2) were also present. Other architectural artifacts were dressed wood, mortar, plaster, roofing slate, tarpaper, a bolt, cut spikes, earthenware drainage pipe and a ceramic electrical insulator. The ceramic insulator, which is a late 19th century to 20th century artifact, was recovered from the aforementioned TU 5 Stratum III and was likely intrusive from an overlying mixed deposit.

The majority of the domestic artifacts were ceramic vessel fragments. Ceramic types included white salt-glazed stoneware (1% of ceramics), delftware (1%), Jackfield ware (2%), creamware (12%), pearlware (26%), whiteware (11%), ironstone (2%), yellowware (.4%), porcelain (3%) and redware (41%). Most of the pearlware fragments were decorated, while most of the white salt-glazed stoneware, creamware, whiteware and ironstone fragments and were undecorated. Yellowware was undecorated only. Decorative styles for pearlware were shell edging in blue or green (17% of pearlware), simple bands (10%), transfer print in blue (6%) or mulberry (1%), underglaze painting in blue (13%), brown (8%) or polychrome (8%) designs, spatter decoration (6%) and overglaze painting in blue (1%). Decoration for delftware was limited to blue painted designs. White salt-glazed stoneware was observed in scratch-blue and molded or slip-cast designs. Creamware was decorated with shell edging, Whieldon glaze and painted designs.



Shovel Test Pit Containing Prehistoric Artifacts
Shovel Test Pit Containing Prehistoric and Historic Artifacts
Shovel Test Pit Containing Historic Artifacts
Shovel Test Pit Not Containing Artifacts
Archaeological Site Boundary
Context from which Pre-Mid 19th Century Artifacts Were Recovered
Test Unit

0 50 100 Feet
0 6 12 18 24 30 Meters

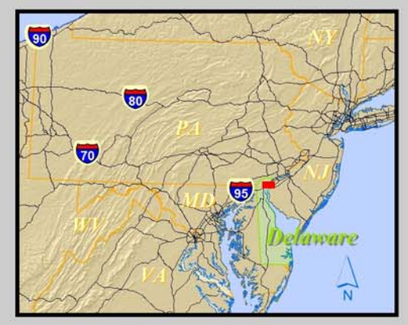


Figure 27

Contexts Containing Pre-Mid 19th Century Artifacts

Ronald McDonald House Site, 7NC-B-54
Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

Decoration for whiteware was shell edging in blue, simple bands, spatter or sponge decorations, transfer printing in blue or "other" color", underglaze painting and majolica-English or American. Ironstone decoration was limited to simple bands and transfer printing in blue. Porcelain was primarily decorated with painted blue Oriental designs, but was also undecorated, underglaze decal decorated and overglaze painted in floral and indeterminate designs. Most of the redware was simply lead glazed, but a few slip-trailed pieces were also present.

Other domestic artifacts were glass bottles, kitchen/dining utensils, glass tableware, clothing, toiletry, toys, and other personal items, smoking equipment, lighting glass, bone and shell identifiable as being consumed and a miscellaneous lead weight. Glass bottle types were wine, bulk, pharmaceutical, soda, beer and unidentifiable. The soda and beer bottle fragments were present in TU 5 Stratum III and TU 6 Stratum IV and Stratum IV-A, and all were likely intrusive from overlying strata, since they were 20th century artifacts in proveniences containing mostly late 18th and early 19th century artifacts. The pharmaceutical bottle was represented by a neck and lip fragment, which did not have a visible mold seam and was consequently dated pre-1860. Kitchen/dining utensils were bone-handled forks and knives, a pewter spoon and a brass spoon that was likely originally silver-plated. The bone handles held flat-tanged utensils and were wedge shaped with deeply scored diagonal or crossed lines. Glass tableware consisted of stemware fragments and a tumbler fragment. Clothing items were buttons made of various materials, most of which were either brass or bone, but a few were also made of pewter, glass or shell. Toiletry items were a grooming mirror fragment and lice comb fragments. Toys were a steel jack and a glass marble of indeterminate manufacturing method (i.e. handmade or machine-made). Other personal items were a black glass bead and a slate pencil. Smoking items were a pipe bowl and stem fragments. Lighting glass consisted of kerosene lamp chimney glass. Identifiable species for domestic bone were cow, pig, sheep and chicken. Other taxa were fish, Ungulate (hoofed mammal, like cow, pig, sheep, deer), and mammal identifiable only to probable size of medium, large and medium/large. Identifiable cuts of meat were beef loin roast or t-bone, beef sirloin roast, large mammal rib, shoulder chop and leg steak or roast, medium mammal loin roast, picnic or arm roast and leg steak or roast, and one butt roast identifiable only as Ungulate species. Butchery methods for the meat cuts were chopping/cleaving and sawing. The beef sirloin roast, Ungulate butt roast, medium mammal picnic/arm roast and two large mammal rib cuts were chopped or cleaved. Sawn meat cuts were the beef t-bone, medium mammal loin roast and leg steak/roast, large mammal shoulder chop and leg steak/roast, and three large mammal rib cuts. Shell remains were predominantly oyster, but some clamshell was also present. The miscellaneous lead weight was oblong in shape and may have been used in a pendulum clock or a hearth clockjack (a device used to turn a spit).

The remaining artifact classes were composed of a small array of artifacts. Heating by-products were coal and slag. Farming-related items were two horseshoes. Ecological remains were pieces of bone from species not generally consumed, specifically rat, sparrow and groundhog. Indeterminate class artifacts were unidentifiable glass objects, unidentifiable metal objects, miscellaneous paper fragments, miscellaneous metal can fragments, hardware consisting of two hooks and a washer and bone not identifiable as being consumed or as non-edible species.

The pre-Weldin assemblage was typical of a late 18th century to mid-19th century assemblage. The ceramic assemblage was composed primarily of late 18th century and early 19th century

ceramic types, with some mid-19th century ceramics. White salt-glazed stoneware, blue-glazed delftware and Jackfield ware, which were a small part of the ceramic assemblage, were produced during the mid to late 18th century. Creamware and pearlware, which accounted for the majority of the refined ceramics, were manufactured during the late 18th and early 19th centuries. Whiteware also accounted for a significant portion of the refined ceramics, and while whiteware production began in 1805 and continues to present day, whiteware in this assemblage was decorated with early to mid-19th century styles/techniques. Ironstone and yellowware were mostly mid-19th century ceramics and were present in small quantities. Ironstone production began in the 1813 for transfer printed wares and 1842 for undecorated wares. Yellowware was manufactured from 1830 to 1940. Additionally, the bone-handled utensils were primarily late 18th century. Though the wedge shape and usage with flat tangs dated the bone handles to the period 1720 to 1770, the scored decorations were typical of late 18th century bone handles (Dunning 2000). Lastly, the nearly equal proportion of sawn and chopped/cleaved bone would be typical of a late 18th to mid-19th century assemblage. Sawing became a popular butchery method during the middle of the 19th century. Prior to that time most meat was chopped or cleaved into individual cuts.

Ceramics in the assemblage suggested the site's early residents, at least those whose discards were left on the property, were of upper middle socioeconomic status. Indicators of wealth were the presence of Oriental porcelain, white salt-glazed stoneware, delftware, and Jackfield ware, as well as the predominance of hand-painted pearlware and whiteware. Oriental porcelain was an expensive ceramic choice because of its fine quality and cost to import, though Noel-Hume (1969) notes Oriental porcelain became more common, less expensive and lower in decorative quality as the 18th century progressed. The cost of Canton porcelain in 1804 was apparently about $.54 per piece and in 1825 was apparently about $.21 per piece (Schiffer 1980:21, 30). The pieces present in this assemblage were not datable, but the decorations were underglaze blue Canton-style and well drawn, which suggested though they would have been fairly common they would have still been fairly expensive. White salt-glazed stoneware, delftware and Jackfield ware were also imported ceramics and would have cost more than locally produced redwares that would have served the same functions. Transfer printing allowed for the mass production and lowering cost of decorated vessels, but the number of transfer printed ware fragments is small compared to the number of hand-painted fragments. The quantity of transfer printed versus hand-painted wares, however, may have been influenced by a number of factors, including disposal practices (e.g. the residents may have discarded more hand-painted wares and taken more transfer printed wares with them when they moved away from the site). Indications that the site's early residents did not possess as much wealth as those of upper socioeconomic status were the predominance of pearlware versus porcelain and the quantity of shell edged pearlware. Pearlware, with its blue glaze and initially Oriental style of decoration, was manufactured as a cheaper alternative to Oriental porcelain. The high number of shell edged pearlware fragments also suggested economical purchasing behavior, since research (Miller 1990) shows a cost of cost 2 shillings/dozen for shell edged wares at the beginning of their production in 1783 and a further decline in cost during the early 19th century.

ii. Weldin Era Assemblage

The assemblage attributed to the Weldin family totaled 1944 artifacts from fifty-seven proveniences. The assemblage was composed primarily of domestic (52%) and architectural class artifacts (39%). Other artifact classes were heating by-products, farming-related, transportation-related, tools, arms/ammunition, ecological and indeterminate. Some insight to the socioeconomic status and consumer behavior of the Weldin family was gained from the assemblage.

Most of the domestic artifacts were glass bottle and fruit jar fragments (60%). Identifiable bottle types were wine, beer, soda, milk, bulk, and pharmaceutical. Of the soda bottles, two body fragments were from Pepsi bottles and one bottle base was from a bottle distributed by the Purity Beverage Company in Wilmington, Delaware. The Pepsi bottle fragments and the Purity Beverage bottle were from the same provenience, and may have been from the same bottle. No information could be found on Purity Beverage Company. While the manufacturers were not identifiable for the pharmaceutical bottles, embossing on one bottle indicated it was distributed from Baltimore and embossing on a second bottle indicated it was distributed from Wilmington. Neither, manufacturer nor origin was identifiable for any of the other bottle types or the fruit jars. One fruit jar liner, however, was made by the Hero Fruit Jar Company in Philadelphia, Pennsylvania. The Hero Fruit Jar Company made opal glass liners for Mason fruit jars from 1869 until the factory burned down in 1878.

Ceramic vessel fragments were the second-most abundant domestic artifact (27%). Ceramic types were pearlware (7% of ceramics), whiteware (37%), ironstone (23%), yellowware (1%), porcelain (5%), redware (24%), Jackfield-style redware (1%) and stoneware (1%). Since, pearlware is an early 19th century ceramic type, the pearlware fragments in this assemblage may have been from vessels Jacob Weldin's family brought with them to the site, or they may have been from vessels belonging to previous residents. The majority of the pearlware, whiteware, ironstone, yellowware and porcelain fragments were undecorated. Pearlware decorations were blue transfer print and shell edge blue. Whiteware was decorated with transfer print in blue and transfer print in purple, shell edge blue, dipped bands, colored glaze, overglaze decal, sponged decoration, underglaze painted designs and liquid gold banding. Ironstone was decorated with simple bands and transfer print. The only yellowware decoration observed was mocha, and the only porcelain decoration was overglaze painted polychrome floral designs. Redware was either lead glazed or unglazed; no slip-trailed decoration was present on redware in this assemblage. Stoneware consisted of gray salt glazed pieces, one of which had Albany-type slip on the interior side. Maker's marks were present on one piece of whiteware and one piece of ironstone. The whiteware vessel was manufactured by the Edwin M Knowles company, East Liverpool, Ohio in 1928. The ironstone vessel was manufactured by Willets Manufacturing Company in Trenton, New Jersey between 1879 and 1884.

Other domestic artifacts were glass tableware, lighting, furnishing parts, kitchen-related items, clothing items, a toiletry item, toys, other personal items, smoking equipment, a D-cell battery, bone and shell. Glass tableware was candy dish and tumbler fragments. Lighting consisted of kerosene lamp chimney glass and light bulb parts. Furnishing parts were an escutcheon and a manufacturer's identification plate. The manufacturer's identification plate was for a piece by

Charles C. Geissler of Philadelphia, who manufactured showcases between 1920 and 1930. Kitchen-related items were a milk bottle cap seal and fragments of a beverage can. Clothing items were shoe parts, a glass button and a shell button. The toiletry item was a lipstick container. Toys were a clay marble, parts of a porcelain doll, a metal toy gun, and a doll nursing bottle manufactured by Amsco toys. Other personal items were a pocket knife, a cog from a watch, a magnifying lens and a pewter token. Smoking equipment consisted solely of an undecorated clay tobacco pipe bowl. The D-cell battery was a dry cell type. Bone identifiable as domestic included chicken, goose, cow, pig and fish remains, as well as a medium mammal leg roast or leg steak, a shank roast from an Ungulate species (hoofed mammal) and a charred (burned gray/black) longbone or metapodial fragment from a medium or large mammal. The medium mammal leg roast/steak and the Ungulate shank roast were the only meat cuts in the assemblage and both had been sawn. Shell remains were from oyster and clam. Most of the shell was identifiable only as oyster/clam.

Architectural artifacts included both structural and drainage material. Brick (32% of architectural), window glass (28%) and nails (28%) were the predominant architectural artifacts. Most of the nails were cut (68% of nails), and the only other nails identifiable to manufacturing method were wire nails. Other architectural artifacts were cement or concrete, dressed wood, lime, mortar, plaster, roofing slate, tar paper, a ceramic electrical insulator, a light fixture, a bolt, rivets, spikes, a hinge, marble tile and miscellaneous wall tile and a drain plug. Drainage material was earthenware pipe and salt-glazed stoneware pipe. The earthenware pipe was recovered from STP 76 Stratum I, while the salt-glaze stoneware pipe was recovered from TU 14 Stratum I.

A wide variety of artifacts formed the remainder of the assemblage. Heating by-products were coal, cinder and slag. Farming-related artifacts were fencing and barbed wire. Transportation-related artifacts were fragments of an oil can. Tools were a hammer, a pulley, a wrench and sandpaper. Arms/ammunition consisted of a rim-fire bullet casing. The ecological remain was a rat bone. Indeterminate class artifacts were metal can fragments unidentifiable to content/use, metal sheeting, unidentifiable metal objects, paper, plastic, textile, wood, bone not identifiable as from a consumed or non-consumed animal, miscellaneous electrical wire, chain link, a hook, a washer, screws and a miscellaneous machine part.

The content of this assemblage indicated the Weldin family possessed an average socioeconomic status and consumer behavior oriented toward locally or, at least, American made goods. The greater number of whiteware and ironstone fragments, as well as the high number of undecorated ceramics, and the presence of fruit jars suggested frugal behavior. Whiteware was an inexpensive ceramic type compared to ironstone and porcelain. Ironstone, though more expensive than whiteware, was touted as more durable and therefore would have still been considered an economical purchase. The presence of porcelain suggested that the Weldins were able to purchase more expensive ceramics, but the small number of porcelain and the undecorated nature of most of it suggested they purchased this ceramic type infrequently and opted for the less expensive pieces. Undecorated vessels of any ceramic type would have been cheaper than decorated vessels. Home canning in fruit jars would have been a cost-efficient way to have fruits or vegetables when they were no longer in season. The maker's mark on ceramic vessels and glass bottles indicated a preference for American made, especially locally

manufactured, items. Both of the pharmaceutical bottles with maker's marks were from the Mid-Atlantic region, one even being from Wilmington. The Purity Beverage Company soda bottle could have been an intentional local purchase if the company manufactured it's own beverages, but if they only bottled other beverage brands it would simply have been a factor of product distribution (i.e. a soda maker, like Pepsi, may have used Purity Beverage as a local distributor for its product).

The average socioeconomic status suggested by this assemblage may not be accurate, however. Probate inventories for Jacob and Atwood Weldin demonstrated more material wealth, and consequently higher socioeconomic status, than was reflected in the assemblage. The total value of Jacob Weldin's goods, excluding land and structures, in 1893 was $5851. Most of the items were related to the family's agricultural activities and some were likely by-products of their farm, like the goose feather bed and the hen feather bed (Jacob owned four geese and fifty pairs of chickens at the time of his death **(**Taylor et al. 1989: 213). Other items would have been considered luxuries, though, including the secretary desk, two marble top tables, silver utensils, telescope and several books on military, local and Methodist history. The value of the family's dishes was not included in the probate inventory, so no correlation could be made between the artifact assemblage ceramics and any documented ceramics. The inventory of Jacob's son Atwood did not detail house contents, but was similarly appraised at $5,571 in 1919.

The discrepancy between status suggested by the assemblage and status suggested by the probate inventories was likely a factor of curation. What was observed in the assemblage were items which were broken or simply replaced, while the probate inventories list items which were curated by the family through descending generations or, possibly, sold off when no longer used or wanted. As seen in the inventories, many of the Weldin family's possessions were not discarded on site, especially those of significant monetary value.

g. Interpretations

Based on documentary research, the Weldin site was occupied continuously from the early eighteenth century until its abandonment in 1934. Although the use and function of the farm varied during this rather long timeframe, the occupation of the farmstead can be broken down into three general phases. These include the owner occupied phase that dates from the original occupation of the property until the turn of the nineteenth century; the tenancy phase, which lasted from the turn of the nineteenth century until approximately 1861; and the final phase which began in 1861 when Jacob Weldin acquired the dilapidated property and gradually converted it into a dairy farm. The farmstead operated as a dairy until 1934 when it was acquired from the Weldin estate by a real estate development company (Taylor et al. 1989: 217).

One goal of the Phase II field work was to attempt to differentiate between contexts that predated the Weldin occupation of the site and those that date to the Weldin occupation or later. Problematically, a number of structures with relatively massive foundations were constructed during the Weldin occupation of the property. Disturbance associated with Weldin's construction activities appears to have impacted the of the eighteenth or early nineteenth century archaeological deposits in these areas, as some of the contexts examined during the Phase II were mixed, containing artifacts that date from multiple phases of the farmstead.

Based on the Phase II Archaeological Evaluation Testing, it appears that all of the visible structures on the property except for Structure A, the main residence, were constructed by Weldin after his acquisition of the property in 1862. The excavations have demonstrated that, as TAA proposed, the eastern portion of Structure A was constructed prior to the western portion, although both portions were probably constructed in the eighteenth century. The Phase II testing identified sixty-one proveniences that pre-date the Weldin occupation; most of these contexts were within test units associated with Structure A. These included Level IV and Features 2 and 3 located beneath the concrete floor in TUs 1 and 2; Levels III and IV in TUs 5 and 6; Levels III and IV and Feature 4 in TUs 9 and 10; Levels V and VI in TUs 11 and 12; Levels III-VI in TU 13, and Stratum II in TU 14. Other contexts that appear to pre-date the Weldin occupation include Level II in TU 18 and Level IV in TU 19. The STPs and TUs that contained strata appearing to pre-date the Weldin occupation of the site are listed in and are graphically depicted on ***Figure 27***.

Jacob Weldin acquired the property in 1862 in a dilapidated condition. By 1870 Weldin had shifted the emphasis of the farm operation from crops to successful dairy production, and the construction of additional structures was necessary in order to accommodate the shift in strategy. Mr. Thomas Weldin, a descendent of the site's original occupants, indicated that Structure B functioned as a milk house. Structure C is interpreted as an equipment shed, as proposed by TAA. It is believed that Structure D was a shed/corn crib.

With respect to site boundaries, the area west of the first transect of STPs has been severely disturbed through previous construction staging activities and the installation of underground utilities. It appears, however, from the data gathered from the excavation of the STPs, that the first two transects of STPs were excavated on the original periphery of the site. The artifact density was low and there was no indication of features. The southern site boundary roughly corresponds to the existing tree line, and the majority of the artifacts within this portion of the site appeared to represent secondary deposits associated with twentieth century dumping activities. To the east, the artifact density drops off drastically in the areas to the north, east, and south of the barn yard, therefore, the site boundary was delineated by the easternmost transect of STPs.

2. The Ronald McDonald House Site (7NC-B-54)

a. Excavations

Phase II evaluation testing at 7NC-B-54 involved the excavation of 163 STPs placed at a 5 meter (~16.4 foot) interval followed by the excavation of nine 1x1 meter TUs ***(Figure 28).*** The Phase II STPs were identified by their grid coordinates. Phase II testing began in the vicinity of the artifacts recovered by JMA and proceeded in all cardinal directions.

The site is predominantly situated on a gently sloping wooded upland that is flanked by wetlands to the east and west. The soils, which are formed from residual materials derived from the native metamorphic gneiss and amphibolite rock of the region, are well developed. The maturity and density of this woodland indicates that the site area has not been plowed in recent times. In order

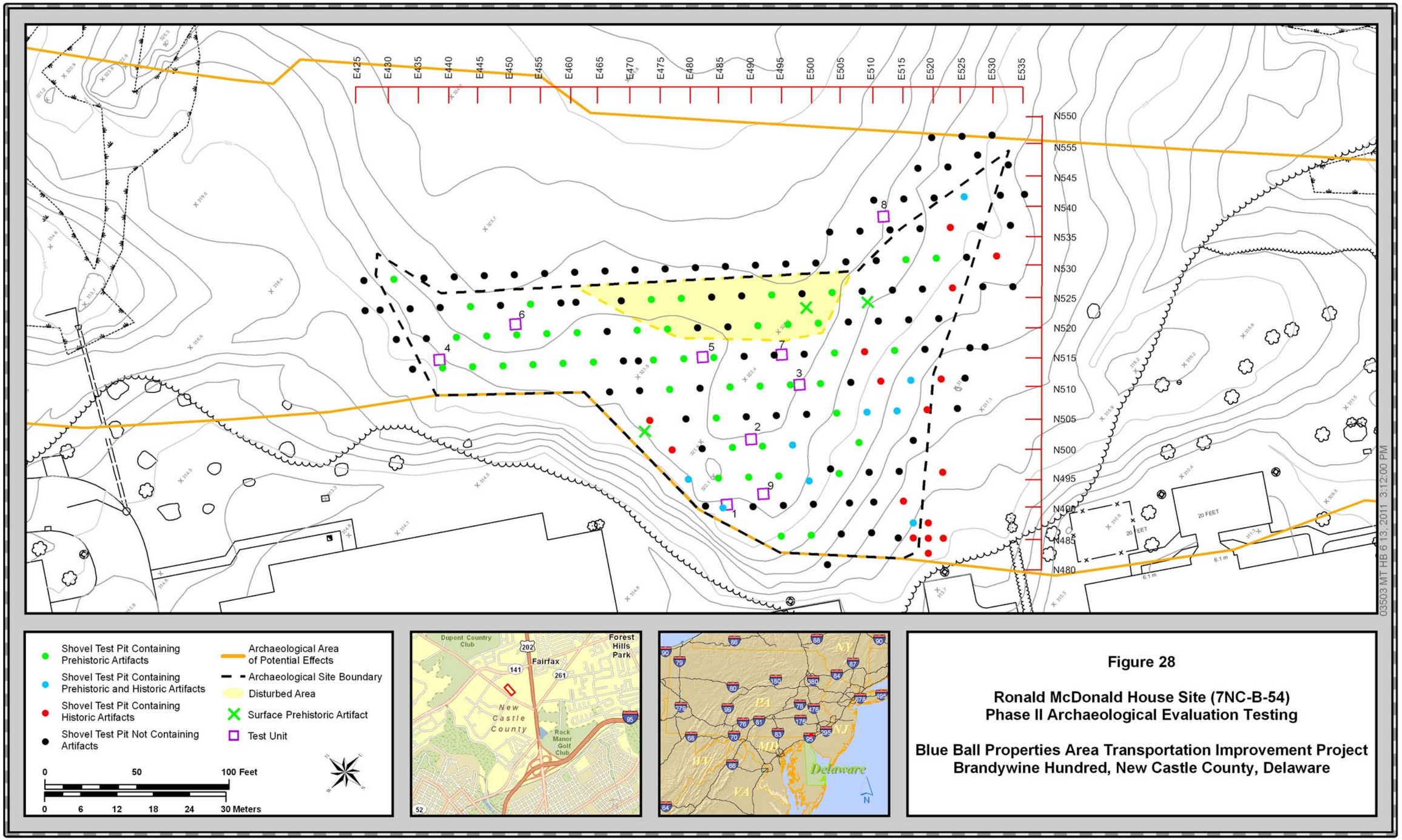


Figure 28

Ronald McDonald House Site (7NC-B-54)
Phase II Archaeological Evaluation Testing

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

to determine the level of disturbance across the site, Daniel Wagner, PhD, examined the soil profile in several locations within the site ***(Appendix E).*** He expressed the opinion that the site was probably plowed a small number of times using a plow drawn by farm animals. However, he indicated that the soil profile retains a relatively high level of integrity.

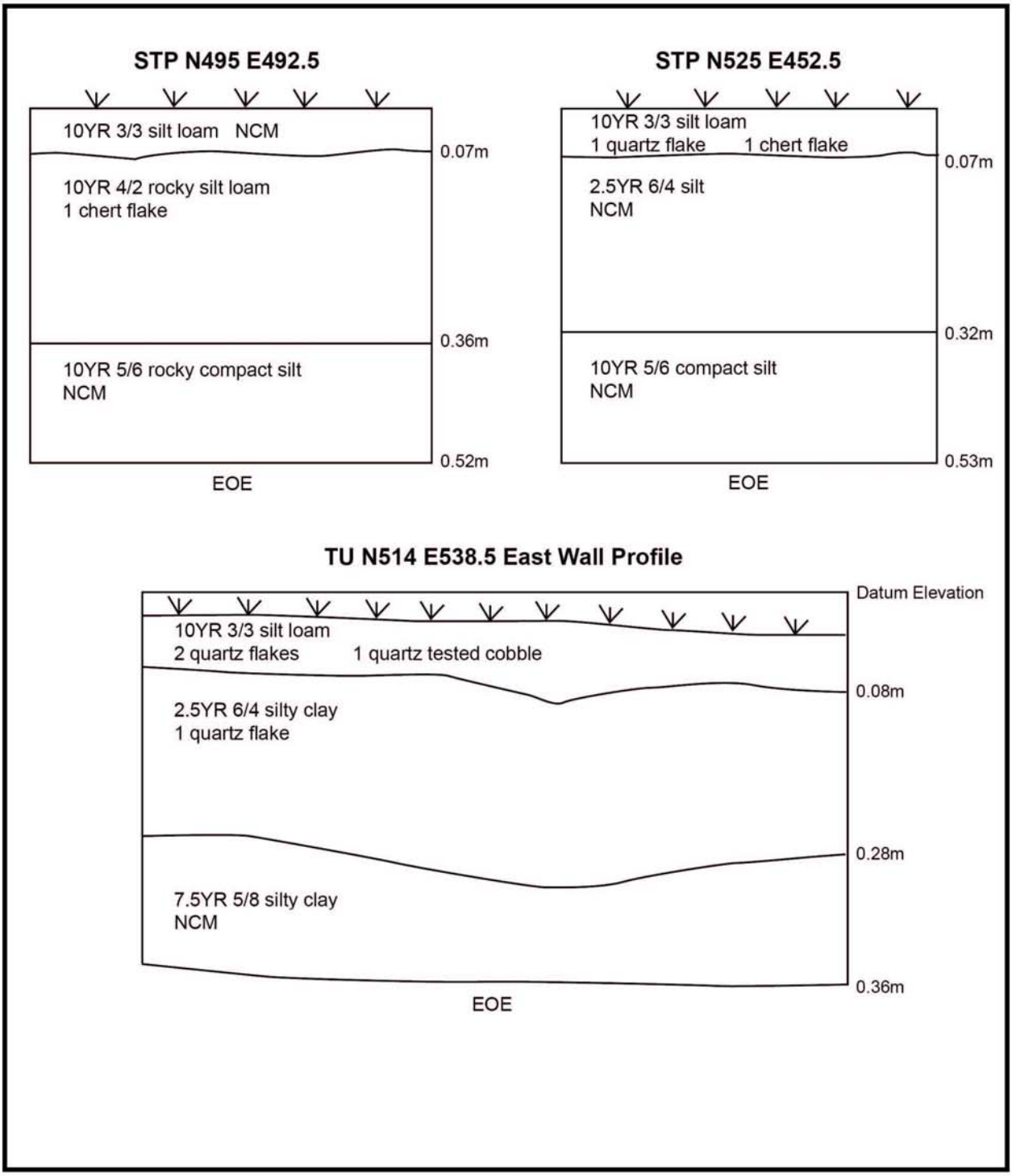
The excavations revealed two soil profile types. The first, as exhibited in the profile for STP N495 E492.5, appeared plow disturbed. It consisted of an initial dark brown (10YR 3/3) silt loam A/O horizon that was underlain by a brown silt Ap horizon and the compact yellowish brown (10YR 5/6) silt B horizon ***(Figure 29).*** The second exhibited the dark brown (10YR 3/3) silt loam A/O horizon above a light reddish brown (2.5YR 6/4) E/B horizon and a yellowish brown (10YR 5/6) to strong brown (7.5YR 5/8) silty clay Bt horizon, respectively ***(Figure 29 and Photograph 20).***

A total of 182 pre-contact artifacts were recovered. These included three contracting-stemmed argillite projectile points; one quartz expanding stem point; one quartz corner notched point; one stemmed quartzite point; one basal notched metaquartize point; five late stage bifaces; one middle stage biface; one early stage biface; two indeterminate bifaces; four retouched flakes; one jasper freehand core; one pebble tool; one manuport; one tested cobble; and 158 pieces of lithic debitage. No archaeological features were identified during the archaeological testing.

The east and west boundaries of 7NC-B-54 were established by McCormick Taylor, Inc. during the Evaluation Survey by excavating two consecutive non-artifact bearing STPs in each direction beyond all STPs containing pre-contact artifacts. The top edge of the graded slope associated with the Nemours Health Care Clinic and its parking lot are considered to be the southern boundary of the site. It is likely that the site extended to the south into the area that was by the construction of the Nemours Health Care and the Ronald McDonald House. The northern site boundary was established by disturbance caused from preliminary construction activities on the AstraZeneca Property while the Evaluation Survey was in progress. Although a transect of negative STPs had been excavated in the area before it was disturbed, artifact-bearing horizons were destroyed by the excavation and removal of large stumps by bulldozers. This area was surface collected subsequent to these activities. The western and eastern edges of the site coincide with the natural landscape. Artifact densities decreased with increasing proximity to the poorly drained wetlands to the east and west of the site.

Eight hundred and twenty-four historic artifacts were also recovered during the excavations. The artifacts were clustered in two locations; at the northeast corner of the site in STP N540 E525 and in the southeastern corner of the site in STPs N485 E510 and N485 E520. Historic artifacts were visible on the ground surface in both areas. Shovel test N540 E525 contained 531 twentieth century artifacts, 337 of which were clear vessel glass. No additional testing was performed in this area since the artifacts appeared to have been dumped in this area in the twentieth century. The surrounding STPs did not contain high quantities of historic artifacts.

Additional STPs were excavated around the concentration of historic artifacts in the southeastern corner of the site at 2.5 meter intervals to determine the approximate age of the deposit and to investigate the presence of features. The excavation of the close interval shovel tests indicated that the deposit was also a dump, approximately 10x5 meters (~33x16 feet) in size. A mix of



EOE - End of Excavation
NCM - No Cultural Material

10 cm 20 cm

McCormick Taylor
Engineers & Planners Since 1946

Figure 29

Representative Soil Profiles

Ronald McDonald House Site, 7NC-B-54
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

Photograph 20: Ronald McDonald House Site, Test Unit N514 E538.5 north profile.

twentieth and nineteenth century artifacts were recovered from this area. This artifact concentration appears to represent a secondary deposit, as no historic structures were located in the vicinity, based on the results of the background research.

b. Artifact Analysis

One hundred and eighty-two pre-contact lithic artifacts were recovered from Phase II field effort at the Ronald McDonald House Site ***(Table 2)***, 158 of which were flakes ***(Table 3)***. Complete and fragmentary stone tools comprise approximately 13 % of the assemblage for a calculated tool to debitage ratio of 1:7.6. While eight different lithic material types were recovered, quartz artifacts make up 69.8 % of the assemblage, followed by jasper at 13.2 %, chert at 6 %, chalcedony at 4.4 %, quartzite at 3.3 %, and argillite at 2.2 %. A single biface tip of an unknown igneous material was recovered as well as a small, unworked pebble of what appears to be ironstone. This object is included in the assemblage as a possible manuport.

i. Artifact Description and Analysis

- **Tools**

- **Projectile Points**

Three contracting-stemmed argillite points were recovered from the site. One of these was recovered from the A/Ap horizon of STP N495E477.5 ***(Figure 30a).*** This point is nearly complete; however the tip appears to have been removed during recovery. The total length of the point is 57 mm with a width to thickness ratio at the shoulder of 2.25:1. The other two contracting-stemmed argillite points were recovered from the B horizon of TU 7 (N515 E495, Stratum II, Level 1). One of these is substantially complete, but a small portion of the tip was removed during the pre-contact period ***(Figure 30b).*** This point is 65 mm in total length with a width to thickness ratio at the shoulder of 2.3:1. An estimated 1/3 of the blade of the other argillite point is missing, also removed during the pre-contact period based the similarity of patination between the break and the face of the artifact ***(Figure 30c).*** This point displays a width to thickness ratio at the shoulder of 2:1. All of these points are weathered to the extent that flaking patterns are no longer discernable, making it difficult to determine whether pre-contact breakage was the result of impact fracture or the application of load during maintenance. From a typological perspective, these points resemble the Lackawaxen Converging Stem subtype proposed by Kinsey (1972:408-411). Radiometric dates stratigraphically associated with several of the Lackawaxen subtypes in the upper Delaware drainage span the fifth millenium BP (Kinsey 1975:52-60) while those from the middle Delaware Black's Eddy site cover the late fifth to middle fourth millenium BP (Schuldenrein et al 1991:58-64). It is important to note that Lackawaxen subtypes may be coterminous with Broadspear types of the middle fourth millenium BP at the Black's Eddy Site. Alternatively, their association with Broadspears at this site may be due to landscape stability during the fourth millenium BP (Schuldenrein et al 1991:65-66). Custer ascribes a much longer time span for the use of Lackawaxen types. Based on excavations

Table 2: 7NC-B-54 Artifact Type Distribution within Lithic Raw Material Types

Artifact Type	Lithic Raw Material								Type Totals
	Quartz	Jasper	Chert	Chalcedony	Quartzite	Argillite	Ironstone	Igneous	
Projectile Point	2				2	3			7 (3.9%)
Early-Stage Biface	1								1 (0.5%)
Middle-Stage Biface	1								1 (0.5%)
Late-Stage Biface	2	1			1			1	5 (2.8%)
Indeterminate Biface	1	1							2 (1.1%)
Retouched Flake	3				1				4 (2.2%)
Pebble Tool		1							1 (0.5%)
Freehand Core		1							1 (0.5%)
Decortication Flake	4								4 (2.2%)
Early Reduction Flake	12	6	3		1				22 (12.1%)
Biface Reduction Flake	13	7	2	6		1			29 (15.9%)
Bipolar Flake			1						1 (0.5%)
Indeterminate Flake	14	1		1					16 (8.8%)
Flake Fragment	56	6	4	1					67 (36.8%)
Blocky Shatter	17		1		1				19 (10.4%)
Tested Cobble	1								1 (0.5%)
Unmodified Raw Material							1		1 (0.5%)
Raw Material Totals	127 (69.8%)	24 (13.2%)	11 6.0%)	8 (4.4%)	6 (3.3%)	4 (2.2%)	1 (0.5%)	1 (0.5%)	N=182

Table 3: 7NC-B-54 Distribution of Flake Debris by Type and Raw Material

Artifact Type	Lithic Raw Material								Type Totals
	Quartz	Jasper	Chert	Chalcedony	Quartzite	Argillite	Ironstone	Igneous	
Decortication Flake	4								4 (2.6%)
Early Reduction Flake	12	6	3		1				22 (13.8%)
Biface Reduction Flake	13	7	2	6		1			29 (18.2%)
Bipolar Flake			1						1 (0.6%)
Indeterminate Flake	14	1		1					16 (10.1%)
Flake Fragment	56	6	4	1					67 (42.1%)
Blocky Shatter	17		1		1				19 (12.0%)
Raw Material Totals	117 (73.6%)	20 (12.6%)	11 (6.9%)	8 (5.0%)	2 (1.3%)	1 (0.6%)	0	0	N=158

Figure 30a
Argillite Lackawaxen-like Projectile Point
STP N495 E477.5
Stratum I

Figure 30b
Argillite Lackawaxen-like Projectile Point
TU 7 (N515 E495)
Stratum II Level 1

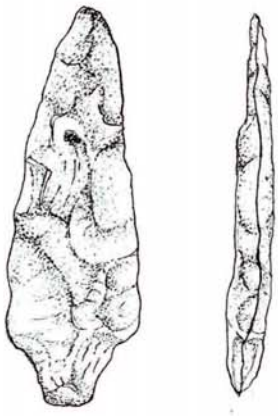


Figure 30c
Argillite Lackawaxen-like Projectile Point
TU 7 (N515 E495)
Stratum II Level 1

Figure 30d
Quartz Corner-Notched Projectile Point
STP N515 E447.5
Stratum I

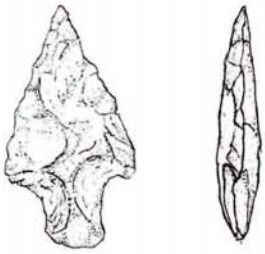


Figure 30e
Quartzite Stemmed Projectile Point
STP N525 E447.5
Stratum I

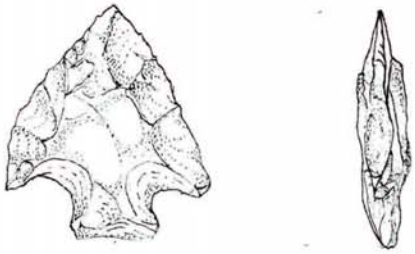


Figure 30f
Metaquartzite Basal-Notched Projectile Point
TU 9 (N492 E492)
Stratum II Level 1

2.5 5.0 cm

McCormick Taylor
Engineers & Planners Since 1946

Figure 30

7NC-B-54 Artifact Illustrations

Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

at the Clyde Farm, Custer sees this type persisting as late as the mid-third millenium BP (Custer 1984:80-81).

A single quartz expanding stem point was recovered from TU 9 (N492 E492, Stratum II, Level 2). The tip is missing; a combination of a flat fracture on the break and a hinge fracture originating at the break suggest that the point fractured on impact. Total length is 54 mm and the width to thickness ratio at the shoulder is 2.2:1. The edges of this point a slightly excurvate and the base is straight. This point is the largest of all the recovered points and its size probably indicates that a bedded source or quartz float from a bedded source was used for its manufacture. As with many of the stemmed and notched projectile forms, this example does not allow a restricted chronological placement. As Custer notes, generalized expanding stem points are present in contexts spanning the seventh to first millenium BP (2001:40).

A small quartz corner-notched point was recovered from STP N515 E447.5, Level 1 ***(Figure 30d).*** Total length is 27 mm. One shoulder was removed therefore a width to thickness ratio could not be calculated. Blade edges are straight and exhibit careful and even retouch. The base is slightly concave. Although this specimen bears some resemblance to the Jack's Reef Corner-Notched type defined by Ritchie (1971:26-27), it is certainly not a "classic" example of the type and can only be referred to the general span of Custer's Woodland I cultural period (Custer 1984:28-30).

A small, stemmed quartzite projectile was recovered from STP N525 E477.5, Level 1 ***(Figure 30e).*** Total length is 40 mm. Blade edges are straight and converge to an isoceles form. Width to thickness ratio at the shoulder is 2.75:1. The notches join the stem at right angles. The base is slightly convex and lightly abraded. Like the above point, it is ascribable only to the broad Woodland I cultural period (Custer 1984:28-30).

A single basal-notched projectile point of blue-grey metaquartzite was recovered from the B horizon of TU 9 (N492 E492, Stratum II, Level 1) ***(Figure 30f).*** This point has a straight-stemmed base with deep notches originating from the base. Blade edges are asymmetrical with one excurvate and one straight edge. A large "stack" on one face indicates that the point was significantly larger at one time. Total length is 39 mm and the width to thickness ratio at the shoulder is 3.1:1. Basal notched points were stratigraphically associated with Mockley pottery at the Erb Rockshelter in Lancaster County, Pennsylvania (Kent and Packard 1969) and Custer (1989:156) notes that if this association is correct, basal-notched forms should date between 0 and 600 A.D.

- **Other Bifaces**

One early-stage and one middle-stage biface fragment, both manufactured from quartz were recovered from the site. The early stage biface fragment is from STP 510 E495, Level 2. It is 45 mm in maximum length and displays a perverse fracture along its long axis. The middle-stage fragment is from TU 5 (N514.5 E482) Stratum 2, Level 2. Its maximum length is 48 mm and the break is flat. The pattern of breakage on both fragments suggests manufacturing failures.

The site yielded five late-stage biface fragments: One quartzite point tip from STP N510 E515, Level 2, a quartz biface tip from the surface at N535 E475, a biface tip of an unknown igneous material from STP N495 E477.5, Level 1, a small shoulder fragment of a notched quartz point from STP N520 E440, Level 2, and a well-thinned, finely-retouched jasper biface midsection from STP N525 E512.5, Level 2.

The site also yielded two indeterminate bifaces: a bifacially worked jasper fragment from STP N500 E490, Level 2, and a complete, thin, bifacially retouched quartz specimen from STP N525 E492.5. The latter specimen probably represents a generalized cutting tool.

- **Retouched Flakes**

Four retouched flakes were recovered from the site. One quartz flake (26 mm max. length) from STP N505 E507.5, Level 2 is bifacially retouched along its distal margin. Another, larger quartz flake (41 mm max. length) from STP N505 E482.5, Level 1, is bifacially retouched along both lateral margins. The quartz flake from STP N520 E495, Level 2 (30 mm max length) is bifacially retouched along a single lateral margin. Finally, a quartzite flake (32 mm max. length) from STP N530 E515, Level 1 displays extensive unifacial retouch along its lateral edge.

- **Other Tools**

A single pebble tool was recovered from STP N505 E512.5, Level 1. This specimen is a thin, oval jasper pebble 34 mm in maximum dimension with three flakes removed from one end. A 9 mm long portion of the flaked margin displays abrasion, probably from use.

- **Debitage**

- **Cores**

A single jasper freehand core fragment was recovered from STP N520 E490, Level 2. This specimen is 42 mm in maximum length and weighs 20.6 g. Coarse quartz crystals cover a portion of its surface indicating a bedded source. Flake scars are multidirectional and suggest the production of usable flakes.

One hundred fifty-eight pieces of flake debris were recovered during Phase II testing at the Ronald McDonald House Site ***(Table 3)***. In general, flake debris from the site suggests that although early- through late-stage tool manufacture was undertaken, the majority of debitage was removed during later stages. The four quartz decortication flakes all display varying amounts of pebble cortex over 50 % on their dorsal surfaces. The pebbles from which they were struck may have been reduced in a bipolar fashion, but compression rings are not evident on their ventral surfaces. Of the 22 early reduction flakes, six retained pebble cortex on their platforms. These six early reduction flakes were on quartz (N=3), chert (N=2), and jasper (N=1). A single chert bipolar flake is present in the assemblage; this specimen also bears pebble cortex. Blocky shatter is represented by 19 artifacts ***(Table 4)***. Eleven of these specimens are large enough to suggest their removal from relatively large objective pieces while eight are less than one gram. These eight may actually be small flake fragments which did not possess clear dorsal flake scars.

Table 4: 7NC-B-54 Weight Distribution of Blocky Shatter

Weight	Total and Lithic Material
0 to 1g	8 quartz
1.1 to 5g	5 quartz, 1 chert, 1 quarzite
5.1 to 10g	1 quartz
10.1 to 20g	2 quartz
20.1 to 30g	1 quartz

Later stages of tool manufacture are indicated by the size distribution of the subassemblage of complete flakes. Although the type name "early reduction flakes" suggests early stage reduction, the primary attributes for inclusion in this type are either cortical or flat platforms. As noted above, early reduction flakes with cortical platforms comprise roughly one-quarter of this flake type, indicating some attention to the earlier stages of reduction. However, flakes with flat platforms can be produced in several reduction trajectories, including the early stages of core or biface reduction, core trimming/rejuvenation, the reduction of bifacial preforms into finished bifaces, and uniface production. All things being equal, however, the expectation is that core reduction for usable flakes or the initial and middle stages of biface manufacture should result in a relatively higher number of larger flakes, and this is not the case in the subassemblage of complete flakes.

In order to quantify the distribution of flake size, a size index was calculated for all complete flakes (i.e. flakes that display feathered, hinged, or overshot terminations) where flake length was multiplied by flake width and divided by 100 for a manageable number. Using this system, a flake 10 mm in length and 10 mm in width has a size index of 1.00. As can be seen in ***Table 5***, the result for complete quartz flakes, regardless of type, is that 23 of 25 flakes have size indices of less than 2.01, which means that the overwhelming majority of complete quartz flakes are 20 mm or less in maximum dimension. This distribution suggests that the majority of complete quartz flakes were removed during later stages of reduction rather than in core reduction, initial biface edging or thinning.

Table 5: 7NC-B-54 Size Distribution of Complete Quartz Flakes

Length in millimeters	Early Reduction Flake	Biface Reduction Flake	Indeterminate Flakes	Total
0 to 1	2	3	7	12
1.01 to 2	2	5	4	11
2.01 to 3	1	0	0	1
3.01 to 4	1	0	0	1
4.01 to 5	0	0	0	0
5.01 to 6	0	0	0	0
Total	6	8	11	25

The size distribution of complete jasper, chert, and chalcedony flakes, depicted in ***Table 6***, is similar to that of quartz in that the majority of flakes are less than 2.00 mm in maximum dimension, suggesting again that flakes of these raw material types were removed during later stages of tool production. However, a single chert flakes has a size index of 8.23, which probably represents a biface thinning flake. The complete flake data for these raw material types must be viewed with caution, because a lower proportion of complete to broken flakes is present than was the case with quartz flakes. A single complete biface reduction flake of argillite not included in the above table has an index of 4.83, which probably represents a thinning flake.

Table 6: 7NC-B-54 Size Distribution of Complete Jasper, Chert, and Chalcedony Flakes

Length in millimeters	Early Reduction Flake	Biface Reduction Flake	Indeterminate Flakes	Total
0 to 1	0	1	1	2
1.01 to 2	1	5	1	7
2.01 to 3	2	0	0	2
3.01 to 4	0	0	0	0
4.01 to 5	0	0	0	0
5.01 to 6	0	0	0	0
6.01 to 9	0	1	0	1
Total	3	7	2	12

ii. Raw Material Utilization

Within both tool and debitage subassemblages, quartz appears to have been the most frequently used raw material, which probably reflects its availability in site soils and its more likely source, the bed of the small tributary which borders the site ***(Table 7).*** Bedded sources of quartz are also present in close proximity to the site within the Wissahickon Formation. As noted in the above sections, both pebbles and bedded sources were utilized for tool manufacture. Jasper was the next most frequently utilized material, displaying approximately equal representation as finished tools and debitage. Neither chert nor chalcedony tools were recovered, although they are represented by minor amounts of debitage. This pattern is difficult to explain for chert, because it occurs at the same bedded locations approximately 30 km west of the site, although this may be related to the small excavated sample. Again, there is evidence for the utilization of both bedded and secondary sources of chert at the site. Quartzite is represented primarily as finished tools as is argillite. Although this may reflect a premium on the curation of tools of these materials due to the distance of their sources, Custer (1989:57-59) notes that the former is present as pebbles/cobble in Fall Line and coastal deposits while small outcrops of the later are present within Delaware's portion of the piedmont. Perhaps the "safest" interpretation of the patterns of raw material utilization at this site is that the predominance of quartz represents its greater availability to the site's occupants while the minor amounts of other materials reflects their relative scarcity in the immediate area.

Table 7: 7NC-B-54 Distribution of Tools and Debitage by Raw Material Types

Artifact Type	Lithic Raw Material								Totals
	Quartz	Jasper	Chert	Chalcedony	Quartzite	Argillite	Ironstone	Igneous	
All Tools	10	3	0	0	4	3	0	1	21
% within Material	47.6	14.3	0.0	0.0	19.0	14.3	0.0	4.8	100.0
All Debitage	117	21	11	8	2	1	0	0	160
% within Material	73.1	13.1	6.9	5.0	1.3	0.6	0.0	0.0	100.0

iii. Spatial Patterning

Table 8 depicts the vertical distribution of artifacts within test units. It is apparent that the majority of artifacts were recovered beneath the present A/Ap horizon. This is also true of the vertical distribution of artifacts recovered from shovel tests outside of the disturbed area ***(Table 9).*** When combined, the raw data on vertical distribution within the soil profile suggests that the majority of artifacts were left at the site prior the formation of the modern A/Ap horizon. Two of the three Lackawaxen points, the Basal Notched point, and the expanded stem point were recovered from the B horizon, while the other Lackawaxen point, the corner-notched point, and the stemmed pointed were recovered from the A/Ap horizon. Although the distribution of these chronologically diagnostic artifacts suggests that the organic enrichment of the A/Ap horizon soils may have taken place after the Woodland I cultural period, their low number does not permit a conclusive statement one way or the other. All that can be said with certainty based on the data at hand is that the majority of artifacts are likely to have been discarded prior to the deposition of sediment that makes up the current A/Ap horizon.

