

**PHASE IB ARCHAEOLOGICAL SURVEY  
OF THE U.S. ROUTE 301 SPUR,  
NEW CASTLE COUNTY, DELAWARE**

*VOLUME I*

**Parent Agreement 1534, Tasks 3 and 10**

*by*

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*Prepared for*

**Delaware Department of Transportation**

*Prepared by*

**DOVETAIL**  
CULTURAL RESOURCE GROUP

**May 2014**

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Spur, New Castle County, Delaware**

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Date

## ABSTRACT

Dovetail Cultural Resource Group (Dovetail) conducted a Phase IB archaeological survey along the U.S. Route 301 Spur (Contracts 4A, 4B and 4C), for the Delaware Department of Transportation (DelDOT). This project was completed in support of DelDOT's larger U.S. Route 301 development plan. The project, completed between August 2011 and March 2012, included archaeological investigations on DelDOT-owned and private property in New Castle County, Delaware.

The U.S. Route 301 Spur (also previously known as Section 4) includes a 4.8-mile (7.7-km) long roadway leading from the main U.S. Route 301 corridor near Middletown, Delaware, northwestward, terminating at the Chesapeake and Delaware Canal. The archaeological potential of the road area was previously inspected by A. D. Marble during their 2006 predictive model study of the overall Route 301 corridor (see Baublitz et al. 2006 for complete details) and subsequently, Skelly & Loy completed a Phase IA of the refined Spur alignment in 2008 (Gundy and Kuncio 2009).

The Dovetail study of the Spur Road included a Phase IB archaeological investigation of the entire U.S. Route 301 Spur Road. Using the previous studies, the corridor was divided into areas of high, moderate, low, and nil probability to contain archaeological sites. Dovetail used these defined areas to select segments for targeted survey and research, focusing on all high and medium probability areas but also investigating a percentage of the low probability areas to gather appropriate sample data. The goal for the current investigation was to identify any archaeological sites within the project's Area of Potential Effect (APE). As specified by DelDOT, the APE for the Spur project was defined by the Limit of Construction (LOC) as outlined within the preliminary design plans furnished by DelDOT, dated April 25, 2011.

Dovetail's work within the Spur APE resulted in the identification of five archaeological sites (7NC-F-167 through 7NC-F-171), 18 isolated finds, and numerous nineteenth century field scatters. The isolated finds and field scatters are not indicative of concentrated cultural activity and as such are not designated by archaeological site numbers and do not qualify for the National Register of Historic Places (NRHP). Four of the sites, **7NC-F-167 through 7NC-F-170, are recommended as not eligible for the NRHP.** Preliminary archival research and archaeological investigations indicate that site 7NC-F-171 may represent an early-nineteenth century industrial location. A Phase II evaluation study is recommended at this location and as such the site **is recommended as potentially eligible for the NRHP.** Furthermore, Dovetail **recommends that all road construction activities be monitored by a qualified archaeologist in Areas 5 and 14,** due to their potential to contain undiscovered eighteenth century archaeological sites.

All artifacts, field notes, and associated documentation pertaining to this Phase IB study of the Spur will be prepared and delivered for permanent curation at Delaware's Tudor Park Annex.

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# INTRODUCTION

Dovetail Cultural Resource Group (Dovetail) conducted a Phase IB archaeological survey along the U.S. Route 301 Spur (Contracts 4A, 4B and 4C), for the Delaware Department of Transportation (DelDOT). This project was completed in support of DelDOT's larger U.S. Route 301 development plan. The project fieldwork, completed between August 2011 and March 2012, included archaeological investigations on DelDOT-owned and private property in New Castle County, Delaware. Kerri Barile served as the Principal Investigator for this project. Field crews were under the direction of Emily Calhoun. Danae Peckler conducted the archival research. Dr. Barile and Ms. Calhoun both meet the Secretary of the Interior's standards established for an Archaeologist by the Secretary of the Interior, and Dr. Barile and Ms. Peckler meet the standards established for a Historian.

## Project Background

The U.S. Route 301 Spur (also previously known as Section 4) includes a 4.8-mile (7.7-km) long roadway leading from the main U.S. Route 301 corridor northwestward, terminating at the Chesapeake and Delaware Canal (Figure 1–Figure 2, pp. 2–3). The road area was first inspected by A. D. Marble during their 2006 predictive model study of the overall Route 301 corridor (see Baublitz et al. 2006 for complete details). This large project included a reconnaissance investigation of a 275-foot (83.8-m) wide corridor through St. Georges, Pencader, and Appoquinimink Hundreds in New Castle County, Delaware to provide overview details on known resources and identify areas with the potential for unrecorded properties. Research on the Spur Road portion of the project concentrated on the history of “Noxon’s Adventure”—a 300-acre (121.4-ha) parcel established by Thomas Noxon in 1734. Old Reedy Island Road passed through the acreage, allowing the parcel to be accessed from surrounding areas and making the land a desirable property. Using historic research, along with information on environmental conditions and previously recorded site/building data, etc., A.D. Marble identified areas of high, moderate, low, and nil probability to contain historic and prehistoric archaeological sites along the corridor. Their model was tested at several locations along the Spur Road through pedestrian survey and limited subsurface investigations. They tested a total of 13 areas, named as test blocks 1-1 through 1-3 and 2-1 through 2-10 (Figure 3–Figure 5, pp. 4–6).

Subsequent to this work, Skelly & Loy completed a Phase IA study of the refined Spur alignment in 2008 (Gundy and Kuncio 2009). Their work included additional background and archival research on the roadway, as well as a field reconnaissance involving vehicular and limited pedestrian inspection of the Spur alignment. During this Phase IA no landowner contact and/or entry onto private property was made, due to a legislative mandate and requests made by both Federal Highway Administration (FHWA) and DelDOT. As a result no formal field investigation were undertaken and no artifacts or new archaeological sites were identified. Instead, the team located 12 previously recorded, historic-period resources within or near the corridor and determined that no previously recorded prehistoric resources were within the project area vicinity. However, the study determined that areas of

archaeological potential exist along the majority of the corridor. It was suggested that a Phase IB survey be completed along the preponderance of the Spur.

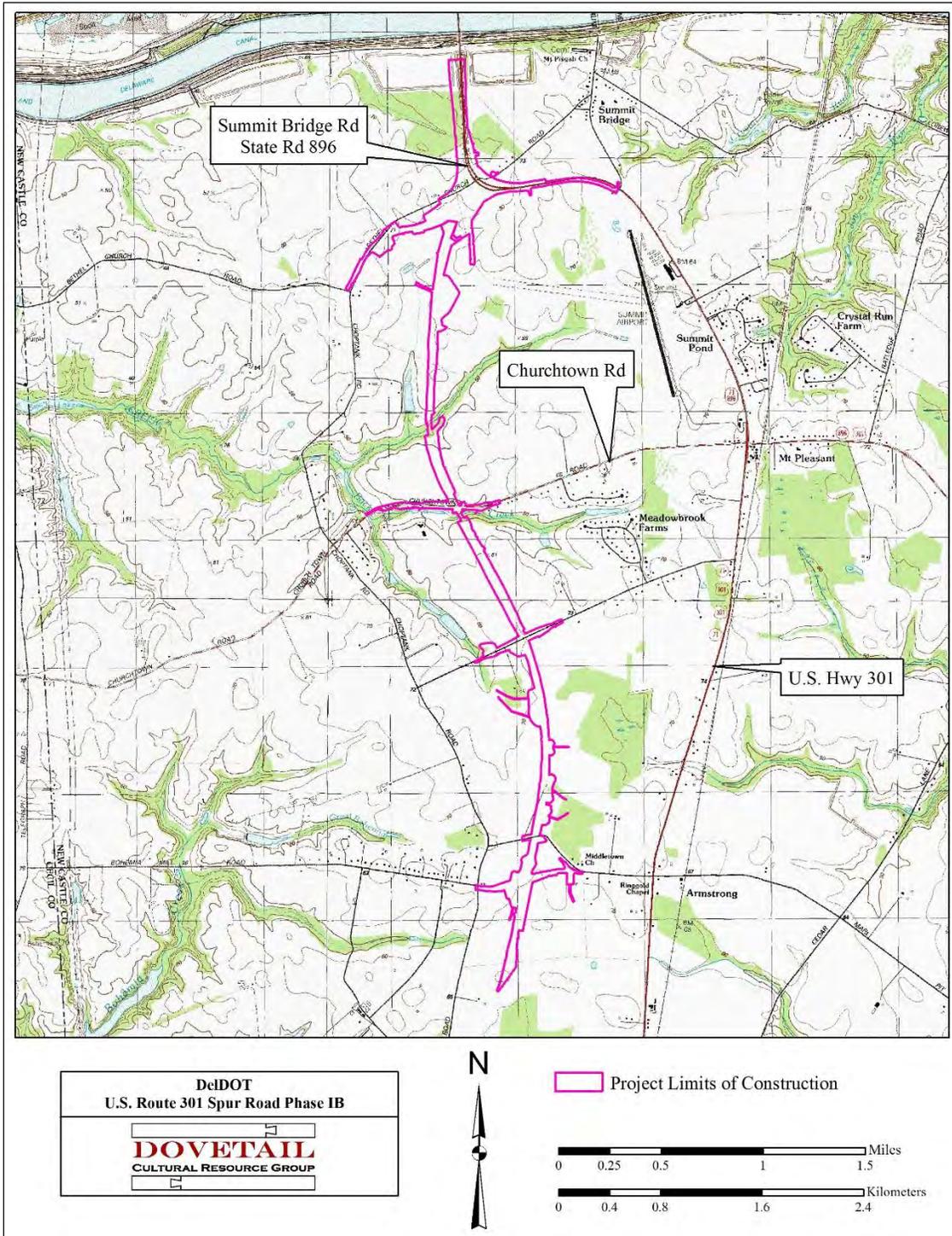


Figure 1: Location of Spur Limits of Construction on the United States Geological Survey New Castle County, Delaware 7.5-Minute Digital Raster Graphic Mosaic (United States Department of Agriculture [USDA] 2001).

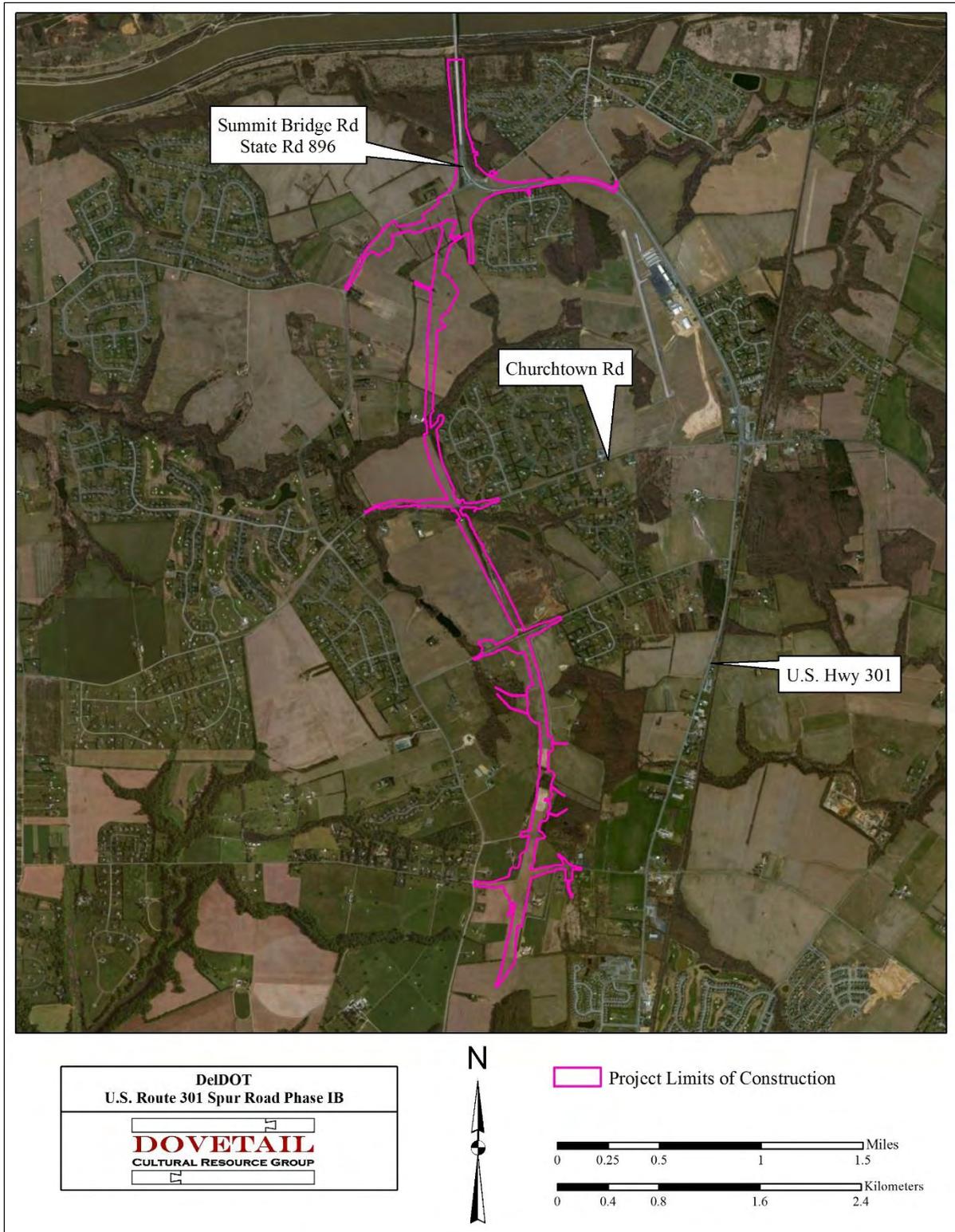


Figure 2: Location of Spur Limits of Construction (USDA 2011).

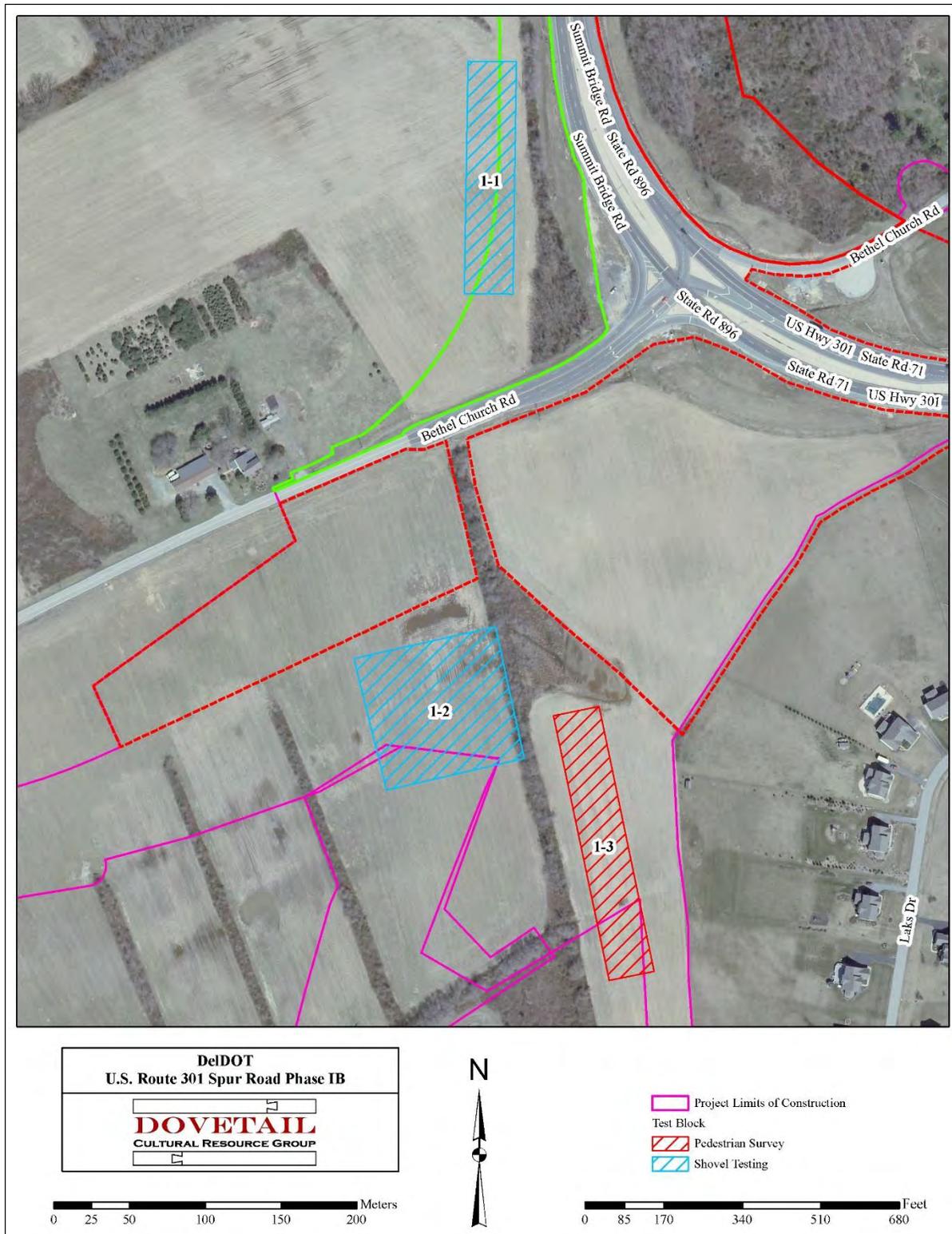


Figure 3: A.D. Marble Test Blocks 1-1 through 1-3 Overlaid with the Current Spur Limits of Construction (USDA 2011).

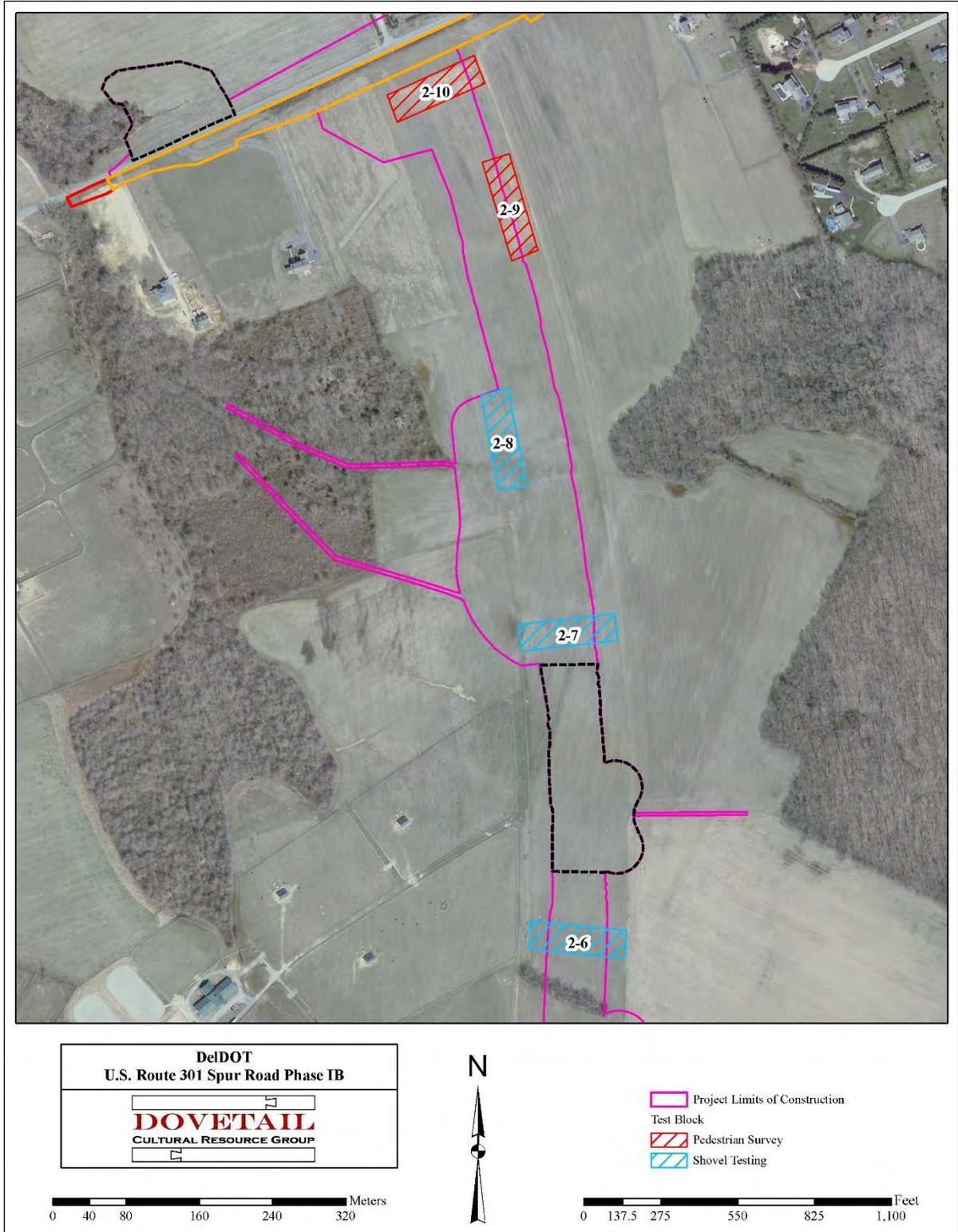


Figure 4: A.D. Marble Test Blocks 2-6 through 2-10 Overlaid with the Current Spur Limits of Construction (USDA 2011).

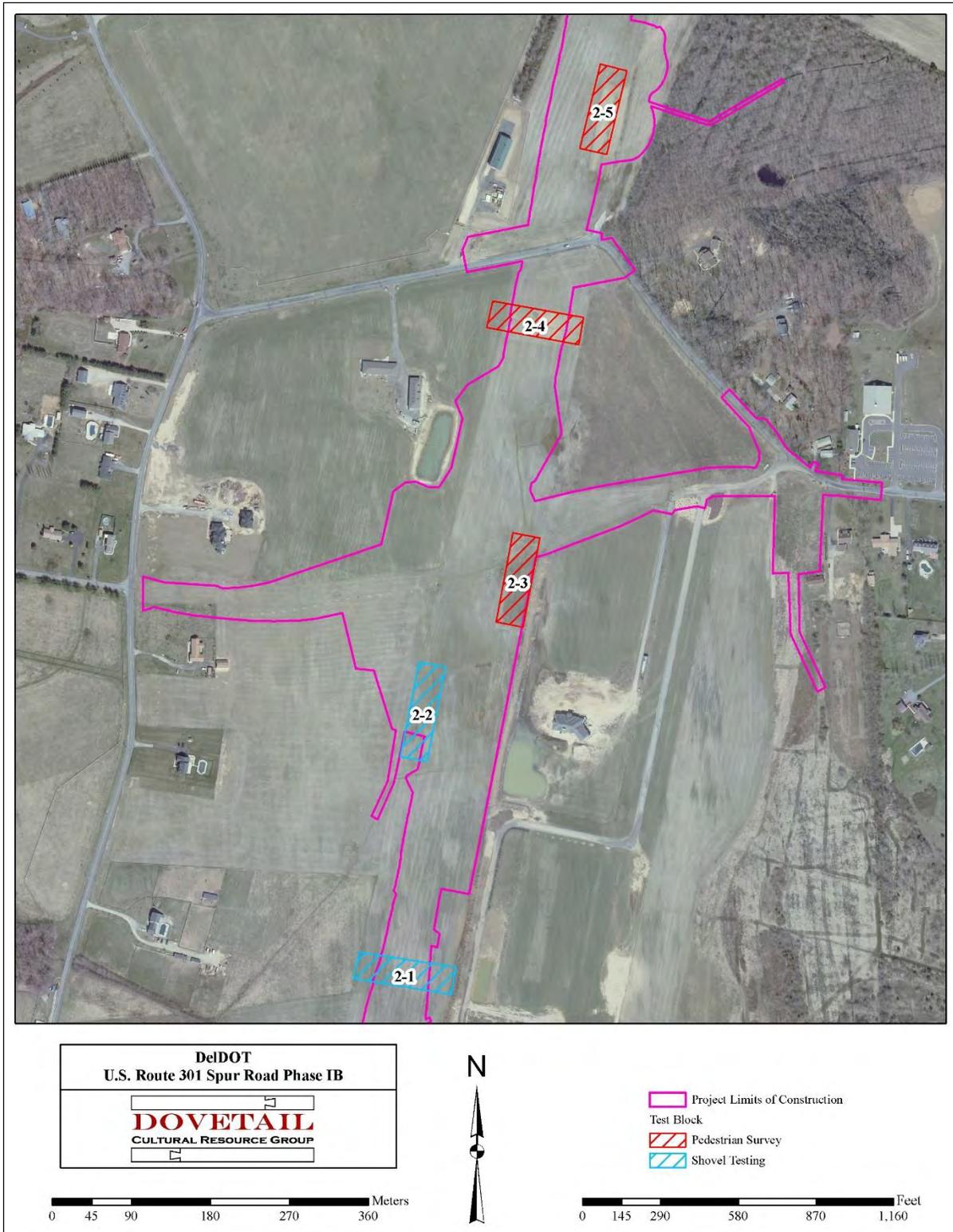


Figure 5: A.D. Marble Test Blocks 2-1 through 2-6 Overlaid with the Current Spur Limits of Construction (USDA 2011).

## Project Description

The Dovetail study of the Spur Road included a Phase IB archaeological investigation of the entire U.S. Route 301 Spur Road. Using the previous A.D. Marble and Skelly and Loy studies, the corridor was divided into areas of high, moderate, low, and nil probability to contain archaeological sites. Dovetail used these defined areas to select segments for targeted survey and research, focusing on all high and medium probability areas but also investigation a percentage of the low probability areas to gather appropriate sample data. The goal for the current investigation was to identify any archaeological sites within the project’s Area of Potential Effect (APE). As specified by DelDOT, the APE for the Spur project is defined by the Limit of Construction (LOC) as outlined within the preliminary design plans furnished by DelDOT, dated April 25, 2011.

The entire spur LOC, including the main roadway and all additional side roads, borrow pits, ponds, etc., comprises 265 acres (107.2 ha). Of this number, 94 acres (38.0 ha) are within the “Fix the Curve” segment (Contract 4A), and 171 acres (69.4 ha) are in Section Contracts 4B and 4C. Areas of historic and prehistoric archaeological probability are located throughout the corridor, as identified by Baublitz et al. (2006) (Figure 6–Figure 7, pp. 9–10). Based on this information, the entire corridor was divided into 17 areas, labeled Areas 1–17 north to south (Table 1, p. 7; Figure 8–Figure 11, pp. 11–14). In some instances, areas have been divided into subareas to distinguish geographically bounded parcels or note land with varying survey methodologies in one area, resulting in lettered subareas (2A, 2B, etc.). Together, a total of 36 areas and subareas was defined within the corridor. Of this number, 16 of these 36 areas/subareas were subjected to archaeological investigation, covering a total of 96.8 acres (39.2 ha) and comprising 38 percent of the overall project corridor acreage. The remaining 20 areas/subareas (62 percent of the project corridor) have nil to low probability, exhibit disturbance, or been previously surveyed. This survey strategy was developed in consultation with and approved by both DelDOT archaeologists and the Delaware State Historic Preservation Office staff (DE SHPO).

The current project included Phase IB archaeological investigations of the Spur areas in conjunction with archival background research. Archival research was primarily focused on areas identified during the Phase IA examinations, but was also augmented based on the ongoing results of the current Phase IB archaeological investigations. This report does not include detailed background review information, because this work was previously completed during Skelly & Loy’s Phase IA investigation; see Gundy and Kuncio (2009) for this information.

Table 1: Areas and Subareas within the Route 301 Spur APE.

Area	H/P	Probability	Acreage	Comments
1	NA	None	18.86	Known disturbed soils
2A	Historic	High	5.20	Close-Interval STPs due to A.D. Marble work
2B	Historic	High	5.00	Plow & Disc
2C	Historic	High	10.60	Plow & Disc
2D	Historic/Prehistoric	High	6.40	Regular-Interval STPs in wooded area

<b>Area</b>	<b>H/P</b>	<b>Probability</b>	<b>Acreage</b>	<b>Comments</b>
2E	Historic	High	3.50	Plow & Disc
3A	NA	None	0.01	Disturbed Soils with Low Probability
3B	NA	None	0.10	Disturbed Soils with Low Probability
3C	NA	None	0.30	Disturbed Soils with Low Probability
3D	NA	None	9.20	Disturbed Soils with Low Probability
4	NA	None	22.70	Low Probability
5	Historic	Moderate	7.00	Plow & Disc
6	NA	None	3.50	Disturbed Soils with Low Probability
7	Historic	Low	18.10	Plow & Disc
8A	NA	None	0.50	Low Probability
8B	NA	None	7.20	Low Probability
9A	Prehistoric	Moderate	5.50	Plow & Disc
9B	Prehistoric	High	5.60	Regular-Interval STPs in wooded area
9C	Prehistoric	Low/Moderate	14.20	Plow & Disc
9D	Prehistoric	High	0.20	Regular-Interval STPs along roadway
9E	Historic	High	0.40	Regular-Interval STPs along roadway
9F	Prehistoric	High	1.10	Regular-Interval STPs in wooded area
9G	Prehistoric	Moderate	3.40	Plow & Disc
10A	NA	None	3.10	Disturbed Soils with Low Probability
10B	NA	None	1.20	Disturbed Soils with Low Probability
10C	NA	None	0.40	Disturbed Soils with Low Probability
11	NA	None	19.90	Low Probability
12A	Prehistoric	Moderate	2.30	Plow & Disc
12B	Prehistoric	High	0.16	Regular-Interval STPs in wooded area
12C	Historic	Low	3.86	Regular-Interval STPs along roadway
13A	NA	None	17.53	Low Probability
13B	NA	None	0.09	Low Probability
14	Historic	Moderate	4.30	Plow & Disc
15	NA	None	44.10	Low Probability
16	NA	None	1.93	Previously Surveyed by Hunter Research, Inc.
17	NA	None	9.20	Low to Nil Probability

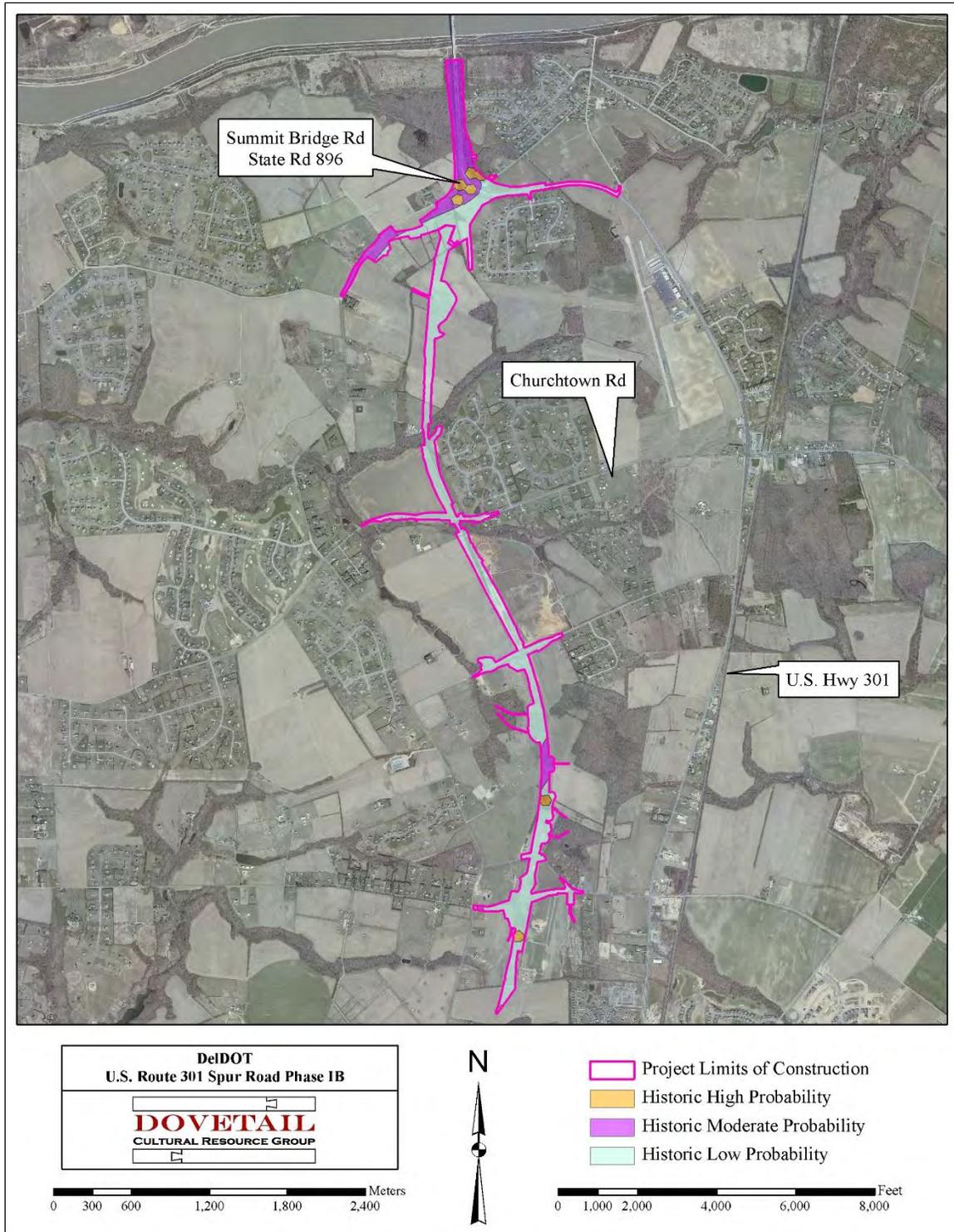


Figure 6: Spur Corridor Showing Areas of Historic Probability (adapted from Baublitz et al. 2006).

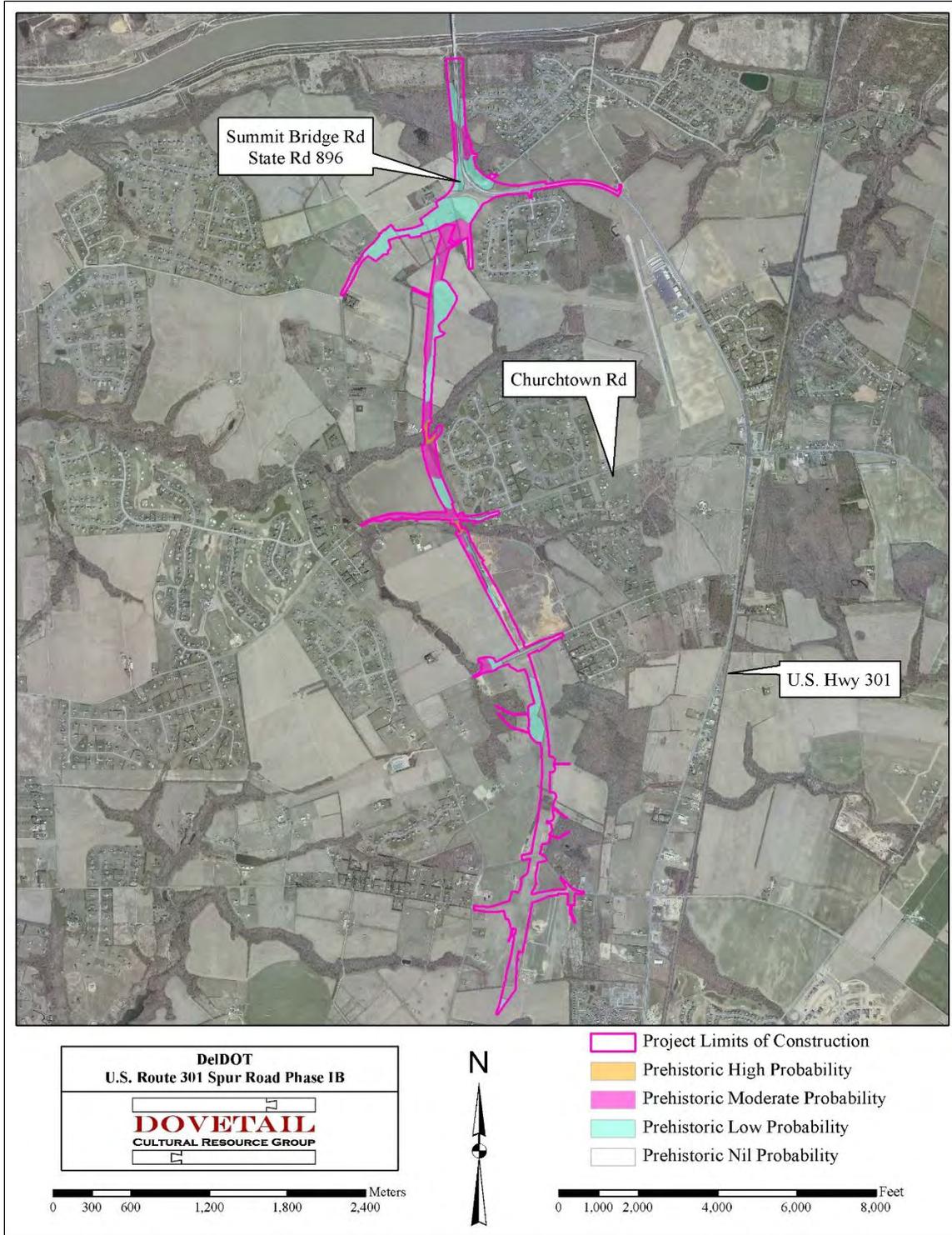


Figure 7: Spur Corridor Showing Areas of Prehistoric Probability (adapted from Baublitz et al. 2006).

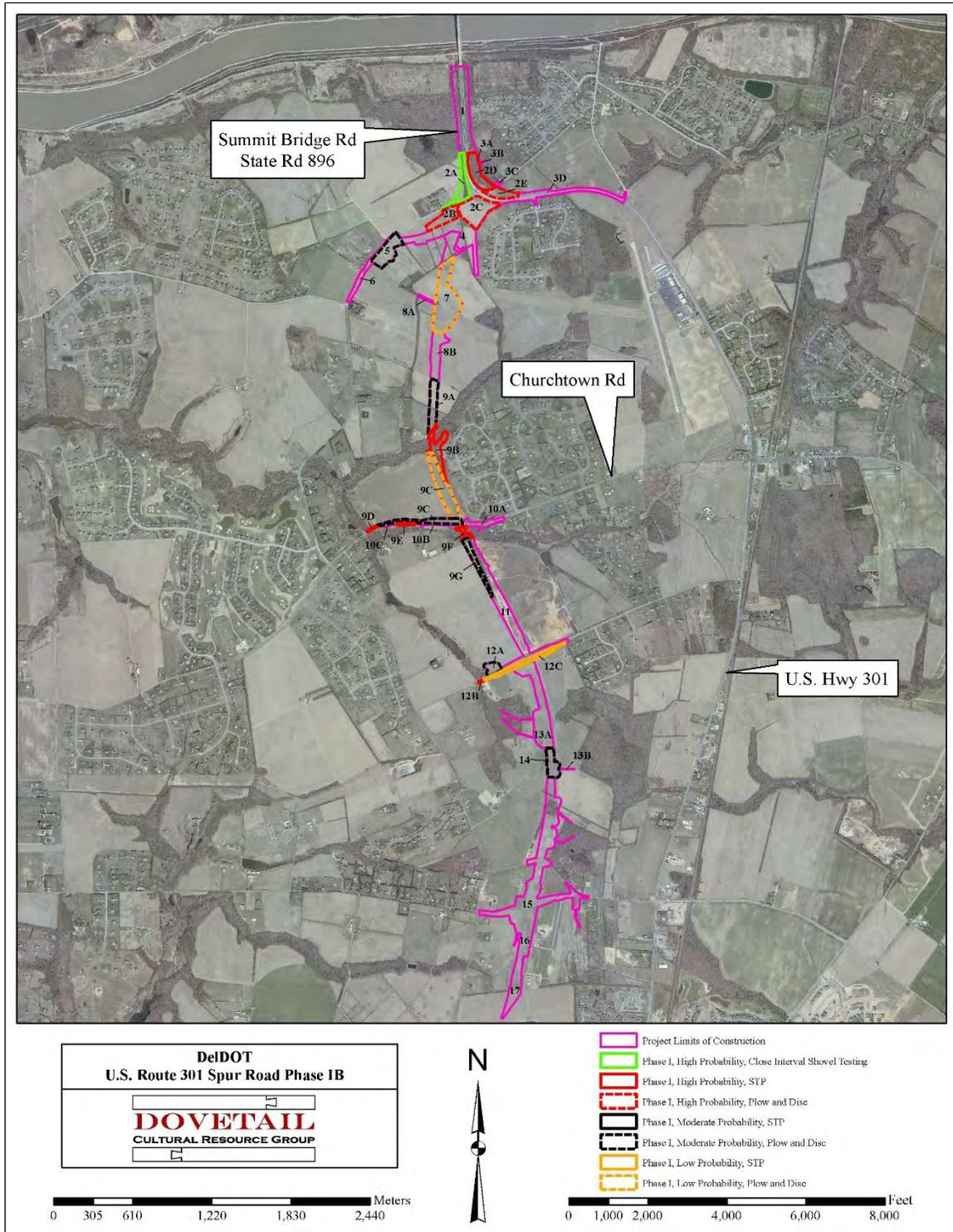


Figure 8: Overview of Spur Limits of Construction Showing Areas 1–17 With Survey Scope of Work (USDA 2011).