Table 8: 7NC-B-54 Vertical Distribution of Artifacts from Test Units

Stratum	# Artifacts	% Artifacts
Stratum I	12	22.2
Stratum II, Level 1	27	50.0
Stratum II, Level 2	11	20.4
Stratum III, Level 1	4	7.4
Total	54	100

Table 9: 7NC-B-54 Vertical Distribution of Artifacts from Shovel Tests

Level	# Artifacts	% Artifacts
Level 1	19	19.5
Level 2	64	66.0
Level 3	5	5.2
Level not noted	9	9.3
Total	97	100

Horizontal patterning on the site is more clear-cut, at least in terms of artifact density. Two areas of higher artifact density are present; one concentrated in the flatter, southeastern and central portions of the site and the other in the more steeply sloped northwestern portion. The majority of tools are concentrated in the latter high-density area. The recovery of two Lackawaxen points in Test Unit 7 may reflect the close proximity of an early Woodland I activity area.

c. Interpretations

Based on the above analysis, human use of the site may date as early as ca. 5000 BP and continued to at least ca. 1400 BP, effectively spanning the Woodland I cultural period. The excavated sample from this site did not result in the definition of obvious horizontally or vertically separable components or activity areas that can be linked to shorter intervals within this 4000-year span, and therefore our conclusions regarding the nature of site utilization are based on a time-averaged sample. The tool to debitage ratio at this site is relatively high at 1:7.6., but at the same time, overall tool diversity is relatively low. Projectile points, bifaces (in the process of manufacture and at the end of their use lives), retouched flakes, and a single pebble tool were the only tool forms recovered. These assemblage characteristics, together with the fact that the majority of the debitage can be assigned to later portions of the reduction sequence, suggest that a restricted range of activities were carried out at the site. This conclusion is also supported by the lack of evidence for resource processing (i.e. features, or feature indicators like fire-cracked rock). And although absence of evidence is not necessarily "evidence of absence", the data recovered through the use of a 5-meter test interval suggest that if features are present at the site, they are probably small and spatially restricted.

3. The Augustine Cutoff Site (7NC-B-49)

The Phase I testing conducted by TAA identified an open cistern approximately 50 feet (~15 meters) to the west of Concord Pike, in addition to a concentration of brick and mortar on the ground surface near the cistern in a relatively confined area measuring approximately 50x100 feet (~15x30 meters), and concentrations of artifacts from the shovel tests excavated in the vicinity of the cistern (Wholey et al. 2000: 57).

Additional background research, which included the review of early twentieth aerial photographs and historic maps indicated that there were two structures on this property. An early sketch map of early twentieth landmarks along Concord Pike (Mariane 1992) includes two houses in the location of the Augustine Cutoff Site. The maps consist of the recollections of a woman who lived in the area in the twentieth century who referred to the land across from the Porter Reservoir as "Alfred I DuPont Farmland" and the buildings are described as "duPont Employee Homes." These houses do not appear on the 1893 Atlas of New Castle County, the 1904 West Chester, Pennsylvania USGS 15 minute series quadrangle, nor aerial photographs taken circa 1927 and in 1935. However, they appear in the distance on a photograph taken during the construction of the Porter Reservoir, which was completed in 1909 ***(Photograph 1)***. Therefore, the houses were likely constructed between 1904 and 1909, and were demolished before 1927.

a. Excavations

The Phase II Evaluation testing ***(Figure 31)*** initially focused on the area around the cistern with the excavation of STPs placed at 20 foot intervals ***(Photographs 21 and 22)***. The STP interval was increased to 40 feet (~12.2 meters) as artifact densities decreased with increasing distance from the portion of the site containing the cistern. The first transect of shovel tests was placed approximately 50 feet (~15 meters) west of Concord Pike due to underground utilities that parallel the road. The Phase II Evaluation investigations at the Augustine Cutoff Site involved the excavation of 175 STPs and five 3x3 foot TUs ***(Figure 31).*** Each STP was numbered according to their grid coordinates.

The vast majority of the STPs excavated in the field containing the site exhibited a dark yellowish brown (10YR 4/4) plowzone overlying the strong brown (7.5YR 5/6) to yellowish brown (10YR 5/8) silty clay subsoil as seen in the profile for STP N380 E670 in ***Figure 32.*** With the exception of STPs N460 E690, N460 E670, and N440 E690, which revealed typical plowzone/subsoil stratigraphy, the STPs excavated to the north of the cistern within an area measuring approximately 140x140 feet (~42.7x42.7 meters) revealed profiles exhibiting variable levels of disturbance. Shovel test N420 E750 for example, contained a dark yellowish brown (10YR 3/4) silt loam modern plowzone and a brownish yellow (10YR 6/6) loam above the original dark yellowish brown (10YR 3/4) silt loam plowzone and the yellowish brown (10YR 5/8) clay loam subsoil, respectively ***(Figure 32).*** Moving northward, the profiles revealed higher levels of disturbance. No intact soils were encountered in STP N540 E750, for example. This test revealed the initial dark yellowish brown (10YR 3/4) silt loam surface horizon, but was underlain by yellowish red (5YR 4/6) clay loam fill and the yellowish brown (10YR 5/6) silty clay subsoil ***(Figure 32).*** A number of the shovel tests excavated within the disturbed area north of the cistern contained large rocks within fill-related contexts that may have been associated with a foundation, but no intact stone foundation remains were encountered.

Further soil anomalies were encountered in three consecutive shovel tests along the E690 line (STPs N520 E690, N540 E690, and N560 E690). In STP N520 E690 the stone laden plowzone and overlying fill layers were truncated ***(Figure 32);*** in STP N540 E690 the plowzone contained high quantities of rock that appeared to correspond with the disturbed soil in the previous STP; and a the edge of a soil stain was identified at the subsoil interface in STP N560 E690. This area was further investigated with TUs 1 and 2 and is described below.

In addition to the cistern, a 10 by 15 foot rectangular depression located approximately 100 feet (~30 meters) north of the cistern (~160 feet [~49 meters]) west of the existing edge of Concord Pike) was discovered during the shovel testing of the field containing the site ***(Figure 31).*** Shovel test N527E648 was excavated at the southeastern corner of the depression. In this shovel test, a rectangular postmold was encountered at the interface between the plowzone and the subsoil. To expose the feature in its entirety, the shovel test was expanded to comprise an area measuring approximately 2x3 feet (~0.6x0.9 meter). The postmold measured approximately 0.6x0.8 feet (~0.18x0.24 meter) in plan size and was found to lie just outside of the depression at the corner. The depression probably represents the previous location of an outbuilding.

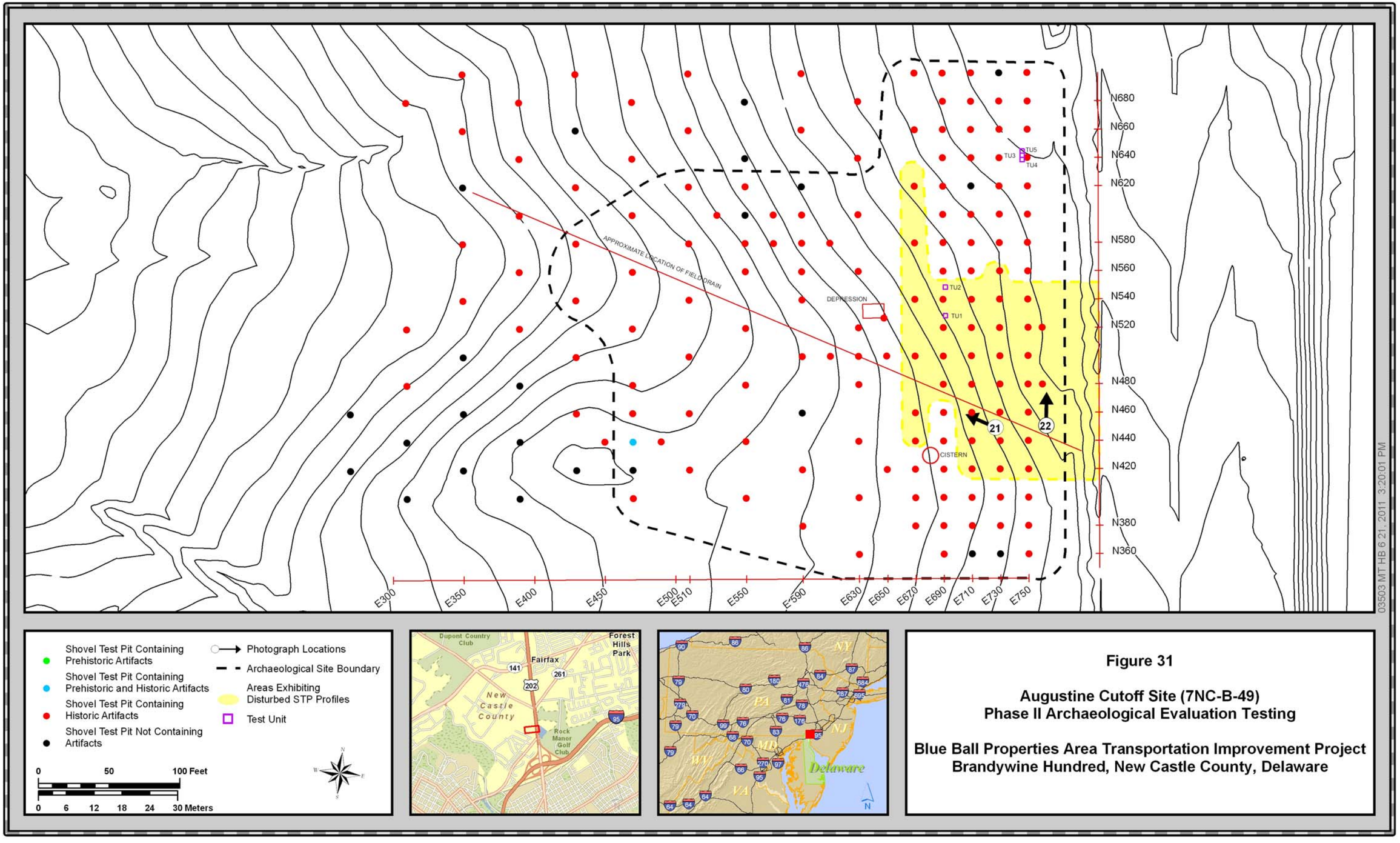


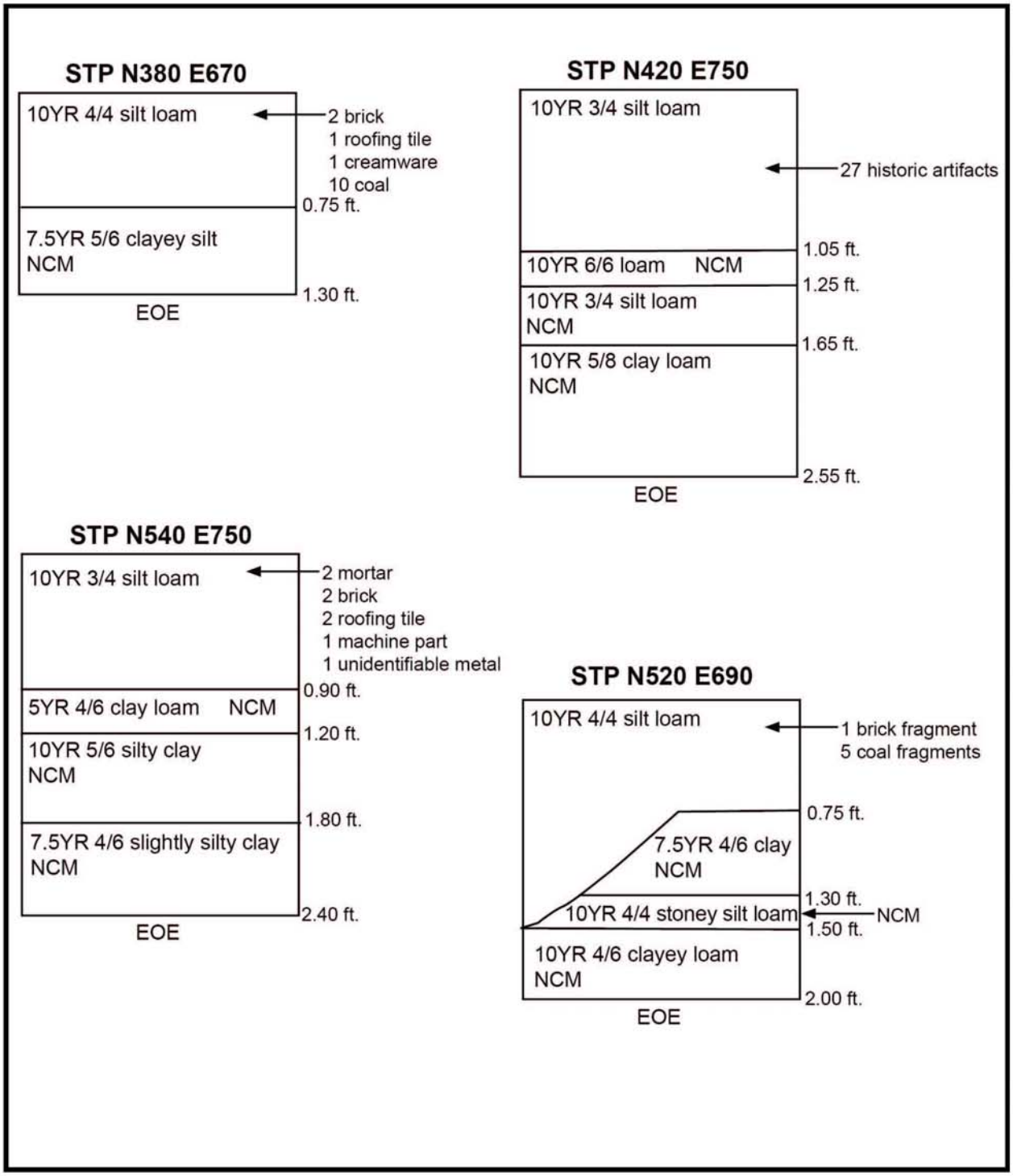
Figure 31

Augustine Cutoff Site (7NC-B-49)
Phase II Archaeological Evaluation Testing

Blue Ball Properties Area Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

Photograph 21: View of field containing the Augustine Cutoff Site, facing west.

Photograph 22: View of the field containing the Augustine Cutoff Site, facing north.



EOE - End of Excavation
NCM - No Cultural Material

0.5 1.0 foot

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Figure 32

Representative STP Profiles

Augustine Cutoff SIte, 7NC-B-49
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

Artifacts recovered during the shovel testing generally consisted of a low density scatter of late nineteenth/early twentieth century architectural and domestic artifacts. Thirteen of the artifacts predate the late nineteenth century. These include 1 delft ceramic fragment (STP N520E710), 3 possible creamware fragments (STPs N380E670, 2 from N460E670), 2 possible pearlware fragments (STPs N380E730, N420E710), and 7 possible early bottle glass fragments (STPs N400E710, N460E670, N460E690, N500E710, 3 from N500E750). The earlier artifacts were interpreted as field scatter deposited prior to the occupation of the site. Just one pre-contact artifact, a chert biface, was recovered from STP N440E470. The artifact was the medial portion of a denticulated edge blade. The STP was bracketed at 20 foot intervals to investigate the presence of additional pre-contact artifacts. No additional pre-contact artifacts were recovered.

i. Test Units 1 and 2

To ascertain whether the soil anomalies encountered in the STPs along the E690 line were foundation of feature related, TUs 1 (N530E690) and 2 (N550E690) were placed in the area to provide additional stratigraphic information. Test Unit 1 consisted of the plowzone overlying the subsoil and did not appear to have been disturbed other than through plowing. Thirty-three historic artifacts were recovered from TU 1.

In TU 2, two fill horizons, the dark yellowish brown (10YR 4/4) modern plowzone (Level 1) and a strong brown clay (Level 2) were found to overlay the rock and gravel laden brown (10YR 4/3) original plowzone (Level 3) that contained broken pieces of earthenware pipe that appeared to be a field drain ***(Figure 33).*** After further pedestrian reconnaissance of the field containing the site, other collapsed sections of field drain were observable on the ground surface in areas that were not covered in fill.

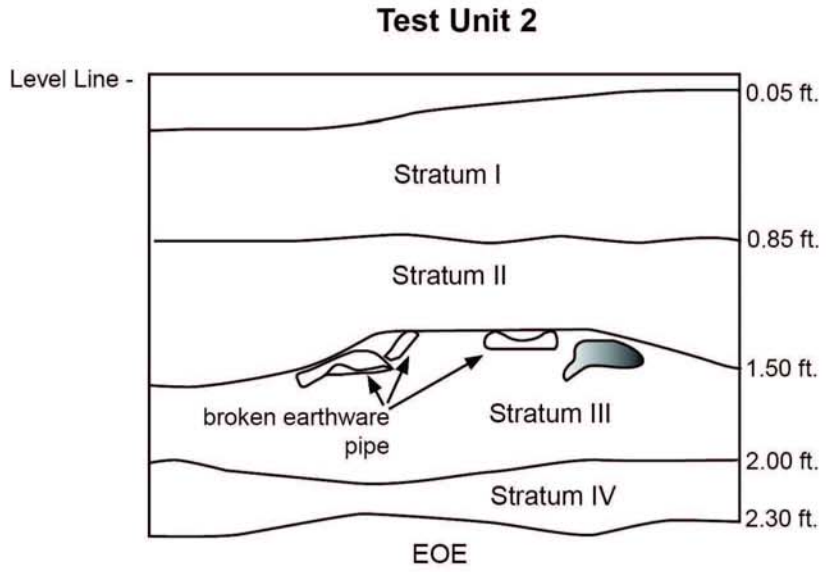
ii. Test Units 3-5

The western portion of the STP N640E750 contained the edge of a soil stain (designated Feature 1) at the interface with the subsoil. An abundance of late nineteenth century/early twentieth century artifacts, some which appeared to have been burned, were found within the stain. Test Unit 3 (N640E736) was excavated adjacent to the west of the STP in which the Feature 1 was originally identified ***(Figure 34).*** Test Units 4 (N637E746) and 5 (N643E746) were subsequently excavated to the south and north of TU 3 to define the limits of the feature.

The stratigraphy in TUs 3-5 consisted of a roughly 0.5 foot (~.15 meter) thick plowzone overlying the subsoil. A total of 502 artifacts were recovered from the plowzone in TUs 3-5.

- **Feature 1**

The approximate western, northern, and southern boundaries of Feature 1 were delineated at the interface of the subsoil ***(Figure 34).*** The feature was roughly rectangular in shape, approximately 5.5 feet (~1.7 meters) in length along it north to south axis and 3.5 feet (~1.0 meter) in with along its east to west axis. The portion of Feature 1 that fell within TUs 3 and 4 was excavated and the depth was found to extend approximately 1.1 feet (~0.34 meter) below the elevation of the subsoil ***(Figure 35).*** The feature fill consisted of a layer of coal ash and cinders



Stratum I - 10YR 4/4 silt loam
Stratum II - 7.5YR 5/8 clay loam
Stratum III - 10YR 4/3 silt loam - approximately 75% gravel
Stratum IV - 10YR 5/8 silty clay

EOE - End of Excavation
- Rock

0.5 1.0 foot

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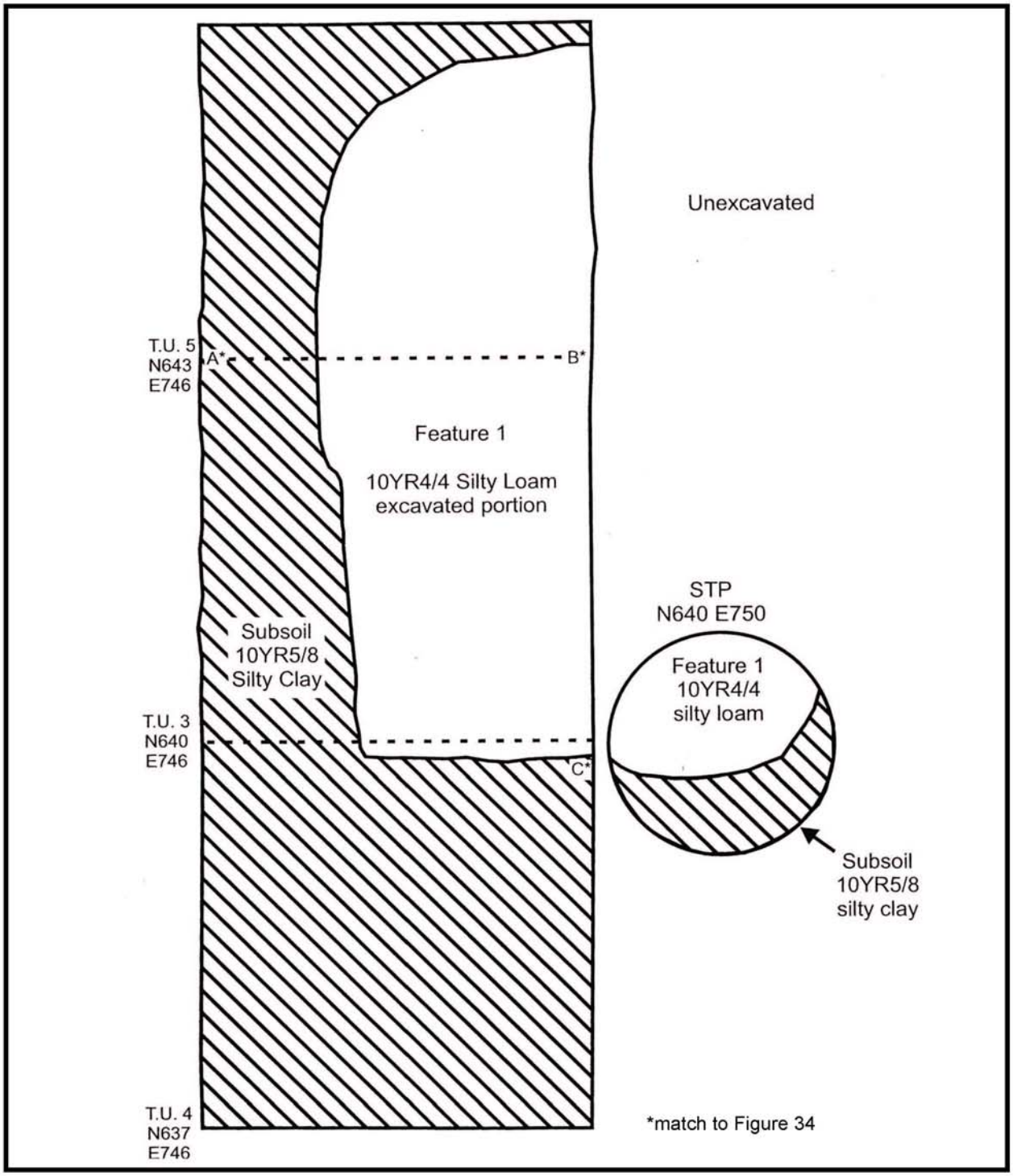
Figure 33

Test Unit 2 (N550 E690) North Profile

Augustine Cutoff SIte, 7NC-B-49
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



EOE - End of Excavation

0.5 1.0 foot

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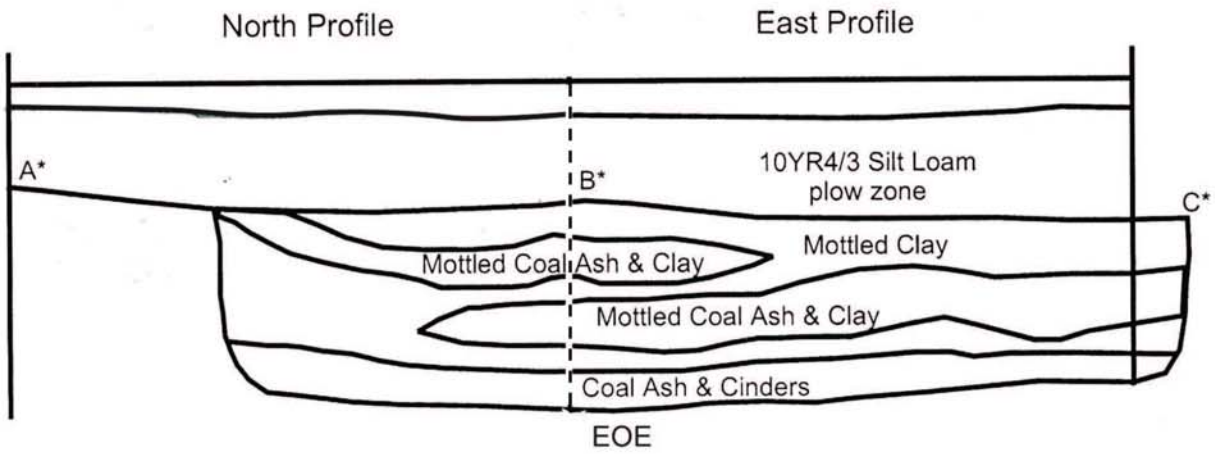
Figure 34

Feature 1 Planview

Augustive Cutoff Site, 7NC-B-49
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware



*match to Figure 33

EOE - End of Excavation

0.5 1.0 foot

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Figure 35

Test Unit 3, Feature 1 Profile

Augustive Cutoff Site, 7NC-B-49
Blue Ball Area Properties
Transportation Improvement Project
Brandywine Hundred, New Castle County, Delaware

overlain by a mottled clay fill. The mottled clay fill contained lenses of coal and cinder also. No evidence of burned soil was observed during the excavation of the pit, therefore it appears that the pit was partially filled with material that had been burned elsewhere and was then introduced to the pit, along with additional unburned items. Feature 1 yielded 1756 historic artifacts, dating predominantly to the late nineteenth/early twentieth century. Based on the dates of the recovered artifacts, it appears that Feature 1 was created when the property was abandoned in the 1910s or early-mid 1920s.

b. Artifact Analysis

Excavations at Augustine Cutoff (7NC-B-49) yielded a total of 4181 historic artifacts and one pre-contact artifact ***(Appendix F)***, the medial portion of a denticulated chert biface. The historic assemblage consisted predominantly of nineteenth century and twentieth century artifacts; several dating to the eighteenth century were also recovered. Historic artifact classes were domestic, architectural, heating by-product, farming-related, transportation-related, arms or ammunition, and indeterminate. The assemblage was recovered from 153 shovel test pits and five test units. Terminus Post Quem (TPQ) dates indicated nineteenth century and early to mid-twentieth century depositional periods for most proveniences.

Domestic artifacts accounted for 41% of the historic assemblage. Artifacts classed as domestic were tableware, beverage and food associated artifacts, home furnishings, personal items, gardening-related items, and paper, plastic, styrofoam and textile artifacts unidentifiable to form or function. Tableware included earthenware, stoneware, refined earthenware and porcelain vessel fragments, as well as tumbler glass, a glass serving bowl and a brass fork. Fragments of redware vessels likely used for food storage or presentation were 9% of the tableware ceramics and stoneware vessel fragments were .7%. Two fragments of delftware were present and were .4% of tableware ceramics. Whiteware was the dominant refined earthenware (82%) and tableware ceramic type (61%). Creamware fragments were .9% of tableware ceramics, pearlware was .4%, ironstone was 10%, and yellow ware was .5%. Several ironstone and whiteware pieces possessed manufacturing marks. All maker's marks were for New Jersey based pottery companies; three were used by the Cook (and Mellor) pottery company during the late nineteenth and early twentieth century, and one was used by the Mercer pottery company during the late nineteenth century. Porcelain was 8% of tableware ceramics. One porcelain vessel was identifiable as a Canton or Nanking decorated eggcup (mfg. ca. AD 1770 to 1830). Beverage and food associated items included bottle glass, jar glass, a fruit jar glass liner, bottle closures, metal can fragments, beer can fragments, bone identifiable only as mammal and bird and shell identified as oyster or clam. Bottle glass comprised the majority of the domestic artifacts and was predominantly unidentifiable to type (92%). Bottle glass fragments identifiable to beverage type were alcohol, soda and milk. Marks on some of the bottles and on one bottle closure indicated their contents were bottled by Robinson and Moore in Wilmington, Delaware. Home furnishings were a furniture or box hinge, a drawer pull, a furniture wheel, a copper lamp fitting, a brass finial, mirror glass, paint container fragments and light bulb parts. Personal items were pharmaceutical bottle fragments, comb fragments, a grooming mirror fragment, a ring, graphite pencil fragments, a glass marble, porcelain doll and brass teacup fragments, a toy gun, miscellaneous toy parts, china buttons, clothing snaps, and a shoe heel. Two pharmaceutical bottles were identifiable as castoria manufactured by Charles H. Fletcher, New York City.

Gardening-related items were earthenware flowerpot fragments, which included some glazed varieties, but were mostly unglazed terracotta.

Terminus Post Quem dates were identifiable for eighty-seven shovel test proveniences and six test unit proveniences. Terminus Post Quem dates for the test units are listed in ***Table 10.*** Seventeenth century TPQs were observed for 21% (n=18) of the shovel test proveniences, but these were represented by redware, which was manufactured into the late nineteenth century. 4% (n=4) of the shovel test proveniences possessed mid-eighteenth century TPQs represented by creamware, which was manufactured into the early nineteenth century, and delftware, which was manufactured until the late eighteenth century. The majority of the shovel test proveniences (44%, n=38) possessed early nineteenth century TPQs, with 1805 being the most common (n=27) early nineteenth century TPQ. The 1805 TPQs were represented by whiteware, which is still manufactured today. Mid to late nineteenth century TPQs were observed for 21% (n=18) of shovel test proveniences. Among the late nineteenth century TPQs, 1880 was the most common and was represented by redware flowerpots which are still manufactured today. The remaining 10% (n=9) of shovel test proveniences possessed early to mid-twentieth century TPQs. Mixed context (containing artifacts with manufacturing periods separated by fifty or more years) was only observed for one provenience, Feature 1 in Test Unit 3, which contained artifacts manufactured exclusively in the late eighteenth to early nineteenth century and artifacts manufactured exclusively in the twentieth century.

Architectural artifacts were 40% of the historic assemblage. Most of the architectural artifacts were brick (20%), nails (46%), window glass (14%), and terracotta roofing tile (9%). 61% of the nails were unidentifiable to manufacturing type, but those identifiable to manufacturing type were cut (mfg. ca. 1791 to 1891) and wire nails (mfg. ca. 1850 to present). Other architectural artifacts included building block fragments, mortar, plaster, lime, cement or concrete, roofing slate, marble, a ceramic electrical insulator, cut and wire spikes, a bolt, a door hinge and salt glazed earthenware and unglazed earthenware sewage/drainage tile.

The remainder of the assemblage was composed of heating by-products (14%), farming-related artifacts (.3%), transportation-related artifacts (.05%), arm/ammunition-related artifacts (.07%) and indeterminate class artifacts (4%). Heating by-products were coal, cinders, slag, ash and charred wood. Farming-related artifacts were barbed wire and general fencing wire. Transportation-related artifacts were a turning light cover and a valve stem cover. Arms/ammunition artifacts were a center fire bullet and plastic shotgun cartridges. Indeterminate class artifacts included unidentifiable metal, glass, synthetic material, brass and conglomerate material. Indeterminate class artifacts also consisted of hardware that could have been used architecturally or elsewhere, machine parts, a possible kettle fragment, bone not culturally modified or identifiable as a domestic species and shell identifiable only as Mollusc.

c. Interpretations

The site was a holding of the du Pont family, who were very influential in northern Delaware during the early twentieth century. It appears that the buildings associated with the Augustine Cutoff Site represent DuPont employee housing. Although Feature 1 contained a relatively high quantity of late nineteenth century/early twentieth century artifacts, the results of the Phase II

Table 10: **7NC-B-49 Terminus Post Quem Dates (Test Units Only)**

Provenience	TPQ	TPQ Artifact	Mixed Context
Test Unit 1, Stratum I	1762	Creamware	N/A
Test Unit 2, Stratum I	1830	Shell edged whiteware	N/A
Test Unit 3, Stratum I	1880	Redware flowerpot	N/A
Test Unit 3, Feature 1	1939	Bottle labeled "not to be refilled"	Yes-Canton/Nanking porcelain with machine made bottle glass
Test Unit 4, Stratum I	1880	Redware flowerpot	N/A
Test Unit 5, Stratum I	1880	Redware flowerpot	N/A

Evaluation Testing indicated that the remainder of the site lacks integrity. The structural remains for the two houses known to exist on the property were not located during the survey. Based on the review of historic photographs and maps, the locations of these structures, which were adjacent to Concord Pike, are within the zone of construction for Concord Pike when it was widened from two lanes during the time the site was occupied, to seven lanes later in the twentieth century. Widening of the road occurred primarily to the west of Concord Pike, due to the location of Porter Reservoir, which is adjacent to the east side of the road. In addition to the road widening, the installation of modern underground utilities along the west edge of Concord Pike further disturbed the site.

V. National Register Evaluations

All identified archaeological sites were evaluated for eligibility in the National Register of Historic Places. A property is eligible for the National Register if it possesses integrity of location, design, setting, workmanship, feeling, and association and meets one of the following criteria (Little : 2000):

A. Associated with events that have made a significant contribution to the broad patterns of our history.
B. Associated with persons significant in our past.
C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
D. Have yielded, or may be likely to yield, information important in prehistory or history.

A. The Weldin Plantation Site (7NC-B-11)

Within the context of farmstead archaeology in Delaware, the Weldin Plantation Site (7NC-B-11) possesses a number of unique and exceptional features that make it eligible for listing on the National Register of Historic Places under Criterion D. The following sections will address criteria defined by De Cunzo and Garcia (1992: 299-301) as relevant to the determination of eligibility for historical archaeological sites in Delaware. In addition, a National Register Nomination Form was completed for the site ***(Appendix G)***.

1. Historical Documentation and Oral History

As has been demonstrated by the Phase I report generated by Taylor (1989), there is a great deal of documentary evidence concerning the site and its occupants. Deeds for the site show a clear chain of ownership back to the original survey in 1680. Most of the proprietors drafted wills that provided at least partial descriptions of the property and their possessions (excepting Israel Peterson 1722-?). Fire Blotter Records from 1796 and 1803 provide a good description of the farmhouse and outbuildings during the property's period of tenancy. Census information from 1790 provides information on the household and possessions of one of the farm's tenants, William Little, who occupied the site as early as 1796, and as late as 1799. Tax assessments on Albanus Logan (husband of Maria Dickinson and co-owner of the property in the mid-nineteenth century) dating to 1837 and 1852 provide information on the size of the property and buildings. In addition, data from the Brandywine Hundred tax assessments (1849, 1852, 1861) and U.S. Agricultural Census of 1850 and 1860 provide information on the household, stock, and crop yields of John Bradford, tenant-occupant from 1849-1861. A Land Survey from 1743-1745 provides the metes and bounds of the property as originally surveyed in 1680. Historic Maps (Rea and Price 1849, Beers 1868 and Baist 1893) provide general information as to building location and general development of the area through time. In addition to these primary resources, Scharf (1888); Thompson (1984); Passmore (1975); and Runk (1899); and Talley (1899), provide personal/historical information on several of the site's owners.

The researchers were also able to make contact with Mr. Thomas Weldin, a family descendant who worked on the farm as a child in the 1920's and early 30's. Mr. Weldin has stated that he

would be happy to relate his recollections of the property from that time period. There is therefore a high probability that an oral history of a period in the property's life can be created.

2. Archaeological Integrity

The site was occupied continuously from its first occupation in the early eighteenth century through its abandonment in 1934. There is some evidence of dateable, spatially discrete deposits (particularly later deposits), although Jacob R. Weldin and son appear to have engaged in a great deal of earth-moving during the mid to late nineteenth century. Some excavated contexts demonstrate mixing of artifacts dating from the mid eighteenth through the mid nineteenth century, probably a result of these activities.

Since only a small portion of the site has been sampled, the knowledge of the site assembled thus far is still fragmentary in this regard. The farmstead proper is large, and only a small portion has been sampled. There is potential for earlier, intact middens, privies and other features in the side and rear yards, as well as under Weldin Road. Future excavations should be geared towards revealing potential deposits, perhaps through mechanical stripping.

The physical integrity of the site is excellent. While the identification of the location of all of the early structures is incomplete at this stage, the remains of many structures dateable to (at least as early as) the mid-nineteenth century are visible at the ground surface. Preliminary excavations have also revealed evidence of post-constructed buildings in the rear yard, buried foundation remains of a separate room or building on the north side of the dwelling, and footings from possible porch features on the north and south side of the dwelling. The extant stone foundation walls to four buildings are evident on the surface. The corral walls and the bank (of the former bank barn) are extant. The site artifact assemblage thus far consists of 13,555 artifacts from the most recent excavations and an as yet undetermined number of artifacts from earlier excavations by Thunderbird, Inc. (No complete inventory was available at the time of this writing.) On the basis of the information collected during the excavations at the Weldin Plantation Site, it is clear that the site contains artifacts from all periods of occupation**,** as well as a wealth of faunal remains.

3. Representativeness

The site is located on an upland setting on the Piedmont Plateau Physiographic Province. The mapped soils are Talleyville silt loam, with 2-5% slopes, moderately eroded (TaB2), a well drained soil (Mathews and Lavoie 1970). The Weldin Plantation Site is an historic farmstead that may date to the early eighteenth century and was occupied until the mid-twentieth century. The site was identified previously and is discussed in greater detail in *Archeological Investigations of the Proposed Dualization of Route 141 (Centre Road), From Route 100 (Montchanin Road) to U.S. Route 202 (Concord Pike), New Castle County, Delaware*, Thunderbird Archeological Associates, Inc., 1989.

Because the site may date to the 1710s, it could have been occupied throughout each of the periods described in the *Management Plan for Delaware's Historic Archaeological Resources*. During the Exploration and Frontier Settlement Period, the *Management Plan* indicates that dispersed English farmsteads are located along the major creeks. Information relating to

domestic economy, manufacturing and trade, landscape interaction, and social group identity, behavior, and interactions might be obtainable from excavations at this site.

The Intensified and Durable Occupation Period continues to provide a context for domestic economy for farmsteads that may have slaves or indentured servants. The evolution of the site throughout the Transformation from Colony to State, Industrialization and Capitalization, and Urbanization and Suburbanization Periods may allow a unique opportunity to compare the occupation of one site during the eighteenth, nineteenth, and twentieth centuries. The property was owner occupied at various times throughout its history and tenant occupied during other times. Comparison of different occupations, with presumed differences in economic status, may provide important data concerning socioeconomic patterns throughout the history of this site.

Farm use at Chestnut Hill varied through time. During its first seventy-five years of existence it was owner occupied. No historical data is available concerning farm produce from that era. However, it seems likely that the site followed known agricultural patterns and focused on market wheat production. During the farm's tenancy period, the property was almost certainly devoted principally to the raising of livestock, with perhaps some attention to dairy farming. The importance of dairy farming increased in the area towards the middle of the nineteenth century. The documentary evidence regarding the early to mid-nineteenth century tenant, John Bradford, indicates increasing emphasis on dairy farming. The documentary and archaeological evidence (size, nature and layout of structures, dairy related ceramics, glass) demonstrate a shift towards dairy production in the mid-nineteenth century until the site's abandonment in the twentieth century.

4. Research Questions and Needs

a. Landscape

The extant ruins of the Weldin Plantation Site can reveal a great deal about the arrangement of daily activities on a large nineteenth century dairy farm. Other farmsteads excavated in the region (cf. William Strickland Site [7K-A-117], Whitten Rd. Farm [7NC-D-100]. W. Eager Farm) have lacked the integrity of Weldin's structural remains and as a consequence have required more substantial field efforts to identify and map building locations and layout. Because the stone foundations of many of the structures at Weldin are still evident on the surface, such work is not necessary. The visible evidence provides us with a "key" to the activities carried out on the farmstead.

Aside from providing a base map for intra-site activity, the Weldin structures can also provide us with a sample of the layout of a large, apparently successful, owner-occupied farm that can be of value in discussing such properties on a regional level. Detailed data generated at the Weldin Plantation Site can be compared to that collected at other farmsteads to interpret differences and similarities of farm layout across spatial, temporal, and socioeconomic lines. Potential comparisons may be made to the William Strickland Site (7K-A-117); the Whitten Road Farm (7NC-D-100); the W. Eager Farm; The Grant Tenancy Site (7NC-B-6); and the Buchanon-Savin Farmstead, for example.

In addition to the known structural remains - most of which are associated with the mid-nineteenth through twentieth centuries - further excavations would certainly yield evidence of other, perhaps earlier, building remains. Evidence for one such building appears to have been identified on the north side of the extant dwelling remains, where buried foundation walls were discovered. Excavations near this wall, in the north yard (backyard of the dwelling) revealed the site's greatest number of early artifacts (plain white salt-glazed stoneware and scratch-blue; delft; early glass) and a notable lack of late-nineteenth century artifacts in the buried strata. Howard Weldin, a descendant of the site's owner-occupants from the mid-nineteenth through early twentieth centuries, also recalls that there was a stone-lined well in the field on the north side of Weldin Road. Considered together, this suggests that early architectural/landscape remains are likely to be found in the north yard, as well as under the existing Weldin Road.

The size of the buildings, their style (as much as can be determined from the remains), layout, materials, and construction methods, provide a wealth of information that can be interpreted with relation to the ideas, beliefs, and values of the site's most significant (and well-known) occupants, Jacob R. Weldin and his son, J. Atwood Weldin. As recent research has shown (Mascia 1996; Grettler 1991; Siders 1991; Herman 1989), middle nineteenth century architecture and farm layout indicates much about the ideology of a site's occupants. When considered in tandem with issues such as socioeconomic status, ethnicity, and other factors, the size of a site's buildings, their durability, style, and layout all take on added significance. The question is phrased more explicitly by De Cunzo and Catts (1990: 132):

> How do socioeconomic status and aspirations, level of technological development, household economy, ethnicity and ideology, values and beliefs all influence the construction of domestic buildings and the use and improvement of the land? (132).

This research topic seems especially suited to the Weldin Site, since both Jacob and his son Atwood invested so much in their farm's structures. It can be examined at a functional level (what are the functional attributes of massive, durable outbuildings, the choice of a bank barn etc.), and at an aesthetic level (the Weldin Plantation Road Entrance, wood-framing over the stone house, possible addition of porches, planting of trees, etc.).

To better answer questions as to why the Weldins "dressed" their farm as they did, it would be useful to examine the literature pertaining to progressive farming at this time. Information on the Weldin's themselves, contained in Scharf (1888); Runk (1899); and Talley (1899) will also be vital to developing the type of personal details on the Weldins that will be necessary to address questions of ideology. Grettler's (1991) work on rural reform and its archaeological manifestations will provide important perspectives as well. Finally, historical analyses that deal with such topics as the economic and social implications of progressive farming in the region (cf. Michel 1985; Passmore 1978; Passmore 1975) and the consideration of “elite” agricultural families in New Castle County, particularly in the late nineteenth century will provide excellent cross-disciplinary perspectives.

Again, the archaeological evidence and interpretation of ideologically motivated choices can be compared to that seen at other sites in the region, across temporal, socioeconomic and ethnic lines. If earlier structures can be positively identified at the site level at the Weldin Plantation,

then the data these present can be compared with the mid- to late-nineteenth century architectural remains at the site to construct a better picture of the interplay of ideology and architecture at the site during earlier periods.

It should be noted that any discussion of ideology is highly interpretive. However, there appears to be adequate historical research to "reconstruct" a good picture of the Weldins as well as some of their predecessors at Chestnut Hill. Combined with archaeological evidence of architecture and farm layout, we believe that the Weldin Plantation possesses excellent potential for research on this theme.

b. Socioeconomic Phenomena

Because of the changes that occurred in the local agricultural economy during the period of time the Weldin Plantation Site was occupied, and because the farm was both tenant- and owner-occupied over the course of its history, the site presents a significant resource that may yield important archaeological data regarding the shift in the product focus of the farm over time, the changes in its relative emphasis on subsistence vs. market production, and the contrast between the household assemblages associated with its tenant occupants vs. those associated with resident owners. The farm's history appears to reflect the agricultural trends seen more generally in the region: initial (probable) emphasis on wheat production in the early to late eighteenth century under a resident owner, more generalized farm production during the years of its tenancy (1785-1862), followed by a shift during the Weldin family's ownership to large-scale dairying, which continued up to the first quarter of the twentieth century. This very closely parallels the pattern evidenced in northern Delaware as a whole (Bidwell and Falconer 1941; De Cunzo and Catts 1990; Munroe 1978).

As noted above, the historical record provides sufficient information to construct a fairly detailed view of the Weldins' farming activities and, to a lesser extent, those of the previous occupants of the farm (Scharf 1888; Runk 1899; Taylor et al. 1989). Although the Weldins' extensive construction activities have substantially disturbed some areas where the evidence of earlier buildings and other archaeological features might have been found, there are still several parts of the site that were unaffected by this work. In addition, because the orientation of the access road to the property changed over the time of its occupation, the orientation of the farm's structures is likely to have changed as well, increasing the likelihood that subsurface evidence of previous activities remains intact in areas the Weldins would have found logistically less advantageous. The identification of such features and the interpretation of their function should yield information that would be of use in identifying the specific agricultural activities undertaken at the site, as well as shedding light on the domestic lives of the farm's residents over the years. This data, when considered in conjunction with the available textual records, should yield valuable information regarding the character of the lives of the residents of the farm during discrete periods, both before and during the Weldins' occupation.

De Cunzo and Garcia (1992) suggest that the comparison of households in an area with regard to their class status and role in the agricultural economy ("Large land-owning agriculturalists vs. tenants vs. small subsistence agriculturalists vs. small commercial, diversified agriculturalists, etc." [pg. 277]) represents an important avenue for historic archaeological research. The

conclusions drawn from the analysis of the data collected at the Weldin Plantation Site will be ideal for use in such a higher-level study. Because the site promises to yield information relative to comparisons across a variety of dichotomous socioeconomic classifications, it should be of use in comparative studies that include other sites in the region across a fairly wide spectrum of site types and chronological periods.

B. The Ronald McDonald House Site (7NC-B-54)

The Ronald McDonald House Site (7NC-B-54) represents a valuable resource with regard to developing a better understanding of the exploitation of the Delaware Piedmont during the Woodland I Period. The discussion below places the site within the appropriate context within the Delaware Piedmont. In addition, a National Register Nomination Form was completed for the site ***(Appendix G)***.

7NC-B-54 is located on an upland setting on the Piedmont Plateau Physiographic Province. The site is located within the Brandywine River Drainage, an area in which the potential for the existence of Woodland I Period procurement sites is high (Custer and DeSantis 1986).

The Piedmont comprises a small %age of Delaware; therefore, most known sites in the state are located on other physiographic provinces. In consultation with the SHPO, it was agreed that it would be appropriate to use information about recorded archaeological sites on the Piedmont in Delaware and Chester Counties in Pennsylvania that date from the same time period. These sites provide a background in which 7NC-B-54 can be evaluated.

In Pennsylvania, there are 138 Late Archaic (equivalent to early Woodland I) located on the Piedmont in Chester and Delaware Counties. Some of these sites are within a few miles of 7NC-B-54. Most of these sites are located in similar topographic settings; i.e. they are on located in upland settings on well drained or somewhat well drained soils near wetlands or low order streams. Most of these sites are not known to contain features. The lithic artifact density varies from low to high.

7NC-B-54 is an early Woodland I low density lithic scatter. Our interpretation of the site is that it was utilized repeatedly over a period of time to exploit wetland resources. The site is located between a wetland and an intermittent stream. The low density of artifacts, lack of features, and absence of fire cracked rock (FCR) indicate that the site was not used for habitation. It appears that the Native Americans may have stopped briefly at the site to procure resources, then left quickly. The high %age of tools in relation to debitage indicates that almost no tool manufacturing and little tool maintenance was being conducted on the site. This supports the theory that visits to the site were brief and once a specific task was completed, the site was abandoned again.

In 1994, 51 archaeological sites dating to the Woodland I Period were recorded in New Castle County (Custer 1994). The majority of the pre-contact sites with known cultural affiliations in Delaware have Woodland I components. In 1994 there were no recorded Woodland I archaeological resources within New Castle County Block B, where 7NC-B-54 is located. This is probably due to the fact that this area has not been surveyed as extensively as some other

blocks. Only 12 recorded sites existed within Block B in 1994, while over 200 sites were recorded in Blocks D and E, located immediately to the south of Block B.
Custer and DeSantis (1986) divide northern Delaware into four different categories, based on existing data and potential for significant sites. The area in which 7NC-B-54 is located is delineated Zone III. It is considered to be third in terms of research priorities, due to the high quality of the existing archaeological data. The data quality for Woodland I procurement sites on the Piedmont Uplands is also described as good. These sites occur on "upland slopes adjacent to ephemeral streams, low order swampy floodplains, and lithic sources" (Custer 1986). 7NC-B-54 is located on a slight rise between an intermittent stream and a wetland.

Wetlands were attractive to pre-contact populations for resource procurement. A wide variety of plant and animal resources are available for procurement in and around wetlands. Wetlands with the largest diversity of species were most likely to attract Native Americans. Certain wetland resources, such as cattails, are available year round, in contrast to most other plants. The productivity of wetlands is higher than any other available environment in the Northeast and the reliability of the resources available is also very high. Wetlands tend to produce a stable, wide variety of floral and faunal species throughout the year (Nicholas 1991). Native Americans would have visited wetlands repeatedly for resource procurement during all seasons of the year.

Custer (1994) has outlined research priorities for Woodland I Period archaeological sites in Delaware. The highest priority should be given to Woodland I sites located in areas that do not have extensive Woodland I Period site data. As noted above, there are numerous recorded archaeological sites similar to 7NC-B-54 recorded on the Piedmont Uplands. The site does not fall within areas delineated by Custer as priority survey areas. The second priority discussed by Custer are Woodland I sites in the Atlantic Coast region because of the differential preservation of organic remains in shell midden sites found in this region. 7NC-B-54 is not located in this region.

The pre-contact archaeological deposits at the Ronald McDonald House Site represent a valuable resource with regard to developing a better understanding of the exploitation of the Delaware Piedmont during the Woodland I Period. The site retains a high degree of integrity; it shows evidence of only minimal plow disturbance, and that to a relatively shallow depth. Based on the areal distribution of the deposits encountered at other similar sites in Delaware, the Ronald McDonald House Site offers the opportunity to identify discrete activity loci. In those instances in which diagnostic artifacts are recovered from these loci, temporal affiliation can also be established. The lithics recovered from the site include an unusually high %age (25.71%) of tools, and diagnostic projectile points represent both the Early and Late Woodland I Period. Blood residue and use wear analyses performed on these tools will yield information regarding subsistence activities. While locally available quartz and quartzite represents over 77% of the lithic assemblage, other materials are also present, (most notably argillite), thereby providing indications of curation/exchange of non-local lithic resources. The site should also provide information regarding site hierarchies within the immediate area and should shed light on the exploitation of wetland resources.

The Piedmont represents a relatively small part of the state of Delaware. While the sites associated with the coastal plain are numerous, and many have been studied in some detail, those

of the Piedmont are less well understood. Because much of the Piedmont has been farmed for centuries, pre-contact sites that have been subjected to relatively little plow disturbance are especially rare. As a consequence, the Ronald McDonald House Site represents a particularly valuable resource. An examination of the soil column at several location throughout the site performed by Dr. Daniel Wagner, a pedologist, indicated that the area was probably plowed only a small number of times, and that by a plow pulled by animal traction.

Because of the relative integrity of the soils within the site area, the artifact distributions more closely reflect the spatial patterning created during the primary depositional episodes. As a consequence, discrete loci associated with specific activities can be distinguished. In those instances in which diagnostic artifacts are also recovered, these loci can be attributed to specific temporal periods. This provides an opportunity to compare the deposits recovered from different loci with respect to the nature of the activities represented and the changes or similarities over a fairly large time span, ranging from the Early to Late Woodland I Period.

The high %age of tools in the assemblage recovered from the site indicates that the focus of the activities undertaken at the site had to do with resource procurement/subsistence. Blood residue and use wear analyses will help establish exactly what animal and plant resources were being exploited, as well as indicating the specific tasks the pre-contact people who used the site were engaged in. Morphological analysis of the recovered debitage will yield further information regarding the activities undertaken at the site.

The material composition of the artifacts indicates that, while the locally available lithic materials (quartz and quartzite) predominate, non-local chert, jasper argillite and chalcedony are also represented in the assemblage. These indicate the curation of materials collected from far outside the vicinity of the site and/or participation in a regional exchange network. This is of particular interest both with respect to the sources of this non-local material as well as to the changing frequency of use of exotic lithics over time. The assemblage recovered to date includes seven diagnostic artifacts: three argillite Lackawaxan points, two quartz Bare Island points and two Jack's Reef Corner Notched points, one each of quartz and quartzite. It is only the Early Woodland I projectile points that indicate the use of non-local material, i.e. argillite, which is likely to have originated in the lower Delaware River Valley.

Because of its high degree of depositional integrity and fine resolution of activity loci, the Ronald McDonald House Site offers a unique opportunity to consider a procurement site in the context of the broader network of sites within the region. Using projectile points as indicators of rough contemporaneity, the Ronald McDonald House Site can be viewed in the context of a set of temporally related sites, along with macroband and microband base camps, that collectively reflect the subsistence strategy of Woodland I people in the area. Rather than presenting a "smear" of artifacts in a plowed field, the deposits at the Ronald McDonald House Site represent temporally and spatially discrete activity areas. The behaviors these areas represent can be viewed in the context of the broader impressions of the lifeways of Woodland I people, particularly with respect to the utilization of wetland resources.

C. The Augustine Cutoff Site (7NC-B-49)

The Phase II Evaluation Testing failed to identify the structural remains for the two houses known to exist on the property containing the site. Based on the review of historic photographs and maps, the locations of these structures, which were adjacent to Concord Pike, are within the zone of construction for Concord Pike when it was widened from two lanes during the time the site was occupied, to seven lanes later in the twentieth century. Widening of the road occurred primarily to the west of Concord Pike, due to the location of Porter Reservoir, which is adjacent to the east side of the road. In addition to the road widening, the installation of modern underground utilities along the west edge of Concord Pike further disturbed the site. Although a high level of disturbance was documented in the tests excavated north of the cistern and east of the depression/shed, Feature 1 (a refuse pit), located outside the area of disturbance, appeared to date to the period when the houses were occupied. The heavy fill layers identified within the site are probably associated with the demolition of the buildings or twentieth century utility installation and the subsequent preparation of the field for agriculture.

The site was a holding of the du Pont family, who were very influential in northern Delaware during the early twentieth century. It appears that the buildings associated with the Augustine Cutoff Site represent DuPont employee housing. Research concerning economic trends, settlement patterns, and demographic change for those working for the du Pont family can provide significant information under Criteria A, B, and C of the National Register (Herman 1989). Settlement pattern and demographic change data is considered to be among the most important data that can be retrieved from an historic archaeological site in Delaware (Ames 1989). It would appear that the site, if it contains sufficient integrity, might meet the criteria for inclusion in the National Register since it was occupied during a short period of time during the early twentieth century, providing a “snapshot” into the Urbanization and Suburbanization Period in Delaware.

However, the integrity of 7NC-B-49 has been compromised to the extent that the site does not have the potential to provide that information. Although Feature 1 contained a relatively high quantity of late nineteenth century/early twentieth century artifacts, this trash pit appeared to be on the periphery of the site, and the buildings associated with it have been disturbed beyond recognition. Furthermore, it is likely that the majority of the significant features associated with the site were destroyed during the widening of Concord Pike in the twentieth century. The subsequent placement of utilities along the edge of the western roadway resulted in additional disturbance to the site. Therefore, the Augustine Cutoff Site (7NC-B-49) is recommended not eligible for inclusion in the National Register of Historic Places.

VI. Assessment of Effect and Proposed Mitigation

For each archaeological site within the APE that was identified as being eligible for listing on the National Register of Historic Places, the effect of the proposed project on that resource was assessed. An effect to an eligible historic property may occur when there is alteration to the characteristics of a historic property qualifying it for inclusion in or eligible for the National Register of Historic Places, as defined in 36 CFR § 800.16(i). If the project is determined to have an effect on an eligible or potentially eligible resource, then the Criteria of Adverse Effect (36 CFR § 800.5) is applied. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

The portions of 7NC-B-11 and 7NC-B-54 that are located within the APE for this project will be destroyed by the proposed construction project. Therefore, the project will have an adverse effect on both of these National Register eligible sites.

A. The Weldin Plantation Site (7NC-B-11)

Archaeological data recovery is recommended to mitigate the adverse effect that the project will have on 7NC-B-11. The recommended data recovery involves a combination of intensive background research and archaeological excavations.

This work will be designed to meet the requirements of all applicable federal and state mandates that apply to the project, as well as Stipulation VII.A of the Memorandum of Agreement executed for the project. Federal mandates for cultural resources protection include: The United States Department of Transportation Act of 1966 as amended; the National Environmental Policy Act of 1966; the National Historic Preservation Act of 1966 as amended; Executive Order 11-593; the Archaeological and Historic Preservation Act of 1974. This work will be performed in accordance with the Delaware State Historic Preservation Office's *Guidelines for Architectural and Archaeological Surveys in Delaware* (October 1993 as amended) under the supervision of an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards.

The following mitigation plan was developed in April of 2003 in consultation with DelDOT, FHWA, and the Delaware SHPO.

1. Background Research

Additional background research will be conducted to develop a context in which to discuss the data recovered from the site. The background research will consist of gathering data about similar archaeological sites in Delaware and on the Piedmont in adjacent states as well as information about farming during the period of occupation of the site. The research questions

pertain to landscape use and socioeconomic phenomena. The additional research will be geared toward obtaining information about these topics in this region during the eighteenth and nineteenth centuries. Additional research will be conducted about the Weldin family and this property, and will include examination of newspapers, property inventories, court records (orphans court, wills, marriage/birth records). Oral interviews of Weldin descendants or individuals who remember the property during the early part of the twentieth century will be attempted. Appropriate reference documents will be utilized and will be include, but not be limited to, "Dwellings of the Rural Elite" and "Agricultural Buildings and Complexes of Mill Creek Hundred".

2. Recordation of Above Ground Foundations

The existing above ground foundations will be recorded using photographs and sketches by Watson & Henry prior to any stabilization or removal of the foundations. Watson & Henry will provide an informal recordation report, based on the DE SHPO's *Delaware Guidelines for Documentation of Historic Properties as an Mitigation of Adverse Effect under Section 106 of the NHPA.* The purpose of this work is to recover information that may be relevant to research topics in areas of the site directly affected by the construction. The information and graphics derived from this work could also be useful in developing public outreach materials.

3. Archaeological Field Work

The project will impact approximately 22,690 square feet (~6916 square meters) of the archaeological site. Structure A will be destroyed during construction, while the other structures will not be directly impacted. It has not yet been determined if Structure A will be reconstructed or how it will be interpreted after construction is completed. The portion of the site that will be impacted contains the majority of the contexts of the site with eighteenth century TPQs. The majority of the contexts that date to the eighteenth century are under strata that date to the nineteenth century. Therefore, there is the opportunity to obtain data from both centuries.

It is anticipated that 30 3x3 foot test units will be excavated in the portion of the site that will be impacted by the project. Each 3x3 test unit will be excavated by natural strata. All soils recovered from these tests will be screened through ¼ inch hardware cloth, and all artifacts will be segregated by stratigraphic context. Drawings will be made of all stratigraphic tests, and representative stratigraphic profiles will be included in any reports. Photographs will be taken as per the Delaware SHPO's *Guidelines for Architectural and Archaeological Surveys*.

The field work has been designed to focus on the areas of the site which appear to contain intact eighteenth century contexts.

Proposed placement of first twenty units at the Weldin Site:

(1) Expand TUs 5 and 6 into a 3x2 block – 4 units
(2) Expand TUs 1 and 2 into a 2x2 block – 2 units
(3) Expand TUs 11 and 12 into a 2x2 block – 2 units
(4) Expand TU 9 and 10 into a 2x2 block – 2 units

(5) Expand TUs 7 and 8 into a 2x2 block – 2 units
(6) Expand TU 13 into a 1x2 block – 1 unit
(7) Place a TU near STP 49 – 1 unit
(8) Place a TU near STP 14 – 1 unit
(9) Place a TU near STP 29 – 1 unit
(10) Place a TU near STP 50 – 1 unit
(11) Place a TU along the exterior of the north wall – 1 unit
(12) Place two TUs within the interior of the newer part of the building - 2 units

The other ten units will be placed as seems appropriate based on the results of the previous excavations. The decision on placement of the additional units will be made in consultation with DelDOT, the Delaware SHPO, and DNREC.

4. Laboratory Analysis

The analysis of the recovered artifacts will focus on the interpretation of the assemblage regarding the socioeconomic stature of the inhabitants of the site during the different occupations of the site. The analysis will include, but not be limited to, mapping of artifact distributions, mapping and discussion of artifact patterning, and information concerning use and change in use on different areas of the site.

Flotation samples will be taken and processed from excavated features. Floral and faunal analysis will be completed for all floral and faunal materials recovered by experts in those fields.

All artifacts will be processed, inventoried, catalogued and analyzed as per *Guidelines for Architectural and Archaeological Surveys in Delaware*, Delaware State Historic Preservation Office, October 1993 and *Curation Guidelines and Standards for Archaeological Collections*, Delaware State Museums, ca. 1997. The Delaware State Museum will be consulted concerning any unusual or fragile artifacts which might need specialized processing or stabilization.

An archaeologist from MTA will visit the Delaware State Museum to examine the collection of artifacts and associated paperwork from the Phase I survey completed by Thunderbird Archeological Associates. This data will be incorporated into MTA's analysis.

Per Stipulation VII.D of the MOA, the archaeological artifacts and all records generated from this data recovery will be curated at the Delaware State Museum. MTA will transfer this material to the Delaware State Museum after the final data recovery report is concurred upon by DelDOT and the SHPO.

5. Stabilization of Existing Foundations

The stabilization of the foundations for Structures B, C, and D and the Barnyard Complex will be part of the mitigation for the site. This stabilization will be completed by Watson & Henry; they are currently completing a proposal and scope of work. MTA will not be involved in this work. In addition, an evaluation will be made of the foundations to determine if they are likely to be impacted by vibration during construction. Coordination will occur with the Delaware

Department of Natural Resources and Environmental Control to determine how much stabilization is appropriate.

6. Technical Report Preparation

Brief management summaries will be prepared for distribution to DelDOT, the Delaware SHPO, and DNREC for review when consultation is required to determine the need for additional testing. The summaries will include sufficient information to evaluate the progress of the data recovery and determine if adequate work has been completed.

A technical Data Recovery report will be prepared which will document the field work and laboratory analysis and discuss the significance of the site. The document will contain an abstract, introduction, project location and general description, results of background research, research goals and design, field methodology, field results, artifact description and analysis, interpretations, significant information the site has contributed, references, and appropriate mapping, photographs, figures, and appendices. The report will also be provided in a format so that it can be available on DelDOT's website.

7. Public Involvement and Outreach

Six open house days will be scheduled while the excavations are in progress. The general public and/or specific groups will be invited to the site for a tour and hands-on assistance.

Information which interprets the significance of the site will be prepared and distributed in a publicly accessible manner. This information would be disseminated by one or more of the following means: exhibits/display boards at public locations; resource information brochure(s)/booklets; lesson plan/slide or video presentation that can be used by schools and other appropriate interested groups and organizations; posters; DelDOT's website; and/or presentations at local schools or meetings for interested groups. The specific appropriate public outreach will be developed in consultation with the Consulting Parties and other interested members of the public.

8. Monitoring of Structures B, C, D, and the Barn Complex

The foundations will be evaluated by a structural engineer prior to project construction. MTA will not be directly involved in the monitoring. Portions of the free standing walls may have to be removed for safety reasons. The structural engineer will monitor the foundations during construction to ensure that they are not damaged. An evaluation will be conducted after construction. If any damage occurred due to vibration or other project related activities, coordination will occur among the consulting parties to determine the appropriate course of action.

9. Monitoring of Removal of Weldin Road

An archaeologist from MTA will be present during the removal of existing Weldin Road to document any archaeological features or artifacts that are identified. If archaeological resources are identified, DelDOT will determine, in consultation with the SHPO, how to proceed.

Archaeological data recovery is also recommended to mitigate the adverse effect that the project will have on 7NC-B-54. The mitigation plan for that site will be developed by the archaeological consultants undertaking the Phase III excavations.

B. The Ronald McDonald House Site (7NC-B-54)

Archaeological data recovery is recommended to mitigate the adverse effect that the project will have on 7NC-B-11. DelDOT and FHWA will consult with the SHPO to develop an appropriate methodology for the data recovery.

VII. Summary and Recommendations

This report details the Phase I Archaeological Identification Survey and Phase II Evaluation Investigations undertaken for the proposed Blue Ball Properties Area Transportation Improvement Project in Brandywine Hundred, New Castle County, Delaware. The Phase I Identification Survey involved the excavation of 480 STPs within the project APE. No additional archaeological sites were identified during the Phase I testing. Phase II Evaluation Investigations were undertaken at three sites. The first, the Augustine Cutoff Site (7NC-B-49), is a late nineteenth/early twentieth century domestic site occupied by employees of the DuPont company. The Phase II efforts involved the excavation of 175 STPs and five 3x3 foot TUs. Although one pit feature containing artifacts dating to the occupation of the site was located, the remainder of the site area was heavily disturbed during the widening of Concord Pike in the twentieth century and the subsequent placement of utilities along the edge of the western roadway. Because of the low probability of encountering additional intact archaeological contexts associated with the site, the Augustine Cutoff Site (7NC-B-49) is recommended not eligible for inclusion in the National Register of Historic Places (NRHP).

The second site, the Weldin Plantation Site (7NC-B-11), is a historic farmstead that was occupied continuously from the early eighteenth century through its abandonment in 1934. The Phase II Evaluation Investigations involved the excavation of 170 STPs and 20 3x3 foot TUs. There is a great deal of documentary evidence concerning the site and its occupants. Deeds for the site show a clear chain of ownership dating back to the original survey in 1680. Most of the proprietors drafted wills providing at least partial descriptions of the property and their possessions (with the exception of Israel Peterson). The physical integrity of the site is excellent. While the identification of all of the early structures locations is incomplete at this stage, the remains of many structures dateable to (at least as early as) the mid-nineteenth century are visible at the ground surface. Preliminary excavations have also revealed evidence of post-constructed buildings in the rear yard, buried foundation remains of a separate room or building on the north side of the dwelling, and footings from possible porch features on the north and south side of the dwelling. The site is recommended eligible for listing in the NRHP under Criterion D for the significant information it can contribute to our understanding of the evolution of rural farm life in New Castle County Delaware from the late eighteenth to early twentieth centuries. The proposed project will have an adverse effect on 7NC-B-11. Archaeological data recovery is proposed to mitigate the adverse effect.

The third site, the Ronald McDonald House Site (7NC-B-54), is a Woodland I resource procurement site evidenced by a relatively low density scatter of lithic artifacts. The Phase II Evaluation Investigations involved the excavation of 163 STPs and nine 1x1 meter TUs. A total of 182 pre-contact artifacts were recovered. Because of its high degree of depositional integrity and fine resolution of activity loci, the Ronald McDonald House Site offers a unique opportunity to consider a procurement site in the context of the broader network of sites within the Piedmont region. Therefore the site is recommended eligible for listing in the NRHP under Criterion D. The proposed project will have an adverse effect on 7NC-B-54. Archaeological data recovery is proposed to mitigate the adverse effect.

VIII. References

Adovasio, James A., James D. Gunn, Jesse Donahue, and Robert Stuckenrath
1982 Meadowcroft Rockshelter; 1973-1977: A Synopsis. In *Peopling the New World*, edited by J.F. Ericson, et al., pp. 97-131. Bacena Publishing, Los Altos, California.

Ames, David L., Mary Helen Callahan, Bernard L. Herman, and Rebecca J. Siders
1989 *Delaware Comprehensive Historic Preservation Plan*, Center for Historic Architecture and Engineering, College of Urban Affairs and Public Policy, University of Delaware.

Anderson, S.
1996 *Testing at the Site of a Possible Civil War Cemetery Near Route 202 at the Augustine Cutoff, New Castle County, Delaware.*

Andrus, Patrick W. and Rebecca H. Shrimpton
1995 *National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation.* U.S. Department of the Interior, National Park Service, Interagency Resources Division, National Register of Historic Places.

Arnold, Francine F.
2000 *Blue Ball Properties Area Transportation Improvement Project, New Castle County, Delaware, Historic Resources Survey and Determination of Eligibility Report*. Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

Arnold, Francine F. and Kathleen M. Post
2001 *Blue Ball Properties Area Transportation Improvements Project, Brandywine Hundred, Delaware, Pre-Draft Case Report.* Report prepared by McCormick Taylor, Inc. for submission to the Delaware Department of Transportation.

Artusy, R.E.
1977 An Overview of the Proposed Ceramic Sequence in Southern Delaware. *Maryland Archaeology* 12(2):1-15.

Baist, G.W.
1893 *Baist's Atlas of New Castle County, Delaware*. G.W. Baist, Philadelphia.

Barse, William P.
2000 *Blue Ball Properties Master Plan, Cultural Resources Documentation, Brandywine Hundred, New Castle County, Delaware,* Report prepared by John Milner Associates, Inc. for Wallace Roberts & Todd.

Becker, M.J.
1995 Lenape Maize Sales to the Swedish Colonists: Cultural Stability during the Early Colonial Period. In *New Sweden in America*, edited by C.E. Hoffecker, R. Waldron, L.E. Williams, and B.E. Benson, pp. 121-136, University of Delaware Press, Newark.

1998 Mehoxy of the Cohansey Band of South Jersey Indians: His Life as a Reflection of Symbiotic Relations with Colonists in Southern New Jersey and the Lower Counties of Pennsylvania. *Bulletin of the Archaeological Society of New Jersey*. 53: 40-68.

1999 Archaeology at the Printzhof (36De3): The Only Documented Early 17th Century Swedish Colonial Site in the Delaware Valley. *Journal of Middle Atlantic Archaeology* 15: 77-92.

Beers, D.G.
1868 *Atlas of the State of Delaware*. Pomeroy and Beers, Philadelphia.

Belknap, D.F. and J.C. Kraft
1977 Holocene Relative Sea-Level Changes and Coastal Stratigraphic Units on the Northwest Flank of the Baltimore Canyon Geosyncline. *Journal of Sedimentary Petrology* 47(2):610-629.

Bergman, Christopher A., John F. Doershuk, and Joseph Schuldenrein
1994 A Young Archaeologist's Summary Guide to the Deeply Stratified Sandts Eddy Site, Northampton County, Pennsylvania. In Recent Research into the Prehistory of the Delaware Valley. Edited by C.A. Bergman and J.F. Doershuk, pp.153-168. *Journal of Middle Atlantic Archaeology 10.*

Bhiry, Najat and Louise Filion
1996 Mid-Holocene Hemlock Decline in Eastern North America Linked with Phytophageous Insect Activity. *Quaternary Research* 45:312-320.

Bidwell, P. and J.I. Falconer
1941 *History of Agriculture in the Northern United States, 1620-1860*. Peter Smith, New York.

Blume, C.L., C.A. Clark, and M. Dunn
1990 *Cultural Resources Management Plan for Brandywine Creek State Park*. Technical Services Section, Division of Parks and Recreation, Department of Natural Resources and Environmental Control, Dover.

Brewer, E. Cobham
1894 *The First Hypertext Edition of The Dictionary of Phrase and Fable.* www.bibiomania.com/reference/phraseandfable/.

Bridenbaugh, Carl
1976 The Old and New Societies of the Delaware Valley in the Seventeenth Century. *The Pennsylvania Magazine of History and Biography* 100: 143-172.

Carlsson, S.
1995 The New Sweden Colonists. In *New Sweden in America*, edited by C.E. Hoffecker, R. Waldron, L.E. Williams, and B.E. Benson, pp. 171-187, University of Delaware Press, Newark.

Carr, Kurt W. and James M. Adovasio
2002 Paleoindians in Pennsylvania. In *Ice Age Peoples of Pennsylvania*. Edited by K.W. Carr and J.M. Adovasio, pp. 1-50. Recent Research in Pennsylvania Archaeology, Number 2. Pennsylvania Historical and Museum Commission, Harrisburg.

Catts, Wade P.
2000 *Management Summary, Phase II Archaeological Evaluation, Triangle Woods Site (7NC-B-53), Astra Zeneca Triangle Property, New Castle County, Delaware.* Prepared by John Milner Associates, Inc. for the Delaware Department of Natural Resources and Environmental Control, Dover, Delaware.

Catts, Wade P. and Douglas C. Kellogg
2000 *Blue Ball Properties Master Plan, Cultural Resources Documentation, Brandywine Hundred, New Castle County, Delaware.* Prepared by John Milner Associates, Inc. for Wallace Roberts & Todd.

Cooper, C.J.
1983 *A Town Among Cities: New Castle, Delaware 1780-1840*. Unpublished PhD Dissertation, University of Delaware, Newark.

Custer, Jay F.
1984 *Delaware Prehistoric Archaeology: An Ecological Approach*. University of Delaware Press, Newark, Delaware.

1987 Late Woodland Ceramic and Cultural Boundaries in Southeastern Pennsylvanai and Northern Delaware. *Archaeology of Eastern North America* 15:13-28.

1988 Late Archaic Cultural Dynamics in the Central Middle Atlantic Region. *Journal of Middle Atlantic Archaeology* 4:39-59.

1989 *Prehistoric Cultures of the Delmarva Peninsula: An Archaeological Study*. Cranbury, New Jersey: Associated University Presses, Inc.

1996 *Prehistoric Cultures of Eastern Pennsylvania.* Pennsylvania Historical and Museum Commission, Anthropological Series No.7. Harrisburg.

Custer, Jay F. and David C. Bachman
1983 Phase III Data Recovery Excavations of the Prehistoric Components from the Hawthorne Site (7NC-E-46) New Churchman's Road, Christiana, New Castle County, Delaware. Prepared by the University of Delaware Center for Archaeological Research, Newark. Delaware Department of Transportation Archaeology Series No. 27, Dover.

Custer, Jay F. and Colleen DeSantis
1986 *A Management Plan for the Prehistoric Archaeological Resources of Northern Delaware.* University of Delaware, Department of Anthropology, Center for Archaeological Research, Monograph No. 5.

Custer, Jay F. and Jay Hodny
1989 *Final Archaeological Investigations at the Hockessin Valley Site (7NC-A-17), New Castle County, Delaware*. Prepared by the University of Delaware Center for Archaeological Research, Newark. Delaware Department of Transportation Archaeology Series No. 75, Dover.

Custer, J.F. and R.M. Stewart
1990 Environment, Analogy, and Early Paleoindian Economies in Northeastern North America. *Research in Economic Anthropology*, Supplement 5, pp. 303-322.

Custer, Jay F. and E.B. Wallace
1982 Patterns of Resource Distribution and Archaeological Settlement Patterns in the Piedmont Uplands of the Middle Atlantic Region. *North American Archaeologist* 3:139-172.

Custer, J.F. and R.M. Stewart
1990 Environment, Analogy, and Early Paleoindian Economies in Northeastern North America. *Research in Economic Anthropology*, Supplement 5, pp. 303-322.

Custer, J. F., S.C. Watson, and C.A. DeSantis
1986 *Archaeological Investigation of the Churchman's Marsh Area*. University of Delaware Center for Archeological Research, Monograph No. 5. Newark, Delaware.

Dahlgren, S.
1995 The Crown of Sweden and the New Sweden Company. In *New Sweden in America*, edited by C.E. Hoffecker, R. Waldron, L.E. Williams, and B.E. Benson, pp. 55-67, University of Delaware Press, Newark.

Dare, C.P.
1856 *Philadelphia, Wilmington, and Baltimore Railroad Guide*. Fitzgibbons and Van Ness, Philadelphia.

Davis, M.B.
1981 Quaternary History and the Stability of Forest Communities. *In Forest Succession, Concepts and Applications*. Edited by H.H. Shugart and D.B. Botkin, pp. 132-153. Springer-Verlag, New York.

1983 Holocene Vegetational History of the Eastern United States. In Late Quaternary Environments of the United States, Volume2I: The Holocene. Edited by H.E. Wright, Jr., pp. 166-181. University of Minnesota Press, Minneapolis.

De Cunzo, Lu Ann and Wade P. Catts
1990 *Management Plan for Delaware's Historical Archaeological Resources*. Prepared by the University of Delaware, Department of Anthropology, Center for Archaeological Research for submission to the Delaware Department of State, Division of Historical and Cultural Affairs, Bureau of Archaeology and Historical Preservation.

De Cunzo, L. and Maria Garcia
1992 *Historic Context: The Archaeology of Agriculture and Rural Life, New Castle and Kent Counties, Delaware, 1830-1940*. University of Delaware Department of Anthropology Center for Archaological Research, Newark.

Delaware State Historic Preservation Office
1997 *Guidelines for Architectural and Archaeological Surveys in Delaware.*

Delaware State Museums
1997 *Curation Guidelines and Standards for Archaeological Collections.*

Delcourt, P. and H.R. Delcourt
1994 Late Quaternary Vegetation History of Pennsylvania. In *Paleoenvironmental and Paleoclimatic Reconstruction of Pennsylvania over the Last 15, 000 Years*. Edited by F. Vento, pp. 1-28). Report submitted to the Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation, Harrisburg.

Dent, R.J.
2002 Paleoindian Occupation of the Upper Delaware Valley: Revisiting Shawnee Minisink and Nearby Sites. In *Ice Age Peoples of Pennsylvania*. Edited by K.W. Carr and J.M. Adovasio, pp. 51-78. Recent Research in Pennsylvania Archaeology, Number 2. Pennsylvania Historical and Museum Commission, Harrisburg.

Dent, R.J. and B.E. Kauffman
1985 Aboriginal Subsistence and Site Ecology as interpreted from Microfloral and Faunal Remains. In *Shawnee Minsink: A Stratified Paleoindian Site in the Upper Delaware Valley of Pennsylvania*, edited by C.W. McNett, Jr., pp.55-79. Academic Press, New York.

Egnal, M.
1975 The Economic Development of the Thirteen Colonies, 1720-1775. *William and Mary Quarterly* 32 (2): 191-222.

Gardner, William M.
1974 The Flint Run Complex: Pattern and Process During the Paleo-Indian to Early Archaic. In *The Flint Run Paleo-Indian Complex: A Preliminary Report, 1971-1973 Seasons.* Edited by W.M. Gardner, pp. 5-47. Occasional Publications No. 1, Archaeology Laboratory, Department of Anthropology, Catholic University of America, Washington, D.C.

1989 An Examination of Cultural Change in the Late Pleistocene and Early Holocene (circa 9200-6800 BC). *In Paleoindian Research in Virginia: A Synthesis*, edited by J.M. Wittkofski and T.R. Reinhart, pp. 5-51. The Deitz Press, Richmond.

Goodyear, Albert C.
1989 A Hypothesis for the Use of Cryptocrystalline Raw Materials Among Paleoindian Groups of North America. In Christopher J. Ellis and Jonathan C. Lothrop (eds.), *Eastern Paleoindian Lithic Source Use*, pp. 139-164. Westview Press, Boulder, Colorado.

Grettler, D.
1991 *Farmer Slack and Farmer Snug: The Archaeology of Agricultural Reform in Central Delaware, 1780-1900*. Paper presented at the Annual Meeting of the Society for Historical Archaeology, Kingston, Jamaica.

Gehring, C.T.
1995 Hodie Mihi, Cras Tibi: Swedish-Dutch Relations in the Delaware Valley. In *New Sweden in America*, edited by C.E. Hoffecker, R. Waldron, L.E. Williams, and B.E. Benson, pp. 70-85, University of Delaware Press, Newark.

Hancock, H.
1947 Agriculture in Delaware, 1789-1900. In *Delaware: A History of the First State, vol. 1*, edited by H. Clay Reed, pp. 373-389. Lewis Historical, New York.

Hart, John P. and David Cremeens
1991 Phase III Archaeological Data Recovery at the Pearsall II Site (36Ch339), Chester County, Pennsylvania. Report on file at the Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation, Harrisburg.

Herman, B.L.
1987 Architecture and Rural Life in Central Delaware, 1700-1900. The University of Tennessee Press, Knoxville.

Herman, Bernard L., Rebecca J. Siders, David L. Ames, and Mary Helen Callahan
1989 *Historic Context, Master Reference and Summary*, Center for Historic Architecture and Engineering, College of Urban Affairs and Public Policy, University of Delaware.

Hoffecker, C.W.
1977 *Delaware: a Bicentennial History*. W.W. Norton Company, New York.

Hopkins, G.M.
1881 *Map of New Castle County, Delaware.*

Jacobsen, G.L.
1987 Patterns and Rates of Vegetation Change during the Deglaciation of Eastern North America. In The Geology of North America, Volume K-3: North America and Adjacent Oceans During the Last Deglaciation. Edited by W.F. Ruddiman and H.E. Wright, Jr., pp. 277-288. Geological Society of America, Boulder, Colorado.

Kellog, Douglas C.
2000 Management Summary, Phase II Archaeological Evaluation, Prehistoric Site 2 (7NC-B-55), Astra Zeneca Triangle Property, New Castle County, Delaware. Prepared by John Milner Associates, Inc. for the Delaware Department of Natural Resources and Environmental Control, Dover, Delaware.

Kelly, R.L. and L. Todd
1988 Coming into the Country: Early Paleoindian Hunting and Mobility. *American Antiquity* 53(2):231-244.

Kinsey, W. F. and Jeffery R. Graybill
1971 Murry Site and its Role in Lancaster and Funk Phases of Shenks Ferry Culture. *Pennsylvania Archaeologist* 41(4):7-43.

Knox, J.C.
1983 Responses of River Systems to Holocene Climates. *In Late Quaternary Environments of the United States, Volume II: The Holocene*. Edited by H.E. Wright, Jr., pp. 26-41. University of Minnesota Press, Minneapolis.

Kraft, H.C.
1975 *The Archaeology of the Tock's Island Area*. Seton Hall University Museum, South Orange, New Jersey.

Lemon, J.T.
1967 Urbanization and the Development of Eighteenth Century Southeastern Pennsylvania and Adjacent Delaware. *William and Mary Quarterly*, 24 (4): 501-542.

1972 *The Best Poor Man's Country: A Geographical Study of Early Southeastern Pennsylvania*. John Hopkins, Baltimore.

Lindstrom, D.
1978 *Economic Development in the Philadelphia Region, 1810-1850*. Columbia University, New York.

1979 American Economic Growth Before 1840: New Evidence and New Directions. *The Journal of Economic History* 39 (1): 289-301.

Main, J.T.
1973 *The Social Structure of Revolutionary America*. Princeton University, Princeton.

Mariane, Emma
1992 *Our Yesterdays in Brandywine Hundred*. Vantage Press, New York.

Marshall, Sydney B.
1985 Paleoindian Artifact Form and Function at Shawnee Minisink. In *Shawnee Minsink: A Stratified Paleoindian Site in the Upper Delaware Valley of Pennsylvania*, edited by C.W. McNett, Jr., pp.165-209. Academic Press, New York.

Martin, Paul A.
1958 Taiga-Tundra and the Full Glacial Period in Chester County Pennsylvania. *American Journal of Science* 256:470-502.

Mascia, S.F.
1996 "One of the Best Farms in Essex County": The Changing Domestic Landscape of a Tenant Who Became an Owner. In *Landscape Archaeology: Reading and Iinterpreting the American Historical Landscape*. ed. Rebecca Yamin and Karen Bescherer Metheny.

Mathews, Earle D. and Oscar L. Lavoie
1970 *Soil Survey, New Castle County, Delaware*, United States Department of Agriculture, Soil Conservation Service, Washington D.C.

McAvoy, Joseph M. and Lynn D. McAvoy
1997 *Archaeological Investigations of Site 44SX202, Cactus Hill, Sussex County, Virginia*. Research Report Series No. 8. Virginia Department of Historic Resources, Richmond.

McNett, Charles W., Jr.
1985 Artifact Morphology and Chronology. In *Shawnee Minsink: A Stratified Paleoindian Site in the Upper Delaware Valley of Pennsylvania*, edited by C.W. McNett, Jr., pp.83-120. Academic Press, New York.

Michels, J.
1985 *The Regional Organization of Delaware Agriculture, 1849*. Unpublished manuscript on file, University of Delaware Center for Archaeological Research, Newark.

Munroe, J.A.
1954 *Federalist Delaware, 1775-1815*. Rutgers University, New Brunswick.

1978 *Colonial Delaware: A History*. KTO Press, New York.

Myers, A.C. (editor)
1912 *Narratives of Early Pennsylvania, West New Jersey, and Delaware, 1630-1707*. Charles Scribner's Sons, New York.

Nass, John and Jeffery R. Graybill
1991 *Excavation of Portions of the Kauffman II Site Situated Within the Proposed Texas Eastern Pipeline Right-of Way, Chester County, Pennsylvania*. Report on file at the Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation, Harrisburg.

Ordahl-Kupperman, K.
1995 Scandinavian Colonists Confront the New World. In *New Sweden in America*, edited by C.E. Hoffecker, R. Waldron, L.E. Williams, and B.E. Benson, pp. 89-111, University of Delaware Press, Newark.

Passmore, J.
1975 *History of the Delaware State Grange and the State's Agriculture, 1875-1975*. Delaware State Grange, Wilmington. University of Delaware Library, Newark.

Passmore, J.; C. Maske, and D. E. Harris
1978 *Three Centuries of Delaware Agriculture*. Delaware State Grange and the Delaware American Revolution Bicentennial Committee. University of Delaware Library, Newark.

Petraglia, Michael, Dennis Knepper, John Rutherford, Philip LaPorta, Kathryn Puseman, Joseph Schuldenrein, and Noreen Tuross
1998 *The Prehistory of Lums Pond: The Formation of an Archaeological Site in Delaware.* Prepared by Parsons Engineering Science Cultural Resources Department. Delaware Department of Transportation Archaeology Series No. 155, Dover.

Potter, J.C.
1960 *The Philadelphia, Wilmington, and Baltimore Railroad, 1831-1840: A Study in Early Railroad Transportation*. Unpublished Master's thesis, University of Delaware, Newark.

Pursell, C.W.
1958 *That Never Failing Stream: A History of Milling Along Red Clay Creek During the Nineteenth Century*. Unpublished Master's Thesis, University of Delaware, Newark.

Ramsey, Kelvin W.
2005 *Geologic Map of New Castle County, Delaware.* Delaware Geological Survey, University of Delware, Newark.

Rea , S.M. and J. Price
1849 *Map of New Castle County, Delaware*. Smith and Wistar, Philadelphia.

Roberts, Daniel G.
1999 *Management Summary, Phase I Archaeological Survey, AstraZeneca Triangle Property, Brandywine Hundred, New Castle County, Delaware.* Letter date 6 December prepared by John Milner Associates, Inc. for submission to Graham S. Stewart, AstraZeneca.

Runk, J.M.
1899 *Biographical and Geneological History of the State of Delaware. 2 vols*., Chambersburg.

Scharf, J.T.
1888 *History of Delaware, 1609-1888*. Volumes I and II. L.J. Richards Company, Philadelphia.

Shaffer, Barbara J.
2000 *Phase I Archaeological Identification Investigations, Management Summary, Blue Ball Properties Area Transportation Improvement Project, Proposed Route 141 Spur, Brandywine Hundred, New Castle County, Delaware.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

2001a *Phase I Archaeological Identification Investigations, Management Summary, Blue Ball Properties Area Transportation Improvement Project, I-95 Ramp Widening and Improvements East of SR 0202, Brandywine Hundred, New Castle County, Delaware.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

2001b *Phase I Archaeological Identification Investigations, Management Summary, Blue Ball Properties Area Transportation Improvement Project, Area M, Brandywine Hundred, New Castle County, Delaware.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

Shaffer, Barbara J. and Robert H. Eiswert
2000 *Phase II Archaeological Evaluation Investigations, Management Summary, National Register Evaluation of Archaeological Site 7NC-B-54 (Milner #1 Site), Blue Ball Properties Area Transportation Improvement Project, Brandywine Hundred, New Castle County, Delaware.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

2001a *Phase II Archaeological Evaluation Investigations, Management Summary, National Register Evaluation of Archaeological 7NC-B-49 (Augustine Cutoff Site), Blue Ball Properties Area Transportation Improvement Project, Brandywine Hundred, New Castle County, Delaware.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

2001b *Phase I Archaeological Identification Investigations, Management Summary, Blue Ball Properties Area Transportation Improvement Project, Areas J, K, and L, Brandywine Hundred, New Castle County, Delaware.* Prepared by McCormick, Taylor & Associates, Inc. for submission to the Delaware Department of Transportation.

Shaffer, M., J.F. Custer, D. Grettler, S.C. Watson and C. De Santis
1988 *Final Phase III Investigations of the Whitten Road Site 7NC-D-100, Whitten or Walther Road, County Road 346, New Castle County, DE*. DelDOT Project 76-02-011, Series No. 68.

Shannon, F.A.
1945 The Farmers Last Frontier: Agriculture 1860-1897. In *The Economic History of the United States*, vol. V. Farrar and Rinehart, New York.

Siders, R.J., B.L. Herman; D.L. Ames, A. L. Marth, G.M. Lanier, M.H. Watson, E.M. Bellingrath, N.I Van Dolsen, L.D. Bashman, and S.M. Chase.
1991 *Agricultural Tenancy in Central Delaware, 1770-1900+/-: A Historic Context*. Center for Historic Archictecture and Engineering College of Urban Affairs and Public Policy, University of Delaware, Newark.

Simons, Kevin J., Barbara J. Shaffer, and Robert H. Eiswert
2001 *Phase II Archaeological Evaluation Investigations, Management Summary, National Register Evaluation of Archaeological Site 7NC-B-11 (Weldin Plantation Site), Blue Ball Properties Area Transportation Improvement Project, Brandywine Hundred, New Castle County, Delaware.*

Stewart, R.M.
1998 The Status of Late Woodland Research in the Delaware Valley. *Bulletin of the Archaeological Society of New Jersey* 53:1-12.

Stewart, R.M. and J. Cavallo
1991 Delaware Valley Middle Archaic. *Journal of Middle Atlantic Archaeology* 7:19-42.

Talley, G.A.
1899 *A History of the Talley Family*. Philadelphia.

Taylor, Randolph K., Kimberly A. Snyder, Pamela Stephenson, Timothy A. Thompson, and Joan Walker
1989 *Archeological Investigations of the Proposed Dualization of Route 141 (Centre Road), From Route 100 (Montchanin Road) to U.S. Route 202 (Concord Pike), New Castle County, Delaware*. Prepared by Thunderbird Archeological Associates for submission to the Delaware Department of Transportation.

Thomas, Ronald A.
1977 Radiocarbon dates of the Woodland Period from the Delmarva Peninsula. *Bulletin of the Archaeological Society of Delaware* 11:49-57.

1981 *Excavations at the Delaware Park Site (7NC-E-41)*. Prepared by Middle Atlantic Archaeological Research, Inc. Delaware Department of Transportation Archaeology Series No. 11, Dover.

Thomas, Ronald A., John F. McCune, Julie Colflesh, and John McCarthy
1980 *A Cultural Resources Assessment of Concord Pike, New Castle County, Delaware*. MAAR Associates, Inc. Delaware Department of Transportation Archaeology Series No. 8, Dover.

Thompson, T.A.
1984 Phase I and II Archeological Investigations of the Stanton Intersection, Stanton, New Castle County, Delaware. *Delaware Department of Transportation Series No. 32*., Dover.

Thunderbird Archeological Associates, Inc.
n.d. *Innkeepers, Farmers, and Dairymen: Data Recovery Excavations at the Blue Ball Tavern Site (7NC-B-22), U.S. Route 202 (Concord Pike), New Castle County, Delaware*, Report prepared by Thunderbird Archeological Associates, Inc. for the Delaware Department of Transportation.

1997 *Phase I and Phase II Archeological Investigations at the William Murphy House, New Castle County, Delaware*, Report prepared by Thunderbird Archeological Associates for the Federal Highway Administration and the Delaware Department of Transportation.

Thunderbird Archeological Associates, Inc.
2000 *Phase I Archeological Investigations for the Proposed Augustine Cut Off, New Castle County, Delaware*, Report prepared by Thunderbird Archeological Associates for the Federal Highway Administration and the Delaware Department of Transportation.

Townsend, Jan, John H. Sprinkle, Jr., John Knoerl
1993 *National Register Bulletin 36, Guidelines for Evaluating and Registering Historical Archeological Sites and Districts.* U.S. Department of the Interior, National Park Service, Interagency Resources Division, National Register of Historic Places.

United States Department of Agriculture, Natural Resources and Conservation Service
2013 Soil Survey of New Castle County, Delaware. Available online at http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

Vento, F.J. and H.B. Rollins
1990 Development of a Late Pleistocene-Holocene Genetic Stratigraphic Framework , Susquehanna River Drainage Basin. In G*enetic Stratigraphy, Paleosol Development, and the Burial of Archaeological Sites in the Susquehanna, Delaware, and Upper Ohio Drainage Basins, Pennsylvania.* Edited by F.J. Vento and H.B. Rollins. Report submitted to the Pennsylvania Historical and Museum Commission, Harrisburg.

Waguespack, Nicole M. and Todd A. Surovell
2003 Clovis Hunting Strategies, or How to Make Out on Plentiful Resources. *American Antiquity* 68(2):333-352.

Walker, Joan, Lisa DeLeonardis and William M. Gardner
1997 *Phase I and Phase II Archaeological Investigations at the William Murphy House, New Castle County, Delaware.* Delaware Department of Transportation Archaeology Series, Dover.

Wall, Robert D., R.M. Stewart, J. Cavallo, and V. Busby
1996 *Area D Site (28Me1-D), Data Recovery. Trenton Complex Archaeology*: Report 9. The Cultural Resource Group, Louis Berger and Associates, Inc., East Orange, New Jersey. Prepared for the Federal Highway Administration and the New Jersey Department of Transportation, Bureau of Environmental Analysis, Trenton.

Walzer, J.F.
1972 Colonial Philadelphia and Its Backcountry. *Winterthur Portfolio* 7: 161-173.

Welsh, P.C.
1956 Merchants, Millers, and Ocean Ships: The Components of an Early American Industrial Town. Delaware History VII: 319-337.

Weslager, C.A.
1987 *The Swedes and the Dutch at New Castle*. Bart, New York.

1961 *Dutch Explorers, Traders and Settlers in the Delaware Valley, 1609-1624*. University of Pennsylvania Press, Philadelphia, PA.

Wholey, Heather and Joan Walker
2002 *Summary of the Blue Ball Tavern Excavations in New Castle County, Delaware.* Paper Presented at the 2002 Meeting of the Council for Northeast Historical Archaeology, October 2002, Wilmington, Delaware.

Wholey, Heather H. and Joan M. Walker
2002 "Blue Ball Tavern Excavations." In the *Bulletin of the Archaeological Society of Delaware*, 39: 17-32.

Wholey, Heather, Joan Walker, and William M. Gardner
2000 *Phase I Archeological Investigations for the Proposed Augustine Cut Off, New Castle County, Delaware.* Prepared by Thunderbird Archeological Associates for submission to the Delaware Department of Transportation.

Williams, L.E.
1995 Indians and Europeans in the Delaware Valley. In *New Sweden in America*, edited by C.E. Hoffecker, R. Waldron, L.E. Williams, and B.E. Benson, pp. 112-121, University of Delaware Press, Newark.

Williams, W.
1985 *Pictorial History of Delaware*. Delaware Chamber of Commerce, Dover, DE.

Appendix A:

Memorandum of Agreement

MEMORANDUM OF AGREEMENT

AMONG THE FEDERAL HIGHWAY ADMINISTRATION, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, THE DELAWARE STATE HISTORIC PRESERVATION OFFICER, THE DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL AND THE DELAWARE DEPARTMENT OF TRANSPORTATION

REGARDING THE BLUE BALL PROPERTIES AREA TRANSPORTATION IMPROVEMENT PROJECT

BRANDYWINE HUNDRED, NEW CASTLE COUNTY, DELAWARE

WHEREAS, the Federal Highway Administration (FHWA) proposes to construct the Blue Ball Properties Area Transportation Improvement Project (Project), in Brandywine Hundred, New Castle County, Delaware, and has selected the Modified Master Plan Alternative as the preferred alternative; and

WHEREAS, in consultation with the Delaware State Historic Preservation Office (DE SHPO) and other consulting parties, the FHWA has determined the Project's Area of Potential Effects (APE), as defined in the Documentation of Adverse Effects for the Project, dated October 2001; and

WHEREAS, this Memorandum of Agreement (MOA) supercedes stipulations I(I) through I(K), I(L), I(N), I(P) and I(R) of the "Route 141 Project between Montchanin Road and Concord Pike, Wilmington, Delaware" MOA executed on July 23, 1992 among the FHWA, Advisory Council on Historic Preservation (Council), DE SHPO and the Delaware Department of Transportation (DelDOT); and

WHEREAS, the FHWA has determined that the Project will adversely affect the Concord Pike Milestone, 1 Rock Manor Avenue, Porter Reservoir, the Nemours Historic District (including the Blue Ball Barn Complex, Bird-Husbands House, and William Murphy House), the Ronald McDonald House Archaeological Site, and the J. R. Weldin Archaeological Site, which are properties listed in or eligible for listing in the National Register of Historic Places (National Register), and are located within the APE; and

WHEREAS, the FHWA has determined that the Project will not adversely affect the "Wartime" Deerhurst development and the Jewish Community Cemetery, properties which are eligible for listing in the National Register, and are located in the APE; and

WHEREAS, the FHWA has consulted with the National Park Service, the Council, and other

consulting parties to assess the effects of the Project on Lombardy Hall, a National Historic Landmark, and determined that the Project will not adversely effect this historic property; and

WHEREAS, the State of Delaware, through the Blue Ball Properties Project Interagency Memorandum of Agreement dated November 7, 2001 among the Delaware Department of Natural Resources and Environmental Control (DNREC), DelDOT, and the Delaware Economic Development Office, will take steps to ensure the stabilization, restoration, and adaptive reuse of the Blue Ball Barn Complex, the Birds-Husbands House, and the William Murphy House, properties also subject to this MOA; and

WHEREAS, DNREC will, either directly or through its designee, develop and implement a cultural resources management plan for the J.R. Weldin Archeological Site, a property which is also subject to this MOA; and

WHEREAS, the FHWA has consulted with the DE SHPO and the Council pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and

WHEREAS, the DelDOT and DNREC have participated in the consultation and have been invited to be signatories to this MOA; and

WHEREAS, Preservation Delaware, Inc. (PDI) and New Castle County (the County) have participated in the consultation have been invited to concur in this MOA as consulting parties; and

WHEREAS, the FHWA has afforded the public an opportunity to comment on the effects of the Project on historic properties through DelDOT's Public Involvement Procedures.

NOW, THEREFORE, the FHWA, Council, DelDOT, DNREC and DE SHPO agree that the Project shall be implemented in accordance with the following stipulations in order to take into account the effects of the Project on historic properties.

STIPULATIONS

FHWA shall ensure that the following stipulations are implemented:

I. Nemours Historic District

A. Landscape Plan: DelDOT, DE SHPO and DNREC will develop and implement a landscape plan in order to mitigate for the visual effects of the project on the District, and specifically the Blue Ball Barn Complex, the Bird-Husbands House and the Murphy House. The landscape plan will take into account the effects of the temporary road and the subsequent

establishment of the West Park Drive, and provide for phased implementation of the landscape elements.

B. William Murphy House (House):

1. DelDOT, DE SHPO, and DNREC will develop a permanent preservation covenant for the House and property, and DelDOT will record the covenant within 30 days of the execution of this MOA. The covenant will require that any repairs, restoration, stabilization, rehabilitation or adaptive reuse of the property be in accordance with the recommended approaches in the *Secretary of the Interior's Standards for Rehabilitation and Illustrated Guidelines for Rehabilitating Historic Buildings* (1992) (the Standards).