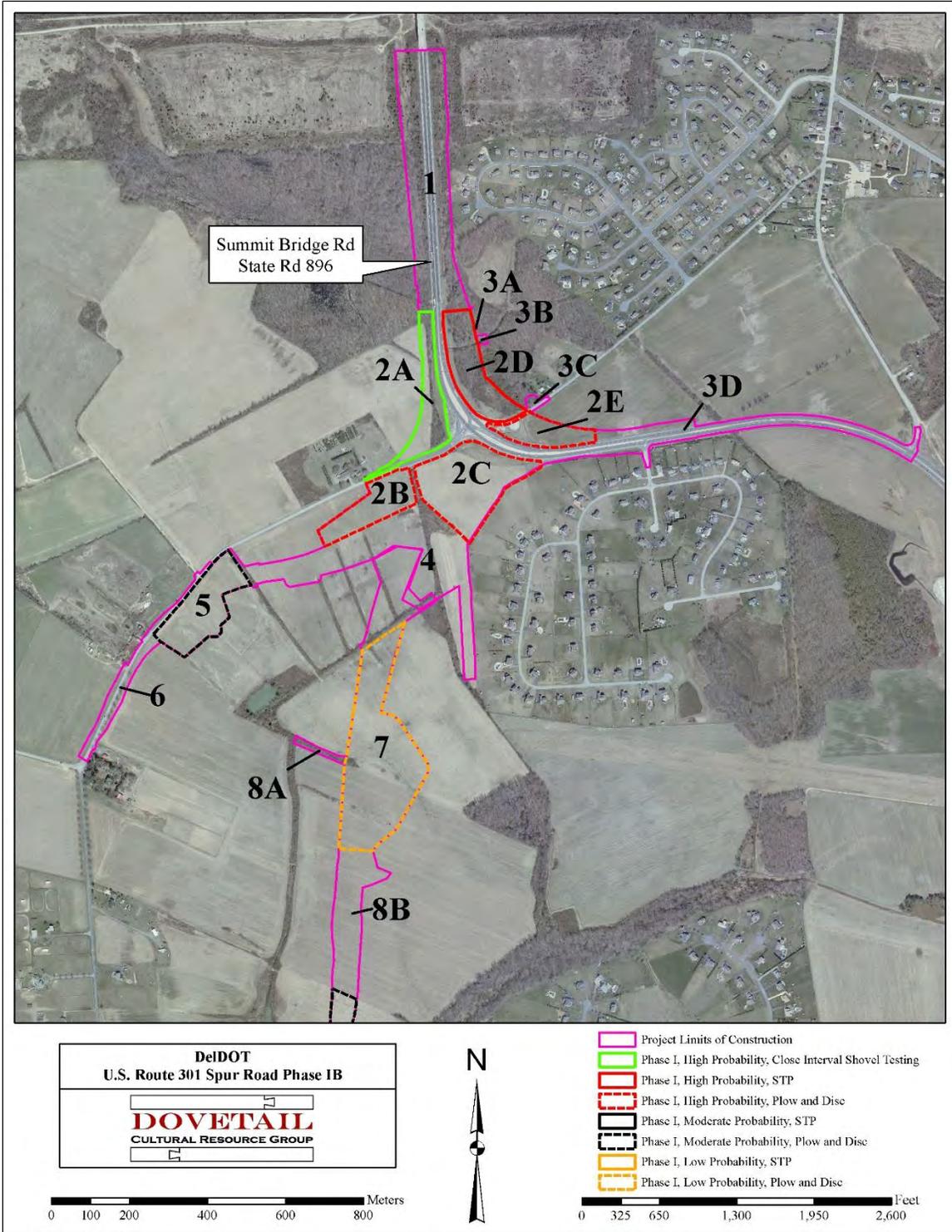


Figure 9: Detailed Area and Scope of Work Map for Areas 1–8 at Contract 4A/“Fix the Curve”/Northern Segment (USDA 2011).

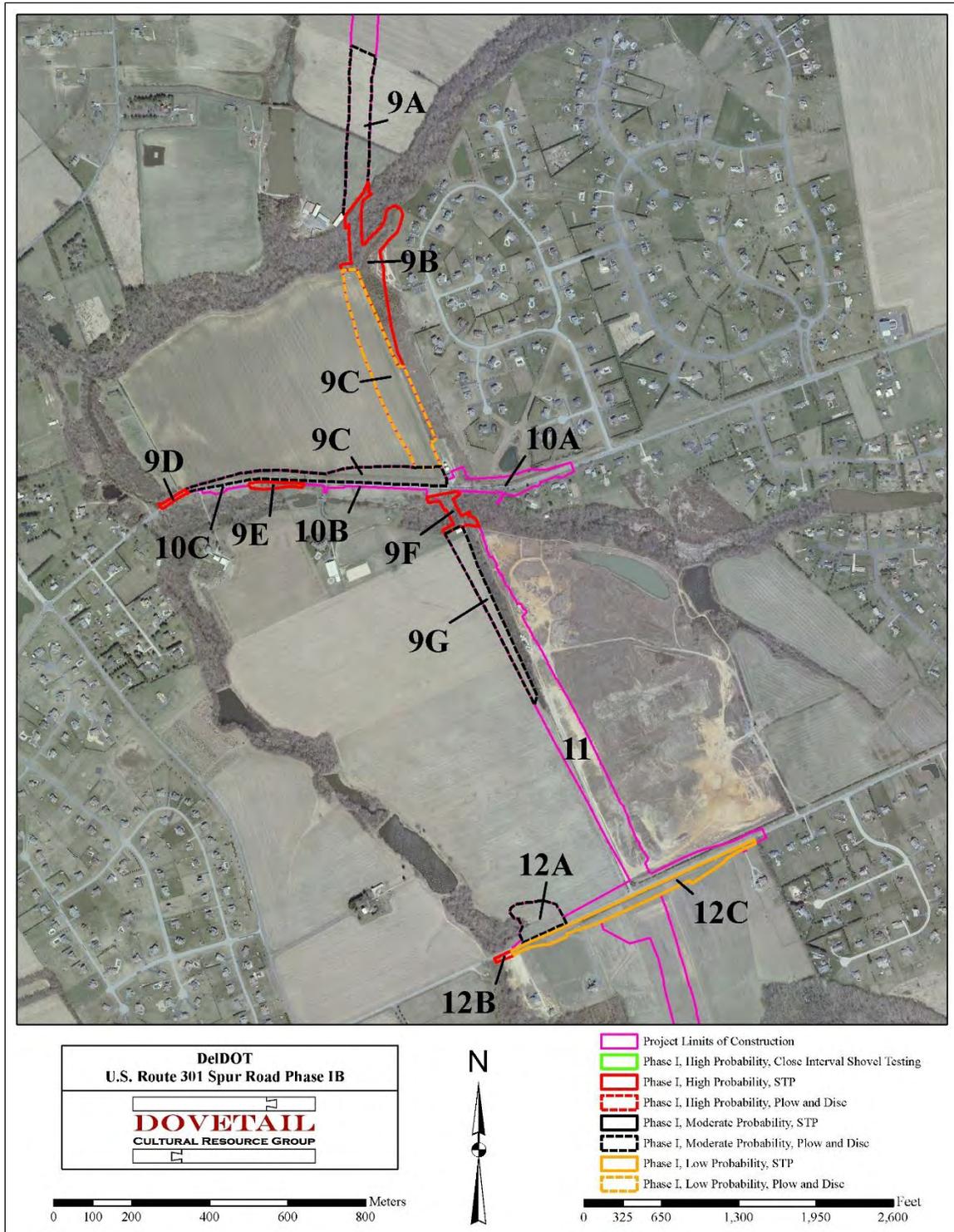


Figure 10: Detailed Area and Scope of Work Map for Areas 8–12 in Section 4B/ Central Segment (USDA 2011).

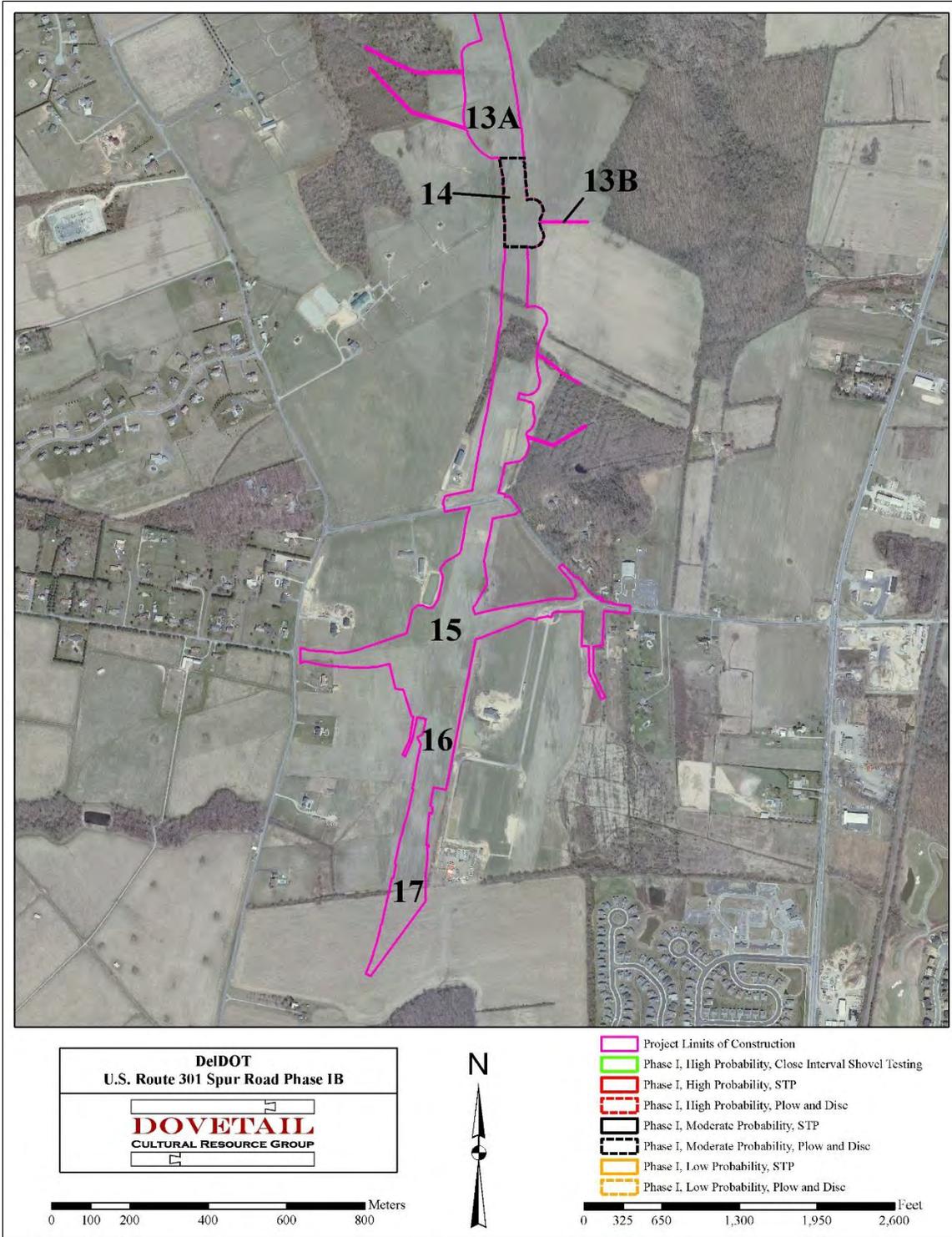


Figure 11: Detailed Area and Scope of Work Map for Areas 11–17 in Section 4C/Southern Segment (USDA 2011).

## ENVIRONMENTAL SETTING

The Spur is located in west-central New Castle County, Delaware. This part of New Castle County has historically been rural with large tracts of farmland and continues to be rural to an extent. Recently completed improvements to U.S. Route 13 include adding two new north-bound lanes to create a divided four-lane highway and the recent completion of State Route (SR) 1 (Korean War Veterans Memorial Highway), a four- to six-lane highway built to interstate standards directly west of US Route 13, has made access from south-central New Castle County to the urban areas of northern Delaware and southeastern Pennsylvania much easier. As a result, large housing subdivisions have begun to spring up on farmland around historic rural communities such as St. Georges and Port Penn. The immediate project area has not been impacted by this recent suburban development; however, several large housing developments are located immediately adjacent to the Spur APE.

### Geology

The Spur APE is situated in a broad upland area in the Upper Coastal Plain physiographic zone in the Mid-Drainage management zone subdivision (Custer 1984). The Upper Coastal Plain physiographic zone covers the area between the Smyrna River to the south and the Piedmont Fall Line to the north (Custer 1984; Custer and Bachman 1984; Hodny et al. 1989). The Potomac and Columbia formations characterize the sediments of the northern Delaware Coastal Plain. Potomac formation sediments are fluvial silts and clays deposited during the Early Cretaceous Period. They are overlain by the sediments of the Columbia formation, deposited by watercourses from the north during the Quaternary Period.

Sands, made up mostly of quartz, feldspar, and coarse gravels of sandstone, quartz, and chert, characterize the Columbia formation (Custer 1984; Jordan 1964). The gravels resisted erosion which created a gently rolling topography with up to 50-foot (15.2-m) differences in elevation between floodplain marshes and headlands, thereby creating differences in plant communities. These topographic conditions combined with the presence of tidally influenced brackish watercourses and freshwater further inland allow for a wide range of available natural resources.

### Hydrology

The Spur APE straddles the Chesapeake Bay and Delaware Bay drainage basin divide in west-central New Castle County. According to the USDA's Natural Resources Conservation Service (NRCS) watershed assessment of Delaware, the APE traverses both the Chester-Sassafras and Brandywine-Christina Watershed Units (NRCS 2007). Specifically within these units, the project area is situated within the Chesapeake & Delaware Canal (C&D Canal) and Bohemia Creek watersheds (Delaware Department of Natural Resources and Environmental Control 2001).

As detailed by Baublitz et al. (2006) and Gundy and Kuncio (2009), the Spur APE is drained by several small unnamed tributaries of Back Creek as well as Back Creek itself. This

watershed encompasses an approximate area of 8,729.0 acres (3,532.6 ha) and is situated in both Maryland and Delaware (Maryland Department of the Environment 2005). Back Creek traverses the central portion of the project area, roughly parallel to Churchtown Road and Dovetail’s Area 9. It flows eastward into Maryland and the Bohemia River and eventually to the Chesapeake Bay.

## Soils

Fertile, well-drained soils attracted both humans and game over millennia. Moreover, the wild grasses, fruits, and seeds consumed by people both before and after the adoption of agriculture flourished in such settings. As a consequence, numerous archaeologists have cited the correlation between the distribution of level to gently sloping, well-drained, fertile soils and archaeological sites (e.g., Lukezic 1990; Potter 1993; Turner 1976; Ward 1965). Soil scientists classify soils according to natural and artificial fertility and the threat posed by erosion and flooding, among other attributes. Soil Classes 1 and 2 represent the most fertile soils, those best suited for not only agriculture but for a wide range of uses. Of course, soil fertility must be considered in relation to the productivity of the surrounding soils as well.

Class 2 Reybold silt loam and Class 1 Reybold-Queponco complex soil types represent the highest percentage of the soils within the Spur APE, constituting 65 percent of the project area (Table 2, p. 16). The fact that these soil classes have a tendency to erode could impact intactness of sediment. However, their fertility and moderate to excellent drainage make them ideally suited for historic period occupation and associated agricultural activity. The remaining portions of the APE include a variety of poorly drained soils, mostly characteristic of swales and depressions, and highly sloped well-drained soils. These areas would likely have been unsuitable for both prehistoric and historic occupation.

Table 2: Soils in the Project Area (Soil Survey Staff 2012).

Soil Name	Class	Slope	Percentage of Project Area	Characteristics
Reybold silt loam	2	2–5%	47.93%	Well drained flats, tendency to erode
Udorthents	7e	10–30%	5.75%	Well drained hillslopes and knolls
Fallsington loam	3	0–2%	8.08%	Poorly drained swales and depressions
Keyport silt loam	2	0–2%	0.32%	Moderately well-drained terraces
Lenni silt loam	3	0–2%	0.27%	Poorly drained swales and depressions
Longmarsh and Indiantown soils	4	0–2%	0.31%	Poorly drained swales and depressions
Mattapex silt loam	2	0–2%	1.58%	Moderately well-drained swales and depressions
Othello silt loam	3	0–2%	4.67%	Poorly drained swales and

<b>Soil Name</b>	<b>Class</b>	<b>Slope</b>	<b>Percentage of Project Area</b>	<b>Characteristics</b>
				depressions
Reybold-Queponco complex	1	0–2%	17.08%	Well drained flats, tendency to erode
Reybold silt loam	3	5–10%	2.42%	Well drained flats, tendency to erode
Sassafras sandy loam	3	5–10%	0.41%	Well drained hillslopes and knolls
Sassafras sandy loam	6	15–25%	0.35%	Well drained hillslopes and knolls
Udorthents, borrow areas	2	5–10%	2.99%	Moderately well-drained flats
Woodstown loam	2	0–2%	6.96%	Moderately well-drained flats
Woodstown loam	2	2–5%	0.54%	Moderately well-drained flats
Zekiah sandy loam	5	0–1%	0.34%	Poorly drained flood plains

## **RESEARCH DESIGN AND METHODOLOGY**

The purpose and goal of this Phase IB investigation was to identify any archaeological sites on or eligible for the NRHP within the project's APE. The project included detailed archival and background research as well as archaeological field investigations. The archaeological work included an attempt to determine site boundaries and occupation chronology, and to evaluate the integrity of any identified sites.

### **Archival and Background Research**

In 2006, a historic context for the project corridor was prepared by A. D. Marble and Company which includes a lengthy and well-researched history of development trends within the APE from 1630 to present (Frederick et al. 2006a). Archival research conducted during this investigation targeted areas within the corridor that were subjected to the Phase IB archaeological study and, therefore, much of the historical information pertains specifically to those parcels where intact subsurface deposits were identified.

The reports for the Route 301 project corridor prepared by A. D. Marble in 2006 included an archaeological predictive model, historic context and architectural investigation of the areas to be impacted by the proposed roadway, all of which have been used to inform the current study (Baublitz et al. 2006; Frederick et al. 2006a, 2006b; Gundy and Kuncio 2009). Additional architectural and archaeological investigations in recent decades have resulted in a number of cultural resource reports and historic contexts related to the current project area that were also reviewed during this study (Herman et al. 1985; Siders et al. 1991).

Archival research conducted in association with the current undertaking gathered primary and secondary sources to inform and support Phase IB archaeological investigations and learn more about the history of project area and cultural resources within it. In this research, emphasis was placed on those parcels with a high probability of containing archaeological resources, and specifically targeted Areas 2B, 2C, 9B, and 14A, where previously undocumented archaeological sites were identified and/or a possible historic occupation was noted on map overlays. Beginning in the fall of 2011, Dovetail staff visited the Delaware Public Archives, New Castle County Circuit Court, the Historical Society of Delaware, and Morris Library at the University of Delaware. Online resources were also consulted, including Ancestry.com, familysearch.org, digital collections of the Delaware Public Archives, the Center for Historic Architecture and Design (CHAD) at the University of Delaware, and Library of Congress. Primary historic sources associated with the project area recovered in this effort include Federal Population Census records, Orphans Court records, wills and probate records, warrants and surveys, historic maps, deeds and mortgages, family records, and various tax assessments dating from the eighteenth, nineteenth, and twentieth century. Secondary sources consist of genealogical records and historical publications, as well as previous architectural and archaeological surveys of cultural resources in the project vicinity.

## Archaeological Survey Methods

The goal of the archaeological survey was to identify any archaeological sites on or eligible for the NRHP within the project’s APE. The survey methodology employed to meet this goal was chosen with regard to the project’s scope, the potential of the APE to contain significant archaeological resources, and the local field conditions. The archaeological survey consisted of both a visual inspection and subsurface testing.

Dovetail developed a survey strategy using the results of the archaeological predicative model produced by A.D. Marble (Baublitz et al. 2006). The goal for both historic and prehistoric resources included 100 percent examination of high probability areas, approximately 36 percent of moderate probability areas, 10 percent of low probability areas and 0 percent of nil probability areas. Based on these percentages, Dovetail completed Phase IB-level survey on 16 of the total 36 identified areas/subareas, totaling 96.8 acres (39.2 hectares) and 38 percent of the overall Spur LOC (Table 3).

Table 3: Summary of Proposed Survey Acreage and Overall Percentage.

	<b>Total Historic Acreage</b>	<b>Historic Survey Acreage</b>	<b>Percentage of Total</b>	<b>Overall Prehistoric Acreage</b>	<b>Prehistoric Survey Acreage</b>	<b>Percentage of Total</b>
<b>High</b>	24.8	24.8	100%	4.2	4.2	100%
<b>Moderate</b>	41.6	17.8	43%	52.8	19.1	36%
<b>Low</b>	201.9	22.1	11%	91.9	9.4	10%
<b>Nil</b>	0.0	0.0	0%	114.8	0.0	0%
<b>Total</b>	268.3	64.7	24%	263.8	32.7	12%

Prior to fieldwork, Century Engineering, Inc. (Century) marked the boundaries of all 16 identified areas/subareas to assure accuracy during archaeological fieldwork. Also in advance of Phase IB fieldwork, property owners and tenant farmers were contacted to gain access/permission for archaeological survey. All contacts were made initially by Century and follow-up contacts were made by Dovetail staff. Access was granted to all portions of the APE requiring archaeological survey.

During the Phase IB investigations, each of the 16 areas/subareas slated for Phase I work was first visually inspected and the current conditions were documented through written notes and photographs. Pedestrian investigation was conducted in order to locate surface features or artifact scatters and also to identify parcels that have the potential for intact subsurface deposits prior to any ground-disturbing activity.

Following visual inspection, subsurface field survey was conducted utilizing one of two methods: systematic shovel testing or plow and disc with a pedestrian surface collection. Systematic shovel testing was completed in eight areas/subareas, while surface collection was done in the remaining eight (Table 4–Table 5, p. 21). Methodology in these areas was selected based on current land use, topography, vegetation, access and nearby development. In general, shovel tests were excavated at a maximum of 50-foot (15.2-m) intervals. If

cultural materials were recovered, radial shovel tests were excavated in every cardinal direction to determine if the artifact was an isolated find or if the area was an archaeological site. The survey was of sufficient intensity to determine the nature, extent, and, if possible, potential significance of any cultural resources located within the proposed project area. The one exception to this was Area 2A, which was noted to have a very high probability to contain an abundance of historic materials. During their Phase I study, A.D. Marble identified a light scatter of nineteenth-century artifacts throughout this area. As such, close-interval shovel tests at 25-foot (7.6-m) intervals were excavated across Area 2A, assuring adequate coverage. No radial shovel tests were completed in this area since they are already included in the coverage distribution.

Table 4: Summary of Areas for Shovel Testing.

Area	H/P	Probability	Acreage	Total STPs*	Total Radials	Total All
2A	Historic	High (close-interval)	5.20	255	0	255
2D	Historic/Prehistoric	High	6.40	109	22	131
9B	Prehistoric	High	5.60	95	19	114
9D	Prehistoric	High	0.20	3	1	4
9E	Historic	High	0.40	7	1	8
9F	Prehistoric	High	1.10	19	4	22
12B	Prehistoric	High	0.16	3	1	3
12C	Historic	Low	3.86	66	13	79
<b>Totals</b>			<b>22.92</b>	<b>556</b>	<b>60</b>	<b>616</b>

Table 5: Summary of Areas for Surface Collection.

Area #	H/P	Probability	Acreage
2B	Historic	High	5.00
2C	Historic	High	10.60
2E	Historic	High	3.50
5	Historic	Moderate	7.00
7	Historic	Low	18.10
9A	Prehistoric	Moderate	5.50
9C	Prehistoric	Low/Moderate	14.20
9G	Prehistoric	Moderate	3.40
12A	Prehistoric	Moderate	2.30
14	Historic	Moderate	4.30
<b>Total</b>			<b>73.90</b>

Shovel tests measured approximately 15 inches (38.1 cm) in diameter. All shovel tests were excavated in 4-inch (10-cm) arbitrary levels to 3 feet (0.9 m) in depth or culturally sterile deposits, whichever came first. However, if an identifiable plow zone was encountered during subsurface investigations it was excavated as a single level. The matrix was screened through 0.25-inch (0.6-cm) mesh. All cultural material recovered during the investigation were collected and bagged according to provenience. The location of each shovel test was plotted using a Global Positioning System (GPS) receiver. Details of each shovel test were recorded on appropriate project field forms, and photographs were taken to document the general project area. Newly identified or previously recorded archaeological sites were thoroughly documented and plotted on USGS 7.5-minute topographic maps and appropriate project maps for planning purposes.

Within the eight areas/subareas recommended for surface collection, each segment was first churned through plow and disc. Dovetail, working with DeIDOT and Century, contacted each tenant to coordinate plowing. After the land was plowed, Dovetail waited until one rain has passed. Following adequate precipitation, a 25-foot (7.6-m) grid system was established across the plowed area. A team of archaeologists then walked the entire plowed area on this grid system. The fields were traversed twice, along perpendicular transects, to create a criss-cross coverage system. Surface artifacts were assigned binomial sequential numbers (e.g., surface collections in Area 5 were recorded as 5-1, 5-2, 5-3, and so on) and plotted according to their provenience using a hand-held GPS unit. All cultural materials were collected for analysis. Once artifacts were in the lab, some collections were discarded because analysis indicated they were not cultural artifacts. Specimens themselves were discarded, but sequential numbering of all subsequent artifacts was not altered. Therefore in some instances there are gaps in the consecutive numbering of artifacts as they appear in the artifact catalog.

After the surface collection, Dovetail returned to any areas where clusters of artifacts were found and areas where notable artifacts were recovered. These areas were the subject of shovel testing to explore the subsurface integrity of each area to make recommendations on potential site composition and eligibility. Shovel tests were excavated at a maximum of 50-foot (15.2-m) intervals, although often a closer interval was warranted based on field conditions. If cultural materials were recovered, radial shovel tests were excavated in every cardinal direction to determine if the artifact was an isolated find or if the area is an archaeological site. The survey was of sufficient intensity to determine the nature, extent, and, if possible, potential significance of any cultural resources located within the proposed project area. The same shovel testing parameters described above were used.

Based on the shovel testing and surface collection results in all 16 Phase IB areas, 13 test units were excavated across the total acreage to provide additional data. Test units will be used to augment the results of the shovel testing to ascertain the potential for intact stratigraphy and cultural features. Decisions as to the excavation and placement of units were developed in consultation with DeIDOT, and if needed the DE SHPO. In general, units measured 3 x 3 feet (0.9 x 0.9 m). Units were excavated in natural levels. Where natural levels exceeded 4 inches (10 cm), arbitrary 4-inch (10-cm) levels were excavated to provide vertical control of the recovered artifact assemblage. All soils were screened through 0.25-inch (0.6-cm) mesh.

All cultural material recovered during the investigation was collected and bagged according to provenience. Profile photographs were taken and scaled drawing made of at least one wall from excavated units. If features were encountered, they were photographed and scale drawings were made in plan view. Depending on the size of the feature, they were bisected and excavated in arbitrary 4-inch (10-cm) levels or natural levels if they were less than 4 inches (10 cm). Soil samples were taken from each level of features for specialized testing, if deemed necessary. If materials appropriate for chronometric testing were encountered, such as charcoal, samples were removed with appropriate methods to maintain the integrity of the samples. Like the shovel tests and surface finds, the locations of all test units were documented through a hand-held GPS unit.

## Laboratory Methods

All recovered artifacts were washed with water and rubbed with a soft brush. Once cleaned, artifacts were cataloged according to type and bagged with the field tag in 4 millimeter archival quality resealable bags. For this portion of the work, the artifact catalog recorded general provenience information and quantity for each artifact type. Artifacts were broken into two general categories: prehistoric, historic and natural. Artifact type was assigned according to a variety of generally accepted systems.

Non-tool prehistoric lithics were cataloged assigned type according to the general stage of reduction, as primary, secondary, or tertiary (Callahan 1979; Crabtree 1972). Flakes that were partial or non-flake pieces that were still considered debris from stone tool production (shatter, angular debris, etc.) were given non-reduction sequence types (Andrefsky 1998; Whittaker 1994). Material type was recorded for all lithic artifacts. In addition, all artifacts were measured and weighed.

Historic artifacts were divided into material and functional categories [*Architectural* (ARC), *Arms and Ammunition* (ARM), *Ceramic* (CER), *Glass* (GLS), *Metal* (MET), *Organic* (ORG), *Other* (OTH), and *Personal* (PER)] for basic analysis. The artifacts were then identified as to specific wares or manufacturing techniques. *Architectural* artifacts generally included any item that was used in the construction of a building such as nails, window glass, brick, cut stone, mortar, plaster, roofing slate, etc. Specifically, nails were recorded as hand-wrought, machine cut with wrought heads, machine cut with machine cut heads, and wire (galvanized and ungalvanized) (Adams 2002; Nelson 1968). Window glass was classified by color and brick was defined as either hand-made or machine-made. The *Arms and Ammunition* category included flints, bullets, bayonets, sabers, mortar shells, etc.

*Ceramics* were subdivided into refined and coarse earthenware, refined and coarse stoneware, porcelain, and semi-porcelain. Decoration, such as applied paint, transfer print, and molding, were also noted, and each fragment was examined to determine specific vessel aspect (i.e., body, base, handle, rim). Specific ware types and manufacture dates were identified using Noel-Hume (1991), South (1977), Bartoviks (1980), Pittman et al. (1987), Greer (1970), and Digital Archaeological Archive of Comparative Slavery (DAACS) (2006). *Glass* included all domestic glass and was catalogued by manufacturing techniques, as well as color, use, attribute, and decoration (Jones and Sullivan 1985; Madden and Hardison 2002). This category was broken down by vessel and bottle glass distinctions to help identify

their possible use without seeing the actual artifact; for example, a piece of glass representing a candy dish versus a wine bottle.

*Metal* is a category and generally includes flat pressed metal or unidentifiable metal fragments. An attempt was made to place other metal items in a functional category to aid in analysis. *Organic* included shell, bone, and any other culturally but naturally occurring object. The *Other* category included items that were not placed into a more specific category, such as ceramic insulators and porcelain toilet fragments. Although these items are technically ceramic, they are placed within the *Other* category because they are not of a specific domestic use like a plate or bowl. *Personal* items consist of buttons, pipe fragments, military accoutrements, jewelry, etc.

All artifacts from this project were curated with the Delaware State Historic Preservation Office (DE SHPO).

## Research Design

This cultural resource survey was conducted with the Delaware Statewide Comprehensive Historic Preservation Plan in mind (Ames et al. 1989; Bedell 2002; Catts and De Cunzo 1999; De Cunzo and Catts 1990; De Cunzo 2004). The state's Historic Preservation Plan identifies six historic periods:

- a. 1630–1730: Exploration and Frontier Settlement
- b. 1730–1770: Intensification and Durable Occupation
- c. 1770–1830: Early Industrialization
- d. 1830–1880: Industrialization and Early Urbanization
- e. 1880–1940: Urbanization and Early Suburbanization
- f. 1940–1960: Suburbanization and Early Ex-urbanization Period

Based on the previously completed predictive model (Baublitz et al. 2006) and Phase IA investigations (Gundy and Kuncio 2009) it appears that the periods dating from 1770 to 1880 are the most relevant based on the occupation history of the project area. Data from the known archaeological sites near the APE suggests that any historic resources identified in the APE would likely date to the late-eighteenth to late-nineteenth centuries and could have the potential to provide new information on changes in agricultural practice in this historically agricultural area of Delaware during the Early Industrialization Period, the Industrialization and Early Urbanization Period, and the corresponding Periods of Transformation from Colony to State (1770–1830) and Industrialization and Capitalization (1830–1880) (De Cunzo and Catts 1990). There also appears to be a somewhat lesser potential for historic sites dating from 1630 to 1730, during the Exploration and Frontier Settlement Period. These previous reports also indicated an ephemeral prehistoric usage of the Spur APE. No definitive prehistoric archaeological sites were identified during these prior investigations, rather isolated point fragments and debitage were the norm.

Dovetail also conducted the survey in light of the Delaware Management Plan for Prehistoric Resources (Custer 1983), which created models for the likely presence of prehistoric sites from various temporal affiliations in various Delaware locations based on the results of

previous work in these areas. The project area is located within the Mid-Peninsular Drainage Divide Management Zone Unit of the Plan. The probability for finding Paleoindian and Archaic Period sites in the Mid-Peninsular Drainage Divide is medium to high based on the relatively high number of previous finds from these periods in this zone. All defined types of Woodland I Period sites have a high probability of occurrence, Woodland II Period sites have a moderate probability and European Contact Period sites have a low probability of occurrence in the Mid-Peninsular management unit. As yet unidentified Woodland I and Woodland II Period sites are considered likely to add valuable additional information (Custer 1983). Since the plan was first published, subsequent local prehistoric archaeological site information indicates that the likelihood of finding sites dating to the Woodland I Periods should be considered high.

The proposed Route 301/Spur corridor passes through an area of central Delaware that is predominantly rural, which historically contained a number of valuable farm properties. Three of the previously recorded historic properties adjacent to the proposed corridor were identified in the mid-1980s as part of a significant trend in the area's residential architecture, and listed on the NRHP as contributing resources to the "Rebuilding of St. Georges Hundred, 1850–1880" (N-9567), including Woodside (N-0427), East Choptank (N-0109) and Gov. Benjamin T. Biggs Farm (N-5123) (Herman et al. 1985). Additional architectural and archaeological resources identified along the project corridor include the J. Biggs House (N-6320), S.C. Biggs/Gov. Benjamin T. Biggs House (N-6190), and Burnham House (N-5151), all three of which were recommended, and subsequently determined to be, not eligible for the NRHP (Calhoun et al. 2011; Frederick et al. 2006b).

In keeping with a development trend outlined in *The Rebuilding of St. Georges Hundred*, several family enclaves dominated the physical landscape within the Spur project corridor during the late-eighteenth, nineteenth, and into the early-twentieth century. These enclaves and their geographical concentration along the project corridor can be generally sorted into northern, central, and southern groupings. The northern section in Pencader Hundred (containing Areas 2A, 2B, 2C, 4, 5, and 7) was long occupied by the Biggs and Ellison families. The central portion of the corridor impacts farmland once owned by the Houstons and several generations of Claytons in St. Georges Hundred (containing Areas 9B, 9C, 9E, 9F, 10B, 10C, and 11). Land belonging to the Claytons continues into the southern portion of the corridor, also located within St. Georges Hundred, as well as property held by members of the Naudain and Burnham families throughout much of the nineteenth century (containing Areas 14 and 15).

# CULTURAL CONTEXT

## Prehistoric Context

There are five general, chronological periods of Native American cultures of the Delmarva Peninsula defined by Custer (1984, 1986): Paleoindian (15,000–8500 B.P.), Archaic (8500–5000 B.P.), Woodland I (5000–1000 B.P.), Woodland II (1000 B.P.–AD 1650), and the Contact Period (AD 1650–1750).

### *Paleoindian Period (15,000–8500 B.P.)*

The Paleoindian Period marks the retreating of glacial conditions and the beginning of a Holocene environment that is characterized by cold temperatures and alternating periods of wet and dry climate. Human adaptation to these environmental conditions developed into small groups of nomadic Native American hunters and gatherers. Although direct archaeological evidence of non-mammalian food resources consumed by Paleoindian peoples is lacking in Delaware, paleoenvironmental data suggests that the period comprised deciduous, boreal, and grassland biomes. These environs would have provided grazing, browsing, and shelter for animals and provided foraging opportunities. Primarily, Paleoindian Period toolkits were designed for game procurement and processing. They include projectile points, hafted and unhafted knives, scrapers, and less-formalized flake tools. The fluted point is the early diagnostic hallmark of this period (Clovis, Mid-Paleo, and Dalton). Later point forms of the period were notched and often serrated (Palmer, Amos, Kirk). Toolkits often displayed high degrees of maintenance and reworking, which is consistent with nomadic lifestyles and migration between lithic raw material sources. Custer (1989) has identified Paleoindian sites along the Mid-Peninsular Drainage Divide of the Delmarva Peninsula, with the Hughes Complex in Kent County exemplifying their distributional pattern (Custer 1984).

### *Archaic Period (8500–5000 B.P.)*

The Archaic began with the northward retreat of periglacial environments and the appearance of archaeological assemblages lacking fluted points. In addition, in contrast with the broad similarity among Paleoindian point forms, distinct style zones developed during the Early and Middle Archaic (10,000–8500 B.P.). The Atlantic Coast/Southeastern stylistic sequence was not characteristic of the Midwest (Ford 1974:392). In addition, increased use of locally-available lithics occurred between 10,000 and 8500 B.P. (Custer 1990:36; Sassaman et al. 1988:85–88). The reduction of the size of style zones and the focus on local lithic materials implies contracting social networks and incipient territories, possibly a reaction to population growth (Anderson and Hanson 1988:271).

The Archaic Period is characterized by the emergence of full Holocene environmental conditions and a landscape that was dominated by mesic oak and hemlock forests. These forests attracted smaller game, such as deer and turkey, which replaced the cold-adapted grazing animal species, like bison antiquus and caribou, which became extinct (Custer 1984). A rise in sea level caused lowland flooding and the formation of river systems and swamp

areas within the Mid-Peninsular Drainage Divide. The Native American peoples shifted from a more hunting-based pattern (Paleoindian Period) to one where plants became a more important food source (Custer 1989:128). A fission-fusion model of social organization produced macro- and micro-base camps and procurement camps, with group sizes changing in response to the availability of resources each season (Custer 1989:129–130). Archaic toolkits include a number of tools indicative of plant food processing, grinding stones, netsinkers, and stone mortars. Archaic sites in the Delaware include several sites within the Churchman's Marsh vicinity.

Despite changes in patterns of mobility and point form, numerous archaeologists argue on environmental (Custer 1990:2–8) and subsistence (Smith 1986) grounds for continuity in social dynamics between 8000 and 4000 B.P. From this point of view, Dalton through LeCroy populations exhibit "general similarities and regional habitat-related variation in settlement-subsistence patterns and material culture assemblages" (Smith 1986:10). Band-level social organization involving seasonal movements corresponding to the seasonal availability of resources and, in some instances, shorter-interval movement characterized Archaic societies.

Reliance on ground-stone technology increased during the Archaic Period. New tool categories associated with the Archaic include celts, net sinkers, pestles, pecked stones, and axes. Archaic knappers produced chipped-stone versions of celts and axes and, near the end of the Late Archaic, labor-intensive vessels carved from soapstone quarried in the Piedmont formed an important segment of assemblages (Custer 1989; McLearn 1991).

### ***Woodland I (5000 B.P.–1000 B.P.)***

The Woodland I Period is marked by a pronounced warm and dry period, and dramatic changes in local environments and climate. Sea level rise slowed, allowing stabilization of riverine and estuarine areas, which in turn led to an increase in aquatic resources. This led to a higher degree of sedentism by the Woodland I peoples who began establishing large macro-band base camps with evidence of use year-round (Custer 1989). Storage pits and evidence of house structures are found at these sites for the first time. Increased social complexity is also evident during this period in the form of grave goods indicating complex mortuary ceremonies beginning around 2500 B.P. The Woodland I Period is also marked by stemmed, broad-bladed, and fishtail points, as well as an increased use of rhyolite and argillite. Ceramics replaced steatite bowls around 3000 B.P. (Custer 1984). The Delmarva Adena Complex appeared in central Delaware while the Black Rock Complex (formerly the Wolfe Neck) was present in New Castle County. Components from the Black Rock Complex are found at Clyde Farm Complex sites. These two complexes seem to have ended by 2000 B.P., and the Carey Complex appears followed by the Delaware Park Complex by 1500 B.P. (Custer 1989:253).

### ***Woodland II (1000 B.P.–350 B.P.)***

The Woodland II Period is generally marked by more intensive use of plant foods in the Middle Atlantic region and a shift to a more sedentary lifestyle and the development of an

agricultural system. However, this shift to more of an agricultural system is absent in the Delmarva Peninsula (Custer 1989). There are two Woodland II complexes identified in Delaware: the Slaughter Creek Complex and Minguannan Complex. Artifacts include thin-walled Minguannan ceramics and triangular projectile points. The sites of the complexes are in the same environmental contexts as those of the Woodland I Period, oriented in marshes and wetland areas. This indicates that there were no major changes in the lifestyles of the peoples in Delaware during this time period (Custer 1989:314).

### ***Contact Period (AD 1650–1750)***

The Contact Period is marked by the initial contact between the Native American peoples of Delaware and European colonists. This was followed by the collapse of traditional native lifeways, as European goods and practices were adopted, and disease and conflict over the fur trade caused a severe loss of life among native groups. Evidence indicates that resident native populations in Delaware had minimal interaction with European settlers and were prevented from interacting with them by the Susquehannocks of southern Lancaster County, Pennsylvania, who dominated the fur trade. The Susquehannocks were exterminated by the Europeans by 1763, and the groups of refugees formed what Custer calls “Refugee Complexes” (Custer 1986:315; Kent 1989).

## **Historic Context**

In accordance with Delaware Comprehensive Preservation Plan (Ames et al. 1989), the history of Delaware is generally divided into six time periods beginning with the exploration of the area by numerous European peoples in North America and extending more than three centuries to encompass recent development trends in suburbanization and the policies that have shaped the landscape during the latter-half of the twentieth century. These periods are: Exploration and Frontier Settlement (1630–1730), Intensified and Durable Occupation (1730–1770), Transformation from Colony to State (1770–1830), Industrialization and Capitalization (1830–1880), Urbanization and Early Suburbanization (1880–1940), and Suburbanization and Ex-Urbanization (1940–1960).

### ***Exploration and Frontier Settlement (1630–1730)***

The first European to explore the Delaware River was Henry Hudson in 1609, yet it was the Dutch West India Company who sent the first settlers to the area, established settlements at High Island in 1624 and Lewes in 1631, and opened the region for colonization (Weslager 1961:11). By 1632, conflict with the Native American population forced the settlements to be abandoned. In 1638, after “purchasing” land from the Native Americans, Swedish colonists established settlements on the banks of the Delaware River from Cape Henlopen to modern Trenton with the center of the colony being Fort Christiana. Fort Christiana, was located near present-day Wilmington and was the first permanent settlement in the state (Rummel, Klepper, & Kahl [RK&K] 1993:IV-8). Also known as Christianaham, this colony originally contained 25 Swedish and Finnish settlers who built a small fort with a cluster of houses and cultivated fields along the Christiana River (LeeDecker et al. 2011:17).

Though Swedish and Finnish immigrants settled much of the region, the Dutch West India Company laid claim to the entire coastline from New York to the Chesapeake Bay and, in 1651, they established Fort Casimir at the site of present-day New Castle. After a military struggle, the Dutch captured Fort Christina in 1655 and allowed it to fall into ruin, but encouraged continued settlement of the region by Dutch, Swedish, and Finnish colonists (LeeDecker et al. 2011:17). In 1664, Sir Robert Carr, acting on behalf of the Duke of York and Albany, confiscated the lands, houses, and property of Dutch officials in the Delaware Valley region and transferred authority of the Dutch colonies to England. Soon after England obtained possession of the country, political officials sought to develop it by awarding a number of land grants in northern New Castle County and further inland from the Delaware River.

Historically, much of the land in the Spur project area was granted to Augustine Herman in the mid-seventeenth century as part of “St. Augustine Manor”—a large tract of land that stretched from the Delaware River west to the Choptank Road (Scharf 1888:991). Herman also owned the neighboring “Bohemia Manor,” a sizable tract of land that stretched further south and west from the Choptank Road into the Eastern Shore of Maryland. During the eighteenth century, large tracts within the project corridor were owned by Herman’s descendants, as well as those of the Labadists, an early group of religious settlers who purchased property from Augustine Herman in the late 1600s. Throughout the eighteenth century, large landed estates in the region were routinely divided and developed into a number of smaller farming properties.

Settlement patterns shifted from closely spaced Dutch and Swedish villages along the Delaware River and its estuaries to scattered farmsteads along internal drainages and emerging roadways. Transportation routes in this era were dictated by natural waterways, as water transportation provided a cheaper, more efficient method of transporting goods (DeCunzo and Catts 1990:30–35). Few overland paths and roadways connected villages along the waterways. European settlers valued the marshlands around the Delaware Bay for the access they provided to navigable waters, but also for the wildlife they harbored including fowl, fish, and small game (Fisher et al. 193:2). Although trade limitations prevented commercial sales of these commodities, fur trading and fishing for domestic trade occurred regularly. The ports of Philadelphia, Wilmington, and New Castle grew steadily and had a large commercial role in the growth of Delaware. Early enterprising settlers established lumber and grist mills along navigable waterways, particularly in northern portions of New Castle County; however, the most common activities in the area remained clearing forest, cultivating land, along with hunting, trapping, and trading (Dixon 1992:13).

Continued settlement and population growth in northeastern Maryland, southeastern Pennsylvania, and northern Delaware fueled agricultural activities and development of the hinterlands, and reinforced the economic growth of the region’s ports. In 1692, William Penn received title to the three “Lower Counties” of Delaware: New Castle, Kent, and Sussex. Shortly after this exchange, colonists in Delaware found themselves in disagreement with those in the Pennsylvania colony over matters of governance, voting power, appropriations, and religious character. This led to the counties breaking away and the creation of the new colony of Delaware in 1704 (Munroe 1984).

### ***Intensified and Durable Occupation (1730–1770)***

In 1731, the first permanent settlement of Wilmington began when Thomas Willing bought land between the Christina and Brandywine Rivers and laid out the town's grid. By 1736, 30 houses reportedly occupied this high ground around the Fall Zone between Piedmont and Coastal Plain zones (LeeDecker et al. 2011:17). Initially known as "Wilmington," the community's location on a natural harbor, navigable waterways, and established overland transportation routes supported its commercial growth.

The Spur project corridor traverses a rural area that is crossed by several historic transportation corridors in the western half of St. Georges Hundred and southern end of Pencader Hundred. Extant early roadways in the project area include the Choptank Road, the Bohemia or Great Manor Road (Bethel Church Road today), and the current Route 301, which follows much of the upper King's Highway that leads from Middletown to Summit Bridge. The upper King's Highway, also known as the upper King's Road, was laid out in the 1760s, but has been noted as following the path of the "Maryland Rode" in a 1703 resurvey of a tract near Summit Bridge (Wilkins and Quick 1976:45). In his two-volume work, *History of Delaware*, John Thomas Scharf (1888:991) referred to the Choptank Road as marking the eastern boundary of Bohemia Manor, and being a "very old road" in the late-nineteenth century. Archival research suggests that other early roadways, including Herman's Cart Road and the Old Reedy Island Road, have largely disappeared from today's landscape although traces of these pathways may still be found below ground.

Land within the project corridor has largely served agricultural purposes since the eighteenth century. The area's early inland transportation corridors aided the growth and development of agricultural properties in the Spur project corridor. Beginning in the latter-half of the eighteenth century, the area was increasingly developed by tenant farmers who cleared land and built farmsteads, while paying rent to a growing number of absentee landlords. These property owners were usually families from adjacent hundreds buying and developing land further inland (Gundy and Kuncio 2009:40).

Most of the state's residents were farmers with 80 to 90 percent reported to be engaged in agriculture during this period (Egnal 1975:201). Many large estates and land grant parcels were divided, creating new farm properties centered on supplying the market-driven agricultural economy (Frederick et al. 2006a:56). Lands reserved as forests or marshes were cleared and incorporated into the crop cycle as the need for more cropland increased. Wheat was the primary crop produced by area farmers, followed by rye, corn, barley, oats, and a variety of vegetables (Main 1973). Livestock supplemented farmers' income from surplus crops as an increased need for labor was filled by indentured servants and slaves (Frederick et al. 2006a:56).

Milling operations prospered in response to the abundance of wheat produced in the area and led to the establishment of other industries in Wilmington, including shipbuilding, coopering, and import/export trading. Increased commercial activity fostered the growth of port towns along the region's waterways. These communities "housed ship builders, captains and their crew members, fishermen, trappers, hunters and various occupations associated with a prosperous town," including merchants, store keepers, physicians, cobblers, and others in

consumer goods (Fisher et al. 1993:2). As place of both receiving and shipping goods, river towns also became centers for processing, exchange, and storage (RK&K 1993:IV-11).

Near the north end of the Spur corridor is the community of Summit Bridge, historically referred to as “the Buck,” and developed around the intersection of the upper King’s Highway (Route 301) and the Great Manor Road (Bethel Church Road) at the head of St. George’s Creek. As early as 1715, records note the presence of a tavern at “the Buck”, an area on the south side of St. Georges Creek that later became known as Jesterville and, subsequently, Summit Bridge (Wilkins and Quick 1976:47).

### ***Early Industrialization/Transformation from Colony to State (1770–1830)***

By the late-eighteenth century, area farmers began to suffer the effects of exhaustive agriculture with decreased soil fertility and erosion in northern Delaware. Virgin soils and large land grants on the nation’s frontier challenged the region’s agricultural economy. To fight these problems and improve area agriculture, the farmers of New Castle County established the state’s first agricultural society in 1804 (Frederick et al. 2006a:59).

Throughout this period, improved milling technology and increased diversity of manufacturing operations around Wilmington characterized the region’s industrial development (Dixon 1992:18). Oliver Evans, a wheelwright by trade, invented the “automatic foul mill” when he compiled a number of machines to automate the grinding process, enabling a significant expansion in its production (Dixon 1992:21). Born in the river town of Newport, Evans’ invention was soon picked up by prominent millers in the region, and adapted to suit other areas of industry.

The American Revolution brought disarray to the region, and social and political unrest in Delaware further heightened an already tense atmosphere. Strong family and political ties to Pennsylvania and a mercantile economic system resulted in support for the Revolutionaries (Hunter et al. 1995:4-7). Though only one Revolutionary War battle was fought in Delaware at Cooch’s Bridge in 1777, British troops occupied Wilmington after the Battle of Brandywine for a time, and threatened the state capital at New Castle. The capital was soon transferred to Dover—a move that became permanent in 1781.

The War of 1812 similarly avoided the state, but its economic impacts were felt in a series of embargoes negatively affecting trade and increased economic competition from new lands in the West. Meanwhile, manufacturing and commerce prospered as the state’s population increased. Textiles, paper, snuff, rope, gunpowder, and iron were all produced in New Castle County (Coxe 1814).

Overland transportation routes were also constructed at this time and improved to accommodate increased numbers of travelers and trade. The economic depression of 1819, brought on by low prices for wheat and other grains, further decreased the value of agricultural land and crops across the state. During this period, the most successful agrarians became part of central Delaware’s rural elite farming class, and diversified their interests by purchasing urban properties, investing in banks and manufacturing facilities, and supporting the growth of transportation networks (Siders et al. 1991).

One new type of transportation network developed in America during this era was the canal. Plans to construct a canal through central Delaware were initiated in the late-eighteenth century, though construction did not begin until the early 1820s. The Chesapeake and Delaware Canal (C&D Canal) opened to traffic in 1829 and connected the Chesapeake Bay with the Delaware River to provide improved market access for the region's farmers (Frederick et al. 2006a:62). However, the new canal also got the attention of industrialists and companies looking to expanded steamboat service in the area.

Construction of a long wooden bridge across the highest point of the C&D canal propelled growth around what had been known as "the Buck" and helped give it a new moniker: Summit Bridge. In 1825, a post office was established in the community, and by 1827, the town of Summit Bridge was officially incorporated (Frederick et al. 2006a:71). The Buck Tavern continued to be listed on historic maps into the mid-nineteenth century, including Henry Heald's 1820 map of New Castle County roads (Figure 12).



Figure 12: Henry Heald's 1820 "Map of New Castle County Roads" (On File at the Historical Society of Delaware). The Buck Tavern is highlighted within the black circle.

Many of the surrounding farm properties were repeatedly owned by the same families operating the Buck Tavern during much of the eighteenth and early-nineteenth century. In the late 1700s, the Buck Tavern was operated by John Hyatt and listed as "Bird's Tavern," perhaps for its close proximity to an area historically known as Bird's Landing where commercial access to St. George's Creek could be obtained (Wilkins and Quick 1976:30). The Buck Tavern continued to be listed on historic maps into the mid-nineteenth century, including Henry Heald's 1820 map of New Castle County roads and Price and Rea's map of 1849. However, an archaeological investigation and subsequent publication entitled, "The House on Kerby Tract," noted that tavern was demolished in the mid-twentieth century (Wilkins and Quick 1976). According to the Delaware State Parks website, in 1821 a brick Federal-style house was built to replace an earlier frame building that was also known as

Buck Tavern (Delaware State Parks 2014). In the 1960s when the canal was expanded the masonry house was moved to Lum's Pond State Park, where it still resides (Photo 1, p. 34). In the 1820s, a prosperous farmer named James T. Bird operated a large farm adjacent to the waterway and drove teams of livestock up and down the C&D Canal (Scharf 1888:984).



Photo 1: View of Restored Buck Tavern, Located in Lums Pond State Park.

### ***Industrialization and Capitalization (1830–1880)***

In northern Delaware, the Industrial Revolution led to significant advances in transportation, urbanization, and industrialization. The state's first railroad, the New Castle and Frenchtown, was completed in the early 1830s and was soon followed by the Philadelphia, Wilmington & Baltimore (PW&B) in 1837. Although the Delaware Railroad Company initially incorporated in 1836, construction on its rail lines did not begin until 1852 (Coverdale and Colpitts 1946:356). Running south from a point just southwest of Wilmington, the Delaware Railroad passed through St. George's Hundred and the Spur project area on the way to Dover and continued further south to Delmar at the state line. Funding for this smaller rail line was secured from the PW&B, and it was leased back to this larger company for decades afterwards (Coverdale and Colpitts 1946:354).

These railroads, the newly constructed C&D Canal, and the continued construction of turnpikes and overland transportation routes gave farmers and merchants increased opportunity to ship their products to markets in the eastern urban areas and abroad. As eastern urban centers grew and farming techniques improved, agriculture in Delaware expanded to include the production of perishable dairy goods, fruits, and vegetables for these markets (Herman et al. 1985). Railroads also enabled growth of the dairying industry in this period with New Castle County farmers increasing their production of both butter and milk for urban markets in this period (Frederick et al. 2006a:67).

News of more scientific methods of farming and new machinery increased yields and further supported the economic boom to farmers in the state at this time. In keeping with a

development trend outlined in *The Rebuilding of St. Georges Hundred*, several family enclaves dominated the physical landscape within the Spur project corridor during the late-eighteenth, nineteenth, and into the early-twentieth century (Figure 13, p. 36). The average size of farms in St George's Hundred prior to the Civil War was 210 acres (85 ha) with about 88 percent of this land classified as improved (Frederick et al. 2006a:66). By 1880, the average size had fallen to 188 acres (77 ha) while the average amount of improved land had grown to 91 percent (Frederick et al. 2006a:66). Both of these statistics were above the national average of 203 acres (82 ha) and 134 acres (54 ha) in 1850 and 1880, respectively (USDA 2013). As Delaware's agrarians expanded operations in this period, the practice of farm tenancy continued to be a popular mechanism for managing area farms. The use of day laborers also aided farmers in meeting the seasonal labor needs of their property (Frederick et al. 2006a:68).

Wilmington remained an important commercial and manufacturing hub for the state. Work drew people to the city and Wilmington's population grew from over 8,000 residents in 1840 to 21,258 in 1860, and reached 42,478 by 1880 (Dixon 1992:29). Shipbuilding and associated mercantile trades remained an important sector of area industry, with numerous firms locating and expanding operations along the Christina River waterfront (Dixon 1992:32). The state's boom in agricultural production also spawned a number of industrial canneries in southern New Castle County, primarily along existing railroads. One cannery was located along the Delaware Railroad at Armstrong's Corner, a community just east of the Spur corridor, and operated by a Baltimore businessman (Frederick et al. 2006a:74).

Delaware was not physically impacted by military conflict during the Civil War, but played an important role in the effort for the Union. As a strong industrial center, Wilmington's economy flourished in the production of railroad cars, ships, gunpowder, tents, clothing, shoes and other materials during the war (City of Wilmington 2003:1). This prosperity continued after the conflict, as more and more Delawareans traveled to and from the City for business and pleasure. In 1877, passenger service along the Delaware Railroad was increased and a new passenger stations was constructed in Mt. Pleasant, a small crossroads community just east of the project corridor that prospered during this period (Coverdale and Colpitts 1946:357).

### ***Urbanization and Suburbanization (1880–1940)***

The state's industrialization, post-war prosperity, and increasing population in the late-nineteenth and early-twentieth century led to an urban expansion as immigrants from Eastern and Central Europe settled in Delaware cities and towns. Nearly 70 percent of New Castle County's population in the early 1900s lived in Wilmington (Kellogg 1990:32). Reflecting a larger trend in population across the country, more people resided in the cities than ever, aided by increased transportation opportunities and the automobile age. Construction of T. Colman DuPont's concrete highway in 1923, also known as US Route 13, allowed residents and visitors to traverse the state more easily. Open to traffic by 1924, this roadway stretched from Wilmington, at the north end of the state, to the Delaware-Maryland state line at the south (Frederick et al. 2006a:79).

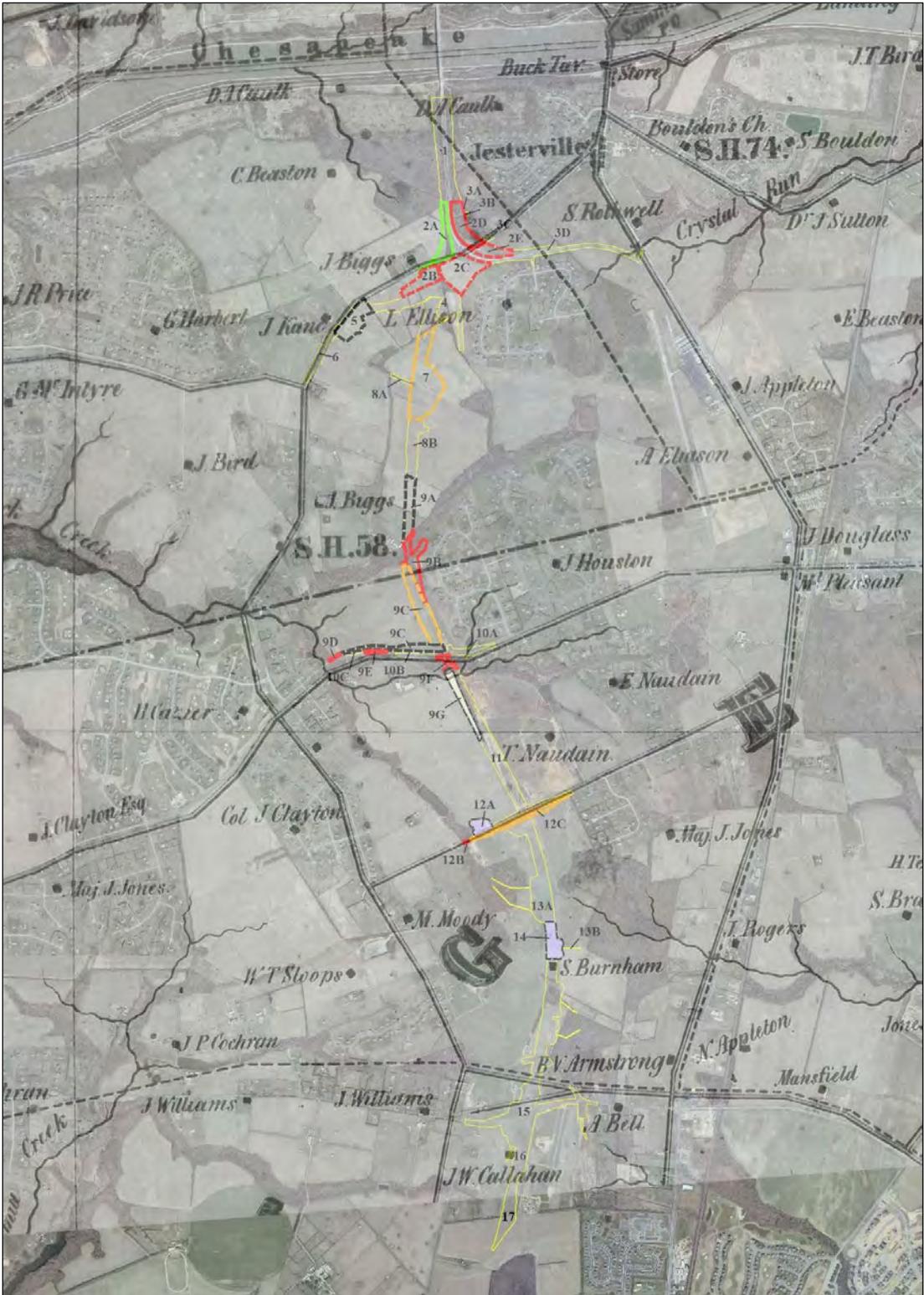


Figure 13: Geo-referenced 1849 Price and Rea Map of New Castle County, Detail of Pencader and St George’s Hundreds, and Proposed Route 301/Spur Project Corridor (Price and Rea 1849).

Urban growth spread out from Wilmington, encroaching on surrounding farmland. By the end of this period, the pattern and density of settlement in Delaware had developed into suburban clusters at the edges of urban communities and in close proximity to highways (Frederick et al. 2006a:80). Scattered commercial development grew in response to residents' increased reliance on the automobile, particularly along well-traveled highways, resulting in the construction of gas stations, motels, diners, and roadside stands across the state.

Transportation improvements and manufacturing growth during this period encouraged farmers to industrialize as increased mechanization began to fill a growing labor shortage. Agriculture in the state continued to be diverse, though rising urban populations fostered growth in the number of dairy, poultry, and truck farming operations (Frederick et al. 2006a:77). However, a series of financial crises and economic depressions in the late-nineteenth century greatly affected Delaware's smaller farmers. Beginning in the 1870s, intensive agriculture and crop production throughout the state started to decline as agricultural markets began to shift to the Midwest (Fisher et al. 1993:90).

Many area farmers were lured away from agriculture by jobs in the urban areas, but those that remained on the land benefited from government programs supporting agriculture in the 1930s and 1940s. Dairying became particularly popular in the early-twentieth century as more farmers sent their farm products along the railroads to urban markets. Commercial dairying in the project corridor resulted in the establishment of a milk station and large granary in Mt. Pleasant at this time (Frederick et al. 2006a:77). By the end of the period, many large farms had become corporations producing goods specifically for markets in Philadelphia, New York, Baltimore, and other urban areas.

### ***Suburbanization and Early Ex-urbanization Period (1940–1960)***

Efforts to improve the country's economy during World War II aided ailing commercial and industrial operations in the state, and revived a number of Wilmington's shipbuilding firms (LeeDecker et al. 2011:27). However, the city's industrial resurgence was short lived, as many of the most-active wartime producers permanently closed after the conflict ended. Industry shifted to the production of chemicals and automobiles, but the new factories were constructed outside the city center; DuPont constructing plants at Newport and Edgemoor, while General Motors built a factory near Elsmere (LeeDecker et al. 2011:28).

After World War II, suburban and commercial development spread across New Castle County, altering the land use patterns and landscape of the region. Though technological improvements and increased use of pesticides and chemical fertilizers increased farmers' production levels, less land was required to meet demand and fewer people returned to work in the state's agricultural sector after the war was over. Suburban growth and increasing operational costs encouraged many farmers to sell their land to development companies (Frederick et al. 2006a:85).

In St. George's Hundred, those farm families that continued to work the land generally specialized primarily in dairying, grain, and truck farming operations. The increased use of tractors, hybrid crops, fertilizers and other chemicals increased yields and permitted larger

tracts of land to be cultivated (Frederick et al. 2006a:85). Improvements to area roadways in this period brought farmers' goods to market with greater speed and encouraged greater use of vehicular transportation in Delaware's rural environs.

### ***Recent History (1960–present)***

Planned suburban communities spread as improved roadways and lower property taxes encouraged residential development in the more rural areas of Delaware. Significant transportation developments include the improvement of existing transportation corridors as well as the construction of Interstate highways to provide faster travel routes across the state. In the 1950s improvements to Summit Bridge Road (also known as State Route 71) straightened and widened portions of the roadway, and the road became part of Route 301 in 1959 (Frederick et al. 2006a:87).

During the latter half of the twentieth century, the nation's railroads entered into a steep decline. Many companies merged and consolidated their holdings, and abandoned underused rail lines. In 1968, the Pennsylvania Railroad Company merged with New York Central to create Penn Central, but continued economic issues forced the company to declare bankruptcy in the mid-1970s. Passenger service between Wilmington and Delmar along the Delaware Railroad ended in 1965 (Frederick et al. 2006a:86).

Waterways continued to play an important role in the state's economy in recent decades. In 1981, the Army Corps of Engineers enlarged the C&D Canal to accommodate large cargo ships, ensuring the viability of this transportation corridor into the twenty-first century (Frederick et al. 2006a:87). Developments in aviation also impacted the area. In 1960, a company known as Summit Aviation, Inc., led by Richard "Kip" DuPont, Jr., leased a private airfield constructed on a 209-acre (85-ha) farm owned by Frank Baker in the 1950s. Located approximately six miles (9.6 km) north of Middletown, Summit Airpark currently contains 540 acres (219 ha) of land and a physical plant dedicated to the inspection and repair of aircraft (Frederick et al. 2006a:88).

In areas around the project corridor where subdivisions have not yet developed, large-scale agriculture and some hobby farming continues in the western half of St. George's Hundred. Intensive agriculture produces crops such as soybeans, corn, barely, and wheat that are sold in bulk to large agri-business (Frederick et al. 2006a:85). Several smaller-sized, hobby farms in the area contain equine facilities for riding, training, and breeding horses (Frederick et al. 2006a:85).

## **PROJECT RESULTS**

Dovetail conducted a Phase IB archaeological survey along the U.S. Route 301 Spur (Contracts 4A, 4B and 4C), for DelDOT. The entire Spur LOC, including the main roadway and all additional side roads, borrow pits, ponds, etc., comprises 265 acres (107.2 ha). The entire corridor was divided into 17 areas. Several of these segments were subdivided into smaller subareas due to size or geographic boundaries. As such, a total of 36 areas and subareas were defined within the corridor. Of this number, 16 of these 36 areas/subareas were subjected to archaeological investigation.

A total of 1,173 artifacts was recovered from surface collection, shovel testing, and test unit excavation during the Phase IB investigation. Of this total, 5.1 percent (n=60) were prehistoric and 94.9 percent (n=1,113) were historic. In total, five new archaeological sites were identified, of which one is prehistoric, two are historic and two are multicomponent. In addition, 18 isolated artifact occurrences were identified and 11 historic field scatters were recorded. These results are presented in Table 6 (p. 40) and Figure 14 (p. 41), and are discussed by the project area in which they were found in the report sections below. Area specific historic/archival research is also presented for relevant archaeological project areas.

### **Areas 1, 3, 4, 6, 8, 10, 11, 13, 15, 16, and 17**

Areas 1, 3, 4, 6, 8, 10, 11, 13, 15, 16, and 17 were all areas determined to have nil to low probability for prehistoric or historic archaeological resources, exhibit disturbance, or have been previously surveyed, thus no additional work was conducted in these areas. Combined these areas encompass 164.3 acres (66.5 ha) or 62 percent of the total Spur APE. As no archaeological work was completed in these areas, they will not be discussed further in this report.

### **Area 2**

Area 2 consists of the portion of the APE that was subjected to archaeological testing within the “Fix the Curve” segment (Contract 4A) of the Spur alignment. Tested portions of the APE include Areas 2A, 2B, 2C, 2D, and 2E, and combined these areas encompass 30.7 acres (12.4 ha). The results from these individual areas are summarized in the following sections.

#### ***Historic Context***

##### ***Areas 2A, 2B, and 2D (Biggs Family)***

Within the northern section of the corridor, Areas 2A, 2B, and 2D were long associated with the Biggs family. In 1823 John Biggs first purchased 90 acres (36.4 ha) of land previously occupied by Thomas Smyth (New Castle County Deed Book [NCCDB] C4:441). In the eighteenth century, much of this land was part of Green’s Mannor and was repeatedly leased to tenants in the second half of the 1700s (Frederick et al. 2006b). Much of this farm

remained in the Biggs' family from 1823 until 1976, going by the names of "Biggs Homestead" and "Locust Grove Farm" at various points in the twentieth century.

Table 6: Summary of Archaeological Results.

Area	Site Number	ISF Number	Type
2A	7NC-F-167 (N-14,545)	N/A	1. Historic Site-Farm Complex (Biggs Family) 2. Field Scatter (Biggs Family)
2B	7NC-F-168 (N-14,546)	N/A	1. Multicomponent Site-Farm Complex and 16 Prehistoric Artifacts 2. Field Scatter (Biggs Family)
2C	7NC-F-169 (N-14,547)	ISF-5 (2C-8) ISF-6 (2C-9) ISF-7 (2C-12) ISF-8 (2C-37) ISF-9 (2C-1)	1. Multicomponent Site-Farm Complex (Ellison Family) and Nine Prehistoric Artifacts 2. Five Prehistoric Isolated Finds 3. Field Scatter (Ellison Family)
2D	N/A	N/A	Field Scatter (Biggs Family)
2E	N/A	ISF-10 (2E-1) ISF-11 (2E-6) ISF-12 (2E-14) ISF-13 (2E-15) ISF-14 (2E-25)	1. Field Scatter (Ellison Family) 2. Five Prehistoric Isolated Finds
5	N/A	ISF-15 (5-18)	1. Field Scatter (Biggs Family) 2. One Prehistoric Isolated Find
7	7NC-F-170 (N-14,548)	N/A	1. Prehistoric Site (7 artifacts) 2. Field Scatter (Biggs Family)
9A	N/A	ISF-16 (9A-1)	1. Historic Isolated Find (Biggs Family)
9B	7NC-F-171 (N-14,549)	ISF-23 (N1750, E850)	1. Historic Site, Early Nineteenth Century, Possible Mill or other Industrial Locale
9C	N/A	ISF-17 (9C-20) ISF-18 (9C-5, 9C-6) ISF-19 (9C-8) ISF-20 (9C-10, 9C-11) ISF-21 (9C-17) ISF-22 (9C-18)	1. Field Scatter (H. Clayton) 2. One Historic Isolated Find 3. Five Prehistoric Isolated Finds
9D	N/A	N/A	No artifacts
9E	N/A	N/A	No artifacts
9F	N/A	N/A	No artifacts
9G	N/A	N/A	No artifacts
12A	N/A	N/A	Field Scatter (H. Clayton)
12B	N/A	N/A	Artifacts Located within Modern Road/Driveway Disturbance
12C	N/A	N/A	Artifacts Located within Modern Road/Driveway Disturbance
14	N/A	N/A	Field Scatter (Burnham Family)

The main house associated with this farm is a log and frame dwelling that appears on the map of 1849 under the name of J. Biggs (Price and Rea 1849). Earlier investigations of this property have suggested that this dwelling, known as J. Biggs House (N-6320), was constructed in the late-eighteen or early-nineteenth century, prior to John Biggs tenure. Although John Biggs may have resided at this property for a time, it is said that he relocated around 1846 to a newly constructed, two-story, brick dwelling on another farm property situated just southeast on the Choptank Road (N-5123) (Frederick et al. 2006b). After John Biggs died in 1860, his estate was separated into three individual farm properties and divided between his children (Figure 15).

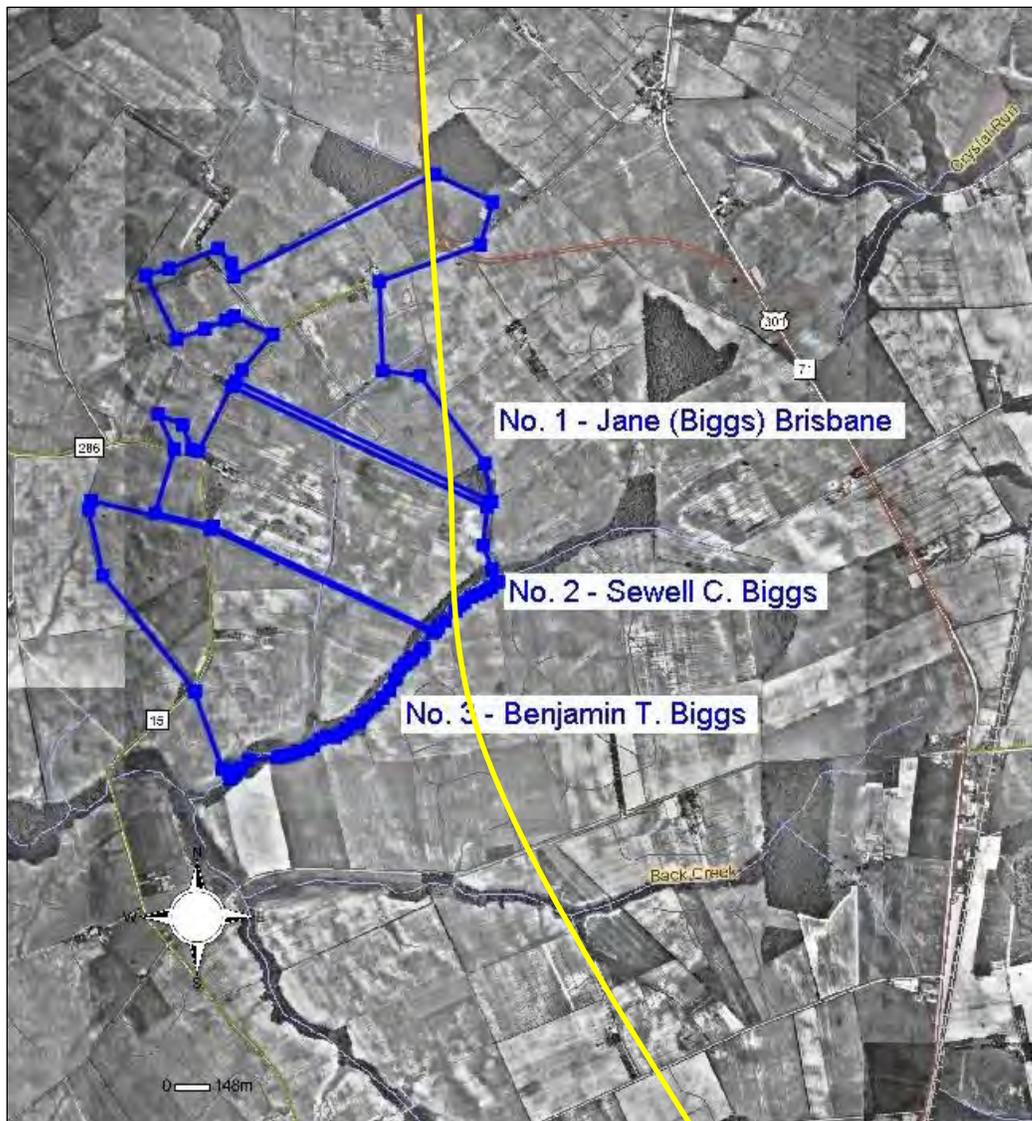


Figure 15: 1937 Aerial Image (CHRIS) with Current Roads and Waterways, and Parcels One, Two and Three of John Biggs' Estate, Circa 1862, Plotted in Blue (Dovetail 2012). Approximate Spur location shown in yellow.

A 212-acre (85.8-ha) farm containing the land within Areas 2A, 2B, and 2D was allotted to his daughter, Jane E. (Biggs) Brisbane (NCCDB P7:279). In the decade following her inheritance, Brisbane sold smaller pieces of the property to neighboring landowners, including 24 acres (9.7 ha) to John Kane (adjacent neighbor on the west end of Brisbane's farm) and 20 perches (0.05 ha) to Charles Beaston (adjacent neighbor on the north side). In 1874, Jane sold a 0.5-acre (0.2-ha) lot at the far eastern end of her farm to Wesley Lloyd, identified as an African American farm laborer and fence maker in Federal Census records (Ancestry.com [Ancestry]).

The original Biggs' house, located on Jane E. Brisbane's portion of her father's estate, was also depicted on the Pomeroy and Beers map of 1868, and accompanied by a second dwelling located northeast of the primary dwelling along the Bethel Church Road (Figure 16, p. 44). Despite the presence of two separate houses, Federal Census records and property deeds indicate that Mrs. Brisbane did not live in either dwelling. Brisbane resided in the City of Philadelphia for the duration of her ownership from 1862 until 1880 when she sold the remaining 187 acres (75.7 ha) to her sister-in-law, Caroline Biggs (NCCDB P7:279, W11:74). Caroline, and her husband, Sewell. C. Biggs, continued to rent the farm, living primarily at the Benjamin T. Biggs/Sewell C. Biggs House (N-6190).

As a tenant farm in Pencader Hundred it is difficult to retrieve much information on the actual occupants of the Biggs/Brisbane property. However, a fair amount of historical data has been preserved from the Biggs family, including a farm account book belonging to Sewell C. Biggs that is on file at the Historical Society of Delaware. *S. C. Bigg's Farm Account Book* contains records from 1881–1894, and details activities on the Brisbane farm, as well as two other farm properties under Sewell Biggs' management at that time. This resource suggests that Perry Lockerman, a Mulatto farm laborer, rented at least one of the houses on the Brisbane property near the turn of the century (Biggs 1881).

### *Areas 2C and 2E*

On the south side of Bethel Church Road, Areas 2C and 2E contains land that was long held by members of Curtis B. Ellison's family, beginning in 1833 with the purchase of nearly 700 acres (283.3 ha), divided into two separate tracts (NCCDB Q4:409). These two tracts, one containing approximately 295 acres (119.4 ha) and the other nearly 400 acres (161.9 ha), were separated by a branch of the Back Creek (Figure 17, p. 45). The larger tract, situated on the south side of the branch, straddled the line between Pencader and St. Georges Hundreds. In the late-eighteenth and early-nineteenth century, this land belonged to Robert Haughey, a descendant of Augustine Herman, with interest in one-eighths share of St. Augustine Manor (NCCDB D2:343).

Census data and local tax assessments indicate that much of the Ellison family migrated from New Jersey to Pencader Hundred in the 1830s and 40s (U.S. Census). Curtis B. Ellison did not reside on either tract and owned additional lands within the vicinity, and soon resold the parcel containing Area 2C to his father, Lewis. At the time of the 1837 tax assessment, Lewis Ellison and his family appear to have occupied the log dwelling on the 295-acre (119.4 ha) tract on the south side of Bethel Church Road. Curtis Ellison likely leased the land and

log dwelling on the 400-acre (161.9 ha) tract, land that includes part of Areas 9B and 9C, until he sold it in 1842 (NCCDB K5:140).

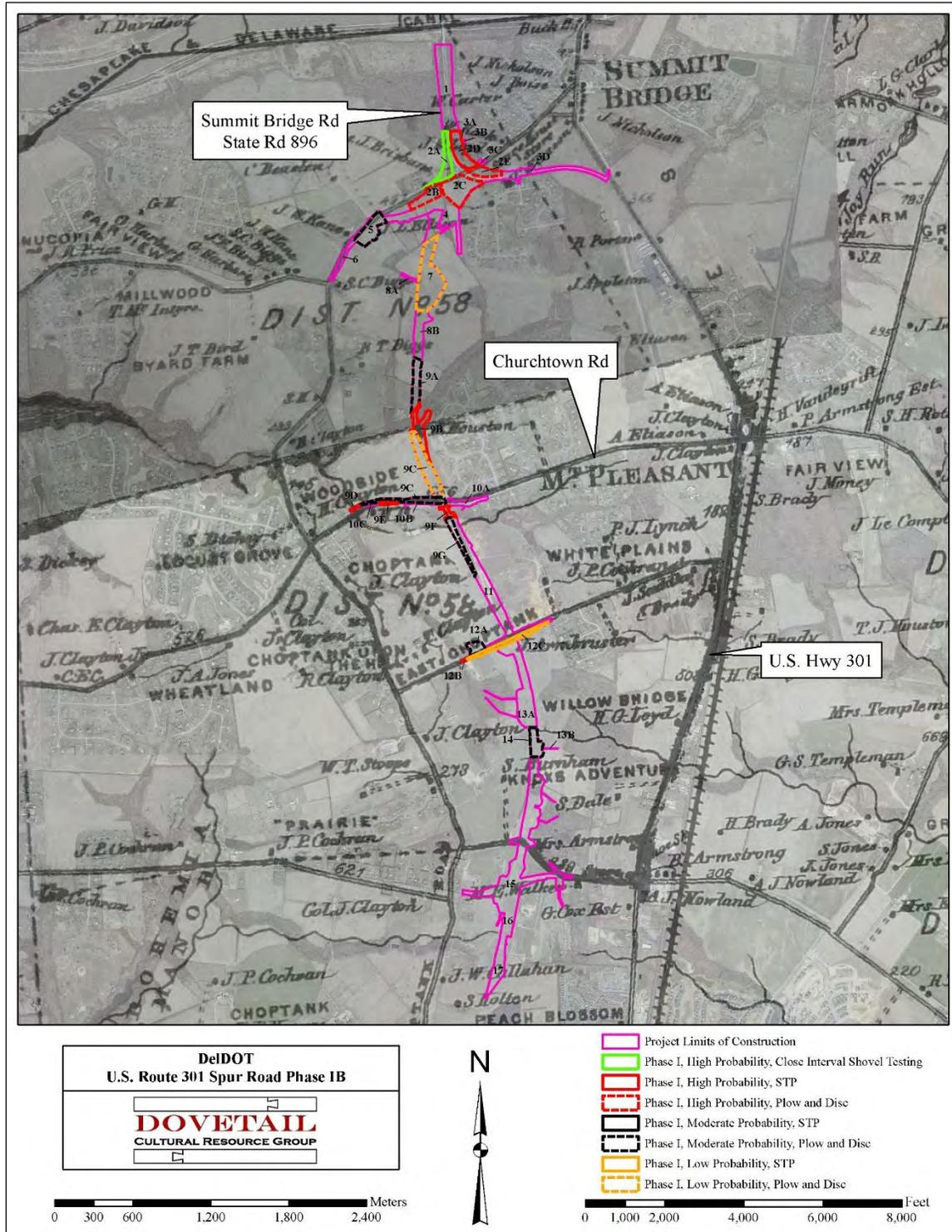


Figure 16: Pomeroy and Beers 1868 Map of Pencader and St. Georges Hundred Over Current Satellite Image (USDA 2011).

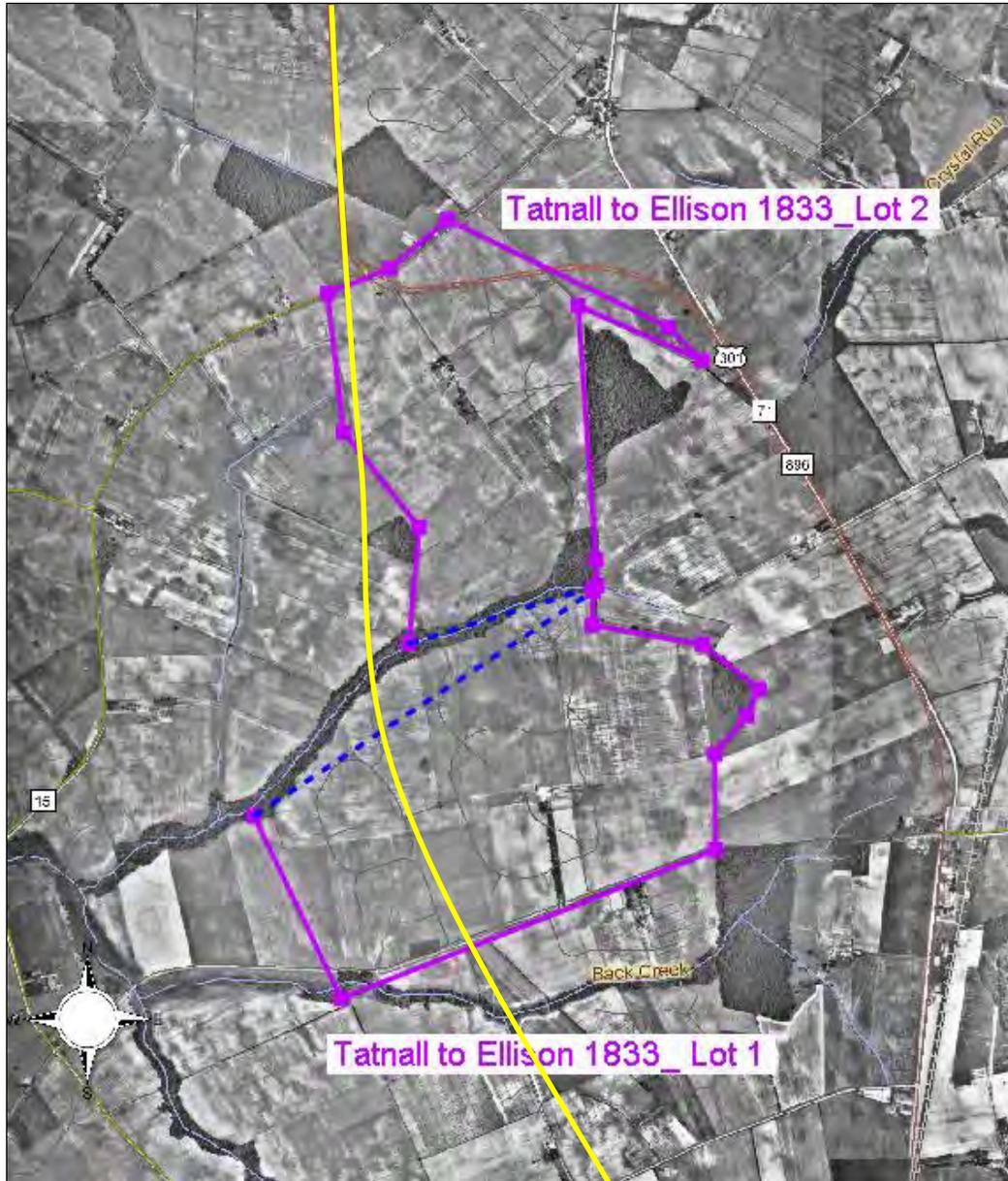


Figure 17: 1937 Aerial Image (CHRIS) with Current Roads and Waterways and Lots One and Two, Sold to Curtis B. Ellison, Circa 1833, Plotted in Purple. Dashed blue lines are where deeds indicate that the property line runs along a branch of the Back Creek, but do not specify each course (Dovetail 2012). Approximate Spur location shown in yellow.