2. Within 90 days after the preservation covenant for the House and property is recorded against the deed, DelDOT shall initiate proceedings to transfer ownership of the House and property to DNREC in accordance with state law, unless otherwise notified in writing by DNREC. If DNREC decides not to take the property within the 90-day period, DelDOT may transfer ownership of or sell the House and property to a third party.

3. If DelDOT decides to transfer ownership of or sell the House and property to a third party, DelDOT shall, in consultation with DE SHPO and DNREC, develop and implement a marketing plan, which shall include the following elements:
   a. An advertising plan, describing how and to whom the property will be marketed;
   b. A schedule for receiving and reviewing offers;
   c. An information package to provide all prospective recipients of the property, to include the following:
      (1) Exterior and interior photographs of the property
      (2) Tax parcel map
      (3) Information on the historic significance of the property and its National Register eligibility
      (4) Information on the tax benefits for rehabilitation of historic properties
      (5) Copies of any engineering or architectural studies of the property
      (6) History and description of any stabilization work conducted or authorized by DelDOT
      (7) Copy of the preservation covenant for the House and property

4. Within six months of the execution of this MOA, if the House is still in DelDOT ownership or control, DelDOT will consult with the DE SHPO and DNREC to assess the condition of the House, and determine if additional measures need to be undertaken to secure and stabilize the House. If so, DelDOT shall, in consultation with DE SHPO and DNREC, implement such measures, in accordance with the recommended approaches described in the National Park Service's *Mothballing Historic Properties* (Preservation Brief 31, 1993);

5. If DelDOT's efforts to market the property for transfer or sale are unsuccessful after a one-year marketing period, DelDOT shall transfer ownership of the House and property to DNREC.

6. DelDOT shall consider this property in the development of the vibration monitoring plan referenced in Stipulation VIII.

C. Blue Ball Barn Complex: DelDOT shall consider this property in the development of the vibration monitoring plan referenced in Stipulation VIII.

D. Bird-Husbands House: DelDOT shall consider this property in the development of the vibration monitoring plan referenced in Stipulation VIII.

II. Concord Pike Milestone (Milestone)

A. Prior to the commencement of construction in the vicinity of the Milestone, DelDOT will carefully remove the Milestone, and shall maintain the Milestone in a secured location;

B. After construction, DelDOT, in consultation with the DE SHPO, will install the Milestone in a location approximating its original location, if possible.

C. If such an installation is not in the best interests of the preservation or interpretation of the Milestone, DelDOT, in consultation with the DE SHPO, shall identify an appropriate alternate disposition.

III. One Rock Manor

A. DelDOT, in consultation with DE SHPO, shall document the landscape features in order to provide baseline information for the development of the landscape mitigation plan. The documentation shall, at a minimum, include the following:
   1. Black and white archival quality photographs.
   2. Plan, elevation and contour maps, to scale.
   3. Inventory of tree and shrub species and placement of that information on the plan view map.

B. DelDOT shall, in consultation with DE SHPO and the property owner, develop and implement a landscape treatment to mitigate for the visual effect and to minimize the encroachment of the project on the property. The plan may include, but is not necessarily limited to, the following:
   1. Fence

2. Stone wall/retaining wall
3. Evergreen and deciduous trees, shrubs, and/or ground cover vegetation.

C. DelDOT shall maintain all landscape features installed within its right of way at One Rock Manor. For a period of two years, DelDOT shall monitor the health of all installed plant material (both in DelDOT right of way and on the property of the owner), and replace in a timely manner any tree or shrub that may not survive the initial installation.

D. DelDOT shall consider this property in the development of the vibration monitoring plan referenced in Stipulation VIII.

IV. Porter Reservoir

A. DelDOT shall document the stone pillars flanking the northernmost entrance to Porter Reservoir. The documentation shall include the following:
1. Archival quality black & white photography
2. Color 35 MM slides
3. Measured drawings on all dimensions
4. Plan view to scale showing their location

B. DelDOT shall, in consultation with DE SHPO and the property owner, relocate or rebuild the pillars with existing stone material. The pillars will be placed on either side of the existing entrance road in the general vicinity of their current position.

C. DelDOT shall consider this property in the development of the vibration monitoring plan referenced in Stipulation VIII.

V. Ronald McDonald House Archaeological Site

A. DelDOT shall, in consultation with DE SHPO, develop and implement a data recovery plan for the site.

B. DelDOT shall insure that the data recovery plan includes a public outreach component and is carried out in accordance with Stipulation IX.

VI. J. R. Weldin Archaeological Site

DelDOT, in consultation with DE SHPO and DNREC, shall develop and implement a treatment plan for the site, that will include, but is not necessarily limited to:

A. Data recovery excavations of that portion(s) of the site that may be physically affected by the

construction;

B. A public outreach effort that is carried out in accordance with the Stipulation IX, and takes into account the cultural resource management plan to be developed by DNREC or its designee;

C. Monitoring, conducted by a qualified archaeologist, of the removal of Weldin Road within the site and determine appropriate treatment of any features identified.

D. A structural analysis, conducted by a professional engineer that is knowledgeable of historic masonry construction, of the stone ruins, and based on this information, develop and implement a stabilization plan.

E. DelDOT shall consider this property in the development of the vibration monitoring plan referenced in Stipulation VIII.

VII. General Requirements for Archaeology

A. DelDOT shall ensure that all data recovery plans meet the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation (48 FR 44734-37) and the DE SHPO's Guidelines for Architectural and Archaeological Surveys in Delaware, and will take into account the Council's guidance *Recommended Approach for Consultation on Recovery of Significant Information from Archaeological Sites, May 18, 1999.* The DE SHPO will have 30 days to review proposed data recovery plans. DelDOT will complete all necessary data recovery work prior to commencing construction in the site areas.

B. DelDOT shall notify the SHPO and the Council within 24 hours of the discovery of any human remains encountered during the archaeological investigations or the project construction. DelDOT shall cease all activities which may disturb or damage the remains, and comply with the Delaware Unmarked Human Remains Act (7 DE Code Chapter 54; subchapter II). If the human remains are of Native American affiliation, then FHWA will consult with the appropriate affiliated Indian tribes, if any, in accordance with 36 CFR Part 800, and the DE SHPO will comply with the Native American Graves Protection and Repatriation Act of 1990 (PL 101-601) with regard to disposition of the remains and/or associated funerary objects.

C. DelDOT shall provide all draft and final archaeological reports and public information materials to the DE SHPO for review and comment. All final reports shall meet the Secretary of the Interior's Standards and Guidelines for Archaeological Documentation (48 FR 44734-37), and the DE SHPO's Guidelines for Architectural and Archaeological Surveys in Delaware.

D. DelDOT shall ensure that all records and materials resulting from the archaeological investigations will be curated in accordance with 36 CFR Part 79 and the curation guidelines developed by the Delaware State Museum. These records and materials shall be curated at the Delaware State Museum, or their designee, following the policies of the institution.

E. In the event that previously unidentified archaeological resources are discovered during construction, DelDOT shall instruct the contractor to cease construction in the immediate area, and shall proceed with consultation under 36 CFR § 800.13 (b)(3).

F. DelDOT shall ensure that all archaeological work carried out pursuant to this MOA is carried out by or under the direct supervision of a person or persons meeting at a minimum the *Secretary of the Interior's Professional Qualifications Standards for Archaeologists* (48 FR 44738-9).

VIII. Vibration Monitoring, Stabilization & Repair

A. DelDOT, in consultation with the DE SHPO and DNREC, shall develop and implement a vibration-monitoring plan to monitor the effects of project construction on historic properties. DelDOT shall acquire the services of a professional engineer or other qualified expert, as appropriate, that is knowledgeable about the effects of construction vibration on historic buildings, to develop this plan. The plan will include a schedule for documenting the baseline conditions of the historic properties that will be monitored.

B. During construction, if the monitoring indicates that damage is occurring to historic properties subject to the monitoring plan, DelDOT shall instruct its contractor to cease construction in the immediate area. DelDOT shall then, in consultation with the DE SHPO, and DNREC or property owners where applicable, acquire the services of a professional engineer and/or architect that is knowledgeable about the effects of construction vibration on historic buildings, to:

1. determine the nature and extent of the damage; and
2. alter any construction methods that may have caused the damage; and
3. develop and implement methods to stabilize and/or repair the damage, in accordance with the recommended approaches in the Standards.

IX. Public Involvement Program

Within one year of the execution of this MOA, DelDOT, in consultation with the DE SHPO and DNREC, will develop a plan for informing the public of the history of the Project area, using

information derived from studies conducted for the Project.

A. Topics covered by the plan should include, but are not necessarily limited to:
   1. history of the Nemours Historic District and its contributing elements;
   2. history of the J.R. Weldin Plantation, and information gained through archaeological investigations at its site;
   3. information on the Concord Pike Milestone; and,
   4. general history of Native Americans in the area during the Woodland I period, and information gained through the archaeological investigations of the Ronald McDonald House Site.

B. Materials and methods used to distribute this information may include, but are not necessarily limited to: public "open house" during archaeological field investigations; booklets; pamphlets; videos; school curricula; historical markers; and displays for libraries and/or professional conferences.

C. DelDOT shall distribute the materials developed to implement this plan to consulting parties, and to local schools, historical societies, libraries, and/or museums.

X. Disposal of Project Related Materials

DelDOT shall consult with the DE SHPO concerning the location for disposal of materials produced by demolition, construction, excavation, and/or dredging. The DE SHPO will review all such locations to ensure the disposal will not adversely effect historic properties. DelDOT shall not use any such location if the DE SHPO objects.

XI. Review of Project Plans

DelDOT shall provide copies of preliminary, semi-final, and final project plans to consulting parties for review and comment. Consulting parties will have 30 days from the receipt of all materials to provide comments on the plans.

XII. Subsequent Changes to the Project

If, subsequent to the implementation of Stipulation XI, DelDOT proposes any changes to the Project affecting location, design, methods of construction, materials, or footprint of the Project, DelDOT shall provide the consulting parties with information concerning the proposed changes. The consulting parties will have 30 days from the receipt of this information to comment on the proposed changes. DelDOT shall take into account any consulting party comments, prior to implementing such changes.

XIII. Weldin-Husbands House

If DelDOT decides to relocate the Weldin-Husbands House, a property determined not to be eligible for listing in the National Register, DelDOT shall consult with the DE SHPO, DNREC and the Council, in accordance with 36 CFR Part 800.4 through 800.6.

XIV. Administrative Conditions

A. Any party to this MOA may propose to FHWA that the MOA be amended, whereupon FHWA shall consult with the other parties to this MOA to consider such an amendment in accordance with 36 CFR § 800.6(c)(7).

B. Should any party to this MOA object in writing to FHWA regarding any action carried out or proposed with respect to the Project or implementation of this MOA, FHWA shall consult with the objecting party to resolve the objection. If FHWA determines that the objection cannot be resolved through consultation, FHWA shall forward all documentation relevant to the objection to the Council including FHWA's proposed response to the objection. The Council will respond within 30 days of receipt of all relevant material. Any Council comment provided in response to such a request will be taken into account by FHWA in accordance with 36 CFR § 800.6(c)(2) with reference only to the subject of the dispute; FWHA's responsibility to carry out all actions under the MOA that are not the subjects of the dispute will remain unchanged.

D. At any time during implementation of the measures stipulated in this MOA, should an objection to any such measure or its manner of implementation be raised by a member of the public, FHWA shall take the objection into account and consult as needed with the objecting party, the DE SHPO, and/or the Council to resolve the objection.

E. This MOA shall remain in effect for a period of six (6) years from the date of its execution. Within six months of the end of this period, the FHWA may request in writing that the signatories review this MOA and consider an extension or modification of this MOA. No extension or modification will be effective unless all signatories to the MOA have agreed to it in writing.

F. Any signatory to this MOA may terminate the MOA by providing 30 days written notice to the other parties, provided that the parties will consult during the period prior to termination to seek agreement on amendments or other actions that would avoid termination. If the signatories cannot reach agreement on the amendment, the FHWA will either consult with the signatories to execute a new MOA under 36 CFR 800.6(c)(1) or request the comments of the Council under 36 CFR 800.7(a).

Execution of this MOA by DelDOT, DNREC, DE SHPO, FHWA, and the Council, and implementation of its terms, is evidence that the FHWA has afforded the Council an opportunity to comment on this Project and that the FHWA has taken into account the effects of the Project on historic properties.

DELAWARE DEPARTMENT OF TRANSPORTATION

By: Carolann Wicks Date: 11/15/01

Carolann Wicks, Assistant Chief Engineer

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

By: Charles A. Salkin Date: 11/20/01

Charles Salkin, State Parks and Recreation

DELAWARE STATE HISTORIC PRESERVATION OFFICER

By: Daniel R. Griffith Date: 1/9/02

Daniel R. Griffith, State Historic Preservation Officer

FEDERAL HIGHWAY ADMINISTRATION

By: Robert Clemmensen Date: 1/18/02

for Tom Myers, Division Director

ADVISORY COUNCIL ON HISTORIC PRESERVATION

By: John M. Fowler Date: 1/30/02

John M. Fowler, Executive Director

CONCUR:

NEW CASTLE COUNTY

By: _____ Date: _____

Name and Title

PRESERVATION DELAWARE, INC.

By: _____ Date: _____

Name and Title

Appendix B:

Personnel

Personnel

***Barbara J. Shaffer**, Archaeology Group Coordinator, Principal Investigator*

M.A., Historic Preservation, Goucher College, Maryland, 2009

M.A., Anthropology/Archaeology, Pennsylvania State University, 1996

B.A., Anthropology, Minor in Sociology, Pennsylvania State University, 1989

Meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology and Architectural History (36CFR§61)

Occupational Safety and Health Administration Hazardous Waste Operations and Emergency Response Worker Training Certification (29CFR§1910.120)

Occupational Safety and Health Administration Confined Space Entrant, Attendant, and Supervisor Training Certification (29CFR§1910.146)

Ms. Shaffer has over nineteen years of professional experience in historic and archaeological research. She has two years of experience working in the Pennsylvania SHPO as a Historic Preservation Specialist/Review Archaeologist. For three years she served as one of the PennDOT's Cultural Resource Qualified Professionals. She has provided assistance with the management of compliance archaeological work for several PennDOT Districts and the Pennsylvania Turnpike Commission, including training PennDOT personnel on a variety of cultural resources issues, such as Section 106 and Section 4(f) coordination, implementation of Programmatic Agreements, and management of cultural resource field work. Ms. Shaffer has also assisted PennDOT in the preparation, execution, training, and implementation of two program-wide Programmatic Agreements. She has been the Principal Investigator for all levels of archaeological investigations on prehistoric and historic archaeological sites.

***Robert H. Eiswert**, Archaeological Field Director*

M.A., American Studies, Pennsylvania State University, 2005

B.A., History and Anthropology, Bloomsburg University, Pennsylvania, 1995

Meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology (36CFR§61)

Occupational Safety and Health Administration Hazardous Waste Operations and Emergency Response Worker Training Certification (29CFR§1910.120)

Mr. Eiswert has over thirteen years of professional experience in archaeological research in the Middle Atlantic region. For the last three years he has served as a Principal Investigator. Prior to that he worked as a field director on numerous projects ranging from large scale Phase I surveys to Phase III data recovery excavations. Mr. Eiswert has experience supervising excavations on a variety of sites in Pennsylvania and Delaware including stratified pre-contact sites, historic farmsteads, and industrial sites. In addition, Mr. Eiswert has experience in the supervision, management and coordination of transportation projects involving archaeology and cultural resources, serving as a PennDOT Culture Resource Professional.

Kevin J. Simons, *Archaeologist*

M.A., Anthropology/Historical Archaeology, Binghamton University, State University of New York, 1999

B.A., Anthropology, West Chester University, 1995

Meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology.

Mr. Simons has over five years of professional experience in archaeological research in the Middle Atlantic region. He was previously employed as one of PennDOT's Cultural Resource Qualified Professionals. In this role, he managed compliance archaeological work for several PennDOT Districts, including training PennDOT personnel on a variety of cultural resources issues, such as Section 106 and Section 4(f) coordination, implementation of Programmatic Agreements, and management of cultural resource field work.

Francine F. Arnold*, Architectural Historian*

M.A., Historic Preservation, Graduate School of Fine Arts, University of Pennsylvania, in progress

B. A., General Arts and Science, Concentrations in Fine Arts and Anthropology, Pennsylvania State University, 1990

Meets the Secretary of the Interior's Professional Qualifications Standards for Architectural History.

Ten years of experience in historic research, inventory, and evaluation of historic structures and archaeological resources in the Middle Atlantic region.

Richard T. Baublitz*, Archaeologist*

M.A., Anthropology/Archaeology, University of Pennsylvania, 1991

B.A., Independent Studies, focus on East Asian History and Culture, University of Maryland, 1986

Meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology.

Mr. Baublitz has over thirteen years of experience conducting all phases of archaeological surveys. For two years he served as one of PENNDOT's Cultural Resource Qualified Professionals. He has provided assistance with the management of compliance archaeological work for several PENNDOT Districts, including training PENNDOT personnel on a variety of cultural resources issues, such as Section 106 and Section 4(f) coordination, implementation of Programmatic Agreements, and management of cultural resource field work. He has been the Principal Investigator for all levels of archaeological investigations on prehistoric and historic archaeological sites.

Jonathan W. Bream*, Archaeological Field Supervisor*

Ph.D., Spanish Colonial History, Universidad de Sevilla, Spain, in progress

M.A., Maritime History and Nautical Archaeology, East Carolina University, North Carolina, in progress

B.A., Kutztown University, Pennsylvania, 1986

Ten years of professional experience in archaeological research in the Middle Atlantic region.

Brenda L. Weller, *Archaeologist, Laboratory Director*

M.A., Anthropology, Specialization in Zooarchaeology, State University of New York at Binghamton, 2011

B.A., Anthropology, Indiana University of Pennsylvania, 1994

Ms. Weller has over thirteen years of experience in Cultural Resource Management in the Middle Atlantic region. She has worked for CRM firms in New York and Pennsylvania, and has participated in prehistoric and historic site excavations in New York, Pennsylvania, Maryland, & Delaware. Additionally she is an experienced zooarchaeologist, who has performed analyses on both prehistoric and historic faunal assemblages. As laboratory director she has analyzed numerous historic assemblages from rural, urban and industrial sites, supervised assemblage processing and curation and submitted several assemblages for long-term curation with the Pennsylvania Historical and Museum Commission and Delaware State Museum.

Macon H. Coleman IV*, Archaeological Field Supervisor*

B.S., Anthropology and History, Longwood College, Virginia, 1990

Occupational Safety and Health Administration HAZWOPER Site Worker Training Certification

Mr. Coleman has over fifteen years of professional experience in archaeological research in the Middle Atlantic region. His experience includes participation on long-term Phase I, II and III archaeological projects of historic, prehistoric, and wetlands replacement sites. His field and laboratory experience includes work on over thirty sites. Mr. Coleman's experience includes excavations of Paleo-Indian, Archaic, Woodland I, Woodland II, Contact Period, 17th, 18th, 19th, and turn of the century, homesteads, and farmsteads, as well as industrial sites in New York, Pennsylvania, New Jersey, Delaware, Maryland and Virginia. Mr. Coleman has also worked as an historic artifact cataloger, using the Automated National Cataloging System (ANCS) for the National Park Service.

Dorothy A. Daly*, Environmental Planner/Landscape Architect*

M.L.A., Master of Landscape Architecture, University of Pennsylvania, 1998

B.A., Psychology, Temple University 1995

Two years professional experience in landscape architecture.

Scott A. Emory*, Archaeological Field Supervisor*

M.A., Maritime History and Nautical Archaeology, East Carolina University, North Carolina, 2000

B.A., Anthropology, University of Delaware, 1991

Meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology.

Four years of experience in maritime archaeological fieldwork. Nine years of professional experience in archaeological research in the Middle Atlantic region.

John Mark Joseph*, Archaeological Field Supervisor*

M. A., Anthropology/Historic Archaeology, East Carolina University, 2001

B. S., Sociology/Anthropology, Minor in History, Virginia Commonwealth University, 1994

Meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology.

Seven years of professional experience in archaeological research in the Middle Atlantic region.

***David G. Kimmerly**, Architectural Historian*
M.A., Cultural/Historical Geography, Ohio University, 1983
Certificate, Historic Preservation, Bucks County Community College, Pennsylvania, 2001
B.A., Geography, East Stroudsburg University, Pennsylvania, 1981
Two years of experience in historic preservation research, inventory, and evaluation of above ground historic resources for the National Register of Historic Places.

***Daniel P. Wagner**, Geomorphologist*
Ph.D., Soil Science, University of Maryland, 1982
M.S., Soil Science, University of Maryland, 1976
B.S., Soil Science, University of Maryland, 1973
Twenty-three years of experience interpreting soil depositional and weathering sequences on archaeological and historic sites.

Archaeological Field Technicians

Elise Alexander
M.A., Anthropology, Certificate in Latin American Studies, University of Pittsburgh, 1999
B.A., Anthropology, University of New Hampshire, 1995

Daniel Angelo
B.S., Agricultural Sciences, Pennsylvania State University, 1997

James Di Vietro
B.S., Geology, LaSalle University, 1994

Kathryn Ersoz
B.A., Art Conservation, University of Delaware, 2000

***Jeffrey L. Bowdoin**, Intern*
B.A., Anthropology and Sociology, Towson University, Maryland, in progress

Timothy Coan
B.A., Anthropology, Indiana University of Pennsylvania, 1998

***Colin R. Ferriman**, Intern*
B.A., Anthropology, Kutztown University, Pennsylvania, in progress

Elizabeth A. Korb
B.S., Environmental Science, Allegheny College, 2000

Bonnie Lassiter
B.A., English, minor in Anthropology, Millersville University, Pennsylvania, 2000

Timothy J. Mancl
M.A., Hagley Program, History of Industrialization, University of Delaware, in progress
B.A., American Studies, Western Connecticut State University, 1998

Wayne L. Mellin
B.A., Agriculture and Anthropology, University of Delaware, 1986

David Orr, *Intern*
B.A., Economics/Marketing, Robert Morris College, Pennsylvania, in progress

Rebecka A. Weinsteiger*, Intern*
B.A., Anthropology, minors in Biology and Political Science, Kutztown University, Pennsylvania, in progress

Joshua J. Wilson
B.S., Geoenvironmental Studies, Shippensburg University, Pennsylvania, 2000

Appendix C:

November 6, 2003 Correspondence from SHPO

Shaffer, Barbara J. G.

From: Hahn, Michael (DelDOT) [MHahn@mail.dot.state.de.us]

Sent: Thursday, November 06, 2003 4:56 PM

To: Tudor, Mark C. (DelDOT); Chura, Mark R.; Shaffer, Barbara J.; Rautzahn, John L.

Subject: FW: MTA proposal for additional Phase I at Blue Ball

Guys and Gals,

Based on the feedback analysis from our section and with the SHPO's thoughts stated below, no further Phase I archaeological testing is needed in park areas. Thanks for the maps as they helped us on out decisions.

Mike H
DelDOT Environmental

-----Original Message-----
From: Griffith Daniel R (DOS) [mailto:dan.griffith@state.de.us]
Sent: Thursday, November 06, 2003 12:22 PM
To: Hahn Michael (DelDOT)
Cc: Blume Cara (DNREC); Davis Gwen (DOS); Stocum Faye (DOS); Cunningham Kevin (DelDOT)
Subject: MTA proposal for additional Phase I at Blue Ball

Mike,
we've reviewed the proposal for the four areas designated by MTA . We concur that areas 1,2 and 3 do not need additional work. We reviewed our files on Area 4. Area 4 has been subject to two archeolgical surveys covering slightly different areas; one by Thunderbird (for an earlier generation of the Blue Ball project) and one by Heite Consulting (for the Matson Run Sewer). While a site has been identified there, it was detemined not eligible. Given that information, we do not see the need for addtional work in Area 4 either.
Please contact me if you have any questions and let me know if you'd like to have a more formal letter for the file. Thank you for the opportunity to review the proposal.
Dan

Appendix D:

Vegetation Survey

Weldin Plantation Vegetation Survey

Conducted November 6, 2000

by Dorothy A. Daly

View to Weldin Road from woodland understory of the Weldin Plantation.

Weldin Plantation Vegetation Survey

A vegetative survey was conducted on November 6, 2000 on the Weldin Plantation Archaeological Site (7NC-B-11) in New Castle County, Delaware. The survey was conducted to see if specific uses of the site could be determined (i.e. apple orchard near a presumed apple press) from the vegetation present on the site.

The survey consisted of a walking field investigation that identified plants around specific areas of the site. This report documents species of herbaceous and woody plants identified on the site, but specifically details the main structures of the plantation site (***Figure 1***), such as the barn and structures A, presumed to be the main house and unidentified structure B. This is not a complete list, the vegetation that was most prolific, native or historically used for specific purposes was identified. Actual numbers of each species located on site was not determined. The field survey was attended and conducted by the following people: Rob Line from the Department of Natural Resources and Environmental Control, Scott Emory from McCormick, Taylor and Associates, Inc, and Dorothy Daly of McCormick, Taylor and Associates, Inc.

The following herbaceous and woody species were identified at or around each of the labeled structures on Figure 1. A determination of possible uses of the plant material, such as for ornamental use, or culinary purposes is included in each of the identifications.

Structure A

Trees:

Catalpa **Catalpa speciosa**

A few Catalpa were present on the site, it was determined that this species is most likely introduced to the project area, is adventive, but may have been planted.

Tree of Heaven **Ailanthus altissima**

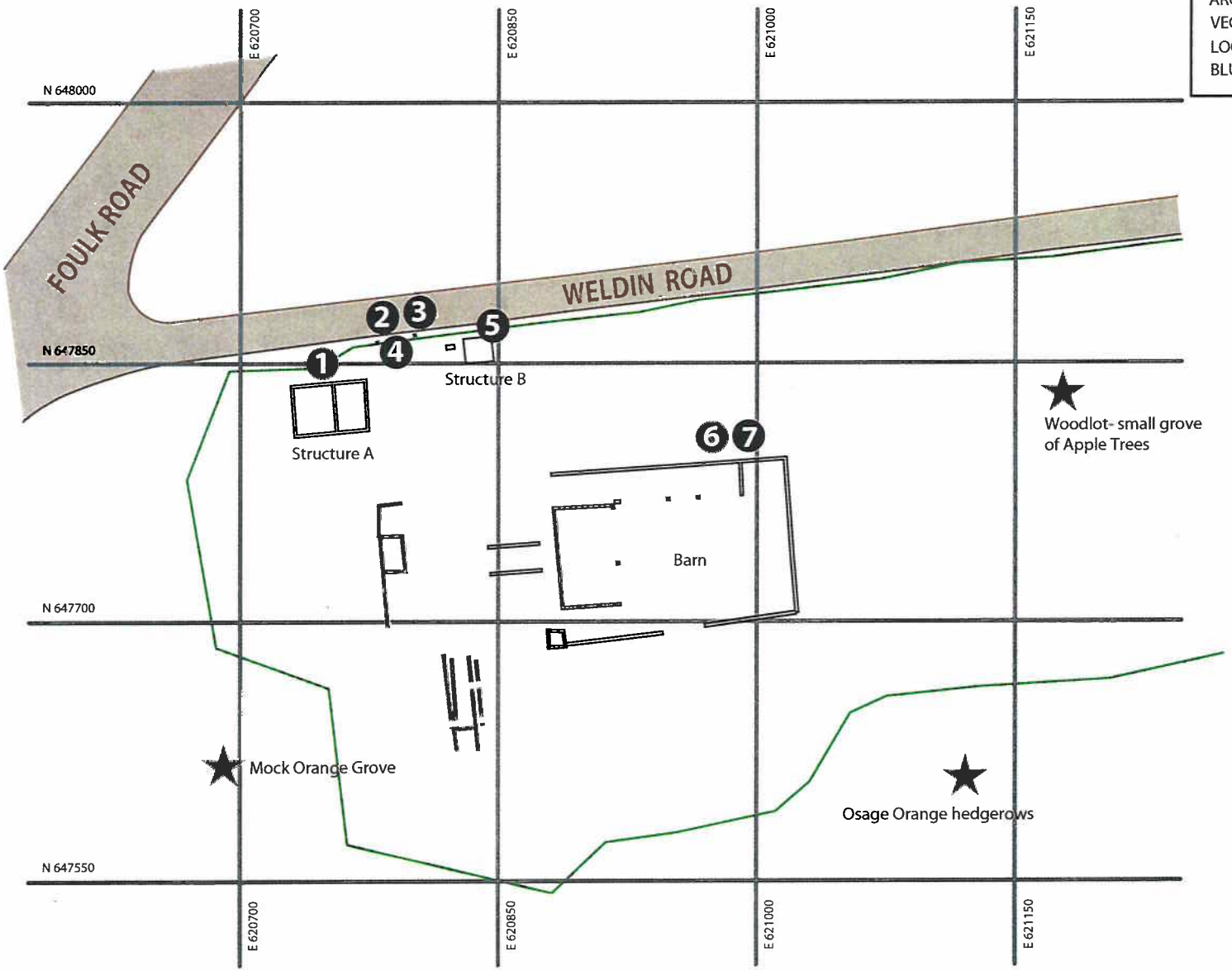
This tree species is an invasive exotic and most likely was introduced to the project area from seed by birds or waste dumped from area development.

White Pine **Pinus strobus** ***(Photo 1)***

There was remains of a single white pine, the trunk was lying across the structure remains. This tree was most likely planted for protection from the wind.

Photo 1 (See Figure 1 for location)
Fallen white pine across Structure A.

BLUE BALL PROPERTIES AREA
TRANSPORTATION IMPROVEMENT PROJECT
NEW CASTLE COUNTY, DELAWARE
7NC-B-11, WELDIN PLANTAION
ARCHAEOLOGICAL SITE
VEGETATION SURVEY
LOCATIONS OF IMPORTANT VEGETATIVE AREAS
BLUE BALL PROPERTIES AREA



1 **Photo Locations**

★ **Locations of Important Vegetative Features**

Tree Line

50 FEET 0 50 FEET
15.24 m 0 15.24 m

MTA
McCormick, Taylor & Associates, Inc.

Delaware Department of Transportation

Blue Ball Properties

Figure 1

Oak (Pin or Red) **Quercus spp.**
This is a native species to the northeast region, because there were only a few identified, it was determined that a parent tree may have existed in the woodlands on the site prior to habitation or been planted during habitation of the site.

Apple **Malus spp.**
A number of apple species were planted on either side of the entrance to the tracts of the driveway by the entrance posts. The remains of these trees were visible at the time of the survey.

Honeylocust **Gleditsia triacanthos**
There were a couple of young trees on the site that were most likely introduced to the project area, is adventive, and a parent tree may have been planted.

Sweet Cherry **Prunus avium**
These trees may have been planted, but were most likely spread by birds or seeds.

Shrubs:
Privet **Ligustrum spp. (*Photos 2 and 3*)**
Two hedgerows existed along the Weldin Road entrance, spreading north and south from the entrance posts. These were definitely planted.

Photo 2
Hedgerow of privet looking north along Weldin Road.

Photo 3
Privet Hedge looking south along Weldin Road.

Hackberry **Celtis occidentalis**
This is a small native tree, and the few that were identified were most likely naturally occurring and may have been used for berries. Additionally, the trees may have been planted for ornamental purposes.

Blackberry **Rubus occidentalis**
This abundant native shrub may have been planted for berries, but was most likely naturally occurring, or was spread by birds or seed.

Rose of Sharon **Hibiscus syriacus**
This is an ornamental species that most likely was planted.

Groundcover:
English ivy **Hedera helix**
This groundcover occurred in two spots and may have been planted or resulted from dumping of soil by development activities in the area.

Chinese bittersweet **Celastrus orbiculatus**
This is an invasive exotic, most likely spread by birds and seed.

Japanese knotweed **Polygonum cuspidatum**
This is an invasive exotic, most likely spread by birds and seed.

Structure B

Trees:
Sweet Cherry **Prunus avium**
Although there were a number of trees on the site, one large specimen, most likely 100+ years old, may have been planted, but was most likely introduced by birds or seeds.

Silver Maple **Acer saccharinum**
These abundant trees are located along the edge of structure B and although naturally occurring in wet areas, may have been planted as a windbreak. There is a specimen 50+ years old on the site.

Norway Maple **Acer platanoides**
A number of these trees were on the site, this is an invasive exotic and was most likely spread by seed.

Shrubs:

Amur Honeysuckle **Lonicera maackii (*Photo 4*)**

There are many groups of the Amur honeysuckle located in the woodland understory, this is an invasive exotic and was most likely spread by birds and seed.

Photo 4
Amur Honeysuckle growing along roadside edge

Photo 5
Periwinkle (Vinca minor)located along the edge of Structure B.

Groundcover:

Periwinkle **Vinca minor (*Photo 5*)**

The periwinkle was located along the edge of structure B and was planted or resulted from soil dumped on site during area development activities.

Japanese Honeysuckle **Lonicera japonica**
This vine can grow like a groundcover, and is a prolific invasive exotic. This plant most likely spread from birds or seed.

Poison Ivy **Toxicodendron radicans**
This native plant exists in forest understories and may have been present prior to habitation of the site.

Barn

Trees:
Silver Maple **Acer saccharinum (*Photos 6 and 7*)**
There is a potential parent tree to the other silver maples on site, and may have been planted as a windbreak, although most likely it is naturally occurring.

Photo 6
Crown of potential parent Silver Maple.

Photo 7
Large caliper of potential parent Silver Maple.

Norway Maple **Acer platanoides**
This is an invasive exotic, a few were found on the site, most likely spread by birds and seed.

Black Walnut **Juglans nigra**
This is a native tree species to the northeast region, and the few identified may have been planted for the nuts, but most likely a parent tree previously existed in the woodlands on the site.

Box Elder **Acer negundo**
This native woodland understory tree probably existed on site during the period of habitation.

Black Cherry **Prunus serotina**
This native woodland tree probably resulted from a parent tree on site during habitation of the site.

Red maple **Acer rubrum**
This native tree is indicative of low-lying or wet areas, and is also a common woodland understory tree in the area. A couple were identified around the barn and this tree may have resulted from parent trees that existed during the sites' habitation.

Catalpa **Catalpa speciosa**
This species is most likely introduced to the project area, is adventive, but may have been planted.

Hickory **Carya spp.**
This is native woodland tree in the northeast region, likely occurring naturally, but may have been planted for the nuts.

Sassafrass **Sassafrass albidum**
There is a grove located on the edge of the agricultural field. This tree is native.

Northern Red Oak **Quercus rubra**
This is a native woodland tree found in the northeast regions Beech/Oak/Hickory forests and may result from a parent tree that existed during prior to habitation of the site.

Osage Orange **Maclura pomifera**
There is an allee of trees located along driveway/hedge row. This is an introduced species, is adventive, and was most likely planted.

Apple **Malus spp.**
A couple of apple trees were identified, mostly dead, and these trees were most likely planted for their fruit.

American Hazelnut **Corylus americana**
This is a native species to the northeast region, and the few on the site may have been planted for the nuts, but most likely occurred naturally.

Shrubs:
Blackhaw Viburnum **Viburnum prunifolium**
This is a native species, most likely occurring naturally on the site, and used for the berries.

Rose of Sharon **Hibiscus syriacus**
There were a few specimen plants located on the site. This is an ornamental species and was most likely planted.

Wineberry **Rubus phoenicolafius**
This is an invasive exotic and the couple identified were probably spread by birds and seed.

Mulberry **Morus spp.**
This is an exotic species that may have been planted for its berries, but was most likely naturally occurring on the site.

Staghorn Sumac **Rhus typhina**
This is a native species that is indicative of disturbance to the area.

Spicebush **Lindera benzoin**
This is a native woodland understory species whose numerous plants most likely result from parent species that existed during the site's habitation.

Amur Honeysuckle **Lonicera maackii**
There are many groups of the Amur honeysuckle located in the understory, this is an invasive exotic and was most likely spread by birds and seed.

Sweet Mock-orange **Philadelphus coronarius**
There is a grove located at the field edge (northwest corner). This is an exotic that was most likely planted for ornamental purposes.

Groundcover:
Japanese Honeysuckle **Lonicera japonica**
This prolific vine acts as a groundcover and is an invasive exotic. This plant most likely spread from birds or seed.

Rock Island (in field)

Trees:
Black Cherry **Prunus serotina**
This native woodland tree probably resulted from a parent tree on site during habitation of the site.

Mulberry **Morus spp.**
This is an exotic species that may have been planted for its berries.

Amur Honeysuckle **Lonicera maackii**
There are many groups of the Amur honeysuckle located in the understory, this is an invasive exotic and was most likely spread by birds and seed.

Groundcover:

Honeysuckle **Lonicera japonica**

This vine acts as a groundcover and is an invasive exotic. This plant most likely spread from seed.

Woodlot (Southwest entrance from field)

Trees:

Oak (Scarlet or Pin) **Quercus spp.**

There are edge plantings of these tree, they are native to the northeast Beech/Oak forest, may have been planted for protection from the wind.

Tulip poplar **Liriodendron tulipifera**

These native woodland trees probably result from parent trees that existed during the sites habitation.

Apple **Malus spp.**

There is a small grove of apple trees that were most likely planted and are remnants from the time that the site was inhabited.

Black Cherry **Prunus serotina**

This native tree, with just a few present, probably resulted from parent trees found on the site during habitation of the site.

American Beech **Fagus americana**

This is a native tree of the northeastern Beech/Oak forest and the couple present most likely result from parent trees that were located on the site.

Green Ash **Fraxinus pennsylvanica**

This native tree most likely results from parent trees located in the area.

Shrubs:

Spicebush **Lindera benzoin**

This is a native understory species that most likely results from parent species that occurred naturally on the site.

Greenbriar **Smilax spp.**

This abundant native shrub can be found throughout the woodlands of the northeast region.

Groundcover:

Japanese Honeysuckle **Lonicera japonica**

This prolific vine acts as a groundcover and is an invasive exotic. This plant most likely spread from birds or seed.

Poison Ivy **Toxicodendron radicans**
This native plant exists in forest understories and may have been present since habitation of the site.

English ivy **Hedera helix**
This exotic species was found in two areas, and may have been planted, but most likely results from soil dumped during development activities in the area.

Additional Notes and comments:

- The black cherry, sumac, hackberry, American hazelnut, blackhaw viburnum, and spicebush are most likely naturally occurring following abandonment.

- The hickories, and walnuts may have been planted, but they were likely readily available along field edges.

- The silver maples probably result from a couple large parent trees naturally occurring on the site. There are two specimens on site that may be the original parent trees.

- Many of the planted plants may be offspring of now dead parent plants, so it may be hard to reconstruct how the Weldin Plantation site looked. Clearly some of the ornamentals found on the site are remnants of the old farm plantings, such as the mock-orange, privet, apple, white pine, Rose-of-Sharon and possibly the silver maples, planted as windbreaks.

- Some plants currently present on the site are from recent roadside dumping events that occurred during development activities in the area. The Japanese knotweed is definitely found on the site as a result of this, while the English ivy and the periwinkle possibly occur due to this reason.

- The catalpa and honeylocust were commonly planted during the farm period, so it was determined that the specimens found on the site may be remnants of that period.

In conclusion, it should be noted that the amount of development and roadside activity that occurred in this area after habitation ceased makes it difficult to determine the way the site may have looked from the vegetation. Some of the vegetation found can be linked back to typical uses by other historic sites from the same period of habitation, and specific uses can be surmised, but an overall conclusion or site plan cannot be completed with the information available.

Appendix E:

Geomorphological Evaluation

Geo-Sci Consultants, Inc.

4410 Van Buren Street, University Park, Maryland 20782

tel: 301 277 3731 fax: 301 277 2147

December 20, 2000

Ms. Barbara Shaffer
McCormick, Taylor & Associates, Inc.
Gateway Corporate Center
75 Shannon Road
Harrisburg, Pennsylvania 17112

RE: 7NC-B-54
New Castle County Delaware

Dear Barb:

The following are a few brief comments summarizing my examination of the above referenced site. This site was visited on December 6, 2000.

The site is situated on a gently sloping upland landscape within the Piedmont Physiographic Province where soils are formed in residual materials derived from the native metamorphic rocks of the region. Locally, the rock type is identified as the Precambrian age Wilmington Complex, which consists of gneiss and amphibolite. Natural soils in such settings tend to be strongly developed with readily discernible subsoil argillic horizons documenting a prolonged period of soil formation and relative landscape stability. Prior to the advent of European settlement and historic agriculture, such gently sloping landscapes as that of the site can be considered to have been largely stable over a period reaching well into the Pleistocene.

Of particular interest for this now wooded site is whether or not it was ever plowed. Clearly, based on the present tree coverage including several relatively large specimens, it has no recent history of tillage. These trees, however, indicate nothing of the site land use prior to the 20th Century.

Three soil examinations made during the site visit shed some, albeit not definitive, light on plowing speculations. These closely spaced examinations entailed two shovel tests and one small tree throw exposure. Based primarily on surface horizon variables of thickness and abruptness of lower boundary, interpretations are somewhat conflicting. Whereas the relative thickness and uniformity of the surface horizon exposed in the tree throw would be consistent with a history of former plowing, properties of surface horizons exposed in the two shovel tests were less convincing. In one, these properties varied enough across the short exposure that an assessment of former plowing could go either way. In the second the surface horizon differed little from what would be expected in an essentially virgin forest soil.

Based on these variable observations, the site soil has probably been slightly disturbed, but obviously not to the extent compatible with a long history of tillage. In addition to duration of tillage, soil properties such as texture and drainage can also affect the degree to which evidence of former plowing still persists in abandoned farm fields. Upon abandonment, surface horizon morphology begins to revert back to that of a natural forest soil, and old plow zones may lose their identifiable traits over the course of decades or centuries in well drained medium-textured soils such as that of the site. Also with gentle slopes little soil erosion may have occurred, so soil profiles remain largely intact.

Since there is some evidence suggestive of plowing, and considering that over the course of more than 300 years of European settlement virtually all well drained and gently sloping Piedmont landscapes have been subject to at least some tillage, I suspect the area was farmed in early historic time. A possible scenario for the site would involve early historic tillage, perhaps a period of pasture, and eventual abandonment to woodland sometime around the middle to second half of the 19th Century.

Sincerely,

Daniel P. Wagner, Ph.D.
Pedologist

Geomorphological Assessment of a Portion of The Blue Ball Properties Area Bike Path

Daniel P. Wagner, Ph.D.
Pedologist

January 25, 2001

The following describes the results of the pedological and geomorphological examination conducted along a planned bike path approaching and paralleling a stretch of Matson Run in the vicinity of Blue Ball, Delaware. The interpretations of the study site are based on pedestrian traversal of the area landscapes undertaken on December 6, 2000, and were directed toward assessing potential occurrences of prehistoric artifacts with respect to landscape and soil conditions.

The study location is situated within Delaware's Piedmont Physiographic Province in a region where geology is dominated by gneiss and amphibolite of the Precambrian age Wilmington Complex. These metamorphic rocks tend to form moderately to steeply sloping uplands on which soil development is often a function of slope and landscape position. Natural erosional processes are the most active on more steeply sloping terrain, and soil development beneath such surfaces thus tends to be less advanced than that typical for lower gradient, more stable positions. Indeed, the erosion and redeposition of soil materials are the main natural mechanisms whereby any appreciable changes might be introduced to what would otherwise be old and mostly stable upland land surfaces. Where landscapes are cultivated or were formerly cultivated, erosional processes have been greatly accelerated by historic tillage, and the soils of such landscapes tend to be moderately to severely eroded, depending on slope gradient.

The investigated area is distributed over upland landscapes that although mainly wooded now, were at one time almost entirely subject to cultivation. Evidence for this is in several forms. One area just to the east of the golf course access road is till partially cleared, and most trees are only in sapling stage. As the path bends south to parallel Matson Run tree size increases somewhat, but growth is still at a relatively young stage. Additionally, a former field boundary is also present in one area where it is marked by an abandoned farm lane along an alignment of larger trees. Hence, for the great majority of the area, artifact context should be viewed as comparable to that expected for a field still actively subject to plowing. At least some amount of historic soil erosion therefore likely, but since most of the terrain is only gently sloping, soil losses and movement across the landscape have probably been only slight to moderate. Due to the antiquity of the regional upland soils, any artifacts present should be confined to near-surface levels. These would include the plowed surface horizon together with the immediately underlying subsoil horizon extending to the depth of perhaps 30 cm or so.

At several points the planned path approaches alluvial positions along Matson Run, but in no instance does the path ever decline from the upland to the floodplain until it actually crosses the stream beyond the southern limit of the area investigated. Along most of the demarcation

between these two landscape forms, clear separations are provided by a scarp or steep slope; and even where such abrupt transitions are absent the gentle slopes of the upland terrain are readily distinguishable from the level, often poorly drained surface of the floodplain.

Other than differing proximity to Matson Run, the only other significant variable likely to have had some affect on prehistoric occupations along the path relates to soil drainage. The great majority of the examined path is across landscapes that are sufficiently well drained to be well suited for human occupation. Only at two locations would drainage have potentially affected occupation patterns. Where the path begins its southern bend to parallel Matson Run it skirts a wetland and eventually crosses a ditched outlet leading from the wetland to the stream. For a distance of perhaps 100 feet or so northwest of this ditch crossing, soil drainage in a transitional area adjacent to the wetland is likely to be sufficiently poor that prehistoric people would probably have avoided the location in favor of nearby more favorably drained positions. A second drainage crossing also occurs at the southern end of the examined area just before the path drops from the upland to cross the stream. This drainageway is for the most part an incised erosion gully formed across the slope break between the upland and floodplain, and the gully is unlikely to have existed in prehistoric time. However, it does conduct water on at least an intermittent basis, and seasonal seepage in the immediate area of the present gully may have been sufficient to cause some avoidance of the location by prehistoric inhabitants.

To summarize, the investigated bike path is distributed across gently sloping upland terrain. At no location other than where it crosses Matson Run beyond the southern end of the investigation area does the path range onto an alluvial landscape. Although now wooded most of the tree growth is in fairly young stages, and there is little doubt that the great majority of the path area was formerly within plowed fields. Thus as would be typical for cultivated fields, at least some erosion and minor disturbance of the uppermost level of soil can be expected. Prior to the historic period the upland soils can be considered to have been long stable, and any artifacts should be within or just beneath surface horizons.

Most of the upland terrain crossed by the bike path is well drained, but proximity to a wetland around which the path makes a northern loop is probably close enough that impeded soil drainage would have been a limiting factor for prehistoric occupation at this location. A drainage gully near the southern end of the examined path may also mark another very small area where poor drainage could have been an avoidance consideration.

Appendix F:

Artifact Inventory

Blue Ball Phase I and II Artifact Inventory

Area A

STP 1 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	

STP 4 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail	wire	1850	2001	1	

STP 6 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail	unidentified mfg method	0	0	1	

STP 7 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

H	Domestic	earthenware-red	floor tile	glazed	0	0	2	mnv=1
H	Domestic	glass	bottle		0	0	1	
H	Indeterminate	wood			0	0	1	

STP 7 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Indeterminate	plastic			1907	2001	2	

STP 8 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	cloth	carpet binding strip		0	0	1	

STP 9 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	

STP 10 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	color orange
H	Domestic	glass	bottle		0	0	1	

STP 12 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	
H	Domestic	redware		unglazed	0	0	1	
H	Domestic	shell	oyster		0	0	1	

STP 13 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	2	
H	Domestic	glass	bottle		0	0	3	possible soda
H	Domestic	glass	bottle-beer		1930	2001	3	
H	Indeterminate	plastic			1907	2001	3	

STP 13 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle		0	0	5	

STP 14 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	copper alloy	coin-penny	Lincoln	1965	1965	1	

STP 15 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	drainage pipe		0	0	1	unglazed sewertile (see angusthe cutoff)
H	Transportation	macadam			1871	2001	1	

STP 17 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle-beer		1930	2001	1	

STP 18 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle-beer		1930	2001	1	
H	Domestic	redware		dark brick to black glaze	1627	1880	1	
H	Indeterminate	plastic			1907	2001	2	
H	Transportation	macadam			1871	2001	2	

STP 20 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	
H	Domestic	redware		unglazed	0	0	1	

STP 24 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	styrofoam			1962	2001	1	
H	Indeterminate	plastic			1907	2001	1	
H	Transportation	macadam			1871	2001	1	

STP 29 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	

STP 30 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 34 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	styrofoam			1962	2001	1	
H	Domestic	whiteware		plain	1805	2001	1	

STP 49 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	3	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle		0	0	1	
H	Indeterminate	plastic			1907	2001	1	

STP 54 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle		0	0	1	

STP 54 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	

STP 55 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	creamware		plain	1762	1820	1	
H	Domestic	glass	bottle		0	0	1	

STP 58 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 58 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle		0	0	1	

STP 59 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	3	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle		0	0	1	
H	Heating by-product	coal			0	0	3	
H	Indeterminate	plastic			1907	2001	1	

STP 60 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	glass	window		0	0	2	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle-beer		1930	2001	26	
H	Indeterminate	plastic			1907	2001	3	

STP 61 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	asphalt	roofing tile		1917	2001	3	

H	Architectural	glass	window		0	0	3	
H	Domestic	foil			1947	2001	1	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle		0	0	5	
H	Domestic	glass	bottle		0	0	2	
H	Indeterminate	iron	strip		0	0	1	
H	Indeterminate	plastic			1907	2001	1	possible dollhouse toy
H	Indeterminate	plastic			1907	2001	1	
H	Indeterminate	steel	coil spring		0	0	1	

STP 62 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	
H	Domestic	ironstone/white granite		plain	1842	2001	2	

STP 63 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle		0	0	1	

STP 64 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	

STP 65 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	

STP 66 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	redware		unglazed	0	0	1	
H	Heating by-product	coal			0	0	1	
H	Indeterminate	iron	unidentifiable		0	0	1	

STP 76 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	slate	roofing tile		0	0	1	

STP 79 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	color orange
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle		0	0	1	

Summary for 'Area' = A (93 detail records)

Sum 154

Area B

STP 77 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	slate	roofing tile		0	0	3	

Summary for 'Area' = B (1 detail record)

Sum 3

Area C

STP 72 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	

STP 73 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	cement/concrete			2001	0	1871	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle-beer		1930	2001	2	
H	Domestic	whiteware		plain	1805	2001	1	

STP 80 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	color orange

STP 81 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	whiteware		plain	1805	2001	1	

STP 82 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	

STP 108 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	finish	1903	2001	1	screwtop

STP 109 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail	cut	1791	1891	1	

STP 127 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Indeterminate	iron	unidentifiable		0	0	1	

Summary for 'Area' = C (12 detail records)

Sum 1884

Area D

STP 86 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	color red

STP 89 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle-beer		1930	2001	1	

STP 105 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	
H	Heating by-product	coal			0	0	1	

STP 137 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	ironstone/white granite		plain	1842	2001	1	

STP 149 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle		0	0	1	

Summary for 'Area' = D (7 detail records)

Sum 7

Area E

STP 94 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle		0	0	1	

STP 139 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 163 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	porcelain-hard paste		decal underglaze	1870	2001	1	polychrome floral

Summary for 'Area' = E (4 detail records)

Sum 4

Area F

STP 166 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	

STP 208 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 210 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 220 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	white clay	tobacco pipe bowl	5/64" bore diameter	0	0	1	

STP 223 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	whiteware		plain	1805	2001	1	

Summary for 'Area' = F (5 detail records)

Sum 5

Area G

STP 223 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	

STP 227 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	stoneware	hollowware	alkaline glaze, small band with embossed dots	1880	2001	1	

STP 233 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Heating by-product	slag			0	0	1	
H	Indeterminate	iron	possible stove foot		0	0	5	

STP 252 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		dark brick to black glaze	0	0	1	

Summary for 'Area' = G (5 detail records)

Sum 10

Area H

STP 239 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		dark brick to black glaze	1627	1880	1	

STP 242 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	porcelain-hard paste		plain	0	0	1	

STP 249 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	lime			0	0	1	
H	Domestic	whiteware		plain	1805	2001	1	

STP 265 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	stone	architectural stone		0	0	1	

STP 352 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		dark brick to black glaze	1627	1880	1	

STP 358 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		dark brick to black glaze	1627	1880	1	
H	Domestic	redware		unglazed	0	0	1	
H	Domestic	styrofoam			1962	2001	1	

STP 359 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	8	
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail	unidentified mfg method	0	0	1	
H	Domestic	creamware		plain	1762	1820	1	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle-beer		1930	2001	1	
H	Domestic	redware		unglazed	0	0	1	

H	Domestic	redware		dark brick to black glaze	1627	1880	5
H	Domestic	redware		clear glaze	1627	1880	2
H	Domestic	styrofoam			1962	2001	1
H	Domestic	whiteware		decal underglaze	1870	2001	1
H	Farming	iron	horeseshoe		0	0	1
H	Hardware		chain link		0	0	1

STP 370 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 375 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail	unidentified mfg method	0	0	1	
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle-beer		1930	2001	1	
H	Domestic	redware		unglazed	0	0	1	

STP 381 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		clear glaze	1627	1880	1	

H	Domestic	whiteware		plain	1805	2001	1

STP 387 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	porcelain-chinese	saucer	indeterminate blue decoration-underglaze	1700	1840	1	

STP 390 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	possible soda

Summary for 'Area' = H (31 detail records)

Sum 43

Area I

STP 3 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Hardware	iron	miscellaneous machinery part		0	0	1	possible collar for farm equipment

STP 52 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	whiteware		plain	1805	2001	1	
H	Indeterminate	plastic			1907	2001	1	

STP 67 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	3	

STP 69 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Arms/Ammunition	brass	bullet casing	centerfire, maker's mark	1904	1932	2	WRACo 9mm LUGER

STP 75 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	

STP 159 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	

STP 410 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Arms/Ammunition	clay composite	target	black	1884	2001	2	
H	Domestic	whiteware		plain	1805	2001	1	

STP 275 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	porcelain-soft paste		transfer printed overglaze	1750	2001	1	ext. red floral over glaze

STP 278 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	6	color red mnv = 1

STP 279 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	creamware		plain	1762	1820	1	
H	Domestic	redware		unglazed	0	0	2	
H	Domestic	redware		dark brick to black glaze	1627	1880	1	

STP 280 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		clear glaze	1627	1880	1	

STP 284 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Arms/Ammunition	clay composite	target	black	1884	2001	3	
H	Domestic	glass	fruit jar liner	opal/white	1869	1930	1	

STP 288 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	1	
H	Domestic	glass	bottle		0	0	1	

STP 290 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	color orange

STP 293 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 295 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	whiteware	hollowware	blue banded interior-wide	1805	1840	1	

STP 312 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 327 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	porcelain-soft paste		transfer printed underglaze	1750	2001	1	floral motif

STP 330 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 344 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Hardware	iron	miscellaneous machinery part		0	0	1	possible farm-related machinery

STP 362 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		yellow-brown to brown glaze	1627	1880	1	missing
H	Heating by-product	slag			0	0	1	missing

STP 364 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Domestic	creamware		plain	1762	1820	1	
H	Domestic	whiteware		blue shell edge-crow's foot mold	1840	1860	1	
H	Domestic	whiteware		flow blue	1845	1920	2	
H	Heating by-product	coal/cinder/slag			0	0	1	

STP 399 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

Summary for 'Area' = I (34 detail records)

Sum 47

Area J

STP 429 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	whiteware	unidentifiable	plain	1805	2001	1	

STP 432 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	indeterminate vessel	clear	0	0	1	
H	Domestic	whiteware	unidentifiable	plain	1805	2001	1	

STP 433 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Domestic	glass	indeterminate vessel	aqua-tinted	0	0	1	
H	Domestic	redware	storage jar	red/brown glaze interior	1627	1880	1	
H	Heating by-product	slag			0	0	1	

STP 436 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	hollowware	dark brown glaze interior	1627	1880	1	

STP 437 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	hollowware	dark brown glaze on lip	1627	1880	1	

STP 440 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	light green tint, oil-type finish	1860	1900	1	

STP 447 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Arms/Ammunition	clay composite	target	black with white paint	1884	2001	2	
H	Domestic	whiteware	unidentifiable	plain	1805	2001	1	
H	Heating by-product	slag			0	0	1	

STP 448 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	

STP 449 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	unidentifiable	clear glaze	1627	1880	1	

STP 458 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	whiteware	unidentifiable	plain	1805	2001	1	

STP 460 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	shell	oyster		0	0	2	

STP 462 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	indeterminate vessel	clear	1810	2001	1	
H	Indeterminate	glass	unidentifiable		0	0	2	

STP 463 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	

H	Domestic	ironstone	hollowware	plain	1842	2001	1
H	Domestic	whiteware	unidentifiable	transfer printed-blue willow	1805	2001	1

Summary for 'Area' = J (22 detail records)

Sum 25

Area L

STP 475 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	11	
H	Architectural	iron	nail	unidentified mfg method	0	0	2	
H	Domestic	brass	button		0	0	1	
H	Domestic	glass	bottle	cobalt, embossed	1860	2001	1	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	clear	0	0	4	
H	Domestic	glass	bottle	clear, embossed design	1903	2001	1	
H	Domestic	glass	indeterminate vessel	milk	1743	2001	1	
H	Domestic	glass	lamp		0	0	2	
H	Domestic	porcelain	hollowware	painted overglaze red floral with gilding	0	0	1	
H	Domestic	redware	unidentifiable	unglazed exterior	0	0	1	
H	Heating by-product	coal			0	0	2	

STP 476 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	styrofoam			1962	2001	1	

STP 477 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	4	
H	Architectural	iron	nail	unidentified mfg method	0	0	1	
H	Architectural	iron	nail	wire	1850	2001	1	
H	Architectural	slate	architectural		0	0	1	
H	Domestic	glass	indeterminate flat		0	0	1	
H	Domestic	ironstone	plate	scalloped	1842	2001	1	
H	Domestic	ironstone	unidentifiable	embossed	1842	2001	1	
H	Domestic	ironstone	unidentifiable	plain	1842	2001	2	
H	Heating by-product	coal			0	0	2	

STP 478 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	bone	medium/large mammal		0	0	1	

STP 478 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	sewage tile	salt glazed exterior	0	0	6	
H	Domestic	redware	hollowware	dark brown glaze exterior	1627	1880	1	

STP 479 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	indeterminate vessel	amethyst	1880	1914	1	

STP 479 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail	unidentified mfg method	0	0	1	
H	Domestic	shell	indeterminate bivalve		0	0	1	

Summary for 'Area' = L (29 detail records)

Sum 55

Area M

STP 481 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	ironstone	unidentifiable	plain	1842	2001	1	

H	Indeterminate	glass	unidentifiable	clear	0	0	1

STP 484 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	ironstone	unidentifiable	plain	1842	2001	1	

STP 489 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	ironstone	plate	brown transfer with stippling	1813	1900	1	

STP 490 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail	wire	1850	2001	1	
H	Domestic	ironstone	unidentifiable	plain	1842	2001	1	

STP 490 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	mortar			0	0	1	
H	Domestic	glass	bottle	clear	0	0	2	

Summary for 'Area' = M (10 detail records)

Sum 11

Summary for 'Site Number' = (253 detail records)

Sum 2248

7NC-B-11 Weldin Site

Area

General Collection Surface

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	ceramic	miscellaneous ornamental hardware		0	0	1	ceramic post top, chin\meny top etc.

STP 2 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	hollowware	dark brown glaze interior	1685	1880	1	

STP 3 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	brown	0	0	3	

STP 3 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	light green	0	0	1	

STP 3 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	brown	0	0	2	

STP 5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	brown	0	0	1	

STP 6 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	redware	indeterminate vessel	yellow-brown glaze interior	1685	1880	1	

STP 7 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic		zipper		0	0	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Transportation		miscellaneous auto related		0	0	1	

STP 8 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic		miscellaneous toy		0	0	1	
H	Domestic	earthenware-refined white	hollowware	dipped	1795	1840	1	
H	Domestic	glass	bottle	dark green	1903	2001	2	

H	Domestic	glass	bottle	brown	0	0	1
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1
H	Heating by-product	coal			0	0	1

STP 9 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	

STP 10 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	light green	0	0	1	
H	Heating by-product	coal			0	0	2	

STP 13 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	

STP 14 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	1	
H	Architectural	slate	roofing		0	0	4	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	2	
H	Domestic	redware	indeterminate vessel	brown glaze interior	1685	1880	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	3	

STP 15 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	pearlware	hollowware	painted underglaze-blue Oriental interior and exte	1775	1810	1	
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1	
H	Domestic	stoneware-gray bodied	hollowware	salt glazed	1735	1880	1	
H	Domestic	transitional whiteware	plate	shell edge-blue, well drawn band, impressed curved	1840	1860	2	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	2	

STP 16 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	brown	1930	2001	4	farm poison?

STP 18 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	

STP 19 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	hollowware	dark brown/black glaze interior	1685	1880	1	

STP 20 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 23 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	fruit jar liner	embossed	1869	1878	4	"The hero fruit jar company Phila PA"
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2	
H	Domestic	redware	hollowware	dark brown glaze	1685	1880	1	
H	Heating by-product	coal			0	0	1	

STP 24 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		0	0	1	
H	Domestic	iron/steel	can-pop top		1962	2001	1	
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1	
H	Domestic	redware	indeterminate vessel	clear glaze	1685	1880	1	
H	Domestic	whiteware	hollowware	painted underglaze-green line interior and exterio	1830	1900	1	

	H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	5

STP 25 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	

STP 25 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	aqua	1685	1860	1	

STP 26 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Indeterminate	plastic	unidentified		1940	2001	1	

STP 26 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	hollowware	dark red/brown glaze interior	1685	1880	1	
H	Domestic	redware	hollowware	dark brown glaze	1685	1880	1	
H	Domestic	redware	hollowware	dark red/brown glaze interior	1685	1880	2	

STP 27 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	glass	window		0	0	1	
H	Domestic	redware	hollowware	dark brown glaze interior	1685	1880	1	
H	Heating by-product	coal			0	0	1	

STP 27 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 28 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Heating by-product	coal			0	0	30	
H	Indeterminate	plastic	unidentified		1869	2001	1	

STP 28 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Heating by-product	slag			0	0	1	

STP 29 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Heating by-product	slag			0	0	2	

STP 29 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	indeterminate vessel	unglazed, white slip trail interior	1685	1850	1	

STP 30 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	aluminum foil			1947	2001	1	
H	Domestic	glass	bottle	dark green	1903	2001	1	

H	Domestic	plastic	cigarette filter		1950	2001	1
H	Domestic	plastic	US AIR club card		1980	2001	1

STP 30 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	yellowware	hollowware	annular banded-brown	1830	1940	1	

STP 31 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	5	

STP 31 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	5	
H	Heating by-product	coal			0	0	1	

STP 32 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue willow	1805	2001	1	

STP 32 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Heating by-product	slag			0	0	1	

STP 33 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	1	
H	Architectural	slate	roofing		0	0	3	
H	Heating by-product	coal			0	0	2	

STP 34 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	

STP 35 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	5	discarded
H	Architectural	glass	window		0	0	4	
H	Domestic	glass	bottle	aqua	1903	2001	1	

STP 36 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	iron	nail		1850	2001	1	
H	Domestic	glass	bottle-wine	clear	0	0	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	
H	Domestic	porcelain	indeterminate vessel	plain	0	0	1	

H	Domestic	porcelain	saucer	enamel overglaze-pink rose	1890	2001	1
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1

STP 37 Stratum II/III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	2	
H	Architectural	slate	roofing		0	0	1	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-blue	1775	1830	1	
H	Domestic	redware	bowl	clear glaze with yellow slip trail and black spott	1685	1850	1	
H	Domestic	redware	plate	brown glaze with yellow slip trail interior	1685	1850	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	

STP 38 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	3	

STP 39 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	slate	roofing		0	0	2	
H	Domestic	redware	hollowware	dark brown/black glaze interior, exterior spalled	1685	1880	1	

STP 40 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP 41 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	stoneware-buff bodied	hollowware	Albany slip interior and exterior, some salt vapor	1880	1950	1	

STP 43 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	aqua	0	0	2	

STP 44 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Domestic	porcelain	indeterminate vessel	plain	0	0	1	

STP 46 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle-wine	olive green	1903	2001	1	

STP 48 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	amethyst-tint	1880	1914	1	

H	Domestic	shell	oyster		0	0	1

STP 49 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	1/2 brick, discarded
H	Architectural	brick			0	0	2	
H	Architectural	glass	window		0	0	11	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	glass	bottle	clear	0	0	5	
H	Domestic	glass	bottle-soda	clear, embossed	1906	1980	1	Pepsi bottle
H	Domestic	glass	grooming mirror		0	0	1	
H	Domestic	Jackfield-like	hollowware	black glaze	1740	1850	1	
H	Domestic	pearlware	hollowware	transfer printed-blue scenic exterior	1783	1830	1	

STP 49 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	14	
H	Architectural	glass	window		0	0	25	
H	Architectural	iron	nail		0	0	2	
H	Architectural	plaster			0	0	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	3	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	9	
H	Domestic	earthenware	indeterminate vessel	burned, spalled	0	0	1	
H	Domestic	glass	bottle	olive green	1903	2001	1	

H	Domestic	glass	grooming mirror		0	0	1	
H	Domestic	Jackfield-like	hollowware	black glaze interior and exterior	1740	1850	1	
H	Domestic	Jackfield-like	hollowware	black glaze interior and exterior	1740	1850	2	
H	Domestic	pearlware	hollowware	transfer printed-blue scenic interior and exterior	1783	1830	1	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-blue floral	1775	1830	1	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-polychrome-brown and green leaf	1795	1830	2	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	6	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-blue floral	1775	1830	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	5	
H	Domestic	pearlware	plate	shell edge-blue, impressed, scalloped	1780	1835	2	
H	Domestic	porcelain-Oriental			1685	1840	1	missing
H	Domestic	redware	hollowware	trace of dark brown glaze exterior, spalled interi	1685	1880	1	
H	Domestic	redware	hollowware	dark brown glaze interior	1685	1880	4	
H	Domestic	redware	hollowware	brown glaze interior	1685	1880	1	
H	Domestic	redware	hollowware	clear glaze interior and exterior	1685	1880	2	
H	Domestic	redware	hollowware	dark brown glaze interior and exterior	1685	1880	7	
H	Domestic	redware	hollowware	brown glaze interior	1685	1880	1	

H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1
H	Domestic	redware	plate	yellow slip trail interior, brown glaze exterior	1685	1850	1
H	Domestic	redware	plate/bowl	brown glaze w/yellow slip trail interior	1685	1850	1
H	Domestic	shell	oyster/clam		0	0	1
H	Heating by-product	slag			0	0	1

STP 50 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	22	
H	Architectural	glass	window		0	0	7	
H	Architectural	iron	nail		0	0	4	
H	Architectural	porcelain	electrical insulator		1919	2001	1	Pat apr 27,1919
H	Architectural	slate	roofing		0	0	4	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	2	
H	Indeterminate	bone	indeterminate mammal		0	0	1	

STP 50 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	17	
H	Architectural	glass	window		0	0	4	
H	Architectural	iron	nail		0	0	3	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	2	

H	Domestic	earthenware-refined white	indeterminate vessel	indeterminate blue decoration	1775	2001	1
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1
H	Domestic	pearlware	saucer	painted underglaze-brown floral	1795	1830	1
H	Domestic	redware	hollowware	red/brown glaze interior and exterior	1685	1880	1
H	Domestic	redware	hollowware	trace of dark brown glaze exterior	1685	1880	1
H	Domestic	redware	indeterminate vessel	brown glaze interior	1685	1880	1
H	Domestic	redware	indeterminate vessel	unglazed, white slip interior	1685	1850	1
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	3
H	Domestic	redware	indeterminate vessel	dark brown/black glaze interior	1685	1880	4
H	Domestic	whiteware	hollowware	transfer printed-blue geometric interior and sceni	1805	2001	1
H	Heating by-product	coal			0	0	1

STP 51 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	tumbler	clear	0	0	1	

STP 51 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2	
H	Domestic	redware	hollowware	dark brown glaze	1685	1880	1	

H	Domestic	redware	hollowware	clear glaze interior and exterior, w/black spottin	1685	1880	6
H	Domestic	whiteware	hollowware	sponged-blue exterior	1840	1930	3
H	Heating by-product	coal			0	0	1

STP 51 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	

STP 52 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	iron	spike		1850	2003	1	
H	Domestic	pearlware	indeterminate vessel	transfer printed/painted underglaze-blue Oriental	1775	1810	2	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	
H	Domestic	porcelain	hollowware	plain	0	0	1	
H	Domestic	redware	hollowware	dark brown glaze interior	1685	1880	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	yellowware	hollowware	plain	1830	1940	1	

STP 53 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	15	

H	Architectural	iron	nail		0	0	1	
H	Domestic	plastic	coffee cup lid		1962	2001	1	coffee cup lid cover, discarded
H	Domestic	whiteware	plate	shell edge-blue, unmolded, unscalloped	1865	1895	2	
H	Indeterminate	plastic	unidentified		1869	2001	1	

STP 53 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	1	

STP 54 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		0	0	25	
H	Domestic		light bulb		1879	2001	2	
H	Domestic		razor parts		0	0	1	
H	Domestic	glass	bottle	yellow	0	0	5	
H	Domestic	glass	bottle	white	0	0	1	
H	Domestic	glass	bottle	aqua	0	0	1	
H	Domestic	glass	bottle	clear	0	0	11	
H	Domestic	iron/steel	can-beverage		1935	2001	3	
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	3	
H	Indeterminate	plastic	bag		1933	2001	13	plastic bag, discarded
H	Indeterminate	plastic	unidentified		1940	2001	42	

STP 55 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	2	
H	Architectural	iron	nail		1791	1891	1	
H	Domestic	glass	bottle	clear	0	0	7	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Indeterminate	plastic	unidentified		1869	2001	1	

STP 56 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Domestic		watch cog		0	0	1	
H	Heating by-product	coal			0	0	1	

STP 61 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	glass	window		0	0	6	
H	Domestic	glass	bottle	clear	0	0	11	
H	Domestic	glass	bottle	dark green	1903	2001	1	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	clear	1903	2001	2	

STP 61 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	light green	0	0	1	
H	Domestic	glass	bottle	clear	0	0	9	
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue willow	1805	2001	1	
H	Heating by-product	coal			0	0	1	

STP 61 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	34	
H	Architectural	glass	window		0	0	6	
H	Architectural	glass	window		0	0	15	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	dark green	1903	2001	2	
H	Domestic	glass	bottle	clear	0	0	3	
H	Domestic	glass	bottle-wine	dark green	1903	2001	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	3	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-polychrome floral, blue and yel	1795	1830	1	

H	Domestic	pearlware	indeterminate vessel	painted underglaze-blue, indeterminate decoration	1775	1830	1
H	Domestic	redware	hollowware	brown glaze w/yellow slip trail interior, brown gl	1685	1850	1
H	Domestic	shell	oyster		0	0	1
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	2

STP 61 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	dark green	1903	2001	1	

STP 62 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Indeterminate	iron/steel	unidentifiable		0	0	2	

STP 62 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		1791	1891	2	
H	Domestic	redware	plate	clear glaze w/white slip	1685	1850	1	

STP 63 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	clear	1810	2001	1	

H	Domestic	glass	bottle	clear	0	0	1
H	Domestic	glass	fruit jar liner		1869	1941	1
H	Domestic	shell	oyster		0	0	2
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1

STP 63 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	3	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	bottle	aqua	0	0	1	

STP 63 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	4	
H	Domestic	pearlware	platter	shell edge-blue, impressed straight lines, scallop	1809	1831	2	
H	Domestic	redware	milkpan	dark brown glaze interior	1685	1880	5	

STP 64 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	bottle	white	0	0	3	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	1	
H	Domestic	semi-porcelain	indeterminate vessel	plain	1842	2001	1	

H	Domestic	whiteware	hollowware	indeterminate blue decoration interior and exterio	1805	2001	1

STP 64 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	hollowware	dark brown glaze interior	1685	1880	1	

STP 64 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	hollowware	dark brown glaze interior	1685	1880	3	

STP 65 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	safety glass		0	0	3	
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	brown	0	0	2	
H	Domestic	glass	bottle	clear	0	0	4	
H	Domestic	glass	fruit jar	aqua	1858	1940	2	

STP 65 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	light green	0	0	5	
H	Domestic	glass	bottle	clear	0	0	13	
H	Domestic	glass	bottle	clear, embossed	1929	1954	1	"Owens-Illinois Glass Co.
H	Domestic	redware	hollowware	brown glaze interior	1685	1880	2	

H	Domestic	redware	indeterminate vessel	clear glaze interior	1685	1880	2
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	2
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	5
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1

STP 65 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Architectural	iron	nail		0	0	7	
H	Domestic	glass	bottle	clear	0	0	6	
H	Domestic	glass	bottle	light green	0	0	5	
H	Domestic	glass	fruit jar	aqua	1858	1940	3	
H	Domestic	Jackfield	hollowware	black glaze	1740	1790	1	
H	Domestic	Jackfield-like	hollowware	black glaze	1740	1850	2	
H	Domestic	redware	hollowware	brown glaze interior	1685	1880	1	
H	Domestic	redware	hollowware	clear glaze interior	1685	1880	1	
H	Domestic	redware	indeterminate vessel	black glaze interior	1685	1880	1	
H	Domestic	redware	indeterminate vessel	clear glaze interior	1685	1880	2	
H	Domestic	shell	oyster/clam		0	0	4	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	platter	shell edge-blue, unmolded, unscalloped	1865	1895	1	
H	Domestic	yellowware	indeterminate vessel	plain	1830	1940	1	
H	Gardening	terracotta	flowerpot	unglazed	1880	2001	1	

STP 66 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	4	
H	Architectural	slate	roofing		0	0	6	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	redware	indeterminate vessel	brown glaze interior	1685	1880	1	

STP 67 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	glass	window		0	0	27	
H	Architectural	glass	window		0	0	3	
H	Architectural	glass	window		0	0	4	
H	Architectural	glass and wire	safety		1892	2001	2	
H	Architectural	iron	nail		0	0	6	
H	Architectural	slate	roofing		0	0	3	
H	Domestic		light bulb		1879	2001	1	
H	Domestic	earthenware	hollowware	plain	0	0	1	
H	Domestic	glass	bottle	aqua	1880	1890	1	
H	Domestic	glass	bottle	clear, embossed	1916	1929	1	
H	Domestic	glass	bottle	clear, embossed	1860	2001	1	"L"
H	Domestic	glass	bottle	clear, embossed	1903	2001	1	"EPO"
H	Domestic	glass	bottle	clear, embossed	0	0	1	"E"

H	Domestic	glass	bottle	green, embossed	1939	2001	6	"..TURN"
H	Domestic	glass	bottle	aqua, embossed	1860	1940	1	"A"
H	Domestic	glass	bottle	clear	0	0	76	
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	clear, embossed	0	0	1	"WN"
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	clear, embossed	1903	1958	1	"H" in diamond-Heisey Glass Co
H	Domestic	glass	bottle	clear	0	0	1	"H"
H	Domestic	glass	bottle	clear, embossed	0	0	1	"..AN"
H	Domestic	glass	bottle	clear	1903	2001	7	
H	Domestic	glass	bottle	aqua	0	0	11	
H	Domestic	glass	bottle	clear, embossed	0	0	1	"W"
H	Domestic	glass	bottle-milk	clear	1903	1970	1	
H	Domestic	glass	bottle-nursing	clear, embossed	1860	2001	1	"2 3 4"
H	Domestic	glass	fruit jar	clear, embossed	1871	1882	2	"..T …SON"
H	Domestic	glass	fruit jar	aqua, embossed	1858	1940	9	"MA" "1858"
H	Domestic	glass	fruit jar liner		1869	1941	1	
H	Domestic	glass	fruit jar liner		1869	1941	4	
H	Domestic	glass	lamp chimney	clear	0	0	5	
H	Domestic	glass	serving vessel	clear	0	0	1	
H	Domestic	glass	serving vessel	clear, scalloped rim	0	0	1	
H	Domestic	glass	tumbler	clear	0	0	1	

H	Domestic	glass	tumbler	clear, paneled	1800	2001	1
H	Domestic	glass	tumbler	clear	0	0	2
H	Domestic	glass	tumbler	clear	0	0	1
H	Domestic	iron/steel	can-beverage		1935	2001	1
H	Domestic	ironstone	hollowware	sponged-blue, paneled body	1842	1930	1
H	Domestic	ironstone	plate	plain	1842	2001	1
H	Domestic	ironstone	plate	plain	1842	2001	2
H	Domestic	redware	hollowware	clear glaze interior	1685	1880	1
H	Domestic	redware	hollowware	dark brown glaze	1685	1880	3
H	Domestic	semi-porcelain	hollowware	plain	1842	2001	3
H	Domestic	semi-porcelain	hollowware	plain	1842	2001	2
H	Domestic	semi-porcelain	hollowware	plain	1842	2001	1
H	Domestic	semi-porcelain	plate	plain	1842	2001	1
H	Domestic	stoneware-gray bodied	hollowware	unglazed interior, salt glazed exterior	1735	1880	1
H	Domestic	transitional whiteware	hollowware	annular banded-blue	1805	1840	6
H	Domestic	whiteware	cup	decal overglaze-green, yellow and blue band w/blue	1890	1950	1
H	Domestic	whiteware	hollowware	paneled and painted underglaze-green leaf exterior	1830	1900	2
H	Domestic	whiteware	hollowware	paneled and painted underglaze-green leaf exterior	1830	1900	1

H	Domestic	whiteware	hollowware	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	3	
H	Domestic	whiteware	plate	plain, oxide staining	1805	2001	1	
H	Domestic	yellowware	hollowware	annular banded-brown	1830	1940	1	
H	Gardening	terracotta	flowerpot	unglazed	1880	2001	8	
H	Gardening	terracotta	flowerpot	unglazed	1880	2001	6	
H	Hardware	iron	chisel		0	0	1	
H	Hardware	metal	miscellaneous hardware		0	0	1	handle
H	Heating by-product	ash			0	0	1	
H	Heating by-product	coal			0	0	1	
H	Heating by-product	coal			0	0	2	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	6	
H	Indeterminate	plastic	unidentified		1940	2001	4	
H	Indeterminate	plastic	unidentified		1940	2001	12	
H	Transportation		can-oil		1859	2001	1	

STP 68 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	pintle		0	0	1	
H	Domestic	glass	bottle	clear	0	0	8	
H	Domestic	glass	bottle	light green	0	0	1	

H	Domestic	glass	bottle	aqua	0	0	1
H	Domestic	whiteware	saucer	decal overglaze-pink rose, green leaf, yellow band	1890	1950	1

STP 69 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	whiteware	plate	gold banded	1870	2001	1	

STP 70 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	hinge		0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Indeterminate	glass	indeterminate flat		0	0	1	ridged

STP 71 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	

STP 72 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	aluminum	window screen		0	0	1	
H	Architectural	glass	window		0	0	14	
H	Domestic	glass	bottle	brown, embossed	1939	2001	5	"REFILLE"

H	Domestic	glass	bottle	dark green	1903	2001	10
H	Domestic	glass	bottle	clear	0	0	3
H	Domestic	glass	bottle	clear	1903	2001	8
H	Domestic	glass	bottle	clear	0	0	8
H	Domestic	glass	jar-baby food	clear	1955	2001	9
H	Domestic	metal	cookie cutter		0	0	1
H	Domestic	metal	lid-screwtop		0	0	1
H	Hardware	metal	tarp grommet		0	0	1
H	Indeterminate	plastic	unidentified		1970	2001	1

STP 72 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	24	
H	Domestic	glass	bottle	clear	0	0	2	flat paneled
H	Domestic	glass	bottle	clear	0	0	12	
H	Domestic	glass	bottle	brown	0	0	2	
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	dark green	1903	2001	1	
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	clear	1903	2001	2	
H	Domestic	glass	bottle-food	clear	1903	2001	2	
H	Domestic	glass	bottle-soda	clear, embossed	1906	1980	7	"PE" "FL OZ", Pepsi mfg
H	Domestic	glass	bottle-soda	clear, applied color label, embossed	1934	1970	1	"RC", RC Cola mfg

H	Domestic	metal	lid-screwtop		0	0	2
H	Domestic	metal	lid-screwtop		0	0	1
H	Indeterminate	plastic	unidentified		1950	2001	1
H	Indeterminate	plastic	unidentified		1950	2001	2
H	Indeterminate	plastic	unidentified		1950	2001	1

STP 73 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle-milk	clear	1903	1970	4	
H	Domestic	glass	bottle-milk	clear	1903	1970	2	

STP 74 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	porcelain	electrical insulator		0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	redware	hollowware	dark brown glaze interior and exterior	1685	1880	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	

STP 75 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural		lightning arrester		0	0	1	
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		1791	1891	1	

H	Arms/Ammunition	brass	ammunition-shotgun		1911	1950	1	umc remington 12 ga. Remington extra
H	Domestic	bone	fish		0	0	5	
H	Domestic	metal	crown cap		1892	2001	1	
H	Indeterminate	bone	indeterminate mammal		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

STP 75 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	18	
H	Architectural	iron	nail		1850	2001	2	
H	Domestic	redware	hollowware	dark brown glaze interior	1685	1880	1	
H	Domestic	shell	oyster/clam		0	0	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	

STP 76 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	drainage pipe		0	0	3	
H	Architectural	glass	safety glass		0	0	3	
H	Architectural	glass	window		0	0	8	
H	Architectural	glass	window		0	0	40	
H	Architectural	iron	spike		1791	1891	1	
H	Domestic	glass	bottle	clear	0	0	4	square bottle
H	Domestic	glass	bottle	clear, embossed	1860	2001	1	"EP YO"

H	Domestic	glass	bottle	clear	0	0	3
H	Domestic	glass	tumbler	clear	0	0	1
H	Domestic	transitional whiteware	hollowware	banded-blue/gray and black	1805	1840	1
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	2
H	Indeterminate	iron/steel	unidentifiable		0	0	5

STP 76 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	drainage pipe		0	0	1	
H	Architectural	glass	window		0	0	5	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	glass	tumbler	clear	0	0	1	
H	Domestic	ironstone	hollowware	molded and possibly slipped	1842	2001	1	
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	4	
H	Domestic	whiteware	hollowware	indeterminate blue decoration	1805	2001	2	
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue, probable Lake Series, parti	1860	1882	1	maker's mark closely resembles Ashworth & Co's Lake Series mark
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue willow	1805	2001	1	

STP 77 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	slate	roofing		0	0	1	
H	Domestic		light bulb		1879	2001	3	

H	Domestic	bone	pig		0	0	1
H	Domestic	earthenware-buff	hollowware	majolica-yellow and black embossed exterior, pinki	1850	2001	1
H	Domestic	glass	bottle	clear	1810	2001	1
H	Domestic	glass	bottle	clear	0	0	4
H	Domestic	glass	bottle	light green	0	0	2
H	Domestic	glass	bottle	brown	0	0	1
H	Domestic	porcelain	indeterminate vessel	painted overglaze-polychrome, Oriental	1750	2001	1
H	Domestic	redware	indeterminate vessel	speck of clear glaze	1685	1880	1
H	Domestic	redware	indeterminate vessel	dark brown glaze interior	1685	1880	1
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1

STP 78 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	1	
H	Architectural	slate	roofing		0	0	1	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	glass	bottle	light green	0	0	3	
H	Domestic	glass	bottle-pharmaceutical	clear, embossed	1860	2001	1	"N. DEL"
H	Domestic	glass	fruit jar liner		1869	1941	7	
H	Domestic	ironstone	basin/chamberpot	plain	1842	2001	1	
H	Domestic	porcelain	hollowware	embossed exterior	1825	2001	1	

H	Domestic	porcelain	plate	plain	0	0	1
H	Domestic	redware	mug/pitcher	clear glaze	1685	1880	1
H	Domestic	whiteware	hollowware	transfer printed-blue interior and exterior	1805	2001	1
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	5
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1
H	Domestic	whiteware	plate	plain	1805	2001	1
H	Indeterminate	bone	medium mammal		0	0	1

STP 78 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	aqua	0	0	7	
H	Domestic	glass	bottle	white	0	0	1	
H	Domestic	stoneware-gray bodied	hollowware	Albany slip interior and exterior	1880	1930	1	
H	Domestic	transitional whiteware	plate	shell edge-blue, impressed curved lines, unscallop	1840	1860	3	
H	Domestic	white clay	tobacco pipe		1685	1900	2	
H	Domestic	whiteware	hollowware	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	cut sponged-green leaf with black stem	1840	1930	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	8	
H	Domestic	whiteware	indeterminate vessel	cut sponged-purple floral with black stem and gree	1840	1930	1	

H	Domestic	whiteware	plate	plain	1805	2001	1

STP 79 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		1791	1891	6	
H	Architectural	iron	spike		1791	1891	1	
H	Domestic	glass	bottle-toiletry	clear, embossed	1860	2001	22	"Jergens Lotion"
H	Indeterminate	iron/steel	unidentifiable		0	0	15	

STP 79 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	bolt		0	0	1	
H	Architectural	iron	nail		0	0	3	
H	Architectural	iron	spike		1791	1891	1	
H	Domestic	glass	bottle	clear	0	0	4	
H	Indeterminate	iron/steel	unidentifiable		0	0	24	

STP 80 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	light green	0	0	1	
H	Indeterminate	metal	spring		0	0	1	

STP 80 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	glass	window		0	0	4	
H	Architectural	iron	nail		0	0	4	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	redware	hollowware	unglazed	1685	1880	1	
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1	
H	Domestic	shell	oyster/clam		0	0	7	

STP 81 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	porcelain	electrical insulator		1850	2001	1	
H	Architectural	slate	roofing		0	0	13	
H	Domestic	glass	bottle-wine	clear	0	0	1	

STP 81 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Indeterminate	iron/steel	can		1837	2001	1	

STP 82 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	slate	roofing		0	0	14	
H	Indeterminate	graphite	motor brush		0	0	1	

STP 83 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	1	
H	Architectural	slate	roofing		0	0	4	
H	Domestic	glass	bottle	clear	0	0	7	
H	Domestic	glass	bottle	brown	1930	2001	1	
H	Domestic	glass	bottle	brown	0	0	2	
H	Domestic	glass	fruit jar	clear	1903	2001	2	
H	Domestic	shell	clam		0	0	2	
H	Domestic	shell	oyster		0	0	11	
H	Domestic	shell	oyster		0	0	3	
H	Domestic	shell	oyster		0	0	5	
H	Domestic	whiteware	figurine/non-tableware	embossed	1805	2001	4	
H	Farming	steel	fencing wire		0	0	2	
H	Indeterminate	iron	straps		0	0	2	

STP 84 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	3	
H	Architectural	iron	nail		1791	1891	2	
H	Architectural	slate	roofing		0	0	10	
H	Domestic	shell	oyster/clam		0	0	5	

STP 85 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	slate	roofing		0	0	2	
H	Domestic	glass	bottle	clear	0	0	5	
H	Domestic	glass	bottle	brown	0	0	6	
H	Domestic	shell	oyster/clam		0	0	2	

STP 85 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	slate	roofing		0	0	20	discarded
H	Architectural	slate	roofing		0	0	3	
H	Domestic	glass	bottle	brown	0	0	2	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	bottle	pink	0	0	1	
H	Domestic	shell	oyster/clam		0	0	9	

STP 86 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1850	2001	2	
H	Architectural	iron	nail		0	0	2	
H	Domestic	shell	oyster/clam		0	0	12	

STP 87 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		0	0	2	
H	Domestic	shell	oyster		0	0	2	
H	Farming	steel	fencing wire		0	0	4	woven wire fencing
H	Farming	steel	fencing wire		0	0	28	fencing,possible woven wire

STP 88 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	1	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	iron	spike		1850	2003	1	
H	Domestic	glass	bottle-salad dressing	clear, labeled	1903	2001	5	wishbone
H	Indeterminate	iron/steel	unidentifiable		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

STP 89 Stratum I/II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	synthetic	floor covering		0	0	2	
H	Domestic	glass	bottle	clear	0	0	3	
H	Indeterminate	iron/steel	unidentifiable		0	0	3	

STP 90 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	styrofoam			1962	2001	1	discarded
H	Indeterminate	plastic	bag		1933	2001	3	plastic bags, discarded
H	Indeterminate	plastic	unidentified		1869	2001	3	

STP 91 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	porcelain	doll		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	

STP 91 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	mortar			0	0	1	
H	Domestic	redware	indeterminate vessel	dark brown glaze interior	1685	1880	1	
H	Indeterminate	bone	medium mammal		0	0	4	

STP 92 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	ironstone	indeterminate vessel	plain, partial maker's mark	1842	2001	1	"WAR(RANTED)"
H	Domestic	shell	oyster/clam		0	0	1	

H	Heating by-product	slag			0	0	1	

STP 92 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	plaster			0	0	1	
P	Tool	chert	projectile point-Woodland I		0	0	1	

STP 93 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Heating by-product	slag			0	0	2	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

STP 93 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	4	
H	Architectural	iron	nail		0	0	2	
H	Architectural	plaster			0	0	2	
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	1	

STP 93 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Domestic	bone	cow		0	0	1	

H	Domestic	redware	indeterminate vessel	dark brown glaze interior	1685	1880	1
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1
H	Domestic	redware	indeterminate vessel	clear glaze interior	1685	1880	1

STP 94 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	6	
H	Architectural	brick			0	0	202	2 half-bricks and 200 frag, discarded
H	Architectural	iron	nail		0	0	2	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	shell	oyster		0	0	1	
H	Domestic	whiteware	plate	transfer printed-blue floral and geometric	1805	2001	1	
H	Hardware	iron	hammer		0	0	1	

STP 94 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	50	discarded
H	Architectural	brick			0	0	4	
H	Architectural	brick			0	0	1	
H	Architectural	iron	nail		0	0	2	

STP 95 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	safety glass		0	0	4	

H	Architectural	iron	nail		0	0	5	
H	Architectural	metal	pipe		0	0	1	
H	Domestic		bottle cap		0	0	2	
H	Domestic		light bulb		1879	2001	1	
H	Domestic	aluminum foil	unidentifiable		1947	2001	2	
H	Domestic	glass	bottle	clear	0	0	38	
H	Domestic	glass	bottle	aqua	0	0	2	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	glass	bottle	dark green	1903	2001	7	
H	Domestic	glass	bottle	brown	0	0	5	
H	Domestic	glass	bottle-cleaning product	clear, embossed	1860	2001	1	sanisol with oz. Marking
H	Domestic	glass	bottle-milk	clear	1903	1970	2	
H	Domestic	glass	bottle-soda	clear, applied color label-red	1934	1970	1	
H	Domestic	plastic	button		1869	2001	1	4-hole
H	Domestic	shell	oyster/clam		0	0	1	
H	Gardening	terracotta	flowerpot	unglazed	1880	2001	4	
H	Indeterminate	plastic	unidentified		1869	2001	1	
H	Indeterminate	plastic	unidentified		1869	2001	3	
H	Indeterminate	plastic	unidentified		1869	2001	4	

STP 95 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic		light bulb		1879	2001	1	

H	Domestic	glass	bottle	clear	0	0	7
H	Domestic	glass	bottle	brown	0	0	1
H	Indeterminate	metal	unidentified machine part		0	0	1

STP 96 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	5	
H	Domestic		clothing snap		0	0	1	
H	Domestic		light bulb		1879	2001	1	
H	Domestic	glass	bottle	dark green	1903	2001	1	
H	Domestic	glass	bottle	brown	0	0	2	
H	Domestic	glass	bottle	clear	0	0	4	
H	Domestic	glass	bottle	clear	0	0	19	
H	Domestic	glass	bottle-salad dressing	clear	1903	2001	5	
H	Domestic	glass	jar-baby food	clear	0	0	1	
H	Domestic	metal	paint can		1867	2001	1	
H	Domestic	rubber	fruit jar gasket		1859	1941	1	
H	Domestic	shell	oyster		0	0	50	discarded
H	Hardware	metal	screw		0	0	1	
H	Hardware	metal	washer		0	0	1	
H	Indeterminate	copper	unidentifiable		0	0	1	
H	Indeterminate	iron/steel	can fragment		1837	2001	1	
H	Indeterminate	plastic	unidentified		1869	2001	2	

H	Indeterminate	plastic	unidentified		1869	2001	2
H	Indeterminate	plastic	unidentified		1869	2001	10
H	Indeterminate	plastic	unidentified		1869	2001	1

STP 96 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Architectural	iron	nail		0	0	3	
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	tarpaper			0	0	1	
H	Domestic	glass	bottle	clear	1903	2001	9	
H	Domestic	glass	bottle	clear	0	0	10	
H	Domestic	glass	bottle	clear, embossed	0	0	1	"ARMA"
H	Domestic	glass	tumbler	clear	0	0	1	
H	Domestic	shell	oyster		0	0	17	
H	Domestic	shell	oyster		0	0	5	
H	Domestic	shell	oyster		0	0	2	
H	Domestic	shell	oyster		0	0	200	discarded
H	Gardening	terracotta	flowerpot	unglazed	1880	2001	1	
H	Heating by-product	coal			0	0	1	
H	Indeterminate	copper	electrical parts		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	
H	Indeterminate	plastic	unidentified		1869	2001	3	

H	Indeterminate	plastic	unidentified		1869	2001	1

STP 96 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	plaster			0	0	2	
H	Domestic	glass	bottle	dark green	1903	2001	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	shell	oyster		0	0	22	
H	Domestic	shell	oyster/clam		0	0	1	
H	Indeterminate	plastic	unidentified		1869	2001	2	

STP 97 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	shell	oyster		0	0	100	discarded
H	Domestic	shell	oyster		0	0	5	
H	Domestic	shell	oyster		0	0	1	
H	Domestic	shell	oyster		0	0	1	
H	Indeterminate	plastic	unidentified		1869	2001	1	

STP 98 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Architectural	iron	nail		1791	1891	2	
H	Architectural	iron	nail		1850	2001	3	
H	Architectural	porcelain	electrical insulator	some blue glazing	1859	2001	1	
H	Hardware	metal	screw		0	0	1	

STP 99 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	11	
H	Architectural	iron	nail		1791	1891	18	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	slate	roofing		0	0	3	
H	Domestic	redware	hollowware	clear glaze	1685	1880	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

STP 99 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	iron	nail		0	0	3	
H	Architectural	iron	spike		1791	1891	1	
H	Domestic	redware	hollowware	clear glaze interior	1685	1880	1	

STP 100 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	2	
H	Architectural	slate	roofing		0	0	3	
H	Architectural	slate	roofing		0	0	30	discarded
H	Indeterminate	terracotta	flowerpot/drainage tile	unglazed, spalled	1848	2001	1	

STP 100 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	

STP 101 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		0	0	3	
H	Architectural	stone	building		0	0	1	
H	Domestic	glass	bottle	light green	0	0	5	
H	Ecological	nutshell			0	0	2	
H	Farming	iron	horseshoe		0	0	1	
H	Hardware	metal	tack		0	0	1	
H	Heating by-product	coal			0	0	2	
H	Heating by-product	slag			0	0	3	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	
H	Indeterminate	plastic	unidentified		1869	2001	2	

STP 101 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Indeterminate	iron/steel	unidentifiable		0	0	4	

STP 102 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		0	0	1	
H	Domestic	glass	bottle	amethyst-tint, embossed	1880	1914	1	embossed "AN"
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

STP 102 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	1	
H	Indeterminate	lime			0	0	2	

STP 103 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle-beer	brown	1930	2001	8	
H	Domestic	shell	oyster/clam		0	0	3	

STP 104 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Domestic	glass	bottle	clear	0	0	8	
H	Domestic	glass	bottle	clear	1903	2001	3	

H	Domestic	glass	bottle	dark green	1903	2001	1	
H	Domestic	iron/steel	can-beverage		1935	2001	1	
H	Domestic	plastic	baseball bat		1933	2001	1	plastic baseball bat, discarded
H	Indeterminate	plastic	wrapper		1933	2001	1	discarded

STP 105 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		0	0	4	
H	Architectural	lead	wire cover		0	0	1	
H	Domestic	glass	bottle	light green	0	0	4	
H	Domestic	glass	bottle	clear, embossed	1860	2001	1	"0n"
H	Domestic	rubber	shoe-galosh		1851	2001	6	
H	Indeterminate	iron/steel	unidentifiable		0	0	4	

STP 106 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic		buckle-shoe		0	0	2	
H	Domestic		shoe part		0	0	1	
H	Domestic		shoe part		0	0	6	
H	Domestic	glass	bottle	clear	0	0	4	
H	Farming	steel	fencing wire		0	0	1	

STP 106 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	styrofoam			1962	2001	1	discarded
H	Indeterminate	copper	electrical wire		1881	2001	1	

STP 107 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	brown	1903	2001	9	
H	Hardware	metal	miscellaneous hardware		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

STP 107 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	brown, embossed	1860	2001	1	embossed "WOT"
H	Indeterminate	plastic	unidentified		1869	2001	1	

STP 107 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	brown	0	0	2	
H	Domestic	redware	hollowware	black glaze interior	1685	1880	1	
H	Heating by-product	coal			0	0	5	
H	Heating by-product	coal/cinder/slag			0	0	2	

STP 107 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	1	
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		0	0	1	
H	Domestic	bone	cow		0	0	1	
H	Domestic	glass	bottle	blue-green	0	0	1	

STP 108 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	4	
H	Architectural	iron	nail		0	0	2	
H	Architectural	iron	nail		1791	1891	3	
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	3	

STP 109 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	3	
H	Architectural	glass	window		0	0	15	
H	Domestic		shoe part		0	0	2	
H	Domestic		shoe part		0	0	1	
H	Domestic	glass	bottle	clear	0	0	3	

H	Domestic	leather	shoe-female		0	0	1
H	Domestic	leather	shoe-male		0	0	1

STP 109 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	

STP 111 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	ceramic	wall tile		0	0	2	
H	Domestic	earthenware	tile	gray with black specks	0	0	1	
H	Domestic	glass	bottle	clear, embossed	1860	2001	2	"TER"
H	Hardware	iron	chain link		0	0	1	
H	Heating by-product	coal			0	0	1	
H	Heating by-product	slag			0	0	4	
H	Indeterminate	bone	indeterminate bird		0	0	1	

STP 111 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	3	
H	Domestic	glass	bottle-wine	olive green	0	0	6	
H	Domestic	shell	oyster/clam		0	0	2	
H	Indeterminate	metal	unidentified machine part		0	0	1	

STP 111 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	3	
H	Architectural	porcelain	electrical insulator	blue glaze	1859	2001	1	
H	Architectural	porcelain	electrical insulator		1850	2001	1	
H	Architectural	porcelain	electrical insulator	white	1859	2001	1	
H	Arms/Ammunition	brass	ammunition-pistol		0	0	1	"U", rimfire
H	Domestic	redware	hollowware	brown glaze interior	1685	1880	1	
H	Domestic	shell	oyster/clam		0	0	1	

STP 112 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1850	2001	1	
H	Architectural	synthetic	floor covering		0	0	10	
H	Arms/Ammunition	brass	ammunition-pistol		0	0	1	centerfire
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	glass	jar-condiment	brown	1903	2001	8	
H	Domestic	porcelain	indeterminate vessel	decal overglaze	1880	1950	1	"55" printed on underside
H	Heating by-product	slag			0	0	2	
H	Indeterminate	plastic	unidentified		1940	2001	1	chess pawn
H	Indeterminate	plastic	unidentified		1940	2001	3	
H	Indeterminate	plastic	unidentified		1940	2001	2	