Soon after Lewis Ellison purchased the 295-acre (119.4-ha) parcel off the Great Manor Road from his son, he began to improve the land. An insurance policy from 1845 included the log dwelling and described a fairly developed farmstead with “a frame granary and stable, a log stable, a carriage house, corncrib, and a small frame tenement” (Farmers Mutual Insurance Company nd). After Lewis Ellison’s death, Jonathan Lewis Ellison purchased all interest in his father’s estate in 1858. Jonathan L. Ellison continued to build upon the existing agricultural landscape and later named the property “Hedgeland,” in keeping with a trend of

the area's elite and wealthy farmers. In 1871, Ellison's insurance policy expanded to cover "a two-story log and frame dwelling, sitting room and kitchen, new frame stable attached to stable, two-story frame granary, carriage house, tool shed, new cow house, and a small, two-story, frame tenement" (Farmers Mutual Insurance Company nd). After Jonathan L. Ellison's death in 1882, the property continued to be occupied and operated by his descendants into the second half of the twentieth century.

The main house is depicted on Price and Rea's map of 1849 and remains visible in aerial photography dating to 1961 (Figure 18). It was demolished prior to the construction of the late-twentieth-century residential subdivision that now occupies much of the Ellison farm. This Ellison house site is currently situated east of the project corridor, between West Delaware Canal Drive and Betel Court, and does not appear to have been previously surveyed.

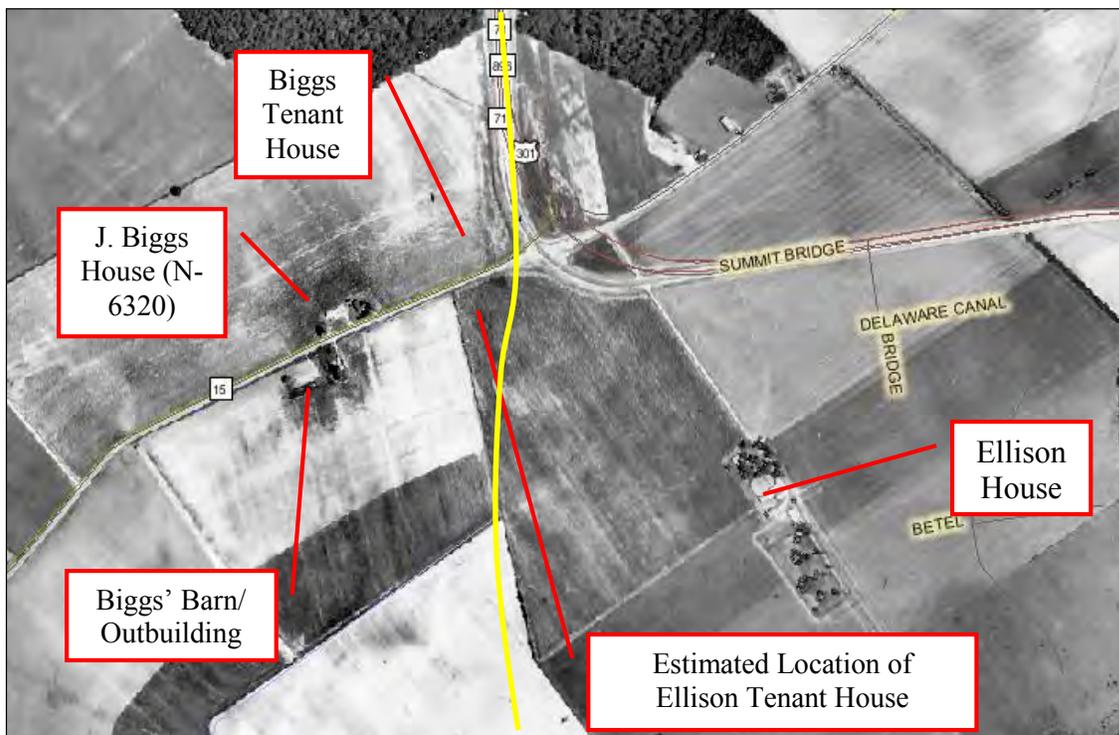


Figure 18: Detail of Biggs House and Ellison Property on 1961 Aerial (CHRIS 2012). Approximate Spur location shown in yellow.

### *Area 2A*

Area 2A is located directly northwest of the intersection of U.S. Route 301/Summit Bridge Road and Bethel Church Road. This area encompasses 5.2 acres (2.1 ha) and was identified as an area of high historic probability. The eastern half of Area 2A consists of a wooded and grassy shoulder to the existing roadway (Photo 2, p. 47), while the western half includes an agricultural field (Photo 3, p. 47). The field was planted with a corn crop at the time of work, which was very minimally disturbed by the archaeological investigation.



Photo 2: View of the Parking Lot, Wooded and Grassy Shoulder along the Eastern Portion of Area 2A, Facing North.



Photo 3: View of Agricultural Field in the Western Portion of 2A, Facing North.

Prior to the current project scope, Area 2A was noted to have a very high probability to contain an abundance of historic materials. During their Archaeological Predictive Model study, A. D. Marble identified a light scatter of nineteenth-century artifacts throughout this area (Baublitz et al. 2006). Given the known presence of archaeological remains, close-interval shovel testing at 25-foot intervals (7.6-m) was conducted during the current survey across Area 2A, and no radial shovel tests were conducted in this area since they are already included in the coverage distribution.

Archaeological testing in Area 2A resulted in the collection of 75 artifacts from 39 positive shovel tests, the identification of one archaeological site (7NC-F-167 [N-14454]) and the excavation of one test unit (Figure 19, p. 49). All artifacts were historic in affiliation and were predominantly clustered in the southern portion of the APE in the same general location identified by A. D. Marble. As such, Dovetail recommended that these artifacts be grouped together to form an archaeological site; DelDOT and the DE SHPO concurred with this recommendation. The remaining artifacts found within Area 2A, which include 25 historic remains, are all attributed to field scatter practices of the nineteenth and twentieth centuries.

The field scatter in Area 2A is likely associated with John Biggs and his descendants along with a number of their tenants. The location of Area 2A suggests that the scatter may be more directly associated with the circa-1860s secondary dwelling visible on the Beers and Pomeroy map, and situated northeast of the main J. Biggs House (N-6320). Jane Brisbane and her brother, Sewell, operated the farm as a tenant property, thereby making it difficult to discern names of the occupants during their tenure. Though Sewell Biggs' farm account book suggests that Perry Lockerman was a tenant at the Brisbane farm, this arrangement is not clear. The account book notes services provided by Perry Lockerman and allocates a certain cost to each item, but it is a line under the log of "Brisbane Farm," dated 1882, that reports the "Balance on Perry's house and Old Granary" and suggests Lockerman was working off his rent annually (Biggs 1881). It is not certain which dwelling was considered to be Perry's. Furthermore, other neighbor's names are intertwined in the account, making it more challenging to establish a clear idea of the property's occupants.

Regardless of occupation, the parcel was owned by members of John Biggs family throughout much of the nineteenth and twentieth centuries. Houses attributed to John Biggs and Sewell C. Biggs are still extant adjacent to the Spur APE. The J. Biggs House (N-6320) is located on the north side of Bethel Church road directly west of Area 2A. The Benjamin T. Biggs Farm/Sewell C. Biggs House (N-6190) is located further west on Bethel Church Road, while the Governor Benjamin T. Biggs House (N-5123) is located south along Choptank Road, and was reportedly constructed by their father, John Biggs, in the late 1840s (Frederick et al. 2006b).

#### *7NC-F-167 (N-14,545)*

#### Site Description

Site 7NC-F-167 (N-14,545) is a historic domestic artifact scatter dating to the mid-nineteenth century through the first half of the twentieth century. A concentration of historic artifacts

was first noted in this location during the predictive model work completed by A.D. Marble. The general site vicinity was investigated during this work as Test Blocks 1-1. The results of this previous investigation coupled with the current survey indicate the site is associated with a 1860s secondary dwelling, likely a tenant house, visible on the Beers and Pomeroy map, and situated northeast of the main J. Biggs House (N-6320). It is located within a cultivated field, which at the time of survey was planted with mature corn. This site measures approximately 420 x 220 feet (128 x 67.1 m) and comprises approximately 1.6 acre (0.6 ha). The site is bound by Bethel Church Road to the south and negative shovel tests on the east, west, and north.

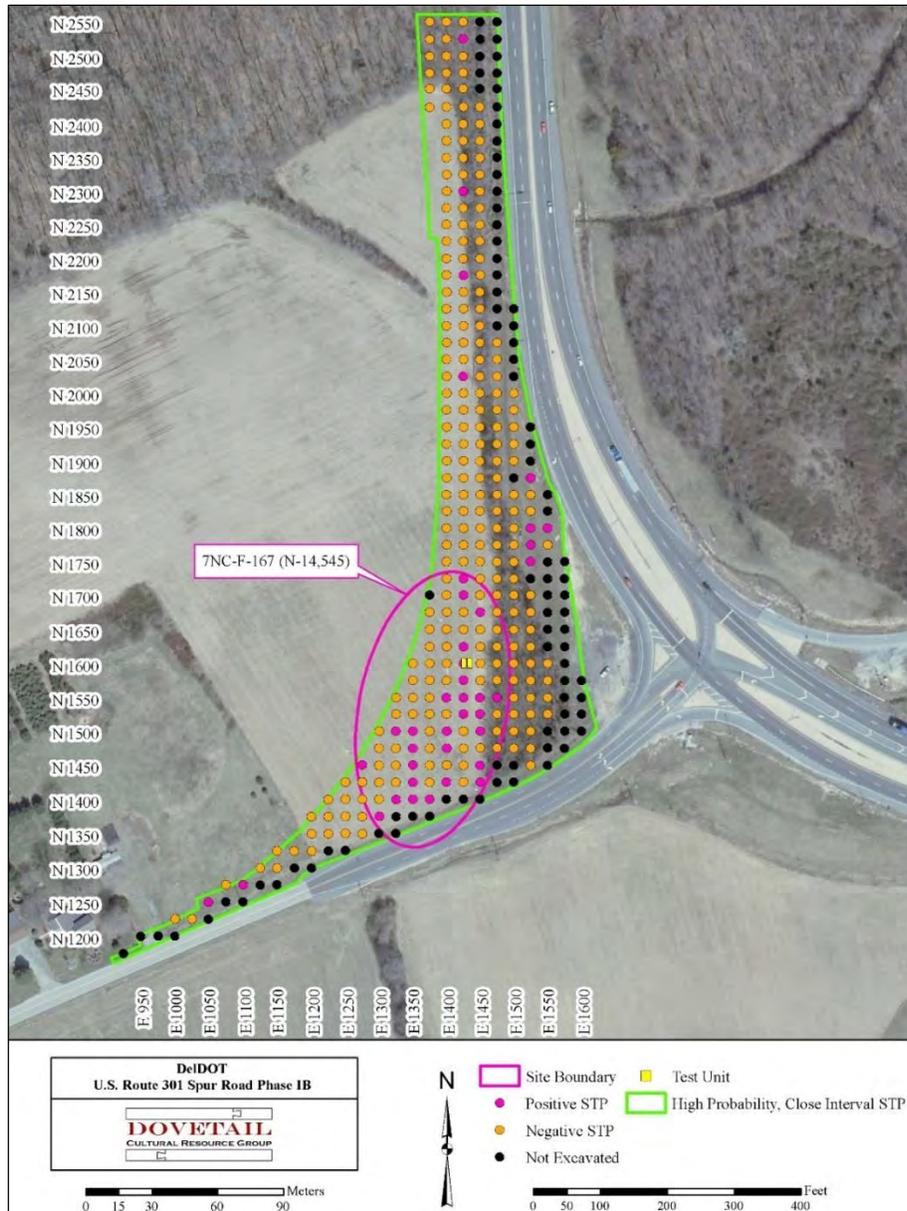


Figure 19: Area 2A Close-Interval Shovel Testing and Test Unit Results (USDA 2011).

The survey revealed that the soils across the site are moderately shallow with the average shovel test depth at 1.4 feet (41.9 cm) and the deepest being 1.9 feet (58.4 cm). The average depth of the Ap-horizon soils at the site was 0.9 feet (29.2 cm) with the deepest being 1.3 feet (40.6 cm). Shovel tests across the majority of the site revealed stratigraphy consisting of a very dark yellowish brown (10YR 4/4) silty clay loam Ap-horizon, a modern plowzone, over yellowish brown (10YR 5/6) sandy clay subsoil, B-horizon (Figure 20).

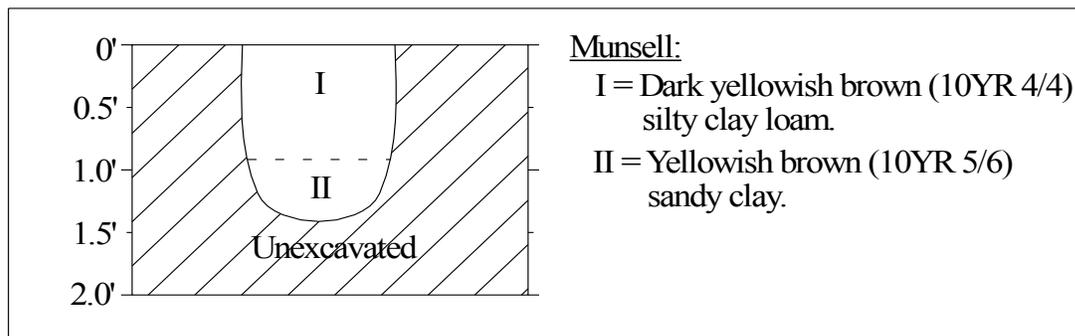


Figure 20: Representative Shovel Test Profile from Site 7NC-F-167.

Test Unit 1 was excavated to a depth of approximately 2.5 feet (76.2 cm) below the modern ground surface and four strata were identified in the unit (Figure 21, p. 51; Photo 4, p 51). The uppermost stratum, Stratum I, consisted of a modern plowzone or Ap-horizon. The matrix of Stratum I included a dark yellowish brown (10YR 4/4) sandy loam. This stratum reached a maximum depth of 0.7 feet (20.3 cm). It yielded 29 artifacts a mix of machine-made and hand-made brick, window glass, ironstone (1840–2000), whiteware (1820–2000), redware (1700–1900), colored bottle glass, milk glass, and a fragment of ceramic drain pipe. Beneath this modern plowzone was a very thin mottled transition stratum, identified as a strong brown (7.5YR 5/8) sandy silt loam. This stratum yielded six artifacts, four machine-made bricks and two pieces of bottle glass.

Under the mottled stratum was a possible cultural stratum or historic plowzone, classified as Stratum III and described as a brown (10YR 4/4) fine sandy silt loam. It averaged 0.5 feet (15.2 cm) in thickness and yielded a light scatter (n=20) of historic materials containing machine-made brick, cut nails (1815–1890), window glass, redware (1700–1900), whiteware (1820–2000), pearlware (1779–1830), and green bottle glass. The last excavation stratum was identified as a yellowish brown (10YR 5/6) B-horizon (Stratum IV). It was negative for cultural material and unit excavation ceased after the excavation of two sterile subsoil levels.

Cultural materials were predominantly recovered from both the Ap-horizon soils during close-interval shovel testing and test unit excavation, with lesser amounts recovered from the possible cultural stratum or historic plowzone in Test Unit 1. No subsurface features were identified during shovel testing or test unit excavation at the site.

The site assemblage includes 105 total artifacts, 50 recovered from close-interval shovel testing and 55 obtained from the excavation of Test Unit 1. Architectural remains include machine-made brick fragments, cut nails (1815–1890), ungalvanized wire nails (1890–1945), and aqua window glass. Ceramics include redware (1700–1900), pearlware (1779–1830),

whiteware (1820–2000), ironstone (1840–2000), creamware (1762–1820), and American blue grey stoneware (1800–1900). The remainder of the collection consists of a variety of colored bottle glass, clear vessel glass, unidentified metal, wire, drainpipe and rubber. The artifacts recovered from archaeological testing indicate that the site likely dates to the mid-nineteenth through early-twentieth century (Photo 5, p. 52).

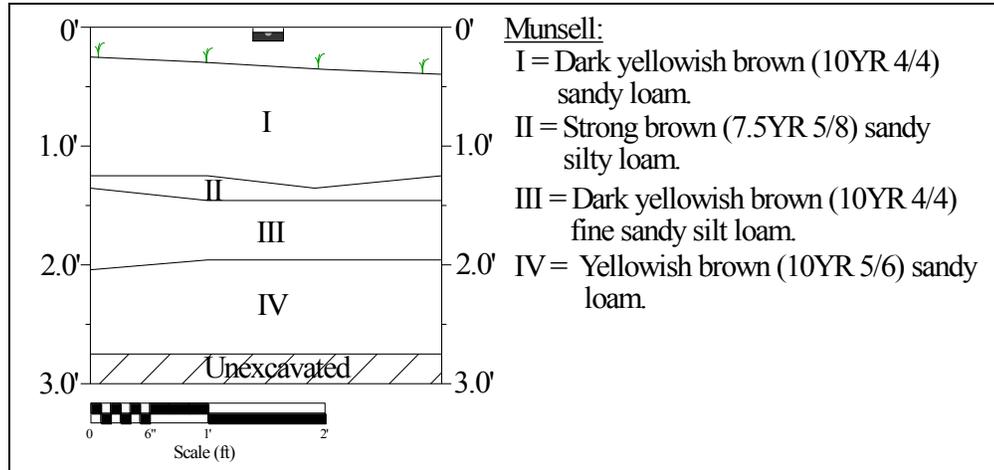


Figure 21: East Profile of Test Unit 1 within Site 7NC-F-167.



Photo 4: East Profile of Test Unit 1 within Site 7NC-F-167.



Photo 5: Sample of Artifacts Recovered from 7NC-F-167 in Area 2A. From left clockwise: American blue grey stoneware, aqua bottle glass, cut nail, black lead-glazed redware

Archival research indicated that there was a tenant house associated with the J. Biggs House (N-6230) situated in the same general vicinity as the identified archaeological site. A depiction of this house first appears on Pomeroy and Beers' 1868 map of Pencader Hundred where two dwellings are associated with Mrs. Brisbane (see Figure 16, p. 44). The two dwellings persist on a 1904 topographic map of the region (Figure 22, p. 53). Historic aerial images from 1937 capture a small lot and residence on the north side of what is now Bethel Church Road, east of the extant J. Biggs House (N-6320) (Figure 23, p. 54). This dwelling was last owned by Sewell C. Biggs, a member of the fourth generation of the Biggs family to own this tract of land. This tenant house, originally associated with Jane Brisbane, is believed to have remained a tenant house into the mid-twentieth century. It appears to have been demolished between 1954 and 1961, as a result of the construction of the current intersection of Bethel Church Road and U.S. Route 301/Summit Bridge Road.

As the land in Area 2A may have contained a tenant house, it is challenging to obtain detailed information on its contents or occupants through much of the public record. Tax records and insurance policies were not particularly helpful, and lacked the detailed information necessary to make inferences on the property's outbuildings. In the 1857 Pencader Hundred tax assessment, John Biggs is listed with three different dwellings, two made of brick and one of frame. The frame dwelling appears to be the same house that Jane Brisbane inherits (N-6320), and is accompanied by a frame barn at that time—the both of which are valued at \$5,000. The tax assessment of 1869 noted Jane Brisbane in possession of two houses and lots on her 185-acre (74.9-ha) farm in Pencader Hundred, but did not assign a value to her real estate holdings. The frame house, frame barn, and one "lot" persist in tax records into the early-twentieth century, while the taxable value of the farm fluctuates between \$6,000 and \$7,200.

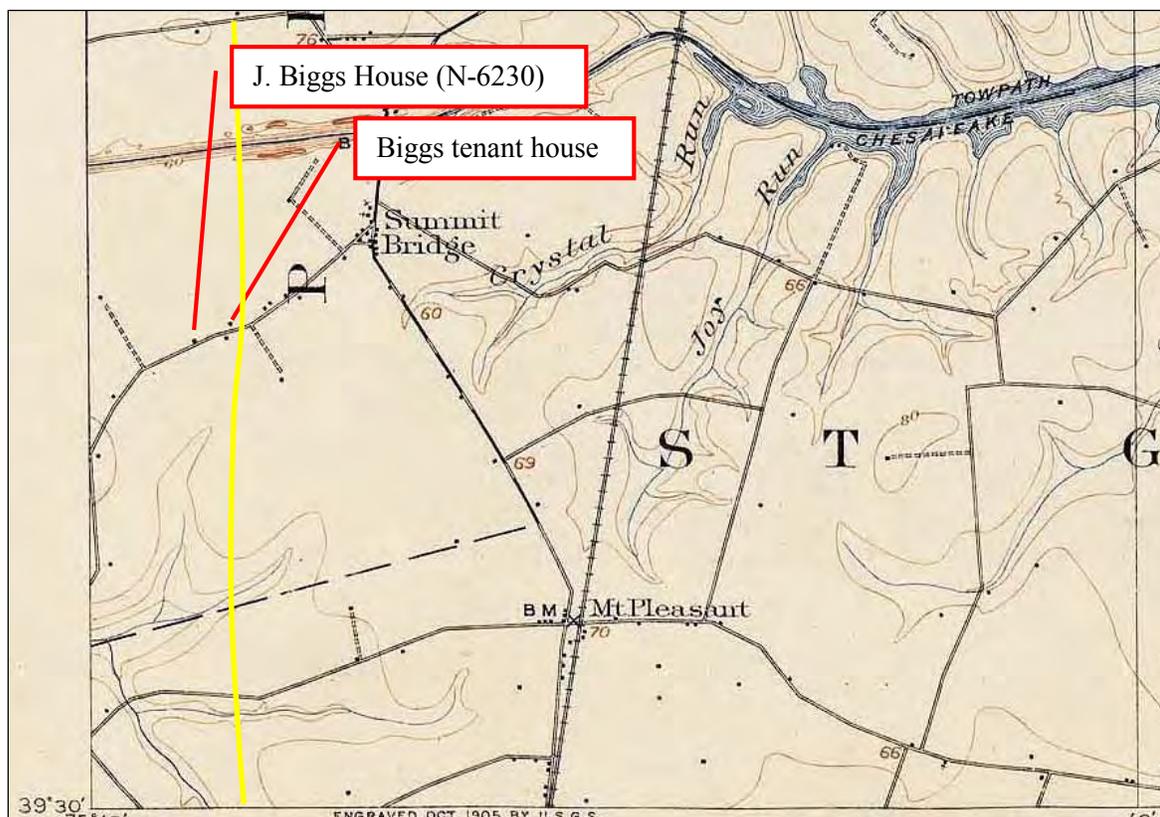


Figure 22: Wilmington Topographic Map (USGS 1904).  
Approximate Spur location shown in yellow.

Although several insurance policies associated with Sewell C. Biggs were identified in the Farmer’s Mutual Insurance Company records dating from the late-nineteenth century, just one entry appears to have described the Biggs/Brisbane farm. In 1881, under the name of Caroline Biggs, policy number 12942 covered a frame dwelling in Pencader Hundred with “a frame granary, her share of grain within, frame wagon and tool house, frame stable and carriage house, and the contents of the stock yard” (Farmer Mutual Insurance Company nd). This policy did not include the tenant house known to have been situated on the same property, and does not appear to have been renewed or updated in the following decade.

### Evaluation and Significance

The significance of 7NC-F-167 (N-14,545) was evaluated in relation to the NRHP eligibility criteria. The site was evaluated in regards to Criterion A, for its association with events that have made a significant contribution to the broad patterns of our history; Criterion B, for its association with people significant in our nation’s history; Criterion C, for its embodiment of the distinctive characteristics of a style; and Criterion D, for its potential to yield information important in history.

The archaeological data combined with archival research indicates that the site represents the remains of a tenant house owned by the Biggs family, occupied by various unknown tenants.

The house was likely constructed in the mid-nineteenth century and was destroyed in the early 1950s, prior to construction of the existing Route 301 and Bethel Church Road interchange. The use of tenant farming was commonplace in the area during the nineteenth and early-twentieth century, with tenants frequently occupying a “house and garden lot” within view of the main farm dwelling (Frederick et al. 2006a:67). “Members of the Cochran, Biggs, and Clayton family owned a number of tenant farms scattered throughout St. Georges Hundred...” (Frederick et al. 2006a:68). Tenant houses in the area were not always rudimentary as family members and skilled farm managers reflect a range of house forms, styles, and construction materials—as evidenced by the main residence at Woodside (N-0427), where Henry Clayton resided for 13 years prior to obtaining legal ownership.

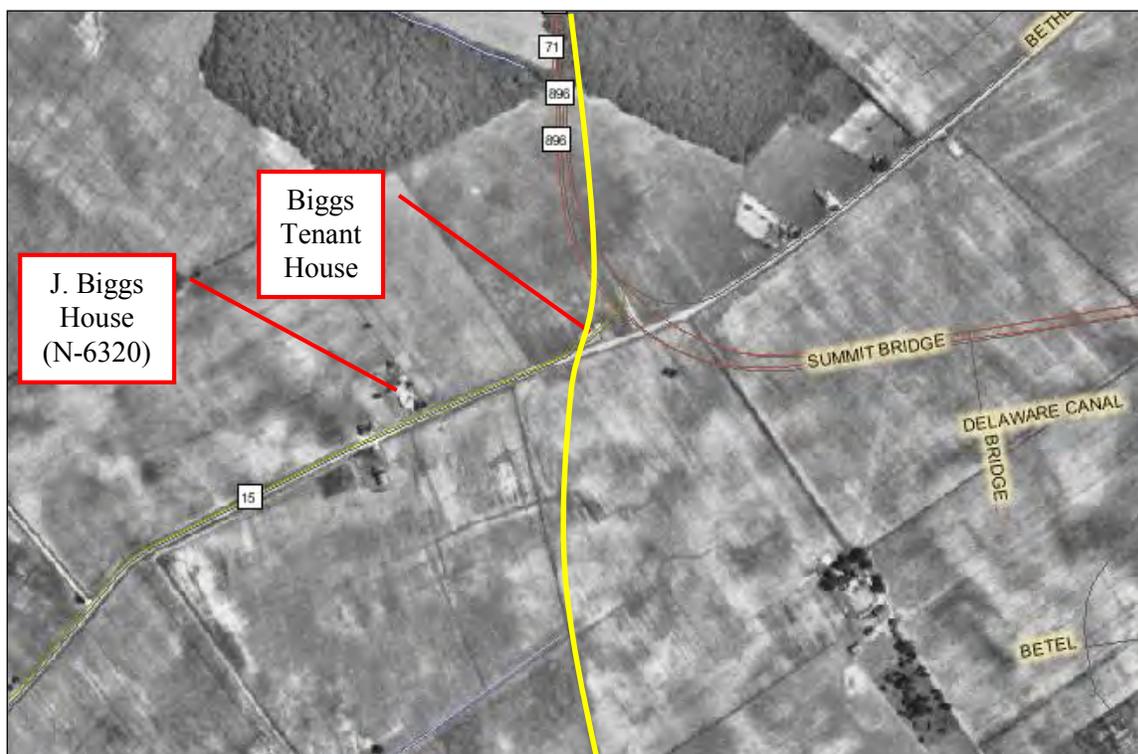


Figure 23: Detail of Biggs House and Property on 1937 Aerial (CHRIS 2012). Note the current alignment of Bethel Church Road (in yellow) bisects the tenant Biggs Tenant House (7NC-F-167). Approximate Spur location shown in yellow.

The core of the site including the dwelling itself, as indicated by historic aerial imagery, was destroyed by the construction of the adjacent Bethel Church Road and U.S. Route 301/Summit Bridge Road intersection. As such no occupational features, which could yield further data about the site, are likely to remain intact.

Dovetail recommends that these artifacts constitute an archaeological site and the DE SHPO concurred with this recommendation in May 2013. The tenant house and the core of the site were destroyed by road construction, as such the site does not exhibit sufficient integrity or the potential to yield further significant information on domestic life, social context, subsistence/agriculture, and/or settlement patterns in New Castle County (Criterion D).

Additionally, tenant sites of this age are a common occurrence in St. Georges Hundred. There are no significant associations between these deposits and a significant historical event or pattern of events (Criterion A). There are no associations with significant persons (Criterion B), and the deposits do not illustrate the distinctive characteristics of a type, period, or method of construction (Criterion C). As such, this site is **recommended not eligible for the NRHP under Criteria A–D**.

Dovetail further recommends that this site be considered part of a larger Biggs Farm property. Archival research clearly links this archaeological site to property and farming operations run by the Biggs family. The extant J. Biggs House (N-6320) is located east of the site boundary, on the north side of Choptank Road. The larger Biggs Farm Complex includes this site, multiple field scatters, and the J. Biggs House (N-6320). All of these resources are inherently linked to the larger agricultural operations of the Biggs Family and as such should be viewed within a common context. The core of the Biggs Farm Complex lies beyond the limits of the current APE and includes the main house, agricultural fields, and tenant houses. Future research, beyond the scope of the current investigation, should focus on fully defining and delineating the entire Biggs Farm Complex, including a more complete history of the Biggs family.

### *Area 2B*

Area 2B is located southwest of the intersection of U.S. Route 301/Summit Bridge Road and Bethel Church Road, situated within the “Fix the Curve” segment (Contract 4A) of the Spur alignment. This area was determined to have a high probability for historic archaeological materials and encompasses 5 acres (2 ha). Area 2B was examined via pedestrian survey, which required the removal of the planted agricultural crop prior to archaeological investigations. The corn crop was harvested in early September 2011, and shortly after the entire area was plowed and disced (Photo 6).



Photo 6: View of Area 2B Following Plow and Discing, Facing Southwest.

Surface collection efforts yielded 91 artifacts, 18 of which were prehistoric and the remaining 73 were historic in affiliation (Figure 24, p. 57). Shovel testing in areas of concentrated artifacts and notable finds resulted in the recovery of an additional 11 historic artifacts. Artifacts were densely clustered in the western portion of the APE, adjacent to a concrete and rock scatter noted during the pedestrian survey. To further assess this western portion of the APE three test units were excavated across the artifact scatter, denoted as Test Units 3, 4, and 5. An additional 53 artifacts were recovered from these test units, as well as the remains of demolished concrete building and associated fence line.

Given the cluster of artifacts and the presence of possible foundation remains, Dovetail recommended that the artifacts grouped in the western portion of Area 2B represent a multicomponent archaeological site. DelDOT and DE SHPO concurred with this recommendation and the site is designated as 7NC-F-168 (N-14,546) (see discussion below). The remaining artifacts found within Area 2B, which include 32 historic artifacts, are attributed historic field scatter practices. The historic field scatter consists of a variety of nineteenth and twentieth century artifacts associated with the Biggs family and the larger Biggs Farm property.

The field scatter in Area 2B is likely associated with Biggs family, either Jane Brisbane (formerly Jane Biggs) or Sewell C. Biggs. Jane Brisbane inherited the property from her father, John Biggs, owning the land from 1862 through 1880, at which point the parcel was sold to her sister-in-law, Caroline, the wife of Sewell C. Biggs. Houses attributed to the Biggs family remain extant and are located adjacent to the Spur APE. The J. Biggs House (N-6320), which is the main dwelling on what was later Jane Brisbane's farm, is located on the north side of Bethel Church Road at 939 Bethel Church Road; the brick dwelling known as the Gov. Benjamin T. Biggs Farm/Sewell. C. Biggs House (N-6190) is located southwest at 1084 Bethel Church Road; and the NRHP-listed Gov. Benjamin T. Biggs House (N-5123), situated further south at 1196 Choptank Road, is believed to have been constructed by their father, John Biggs, prior to his death in 1860 (Frederick et al. 2006b).

#### *7NC-F-168 (N-14,546)*

##### Site Description

Site 7NC-F-168 (N-14,546) is multicomponent, including a Late Archaic prehistoric occupation and an early-twentieth century historic affiliation. The prehistoric occupation is sparse and is considered as a secondary locus of cultural activity. The historic component is the primary locus of the site and appears to be associated with an outbuilding/barn that was owned by Sewell C. and Caroline Biggs' family and their descendants from the early- to mid-twentieth century. This location was previously tested by A.D Marble, as Test Block 1-2, and yielded historic artifacts of a similar temporal range. It is situated within a cultivated field, which right before the time of survey was planted with mature corn. This site measures approximately 650 x 250 feet (198.1 x 76.2 m) and comprises approximately 3 acres (1.2 ha). The site is bound by Bethel Church Road to the north and limits of artifacts on the east, west, and north.

The survey revealed that the soils across the site are fairly consistent with the average shovel test depth at 1.4 feet (42.2 cm) and the deepest being 2.3 feet (68.6 cm). The average depth of the Ap-horizon soils at the site was 0.9 feet (27.7 cm) with the deepest being 1.3 feet (40.6 cm). Shovel tests across the majority of the site revealed stratigraphy consisting of a very dark yellowish brown (10YR 4/4) silty clay loam Ap-horizon, a modern plowzone, over light yellowish brown (10YR 6/4) silty clay subsoil, B-horizon (Figure 25).

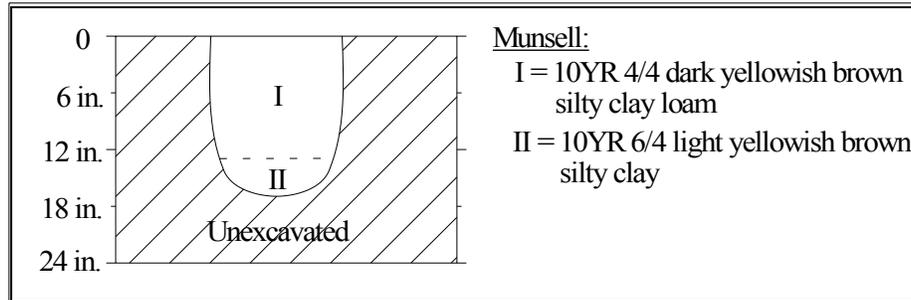


Figure 25: Representative Shovel Test Profile from Site 7NC-F-168.

Surface collection efforts and judgmental shovel testing at the site resulted in the collection of 70 artifacts, both of prehistoric and historic affiliation. The concentration of artifacts coupled with the noted surface scatter of concrete and fieldstones necessitated the excavation of three test units to further assess the site. The three test units excavated at the site showed generally similar stratigraphy, differences noted were based on the presence of cultural features and disturbance. Test Unit 3, in the western portion of the site, had eleven strata mainly due to multiple modern disturbance contexts (Photo 7; Figure 26, p. 59). Both Test Units 4 and 5, located in the central and eastern portions of the site respectively, showed a three strata profile (Photo 8–Photo 9, pp. 59–60; Figure 27–Figure 28, pp. 60–61). Because of these differences the stratigraphy from Test Unit 3 will be discussed separately than that of Test Units 4 and 5. Cultural material was primarily recovered from Ap-horizon contexts within the test units; this stratum yielded 74 percent (n=39) of all artifacts recovered from test unit excavation.



Photo 7: South Wall Profile of Test Unit 3 at Site 7NC-F-168.

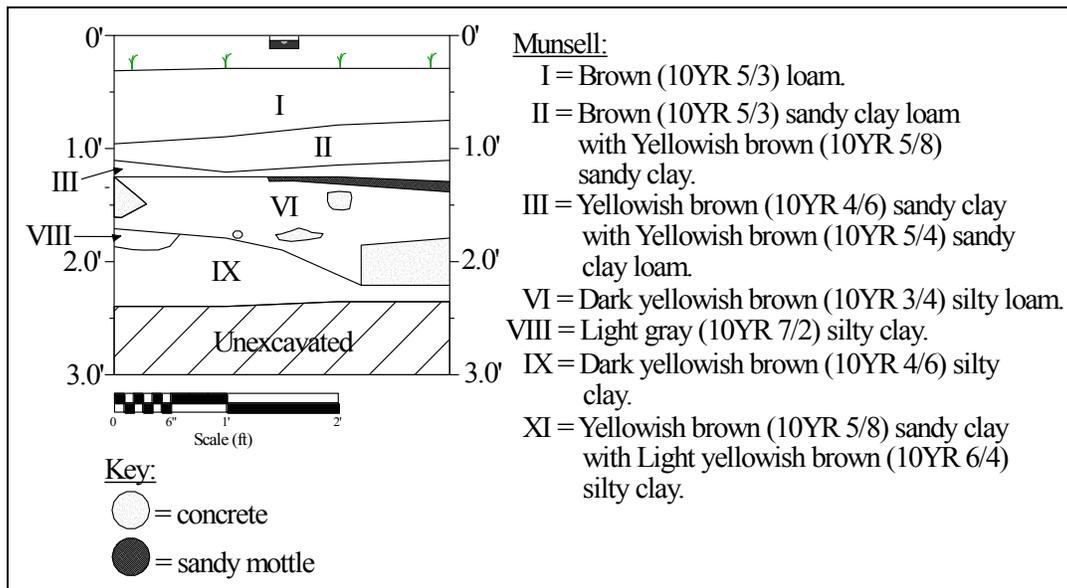


Figure 26: South Wall Profile of Test Unit 3 at Site 7NC-F-168.



Photo 8: East Wall Profile of Test Unit 4 at Site 7NC-F-168.



Photo 9: West Wall Profile of Test Unit 5 at Site 7NC-F-168.

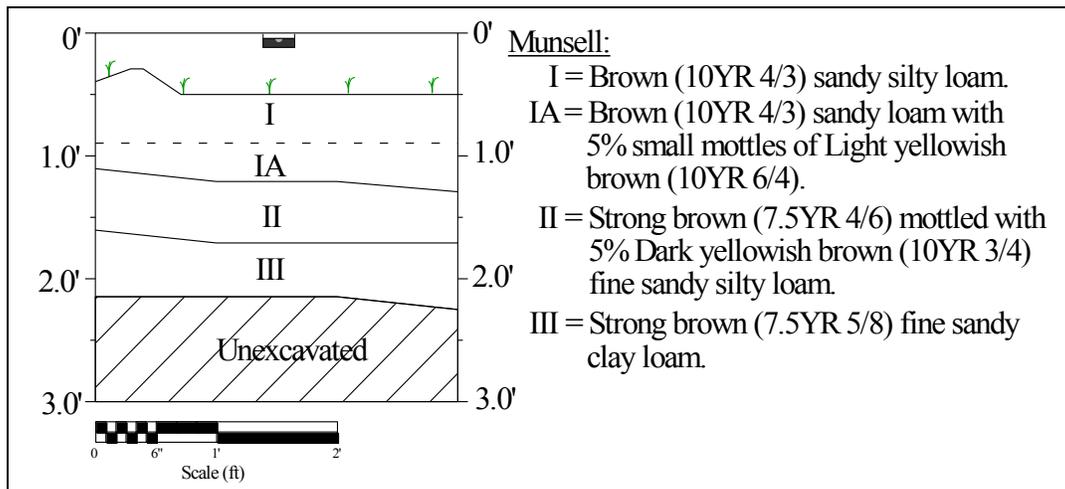


Figure 27: East Wall Profile of Test Unit 4 at Site 7NC-F-168.

Test Unit 3 displayed a brown (10YR 5/3) loam Ap-horizon (Stratum I) that reached a maximum thickness of 0.7 feet (20.3 cm). The removal of the plowzone revealed a series of mottled and disturbance-related strata (Strata II–IV). These strata contained various remnants of a concrete and cinder block foundation, and demolition deposits. Combined these strata yielded very few artifacts (n=12). The base of the unit sloped to the south under the demolition strata, but revealed a uniform subsoil characterized as a yellowish brown (10YR 5/8) sandy clay mottled with light yellowish brown (10YR 6/4) silty clay.

Generally the stratigraphy of Test Units 4 and 5 consisted of a brown (10YR 4/3) loam Ap-horizon (Stratum I). This stratum reached a maximum thickness of 1 foot (30.5 cm) and yielded the majority of artifacts recovered from the excavation of these units. In Test Unit 5 the base of Stratum I contained the remains of a dry laid and loosely articulated stone fence line (Photo 10, p. 62). Stratum II in Test Units 4 and 5 consisted of yellowish

brown to a strong brown (10YR 5/8 to 7.5YR 4/6) silt loam. This stratum reached a maximum thickness of 0.4 feet (12.7 cm) and artifact densities dropped off dramatically. Beneath Stratum II in Test Units 4 and 5 was a strong brown (7.5YR 4/6 and 7.5YR 5/8) sandy clay subsoil B-horizon. The subsoil in these units and all subsurface tests at the site was negative for cultural materials.

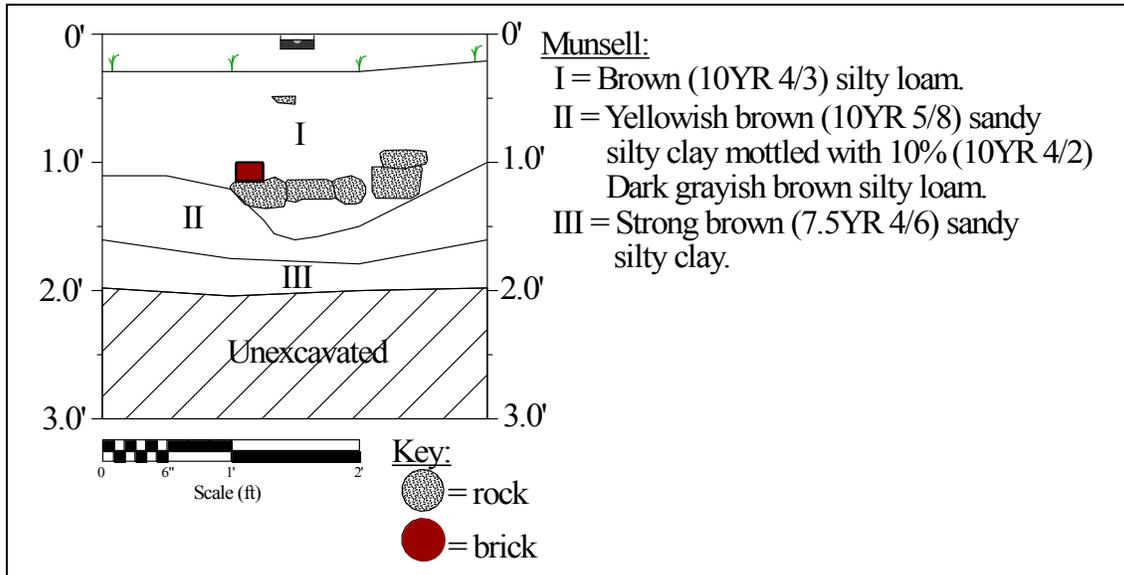


Figure 28: West Wall Profile of Test Unit 5 at Site 7NC-F-168.