STP 112 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	shell	oyster/clam		0	0	1	
H	Farming	steel	barbed wire		0	0	5	discarded
H	Heating by-product	coal			0	0	1	
H	Indeterminate	plastic	unidentified		1869	2001	3	discarded

STP 113 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	bolt		0	0	1	
H	Architectural	slate	roofing		0	0	2	
H	Domestic	earthenware	hollowware	embossed, green glazed	1851	2001	1	probable flowerpot
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	clear	1903	2001	2	
H	Domestic	glass	bottle	light green, embossed	1860	2001	1	T
H	Domestic	glass	bottle	clear	0	0	11	
H	Domestic	porcelain	indeterminate vessel	plain	0	0	1	
H	Domestic	shell	oyster/clam		0	0	1	
H	Heating by-product	coal			0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

STP 114 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	dark green	1903	2001	1	
H	Domestic	glass	bottle-beer	brown	1930	2001	1	
H	Domestic	iron/steel	can-beverage		1935	2001	1	

STP 115 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	bolt		0	0	1	
H	Domestic	glass	bottle	light green	0	0	1	
H	Heating by-product	coal			0	0	5	
H	Heating by-product	slag			0	0	1	
H	Indeterminate	bone	indeterminate mammal		0	0	1	

STP 116 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	

STP 118 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	3	
H	Domestic	glass	bottle-milk	clear	1903	1970	2	
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1	
H	Indeterminate	iron/steel	can fragment		1837	2001	1	

H	Indeterminate	iron/steel	unidentifiable		0	0	1

STP 118 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	4	
H	Architectural	slate	roofing		0	0	3	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	shell	oyster/clam		0	0	1	

STP 119 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Domestic	glass	bottle	clear	1903	2001	6	

STP 120 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	4	
H	Architectural	iron	spike		1791	1891	3	

STP 122 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	1	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-blue floral interior	1775	1830	1	
H	Domestic	redware	hollowware	brown glaze interior	1685	1880	1	

H	Domestic	redware	hollowware	red/brown glaze interior	1685	1880	1
H	Domestic	redware	indeterminate vessel	red/brown glaze interior	1685	1880	1
H	Domestic	redware	indeterminate vessel	brown glaze interior	1685	1880	1

STP 123 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	dark green	1903	2001	2	
H	Domestic	glass	bottle	clear	1903	2001	3	
H	Domestic	glass	bottle	light green	0	0	1	
H	Domestic	glass	bottle	clear	1903	2001	1	screw top
H	Domestic	glass	bottle	clear	0	0	21	
H	Gardening	terracotta	flowerpot	unglazed	1880	2001	1	

STP 124 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	brass	Manufacturer ID plate		1920	1930	1	"Chas C. Geissler successar to Barneman & Co. 52 N. 4th St Phila
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	shell	oyster/clam		0	0	4	
H	Domestic	whiteware	hollowware	plain	1805	2001	1	
H	Domestic	whiteware	hollowware	green glazed, slightly embossed	1851	2001	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	

H	Domestic	whiteware	plate/saucer	decal overglaze-Tudor Rose, partial maker's mark	1930	1950	1	
H	Indeterminate	paper			0	0	1	

STP 125 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural		fuse		0	0	1	15 amp fuse
H	Domestic		pen part		1915	2001	1	
H	Domestic		radio tube		1919	2001	2	
H	Domestic	glass	bottle	clear	0	0	4	
H	Domestic	iron/steel	can-beverage		1935	2001	2	

STP 126 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	iron	spike		1850	2003	1	
H	Arms/Ammunition	brass	ammunition-shotgun		0	0	1	"J C HIGGINS X-TRA RANGE" 12 gauge
H	Domestic	glass	bottle	clear	1934	1970	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	fruit jar liner		1869	1941	1	
H	Domestic	glass	marble		1920	2001	1	
H	Domestic	iron/steel	can-beverage		1935	2001	1	
H	Domestic	metal	bottle cap-twist		0	0	1	

H	Domestic	terracotta	flowerpot-small	unglazed	1880	2001	0
H	Domestic	terracotta	flowerpot-small	unglazed	1880	2001	0
H	Gardening	terracotta	flowerpot	unglazed	1880	2001	4
H	Indeterminate	plastic	unidentified		1869	2001	1

STP 127 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	safety glass		0	0	6	
H	Architectural	glass	window		0	0	3	
H	Architectural	stone	building		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	4	

STP 128 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	bolt		0	0	1	
H	Domestic		buckle-belt		0	0	1	
H	Domestic		pen part		1915	2001	1	
H	Domestic		shoe part		0	0	1	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	glass	bottle	dark green	1903	2001	1	
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	aqua	0	0	1	
H	Domestic	ironstone	hollowware	fluted exterior	1842	2001	5	possible jardinierre
H	Domestic	silver plated	watch cog		0	0	1	

H	Gardening	terracotta	flowerpot	unglazed	1880	2001	1

STP 129 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	ceramic	wall tile		0	0	1	
H	Architectural	glass	window		0	0	1	
H	Architectural	slate	roofing		0	0	1	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	iron/steel	can-beverage		1935	2001	15	
H	Domestic	plastic	cigarette filter		1950	2001	1	
H	Domestic	shell	oyster/clam		0	0	1	
H	Gardening	terracotta	flowerpot	unglazed	1880	2001	9	

STP 130 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Architectural	slate	roofing		0	0	4	
H	Domestic	bone	cow		0	0	1	
H	Domestic	glass	bottle	clear	0	0	15	
H	Domestic	glass	bottle	amethyst-tint	1880	1914	1	
H	Domestic	glass	bottle-milk	clear	1903	1970	4	
H	Domestic	glass	toy baby bottle		1903	2001	1	"Doll-E-Toys by Amsco"
H	Transportation		can-oil		1859	2001	5	

STP 131 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	
H	Domestic	glass	bottle	clear	1810	2001	1	
H	Domestic	glass	bottle	clear	0	0	2	

STP 132 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	iron	nail		0	0	1	
H	Architectural	slate	roofing		0	0	2	
H	Domestic	glass	bottle	clear	0	0	3	
H	Domestic	glass	bottle	pink	0	0	5	
H	Domestic	glass	bottle-mlik	clear	1903	1970	1	
H	Domestic	iron/steel	can-beverage		1935	2001	2	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

STP 133 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Arms/Ammunition	brass	ammunition-pistol		0	0	1	"U", rimfire
H	Domestic	shell	oyster/clam		0	0	1	
H	Heating by-product	coal			0	0	2	

STP 134 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	shell	oyster		0	0	1	

STP 135 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	brick			0	0	2	
H	Architectural	glass	window		0	0	2	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	glass	bottle	brown	0	0	4	
H	Domestic	shell	oyster		0	0	5	

STP 136 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	1	
H	Architectural	iron	nail		1791	1891	1	
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	plastic	bottle		1970	2001	1	plastic bottle body

STP 136 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	glass	window		0	0	3	
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	iron	nail		0	0	1	
H	Domestic	glass	bottle	clear	1810	2001	1	
H	Domestic	shell	oyster		0	0	2	
H	Domestic	whiteware	plate	plain	1805	2001	1	
H	Hardware	metal	washer		0	0	1	
H	Heating by-product	coal			0	0	3	
H	Heating by-product	slag			0	0	4	
H	Indeterminate	iron/steel	unidentifiable		0	0	3	
H	Indeterminate	lime			0	0	1	

STP 137 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	miscellaneous fastener		0	0	1	rusty nail lead seal
H	Architectural	slate	roofing		0	0	2	
H	Domestic	glass	bottle	clear	1903	2001	2	
H	Domestic	glass	bottle	dark green	1903	2001	2	
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	clear	0	0	15	

H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle-beer	brown	1930	2001	26	nonscrew
H	Domestic	glass	fruit jar	aqua	1893	1940	7	
H	Domestic	shell	oyster/clam		0	0	1	

STP 137 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	5	
H	Domestic	glass	bottle	clear	0	0	5	discarded
H	Heating by-product	coal			0	0	5	discarded

STP 138 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	brown	0	0	7	
H	Domestic	glass	bottle	clear	1903	2001	4	
H	Domestic	glass	bottle	clear	0	0	8	

STP 141 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	hinge		0	0	1	
H	Architectural	iron	nail		1791	1891	4	
H	Architectural	iron	nail		1850	2001	2	
H	Architectural	marble	tile		0	0	1	1" thick piece
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	bottle-soda	clear, embossed	1906	1933	1	"..I Cola"

H	Domestic	glass	tumbler	clear, paneled	1800	2001	1

STP 143 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	
H	Domestic	aluminum foil	milk cap		1947	1970	1	milk cap aluminum
H	Domestic	glass	bottle	brown	0	0	2	
H	Domestic	glass	bottle	clear	0	0	9	
H	Domestic	glass	bottle	dark green	1903	2001	1	
H	Domestic	glass	bottle	amethyst-tint	1880	1914	7	

STP 145 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	ironstone	hollowware	plain	1842	2001	6	
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	9	
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	2	
H	Domestic	ironstone	indeterminate vessel	plain	1879	1884	5	
H	Domestic	whiteware	plate	plain	1805	2001	6	

STP 147 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue, pictorial border	1805	2001	1	

STP 149 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	3	
H	Architectural	glass	window		0	0	6	
H	Domestic	glass	bottle	clear	0	0	5	
H	Domestic	glass	bottle	clear	1903	2001	6	
H	Domestic	glass	bottle-soda	clear, applied color label	1934	1970	22	" cloverdale" mnv=1

STP 150 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	hollowware	dark brown glaze speck	1685	1880	1	
H	Domestic	whiteware	cup	transfer printed-dk blue, floral, dagger and scrol	1805	2001	2	

STP 161 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	3	
H	Domestic	glass	bottle	dark green	1903	2001	1	
H	Domestic	glass	bottle	clear, embossed	1860	2001	1	"10 F"
H	Domestic	redware	indeterminate vessel	dark brown glaze	1685	1880	2	

STP 162 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Hardware	iron	chain		0	0	10	

STP 163 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	discarded
H	Architectural	brick			0	0	10	
H	Domestic	glass	bottle	clear	0	0	6	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle-pharmaceutical	aqua	0	0	1	
H	Domestic	shell	oyster		0	0	1	
H	Farming	steel	fencing wire		0	0	1	copper wire (splicefor cattle fence)
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

STP 164 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle	light green	0	0	1	

STP 167 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	glass	window		0	0	6	
H	Architectural	iron	nail		0	0	1	
H	Domestic	glass	bottle	clear	0	0	8	

STP 168 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Domestic	glass	bottle	pink	0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	

TU 1 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	cement/concrete			0	0	1	
H	Architectural	glass	window		0	0	8	
H	Architectural	iron	nail		1791	1891	12	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	metal	pipe		0	0	1	galvanized pipe 3/4" x 2 1/2"
H	Architectural	mortar			0	0	1	
H	Architectural	plaster			0	0	19	
H	Domestic	glass	bottle	clear	1810	2001	7	
H	Domestic	glass	bottle	clear, embossed	1934	1970	1	"EPSI"
H	Domestic	glass	bottle	clear	0	0	15	
H	Domestic	glass	bottle-alcohol	brown, embossed	1933	1964	12	"EDERAl LAW" emb.
H	Domestic	glass	button		0	0	1	
H	Domestic	metal	jar lid		0	0	1	
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue scenic	1805	2001	1	

H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	plate	decal overglaze-red floral, yellow glaze	1890	2001	1	
H	Domestic	whiteware	plate	plain	1805	2001	1	
H	Hardware	iron	hammer		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	
H	Indeterminate	leather			0	0	4	
H	Indeterminate	metal	wire-twisted		0	0	1	twisted wire/mop
H	Indeterminate	paper			0	0	3	possible wallpaper

TU 1 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	iron	nail		1850	2001	1	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	plaster			0	0	1	plaster with newspaper print
H	Domestic	brass	rivet		0	0	1	
H	Domestic	shell	button		0	0	1	2-hole

TU 1 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	cement/concrete			0	0	2	cement floor sample

TU 1 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	3	

H	Architectural	iron	nail		0	0	5	
H	Architectural	iron	nail		1791	1891	3	
H	Domestic	redware	plate	clear glaze w/yellow and green slip trail	1685	1850	1	

TU 1 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Domestic	bone	cow		0	0	1	
H	Domestic	bone	cow		0	0	1	
H	Domestic	creamware/pearlware	indeterminate vessel	plain	1762	1840	4	exposed to fire
H	Domestic	glass	bottle	clear	0	0	3	
H	Domestic	pewter	button		0	0	1	
H	Domestic	redware	hollowware	dark brown glaze interior and exterior	1685	1880	4	probable mug/pitcher
H	Domestic	redware	hollowware	dark brown glaze interior	1685	1880	2	
H	Domestic	redware	hollowware	black glaze interior	1685	1880	1	
H	Domestic	redware	hollowware	dark brown glaze interior	1685	1880	2	
H	Domestic	redware	hollowware	clear glaze interior and exterior	1685	1880	1	
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1	
H	Domestic	transitional whiteware	hollowware	banded-blue	1805	1840	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	

H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1
H	Domestic	whiteware	indeterminate vessel	painted underglaze-polychrome floral, red dot w/gr	1830	1900	2

TU 1 Feature 2

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	6	
H	Architectural	glass	window		0	0	1	
H	Domestic	redware	hollowware	dark brown/black glaze interior	1685	1880	2	
H	Domestic	redware	indeterminate vessel	dark brown/black glaze interior	1685	1880	1	
H	Domestic	redware	indeterminate vessel	dark brown/black glaze interior	1685	1880	1	
H	Domestic	redware	plate	clear glaze w/slip trail interior	1685	1850	1	

TU 1 Feature 3

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	
H	Domestic	pearlware	indeterminate vessel	shell edge-blue	1780	1835	1	

TU 2 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	9	
H	Architectural	glass	window		0	0	2	

H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		1791	1891	25	
H	Architectural	iron	nail		1850	2001	3	
H	Architectural	iron	nail		1791	1891	1	poss. Horseshoe
H	Architectural	iron	nail		1791	1891	1	clenched rosebud
H	Architectural	iron	rivet		0	0	1	screw rivot
H	Architectural	mortar			0	0	3	
H	Architectural	plaster			0	0	5	
H	Architectural	slate	roofing		0	0	4	
H	Architectural	tarpaper			0	0	4	doubled tar paper
H	Domestic	bone	goose		0	0	1	
H	Domestic	bone	Ungulate		0	0	1	
H	Domestic	glass	bottle	clear	0	0	9	
H	Domestic	glass	bottle-alcohol	brown, embossed	1933	1964	13	"HALF PINT" "EDERAL" "W FORF"
H	Domestic	glass	bottle-soda	clear, embossed	1906	1980	2	Pepsi cola
H	Domestic	glass	bottle-soda	clear, embossed	1929	1954	4	purity Beverage Company Wilmington Del.
H	Domestic	glass	button		0	0	1	
H	Domestic	glass	magnifying lens		0	0	1	
H	Domestic	metal	escutcheon		0	0	2	
H	Domestic	rubber	drain plug	black	1851	2001	1	
H	Domestic	steel	pocket knife		0	0	1	

H	Domestic	whiteware	indeterminate vessel	decal overglaze-yellow glaze with floral	1900	2001	1	
H	Hardware	metal	screw		0	0	1	
H	Hardware	metal	wire hook		0	0	1	wire hook
H	Hardware	sand paper			0	0	4	
H	Indeterminate	bone	Cervid sp.		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	
H	Indeterminate	textile			0	0	1	cloth
H	Indeterminate	wood			0	0	2	wood 1 w\ trunnel/bolt hole

TU 2 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	4	
H	Architectural	iron	nail		1850	2001	1	
H	Architectural	iron	nail		1791	1891	3	
H	Architectural	iron	spike		1791	1891	1	
H	Domestic	bone	medium mammal		0	0	1	
H	Domestic	glass	lamp chimney	clear	0	0	1	lamp globe (Large)

TU 2 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	dressed wood			0	0	2	
H	Architectural	glass	window		0	0	5	
H	Architectural	iron	nail		1791	1891	2	

H	Architectural	mortar			0	0	4
H	Architectural	plaster			0	0	1
H	Domestic	bone	large mammal		0	0	1
H	Domestic	glass	bottle	light green	0	0	1
H	Domestic	glass	bottle	clear	0	0	1
H	Domestic	glass	bottle	olive green	0	0	1
H	Domestic	pearlware	indeterminate vessel	painted underglaze-brown line	1795	1830	1
H	Domestic	redware	hollowware	brown glaze interior	1685	1880	1
H	Domestic	shell	clam		0	0	1
H	Domestic	shell	oyster		0	0	1
H	Hardware	metal	hook		0	0	1
H	Heating by-product	slag			0	0	2

TU 3 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	cement/concrete			0	0	2	
H	Architectural	glass	window		0	0	3	
H	Architectural	iron	nail		1791	1891	7	
H	Architectural	iron	nail		0	0	1	
H	Architectural	iron	nail-roofing		1850	2001	1	
H	Architectural	plaster			0	0	1	
H	Domestic		light bulb		1879	2001	1	
H	Domestic	glass	bottle	light green	1929	2001	2	

H	Domestic	glass	bottle	light green	1929	2001	2	
H	Domestic	glass	bottle	clear	1903	2001	2	
H	Domestic	glass	bottle	light green	1929	2001	14	
H	Domestic	glass	bottle	light green	1929	2001	86	mnv = 1
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	aqua	0	0	1	
H	Domestic	glass	bottle	clear, embossed	1903	2001	1	"..MINGTON DEL"
H	Domestic	glass	bottle	clear, applied color label	1934	1970	1	
H	Domestic	glass	bottle	clear	0	0	50	
H	Domestic	glass	bottle-milk	clear, applied color label-brown	1934	1970	9	FRAIM'S ICE CREAM
H	Domestic	glass	bottle-soda	clear, applied color label, embossed	1934	1970	2	pepsi cola mnv = 1
H	Domestic	glass	bottle-wine	brown	0	0	30	mnv = 1
H	Domestic	glass	bottle-wine	dark green, labeled	1903	2001	1	"RIES.. 1873"
H	Domestic	glass	bottle-wine	dark green	1903	2001	2	
H	Domestic	glass	bottle-wine	dark green	1903	2001	35	mnv = 1
H	Domestic	metal	crown cap		1892	2001	1	
H	Domestic	pearlware	hollowware	painted underglaze-brown star	1795	1830	1	
H	Ecological	bone	vole		0	0	1	
H	Indeterminate	glass	indeterminate flat		0	0	3	thick gray glass
H	Indeterminate	iron/steel	can fragment		1837	2001	1	

TU 3 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	10	
H	Architectural	iron	nail		1791	1891	58	
H	Architectural	iron	nail		1850	2001	5	
H	Architectural	iron	nail		1685	1805	1	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	iron and wood	nails in wood		0	0	7	wood with nails
H	Architectural	mortar			0	0	1	
H	Architectural	plaster			0	0	2	
H	Architectural	porcelain	electrical insulator		1905	2001	1	mnv = 2 patended 1905
H	Architectural	porcelain	electrical insulator		1880	2001	2	
H	Architectural	slate	roofing		0	0	1	
H	Domestic	brass	finial		0	0	1	
H	Domestic	glass	bottle	clear	0	0	10	
H	Domestic	glass	bottle	dark green	1903	2001	8	
H	Domestic	glass	bottle-beer	brown	1940	2001	97	post 1940
H	Domestic	glass	bottle-milk	clear, applied color label-red	1934	1970	5	
H	Domestic	glass	bottle-soda	clear, applied color label	1934	1970	122	Canada Dry gingerale mnv = 2
H	Domestic	glass	bottle-soda	clear, applied color label	1934	1970	63	Canada Dry Water mnv = 2
H	Domestic	metal	crown cap		1892	2001	1	bottlecap with key
H	Domestic	metal	crown cap		1892	2001	3	cream bottlecaps

H	Domestic	plastic	poker chip		1915	2001	1
H	Indeterminate	bone	small mammal		0	0	1
H	Indeterminate	iron/steel	can fragment		1837	2001	6
H	Indeterminate	plastic	unidentified		1869	2001	1

TU 3 Feature 8

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	3	
H	Architectural	mortar			0	0	5	

TU 4 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	earthenware	drainage pipe		0	0	1	
H	Architectural	iron	nail		1791	1891	4	
H	Architectural	iron	nail		1850	2001	2	
H	Architectural	iron	rivet		0	0	1	
H	Architectural	mortar			0	0	1	
H	Architectural	slate	roofing		0	0	1	
H	Architectural	slate	roofing		0	0	2	
H	Domestic		light bulb		1879	2001	3	cream
H	Domestic		light bulb		1879	2001	8	blue
H	Domestic		light bulb		1879	2001	2	bases
H	Domestic		light bulb		1879	2001	3	yellow

H	Domestic		light bulb		1879	2001	12	
H	Domestic		light bulb		1879	2001	11	pale green
H	Domestic	aluminum foil	bottle wrapping		1947	2001	1	
H	Domestic	bone	large mammal		0	0	1	
H	Domestic	glass	bottle	light green	1929	2001	9	mnv = 1
H	Domestic	glass	bottle	clear	0	0	25	
H	Domestic	glass	bottle	brown, embossed	1938	2001	7	Anchor Hockings post 1938 mnv = 1
H	Domestic	glass	bottle	clear	1810	2001	2	mnv = 1
H	Domestic	glass	bottle	dark green	1903	2001	2	
H	Domestic	glass	bottle-milk	clear	1934	1970	1	
H	Domestic	glass	bottle-milk	clear, applied color label-orange	1934	1970	1	
H	Domestic	glass	television tube		1939	2001	150	mnv = 1
H	Domestic	metal	crown cap		1892	2001	1	
H	Domestic	plastic	toy part		1915	2001	1	
H	Domestic	styrofoam			1962	2001	2	
H	Farming	steel	fencing wire		0	0	1	aluminum
H	Indeterminate	copper	wire		1881	2001	1	
H	Indeterminate	iron/steel	can fragment		1837	2001	3	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	
H	Indeterminate	macadam			0	0	1	
H	Indeterminate	textile			0	0	1	

H	Transportation		can-oil		1859	2001	1

TU 4 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	dressed wood			0	0	4	
H	Architectural	glass	safety glass		0	0	1	thick gray
H	Architectural	glass	window		0	0	5	
H	Architectural	iron	nail		1791	1891	52	
H	Architectural	iron	nail		1850	2001	3	
H	Architectural	iron	rivet		0	0	1	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	metal	fence post finial		0	0	1	
H	Architectural	mortar			0	0	1	
H	Architectural	plaster			0	0	1	
H	Architectural	porcelain	electrical insulator		1850	2001	1	
H	Architectural	porcelain	electrical insulator		1880	2001	1	
H	Domestic	glass	bottle	amber, embossed	1933	1960	6	"Ball" mfg, "ONE PINT", mnv=1
H	Domestic	glass	bottle	light green	1929	2001	2	
H	Domestic	glass	bottle	clear, embossed	1929	1954	2	"ONE PINT", mnv=1
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	light green, embossed	1939	2001	4	"NOT TO BE REFILLED"

H	Domestic	glass	bottle	clear, applied color label-red	1934	1970	1	red paint
H	Domestic	glass	bottle	clear, embossed	1917	1954	1	symbol or letter inside Keystone symbol, probable Knox Glass Co
H	Domestic	glass	bottle	clear	0	0	39	
H	Domestic	glass	bottle	light green	1929	2001	1	
H	Domestic	glass	bottle	light green	1929	2001	2	
H	Domestic	glass	bottle	light green	0	0	34	
H	Domestic	glass	bottle-alcohol	clear, embossed	1933	1964	1	"BOTTLE"
H	Domestic	glass	bottle-alcohol	brown, embossed	1933	1964	1	"FEDERAL …"
H	Domestic	glass	bottle-alcohol	brown, embossed	1933	1964	1	"THIS B…"
H	Domestic	glass	bottle-beer	brown	1930	2001	29	
H	Domestic	glass	bottle-beer	brown, embossed	1930	2001	1	"ASCO"
H	Domestic	glass	bottle-soda	clear, embossed	1940	1954	32	"Canada Dry Water", mnv=1
H	Domestic	glass	bottle-wine	dark green	1903	2001	1	
H	Domestic	glass	serving vessel	clear	1827	2001	2	mnv=1
H	Domestic	metal	crown cap		1892	2001	1	
H	Domestic	rubber	fruit jar gasket		1859	1941	1	
H	Farming	metal	sickle mower part		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

TU 4 Stratum V

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	1	

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	7	
H	Architectural	brick			0	0	1	
H	Architectural	glass	safety glass		0	0	1	
H	Architectural	glass	window		0	0	17	
H	Architectural	glass	window		0	0	3	
H	Architectural	iron	nail		1791	1891	2	
H	Architectural	iron	nail		1850	2001	1	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	mortar/plaster			0	0	2	
H	Architectural	slate	roofing		0	0	1	
H	Domestic	earthenware	hollowware	opaque white slip, ribbed exterior	1880	2001	1	
H	Domestic	glass	bottle	brown	1903	2001	1	
H	Domestic	glass	bottle	light green	1929	2001	3	
H	Domestic	glass	bottle	clear	0	0	38	
H	Domestic	glass	bottle	brown	0	0	16	
H	Domestic	glass	bottle-beer	brown	1930	2001	10	
H	Domestic	glass	bottle-milk	clear, embossed	1903	1970	3	"SEA.."
H	Domestic	glass	bottle-milk	clear, applied color label-red	1945	1970	13	mnv=1 rim
H	Domestic	glass	bottle-soda	clear, applied color label-red and white soldiers	1934	1970	12	mnn=1 "BE.."

H	Domestic	glass	bottle-wine	brown, embossed	1860	2001	1	"NTS 4/5T"
H	Domestic	glass	fruit jar	clear	1858	2001	1	
H	Domestic	plastic	coffee wrapper		1933	2001	1	Ellis gourmet coffee

TU 5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	electrical insulator		0	0	1	
H	Architectural	glass	window		0	0	179	
H	Architectural	glass	window		0	0	7	
H	Architectural	iron	nail		1791	1891	28	
H	Architectural	iron	nail		1850	2001	1	
H	Architectural	slate	roofing		0	0	2	
H	Domestic		light bulb		1879	2001	1	
H	Domestic	aluminum	lid-screwtop		0	0	2	aluminum
H	Domestic	bone	goose		0	0	1	
H	Domestic	bone	medium mammal		0	0	1	
H	Domestic	bone	medium mammal		0	0	1	
H	Domestic	brass	thimble		0	0	1	
H	Domestic	earthenware	indeterminate vessel	opaque white slip	1880	2001	1	
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	glass	bottle	clear	0	0	460	
H	Domestic	glass	bottle	brown	0	0	10	

H	Domestic	glass	bottle	light green	1929	2001	2	
H	Domestic	glass	bottle	clear, embossed	1903	2001	18	"WIL.." "..S"
H	Domestic	glass	bottle	brown	1930	2001	3	
H	Domestic	glass	bottle	brown	1930	2001	4	mnv=1
H	Domestic	glass	bottle	dark green	1903	2001	2	
H	Domestic	glass	bottle	brown	1930	2001	1	
H	Domestic	glass	bottle	clear, applied color label-red and white	1934	1970	1	
H	Domestic	glass	bottle	brown	1930	2001	5	
H	Domestic	glass	bottle	light green	0	0	69	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	aqua, embossed	1903	1940	1	"..ELD"
H	Domestic	glass	bottle	clear	1903	2001	2	
H	Domestic	glass	bottle	clear, applied color label	1934	1970	7	"..MORE ..K AT" "ITS BEST" "..ES MOST"
H	Domestic	glass	bottle	clear, embossed	1940	2001	3	Duraglass, mnv=3
H	Domestic	glass	bottle	brown	1930	2001	2	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	clear	0	0	16	
H	Domestic	glass	bottle	clear	0	0	61	
H	Domestic	glass	bottle-alcohol	brown, embossed	1933	1964	2	"FEDERAL.. SALE", mnv=1
H	Domestic	glass	bottle-beer	brown	1930	2001	107	
H	Domestic	glass	bottle-milk	clear, embossed	1903	1970	6	"MILK" "HALF GALLON"

H	Domestic	glass	bottle-milk	clear, embossed	1903	1970	7	"ONE" "HA.." "PINT" "..RT" "..QUID" "BOTTLE"
H	Domestic	glass	bottle-milk	clear, embossed	1945	1970	15	mnv=4
H	Domestic	glass	bottle-milk	clear	1903	1970	13	mnv=4
H	Domestic	glass	bottle-milk	clear, applied color label-red	1945	1970	25	
H	Domestic	hard rubber	comb	black, dual sided	1851	1898	1	"I R Comb Co Goodyear's", end date by NY City Directories on Ancestry.com (1898-1899 became American Hard Rubber Co)
H	Domestic	iron	buckle		0	0	1	
H	Domestic	pearlware	hollowware	painted underglaze-blue floral	1775	1830	1	
H	Domestic	pearlware	hollowware	plain	1770	1840	2	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	small mammal		0	0	3	
H	Indeterminate	iron/steel	unidentifiable		0	0	11	flat can metal
H	Indeterminate	iron/steel	unidentifiable		0	0	1	unit
H	Indeterminate	plastic	unidentified		1869	2001	6	

TU 5 Stratum II, add'l soil from wall, bulk and rodent burrow

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	21	
H	Architectural	iron	nail		1791	1891	8	

H	Domestic	bone	chicken		0	0	1
H	Domestic	bone	sheep		0	0	1
H	Domestic	glass	bottle	brown	1930	2001	1
H	Domestic	glass	bottle	clear	0	0	8
H	Domestic	glass	bottle	dark green	1903	2001	1
H	Domestic	glass	bottle-beer	brown	1930	2001	6
H	Domestic	pearlware	hollowware	plain	1770	1840	1
H	Domestic	pearlware	hollowware	painted underglaze-brown star	1795	1830	1
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1
H	Domestic	redware	hollowware	clear glaze with black spotting interior and exter	1685	1880	1
H	Domestic	redware	hollowware	black glaze	1685	1880	1
H	Indeterminate	bone	flying squirrel		0	0	1
H	Indeterminate	bone	small mammal		0	0	1
H	Indeterminate	iron/steel	can fragment		1837	2001	1

TU 5 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	181	
H	Architectural	glass	window		0	0	2	
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	iron	nail		1791	1891	37	
H	Architectural	porcelain	electrical insulator		1850	2001	1	

H	Architectural	slate	roofing		0	0	1	
H	Domestic	bone	button		0	0	3	
H	Domestic	bone	goose		0	0	1	
H	Domestic	bone	grouse		0	0	1	
H	Domestic	bone	large mammal		0	0	1	
H	Domestic	bone	large mammal		0	0	1	
H	Domestic	bone	medium mammal		0	0	3	
H	Domestic	bone	sheep		0	0	1	
H	Domestic	bone	sheep		0	0	1	
H	Domestic	bone	sheep		0	0	1	
H	Domestic	brass	button	plain flat front, stamped quality mark	0	0	1	"BEST TREBLE PLATED" with eagle with spread wings and legs within interior ring
H	Domestic	earthenware-buff	hollowware	majolica-white body, green glazed leaf in relief	1850	2001	1	
H	Domestic	glass	bead	black, wavy tubular	0	0	1	black
H	Domestic	glass	bottle	aqua	0	0	5	
H	Domestic	glass	bottle	clear	0	0	13	
H	Domestic	glass	bottle	clear	0	0	3	
H	Domestic	glass	bottle	light green, embossed	1940	2001	1	Duraglass
H	Domestic	glass	bottle-alcohol	brown, embossed	1933	1964	7	"..ALE" "..TTLE"
H	Domestic	glass	bottle-bulk	aqua	0	0	1	
H	Domestic	hard rubber	comb	black, dual-sided	1851	1898	1	probable India Rubber Comb Co (see cat #212 for other piece)

H	Domestic	pearlware	hollowware	painted underglaze-blue floral	1775	1830	3	
H	Domestic	pearlware	hollowware	painted underglaze-brown star and line	1795	1830	4	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-brown star and line	1795	1830	5	
H	Domestic	pewter	spoon		1700	1800	1	pewter
H	Domestic	porcelain	hollowware	plain	0	0	1	
H	Domestic	redware	lid	red/brown glaze	1685	1880	1	
H	Domestic	shell	clam		0	0	1	
H	Domestic	shell	indeterminate bivalve		0	0	1	
H	Domestic	slate	pencil		0	0	1	
H	Domestic	steel	jack		0	0	1	
H	Domestic	transitional whiteware	hollowware	painted underglaze-black line and brown decoration	1830	1860	1	
H	Domestic	transitional whiteware	hollowware	banded-brown and blue	1805	1840	3	
H	Domestic	transitional whiteware	hollowware	spatter-blue and purple	1800	1840	5	
H	Domestic	transitional whiteware	hollowware	spatter-blue and purple	1800	1840	1	
H	Domestic	whiteware	hollowware	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	4	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	3	1 with possible impressed mark
H	Ecological	bone	fox		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	

H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium/large mammal		0	0	1	
H	Indeterminate	bone	rabbit		0	0	1	
H	Indeterminate	bone	small mammal		0	0	1	
H	Indeterminate	bone	small mammal		0	0	1	
H	Indeterminate	bone	small mammal		0	0	1	
H	Indeterminate	bone	small mammal		0	0	1	
H	Indeterminate	bone	small mammal		0	0	1	2 pcs refit

TU 5 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	8	
H	Architectural	dressed wood			0	0	1	
H	Architectural	glass	window		0	0	46	
H	Architectural	iron	nail		1791	1891	27	
H	Architectural	plaster			0	0	1	
H	Domestic	bone	button		0	0	2	
H	Domestic	bone	chicken		0	0	1	
H	Domestic	bone	cow		0	0	1	

H	Domestic	bone	cow		0	0	1	
H	Domestic	bone	knife handle		1720	1770	4	date based on association/refit with dated blade
H	Domestic	bone	large bird		0	0	1	
H	Domestic	bone	large fish		0	0	1	
H	Domestic	bone	large mammal		0	0	1	
H	Domestic	bone	medium mammal		0	0	1	
H	Domestic	bone	medium mammal		0	0	2	refit
H	Domestic	bone	medium mammal		0	0	1	
H	Domestic	bone	pheasant		0	0	1	
H	Domestic	bone	pig		0	0	2	refit
H	Domestic	bone	pig		0	0	1	
H	Domestic	bone	pig		0	0	1	
H	Domestic	bone	pig		0	0	1	
H	Domestic	bone	turkey		0	0	1	
H	Domestic	bone	turkey		0	0	1	
H	Domestic	brass	button		0	0	3	
H	Domestic	brass	button	cast rabbit/hare surrounded by vine-work	1837	1901	1	backmark-"VICTORIA I * (crown symbol) * ", date based on reign of Queen Victoria I
H	Domestic	creamware	hollowware	plain	1762	1820	3	
H	Domestic	creamware	hollowware	plain	1762	1820	4	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	2	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	

H	Domestic	creamware	indeterminate vessel	plain	1762	1820	6	
H	Domestic	creamware	indeterminate vessel	painted underglaze-red leaf	1765	1815	1	
H	Domestic	delftware	hollowware	blue glaze, blue decoration	1752	1771	1	
H	Domestic	delftware	hollowware	blue glaze	1752	1771	1	
H	Domestic	delftware	indeterminate vessel	blue glaze, blue decoration	1752	1771	1	
H	Domestic	glass	bottle	olive green	0	0	2	patinated
H	Domestic	glass	bottle	clear	0	0	8	
H	Domestic	glass	lamp chimney	clear	0	0	1	
H	Domestic	glass	lighting	clear	0	0	3	molded thin
H	Domestic	glass	lighting	clear	0	0	17	
H	Domestic	glass	stemware	clear	0	0	1	
H	Domestic	iron/steel	fork		0	0	1	iron/steel fork for bone or wood handle
H	Domestic	iron/steel	knife		0	0	1	iron/steel knife blade for bone or wood handle
H	Domestic	Jackfield-like	hollowware	black glaze	1740	1850	1	
H	Domestic	pearlware	cup	painted underglaze-brown star	1795	1830	1	
H	Domestic	pearlware	cup	painted underglaze-brown star	1795	1830	2	
H	Domestic	pearlware	hollowware	plain	1770	1840	3	
H	Domestic	pearlware	hollowware	painted underglaze-blue chinoiserie	1775	1810	2	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	3	

H	Domestic	pearlware	indeterminate vessel	painted underglaze-brown floral	1795	1830	1
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	2
H	Domestic	pearlware	plate	shell edge-blue	1780	1835	2
H	Domestic	pearlware	saucer	painted underglaze-brown star with brown line	1795	1830	7
H	Domestic	porcelain-Oriental	hollowware	painted underglaze-blue and red	1700	1780	1
H	Domestic	porcelain-Oriental	hollowware	painted underglaze-brown and red	1790	1825	1
H	Domestic	porcelain-Oriental	indeterminate vessel	painted overglaze-blue	1685	1840	1
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	3
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	1
H	Domestic	redware	hollowware	clear glaze w/yellow slip trail interior	1685	1850	2
H	Domestic	redware	hollowware	brown glaze interior	1685	1880	2
H	Domestic	redware	hollowware	clear glaze w/yellow slip trail interior	1685	1850	1
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1
H	Domestic	redware	indeterminate vessel	dark brown/black glaze interior	1685	1880	5
H	Domestic	shell	oyster		0	0	1
H	Domestic	shell	oyster		0	0	2
H	Domestic	stoneware-white salt glazed	hollowware	plain	1720	1805	3

H	Domestic	white clay	tobacco pipe		1685	1900	1	4/64 kaolin
H	Domestic	white clay	tobacco pipe		1685	1900	1	kaolin
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Ecological	bone	groundhog		0	0	1	
H	Farming	iron	horseshoe		0	0	1	poss. Horseshoe
H	Hardware	metal	washer		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	

H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	3
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	2
H	Indeterminate	bone	medium mammal	0	0	2
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	3
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium/large mammal	0	0	1

H	Indeterminate	bone	rabbit		0	0	1
H	Indeterminate	bone	sheep/deer		0	0	1
H	Indeterminate	bone	small rodent		0	0	1
H	Indeterminate	bone	small rodent		0	0	1
H	Indeterminate	bone	small/medium mammal		0	0	1
H	Indeterminate	bone	Ungulate		0	0	1
H	Indeterminate	iron/steel	unidentifiable		0	0	1

TU 5 Stratum V

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	3	
H	Architectural	iron	nail		1685	1805	3	
H	Domestic	bone	cow		0	0	1	
H	Domestic	bone	goose		0	0	1	
H	Domestic	brass	button		0	0	1	
H	Domestic	creamware	hollowware	plain	1762	1820	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	creamware	plate	plain	1762	1820	1	
H	Domestic	delftware	indeterminate vessel	blue glaze	1752	1771	1	
H	Domestic	glass	bottle	clear	1810	2001	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	

TU 6 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	13	
H	Architectural	brick			0	0	12	
H	Architectural	glass	window		0	0	1	
H	Architectural	glass	window		0	0	12	
H	Architectural	glass	window		0	0	13	
H	Architectural	iron	nail		1791	1891	4	
H	Architectural	slate	roofing		0	0	11	
H	Domestic	aluminum	can-beverage		1962	2001	2	aluminun
H	Domestic	bone	turkey		0	0	1	
H	Domestic	earthenware	hollowware	opaque white slip, ribbed	1880	2001	2	
H	Domestic	glass	bottle	clear	0	0	6	
H	Domestic	glass	bottle	clear	0	0	1	mnv = 3 bases
H	Domestic	glass	bottle	clear, applied color label-red	1934	1970	2	red painted
H	Domestic	glass	bottle	clear	0	0	62	
H	Domestic	glass	bottle-beer	brown	1930	2001	24	mnv = 1
H	Domestic	glass	bottle-milk	clear, embossed	1903	1970	6	"The Phila milk Exchange and Filled by license"
H	Domestic	glass	bottle-milk	clear	1903	1970	2	
H	Domestic	glass	bottle-milk	clear	1903	1970	8	
H	Domestic	glass	bottle-milk	clear, embossed	1945	1970	2	Sealtest

H	Domestic	glass	bottle-toiletry	clear, applied color label-green	1934	1970	5	Tame Cream Rinse mnv = 1
H	Domestic	redware-Astbury type	teapot	red/brown glaze, ribbed	1725	1750	2	possible Astbury type
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	

TU 6 Stratum II, add'l soil from wall, bulk and rodent burrow

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	11	
H	Architectural	iron	nail		1850	2001	3	
H	Architectural	iron	nail		0	0	1	
H	Architectural	iron	nail		1791	1891	7	
H	Domestic		light bulb		1879	2001	12	
H	Domestic	bone	cow		0	0	1	
H	Domestic	bone	Galliformes sp.		0	0	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	glass	bottle	clear	1903	2001	1	crown top
H	Domestic	glass	bottle	clear	1930	2001	1	
H	Domestic	glass	bottle	aqua	0	0	5	
H	Domestic	glass	bottle	brown	1930	2001	1	
H	Domestic	glass	bottle	clear	0	0	90	
H	Domestic	glass	bottle-beer	brown	1930	2001	29	

H	Domestic	glass and aluminum	bottle-wine with cap	olive glass, labeled black painted cap	1933	1961	1	screw lid mfg by Alcoa, date based upon vintner trade mark Reg#310,200, Reg#224,763, Reg#729,536
H	Domestic	pearlware	hollowware	painted underglaze-blue	1775	1830	1	
H	Domestic	pearlware	hollowware	painted underglaze-brown line	1795	1830	1	
H	Domestic	pearlware	indeterminate vessel	transfer printed-blue with stipple	1783	1830	1	
H	Domestic	pearlware	plate	shell edge-blue, scalloped	1780	1835	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium/large mammal		0	0	1	
H	Indeterminate	iron	bar		0	0	1	
H	Indeterminate	iron/steel	can fragment		1837	2001	3	
H	Indeterminate	plastic	unidentified		1869	2001	1	

TU 6 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	asphalt	shingle		1917	2003	50	
H	Architectural	brick			0	0	29	
H	Architectural	brick			0	0	5	
H	Architectural	glass	window	aqua	0	0	76	
H	Architectural	glass	window	clear	0	0	20	
H	Architectural	iron	nail		1850	2001	1	
H	Architectural	iron	nail		1791	1891	33	

H	Architectural	porcelain	insulator		0	0	3	
H	Architectural	slate	roofing		0	0	48	
H	Domestic	bone	button		0	0	1	
H	Domestic	bone	cow		0	0	1	
H	Domestic	bone	duck		0	0	1	
H	Domestic	bone	duck		0	0	1	
H	Domestic	bone	duck		0	0	1	
H	Domestic	bone	duck		0	0	1	
H	Domestic	bone	duck		0	0	1	
H	Domestic	bone	Galliformes sp.		0	0	1	
H	Domestic	bone	large mammal		0	0	1	
H	Domestic	bone	large mammal		0	0	1	
H	Domestic	bone	sheep		0	0	1	
H	Domestic	bone	sheep		0	0	1	
H	Domestic	creamware	hollowware	plain	1762	1820	1	
H	Domestic	glass	bottle	green	0	0	22	mnv = 1
H	Domestic	glass	bottle	clear, embossed	1903	2001	3	mnv=2
H	Domestic	glass	bottle	clear	0	0	256	
H	Domestic	glass	bottle	clear, applied color label	1934	1970	1	"..nd" "..arl.."
H	Domestic	glass	bottle	light green	0	0	25	
H	Domestic	glass	bottle	clear, embossed	1903	2001	8	"ABE.."; "..AITH.."; "LIQUI.."; "..ART"; "ONE P"; "ONE"; "4/5 QUART"

H	Domestic	glass	bottle	brown	1930	2001	1	
H	Domestic	glass	bottle	dark green	1903	2001	7	mnv = 1
H	Domestic	glass	bottle	green, embossed	1939	2001	2	"NO DEPOSIT NO RETURN"
H	Domestic	glass	bottle	clear, rectangular form	0	0	7	mnv = 3
H	Domestic	glass	bottle	clear, embossed	1955	1969	2	date based upon patent term for D174,591, designed in 1955 for Bucks Glass Co which became a division of Knox Glass Co in 1961
H	Domestic	glass	bottle	brown	1930	2001	1	
H	Domestic	glass	bottle-alcohol	clear, embossed	1933	1964	2	"FEDERAL" ; "OR RE"
H	Domestic	glass	bottle-beer	brown	1930	2001	1	
H	Domestic	glass	bottle-beer	brown	1930	2001	66	
H	Domestic	glass	bottle-milk	clear	1903	1970	9	neck and rims, two are capseat style, one is collared with lugs below lip
H	Domestic	glass	bottle-milk	clear, embossed	1945	1970	20	
H	Domestic	glass	bottle-milk	clear, embossed	1903	1970	4	
H	Domestic	glass	bottle-toiletry	clear, applied color label-green	1934	1970	1	Tame cream rinse
H	Domestic	glass	bottle-wine	clear, embossed	1903	2001	2	mnv=1
H	Domestic	glass	light bulb		1879	2001	9	
H	Domestic	glass	stemware	clear, melted	0	0	1	poss stemware
H	Domestic	glass and aluminum	bottle	clear glass, black painted screw tops	1903	2001	9	mnv=2
H	Domestic	metal	miscellaneous vessel		0	0	1	
H	Domestic	nylon	stocking	thigh-high type	1938	2001	1	

H	Domestic	plastic	lid-screwtop		1907	2001	2	plastic bottle lid
H	Domestic	whiteware	hollowware	painted underglaze-black/colored glaze-black	1830	2001	2	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	2	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Ecological	bone	raccoon		0	0	1	
H	Farming	iron	nail-horseshoe		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium/large mammal		0	0	1	
H	Indeterminate	bone	small bird		0	0	1	
H	Indeterminate	bone	small mammal		0	0	2	
H	Indeterminate	iron/steel	can fragment		1837	2001	4	

H	Indeterminate	iron/steel	unidentifiable		0	0	1	
H	Indeterminate	rubber-hard	unidentified object	plug-like	1851	2001	1	

TU 6 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	brick			0	0	6	
H	Architectural	glass	window		0	0	22	
H	Architectural	glass	window		0	0	2	
H	Architectural	iron	nail		1791	1891	11	
H	Architectural	iron	nail-roofing		1850	2001	1	
H	Architectural	tarpaper			0	0	1	
H	Domestic	bone	Galliformes sp.		0	0	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	glass	bottle	clear	0	0	11	
H	Domestic	glass	bottle	brown	0	0	3	
H	Domestic	glass	bottle	brown	1810	2001	1	
H	Domestic	glass	marble		1846	2001	1	
H	Domestic	lead	miscellaneous weight		0	0	1	
H	Domestic	porcelain	hollowware	painted overglaze-red and green floral	1890	2001	1	
H	Domestic	redware	indeterminate vessel	dark brown/black glaze	1685	1880	2	
H	Domestic	shell	button		0	0	1	4-hole

H	Domestic	shell	clam		0	0	1	
H	Domestic	shell	clam		0	0	1	
H	Domestic	transitional whiteware	indeterminate vessel	spatter-purple	1805	1850	1	
H	Domestic	transitional whiteware	indeterminate vessel	transfer printed-mulberry, flow	1835	1855	2	date based on Bagdade, Susan and Al 1998
H	Domestic	whiteware	hollowware	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	7	
H	Indeterminate	iron/steel	can fragment		1837	2001	4	

TU 6 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	51	
H	Architectural	iron	nail		1791	1891	25	
H	Architectural	iron	spike		1791	1891	2	
H	Domestic	bone	chicken		0	0	1	
H	Domestic	bone	chicken		0	0	1	
H	Domestic	bone	chicken		0	0	1	
H	Domestic	bone	chicken		0	0	1	
H	Domestic	bone	cow		0	0	5	
H	Domestic	bone	fork handle		1720	1770	1	date based on association/refit with dated tine and tang end
H	Domestic	bone	Galliformes sp.		0	0	1	
H	Domestic	bone	Galliformes sp.		0	0	1	

H	Domestic	bone	goose		0	0	1	
H	Domestic	bone	goose		0	0	1	
H	Domestic	bone	goose		0	0	1	
H	Domestic	bone	large bird		0	0	1	
H	Domestic	bone	large bird		0	0	1	
H	Domestic	bone	large fish		0	0	1	
H	Domestic	bone	large fish		0	0	1	
H	Domestic	bone	large fish		0	0	1	
H	Domestic	bone	large mammal		0	0	1	
H	Domestic	bone	medium mammal		0	0	2	
H	Domestic	bone	medium mammal		0	0	1	
H	Domestic	bone	pig		0	0	1	
H	Domestic	bone	pig		0	0	1	
H	Domestic	bone	pig		0	0	1	
H	Domestic	bone	pig		0	0	1	
H	Domestic	bone	pig		0	0	1	
H	Domestic	bone	pig		0	0	1	
H	Domestic	bone	pig		0	0	1	
H	Domestic	bone	Ungulate		0	0	1	
H	Domestic	brass	button		0	0	1	
H	Domestic	brass	spoon		1800	1915	1	brass spoon
H	Domestic	creamware	hollowware	plain	1762	1820	1	

H	Domestic	creamware	hollowware	plain	1762	1820	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	4	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	3	
H	Domestic	delftware	indeterminate vessel	white glaze, indeterminate blue decoration	1685	1788	1	
H	Domestic	glass	bottle	clear	0	0	12	
H	Domestic	glass	bottle	brown	1930	2001	1	
H	Domestic	glass	bottle	light green	1929	2001	1	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	light green	0	0	2	mnv = 2
H	Domestic	glass	bottle	olive green	0	0	2	
H	Domestic	glass	bottle	brown	0	0	1	patinated
H	Domestic	glass	bottle-pharmaceutical	light green	1685	1900	1	flared lip, no mold seam visible
H	Domestic	glass	bowl	clear	0	0	1	
H	Domestic	glass	indeterminate lighting	blue and brown enameled	0	0	1	possible German lamp glass
H	Domestic	glass	lamp chimney	clear	0	0	4	
H	Domestic	glass	lamp/tumbler	clear	0	0	2	
H	Domestic	Jackfield-like	indeterminate vessel	black glaze	1740	1850	2	
H	Domestic	Jackfield-like	indeterminate vessel	black glaze	1740	1850	2	
H	Domestic	pearlware	cup	painted underglaze-brown star with brown line	1795	1830	1	

H	Domestic	pearlware	cup	painted underglaze-brown star with brown line	1795	1830	4	
H	Domestic	pearlware	hollowware	transfer printed-blue geometric, probable Chinese	1783	1830	2	
H	Domestic	pearlware	hollowware	plain	1770	1840	1	
H	Domestic	pearlware	hollowware	painted underglaze-polychrome, green leaf and brow	1795	1830	1	
H	Domestic	pearlware	hollowware	transfer printed-blue, floral interior, scenic ext	1783	1830	1	same as in cat# 391
H	Domestic	pearlware	hollowware	painted underglaze-blue	1775	1830	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	9	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-blue	1775	1830	1	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-polychrome, brown band	1795	1830	2	one piece with orange floral/leaf
H	Domestic	pearlware	indeterminate vessel	transfer printed-blue with stipple floral	1783	1830	1	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-brown line or band interior	1795	1830	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	
H	Domestic	pearlware	plate	shell edge-green, impressed, scalloped	1780	1835	7	
H	Domestic	pearlware	plate	shell edge-blue, impressed, scalloped	1780	1835	6	
H	Domestic	pearlware	saucer	painted underglaze-brown star with brown line	1795	1830	1	refits with cat# 215 bowl

H	Domestic	pearlware	saucer	transfer printed-blue floral, fluted body, scallop	1783	1830	1	
H	Domestic	pearlware	saucer	painted underglaze-blue floral	1775	1830	1	
H	Domestic	pearlware	saucer	painted underglaze-polychrome, blue dot floral and	1795	1830	1	
H	Domestic	pearlware	saucer	painted underglaze-polychrome, brown band, blue do	1795	1830	1	
H	Domestic	porcelain	cup	decal underglaze-red and gray	1890	1950	1	
H	Domestic	porcelain	cup	decal underglaze-red, ribbed	1890	1950	1	
H	Domestic	porcelain-Oriental	indeterminate vessel	painted overglaze-blue	1685	1840	1	
H	Domestic	porcelain-Oriental	indeterminate vessel	painted overglaze-blue	1685	1840	1	
H	Domestic	redware	bowl	clear glaze	1685	1880	1	
H	Domestic	redware	bowl	clear glaze	1685	1880	1	
H	Domestic	redware	hollowware	clear glaze	1685	1880	1	
H	Domestic	redware	hollowware	dark brown glaze, ribbed interior and exterior	1725	1750	1	possible mug handle
H	Domestic	redware	hollowware	clear glaze	1685	1880	9	
H	Domestic	redware	hollowware	dark brown glaze interior and exterior	1685	1880	6	
H	Domestic	redware	hollowware	brown glaze interior and exterior	1685	1880	1	
H	Domestic	redware	hollowware	dark brown glaze	1685	1880	1	
H	Domestic	redware	hollowware	dark brown glaze	1685	1880	1	

H	Domestic	redware	hollowware	dark brown glaze interior and exterior	1685	1880	6	
H	Domestic	redware	hollowware	slip trail-green	1685	1850	1	
H	Domestic	redware	hollowware	dark brown glaze	1685	1880	3	
H	Domestic	redware	hollowware	dark brown glaze interior and exterior	1685	1880	2	
H	Domestic	redware	hollowware	brown glaze w/slip trail, spalled	1685	1850	1	
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1	
H	Domestic	redware	indeterminate vessel	black glaze	1685	1880	3	
H	Domestic	redware	indeterminate vessel	dark brown glaze	1685	1880	4	
H	Domestic	redware	indeterminate vessel	brown glaze w/yellow slip trail interior	1685	1850	1	
H	Domestic	redware	saucer	yellow/brown glaze	1685	1880	1	
H	Domestic	shell	button		0	0	1	4-hole
H	Domestic	shell	clam		0	0	1	
H	Domestic	shell	indeterminate bivalve		0	0	2	
H	Domestic	shell	oyster		0	0	1	
H	Domestic	shell	oyster		0	0	4	
H	Domestic	white clay	tobacco pipe		1685	1900	1	kaolin 4/64
H	Ecological	bone	black rat		0	0	1	
H	Ecological	bone	black rat		0	0	2	
H	Ecological	bone	black rat		0	0	1	
H	Ecological	bone	black rat		0	0	2	
H	Ecological	bone	rat		0	0	1	

H	Ecological	bone	rat	0	0	1
H	Ecological	bone	sparrow	0	0	1
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	3
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	5
H	Indeterminate	bone	large mammal	0	0	2
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	large mammal	0	0	1
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	3
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	1

H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium bird	0	0	1
H	Indeterminate	bone	medium mammal	0	0	2
H	Indeterminate	bone	medium mammal	0	0	3
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	3
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	6
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	3
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1

H	Indeterminate	bone	medium mammal	0	0	3
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	2
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	4
H	Indeterminate	bone	medium mammal	0	0	7
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium mammal	0	0	1
H	Indeterminate	bone	medium rodent	0	0	1
H	Indeterminate	bone	medium/large mammal	0	0	6
H	Indeterminate	bone	medium/large mammal	0	0	1
H	Indeterminate	bone	medium/large mammal	0	0	3
H	Indeterminate	bone	medium/large mammal	0	0	1
H	Indeterminate	bone	medium/large mammal	0	0	2
H	Indeterminate	bone	medium/large mammal	0	0	2

H	Indeterminate	bone	medium/large mammal		0	0	1
H	Indeterminate	bone	rabbit		0	0	1
H	Indeterminate	bone	rabbit		0	0	1
H	Indeterminate	bone	Sciurus sp.		0	0	1
H	Indeterminate	bone	small mammal		0	0	1
H	Indeterminate	bone	small mammal		0	0	1
H	Indeterminate	bone	small mammal/medium bird		0	0	1
H	Indeterminate	bone	small mammal/medium bird		0	0	1
H	Indeterminate	bone	small/medium mammal		0	0	1
H	Indeterminate	bone	small/medium mammal		0	0	2
H	Indeterminate	bone	Ungulate		0	0	1
H	Indeterminate	bone	Ungulate		0	0	1
H	Indeterminate	bone	Ungulate		0	0	1
H	Indeterminate	bone	Ungulate		0	0	1
H	Indeterminate	metal	band		0	0	1

TU 6 Stratum IV-A

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	bone	large mammal		0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	bottle-beer	brown	1930	2001	1	

H	Domestic	pearlware	hollowware	painted underglaze-blue	1775	1830	1

TU 6 Stratum V

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	bone	comb		0	0	1	
H	Domestic	bone	Galliformes sp.		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	

TU 7 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	61	
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	iron	nail		1850	2001	1	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	porcelain	electrical insulator	blue glazed	1850	2001	1	
H	Domestic		light bulb		1879	2001	1	
H	Domestic	creamware	plate	plain	1762	1820	1	
H	Domestic	glass	bottle	brown, embossed	0	0	1	Walker & Sons Erville, Canada
H	Domestic	glass	bottle	light green	0	0	1	
H	Domestic	glass	bottle	clear	0	0	84	
H	Domestic	glass	bottle	light green	0	0	3	
H	Domestic	glass	bottle	brown, embossed	0	0	1	Owens Illinois
H	Domestic	glass	bottle	brown	0	0	3	handanchor

H	Domestic	glass	bottle	light green	1929	2001	6	
H	Domestic	glass	bottle	light green	0	0	4	
H	Domestic	glass	bottle-beer	brown	1930	2001	10	
H	Domestic	glass	bottle-soda	clear	1906	1980	3	Pepsi Co.
H	Domestic	glass	bottle-soda	clear, applied color label-red and white	1934	1970	3	
H	Domestic	glass	jar-cosmetic	white	1903	2001	1	
H	Domestic	iron/steel	can-beverage		1935	2001	6	mnv = 2
H	Domestic	metal	container handle		1837	2001	1	handle
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	
H	Domestic	porcelain	indetermiante vessel	plain	0	0	2	
H	Domestic	porcelain	saucer	plain	0	0	1	
H	Domestic	porcelain-Oriental	indeterminate vessel	painted overglaze-red	1790	1825	1	
H	Domestic	redware	hollowware	dark brown glaze interior and exterior	1685	1880	1	
H	Domestic	transitional whiteware	hollowware	banded-brown and blue	1805	1840	2	
H	Domestic	transitional whiteware	hollowware	banded-brown and blue	1805	1840	1	
H	Domestic	whiteware	hollowware	shell edge-blue, impressed chicken foot design, un	1840	1865	2	
H	Domestic	whiteware	hollowware	sponged-blue and red	1840	1930	1	
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	painted underglaze-polychrome floral, red, green a	1830	1900	1	

H	Gardening	terracotta	flowerpot	unglazed	1880	2001	1
H	Indeterminate	plastic	unidentified		1869	2001	1

TU 7 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	23	
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	iron	rivet		0	0	1	
H	Architectural	porcelain	electrical insulator	blue glazed	1850	2001	1	
H	Domestic		light bulb		1879	2001	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	glass	bottle	clear	0	0	8	
H	Indeterminate	bone	medium bird		0	0	1	
H	Indeterminate	iron/steel	can fragment		1837	2001	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	barstack

TU 7 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	3	
H	Architectural	mortar			0	0	1	
H	Domestic		light bulb		1879	2001	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Indeterminate	plastic	unidentified		1869	2001	2	

TU 7 Feature 1A

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	mortar			0	0	1	
H	Domestic	shell	oyster/clam		0	0	1	

TU 8 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	108	
H	Architectural	iron	nail		1791	1891	6	
H	Architectural	iron	nail		1850	2001	5	
H	Architectural	iron	pintle		0	0	1	
H	Architectural	iron	shutter fastener		0	0	1	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	plaster			0	0	1	green paint
H	Architectural	porcelain	electrical insulator	blue glazed	1885	2001	2	for radio antennae mnv = 1
H	Architectural	porcelain	electrical insulator	black glaze	1850	2001	1	
H	Architectural	porcelain and iron	electrical insulator with nail	nail-knob type	1881	2001	6	with wire nail
H	Architectural	slate	roofing		0	0	1	
H	Domestic	brass	spoon		1800	1915	1	brass
H	Domestic	glass	bottle	light green	0	0	3	
H	Domestic	glass	bottle	light green	1929	2001	4	
H	Domestic	glass	bottle	clear	0	0	1	complete ointments?
H	Domestic	glass	bottle	clear	0	0	59	

H	Domestic	glass	bottle	clear, applied color label-green and white	1934	1970	1	green/white paint
H	Domestic	glass	bottle-beer	brown	1930	2001	18	
H	Domestic	glass	bottle-milk	clear	1903	1970	1	
H	Domestic	glass	bottle-soda	clear	1810	1980	3	Pepsi ? Mnv = 2
H	Domestic	glass	bottle-soda	clear	1906	1980	4	pepsi
H	Domestic	iron/steel	can-beverage		1935	2001	9	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	shell edge-blue, lightly impressed, unscalloped	1840	1865	1	
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue romantic view	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	transfer printed-purple	1828	2001	1	
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue romantic view	1805	2001	1	
H	Farming	iron	horseshoe		0	0	1	
H	Hardware	metal	screw		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	iron/steel	can fragment		1837	2001	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	round metal object

TU 8 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	brick			0	0	1	

H	Architectural	glass	electrical insulator		0	0	2	
H	Architectural	glass	window		0	0	25	
H	Architectural	iron	nail		1791	1891	6	
H	Architectural	mortar			0	0	1	
H	Architectural	porcelain	electrical insulator	blue glazed	1885	2001	1	for radio
H	Domestic	glass	bottle	clear	1930	1950	1	
H	Domestic	glass	bottle	brown	1930	2001	7	
H	Domestic	glass	bottle	light green	1929	2001	1	
H	Domestic	glass	bottle	clear, embossed	1860	1970	1	"..RT" and circle panel on body
H	Domestic	glass	bottle	clear	0	0	15	
H	Domestic	glass	bottle	light green	0	0	1	
H	Domestic	glass	bottle-wine	light green	0	0	1	
H	Domestic	glass	tumbler	clear	0	0	1	
H	Domestic	iron/steel	can-beverage		1935	2001	2	mnv = 1
H	Domestic	ironstone	plate	plain, registry mark and maker's mark	1851	1851	5	
H	Domestic	Jackfield-like	hollowware	black glaze interior and exterior	1740	1850	1	
H	Domestic	pearlware	bowl	plain	1770	1840	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	
H	Domestic	pearlware	plate	shell edge-blue	1780	1835	4	
H	Domestic	redware	flowerpot saucer	unglazed	1685	1880	4	
H	Domestic	redware	hollowware	red/brown glaze interior	1685	1880	4	

H	Domestic	redware	hollowware	dark brown glaze interior	1685	1880	2
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1
H	Domestic	stoneware-gray bodied	hollowware	salt glazed	1735	1880	1
H	Domestic	styrofoam			1962	2001	1
H	Domestic	transitional whiteware	hollowware	banded-blue/black and gray	1805	1840	1
H	Domestic	whiteware	hollowware	painted underglaze-green and purple floral	1830	1900	1
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue romantic view	1805	2001	2
H	Farming	iron	horseshoe		0	0	1
H	Indeterminate	plastic	unidentified		1869	2001	5

TU 8 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	porcelain	electrical insulator		1850	2001	1	
H	Domestic	iron/steel	can-beverage		1935	2001	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	
H	Domestic	transitional whiteware	hollowware	banded-blue	1805	1840	1	

TU 8 Stratum IV, root fill

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	6	

H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1

TU 8 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	5	
H	Architectural	iron	nail		1850	2001	2	
H	Architectural	iron	nail		1791	1891	2	
H	Architectural	porcelain	electrical insulator	black glazed	1850	2001	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	bottle-beer	brown	1930	2001	1	
H	Domestic	iron/steel	can-beverage		1935	2001	2	
H	Domestic	porcelain	saucer	plain	0	0	2	
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue romantic view	1805	2001	1	
H	Indeterminate	bone	medium bird		0	0	1	

TU 8 Feature 1B

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	3	
H	Architectural	iron	nail		1791	1891	1	
H	Domestic	glass	bottle	light green, embossed	1940	2001	1	duraglass
H	Domestic	glass	bottle	clear	0	0	2	
H	Domestic	glass	bottle	clear	0	0	1	

	H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	1	
	H	Domestic	shell	oyster/clam		0	0	1	
	H	Indeterminate	glass	unidentifiable	clear	0	0	4	
	H	Indeterminate	iron/steel	sheeting		0	0	1	

TU 9 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	insulator	aqua	1865	2001	1	
H	Architectural	iron	nail		1791	1891	41	
H	Architectural	slate	roofing		0	0	1	
H	Indeterminate	iron/steel	can fragment		1837	2001	9	with spacing notches

TU 9 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	3	
H	Architectural	iron	nail		1791	1891	8	
H	Architectural	mortar			0	0	1	
H	Architectural	plaster			0	0	1	
H	Domestic	bone	medium/large mammal		0	0	1	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	light green	0	0	2	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	1	

H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1
H	Gardening	redware	flowerpot	unglazed	1685	1880	1
H	Indeterminate	iron/steel	can fragment		1837	2001	13

TU 9 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Architectural	iron	nail		1791	1891	2	
H	Architectural	plaster			0	0	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	2	
H	Domestic	delftware	indeterminate vessel	blue glaze	1752	1771	1	
H	Domestic	glass	bottle	olive green	0	0	1	patinated
H	Domestic	glass	bottle	light green	0	0	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	2	
H	Domestic	redware	hollowware	dark brown/black glaze	1685	1880	2	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	5	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	1	
H	Domestic	shell	oyster		0	0	1	
H	Domestic	transitional whiteware	indeterminate vessel	shell edge-blue, scalloped	1805	1835	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	

TU 9 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Domestic	redware	hollowware	clear glaze	1685	1880	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	

TU 9 Feature 4

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	mortar			0	0	3	

TU 9 Stratum III Feature 4

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	pearlware	plate	shell edge-green, scalloped	1780	1835	1	

TU 10 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	red
H	Architectural	glass	insulator	aqua	1865	2001	1	
H	Architectural	glass	window		0	0	29	
H	Architectural	iron	nail		1791	1891	8	
H	Architectural	iron and wood	nails in wood		1791	1891	5	
H	Architectural	lead	pipe fitting	threaded interior, 1" long by 1" square	0	0	1	
H	Architectural	mortar			0	0	4	

H	Domestic	brass	lipstick case	stamped mark	1915	1940	1	"DEBUTANTE/MADE IN U.S.A." date based on: http://en.wikipedia.org/wiki/Lipstick
H	Indeterminate	iron/steel	can fragment		1837	2001	57	flat metal can

TU 10 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	11	
H	Architectural	iron	nail		1791	1891	5	
H	Architectural	slate	roofing		0	0	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	glass	bottle	aqua	0	0	4	
H	Domestic	glass	bottle	clear, embossed	0	0	1	"D"
H	Indeterminate	iron/steel	can fragment		1837	2001	2	

TU 10 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	nail		1791	1891	2	
H	Domestic	bone	medium/large mammal		0	0	1	
H	Domestic	brass	button		0	0	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	2	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	creamware	indeterminate vessel	plain, burned	1762	1820	1	
H	Domestic	glass	bottle-wine	olive green	0	0	1	

H	Domestic	Jackfield	hollowware	black glaze	1740	1790	1
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1
H	Domestic	porcelain	indeterminate vessel	plain	0	0	1
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2
H	Domestic	redware	hollowware	dark brown glaze	1685	1880	1
H	Domestic	redware	indeterminate vessel	clear glaze	1685	1880	1

TU 10 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware	plate	clear glaze w/yellow slip trail interior	1685	1850	1	

TU 10 Feature 4

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	
H	Architectural	mortar			0	0	1	

TU 11 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	3	
H	Architectural	iron	nail		1791	1891	20	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	mortar			0	0	2	
H	Domestic	glass	bottle	aqua	0	0	1	
H	Domestic	glass	bottle	brown, embossed	1930	2001	12	"SUNTEX"

H	Domestic	glass	bottle	light green	1929	2001	3	
H	Domestic	glass	bottle	clear	0	0	70	poss. Canning
H	Domestic	glass	fruit jar	aqua, embossed	1858	1940	45	"Ball perfect mason" mnv = 1
H	Domestic	shell	button		0	0	1	2-hole
H	Domestic	whiteware	plate	gold banded	1870	2001	5	
H	Ecological	bone	black rat		0	0	1	
H	Farming	steel	fencing wire		0	0	1	
H	Indeterminate	bone	pigeon		0	0	1	
H	Indeterminate	bone	pigeon		0	0	1	
H	Indeterminate	bone	pigeon		0	0	1	
H	Indeterminate	bone	pigeon		0	0	1	
H	Indeterminate	bone	pigeon		0	0	1	
H	Indeterminate	bone	pigeon		0	0	1	
H	Indeterminate	bone	small bird		0	0	1	
H	Indeterminate	bone	small bird		0	0	1	
H	Indeterminate	bone	small bird		0	0	1	
H	Indeterminate	glass	unidentifiable		0	0	20	
H	Indeterminate	iron/steel	unidentifiable		0	0	2	
H	Indeterminate	plastic	unidentified		1869	2001	1	

TU 11 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	

H	Architectural	iron	nail		1791	1891	26
H	Architectural	mortar			0	0	7
H	Domestic	bone	chicken		0	0	1
H	Domestic	bone	chicken		0	0	1
H	Domestic	glass	bottle	yellow	0	0	1
H	Domestic	glass	bottle	clear	0	0	2
H	Indeterminate	bone	medium mammal		0	0	1
H	Indeterminate	bone	medium mammal		0	0	1
H	Indeterminate	iron/steel	unidentifiable		0	0	1

TU 11 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	11	
H	Architectural	iron	nail		1791	1891	6	
H	Architectural	iron	nail		0	0	1	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	mortar			0	0	1	
H	Domestic	bone	large fish		0	0	1	
H	Domestic	glass	bottle	clear	0	0	10	
H	Domestic	glass	bottle	aqua	0	0	1	
H	Domestic	glass	bottle	brown	1810	2001	1	
H	Domestic	redware	hollowware	brown glaze, black spotting interior and exterior	1685	1880	1	

H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2
H	Domestic	redware	hollowware	dark brown/black glaze	1685	1880	2
H	Domestic	whiteware	plate	overglaze enamel-red w/gold band	1928	1928	1
H	Indeterminate	bone	medium bird		0	0	1
H	Indeterminate	bone	medium bird		0	0	1
H	Indeterminate	bone	medium bird		0	0	1
H	Indeterminate	bone	medium mammal		0	0	1
H	Indeterminate	bone	medium mammal		0	0	1
H	Indeterminate	bone	rabbit		0	0	1

TU 11 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	9	
H	Architectural	iron	nail		1791	1891	5	
H	Architectural	mortar			0	0	1	
H	Domestic	glass	bottle	brown	0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	bottle	olive green	0	0	1	patinated
H	Domestic	redware	hollowware	dark brown/black glaze	1685	1880	1	
H	Domestic	redware	hollowware	dark brown/black glaze	1685	1880	5	
H	Domestic	redware	indeterminate vessel	dark brown glaze, burning on exterior	1685	1880	1	
H	Domestic	stoneware-white salt glazed	indeterminate vessel	plain	1720	1805	1	

H	Indeterminate	bone	medium bird		0	0	1	

TU 11 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	glazed
H	Architectural	glass	window		0	0	6	
H	Architectural	iron	nail		1791	1891	1	
H	Domestic	bone	large mammal		0	0	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	2	
H	Domestic	creamware	indeterminate vessel	whieldon-type	1740	1770	1	
H	Domestic	glass	bottle	olive green	0	0	1	
H	Domestic	Jackfield	hollowware	black glaze	1740	1790	1	
H	Domestic	pearlware	hollowware	banded-brown and blue	1795	1840	1	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-blue	1775	1830	2	
H	Domestic	porcelain-Oriental	bowl	painted underglaze-blue	1685	1840	3	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2	
H	Domestic	redware	indeterminate vessel	dark brown/black glaze	1685	1880	1	
H	Domestic	redware	plate	clear glaze w/yellow slip trail interior	1685	1850	1	
H	Domestic	shell	oyster		0	0	3	
H	Domestic	shell	oyster		0	0	3	
H	Domestic	shell	oyster		0	0	2	
H	Domestic	stoneware-scratch blue	hollowware	floral	1744	1775	1	

H	Farming	iron	horseshoe		0	0	1
H	Indeterminate	bone	medium mammal		0	0	1
H	Indeterminate	bone	medium/large mammal		0	0	1

TU 12 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural		light fixture		0	0	1	
H	Architectural	iron	nail		1791	1891	45	
H	Architectural	iron	spike		1850	2003	6	
H	Architectural	plaster			0	0	3	
H	Architectural	slate	roofing		0	0	3	
H	Domestic	bone	large bird		0	0	1	
H	Domestic	glass	bottle	amethyst	1880	1914	1	
H	Domestic	glass	bottle	clear	1903	2001	1	
H	Domestic	glass	bottle	clear	0	0	3	
H	Domestic	glass	bottle	brown	0	0	2	
H	Domestic	glass	bottle	light green	0	0	2	
H	Domestic	glass	bottle	clear, embossed	1903	2001	1	
H	Domestic	glass	bottle-soda	clear	1929	1954	10	"POP", Owen-Illinois mfg
H	Domestic	porcelain-Oriental	indeterminate vessel	plain	1685	1840	1	
H	Domestic	whiteware	plate	overglaze enamel-red and gold banded	1928	1928	6	The Edwin M Knowles ivory 28-1-2
H	Ecological	bone	rat		0	0	1	
H	Farming	steel	barbed wire		0	0	4	

H	Indeterminate	bone	rabbit		0	0	1
H	Indeterminate	iron/steel	sheeting		0	0	1

TU 12 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	4	
H	Architectural	iron	nail		0	0	2	
H	Architectural	iron	nail		1850	2001	1	
H	Architectural	iron	nail		1791	1891	17	
H	Architectural	mortar			0	0	1	
H	Domestic	bone	medium mammal		0	0	1	
H	Domestic	brass	button		0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	shell	oyster		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	

TU 12 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	5	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	1	
H	Domestic	redware	hollowware	brown glaze	1685	1880	1	

H	Domestic	stoneware-white salt glazed	plate	embossed-dot, diaper pattern, scalloped	1720	1765	1

TU 13 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	brick			0	0	1	
H	Architectural	glass	safety glass		0	0	8	
H	Architectural	iron	nail		1791	1891	13	
H	Architectural	iron	nail		1850	2001	1	
H	Architectural	iron	spouting support		0	0	1	
H	Architectural	mortar			0	0	6	
H	Architectural	slate	roofing		0	0	10	
H	Domestic	glass	bottle	pink	0	0	1	
H	Domestic	glass	bottle	red	0	0	1	
H	Domestic	glass	bottle	clear	0	0	13	
H	Domestic	glass	bottle-beer	brown	1930	2001	2	
H	Domestic	glass	fruit jar liner	opal/white	1869	1941	5	
H	Domestic	iron/steel	can-beverage		1935	2001	3	
H	Domestic	ironstone	hollowware	plain	1842	2001	1	
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	2	
H	Domestic	metal	crown cap		1892	2001	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	
H	Hardware	iron	chain		0	0	1	

H	Heating by-product	cinder			0	0	1	
H	Heating by-product	coal			0	0	1	
H	Indeterminate	macadam			0	0	4	

TU 13 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	9	
H	Architectural	glass	window		0	0	5	
H	Architectural	iron	nail		0	0	10	
H	Domestic	glass	bottle	clear	0	0	3	
H	Domestic	ironstone	bowl	embossed	1842	2001	3	
H	Domestic	ironstone	indeterminate vessel	transfer printed-mulberry	1835	1855	1	date based on Bagdade, Susan and Al 1998
H	Domestic	pearlware	indeterminate vessel	shell edge-blue	1780	1835	1	
H	Domestic	porcelain	doll		0	0	2	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	3	
H	Heating by-product	cinder			0	0	2	
H	Indeterminate	iron/steel	unidentifiable		0	0	4	

TU 13 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	4	
H	Architectural	glass	window		0	0	51	
H	Architectural	iron	nail		0	0	4	

H	Domestic	glass	bottle	aqua	0	0	1
H	Domestic	glass	bottle	clear	0	0	4
H	Domestic	redware	indeterminate vessel	dark brown/black glaze	1685	1880	1
H	Domestic	transitional whiteware	indeterminate vessel	painted underglaze-black	1830	1860	1
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	3
H	Domestic	whiteware	indeterminate vessel	shell edge-blue	1805	1895	1
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue	1805	2001	1

TU 13 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	10	
H	Architectural	glass	window		0	0	85	
H	Architectural	iron	nail		1791	1891	4	
H	Architectural	iron	nail		0	0	8	
H	Domestic	bone	medium mammal		0	0	1	
H	Domestic	brass	handle		0	0	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	creamware	plate	plain	1762	1820	1	
H	Domestic	glass	bottle	olive green	0	0	1	
H	Domestic	glass	bottle	olive green	0	0	3	
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	2	
H	Domestic	ironstone	plate	plain	1842	2001	1	

H	Domestic	ironstone	plate	plain	1842	2001	3
H	Domestic	pearlware	hollowware	painted underglaze-polychrome floral with blue ban	1795	1830	3
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	4
H	Domestic	pearlware	indeterminate vessel	painted underglaze blue floral	1775	1830	1
H	Domestic	pearlware	indeterminate vessel	painted underglaze-dark blue line/stem	1775	1830	1
H	Domestic	porcelain	indeterminate vessel	plain	0	0	1
H	Domestic	prosser china	button	small, 4-hole	1840	1950	2
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2
H	Domestic	redware	hollowware	unglazed	1685	1880	1
H	Domestic	redware	hollowware	dark brown/black glaze	1685	1880	1
H	Domestic	redware	hollowware	brown glaze	1685	1880	1
H	Domestic	redware	hollowware	clear glaze	1685	1880	1
H	Domestic	redware	hollowware	dark brown/black glaze	1685	1880	1
H	Domestic	redware	hollowware	unglazed, spalled	1685	1880	1
H	Domestic	redware	hollowware	clear glaze interior and exterior	1685	1880	1
H	Domestic	redware	indeterminate vessel	unglazed, spalled	1685	2001	2
H	Domestic	redware	indeterminate vessel	clear glaze	1685	1880	1
H	Domestic	redware	indeterminate vessel	dark brown/black glaze	1685	1880	1
H	Domestic	shell	oyster		0	0	6

H	Domestic	transitional whiteware	indeterminate vessel	spatter-blue	1805	1840	1	
H	Domestic	whiteware	hollowware	indeterminate blue decoration exterior	1805	2001	1	
H	Domestic	yellowware	indeterminate vessel	plain	1830	1940	2	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	bone	large mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	bone	medium mammal		0	0	1	
H	Indeterminate	iron/steel	can fragment		1837	2001	8	
H	Indeterminate	plastic	miscellaneous tubing	clear	1933	2001	1	tooth

TU 13 Stratum V

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Architectural	iron	nail		0	0	1	
H	Architectural	plaster			0	0	1	
H	Domestic	redware	indeterminate vessel	dark brown/black glaze	1685	1880	1	
H	Indeterminate	paper			0	0	1	

TU 13 Stratum VI

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	

H	Architectural	glass	window		0	0	14	
H	Architectural	iron	nail		0	0	4	
H	Domestic	pearlware	indeterminate vessel	painted underglaze-blue floral	1775	1830	1	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2	
H	Domestic	redware	hollowware	brown glaze	1685	1880	2	
H	Domestic	redware	hollowware	unglazed	1685	1880	1	
H	Domestic	redware	indeterminate vessel	clear glaze	1685	1880	3	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	painted underglaze-blue	1830	1900	1	
H	Indeterminate	bone	indeterminate mammal		0	0	1	tooth

TU 14 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	12	
H	Architectural	iron	nail		0	0	11	
H	Architectural	iron	nail		1791	1891	3	
H	Architectural	stoneware	drainage pipe		0	0	1	salt glazed
H	Domestic	clay	marble		1685	1850	1	
H	Domestic	glass	bottle	aqua, embossed	1860	1940	1	"ROU"
H	Domestic	glass	bottle	light green	0	0	10	
H	Domestic	glass	bottle	dark green	1903	2001	1	
H	Domestic	glass	bottle	clear	0	0	5	

H	Domestic	glass	bottle-pharmaceutical	clear, embossed	1860	2001	2	" BALT"
H	Domestic	glass	fruit jar liner	opal/white	1869	1941	1	
H	Domestic	glass	tumbler	clear	0	0	1	
H	Domestic	metal	toy gun		1870	2001	1	ref. for date - historychannel.com toy history
H	Domestic	porcelain	indeterminate vessel	plain	0	0	1	
H	Domestic	redware	hollowware	red/brown glaze	1685	1880	1	
H	Domestic	redware	hollowware	dark brown/black glaze	1725	1750	2	3/4" wide, probable small vessel handle
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	1	
H	Domestic	redware	indeterminate vessel	dark brown/black glaze	1685	1880	1	
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1	
H	Domestic	stoneware	hollowware	Albany slip	1820	1880	1	
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue floral	1805	2001	4	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	painted underglaze-floral	1830	1900	5	
H	Hardware	iron	pulley		0	0	1	
H	Hardware	iron	wrench		0	0	1	
H	Indeterminate	bone	deer		0	0	1	

TU 14 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	creamware	indeterminate vessel	shell edged-green	1774	1800	1	

H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1
H	Domestic	earthenware	hollowware	burned	0	0	1
H	Domestic	glass	bottle	clear	0	0	23
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	1
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1
H	Domestic	redware	indeterminate vessel	dark brown/black glaze	1685	1880	3

TU 15 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	14	red
H	Architectural	glass	window		0	0	2	
H	Architectural	glass	window		0	0	84	
H	Architectural	iron	spike		1791	1891	2	
H	Architectural	mortar			0	0	5	
H	Architectural	slate	roofing		0	0	6	
H	Architectural	stoneware	drainage pipe		0	0	1	salt glazed
H	Domestic		light bulb		1879	2001	5	bases
H	Domestic		light bulb		1879	2001	22	mnv = 1
H	Domestic	aluminum foil			1947	2001	1	
H	Domestic	glass	bottle	green, embossed	1860	2001	23	GALEO RAVOR GUARD BOTTLE mnv = 1
H	Domestic	glass	bottle	clear, applied color label-white	1934	1970	6	white painted unit
H	Domestic	glass	bottle	light green, embossed	1940	1954	169	mnv = 4 post 1940

H	Domestic	glass	bottle	brown	1938	2001	195	Post 1938 with Anchor Hockings Glass Corp mnv = 4
H	Domestic	glass	bottle	white	0	0	3	
H	Domestic	glass	bottle	blue	0	0	50	possible milk of magnesia
H	Domestic	glass	bottle	pink	0	0	1	
H	Domestic	glass	bottle	clear, applied color label-orange	1934	1970	2	orange painted (food bottle)
H	Domestic	glass	bottle	clear	0	0	1	vetinary/medicine complete
H	Domestic	glass	bottle	clear	0	0	1052	
H	Domestic	glass	bottle-milk	clear	1903	1970	3	rim
H	Domestic	glass	bottle-milk	clear, applied color label-red	1934	1970	10	mnv = 1
H	Domestic	glass	bottle-milk	clear, applied color label-orange	1934	1970	11	mnv = 1
H	Domestic	glass	bottle-milk	clear, applied color label-yellow	1934	1970	13	mnv = 1 Delamore Dairy
H	Domestic	glass	bottle-milk	clear, applied color label-purple	1934	1970	9	mnv = 1
H	Domestic	glass	bottle-soda	light green	1907	1980	26	Canada Dry Ginger Ale
H	Domestic	glass	bottle-soda	clear	1906	1980	36	Pepsi Cola mnv = 1
H	Domestic	glass	bottle-soda	clear, applied color label	1934	1970	36	mnv = 3 Booth's Sparkling beverage Phila
H	Domestic	glass	bottle-soda	clear, applied color label	1934	1970	1	
H	Domestic	glass	bottle-soda	clear, applied color label	1934	1970	18	mnv = 2 Mundorff's Beverage wilmington Del.
H	Domestic	glass	fruit jar liner	clear	1869	1941	1	Jeannette Mason
H	Domestic	metal	bottle caps		1892	2001	3	metal bottle lids/caps

H	Domestic	metal	crown cap		1892	2001	5	
H	Domestic	plastic	lid-screwtop		1907	2001	2	plastic bottle caps " 1 Pco"
H	Farming	steel	fencing wire		0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	1	
H	Indeterminate	plastic	unidentified		1869	2001	6	
H	Transportation		can-oil		1859	2001	6	

TU 16 Stratum V

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	4	
H	Architectural	brick			0	0	1	
H	Architectural	iron	nail		0	0	1	

TU 16 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	ceramic	tile		0	0	4	3 green, 1 yellow
H	Architectural	earthenware	drainage pipe		0	0	3	
H	Domestic	glass	bottle	aqua	0	0	1	
H	Domestic	glass	jar-cosmetic	white	1903	2001	1	
H	Domestic	shell	oyster		0	0	1	

TU 17 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	5	
H	Architectural	iron	nail		1791	1891	12	

H	Architectural	iron	shutter fastener		0	0	1	
H	Architectural	iron	spike		1791	1891	1	
H	Architectural	mortar			0	0	9	
H	Architectural	slate	roofing		0	0	1	
H	Domestic		light bulb		1879	2001	9	
H	Domestic	glass	bottle	brown, embossed	1938	2001	23	Anchor hocking Glass Corp post 1938
H	Domestic	glass	bottle	clear	0	0	52	
H	Domestic	glass	bottle	clear, embossed	1860	2001	1	"jenuin"
H	Domestic	glass	bottle	pink	0	0	3	
H	Domestic	glass	bottle	light green	0	0	6	
H	Domestic	glass	bottle	light green	1929	2001	2	
H	Domestic	glass	fruit jar	clear	1858	2001	7	
H	Domestic	glass	jar-condiment	clear	1903	2001	4	
H	Domestic	plastic	toy airplane wing		1915	2001	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	2	
H	Indeterminate	plastic	unidentified		1869	2001	1	
H	Transportation		can-oil		1859	2001	8	

TU 17 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	7	
H	Architectural	brick			0	0	9	
H	Architectural	glass	window		0	0	19	

H	Architectural	iron	nail		1791	1891	5	
H	Architectural	iron	nail		0	0	45	
H	Architectural	metal	pipe		0	0	1	
H	Architectural	plaster			0	0	3	
H	Architectural	slate	roofing		0	0	2	
H	Domestic		clothing snap		0	0	1	
H	Domestic	creamware	indeterminate vessel	whieldon-type	1740	1770	1	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	glass	bottle	teal	1903	2001	1	
H	Domestic	glass	bottle	light green	1929	2003	3	
H	Domestic	glass	bottle	emerald green/teal	0	0	2	
H	Domestic	glass	bottle	clear	0	0	72	
H	Domestic	glass	bottle	clear	1903	1920	1	blob top
H	Domestic	glass	bottle-beer	brown	1930	2001	41	
H	Domestic	glass	bottle-milk	clear	1903	1970	6	
H	Domestic	Jackfield-like	hollowware	black glaze	1740	1850	1	
H	Domestic	redware	hollowware	unglazed	1880	2001	1	
H	Domestic	redware	indeterminate vessel	dark brown/black glaze	1685	1880	1	
H	Domestic	redware	plate	clear glaze w/yellow slip trail interior	1685	1850	1	
H	Domestic	shell	clam		0	0	1	
H	Domestic	shell	clam		0	0	1	
H	Farming		harness part		0	0	1	double-tree collar

H	Farming	iron	pony shoe		0	0	1
H	Hardware	iron	file	single cut teeth pattern	0	0	1
H	Hardware	metal	miscellaneous tool		0	0	2
H	Hardware	metal	washer		0	0	1
H	Indeterminate	bone	small/medium mammal		0	0	1
H	Indeterminate	iron/steel	unidentifiable		0	0	22

TU 17 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	10	
H	Architectural	glass	window		0	0	8	
H	Architectural	iron	nail		0	0	5	
H	Architectural	mortar			0	0	1	
H	Architectural	slate	roofing		0	0	6	
H	Domestic	creamware	indeterminate vessel	plain	1762	1820	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	
H	Domestic	pewter	medallion/token		0	0	1	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2	
H	Domestic	redware	hollowware	unglazed	1685	1880	1	
H	Domestic	redware	indeterminate vessel	brown glaze	1685	1880	1	
H	Domestic	redware	indeterminate vessel	black glaze	1685	1880	1	
H	Domestic	shell	clam		0	0	2	

H	Farming	metal	miscellaneous farm-related		0	0	2	
H	Indeterminate		dry cell battery		1881	2001	1	D-cell

TU 17 Feature 10

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		0	0	1	

TU 18 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron	nail		1791	1891	1	
H	Domestic	glass	bottle	light green	1929	2001	3	
H	Domestic	glass	bottle	clear	0	0	3	
H	Domestic	glass	bottle	red	0	0	2	
H	Domestic	glass	bottle-beer	brown	1930	2001	28	
H	Domestic	glass	button		0	0	1	
H	Domestic	redware	hollowware	dark brown/black glaze	1685	1880	1	int/ext
H	Domestic	shell	clam		0	0	1	
H	Domestic	shell	oyster		0	0	4	
H	Domestic	shell	oyster		0	0	1	
H	Domestic	shell	oyster		0	0	4	
H	Domestic	shell	oyster		0	0	7	
H	Domestic	shell	oyster		0	0	19	

TU 18 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	glass	window		0	0	4	
H	Architectural	iron	nail		0	0	1	
H	Architectural	iron	nail		1791	1891	4	
H	Arms/Ammunition	brass	ammunition-shotgun		1850	2001	1	center
H	Domestic	glass	bottle	brown	0	0	9	
H	Domestic	Jackfield	hollowware	black glaze	1740	1790	3	
H	Domestic	redware	hollowware	brown glaze interior	1685	1880	2	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	4	
H	Domestic	redware	hollowware	red/brown glaze interior and exterior	1685	1880	1	
H	Domestic	transitional whiteware	hollowware	spatter-blue	1805	1850	4	
H	Domestic	transitional whiteware	indeterminate vessel	spatter-blue	1805	1850	1	
H	Indeterminate	bone	medium mammal		0	0	1	

TU 19 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	15	
H	Architectural	iron	nail		0	0	1	
H	Architectural	iron	nail		1791	1891	2	
H	Domestic	glass	bottle	pink	0	0	4	

H	Domestic	glass	bottle	light green	1929	2001	37	
H	Domestic	glass	bottle	clear	0	0	119	
H	Domestic	glass	bottle-beer	brown	1930	2001	10	
H	Domestic	glass	fruit jar	aqua	1858	1940	28	
H	Domestic	glass	fruit jar liner	opal/white	1869	1941	4	
H	Domestic	glass	serving vessel	clear, rayed design between diamond framed starbur	1827	2001	2	see cat#270 for matched fragments
H	Domestic	ironstone	hollowware	plain	1842	2001	1	
H	Domestic	ironstone	indeterminate vessel	gold banded, scalloped	1870	2001	1	
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	3	
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	10	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2	
H	Domestic	redware	hollowware	unglazed	1685	1880	1	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	2	
H	Domestic	redware	indeterminate vessel	dark brown/black glaze interior	1685	1880	7	
H	Domestic	whiteware	hollowware	transfer printed-purple	1828	2001	1	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	3	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	whiteware	indeterminate vessel	transfer printed-blue	1805	2001	3	
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1	
H	Domestic	yellowware	indeterminate vessel	plain	1830	1940	2	

H	Indeterminate	plastic	unidentified		1869	2001	2

TU 19 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	3	
H	Architectural	glass	window		0	0	6	
H	Architectural	iron	nail		0	0	3	
H	Domestic		light bulb		1879	2001	1	
H	Domestic	glass	bottle	light green, embossed	1860	1970	1	"G" in a triangle
H	Domestic	glass	bottle	aqua	0	0	74	
H	Domestic	glass	bottle	aqua	0	0	4	
H	Domestic	glass	bottle-pharmaceutical	light green	1867	1920	1	
H	Domestic	glass	indeterminate vessel	clear	0	0	16	
H	Domestic	glass	lighting	clear	0	0	26	
H	Domestic	glass	serving vessel	amethyst-tint, mold-formed honeycomb pattern	1827	2001	2	mnv = 2
H	Domestic	glass	serving vessel	clear, diamond-block pattern body, rayed base, ova	1827	2001	2	
H	Domestic	glass	serving vessel	clear, scalloped lip, floral design on small diamo	1827	2001	1	
H	Domestic	glass	serving vessel	clear, starburst inside diamond frame, rayed betwe	1827	2001	1	see cat #269 for matched pieces
H	Domestic	glass	serving vessel	clear, rayed	1827	2001	2	see cat #269 for matched pieces

H	Domestic	glass	serving vessel	clear, indeterminate design	1827	2001	1
H	Domestic	ironstone	hollowware	banded-green and blue	1813	1840	2
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	6
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	1
H	Domestic	ironstone	indeterminate vessel	plain	1842	2001	9
H	Domestic	Jackfield-like	hollowware	black glaze	1740	1850	3
H	Domestic	pearlware	hollowware	transfer printed-blue with stipple	1783	1830	4
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1
H	Domestic	pearlware	indeterminate vessel	transfer printed-blue with stipple, romantic view	1783	1830	1
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1
H	Domestic	pearlware	indeterminate vessel	transfer printed-blue with stipple, romantic view	1783	1830	3
H	Domestic	redware	hollowware	dark brown/black glaze	1685	1880	1
H	Domestic	redware	hollowware	dark red/brown glaze interior and exterior	1685	1880	1
H	Domestic	redware	hollowware	unglazed	1685	1880	1
H	Domestic	redware	hollowware	dark red/brown glaze interior and exterior	1685	1880	10
H	Domestic	redware	indeterminate vessel	dark brown/black glaze	1685	1880	3
H	Domestic	stoneware-gray bodied	hollowware	Albany slip interior, salt glaze exterior	1820	1880	1
H	Domestic	whiteware	indeterminate vessel	plain	1805	2001	1

TU 19 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	23	
H	Architectural	iron	nail		0	0	1	
H	Domestic	glass	bottle	clear	0	0	22	
H	Domestic	pearlware	hollowware	banded-brown and blue	1795	1840	1	
H	Domestic	pearlware	indeterminate vessel	plain	1770	1840	1	

TU 20 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	fruit jar liner	opal/white	1869	1941	2	
H	Domestic	redware	indeterminate vessel	red/brown glaze	1685	1880	1	

TU 20 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Domestic	redware	hollowware	dark brown glaze	1685	1880	1	
H	Domestic	redware	hollowware	dark brown/black glaze	1685	1880	1	
H	Domestic	redware	hollowware	unglazed	1685	1880	1	
H	Domestic	redware	hollowware	unglazed	1685	1880	1	
H	Domestic	whiteware	indeterminate vessel	transfer printed-purple	1828	2001	1	

STP 105 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	2	
H	Architectural	brick			0	0	4	
H	Architectural	glass	window		0	0	1	
H	Architectural	iron	bolt		0	0	1	
H	Architectural	iron	nail		0	0	3	
H	Domestic	glass	bottle	red	0	0	1	
H	Domestic	redware	hollowware	dark brown glaze	1685	1880	1	
H	Domestic	redware	hollowware	dark brown/black glaze interior and exterior	1685	1880	1	
H	Domestic	redware	indeterminate vessel	unglazed	1685	2001	1	
H	Domestic	shell	oyster/clam		0	0	1	
H	Heating by-product	coal			0	0	1	
H	Indeterminate	iron/steel	unidentifiable		0	0	3	

Summary for 'Area' = (2585 detail records)

Sum 13477

Summary for 'Site Number' = 7NC-B-11 (2585 detail records)

Sum 13477

7NC-B-49 Augustine Cutoff

Area

STP N 360 E 630 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 360 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	glass	bottle		0	0	0	

STP N 360 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Domestic	yellowware		Plain	1830	1940	0	

STP N 380 E 590 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

STP N 380 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Domestic	creamware		Plain	1762	1820	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 380 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 380 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	tumbler		0	0	0	
H	Domestic	pearlware		Transfer Printed, "Old Blue"	1815	1835	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 380 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware		Yellow-Brown to Brown Glaze	1627	1880	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 400 E 470 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	ironstone/white granite		Transfer Printed, General	1815	2000	0	
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 400 E 550 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Domestic	whiteware		Underglaze Painted	1830	1900	0	

STP N 400 E 630 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	whiteware		Plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	
H	Indeterminate	metal			0	0	0	

STP N 400 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 400 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	

STP N 400 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle-pharmaceutical		0	0	0	"S"
H	Domestic	whiteware		Plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	

STP N 400 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	
H	Indeterminate	plastic			0	0	0	

STP N 400 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	
H	Indeterminate	plastic			0	0	0	

STP N 420 E 510 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 420 E 590 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	

H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 420 E 650 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	

STP N 420 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

STP N 420 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 420 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural		light bulb parts		0	0	0	
H	Architectural	brick			0	0	0	

H	Domestic	glass	bottle		0	0	0
H	Domestic	glass	bottle		0	0	0
H	Domestic	pearlware		Underglaze Blue Painted	1780	1835	0
H	Domestic	whiteware		Plain	1805	2000	0
H	Heating by-product	coal			0	0	0

STP N 420 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	

STP N 420 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	slate	roofing tile	Roofing Slate	0	0	0	

H	Domestic	glass	bottle		0	0	0
H	Domestic	glass	bottle		0	0	0
H	Domestic	whiteware		Underglaze Painted	1830	1900	0
H	Heating by-product	coal			0	0	0

STP N 440 E 450 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	

STP N 440 E 470 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
P	Tool		biface-other		0	0	0	

STP N 440 E 490 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	base
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	tumbler		0	0	0	base
H	Heating by-product	coal			0	0	0	

STP N 440 E 550 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	discarded

H	Indeterminate	plastic			0	0	0	

STP N 440 E 630 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 440 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	

STP N 440 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	redware		Unglazed	1627	2000	0	
H	Domestic	whiteware		plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	

STP N 440 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	

H	Architectural	mortar			0	0	0
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0
H	Domestic	glass	bottle		0	0	0
H	Domestic	glass	bottle-soda		0	0	0
H	Heating by-product	coal			0	0	0

STP N 440 E 710 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Arms/Ammunition	nickel	bullet	Center fire	0	0	0	
H	Heating by-product	coal			0	0	0	
H	Indeterminate	metal			0	0	0	

STP N 440 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	mortar			0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle-soda		0	0	0	

H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0
H	Heating by-product	coal			0	0	0

STP N 440 E 730 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	
H	Domestic	whiteware		plain	1805	2000	0	
H	Indeterminate	metal			0	0	0	

STP N 440 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	mortar			0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	
H	Indeterminate	plastic			0	0	0	

STP N 440 E 750 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 460 E 430 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	

STP N 460 E 470 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 460 E 510 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

STP N 460 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	
H	Heating by-product	slag			0	0	0	