The archaeological remains identified in the western portion of Area 2B, designated as site 7NC-F-168 (N-14,546) include 123 artifacts recovered from surface collection, judgmental shovel testing, and the excavation of three test units (Photo 11, p. 62). Prehistoric artifacts from the site consist of a variety of secondary and tertiary debitage, two quartz cores, two stage 5 chert bifaces, and a Lamoka chert projectile point. These items were collected entirely from surface collection; prehistoric artifacts were absent in all subsurface shovel tests and test units. These prehistoric artifacts were found in both the site core and in a secondary prehistoric locus, located to the east of the site core. The recovery of a Lamoka projectile point suggests a Late Archaic affiliation, however the paucity of artifacts, especially diagnostic ones, limits the strength of this inference.

The historic architectural artifacts include an abundance of machine-made brick and concrete fragments, cut nails (1815–1890), ungalvanized wire nails (1890–1945), aqua window glass, and modern window glass. Ceramics densities were very low, only consisting of one piece of redware (1700–1900), one fragment of porcellaneous (1820–2000) and fragment American blue grey stoneware (1800–1900). The remainder of the collection consists of a variety of clear and colored bottle glass, unidentified metal, wire, drainpipe, a hoe blade, and insulator fragments. The artifacts recovered from archaeological testing indicate the historic component likely dates to the early-twentieth century.



Photo 10: Test Unit 5, Base of Stratum I within Site 7NC-F-168 (N-14,546). Note the dry laid fieldstone fence line that loosely articulated.



Photo 11: Sample of Artifacts from 7NC-F-168 in Area 2B. From left top row: chert Lamoka projectile point, stage 5 chert biface, secondary broken flake. Bottom row: Aqua bottle rim with double ring finish, hobble skirt aqua coke bottle, ironstone base of possible tureen with polychrome hand-painted floral motif, hand-made brick.

Subsurface remains identified from test unit excavation include the remains of a concrete foundation and associated fieldstone fence line. Archival research indicated that there was an outbuilding or barn in the general location of the identified archaeological site. A 1937 aerial photograph of the vicinity clearly shows an outbuilding or barn in this location (Figure 29). The building persists on both 1954 and 1961 aerial imagery, but is absent on 1992 images (Figure 30 and Figure 31, p. 64).



Figure 29: Detail of Biggs House and Property on 1937 Aerial (CHRIS 2012). Note the Biggs' Barn/Outbuilding in the general vicinity of site 7NC-F-168 (shown in purple).

Archival research of the parcel in which 2B is located indicates that the property and presumably the outbuilding/barn was owned by Sewell C. and Caroline Biggs' family and their descendants into the mid-twentieth century. As the land in Area 2B did not contain a dwelling, it is difficult to obtain information on its contents through much of the public record. Tax records and insurance policies were not particularly helpful, and lacked the detailed information necessary to make inferences on the property's outbuildings. In the 1857 Pencader tax assessment, John Biggs is listed with three different dwellings, two made of brick and one of frame. The frame dwelling appears to be the same house that Jane Brisbane inherits (N-6320), and is accompanied by a frame barn at that time, the both of which are valued at \$5,000. These two buildings are identified on the property into the early-twentieth century, while the taxable value of the farm fluctuates between \$6,000 and \$7,200. When platted, Brisbane's farm property does not appear to contain all of the land in Area 2B, however, earlier plats of John Biggs' land indicate that the family did own much of this parcel. It is not clear which family member controlled this area for much of the nineteenth century.



Figure 30: Detail of Biggs House and Property on 1954 Aerial (CHRIS 2012).

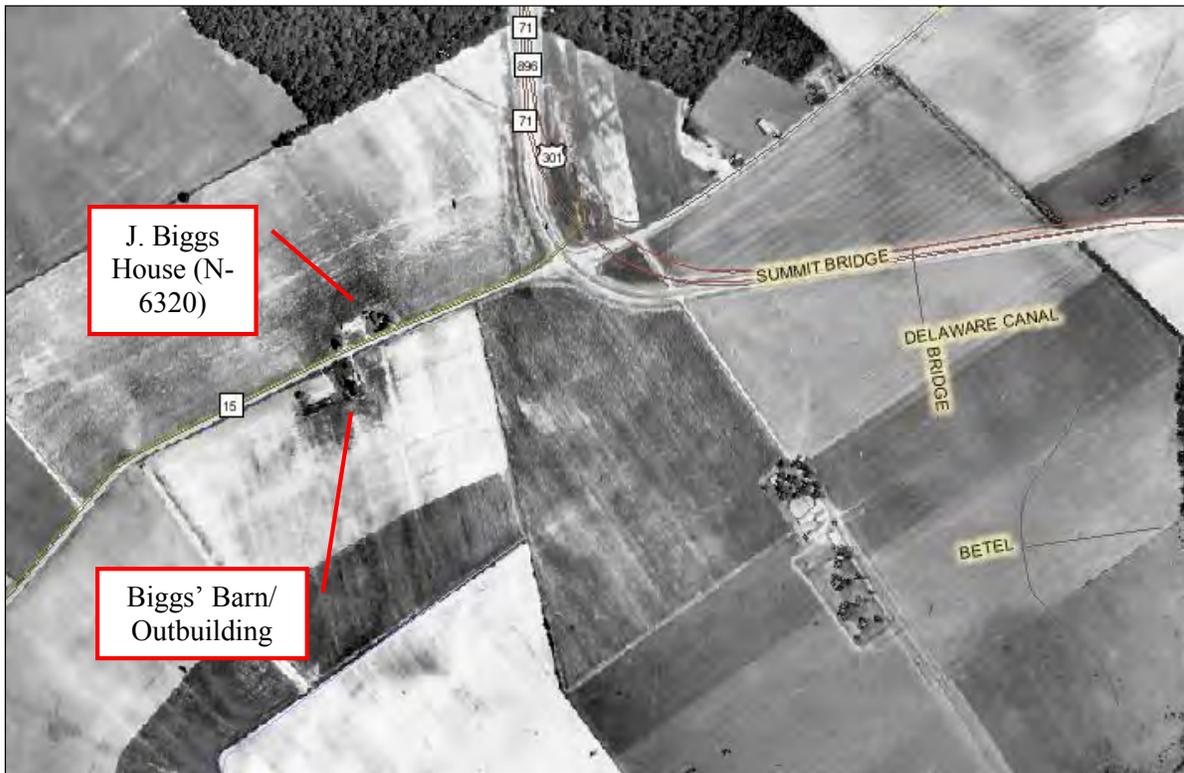


Figure 31: Detail of Biggs House and Property on 1961 Aerial (CHRIS 2012).

Although several insurance policies associated with Sewell C. Biggs were identified in the Farmer's Mutual Insurance Company records dating from the late-nineteenth century, just one entry appears to have described the Biggs/Brisbane farm. In 1881, policy number 12942, under the name of Caroline Biggs, covered a frame dwelling in Pencader Hundred with a frame granary, her share of grain within, frame wagon and tool house, frame stable and carriage house, and the contents of the stock yard (Farmer Mutual Insurance Company). This policy did not include the tenant house known to have been situated on the same property, and does not appear to have been renewed or updated in the following decade. This information suggests that the barn/outbuilding in Area 2B was likely constructed sometime after 1881, and might date to the early-twentieth century during the third generation of Biggs family ownership (Abram or his brother, John Frank Biggs).

### Evaluation and Significance

The significance of 7NC-F-168 (N-14,546) was evaluated in relation to the NRHP eligibility criteria. The site was evaluated in regards to Criterion A, for its association with events that have made a significant contribution to the broad patterns of our history; Criterion B, for its association with people significant in our nation's history; Criterion C, for its embodiment of the distinctive characteristics of a style; and Criterion D, for its potential to yield information important in prehistory and history.

Site 7NC-F-168 represents an ephemeral prehistoric lithic scatter and the remains of an outbuilding or barn owned by the Biggs family. The recovery of one projectile point indicated that the lithic scatter may be associated with the Late Archaic. The building associated with the historic component was likely constructed in the early-twentieth century and used to store farm equipment or other agricultural goods. The historic portion of the site lacks a domestic occupation and therefore has limited potential to provide further information specific to the Biggs family.

Based on the sparse prehistoric component, the common occurrence of this agricultural site type in St. Georges Hundred and the lack of diagnostic domestic artifacts this site does not exhibit the potential to yield further significant information on domestic life, social context, subsistence/agriculture, and/or settlement patterns in New Castle County (Criterion D). There are no significant associations between these deposits and a significant historical event or pattern of events (Criterion A). There are no associations with significant persons (Criterion B), and the deposits do not illustrate the distinctive characteristics of a type, period, or method of construction (Criterion C). As such, this site **is recommended not eligible for the NRHP under Criteria A–D.**

### *Area 2C*

Area 2C is located southwest of the intersection of U.S. Route 301/Summit Bridge Road and Bethel Church Road, situated within the "Fix the Curve" segment (Contract 4A) of the Spur alignment. This area was determined to have a high probability for historic archaeological materials and encompasses 10.6 acres (4.3 ha). The majority of this area

consists of an agricultural field, except for the extreme northeastern portion which consists of a grassy road shoulder (Photo 12). Originally this entire area was to be examined via pedestrian survey; however, upon field inspection the northeastern end of the APE was found to be outside the established boundaries of the agricultural field. During a field meeting with DelDOT archaeologists on August 16, 2011, it was determined that systematic shovel testing would be undertaken in the northeastern portion of Area 2C in lieu of pedestrian survey. Systematic shovel testing in the northwestern portion of the APE yielded no archaeological remains (Figure 32, p. 67).



Photo 12: View of the Shovel Testing Northwestern Portion of Area 2C, Facing Northwest.

The pedestrian survey of the remaining portion of the APE required the removal of the planted agricultural crop prior to archaeological investigations. The corn crop was harvested in early September 2011, and shortly thereafter the Area 2C was plowed and disced (Photo 13, p. 68). Surface collection investigations yielded 181 artifacts. Fifteen of these were of prehistoric affiliation while the remaining 166 were historic in nature. Six of these prehistoric artifacts were clustered in the western portion of the APE and the rest were dispersed across the survey area. Historic artifacts were densely clustered along the northwestern boundary of the APE, immediately south of Bethel Church Road.

A total of 33 judgmental shovel tests was excavated among the surface collection locations, at areas of perceived artifact concentrations and at notable finds. Fifteen of these shovel tests were positive for historic artifacts, all in the northwestern portion of the

APE in the high historic concentration noted during the surface collection. The remaining shovel tests across this portion of the APE were all negative for cultural materials.

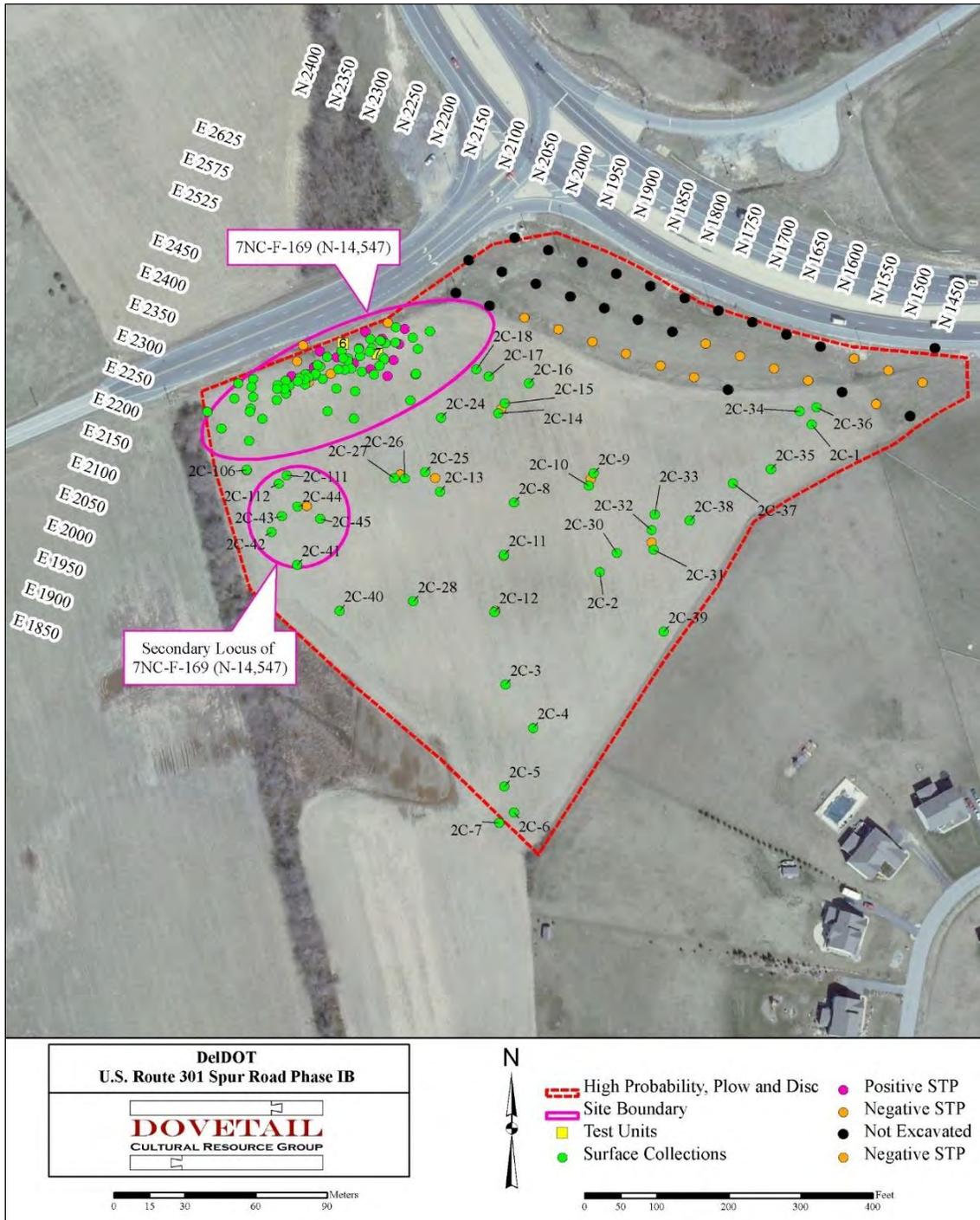


Figure 32: Area 2C Surface Collection, Shovel Testing, and Test Unit Results (USDA 2011).



Photo 13: Overview of the Surface Collection Portion of Area 2C, Facing Northwest.

Based on the results of the surface collection and shovel testing investigations, Dovetail recommended that the dense cluster of historic artifacts in the northwestern portion of the APE and the prehistoric artifacts in the western portion of the APE be considered a multicomponent archaeological site, denoted as 7NC-F-169 (N-14,547). DeIDOT and the DE SHPO concurred with this recommendation in May 2013. The remaining prehistoric and historic artifacts collected from Area 2C are considered isolated finds and/or attributed to field scatter practices.

Isolated finds include ISF-5 a secondary quartz flake (surface collection 2C-8), ISF-6 and ISF-7 both angular debris (surface collections 2C-9 and 2C-12), ISF-8 a secondary chert flake (surface collection 2C-37), and ISF-9 a secondary quartz flake (surface collection 2C-1). The historic surface collections outside of site 7NC-F-169 (N-14,547) are attributed to field scatter practices of the nineteenth and twentieth centuries. Archival research of the parcel in which Area 2C is situated revealed that this property was owned and farmed by three generations of the Ellison Family in the mid-nineteenth and early-twentieth centuries: Lewis, Jonathan L., and Henry C. Ellison, respectively. The Ellison residence, although no longer extant, was situated approximately 0.2 miles (0.5 km) south of Area 2C. This property was not previously documented or assigned a DE SHPO Cultural Resource Survey (CRS) prior to its demolition.

### Site Description

Site 7NC-F-169 (N-14,547) is a multicomponent archaeological site situated in the northwestern portion of Area 2C. The site includes 501 artifacts from surface collection, shovel testing, and two test units. The prehistoric occupation is ephemeral and is in part a secondary locus of cultural activity. The historic component is the primary focus at the site and appears to be associated with the no longer extant Ellison tenant house known to have been situated in the general vicinity of the site. This site measures approximately 450 x 330 feet (137.2 x 100.6 m) and comprises approximately 1.6 acres (0.6 ha). The site is bound by Bethel Church Road to the north and limits of artifacts on the east, west, and south.

The survey revealed that the soils across the site are fairly consistent with the average shovel test depth at 1.3 feet (38.9 cm) and the deepest being 1.7 feet (50.8 cm). The average depth of the Ap-horizon soils at the site was 0.9 feet (26.4 cm) with the deepest being 1.3 feet (40.6 cm). Shovel tests across the majority of the site revealed stratigraphy consisting of a dark grayish brown (10YR 4/2) silt loam Ap-horizon, a modern plowzone, over yellowish brown (10YR 5/8) silty clay subsoil, B-horizon (Figure 33).

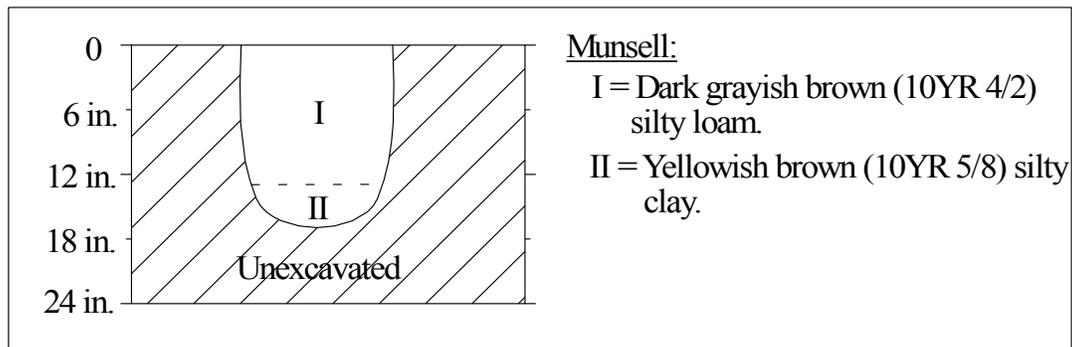


Figure 33: Representative Shovel Test Profile from Site 7NC-F-169.

Surface collection efforts and judgmental shovel testing at the site resulted in the collection of 211 artifacts, dominated by historic artifact but also including a small amount of prehistoric items. The high number of artifacts concentrated in this area warranted the excavation of two test units to further investigate the site deposits and subsurface integrity.

Test Units 6 and 7 were excavated in the northern portion of the site area, immediately south of Bethel Church Road. Both units showed an Ap-horizon (Stratum I) consisting of a dark grayish brown (10YR 4/2) silt loam and that reached a maximum thickness of 0.8 feet (25.4 cm). The excavation of plowzone in Test Unit 6 revealed a circular feature with a linear stain extending to the southeast (Photo 14, p. 70). The feature matrix was identified as a dark grayish brown (10YR 4/2) silt loam mottled with 10 percent dark yellowish brown (10YR 4/6) silty clay and 5 percent strong brown (7.5YR 5/6) sandy

clay. It was bisected in excavation to reveal a 1-foot (29.2-cm) deep amorphous circular depression. A small amount of historic artifacts were recovered from the feature excavation, but only from the upper most arbitrary level at the interface with the plowzone. Given the lack of cultural items and the undulating base of excavation it is believed this feature is the remains of a tree planting, rather than being cultural in origin. The linear extension was determined to be a root stain associated with the tree.



Photo 14: Base of Ap-horizon/Stratum I in Test Unit 6 at Site 7NC-F-169.

Both test units showed a transitional stratum between the plowzone and subsoil, identified in Test Unit 6 as a dark yellowish brown (10YR 4/6) silty clay and in Test Unit 7 as a brownish yellow (10YR 6/6) sandy clay. This stratum reached a maximum depth of 0.5 feet (15.2 cm) and yielded no artifacts. The removal of the transitional stratum in both units revealed a culturally sterile subsoil, classified as a strong brown (7.5YR 5/8) sandy clay with increasing rounded gravel with depth (Photo 15–Photo 16, p. 71; Figure 34–Figure 35, p. 72).

As noted above, archaeological testing at site 7NC-F-169 (N-14,547) yielded both prehistoric and historic items. Eleven prehistoric artifacts were collected from surface collection efforts; no prehistoric materials were found during shovel testing or test unit excavation (Photo 17, p. 73). These materials include one chert tested cobble, an exhausted core, three fragments of secondary quartz debitage, two pieces of quartz angular debris, one quartz uniface, one stage 1 quartz biface, one stage 2 quartz biface,

and a stage 4 chert biface. These items were found within the main site boundary and also from a secondary locus, situated directly south of the main site location. The prehistoric component of the site lacks a subsurface component and diagnostic materials, making it highly unlikely to yield further data on the prehistoric occupation of the area.



Photo 15: North Wall Profile of Test Unit 6 at Site 7NC-F-169.



Photo 16: North Wall Profile of Test Unit 7 at Site 7NC-F-169.

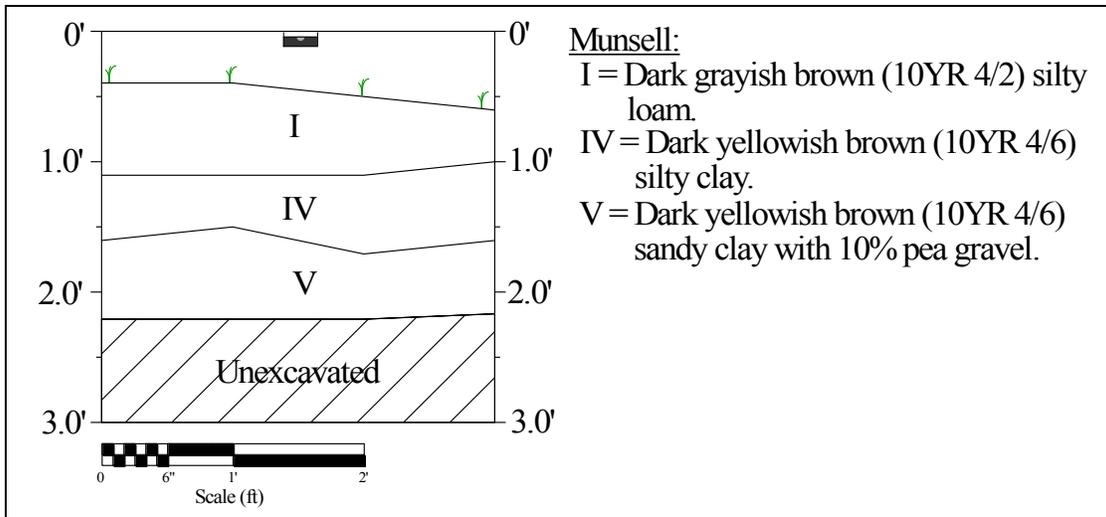


Figure 34: North Wall Profile of Test Unit 6 at Site 7NC-F-169.

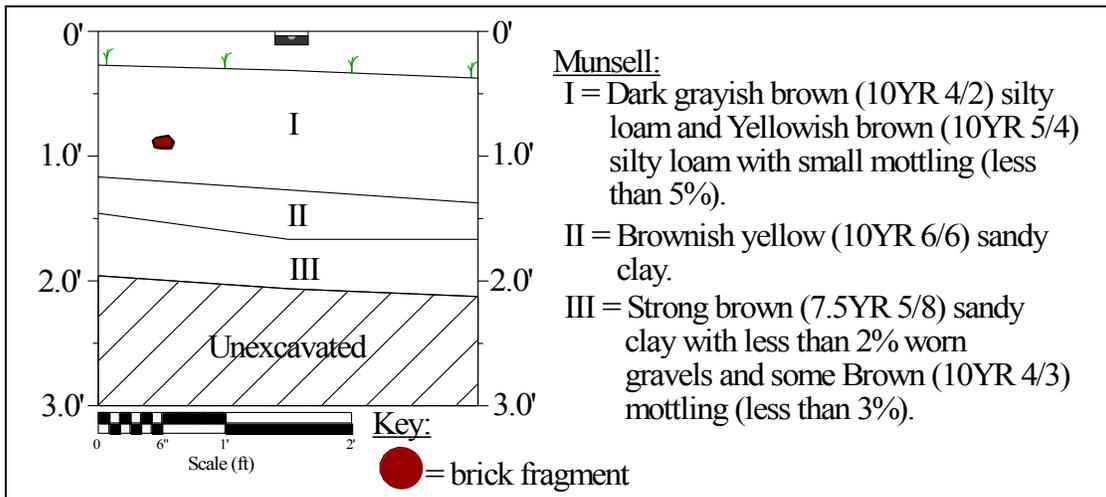


Figure 35: North Wall Profile of Test Unit 7 at Site 7NC-F-169.

A total of 496 historic artifacts was collected from surface collection, shovel testing, and test unit excavation within the site (Figure 36, p. 73). Historic architectural artifacts include a small number of hand-made brick fragments, cut nails with cut heads (1840–1890), aqua and clear window glass. Ceramic items consist of ironstone (1840–2000), pearlware (1779–1830), redware (1700–1900), whiteware (1820–2000), plain porcelain and porcellaneous fragments, white-glazed and lead glazed stonewares. The remainder of the collection includes an abundance of colored bottle glass, clear vessel glass, milk glass, unidentified metal, a metal spike, a metal finial, bone, oyster shell, and three buttons (Photo 18, p. 74).



Photo 17: Sample of Prehistoric Artifacts from 7NC-F-169 in Area 2C. From left: quartz uniface, stage 4 chert biface, stage 2 quartz biface, and stage 1 quartz biface.

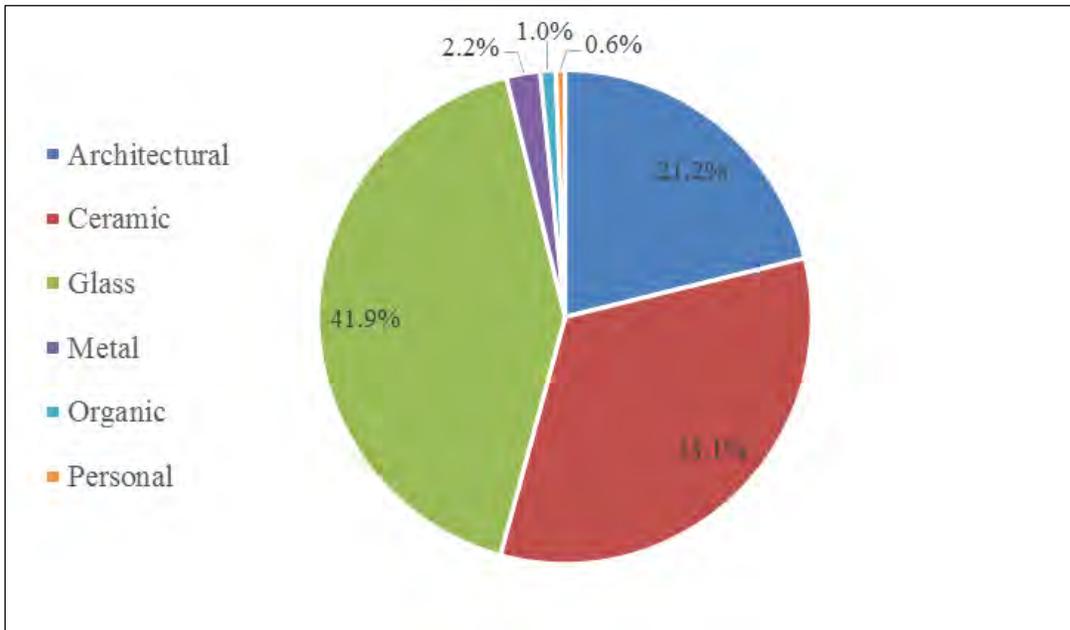


Figure 36: Distribution of Historic Artifact from Site 7NC-F-169.



Photo 18: Sample of Historic Artifacts from 7NC-F-169 within Area 2C. From left: cut nail with cut head, embossed aqua bottle glass, brown lead glaze redware, porcelain handle, bakelite 4-hole button, prosser button

The historic artifacts recovered from archaeological testing indicate that the site's primary component likely dates to the mid-nineteenth through early-twentieth century. The abundance of glass and ceramic items, coupled with the architectural artifacts, indicate a domestic occupation. No subsurface cultural features were identified during shovel testing or test unit excavation at the site. The fragmented nature of the assemblage and the lack of features indicates the site represents a domestic scatter rather than the primary location of a dwelling.

Archival and map research indicate that there was a tenant house located in the same general vicinity of site 7NC-F-169 (N-14,547). Historic depictions from the 1868 Pomeroy and Beers, 1881 Hopkins, and 1893 Baist maps indicate this tenant house on land owned and operated by Lewis Ellison. The tenant house persists on a 1904 topographic map of the region (Figure 37, p. 75). The main house owned by Lewis Ellison, was situated south of the current site and Area 2C. This property, later known as Hedgeland, was not documented or given a CRS prior to demolition.

After Lewis Ellison's death, Jonathan Lewis Ellison purchased the interest in his father's estate, the property he later named "Hedgeland," and continued to build upon his father's agricultural landscape. Farmer's Mutual Insurance records from 1871 detail the improvements that this second generation, noting "a two-story log and frame dwelling, sitting room and kitchen, new frame stable attached to stable, two-story frame granary,

carriage house, tool shed, new cow house, and a small, two-story, frame tenement.” An update in 1875 notes a shed addition made to the tenant house that increased its value from \$100 to \$250 in the years prior (Farmers Mutual Insurance Company nd).

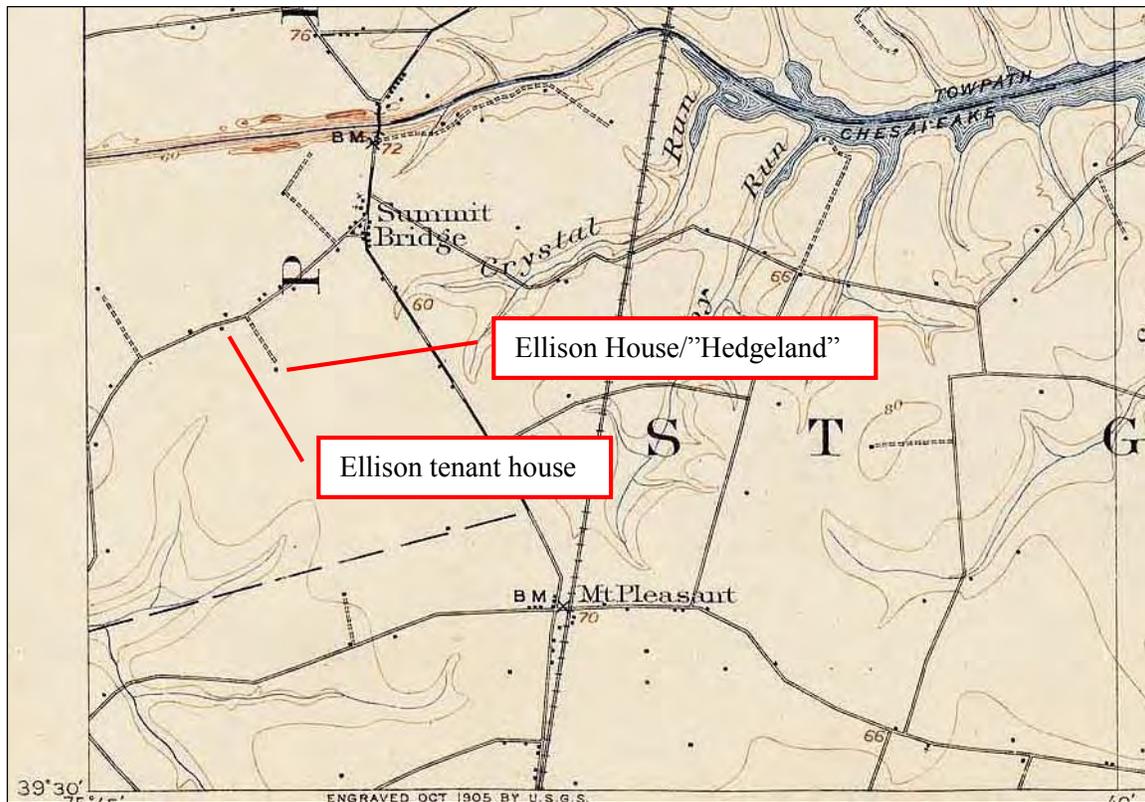


Figure 37: Wilmington Topographic Map (USGS 1904).

What appears to be the Ellison’s tenant house is first noted on the Pomeroy and Beers’ map in 1868, situated close to what is now Bethel Church Road, northwest of the main dwelling (see Figure 16, p. 44). Federal Census records from 1860, 1870, and 1880 list a number of African Americans living with Jonathan L. Ellison, but the names of these individuals are not consistent over the years (Ancestry 2011). However, the names of several African American workers in Lewis’ household are noted elsewhere in vicinity, suggesting that members of these families remained area residents following their tenure with Ellison. The Ellison tenant house is no longer visible in the 1937 aerial photograph (Figure 38, p. 76).

### Evaluation and Significance

The significance of 7NC-F-169 (N-14,547) was evaluated in relation to the NRHP eligibility criteria. The site was evaluated in regards to Criterion A, for its association with events that have made a significant contribution to the broad patterns of our history; Criterion B, for its association with people significant in our nation’s history; Criterion C, for its embodiment of the distinctive characteristics of a style; and Criterion D, for its potential to yield information important in prehistory and history.



Figure 38: Detail of Ellison Property on 1937 Aerial (CHRIS 2012).  
Site location shown in purple.

The archaeological investigation and archival research indicate that site 7NC-F-169 (N-14,547) represents an indeterminate prehistoric lithic scatter and historic domestic scatter associated with the Ellison tenant house. The tenant house was likely constructed in the mid-nineteenth century and demolished sometime between 1904 and 1937. Archaeological testing at the site did not yield any direct evidence of the tenant house. Given the dwelling's known proximity to Bethel Church Road any subsurface remains of the building were likely demolished when the road was improved and widened to accommodate the intersection with U.S. Route 301/Summit Bridge Road

Based on the sparse prehistoric component, the common occurrence of this agricultural site type in St. Georges Hundred and the lack of diagnostic domestic artifacts this site does not exhibit the potential to yield further significant information on domestic life, social context, subsistence/agriculture, and/or settlement patterns in New Castle County (Criterion D). There are no significant associations between these deposits and a significant historical event or pattern of events (Criterion A). There are no associations with significant persons (Criterion B), and the deposits do not illustrate the distinctive characteristics of a type, period, or method of construction (Criterion C). As such, this site is **recommended not eligible for the NRHP under Criteria A–D**.

Dovetail further recommends that this site be considered part of a larger Ellison Farm Complex. Archival research clearly links this archaeological site to property and farming operations run by the Ellison family. The no longer extant Ellison House, historically known as Hedgeland, is located south of the site location, outside the Spur APE. The larger Ellison Farm Complex includes 7NC-F-169 and field scatters in 2C and 2E. All of these are inherently linked to the larger agricultural operations of the Ellison Family and as such should be viewed within a common context.

### ***Area 2D***

Located directly northeast of the intersection of U.S. Route 301/Summit Bridge Road and Bethel Church Road, Area 2D was determined to have a high probability of containing both prehistoric and historic archaeological materials. At the time of archaeological survey Area 2D was located entirely within a forested parcel immediately adjacent to existing roadways and encompassed 6.4 acres (2.6 ha) (Photo 19).



Photo 19: Overview of Area 2D, Facing North.

Shovel testing occurred in all testable portions of Area 2D; portions not tested included areas of known disturbance such as the road shoulder immediately adjacent to U.S. Route 301/Summit Bridge Road. A total of 122 shovel tests was excavated in the area, six of which were positive for cultural materials (Figure 39, p. 78). Shovel tests extended to an average depth of 1.4 feet (43.2 cm) and a maximum depth of 3.1 feet (94 cm). The average Ap-horizon depth was 0.7 feet (19.8 cm) with a maximum depth of 1.8 feet (55.9 cm).

Shovel testing in this portion of the APE resulted in the recovery of 13 artifacts from six positive shovel tests, including radial testing. All artifacts recovered from shovel testing were historic and consisted of two cut nails (1815–1890), two fragments of aqua window glass, one hand-made brick fragment, four pieces of whiteware (1820–2000), one yellowware fragment (1830–1910), one piece of ironstone (1840–2000), and, one clear

and one amber fragment of bottle glass. Additionally, two artifacts (one piece each of clear and light green bottle glass) were recovered from the excavation of one test unit, denoted as Test Unit 2. Test Unit 2 was excavated in the central portion of Area 2D, directly east of the shovel test at grid location N750, E450. The shovel test at this location was devoid of artifacts, but revealed a large concrete slab along the southern edge of excavation. Thus Test Unit 2 was situated in this location to further investigate the origin of the concrete.

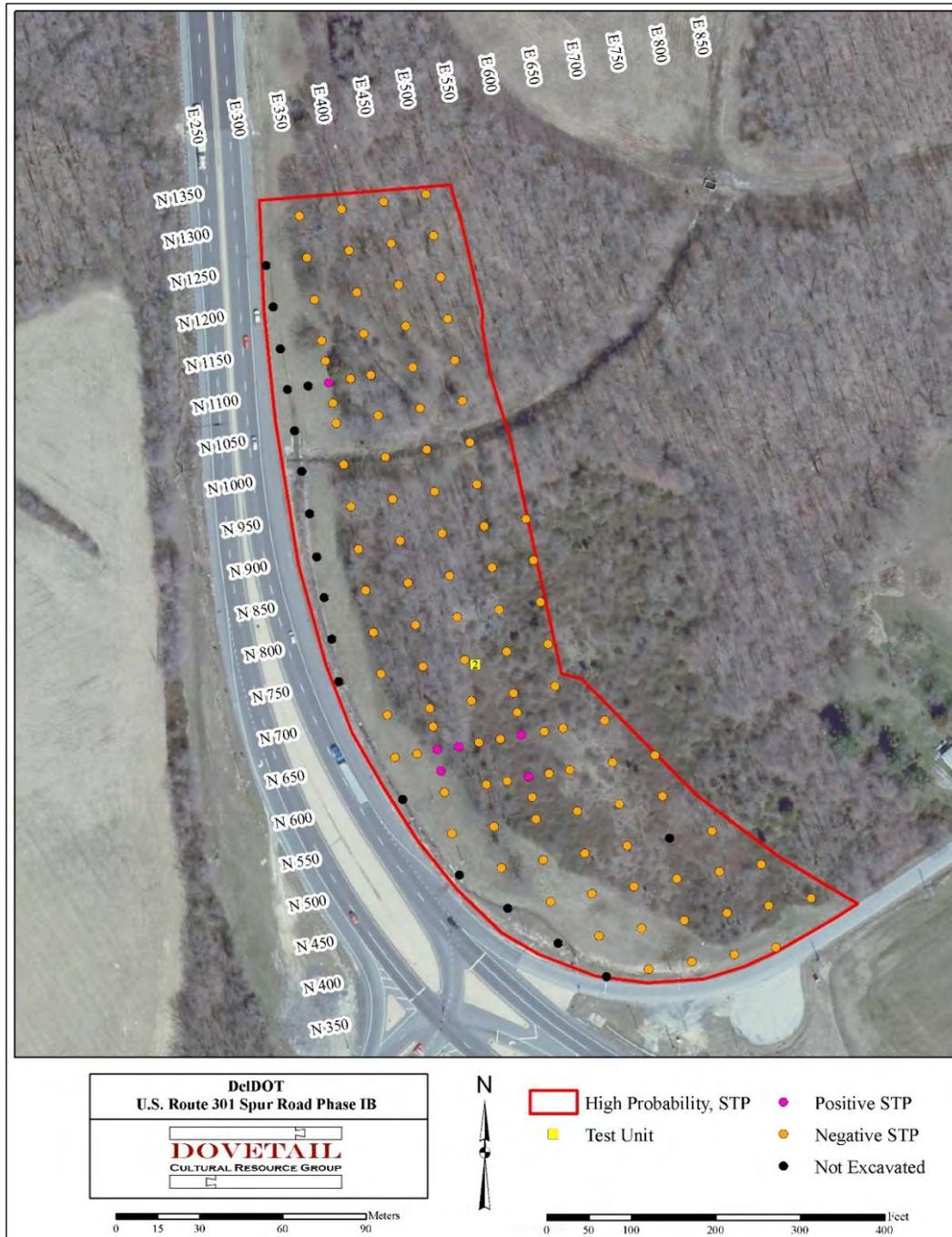


Figure 39: Area 2D Shovel Testing and Test Unit Results (USDA 2011).

Test Unit 2 revealed a thin humic (O-horizon/Stratum I) identified as a dark brown (10YR 3/3) silt loam and that reached a maximum thickness of 0.3 feet (8.9 cm). Excavation of Stratum I revealed a disturbed concrete fill defined as a dark yellowish brown (10YR 4/4) silty clay loam with inclusions of yellowish brown (10YR 5/6) sandy clay and strong brown (7.5YR 5/8) sandy clay (Stratum II). This context contained modern trash and reached a maximum thickness of 0.6 feet (19.1 cm). The removal of Stratum II revealed a second disturbance context (Stratum III), classified as a strong brown (10YR 5/8) sandy clay mottled with 10 percent gray (5Y 6/1) silty clay. Again, modern debris was found in abundance in this stratum but not collected. Both of these disturbance strata revealed additional concrete blocks were uncovered along the northern wall of the test unit. The removal of 0.7 feet (20.3 cm) of Stratum III revealed a grayish brown (2.5Y 5/2) clay. Two sterile arbitrary excavation levels were excavated in this stratum (Photo 20; Figure 40, p. 80).

The concrete blocks and the disturbed context in which they are located were determined to be associated with road construction activities and thus are the result of modern disturbance, not indicative of historic cultural activity. The gray clay stratum underlying them appears to be an introduced clay, also associated with adjacent road construction.



Photo 20: Test Unit 2 North Wall Profile in Area 2D. Concrete slabs along the north wall of test unit are associated with road construction disturbance (shown in red).