STP N 460 E 670 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	creamware		Plain	1762	1820	0	

STP N 460 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	

STP N 460 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	pearlware		Indeterminate blue decoration	1775	1835	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 460 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	

H	Architectural	earthenware	roofing tile	unglazed	0	0	0
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0
H	Domestic	glass	bottle		0	0	0
H	Heating by-product	coal			0	0	0

STP N 460 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	iron/steel	spike	Wire	1850	2000	0	
H	Architectural	mortar/plaster			0	0	0	
H	Architectural	plaster			0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 640 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Architectural	iron/steel	nail	Machine-cut	1791	1891	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	iron/steel	nail	Wire	1850	2000	0	
H	Architectural	iron/steel	spike	Machine-cut	1791	2000	0	

H	Domestic	bone	Unidentified Mammal		0	0	0	calcined
H	Domestic	copper	kerosene lamp fitting		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	button	4-hole, blue	0	0	0	4-hole, blue
H	Domestic	ironstone/white granite		Transfer Printed, Flowing Colors	1845	1915	0	
H	Domestic	porcelain	doll parts	Doll, Porcelain	1885	2000	0	Germany, refit with cat#197, 199 and 200
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	
H	Domestic	whiteware		Plain	1805	2000	0	MNV=8
H	Heating by-product	coal			0	0	0	
H	Indeterminate	bone	Unidentified Mammal		0	0	0	

STP N 460 E 750 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware		Clear Glaze	1627	1880	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 480 E 310 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	ironstone/white granite		Plain	1842	2000	0	

STP N 480 E 470 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 480 E 550 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	
H	Heating by-product	coal			0	0	0	

STP N 480 E 630 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 480 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	

H	Domestic	whiteware		colored glaze, blue	1805	2000	0

STP N 480 E 690 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	
H	Domestic	whiteware		Underglaze Painted	1830	1900	0	

STP N 480 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	mortar			0	0	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	

STP N 480 E 710 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	mortar			0	0	0	
H	Domestic	shell	oyster	oyster	0	0	0	
H	Hardware		valve stem cover		0	0	0	

H	Hardware	metal	wire	Wire	0	0	0
H	Heating by-product	coal			0	0	0
H	Indeterminate	metal			0	0	0

STP N 480 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	cement/concrete			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	mortar			0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	
H	Heating by-product	slag			0	0	0	
H	Indeterminate	bone	Medium Mammal		0	0	0	
H	Indeterminate	plastic			0	0	0	
H	Indeterminate	plastic			0	0	0	

STP N 480 E 730 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	mortar			0	0	0	

STP N 480 E 730 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	lime			0	0	0	
H	Architectural	mortar			0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	
H	Indeterminate	bone	Unidentified Mammal		0	0	0	

STP N 480 E 730 Stratum V

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	mortar			0	0	0	

STP N 480 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	mortar			0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 480 E 750 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	brick & cement
H	Architectural	brick			0	0	0	
H	Architectural	cement/concrete			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	iron/steel	nail	Wire	1850	2000	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	

STP N 500 E 430 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Heating by-product	slag			0	0	0	

STP N 500 E 510 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

STP N 500 E 590 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	

STP N 500 E 610 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	

H	Domestic	glass	bottle		0	0	0
H	Domestic	glass	bottle		0	0	0
H	Heating by-product	coal			0	0	0
H	Heating by-product	slag			0	0	0

STP N 500 E 630 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	ironstone/white granite		Plain	1842	2000	0	
H	Heating by-product	coal			0	0	0	

STP N 500 E 650 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Domestic	ironstone/white granite		Plain	1842	2000	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	
H	Heating by-product	coal			0	0	0	

STP N 500 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	

H	Architectural	earthenware	roofing tile	unglazed	0	0	0
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0
H	Heating by-product	coal			0	0	0

STP N 500 E 670 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	
H	Heating by-product	coal			0	0	0	

STP N 500 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware		Unglazed	1627	2000	0	

STP N 500 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	mortar			0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	pearlware		Plain	1775	1840	0	
H	Indeterminate	metal			0	0	0	

STP N 500 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	cement/concrete			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	MNV=1
H	Heating by-product	coal			0	0	0	

STP N 500 E 730 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Indeterminate	metal			0	0	0	

STP N 500 E 730 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	mortar			0	0	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	
H	Heating by-product	coal			0	0	0	

STP N 500 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	

H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0
H	Domestic	glass	bottle		0	0	0
H	Heating by-product	slag			0	0	0

STP N 500 E 750 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	

STP N 500 E 750 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Domestic	creamware		Plain	1762	1820	0	poss crw02
H	Domestic	glass	bottle		0	0	0	MNV=2
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	

STP N 520 E 310 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 520 E 390 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	

STP N 520 E 470 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	pearlware		Plain	1775	1840	0	
H	Indeterminate	plastic			0	0	0	

STP N 520 E 550 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

STP N 520 E 630 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware		Unglazed	1627	2000	0	

STP N 520 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	int/ext glazed
H	Heating by-product	coal			0	0	0	discarded

STP N 520 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	delftware		Blue Painted	1752	1771	0	
H	Domestic	glass	bottle		0	0	0	

STP N 520 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 520 E 730 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	glass	window		0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 520 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	mortar			0	0	0	

H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0
H	Domestic	glass	bottle		0	0	0
H	Domestic	glass	bottle		0	0	0
H	Heating by-product	coal			0	0	0

STP N 540 E 350 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

STP N 540 E 430 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Architectural	glass	window		0	0	0	poss. Stain glass
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Indeterminate	metal			0	0	0	
H	Indeterminate	styrofoam			1962	2000	0	

STP N 540 E 510 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	porcelain-hard paste		Plain	0	0	0	MNV=1
H	Heating by-product	coal			0	0	0	

STP N 540 E 590 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	whiteware		Shell Edge, Blue	1830	1895	0	

STP N 540 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	terra cotta	tile	unglazed	0	0	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	int/ext glaze
H	Domestic	redware		Yellow-Brown to Brown Glaze	1627	1880	0	
H	Domestic	yellowware		Plain	1830	1940	0	

STP N 540 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	

STP N 540 E 690 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	whiteware		Underglaze Painted	1830	1900	0	

STP N 540 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Heating by-product	coal			0	0	0	
H	Indeterminate	plastic			0	0	0	
H	Indeterminate	plastic			0	0	0	

STP N 540 E 710 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	

STP N 540 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	porcelain-hard paste		Plain	0	0	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	

H	Heating by-product	coal			0	0	0	

STP N 540 E 730 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 540 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	mortar			0	0	0	
H	Indeterminate	metal			0	0	0	

STP N 560 E 390 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	

STP N 560 E 470 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	prosser-china	button	4-hole	1850	2000	0	4-hole

STP N 540 E 550 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	

H	Domestic	whiteware		Plain	1805	2000	0

STP N 560 E 590 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	

STP N 560 E 630 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	

STP N 560 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	

STP N 560 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	"E"
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 560 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 560 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Heating by-product	coal			0	0	0	

STP N 560 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	mortar			0	0	0	
H	Architectural	porcelain	insulator		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	

STP N 580 E 350 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		Unglazed	1627	2000	0	

STP N 580 E 430 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle-soda	green	1928	1980	0	poss. Sprite/7Up
H	Domestic	redware		Yellow-Brown to Brown Glaze	1627	1880	0	

STP N 580 E 510 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware		Unglazed	1627	2000	0	

STP N 580 E 550 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	plaster			0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Indeterminate	metal			0	0	0	poss. Kettle fragment

STP N 580 E 570 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	

STP N 580 E 590 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 580 E 590 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Heating by-product	coal			0	0	0	

STP N 580 E 590 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	porcelain-hard paste		Plain	0	0	0	

STP N 580 E 610 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	molded

STP N 580 E 610 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	possible tankard

STP N 580 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		Yellow-Brown to Brown Glaze	1627	1880	0	

STP N 580 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	

STP N 580 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	ironstone/white granite		Plain	1842	2000	0	MNV=1
H	Heating by-product	coal			0	0	0	
H	Indeterminate	plastic			0	0	0	

STP N 580 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle-soda	green	1928	1980	0	poss. Sprite/7UP
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	
H	Heating by-product	coal			0	0	0	
H	Indeterminate	plastic			0	0	0	

STP N 580 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	creamware		Plain	1762	1820	0	
H	Domestic	glass	bottle-soda	green	1928	1980	0	poss. Sprite/7Up
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	

STP N 600 E 390 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

STP N 600 E 470 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	

STP N 600 E 530 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	

STP N 600 E 570 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	redware		Yellow-Brown to Brown Glaze	1627	1880	0	
H	Heating by-product	coal			0	0	0	

STP N 600 E 590 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 600 E 630 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 600 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	
H	Heating by-product	coal			0	0	0	

STP N 600 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	

STP N 600 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

STP N 600 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	lime			0	0	0	
H	Domestic	bone	Unidentified Mammal		0	0	0	calcined/burnt
H	Domestic	glass	bottle		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	
H	Heating by-product	slag			0	0	0	poss from coal slag
H	Indeterminate	synthetic			0	0	0	

STP N 620 E 430 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Heating by-product	coal			0	0	0	

STP N 620 E 510 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Domestic	whiteware		Underglaze Painted	1830	1900	0	

STP N 620 E 510 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	pearlware		Plain	1775	1840	0	
H	Indeterminate	metal			0	0	0	

STP N 620 E 550 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	prosser-china	button	4-hole	0	0	0	4-hole
H	Indeterminate	styrofoam			1962	2000	0	discarded

STP N 620 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 620 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

STP N 620 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle-pharmaceutical		0	0	0	Milk-of-Magnesia
H	Domestic	glass	bottle-soda	green	1928	1980	0	poss. Sprite/7Up
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	
H	Domestic	stoneware-gray bodied		Salt Glazed with Brown Slip	1820	1950	0	
H	Domestic	whiteware		Transfer Printed, Flowing Colors	1845	1915	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	

STP N 620 E 730 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	ironstone/white granite		Plain	1842	2000	0	

STP N 620 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	

H	Architectural	glass	window		0	0	0
H	Domestic	iron and rubber	castor-furniture		0	0	0
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0

STP N 640 E 390 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 640 E 470 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	body, poss. Sprite/7Up
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 640 E 630 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	

STP N 640 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		Unglazed	1627	2000	0	

STP N 640 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

H	Domestic	glass	bottle		0	0	0
H	Domestic	glass	bottle		0	0	0
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0
H	Heating by-product	coal			0	0	0

STP N 640 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle-soda	green	1928	1980	0	poss. Sprite/7Up
H	Heating by-product	coal			0	0	0	

STP N 640 E 730 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	ironstone/white granite		Transfer Printed, Flowing Colors	1845	1915	0	MNV=2
H	Domestic	whiteware		Plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	Only 25 discarded

STP N 660 E 350 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 660 E 510 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	

STP N 660 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Hardware	metal	wire	Wire	0	0	0	coiled and squashed
H	Indeterminate	metal			0	0	0	

STP N 660 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	redware		Yellow-Brown to Brown Glaze	1627	1880	0	

STP N 660 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	lime			0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle-pharmaceutical		0	0	0	"N"
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	
H	Heating by-product	coal			0	0	0	
H	Indeterminate	plastic			0	0	0	discarded

STP N 660 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	glass	tumbler	Decorated, Paneled	0	0	0	
H	Domestic	shell	oyster/clam	Oyster/Clam	0	0	0	
H	Domestic	whiteware		Transfer Printed, Flowing Colors	1845	1915	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 660 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle-pharmaceutical		0	0	0	"LA" MNV=1
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	int/ext glaze
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	
H	Heating by-product	coal			0	0	0	Only 8 discarded

STP N 680 E 310 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 680 E 390 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	

H	Architectural	brick			0	0	0	

STP N 680 E 470 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Heating by-product	coal			0	0	0	

STP N 680 E 630 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	whiteware		Plain	1805	2000	0	

STP N 680 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle-pharmaceutical		0	0	0	"ON"

STP N 680 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Heating by-product	coal			0	0	0	

STP N 680 E 730 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	

H	Indeterminate	plastic	miscellaneous disc		0	0	0	"WW23AA"

STP N 680 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	

STP N 700 E 350 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	redware		Unglazed	1627	2000	0	glaze exfoliated

STP N 700 E 430 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle-pharmaceutical		0	0	0	"ILL"

STP N 700 E 510 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 700 E 590 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	discarded
H	Heating by-product	coal			0	0	0	

STP N 700 E 670 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	MNV=1
H	Domestic	ironstone/white granite		Plain	1842	2000	0	

STP N 700 E 690 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	mortar			0	0	0	

STP N 700 E 710 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle		0	0	0	

STP N 700 E 750 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle-soda	green	1928	1980	0	poss. Sprite/7Up
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 480 E 760 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	25 discarded
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	

H	Architectural	glass	window		0	0	0
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0
H	Domestic	metal	can-beer	Aluminum Beer Can	0	0	0

STP N 520 E 760 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Heating by-product	coal			0	0	0	discarded

STP N 527 E 648 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	discarded
H	Architectural	glass	window		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	
H	Heating by-product	ash			0	0	0	discarded
H	Heating by-product	coal			0	0	0	discarded

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Heating by-product	coal			0	0	0	discarded

STP N 660 E 590 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Heating by-product	coal			0	0	0	discarded

STP N 480 E 760 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	discarded

STP N 520 E 760 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	discarded
H	Architectural	lime			0	0	0	discarded

STP N 680 E 750 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	discarded

STP N 580 E 610 Stratum IV

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	mortar			0	0	0	left in STP around stone (not sent back to lab)

TU 1 Stratum I Level 1

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	slate	roofing tile	Roofing Slate	0	0	0	

H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0	
H	Domestic	creamware		Transfer Printed, Blue	1762	1820	0	floral
H	Domestic	glass	bottle		0	0	0	
H	Domestic	pearlware		painted underglaze blue	1775	1835	0	
H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	
H	Domestic	redware		Unglazed	1627	2000	0	
H	Heating by-product	coal			0	0	0	
H	Indeterminate	metal			0	0	0	metal piping
P	Core	jasper	bipolar core		0	0	0	

TU 1 Stratum I Level 2

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	mortar			0	0	0	

TU 2 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	0	orange
H	Architectural	brick			0	0	0	red
H	Architectural	ceramic block			0	0	0	
H	Architectural	ceramic block			0	0	0	red painted
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	porcelain	insulator		0	0	0	

H	Architectural	stoneware	drainage pipe	salt-glazed	0	0	0
H	Domestic	glass	bottle		0	0	0
H	Domestic	glass	bottle		0	0	0
H	Domestic	whiteware		Transfer Printed, Brown	1828	2000	0
H	Domestic	whiteware		Transfer Printed, Blue	1805	2000	0
H	Domestic	whiteware		Shell Edge, Blue	1830	1895	0
H	Domestic	whiteware		Plain	1805	2000	0
H	Heating by-product	coal			0	0	0

TU 2 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	drainage pipe	unglazed	0	0	0	
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	

TU 2 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	roofing tile	unglazed	0	0	0	
H	Architectural	porcelain	insulator		0	0	0	

TU 3 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural		light bulb parts		0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	

H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	lime			0	0	0	
H	Architectural	mortar			0	0	0	
H	Architectural	slate	roofing tile	Roofing Slate	0	0	0	
H	Domestic		miscellaneous toy parts	Misc. Toy Parts	0	0	0	2 halves of driver
H	Domestic	earthenware-buff bodied		Mottled Brown Glaze	1627	1850	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	thick glass
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bowl		0	0	0	possible candy dish
H	Domestic	glass	fruit jar		0	0	0	
H	Domestic	glass	fruit jar liner		0	0	0	
H	Domestic	Ironstone	pitcher	Plain	1805	2000	0	body, refit with cat#199
H	Domestic	ironstone/white granite		Plain	1842	2000	0	mnvz3
H	Domestic	ironstone/white granite		Sponged-blue	1840	1900	0	
H	Domestic	ironstone/white granite	pitcher	Plain	1842	2000	0	base, "ironstone china mercer pottery co.", refit with cat#199
H	Domestic	ironstone/white granite	plate	Plain	1842	2000	0	rim, refit with cat#199
H	Domestic	prosser-china	button	4-hole	0	0	0	4-hole

H	Domestic	redware		Drk Brick to Black Glaze	1627	1880	0	int/ext black
H	Domestic	redware	flowerpot	Green/Ginger Glaze	1880	2000	0	molded
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	
H	Domestic	shell	clam	Clam	0	0	0	
H	Domestic	shell	oyster/clam	oyster/clam	0	0	0	
H	Domestic	stoneware-gray bodied		Salt Glazed, Painted Decoration	1735	1950	0	
H	Domestic	whiteware		Plain	1805	2000	0	
H	Domestic	whiteware		Decal overglaze	1870	2000	0	green
H	Domestic	whiteware		Plain	1805	2000	0	"mellor" "ve"
H	Domestic	whiteware		Transfer Printed, Blue	1805	2000	0	
H	Domestic	yellowware		plain	1830	1940	0	
H	Heating by-product	cinder			0	0	0	
H	Heating by-product	coal			0	0	0	
H	Heating by-product	coal/cinder/slag			0	0	0	
H	Indeterminate	bone	Unidentified Mammal		0	0	0	
H	Indeterminate	glass	unidentifiable		0	0	0	
H	Transportation		auto turnlight cover		0	0	0	

TU 4 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural		light bulb parts		0	0	0	
H	Architectural	glass	window		0	0	0	

H	Architectural	glass	window		0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	mortar			0	0	0	
H	Domestic	bone	Unidentified Mammal		0	0	0	burned
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	ironstone/white granite		Plain	1842	2000	0	
H	Domestic	porcelain		burned	0	0	0	burned
H	Domestic	porcelain	doll parts	Doll, Porcelain	0	0	0	refit with cat#51, 199 and 200
H	Domestic	porcelain-hard paste		gilded band	0	0	0	
H	Domestic	redware	flowerpot	Green/Ginger Glaze	1880	2000	0	molded exterior
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	
H	Domestic	shell	oyster	Oyster	0	0	0	
H	Domestic	whiteware		Plain	1805	2000	0	mm= "China…nted"
H	Domestic	yellowware		plain	1830	1940	0	
H	Heating by-product	cinder			0	0	0	discarded
H	Heating by-product	coal			0	0	0	
H	Heating by-product	slag			0	0	0	
H	Indeterminate	metal			0	0	0	flat metal

	H	Indeterminate	paper			0	0	0	

TU 5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural		light bulb parts		0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	mortar			0	0	0	
H	Domestic	earthenware-buff bodied		Mottled Brown Glaze	1627	1850	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	tumbler		0	0	0	base
H	Domestic	ironstone/white granite		Plain	1842	2000	0	
H	Domestic	metal	clothing snap		0	0	0	
H	Domestic	porcelain		burned	0	0	0	burned
H	Domestic	prosser-china	button		0	0	0	
H	Domestic	redware	flowerpot	Green/Ginger Glaze	1880	2000	0	
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	

H	Domestic	shell	oyster	Oyster	0	0	0
H	Domestic	whiteware		Transfer Printed, Blue	1805	2000	0
H	Domestic	whiteware		Plain	1805	2000	0
H	Domestic	yellowware		plain	1830	1940	0
H	Heating by-product	cinder			0	0	0
H	Heating by-product	coal			0	0	0
H	Heating by-product	slag			0	0	0
H	Indeterminate	bone	Unidentified Mammal		0	0	0

TU 3 Feature 1 Level 1

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural		light bulb parts		0	0	0	
H	Architectural		light bulb parts		0	0	0	
H	Architectural		light bulb parts		0	0	0	
H	Architectural	brick			0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	iron/steel	nail	Machine-cut	1791	1891	0	
H	Architectural	iron/steel	nail	Wire	1850	2000	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	iron/steel	spike	Machine-cut	1791	2000	0	
H	Architectural	lime			0	0	0	
H	Domestic	bone	Unidentified bird		0	0	0	1 calcined

H	Domestic	bone	Unidentified Mammal		0	0	0	30 calcined
H	Domestic	brass	finial		0	0	0	brass
H	Domestic	earthenware-indeterminate		burned	0	0	0	
H	Domestic	glass	bottle		1939	2000	0	body, "HIS BOT…T TO BE.."
H	Domestic	glass	bottle		1939	2000	0	body, "ROBINSON COOP" "NOT TO BE SOLD" MNV=1
H	Domestic	glass	bottle		0	0	0	body
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	body, "RE …UL"
H	Domestic	glass	bottle		0	0	0	finish, hand applied
H	Domestic	glass	bottle		0	0	0	body, "NDY…ST…TON, D"
H	Domestic	glass	bottle-pharmaceutical		0	0	0	
H	Domestic	glass	bottle-pharmaceutical		1880	1920	0	"Chas H Fletcher" MNV=1
H	Domestic	glass	fruit jar liner		0	0	0	
H	Domestic	glass	tumbler	rim	0	0	0	MNV=3
H	Domestic	ironstone/white granite		embossed	1842	2000	0	
H	Domestic	ironstone/white granite		liquid gold band	0	0	0	rim
H	Domestic	ironstone/white granite	bowl-small	Plain	1842	2000	0	9 pcs refit
H	Domestic	ironstone/white granite	hollowware	plain	0	0	0	base
H	Domestic	ironstone/white granite	hollowware	embossed	1842	2000	0	

H	Domestic	ironstone/white granite	indeterminate vessel	plain	0	0	0	body
H	Domestic	ironstone/white granite	indeterminate vessel	plain	0	0	0	rim
H	Domestic	ironstone/white granite	pitcher	Plain	1879	1885	0	refit with cat#196 "TED SUPERIOR" Mercer Pottery Co
H	Domestic	ironstone/white granite	plate	embossed	0	0	0	rim, refit with cat#196
H	Domestic	ironstone/white granite	plate	embossed, scalloped	0	0	0	24 pcs refit
H	Domestic	ironstone/white granite	saucer	plain	0	0	0	6 pcs refit
H	Domestic	metal	bottle cap	Bottle Cap	0	0	0	crown cap
H	Domestic	porcelain	doll parts	Doll, Porcelain	0	0	0	refit with cat#51, 197 and 200
H	Domestic	porcelain-soft paste		plain	0	0	0	
H	Domestic	porcelain-soft paste		embossed	0	0	0	rim
H	Domestic	porcelain-soft paste		unglazed	0	0	0	possible doll parts
H	Domestic	prosser-china	button	4-hole	0	0	0	4-hole
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	MNV=3
H	Domestic	redware	flowerpot	Green/Ginger Glaze	1880	2000	0	
H	Domestic	shell	oyster	Oyster	0	0	0	
H	Domestic	whiteware		Decal, Underglaze	1900	2000	0	Polychrome Decal. Rose pattern Mellor & Co?
H	Domestic	whiteware		Plain	1894	1920	0	"FLORENCE", "COOK POTTERY CO."
H	Hardware	metal	eye screw		0	0	0	
H	Hardware	metal	hook	Hook	0	0	0	

H	Heating by-product	charred wood			0	0	0	
H	Heating by-product	coal			0	0	0	
H	Heating by-product	coal/cinder/slag			0	0	0	
H	Indeterminate	glass	unidentifiable	melted	0	0	0	
H	Indeterminate	iron			0	0	0	
H	Indeterminate	metal			0	0	0	unidentifiable brass
H	Indeterminate	metal			0	0	0	other unidentifiable
H	Indeterminate	metal			0	0	0	
H	Indeterminate	metal	can	Metal Can/Container	0	0	0	flat metal
H	Indeterminate	paper/cardboard			0	0	0	

TU 3 Feature 1 Level 2

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural		light bulb parts		0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	glass	window		0	0	0	burnt/cracked
H	Architectural	glass	window		0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	iron/steel	bolt		0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	
H	Architectural	iron/steel	nail	Wire	1850	2000	0	
H	Architectural	iron/steel	nail	Machine-cut	1791	1891	0	
H	Architectural	marble	flagstone		0	0	0	

H	Architectural	mortar			0	0	0	
H	Domestic		comb		0	0	0	hair comb
H	Domestic		jewelry-ring		0	0	0	
H	Domestic		miscellaneous toy parts	Misc. Toy Parts	0	0	0	"rider of stage coach/wagon"
H	Domestic		toy gun	"LEGO, USA"	0	0	0	cast toy gun
H	Domestic	bone	Medium/Large mammal		0	0	0	longbone/metapodial shaft fragment, calcined
H	Domestic	bone	Medium/Large mammal		0	0	0	calcined
H	Domestic	bone	Medium/Large mammal		0	0	0	burned black
H	Domestic	bone	Small mammal		0	0	0	radius shaft fragment, calcined, 2 pcs refit as 1
H	Domestic	bone	Small/Medium mammal		0	0	0	burned black
H	Domestic	bone	Unidentified Mammal		0	0	0	calcined
H	Domestic	brass	fork	Fork	1915	1922	0	"silver plate", Weinberg & Co, NY, W in diamond maker's mark
H	Domestic	brass	toy teacup		0	0	0	brass teacup
H	Domestic	copper	kerosene lamp fitting		0	0	0	tubing
H	Domestic	glass	bottle		1939	2000	0	"obins", probabe part of Robinson Coop bottle
H	Domestic	glass	bottle		0	0	0	
H	Domestic	glass	bottle		0	0	0	finish, hand-blown tooled lip clear
H	Domestic	glass	bottle		1860	1880	0	finish, mold-blown, double ring finish type
H	Domestic	glass	bottle		1880	1900	0	finish, mold-blown, prescription finish type

H	Domestic	glass	bottle		0	0	0	" for INFA"
H	Domestic	glass	bottle-pharmaceutical		0	0	0	
H	Domestic	glass	bottle-soda		1939	2000	0	"N&" "This bottle" Robinso"
H	Domestic	glass	bottle-wine	olive	1875	1920	0	"ENEDI"
H	Domestic	glass	bottle-wine	olive	0	0	0	aluminum seal, part of Benedictine bottle
H	Domestic	glass	cruet/castor		0	0	0	
H	Domestic	glass	mirror		0	0	0	
H	Domestic	glass	serving vessel	fluted	0	0	0	lid or stemware base
H	Domestic	glass	tumbler	rim	0	0	0	
H	Domestic	glass	tumbler		0	0	0	base
H	Domestic	graphite	pencil		0	0	0	
H	Domestic	ironstone/white granite		Plain	1842	2000	0	
H	Domestic	ironstone/white granite		Transfer Printed, General	1815	2000	0	
H	Domestic	ironstone/white granite		Plain	1842	2000	0	
H	Domestic	metal	bottle cap	Crown Cap Closure	1896	2000	0	
H	Domestic	metal	clothing snap		0	0	0	
H	Domestic	porcelain		undecorated	0	0	0	
H	Domestic	porcelain	doll parts	Doll, Porcelain	0	0	0	refit with cat#51, 197 and 199
H	Domestic	porcelain-Oriental	cup	Overglaze, Blue Willow	1800	1840	0	mended
H	Domestic	prosser-china	button	4-hol3	0	0	0	4-hole
H	Domestic	redware		Unglazed	1627	2000	0	

H	Domestic	redware	flowerpot	green glaze	1880	2000	0	
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	
H	Domestic	shell	clam	Clam	0	0	0	
H	Domestic	stoneware-gray bodied		Salt Glazed with Brown Slip	1820	1950	0	
H	Domestic	whiteware		Decal, Underglaze	1905	1910	0	Rose pattern, Cook Pottery Co, Trenton
H	Domestic	whiteware	cup	Plain	1805	2000	0	
H	Farming	iron/steel	barbed wire		0	0	0	
H	Farming	iron/steel	fencing wire		0	0	0	
H	Heating by-product	charred wood			0	0	0	
H	Heating by-product	coal			0	0	0	
H	Heating by-product	coal/cinder/slag			0	0	0	
H	Heating by-product	slag			0	0	0	
H	Indeterminate	bone	Medium Mammal		0	0	0	thoracic vertebra spinous process
H	Indeterminate	bone	Medium Mammal		0	0	0	radius shaft fragment
H	Indeterminate	bone	Medium Mammal		0	0	0	longbone shaft fragment
H	Indeterminate	bone	Medium/Large mammal		0	0	0	unidentifiable
H	Indeterminate	glass	bottle/lamp		0	0	0	
H	Indeterminate	glass	unidentifiable	pressed design	0	0	0	possible vessel lid
H	Indeterminate	glass	unidentifiable	milk/white	0	0	0	
H	Indeterminate	glass	unidentifiable	burned	0	0	0	
H	Indeterminate	metal			0	0	0	discarded

H	Indeterminate	metal			0	0	0	discarded
H	Indeterminate	metal	can	Metal Can/Container	0	0	0	rim
H	Indeterminate	metal	can	Metal Can/Container	0	0	0	
H	Indeterminate	metal	can	Metal Can/Container	0	0	0	
H	Indeterminate	paper and iron			0	0	0	paper and iron hooped keg
P	Debitage	chert	block shatter		0	0	0	

TU 3 Feature 1 Level 3

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural		light bulb parts		0	0	0	
H	Architectural	glass	window		0	0	0	
H	Architectural	iron	hinge		0	0	0	
H	Architectural	iron/steel	nail	Unidentifiable	0	0	0	discarded
H	Domestic		hinge-furniture		0	0	0	
H	Domestic		shoe		0	0	0	shoe heel
H	Domestic	bone	Medium Mammal		0	0	0	calcined
H	Domestic	bone	Medium/Large mammal		0	0	0	calcined
H	Domestic	bone	Medium/Large mammal		0	0	0	sawn, calcined, sirloin or leground
H	Domestic	glass	bottle		0	0	0	body
H	Domestic	glass	bottle		1810	2000	0	body, paneled bottle
H	Domestic	glass	bottle		1903	2000	0	finish, screw top finish
H	Domestic	glass	bottle		0	0	0	body, embossed "..STERED"
H	Domestic	glass	bottle		0	0	0	body

H	Domestic	glass	bottle-food		1930	1950	0	base
H	Domestic	glass	bottle-food		0	0	0	bottle neck
H	Domestic	glass	bottle-pharmaceutical		1880	1920	0	Chas. Fletcher's Castoria, 3 pcs refit
H	Domestic	glass	bottle-soda/mineral water		1860	1880	0	2 finishes, 1 body, 1 body near base
H	Domestic	glass	bottle-wine	olive	1875	1920	0	emb. "..ICTIN..", part of Benedictine bottle
H	Domestic	glass	lamp		0	0	0	
H	Domestic	glass	marble	machine made	0	0	0	burned
H	Domestic	glass	mirror		0	0	0	
H	Domestic	glass	tumbler	Fluted	0	0	0	mvc-3
H	Domestic	glass	tumbler	Rim Fragment	0	0	0	
H	Domestic	glass	tumbler-Packer's		0	0	0	body
H	Domestic	ironstone/white granite		Plain	1842	2000	0	
H	Domestic	ironstone/white granite	cup	Plain	1842	2000	0	body and base, mended
H	Domestic	ironstone/white granite	hollowware	Embossed body	0	0	0	
H	Domestic	ironstone/white granite	hollowware-medium	Plain	1842	2000	0	base, mended
H	Domestic	metal	bottle closure	Wire Closure-Lightning Type	1901	1920	0	"Robinson and Moore Bottlers Wilmington, Del", porcelain and wire
H	Domestic	porcelain	doll parts	Doll, Porcelain	0	0	0	doll arm, porcelain, burned
H	Domestic	porcelain-Oriental	egg cup	Underglaze Blue-Canton	1770	1830	0	bowl and stem

H	Domestic	porcelain-soft paste		Embossed	0	0	0	
H	Domestic	porcelain-soft paste		Plain	0	0	0	base
H	Domestic	porcelain-soft paste	hollowware-small	Plain	0	0	0	rim
H	Domestic	redware	flowerpot	Unglazed	1880	2000	0	mvc-3
H	Domestic	redware	flowerpot	Olive Glaze	1880	2000	0	molded grape pattern exterior, body and base
H	Domestic	shell	clam	Clam	0	0	0	
H	Domestic	yellowware		Plain	1830	1940	0	
H	Farming	iron/steel	barbed wire		0	0	0	
H	Heating by-product	coal			0	0	0	
H	Indeterminate	bone	Medium bird		0	0	0	ulna
H	Indeterminate	bone	Medium bird		0	0	0	humerus
H	Indeterminate	bone	Medium bird		0	0	0	carpometacarpus fragment
H	Indeterminate	bone	Medium Mammal		0	0	0	rib
H	Indeterminate	bone	Medium Mammal		0	0	0	thoracic spinous process
H	Indeterminate	bone	Medium/Large mammal		0	0	0	
H	Indeterminate	bone	Unidentified bird/mammal		0	0	0	phalange fragment
H	Indeterminate	brass			0	0	0	
H	Indeterminate	metal			0	0	0	with leather oxidized to, discarded
H	Indeterminate	metal			0	0	0	discarded
H	Indeterminate	textile			0	0	0	
Summary for 'Area' = (972 detail records)								
						Sum	0	

Summary for 'Site Number' = 7NC-B-49 (972 detail records)

Sum	0

7NC-B-54 Ronald McDonald House Site

Area

STP N 485 E 492.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Block Shatter		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 485 E 497.5 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chalcedony	Biface Reduction Flake		0	0	1	
P	Debitage	jasper	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Early Reduction Flake		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 485 E 517.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron/steel	nail	unidentifiable mfg method	0	0	2	
H	Domestic	glass	bottle	brown/amber	0	0	1	
H	Domestic	glass	bottle	light grass green	0	0	8	molded
H	Domestic	glass	bottle	amber	0	0	1	

H	Domestic	ironstone		Plain	0	0	14	
H	Domestic	ironstone		Plain	0	0	13	MNV=1; unid makermark; piece # 10323
H	Domestic	ironstone		Plain	0	0	5	footring
H	Domestic	ironstone		Gold Band	0	0	1	
H	Domestic	porcelain		Plain	0	0	2	
H	Domestic	porcelain		Overglaze Painted	0	0	1	polychrome
H	Domestic	porcelain		Overglaze Painted	0	0	3	MNV=1; polychrome
H	Domestic	redware		Unglazed	0	0	22	MNV=3; poss flowerpot
H	Domestic	vinyl	Record Album		0	0	1	
H	Domestic	whiteware		Transfer Printed, Flowing Colors	0	0	4	flow blue
H	Domestic	whiteware		Decal, Underglaze	0	0	2	MNV=1; polychrome decal
H	Domestic	whiteware		Colored Glaze	0	0	2	light brown glazed and molded
H	Domestic	whiteware		Plain	0	0	7	
H	Domestic	whiteware		Colored Glaze	0	0	3	green glazed
H	Domestic	whiteware		Transfer Printed, Other	0	0	1	polychrome
H	Domestic	whiteware		Plain	0	0	7	MNV=1; dish, no footring
H	Domestic	whiteware		Decal, Overglaze	0	0	9	MNV=1; polychrome decal
H	Heating by-product	coal			0	0	2	
H	Indeterminate	metal			0	0	1	
H	Indeterminate	metal	Tarpaulin Grommet		0	0	1	
H	Transportation	iron	Wagon Part-Bracket		0	0	1	

STP N 490 E 485 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	whiteware		Plain	0	0	1	
P	Debitage	jasper	Biface Reduction Flake		0	0	1	

STP N 490 E 485 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Block Shatter		0	0	1	

STP N 490 E 515 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	1	
H	Domestic	glass	bottle-beer	brown/amber	0	0	1	

STP N 495 E 497.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	neck
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Indeterminate Flake		0	0	1	

STP N 495 E 477.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	2	

P	Tool	igneous rock-unknown type	Late Stage Biface Fragment		0	0	1	biface tip

STP N 495 E 482.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	jasper	Flake Fragment		0	0	1	
P	Debitage	quartz	Biface Reduction Flake		0	0	1	

STP N 495 E 487.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Indeterminate Flake		0	0	1	

STP N 495 E 492.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	jasper	Flake Fragment		0	0	1	poss. ironstone
P	Debitage	jasper	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 495 E 507.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Block Shatter		0	0	1	

STP N 495 E 522.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	

STP N 500 E 475 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	

STP N 500 E 485 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Early Reduction Flake		0	0	1	poss. bipolar

STP N 500 E 490 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	jasper	Early Reduction Flake		0	0	1	
P	Debitage	jasper	Early Reduction Flake		0	0	1	
P	Debitage	jasper	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Tool	jasper	Indeterminate biface		0	0	1	

STP N 500 E 495 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 500 E 495 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle-beer	brown/amber	0	0	1	
H	Indeterminate	plastic			0	0	1	
H	Indeterminate	styrofoam			0	0	1	

P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 500 E 506 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Biface Reduction Flake		0	0	1	

STP N 505 E 517.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

CSC N 502.5 E 472.5

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	amber	0	0	1	neck

STP N 505 E 471.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	

STP 505 E 482.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	quartz	Retouched Flake		0	0	1	bifacial retouch,lateral margins

STP N 505 E 502.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartzite	Early Reduction Flake		0	0	1	

STP N 505 E 507.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chert	Early Reduction Flake		0	0	1	pebble ctx on platform

P	Debitage	quartz	Early Reduction Flake		0	0	1	
P	Tool	quartz	Retouched Flake		0	0	1	bifacial retouch along distal margin

STP N 505 E 507.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	earthenware	drainage pipe		0	0	1	

STP N 510 E 510 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron/steel	nail	unidentifiable mfg method	0	0	1	

STP N 505 E 512.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	iron/steel	nail	unidentifiable mfg method	0	0	1	
P	Tool	jasper	Pebble Tool		0	0	1	utli. damage/abrasion

STP N 510 E 475 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Biface Reduction Flake		0	0	1	

STP N 510 E 485 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	jasper	Biface Reduction Flake		0	0	1	
P	Debitage	jasper	Indeterminate Flake		0	0	1	
P	Debitage	quartz	Block Shatter		0	0	1	

STP N 510 E 490 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Early Reduction Flake		0	0	1	

STP N 510 E 495 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	quartz	Early Stage Biface Fragment		0	0	1	

STP N 510 E 500 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Block Shatter		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 510 E 515 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	argillite	Biface Reduction Flake		0	0	1	
P	Tool	quartzite	Late Stage Biface Fragment		0	0	1	point tip

STP N 510 E 515 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle-beer	brown/amber	0	0	1	

STP N 515 E 437.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chert	Flake Fragment		0	0	1	

P	Debitage	jasper	Biface Reduction Flake		0	0	1
P	Debitage	jasper	Biface Reduction Flake		0	0	1
P	Debitage	jasper	Flake Fragment		0	0	1

STP N 515 E 442.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chalcedony	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 515 E 447.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	quartz	Projectile Point		0	0	1	sm. corner-notched, poss. Jacks Reef

STP N 515 E 452.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Early Reduction Flake		0	0	1	

STP N 515 E 457.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 515 E 457.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Biface Reduction Flake		0	0	1	

STP N 515 E 457.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Block Shatter		0	0	1	

STP N 515 E 462.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Indeterminate Flake		0	0	1	

STP N 515 E 472.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 515 E 477.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 515 E 482.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 515 E 502.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Block Shatter		0	0	1	

STP N 515 E 507.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle-beer	brown/amber	0	0	5	

STP N 515 E 512.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	jasper	Late Stage Biface Fragment		0	0	1	midsection

STP N 520 E 440 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	>50% pebble ctx

STP N 520 E 440 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	quartz	Late Stage Biface Fragment		0	0	1	notched point frag.

STP N 520 E 445 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	jasper	Flake Fragment		0	0	1	

STP N 520 E 450 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chert	Early Reduction Flake		0	0	1	pebble ctx, poss. util
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 520 E 455 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 520 E 460 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	jasper	Early Reduction Flake		0	0	1	
P	Debitage	quartz	Early Reduction Flake		0	0	1	

STP N 520 E 470 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 520 E 475 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 520 E 490 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Core	jasper	Freehand Core Fragment		0	0	1	irreg., rough ctx
P	Debitage	quartz	Block Shatter		0	0	1	

STP N 520 E 495 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chert	Flake Fragment		0	0	1	red may not be from thermal alteration
P	Debitage	quartz	Early Reduction Flake		0	0	1	

P	Tool	argillite	Projectile Point		0	0	1	Cont. stem: Lackawaxen
P	Tool	quartz	Retouched Flake		0	0	1	bifacial ret. along single margin

STP N 520 E 500 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Block Shatter		0	0	1	

CSC N 524 E 500

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chert	Biface Reduction Flake		0	0	1	re-fractured after patination

CSC N 524 E 511.5

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
P	Debitage	quartz	Block Shatter		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 525 E 442.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Decortication Flake		0	0	1	100% pebble ctx

STP N 525 E 442.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Block Shatter		0	0	1	

P	Debitage	quartz	Block Shatter		0	0	1	
P	Debitage	quartz	Decortication Flake		0	0	1	>50% pebble ctx
P	Debitage	quartz	Decortication Flake		0	0	1	100% pebble ctx
P	Debitage	quartz	Decortication Flake		0	0	1	>50% pebble ctx
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Indeterminate Flake		0	0	1	
P	Debitage	quartz	Indeterminate Flake		0	0	1	
P	Debitage	quartz	Indeterminate Flake		0	0	1	
P	Debitage	quartz	Indeterminate Flake		0	0	1	

STP N 525 E 452.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chalcedony	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Indeterminate Flake		0	0	1	

STP N 525 E 472.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 525 E 477.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	quartzite	Projectile Point		0	0	1	Small, narrow stemmed pt.

STP N 525 E 492.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	jasper	Early Reduction Flake		0	0	1	
P	Debitage	jasper	Early Reduction Flake		0	0	1	100% pebble ctx
P	Debitage	quartz	Indeterminate Flake		0	0	1	
P	Tool	quartz	Indeterminate biface		0	0	1	gen. cutting tool?

STP N 525 E 502.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Early Reduction Flake		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 525 E 522.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	1	

STP N 530 E 430 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chert	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

STP N 530 E 515 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chert	Bipolar Reduction Flake		0	0	1	pebble ctx present
P	Debitage	quartz	Block Shatter		0	0	1	

STP N 530 E 515 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	quartzite	Retouched Flake		0	0	1	unifacial retouch

STP N 530 E 520 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	100% pebble ctx

STP N 530 E 531 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	2	

STP N 535 E 523.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	

STP N 540 E 525 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	glass	window		0	0	13	
H	Architectural	glass	window		0	0	3	
H	Architectural	iron/steel	nail	unidentifiable mfg method	0	0	2	
H	Domestic	glass	bottle	clear	0	0	50	
H	Domestic	glass	bottle	amber	0	0	11	
H	Domestic	glass	bottle	light grass green	0	0	2	
H	Domestic	glass	bottle	clear	0	0	1	base w/ Owens-Illinois Glass Co. (1929-1954)

H	Domestic	glass	bottle	clear	0	0	377	
H	Domestic	glass	bottle-milk	clear	0	0	7	MNV=1; green painted
H	Domestic	glass	bottle-milk	clear	0	0	3	MNV=1; four-leaf clover; poss Clover Dairy
H	Domestic	glass	bottle-milk	clear	0	0	11	MNV=2; "C[lo]ver Dairy Milk The Sealtest System of ___"
H	Domestic	glass	bottle-milk	clear	0	0	28	
H	Domestic	glass	bottle-milk	clear	0	0	7	rim
H	Domestic	glass	fruit jar	clear	0	0	6	screwtop rim
H	Domestic	glass	fruit jar	amber	0	0	2	
H	Domestic	glass	tumbler	clear	0	0	4	base, MNV=3; one is molded
H	Domestic	whiteware		Overglaze Painted	0	0	1	orange painted
H	Heating by-product	coal			0	0	1	
H	Transportation	glass	Automobile Safety Glass		0	0	1	auto lightbult base
P	Debitage	chert	Early Reduction Flake		0	0	1	

STP N 540 E 525 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	

TU 1 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Early Reduction Flake		0	0	1	

TU 2 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Farming	iron/steel	Fencing Wire		0	0	4	

TU 2 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Farming	iron/steel	Fencing Wire		0	0	1	
P	Debitage	chert	Flake Fragment		0	0	1	potlid
P	Debitage	jasper	Early Reduction Flake		0	0	1	
P	Debitage	quartz	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Block Shatter		0	0	1	100%pebble ctx
P	Debitage	quartz	Early Reduction Flake		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

TU 2 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	jasper	Biface Reduction Flake		0	0	1	
P	Debitage	jasper	Biface Reduction Flake		0	0	1	

TU 3 Stratum I Level 1

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Early Reduction Flake		0	0	1	

TU 3 Stratum I Level 2

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chalcedony	Biface Reduction Flake		0	0	1	
P	Debitage	chert	Flake Fragment		0	0	1	

TU 3 Stratum II Level 1

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Block Shatter		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	tip
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Indeterminate Flake		0	0	1	
P	Debitage	quartz	Indeterminate Flake		0	0	1	

TU 3 Stratum II Level 2

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Block Shatter		0	0	1	
P	Debitage	quartz	Block Shatter		0	0	1	
P	Debitage	quartz	Indeterminate Flake		0	0	1	strong curv.
P	Debitage	quartz	Indeterminate Flake		0	0	1	
P	Debitage	quartz	Indeterminate Flake		0	0	1	

TU 4 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
P	Cobble	quartz	Tested Cobble		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	poss.
P	Debitage	quartzite	Block Shatter		0	0	1	prob. metaqtz

TU 4 Stratum II Level 2

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	>50%pebble ctx

TU 5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Raw Material	sandstone	Unmodified Raw Material		0	0	1	

TU 5 Stratum II Level 2

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	quartz	Middle Stage Biface Fragment		0	0	1	

TU 6 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	3	
P	Debitage	quartz	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

P	Debitage	quartz	Flake Fragment		0	0	1
P	Debitage	quartz	Flake Fragment		0	0	1

TU 6 Stratum II Level 1

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chalcedony	Biface Reduction Flake		0	0	1	
P	Debitage	chalcedony	Biface Reduction Flake		0	0	1	
P	Debitage	chalcedony	Indeterminate Flake		0	0	1	ctx. sugg.bedded source
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	pebble ctx

TU 6 Stratum II Level 2

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Biface Reduction Flake		0	0	1	
P	Debitage	quartz	Flake Fragment		0	0	1	

TU 7 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	

TU 7 Stratum II Level 1

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	argillite	Projectile Point		0	0	1	Lackawaxen.cont. stem

P	Tool	argillite	Projectile Point		0	0	1	Lackawaxen,cont. stem

TU 9 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Indeterminate	metal	miscellaneous rod		0	0	1	

TU 9 Stratum II Level 1

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	quartzite	Projectile Point		0	0	1	Basal-notched

TU 9 Stratum II Level 2

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Early Reduction Flake		0	0	1	
P	Tool	quartz	Projectile Point		0	0	1	poss. Bare Island; tip broken

CSC 515 E 490

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	

CSC N 520 E 450

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	

CSC N 525 E 500

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	quartz	Flake Fragment		0	0	1	

CSC N 530 E 500

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Debitage	chert	Block Shatter		0	0	1	

CSC N 535 E 475

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
P	Tool	quartz	Late Stage Biface Fragment		0	0	1	biface tip

STP 482.5 E 520 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	synthetic	Floor Covering-Synthetic		0	0	3	asbestos or vinyl

STP N 485 E 520 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	1	
H	Architectural	glass	window		0	0	2	
H	Domestic	glass	bottle	clear	0	0	16	
H	Domestic	glass	bottle	blue	0	0	2	
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	glass	bottle	light grass green	0	0	3	
H	Domestic	glass	bottle	amber	0	0	2	
H	Domestic	glass	bottle-beer	brown/amber	0	0	3	
H	Domestic	ironstone		Plain	0	0	3	
H	Domestic	redware		Unglazed	0	0	1	poss. Flowerpot

H	Domestic	whiteware		Colored Glaze	0	0	4	green glazed
H	Heating by-product	coal			0	0	2	

STP N 485 E 520 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Architectural	brick			0	0	3	
H	Architectural	glass	window		0	0	1	
H	Architectural	iron/steel	nail	unidentifiable mfg method	0	0	5	
H	Domestic	glass	bottle	clear	0	0	3	
H	Domestic	glass	bottle	clear	0	0	20	
H	Domestic	glass	bottle-milk	clear	0	0	2	rim
H	Domestic	glass	fruit jar	clear	0	0	1	
H	Domestic	ironstone		Plain	0	0	1	makers mark
H	Domestic	ironstone		Plain	0	0	9	
H	Domestic	ironstone		Gold Band	0	0	1	
H	Domestic	ironstone		Decal-Overglaze	0	0	1	polychrome
H	Domestic	redware		Unglazed	0	0	14	poss. Flowerpot
H	Domestic	Shell	oyster		0	0	1	
H	Domestic	whiteware		Plain	0	0	21	
H	Heating by-product	coal			0	0	3	

STP N 485 E 522.5 Stratum III

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	vinyl	Record Album		0	0	1	

STP N 487.5 E 517.5 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	green/olive green	0	0	1	
H	Domestic	glass	bottle	clear	0	0	1	
H	Indeterminate	aluminum foil			0	0	1	

STP N 487.5 E 517.5 Stratum II

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	green/olive green	0	0	1	
P	Debitage	chalcedony	Biface Reduction Flake		0	0	1	

STP N 487.5 E 520 Stratum I

H/P	Class	material	artifact type	additional traits	Begin Date	End Date	count	Notes
H	Domestic	glass	bottle	clear	0	0	1	
H	Domestic	ironstone		Plain	0	0	1	
H	Domestic	whiteware		Plain	0	0	1	

Summary for 'Area' = (296 detail records)

Sum 1008

Summary for 'Site Number' = 7NC-B-54 (296 detail records)

Sum 1008

Grand Total 16733

Appendix G:

National Register Nomination Forms
The Weldin Plantation Site (7NC-B-11)
The Ronald McDonald House Site (7NC-B-54)