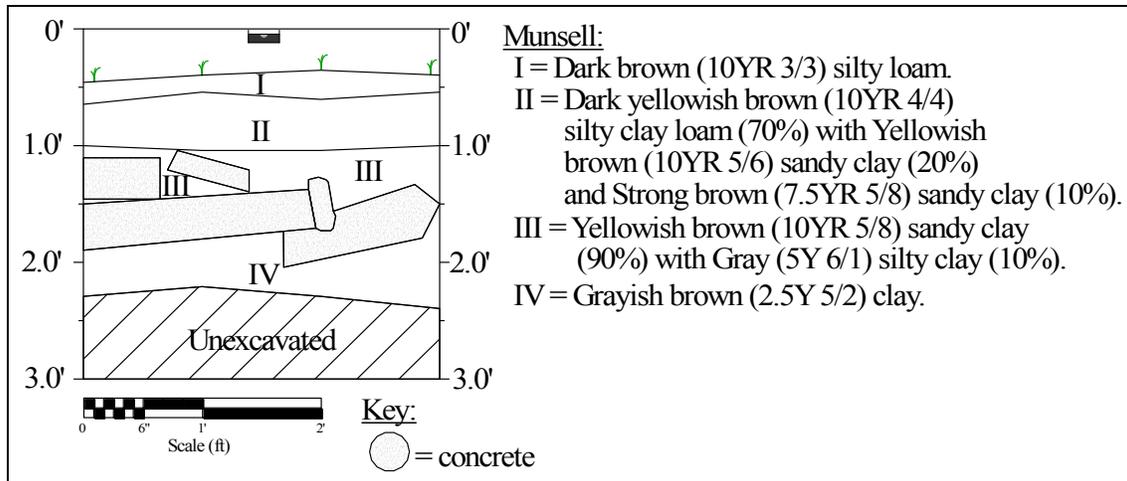


Figure 40: Test Unit 2 North Wall Profile in Area 2D.

Archival research of the parcel in which Area 2D is located revealed that this area was an agricultural field during the nineteenth and early-twentieth centuries, situated northeast of Jane Brisbane’s circa-1860s tenant house. The property was owned during this period by members of the Biggs family, most notably John Biggs and then his children Jane Brisbane (formerly Jane Biggs) and S. C. Biggs in the nineteenth century, followed by Abram, John F., and Sewell C. Biggs (son of John F. Biggs) into the mid-twentieth century. Given the low density of artifacts and the agricultural history of the parcel, Dovetail recommends that historic remains collected during shovel testing be attributed to field scatter practices of the nineteenth and twentieth centuries. These artifacts are most likely associated with Biggs Family Farm Complex and the main house at 939 Bethel Church Road (N-6320) that is located approximately a quarter mile (0.4 km) west of Area 2D.

**Area 2E**

Area 2E is situated southeast of the intersection of intersection of U.S. Route 301/Summit Bridge Road and Bethel Church Road. This portion of the APE is located within the “Fix the Curve”/Contract 4A portion of the Spur alignment. It encompasses 3.5 acres (1.4 ha) and was determined to be of high historic probability. The majority of this area consists of an agricultural field, except for the western end which contains a grass covered road shoulder and paved parking lot (Photo 21–Photo 22, p. 81). Originally this entire area was to be examined via pedestrian survey; however, upon field inspection the western end of the APE was found to be outside the established boundaries of the agricultural field. During a field meeting with DelDOT archaeologists on August 16, 2011, it was determined that systematic shovel testing would be undertaken in the western portion of Area 2E in lieu of pedestrian survey.



Photo 21: View of the Grassy Road Shoulder Portion of Area 2E, Facing Northwest.



Photo 22: View of the Paved Parking Lot Portion of Area 2E, Facing West.

Systematic shovel testing in the western portion of the APE resulted in the recovery of 23 artifacts from four shovel tests (Figure 41, p. 83). All four positive shovel tests were located immediately adjacent to U.S. Route 301/Summit Bridge Road. The majority of these artifacts were clear bottle glass (n=18), while the remaining artifacts included an unidentified nail, a fragment of aqua window glass, a piece of whiteware (1820–2000), an ironstone (1840–2000) fragment, and a piece of unidentified metal.

The pedestrian survey of the eastern portion of the APE required the removal of the planted agricultural crop prior to archaeological investigations. The corn crop was harvested in early September 2011, and the entire Area 2E was plowed and disced (Photo 23, p. 84). Surface collection yielded 29 artifacts, five of these were of prehistoric affiliation while the remaining 24 were historic. The prehistoric artifacts include one piece of tertiary quartz debitage (surface collection 2E-14), a broken Levanna projectile point (surface collection 2E-1), a secondary jasper flake (surface collection 2E-6), a Koens-Crispin quartzite projectile point (surface collection 2E-25), and a fragment of quartz angular debris (surface collection 2E-15). Subsurface tests conducted adjacent to these prehistoric finds were all negative for cultural materials. Given the low density of surface collections and the lack of subsurface deposits, the prehistoric artifacts are considered isolated occurrences and have been designated as ISF-10 (surface collection 2E-1), ISF-11 (surface collection 2E-6), ISF-12 (surface collection 2E-14), ISF-13 (surface collection 2E-15), and ISF-14 (surface collection 2E-25).

The 24 historic surface collections from Area 2E include aqua window glass, redware (1700–1900), ironstone (1840–2000), American blue grey stoneware (1800–1900), white glazed stoneware, an unidentified copper disk, and a variety of colored bottle glass. Eight shovel tests were excavated among these surface collections, at areas of perceived artifact concentrations and at notable finds. All surface investigations were negative for cultural materials. The historic surface collects are attributed to field scatter practices of the nineteenth and twentieth centuries.

Archival research of the parcel in which Area 2E revealed that this property was owned and farmed by Lewis Ellison and his descendants in the nineteenth and early-twentieth century. The Ellison residence, although no longer extant, was situated approximately 0.3 miles (0.5 km) south of Area 2E. The house was demolished in the latter-half of the twentieth century and was not previously documented or assigned a CRS number. The site of the Ellison residence is outside of the project corridor, situated within an early-twenty-first-century residential subdivision. The Ellison Farm Complex includes 7NC-F-169 (N-14547) and field scatters in 2C and 2E. All of these are inherently linked to the larger agricultural operations of the Ellison Family and, as such, should be viewed within a common context.

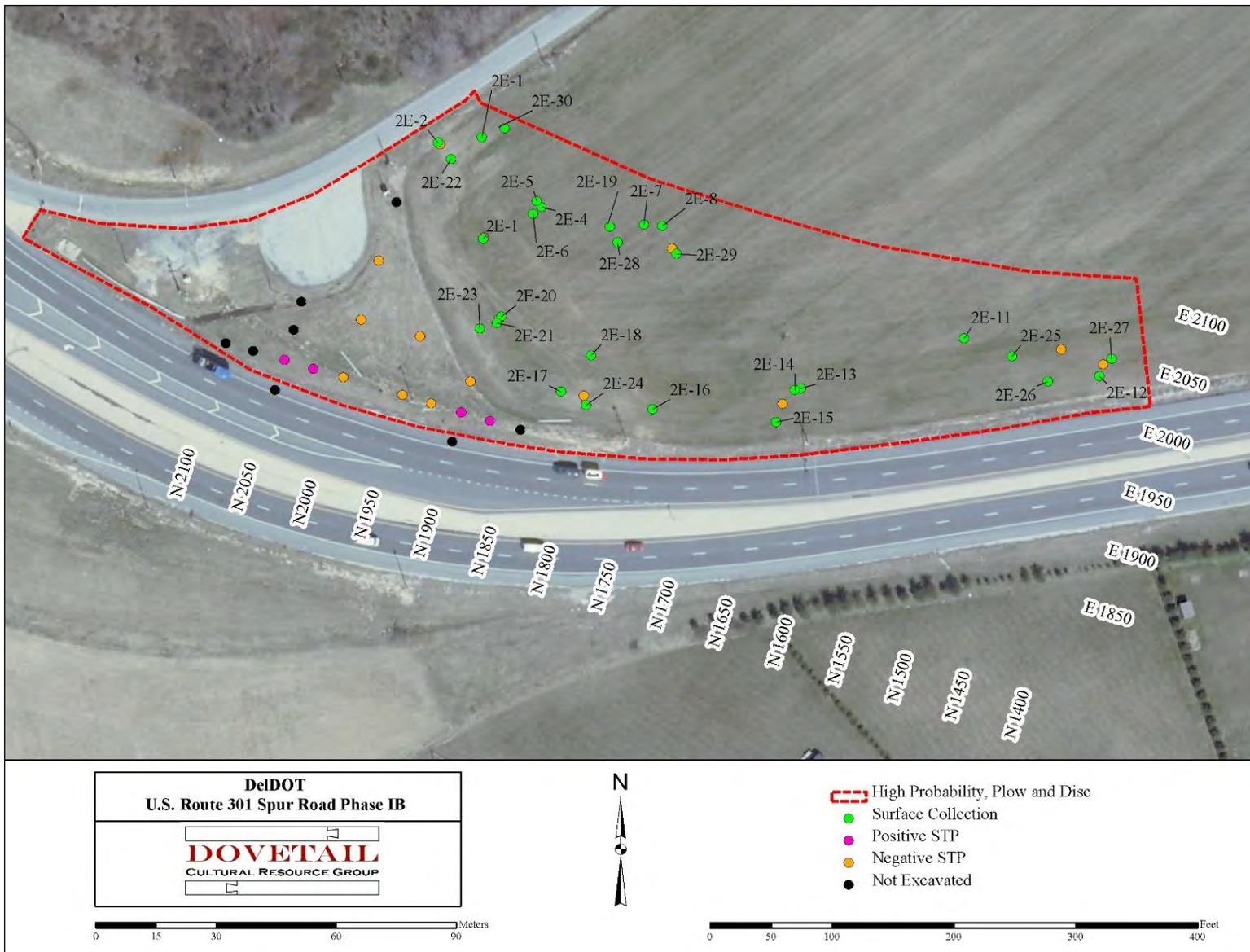


Figure 41: Area 2E Surface Collection and Shovel Testing Results (USDA 2011).



Photo 23: View of the Surface Collection Portion of Area 2E, Facing Southeast.

## Area 5

Area 5 is located south of Bethel Church Road, along a portion of the APE that will require the widening/reconfiguration of Bethel Church Road to allow for adequate access to the Spur mainline to the east. This area encompasses 7 acres (2.8 ha) and was identified as an area of moderate historic probability. Prior to archaeological investigations the entire Area 5 consisted of an agricultural field planted with corn (Photo 24, p. 85). The archaeological survey of Area 5 was delayed until the crop was removed in mid-October 2011. Following crop removal, the entire Area 5 was plowed and disced in anticipation of pedestrian survey (Photo 25, p. 85).

Pedestrian survey of Area 5 yielded 28 artifacts from 24 surface collects locations, predominantly found in the eastern and northern portion of the area, adjacent to Bethel Church Road (Figure 42, p. 86). These surface collections include one piece of prehistoric lithic debitage (surface collection 5-18) and the remaining are all of historic association. The historic assemblage consists of hand-made brick, whiteware (1820–present), redware (1700–1900), porcelain, porcellaneous (1820–2000), stoneware, clear and green bottle glass, clear vessel glass, an aqua insulator fragment, and ceramic drainpipe fragments. Following the pedestrian survey and collection of these items, shovel tests were judgmentally excavated in areas of perceived artifact concentrations and at notable finds. Nine shovel tests were excavated in Area 5 and all were negative for cultural materials. Shovel tests were primarily located in the eastern portion of Area 5, given that most surface collections were concentrated in this area. However, shovel tests were excavated where the one prehistoric artifact was recovered and at the location of outlying surface collects in the western portion of the APE.



Photo 24: Area 5 Prior to Crop Removal and Archaeological Testing, Facing Northeast.



Photo 25: Area 5 Following Crop Removal and Plowing/Discing, Facing Southwest.

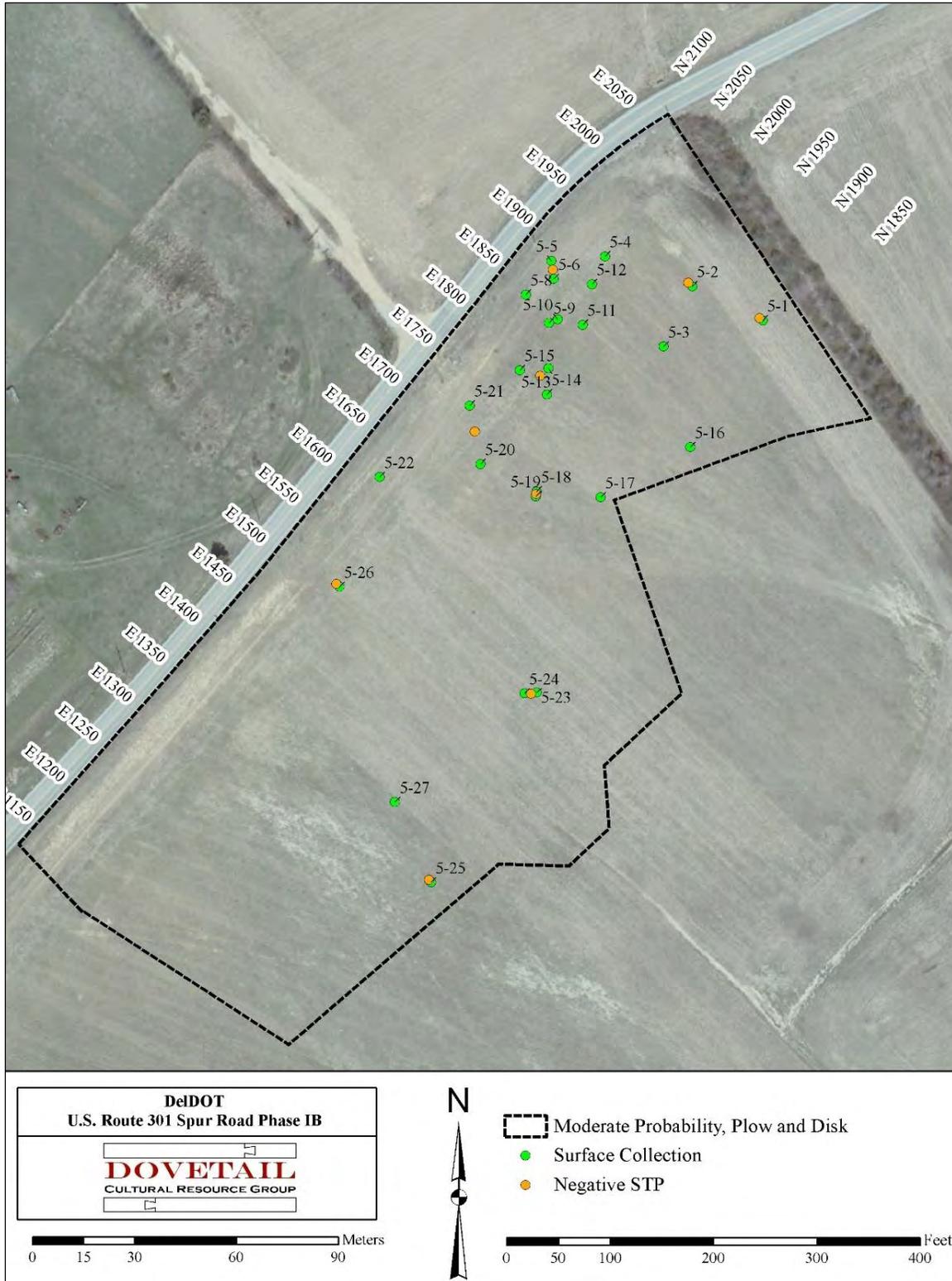


Figure 42: Area 5 Surface Collection and Shovel Testing Results (USDA 2011).

The surface collections made in Area 5 included a small amount of possible eighteenth century material, including the redware and green wine bottle glass. These items were sparse and scattered, indicating casual discard possibly associated with the agricultural use of the parcel. They are not indicative of the concentrated domestic use of the area or the core of site activity. Archival research indicated that these scant eighteenth century remains are likely associated with Deborah Kain (alternate spelling Kane) who owned the parcel and a dwelling located immediately across Bethel Church Road from Area 5 during this period. This location was not further investigated as an area of concentrated eighteenth-century occupation as the larger U.S. Route 301 cultural resources program has employed a sampling strategy and far more substantial collections of this time period have been extensively investigated. However, Dovetail **recommends that this area should be monitored during road construction to ensure that no undiscovered archaeological resources are damaged.**

Given the low density of surface collections and the lack of subsurface artifacts, the one prehistoric artifact is considered an isolated occurrence (ISF-15) and the historic surface collects are attributed to field scatter practices of the nineteenth and twentieth centuries. The field scatter in Area 5 is likely associated with Biggs family, either John Biggs, Jane Brisbane (formerly Jane Biggs), Sewell C., Abram, or John F. Biggs. The land in Area 5 was part of the 212-acre (85.5-ha) farm that Jane Brisbane obtained from her father's estate in 1862, and part of the land that John Biggs purchased in the early 1820s.

Archival research indicates that this farmland was leased to a number of tenants during the second-half of the nineteenth century—a pattern that persisted both before and after the Biggs family's tenure of the property. The land in Area 5 appears to have been used for agricultural purposes, and is not shown to have contained any buildings or structures in the past. A few extant houses and farm buildings adjacent to the project corridor are associated with the Biggs family, including the J. Biggs House (N-6320), which is the main dwelling on what was later Jane Brisbane and Sewell C. Biggs' farm, located on the north side of Bethel Church Road approximately a quarter of mile east of Area 5 at 939 Bethel Church Road; the brick dwelling known as the Gov. Benjamin T. Biggs Farm/Sewell. C. Biggs House (N-6190) that is located just south of Area 5 at 1084 Bethel Church Road; and the NRHP-listed Gov. Benjamin T. Biggs House (N-5123), situated further south at 1196 Choptank Road.

## **Area 7**

Area 7 is located approximately 0.3 miles (0.5 km) south of the intersection of U.S. Route 301/ Summit Bridge Road and Bethel Church Road. It consists of a portion of the Spur mainline and encompasses 18.1 acres (7.3 ha). This area was identified as an area of low historic probability in the previously completed archaeological predictive model (Baublitz et al. 2006). The archaeological survey of Area 7 consisted of pedestrian survey followed by judgmental shovel testing. Plowing and discing in support of this survey work was delayed until all crops were harvested, in mid-October 2011 (Photo 26, p. 88).



Photo 26: Pedestrian Survey of Area 7, Facing Northeast.

Pedestrian survey of Area 7 resulted in the collection of 15 artifacts, seven of which were prehistoric and the remaining eight were historic in affiliation (Figure 43, p. 89). Following pedestrian survey eight shovel tests were excavated at areas of observed artifact concentrations and notable artifacts. All subsurface investigations in Area 7 were negative for cultural materials. The prehistoric artifacts are grouped in the central portion of the area and have been designated as archaeological site 7NC-F-170 (N-14,548), discussed in the following section.

The historic artifacts identified in Area 7 consist of hand-made brick, whiteware (1820–present), redware (1700–1900), ironstone (1840–2000), and clear bottle glass. These artifacts are likely the result of field scatter practices of the nineteenth and twentieth centuries. The field scatter in Area 7 is likely associated with aforementioned Biggs family members and their farm tenants. The land in Area 7 was divided between Jane Brisbane and her brother, Sewell C. Biggs in the division of their father’s estate in the 1860s, and was part of the land that John Biggs purchased in the early 1820s. This land remained within their family through the end of the twentieth century.

Archival research suggests that much of the land in Jane Brisbane’s farm in the northern half of Area 7 was leased to tenants during the second-half of the nineteenth century—a pattern that persisted both before and after the Biggs family’s tenure of that property. The southern portion of Area 7 was part of Sewell C. Biggs’ farm, and is associated with his main dwelling (N-6190) located at 1084 Bethel Church Road. The land in Area 7 appears to have been used for agricultural purposes, and is not known to have contained any buildings or structures in the past. Other extant houses and farm buildings adjacent to the project corridor are also associated with the Biggs family, including the J. Biggs House (N-6320), located on the north side of Bethel Church Road approximately one-half mile (0.8 km) north of Area 7 at 939 Bethel Church Road, and the NRHP-listed Gov. Benjamin T. Biggs House (N-5123), situated a little over 0.5 miles southeast (0.8 km) from Area 7 along the Choctank Road.

### Site Description

Phase I testing within Area 7 resulted in the identification of one prehistoric archeological site, 7NC-F-170 (N-14,548). Seven prehistoric artifacts were found clustered in northwestern portion of the APE (Photo 27, p. 90). This site measures approximately 180 x 115 feet (54.9 x 35.1 m) and comprises approximately 0.4 acres (0.2 ha). The site boundaries were established via the limits of surface artifacts.



Photo 27: Overview of Site 7NC-F-170 in Area 7, Facing Northeast.

The artifacts from the site consist of two pieces of angular debris, one secondary quartz flake, one tertiary quartz flake, one stage 3 chert biface, one chert uniface and one stage 5 quartz biface (Photo 28, p. 91). None of these items were temporally diagnostic. Three shovel tests were excavated within this cluster of prehistoric artifacts, but all were negative for cultural materials. The subsurface testing yielded no artifacts but did reveal that the soils across the site are shallow and highly saturated. All shovel tests within the site boundary encountered the water-table prior to subsoil and were thus terminated prior to the exposure of subsoil. An adjacent shovel test did show stratigraphy consisting of a dark yellowish brown (10YR 3/4) silty loam Ap-horizon, a modern plowzone, over a yellowish brown (10YR 5/8) sandy clay subsoil, B-horizon (Figure 44, p. 91).

### Evaluation and Significance

The significance of 7NC-F-170 (N-14,548) was evaluated in relation to the NRHP eligibility criteria. The site was evaluated in regards to Criterion A, for its association with events that have made a significant contribution to the broad patterns of our history; Criterion B, for its

association with people significant in our nation's history; Criterion C, for its embodiment of the distinctive characteristics of a style; and Criterion D, for its potential to yield information important in prehistory.



Photo 28: Artifact Sample from 7NC-F-170. From left: stage 3 chert biface, stage 5 quartz biface, chert uniface.

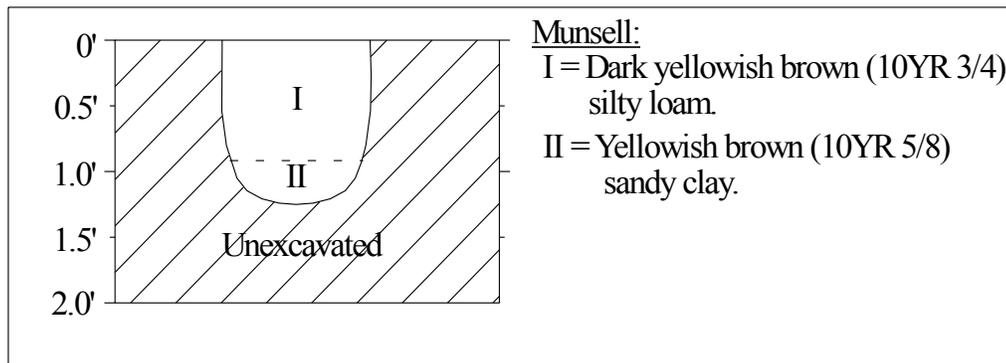


Figure 44: Representative Shovel Test Profile from Adjacent to Site 7NC-F-170.

The site represents an ephemeral lithic scatter devoid of diagnostic artifacts. Based on the sparse nature of these remains coupled with the apparent lack of a subsurface component this site does not exhibit the potential to yield further significant information on prehistoric domestic life, subsistence, and/or settlement patterns in New Castle County (Criterion D). Furthermore, this area was originally deemed an area of low probability for containing archaeological sites. The sparse scatter of prehistoric remains at the sites further confirms this inference. There are no significant associations between these deposits and a significant

historical event or pattern of events (Criterion A). There are no associations with significant persons (Criterion B), and the deposits do not illustrate the distinctive characteristics of a type, period, or method of construction (Criterion C). As such, this site is **recommended not eligible for the NRHP under Criteria A–D**.

## **Area 9**

Area 9 consists of seven sub-areas (9A–9G) along the central portion of the APE, within the Contract 4B and 4C scope of the Spur alignment. These seven areas encompass 30.4 acres (12.2 ha) including both the Spur mainline and adjacent roadway configuration portions of the alignment. The results from archaeological testing of these individual areas are summarized in the following sections.

### ***Area 9A***

Area 9A is located approximately 0.3 miles (0.5 km) east of Choptank Road and 1 mile (0.8 km) south of the intersection of U.S. Route 301/ Summit Bridge Road and Bethel Church Road. This portion of the Spur mainline encompasses 5.5 acres (2.2 ha) and was identified as an area of moderate prehistoric probability. Originally this entire area was slated to be plowed and disced in anticipation of pedestrian survey; however, the property owner requested that the southern half of the area not be plowed (for aesthetic reasons). Based on this request, a subsequent field meeting with DelDOT archaeologists on October 27, 2011 and consultation with the DE SHPO resulted in a modified field methodology, using shovel testing at a 50-foot (15-m) interval in the southern half of Area 9A instead. The methodology in the northern portion of Area 9A remained the same; it was plowed and disced after all crops were harvested, in mid-October 2011 (Photo 29).



Photo 29: Overview of Pedestrian Survey Northern Portion of Area 9A, Facing Northeast.

The northern portion of Area 9A that was plowed and disced encompassed 3.1 acres (1.25 ha). Pedestrian survey resulted in the identification of one historic artifact (surface collection

9A-1), a piece of black lead-glazed redware (Figure 45). One shovel test was excavated adjacent to the surface collection, but it was negative for additional cultural materials. As such, this single artifact is an isolated historic occurrence, denoted as ISF-16. Historically, this parcel was part of the Biggs family land holdings, owned first by John Biggs and then by his son, Benjamin T. Biggs, in the mid-nineteenth century (see Figure 15, p. 42). Approximately 0.25-mile (0.4-km) west of Area 9A is the Gov. Benjamin T. Biggs House (N-5123), addressed at 1196 Choptank Road, that was listed on the NRHP along with seven outbuildings and the surrounding 3.9 acres (1.6 ha) in 1987 (Jicha 1987).

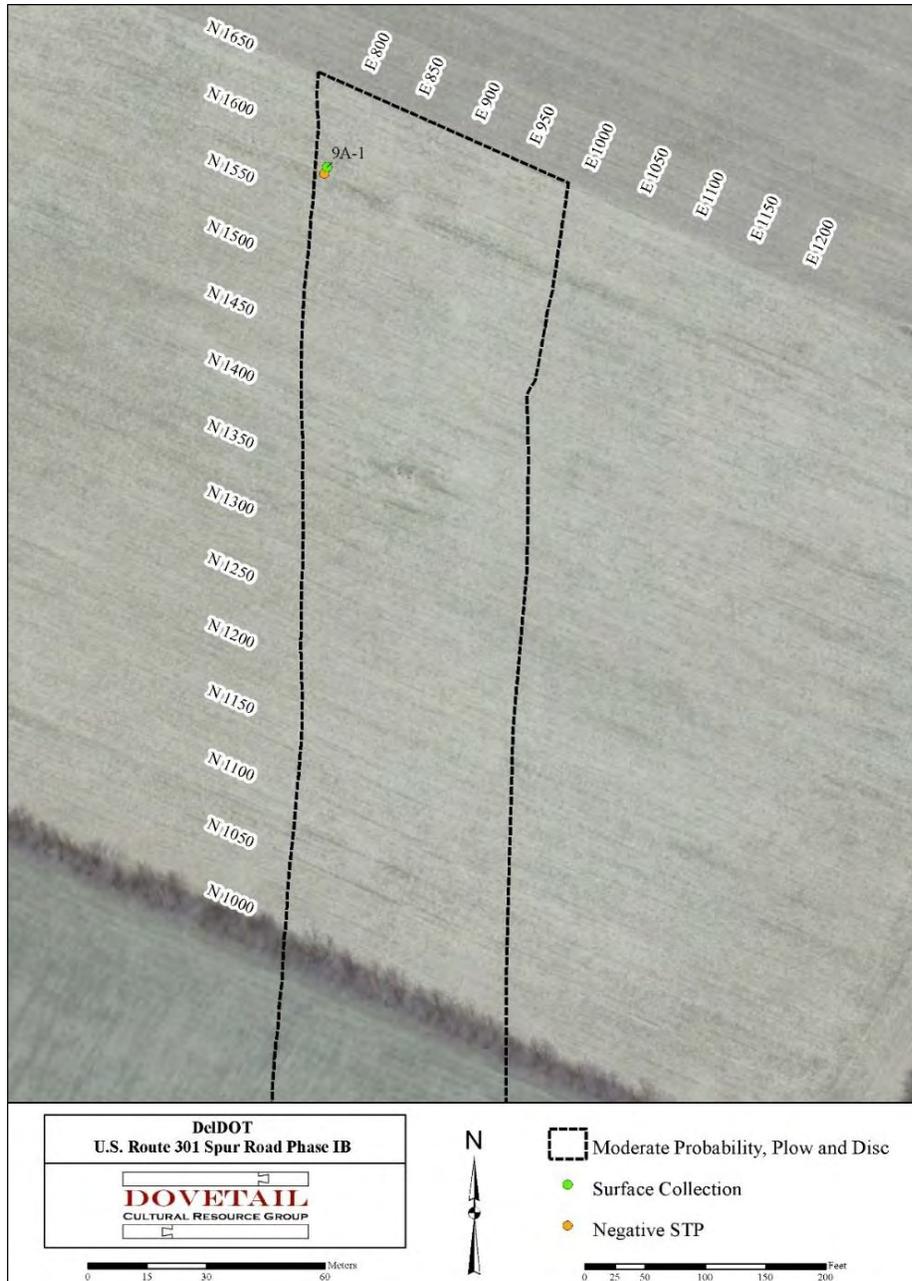


Figure 45: Northern Section of Area 9A Surface Collection and Shovel Testing Results (USDA 2011).

The southern portion of Area 9A encompasses 2.4 acres (0.9 ha) and was examined via systematic shovel testing (Photo 30). Forty-six shovel tests were excavated and all were negative for cultural materials (Figure 46, p. 95). Given the lack of cultural materials no archaeological sites, isolated finds, or field scatters were identified in the southern portion of Area 9A.



Photo 30: Overview of Shovel Testing Southern Portion of Area 9A, Facing North.

### ***Area 9B***

Located north of Churchtown Road within a stand of trees, Area 9B encompasses 5.6 acres (2.3 ha) (Photo 31, p. 96). This area was previously determined to have a high probability to contain prehistoric archaeological materials because of its close proximity to Back Creek. Area 9B was investigated via systematic shovel testing because of its location within stand of trees (Figure 47, p. 97).

Shovel testing in Area 9B resulted in the collection of 59 artifacts from nine shovel tests in the central portion of the APE, south of Back Creek. One test unit, Test Unit 8, was placed in the center of this concentration to further assess the extent and nature of the artifacts. An additional 58 artifacts were recovered from the excavation of Test Unit 8. Artifacts from both shovel testing and test unit excavation were all historic in affiliation. Given the abundance and concentrated nature of these artifacts, the materials recovered from Area 9B are representative of an archaeological site, designated as 7NC-F-171 (N-14,549). One positive shovel test was located south of the main site concentration and as such has been designated as an isolated historic occurrence, denoted as ISF-23.

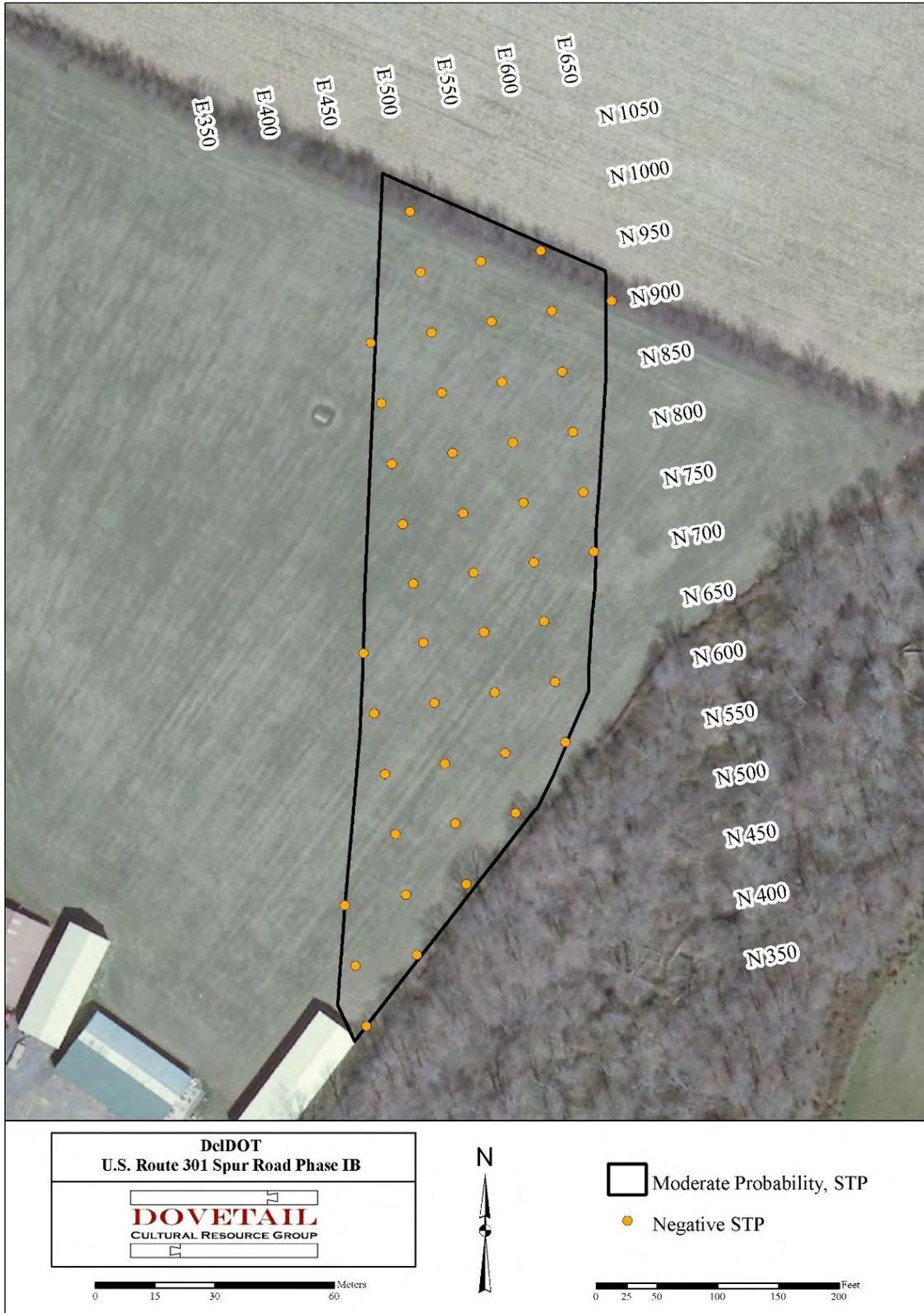


Figure 46: Southern Section of Area 9A Shovel Testing Results (USDA 2011).



Photo 31: Overview of Area 9B, Facing South.

Late-eighteenth and early-nineteenth century ceramics, green wine bottle glass, and personal items along with cut nails and hand-made brick fragments indicated an eighteenth through early-nineteenth century occupation of the site. The artifacts along with the archival research gathered during the Phase IB investigation indicated that the site could potentially be associated with the industrial use of the parcel during the eighteenth and nineteenth centuries. However, given the limited scope of the Phase IB study this could not be conclusively determined.

Phase IB testing at site 7NC-F-171 (N-14,549) indicated that the site exhibited the potential to yield further significant information on the domestic life, social context, subsistence/agriculture, and/or settlement patterns in New Castle County. As such it was recommended as potentially eligible for the NRHP under Criterion D. Based on this recommendation and in consultation with DelDOT and the DE SHPO further archival research and archaeological testing was recommended at the site. Phase II investigations were begun by Dovetail in the fall of 2013 and a full report detailing these findings is forthcoming (Krofft et al. 2014). As such the preliminary Phase IB findings are not discussed in detail within this report and instead will be incorporated into the comprehensive Phase II report. Additionally, the artifacts collected from this site are not presented in the artifact catalog nor will they be curated as part of this Phase IB investigation, instead all artifacts associated with 7NC-F-171 (N-14,549) will be curated in conjunction with the Phase II study at the site.

## Area 9C

Area 9C is located in an agricultural field north of Churchtown Road and includes two distinct segments totally 14.2 acres (5.7 ha) (Figure 48, p. 98). The first segment runs parallel to Churchtown Road, in an east-west orientation, along the extreme southern boundary of the agricultural field (Photo 32, p. 99). This portion of Area 9C was previously identified as having moderate probability for prehistoric remains given its proximity to Back Creek. The second segment of Area 9C parallels the eastern boundary of the agricultural field, along the proposed Spur mainline, in a north-south manner (Photo 33, p. 99). This area was identified as having a low probability for prehistoric materials. Both portions of 9C were investigated by pedestrian survey following the plowing and discing of the agricultural field in mid-October 2011.



Figure 48: Area 9C (USDA 2011).

Pedestrian survey of the entire Area 9C resulted in the collection of 26 artifacts from 21 surface collection locations. Twenty-three of these artifacts were obtained from the southern, east-west trending, portion of the APE (Figure 49, p. 100). These included a concentration of

hand-made brick with one fragment of oyster shell, one piece of aqua window glass, and one piece of ironstone (1840–2000) in the extreme western portion of the APE. Spread across the remainder of southern APE was a diffuse scatter of whiteware (1820–2000), redware (1700–1900), clear bottle glass, porcelain, six pieces of lithic debitage, and one non-diagnostic biface.



Photo 32: View of East-West Orientation, along Southern Boundary of the Agricultural Field in Area 9C, Facing West.



Photo 33: View of North-South Portion of Area 9C, Facing North.

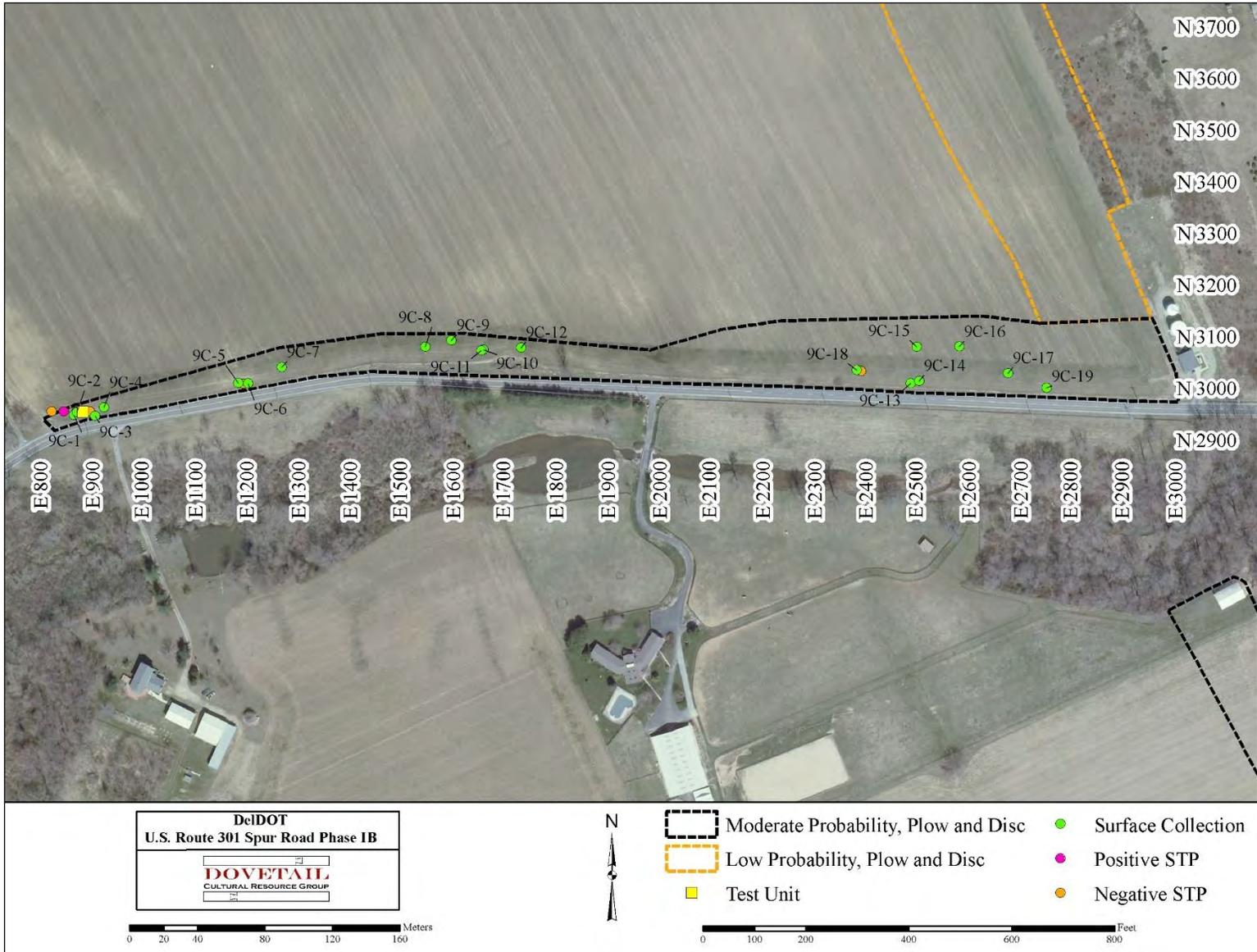


Figure 49: Southern Portion of Area 9C Surface Collection, Shovel Testing, and Test Unit Results (USDA 2011).

Seven shovel judgmental shovel tests were used to further examine the nature of the surface collections from the southern segment of the APE. Two of these shovel tests, located in the extreme western portion of Area 9C, were positive for cultural materials. These positive shovel test results combined with a concentration of brick identified in the same location warranted further investigation in the western portion of the APE. One test unit, Test Unit 9, was excavated in the center of the brick concentration and yielded additional artifacts.

Test unit excavation revealed a modern plowzone over subsoil (Photo 34; Figure 50, p. 102). The Ap-horizon (Stratum I) was identified as a dark yellowish brown (10YR 3/6) silt loam and reached a maximum thickness of 0.9 feet (26.7 cm). Two plowscars were revealed at the base of the stratum and were oriented east-west, parallel to the adjacent Churchtown Road. Stratum II, a culturally sterile B-horizon subsoil, was identified as a strong brown (7.5YR 5/8) silty sandy clay. Two arbitrary levels were excavated in this stratum, at which point the test unit excavation was stopped. No cultural features were identified during excavation.



Photo 34: North Wall Profile of Test Unit 9 in Area 9C.

Artifacts from Test Unit 9 were strictly collected from the modern plowzone and included 37 historic items. The architectural items from the test unit included hand-made brick, unglazed wire nails (1890–1945), unidentified nails, and aqua window glass. Ceramics consist of whiteware (1820–2000) and one piece of American blue grey stoneware. Both clear and light green bottle glass were collected along with a machine-made glass marble and a piece of glazed ceramic drainpipe.

The artifacts recovered from the surface collection, shovel testing, and test unit excavations in the southern (east-west trending) portion of 9C all indicate a historic temporal association of the late-nineteenth through the twentieth century. Archival research focused on this

portion of the APE indicated that this parcel was owned by Colonel Joshua (or Thomas) Clayton and occupied by various family members in the mid-nineteenth century, including his brother, Henry Clayton. Colonel Joshua Clayton's main dwelling, Choptank on the Hill (N-5243), is located west of the project corridor. Henry Clayton purchased the 212-acre (85.8-ha) farm in 1873, but was reported to have resided there since 1860 when the main house was erected (Gundy and Kuncio 2009; NCCDB L14:413; Pomeroy and Beers 1868). The land in Area 9C was a part of the farm that Henry Clayton named "Woodside," and remained within the Clayton family into the early part of the twentieth century. The circa-1860 main residence, farm buildings, and surrounding 3.5 acres (1.4 ha) of Woodside (N-0427), addressed at 1358 Choptank Road, was listed on the NRHP in 1985 as part of the *Rebuilding St. Georges Hundred* multiple property nomination (Frederick et al. 2006b; Herman et al. 1985).

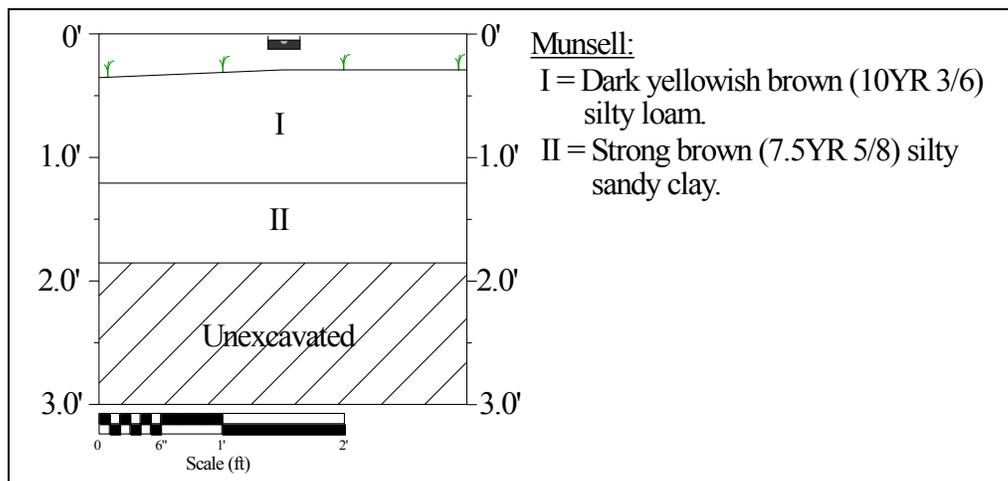


Figure 50: North Wall Profile of Test Unit 9 in Area 9C.

Research indicated there were no recorded dwellings, tenant house, barns or other buildings within Area 9C. However, this land was located along a well-established property line detailed in an 1833 deed from Edward Tatnall to Curtis B. Ellison, and which likely followed a historic pathway or fence line. As such, the historic artifacts found in Area 9C during the archaeological survey are likely a result of field scatter practices of the nineteenth and twentieth centuries and not indicative of concentrated cultural activity. The seven prehistoric artifacts identified in the southern portion of the APE were scattered and had no subsurface component. These artifacts are considered isolated finds and have been given the designations ISF-18 (surface collection 9C-5 and 9C-6), ISF-19 (surface collection 9C-8), ISF-20 (surface collection 9C-10 and 9C-11), ISF-21 (surface collection 9C-17), and ISF-22 (surface collection 9C-18).

Pedestrian survey in the eastern, north-south oriented, portion of Area 9C resulted in the collection of one artifact, a fragment of olive green bottle glass (Figure 51, p. 103). A shovel test was excavated adjacent to this surface collect and was negative for cultural material. This artifact (surface collection 9C-20) is considered an isolated find and designated as ISF-17.



Figure 51: Eastern, North-South Oriented, Portion of Area 9C with Surface Collection and Shovel Testing Results (USDA 2011).

### ***Area 9D***

Area 9D is located directly north of Churchtown Road, approximately 0.25 miles (0.4 km) east of the intersection of Churchtown and Choptank Roads. This area was previously identified as a location of high prehistoric probability given its close proximity to a permanent water source, Back Creek. It is located parallel to Churchtown Road and within the landscaped front yard of a rural residential property (Photo 35). It encompasses 0.2 acres (0.08 ha) and was examined via systematic shovel testing. Five shovel tests, along one transect, were excavated in Area 9D (Figure 52, p. 104). All shovel tests were negative for cultural material and as such no archaeological sites, isolated finds, or field scatters were identified in this area.



Photo 35: View of Shovel Testing in Area 9D, Facing Southwest.

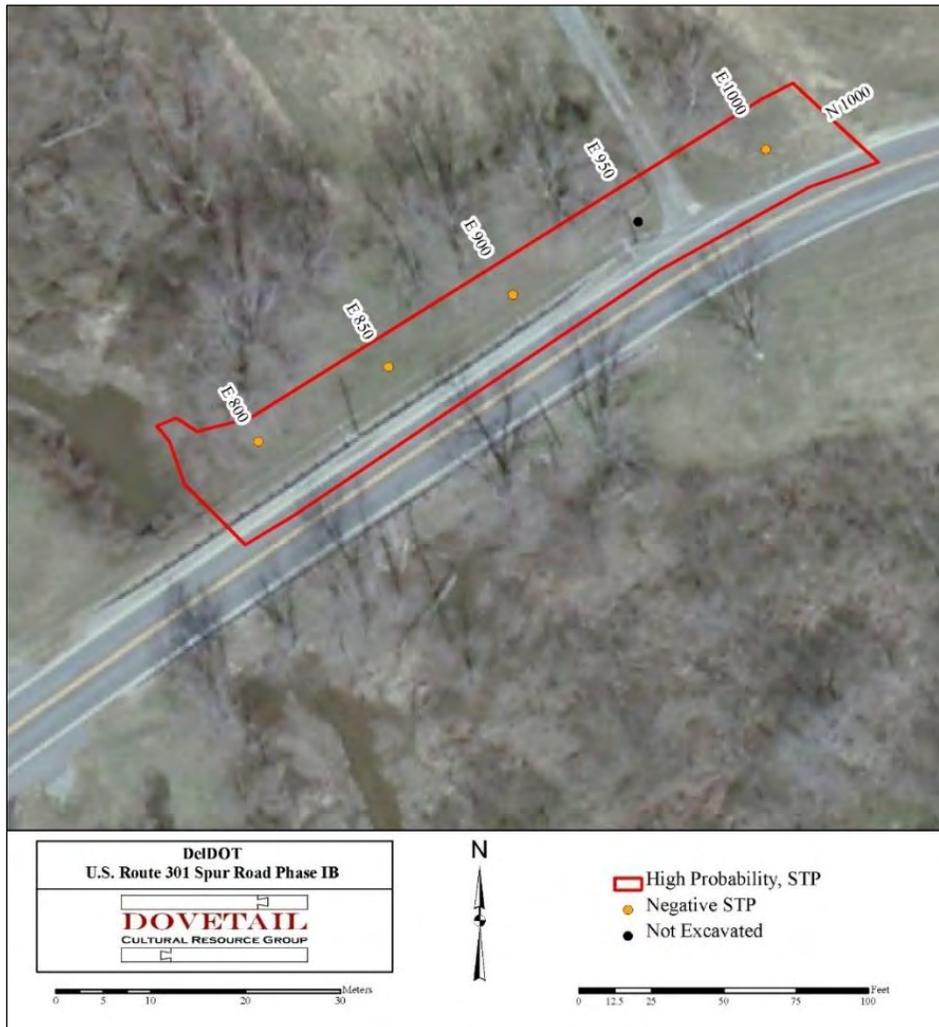


Figure 52: Area 9D Shovel Testing Results (USDA 2011).

### ***Area 9E***

Located directly south of Churchtown Road and approximately 0.30 miles (0.5 km) east of the intersection of Churchtown and Choptank Roads, Area 9E is located within the landscaped yard (Photo 36). This portion of the APE was identified as an area of high historic probability and encompasses 0.4 acres (0.16 ha). A total of nine shovel tests, along one transect, was used to survey this location (Figure 53, p. 106). No cultural materials were recovered from the shovel tests. Given the lack of artifacts no archaeological sites, isolated finds, or field scatters were identified in Area 9E.



Photo 36: View of Shovel Testing in Area 9E, Facing East.

### ***Area 9F***

Area 9F is located south of Churchtown Road and approximately 0.7 miles (1.1 km) east of the intersection of Churchtown and Choptank Roads. This area is situated directly adjacent to a tributary of Back Creek and, as such, was determined to be of high prehistoric probability (Photo 37, p. 106). It encompasses 1.1 acres (0.4 ha) and was surveyed through systematic shovel test excavation (Figure 54, p. 107). The tributary of Back Creek that traverses Area 9F has been dammed and modified to serve the needs of an adjacent horse farm; as such, portions of Area 9F were inundated/swampy during the archaeological survey. Twelve shovel tests were excavated in Area 9G and standing water—particularly in the central region of the APE—precluded further shovel testing. All shovel tests were negative for cultural materials and as such no archaeological sites, isolated finds, or field scatters were identified in this area.

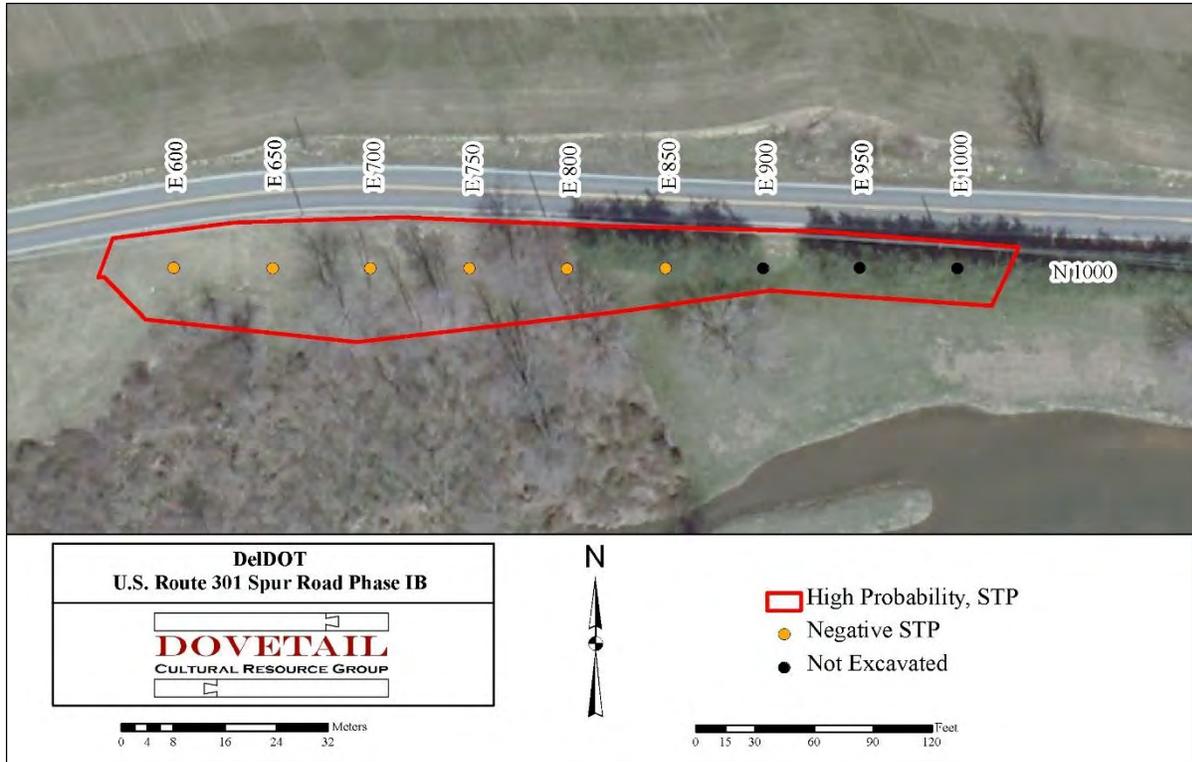


Figure 53: Area 9E Shovel Testing Results (USDA 2011).



Photo 37: View of Shovel Testing in Area 9F Adjacent to a Tributary of Back Creek, Facing East.

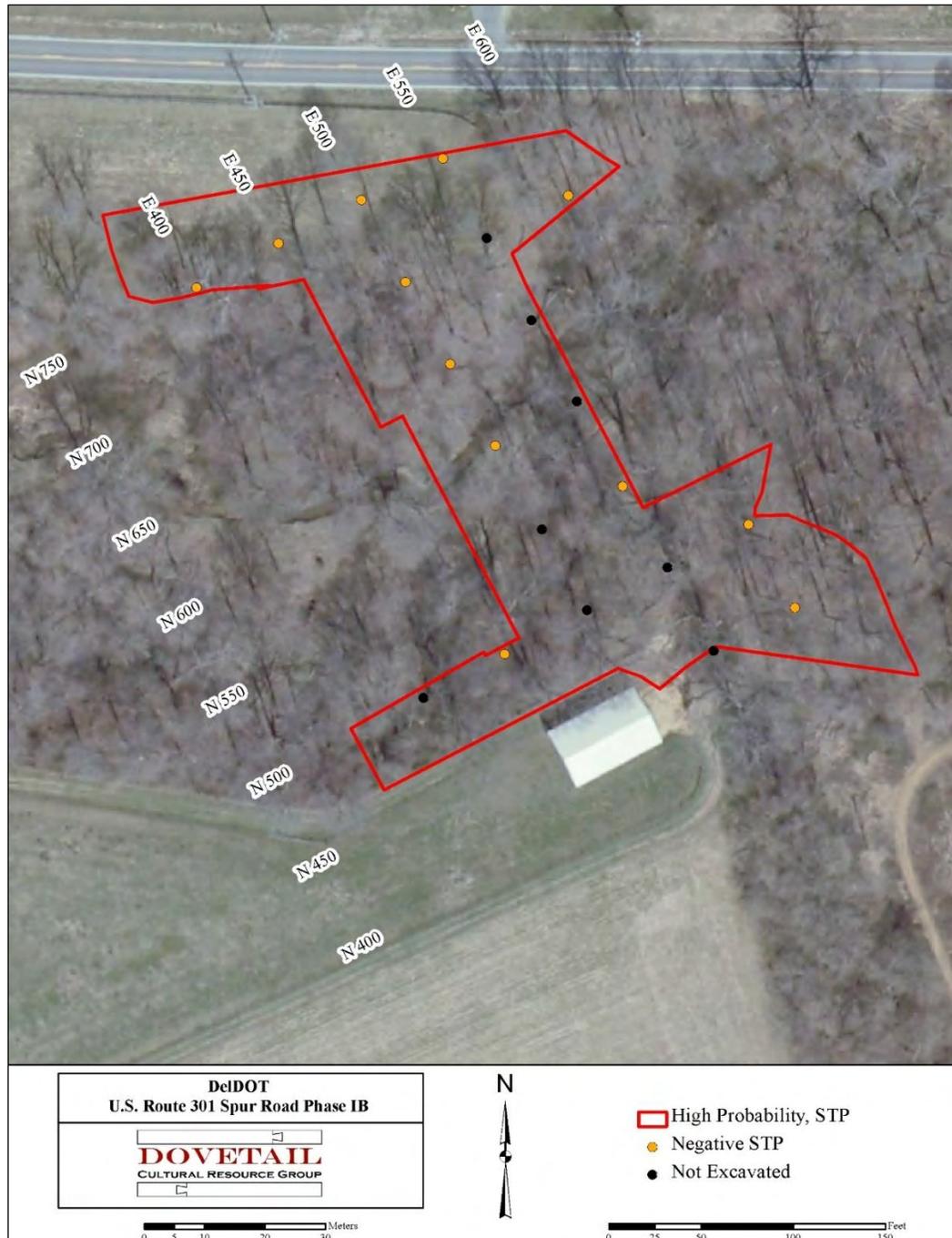


Figure 54: Area 9F Shovel Testing Results (USDA 2011).

### Area 9G

Area 9G, located approximately 0.1 (0.2 km) south of Churchtown Road and approximately 0.7 miles (1.1 km) east of the intersection of Churchtown and Choptank Roads, encompasses 3.4 acres (1.4 ha). This area was previously determined to be of moderate prehistoric potential. The extreme northern portion of the area is situated within a horse pasture, while the remaining southern portion is in an agricultural field (Photo 38–Photo 39, p. 108).



Photo 38: View of Shovel Testing in the Extreme Northern Portion of Area 9G, Facing Northwest.



Photo 39: Southern Plow and Disc Portion of Area 9G, Facing North.

Originally the entire area was to be plowed and disced in anticipation of pedestrian survey; however, the horse farm property owner requested that northern portion of the APE be shovel tested to minimize ground disturbance and safety concerns for the horses. Based on this request, as well as a subsequent field meeting with the property owner and Century on November 1, 2011 and consultation with DelDOT and the DE SHPO, a decision was made to change the field methodology to shovel testing at a 50-foot (15-m) interval in the extreme

northern portion of Area 9G. The shovel testing portion of the APE encompassed approximately 0.3 acres (0.1 ha) and included four excavated shovel tests (Figure 55). All shovel tests were negative for cultural materials.

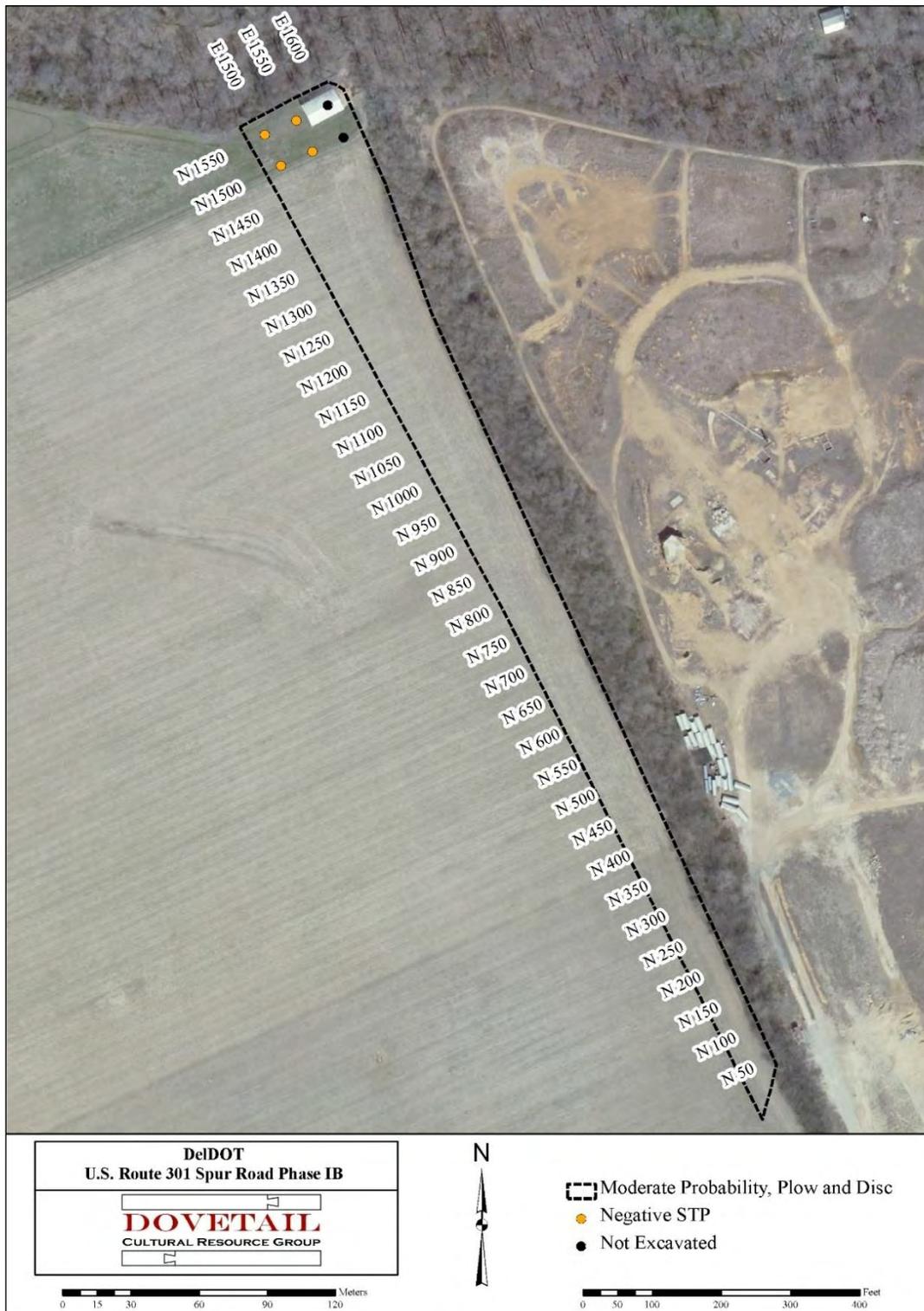


Figure 55: Area 9G Surface Collection and Shovel Testing Results (USDA 2011).

The remaining southern portion of the APE encompassed 3.1 acres (1.3 ha) and was surveyed via pedestrian survey. The property owner, in communication with Century on November 3, 2011, indicated that they wanted the archaeological survey delayed until after the completion of hunting season. In respect of these concerns, the pedestrian survey of the southern portion of Area 9G was completed in late February 2012, following both crop removal and hunting season. Pedestrian survey efforts yielded no surface artifacts and, as such, no shovel testing was completed in the southern portion of Area 9G. Given the lack of cultural remains no archaeological sites, isolated finds, or field scatters were identified in either the northern or southern portions of Area 9G.

## **Area 12**

Area 12 consists of three sub-areas (12A–12C) along Old School House Road, within the Contract 4B and 4C scope of the Spur alignment. These areas are associated with road improvements/alignment changes along Old School House Road, adjacent to the Spur mainline. The three areas encompass 6.3 acres (2.5 ha). The results from archaeological testing of these individual areas are summarized in the following sections.

### ***Area 12A***

Located north of Old School House Road, Area 12A includes 2.3 acres (0.9 ha) and is situated within an agricultural field (Photo 40). This area was previously determined to have moderate potential for prehistoric artifacts and was examined via pedestrian survey. The property owner, in communication with Century on November 3, 2011, indicated that they wanted the archaeological survey delayed until after the completion of hunting season. In respect of these concerns the pedestrian survey of Area 12A was completed in late February 2012, following both crop removal and hunting season.



Photo 40: View of Area 12A, Facing West.

Five artifacts were recovered from four surface collection locations during the pedestrian inventory of this area (Figure 56). These included two pieces of hand-made brick, one piece of blue transfer print whiteware (1820–2000), porcelain, and one fragment of aqua bottle glass. Three shovel tests were excavated to further assess the nature and extent of these artifacts. Two of these were negative for cultural materials and the final one contained two pieces of clear bottle glass recovered from the plowzone.

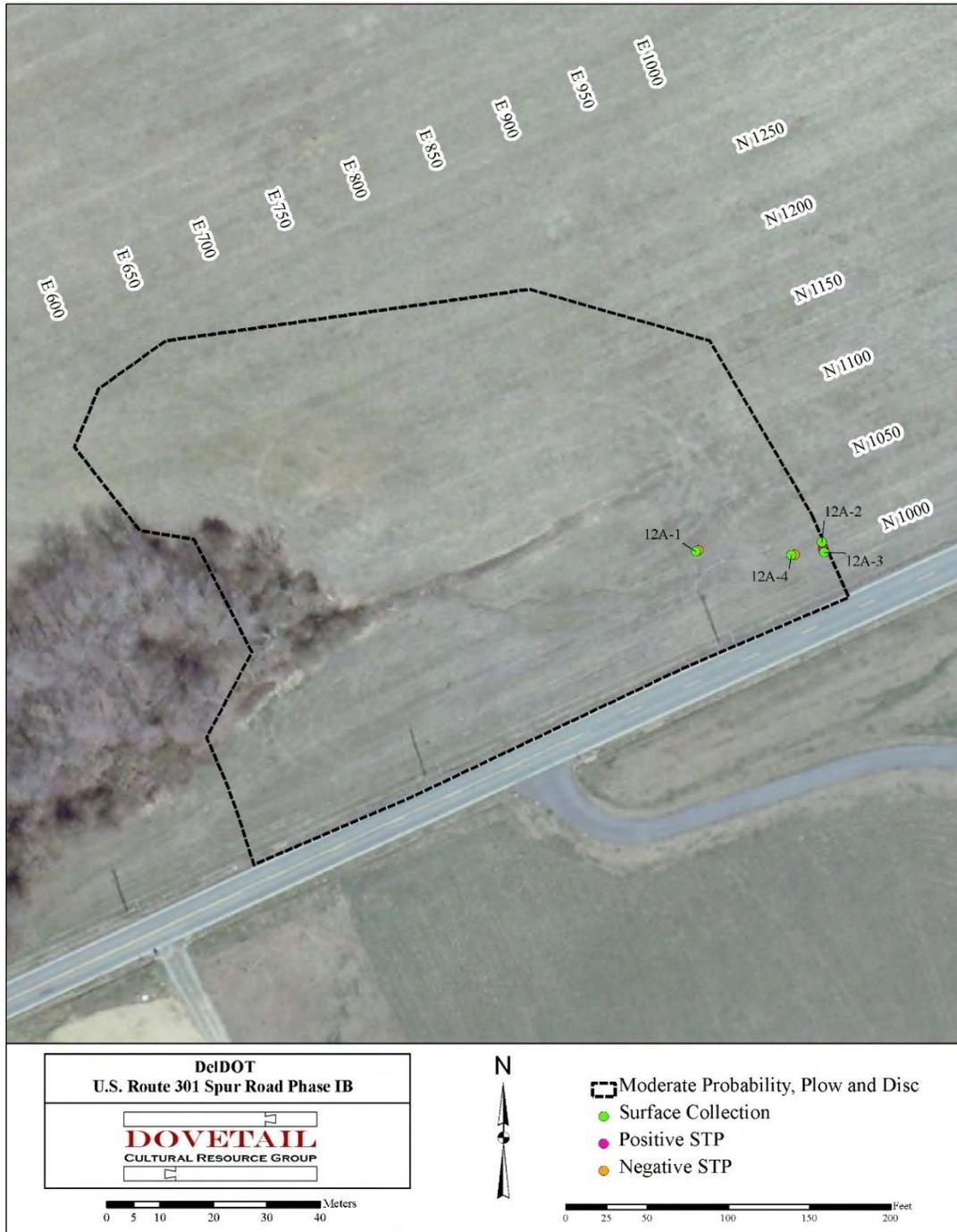


Figure 56: Area 12A Surface Collection and Shovel Testing Results (USDA 2011).

Based on the diffuse nature of the recovered artifacts, the plowzone context, and the lack of a defined subsurface component, the seven artifacts recovered from Area 12A are attributed to nineteenth and twentieth century field scatter practices. Archival research indicated that the parcel in which the APE is situated was owned and farmed by the Clayton family during the nineteenth and twentieth centuries. Research showed a lack of recorded buildings or structures within the APE; however, another one of Colonel Joshua Clayton's farms and the residence of his son, Thomas, known as Choptank/Rhoades House (N-0109), is located east of the Spur APE and addressed at 1542 Choptank Road. This house, farm buildings, and surrounding 14.66 acres (5.9 ha) was listed on the NRHP in 1985 (Frederick et al. 2006b).

### ***Area 12B***

Area 12B is located directly south of Old School House Road, situated partially within a residential lawn and partially within the road shoulder (Photo 41). This portion of the APE was previously identified as an area of high prehistoric archaeological potential because it is directly adjacent to Back Creek. Given the residential nature of Area 12B systematic shovel testing was used to survey the area. Five shovel tests (including radials) along one transect were used to grid this portion of the APE (Figure 57, p. 113). Two of these were positive for cultural materials and included 15 artifacts consisting of three machine made brick fragments, one piece of ceramic floor tile, one piece of whiteware (1820–2000), one fragment of clear bottle glass, one piece of green vessel glass, and seven pieces of unidentified iron alloy metal. The narrow width of the corridor and its close proximity to Old School House Road prevented the excavation of all radials.



Photo 41: View of Shovel Testing in Area 12B, Facing West.

Shovel testing revealed that the context of these artifacts was greatly disturbed by road construction/continued maintenance, buried utility corridors, and a residential driveway directly east of Area 12B. As such, these artifacts do not constitute an archaeological site, field scatter or isolated find given the modern disturbance context from which they were recovered.



Figure 57: Area 12B Shovel Testing Results (USDA 2011).

### ***Area 12C***

Area 12C is located directly east of Area 12B and immediately south of Old School House Road. It encompasses 3.86 acres (1.6 ha) and is located partially within an agricultural field and in residential yard (Photo 42). This area was identified as having low historic probability and given its residential nature it was examined via systematic shovel testing. A total of 87 shovel test was used to examine Area 12C, resulting in the recovery of six artifacts (Figure 58, p. 115). Artifacts included one unidentified nail, a piece of whiteware (1820–2000), a fragment of stoneware, two pieces of clear bottle glass, and one piece of secondary quartz debitage. All artifacts were recovered from three shovel tests in the extreme western portion of the APE, directly adjacent to a modern residential driveway. Shovel testing revealed that the context of these artifacts was greatly disturbed by road construction/continued maintenance, buried utility corridors, and the residential driveway. As such, these artifacts do not constitute an archaeological site, field scatter or isolated find given the modern disturbance context from which they were recovered.



Photo 42: View of Shovel Testing in Area 12C, Facing East.

### **Area 14**

Area 14 is the southernmost portion of the Spur APE tested during the current project. It is located approximately 0.5 miles (0.8 km) south of Old School House Road and within an agricultural field (Photo 43, p. 115). It encompasses 4.3 acres (1.7 ha) and was previously determined to be an area of moderate historic probability. The area immediately south of Area 14 was previously subjected to pedestrian survey during the Phase II evaluation of the Burnham House site (7NC-F-157) (Figure 59–Figure 60, pp. 116–117) (Barile et al. 2013; Calhoun et al. 2011).

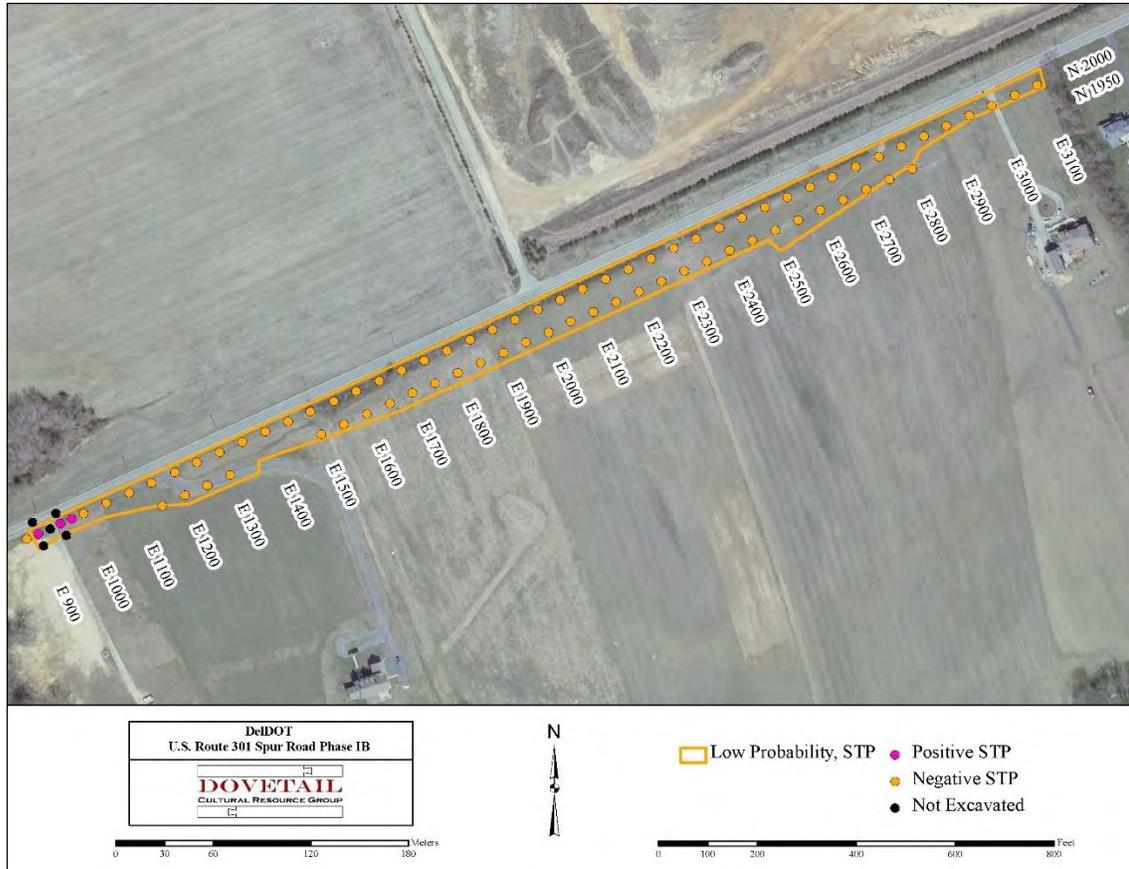


Figure 58: Area 12C Shovel Testing Results (USDA 2011).



Photo 43: Overview of Area 14, Facing South.



Figure 59: Phase I Surface Collection Locations from the Burnham House Phase II Investigation (Barile et al. 2013). Area 14 is immediately north of the Phase I Project Area.

Previous surface collections efforts yielded 48 artifacts and notable artifacts included ungalvanized wire nails (1890–1945), aqua window glass, whiteware (1820–2000), redware (1700–1900), porcellaneous (1820–2000), ironstone (1840–2000), creamware (1762–1820), pearlware (1779–1830), clear bottle and vessel glass, aqua bottle glass, and solarized bottle glass. Based on these previous investigations it was anticipated that surface collection in Area 14 would yield additional historic artifacts and in support of these presumed findings archival research was compiled for this parcel.

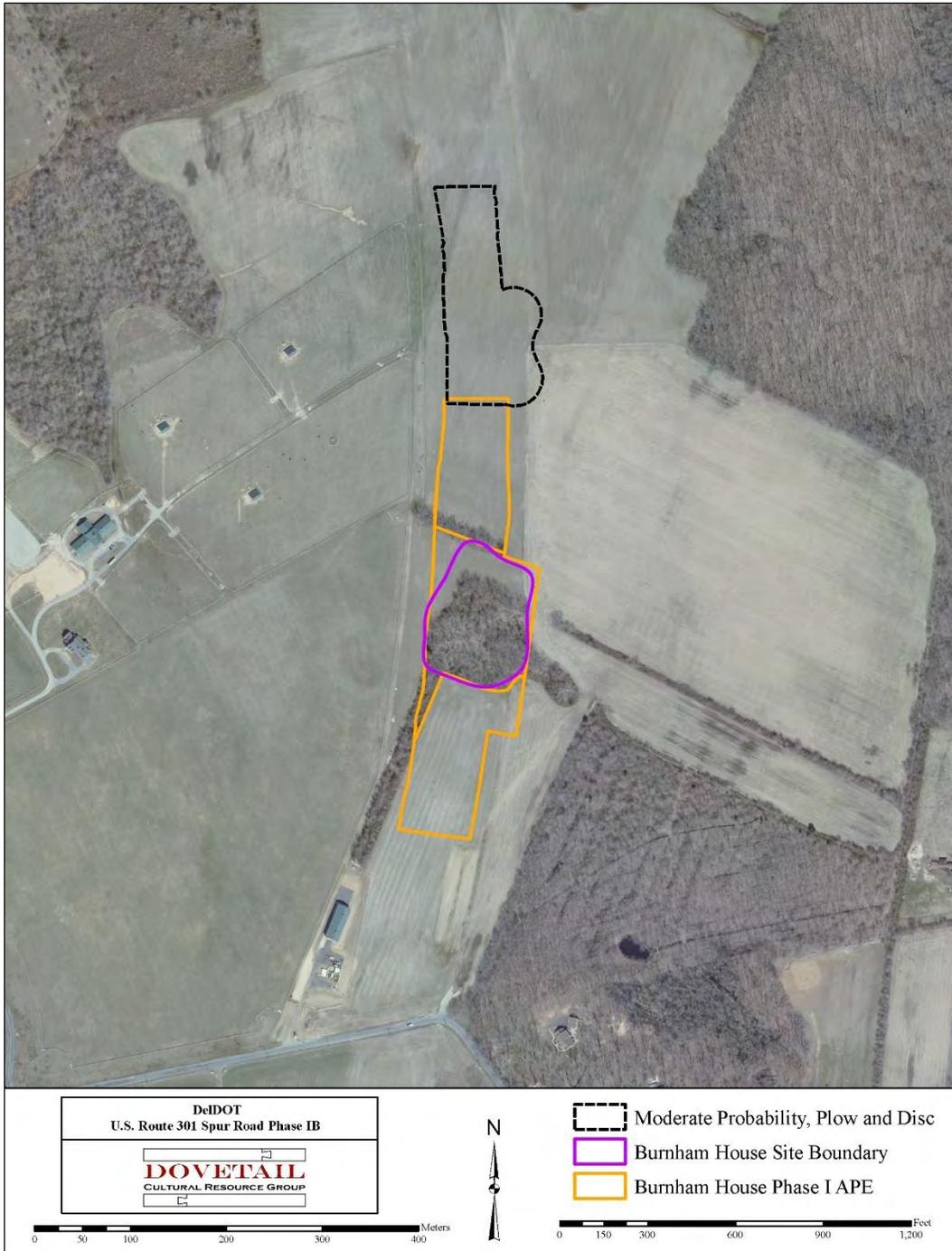


Figure 60: Area 14 (in black dashed line) in Relation to the Burnham House Survey Areas (USDA 2011).

***Historic Context***

Archival research showed that this portion of the APE was part of “Noxon’s Adventure,” patented by Thomas Noxon in 1734, an entrepreneur living near Middletown, Delaware. Immediately south of the Area 14 is the Burnham House, for which detailed archival

histories were prepared during Phase I investigations and the Phase II evaluation (Baublitz et al. 2006; Barile et al. 2013). The results of this research is only briefly summarized here in an effort to better interpret the archaeological findings in Area 14.

Thomas Noxon was granted some 300 acres (121.4 ha) by survey of 1734 (Baublitz et al. 2006). This 300-acre (121.4-ha) parcel was referred to as “Noxon’s Adventure” as early as 1771, in a survey that shows the property to be located on the east side of Choptank Road and on both sides of the Old Reedy Island Road. After Thomas’ death, the property passed to son Benjamin, who died sometime prior to February 1779, when an annual evaluation of his estate was made for his minor children, sons Benjamin and James. This record provides the first description of Noxon’s Adventure, noting that the plantation in St. Georges Hundred contained a two-room log house, “below stan [sic],” a kitchen, milk house, smokehouse, and corn crib in good repair, a barn on premises wanting a few repairs, two small orchards, and about 180 acres (72.8 ha) of clear land, “to be tilled in four fields, one in summer and one in winter grain in good fencing” (New Castle County Orphans Court case files nd).

In the late-eighteenth century, Benjamin Noxon agreed to sell part of this land to Samuel Burchard, but both men seem to have died before the transaction was complete. In 1798, their heirs divided the property using Old Reedy Island Road as the northern boundary (Baublitz et al. 2006). In May 1799, a petition was made by Thomas Burnham, husband of Joanna Burchard, to the Orphans Court for the division of Samuel Burchard’s estate.

Thomas and Joanna Burnham were living in Pecander Hundred when he passed away in 1802. Tax assessments indicate that Joanna moved from Pecander to St. Georges Hundred in 1806, with the 1810 Census recording 11 people in her household. The 1816–1817 tax assessment lists 183 acres (74.1 ha), 90 (36.4) improved and 93 (37.6) woodland, within Thomas Burnham’s estate, along with a “wood dwelling, barn, stable, and outhouses.” Joanna Burnham retained ownership of the property as a single woman and widow until sometime between 1830 and 1840, when she moved in with her second son, James H. Burnham, during her late seventies and early eighties (Ancestry). In September 1843, Joanna and Thomas’ eldest son, Samuel, petitioned the Orphans Court to settle her estate for the benefit of several grandchildren. The ensuing plat shows more than 186 acres (75.3 ha) of land and two one-story dwellings along Old Reedy Island Road (“inclosed”), among other attributes (New Castle County Orphans Court case files). The property was valued at \$2,000, with the interest of other heirs soon after obtained by the petitioner, Samuel Burnham.

Historic maps of Noxon’s Adventure in the eighteenth century show Old Reedy Island Road—an early cart road in the region—traversing the Noxon parcel in the general vicinity of Area 14. Two maps, a 1771 warrant survey of Noxon’s holdings and an 1844 Orphans Court plat of Joanna Burnham’s holdings show Reedy Island Road near the Spur alignment (New Castle County Warrants and Surveys; New Castle County Orphans Court, Joanna Burnham case file nd) (Figure 61–Figure 62, p. 119).

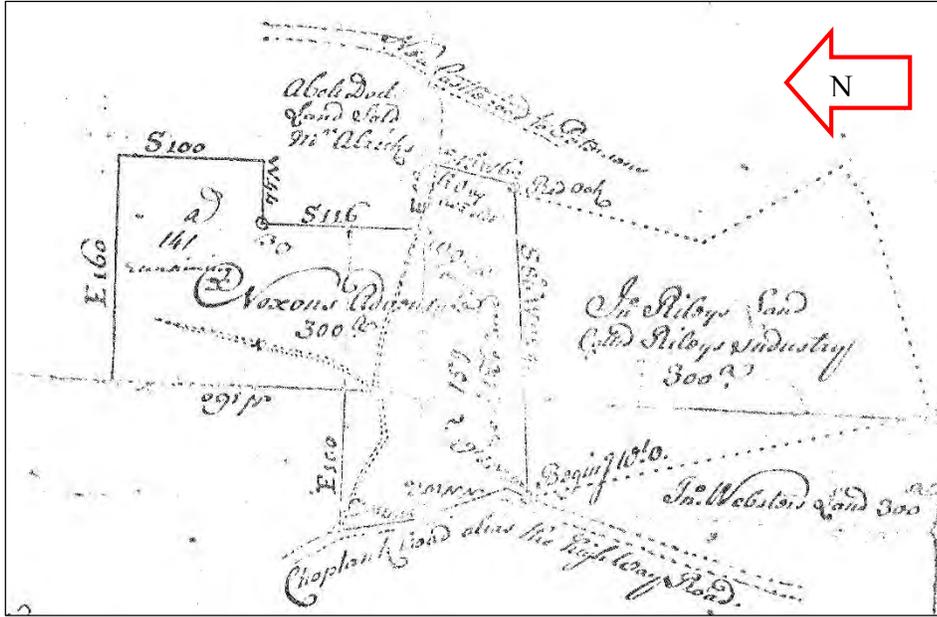


Figure 61: Detail of 1771 Survey for Benjamin Noxon (New Castle County Warrants and Surveys, Delaware Public Archives).

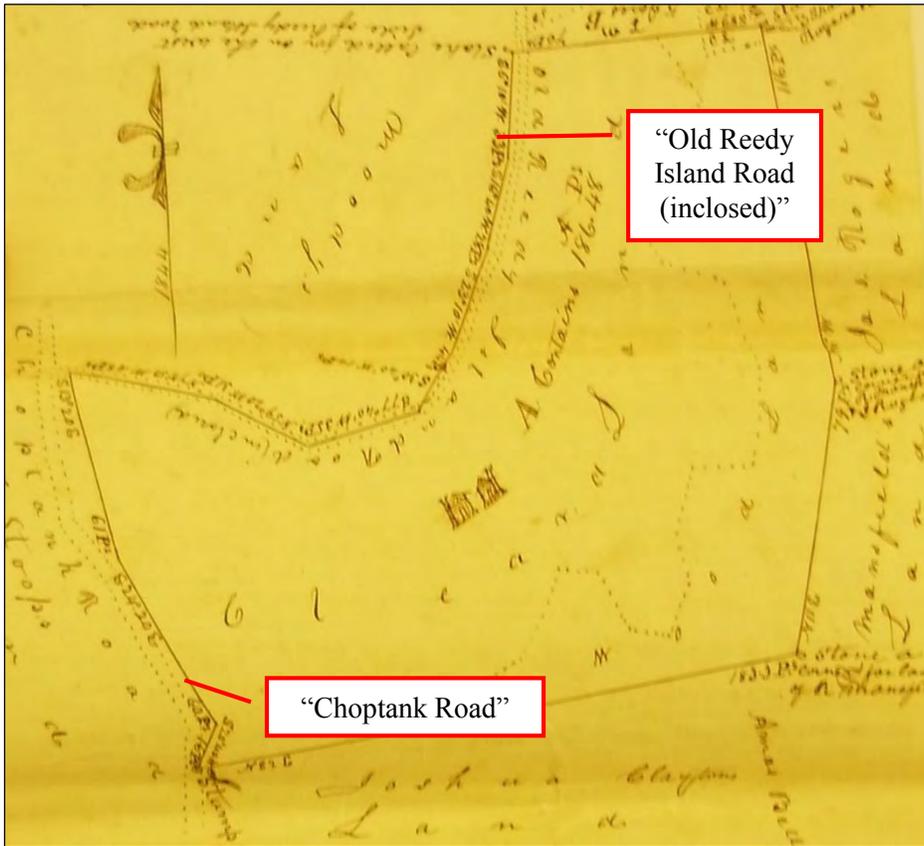


Figure 62: Detail of 1844 Survey of Joanna Burnham Estate (New Castle County Orphans Court Case File, Delaware Public Archives).

In order to more clearly understand how these depictions of the old road relate to the current landscape, scans of these images were overlaid with modern aerials and cross-referenced using specific geographical features (Figure 63; Figure 64, p. 121). Geo-referencing was completed using historic and modern maps in conjunction with surveyor’s courses recorded on historic depictions (written in metes and bounds, with distances recorded in perches). The results of previous surface collection efforts associated with the Burnham House evaluation and the geo-referencing of these eighteenth and nineteenth century maps it was anticipated that the surface collection efforts in Area 14 would yield additional early historic artifacts and possibly remnants of the Reedy Island Cart Road. Furthermore, previous archaeological studies along the U.S. Route 301 Mainline have shown the potential for the preservation of not only early cart road features but also associated early historic habitation sites (Liebeknecht and Burrow 2011). During their Phase IB investigations of the Section 2 of the Mainline Hunter Research, Inc. identified several archaeological sites along a different section of the Reedy Island Cart Road. One of these sites, 7NC-F-153 (N-14,533), contained parallel linear features believed to be the remains of the cart road.

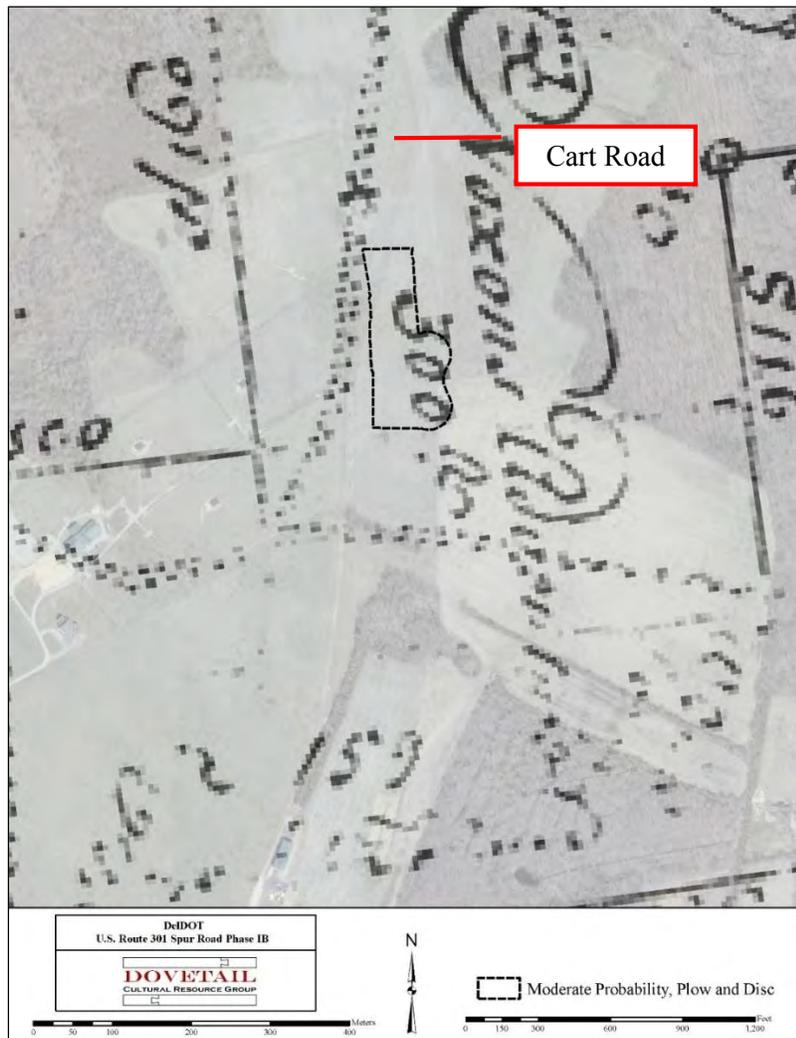


Figure 63: Area 14 Overlaid with the 1771 Survey for Benjamin Noxon. Note the modern aerial image in the background.

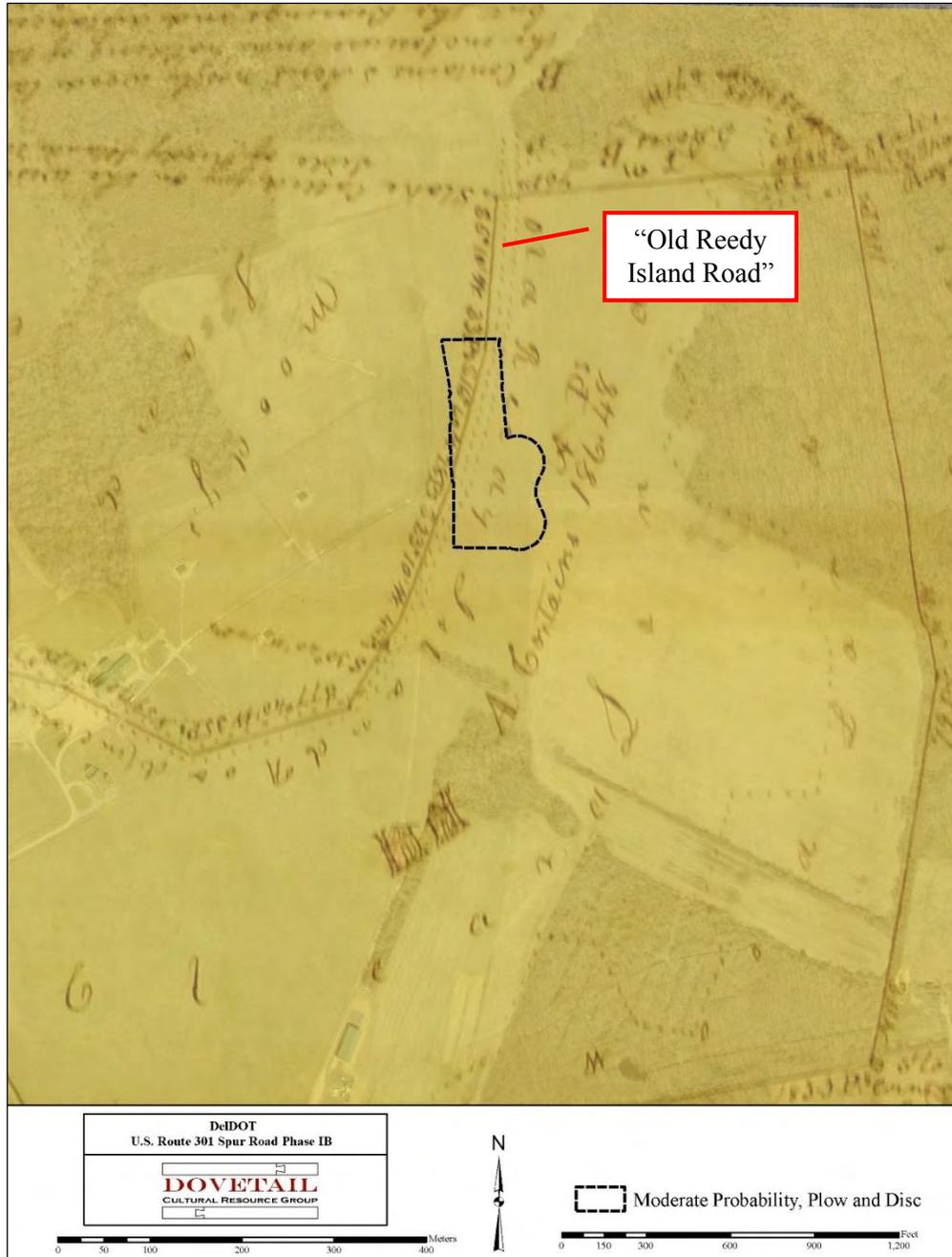


Figure 64: Area 14 Overlaid with the 1844 Survey of Joanna Burnham Estate. Note the modern aerial image in the background.

### *Archaeological Investigation*

Area 14 was plowed and disced in mid-February 2012, in advance of pedestrian survey. Three artifacts were identified during the course of this investigation (Figure 65, p. 122), including one piece of brown lead-glazed redware (1700–1900), a fragment of stoneware, and a single piece of porcellaneous ceramic. The artifact quantities recovered during the pedestrian excavation were drastically lower than anticipated, based on previous work

associated with the Burnham House (Barile et al. 2013). To test the results of the pedestrian investigation, systematic shovel testing at a 50-foot (15.2-m) interval was conducted across the entire Area 14. No cultural materials were recovered from these additional investigation, thus the results of the pedestrian survey appear to have been verified.



Figure 65: Area 14 Surface Collection, Shovel Testing, and Test Unit Excavation Results (USDA 2011).

Despite the lack of artifacts recovered from the pedestrian survey, four 3 x 10 foot (0.9 x 3m) test units were excavated in the northeastern portion of Area 14 in an effort to pinpoint the archaeological remains of the Reedy Island Cart Road. The georeferenced 1771 and 1844 surveys were loaded onto a hand-held GPS and used to place these units perpendicular to the assumed location of both the cart road and associated property boundary. The 1844 plat was primarily used to place the test units, because of a higher degree of confidence in the accuracy of the georeferencing. The Test Units excavated in Area 14 were numbered 10–13.

Previous investigations of cart roads associated with the U.S. Route 301 Project indicated that if intact, these features manifest as parallel ditches visible at the interface of the plowzone and underlying subsoil. As such Test Units 10–13 involved only the removal of the plowzone and a thin transition stratum to expose the subsoil. Based on the consistent stratigraphy observed in these four units representative drawings are presented from only Test Unit 12 (Figure 66–Figure 67, p. 123).

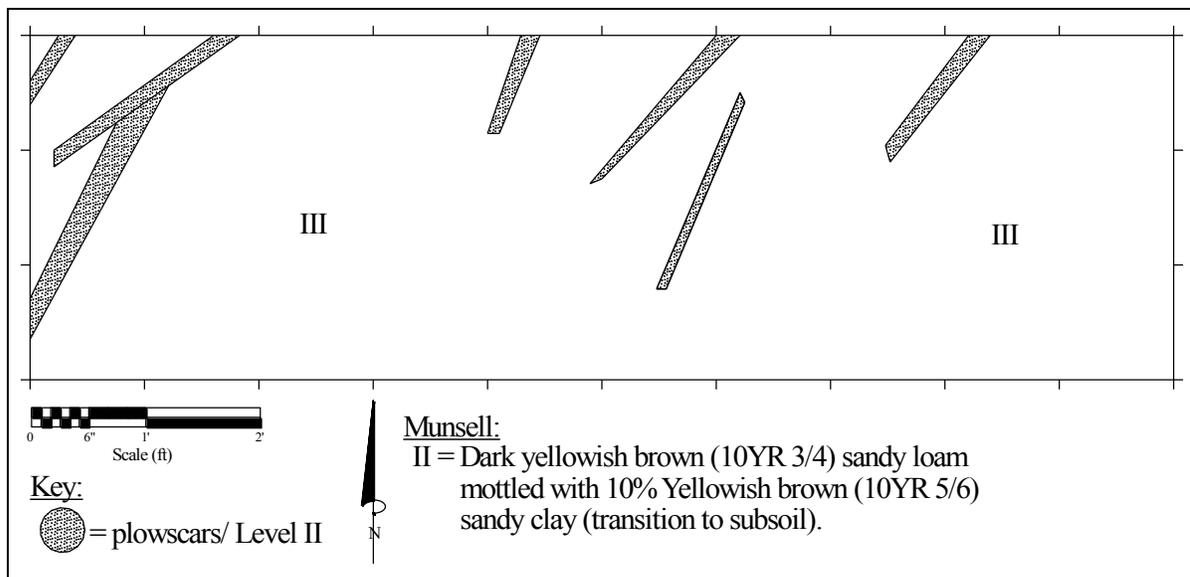


Figure 66: Plan View of the Base of Excavation in Test Unit 12 Excavated in Area 14.

The plowzone (Ap-horizon/Stratum I) in all of these units was identified as a dark yellowish brown (10YR 3/4 and 10YR 4/4) silt loam. It reached a maximum thickness of 0.9 feet (26.7 cm) and no arbitrary levels were excavated in this stratum. Beneath the plowzone all test units exposed a mottled transition Stratum II characterized as a dark yellowish brown (10YR 3/4 and 10YR 4/4) silt loam mottled with 10 percent yellowish brown (10YR 5/6) sandy clay. This stratum averaged 0.3 feet (10 cm) in thickness. The excavation of this transition context revealed a yellowish brown (10YR 5/6) sandy clay B-horizon subsoil (Stratum III) in all test units. The interface between Strata II and III revealed narrow plowscars in most units. No parallel ditches or other cultural features were identified through the course of excavation.

The four units yielded a total of nine artifacts, including seven small fragments of hand-made brick, one piece of ironstone (1840–2000), and three fragments of whiteware (1820–2000). All artifacts were recovered from the modern plowzone and none were indicative of an

eighteenth-century occupation. Although archival research strongly suggests that the Reedy Island Cart Road passed through Area 14 of the Spur APE, no archaeological signature confirming its presence could be located.

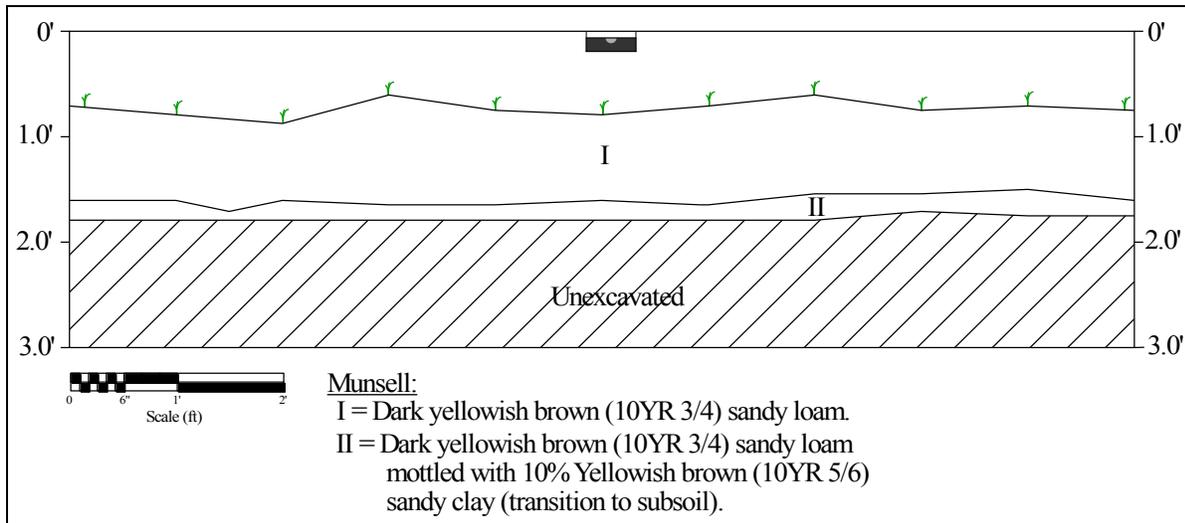


Figure 67: North Wall Profile of Test Unit 12 Excavated in Area 14.

Based on the results of both pedestrian survey and test unit excavation the recovered artifacts from Area 14 constitute a field scatter reflective of nineteenth and twentieth century farming practices and that they are not indicative on concentrated cultural activity. The parcel was owned during by the Burnham family throughout the nineteenth century, although it appears to have been leased for much of this time period. During the early- to mid-twentieth century, the property was owned by the Lockwood and Evans families, who both operated and resided on the farm. The Burnham House (N-5151) is located approximately 0.1 miles (0.2 km) south of Area 14 and is likely the source of the artifacts identified as field scatter.

Given the abundance of evidence that suggests the eighteenth century occupation of this area, Dovetail **recommends that Area 14 should be monitored during road construction to ensure that no undiscovered archaeological resources are damaged.**

## SUMMARY AND RECOMMENDATIONS

Under Tasks 3 and 10 of Parent Agreement 1534, Dovetail conducted a Phase IB archaeological survey along the U.S. Route 301 Spur (Contracts 4A, 4B and 4C), New Castle County, Delaware. This project was completed in support of DelDOT’s larger U.S. Route 301 development plan. Archival research, including a review of relevant historical documents (e.g., period maps, property and tax records, census data, genealogical information, etc.), was conducted in support of the archaeological investigations.

The project fieldwork, completed between August 2011 and March 2012, examined the 4.8-mile (7.7-km) U.S. Route 301 Spur (also previously known as Section 4) roadway leading from the main Route 301 corridor near Middletown northwestward, terminating at the Chesapeake and Delaware Canal. The goals of the archaeological survey were to identify any archaeological resources over 50 years in age and to make recommendations on the NRHP eligibility for all identified resources. In total, 18 isolated finds and five archaeological sites (7NC-F-167, 7NC-F-168, 7NC-F-169, 7NC-F-170, and 7NC-F-171) were identified (Table 7). In addition, field scatters associated with the Biggs, Ellison, Clayton, and Burnham Families were identified in various project locations along the Spur corridor.

Table 7: Summary and Recommendations.

Site (CRS #)	Area	Site Type and Context	Eligibility Recommendation
7NC-F-167 (N-14,545)	2A	Mid-Nineteenth Century Domestic Scatter	Not Eligible
7NC-F-168 (N-14,546)	2B	Late Archaic Lithic Scatter and Early-Twentieth Century Domestic Scatter	Not Eligible
7NC-F-169 (N-14,547)	2C	Indeterminate Prehistoric Lithic Scatter and Mid- Nineteenth through Twentieth Century Domestic Scatter	Not Eligible
7NC-F-170 (N-14,548)	7	Indeterminate Prehistoric Lithic Scatter	Not Eligible
<b>7NC-F-171 (N-14,549)</b>	<b>9B</b>	<b>Early-Nineteenth Century Industrial Location</b>	<b>Potentially Eligible; Phase II Investigations Undertaken (see Krofft et al. 2014)</b>

As defined by the DE SHPO, the 18 isolated finds and numerous field scatters do not constitute archaeological sites and therefore have not been designated with CRS or site numbers, nor do they qualify for listing on the NRHP.

Site 7NC-F-167 (N-14,545) was identified via close-interval shovel testing and found to be a domestic scatter likely associated with remains of a tenant house owned by the Biggs family and occupied by various unknown tenants. The house was likely constructed in the mid-nineteenth century and was destroyed in the early 1950s; however, no evidence of the house

was found during this investigation and historic mapping shows its location under the adjacent road intersection. The tenant house and the core of the site was destroyed by road construction, as such the site does not exhibit sufficient integrity or the potential to yield further significant information on domestic life, social context, subsistence/agriculture, and/or settlement patterns in New Castle County. This site is **recommended not eligible for the NRHP under Criteria A–D**.

Site 7NC-F-168 (N-14,546) is a multicomponent site including a Late Archaic lithic scatter and a domestic scatter historic associated with an outbuilding/barn that was owned by the Biggs' family in the early- to mid-twentieth century. Based on the sparse prehistoric component, the common occurrence of this agricultural site type in St. Georges Hundred and the lack of diagnostic domestic artifacts this site does not exhibit the potential to yield further significant information on domestic life, social context, subsistence/agriculture, and/or settlement patterns in New Castle County. As such, this site is **recommended not eligible for the NRHP under Criteria A–D**.

Also **recommended not eligible for listing on the NRHP, is site 7NC-F-169 (N-14,547)**. Based on the sparse prehistoric component, the common occurrence of this agricultural site type in St. Georges Hundred and the lack of diagnostic domestic artifacts this site does not exhibit the potential to yield further significant information on domestic life, social context, subsistence/agriculture, and/or settlement patterns in New Castle County.

Site 7NC-F-170 (N-14,548) represents an ephemeral lithic scatter of unknown temporal association. Based on the sparse nature of these remains coupled with the apparent lack of a subsurface component this site does not exhibit the potential to yield further significant information on prehistoric domestic life, subsistence, and/or settlement patterns in New Castle County and is **recommended not eligible for the NRHP under Criteria A–D**.

Eighteenth and early-nineteenth century ceramics, green wine bottle glass, and personal items along with cut nails and hand-made brick fragments indicated an late-eighteenth through early nineteenth century occupation of site 7NC-F-171 (N-14,549). This site exhibits the potential to yield further significant information on the domestic life, social context, subsistence/agriculture, and/or settlement patterns in New Castle County. As such it is **recommended as potentially eligible for the NRHP under Criterion D**. Based on this recommendation and in consultation with DelDOT and the DE SHPO further archival research and archaeological testing was recommended at the site. Phase II investigations were begun by Dovetail in the fall of 2013 and a full report detailing these findings is forthcoming (Krofft et al. 2014).

Furthermore, Dovetail **recommends that all road construction activities be monitored by a qualified archaeologist in Areas 5 and 14**, due to their potential to contain undiscovered eighteenth century archaeological sites.

## REFERENCES

Adams, William Hampton

- 2002 Machine Cut Nail and Wire Nail: American Production and Use for Dating 19<sup>th</sup>-Century and Early-20<sup>th</sup> Century Sites. *Historical Archaeology* 36(4):66–88.

Ames, David L., Mary Helen Callahan, Bernard L. Herman, and Rebecca Siders

- 1989 *Delaware Comprehensive Historic Preservation Plan*. Center for Historic Architecture and Engineering, College of Urban Affairs and Public Policy, University of Delaware, Newark, Delaware.

Ancestry.com

- 2011 *United States Federal Census, 1800–1930* [database on-line]. Provo, UT, USA: Ancestry.com Operations. Electronic document, <http://www.ancestry.com>, accessed October 2011.

Anderson, David G., and Glen T. Hanson

- 1988 Early Archaic Settlement in the Southeastern United States: A Case Study from the Savannah River. *American Antiquity* 53:262–286.

Andrefsky, William, Jr.

- 1998 *Lithics: Macroscopic Approaches to Analysis*. Cambridge University Press, Cambridge.

Barile, Kerri S. Danae Peckler, Carthon Davis, III, D. Brad Hatch, and Morgan MacKenzie

- 2013 *Phase I Archaeological Survey, Phase II Archaeological Testing, and Architectural Analysis of The Burnham House Site, New Castle County, Delaware (7NC-F-157)*. Dovetail Cultural Resource Group, Fredericksburg, Virginia.

Bartoviks, Albert F.

- 1980 *The Archaeology of Daniels Village: an Experiment in Settlement Archaeology*. Ph.D. Dissertation, Department of Anthropology. Brown University, Providence, Rhode Island.

Baublitz, Richard, John Branigan, John Lawrence, Paul Schopp, Daniel N. Bailey, and David L. Weinberg

- 2006 *Archaeological Predictive Model: U.S. 301 Project Development, St. Georges, Pencader, and Appoquinimink Hundreds, New Castle County, Delaware*. A.D. Marble & Company, Camp Hill, Pennsylvania.

Bedell, John

- 2002 *Historic Context: The Archaeology of Farm and Rural Dwelling Sites in New Castle and Kent Counties, Delaware, 1730–770 and 1770–1830*. Delaware State Historic Preservation Office, Division of Historical and Cultural Affairs, Dover, Delaware.

Biggs, Sewell C.

1881–1894 “S. C. Biggs’ Farm Account Book.” Manuscript Collection, Historical Society of Delaware, Wilmington.

Calhoun, Emily, Kerri S. Barile, Danae Peckler, and Carthon Davis, III

2011 *Management Summary of Phase I Archaeological Survey, Phase II Archaeological Testing, and Architectural Analysis of the Burnham House Site, New Castle County, Delaware (7NC-F-157)*. Dovetail Cultural Resource Group, Fredericksburg, Virginia.

Callahan, Errett

1979 The Basics of Biface Knapping in the Eastern Fluted Point Tradition: A Manual for Flintknappers and Lithic Analysts. In *Archaeology of Eastern North America* 7(1):1–180. Reprinted in 1996 by Piltdown Productions, Lynchburg, Virginia.

Catts, Wade P., and Lu Ann De Cunzo

1999 “Down on the Farm”: Questions, Directions, and Interpretations of the Archaeology of Delaware Agricultural Farm Life, 1800-1950. *Bulletin of the Archaeological Society of Delaware* 36:19–27, Dover, Delaware.

CHRIS, Division of Historical & Cultural Affairs

2012 New Castle County aerial photographs (1937, 1954, 1961, 1992, and 1997). Electronic database, <http://chris.delaware.gov/CHRIS/faces/main.html>, accessed February 2012.

City of Wilmington

2003 *A City-Wide Plan of Land Use: A Component of the Comprehensive Development Plan for Wilmington, Delaware*. Department of Planning. Electronic document, <http://www.wilmingtonde.gov/docs/171/Citywide-Plan-of-Land-Use.pdf>, accessed September 2013.

Coverdale and Colpitts

1946 The Pennsylvania Railroad Company: Corporate, Financial and Construction History of Lines Owned, Operated and Controlled To December 31, 1945. Pennsylvania Railroad Company. Copy on file at Hagley Museum and Library. Electronic document, <http://digital.hagley.org/cdm/about/collection/p16038coll12>, accessed September 2013.

Crabtree, Donald

1972 An Introduction to Flintworking. *Occasional Papers of the Idaho State University Museum, No. 28*. Idaho State University, Pocatello, Idaho.

Coxe, Tench

1814 *A Statement of the Arts and Manufactures of the United States for the Year 1810*. A Cornman, Philadelphia, Pennsylvania.

Custer, Jay F.

- 1983 *A Management Plan for the Prehistoric Archaeological Resources of Delaware*. University of Delaware Center for Archaeological Research Monograph No. 2. Newark, Delaware.
- 1984 *Delaware Prehistoric Archaeology*. University of Delaware Press, Newark, Delaware.
- 1989 *Prehistoric Cultures of the Delmarva Peninsula: An Archaeological Study*. University of Delaware Press, Newark, Delaware.
- 1990 Early and Middle Archaic Cultures of Virginia: Culture Change and Continuity. In *Early and Middle Archaic Research in Virginia: A Synthesis*, ed. T. R. Reinhart and M. E. N. Hodges, pp. 1–60. The Dietz Press, Richmond, Virginia.

Custer, Jay F., and David C. Bachman

- 1984 *Phase III Data Recovery Excavations of the Prehistoric Components from the Hawthorn Site 7NC-E-46, Christiana, New Castle County, DE*. Delaware Department of Transportation Archaeology Series 27, Dover.

De Cunzo, Lu Ann

- 2004 *A Historical Archaeology of Delaware: People, Contexts, and the Cultures of Agriculture*. The University of Tennessee Press, Knoxville, Tennessee.

De Cunzo, Lu Ann, and Wade P. Catts

- 1990 *Management Plan for Delaware's Historical Archaeological Resources*. University of Delaware Center for Archaeological Research, Newark, Delaware.

Delaware Department of Natural Resources and Environmental Control

- 2001 *Assessment Report of Delaware's Chesapeake Basin*. Department of Natural Resources and Environmental Control. Chesapeake Basin Whole Basin Management Team, Dover, Delaware.

Delaware State Parks

- 2014 *Resident Curatorship Program: Buck Tavern, Lums Pond State Park*. Electronic document, <http://www.destateparks.com/residentcuratorship/successes/buck-tavern.asp>, accessed April 2014.

Digital Archaeological Archive of Comparative Slavery [DAACS]

- 2006 DAACS Mean Ceramic Date-Type File. Electronic document: <http://www.daacs.org/cgi-upload/MCDTypes.pdf>, accessed August 2011.

Dixon, Stuart Paul

- 1992 *The Wilmington Waterfront Analysis Area Intensive Level Architectural Survey*. Copy on file at City of Wilmington Office of Planning and DelDOT. Electronic document, [http://www.deldot.gov/archaeology/wilm\\_waterfront/index.shtml](http://www.deldot.gov/archaeology/wilm_waterfront/index.shtml), accessed September 2013.

Dovetail Cultural Resource Group

- 2012 Image of parcels comprising Biggs family farm circa 1862, plotted over 1937 Aerial of project area. Electronic document, created February 2012.

Egnal, Marc

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

Farmers Mutual Fire Insurance Company

- nd Farmers Mutual Fire Insurance Company Records. Misc. years. Manuscript on file, Historical Society of Delaware, Wilmington.

Frederick, B., C. Dluzak, E. Young, L. Archibald, E. Amisson, P. Schopp, D. Bailey, and C. Tate

- 2006a *U.S. 301 Project Development Historic Context and Reconnaissance Survey Report, St. Georges, Pencader, and Appoquinimink Hundreds, New Castle County, Delaware*. July. A. D. Marble & Company, Conshohocken, Pennsylvania.

- 2006b *U.S. 301 Project Development Determination of Eligibility Report, St. Georges, Pencader, and Appoquinimink Hundreds, New Castle County, Delaware*. Vol. I, II, and III, October. A. D. Marble & Company, Conshohocken, Pennsylvania.

Ford, Richard I.

- 1974 Northeastern Archaeology: Past and Future Directions. *Annual Reviews in Anthropology* 3:385–413.

Fisher, Caroline C., Allison W. Elterich, Bernard L. Herman, and Rebecca J. Siders

- 1993 *Marshland Resources in the Delaware Estuary, 1830–1950: An Historic Context*. Center for Historic Architecture and Engineering, College of Urban Affairs and Public Policy. Newark.

Greer, Georgianna H.

- 1970 Preliminary Information on the Use of Alkaline Glaze in the South, 1800–1970. *The Conference on Historic Sites Archaeology Papers 1970*, Volume 5, edited by S. South. South Carolina Institute of Archaeology and Anthropology, Columbia.

Gundy, Barbara J., and Gerald M. Kuncio

- 2009 *U.S. 301 Project (Selected Alternative, Green North + Spur Road), Orange Section 4, New Castle County, Delaware*. Report submitted to the Delaware Department of Transportation. Skelly and Loy, Inc., Pittsburgh, Pennsylvania.

Heald, Harold

- 1820 Roads of New Castle County. Map on file at Historical Society of Delaware, Wilmington.

Herman, B. L., L. Archibald, H. Ross, T. Besinger, B. Jicha, W. MacIntire, W. Catts, P. Cherry, K. Dethron, R. Lush, R. Dodds, J. Shimp, H. Ward, and A. Witty

1985 *Rebuilding St. Georges Hundred, New Castle County 1850–1880*. National Register of Historic Places nomination. Center for Historic Architecture and Engineering, College of Urban Affairs and Public Policy, University of Delaware, Newark. Electronic document, <http://dspace.udel.edu:8080/dspace/handle/19716/3797>, accessed July 2011.

Historical Society of Delaware, Family History Folder Collection

2012 Biggs, Burnham, Clayton, Ellison, Naudain, and Tatnall Family Manuscript Collection. Historical Society of Delaware Research Library, Wilmington.

Hodny, Jay, David C. Bachman, and Jay F. Custer

1989 *Phase I Archaeological Survey of the Chesapeake and Delaware Canal Section, Odessa Segment, of the US Route 13 Corridor, New Castle County, Delaware*. Delaware Department of Transportation Archaeology Series No. 73, Dover, Delaware.

Hunter, Richard, Brooke Blades, Michael Tomkins, Ernest Bower, and Patricia Madrigal

1995 *A Phase IA and IB Cultural Resources Survey Little Mill Creek Drainage, The Amtrak Railroad Bridge to Rbert Kirkwood Highway (State Highway 2), city of Elsmere and Christina Hundred, New Castle County, Delaware*. Hunter Research, July 1993, September 1994, and March 1995. Copy on file at Delaware State Historic Preservation Office, Dover.

Jicha, Hubert F. III

1987 Governor Benjamin T. Biggs Farm (N-5123), National Register of Historic Places nomination. Manuscript on file at Delaware Division of Historical & Cultural Affairs, Dover.

Jones, Olive, and Catherine Sullivan

1985 *The Parks Canada Glass Glossary for the Description of Containers, Tableware, Flat Glass, and Closures*. Studies in Archaeology, Architecture and History. National Historic Parks and Sites, Canadian Parks Service, Environment Canada, Ottawa.

Jordan, Robert. R.

1964 *Columbia (Pleistocene) Sediments of Delaware*. Delaware Geological Survey Bulletin No. 12.

Kellogg, Douglas C.

1990 *Guide to Archaeological Site Prediction Using Landsat Satellite Data and Logistic Regression*. Manuscript on file, University of Delaware Center for Archaeological Research, Newark, Delaware.

Kent, Barry C.

1989 *Susquehanna's Indians*. Anthropological Series No. 6, Pennsylvania historical and Museum Commission, Harrisburg, Pennsylvania.

- Krofft, Heidi E., Danae Peckler, and Kerri S. Barile (in press)  
 2014 *Phase II Archaeological Testing of Site 7NC-F-171 in New Castle County, Delaware*. Dovetail Cultural Resource Group, Fredericksburg, Virginia
- LeeDecker, Charles, Patti Kuhn, and Gregory Katz  
 2011 *Phase IA Archaeological Investigation of the Christina River Bridge, New Castle County, Delaware*. October. Louis Berger Group, Washington, D.C.
- Liebeknecht, William, and Ian Burrow  
 2011 *Delaware Department Of Transportation U.S. Route 301, Section 1 New Areas (And Section 2, Area 17) St. Georges Hundred, New Castle County, Delaware, Phase Ib Archaeological Cultural Resource Survey*. Hunter Research, Inc., Trenton, New Jersey.
- Madden, Michael, and Joel Hardison  
 2002 *An Easy Identification Guide and Typology for Eighteenth, Nineteenth, and Twentieth Century Bottles*. Archaeological Society of Virginia, Special Publication No. 42. Richmond, Virginia.
- Main, Jackson T.  
 1973 *The Social Structure of Revolutionary America*. Princeton University Press, Princeton, New Jersey.
- Maryland Department of the Environment  
 2005 *Water Quality Analyses of Arsenic, Cadmium and Silver in Back Creek, Cecil County, Maryland*. Maryland Department of the Environment, Baltimore.
- McLearen, Douglas C.  
 1991 Late Archaic and Early Woodland Material Culture in Virginia. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 89–138. Council of Virginia Archaeologists and the Archaeological Society of Virginia. The Dietz Press, Richmond.
- Munroe, John A.  
 1984 *History of Delaware* (2<sup>nd</sup> edition). University of Delaware Press, Newark, Delaware.
- Natural Resources Conservation Service (NRCS)  
 2007 *Brandywine-Christina Watershed 02040205*. Natural Resources Conservation Service, United States Department of Agriculture. Washington, D.C.
- New Castle County Deed Book (NCCDB)  
 nd New Castle County Deed Books. Misc. years. New Castle County Recorder of Deeds Office, Wilmington, Delaware and Microfilm edition, Delaware Public Archives, Dover.

- New Castle County Orphans Court Records (NCCOC)  
 nd New Castle County Orphans Court case files. Misc. years. Delaware Public Archives, Dover.
- New Castle County Warrants and Surveys  
 nd New Castle County Warrants and Surveys. Misc. years. Microfilm edition, Delaware Public Archives, Dover.
- Nelson, Lee H.  
 1968 Nail Chronology as an Aid to Dating Old Buildings. *Technical Leaflet 48*. American Association for State and Local History, Nashville, Tennessee.
- Noel-Hume, Ivor  
 1991 *A Guide to Artifacts of Colonial America*. Reprinted from 1969. Vintage Books, New York.
- Pittman, William, Leslie McFaden, and George Miller  
 1987 *Laboratory Manual of the Office of Archaeological Excavation*. Department of Archaeology, Colonial Williamsburg Foundation, Williamsburg, Virginia.
- Pomeroy and Beers  
 1868 *Atlas of the State of Delaware*. Philadelphia. Copy on file at Delaware Public Archives, Dover.
- Price, Jacob, and Samuel Rea  
 1849 A Map of New Castle County, Delaware from Original Surveys. Smith and Wister, Philadelphia. Copy on file at Delaware Public Archives, Dover.
- Rummel, Klepper, & Kahl (RK&K)  
 1993 *Delaware Turnpike Improvements Project Phase I Analysis: Historical and Archaeological Resources Technical Study, Delaware Turnpike Service Area to the Christiana Interchange, New Castle County, Delaware*. Louis Berger & Associates and Kise Franks & Straw. Copy on file at DelDOT. Electronic document, [http://www.deldot.gov/archaeology/historic\\_pres/turnpike/series121/index.shtml](http://www.deldot.gov/archaeology/historic_pres/turnpike/series121/index.shtml), accessed September 2013.
- Sassaman, Kenneth E., Glen T. Hanson and Tommy Charles  
 1988 Raw Material Procurement and the Reduction of Hunter-Gatherer Range in the Savannah River Valley. *Southeastern Archaeology* 7(2):79–94.
- Scharf, John Thomas  
 1888 *History of Delaware, 1609–1888*. L. J. Richards & Company, Philadelphia.
- Siders, R. J., B.L. Herman, D. L. Ames, A. L. Marth, G. H. Lanier, M. H. Watson, E. M. Bellingrath, N. I. Van Olsen, L. D. Bashman, and S. M. Chase  
 1991 *Agricultural Tenancy in Central Delaware 1770–1990: A Historic Context*. Center for Historic Architecture and Engineering, College of Urban Affairs and Public Policy. University of Delaware, Newark.

Smith, Bruce D.

- 1986 The Archaeology of the Southeastern United States: From Dalton to De Soto, 10,500-500 B.P. *Advances in World Archaeology* 5:1–92.

Soil Survey Staff

- 2012 Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Electronic document, <http://websoilsurvey.nrcs.usda.gov/>, accessed November 2013.

South, Stanley

- 1977 *Methods and Theory in Historical Archaeology*. Academic Press, New York.

United States Federal Census (US Census)

- nd Various years. United States Census Records. On File, National Archives and Records Administration, Washington D.C. Electronic document, [www.ancestry.com](http://www.ancestry.com), accessed September 2012.

United States Department of Agriculture (USDA)

- 2001 United States Geological Survey. Delaware Digital Raster Graphic Mosaic of New Castle County, Delaware. Electronic document, <http://datagateway.nrcs.usda.gov/>, accessed November 2013.
- 2011 *National Agricultural Imagery Program. New Castle County, Delaware 2011*. Electronic Document, <http://datagateway.nrcs.usda.gov/>, accessed November 2013.
- 2013 Growing A Nation: The Story of American Agriculture. Historical Timeline: Farmers and the Land. Electronic document: [http://www.agclassroom.org/gan/timeline/farmers\\_land.htm](http://www.agclassroom.org/gan/timeline/farmers_land.htm), accessed December 2013.

United States Geological Survey (USGS)

- 1904 Wilmington and Dover, Delaware Topographic Quadrangles Map. On file at University of Texas at Austin, Perry-Castañeda Library Map Collection. Electronic document, <http://www.lib.utexas.edu/maps/topo/delaware/>, accessed May 2011.

Weslager, C. A.

- 1961 *Dutch Explorers. Traders and Settlers in the Delaware Valley, 1609–1664*. University of Pennsylvania Press, Philadelphia, Pennsylvania.

Whittaker, John C.

- 1994 *Flintknapping: Making and Understanding Stone Tools*. University of Texas Press, Austin, Texas.

Wilkins, Elwood, S. Jr., and Richard C. Quick

- 1976 *The House on the Kerby Tract, better known as Carson's or the Buck Tavern ca. 1728–1821 and 1821–1963*. Archaeological Society of Delaware, Wilmington.